

## **COMPREHENSIVE PLAN**

**April 23, 2007**

## **Introduction to Holden's 2007 Comprehensive Plan**

Welcome to the 2007 Comprehensive Plan for the Town of Holden.

Our Committee has worked over the last 18 months to draw on Holden's last Plan done in 1995 and give it a new look and new direction. We hope what we have done meets with your approval!

We started with the idea that this is our Town and we live here because we want to. From there we tried to state what about our Town has attracted us to live here. You will see in reading through our Comprehensive Plan that we did that by first making an effort to restate the History of Holden. We then identified where our Town is now so we could recognize the good points and try to anticipate the direction Holden will be taking over the next ten years. The goal of a Comprehensive Plan is to start with where we are and attempt to anticipate where we are going over the next decade.

In the following pages you will read about where Holden is now and how it has evolved over the last ten or more years in areas such as Population, Housing, our Economy, our Natural Resources, how we get around in terms of Transportation, identifying our Public Facilities and Services, analyzing our Municipal Finances and a discussion of Land Use in Holden. Each of these topics has an individual section where they are discussed in some detail. Section 11 of the Plan deals with Goals, Policies and Strategies. You will see that we have made an effort to balance the importance of maintaining the rural nature of Holden with the reality of measured growth over the next ten years.

You will also see a number of Maps in this plan focusing on our Natural Resources, including Water Resources/Flood Zones and Wildlife Habitat. You will also see Maps identifying Transportation Networks, Public Facilities and Services and Existing Zoning and Potential different approaches to Zoning to guide our Town as it grows. We have made an effort to show you as well as tell you about your Town.

Each of our monthly meetings has been open to the Public with Notice posted on the Town Website and on the Town Sign to encourage as much public participation as possible. We also divided up into sub committees and went out to meet with various parts of our community to get feedback and direction from their perspectives. These meetings included interaction with Shoreland Owners in Holden, the Holden Planning Board, business owners, the Holden Land Trust, the Cemetery Trustees, Holden Conservation Commission, the congregations of Grace Church and Holden Congregational Church, residents of Dole Hill, Holden Square Apartment and Greenwood Gardens residents, Eastern Avenue residents in the vicinity Brookfield Estates subdivision, residents living near the proposed Henderson subdivisions, the Town Council, the Historical Society and students at the Holbrook School.

We also sent out a survey to Holden residents to get a sense of what was important to you. We have placed the survey responses (both numerical and substantive comments) as well as notes of our meetings with the various segments of our Community in the Town Office where they are available for your inspection.

We would be remiss if we did not thank Town Manager, Larry Varisco, Code Enforcement Officer, Steve Condon, and our Consultant, Rich Rothe, for their support and assistance in developing and drafting our Comprehensive Plan for 2007. Due in great part to the input of these gentlemen and the quality of their assistance, our

Comprehensive Plan was approved by the Maine State Planning Office upon its first submission. This is far and away the exception in the approval process where Plans are routinely returned with further work required.

The members of the 2007 Comprehensive Plan Committee for the Town of Holden were:

Kevin Cuddy - Chair  
Ellen Campbell - Vice Chair  
John Bunker - Secretary  
Sue Dawes  
Joel Dearborn  
Bob Harvey  
Mike Legasse  
Jeff McBurney  
Ralph McLeod  
Susan McKay

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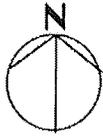
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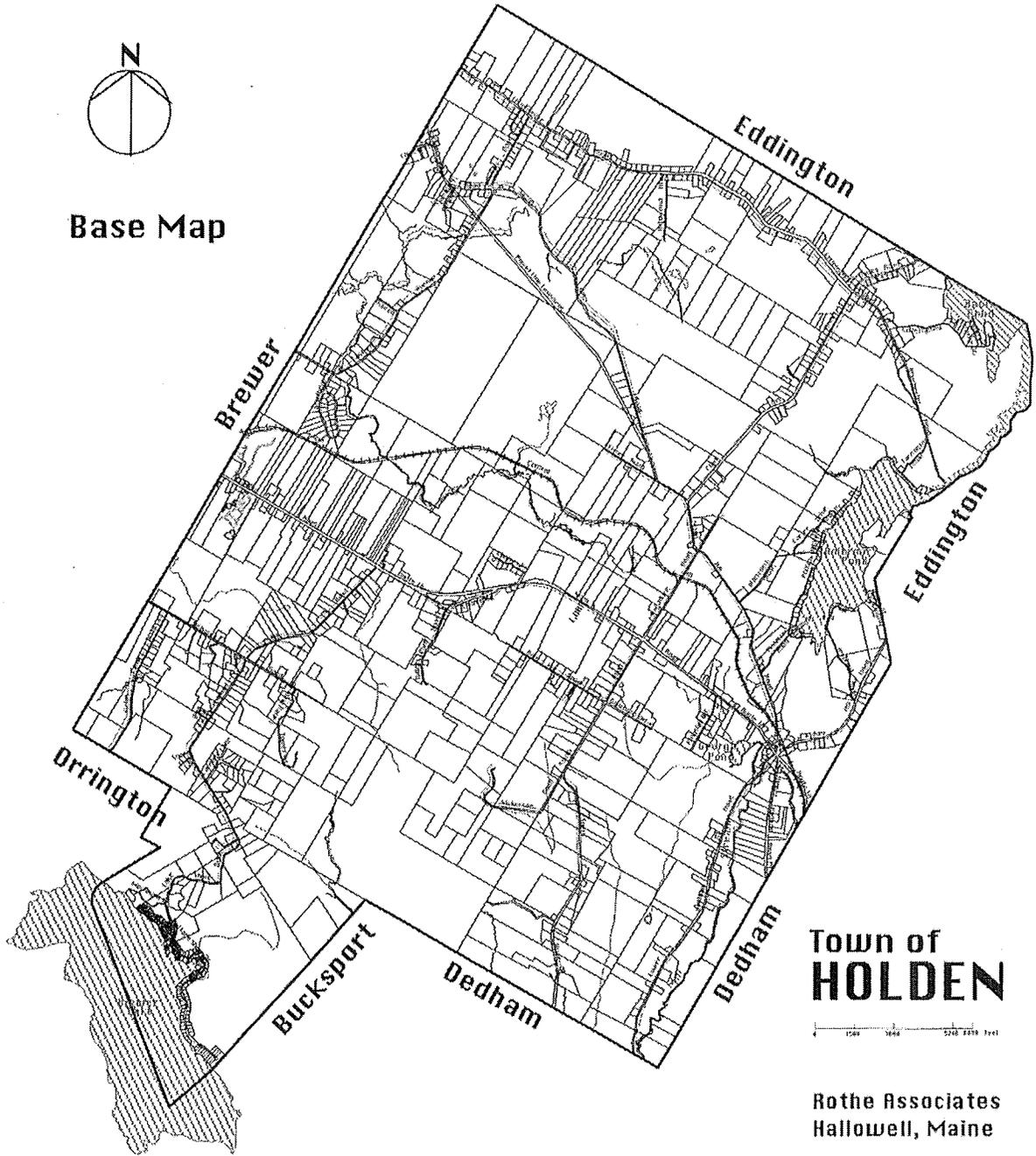
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Base Map



Town of  
**HOLDEN**

0 1600 3200 6400 feet

Rothe Associates  
Hallowell, Maine

# 1. HISTORY

In the spring of 1787, a section six miles east from the Penobscot River was surveyed by General John Blake of Wrentham, Massachusetts. That area, now Holden, has borne the names of two states, Massachusetts and Maine; three counties - Hancock, Lincoln, and Penobscot, as well as the town names of East Wrentham, New Wrentham, Orrington, East Brewer and finally in 1852, Holden. At that time it became the eighth youngest town in Penobscot County.

A few years before General Blake's arrival, John Brewer of Worcester, Massachusetts, had obtained the consent of the General Court of Mass. to survey a large tract of land in the area, extending from Bucksport to Eddington and known as a part of Township 9. Such was the general location of the future Town of Holden. For purposes of civil government it was first a part of Orrington. In 1812 when the northeast section of that town became Brewer, the future Holden area was designated as East Brewer until incorporated April 13, 1852.

The selection of the town's name is traced to that of a Worcester, Massachusetts suburb which was known as the "north half of Worcester." It was later named Holden from that of a merchant, Samuel Holden, "whose philanthropies aided the colonies."

The year following (1787) his surveying expedition, General Blake brought his wife and two children to their new home, a log cabin built the previous year. The location was on Potash Hill, a short distance from Holden Center on the recently (1975) discontinued Dole Hill Road. Since he had come from Wrentham, Mass., he gave the name of New Wrentham in the District of Maine to the future settlement.

General Blake was soon joined in his solitude by other settlers which included: Isaac Clewley, John Farrington, Ebenezer Fisher, Samuel Gilmore, Calvin Holbrook, Elijah Jones, David Mann, and Silas Winchester. The majority of these came from Wrentham. The wives of Clewley, Gilmore and Jones accompanied their husbands while the other wives came two years later. It is interesting to note that, in addition to General Blake, six of this group were Revolutionary War Veterans, and that the average age was late twenties or early thirties. The first child born in the colony was September 8, 1788 to the Samuel Gilmores.

The settlers located for the most part on hills so that the corn, their staple food, might be safe from early frost and would ripen.

John Farrington located on the top of Dole Hill then called Wrentham Hill. His log cabin was on the right hand side of the road as one would face Hart's Corner. At a little distance on the left were located Silas Winchester and Ebenezer Fisher. At a later date Mr. Fisher moved to the now (1975) closed Fisher Road. Across the road from Fisher and Winchester, Isaac Clewley located. After some years he built a frame house on the Eddington Road (Route 46) about a mile and a quarter from East Holden. Eventually, he moved to North Brewer. David Mann and Samuel Gilmore located on top of Mann Hill- Mr. Mann near the Fisher Road junction and Mr. Gilmore near the junction of the Mann Hill and Clark Roads. Mr. Gilmore later built the first frame house in that area.

The story is related of how Mr. Mann became discouraged in the task of clearing land and the pioneer way of living. Having decided to return to Massachusetts, he went to so inform Mr. Gilmore. As he approached the latter's home, he heard his neighbor cheerfully whistling as he worked. Mr. Mann turned and returned home to his labors; thus did he become one of the settlement's permanent residents.

Elijah Jones and Calvin Holbrook cleared land near the intersection of the South and Hogan Roads. This junction was later known as Holbrook Corner.

During the period of 1786-1798, these settlers were joined by Isaac Bates, Col. Solomon Blake, Billings Brastow, Daniel Brastow (called "Deo Dat"-Latin meaning "he gives to God"), Nathan Clark, Samuel Cobb, Joseph Copeland, Lemuel Copeland, William Copeland, Asaph Gates, Thomas George, David Gilmore, Jacob Hart, James Hastings, Allen Hodges, Nathan Kingsbury, Abia Pond, Elisha Rider, Elisha Robinson, John Robinson, William Rogers, Zenas Rogers, Newell Shepard and George Wiswell.

Only in a relatively few cases can a specific or even general statement be made as to the place of individual location. The Copelands and Mr. Wiswell located in the Wiswell neighborhood, now Copeland Hill section; Solomon Blake, about half way up the Rider's Bluff Road (end of Easy Street above which has been discontinued); Elisha Rider nearer the top of Rider's Bluff; Nathan Clark, on the Clark Road; Thomas George, at East Holden; David Gilmore, Mann Hill; Jacob Hart, end of Hogan Road; Zenas Rogers, South Road.

A description written by Geo. C. Wiswell, a descendant of the pioneer Geo. Wiswell:

"They followed a spotted line which was their only guide, about six or seven miles from the Penobscot River, in an unbroken wilderness, and here they built their log cabins and covered them with bark. The first year, they felled some trees and cleared some land, but were not able to raise any crop.

Fortunately, some natural meadows which the beavers had made, were found nearby and furnished pasturage for the cows in summer, and in the winter they were kept near the meadow haystack, the owners going by turns to get their milk. In 1788, quite a quantity of Indian corn and rye was raised, which the farmers carried on their backs to the river and boated to South Orrington, to be ground and brought back the same way."

One Emmons Kingsbury purchased the land in 1801 for \$250. He cleared the farm and built the house, one of the first three frame houses in that neighborhood. Two years later, Mr. Kingsbury brought his bride, Hannah Rider, from Rider's Bluff to her new home. Over a long period of time the house changed hands several times. Other owners were, in order, Samuel Jones, who later built elsewhere in the neighborhood and a man by the name of Shedd. He in turn eventually sold to Tarvis Hart, a descendant of one of the original pioneers. All owners in recent years have maintained the colonial atmosphere even with the necessary alterations needed for modern living.

Copeland Hill is also the location of the first house built after Holden became a town. The owner, Thomas R. Copeland, often made the remark that his house was the first house built in Holden. Upon this statement being challenged that various other houses were older, he would finally remark "I did not say oldest house in Holden. I said first house built in Holden." It is still occupied by one of his descendents.

The above discussion was taken from the "Highlights of the History of Holden, Maine" by the Holden Bicentennial Heritage Committee, 1976

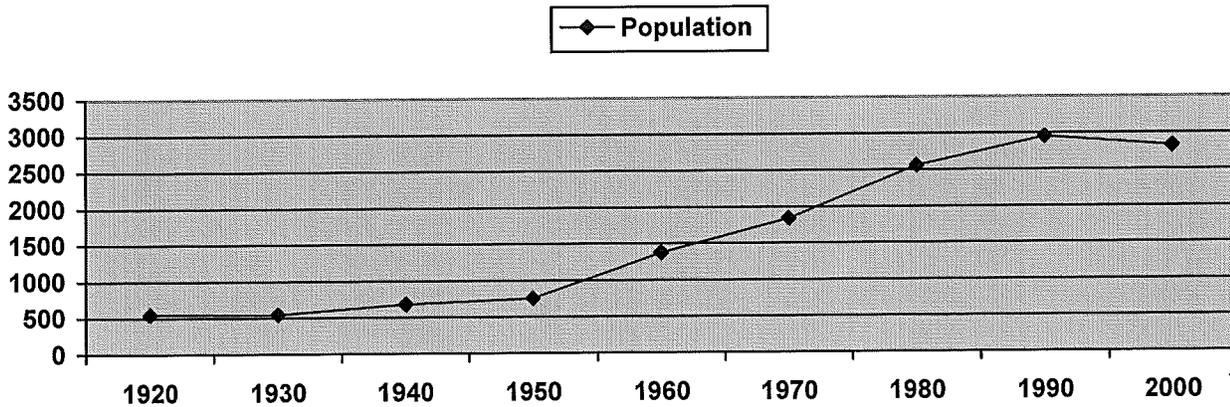
The Holden Historical Society was recently formed to inventory historical properties in Holden and record oral histories.

## 2. POPULATION

One of the most fundamental aspects of this Comprehensive Plan is the Town of Holden's population, how that population has grown, and how it is projected to grow in the future. All indicators point to a period of population growth over the next 10 years.

### Historical Trends

Between 1920 and 1950, Holden's year-round population grew at a relatively modest rate. The Town then experienced rapid growth, growing from 754 people in 1950 to 2,827 in 2000 (a gain of 2,073 people, or 275%). The Town's growth rate during this period (1950-2000) was much higher than that of Penobscot County (34%) and the State (39%). Except for the 1990-2000 period, when the Town actually lost population, the Town's population growth since 1970 has exceeded that of Penobscot County and the State. Holden's historical growth patterns are shown in the chart below and are summarized in Table 1 which also shows figures for Penobscot County and the State.



**Table 1**  
**Population of Holden, Penobscot County, and Maine**  
**1920-2000**

Year	Holden	Penobscot County	Maine
1920	549	87,684	768,014
1930	543	92,379	797,423
1940	680	97,104	847,226
1950	754	108,198	914,950
1960	1,375	126,346	970,689
1970	1,841	125,393	992,048
1980	2,554	137,015	1,124,660
1990	2,952	146,601	1,227,928
2000	2,827	144,919	1,274,923
1970-80 change	39%	9%	13%
1980-90 change	16%	7%	9%
1990-00 change	-4%	-1%	4%
1950-00 change	275%	34%	39%

Source: U.S. Census

Factors contributing to Holden's growth between 1950 and 2000 include the national trend to migrate from urban to rural areas, the proximity of Holden to Bangor and Brewer, and the relatively low cost of land.

### Comparative Population Change

Table 2 contains a summary of population changes over the past 30 years for Holden and a number of nearby communities, Penobscot County and the State. During the 1970's and 1980's, Holden grew at a faster rate than all jurisdictions shown in the table except Dedham and Clifton. During the 1990's, Holden lost population (-4%), as did Bangor (-5%) and Penobscot County (-1%).

	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>% Change 1970-80</b>	<b>% Change 1980-90</b>	<b>% Change 1990-00</b>
<b>Holden</b>	<b>1,841</b>	<b>2,554</b>	<b>2,952</b>	<b>2,827</b>	<b>39</b>	<b>16</b>	<b>-4</b>
Bangor	33,168	31,643	33,181	31,473	-5	5	-5
Brewer	9,300	9,017	9,021	8,987	-3	0	0
Clifton	233	462	607	743	98	31	22
Dedham	522	841	1,229	1,422	61	46	16
Eddington	1,358	1,769	1,947	2,052	30	10	5
Orrington	2,702	3,244	3,309	3,526	20	2	7
<b>Penobscot Co.</b>	<b>125,393</b>	<b>137,015</b>	<b>146,601</b>	<b>144,919</b>	<b>9</b>	<b>7</b>	<b>-1</b>
<b>Maine</b>	<b>993,722</b>	<b>1,124,660</b>	<b>1,127,928</b>	<b>1,274,923</b>	<b>13</b>	<b>9</b>	<b>4</b>

Source: U.S. Census, 1970, 1980, 1990

### Age Distribution

Table 3 contains a summary of age distribution for Holden, a number of adjacent communities, Penobscot County and the State for 2000. Holden's age distribution differs from that of all jurisdictions shown in the table in several respects. The Town has a smaller "18-44" population than any other jurisdiction, as well as a much larger "45-64" population. While it has one of the smallest "65+" populations, it has the highest median age of any jurisdiction shown in the table.

	<b>Under 5</b>	<b>5-17</b>	<b>18-44</b>	<b>45-64</b>	<b>65 +</b>	<b>Median</b>
<b>Holden</b>	<b>5</b>	<b>19</b>	<b>34</b>	<b>31</b>	<b>11</b>	<b>40.8</b>
Bangor	6	16	43	22	14	36.1
Brewer	6	17	38	23	17	39.2
Clifton	5	19	43	24	9	37.4
Dedham	5	20	39	28	10	39.8
Eddington	5	17	37	28	13	40.2
Orrington	6	18	44	20	12	40.3
<b>Penobscot Co.</b>	<b>5</b>	<b>17</b>	<b>40</b>	<b>24</b>	<b>13</b>	<b>37.2</b>
<b>Maine</b>	<b>6</b>	<b>18</b>	<b>37</b>	<b>25</b>	<b>14</b>	<b>38.6</b>

Source: U.S. Census

Table 4 provides an overview of how the Town's population changed during the 1990-2000 decade. While the Town lost 125 people during the 1990's, the losses were not evenly distributed across age categories. In fact, Holden lost 293 people in the "18-44" category, but gained 238 people in the "45-64" category.

	1990		2000		1990-2000 Change	
	#	%	#	%	#	%
Under 5	189	6	154	5	-35	-19
5-17	546	18	524	19	-22	-4
18-44	1,264	43	971	34	-293	-23
45-64	629	21	867	31	238	38
65 and over	324	11	311	11	-13	4
<b>Total</b>	<b>2,952</b>	<b>99</b>	<b>2,827</b>	<b>100</b>	<b>-125</b>	<b>-4</b>

Source: US Census, 1990, 2000

### Household Size

The average household size in Holden (2.45 in 2000) has been declining since 1980, as it has in Penobscot County, the State of Maine and nearby comparison communities (see Table 5). In the year 2000, the number of persons per household in Holden was greater than at either the County or State level, but smaller than that of several comparison communities including Dedham, Eddington and Orrington. In general, a higher number of persons per household reflects a higher percentage of school age children in the general population.

	1980	1990	2000	1980-2000 % change
<b>Holden</b>	<b>2.79</b>	<b>2.61</b>	<b>2.45</b>	<b>-12</b>
Bangor	2.49	2.31	2.12	-15
Brewer	2.72	2.31	2.30	-15
Clifton	2.80	2.62	2.45	-13
Dedham	2.88	2.81	2.52	-13
Eddington	3.01	2.63	2.46	-18
Orrington	3.00	2.69	2.52	-16
<b>Penobscot Co.</b>	<b>2.80</b>	<b>2.57</b>	<b>2.38</b>	<b>-15</b>
<b>Maine</b>	<b>2.75</b>	<b>2.56</b>	<b>2.39</b>	<b>-13</b>

Source: U.S. Census, 1980-2000

## Household Type

Table 6 contains a summary of households by type for Holden and the State of Maine, as shown in the 2000 Census. Holden has a higher percentage of family households (71.6%) than the State (65.7%), as well as married couple families (60.9% vs. 52.5%). Conversely, the Town has a lower percentage of female householders (7.4% vs. 9.5%) non-family households (28.4% vs. 34.3%) and householders 65 years and over living alone (8.4% vs. 10.7%). There are no persons in Holden reported to be in group quarters.

	Holden		Maine	
	#	%	#	%
All Households	1,153	100	518,200	100.0
Family Households	826	71.6	340,685	65.7
Married couple Families	702	60.9	272,152	52.5
Female Householder, no male	85	7.4	49,022	9.5
Non-Family Households	327	28.4	177,515	34.3
Householder Living Alone	261	22.6	139,969	27.0
Householder 65+ Living Alone	97	8.4	55,483	10.7
Persons in Households	2,827	100	1,240,011	97.3
Persons in Group Quarters	-	-	34,912	2.7
Institutionalized	-	-	13,091	1.0
Other	-	-	21,821	2.7

Source: U.S. Census, 2000

## Educational Attainment

Based on 2000 Census data, the population of Holden that is 25 years and older has more formal education than the County or the State as a whole. Approximately 93% of the Town's population has at least a high school diploma (compared to 86% at the County level and 85% at the State level), and 29% has at least a bachelor's degree (compared to 20% at the County level and 23% at the State level).

	Total # of Persons 25+ Years	% High School Grad or Higher	% Bachelor's Degree or Higher
Holden	1,976	93%	29%
Penobscot County	95,505	86%	20%
Maine	869,893	85%	23%

Source: U.S. Census, 2000

## Per Capita and Median Household Income

Based on the 2000 Census, per capita income in Holden (\$25,047) was much higher than in Penobscot County (\$17,081) and the State (\$12,957). It was also much higher than that of all comparison communities. Likewise, the Town's median household income (\$51,394) was higher than all jurisdictions shown in Table 8. Holden had a relatively small poverty rate (6.5%) compared to many of the other jurisdictions shown in the table.

	<b>Per Capita Income</b>	<b>Median Household Income</b>	<b>% Individuals Below Poverty Rate</b>
<b>Holden</b>	<b>\$25,047</b>	<b>\$51,394</b>	<b>6.5</b>
Bangor	\$19,295	\$29,740	16.6
Brewer	\$20,158	\$36,949	10.5
Clifton	\$16,380	\$36,333	8.9
Dedham	\$22,975	\$47,917	5.2
Eddington	\$19,113	\$40,250	6.7
Orrington	\$19,290	\$44,327	4.3
<b>Penobscot Co.</b>	<b>\$17,801</b>	<b>\$34,274</b>	<b>13.7</b>
<b>Maine</b>	<b>\$12,957</b>	<b>\$27,854</b>	<b>10.9</b>

Source: U.S. Census

## Population Projections

In January of 2002, the State Planning Office released population projections for every community in the State. As shown in Table 9, SPO projects very modest growth between 2005 and 2015 for Holden (1.5%), the surrounding region (1.9%), Penobscot County (3.2%) and the State as a whole (5.5%).

