



## **CHAPTER II**

### **EXISTING LAND USE & FUTURE NEEDS**

#### **INTRODUCTION**

The land use pattern of a community is in a constant state of transition and influenced by a host of physical, geographic, economic and social factors. Often these determinants of development patterns consist of local influences, such as topographic constraints and natural features. In other cases such external factors, such as transportation networks and regional economy, shape the development pattern of a community. Today's land uses both reflect the historic evolution of a town and pre-ordain future development patterns. Local architecture expresses the tastes and technologies of past generations and establishes the framework for future growth patterns.

In essence, land use patterns are the distinctive fingerprint of a community.

Since land use both influences and is influenced by such factors as population, economic base, transportation, natural resources, public facilities, historic and scenic resources, all of the chapters in this plan relate to Waterboro's land use. Changes in any of these factors will ultimately determine future land use patterns in Town.

Therefore, the intent of this chapter is to provide the data base from which a future land use plan can be formulated to meet Waterboro's growth needs by the year 2000. To accomplish this objective, this chapter: 1) examines historic and current land use patterns in Waterboro; 2) identifies emerging trends from changes in Waterboro's settlement patterns over the past ten years; and 3) analyzes the Town's capability to absorb future developments in the year 2000.

#### **Role in the Southern Maine Region**

The Town of Waterboro is located in the northwest quadrant of York County at the crossroads of State Highways Route 5 and 4/202. Geographically, the Town is situated approximately ten miles from Sanford, fifteen miles from the Saco/Biddeford job centers and 25 miles from the Greater Portland area. Both the Kittery/Portsmouth and Rochester, N.H. commercial centers are within a half hour drive from Waterboro Center.

Although strategically located in the path of future development in York County, Waterboro has historically been in the backwater of a commercial corridor along the County's coastline. Consequently, Waterboro's historical economic role in the region has been limited primarily to natural resource industries and products: agricultural goods, lumber and wood products, and in recent years, sand and gravel resources. At various times in both the 19th and 20th centuries, Waterboro has supported various manufacturing enterprises ranging from textiles to wood finishing, electronics, leather products, and metal finishing. However, due to the Town's remote location from market areas, the small labor pool and absence of support services, these small manufacturing firms could not compete with the established coastal industrial centers.

Being located outside of the region's mainstream shopping areas, the Town's commercial base developed only to service local needs. Consequently, Waterboro has evolved in the scattered and decentralized settlement pattern characteristic of farming and lumbering communities in rural Maine.

Ironically, it was the Town's natural resources - specifically its lakes and ponds - that attracted the compact and urbanized waterfront development during the post-war years. In concert with Shapleigh, Limerick, Lyman and Newfield, Waterboro became a recreation destination for both Southern Maine and metropolitan Boston.

As the bottom fell out of the Town's seasonal home market in the 1970's, Waterboro's role in the region again shifted from a vacation-oriented community to a "bedroom community." Strategically located between the Kittery, Sanford, Saco/Biddeford and Portland job markets, Waterboro offers the commuting work force relatively inexpensive housing and a rural lifestyle. The growth boom of the mid-1980's has significantly increased the Town's attractiveness for commuters. As the housing prices in the job centers and its suburban communities escalated beyond the means of many workers, the failed Lake Arrowhead recreational community (LAC) has offered affordable units for first-time home buyers.

Over the past five years, housing construction in LAC has increased eight-fold (see Chapter III - Housing Characteristics). This blistering pace has continued unabated into 1990 despite tight mortgage money and the crash in the Southern Maine real estate market.

As such, it appears that Waterboro is evolving into the affordable housing solution for not only the County, but all of Southern Maine.

## Physical Factors Affecting Town Land Use

The settlement pattern of Waterboro has been greatly influenced by the natural topography, watershed systems, and varying soils characteristics within the Town. As illustrated in Figure 2, Chapter 6, the Town is defined and contained by two north-south running ridge systems - West Ridge and Laskey's Hill to the west and the Deering/Chadbourne ridge to the east. Ossipee Mountain's location in the center of the Town, in concert with the position of Little Ossipee Lake, essentially divided the community into quadrants. Other natural barriers, such as the Heath, the Buff Brook wetlands complex, and the Bartlett Pond wetlands complex further separated South and West Waterboro, the Clarks Bridge Road/Ossipee Mills area from the northwest quadrant, and Roberts Ridge from Deering Ridge, respectively. These constraints fostered development of five separate village centers - South Waterboro, East Waterboro, Waterboro Center, North Waterboro and Ossipee Mills. The orientation of Waterboro's topography and wetland systems (see Chapter 6 - Natural Resources) forced most of Waterboro's transportation system to be established in a north-south alignment. Even today, with the technological advancements in highway engineering, there are no direct east-west roads in Waterboro aside from Route 4/202.

The availability and location of arable soils played a crucial role in the early settlement patterns of the Town. The deep deposits of glacial outwash in Waterboro's bottom lands proved to be too droughty for cash crops. South Waterboro earned the disparaging title of "scratch corner" due to the soils infertility, and only developed as a commercial center due to its strategic crossroads location. Similarly, the northwest corner of Town with its pine barrens and gravel drumlins only attracted the attention of loggers. Today, it remains substantially isolated and undeveloped.

The most successful and productive farms were located on the gentle side slopes and ridge tops of Deering Ridge, Chadbourne Ridge, Roberts Ridge, West Hill and the northern and eastern side slopes of Ossipee Hill. Roads established to access these farms in the 1800's remained active into the twentieth century and now serve as the Town's transportation network.

