# 2.0 EXISTING CONDITIONS

## A. NATURAL RESOURCES AND THE ENVIRONMENT

Much of the following information on the Town of Oxford's natural resources and its environment originates from the *Oxford Open Space and Recreation Plan* prepared in March 2007 by the Central Massachusetts Regional Planning Commission (CMRPC).

### 1. Major Watersheds

Oxford contains land within the watersheds of two major river systems: the Blackstone River watershed and the French River watershed. The Blackstone River watershed covers approximately 5% of the total area of the Town on the eastern edge of town. The remaining 95% of the Town's area is within the French River watershed. The French River flows north to south through Oxford. The entire watershed system is illustrated on Figure 2-1.

### 2. Water Bodies - Lakes, Ponds and Streams

Virtually the entire Town of Oxford lies within the French River Drainage Basin, containing the headwater streams of the Shetucket River, which is one of the two major tributaries of the Thames River in Connecticut. The French River begins at Sargent's Pond in Leicester and flows southward through Oxford to its confluence with the Quinebaug River in northeastern Connecticut.

Approximately 813 acres of Oxford's total surface area consist of open water in lakes and ponds. Acreage of each major water body is indicated in Table 2-1 and illustrated in Figure 2-2.

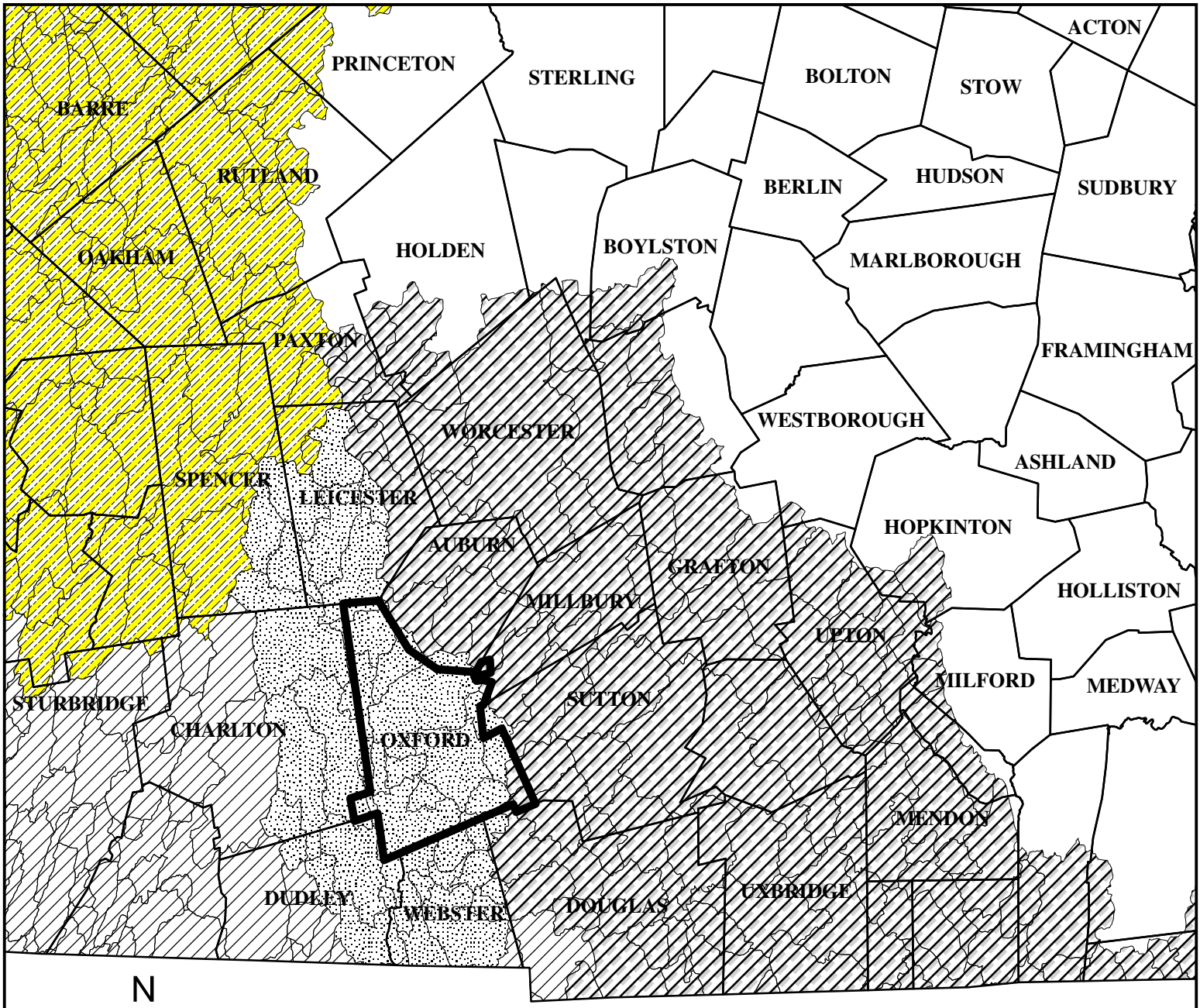
**Table 2-1**
**Water Bodies in Oxford, Massachusetts**

| Water Body | Area (acres) |
|---|---|
| McKinstry Pond | 19 |
| Buffumville Lake | 186 (10 in Oxford) |
| Hudson Pond | 15 |
| Lowes Pond | 33 |
| Robinson Pond | 99 |
| Texas Pond | 28 |

Source: CMRPC

### 3. Wetlands

According to the Massachusetts Geographic Information System (MassGIS), Oxford contains almost 500 acres of wetlands. Wetlands perform important functions in the natural environment because they provide areas for flood storage and storm damage abatement; fish, wildlife and




**Legend**

- TOWNS
- Blackstone River Basin
- Chicopee River Basin
- French River Basin
- Quinebaug River Basin

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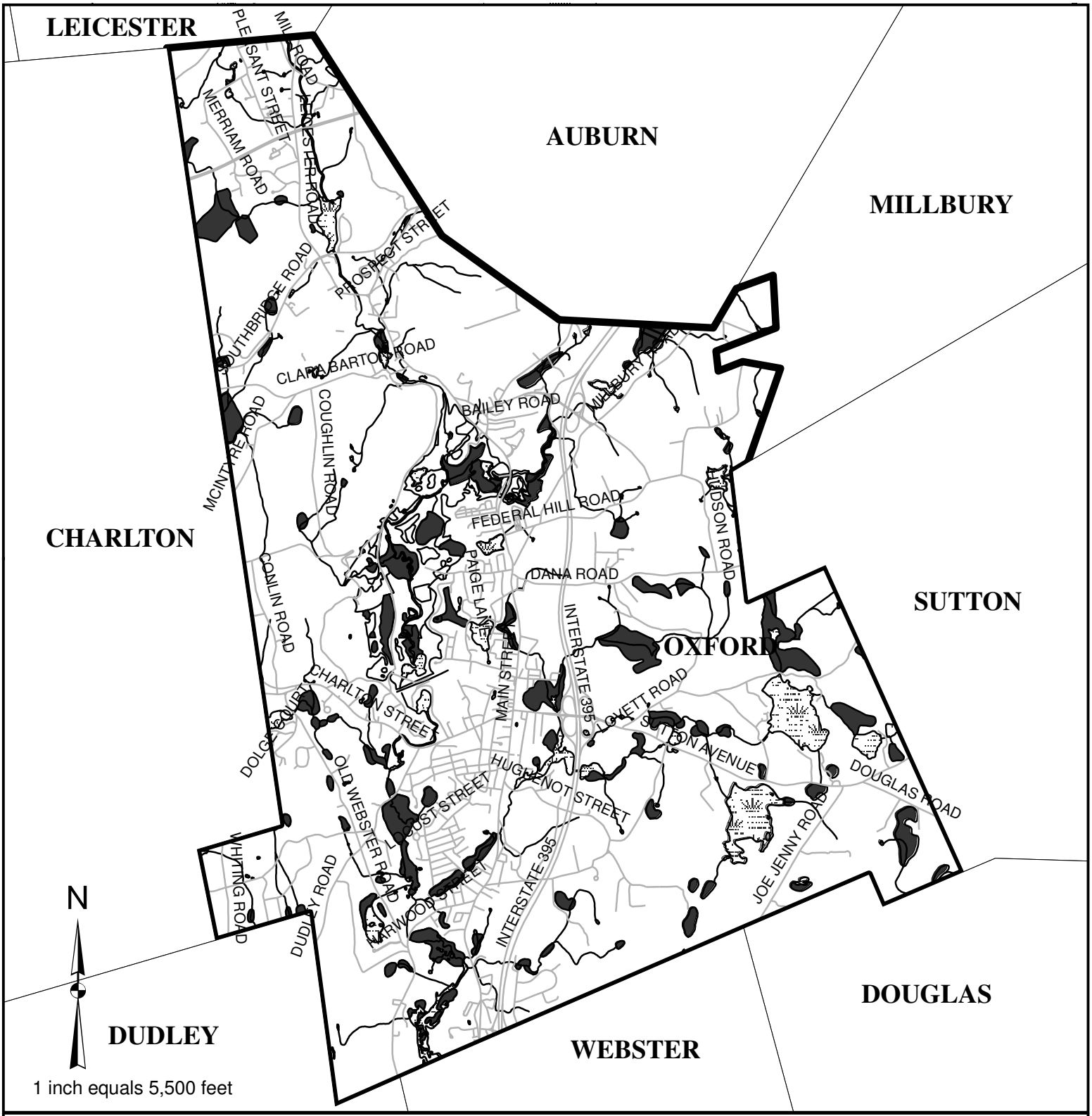
## FIGURE 2-1
## MAJOR WATERSHEDS

ENGINEERS FST Since 1914

**Data compiled from MassGIS and FST**




**Legend**

- River
- Lake, Pond, Reservoir
- Wetlands

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**FIGURE 2-2**
**WETLANDS AND WATERBODIES**

**Data compiled from MassGIS and FST**

plant habitat; and water quality and water resource enhancement. They also have intrinsic value in that they provide areas of scenic beauty and areas for recreational activities. While each of these aspects is important to Oxford, it is especially important for the Town to protect its wetlands because they recharge the groundwater aquifer on which virtually every residential and non-residential property in Oxford depends for its water supply.

The wetlands, along with the Town's surface water bodies, are illustrated on Figure 2-2.

### 4. Floodplain Areas

The source of much of the following information on the Town of Oxford's floodplain areas is from the *Flood Insurance Study* prepared in December 1979 by the Federal Insurance Administration, and the *Oxford Open Space and Recreation Plan (*January 1999).