	<b>2000 Census</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>Change 2005-15</b>	
					<b>#</b>	<b>%</b>
<b>Holden</b>	<b>2,827</b>	<b>2,791</b>	<b>2,783</b>	<b>2,833</b>	<b>42</b>	<b>1.5</b>
Bangor	31,473	31,024	30,870	31,223	199	0.6
Brewer	8,987	8,909	8,883	9,108	199	2.2
Clifton	743	803	836	875	72	9.0
Dedham	1,422	1,525	1,602	1,677	152	10.0
Eddington	2,052	2,085	2,113	2,189	104	5.0
Orrington	3,526	3,627	3,716	3,827	200	5.5
Regional Total	51,053	50,764	50,803	51,732	968	1.9
<b>Penobscot Co.</b>	<b>144,919</b>	<b>144,251</b>	<b>145,621</b>	<b>148,893</b>	<b>4,642</b>	<b>3.2</b>
<b>Maine</b>	<b>1,274,923</b>	<b>1,300,000</b>	<b>1,330,117</b>	<b>1,371,022</b>	<b>71,022</b>	<b>5.5</b>

Source: Maine State Planning Office

Given the rate of growth and development in Holden, the State's estimates seem quite modest. Table 10 contains a number of alternative projections, based on the number of new, occupied housing units added between 2000 and 2015. The table contains several assumptions. The first is that the number of occupied housing units in 2000 (1,153) will continue to be occupied. The second assumption is that by the year 2015, the occupancy rate will drop from 2.45 (the 2000 rate) to about 2.3. As the occupancy rate continues to decline, there will be a need for more housing units to shelter the same number of people. Note that if Holden adds 75 new housing units, the resulting population will be very close to the population estimates prepared by SPO.

**Table 10**  
**Population Projections to 2015**  
**Based on New Development**

2000 Census: 2,827; 2005 Projection (SPO): 2,791; 2015 Projection (SPO): 2,833

Occupied Units 2000	New Occupied Units	Total Occupied Units 2015	Persons Per Household	2015 Population	% Increase over 2000	% Increase over 2005
1,153	50	1,203	2.3	2,767	-2.1	-0.9
1,153	75	1,228	2.3	2,824	-0.1	1.2
1,153	100	1,253	2.3	2,882	1.9	3.3
1,153	150	1,303	2.3	2,997	6.0	7.4
1,153	200	1,353	2.3	3,112	10.1	11.5
1,153	300	1,453	2.3	3,342	18.2	19.7

Source: Maine State Planning Office

### Analysis

Holden's relatively high growth rate during the past half century is due to the fact that it is an attractive community in which to live. Its natural beauty, rural landscape, low crime rate and relatively low taxes have attracted many people, including many professionals, who want to live on a large lot in a country setting with easy access to the Bangor-Brewer area. Over the years, small-scale subdivisions have been geared to higher-end housing, and this has contributed to Holden having higher per-capita and median household incomes than other nearby communities, as well as an older population.

The population projections contained in Holden's 1995 Comprehensive Plan have proven to be highly inaccurate. The 1995 Plan projected a growth of about 56 people per year during the period 1993-2004, for a net gain of about 616 people. The Town actually lost population during these years. Factors contributing to the loss include a lack of available building lots, the growth of other nearby communities (Clifton, Dedham), and the redevelopment of one of the mobile home parks, which helped contribute to a loss of 110 mobile homes during the 1990's.

While population projections in the 1995 Plan may have been overly optimistic, the projections prepared by the Maine State Planning Office may be unreasonably low. Development activity has picked up and may spur additional growth. A developer has purchased 1,700 acres of land adjacent to Mann Hill Road and Eastern Avenue and may submit a large subdivision proposal to the Town. At the same time, the property located between Eaton Ridge and the Brewer/Holden line has been sold to a partnership that is interested in development. Another property south of Route 1A, and partially in the Village Center Zone has been sold to an individual who has expressed interest in developing it. Any one of these potential projects could cause a higher rate of population growth than that projected by the State Planning Office.

### 3. HOUSING

Housing in Holden consists primarily of owner-occupied, single family dwelling units. The composition and cost of Holden's housing stock is similar to that of other towns in the region, although Holden has a higher percentage of mobile homes than other communities.

#### Changes in Total Housing Stock

Table 1 includes a summary of the changes in total housing stock since 1980 in Holden, a number of adjacent communities, Penobscot County and the State of Maine. Between 1980 and 1990, the total housing stock in Holden (seasonal and year-round) grew by 226 units, or 20%. The Town's rate of increase was higher than that of all surrounding communities except Eddington, and higher than Penobscot County (15%) and the State of Maine (17%). Between 1990 and 2000, Holden's total housing stock declined by 12 units, or 1%. According to Census figures, Holden was the only jurisdiction shown in the table to have a decrease in the number of housing units during that time period. The overall changes in the rate of housing growth are shown in Table 1.

	<u>Total Number of Units</u>			<u>Increases, 1980-90</u>		<u>Increases, 1990-2000</u>	
	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
<b>Holden</b>	<b>1,106</b>	<b>1,332</b>	<b>1,320</b>	<b>226</b>	<b>20</b>	<b>-12</b>	<b>-1</b>
Bangor	12,792	14,366	14,587	1,574	12	221	2
Brewer	3,534	3,780	4,064	246	7	284	8
Dedham	821	964	1,055	143	17	91	9
Eddington	664	843	920	179	27	77	9
Orrington	1,225	1,338	1,489	113	9	151	11
<b>Penobscot County</b>	<b>53,415</b>	<b>61,359</b>	<b>66,847</b>	<b>7,944</b>	<b>15</b>	<b>5,488</b>	<b>9</b>
<b>State of Maine</b>	<b>501,093</b>	<b>587,045</b>	<b>651,901</b>	<b>85,952</b>	<b>17</b>	<b>64,856</b>	<b>11</b>

Source: U.S. Census, 1980, 1990, 2000

#### Selected Characteristics of Housing Units

Table 2 contains 2000 Census information on selected housing characteristics including total housing units, the number and percentage of year-round dwelling units, the percentage of owner occupied units, the percentage of renter occupied units and the number and percentage of seasonal dwellings. In 2000, Holden had the highest percentage of owner occupied units (88%) of any jurisdiction shown in the table. The Town had a higher percentage of seasonal dwellings (9%) than all communities in the immediate area except Dedham (45%).

**Table 2  
Selected Characteristics of Housing Units - 2000**

	Total Dwelling Units	Year Round Dwelling Units		Owner Occupied %	Renter Occupied %	Seasonal Dwelling Units	
		#	%			#	%
<b>Holden</b>	<b>1,320</b>	<b>1,207</b>	<b>91</b>	<b>88</b>	<b>12</b>	<b>113</b>	<b>9</b>
Bangor	14,587	14,443	99	48	53	144	1
Brewer	4,064	4,026	99	62	38	38	1
Dedham	1,055	576	55	86	14	479	45
Eddington	920	863	94	81	19	57	6
Orrington	1,489	1,436	96	87	14	53	4
<b>Penobscot County</b>	<b>66,847</b>	<b>61,885</b>	<b>93</b>	<b>70</b>	<b>30</b>	<b>4,962</b>	<b>7</b>
<b>State of Maine</b>	<b>651,901</b>	<b>550,431</b>	<b>84</b>	<b>72</b>	<b>28</b>	<b>101,470</b>	<b>16</b>

Source: U.S. Census, 2000

### Housing Types

The predominant housing type in Holden is the single-family dwelling. Table 3 contains a breakdown of housing units in 2000 by housing type, as reported in the 2000 Census. In 2000, 71% of the housing units in Holden were detached, single family dwellings. This is a greater percentage than Penobscot County (63%) and the State as a whole (67%), but less than that of Dedham (91%) and Orrington (86%). Holden has a higher percentage of mobile homes (21%) than any other jurisdiction shown in the table, in large part because of the presence of three mobile home parks in the community.

**Table 3  
Housing Unit by Type of Structure**

	Single Family Detached		Single Family Attached	Mobile Home	Duplex	Multi - Family	Boat, RV, Van, Etc.	Total
	#	%						
<b>Holden</b>	<b>940</b>	<b>71</b>	<b>22</b>	<b>280</b>	<b>29</b>	<b>45</b>	<b>4</b>	<b>1,320</b>
Bangor	5,713	39	627	1,011	1,724	5,507	5	14,587
Brewer	2,339	58	59	132	516	1,013	-	4,059
Dedham	958	91	10	69	4	2	10	1,053
Eddington	645	71	17	177	10	62	-	911
Orrington	1,286	86	30	85	14	80	-	1,495
<b>Penobscot Co.</b>	<b>41,000</b>	<b>61</b>	<b>1,260</b>	<b>9,239</b>	<b>4,150</b>	<b>11,040</b>	<b>158</b>	<b>66,847</b>
<b>State of Maine</b>	<b>439,459</b>	<b>67</b>	<b>14,387</b>	<b>63,902</b>	<b>36,565</b>	<b>95,777</b>	<b>1,811</b>	<b>651,901</b>

Source: U.S. Census, 2000

### Growth by Type of Structure, 1990- 2000

As shown in Table 4, between 1990 and 2000, there was a decline of 1% in the total number of housing units. There was an increase in the number of detached, single-family dwellings (102 units) and in the number of attached single family dwellings (9 units). However, the number of mobile homes declined by 110 units, and the number of two-family and multi-family dwellings declined by 17 units.

<b>Table 4 Holden Growth in Housing Types, 1990-2000</b>				
	<b>1990</b>	<b>2000</b>	<b># Increase 1990-2000</b>	<b>% of Total Increase</b>
Single-Family, detached	838	940	102	12
Single-family attached	13	22	9	69
Mobile Home	390	280	-110	-28
Multi-Family/duplex	91	74	-17	-17
<b>Total</b>	<b>1,332</b>	<b>1,316</b>	<b>-16</b>	<b>-1</b>

Source: U.S. Census, 1990, 2000

### Housing Age and Services

Table 5 contains information on the age of housing and the percentage of homes with complete plumbing and kitchen facilities. Statistics on the age of housing have sometimes been used as a measure of the extent of substandard housing, but these are not necessarily a reliable gauge. Old housing in Holden does not necessarily mean deteriorated housing. As shown in Table 5, Holden has a lower percentage of homes constructed before 1939 (10%) than the County (28%) and State (29%). Virtually all the homes in Holden have complete plumbing and kitchen facilities.

<b>Table 5 Year – Round Housing Age And Other Characteristics – 2000</b>				
	<b>Structure Built Between 1990-2000</b>	<b>Structure Built Before 1939</b>	<b>Complete Plumbing Facilities</b>	<b>Complete Kitchen Facilities</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
Holden	4	10	99	100
Penobscot County	14	28	99	99
State of Maine	15	29	99	99

Source: U.S. Census, 2000

## Housing Values and Costs

Based on 2000 Census data as shown in Table 6, the median value of an owner-occupied home in Holden (\$112,600) was higher than it was in all comparison communities, as well as Penobscot County (\$82,400) and the State as a whole (\$98,700). Median owner costs with a mortgage (\$985) were the highest of any jurisdiction shown in the table, but median owner costs without a mortgage (\$327) were lower than in Bangor (\$361) and Brewer (\$382). The percentage of people paying 30% or more of their income for housing (15%) was lower than all other jurisdictions shown.

Gross rent in Holden (\$485) was higher than in Penobscot County (\$468), but lower than the State as a whole (\$497). The percentage of people in Holden paying 30% or more of their income for rent (36%) is lower than in Penobscot County (38%) but slightly higher than in the State as a whole (35%).

	Median Value Owner Occupied Unit	Median Owner Costs			Median Rental Costs	
		With Mortgage	Without Mortgage	30% or more of Income	Gross Rent	30% or more of Income
<b>Holden</b>	<b>\$112,600</b>	<b>\$985</b>	<b>\$327</b>	<b>15%</b>	<b>\$485</b>	<b>36%</b>
Bangor	\$87,300	\$921	\$361	18%	\$475	41%
Brewer	\$89,300	\$966	\$382	20%	\$466	31%
Dedham	\$103,100	\$955	\$265	18%	\$603	23%
Eddington	\$86,400	\$798	\$274	17%	\$565	37%
Orrington	\$95,100	\$836	\$279	19%	\$595	34%
<b>Penobscot County</b>	<b>\$82,400</b>	<b>\$845</b>	<b>\$290</b>	<b>18%</b>	<b>\$468</b>	<b>38%</b>
State of Maine	\$98,700	\$923	\$299	20%	\$497	35%

Source: 2000 Census

The 2000 Census contains a summary of housing values, as reported by a sample of homeowners as shown in Table 7. These estimates of value are based on the perceptions of homeowners and may not reflect actual values or selling prices. Note that 38.2% of respondents in Holden and 56.4% in Penobscot County reported a value between \$50,000 and \$99,000, a range generally considered affordable for very low, low and moderate income households in both Holden and Penobscot County.

	Holden		Penobscot County	
	#	%	#	%
Less than \$50,000	20	3.2	3,624	13.5
\$50,000-\$99,999	240	38.2	15,204	56.4
\$100,000-\$149,999	197	31.3	5,726	21.3
\$150,000-\$199,999	94	14.9	1,430	5.3
\$200,000-\$299,999	64	10.2	757	2.8
\$300,000 or more	14	2.2	198	0.7
<b>Total</b>	<b>629</b>	<b>100</b>	<b>26,939</b>	<b>100</b>

Source: 2000 Census

The median value of a home in Holden reported in the Census (\$112,600), is somewhat higher than the median sales price of a home in Holden reported by the Maine State Housing Authority in 2000 (\$102,000). In Penobscot County, the median value of a home reported in the 2000 Census was \$82,400, which is also above the 2000 County-wide median selling price of \$78,000.

The Maine State Housing Authority also reports that the median sales price of a home in Holden has increased substantially from 2000, rising from \$102,000 in 2000, to \$133,950 in 2001, \$135,000 in 2002, \$159,000 in 2003, then dropping to \$152,450 in 2004.

### **Housing Affordability**

One of the goals set forth in the State's growth management law is "... to encourage and promote affordable, decent housing opportunities for all Maine citizens." The law is based on the premise that any village or town is a more desirable place to live when composed of citizens of all income levels. Affordable, decent housing to accommodate a portion of all income levels is identified as an important element to providing a foundation for economic balance.

The State's growth management law requires that each municipality "...shall seek to achieve a level of 10% of new residential development, based on a 5-year historical average of residential development in the municipality, meeting the definition of affordable housing." Affordable housing is defined as an owner-occupied unit whose price results in a monthly housing cost that does not exceed 30% of the household's gross monthly income. Monthly cost includes mortgage principal and interest, insurance, real estate taxes and utilities. A rental unit would follow the same formula, where the monthly rate includes utilities.

State law (Title 30-A MRSA Section 5002, subsection 2) defines affordable as follows:

"Affordable housing" means decent, safe and sanitary dwellings, apartments or other living accommodations for low-income and moderate-income households. The Maine State Housing Authority may define "affordable housing" by rule. Affordable housing includes, but is not limited to:

- A. Government-assisted housing;
- B. Housing for low-income and moderate-income families;
- C. Manufactured housing; and
- D. Group and foster care facilities.

Affordable housing is a problem for some people in Holden. The 2000 Census documents the fact that while only 6.5% of the population is below the poverty level, 15% of homeowners and 36% of renters are spending more than 30% of their income on shelter costs. As of 2004, the Maine State Housing Authority reports that 60.1% of Penobscot County renter households can't afford the average two-bedroom rent. Rental affordability remains a serious problem in all jurisdictions.

**Holden Affordability Index.** Based on information obtained from the Maine State Housing Authority as shown in Table 8, the median priced home in Holden was affordable to low income households in 2000 and 2002, but not in 2001, 2003 and 2004. Affordability is measured by an affordability index. An index greater than 1 means that the median value home is affordable to low income households; an index less than one means that the median value home is unaffordable for low income households. Table 8 also demonstrates that median home values and low income household incomes can vary greatly from year to year.

**Table 8**  
**Town of Holden - Affordability Index**  
**For Those at 80% of Median Income**

Year	Index	80% of Median Income	Median Home	80% Median Income can Afford	Income Needed
2000	1.10	\$41,115	\$102,000	\$111,922	\$37,470
2001	0.95	\$46,828	\$133,950	\$126,668	\$49,520
2002	1.01	\$48,945	\$135,000	\$136,458	\$48,422
2003	0.82	\$45,631	159,000	\$130,624	\$55,544
2004	0.84	\$46,049	\$152,450	\$127,452	\$55,136

Source: Claritas by indicated year/2000 Census and State Multiple Listing Service

**Penobscot County Affordability Index.** In terms of housing affordability at the regional level, housing affordability is more of a problem in Penobscot County as a whole than it is in Holden, primarily because household incomes are much lower in the County as a whole than they are in Holden. As shown in Table 9, Penobscot County had an affordable housing index of less than 1 for the 2000-04 period, even though the median home cost less than it did in Holden. Low income households could not afford the median priced home in Penobscot County. The Maine State Housing Authority reports that 55% of households in Penobscot County cannot afford the median home. Similar statistics are not available for Holden.

**Table 9**  
**Penobscot County - Affordability Index**  
**For Those at 80% of Median Income**

Year	Index	80% of Median Income	Median Home	80% Median Income can Afford	Income Needed
2000	0.95	\$27,508	\$78,000	\$74,425	\$28,655
2001	0.90	\$29,086	\$87,900	\$78,722	\$32,272
2002	0.91	\$29,281	\$90,000	\$81,578	\$32,073
2003	0.81	\$29,753	\$105,875	\$85,732	\$36,454
2004	0.72	\$30,351	\$120,000	\$86,746	\$41,654

Source: Claritas by indicated year/2000 Census and State Multiple Listing Service

**Rental Market.** Based on information from the Maine State Housing Authority, the median rent in Penobscot County in 2004 (\$765) is affordable for low income households, but not households with a very low or extremely low income. There are no rental figures for Holden other than those contained in the 2000 Census. According to the 2000 Census, the median gross rent in Holden (\$485) was higher than in Penobscot County (\$468), so rents in 2004 may still be higher than in the County.

The Maine State Housing Authority also reports that in 2004, there were 54 very low income families and 17 very low income senior households in Holden (very low means at or below 50% of annual median income). Sixteen families received Section 8 vouchers or other subsidies to help with rental costs, leaving a need for 38 affordable housing units. There were 22 subsidized units for seniors which more than meets the need for the 17 very low income senior households.

### **Affordable Housing Gap Analysis**

This section evaluates the affordability of Holden's housing for people living in Penobscot County.

**Definitions of Affordability.** The starting point for this analysis is to define affordability and examine how affordable or unaffordable Holden's housing stock currently is for people living in Penobscot County. Affordability will be defined by a combination of HUD's definitions of very low, low and moderate incomes and Maine State Housing Authority (MSHA) data for Holden and Penobscot County.

HUD's affordability definitions are tied to regional median household income levels:

- Very Low Income is defined as below 50% of the regional median;
- Low Income is defined as 50%-80% of the regional median; and
- Moderate Income is defined as 80%-120% of the regional median.

*(Note: HUD's definition of very low, low and moderate income differs from that used in the 2000 Census).*

As of 2004, Penobscot County's median household income was \$37,939, so the HUD affordability definitions are applied to that figure (see below):

The next step is to define the relationship between household income and housing affordability. MSHA calculates this information for each municipality and county in Maine each year by using a formula that includes all of the costs of housing – mortgage amount, interest rates, property taxes, utilities, etc. For 2004, the income to price ratio for Penobscot County was 34.71%, with a household earning the median income (\$37,939) able to afford a home priced at \$109,299.

Using the combination of HUD and MSHA data, the income and housing price levels for households in Penobscot County are assumed to be as follows (figures are rounded to the nearest thousand):

- Very Low: Income below \$19,000, home price below \$53,000
- Low Income: Income from \$19,000 to \$30,000, home prices from \$53,000 to \$87,000
- Moderate: Income from \$30,000 to \$46,000; home prices from \$87,000 to \$131,000

Table 10 utilizes 2000 Census to show the percentage of very low, low, and moderate-income households living in Holden and Penobscot County. As shown in Table 10, approximately 64% of the households in Penobscot County and 45% of the households in Holden meet the definition of very low, low or moderate income households. The percentages shown in Table 10 are based on 1,137 Holden households reporting their incomes in the 2000 Census, and 58,135 Penobscot County households reporting their incomes in the 2000 Census.

Table 10 Very Low, Low and Moderate Income Households, 2000				
Household Incomes	Holden		Penobscot County	
	Number	Percent	Number	Percent
Very Low (<\$19k)	196	17.2	15,787	27.2
Low (\$19K-\$30K)	145	12.8	9,593	16.5
Moderate (\$30K - \$46K)	167	14.7	11,925	20.5
<b>Total</b>	<b>508</b>	<b>44.7</b>	<b>37,305</b>	<b>64.2</b>

The gap analysis to determine Holden's present affordable housing surplus or shortage is based on a calculation of how many more very low, low and moderate income households would need to be housed in Town in order for its income profile to match that of Penobscot County. The calculations are contained in table 11.

Table 11 Affordable House Gap Analysis			
Household Incomes (Affordable Housing Prices)	Current Affordable Units In Holden	Units Needed to Match County Ratios	Affordable Housing Gap (Units)
Very Low (<\$19k)	196	309	113
Low (\$19K-\$30K)	145	188	43
Moderate (\$30K - \$46K)	167	233	66
<b>Total</b>	<b>508</b>	<b>730</b>	<b>222</b>

Based on the gap analysis, there is an affordable housing gap of 222 units. The need may be overstated because some of the need may be met by rental units. Moreover, this analysis does not mean that Holden has to sponsor the construction of 222 affordable housing units, or require that all future units be affordable. However, it does point to a regional need for more additional affordable housing units to be located in Holden.

**Future Affordable Housing Needs.** Maine's comprehensive planning laws mandate that each municipality seek to achieve a level of at least 10% of new residential development that meets the definition of affordable housing. Between 2005 and 2015, the State Planning Office projects that Holden's population will grow by 42 people. Using the average household size reported in the 2000 Census (2.3 persons per household), this would result in 18 new housing units, of which 2 would need to be affordable housing units in order to meet the 10% goal. It is reasonable to expect however, that future growth may exceed State estimates. There are several individuals who have expressed interest in developing large parcels of land. One or more large development proposals could significantly boost the Town's population, but they could also provide additional affordable housing units.

Adding together the current gap of affordable housing units to the expected future need, Holden would need to add 224 affordable housing units by the year 2015 to totally address the identified affordable housing gap. This translates into an average of about 22 affordable housing units per year over the 10 year period. Affordable housing may include many different types of housing including single family dwellings, accessory dwellings, assisted living apartments and mobile homes.

## **Analysis**

Holden contains a variety of housing types, ranging from mobile homes in three mobile home parks located near Route 1A close to the Holden/Brewer line and on individual lots, subsidized housing, homes scattered along the Town's rural road network and in small subdivisions, to a number of seasonal and year-round homes on the Town's water bodies. The Town's rate of housing growth has been relatively modest in recent years in part because of strict land use controls, the lack of available, developable lots, the presence of extensive wetlands that limit development, the availability of land in other, nearby communities, a lack of growth throughout Penobscot County in recent years, and the fact that much of the Town's rural road network has largely been carved into house lots.

From a regional standpoint, there is a need for additional affordable housing in Holden. There are several large, potential developments that could create opportunities for affordable housing units. However, it is equally likely that future development will consist of small, upscale subdivisions and individual lot development by older, more affluent people wanting to live in the rural to semi-rural environment that Holden offers. The Town is not ideally suited for supporting an extensive system of affordable housing units. There is no public transportation system, Holden is not a job center, and the Town cannot support dense development because of generally poor soil conditions and the lack of public water and sewer systems.

## 4. ECONOMY

### Introduction

Although Holden is a small town, its proximity to the cities of Bangor and Brewer, and other surrounding communities allows its residents a wider choice of employment areas within short or relatively easy commuting distance. Holden is generally seen as a suburb of the greater Bangor area because commuting for employment or shopping is within 30 minutes or less. According to the 2000 Census, there were 604 public and private sector jobs in the Town of Holden. Public employers include the Town of Holden and the School District.

### DeBeck Business Park

The DeBeck Business Park is located at the intersection of Route 1A and Interstate 395. The 12-lot park was constructed by the Town in 1999. The park is served by public water from the Brewer Water District and has 3-phase power supplied by Bangor Hydro Electric Company. Other services include T1 and T3 service from Verizon and fiber optic trunk lines from Midmaine Communications.

### Local Businesses

While there are no large private sector employers, there are a large number of businesses, many of which are located along Route 1A. Most of these businesses are concentrated along the northwest end of Route 1A, closest to Brewer. Within the past 10 years, most of the Town's commercial growth occurred along this section of the Route 1A corridor. A partial listing of businesses is included in Table 1.