With the decline of agriculture in Waterboro, the large farm and timber lands have slowly been divided to accommodate housing development. Due to a combination of broad frontages, physical limitations (such as wetlands along Route 4/202 or steep slopes along Route 5), and local ordinances, residential and commercial development has progressed in a linear fashion along Town roads.

## Land Use Changes in Waterboro: 1970-1990

Back in 1969, Waterboro displayed two faces. During the summertime, it was an active recreational community supporting vacationers and a large second-home population. During the rest of the year, Waterboro could be characterized as a sleepy, small town supporting several industries, a collection of small service and retail establishments, and a permanent population of 1208 people. However, during the 1970's, the seasonal population leveled off and the Town began to experience rapid expansion in the permanent housing market. By 1980, the year-round population more than doubled (see Chapter I, Table I-1).

The 1980's ushered in a renewed wave of residential development, a decline in the Town's industrial and agricultural base, an expansion of commercial operations, and the population nearly doubled to 4,798 (Table I-1). Table II-1 summarizes these dramatic changes over the past decade in terms of acreage allocated to specific land uses.

Figures cited in Table II-1 represent the best data available from Town assessment records, State valuation reports, interpretations of the 1977 Land Use Map, as well as planimeter measurements derived from 1988 aerial photographs of the Town. However, Table II-1 does not reveal all relevant information about the past changes, current status and future prospects of each of the land use categories. Therefore, a more thorough assessment of land use change by category is provided below.

### Developed Lands

With the growth boom of the past decade, it is not surprising that the amount of land area committed to development in Waterboro increased 25%, whereas developed lands accounted for 10.8% of Waterboro's land area and 13.4%, or 4852± acres, have been devoted to new development. Developed lands include the following:

#### 1. Residential

Year-round housing represents the dominant and fastest growing land use category among all land use activities in Waterboro. Between 1980 and 1989, the year-round housing stock rose from 985 units on 1414± acres to 1790 dwellings on 2497± acres; an 82% increase in housing units and a 76% increase in acres devoted to residential uses. As of January 1, 1990, residential uses occupy 7% of Waterboro's total land area.

Table II-1

**COMPARISON OF LAND USE CHANGES: 1977-1990  
TOWN OF WATERBORO, MAINE**

<u>USE CATEGORY</u>	<u>1977/1980</u>		<u>1990</u>		<u>Change 1980-1990</u>	
	<u>ACRES</u>	<u>% of TOWN</u>	<u>ACRES</u>	<u>% of TOWN</u>	<u>ACRES</u>	<u>% of TOWN</u>
<b>DEVELOPED LANDS</b>	<b>3,907</b>	<b>10.8%</b>	<b>4,852</b>	<b>13.4%</b>	<b>+ 945</b>	<b>+24.2%</b>
Residential <sup>1</sup>	1,414	4.0%	2,497	7.0%	+1083	+76.6%
Residential-Seasonal <sup>2</sup>	552	1.5%	347	0.9%	- 205	-37.1%
Commercial <sup>3</sup>	290	0.8%	370	1.0%	+ 80	+27.6%
Industrial <sup>4</sup>	40	0.1%	20	0.05%	- 20	-50.0%
Institutional <sup>5</sup>	161	0.4%	161	0.4%	0	0
Town Property <sup>6</sup>	301	0.8%	331	1.0%	+ 30	+10.0%
Utilities <sup>7</sup>	299	0.9%	299	0.8%	0	0
Public R.O.W. <sup>8</sup>	725	2.0%	742	2.1%	+ 17	+23.4%
Extractive <sup>9</sup>	125	0.3%	85	0.2%	- 40	-32.0%
<b>UNDEVELOPED LANDS</b>	<b>32,193</b>	<b>89.2%</b>	<b>31,248</b>	<b>86.6%</b>	<b>- 945</b>	<b>- 3.0%</b>
Agriculture <sup>10</sup>	1,631	4.5%	906	2.5%	- 725	-44.5%
Tree Growth Lands <sup>11</sup>	1,000	2.8%	4,320	12.0%	+3320	+332%
Wetlands <sup>12</sup>	5,727	15.9%	5,727	15.9%	--	--
Lakes & Ponds <sup>13</sup>	798	2.2%	798	2.2%	0	0
Upland Forests <sup>14</sup>	23,037	63.8%	19,497	54%	-3540	-15.4%
<b>TOTAL ACREAGE</b>	<b>36,100</b>	<b>100%</b>	<b>36,100</b>	<b>100%</b>	<b>--</b>	<b>--</b>

## SOURCES:

1. Determined by multiplying a 2-acre average house lot by the number of permanent structures, plus number of LAC units, multiplied by 1/2 acre.
2. 1980 figures from 1977 Comprehensive Plan. 1990 figures from Town Planner's Office.
3. Estimates based on known acreage devoted for each commercial use as determined by the Town Planner. Figures do not include home occupations.
4. Industrial acreage based on acreage actually committed to use.
5. Data from tax cards.
6. Data from tax cards.
7. Data from tax cards.
8. 1980 data from 1977 Comprehensive Plan. 1990 data from subdivision records, 1980-1989
9. Based on number of operating gravel pits multiplied by 5 acre maximum allowed by the Planning Board to be mined at any one time.
10. 1980 figures from 1977 Comprehensive Plan. 1990 figures from serial photo interpretation - STI, 1990.
11. State valuation records, 1983 and 1990.
12. No records available for 1980 wetland area. 1990 figures from IEP Wetlands Inventory, 1988.
13. State D.E.P. and I.F.W. records.
14. All remaining acreage in Town.