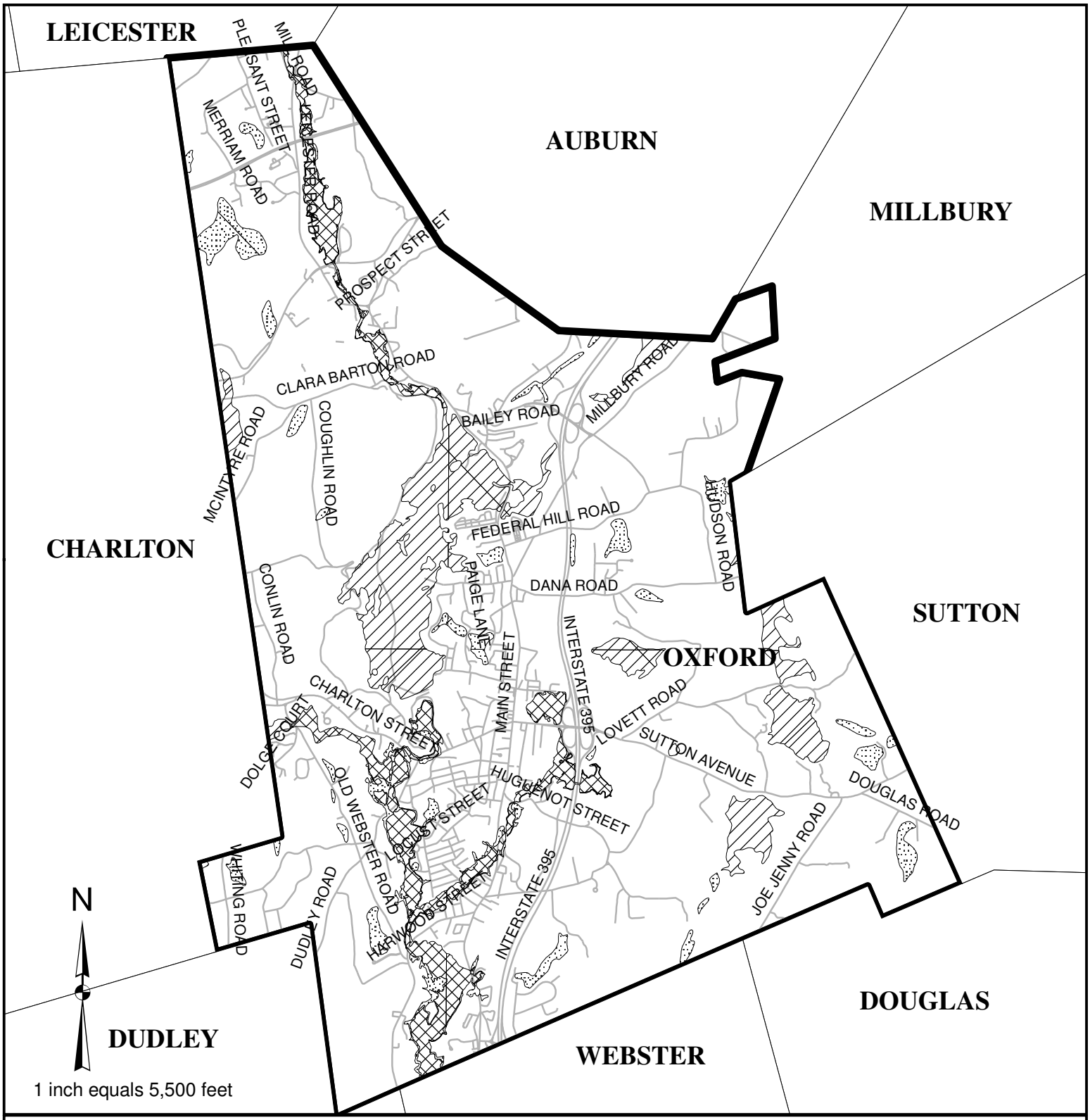
Historically, the French River region experienced several major floods. The Hodges Village Flood Control Dam was constructed in 1959 in response to the floods of 1936 and 1955 that caused tremendous property damage and took many lives. The dam is an earth and rock fill embankment with concrete spillway section and four earth dikes. It is part of a system of six flood control dams designed and build by the Army Corps of Engineers (ACOE) to control flooding from Oxford to Long Island Sound.

*Hodges Village Dam is comprised of almost 1,200 acres of land*. The reservoir has no permanent pool of water; however the land is typically swampy and floods in the springtime. ACOE manages the natural resources for multiple uses: flood control, wildlife habitat, forest production, watershed protection, and outdoor recreation.

Relatively few zoning laws have served to limit the amount of erosion and sedimentation of water resources. These laws take into account the Special Flood Hazard Areas - areas inundated by 100-year flooding that may have Base Flood Elevations (BFE) provided by the Federal Emergency Management Agency (FEMA). According to the Zoning Bylaws for the Town of Oxford, a person who wishes to develop land in Special Flood Hazard Areas without a determined BFE must obtain any existing BFE data for review by the Town's building inspector prior to land development. The areas outside the Special Flood Hazard Area and inundated by 500-year flooding are generally located in the northwestern portion of the Town. The floodplains are illustrated on Figure 2-3.

While there are few zoning laws to limit erosion and sedimentation of water resources, the Town is able to administer and enforce state regulations and other town bylaws to protect such resources. The Oxford Conservation Commission administers the Massachusetts Wetlands Protection Act, which requires protection of resource areas from erosion, sedimentation, and flooding. These resource areas include but are not limited to wetlands, river corridors, and floodplains. The Oxford Planning Board administers a site plan review process that requires provisions for proper drainage.

The Oxford Conservation Commission and Planning Board jointly administer three town bylaws related to stormwater discharges into water resources. Chapter 65, Discharges to the Municipal




**Legend**

- OXFORD
- Inundated by 100-yr flooding w/no BFE's
- Inundated by 100-yr flooding w/ BFE
- Inundated by 500-yr flooding

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**FIGURE 2-3**
**FLOODPLAINS**

ENGINEERS FST Since 1914

**Data compiled from MassGIS and FST**

Storm Drain System, applies to any flows entering the municipally owned storm drainage system. Chapter 66, Stormwater Management and Land Disturbance, applies to any activity disturbing 10,000 square feet or more of land draining to the municipal storm sewer system. Chapter 67, Stormwater Management Requirements, applies to any activity that includes:

- Land disturbance associated with construction or reconstruction of structures.
- Development or redevelopment involving multiple separate activities in discontinuous locations or on different schedules if the activities are part of a larger common plan of development that altogether disturbs one or more acres.
- Paving or other changes in surface materials causing a significant reduction of permeability or increase in runoff.
- Construction of a new drainage system or alteration of an existing drainage system or conveyance serving a drainage area of more than 10,000 square feet.
- Any activity that will, or may, result in increased stormwater runoff flowing from the property into a public way or the municipal storm sewer system.
- Construction or reconstruction of structures where more than 10,000 square feet of roof drainage is altered.

### 5. Geology, Soils and Topography

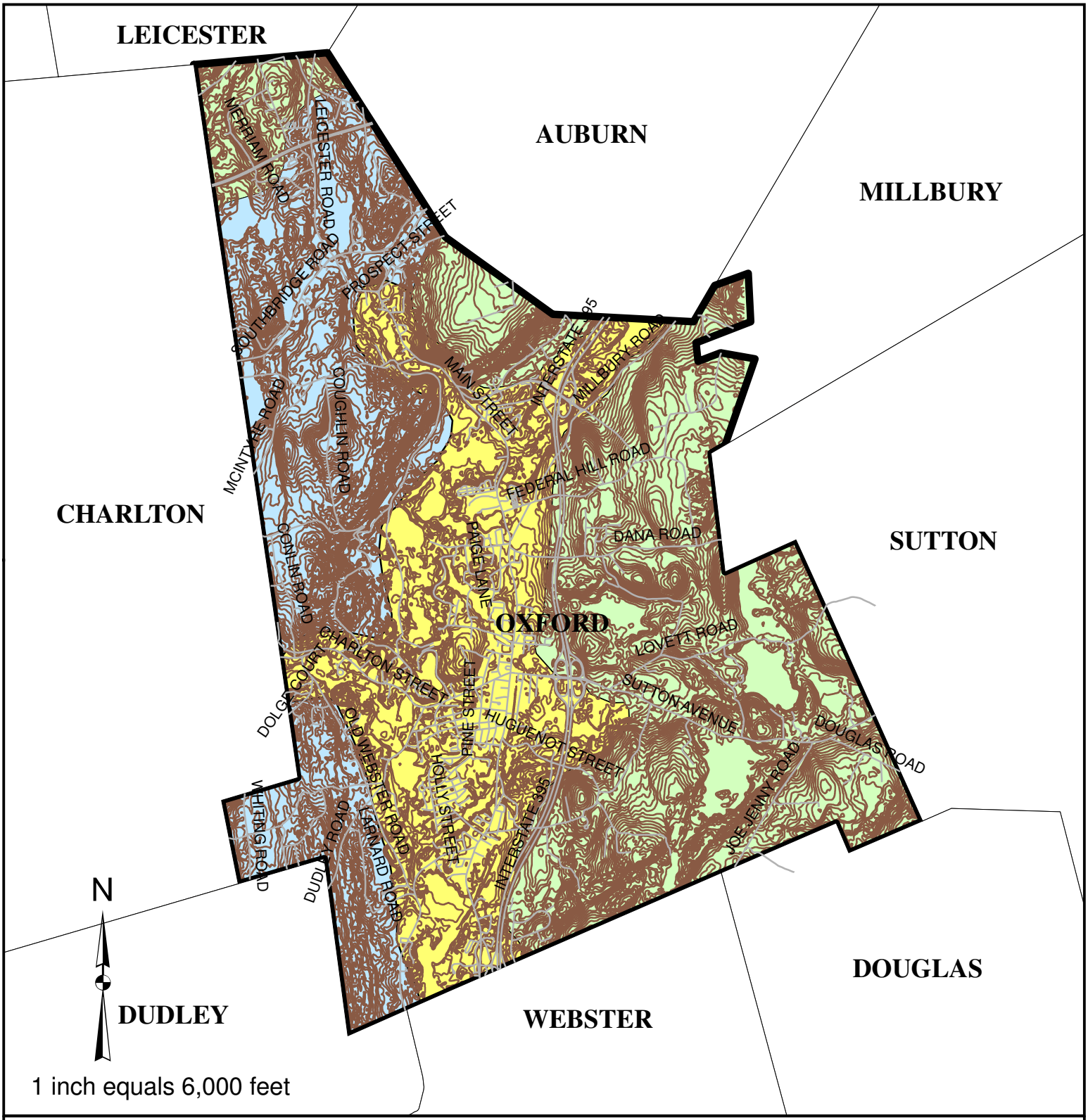
In rural communities that rely upon the land for agricultural uses and septic systems, soil types and characteristics are a critical consideration in land use. Areas characterized by poor soils, such as those with high water tables, many rocks, or steep slopes do pose some development constraints. However, on a town-wide basis these constraints generally do not hinder development significantly.

The U.S. Department of Agriculture, Soil Conservation Service classified land in the Central Massachusetts Regional Planning District into 12 different categories. Only three of these soil types appear in Oxford. The approximate percent of land area associated with each soil type, and the percent occupied by water are shown in the Table 2-2 and graphically depicted in Figure 2-4.

**Table 2-2**
**Inventory of Soils**

| General Soil Association/Group | Approximate Percent of Land Area |
|---|---|
| Woodbridge-Paxton-Hollis | 42% |
| Scituate-Montauk-Canton | 27% |
| Windsor-Merrimac-Hinkley | 29% |
| Water | 2% |

Source: MassGIS




**Legend**

- Contours
- Roads
- Scituate-Montauk-Canton
- Windsor-Merrimac-Hinckley
- Woodbridge-Paxton-Hollis

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## FIGURE 2-4
## TOPOGRAPHY AND SOILS

ENGINEERS FST Since 1914

**Data compiled from MassGIS and FST**

Each soil association, or group of soils that appears together frequently in a repeated pattern, has characteristics that affect its suitability for development. The presence of steep slopes, bedrock, and large stones affect both the cost of excavation and the suitability of soil for development. Soils with low permeability are generally unsuitable for onsite sewage disposal. In addition, since a soil's load-bearing capacity can influence the size of buildings constructed, soils can still affect development on a location-specific basis, even when public water and sewer service are available.

The terrain of Oxford, like much of New England, is controlled by the glacial geology of the French River basin. The broad level valley created by the French River in central and southern Oxford has been the location of extensive single-family residential development. Framing the river valley are steep hillsides with shallow soils and hardpan that limit development. The steep slopes rising from the valley floor further limit new road construction.