<b>Table 1 Partial Listing of Holden Businesses</b>			
A-1 Contractors	Dysart's Travel Shop	Holden Family RV	Performance Auto/Diesel
Acadia Granite and Marble	East. Maine Snowmobile Club	Holden Mainway (Irving)	Pine Cone Trailer Park
Ace Hardware	F.E. Dorsey Furniture	Holden Plaza	Port Harbor Marina
Al Benner's Mobile Homes	Felt Brook Go Carts	Island Green Golf Center	Red Barn Camping Area
Annika Rod and Fly	Field's Pond Nature Center	Kenduskeag Engineering	Red Barn Diner
Aunt Nellie's Attic	Fox Run Furniture Galleries	Kitchen Classics	Ryco Child Care
Bea's Beauty Shop	G & M Variety	Lakeman & Son Scrap Metal	Sinclair Log Cabin Gen. Store
Blue Ribbon Decoy	Garrett's Auto Sales	Lakeview Trailer Park	Smitty's Welding
Buyers	Gillie's Truck Caps	Lost Lamb Association	Sproul's Home Center, Inc.
Carpet World	Grand Rental Station	McKay's RV, Marine Center	Straight Talk Counseling
Cedar Haven MHP, Inc.	Granville Lumber Company	Merrill Merchants Bank	Subway
Center for Growth and Change	Granville Stone	Mid-Coast Fine Antiques	Sunnyside Daycare
Competitive Edge Marine	Greenwood Gardens	Myerowitz Chiropractic, Acupun.	The Squire
Complete Masonry, Stone Fab.	Harold's Trans., Auto Repair	Nancy's Scrapbooking Store	Town & Country Motel
Country Kitchen Thrift Store	Higgins' Video Service	New Beginnings Biofeedback	Wee Holmes Camp Site
Darlene's Doll Shop	Holden Cabinet & Millwork	Occasional Cakes	Williams & Assoc. PA
Double A Tack Shop	Holden Dental Center	Paper-Clip	Winters Assoc. LTD
Dunkin Donuts	Holden Exxon	Paul Bunyan Lumber	Woodland Terrace Motel

## Employment

As shown in Table 2, there were 1,625 Holden residents who were in the labor force in 2004. There were 1,528 people who were employed, and 97 who were unemployed. Holden's 2004 unemployment rate (6.0%) was slightly higher than all other jurisdictions except for that of Clifton (7.3%).

	Labor Force	Employed	Unemployed	Unemployment Rate
<b>Holden</b>	<b>1,625</b>	<b>1,528</b>	<b>97</b>	<b>6.0</b>
Bangor	16,700	15,955	745	4.5
Brewer	4,786	4,549	237	5.0
Clifton	463	429	34	7.3
Dedham	855	829	26	3.0
Eddington	1,265	1,196	69	5.5
Orrington	2,139	2,044	95	4.4
<b>Penobscot County</b>	<b>75,878</b>	<b>71,602</b>	<b>4,276</b>	<b>5.6</b>
<b>Maine</b>	<b>699,342</b>	<b>667,223</b>	<b>32,119</b>	<b>4.6</b>

Source: Maine Department of Labor, 2005

## Place of Work

Based on where people work, Holden is very much a bedroom community. According to the 2000 Census as shown in Table 3, of the 1,495 residents of Holden who reported their job locations, 162 or about 10.8%, were employed by businesses located in Holden. The remaining 1,333 people, or 89.2% worked outside of town. The principal job locations outside of Holden were Bangor (775 people or 51.8%) and Brewer (148 people or 9.9%). Collectively, 923 Holden residents, or 61.7% of the workforce, had jobs in Bangor or Brewer.

Place	#	%	Place	#	%
<b>Holden</b>	<b>162</b>	<b>10.8</b>	Old Town	20	1.3
Bangor	775	51.8	Bucksport	17	1.1
Brewer	148	9.9	Dexter	11	0.7
Orono	37	2.5	Eddington	10	0.7
Hampden	30	2.0	Orrington	10	0.7
Ellsworth	27	1.8	Other	223	14.9
Hermon	25	1.7	<b>Total</b>	<b>1,495</b>	<b>100</b>

Source: U.S. Census, 2000

It is often assumed that economic development will result in more jobs for local residents, and sometimes that is the case. However, economic development in Holden has generally resulted in jobs for non-residents. As shown in Table, there were 604 people in the year 2000 who reported working in Holden. Of these, only 162, or 26.8%, lived in Holden.

<u>Place</u>	<u>#</u>	<u>%</u>	<u>Place</u>	<u>#</u>	<u>%</u>
<b>Holden</b>	<b>162</b>	<b>26.8</b>	Hampden	15	2.5
Bangor	89	14.7	Glenburn	11	1.8
Brewer	58	9.6	Kenduskeag	10	1.7
Dedham	57	9.4	Orono	10	1.7
Eddington	47	7.8	Other	95	15.7
Clifton	27	4.5	<b>Total</b>	<b>604</b>	<b>100</b>
Old Town	23	3.8			

Source: 2000 Census

### Means of Commuting to Work

As shown in Table 5, a greater percentage of Holden residents (84.6%) drove alone to work by car, truck or van than at the County (79.2%) or State level (78.6%). Moreover, a slightly smaller percentage carpooled (9.3%) than in the other two jurisdictions (10.7% in the County; 11.3% in the State). Mean travel time to work for Holden residents (21.5 minutes) is more than it is for Penobscot County (20.7 minutes) but less than for the State of Maine (22.7 minutes). Approximately 4.3% of the workforce in Holden worked at home in 2000. Comparable figures for the County and State were 3.8% and 4.4%, respectively.

	<b>Holden</b>		<b>Penobscot County</b>		<b>Maine</b>	
	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>
Workers 16 and over	1,426	100	68,652	100	615,144	100
Car, truck or van – drove alone	1,207	84.6	54,386	79.2	483,317	78.6
Car, truck or van - carpooled	133	9.3	7,332	10.7	69,208	11.3
Public Transportation	-	-	591	0.9	5,217	0.8
Walked	3	0.2	3,129	4.6	24,700	4.0
Other Means	22	1.5	590	0.9	5,740	0.9
Worked at Home	61	4.3	2,624	3.8	26,962	4.4
Mean Travel Time to Work in minutes	21.5	-	20.7	-	22.7	-

Source: 2000 Census

## Employment by Industry

Table 6 contains a breakdown of the labor force by industry for Holden, Penobscot County and the State of Maine as reflected in the 2000 Census. The employment breakdown for Holden is roughly comparable to that of the County and State with several exceptions. The largest single employment category for Holden residents is "education, health and social services." The Town's employment rate in this category (30.9%) is higher than for the County (28.6%) or the State (23.2%), possibly because of employment at the University of Maine in Orono.

Employment in "construction" (8.6%) is higher than County and State figures (5.8% and 6.9%, respectively), while there are fewer Holden residents employed in "finance, insurance, real estate, rental and leasing" (3.6%) compared to the County (4.1%) and State (6.2%). Holden had a higher percentage of its workforce employed in "professional, scientific, management, administrative" (8.1%) compared to the County or State (5.6% and 6.9%, respectively). Employment in "arts, entertainment, recreation, accommodation and food services" (2.6%) is below County and State levels (6.9% and 7.1%, respectively). Employment in "agriculture, forestry, fishing, hunting and mining" is also lower in Holden (1.2%) than at the County or State levels (2.3% and 2.6%, respectively).

<b>Table 6 Labor Force Employment By Industry – 2000</b>						
	<b>Holden</b>		<b>Penobscot County</b>		<b>State</b>	
	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>
Agriculture, forestry, fishing, hunting, mining	18	1.2	1,607	2.3	16,087	2.6
Construction	124	8.6	4,037	5.8	42,906	6.9
Manufacturing	162	11.2	8,308	11.9	88,885	14.2
Wholesale trade	62	4.3	2,658	3.8	21,470	3.4
Retail trade	193	13.3	9,745	14.0	84,412	13.5
Transportation and warehousing, utilities	85	5.9	3,899	5.6	26,857	4.3
Information	41	2.8	1,662	2.4	15,294	2.5
Finance, insurance, real estate, rental and leasing	52	3.6	2,859	4.1	38,449	6.2
Professional, scientific, management, administrative	117	8.1	3,908	5.6	43,074	6.9
Educational, health, social services	447	30.9	19,968	28.6	144,918	23.2
Arts, entertainment, recreation, accommodation and food services	37	2.6	4,785	6.9	44,606	7.1
Other services (except public admin)	54	3.7	3,445	4.9	29,182	4.7
Public administration	56	3.9	2,965	4.2	27,871	4.5
<b>Total</b>	<b>1,448</b>	<b>100</b>	<b>69,846</b>	<b>100</b>	<b>624,011</b>	<b>100.0</b>

Source: 2000 Census

## Employment by Occupation

Table 7 contains an occupational breakdown for Holden, Penobscot County and the State of Maine as reflected in the 2000 Census. The occupational breakdown for Holden differs in all categories from that of the County and State, but the most significant difference is probably in the "Management, professional and related" category (36.6% for Holden, 30.3% for Penobscot County, and 31.5% for Maine).

	Holden		Penobscot County		Maine	
	#	%	#	%	#	%
Management, professional and related	530	36.6	21,156	30.3	196,862	31.5
Service	167	11.5	11,641	16.7	95,601	15.3
Sales and office	429	29.6	18,728	26.8	161,480	25.9
Farming, fishing and forestry	9	0.6	901	1.3	10,338	1.7
Construction, extraction, maintenance	156	10.8	6,844	9.8	64,064	10.3
Production, transportation, material moving	157	10.8	10,576	15.1	95,666	15.3
<b>Total</b>	<b>1,448</b>	<b>100</b>	<b>69,846</b>	<b>100</b>	<b>624,011</b>	<b>100</b>

Source: 2000 Census

The U.S. Census provides another way to view the workforce, and that is by class of worker. The breakdown shown in Table 8, as reported in the 2000 Census, differs in all respects from Penobscot County and the State of Maine.

	Holden		Penobscot County		Maine	
	#	%	#	%	#	%
Private wage and salary workers	1,037	71.6	53,065	76.0	473,794	75.9
Government workers	232	16.0	11,600	16.6	90,388	14.5
Self employed workers in own not incorporated business	162	11.2	5,010	7.2	58,153	9.3
Unpaid family workers	17	1.2	171	0.2	1,676	0.3
<b>Total</b>	<b>1,448</b>	<b>100</b>	<b>69,846</b>	<b>100</b>	<b>624,011</b>	<b>100</b>

Source: 2000 Census

## Income Levels

The residents of Holden are relatively well off, financially, than the population as a whole in Penobscot County. The higher incomes that residents enjoy may be due in part to the relatively high percentage of management and professional people who live in town but work elsewhere. As shown in Table 9, Holden had a much smaller

percentage of households making less than \$25,000 (26.49%) compared to Penobscot County (36.4%) and the State (32.7%). A little more than a third of Holden households (36.6%) fall in the \$50,000-\$99,999 income range compared to 25.1% at the County level and 27.8% at the State level. It is interesting to note that 128 households in Holden fell within the \$100,000 - \$199,999 range, while 39 households made \$200,000 or more.

	Holden		Penobscot County		Maine	
	#	%	#	%	#	%
Less than \$10,000	74	6.5	7,260	12.5	53,259	10.3
\$10,000 - \$24,999	226	19.9	13,896	23.9	115,864	22.4
\$25,000 - \$49,000	254	22.3	18,950	32.6	168,462	32.5
\$50,000 - \$99,999	416	36.6	14,637	25.1	143,764	27.8
\$100,000 - \$199,999	128	11.3	2,831	4.8	30,214	5.8
\$200,000 or more	39	3.4	561	1.0	6,809	1.3
Total	1,137	100	58,135	100	518,372	100
Median hh income	\$51,394	-	\$34,274	-	\$37,240	-
Persons below poverty	181	6.5	18,956	13.7	135,501	10.9

Source: 2000 Census

### Income Sources

As shown in Table 10 a little over 80% of the households in Holden reported income from earnings, with mean earnings of \$63,208 – significantly above mean earnings of \$44,264 at the County level and \$46,990 at the State level. A little over a quarter of Holden's population (26.0%, compared to 27.8% at the County and 29.9% at the State level) reported income from social security. In Holden, the mean social security income was \$12,022 (higher than County or State figures) and the mean retirement income was \$14,198 (slightly lower than the County figure of \$14,927 and the State figure of \$15,211).

	Holden		Penobscot County		Maine	
	#	%	#	%	#	%
With earnings	917	80.7	45,161	77.7	406,912	78.5
Mean earnings (dollars)	\$63,208	-	\$44,264	-	\$46,990	-
With social security income	296	26.0	16,164	27.8	149,727	29.9
Mean social security income	\$12,022	-	\$10,500	-	\$10,569	-
With Supplemental Security Income	34	3.0	3,130	5.4	23,712	4.6
Mean Supplemental Security Income	\$3,700	-	\$5,954	-	\$6,084	-
With public assistance income	24	2.1	3,351	5.8	24,918	4.8
Mean public assistance income	\$2,058	-	\$2,374	-	\$2,173	-
With retirement income	189	16.6	9,454	16.3	90,049	17.4
Mean retirement income	\$14,198	-	\$14,927	-	\$15,211	-

Source: 2000 Census

## Regional and Local Sales Tax Data

Taxable sales reports can be used as a measure of economic activity within the region and within a community. Table 11 shows that during the period 2000 through 2004, taxable consumer retail sales in Maine grew at an annual rate of 3.9%. However, the growth rate in the Bangor Economic Summary Area (which doesn't include Holden) was slightly larger at 4.1%. Moreover, the growth in the Bangor Suburban Economic Summary Area (which includes Holden and 24 other communities surrounding the Bangor ESA) was 5.6%, while Holden's growth was 7.0%. Holden's growth rate is a reflection in part of the growth of new businesses along the Route 1A corridor.

<b>Area</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>Average Annual Change 00-04</b>
Maine	12,165,700	12,413,335	12,977,160	13,589,216	14,200,882	3.9%
Bangor ESA	1,144,241	1,164,580	1,225,528	1,293,255	1,346,104	4.1%
Bangor Suburban ESA	214,090	222,484	233,219	245,665	265,774	5.6%
Holden	28,267	31,003	34,115	31,988	36,212	7.0%

Source: Maine Revenue Services

### Analysis

Holden is a bedroom community because 90% of residents who work are employed outside the community. Most of the Town's businesses are located along the Route 1A corridor, with the greatest concentration occurring in the General Commercial Zone which lies along the northwest end of the corridor closest to Brewer. Holden does not have a manufacturing base, and there is little community interest in becoming an industrial town.

There is very little land left in the General Commercial Zone for future business growth and very little interest on the part of businesses to locate in the Limited Commercial Zone because of its stricter land use controls. Within the General Commercial Zone, current zoning regulations prohibit the use of non-conforming lots for commercial development, as well as the conversion of dwellings to commercial uses. Easing these restrictions would provide opportunities for more commercial development. Several years ago, the Town constructed the DeBeck Business Park to encourage commercial growth. However, given the limited overall availability of commercial land, including land in the DeBeck Business Park, future commercial growth in Holden is expected to be modest.

## 5. NATURAL RESOURCES

*See maps at the end of this chapter depicting topography and flood zones and wildlife habitat.*

### Introduction

Holden is located in Southern Penobscot County, immediately adjacent to and southeast of Brewer. It is bordered on the northwest by Brewer, on the northeast by Eddington, on the southeast by Dedham, on the south by Bucksport, and on the southwest by Orrington.

Holden consists of 30.93 square miles of land area and 1.18 square miles of water area, for a total of 32.11 square miles, or 20,550 acres. The Town's two major roads are State Route 1A, which runs from the northwestern to the southeastern border of the Town, and State Route 46, which runs south to north for a short distance along the Town's southeastern boundary. Most of the economic development in Holden is located along State Routes 1A and 46, and to a lesser extent along the Town's major roads

The terrain is gently rolling with some moderate hills that provide views to surrounding communities. There are a number of small hills especially in the southeast corner of the community. Two of the highest points in town are Rider Bluff (elevation 813 feet) and Copeland Hill (elevation 802 feet).

Holden has a number of significant natural resources that help define its rural character. These include:

1. **Scenic Areas and Views.** Scenic areas and views are places in the community that provide expansive views and/or recreational opportunities that enhance the quality of life for residents. Examples of identified scenic areas in Holden include:
  - Looking east from Mann Hill and Clark Hill Roads;
  - Looking west from Mann Hill and Fisher Roads;
  - Hart Farm on Copeland Hill Road; and
  - South Road looking towards the Dedham hills.
2. **Road Segments that Capture Rural Character.** Road segments that capture the rural character of the community are stretches of road typically at least half a mile in length that are lined with woods or fields and have farms or minimal development visible from the road. Examples of these types of road segments in Holden include:
  - Mann Hill Road, the lower stretch from just past Clewleyville Corners to the Faulkner Farm and the shorter stretch from Bagaduce Road to Whitcomb Road;
  - Whitcomb Road fields; and
  - Wiswell Road heading down from the intersection with Copeland Hill Road.
3. **Off-Road Regions.** Off-road regions that provide recreational opportunities and/or are home to a variety of wildlife plant species include:
  - Burton Mill Stream, flowing from the Village Center and Town-owned picnic area south to the Dedham line;

- Various streams/waterfalls that flow beside lower Mann Hill Road, and through beaver bogs and forests to comprise Eaton Brook;
- The railroad bed trail, which looks out upon wetlands and deer wintering yards ;
- The full network of connected trails maintained by the Eastern Maine Snowmobile Club;.
- The nature trails behind Holden School; and
- The largely uncut forest within the triangle formed by Route 1A, Bagaduce Road and the railroad.

## Soils

Knowledge of the types of soils which exist in Holden can be helpful in planning and/or reviewing land use activities. The various characteristics of soil types present different limitations for development which can often be overcome through special planning, design, construction and/or maintenance.

The Medium Intensity Soil Survey of Penobscot County, Maine, published by the U.S. Soil Conservation Service (now the U.S. Natural Resources Conservation Service, hereinafter referred to as NRCS) describes the different soil types which exist in the County and provides information on their limitations. The soil map displays the predominant soil types for an area, although there may be pockets of other soils. Therefore, a high intensity soil survey is needed for individual site planning. As of this writing, these soils have not been digitized and are therefore not yet in the State's GIS data base.

The NRCS has prepared a guide entitled "Soil Survey Data for Growth Management," which rates each of the soils in Penobscot County for its suitability for development purposes. Based on a review of a composite soil survey map for Holden utilizing the ratings guide, approximately 60% of the soils in Holden have medium or high potential for low density development, 20% have low potential, and 20% have very low potential. Many of the soils with low or very low potential are hydric soils. A hydric soil is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil. Many of the soils with very low potential for development are zoned Resource Protection under the provisions of the Town's Zoning Ordinance.

**Prime Farm Land.** The NRCS has identified certain soils as prime agricultural soils and additional agricultural soils of statewide importance. These soils, within Holden and the nation, are irreplaceable, finite and dwindling resources. They have evolved over thousands of years. Once they have been developed, they cannot be reclaimed for agricultural production. In Holden, the most common prime agricultural soils and their identifying symbols on the soils map include Buxton silt loam (BuA and BuB), Plaisted Gravelly Loam (PgB and PgC), and Howland Gravelly Loam (HoB and HoC). Prime agricultural soils are not extensive in Holden, but there are some small areas of prime farmland along South Road and in the southwest corner of town in the vicinity of Wiswell Road, along Fields Pond Road and along Copeland Hill Road south of Wiswell Road. As of this writing, there are only two farms in Holden.

**Erosion and Sedimentation.** Common land use and development practices, including agriculture, site development and timber harvesting, can often increase erosion, with consequent increases in sedimentation and the loss of valuable topsoil. Eroded sediment and topsoil can clog culverts, storm drains and ditches. It also contains phosphorus that will ultimately raise the phosphorus concentration and contribute to decline of lake water quality. For agricultural soils, poor soil conservation practices allow excessive erosion of both topsoil and with it, fertility.

To help minimize erosion and sedimentation, the Town of Holden has included erosion and sedimentation control requirements in its Site Plan Review, Shoreland Zoning, and Subdivision Ordinances.

## Watersheds

Watersheds areas are defined by ridge lines that direct the runoff from precipitation into brooks, streams, lakes, rivers and eventually to the ocean. The entire land surface is, in fact, a series of watersheds which abut one another. The delineation of watersheds shows how water runs off the land, where it accumulates and how it ultimately collects into larger bodies of surface water.

Holden contains parts of the watersheds of eight lakes and ponds, not all of which are located in Holden. They are:

- |    |               |    |             |
|----|---------------|----|-------------|
| 1. | George's Pond | 5. | Fields Pond |
| 2. | Holbrook Pond | 6. | Fitts Pond  |
| 3. | Brewer Lake   | 7. | Long Pond   |
| 4. | Davis Pond    | 8. | Chemo Pond  |

George's Pond and most of Holbrook Pond are located within Holden. Only parts of Brewer Lake and Davis Pond are within the Town's boundaries. Additionally, parts of Holden drain into Field's Pond (Orrington), Fitts Pond (Clifton), Long Pond (Bucksport), and Chemo Pond (Eddington). Likewise, parts of the watersheds of Holden's ponds, except for George's Pond, are located in other towns. Thus, protecting water quality in Holden's streams and ponds necessarily has regional implications.

## Lakes and Ponds

The Maine Department of Environmental Protection classifies all lakes and ponds with over 10 acres as Great Ponds and classifies them as GP-A. They are considered to be high quality fisheries habitats and to have excellent water quality suitable for wildlife, fishing, swimming, and other water contact recreation. The water is potable but DEP does recommend treatment before drinking. Great Ponds which are not high quality are listed as "non-attaining" or "threatened" water bodies.

Lake Water Quality Information for Phosphorus Control							
Lake or Pond	Surface Area	Direct Drainage Area in Acres In Holden	% of Watershed in Holden	Phosphorus Allocation in Pounds Per Acre	Water Quality Category	Location	Watershed Shared By
Brewer Lake	916.7 Acres	901 Acres	30	0.049	Mod-Sensitive	Holden, Bucksport, Orrington	Bucksport Orrington
Davis Pond	417 Acres	946 Acres	15	0.040	Mod-Sensitive	Holden, Eddington	Eddington
George's Pond	13.35 Acres	1,423 Acres	100	0.031	Mod-Sensitive	Holden	N.A.
Holbrook Pd	303.9 Acres	2,309 Acres	75	0.045	Mod-Sensitive	Holden Eddington	Dedham Eddington

Source: Maine Department of Environmental Protection

Parts of Holbrook Pond, Davis Pond and Brewer Lake, and all of George's Pond are located in Holden. The table above provides information about these water bodies including physical characteristics, phosphorus loading and water quality. The following paragraphs provide additional information on each of these water bodies.

**Brewer Lake.** Brewer Lake lies at the southwest corner of Holden. Approximately 30% of Brewer Lake's total surface area is located within Holden. Holden also holds 30% of the lake's watershed. Public road access in Holden is available through Copeland Hill Road and Lake Shore Drive. The surface area of the lake is 916.7 acres and the direct drainage area is 6.298 square miles. The maximum depth is 48 feet and the mean depth is 23 feet.

The Maine Department of Environmental Protection (DEP) and citizens involved in the Volunteer Lake Monitoring Program have collaborated in the collection of lake data to evaluate water quality, track algae blooms, and determine water quality trends. Water quality monitoring data has been collected on the lake since 1974. During this period, nine years of basic chemical information was collected, in addition to Secchi Disk Transparency readings.

The water quality of Brewer Lake is considered by DEP to be average, based on measures of Secchi Disk Transparencies, total phosphorus, and Chlorophyll-a. The potential for nuisance algal blooms is low. Water quality appears to have been fairly stable since 1984.