In terms of unit types, Waterboro continues to be a community dominated by single-family dwellings. According to statistics compiled in Table III-3, single-family housing represents 85% (1527 units) of the total stock, followed by mobile homes at 11.1% or 202 units, duplexes at 2.6% or 47 units, and apartment units at 1.8% or 31 units. Although the number of single-family units grew by 85% from 1980 to 1989, the mobile home stock out-paced the single-family growth rate, recording a 124% increase for the same time period. Mobile homes are an attractive housing alternative for low and low/moderate income families. The meteoric increase in stick-built housing prices in the region over the past five years can be attributed to the sudden growth spurt in the mobile home market. Growth rates in apartments and duplexes registered at a paltry 15% for the same period. It would appear from these figures that the market for these alternative housing units is very weak at this time and will not increase substantially unless: 1) land prices in Waterboro and rental prices in the major job markets escalate dramatically; and/or 2) the job market in Waterboro expands, particularly in lower-paying retail, labor or clerical sectors.

As discussed previously (and in greater detail in Chapter III), Waterboro's current position as the supplier of affordable housing to the region is facilitated by the Lake Arrowhead Community (LAC). The pent-up demand for affordable housing in Southern Maine has made the LAC project seemingly bullet-proof to the current housing depression. In 1989, 75% (107) of all building permits issued in Town were for construction in LAC. Data for the first quarter of 1990 indicates that construction in LAC is surpassing growth rates for 1989.

## 2. Seasonal Residential

In the post-war years, Waterboro contained a high proportion of seasonal housing stock clustered around the Town's lakes and ponds. Since the 1970's, the inventory of units devoted exclusively to seasonal use has been steadily declining. As of 1980, approximately 552 acres, or 1.5% of the Waterboro land area, supported seasonal housing. However, the past ten years have many of these seasonal units converted and upgraded for year-round use. Many of these conversions have been made by owners who wish to retire to Waterboro, while other units have been converted for off-season rental purposes. The exact number of rental versus owner-occupied seasonal conversions cannot be determined. However, the fact remains that winterization and upgrading of vacation units has resulted in a transfer of approximately 205 acres of seasonal housing into permanent year-round housing. It is anticipated that the reduction in seasonal housing acreage will continue throughout the 1990's.

### 3. Commercial Uses

In 1980, approximately 0.8% of Waterboro, or 290 acres, was developed for commercial purposes. As of 1990, eighty acres of new commercial lands were added to the Town tax rolls, resulting in a total commercial inventory of 370 acres, or almost 1% of the Town land mass. It is important to note that the 1980 and 1990 figures do not include home occupations or home businesses. However, as detailed in Chapter IV (Economic Base), home businesses are growing rapidly in Waterboro - particularly construction services, specialty retail (antiques, etc.), and professional services. Waterboro's large residential lots accommodate home operations, even those requiring extensive storage facilities as required by building contractors. Therefore, the amount of commercial space may be considerably greater than that designated in Table II-1. Trade-oriented commercial operations are considerably more limited and focus more on durable goods than clothing and personal items. In all, Waterboro supports 172 commercial operations, with 93 enterprises involved in business services and 79 involved in trade. Chapter IV (Economic Base) provides a detailed inventory of Waterboro businesses.

### 4. Industrial

In terms of acreage, Waterboro's industrial base has declined 50% over the past ten years. This dramatic drop can be attributed to the closing of Southern Maine finishing and Allied Patent Leather plants. The closing of the GTE Sylvania plant on Route 4/202 was offset by the startup of On-Time Machining in the same facility. Waterboro's inventory of industrial operations include four machinists and machinery manufacturers, two sheet metal manufacturers, six wood products and cabinetry shops, five technical manufacturing operations, one fish processor, and one mobile home manufacturer. Most of these operations can be classified as assembly and light manufacturing enterprises - the type of industrial uses preferred by respondents in the Waterboro Community Attitudes Survey, and certainly one of the most common forms of new industrial activity in Southern Maine.

### 5. Institutional

Institutional uses can be categorized as uses that are semi-public and would include post offices, community churches, the Massabesic Medical Center, SAD #57 facilities, the Waterboro Fire Department, and property owned by local service organizations. Over the past ten years, institutional property has remained stable and unchanged. Net increases in institutional property are anticipated in the next ten years as the population increases beyond the 5,000 mark.

6. Town Lands

Town lands include all property currently owned by the Town of Waterboro; the municipal offices in Waterboro Center, the Town garage, the former East Waterboro Elementary School, the transfer station, various Town parks, and assorted woodlots and tax lien properties. The net acre increase in the Town property inventory can be attributed primarily to property liens in Lake Arrowhead and the conveyance of the old elementary school (Table II-1). Town ownership accounts for only 1% of Waterboro.

7. Utilities

Utility properties are limited to the Saco River Telephone Company facility and the two H-frame power transmission lines owned and maintained by Central Maine Power Co. The CMP lines are part of a regional distribution system crossing Waterboro from Deering Ridge to Laskey's Hill and behind the Massabesic Regional High School. Currently, CMP is studying the feasibility of upgrading the capacity of the H-frame lines that may involve expansion of its land holdings.

Public utility land holdings are anticipated to increase over the next decade as the proposed South Waterboro water distribution system is constructed. The Town is anticipating receiving funding from the State and Federal sources to complete the project within two years. Given the potential for groundwater contamination in the East Waterboro area, the Town Planner's Office is investigating the potential to extend the South Waterboro system up into the East Waterboro area within a 5-year time frame.