Oxford is located on the eastern side of the New England Upland Region of the state. The mean elevation for Oxford is 669 feet above sea level. Southern portions of Oxford house some of the lowest elevations in the community, and thus some areas are considered to be in floodplains. Higher elevations in the community, up to 892 feet above sea level, offer visual vantage points to view the rest of Oxford and the surrounding communities.

Highway development was influenced by Oxford's topographic conditions. I-395 traverses Oxford in a north-south fashion through the gently sloping French River Valley. Route 12, the principal local highway corridor and main thoroughfare prior to the advent of I-395, similarly travels in a north-south direction from the Auburn to Webster town lines. Oxford Center is located on Route 12 and is the historic focal point of the community. East-west travel is limited due to the presence of the major ridgelines noted above. Exceptions include the Massachusetts Turnpike and Route 20 in North Oxford, and Sutton Street/Charlton Street in the center of the community, which seek less steep routes between the ridges where possible.

## 6. Air Quality

All air contains naturally occurring carbon monoxide (CO) from the breakdown of methane ($CH_4$); hydrocarbons in the form of terpenes from pine trees; and Hydrogen Sulfide ($H_2S$) and $CH_4$ from the anaerobic decomposition of organic matter. In contrast to the natural sources of air pollutants, there are also contaminants that are the result of human influence on nature. The greatest source of these contaminants is from mobile vehicles. In Oxford, the quantity of CO emissions is expected to rise due to the increase in traffic volume from increasing residential development within the Town, and from increased commuter traffic along the major highways in the community. Current and future CO levels have not been assessed and may have little negative impact.

Oxford is primarily a residentially developed community with minimal industrial development to negatively impact air quality. Therefore, no significant changes are anticipated that would potentially degrade local air quality in terms of industrial air pollution.

## 7. Rare and Sensitive Areas

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) provides an inventory of rare and endangered species and their habitats throughout the Commonwealth. This program seeks to identify habitat of plant and wildlife species that are becoming increasingly rare and are in danger of extinction. This inventory includes the following classifications:

- **Estimated Habitat for Rare Wildlife:** These areas consist of wetland and adjacent upland habitats used by state-listed rare animal species, and are regulated under the Massachusetts Wetlands Protection Act. Anyone proposing a project within an Estimated Habitat must undergo project review by NHESP. Five separate areas in Oxford are listed as Estimated Habitats for Rare Wildlife in the *2006 Natural Heritage Atlas.*

- **Priority Habitat for State-Listed Rare Species:** These areas indicate the most important habitats for *all* state-listed rare species, including upland and wetland species, and both plant and animal species. These areas are intended for land planning purposes, and their status does not confer any protection under state law. Oxford contains six separate Priority Habitats, all but one of which correspond to the Estimated Habitats.

- **Certified Vernal Pools:** Among Oxford's important habitat features are vernal pools, an increasingly rare type of isolated wetland inhabited by many wildlife species, some of which are totally dependent on vernal pools for their survival. Vernal pools are small, seasonal water bodies occurring in isolated basins, which are usually wet during the spring and early summer, and dry up during the later summer months. Vernal pools typically lack fish populations, making them excellent breeding habitat for many amphibian species, and larval and adult habitat for many insect species, as well as other wildlife. The wood frog *(Rana sylvatic*a) and all species of mole salamanders (genus *Ambystom*a) that occur in Massachusetts breed exclusively in vernal pools. Areas in the immediate vicinity of the pool also provide these species with important non-breeding habitat functions, such as feeding, shelter and over-wintering sites.

  Certified vernal pools have been inventoried by local volunteers and certified under NHESP's process. Certified vernal pools that are located within Areas Subject to Flooding (as defined by the Massachusetts Wetlands Protection Act) are protected under the Wetlands Protection Act for their wildlife habitat value. Neither state nor local law protects certified vernal pools outside of Areas Subject to Flooding. Uncertified vernal pools are also unprotected. Because vernal pools are temporary and seasonal, they can easily be destroyed as a result of development in the area unless they have been certified by NHESP and have protection under the Wetlands Protection Act.

  The protection of vernal pool habitat is essential for the continued survival of wildlife species that depend upon this unique type of wetland. Destruction or alteration of vernal pools is likely to have a highly adverse impact on the local (and worldwide) amphibian populations, because few if any of them will be able to find alternative breeding sites. The accelerated rate of development in Oxford makes it imperative that vernal pools be proactively certified

and mapped in order to steer proposed development projects away from these critical habitats. Oxford has 24 certified vernal pools.

*Species of Special Concern*

Oxford's identified Species of Special Concern include the **Hadssel's Hairstreak Butterfly** (Callophyrus hesseli). This species is known to have occurred at this site for over 35 years and is one of the two most viable populations of Hessel's Hairstreak in the state. Additionally, **Eastern Box Turtles** (Terrapene ndulate), **Spotted Turtles** (Clemmys guttata), **Wood Turtles** (Clemmys insculpta), **Marbled Salamanders** (Ambystoma opacum), **Spring Salamanders** (gyrinophilus porphyriticus), **Four-toed Salamanders** (Hemidactylium scutatum), and **Triangle Floaters** (Alasmidonta ndulate) have all been identified in Oxford. Habitat fragmentation from increased residential development, construction of new roads, and destruction of upland habitats all severely affect these species.

Seven listed plants have been identified in Oxford, one of which is the state's only population of **Sclerolepis** (Sclerolepis uniflora), a delicate, creeping plant found on sunny pond shores. Also present in Oxford is **Slender Cottongrass** (Eriophorum gracile), **Great Laurel** (Rhododendron maximum), **Spreading Tick-Trefoil** (Desmodium humisfusum), **Climbing Fern** (Lygodium palmatum), **Adder's-Tongue Fern** (Ophioglossum pusillum) and **Pale Green Orchis** (Platanthera flava var herbiola).

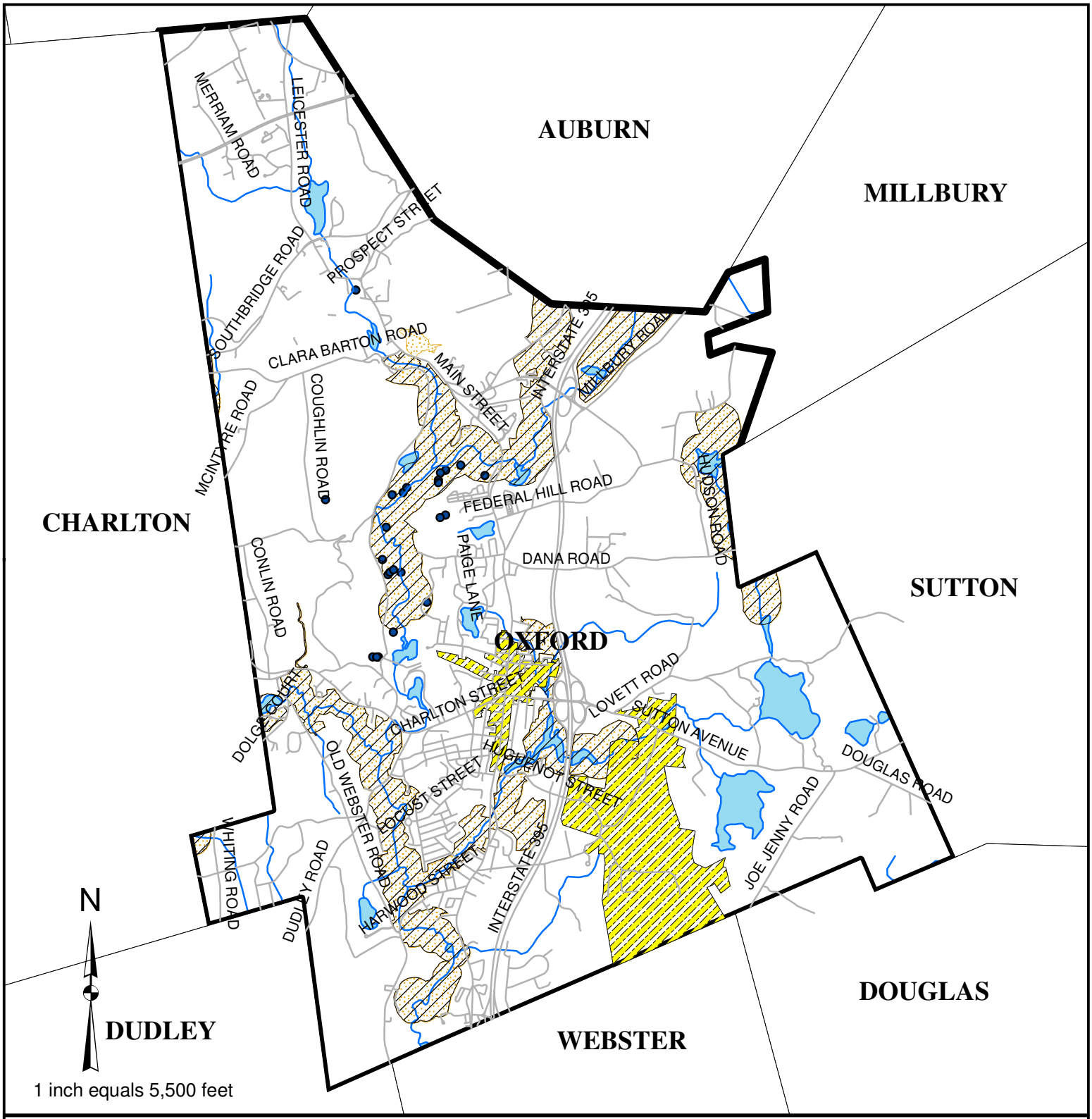
Figure 2-5 illustrates areas in town identified by NHESP as Estimated Habitats or Priority Habitats for Rare Species.

## 8. Cultural, Historic and Archeological Resources

The French River has been a major force behind the history and cultural development of the region. Prehistoric and later peoples frequently settled in river regions due to the availability of drinking, cooking, and washing water, water-based transportation, energy possibilities, and the abundance of food due to the presence of plants and animals that occupy river areas. Pre-colonial history of the French River Corridor is not well known. According to the Massachusetts Historical Commission, no systematic archaeological research has been completed in the study area. It is likely that native settlements may have been located along the French River. The Nipmuc, Mohegan, Manchaug, Pequot, Waentuck, and Narragansett Indians are all thought to have used the French River region. Some eastern Massachusetts tribes may also have used the region. The Central Turnpike, connecting Boston to New York via Connecticut, is thought to lie along an Indian trail.

Post-European history is better known. The availability of water power from the French River with dam installation resulted in the development of an extensive textile mill industry in the area. Mills were established in Hodges Village, North Oxford, Rochdale, and Texas.

Other industries once operating in town include shoe and boot manufacturing, clothing manufacturing, lumber and wood products processing, and metalworking. Agriculture was and continues to be practiced in Oxford.




**Legend**

- NHESP Vernal Pool
- Historic Districts
- Estimated Habitats for Rare Wildlife
- NHESP Priority Habitats for State Protected Rare Species

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**FIGURE 2-5**
**RARE AND SENSITIVE HABITATS AND HISTORICAL DISTRICTS**

ENGINEERS FST Since 1914

**Data compiled from MassGIS and FST**

Oxford has two historical districts listed on the National Register of Historic Places. They are the Main Street and the Fort Hill areas. These areas are shown on Figure 2-5.