Water quality includes the following parameters:

- **Color:** Brewer Lake is an uncolored lake with an average color of 17 Standard Platinum Units (SPU). Lakes with an SPU reading in excess of 30 can have reduced transparency readings and increased phosphorus values.
- **Secchi Disk:** Brewer Lake has an average Secchi Disk Transparency (SDT) reading of 4.9 meters (16 feet). SDT is a measure of water clarity, or transparency, of the pond. SDT values in Maine vary from .5 meters to 15.5 meters, with the average being 4.9 meters. Unless a lake is highly colored, SDT readings of 2 meters or less indicate a water quality problem that has resulted in an algal bloom.
- **Total Phosphorus:** The range of water column total phosphorus in Brewer Lake is 6-12 parts per billion (ppb), with an average of 9 ppb. Total phosphorus is one of the major ingredients needed for plant growth. As phosphorus increases, the amount of algae increases. In Maine, total phosphorus varies from 2 ppb to 134 ppb, with the average being 12 ppb. The potential for total phosphorus to leave the bottom sediments and become available to algae in the water column is low.
- **Chlorophyll-a.** Chlorophyll-a ranges from 1.4 to around 10 ppb, with an average of 3.7 ppb. Chlorophyll-a is a measurement of the green pigment found in all plants including microscopic plants such as algae. It is used as an estimate of the algal biomass, with higher numbers indicating higher levels of algae. Chlorophyll-a measurements in Maine range from 1.1 ppb to 51.5 ppb, with the average being 4.7 ppb.
- **Dissolved Oxygen.** Recent dissolved oxygen profiles show very slight dissolved oxygen depletion in the deep areas of the lake. Dissolved oxygen levels below five parts per million are considered so stressful that most cold water fish will avoid these areas. Anoxic (no oxygen) conditions can also promote the release of total phosphorus from bottom sediments.

<b>Brewer Lake Water Quality Summary</b>				
	<b>Mean Color (SPU)</b>	<b>Mean Secchi Disk (m)</b>	<b>Total Phosphorus (ppb)</b>	<b>Chlorophyll-a (ppb)</b>
1974	not collected	4.7	not collected	2.4
1975	10	4.0	not collected	9.1
1976	20	4.0	12	4.8
1977	25	4.1	not collected	not collected
1978	not collected	4.8	not collected	not collected
1979	not collected	4.7	not collected	not collected
1980	not collected	4.4	not collected	not collected
1981	20	4.7	12	2.9
1982	not collected	4.5	not collected	not collected
1983	15	5.4	not collected	2.3
1984	not collected	5.3	not collected	not collected
1996	30	4.4	14	not collected
1997	10	5.8	6	2.0
1998	not collected	5.9	not collected	not collected
1999	8	6.2	8	2.6
2000	not collected	6.6	not collected	not collected
2001	not collected	6.4	not collected	not collected
2002	not collected	6.8	not collected	not collected
2003	not collected	6.1	not collected	not collected
2004	not collected	5.3	9	4.8
<b>Summary</b>	<b>17</b>	<b>5.3</b>	<b>9</b>	<b>3.9</b>

Source: Department of Environmental Protection, 2005

Brewer Lake has high value cold-water landlocked salmon and rainbow smelt populations as well as moderate value warm-water fisheries for white perch and chain pickerel. Brewer Lake also has the following fish species: yellow perch, hornpout, American eel, white sucker, fallfish, banded killifish and pumpkinseed sunfish. It has also been confirmed that this pond has recently been invaded by non-native smallmouth bass. In the future, smallmouth bass may adversely affect the numbers of native fish species in Brewer Lake.

**Holbrook Pond.** Holbrook Pond lies at the eastern border of Holden, and nearly all of it is in the Town of Holden. 75% of the pond's watershed is located in Holden. The surface area of the pond is 303.9 acres and the direct drainage area is 5.74 square miles. The maximum depth is 28 feet and the mean depth is 18 feet.

The Maine Department of Environmental Protection (DEP) and citizens involved in the Volunteer Lake Monitoring Program have collected data on the lake since 1977. During this period, five years of basic chemical information was collected, in addition to Secchi Disk Transparency readings.

The water quality of Holbrook Pond is considered by DEP to be slightly below average, based on measures of Secchi Disk Transparencies, total phosphorus, and Chlorophyll-a. The potential for nuisance algal blooms is low.

Water quality includes the following parameters:

- **Color:** Holbrook Pond is a colored lake with an average color of 30 Standard Platinum Units (SPU).
- **Secchi Disk:** Holbrook Pond has an average Secchi Disk Transparency (SDT) reading of 4.4 meters (14.4 feet).

- **Total Phosphorus:** The range of water column total phosphorus in Holbrook Pond is 6-12 parts per billion (ppb), with an average of 9 ppb.
- **Chlorophyll-a.** Chlorophyll-a ranges from 2.9 to 4.5 ppb, with an average of 3.8 ppb.
- **Dissolved Oxygen.** Recent dissolved oxygen profiles show low dissolved oxygen in the deep areas of the lake.

<b>Holbrook Pond Water Quality Summary</b>				
	<b>Mean Color (SPU)</b>	<b>Mean Secchi Disk (m)</b>	<b>Total Phosphorus (ppb)</b>	<b>Chlorophyll-a (ppb)</b>
1977	not collected	5.0	not collected	not collected
1978	30	4.6	not collected	3.1
1979	not collected	4.6	not collected	not collected
1980	not collected	4.4	not collected	not collected
1981	30	4.4	9	4.0
1982	not collected	4.6	not collected	not collected
1983	not collected	4.6	not collected	not collected
1984	not collected	4.2	not collected	not collected
1985	35	4.4	6	not collected
1986	not collected	4.1	not collected	not collected
1987	not collected	4.4	not collected	not collected
1988	not collected	4.3	not collected	not collected
1989	not collected	3.8	not collected	not collected
1990	not collected	4.0	not collected	not collected
1991	28	4.1	9	4.5
2000	30	4.7	12	2.9
2002	28	4.8	7	4.5
<b>Summary</b>	<b>30</b>	<b>4.4</b>	<b>9</b>	<b>3.8</b>

Source: Department of Environmental Protection, 2005

Holbrook Pond is a moderate value warm water fisheries for smallmouth bass, white perch and chain pickerel. In addition, it has the following other fish species: yellow perch, hornpout, American eel, white sucker, minnows and sunfish. It has also been confirmed that this pond has recently been invaded by non-native largemouth bass that may adversely affect the present warm-water fisheries.

**Davis Pond (Eddington Pond).** Davis Pond is located in the northeastern corner of town, but most of the pond is actually in Eddington. It is connected to Holbrook Pond by a marshy area known as the "Thoroughfare." Davis Pond has a surface area of 417 acres and a maximum depth of 14 feet.

The water quality classification of Davis Pond is "moderate-sensitive." Water quality data is not available for this pond. Davis Pond has a moderate value as a warm water fishery. Its principal fisheries are smallmouth bass, white perch and chain pickerel. Additionally, yellow perch, hornpout, eel, white sucker, minnows and sunfish live in the pond. It has recently been confirmed that the non-native species, largemouth bass, has invaded the pond and may adversely affect the present warm-water species.

**George's Pond.** George's Pond has a surface area of 13.35 acres and is located entirely within Holden. Its water quality is classified as "Moderate-Sensitive." Water quality data is not available for this pond. The watershed of the pond is 1.98 square miles.

Of all the ponds in Holden, George's Pond seems most vulnerable to an algae bloom. It is a very small, shallow pond which likely has a slow flushing rate. There is a mobile home park with septic systems on its shore. The pond is a low value warm-water fishery for stunted chain pickerel. The Route 1A inlet to George's Pond is a high value eastern brook trout habitat as it contains a good population of eastern brook trout. The main inlet to George's Pond still needs to be surveyed for possible cold-water game species.

### **Threats to Lake Water Quality**

Development within lake watersheds and the use of the lakes themselves pose several kinds of threats to stream and lake water quality. The threats to groundwater listed above are also threats to stream and lake water quality in that lakes and streams are fed partially by groundwater flow. Beyond this however, there are several kinds of land use and development impacts that can have an adverse effect on both streams and lakes. Erosion and sedimentation from agriculture, timber harvesting, existing and new roads, ditches, building sites and driveways can add to both the sediment loading and phosphorus loading of lake waters. Failing, poorly designed and/or maintained septic systems can add unacceptable nitrate and other nutrient loads plus bacterial and/or viral contaminants to surface waters. Pesticides and fertilizers in storm water runoff can pose a hazard to lake water quality. Gas, oil, and human waste discharges from boats on lakes can also pollute lake waters. Heavy powerboat use and/or poor regulation of water levels in lakes can erode shorelines and beaches. In recent years, a new threat has been added to the list: Invasive aquatic (plant) species. This threat includes milfoil and several other species.

**Lake Phosphorus.** One of the most potentially serious impacts on lake water quality is the gradual increase in phosphorus concentrations in lake water due to additional phosphorus loading from development in lake watersheds. Relatively small additions of phosphorus essentially "fertilize" a lake and cause more of the microscopic algae to grow. Increased algae reduces water clarity, uses up oxygen at the bottom of the lake as it decomposes and can eventually lead to nuisance algae blooms. In the absence of oxygen at the bottom of a lake, a chemical reaction can also occur that can cause additional phosphorus to be released from the bottom sediments. If a lake is allowed to reach this stage, it can be very difficult and expensive to restore. Lake decline can also damage a lake's cold water fishery and cause shorefront property values to plummet.

The experience of China Lake in Maine is instructive in this regard. The lake historically supported trout, togue and lake salmon, but these cold water fisheries were lost over the course of about three years when the cumulative increase in lake phosphorus concentration suddenly made itself apparent. According to the China Region Lakes Alliance web site, "In the mid-1980's, China Lake gained national notoriety as the lake with the most rapidly declining water quality ever documented in the State of Maine. The cause of the problem was over-enrichment from phosphorus-laden runoff to this 3,850-acre lake from its 32 square mile watershed. Rapid population growth and increased land use activities during the last two decades caused increased runoff to the lake with a resultant increased growth of algae. Internal recycling of phosphorus from the sediments was triggered, causing annual nuisance algae blooms and resulting in a devastating commercial and recreational loss to the area. The once healthy population of salmon lake trout has been replaced by the odor of decay from floating mats of algae."

**Invasive Aquatic Species.** Lake ecosystems in the United States and Canada face threats from at least 11 "invasive aquatic species" of plants, only one of which has yet appeared in any Maine lakes. That one species is called variable milfoil. The other ten invasive plant species, not yet established in Maine, include Eurasian milfoil, parrot feather, Brazilian elodea, hydrilla, fanwort, water chestnut, curly leaf pond weed, European naiad, European frog-bit, and yellow floating heart. Each of these species is established in at least one state or province adjacent or near to Maine.

Invasive plants, alien to local lake ecosystems, where they become established, grow rapidly and can be spread by boaters who may unknowingly, or even knowingly, carry plant fragments on boats, trailers or fishing equipment from one lake to another. They can have severe impacts on lake ecosystems by displacing similar species, decreasing biological diversity, changing habitat and biotic communities and disruption of the food chain. These changes can have socioeconomic consequences, such as the impairment of fishing and other forms of recreation.

**DEP List of Lakes Most at Risk from New Development.** DEP maintains a list of lakes which are considered to be at greatest risk from new development. Davis Pond and Holbrook Pond are on that list.

## **Wetlands**

Wetlands are considered those areas where water is the primary factor controlling the plant and animal life found there. Although often overlooked as simply unbuildable land, wetlands play a significant role in the overall ecological balance of the environment. Wetlands provide many functions beneficial to humans because they:

1. Act as filters by slowing water flow, absorbing nutrients and thus enhancing water quality;
2. Absorb excess water during high flows and reduce peak period flows, thus reducing the dangers of flooding;
3. Often are aquifer discharge areas which release stored waters during periods of low flow;
4. Provide critical breeding, nesting and feeding areas for a wide range of fish and wildlife; and
5. Provide important open space and passive recreation opportunities.

Because wetlands are ecologically important in all the ways described above, and because they are vulnerable to filling, dredging, draining or other alterations to make them suitable for or supportive of development, these activities are regulated at the federal, state and local levels of government. The Army Corps of Engineers and the Maine Department of Environmental Protection regulate activities in wetlands of all sizes.

Based on the National Wetlands Inventory maps for Holden, roughly 20% of the Town consists of wetlands. Wetlands of 10 or more acres exist in low-lying areas along Mill Stream and Route 46 south of Route 1A, within a band running parallel to and north of Route 1A in the vicinity of the rail line, areas west of Eastern Avenue, an area south of Levenseller Road, several areas north of Levenseller Road and an area to the northwest of Holbrook Pond.

The Department of Inland Fisheries and Wildlife has rated Holden's wetlands from the standpoint of their value as inland waterfowl and wading bird habitats. For the most part, the wetlands that the Town has zoned Resource Protection have been rated as high to moderate value wetlands; these are the wetlands that the Town is required to protect through a municipal shoreland zoning ordinance or its equivalent.

## **Rivers and Streams**

The Maine Department of Environmental Protection classifies all surface waters that are not great ponds into four categories: Class AA, A, B, and C. These classifications are defined by legislation with Class AA being the highest classification, with outstanding and high levels of protection. Class C, on the other end of the spectrum, is suitable for recreation and fishing, yet higher levels of bacteria and lower levels of oxygen are allowed. Title 38 MRSA Section 465 contains a complete description of water quality classifications and specifications.

There are numerous small streams and brooks in Holden. Those which drain into the Penobscot River are classified as Class B, Minor Tributaries, and are expected to have moderately high water quality. While there is no information available on many of these streams, others are known to have high value fisheries.

**Mill Stream**, which follows Route 46 from Phillips Lake to the southwest corner of town, has a high value fishery for native eastern brook trout and is also high value because of its reproduction of landlocked salmon and anadromous runs of American Alewife.

**Dane Brook**, in the southern part of town, has a high value fishery for native eastern brook trout.

**Copeland Brook**, also in the southern part of town, has a high value fishery for native eastern brook trout.

**Eaton Brook**, which flows out of the western side of town into the Penobscot River in Brewer, has a high value fishery for native eastern brook trout as well as a high value Atlantic salmon population.

**Felts Brook**, which also flows out of the western side of town into the Penobscot River in Brewer, has a high value fishery for native eastern brook trout as well as a high value Atlantic salmon population.

## **Floodplains**

The enormous public costs involved in flood damage and flood control nationwide resulted in the establishment of a National Flood Insurance Program which helps the victims of floods to rebuild their homes and businesses and reduce the future risk of flood losses. The Town of Holden participates in the National Flood Insurance Program.

Participation in the NFIP involves the adoption by the Town of a Flood Insurance Resolution, which Holden did in 1975. Under this Resolution, the Town agreed to enact land use controls to prevent unsafe development from occurring in designated flood hazard zones. It is the building inspector's duty to, in the review of building permit applications, determine that proposed building sites are "reasonably safe from flooding" or that the development is constructed so as to minimize the possibility of flood damage.

The Flood Insurance Rate Maps of the National Flood Insurance Program for Holden were published in 1978 and revised in July of 1995. Identified flood hazard areas, which cover roughly 20% of the Town, are concentrated in the northern part of the community and seem to coincide with the major wetlands. The revised Flood Insurance Study noted that "No record of significant, widespread flooding in the Town of Holden could be found." Based on data obtained from the Maine State Planning Office, there are only five flood insurance policies issued in Holden. There have been no claims since 1978.

## **Groundwater**

Ground water is defined as subsurface water found in the saturated soils and water-bearing bedrock cracks. It's upper level, which rises and falls seasonally, is called the water table. An aquifer is a sand, gravel or porous rock formation which contains recoverable volumes of water. Precipitation and surface water infiltrate into the soil and replenish the aquifers. Ground water moves through this saturated zone by gravitational forces and discharges as springs or into wetlands, lakes and ponds.

According to information obtained from the Maine Geological Survey, bedrock wells in Maine most often yield relatively small quantities of water. The median yield for a bedrock well is between three and six gallons per minute. Approximately 35% of bedrock wells drilled in Maine yield 10 or more gallons per minute. The Maine Geological Survey has data on 17 bedrock wells in Holden. Most of these wells are between 5 and 90 feet deep. Yields vary from less than five gallons per minutes to between 50 and 100 gallons per minute.

**Sand and Gravel Aquifers.** A sand and gravel aquifer is considered a significant aquifer when a well in that deposit is capable of being pumped continuously at a rate of 10 gallons per minute (gpm) or more. The Maine Geological Survey has identified two significant sand and gravel aquifers on their sand and gravel aquifer maps dated 2001.

- The first sand and gravel aquifer follows Route 46 and Mill Stream from George's' Pond to the southeast corner of town. It is composed of sand and gravel with cobbles and boulders and has potential yields of 10-50 gpm. It has been mined for gravel in several locations.
- The second is a much smaller aquifer extending off the southern end of Holbrook Pond. It is composed of sand and gravel, some cobbles and boulders, some clay at 25 feet, and has a minimum thickness of 20 feet. Two gravel pits exist on this aquifer.

There are no known sources of pollution near these aquifers.

**Public Water Suppliers.** There are approximately 12 privately owned public water suppliers in Holden that are licensed by the Department of Health and Human Services. Public water suppliers are defined as serving 25 or more people and/or having 15 or more service connections. Under State rules adopted pursuant to the federal Safe Drinking Water Act, public water suppliers in Maine must periodically test their water for a long list of chemical and biological contaminants. Maine's Water Quality Classification System requires that all of the State's groundwater be Class GW-A in order to be used for public water supplies. Water quality standards used to assess whether groundwater meets federal safe drinking water standards are those of the federal Safe Drinking Water Act.

In Holden, public water suppliers include:

- Cedar Haven Mobile Home Park
- Greenwood Garden Apartments
- Holden Square Apartments
- Island Green Golf Center
- Lakeview Trailer Court
- MSAD 63 Holden School
- MSAD 63 Holbrook School
- Pine Cone Mobile Home Park
- Red Barn Campground
- Red Barn Diner
- Sinclairs Log Cabin
- Town and Country Motel

A new state law now requires each town in Maine to notify public water suppliers of proposed developments that would be located within the area that their well uses to obtain its source water. This area is known as a source water protection area. To assist towns with determining where the source water protection area of each public water supplier in their town is located, the Maine Drinking Water Program has provided a map (available at the Town Office) that delineates these areas.

At the same time, public water suppliers are eligible to voluntarily participate in the Maine Wellhead Protection Program. Under this program, a public water supplier, sometimes with technical assistance from the Drinking Water Program, delineates the area contributing to its well, takes inventory of any existing and potential threats within this area, and works with neighboring property owners, and sometimes, with the municipality, to develop

management and contingency plans that will help limit hazards from existing or potential land uses and activities within the wellhead protection area.

## **Forest Resources**

Except for developed areas adjacent to Route 1A and in other parts of the community, as well as the Town's great ponds and wetland areas, most of the Town consists of woodland at various stages of maturity. Stands of hardwood (oak, beech, maple, birch) can be found on higher, drier land while stands of softwood (pine, fir, hemlock, spruce) cover the lower, wetter areas with a lot of mixing in between. The forested areas of Holden provide numerous benefits, including:

- Economic benefits to landowners when timber is harvested;
- Recreational benefits including hunting, snowmobiling, cross country skiing and other winter sports;
- Wildlife habitat including deer wintering habitat;
- Aesthetic enjoyment; and
- Protection of the Town's streams (the canopy provided by trees and the understory aid in breaking the force of precipitation, thereby decreasing erosion).

## **Wildlife Habitat**

Holden has always had an abundance of wildlife and a diverse range of habitats for plants and animals. This level of abundance and diversity have historically been supported by the large areas of undeveloped land and the many riparian and wetland habitats that link these larger undeveloped blocks. With the potential for rapid development in the future, including new roads to support the new residential development in Holden and surrounding towns, a phenomenon known as habitat fragmentation can take place. The size of the large blocks of unbroken habitat can decrease as new roads extend into or cross them. Similarly, the links between such blocks, the riparian areas along streams, lakeshores, and associated wetlands can become more narrowed or interrupted and less able to function effectively as wildlife travel corridors between habitat areas.

**Beginning with Habitat Program.** A number of State agencies and conservation organizations are working together to secure Maine's outdoor legacy through a program called "Beginning with Habitat." The program is a habitat-based landscape approach to assessing wildlife and plant conservation needs and opportunities. The goal of the program is to maintain sufficient habitat to support all native plant and animal species currently breeding in Maine by providing each Maine town with a collection of maps and accompanying information depicting and describing various habitats of statewide and national significance found in the town. These maps provide communities with information that can help guide conservation of valuable habitats.

The agencies participating in the Beginning with Habitat program include the Natural Areas Program of the Department of Conservation, the Department of Inland Fisheries and Wildlife, the Maine Audubon Society, the State Planning Office, the United States Fish and Wildlife Service, and the Maine Cooperative Fish and Wildlife Service. As the Town develops and revises ordinances, the Town should consider consulting with the Beginning with Habitat Program, the Maine Natural Areas Program and similar programs.

**Types of Habitat in Holden.** The Beginning with Habitat Program has identified three general types of habitat in Holden:

1. **Riparian habitat.** Riparian habitat is the transitional zones between aquatic habitats and wetlands and dry or upland habitats and includes the banks or shores and streams, rivers, ponds and lakes, and the

upland edge of wetlands. Riparian habitat provides habitat for many plants and animals occurring in Maine. Towns have the opportunity to protect a large portion of riparian habitat simply by fully enacting and enforcing Maine's shoreland zoning provisions. This includes a 75-foot buffer around larger streams and a 250-foot buffer around rivers, lakes, ponds and non-forested wetlands greater than 10 acres. There are extensive areas of riparian habitat adjacent to wetlands of 10 or more acres as identified on the National Wetlands Inventory. Most of these wetlands have been zoned Resource Protection by the Town, while the adjacent land areas have been placed in the Shoreland/Flood Hazard Zone.

2. **Large habitat blocks.** Large habitat blocks provide habitat for certain plants and animals not already included in riparian habitat (number 1, above) or high value habitats (number 3, below). Large habitat blocks are relatively unbroken areas of habitat which includes forest, grassland/agricultural, water or wetlands. "Unbroken" means that the habitat is crossed by few roads, and has relatively little development and human habitation. These blocks are especially important to species with large home ranges, such as bobcat, and other species such as the black-throated blue warbler, who may have small home ranges but will only be successful over the long term in larger habitat blocks. Large blocks are also more likely to include a wider diversity of species than smaller blocks.

Blocks between one and 19 acres are home to species typical of urban and suburban landscapes (e.g. raccoons, skunks, squirrels). Blocks of 250 acres begin to provide habitat for area-sensitive birds that are uncommon in smaller forests and grasslands such as the veery and scarlet tanager and the grassland species upland sandpiper and grasshopper sparrow. Moose, bald eagles, goshawks and similar species usually require 500 to 2,500 acres while blocks greater than 2,500 acres may hold the full complement of species expected to occur in Maine.

With the exception of land areas within 500 feet of improved roads and developed areas, the entire town of Holden is considered to consist of a series of large habitat blocks. Holden's large block habitat is significant in that communities to the west have less of this component. It also contributes greatly to the rural atmosphere of the Town. Being on the fringe of an urban area, this habitat type, which is not regulated to the same extent as other habitats, is most likely to be impacted by future development unless adequate conservation measures are implemented.

3. **High value plant and animal habitats.** High value plant and animal habitats include rare plant locations and rare or exemplary natural habitat (for deer, waterfowl and wading birds, heron rookeries), and rare animal locations (for endangered species and species of special concern), as identified and mapped by the Natural Areas Program and the Department of Inland Fisheries and Wildlife. High value habitat for United States Fish and Wildlife Service priority trust species is also included. Several of these habitats are offered some degree of protection under State law but may warrant further local protection. High value plant and animal habitats in Holden include the following:

**Essential wildlife habitats.** These are areas that are protected by Maine's Endangered Species Act. They include areas currently or historically providing physical or biological features essential to the conservation of an endangered or threatened species in Maine and which may require special management considerations. These areas have been identified and mapped by the Department of Inland Fisheries and Wildlife through rulemaking procedures following Maine's Administrative Procedures Act. Since 1989, designation criteria and protection guidelines have been developed for bald eagles, roseate terns, least terns and piping plovers.

The Maine Endangered Species Act prohibits state agencies or municipal governments from permitting, licensing, funding or carrying out projects that would significantly alter a designated Essential Habitat or

that would violate its protection guidelines. If a project site is partly or wholly within an Essential Habitat, it must be evaluated by IFW before state/municipal permits can be approved or project activities can occur.

Holden's single essential habitat is a bald eagle habitat located adjacent to Brewer Lake opposite King Island.