8. Public Rights-of-Way

Public rights-of-way refer to land that is conveyed either by deed or by easement to the Town primarily for the purposes of public passage or transport. The 23.4% increase in right-of-way acreage over the past ten years can be attributed exclusively to residential subdivision roads. In the past decade, approximately 2.8 miles of new subdivision roads have been conveyed to the Town. A more detailed analysis of Town roads is provided in Chapter V - Transportation.

9. Extractive Industry

Waterboro contains substantial sand and gravel deposits located in the ancient glacial outwash plains within the Little Ossipee River corridor, around Little Ossipee Lake, and in the South Waterboro area. These deposits have

attracted an active mineral extraction industry over the last twenty years. In 1977, 25 gravel pits were operational, while in 1990 17 pits were licensed to remove material. However, the number of acres committed to extraction in Table II-1 are low and do not reflect the actual scope of these mining operations. In an effort to avoid regulation by Maine D.E.P., most operations confine their work areas to less than five acres at any one time, completing and rehabilitating one five-acre phase before proceeding to the next phase. Therefore, the total aggregate acreage committed to gravel extraction is substantially higher than Table II-1 suggests. Some existing gravel pits are "grandfathered" on large tracts of land, and the long-term mining plans for these properties is unknown. At this time, it is estimated that over 500 acres may be committed to existing gravel operations.

Waterboro's geographical distance from the coastal growth centers has curbed the demand for its gravel resources. However, gravel sources in close proximity to the growth centers have become either depleted or impossible to permit, thereby enhancing the attractiveness of Waterboro's gravel supply. The demand is not limited to southern Maine. Metropolitan Boston and southern New Hampshire are currently experiencing a gravel shortfall. Thus, in the next ten years, Waterboro may find itself becoming a regional gravel supplier. It is, therefore, anticipated that greater pressures will be exerted on the Town's sand and gravel reserves.

### Undeveloped Lands

Undeveloped lands can be defined as property that is not permanently committed to a particular land use. Forests, wetlands and meadows represent classic examples of undeveloped lands. Even though it represents an intensive land use, agriculture qualifies as an undeveloped land use due to the fact that, if abandoned, cultivated fields will revert to climax forest over time. Restored gravel operations could technically be considered undeveloped lands; however, the resulting radical terrain alteration involved in this industry often limits the re-use of the property for other purposes. Theoretically, portions of residential lots that are left wild could also be classified as undeveloped. However, due to minimum lot size requirements, it is highly unlikely these lands could be subdivided for any additional use.

Despite the economic and housing explosion of 1970-1990, 86% of Waterboro's land area is classified as "undeveloped" as of 1990. The past decade has witnessed a 3% reduction in undeveloped lands primarily due to significant advances in the residential, commercial and road developed lands category. Changes in specific sections within the undeveloped lands classification can be summarized as follows:

## 1. Agriculture

It is estimated that during the 19th century, as much as 75% of Waterboro was under agricultural production. The miles of stone walls standing in Waterboro's forests, along roads, and even in wetland areas testifies to the dominance of agriculture in the Town's development.

Since the turn of the century, agriculture has been in rapid decline both in Waterboro and all of southern Maine. In 1977, 1631 acres were reported to be in active use, with an additional 732 acres of land retired from cultivation or pasturage. Aerial photographic interpretation reveals that this inventory of agricultural lands has declined almost 45% to 906 acres as of 1990. State records indicate that only 607 acres were registered as commercially-farmed lands.

Most of the 1990 agricultural acreage is managed for pasturage or silage. Two particularly large parcels are commercial orchards specializing in apple production, while the remaining cultural lands produce vegetables for local consumers.

In the next ten years, agriculture is anticipated to continue to lose ground as shrinking farms lose their critical economy of sale and land development pressures mount.

## 2. Tree Growth Lands

Tree growth lands are defined as properties participating in the Tree Growth Tax Program. Under the terms of this program, owners agree to manage their properties exclusively for timber harvesting for a minimum 10-year period in exchange for a reduced property valuation. The owner may withdraw prematurely from the program contingent upon payment of the cumulative tax difference between the reduced assessment and market value.

The program is intended to achieve the dual purpose of conserving open space and promoting managed commercial forestry. Any participating property in excess of 10 acres is classified by the State as a "commercial forest" and is required to formulate and implement a long-range timber management plan. Forest products harvested from the managed lands may consist of cordwood, pulp, lumber and specialty lumber products. Bio-mass production is discouraged, except in areas where the management plan calls for thinning of young stands.

The market viability of growth lands as commercial forests is a function of the size of the property, the stand's type and age, and the market demand for the forest product. In terms of size, Waterboro's inventory of Tree Growth properties contains two substantial holdings located: 1) in the northeast corner of Town between Townhouse Road and the Little Ossipee River; and 2) in the northwest corner of Town between Ossipee Mills and the intersection of Clark's Bridge Road and the Little Ossipee River. These two major holdings represent approximately 2/3 of the 4,320 acres of land registered in the program and can truly be regarded as commercially viable timber producing lands over the long term.

The remaining holdings in Tree Growth consist of properties ranging in size between 5 acres and 100 acres, with the average holding covering 40 acres. For the most part, these smaller properties are concentrated in the western side of Town beginning in the South Waterboro/Federal Street area extending along West and Middle Roads to the Lake Sherburne area. Three smaller properties are located around the Bartlett Pond/Jefferson Road area, while five sizable holdings have been registered on the west side of Deering Ridge.