Many artifacts remain from Oxford's industrial period. The most obvious are the surviving mill buildings and water control structures. Additionally, there are numerous historic and cultural landmarks from other periods in Oxford's history, including four that are listed on the National Register of Historic Places. These landmarks are listed below.

a. Milestone: For two centuries this marker has told travelers that 53 ½ miles lay between this corner (Sigourney Street) and the state capital. The milestone was erected in 1771.

b. Grace Episcopal Church: The first Episcopal service was held as early as 1687 by the Huguenots. The present church was constructed from stone quarried from a nearby hill as a gift from George Hodges, whose burial plot is located to the rear of the church.

c. Main Street: This was the principal avenue of the Town at the time of its early settlement in 1713. It is over 100 feet wide and lined with trees on both sides. Many older homes still line Main Street.

d. Site of the Johnson Massacre: The massacre of the Johnson family during an Indian raid on August 25, 1696 brought the first Huguenot settlement to an end.

e. Huguenot Oak Tree: The last living evidence of the Huguenot presence in Oxford located on the corner of Huguenot Road and Russell Lane.

f. Huguenot Monument: Erected to the memory of the Huguenot settlers on the site of the original fort that was constructed in 1686. Listed on the National Register of Historic Places.

g. Learned David House: Unique ¾ design built in 1785 by Learned Davis. Davis was a state representative, selectman, assessor, and member of the school committee.

h. Clara Barton Summer Home: The summers of Clara Barton's last 10 years were spent at her home at 28 Charlton Street.

i. Hodges Village Dam and Reservoir: A federal flood control project that brings much needed flood protection to the French River Basin.

j. Camp Hill: The site of the camp of Colonel Nathan Rice's Regiments of the New England Division of Adam's Provisional Army in 1799 and 1800. Alexander Hamilton visited the camp in 1800.

k. Free Public Library: Built in 1903 as a gift from Mr. Charles Larned. The stained glass window above the former main entrance shows the departure of the Pilgrims from Holland in 1620. A fine historical exhibit is on display in the library's museum.

l. First Congregational Church: The first meeting house built in Oxford. The present house is the fourth on the site, dedicated in 1829.

m. Old Burying Ground (South Cemetery): The first cemetery in Oxford. General Ebenezer Learned and Reverend Campbell (first minister of the Congregational Church) are buried here. Many other interesting stones can be found including that of a slave named "Diana".

n. Joslin Park: A gift from Dr. Elliott P. Joslin, the land was the location of one of the first public schools in Oxford. It includes memorials to the veterans of the Korean and Vietnam Wars as well as the 1872 North Gore District & Schoolhouse.

o. North Cemetery: Clara Barton, founder of the American Red Cross, and Dr. Elliott P. Joslin, founder of the Joslin Diabetes Foundation and noted in the treatment of diabetes, are buried here.

p. Clara Barton Birthplace: Clara Barton was born here December 25, 1821. She has been entered into the Hall of Fame for Great Americans and the site is listed on the National Register of Historic Places. A camp for diabetic girls is currently located on the property.

q. North Oxford Baptist Church: Dedicated in May of 1847.

r. Barlett's Bridge: Located on Clara Barton Road over the French River. Listed on the National Register of Historic Places.

s. Hudson House: Located on Hudson Road and listed on the National Register of Historic Places, Hudson House is the oldest standing house in Oxford.

t. Buffalo Hill: Former summer home of Dr. Elliott P. Joslin, founder of the Joslin Diabetes Foundation.

u. Daughters of the American Revolution Monument: Erected on Camp Hill in 1911. It was removed recently to make way for a large housing development.

v. Marker: Located on the corner of Marshall and Bacon Streets, this marker notes Lindbergh's landing site at the old Oxford Airport.

w. Oxford Town Hall: Located in Oxford Center, this building is a memorial to veterans of the Civil War.

Additionally, the Massachusetts Historical Commission has identified several villages and the area designated as Oxford Center as worthy of consideration for listing on the National Register of Historic Places. They include:

a. Wells Street and Watch Street

b. Learnedville (Texas Village) on Route 56 between Routes 20 and 12

c. North Oxford along Route 12 from Leicester Street south to Depot Road, including Clara Barton Road and 1 Old Depot Road. This area includes Hawes Village and White Village at the southern end.

d. North Common area from Federal Hill Road south along Route 12 through Chaffee Village, including Holman Street.

e. Oxford Center between Front Street and Huguenot including Maple Road, Fremont Street, Barton Street, East Main Street, some properties just west of the center on Charlton Street, and some properties just east of the center on Sutton Avenue.

f. Huguenot Square (Oxford Center) at the crossroads of Sutton Avenue and Charlton Street.

## B. LAND USE, DEMOGRAPHICS AND POPULATION

### 1. Existing Land Use (Residential, Commercial, Industrial, Park Lands and Recreational and Conservation Land)

Much of the following information on the Town of Oxford's land use, demographics and population was selected from the *Oxford Open Space and Recreation Plan* and MassGIS.

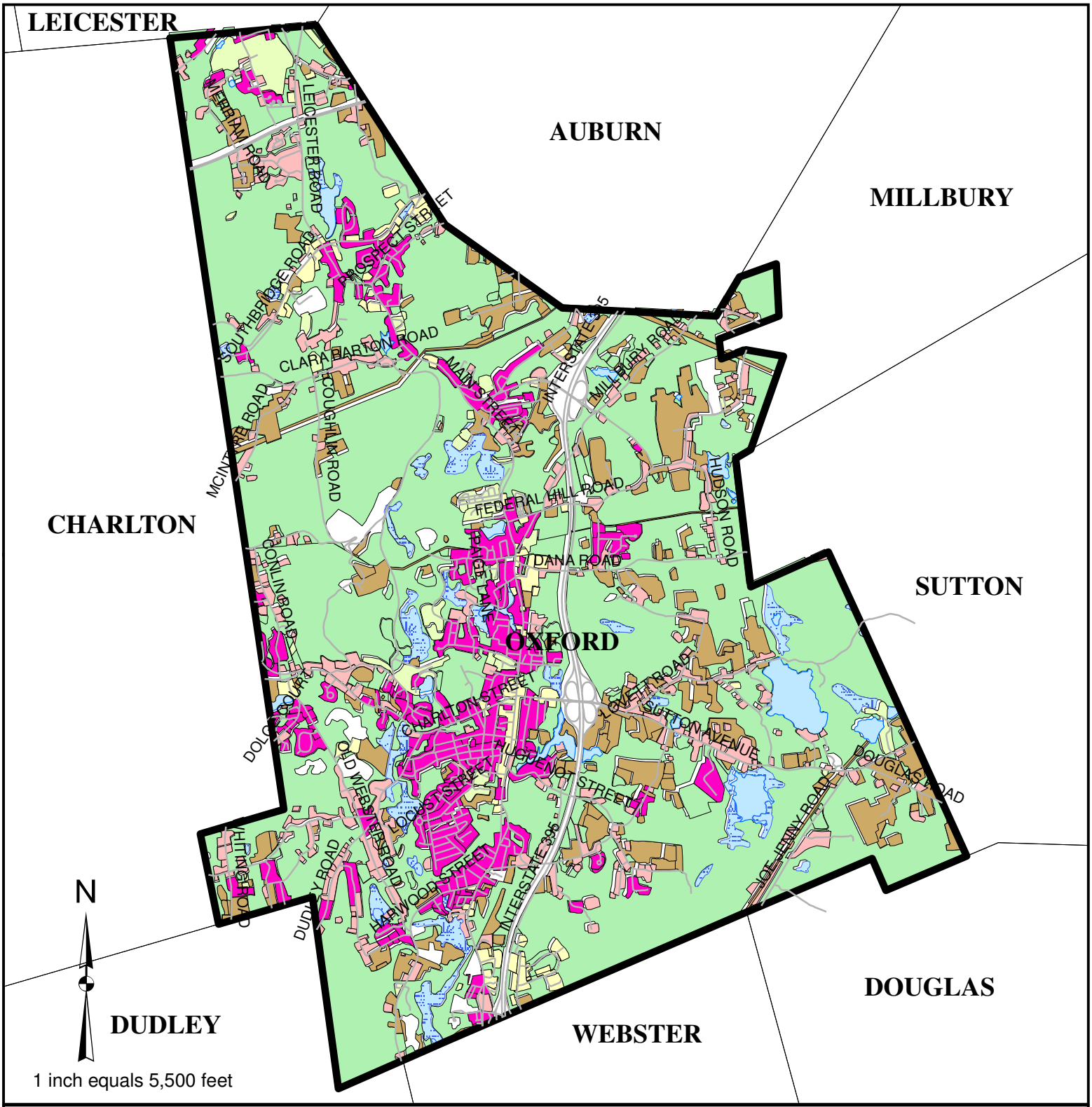
MassGIS, the state agency responsible for producing and distributing geographic data, determined land use for Oxford based on 1999 aerial photographs of the Town. Figure 2-6 is a map of the Town illustrating the various land uses in Oxford according to the 1999 GIS data. Table 2-3 presents a breakdown of the land use totals in Oxford.

The following describes each of the major land uses in Oxford:

**Developed Land Uses**

**Residential:** Oxford has experienced significant residential growth in the last 15 years. Residential land use now accounts for 16.9% of the Town's total land area and most of the Town's developed land area. Historically, residential development has been concentrated in a few higher-density neighborhoods along Route 12. About 9% of the Town's residential lands are in the high-density category, with housing on lots of one-half acre or less.

**Commercial:** Commercial land uses occupy approximately 1.07% of Oxford's land area and consist primarily of general businesses – from small retail stores and restaurants, to larger stores and automotive businesses. There is a Wal-Mart on Main Street, and a Home Depot was recently approved on Sutton Avenue. Commercial land is located along Route 20 - Southbridge




# Town of Oxford, MA
# Comprehensive Wastewater Management Plan
# Phase 1 - Needs Analysis

## FIGURE 2-6
## LAND USE MAP

**Data compiled from MassGIS and FST**

**Table 2-3**
**Land Use**
**Oxford, MA**

| Land Use | Area (Acres) | % of Total |
|---|---|---|
| Residential | 2,959 | 16.86% |
| Commercial | 188 | 1.07% |
| Industrial | 163 | 0.93% |
| Transportation | 472 | 2.69% |
| Agricultural | 1,069 | 6.09% |
| Forest | 10,402 | 59.28% |
| Wetland | 498 | 2.84% |
| Recreation | 504 | 2.87% |
| Open | 1,077 | 6.14% |
| Other | 217 | 1.24% |
| **Total** | **17,548** | **100.00%** |

Source: Mass GIS

Road in the North Focus Area, Main Street in the Central Focus Area, and Town Forest Road and Industrial Park West in the South Focus Area.

**Industrial:** Industrial land occupies approximately 0.93% of Oxford's land area. These industrial uses consist primarily of warehouses, manufacturing and some research and development. Industrial land, like commercial land, is located along Route 20 - Southbridge Road in the North Focus Area, Main Street in the Central Focus Area, and Town Forest Road and Industrial Park East and West in the South Focus Area.

**Transportation:** As Table 2-3 indicates, this land use occupies 472 acres in the Town. The category includes divided highways, freight terminals, and similar facilities, but not local streets. In Oxford these areas are found at the interchanges of Rt. 395 and along Rt. 395 and Rt. 90 - Massachusetts Turnpike, which has no interchanges in Oxford but crosses the northerly portion of Town.

**Undeveloped Land Uses**

**Agriculture:** This category includes cropland, pasture, orchards, forests and nurseries. Agriculture represents 6.1% of the Town. Oxford's farmland is not centralized in one area of Town, but instead is scattered throughout.

**Forest:** Forest represents almost 59% of the Town. The forest is evenly distributed throughout Oxford, with the exception of the more densely developed areas of the Central and South Focus Areas along Main Street.