**Natural Resource Protection Act (NRPA) Habitats.** Title 38 MRSA Section 480 identifies habitats protected under the Natural Resources Protection Act (NRPA). Included in the definitions section (480-B) is "Significant wildlife habitat," which means areas that have been mapped by IFW or are within any other protected natural resources including:

- Habitat for listed endangered/threatened animal species;
- High/moderate value deer wintering areas;
- High/moderate value waterfowl/wading bird habitat;
- Shorebird nesting, feeding, and staging areas; and
- Seabird nesting islands.

Although all of these habitats are mapped by IFW, to date, only seabird nesting islands have gone through the formal NRPA process. Specific deer wintering areas, inland and coastal waterfowl/wading bird habitat, and shorebird areas have been designated "Candidate NRPA," indicating they meet NRPA requirements but have not been formally zoned.

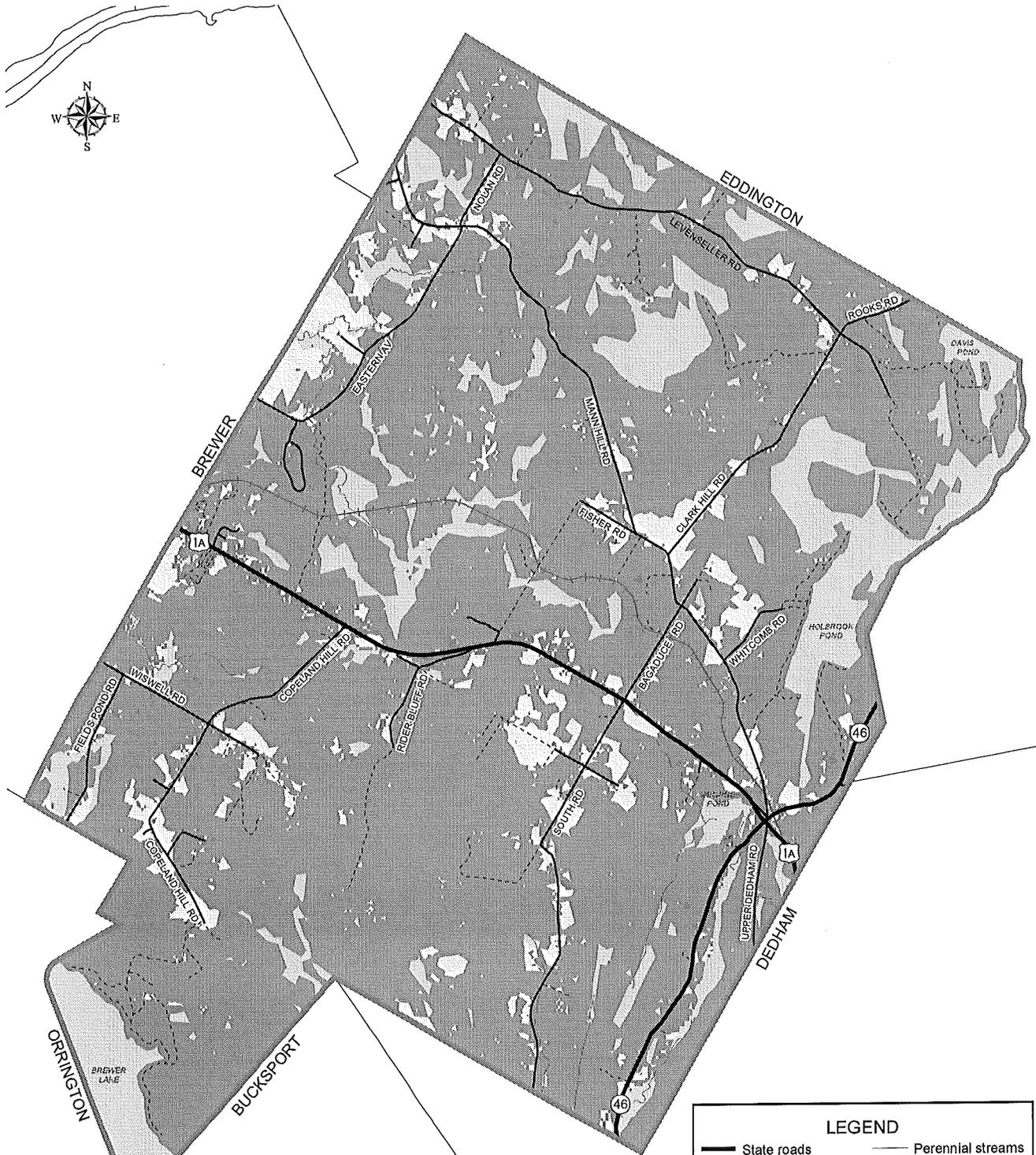
- Wading Bird Habitat. IFW has identified a number of moderate and high value waterfowl and wading bird habitats in Holden. These include all of the wetlands currently zoned Resource Protection by the Town, plus two additional wetlands south of Route 1A and north of Fields Pond near the Holden/Brewer border. While not regulated by the NRPA, DEP has proposed shoreland zoning requirements for municipalities to require that these wetlands be protected by a Resource Protection District beginning at the edge of the wetland and extending inland (away from the wetland) for a distance of 250 feet. In effect, this may result in otherwise buildable land being placed in the Resource Protection District. Currently, Holden has placed only the wetland itself in a Resource Protection District.
- Deer Yards. IFW has also identified a number of deer wintering areas including areas southwest and southeast of the intersection of Levenseller Road and Clark Hill Road, an area west of Bagaduce Road, several areas southwest and east of Holbrook Pond, and area west of George's Pond, and two areas west of Copeland Hill Road. Deer yards are considered critical to the over-wintering survival of deer populations in severe winter environments. IFW uses an NRPA rating system to classify these deer wintering areas. Holden's deer yards are considered indeterminate. There are no deer yards in Holden with a "moderate" or "high" value rating, and thus no deer yards with the potential at this writing to be regulated under the NRPA. The interface of forest, rural and suburban habitats creates opportunities for conflict between deer populations and residential property owners (browsing on gardens/shrubs) and vehicle users (car/deer accidents).

High value habitat for U.S. Fish and Wildlife Service priority trust species (greater than five acres). These include many areas in Holden including some freshwater wetlands, some areas of grass, shrub and bare ground, and some forested lands. These areas are shown on the Beginning with Habitat maps on file in the Town Office.

**Fisheries.** The Department of Inland Fisheries and Wildlife has also provided specific habitat information for Holden. Brewer Lake has a high habitat value because of its important stocked landlocked salmon and native rainbow smelt populations. Davis and Holbrook Ponds have moderate habitat values with both ponds offering good opportunities to catch Smallmouth Bass. George's Pond has a low habitat value rating with Chain Pickerel present. Dane Brook, Mill Stream, Felts Brook, Eaton Brook and George's Pond Route 1A inlet brook have high habitat value because of their native eastern brook trout habitat and fisheries.

## **Analysis**

Many factors have combined to protect Holden's natural resources. First and perhaps foremost is the fact that growth pressures have been relatively modest compared to those in some parts of southern and coastal Maine. Second is the fact that the Town has enacted a comprehensive set of growth control ordinances that are strictly administered and enforced. Finally, development has followed the path of least resistance and is now located along Route 1A and the Town's rural road network, leaving much of the Town's interior undeveloped. Extensive wetlands north of Route 1A and along Route 46 have prevented the development of the northern interior of the community. Steep topography and few public roads have protected the southern interior.



Map prepared by Eastern Maine Development Corporation  
 Sources: GOMLC7 Land Cover and Wetlands of the Gulf of Maine (1995). U.S. Fish & Wildlife Service, Gulf of Maine Program and MEGIS  
 Map revised: November, 2005

**LEGEND**

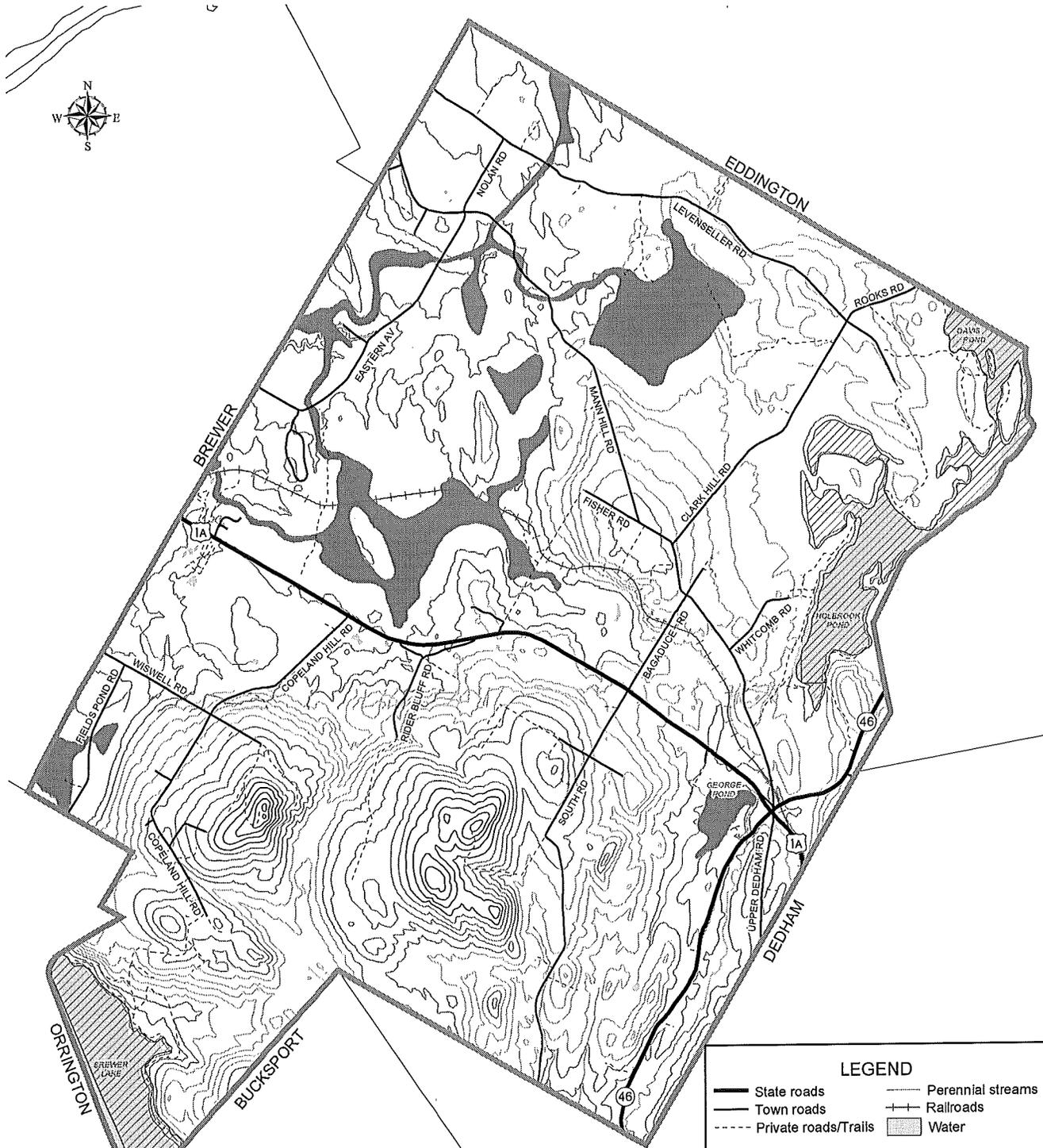
— State roads	— Perennial streams
— Town roads	— Railroads
- - - Private roads/Trails	

**LAND COVER CLASSIFICATION**

[Light Gray Box] Bare Land	[Dark Gray Box] Forest
[White Box] Cultivated/Grassland	[Medium Gray Box] Wetlands
[Dark Gray Box] Developed Land	

*Land cover classifications are defined in the text of the Comprehensive Plan. Original source data is based on 1995 satellite imagery.*

See map disclaimer in Introduction section.



Map prepared by Eastern Maine Development Corporation  
 Sources: USGS, FEMA/NFIP, MDOT and MEGIS  
 Map created: November, 2005

**LEGEND**

— State roads	— Perennial streams
— Town roads	+ + Railroads
- - - Private roads/Trails	■ Water

**FLOOD ZONES**

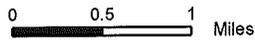
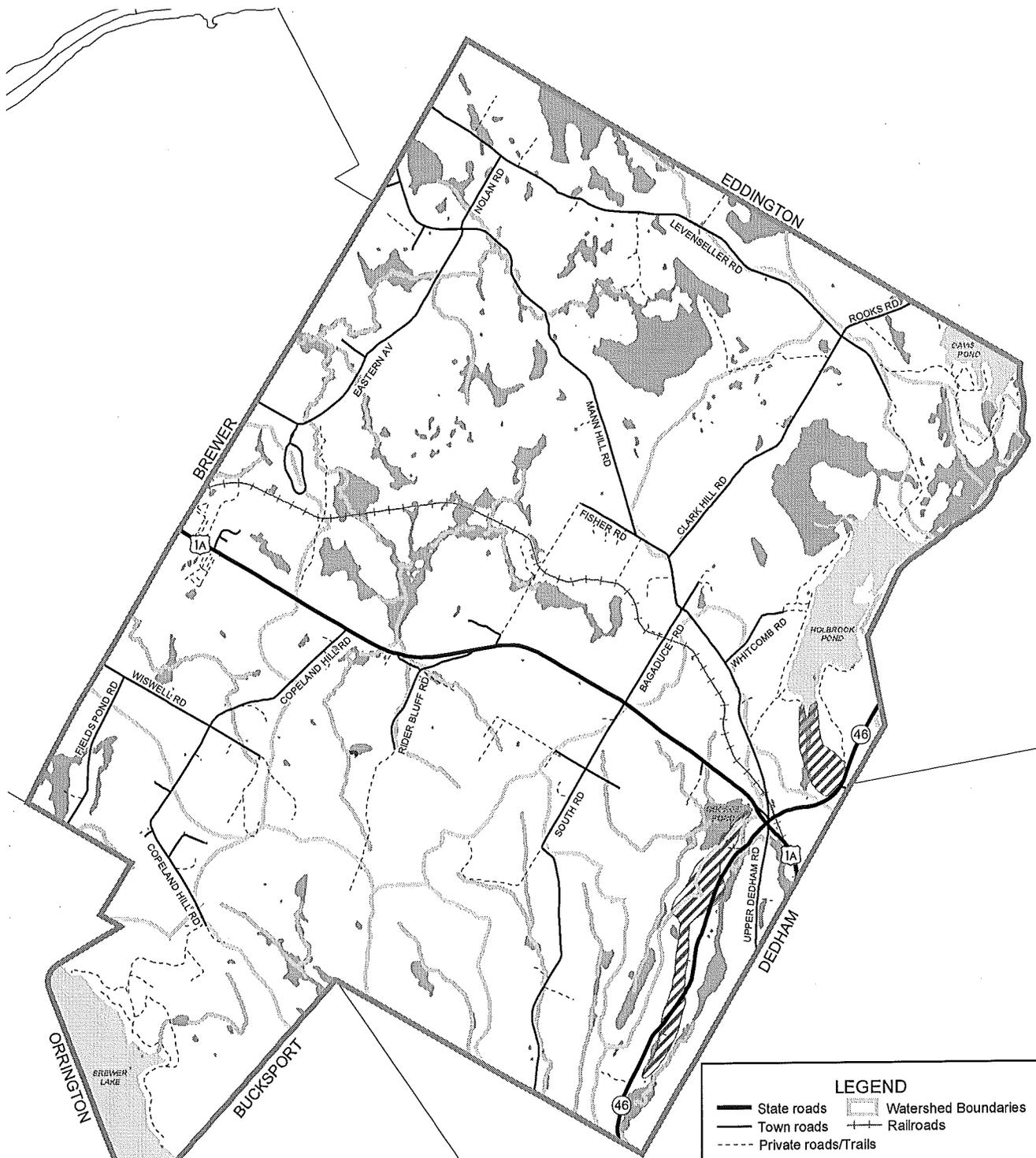
- An area inundated by 100-year flooding, for which no BFEs have been determined.
- ▨ An area inundated by 100-year flooding, for which BFE's have been determined.

**CONTOUR ELEVATION (FEET)**

— 80 - 200	— 401 - 600
— 201 - 400	— 601 - 800

*Notes: BFEs denote base flow elevations. The Flood Insurance Rate (FIRM) map for Holden was published in 5/20/96. Contours are in forty foot intervals.*

See map disclaimer in Introduction section.



Map prepared by Eastern Maine Development Corporation  
 Sources: MGS, USFWS, MEDOT and MEGIS  
 Map created: November, 2005

**LEGEND**

- State roads
- Town roads
- - - Private roads/Trails
- Watershed Boundaries
- + Railroads

**SIGNIFICANT AQUIFERS**

- ▨ 10 - 50 gpm

**NATIONAL WETLAND INVENTORY**

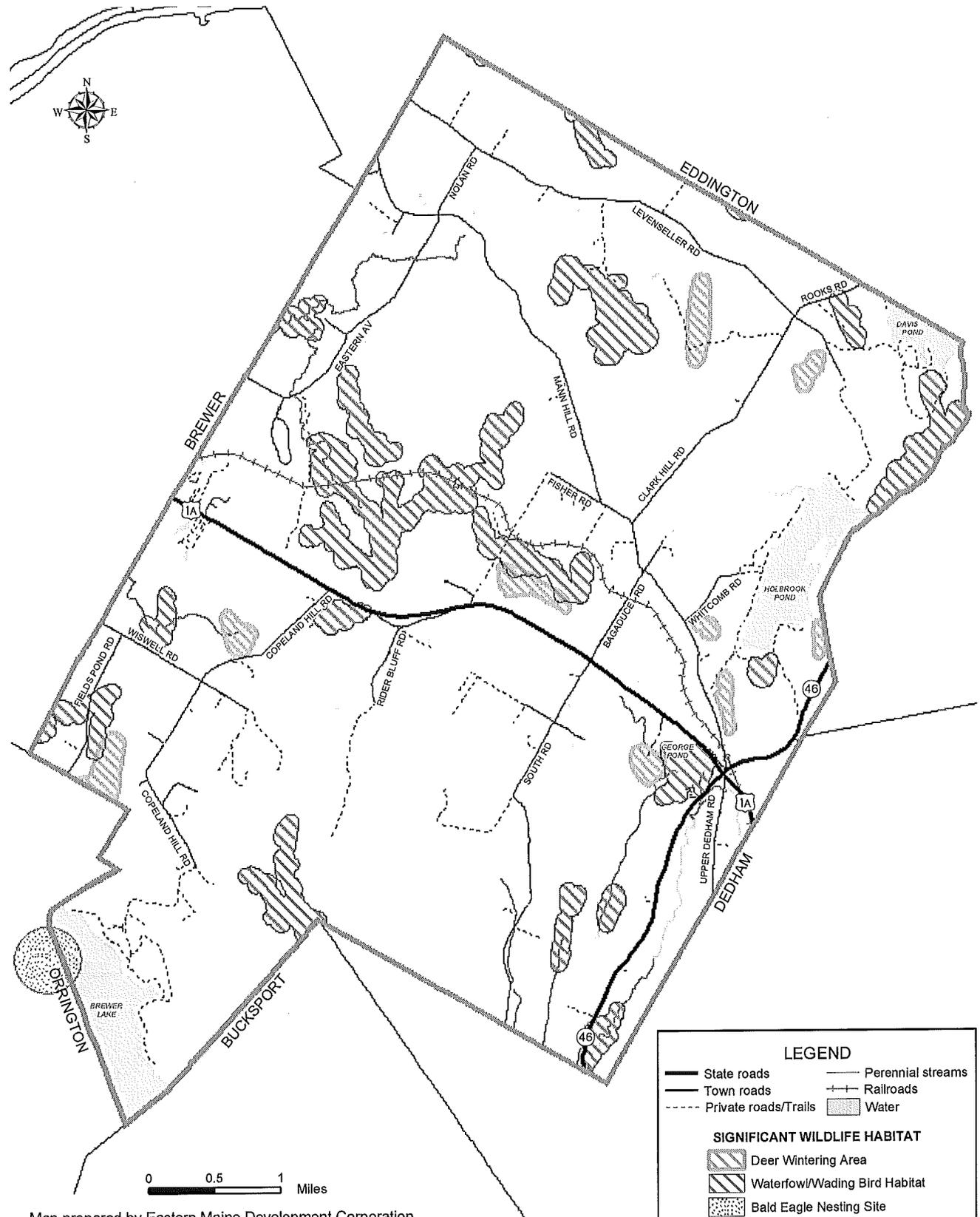
- Lacustrine (Lake)
- ▨ Palustrine (Marsh)

**WATER QUALITY CLASSIFICATION**

- Class B Streams \*

There are only Class B streams in Holden.

See map disclaimer in Introduction section.



Map prepared by Eastern Maine Development Corporation  
 Sources: MNAP, MEIFW, MEDOT and MEGIS  
 Map created: November, 2005

**LEGEND**

State roads	Perennial streams
Town roads	Railroads
Private roads/Trails	Water

**SIGNIFICANT WILDLIFE HABITAT**

Deer Wintering Area
Waterfowl/Wading Bird Habitat
Bald Eagle Nesting Site

(As defined by the Maine Department of Conservation and the Maine Department of Inland Fisheries and Wildlife. Data current as of August, 2005.)

See map disclaimer in Introduction section.

# Search for Wildlife Observations & Habitat



- Bald Eagle Nest Site
- Piping Plover / Least Tern Nesting, Feeding, & Brood-rearing Area
- Roseate Tern Nesting Area
- Deer Winter Area
- Inland Waterfowl / Wading Bird Habitat
- Coastal Waterfowl / Wading Bird Habitat
- Seabird Nesting Island
- Shorebird Area
- Biological Conservation Database Rare Species or Habitat Observation
- Rare Plant
- Rare / Exemplary Natural Community
- Township Boundary
- County

0 0.7 1.4 2.1 2.8 Miles



1:86,000

UTM Projection, Zone 19N, NAD83



P.O. Box 220  
 Jonesboro, ME 04648  
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 Fax: (207) 434-5923  
 September 08, 2005



## 6. TRANSPORTATION

*See transportation maps at the end of this chapter.*

### **Route I-395 Extension**

One of the most important challenges facing Holden over the next 10 years is the possible construction of a new \$55-\$60 million connector road between Route I-395 and Route 9.

Since 1999, the Maine Department of Transportation has upgraded Route 9, so that it now serves as a major east-west link between I-95/395, the Bangor/Brewer area, Downeast Maine and St. John, New Brunswick. Routes 1A and 46 in Holden now serve as primary connecting links between I-395 and Route 9. Traffic volumes, especially Canadian truck traffic, have increased dramatically on 1A and 46 since 1996. At the same time, Route 1A is serving larger volumes of tourist traffic during the summer months.

Within the past five years, the Maine Department of Transportation has developed and evaluated a number of alternate routes for extending I-395 in Brewer to Route 9. All of the alternatives pass through Holden. MDOT has identified a preferred alternative that passes diagonally through the community. However, to meet requirements of the Federal Highway Administration for approval, MDOT is currently preparing an environmental impact statement on several alternate routes. It is possible that the preferred alternative will not be the route that is finally built.

According to MDOT officials, the extension would most likely be built in phases. The first phase would be the construction of a limited-access, two-lane road. MDOT officials have stated that the only access in Holden would be at the point where the new connector intersects Route 1A between the Holden/Brewer line and Copeland Hill Road. As currently envisioned, there would be no access at Mann Hill Road or Levenseller Road or any other location in Holden. Barring unforeseen delays or funding issues, the earliest that construction could begin would likely be 2008 or 2009.

Construction of the connector road will create tremendous land development pressures along Route 1A, not only in the immediate vicinity of the intersection, but along nearby roads and on property where access roads can be constructed.

Both sides of Route 1A are currently zoned General Commercial from the Brewer line to an area roughly 500 feet northwest of Copeland Hill Road. From that point, Route 1A is zoned Limited Commercial on both sides for a distance of about 3,000 feet. Development pressure can be expected to intensify in these commercially-zoned areas. However, growth pressure will undoubtedly be great along Copeland Hill Road, which is zoned R-2 except for the area immediately adjacent to Route 1A. Growth pressures may also extend into the R3 District southeast of Copeland Hill Road. There are extensive wetland areas north of 1A which may limit development somewhat, although there may be pressure to rezone and develop R3 districts north of Route 1 and south of the railroad line.