In terms of stand quality, the Great Fires of 1911 and 1947 swept through the west and south part of town. Consequently, the forests on most of the Tree Growth properties are young, contain a high percentage of pioneer tree species, and require significant management to produce products besides pulp, cordwood, and dowling. The distribution of coniferous and mixed hardwood stands is illustrated on the Existing Land Use Map (Figure 2-1). Stands on Deering Ridge consist of older hardwood stands, while the two large commercial holdings in the northwest and northeast quadrants are dominated by white pine (*Pinus strobus*) growth.

The Tree Growth program has received dramatic support from Waterboro land owners in the past decade. As of 1983, only 1,000 acres of forest land was registered as Tree Growth. Yet, as of 1990, this figure climbed to 4,320 acres, for a net increase of 332%. Covering 12% of the Town's area, designated commercial forest lands represent the third largest land use category in Waterboro, and rival the acreage of all developed land uses in Town. Much of the acreage decline in unmanaged forests from 1980-1990 (see item #5 below) is attributable, not as much to development, as to the reclassification of undeveloped lands into Tree Growth forests.

Clearly, the Tree Growth program has proven to be an effective short-term mechanism for conserving open space with little financial commitment on the part of the Town. However, the Tree Growth restrictions are in force for only a ten-year term and experience with similar programs in other New England States shows that the tax penalties for early withdrawal are not an effective deterrent in the face of development market values.

### 3. Wetlands

Wetlands are defined as lands containing hydric soils, hydrophylic vegetation, and exhibit a water regime at or near the ground surface during most of the year. Typically, wetlands consist of wooded swamps, wet meadows, shrub swamps, both shallow and deep marshes, bogs and, in some cases, impounded open water. For the purposes of this Land Use Inventory, Waterboro's lakes and ponds represent a separate land use category.

Although Waterboro was named after one of the early proprietors, Colonel John Waters, the Town could have easily derived its names from its abundant water resources. Wetlands cover 15% of the Town's total land area and represent the second largest land use category in Table II-1. In 1988, the Town contracted IEP consultants to conduct a comprehensive wetlands inventory throughout the community. Results from the study revealed that wetlands cover approximately 5,726 acres in Waterboro.

A more detailed analysis of wetland resources is provided in Chapter VI - Natural Resources. Prior to 1988, the Town had no reliable inventory of wetlands to assess the loss or gain in this land use over time. However, given the Planning Board's policy on wetlands protection, it is believed that any wetlands loss has been negligible and limited to road and driveway crossings. Consequently, Table II-1 shows no net change in wetlands acreage in the period between 1980 and 1990.

### 4. Lakes and Ponds

Waterboro's open water resources have long served as important environmental and recreational resources for the Town. Included in this category is Little Ossipee Pond, Lake Arrowhead and the Flowage, Lake Sherburne, Northwest Pond, Middle Branch Pond, Moody Pond, Bartlett Pond, Isinglass Pond, Round Pond, Lone Pond, the Land-Locked Lobster Pond, a farm pond up on Ossipee Hill Road, and two unnamed waterbodies located off of Jefferson Road and near Hendrickson Brook in the northwest corner. The Town's waterbodies account for 798 acres, or 2.2% of the Town's total land area. Streams, rivers and creeks are not accounted for in this category.

In the past ten years, there have been no net increases or decreases in Waterboro's lakes and ponds.

#### 5. Upland Forests

Upland forests are defined as all residual lands not accounted for in any of the land use categories outlined in Table II-1. All of these remaining lands are, in fact, forested and located in upland (non-wetland) areas. As such, they have potential for future use as commercial forests, agriculture, conservation lands and property available for commercial, industrial, institutional or residential development. Map II-1 (Existing Land Use Map) graphically depicts the distribution of different forest cover types throughout the Town. Clearly, mixed hardwood forests dominated this category, followed by hardwood stands, and finally coniferous stands of pine, spruce and hemlock.

As discussed previously, the Fire of 1947 decimated cover in the west and southern portion of Town, yielding a young second growth woodland that will require more time and management to mature to a commercially-viable lumber resource.

Since the decline of agriculture, upland forests have historically represented the dominant land use in Waterboro. In 1980, these lands covered 63.8% of the Town, declining to 54%, or 19,497 acres, by 1990. As mentioned previously, some of these lands were developed for residential or commercial purposes; however, most of the 15% loss shown in Table II-1 is attributable to reclassification as commercially-managed forests under the Tree Growth Tax Law. In essence, only 220 acres of the 3,320 acres lost in upland forests was committed to development.

#### DISTRIBUTION OF DEVELOPED LANDS

In general terms, Waterboro's settlement pattern is linear. Developed land uses front onto, or parallel, the existing road network. This network is oriented in a predominant north-south alignment with the Town's topography and wetland systems. Route 4/202 represents the Town's only true east-west development corridor.