**Wetlands:** There are 498 acres of wetlands bordering streams and ponds, and occupying isolated pockets of land throughout the Town.

**Recreation:** This category includes playgrounds, golf courses, and other similar facilities, but excludes parks. The Town owns a variety of recreational parks ranging from the 78-acre Dean Park to the 13-acre Ireta Road Open Space.

**Open and Urban Open:** This category includes utility corridors, cemeteries, and other unforested, undeveloped lands. Both public and private lands are included in this category.

**Other:** This miscellaneous category includes land used for mining activities (including gravel pits) and waste disposal.

## 2. Zoning

Figure 2-7 is a map of the zoning districts in Oxford, and Table 2-4 presents a breakdown of the districts in terms of percent of Town area.

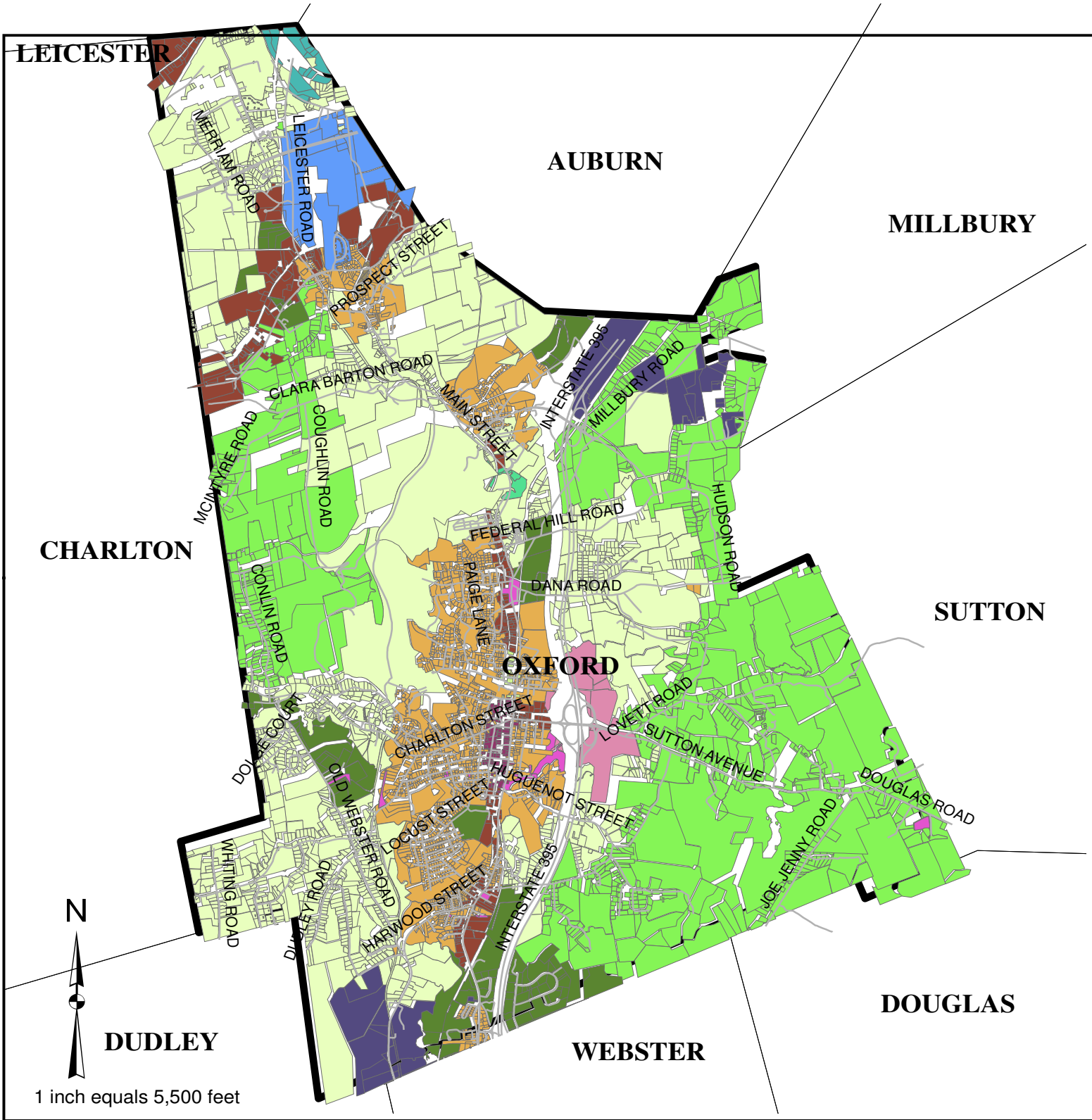
**Table 2-4**
**Zoning Districts**
**Oxford, Massachusetts**

| District | | Percent of Town |
|---|---|---|
| R-1 | Rural Residential | 32.60 |
| R-2 | Suburban Residential | 36.30 |
| R-3 | Residential | 11.20 |
| R-4 | Multi-Family Residential | 2.45 |
| CB | Central Business | 0.45 |
| GB | General Business | 3.80 |
| HI | Highway Interchange | 1.50 |
| CP | Central Professional | 0.10 |
| LI | Light Industrial | 2.90 |
| I | Industrial | 5.50 |
| C | Conservation | 3.10 |

Source: MassGIS

## 3. Population

Much of the following information comes from the *Oxford Open Space and Recreation Plan*. Although the focus is on Oxford, data on adjacent communities and regional groups are included for comparative purposes to provide a sense of Oxford's role in the region. Oxford is a part of the CMRPC, which also includes Auburn, Barre, Berlin, Blackstone, Boylston, Brookfield, Charlton, Douglas, Dudley, East Brookfield, Grafton, Hardwick, Holden, Hopedale, Leicester, Mendon, Millbury, Millville, New Braintree, North Brookfield, Northborough, Northbridge, Oakham, Paxton, Princeton, Rutland, Shrewsbury, Southbridge, Spencer, Sturbridge, Sutton, Upton, Uxbridge, Warren, Webster, West Boylston, West Brookfield, Westborough, and Worcester.




**Legend**

- Conservation
- Central Business
- Central Professional
- General Business
- General Industry
- Highway Interchange
- Industrial
- Light Industrial
- North Oxford Business
- None
- Rural Residential
- Suburban Residential
- Residential
- Multi Family

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## FIGURE 2-7
## ZONING MAP

**Data compiled from MassGIS and FST**

Oxford's population has approximately tripled since World War II, reflecting the trend of many suburban areas in Massachusetts. The 2000 population in Oxford was 13,352 people, showing an increase of 764 people since 1990, or about 6.1%. In comparison, the CMRPC region grew by 36,044 residents, from 482,436 in 1990 to 518,480 in 2000, which corresponds to an increase of 7.5%. Table 2-5 shows recent population trends in Oxford, and Figure 2-8 presents a graph of population growth from 1930 to 2000.

**Table 2-5**
**Historical Population Growth in Oxford, 1930 – 2000**

| Year | Population | Change from Previous | Percent Change |
|---|---|---|---|
| 1930 | 3,943 | --- | --- |
| 1940 | 4,623 | 680 | 17.2 |
| 1950 | 5,851 | 1,228 | 26.6 |
| 1960 | 9,282 | 3,431 | 58.6 |
| 1970 | 10,345 | 1,063 | 11.5 |
| 1980 | 11,680 | 1,335 | 12.9 |
| 1990 | 12,588 | 908 | 7.8 |
| 2000 | 13,352 | 764 | 6.1 |

Source: CMRPC

### 4. Development Density

The number of households in Oxford increased from 4,514 in 1990 to 5,069 in 2000, an increase of 12.3% in this period, compared to an overall population growth of 6.1%. In 1990, the average household size in Oxford was 2.58, as compared to 2.58 for the state and 2.63 for the nation.

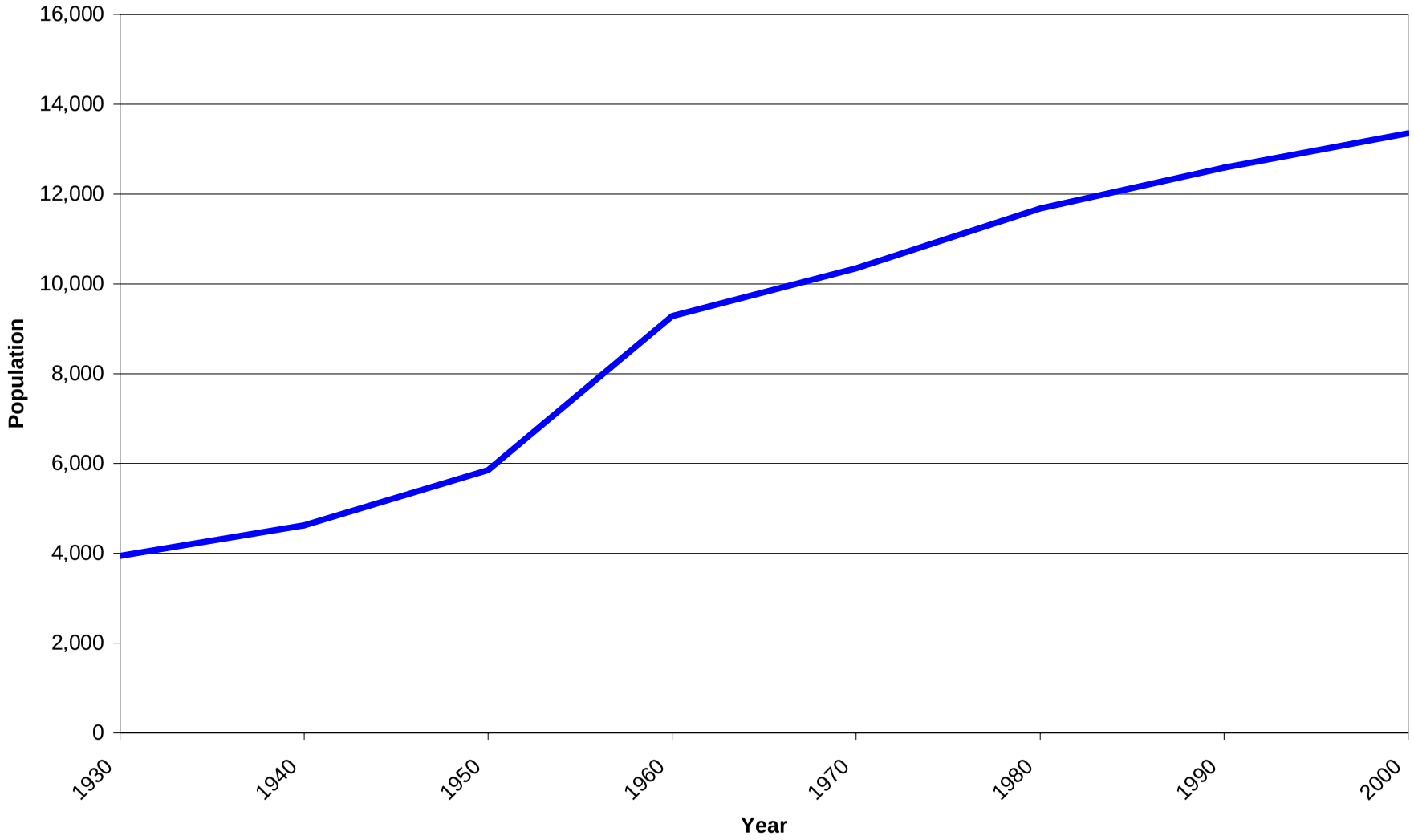
### 5. Infrastructure

### Roads

Principal arterials generally carry the highest traffic volumes. In Massachusetts, traffic volumes on principal arterials usually exceed 25,000 vehicles per day. In Oxford, three roads fit the principal arterial classification: I-395, I-90 (Massachusetts Turnpike) and Route 20. On a statewide basis, principal arterials carry a high proportion of total urban area travel (40% to 65%) on minimum mileage (5% to 10% of the total roadway mileage). Minor arterials serve as a distribution network to geographic areas smaller than the principal arterials. Trip lengths associated with minor arterials are of a moderate length, and travel is at a lower speed than on principal arterials. The principal and minor arterials carry a great majority of traffic in the community (65-80%), while they account for less than 25% of the total roadway mileage. In Oxford, Route 12 and Route 56 fit this classification.