### **Summary of Existing Road Network**

The transportation network and the accessibility it provides is one of the primary determinants of the pattern of future development. The system must tie together the various facilities and uses and must remain efficient and functional to ensure the continued well being of the community.

Based on data obtained from the Maine Department of Transportation and the Town of Holden, there are a total of 41.02 miles of public roadway in Holden. There are three types of public roads:

1. **Arterials** - Arterial roads are comprised of a system of connected highways throughout the State that serve a high volume of through traffic. This is generally defined as 10,000 to 30,000 annual average daily traffic (AADT) trips. MDOT has classified Route 1A for its entire length in Holden (5.35 miles) as a principal arterial. MDOT has also classified Route 46 north of Route 1A (Kidder Hill Road) as a minor arterial (1.29 miles).
2. **Collectors** - Collectors serve as feeder routes that connect local service roads to the larger arterial roads, and are generally defined as those roads that carry between 2,000 to 8,000 AADT trips. Collectors include numbered State highways and roads. According to MDOT, Route 46 south of Route 1A, (Lower Dedham Road) which runs for a distance of 2.55 miles in Holden, is a major collector. The State is responsible for the maintenance of major collectors.
3. **Public Town Roads (Town Ways)** - Public town roads are all other town roads not otherwise classified as arterials or collectors, and are defined as carrying 100 to 500 AADT trips. These roads are maintained by the municipality and serve primarily as local service roads that provide access to adjacent land as well as access to private roads. Based on information obtained from the Town, there are 35 Town roads with a combined mileage of about 31.83 miles, as shown in Table 1 on the following page. These roads are generally in good condition.

Route 1A bisects the Town of Holden and handles the majority of commuter and seasonal tourist traffic which passes through Holden from the Bangor/Brewer I-95 corridor to the Ellsworth/Bar Harbor coastal areas. This is a heavily traveled arterial route, especially in the seasonal months when it is utilized by commuter and tourist traffic. Route 1A and Route 46/Kidder Hill Road also serves as a connector between east-west traffic flowing from Route I-395 to Route 9.

### **Private Roads**

There are a number of private roads in Holden. Maintenance and improvement of these roads is the responsibility of the private owner(s). A listing of private roads is included in Table 2.

### **Traffic Counts**

Traffic volumes for Routes 1A and 46 and a few other roads are shown in Table 3 and are generally illustrated on the transportation network map at the end of this chapter. The information is based on traffic counts performed by MDOT between 1987 and 2003. The Average Annual Daily Traffic counts are average counts that are generally lower than the actual field counts. Based on the limited data contained in Table 3, Route 1A has adequate traffic carrying capacity to serve the Town and the surrounding region, but traffic volumes have increased substantially as shown in Table 3.

### **Six Year Transportation Improvement Plan**

In the year 2000, the Maine Department of Transportation released its first Six Year Transportation Plan. The purpose of the Plan was to identify planned projects over a six-year time frame so as to provide better linkage between its 20-Year Transportation Plan, which is policy-based, and its Biennial Transportation Improvement Program (BTIP), which is projected-based and is fiscally limited. The Six Year Plan provides MDOT with the opportunity to more effectively manage its planning, project development and financial resources. The Six-Year Plan also provides municipalities with the opportunity to plan for the anticipated improvements in a more timely manner than is allowed by the BTIP.

Route 46/Lower Dedham Road is included in MDOT's Six-year plan (2004-2009) for improvements. It should be noted that federal funding cutbacks have resulted in the deferral of many projects in the Six-year plan.

<b>Table 1 – Holden Public Road Inventory</b>				
<b>Road Name</b>	<b>Function</b>	<b>Length (miles)</b>	<b>Paved</b>	<b>Condition</b>
<b>State Roads</b>				
US Route 1A, Main Road	Principal Arterial	5.35	Yes	Good
Route 46, Kidder Hill Road	Major Collector	1.29	Yes	Poor
Route 46, Lower Dedham Road	Minor Arterial	2.55	Yes	Poor
<b>Town Roads</b>				
Bagaduce Road	Local	1.13	Yes	Good
Bates Road	Local	.13	No	Fair
Bloods Hill Road	Local	.13	Yes	Poor
Campbell Drive	Local	.19	Yes	Good
Carriage Lane	Local	.20	Yes	Good
Charles Drive	Local	.85	Yes	Good
Church Road	Local	.60	Yes	Good
Clark Hill Road	Local	2.03	Yes	Good
Clewleyville Road	Local	.79	Yes	Good
Copeland Hill Road	Local	2.87	1.43Y 1.44Y	Poor Fair
Dearborn Drive	Local	.29	Yes	Good
DeBeck Drive	Local	.30	Yes	Good
Dole Hill Road	Local	.73	.63Yes .10 Yes	Fair Poor
Eastern Avenue	Local	2.22	Yes	Good
Eaton Ridge Drive	Local	.99	Yes	Good
Fields Pond Road	Local	1.14	Yes	Good
Fisher Road	Local	.46	No	Good
Gilmore Lane	Local	.10	Yes	Good
Kingsbury Road	Local	.40	No	Fair
Lambert Road	Local	.12	Yes	Good
Levenseller Road	Local	4.07	Yes	Good
Mann Hill Road	Local	5.04	Yes	Fair
Mountainy Pond Road	Local	.05	No	Fair
Nolan Road	Local	.59	Yes	Good
Railroad Lane	Local	.10	Yes	Good
Rooks Road	Local	.60	Yes	Good
Rowell Road	Local	.21	No	Poor
Ryder Bluff Road	Local	.51	Yes	Good
Skyline Drive	Local	.15	Yes	Good
South Road	Local	3.02	Yes	Fair
Sunset Drive	Local	.09	Yes	Good
Tate Road	Local	.07	Yes	Good
Upper Dedham Road	Local	.90	Yes	Good
Whitcomb Road	Local	.25	No	Poor
Wiswell Road	Local	1.33	Yes	Good

**Table 2  
Summary of Private Roads in Holden**

<b>Private Roads in Mobile Home Parks</b>				
<b>Pine Cone</b>		<b>Cedar Haven</b>		
Emerald Road		Cedar Lane		
Margaret Lane		Ellen Drive		
Nelligan Drive		Hilltop Circle		
Shamrock Circle		Lakeview Drive		
		Lloyd Lane		
<b>LakeView</b>		Moon Avenue		
High Street		Shadow Lane		
Hill Street		Sleepy Hollow		
Short Street		Sylvan Terrace		
<b>Other Private Roads</b>				
Abbey Lane	Cricket Shore Lane	Hanscom Highway	Memory Lane	Sunflower Drive
Acorn Hill Road	Crawford Way	Harvest Road	Moonlight Drive	Swan Drive
Balsam Drive	Dane Brook Road	Hastings Drive	Murray Lane	Tall Pine Drive
Beaver Bog Lane	Dayze Way	Hemlock Drive	Newcastle Lane	Tower Drive
Beach Nut Lane	Dragonfly Drive	Holbrook Road	Nickerson Road	Valley View Road
Carter Drive	Edge of Town Road	Lakeman Lane	Oak Wood Drive	Victoria's Way
City View Drive	Farrington Drive	Lake Shore Road	Phillips Drive	Watters Lane
Cobb Drive	Forest Knoll Drive	Long View Drive	Pine Tree Lane	Whitcomb Road (part)
Cody Lane	Gilmore Lane	Lonnie Lane	Pinkham Road	Wildwood Estates Dr.
Collette Road	Greene Drive	Lowe Lane	Railroad Lane	Williams Way
Cottage Shore Drive	Hale Drive	Mannette Road	Stonegate Drive	Winters Road

**Table 3  
Traffic Count Information**

Road	Description	AADT 1987	AADT 1988	AADT 1996	AADT 1998	AADT 2001	AADT 2003	% Change***
RT 1A	At Holden/Brewer line	13,360	13,880		19,970			49%
	Just E of Copeland Hill Rd			17,860	18,140	18,570	20,640	16%
	Just W of South Rd/Bagaduce			16,400	17,540	17,490	19,840	21%
	Just E of South Rd, Bagaduce		11,210	14,210	15,850	15,850		41%
	Just W of Route 46	10,430				15,890		52%
	Just E of Route 46	9,010		11,714	11,213			24%
Route 46	Just S of 1A	840			1,902			126%
	Just N of 1A					2,960		-
Mann Hill Road	Just S of Clark Hill Road					1,740		-
Clark Hill Road	Just N of Mann Hill Road			1,160	910	1,040	1,080	-7%

\*\*\*From first year of data to last year of data

Source: MDOT

## Road Safety and Accident Summary

MDOT identifies high crash locations. All accidents that result in more than \$1,000 in property damage and/or an injury/death are analyzed on a rolling three-year period. Any location that experiences eight or more accidents in the three-year period and that has a Critical Rate Factor (CRF) of 1.0 or higher is considered a high crash location. The critical rate factor is a statistical measure that compares accident frequency at a given location with similar locations throughout the State. Table 4 contains a summary of high crash locations in Holden for the period January 1, 2002 through December 31, 2004, as well as other locations with more than one accident that have a critical rate factor greater than one. High crash locations are also illustrated on the transportation safety map at the end of this chapter.

**Table 4  
Town of Holden  
High Accident Locations, 2002-2004**

	# of Accidents	Critical Rate Factor
<b>High Crash Locations</b>		
Route 1A/Route 46 intersection	13	1.06
Route 1A/Bagaduce Road intersection	14	2.17
Eastern Ave between Eaton Ridge Drive, Rowell Road	8	1.20
<b>Other Crash Locations, multiple crashes, CRF &gt; 1</b>		
Route 1A between Dedham line and Upper Dedham Rd	6	1.04
Route 1A between Upper Dedham and Lower Dedham roads	3	1.75
Route 46/Mann Hill Road intersection	4	1.23
Mann Hill Road/Bagaduce Road intersection	2	1.40
Mann Hill Road/Clark Hill Road intersection	5	3.55
Mann Hill Road/Fisher Road intersection	4	7.75
Fields Pond Road/Wiswell Road intersection	2	2.18

Source: MDOT

## Highway Construction Backlog

Of the 8,269 miles of roadways administered and maintained by MDOT, 2,554 miles are classified as principal and minor arterials, and 3,488 are classified as major collector roadways. In May, 2000, the 119<sup>th</sup> Legislature enacted a law requiring MDOT to present biennial budgets that will result in improvement of the rural arterial highway system to modern design standards within 10 years. The arterial and major collector highways needing improvement are called "unbuilt highways" and they are part of Maine's reconstruction backlog. Route 1A and 46 are classified by MDOT as unbuilt highways for their entire lengths. As of 2006, funding constraints appear to have made the 10-year goal unrealistic.

## Access Management

Several years ago, the State Legislature directed MDOT to improve safety, conserve capacity and enhance economic productivity associated with transportation by maintaining existing posted speed limits of major highways throughout the State.

In response to the legislative mandate, the Maine Department of Transportation adopted access management regulations which require that property owners obtain a permit from the Maine Department of Transportation prior to constructing driveways and entrances on the State's arterial and collector highways. In recognition of the fact that speed is one of the most important factors to many travelers, MDOT's regulations define two types of rural arterials: Mobility Arterials and Retrograde Arterials. A Mobility Arterial is a Non-Compact Arterial that:

- 1) Has posted speed limit of 40 mph or more and is part of an arterial corridor located between Urban Compact Areas or Service Centers that carries an average daily traffic of at least 5,000 vehicles per day for at least 50% of its length; or
- 2) Is part of a Retrograde Arterial Corridor located between Mobility Arterials described in 1) above.

A Retrograde Arterial is a Mobility Arterial where the access related crash-per-mile rate exceeds the 1999 statewide average for Arterials of the same posted speed limit.

MDOT's access management standards apply to Routes 1A and 46. Route 1A is considered by MDOT to be both a mobility arterial and a retrograde arterial. MDOT's access management regulations include standards for:

- Distances between driveways/entrances
- Sight distance
- Driveway width
- Corner clearances
- Turnaround area/parking
- Drainage
- Intersection angle/radius of edges
- Double frontage lots

The standards for retrograde arterials are generally higher than for non-retrograde arterials; they severely limit the extent of new development that can occur along Route 1A. The Town's Zoning Ordinance somewhat mirrors MDOT's standards on Route 1A, but in the long run, the Town may want to consider adopting MDOT's standards to ensure that the regulations are properly enforced. The Town of Holden will need to be aware of the new rules to avoid unintentionally supporting the creation of lots on Route 1A that cannot be granted an access management permit because they do not meet MDOT's standards.

## Bridges

Table 5 contains a list of local bridges in Holden. Each bridge has a sufficiency rating, which reflects functionality (width and weight capacity) and structural condition, among other criteria. All three bridges have been inspected by MDOT within the past three years.

<b>Table 5 Town of Holden Bridge Inventory</b>						
<b>Name</b>	<b>Location</b>	<b>Length</b>	<b>Water Body</b>	<b>Year Built</b>	<b>Structure Condition<sup>1</sup></b>	<b>Sufficiency Rating<sup>2</sup></b>
Leighton Bridge	South Rd	10'	Leighton Brook	1963	7	86.9
Mill Bridge	Upper Dedham Rd	18'	Phillips Lake Outlet	1939	5-9	81.7
Eaton Brook Bridge	Eastern Ave.	22'	Eaton Brook	1958	5-7	82.2

<sup>1</sup> Structure condition ratings range from 0-9 with 9 representing the best condition.

<sup>2</sup> Sufficiency rating reflects functionality and structural condition; the higher the number, the better the condition

## **Public Transportation System**

Public transportation is provided to Holden residents on a limited basis by THE LYNX, which is operated by Penquis Community Action Program's Transportation Service Center. Penquis Cap's primary mission is to provide non-emergency services to the low income, elderly, disabled and general population of its service area which includes Penobscot and Piscataquis Counties. THE LYNX provides door-to-door public and social service transportation in agency vehicles. Medicaid-covered and some social service transportation are also offered in private vehicles with volunteer driver services and are available by appointment only.

BAT Community Connector is a public transportation system owned by the City of Bangor that provides fixed route service in Bangor, Brewer, Hampden, Veazie, Orono, the University of Maine and Old Town. The line that serves Wilson Street in Brewer is closest to Holden. Communities that receive service from BAT provide financial support to the system.

Scheduled service is also provided by Greyhound Bus Lines/Vermont Transit, located at 158 Main Street, Bangor, and Concord Trailways located at 1039 Union Street, Bangor.

## **Public Parking Facilities**

There are public parking facilities at the municipal building, Holden Elementary School, and the Holbrook School. A small amount of parking is also available at the Public Works area.

## **Sidewalks and Footpaths**

Holden does not have any sidewalks or bicycle paths, but there is growing public support for trails, bike paths and foot paths. There may be many opportunities in the future to establish such facilities as land is developed and other land is set aside for open space/recreation.

## **Air Transportation**

Maine's aviation system consists of 36 publicly owned airports, six of which are served by regularly scheduled passenger service. The Portland International Jetport serves the majority of domestic flights. Bangor International Airport specializes in international flights, but also provides service to major cities throughout the U.S.

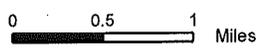
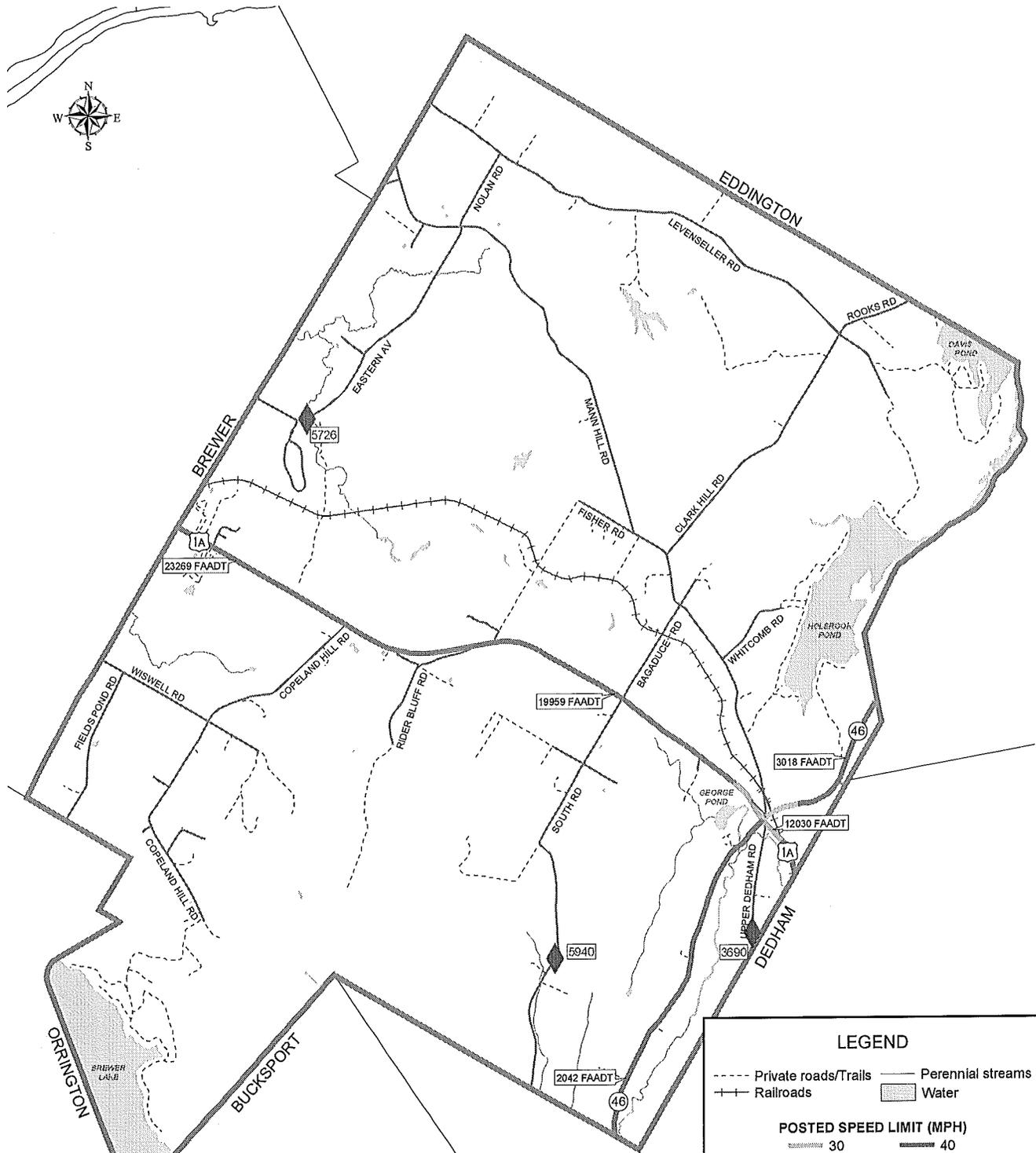
## **Rail**

There currently is no rail service in the community. However, the State of Maine retains ownership of the unused Maine Central line that bisects the community. MDOT studied options for passenger services between Bangor and Trenton as part of its efforts to reduce congestion along the Route 1A corridor and in Acadia National Park but concluded that passenger service along the rail line, whether by rail, on-road buses and/or dedicated bus ways, would not be cost effective.

## **Analysis**

Holden's transportation system generally has the capacity to accommodate future growth. The I-395 extension is the biggest transportation challenge facing Holden because its exact location, and the timing of construction, is not known at this time. There is also uncertainty about whether or not there will be one or more exits in Holden. The Town of Holden has identified a need for one or more additional village centers, but it is not possible to identify an exact location and plan for its development near the extension without knowing the particulars of the I-395 extension.

Compounding the problem of locating a village in the eastern portion of the community (where the extension could be located, and where there is access to public water) is that there is a lack of connectivity of local roads in this area. Moreover, Eastern Avenue, which might seem on paper to be a logical access between the eastern portion of the community and Route 1A, is not designed and built to carry heavy traffic loads.



Map prepared by Eastern Maine Development Corporation  
 Sources: MDOT and MEGIS  
 Map created: November, 2005

**LEGEND**

- Private roads/Trails
- Perennial streams
- +++ Railroads
- Water

**POSTED SPEED LIMIT (MPH)**

- 30
- 35
- ===== 40
- ===== 45

**TRAFFIC VOLUMES - LEVEL OF SERVICE (LOS)**

5916 FAADT Factored Annual Average Daily Traffic \*

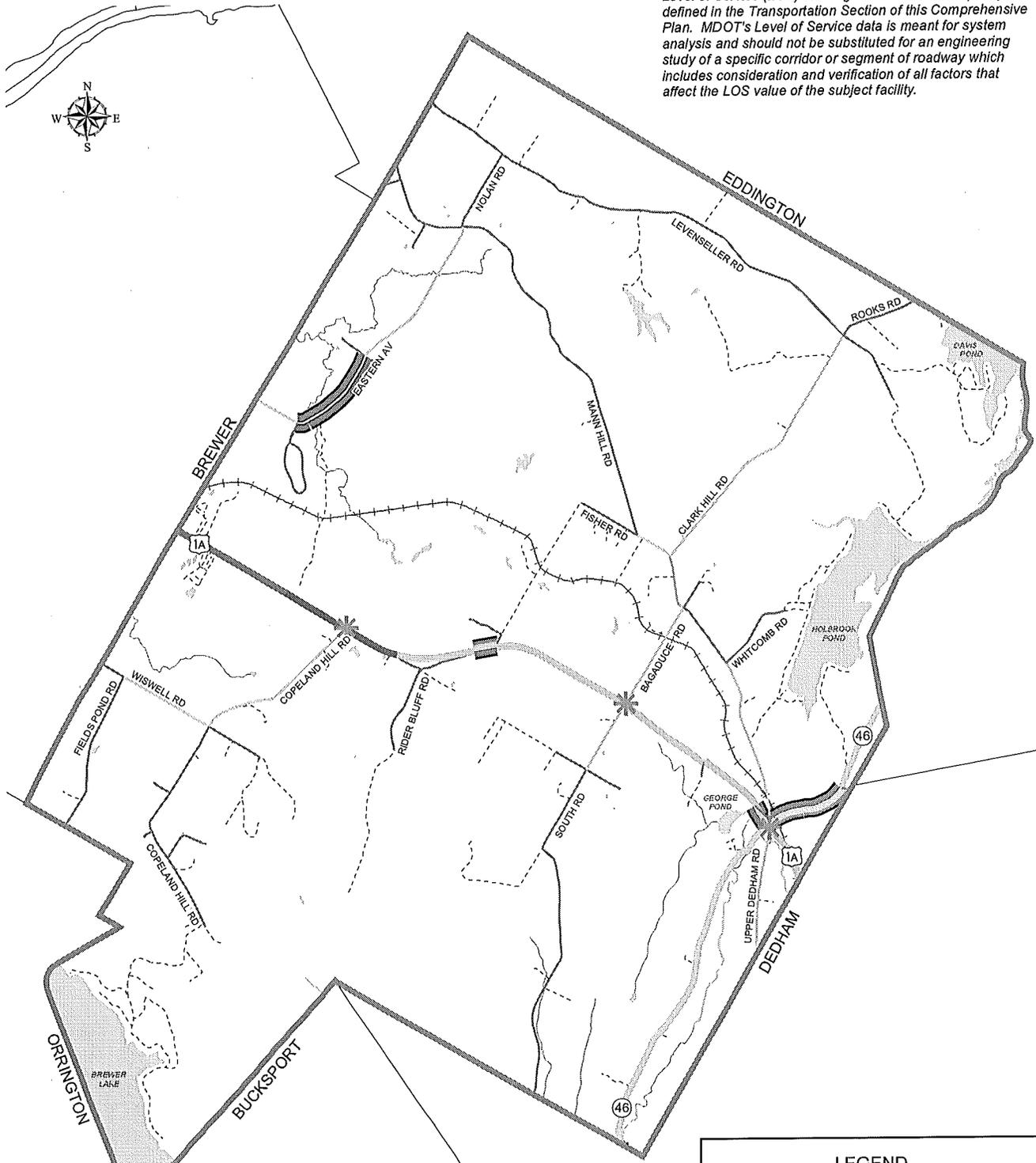
\* The AADT numbers shown on this map are from 2004 and are factored to account for growth.

**BRIDGE INVENTORY**

- ◆ Bridges
- 3690 - Mill Bridge
- 5726 - Eaton Brook Bridge
- 5940 - Leighton Bridge

See map disclaimer in Introduction section.