Like many rural communities in Maine, Waterboro's land use pattern can also be defined as "mixed-use." Commercial, residential, industrial, institutional and even agricultural uses are not segregated as in suburban towns, but are interspersed. However, there are distinct sections or districts in Waterboro that are differentiated by their relative proportion of mixed uses, the density and settlement pattern, or by their economic or social function in the community. These districts are identified

on the accompanying Existing Land Use Map, Natural Resource Map Planning Unit/Cell Coordinate System, and can be described as follows:

#### A. Mixed-Use Village Centers

Located at historically-important crossroads, these areas contain a denser and more urbanized settlement pattern. Often these centers support a broad mixture of residential, commercial, and agricultural uses, but the real distinction of the Mixed-Use Village Center is that it contains important semi-public or institutional use(s) such as churches, fire houses, or post offices. The Village Centers were the centers of early settlement and thereby contain the most significant concentrations of historic architecture in Waterboro. In addition, the village centers serve as geographical landmarks for the local citizenry. Specific Mixed-Use Village Centers include:

1. South Waterboro Mixed-Use Village District  
(Planning Cells D-3, 4, 5 and 8)

Of all the Town's villages, South Waterboro is undoubtedly the most urbanized center, containing a high proportion of the community's institutional and commercial uses, blended with a compact residential use. Both topography and geographical location are the prime reasons for South Waterboro's predominance. The village is situated on the broad glacial outwash plain located in the southwest corner of Town. This level terrain, in combination with soils suitable for subsurface septic disposal, have enabled the village to develop in more of an urban grid and at substantially higher densities than elsewhere in Town. In fact, most all of the lots in the village are less than 20,000 square feet in size, while another 25% of the properties are in the 1/4 acre range.

Due to its strategic location between the Sanford and Biddeford/Saco market areas and the rest of Waterboro, South Waterboro has evolved as the Town's principal commercial and institutional center. In terms of use characteristics, South Waterboro contains the following:

- 37% of all commercial services in Waterboro \*
- 27% of all retail/trade establishments
- 33% of all industry
- Concentration of institutional uses, including the central post office, two churches, and the main Town firehouse and dispatching center
- SAD #57 High School and associated facilities
- The IGA (Waterboro's only supermarket)
- Concentration of restaurants and convenience stores
- A majority of the Town's substandard rental units
- Several historically significant structures
- A D.E.P. Uncontrolled Hazardous Waste Site (Waterboro Patent Leather)

- Dense single family residential development

\*Excluding all building contracting services

2. East Waterboro Mixed-Use Village Center  
(Planning Cells C 1, 2, 4)

East Waterboro represents the Town's second most urbanized commercial center. Unlike South Waterboro, East Waterboro village is highly linear, extending along Route 5 from 650± feet east of Jellerson Road to Roberts Ridge Road. Expansion to the north and south has been limited due to the constraints of Hamilton and Cooks Brooks. Like its neighbor to the south, East Waterboro is a historic village that evolved due to its strategic crossroads position - in this case, at the intersection of Routes 4/202 and Route 5.

Lot sizes range between 40,000 square feet and 60,000 square feet, with a number of larger parcels interspersed. The greatest density of structures are clustered around the Bennett Hill and Route 4/202 intersections. Densities progressively decline to the east and west of this built concentration.

In spatial terms, the village center is characterized by the close proximity of the buildings to Route 5 (20-foot offset in many cases) and the limited side setbacks between buildings. This structural pattern tends to create a highly-enclosed corridor on Route 5 that is characteristic of nineteenth century Maine villages.

Land uses within the East Waterboro Mixed-Use Village include residential, trade, commercial and institutional operations, specifically:

- 21% of the Town's trade and commercial enterprises, with an emphasis on food service, recreational, personal services and professional office enterprises, as well as agricultural uses.
- Two industrial operations
- Institutional uses, including the East Waterboro Post Office, the East Waterboro Baptist Church, and the former East Waterboro Elementary School which is now being considered for adaptive re-use as the Town Library (see Chapter VII - Public Facilities and Services), the East Waterboro Fire Station and the Town solid waste transfer station are located on Bennett Hill Road just outside of the village district.
- A hay field is located at the corner of Route 5 and 4/202 with an abandoned pasture bounding the northern side of the district at Bennett Hill Road.

- A D.E.P. Uncontrolled Hazardous Waste Site (Southern Maine Finishing).
- Several historic structures, including the church, numerous residences, several commercial buildings, and the post office.

3. Waterboro Center Mixed-Use District  
(Planning Cell I-3)

Perched at the head of Little Ossipee Pond, Waterboro Center has long served as the geographical and political center of the community. Being situated at the intersection of five major roads, it was said that all roads lead to Waterboro Center.

The construction of the Portland & Rochester Railroad through South Waterboro was the only factor preventing Waterboro Center from establishing a dominant economic position in Town.

The village's role as the political center of Town stems from the conversion of the Centre Baptist Societies Church to the municipal meeting hall in 1863. "The Townhouse" has remained the focus for all governmental functions ever since.

With its position on the shores of Little Ossipee Pond, Waterboro Center has also catered to the needs of vacationers, travelers and seasonal residents. Back in the 1800's, the Durgin Hotel, Robert's General Store, a blacksmith shop, and shoe shop were open for business. Today, the village offers lodging, campsites, variety store, two restaurants, realty offices, and other commercial services. As with all of the Town's villages, residential uses have always played a significant part of the land use inventory in Waterboro Center. Vintage photographs also show that agriculture cultivation has historically been a major concurrent use with residential activities. Waterboro Center's land use inventory in 1990 can be summarized as follows:

- 6% of the Town's commercial services are located in the village
- 10% of all retail trade in Town
- The Town's only public lodging facilities and commercial campgrounds are located by the causeway.
- Two food service establishments geared to seasonal users operate in Waterboro Center.