Collectors are usually two-lane roadways with minor widening at intersections with arterial streets. Collectors carry traffic volumes in the range of 3,000 to 20,000 Average Daily Trips

# Figure 2-8
## Historical Population Growth
## Oxford, Massachusetts
## 1930-2000



(ADT). The higher flows are associated with collectors that are over two miles in length, and where some element of through traffic between arterials is present. In Oxford, Sutton Avenue and Depot Road are examples of collector streets.

The local streets include all the remaining streets that are not included in one of the higher systems. Local streets could be residential or industrial in character, or could be access roads to recreation areas or parks. Traffic volumes on local streets are generally 4,000 ADT or less. A great majority of residential streets have volumes of 500 ADT or less. The high-volume local streets are very long residential roadways (over one mile in length) with access to subdivisions.

**Public Transportation**

One Regional Transit Authority has bus routes that currently serve Oxford: Route #42. Bus #42 starts in Webster Center and travels Route 12 through Oxford and Auburn to Worcester Centre.

There is a stop on the MBTA Framingham/Worcester commuter rail line in Worcester at Union Station. Eight trains run inbound between Worcester and Boston in the morning, and nine trains run from Boston to Worcester in the afternoon and evening on weekdays.

Additional transportation services are provided for Oxford's elderly community.

**Sewer Systems**

An estimated 13% of the Town's residences are connected or have access to Oxford's municipal sewer system. The sewer system serves a limited area at the northern end of Main Street to Southbridge Road and east to the Town of Auburn. Sewage from Oxford flows into the Town of Auburn and eventually to the UBWPAD WWTF. An additional 3% of Oxford's population is located in the ORSD. Wastewater from this area is treated at the Oxford-Rochdale WWTP. For additional information about Oxford's sewer systems, refer to Section D of this chapter – *Wastewater Collection and Treatment Systems*.

**Public Water System**

The Town of Oxford's public water system is owned and operated by Aquarion Water Company (Aquarion). Three groundwater wells supply all of the water for this system. The Town's public water system is further discussed in Section C of this chapter – *Public Water Supply System*.

**Stormwater System**

Stormwater collected in the Town's drainage system discharges through various outfalls and into wetlands and surface water bodies located throughout the Town of Oxford. The Town's drainage system extends along the network of Town roads. Storm drains for the state and interstate highways in Oxford also discharge into the Town's wetlands and surface water bodies.

**Municipal Facilities**

The Town of Oxford owns and operates various municipal facilities. The facilities are listed below:

Town Hall
Police Station
Fire Station
Community Center
Council on Aging/Veterans' Services
Library
Schools:
    Oxford High
    Oxford Middle
    Alfred M. Chaffee
    Clara Barton/Woodward

## C. PUBLIC WATER SUPPLY SYSTEM

### 1. Existing Water Supplies

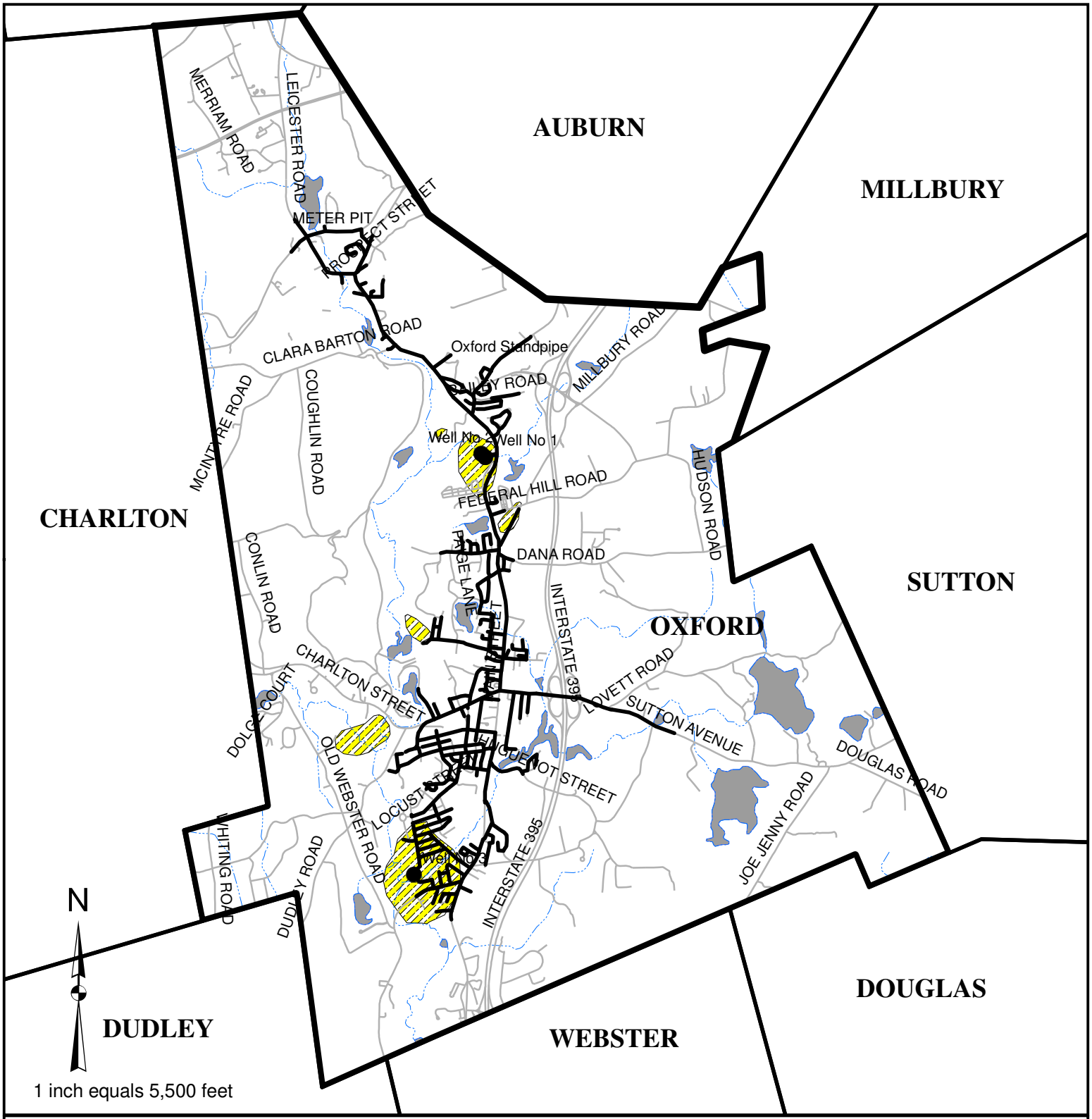
Approximately 58% of the town is served by a public water supply system that is owned and operated by Aquarion. The remainder of the community, largely in residential areas, relies on private wells for its water supply.

Much of the following information on the Town of Oxford's public water supply system was obtained from the following sources:

- Aquarion Water Quality Reports for Oxford (2003 through 2007)
- Aquarion Press Releases/Public Notifications
- Aquarion Metered Service Rate Data
- Aquarion Water Supply Updates

As previously mentioned, the Town has three active well supplies. These wells include the North Main Street Well #1, the North Main Street Well #2 and the Nelson Street Well. Details of the groundwater supply sources and associated pumps are summarized below. Figure 2-9 presents a map of the water supply and distribution system.

The wells are located in the French River Watershed. The well water is treated with chlorine for disinfection, fluoride for tooth decay and a poly-phosphate for corrosion control of the distribution system. Table 2-6 presents well capacities.




**Legend**

- Well
- Water Pipe
- Oxford
- Roads
- River, Stream or Brook
- Lake, Pond or Resevoir
- Zone II Aquifer

# TOWN OF OXFORD, MA
# CWMP PHASE 1
# FIGURE 2-9
# WATER SUPPLY AND DISTRIBUTION ZONE II & WELL LOCATION MAP

ENGINEERS FST Since 1914

**Data compiled from MassGIS and FST**

**Table 2-6**
**Well Capacity**

| Well | Capacity (gpm) | Capacity (MGD) |
|---|---|---|
| **North Main Street Well #1** | 500 | 0.72 |
| **North Main Street Well #2** | 600 | 0.86 |
| **Nelson Street Well** | 700 | 1.01 |
| **Total** | 1,800 | 2.59 |

Source: Aquarion Water Quality Report

Table 2-7 presents the Town's water use, based on data presented in the Aquarion Water Quality Report averages. According to this table, the residential water consumption is in the range of 52 - 66 gallons per capita per day (gpcd), assuming the 2000 average household size of 2.64.

**Table 2-7**
**Oxford Water Use Data**

| | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|
| **Approximate Population** | 7,300 | 7,400 | 7,400 | 7,400 | 7,133 |
| **Average Water Demand (MGD)** | 0.8 | 0.79 | 0.9 | 0.77 | 0.8 |
| **Unaccounted Water** | -- | 29% | 28% | 21% | 29% |
| **Water Use per Household (gal/year)** | 50,000 | 63,000 | 64,000 | 58,800 | 59,800 |
| **Water Use per Household (gpd)** | 136 | 173 | 174 | 161 | 164 |
| **Annual Bill** | $ 347.00 | $ 381.00 | $ 324.00 | $ 311.00 | $ 313.00 |
| **Water Cost per Day** | $ 0.95 | $ 1.04 | $ 0.89 | $ 0.85 | $ 0.86 |

Source: Aquarion Water Quality Report

The Town also has a 215,000-gallon standpipe for water storage and to meet fire protection requirements.

## 2. Water Distribution System

The Town of Oxford's water distribution system has three well locations in use. Two wells are located in close proximity to each other and the 215,000-gallon water storage standpipe in the northern section of Oxford. The other well is located at the other end of the distribution system in southern Oxford. The Oxford distribution system has approximately 33 miles of pipeline ranging in diameter from 1 to 12 inches.

### 3. Aquifers

An aquifer is a geologic formation capable of yielding significant quantities of drinkable water. In general, aquifers are found in sand and gravel deposits where pores in the soil allow water to collect. Groundwater enters the aquifer through sand and gravel soils, wetlands, and surface water bodies, and slowly percolates through the ground in a down-gradient direction.

Oxford has several aquifers within its borders that run north to south with the direction of the French River.

### 4. Zone II Protection Areas

According to MassGIS, all three wells have Zone II wellhead protected areas, which were determined through hydrogeological modeling and approved by the MassDEP Drinking Water Program. These areas are protected because the land area may contribute to the groundwater with 180 days of continuous pumping with no recharge precipitation. Figure 2-9 presents the Zone II areas and well locations.

### 5. Water Quality

In recent years, Aquarion has conducted approximately 3,500 water quality tests on approximately 1,500 water samples, checking for more than 90 potential contaminants and other water quality parameters. Table 2-8 lists the highest level of drinking water substances that were detected from calendar years 2003 to 2007. The presence of these substances does not necessarily indicate that the water poses a health risk. All detected substances were below the EPA Maximum Contaminant Level (MCL). The MCL is the highest level of a contaminant that is allowed in drinking water. There are approximately 80 other substances that were also tested, but were not detected.