Level of Service (LOS) and High Crash Locations (HCL) are defined in the Transportation Section of this Comprehensive Plan. MDOT's Level of Service data is meant for system analysis and should not be substituted for an engineering study of a specific corridor or segment of roadway which includes consideration and verification of all factors that affect the LOS value of the subject facility.



Map prepared by Eastern Maine Development Corporation  
 Sources: MDOT and MEGIS  
 Map created: November, 2005

**LEGEND**

----- Private roads/Trails	— Perennial streams
++ Railroads	■ Water

**TRAFFIC VOLUMES - LEVEL OF SERVICE (LOS)**

▬ LOS A	▬ LOS D
▬ LOS B	▬ LOS E
▬ LOS C	▬ LOS F

**HIGH CRASH LOCATIONS**

▬ HCL Lengths of Roadway (Links: 1999 - 2003)
* HCL Points (Nodes: 1999 - 2003)

See map disclaimer in Introduction section.

## 7. PUBLIC FACILITIES AND SERVICES

There are a number of public facilities and services available to the residents of Holden, most of which are provided by residents who donate many hours to the community with very little pay. Local taxes would be much higher were it not for the contributions of those who serve the community. Some of Holden's services are provided as a municipal service, but others are made available by volunteers, private groups and organizations. The Cities of Bangor and Brewer, as well as Penobscot County, also provide a number of services.

### Town Government

The Town of Holden is governed by the Town Manager/Council/Town Meeting form of government as set forth by the Town's Charter. The Town Council is assisted on a day-to-day basis by the Town Manager and other office staff.

**Elected officials** and their terms of office include the following:

Town Council (5)	3 year term
School Board (4)	3 Year terms

**Appointed Boards and Committees** include:

Board of Assessment Review (3)	3 year term
Cemetery Board of Trustees (5)	3 year term
Budget Review Committee (13)	1 year term
Planning Board (7)	5 year term
Recreation Board (3)	3 year term
Board of Appeals (5; 2 alt)	5 year term
Conservation Commission (7)	3 year term

**Appointed Positions** are listed below. It should be noted that one person may serve in more than one capacity:

Animal Control Officer	Road Commissioner
Assessor	Sealer of Weights and Measures
Civil Emergency Preparedness Officer	Superintendent of Schools
Code Enforcement Officer	Tax Collector
Community Development Director	Deputy
Fire Chief	Town Clerk
General Assistance Administrator	Deputy
Deputy	Assistant
Health Officer	Assistant
Notary Publics	Assistant
Plumbing Inspector	Town Manager
Police Chief	Town Planner
Public Safety Director	Treasurer
Registrar of Voters	Deputy

## Public Buildings and Areas

There is a cluster of publicly owned buildings located on the northern side of Route 1-A about a mile west of the intersection of 1-A and Bagaduce Road. These structures include the Town Office, Holden Elementary School, the Highway Garage, and the Salt/Sand Storage Shed. Holden does not have a village center, so these public buildings, as well as a small community park to the east of the Town Office are the community's service center.

**Municipal Buildings.** Town-owned structures in Holden include the following:

1. **Town Office.** The Holden Town Office is located on the north side of Route 1-A adjacent to Holden Elementary School to the east, and the Highway Garage to the west. The Town Office was constructed in 1975 and enlarged in 1992/93. Administrative offices are located on the first floor, and fire, rescue and police facilities are located in the basement. The first floor office space appears to be adequate to meet the needs of the community for the foreseeable future.
2. **Highway Garage.** The Highway Garage is located on the north side of Route 1A adjacent to and just west of the Town Office. The garage has six-bays, one of which is utilized by SAD# 63.
3. **Salt/Sand Storage Shed.** The Town's salt/sand storage shed is located behind the Town Office.
4. **Old Town Hall.** The Old Town Hall/grange is located on the south side of Route 1A, one lot west of the intersection of 1A and South Road. It is vacant and unusable in its current condition.

**School Buildings.** The two public schools in Holden are owned by SAD 63, but are used by the community for various activities, meetings and functions. They include:

1. **Holden Elementary.** Holden Elementary, located on Route 1-A, serves Holden students in kindergarten through 4<sup>th</sup> grade, as well as Special Education.
2. **Holbrook School.** Holbrook School, located on Kidder Hill Road (Route 46), serves all SAD 63 students in grades 5 through 8. This includes students from Holden, Clifton and Eddington.

**Public Parking.** Public parking is maintained at each of the schools and the Town Office. A limited amount of parking is also available at the Highway Garage. At times, parking at the Town Hall and Holden Elementary School is insufficient to accommodate public gatherings.

**Cemeteries.** There are six public cemeteries in town. They include Rowe's Cemetery, Hart's Corner Cemetery, Holden Center Cemetery, Hillcrest, Clewleyville and Waining Cemeteries. Rowe Cemetery, established in 1888, is the largest. Holden Center Cemetery, located on Route 1-A, cannot be expanded. The Board of Cemetery Trustees is currently searching for additional land for a new cemetery. The Town of Holden contracts for mowing and trimming these cemeteries

## Public Water

There are two areas of Holden that are served by water from the Brewer public water system. The first is located along Levenseller Road which runs parallel to a major water distribution line that runs from Brewer's water source to the City. It serves Rooks Road, Levenseller Road, Nolan Road, Clewleyville Road and Lambert Road. A second water transmission main 16 inches in diameter enters Holden along Eastern Avenue and extends through

the back part of DeBeck Business Park to Route 1-A. Dysarts and Irving on Route 1-A, as well as several businesses in the DeBeck Park, receive water from this line.

### **Public Sewer**

The Town of Holden does not have a public sewer system. The community is served by individual, subsurface sewage disposal systems. During the construction of Route I-395, two pipes were laid under the exit and entrance ramps for possible future extension of public sewer and water from outer Wilson Street in Brewer to Route 1-A in Holden.

The capability of serving the western portion of the community with public water and sewer needs to be considered as Holden evaluates the land use impacts resulting from the State's plans for an I-395/Route 9 connector road, and the need for establishing areas to accommodate the future growth of the community.

### **Public Safety**

All of Holden's public safety employees, including police, fire and rescue personnel, work under the direction of a Public Safety Director, who currently also serves as the Fire Chief. In 2004, there were a total of 1,967 emergency incidents, complaints and requests for service, as well as an additional 130 animal-related complaints. Motor vehicle crashes on Route 1A require a substantial commitment of public safety resources. In 2004, the emergency personnel responded to approximately 50 crashes on this highway.

The greatest public safety challenge continues to be the lack of a suitable public safety building. Fire, Police and Rescue personnel are all located in too small a space in the basement of the municipal building. The police share a single 8' X 9' space that provides no privacy and very little security. There is no secured area to house police cruisers when they are not being used. The facilities for the student firefighter live-in program are very marginal. Over the next 10 years, the Town will have to consider establishing a public safety building to better meet the growing public safety needs of the community.

**Fire/Rescue.** The Fire/Rescue Department includes two full-time and a number of part-time fire fighters. In 2004, the Department responded to 302 calls for assistance including 196 medical emergencies and 106 fire-related emergencies. 41 of the 196 medical emergencies were motor vehicle crashes, most of which occurred on Route 1-A. Holden's fire fighters train monthly with their mutual aid partners from Brewer, Eddington, Dedham and Orrington. The Department continues to explore with the mutual aid partners opportunities for fire service regionalization. Fire Department vehicles include the following:

- 1993 HME pumper (1,000 gallon tank, 1,250 GPM pump); projected replacement 2013-14
- 1998 Metalfab pumper (1,500 gallon tank, 1,250 GPM pump); projected replacement 2018-19
- 1989 Chevy brush truck; projected replacement 2005-06
- 2001 Ford Rescue, projected replacement 2016-17

**Police.** The Holden Police Department consists of two full-time officers and a number of part-time officers. In April of 2003, the Town of Holden formed its own Police Department. Prior to that time, the Town was affiliated with the Penobscot County Sheriff's Department, but had the same number of officers and cruisers. In 2004, the Department responded to 1,665 calls for service, not including speeding tickets or civil matters. The types of calls ranged from accidents with property damage (121), to assaults (10), burglaries (11), criminal mischief (23), family fight/domestic (14), harassment (15), and theft (85).

The Police Department currently owns three cruisers including a 2004 Ford cruiser that serves as the primary cruiser, as well as two older vehicles that serve as back-up cruisers. The Town purchases a new cruiser every two years.

### **Dispatching**

Dispatching services are provided through 911 calls by the Penobscot Regional Communication Center in Bangor. Individual fire personnel are notified of an emergency by pagers. By joining the County system, Holden may be asked on occasion to provide mutual aid to other towns served by the County system.

### **Public Highway Department**

Holden's Public Highway Department is staffed by four full-time employees. The Department is responsible for plowing and sanding all local roads, as well as maintaining ditches and roads, keeping roads clear of brush and debris, and maintaining highway maintenance equipment. The Highway Department is also responsible for burials at the public cemeteries. The Town has an ongoing paving program under which it contracts for about \$150,000 worth of paving on an annual basis.

Highway maintenance equipment includes the following:

- 1999 Mack Truck 1 (single axle); projected replacement 2009-10
- 1998 Mitsubishi Truck 2 (1 ton); projected replacement 2008-09
- 2000 Sterling Truck 4 (dual axle); projected replacement 2010-11
- 2002 Volvo Truck 5 (dual axle); projected replacement 2013-14
- 2005 John Deere Backhoe; projected replacement – Annual
- 2004 Interstate Trailer; projected replacement 2020-21
- 2003 53H Sweeper; projected replacement 2013-14
- 2001 L & A Pressure Washer; projected replacement 2008-09
- 1980 John Deere 570 Grader; projected replacement 2010-11

### **Solid Waste**

The Town of Holden has adopted a pay-per-bag household trash collection program. Under the requirements of the program, residents may use plastic bags or metal or plastic containers. The maximum size of the bag or container is 33 gallons and it must not weigh more than 40 pounds when full. Each bag or container must display an approved sticker or it will not be picked up. The Town contracts with a private waste hauler (currently Waste Management of Maine) to provide curbside collection of trash on a weekly basis and recyclable materials on a monthly basis, and for the use of Waste Management's recycling facility on Dirigo Drive in Brewer. The Town has a contract with PERC (Penobscot Energy Recovery Company) for trash disposal incineration at the PERC incinerator in Orrington.

**Demolition Debris.** Items such as old building materials, appliances and brush, may be taken to the Waste Management Transfer Station in Brewer, or to the Pine Tree Landfill in Hampden. A permit from the Town Office is required to use the facility in Brewer, but none is required to use the Pine Tree facility. Both facilities charge a disposal fee.

**Universal Waste.** Used items which contain mercury are considered universal waste. This includes items such as televisions, computers, printers, copiers, fluorescent bulbs and thermostats. These items may be taken to the

Brewer Universal Waste Disposal Facility located at 37 Oak Street in Brewer. Use of the site requires a permit from the Town Office and payment of a disposal fee at the Disposal Facility.

### Education

The Holden School Department is operated by School Administrative District (SAD) 63. SAD 63 includes the Towns of Holden, Eddington and Clifton. The Board of Directors, composed of eight people, is the governing body of the District. Representatives of the Board are elected from each Town at their Annual Town Meetings (4 from Holden, 3 from Eddington, and 1 from Clifton).

The Holden Elementary School, located on Route 1-A, serves Holden students in Kindergarten through fourth grade as well as Special Education students. The District's other elementary school is located in Eddington. The Holbrook School, located on Kidder Hill Road, serves grades 5 through 8 for students from Holden, Eddington and Clifton. SAD 63 does not have its own high school. As a result, students in grades 9-12 choose their own high school, usually Bangor, Brewer or John Bapst.

The two Holden schools are owned by SAD 63, but are used by the community for various activities, meetings and functions.

As shown in Table 1, elementary school enrollment has declined from 381 students in 1995, to 290 students in 2004 (a decline of 90 students, or 24%). During that same period, total school enrollment has declined from 562 to 496, a drop of 66 students, or 12%.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Elem. Spec.	7	5	8	5	8	12	10	7		
Early K									1	11
Grade K	35	34	25	33	34	27	22	32	31	27
Grade 1	36	35	33	25	35	39	29	19	30	31
Grade 2	50	42	37	33	30	34	43	31	24	32
Grade 3	40	47	40	38	32	35	31	36	36	22
Grade 4	40	44	48	36	39	38	35	25	37	35
Grade 5	41	44	47	41	40	33	40	32	29	35
Grade 6	53	39	48	46	43	47	32	29	34	29
Grade 7	39	46	44	42	48	48	46	33	35	33
Grade 8	40	39	44	41	41	50	59	43	36	35
<b>Tot. Elem</b>	<b>381</b>	<b>375</b>	<b>374</b>	<b>340</b>	<b>350</b>	<b>363</b>	<b>347</b>	<b>287</b>	<b>293</b>	<b>290</b>
% Change		-1.57%	-0.27%	-9.09%	2.94%	3.71%	-4.41%	-17.29%	2.09%	0.98%
Grade 9	49	45	45	55	50	50	50	55	54	46
Grade 10	47	48	39	45	54	49	44	50	60	53
Grade 11	48	41	40	39	38	49	46	40	49	54
Grade 12	35	41	41	48	36	35	48	46	41	53
Sec. Spec.	2	5	0	1	4	6	4	1	0	0
<b>Tot. Sec.</b>	<b>181</b>	<b>180</b>	<b>165</b>	<b>188</b>	<b>182</b>	<b>189</b>	<b>192</b>	<b>192</b>	<b>204</b>	<b>206</b>
% Change		-0.5%	-8.3%	13.9%	-3.3%	3.8%	1.6%	-	6.3%	1.0%
<b>Grand Total</b>	<b>562</b>	<b>555</b>	<b>539</b>	<b>528</b>	<b>532</b>	<b>552</b>	<b>539</b>	<b>479</b>	<b>497</b>	<b>496</b>
% Change		-1.25%	-2.88%	-2.0-4%	0.76%	3.76%	-2.36%	-11.13%	3.76%	-0.20%

Source: Maine Department of Education

Table 2 contains school enrollment projections prepared by the Maine Department of Education. Based on these projections, school enrollments are expected to continue to decline for the next 10 years. While continued declines can be expected, the State's middle school enrollment projections unrealistically assume zero middle school students by the year 2012, thus overstating the extent to which enrollments will drop. Therefore, these numbers, as well as the total school enrollment, is depicted as "unknown" for these years.

Declining enrollments will have long-term consequences for the school system. There are certain base costs such as maintaining the physical plant and retaining administrative staff that will result in increased costs per student.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>Grades K-5</b>	141	130	120	111	103	96	90	85	79	74	74
<b>Grades 6-8</b>	69	56	44	33	23	13	4	*	*	*	*
<b>Grades 9-12</b>	198	197	195	189	184	179	174	170	169	169	166
<b>Grades K-12</b>	408	383	359	333	310	288	268	*	*	*	*

\* Unknown

Source: Maine Department of Education

### Outdoor Recreation

It is very important that any residential area have adequate recreational opportunities, either within the municipality, or on a broader regional scale. Open spaces, public parks and recreation programs serve a vital function in the community: they ensure that the people have somewhere to go to enjoy the outdoors. Parks give children safe areas to play, provide areas for local functions, and are open spaces which provide an aesthetically pleasing atmosphere. Public access to ponds, lakes and streams is also important because surface waters offer recreational opportunities including fishing, swimming and boating. Access to surface waters is guaranteed by the Legislature which reserves the right of people to cross unimproved land to get to a great pond. This does not give people the right to engage in activities on the shore without the permission of the land owner.

**Recreation Facilities.** Holden does not have any town-owned recreational areas, parks or playgrounds other than a small community park located between the Town Office and Holden Elementary School. It has a gazebo and picnic table. Non-municipal recreational facilities are limited to:

1. **School facilities.** There is a community playground at Holden Elementary School, and ball fields at both Holden Elementary and Holbrook Schools.
2. **Snowmobile trail system.** A significant snowmobile trail system exists in Holden for use during the winter months. This system utilizes private land, and is privately maintained.
3. **Lakes.** Brewer Lake, Holbrook Pond, Davis Pond and George's Pond all have shoreline within the Town of Holden, but there is no Town-owned developed access to these water bodies. A public landing is available on Brewer Lake in Orrington. There is a privately owned landing on Davis Pond in East Eddington. The Holden Conservation Commission has reviewed the viability of providing public access to Holbrook Pond and Brewer Lake on property that Holden owns on these two water bodies. The

Commission recommends that access be limited to canoes and kayaks. Neither site is suitable for motorized access.

4. **Holden Community Learning Nature Trails.** The Holden Community Learning Nature Trails are a series of learning trails that can be used by the community, schools and organizations for the opportunity to learn about the elements of nature and the relationship between the forests and everyday life. The trails feature strategically placed information kiosks as well as interpretive labeling of trees. There are numerous benches and several picnic tables.

Most of the trails are indigenous and are excellent for walking and snowshoeing. There is a graveled walkway that is handicapped accessible.

The nature trails are a collaborative effort between the Town of Holden, the school system, and the Nature Trail Committee (comprised of Holden residents). The trailhead is located behind the Holden Elementary School.

5. **Fields Pond Nature Center.** This nature center is owned by the Maine Audubon Society and is located in the southwest corner of Town, off Fields Pond Road on the Orrington border.

6. **Regional Resources.** There are a large number of recreational facilities available to Holden residents throughout the region. A partial listing of these resources includes the following:

- Parks in Bangor and Brewer. Bangor and Brewer have a number of municipal recreational facilities including outdoor swimming pools, creative playgrounds, playing fields and various classes and special events. Numerous parks are maintained throughout both cities, including Cascade Park which is the site of numerous special events throughout the warmer months. Other facilities include a baseball complex, the Sawyer Ice Arena, the Hermon Mountain Ski Area and the Bangor Municipal Golf Course.
- Regional water bodies. The Penobscot River offers boating opportunities and sports fishing. Numerous lakes and ponds in the Greater Bangor Area offer swimming, boating, and fishing opportunities. Kenduskeag Stream is popular for canoe and kayak enthusiasts.
- Acadia National Park. Mount Desert Island and Acadia National Park provide a wide range of recreational opportunities including sight-seeing, hiking, swimming and boating. This unique coastal natural area is just over an hour away from Holden.
- Baxter State Park. Baxter State Park, one and a half hours to the north, provides rugged hiking, wilderness opportunities and access to the Appalachian Trail.
- University. The University of Maine at Orono offers a number of outdoor recreational opportunities including outdoor sports events and numerous hiking trails.
- Campgrounds. There are numerous, privately operated campgrounds throughout the region.
- Golf courses. Several golf courses are open to the public including Island Green in Holden and golf courses in Brewer, Hampden, Hermon, Kenduskeag and Lucerne.

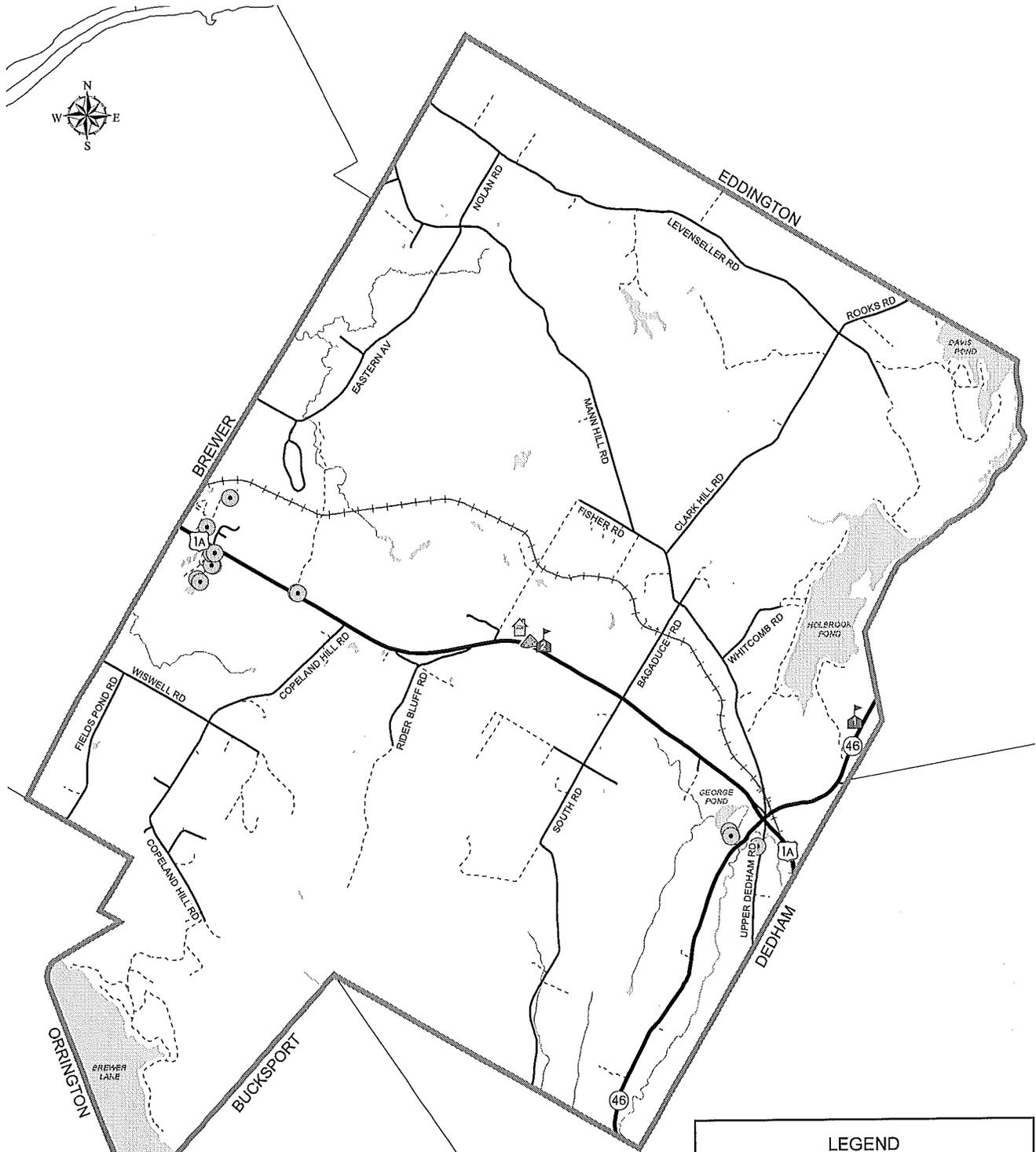
**Holbrook Regional Recreational Program.** The Holbrook Recreation Program is a joint recreational program supported by and providing activities throughout the year to residents of Holden, Clifton, Dedham and Eddington. The program offers 12 activities and in 2004 served approximately 750 people. Activities include T-Ball, Farm Little League, Little League, Senior Little League, Softball, Instructional Soccer, Peewee Basketball, Dribbling Devils, Men's Night, High School Night, Co-Ed Volleyball, and Snowmobiling.

The operating budget of approximately \$30,000 is funded by the four communities, as well as sponsorships and contributions from individuals and businesses.

## **Analysis**

In general, the Town of Holden is well served by its system of public facilities and services. The major shortcoming is the lack of suitable space for public safety needs – police, fire and rescue. State – projected growth rates over the next 10 years are not expected to strain any public services. To the contrary, one of the biggest challenges may be how to deal with declining school enrollments.

The eastern portion of the community closest to Brewer is likely to continue to be subject to growth pressures because of the presence of public water, proximity to the most likely route for the 395 Extension, and a developer's purchase of a large, undeveloped parcel of land. Development challenges in this area include extensive wetlands and the lack of an adequate rural road network to carry substantial increases in traffic to Route 1A.



0 0.5 1 Miles

Map prepared by Eastern Maine Development Corporation  
 Sources: MDOT and MEGIS  
 Map created: November, 2005

**LEGEND**

	State roads		Perennial streams
	Town roads		Railroads
	Private roads/Trails		Water

**PUBLIC FACILITIES AND SERVICES**

	Holden Town Office and Fire Department		Community Public Water Supply
	School		Sand/Salt Shed
	1 - Holbrook School		2 - Holden Elementary School

See map disclaimer in Introduction section.