- Institutional uses include the Townhouse and municipal offices, the Waterboro Historical Society, the village firebarn, the recently purchased Taylor House, and the Applegate Elderly Housing Facility. The Post office has been relocated to East Waterboro.
- Residential uses are located on medium sized lots ranging from 1-3 acres and are aligned principally along Route 5 on the west side, with some scattered dwellings on Ossipee Hill Road, Route 5A and Townhouse Road.
- Agricultural fields define the western edge of the village on Ossipee Hill Road.
- A variety of structures of architectural and historical significance still exist in the village, including the Taylor House, the "Brown House," the Belval House, the Durgin House and the Townhouse.
- A gravel pit periodically operates off of Route 5 near the southern end of the village district.
- The Town boat launch and beach are located in the district and are the scene of considerable congestion during the summer months.

The built fabric of Waterboro Center is more dispersed than South or East Waterboro. With the larger lot sizes available in this district, residential uses, especially in the southern end, are set back in excess of 50 feet from the road and 100 feet from the abutting unit. At the crossroads of Townhouse Road and Route 5, this building pattern condenses as Route 5 north squeezes between the lake and Ossipee Mountain, thereby reducing the buildable area available for residential and commercial uses. This

same stretch of roadway contains a wide variety of historic structures with the 20-30 foot road offsets that were characteristic of 18th and 19th century settlement patterns.

4. North Waterboro Mixed-Use Village Center  
(Planning Cell I-3, I-4, H-2, H-3)

North Waterboro Village, in form and function, is more of a strategic crossroads than a compact urban center like South or even East Waterboro. Located at the intersections of Clark's Bridge Road, Chadbourne Ridge Road, Silas Brown Road and Route 5, the village historically has served as a circulation hub for the timber and agriculture industry. Today, it serves as a similar distribution point and remains a geographical landmark for the entire area north of Little Ossipee Pond. All land use activities are loosely aligned along the road network with broad stretches of open space in between. To the casual observer on Route 5, the spread-out character of North Waterboro might not be interpreted as a village settlement; however, to Waterboro residents, the area has historical and cognitive meaning.

The epicenter of the village at the Clark's Bridge/Chadbourne Ridge Road and Route 5 intersection contains the North Waterboro Community Baptist Church, Town Fire Barn, the North Waterboro Post Office, a realtor's office and an abandoned pasture. Services and home businesses are scattered throughout the district, while agricultural uses dominate the side slopes on the western side of Route 5. The historic Johnson's Lumber Mill and Merrill's Store marks the southern boundary of the village. Residential uses dominate the rest of the village's built area. Recently, two sizable gravel extraction projects have been permitted off Chadbourne Ridge Road and Silas Brown Road at North Waterboro's eastern edge.

5. Ossipee Mills Mixed-Use Village Center  
(Planning Cell H-3)

On the southern side of the Little Ossipee River at the Route 5 bridge to Limerick stands the small village of Ossipee Mills. As the name suggests, the area historically was the site of a number of mills that harnessed the river to power their operations. Today, the dominant land use is residential; however, Woodsome's Lumber Mill carries on the village's original namesake. One store is also located within the district. All buildings in Ossipee Mills have been constructed on narrow lots relatively close to the road, thereby creating a compact village form clustered around Route 5. Consequently, Ossipee Mills serves as an important historical gateway into and out of the Town.

## B. MIXED USE CORRIDORS

Routes 5 and 4/202 serve as the primary linkage between Waterboro and the job market centers of Sanford, Kittery, Saco/Biddeford and Portland. Within Waterboro, all five village centers are plugged into the Route 5 and 4/202 circuit. In addition, Route 5 is a major link between Portsmouth and the Lakes Region, and the White Mountains.

Attracted by this high visibility and access, development has sprawled out along the length of these two corridors over the past twenty years. The growth in these two corridors has not been limited to commercial operations, but has also included housing. The result is that these two routes have spawned a mixed-use strip development pattern. Each of these corridors has a different land use complexion that can be identified as follows:

### 1. Route 4/202 Mixed-Use Corridor (Planning Cells D-1, 2, 4, 5, 9)

Extending from East Waterboro through South Waterboro and into Lyman to the west, the Route 4/202 corridor contains most of the Town's industrial development and a majority of the commercial activities in the community.

Industrial operations are concentrated between East and South Waterboro on the north side of the highway (Cells D-1 and D-9), with numerous residential homes spread out along the south side (Cell D-2). The strip character of this section of Route 4/202 is attributable, not only to lot configurations, but more significantly to the natural constraints imposed by the massive Heath Wetlands Complex (Cell D-2, refer also to Town Wetlands Map, 1988).

Towards the eastern edge of the South Waterboro Mixed-Use Village Center, the Route 4/202 corridor transforms into more of a residential and commercial service mixture of uses, and the built-form becomes increasingly compact.

### 2. Route 5 Mixed-Use Corridor (Cells D-5, 6)

The Route 5 Mixed-Use Corridor is similar to its counterpart, 4/202, in that it contains a mixture of commercial, industrial, residential and agricultural uses in a linear strip form; but the difference between the two zones lies in intensity. Whereas the 4/202 strip in combination with East and South Waterboro are more compact, Route 5 is less concentrated in its development and more rural in flavor. There is considerably less industrial and commercial, and more agricultural uses. In addition, most of the gravel extraction operations have access to Route 5.