The detected contaminants originated from various sources in the environment and from the effects of drinking water treatment. Fluoride is added to drinking water to promote strong teeth. Nitrate can be a result of erosion of natural soil and runoff from fertilizer use. Total trihalomethanes (TTHM) is a by-product of drinking water chlorination.

Sodium is also naturally occurring in rocks and soil. MassDEP developed the guideline of 20-mg/L sodium. Exceeding this guideline does not mean that treatment is necessary to reduce the levels of sodium present in the water. Rather, the guideline represents a level of sodium in water that physicians and sodium-sensitive individuals should be aware of when dietary sodium levels are monitored.

The Federal Lead and Copper Rule mandates testing households for lead and copper. According to the rule, 90% of the homes sampled must have lead levels less than 0.015 mg/L, and copper levels less than 1.3 mg/L. The concentrations presented do not exceed the EPA MCLs for these parameters.

**Table 2-8**
**Water Quality Data**

| Parameter | 2003 | 2004 | 2005 | 2006 | 2007 | EPA MCL |
|---|---|---|---|---|---|---|
| **Arsenic (ug/L)** | 2.3 | 3.3 | 3 | 3 | 3 | 10 ug/L |
| **Barium (mg/L)** | NA | NA | 0.009 | 0.009 | 0.008 | 2 mg/L |
| **Copper (mg/L)** | 0.792 | 0.309 | 0.309 | 0.31 | 0.32 | 1.3 mg/L |
| **Fluoride (mg/L)** | 0.93 | 1.02 | 0.99 | 1.09 | 1.04 | 4 mg/L |
| **Lead (ug/L)** | 3 | 2 | 2 | 2 | 1 | 15 ug/L |
| **Nitrate (mg/L)** | 1.31 | 1.02 | 2.18 | 1.97 | 2.03 | 10 mg/L |
| **Nitrite (mg/L)** | 0.014 | ND | NA | NA | NA | 1 mg/L |
| **TTHMs (ug/L)** | 10 | 7.6 | 12.2 | 14 | 14 | 80 ug/L |
| **HAA5s (ug/L)** | NA | 5 | 2.7 | ND | 3 | 60 ug/L |
| **Total Chlorine (mg/L)** | 0.39 | 0.65 | 0.6 | 0.67 | 0.69 | Under 4 mg/L |
| **Chloride (mg/L)** | 110.8 | 111.1 | 57.5 | 51.5 | 51.6 | 250[1] |
| **Sodium (mg/L)** | 59.3 | 51 | 29.2 | 27.2 | 23.2 | 20[2] |
| **Sulfate (mg/L)** | 3.7 | 3.7 | 9.8 | 10.1 | 10.7 | 250[1] |

Source: Aquarion Water Quality Report
HAA5 – 5 Haloacetic Acids
NA – Not Available
ND – Non-detect
1 – EPA Secondary Maximum Contaminant Level (SMCL)
2 – EPA Guideline

## D. WASTEWATER COLLECTION AND TREATMENT SYSTEMS

### 1. Existing Collection Systems

The Town owns, operates and maintains a separate sanitary sewer system, consisting of approximately 11,000 feet of sewer ranging in diameter from 6 inches (for service laterals) to 8 inches in diameter. The Town's system also includes 22,000 feet of force main. Gravity sewers are constructed with the use of polyvinyl chloride (PVC) piping materials, and force mains are ductile iron. The sewer system serves a limited area from the northern end of Main Street to Southbridge Road, and east to the Town of Auburn.

There are four sewage pumping stations owned and operated by the Town. Three of the four are located along Main Street (Route 12); one is at Oxford High School, one is opposite Old Worcester Road, and the primary station is located at the junction of Leicester Road (Route 56) and Main Street. The fourth sewage pumping station is located at the Thayer Pond Village development off of Southbridge Road (Route 20). The Town is also responsible for a flow-

metering manhole located on Southbridge Street just over the Auburn town line at the beginning of the Town of Auburn's gravity sewer system. All of the wastewater from the Town of Oxford's municipal collection system discharges to the Town of Auburn's sewer system for eventual treatment at the UBWPAD WWTF in Millbury, MA.

Figure 2-10 is a map of Oxford's municipal wastewater collection system. Table 2-9 presents general criteria for the Town's wastewater pumping stations.

**Table 2-9**
**Oxford Pumping Stations**

| Name/Location | Design Criteria | | Year Constructed |
|---|---|---|---|
| | GPM | TDH | |
| High School Pump Station | 150 | 95 | 2002 |
| Leicester Road Pump Station | 250 | 90 | 2002 |
| Old Worcester Road Pump Station | 250 | 120 | 2002 |
| Thayer Pond Village Pump Station | 130 | 78 | 1985 |

In addition to the Town of Oxford's sewer system, the ORSD owns, operates and maintains approximately 14 miles of sanitary sewers and 4 pump stations within the district (northwest corner of Oxford and southern part of Leicester). The wastewater from this system receives treatment at the Oxford-Rochdale WWTF located in the northwestern part of Oxford. Figure 2-10 shows the ORSD wastewater collection system within Oxford.

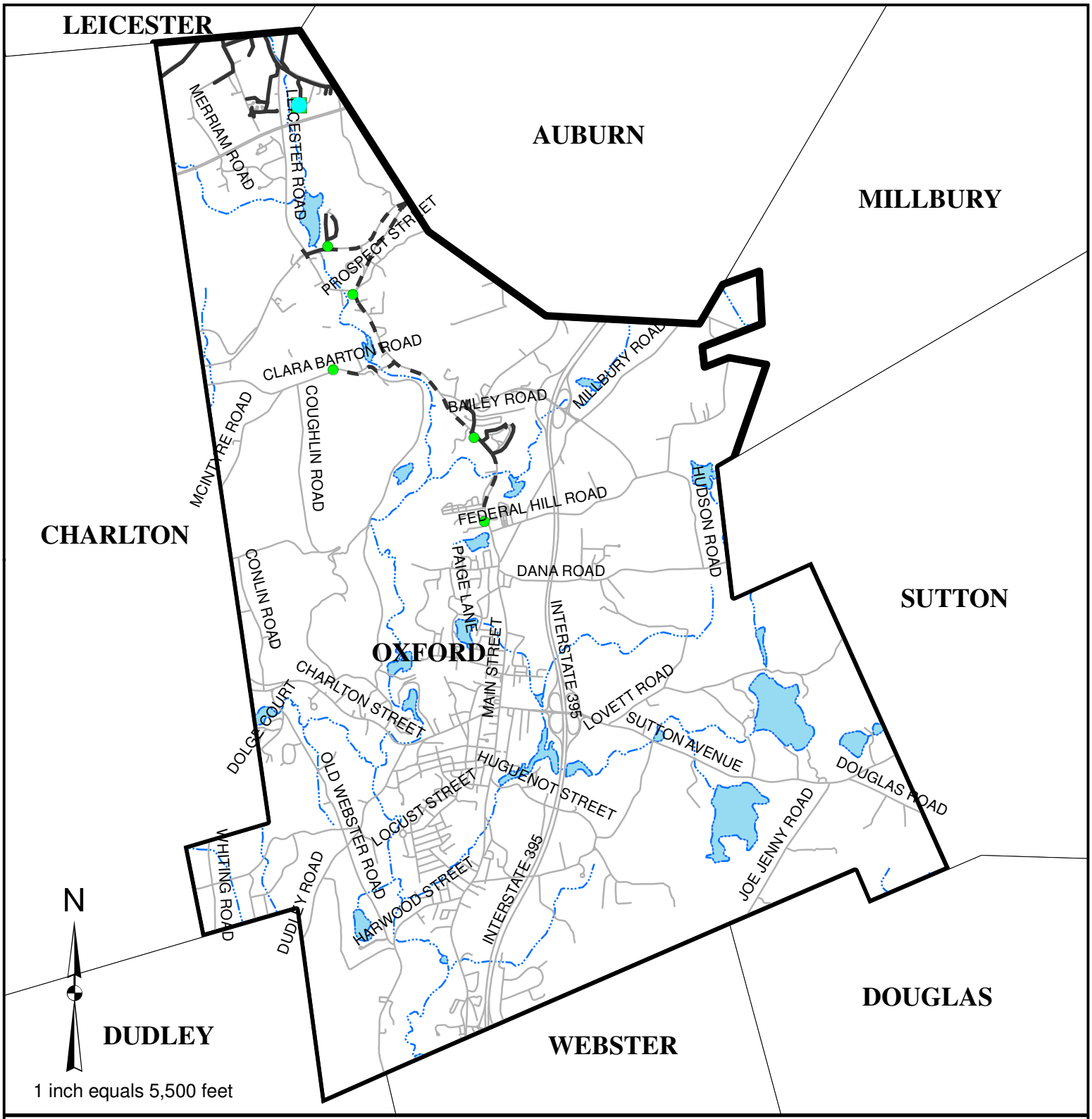
## 2. Existing Wastewater Treatment Facilities

### 2.1 Upper Blackstone Water Pollution Abatement District WWTF

The UBWPAD was created by the Massachusetts General Court in Chapter 752 of the Acts of 1968. Current District members include Auburn, Cherry Valley Sewer District, Holden, Millbury, Rutland, West Boylston, and Worcester. Additionally, the District's WWTF serves portions of Oxford, Paxton, Shrewsbury, and Sutton, as well as treating septage and sludge from numerous other communities. Table 2-10 presents the facility's average monthly effluent limitations, according to its current NPDES permit.

The UBWPAD WWTF went on-line in 1976, and was designed to provide secondary treatment up to an average daily flow of 56 MGD. It utilizes the activated sludge process to remove over 90 percent of the major pollutants entering the plant. The facility has considerably improved the quality of the Blackstone River and continues to protect its headwaters from contamination.

Since startup of its treatment facility in 1976, the District has been asked to achieve more and more stringent effluent standards as the quality of the Blackstone River has improved. The District's plant is currently achieving a higher standard of performance than was envisioned when it was originally designed and constructed, and must meet even more stringent standards in the future.




**Legend**

- OXFORD
- Pump Stations
- Treatment Plant
- Existing Force Main
- Existing Gravity
- Roads
- River, Brook or Stream
- Lake, Pond or Reservoir

**Data compiled from MassGIS and FST**

# TOWN OF OXFORD, MA
# CWMP PHASE 1
# FIGURE 2-10
# WASTEWATER COLLECTION SYSTEM

ENGINEERS FST Since 1914

**Table 2-10**
**NPDES Permit Requirements for**
**Upper Blackstone Water Pollution Abatement District WWTF***

| Effluent Characteristics | Units | Average Monthly Limit |
|---|---|---|
| Flow | MGD | 56 |
| $CBOD_5$ (June 1 to October 31) | mg/L | 10 |
| $CBOD_5$ (November 1 to April 30) | mg/L | 25 |
| $CBOD_5$ (May) | mg/L | 20 |
| TSS (June 1 to October 31) | mg/L | 15 |
| TSS (November 1 to April 30) | mg/L | 30 |
| TSS (May) | mg/L | 20 |
| pH | pH units | 6.5-8.3 |
| Fecal Coliform Bacteria | cfu/100 ml | 200 |
| Total Residual Chlorine | ug/L | 12 |
| Dissolved Oxygen | mg/L | $\geq$6.0 |
| Total Ammonia Nitrogen, as N (June 1 – October 31) | mg/L | 2 |
| Total Ammonia Nitrogen, as N (November) | mg/L | 10 |
| Total Ammonia Nitrogen, as N (December 1 – April 30) | mg/L | 12 |
| Total Ammonia Nitrogen, as N (May) | mg/L | 5 |
| Total Nitrogen (May 1 – October 31) | mg/L | 5 |
| Total Phosphorus (April 1 – October 31) | mg/L | 0.1 |
| Total Phosphorus (November 1 – March 31) | mg/L | 1 |
| Total Copper | ug/L | 7.2 |
| Total Zinc | ug/L | 91.3 |
| Total Cadmium | ug/L | 0.2 |
| Acute $LC_{50}$ | % | $\geq$100 |
| Chronic C-NOEC | % | $\geq$90 |

*Refer to *Glossary of Terms* in the beginning of this report for explanation of abbreviations.

The District recently completed over $80 million in plant improvements to comply with modern environmental standards. These include installation of improved air pollution controls, construction of a modern landfill, modernized laboratory and administration facilities, enhanced site security, and the first phase of an ongoing plant improvement project.

**Planned Improvements**

To achieve future water quality goals, and to continue to modernize the 25-year-old facility, the District has initiated a $180 million plant improvement project that is being completed in four phases through the coming 8 years. The first phase is now being completed, and the second

phase will be complete by the end of 2009. Together these phases will achieve major improvements in stormwater management, wastewater treatment, odor control, and plant instrumentation and control. Later phases of the project will build on these improvements, providing more efficient solids management and expanding plant capacity to accommodate growth in its service area.

## 2.2 Oxford-Rochdale WWTP

The Oxford-Rochdale WWTP was originally designed as a 0.18 MGD treatment facility. It was upgraded in 1995 as part of an enforcement order by the Massachusetts DEP and doubled its capacity to a 0.368 MGD facility. The facility is currently designed to treat an average daily flow of 0.50 MGD and discharges effluent to the French River. Currently, the average daily flow is 0.276 MGD. The treatment facility includes the following unit processes:

- Bar screens.
- Two (2) aerated lagoons.
- Two (2) secondary clarifiers.
- Automatic backwash sand filter.
- Chlorination/dechlorination facilities.
- Flow metering.
- Phosphorous removal through alum addition.

The WWTP sends all of its sludge to the UBWPAD WWTF for incineration.

Table 2-11 presents the facility's average monthly effluent limitations, according to its current NPDES permit, which became effective in June 2005.

## 3. Wastewater Flows

The Town of Oxford's wastewater flows into the Town of Auburn at a metering manhole located at the beginning of the Town of Auburn's gravity sewer system on Southbridge Street (Route 20). The metering equipment was installed in January 2008. Previous to this, the Town of Auburn estimated the wastewater flows generated by Oxford from pump station total flow data and water usage data from a few buildings that connect to the gravity system downstream of the pumping stations. The Town's estimated average daily wastewater flows into Auburn for FY 2006 and 2007 were as follows:

2006 – 41,100 gpd

2007 – 46,300 gpd

**Table 2-11**
**NPDES Permit Requirements for Oxford-Rochdale WWTP***

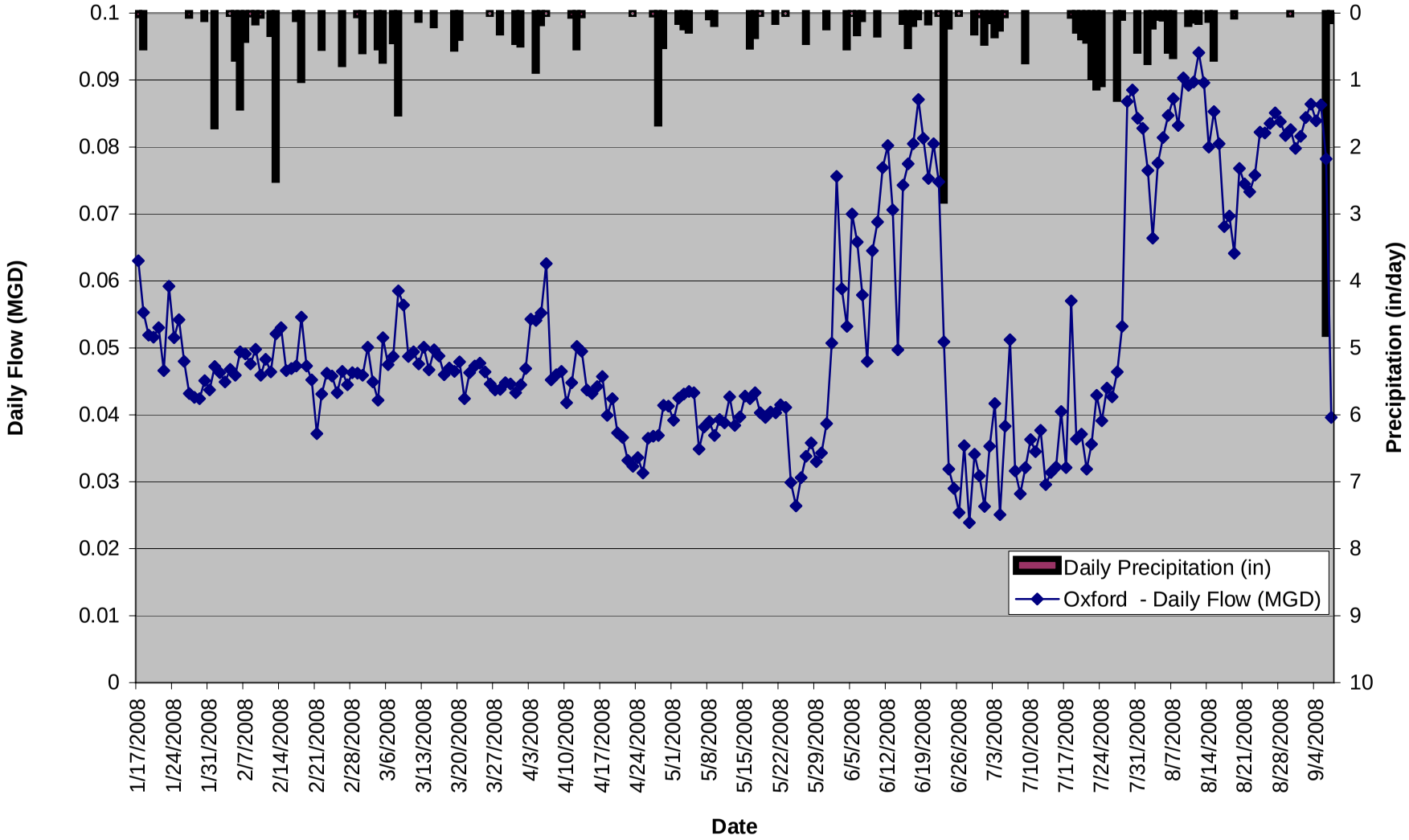
| Effluent Characteristics | Units | Average Monthly |
|---|---|---|
| Flow | MGD | 0.50 |
| $BOD_5$ (November 1 to March 31) | mg/L<br>lbs/day | 30<br>125 |
| $CBOD_5$ (April 1 to October 31) | mg/L<br>lbs/day | 10<br>42 |
| TSS (April 1 to October 31) | mg/L<br>lbs/day | 10<br>42 |
| TSS (November 1 to March 31) | mg/L<br>lbs/day | 30<br>125 |
| PH | pH units | 6.5-<br>8.3 |
| Fecal Coliform Bacteria | cfu/100 ml | 200 |
| Total Residual Chlorine | ug/L | 66 |
| Copper, Total | ug/L | 28 |
| Total Ammonia Nitrogen, as N (April1 – April 30) | mg/L | 10 |
| Total Ammonia Nitrogen, as N (May 1 – May 31) | mg/L | 5 |
| Total Ammonia Nitrogen, as N (June 1 – October 31) | mg/L | 2 |
| Phosphorus, Total (April 1 – October 31) | mg/L | 0.2 |
| Phosphorus, Total (November 1 – March 31) | mg/L | ---- |
| $LC_{50}$ | % | ---- |
| Chronic NOEC | % | ---- |

*Refer to *Glossary of Terms* in the beginning of this report for explanation of abbreviations.

Figure 2-11 presents a graph of Oxford's average daily flow for the time period of January – August 2008 as recorded at the flow-metering manhole. This graph also shows precipitation for this timeframe at a weather station in Worcester. As this figure indicates, wastewater flows ranged from about 24,000 to 94,000 gpd. The wastewater flows through May correlate reasonably well with precipitation events and groundwater level changes, but the higher flows in June and August may indicate a problem with the flow meter that needs to be worked out.

The wastewater flows from Oxford within the ORSD are estimated on the basis of "living units". The district serves approximately 166 "living units" in Oxford and 646 "living units" in Leicester. The WWTF recorded an average daily flow of 276,000 gpd in 2007. Approximately 20% of this flow, or 56,400 gpd originated in Oxford.

**Figure 2-11**
**Oxford Daily Wastewater Flows**
**Recorded at Flow Metering Manhole**



## 4. On-Site Wastewater Disposal Systems

With the exception of the 14 miles of sewers in the ORSD, and six miles of municipal sewers from the northern end of Main Street to Southbridge Road and east to the Town of Auburn, the Town of Oxford depends on on-site wastewater disposal systems to handle its wastewater. We estimate that about 3,700 on-site wastewater disposal systems are currently in operation in Oxford. Assuming that the majority of these systems are for residential use, this means that about 85% of the Town's population utilizes these systems. While the systems occur throughout the community, this Phase I Report will concentrate on three Focus Areas in terms of conducting a detailed wastewater needs analysis.

The Oxford Board of Health is responsible for the Town's management of on-site systems. The Board has regulations governing permitting, soil investigations, percolation tests and size of leaching area, and generally follows the State's Title 5 regulations. The Board records, stamps and signs all plans for new and upgraded/repaired systems. In addition to information on system design, location and size, these plans contain data on soil characteristics, groundwater elevation and percolation test results, and serve as the system permit.

The UBWPAD WWTF takes in septage from the Town of Oxford. Concerning septage pumping records, the Board of Health receives reports from the UBWPAD WWTF that detail quantities and locations pumped within the Town of Oxford.

## 5. Septage Disposal Practices

The Oxford Board of Health grants licenses to companies that pump septic systems within the Town. However, they do not maintain contracts with haulers, and there is no Town-wide septic system management program.

Table 2-12 presents a monthly breakdown of septage quantities for the Town for the year 2007-2008, as provided by the UBWPAD WWTF.

Concerning septage quality, the UBWPAD WWTF checks the pH of incoming septage prior to discharge to ensure that it falls within the range of 6.0 – 9.5 pH units. For septage haulers who routinely discharge at the UBWPAD WWTF, there is no examination or testing of the septage prior to discharge at the facility. The UBWPAD WWTF will check a septage load if the hauler is a new user of the facility.

## 6. Sludge Disposal Practices

The UBWAPD WWTF handles all of the sludge generated from the treatment of Oxford's wastewater – from the municipal sewer system, from the ORSD, and from septage taken from onsite wastewater disposal systems.

**Table 2-12**
**Septic System Pumping Records (July 2007 – June 2008)**
**Oxford, Massachusetts**

| Month | Total Gallons Pumped |
|---|---|
| July 2007 | 71,000 |
| August | 51,000 |
| September | 46,000 |
| October | 26,000 |
| November | 112,500 |
| December | 9,500 |
| January | 49,000 |
| February | 6,500 |
| March | 32,000 |
| April | 55,500 |
| May | 49,000 |
| June 2008 | 54,000 |
| **TOTAL** | **562,000** |