Within the Route 5 corridor, three sub-districts can be identified as follows:

a. Route 5 from East Waterboro to Waterboro Center  
(Cells I-3, 5)

Despite wetlands constraints on the east side, this portion of Route 5 development has been slowly expanding the East Waterboro and Waterboro Center Districts towards each other. Development in the last ten years has been primarily residential, with some pioneering commercial activities like a Toro dealership (new within the East Waterboro District) and the soon to be opened general store. Over the next ten years, it is anticipated that land use pressures will seek to infill existing undeveloped lands along Route 5, creating a continuous strip between the two villages.

b. Waterboro Center to North Waterboro (Cells I-3, 5)

This portion of Route 5 is sparsely settled and these residential areas within proximity of Route 5 are really recreational housing uses associated with the Little Ossipee Pond Seasonal Residential District. The abandoned pastures of the Knight Farm dominate the west side of Route 5 and set the rural tone of this sub-district. Two professional/commercial offices are located on the edge of this corridor and the North Waterboro Village District.

c. North Waterboro to Ossipee Mills (Cells H-1, 2, 3)

This final sub-district continues the rural flavor of Route 5 but introduces more commercial uses, especially contracting services, the Twin Pines Trailer Park, several subdivisions and residential lots, as well as four gravel operations. The pastures and hay fields on the gentle lower slopes of Ossipee Mountain are the predominate land use on the west side of the corridor and give this section of Route 5 its spacious and rural character.

C. RESIDENTIAL DEVELOPMENT

Residential development in Waterboro occurs in basically three forms: 1) Seasonal housing enclaves clustered around ponds and lakes; 2) year-round enclaves contained in new subdivisions and in Lake Arrowhead; and 3) strip residential development spread out along existing Town roads. These three types are identified on the accompanying Existing Land Use Map and a description of each type is provided as follows:

### 1. Seasonal Enclaves

These enclaves of camps and year-round homes owned by seasonal residents are found around Lake Sherburne (F-5), Northwest Pond (F-4), Middle Branch Pond (E-1), Little Ossipee Pond (I), and Lone Pond (A-2). The Little Ossipee Pond area is the most extensive and oldest of these enclaves. Although many of the seasonal units have been converted for year-round use as rentals or retirement homes, the Little Ossipee enclave remains primarily a vacation/recreation area. Total number of acres dedicated to seasonal dwelling use is estimated at 347 acres.

### 2. Year-Round Enclaves

Year-round residential enclaves may be defined as compact housing developments resembling the classic urban or suburban "neighborhood." Waterboro has several such neighborhood settlements located on Old Alfred Road (D-1, D-10), Beaver Ridge (A-2) and Mountain View Estates (I-1).

The village centers also exhibit neighborhood residential settlement patterns but are not exclusively residential.

Undoubtedly, the most extensive year-round residential enclave is the Lake Arrowhead Community (LAC Planning Unit). Originally designed as a planned unit development targeted at the seasonal housing market, LAC consists of 1760± house lots, three community recreational centers (containing tennis courts, in-ground pools, recreational halls and a miniature golf course), a central water distribution, three beaches, and 80 miles of private dirt roads maintained by the Homeowners Association. Average lot size is 1/2 acre, rendering this enclave as the most densely developed residential area in Waterboro.

Within the last several years, LAC has become the principal target of the affordable housing market in the region and has achieved growth rates that have remained bullet-proof in the face of the 1990 economic downturn. Projections estimate that LAC growth will continue at a brisk pace throughout the next decade. LAC's reliance on local postal, educational, governmental and commercial services precludes Lake Arrowhead from becoming a community within a community.

### 3. Strip Residential Development

The remainder of residential development in Waterboro is spread out along the Town's existing road network. Land availability along these road frontages and the high cost of new road construction has prompted cumulative infill, resulting in an emerging linear, or strip, residential settlement pattern.

Although dominated by dwellings, these strip development areas are not exclusively residential. The current Zoning Ordinance allows home occupations in these areas. As a result, destination retail and services (such as antiques or tailoring) are scattered throughout these districts, along with a high proportion of the Town's building contractor services. In fact, 75% of the Town's contractors store their construction equipment at their homes in these districts.

Examination of building records shows that new residential development in these districts has not been uniform.

Table II-2 illustrates areas that have absorbed the most new construction in the years 1980-1989. Despite the high degree of development pressure in these districts, building recordings reveal that the Lake Arrowhead Community has been the fastest growing residential area in Waterboro.

Table II-2

**LOCATIONS OF  
RESIDENTIAL EXPANSION  
1980-1989  
TOWN OF WATERBORO**

Planning Unit /Cell	Roads	1980-1989 Subdivision Lots Permitted	1980- 1989 Building Permits
J	Lake Arrowhead	--	365
D-8/9	Ossipee Hill Road Route 202	19	68
C	Route 5/Roberts Ridge Deering Ridge Bennett Road	13	47
A-2	Brookside Beaver Ridge Mountain View Estates	13	40
H	Route 5/Chadbourne Ridge Clarks Bridge Road	--	25
F-1/3 E D-7/8	West Road Middle Road	42	28
D-4 - D-6	Federal Street Lower Route 4/202	--	21

SOURCE: Town of Waterboro Building Department Records, 1980-1989.

#### D. Extractive Industry

Although gravel extraction operations have historically been located throughout the Town, the greatest amount of activity has occurred in the Route 5 corridor, particularly in the glacial outwash terraces surrounding Little Ossipee Lake. As discussed previously, two large scale and long-term gravel mining operations have been recently approved in the North Waterboro area (H-2), I-4), with a projected long-term yield of over 2½ million cubic yards of material.

The Town still retains substantial gravel deposit reserves in the Townhouse Road corridor from Lone Pond north (Planning Unit A-1) and vast untapped reserves in the northwest pine barrens (Planning Unit F-2). However, inaccessibility to this region and the pending conveyance of most of these lands to Nature Conservancy will remove these gravel reserves from future use.