## 8. MUNICIPAL FINANCES

### Historical Valuations and Taxes

Both the Town of Holden and the State of Maine compute valuations for the Town ("valuation" in this context is the sum total of the value of all properties in Town). The State compiles and adjusts its figures to reflect actual property transactions, and hence market values. Holden's valuations will reflect market value only in those years in which the Town conducts a revaluation and adjusts values to reflect market conditions (Holden completed a revaluation in 1992). State valuation figures for any given year are two years old, and thus do not reflect recent changes in overall property values. State law requires that when a municipality's valuation drops below 70% of the State valuation, a revaluation must be undertaken.

Table 1 provides a summary of Holden's State valuation, municipal valuation, the tax assessment, tax rate and certified ratio for the years 1990 through 2003, as reflected in municipal valuations prepared by the State Bureau of Taxation and in municipal valuation returns. During the period 1990 through 2003, Holden's municipal valuation rose from \$63.0 million to \$131.4 million, or 109%. The largest jump in the municipal valuation occurred as a result of the 1992 revaluation, when municipal valuation rose from \$65.3 million in 1991 to \$106.9 million in 1992. A high valuation does not necessarily mean that taxes are high. A community with a high valuation can raise a given sum of money with a relatively low tax rate, whereas a community with a low valuation can raise the same amount of money only with a higher tax rate. Holden is undergoing a complete revaluation, beginning in the fall of 2005.

<b>Table 1</b>				
<b>Historical Valuation And Taxes</b>				
	<b>State Valuation in \$</b>	<b>Municipal Valuation in \$</b>	<b>Holden Tax Assessment in \$</b>	<b>Tax Rate</b>
1990	81,500,000	63,023,400	1,161,521	0.01843
1991	94,750,000	65,261,200	1,298,698	0.01990
1992	100,250,000	106,954,790	1,438,542	0.01345
1993	102,450,000	108,486,290	1,459,141	0.01345
1994	107,300,000	109,957,440	1,583,387	0.01440
1995	106,900,000	111,783,690	1,801,953	0.01612
1996	113,950,000	113,527,390	1,868,661	0.01646
1997	116,800,000	116,656,790	1,913,171	0.01640
1998	117,400,000	113,344,590	1,836,183	0.01620
1999	119,950,000	115,602,000	1,872,752	0.01620
2000	122,950,000	119,065,400	2,000,299	0.01680
2001	124,300,000	123,909,300	2,146,108	0.01732
2002	143,750,000	128,461,900	2,458,760	0.01914
2003	144,900,000	131,432,650	2,833,688	0.02156
2004	165,300,000			

Source: Municipal Valuation Returns Statistical Summary, 1990-2003, State Bureau of Taxation

## Valuation Comparisons

State valuation comparisons and full value per capita valuations are two measures of a community's wealth relative to other communities. Table 2 contains a summary of State valuations and per capita valuations for Holden and a number of comparison communities. Holden's 2003 State valuation (\$144.9 million) is higher than that of Clifton, Dedham and Eddington, in part because Holden has a larger population than these three towns. Holden's valuation and population is lower than that of Bangor, Brewer and Orrington.

Holden has a higher full value per capita valuation (\$51,256) than the County (\$46,885), but a lower per capita valuation than the State (\$72,115). Holden's full value per capita valuation is lower than all of the comparison communities shown in the table except Bangor (\$51,131) Eddington (\$41,788). In terms of property taxes levied on a per capita basis, the figure for Holden (\$1,002) is somewhat more than the figure for Penobscot County (\$970), but less than for the State (\$1,260), and less than the figures for Bangor, Brewer and Dedham.

Holden has no industrial valuation, as shown in Table 3.

	<b>2000 Population</b>	<b>2003 State Valuation</b>	<b>Full Value Per Capita</b>	<b>2003 Commitment</b>	<b>Local Taxes/ Capita</b>
<b>Holden</b>	<b>2,827</b>	<b>\$144,900,000</b>	<b>\$51,256</b>	<b>\$2,833,688</b>	<b>\$1,002</b>
Bangor	31,473	\$1,609,250,000	\$51,131	\$39,807,705	\$1,265
Brewer	8,987	\$498,600,000	\$55,480	\$12,127,184	\$1,349
Clifton	743	\$39,400,000	\$53,028	\$690,411	\$929
Dedham	1,422	\$128,050,000	\$90,049	\$1,928,097	\$1,356
Eddington	2,052	\$85,750,000	\$41,788	\$1,497,107	\$721
Orrington	3,526	\$211,200,000	\$59,898	\$3,444,962	\$977
<b>Penobscot Co.</b>	<b>144,919</b>	<b>\$6,794,550,000</b>	<b>\$46,885</b>	<b>\$140,606,003</b>	<b>\$970</b>
<b>Maine</b>	<b>1,274,923</b>	<b>\$91,941,400,000</b>	<b>\$72,115</b>	<b>\$1,606,744,178</b>	<b>\$1,260</b>

Source: Municipal Valuation Returns Statistical Summary, 2003, State Bureau of Taxation and 2000 Census

	<b>2000 Population</b>	<b>Total Industrial Valuation 2003</b>	<b>Per Capita Industrial Valuation 2003</b>
<b>Holden</b>	<b>2,827</b>	<b>0</b>	<b>0</b>
Bangor	31,473	\$134,308,700	\$4,267
Brewer	8,987	\$71,669,700	\$7,975
Clifton	743	\$3,026,400	\$4,073
Dedham	1,422	0	0
Eddington	2,052	\$890,010	\$434
Orrington	3,526	\$45,581,900	\$12,927
<b>Penobscot County</b>	<b>144,919</b>	<b>\$698,920,880</b>	<b>\$4,823</b>
<b>Maine</b>	<b>1,274,923</b>	<b>\$4,698,859,542</b>	<b>\$3,686</b>

Source: Municipal Valuation Returns Statistical Summary, 2003, State Bureau of Taxation and 2000 Census

## Property Tax Burden

Property taxes seem to be a concern in many communities, but how burdensome are they in Holden compared to other jurisdictions? The Maine Municipal Association has compiled comparative tax burdens for municipalities, based on the 1999 full value tax rate. Two measures are used to illustrate the tax burden at the taxpayer level; the tax paid on a median value home and taxes paid as a percent of median household income. In the property tax burden column in Table 4, the numbers represent statewide rankings where 1 is the highest tax burden, and 487 is the lowest. The tax burden in Holden (111) is higher than in all comparison communities except Bangor (19) and Brewer (36). The tax paid on the median home in Holden (\$1,691) was also higher than in all comparison communities except Bangor (\$1,992) and Brewer (\$1,989). Finally taxes paid as a percentage of household income (4.41%) were also higher in Holden than in all comparison communities except Bangor (6.41%) and Brewer (5.68%).

	<b>1999 Full Value Mil Rate</b>	<b>1999 Median HH Income</b>	<b>1999 Median Home Value</b>	<b>Taxes Paid Median Home</b>	<b>Tax as % of Household Income</b>	<b>Property Tax Burden</b>
<b>Holden</b>	<b>15.89</b>	<b>\$38,326</b>	<b>\$106,440</b>	<b>\$1,691</b>	<b>4.41</b>	<b>111</b>
Bangor	22.78	\$31,079	\$87,434	\$1,992	6.41	19
Brewer	22.17	\$35,025	\$89,744	\$1,989	5.68	36
Clifton	13.46	\$31,596	\$78,893	\$1,062	3.36	255
Dedham	12.47	\$44,750	\$104,806	\$1,307	2.92	325
Eddington	12.91	\$39,022	\$86,232	\$1,114	2.85	336
Orrington	15.30	\$42,601	\$94,890	\$1,452	3.41	242

Source: 2001 Property Tax Burden, Maine Municipal Association

## Educational Tax Burden

Holden's relatively high tax burden is directly related to the Town's educational costs. The Maine Municipal Association has compiled comparative educational tax burdens for municipalities, based on the 1999 full value tax rate. In the educational tax burden column in Table 5, the numbers represent statewide rankings where 1 is the highest tax burden, and 487 is the lowest. As shown in Table 5, the educational tax paid on the median value home in Holden (\$1,210) was higher than in all comparison communities, but educational taxes as a percentage of household income (3.16%) were lower than in all comparison communities except Brewer (also 3.16%), and the Town's educational tax burden rank (117) is higher than all comparison communities except Bangor (112) and Brewer (116).

**Table 5  
Educational Property Tax Burden**

	<b>1999 Full Education Mil Rate</b>	<b>1999 Median Household Income</b>	<b>1999 Median Home Value</b>	<b>Education Taxes Paid Median Home</b>	<b>Education Tax as % of Household Income</b>	<b>Education Tax Burden Rank</b>
<b>Holden</b>	<b>11.36</b>	<b>\$38,326</b>	<b>\$106,440</b>	<b>\$1,210</b>	<b>3.16</b>	<b>117</b>
Bangor	11.27	\$31,079	\$87,434	\$986	3.17	112
Brewer	12.33	\$35,025	\$89,744	\$1,107	3.16	116
Clifton	9.92	\$31,596	\$78,893	\$783	2.48	249
Dedham	10.58	\$44,750	\$104,806	\$1,109	2.48	248
Eddington	10.93	\$39,022	\$86,232	\$942	2.42	264
Orrington	11.71	\$42,601	\$94,890	\$1,111	2.61	224

Source: 2001 Educational Tax Burden, Maine Municipal Association

### **Town Revenues and Expenditures**

Table 6 on the next page contains a summary of Town revenues and expenditures for the period FY 2000 through FY 2004. The information contained in these tables is taken from the Town's annual audits. As shown in Table 6, there have been tremendous fluctuations in specific revenue and expenditure categories.

Property taxes are the largest single source of municipal revenues, amounting to 63% of all revenues in FY 2000 and 73% in FY 2004.

Education is by far the largest expenditure category, amounting to 50% of all expenditures in FY 2002.

**Table 6**  
**Municipal Revenues and Expenses – 2000 to 2004**  
**Year Ending June 30**

	2000	2001	2002	2003	2004	Increase 00-04
<b>Revenues</b>						
Property taxes	\$1,906,842	\$2,088,991	\$2,264,489	\$2,570,110	\$2,974,031	56%
Excise taxes	451,251	467,876	498,282	550,568	583,820	29%
Intergovernmental Revenues	380,655	278,212	255,702	242,177	318,332	-16%
Interest/Costs, Taxes & Liens	16,296	10,567	13,313	14,121	12,121	-26%
Investment Income	54,482	105,152	51,532	27,367	9,623	-82%
Other	194,988	229,890	185,510	188,165	196,428	1%
<b>Total Revenues</b>	<b>\$3,004,514</b>	<b>\$3,180,688</b>	<b>\$3,268,828</b>	<b>\$3,592,508</b>	<b>\$4,094,354</b>	<b>36%</b>
<b>Other Financing Sources</b>						
Operating Transfers in	500	500	771	1,000	3,065	
Sale of Town Assets			42,905	9,057		
Sale of Tax Acquired Property			362			
Proceeds from Debt Issue					331,000	
<b>Total</b>	<b>500</b>	<b>500</b>	<b>\$44,038</b>	<b>10,057</b>	<b>334,065</b>	
<b>Total Revenues &amp; Other Sources</b>	<b>\$3,005,014</b>	<b>\$3,181,188</b>	<b>\$3,312,866</b>	<b>\$3,602,565</b>	<b>\$4,428,419</b>	<b>47%</b>

	2000	2001	2002	2003	2004	Increase 00-04
<b>Expenditures</b>						
General Government	\$36,278	\$299,658	\$275,983	\$254,298	\$282,258	45%
Administration	300,021	190,071	165,193	197,911	204,358	
Public Safety	248,778	190,643	207,305	242,738	280,178	13%
Sanitation	123,964	126,897	125,019	142,125	139,765	13%
Public Works	206,471	377,784	319,813	351,751	339,903	65%
Municipal Properties	28,947	32,500	28,214	37,578	35,368	18%
Culture and Recreation	7,790					
Health and Welfare	5,015	57,901	65,278	73,035	75,227	
Cemeteries	14,779					
Education	1,339,560	1,532,343	1,593,905	1,852,664	2,130,535	59%
County tax	107,715	114,344	121,193	153,238	160,404	49%
Debt Service Principal	58,954	78,002	88,328	96,726	219,143	272%
Debt Service Interest	77,936	78,550	76,834	73,911	68,562	-12%
Capital Outlay	278,128	210,476	152,664	167,765	152,827	-45%
<b>Total Expenditures</b>	<b>\$2,834,333</b>	<b>\$3,219,166</b>	<b>\$3,219,728</b>	<b>\$3,643,739</b>	<b>\$4,088,526</b>	<b>45%</b>
Other Financing Uses – Transfers Out					\$8,164	
<b>Total Expenditures &amp; Other Uses</b>	<b>\$2,834,333</b>	<b>\$3,219,166</b>	<b>\$3,219,728</b>	<b>\$3,643,739</b>	<b>\$4,096,690</b>	
Excess, Revenues /Expenditures	170,681	(37,978)	93,138	(41,174)	331,729	

## Debt

As of June 30, 2004, the Town's long term debt stood at \$1,491, 589. Total debt consists of four general obligation bonds including:

1. Road bond, issued 7/21/03; originally \$331,000; \$331,000 as of 6/30/04.

2. Water line, issued 4/21/99; originally \$1,100,000; \$1,022,052 as of 6/30/04.
3. Land purchase, issued 4/21/99; originally \$175,000; \$95,460 as of 6/30/04.
4. Loader, issued 11/10/01; originally \$84,000; \$43,077 as of 6/30/04.

**Capital Plan**

A key element of any plan for the future of Holden is the balancing of the Town's needs and wishes with the ability to pay for them. A capital investment plan develops projected capital expenditures for improvements to roads, buildings, equipment and other Town infrastructure that will be needed to support Town services in the next few years, and indicates the timing and funding sources which can be used for them. It also provides a basis for residents and town officials to discuss major issues and the options available for dealing with them, including priorities of needs, timing of projects, and ability and willingness to pay for them.

Obviously Holden can simply borrow for needed improvements, but there are alternatives. The principal possibilities are:

1. Level funding, which is spending only that amount available from the annual appropriation;
2. Reserve funds, which is the use of funds previously set aside for specific purposes; and
3. Grant monies, if the Town is fortunate enough to qualify.

Holden has a number of Special Reserve Accounts which it uses to address capital needs. The Town's Special Reserve Accounts, and the amounts in them as of June 30, 2004, are shown in Table 7, below.

<b>Table 7</b>	
<b>Special Reserve Accounts as of June 30, 2004</b>	
<b>Account</b>	<b>Balance on 6/30/04</b>
Fire Department	\$55,130
Revaluation	\$38,451
Administration Equipment	\$7,412
Police Equipment	\$23,195
Highway Equipment	\$4,462
General Equipment	\$158,394
Growth Management	\$2006
Municipal Building	\$29,311
Municipal Garage	\$37,098
Salt/Sand Storage Building	\$40,306
Development Park	\$58,752
Old Town Hall	\$3,399

One of the major advantages of reserve accounts is that they save money in the long run because the municipality does not have to borrow as much money for major capital expenditures.

Table 8 includes Holden's long-range Capital Program to meet existing needs of the community as well as those of future years. The Capital Plan includes items costing \$25,000 or more that have a life expectancy of at least five years. The Plan is updated annually.

**Table 8  
Five Year Capital Program**

<b>Year</b>	<b>Item</b>	<b>Total Cost</b>	<b>Financing*</b>	<b>Completion Date</b>
<b>2005-06</b>	Cemetery Land	\$30,000	FB	Summer 2005
	Road Paving	\$150,000	BUD	Summer 2005
<b>2006-07</b>	Brush Truck	\$30,000	RES	Summer 2006
	Road Paving	\$150,000	BUD	Summer 2006
<b>2007-08</b>	Road Paving	\$150,000	BUD	Summer 2007
<b>2008-09</b>	One Ton Truck	\$40,000	RES	Summer 2008
	Road Paving	\$150,000	BUD	Summer 2008
<b>2009-10</b>	Plow Truck	\$100,000	RES	Summer 2009
	Road Paving	\$150,000	BUD	Summer 2009

\*Financing:  
 BUD = Current Budget  
 RES = Reserves  
 FB = Fund Balance

## 9. LAND USE

### Overview

Holden is a quiet rural town in which to live, but conveniently located adjacent to the Bangor-Brewer metropolitan area. Its rolling hills and natural beauty have attracted people who work in Bangor or Brewer or other communities, including many professionals, who want to live in a small community, often on a large lot. Development consists primarily of single-family dwellings scattered throughout the community, in contrast to commercial development which is concentrated along Route 1A.

The Town's 1995 Comprehensive Plan envisioned that most of Holden's residential growth would occur in a new Village Center Zone, a zoning district created expressly for the purpose of encouraging high density, compact, village-type development with urban amenities such as sidewalks. The vision depended on one or more developers purchasing land and designing a small town village. It didn't happen, although a 25-lot subdivision, Roundwood Estates, was approved in the Village Center Zone in 2002 (19 residential lots, 6 commercial lots).

Instead, growth continued to occur throughout the rural areas of Town. Between 1999 and 2004, there were 120 new dwellings and 14 new businesses. Most of the dwellings on single lots were located in the R3 district, which is the Town's largest rural district. As shown in Table 1, only 8 out of the 120 dwelling units were built in the Village Center Zone. By contrast, all of the Town's commercial growth occurred in either the General Commercial Zone or the Limited Commercial Zone (both are growth districts).

<b>Table 1 Structures Built 1999-2004</b>				
Year	Single Family Dwellings in Village Center Zone	Single Family Dwellings in Other Zones	Commercial uses in commercial districts	Commercial uses outside commercial districts
1999	1	23	1	0
2000	2	25	4	0
2001	1	13	4	0
2002	0	13	1	0
2003	2	20	2	0
2004	2	18	2	0
<b>Totals</b>	<b>9</b>	<b>112</b>	<b>14</b>	<b>0</b>

There are probably many reasons why the Village Center Zone did not grow as anticipated. These include:

- The Village Center Zone may not have been large enough;
- Few large parcels were available for development during the past 10 years;
- The Village Zone is bisected by two State highways; growing traffic volumes and noise are a deterrent to village-type growth;
- MDOT's access management controls preclude the creation of additional lots with direct access to Route 1A.

- Roughly half of the soils in the village are unsuitable for subsurface wastewater disposal systems. They consist of Monarda and Burnham very stony silt loams. According to the Natural Resources Conservation Service, subsurface waste disposal systems are prohibited in these soils.

Rural roads where substantial numbers of new homes were built since 1995 include Levenseller Road, Clark Hill Road, Mann Hill Road, Route 1A and Wiswell Road.

Approved subdivisions since 1995 have been more concentrated than individual units, with the largest cluster occurring on Mann Hill Road and Clark Hill Road. As shown in Table 2 below, the largest subdivision, Roundwood Estates, is situated in the Village Center Zone. Out of a total of 72 approved residential lots, only 19 are located in the R3 Zone (another 11 are located partially in the R3 Zone and partially in another zone).

**Table 2  
Subdivision in Holden Since 1995**

	<b>Year</b>	<b>Name and Location</b>	<b>Number of Acres</b>	<b>Number of Lots</b>	<b>Map &amp; Lot</b>	<b>Zone</b>
1.	1995	Scenic Vista Subdivision Mann Hill Rd south of Clark Hill Road	29.34	5 Residential Lots	10-06	R3
2.	1995	Evergreen Estates Subdivision Wiswell Road	70.83	8 Residential Lots	02-29	R2
3.	1996	Amendments to Holbrook Heights Subdivision - Winchester Road	1.2	1 Residential Lot	13-02	R3
4.	1999	Top of the Hill Subdivision Mann Hill Road north of Clark Hill Road	53.09	4 Residential Lots	09-24	R2
5.	1999	Debeck Business Park Route 1A near Brewer	46.6	12 Commercial Lots	19-08 & 08A	GC
6.	2000	Pinkham Farm Subdivision Mann Hill Road south of Pinkham Road	9.8	4 Residential Lots	07-32	R2
7.	2001	Gilmore Estates Subdivision Bagaduce Road south of Mann Hill Road	63.2	10 Residential Lots	09-01	R3
8.	2001	Dole Hill Estates Subdivision Off Route 1A	86.24	9 Residential Lots	14-06	LC,R3
9.	2002	Amendment to William Hopkins Subdivision Mann Hill Road north of Fisher Road	19	1 Lot into 4 Residential Lots	09-19	R2
10.	2002	Amendment to Clark Hill North Subdivision Clark Hill Road	126	1 Lot into 3 Residential Lots	09-30 & 30C	R3
11.	2002	Amendment to Philip Tardiff Subdivision Rooks Road	14	1 Lot into 2 Residential Lots	10-09	R3,R1
12.	2002	Roundwood Estates Subdivision Route 1A east of Kidder Hill Road	47.8	19 Residential Lots 6 Commercial Lots	07-38	VC
13.	2003	Amendment to Copeland Square Subdivision on Copeland Hill Road	7.93	1 lot into 3 Residential Lots	18-30	GC
		<b>Total</b>	<b>575.03</b>	<b>72 Residential Lots 10 Commercial Lots</b>		

## Growth Issues

Major growth issues affecting the future of the community include improvements to Route 9, plans for the I-395 Connector, MDOT's access management controls, slow economic growth, limited opportunities for people needing low cost housing, and the fact that the Village Center Zone, as envisioned in the 1995 Plan and 1997 Zoning Ordinance and discussed above, has not attracted very much of the Town's residential growth.

**Improvements to Route 9.** Since 1999, the Maine Department of Transportation (MDOT) has upgraded Route 9 in Penobscot, Hancock and Washington Counties. It now serves as a major east-west link between I-95/395, the Bangor/Brewer area, Downeast Maine and St. John, New Brunswick. Routes 1A and 46 in Holden serve as primary connecting links between I-395 and Route 9. East/West Traffic volumes, especially Canadian truck traffic, have increased dramatically on 1A and 46 since 1995. At the same time, Route 1A is serving larger volumes of tourist traffic during the summer months. The net effect has been to discourage village-type development in the Village Center Zone as envisioned by the 1995 Plan. The Route 1A/46 intersection is currently in the center of this district. To encourage development, the 1995 Plan contained provisions for reduced lot sizes and frontage requirements which to some extent have been implemented. Unfortunately, growing traffic volumes have discouraged village-type development.

**The I-395 Connector.** Within the past five years, MDOT has developed and evaluated a number of alternate routes for extending I-395 in Brewer to Route 9 via a limited access highway. All of them pass through Holden. MDOT is still considering several alternatives and must first prepare an environmental impact statement prior to preparing an application to the Federal Highway Administration to fund the preferred alternative. As of this writing:

- The exact location of the connector is not known.
- The extent to which there will be interchanges in Holden is not clear. It appears likely that there will be an interchange at Route 1A. MDOT officials have stated that there will be no other access points in Holden, but this may change. One of the possible routes would have to cross Mann Hill Road and Levenseller Road. If there is no access to these roads, there will have to be a bridge for the connector or the local road, unless the road is dead-ended on either side of the connector. If cost constraints or other factors dictate at-grade crossings, access will likely be provided at either one or both of these roads resulting in intense growth pressures.
- A developer has purchased 1,700 acres of land in the general vicinity of the proposed connector. The 1700 acres are in the R3 Zone.
- Actual construction of the connector may be many years away.

**MDOT Access Management Controls.** Holden's 1995 Comprehensive Plan and 1997 Zoning Ordinance included access management requirements, as well as reduced lot sizes and frontages in the Village Center Zone. These provisions have since been superseded by MDOT's access management controls. Route 1A is a retrograde arterial, so there are stringent limitations on curb cuts and driveway spacing in the Village Center Zone, as well as other growth districts - the General Commercial District, the Limited Commercial District, and the Community Service/Institutional Zone. The 1995 Comprehensive Plan did not anticipate, and probably could not have anticipated, that MDOT would adopt strict access management rules that would limit the ability of the Village Center to grow as a village

**Slow Economic Growth.** Holden has taken a number of steps to encourage economic development including construction of the DeBeck Business Park and funding the position of part-time economic development director. The 1995 Plan, and the 1997 Zoning Ordinance, established two major districts for commercial development:

- General Commercial Zone. This zone extends along Route 1A from the Brewer town line to just before the Intersection of Copeland Hill Road. It is intended for larger outdoor display and wholesale businesses.

The General Commercial Zone has been a success. Recent commercial development includes Port Harbor Marine, Country Kitchen Outlet Store, expansion of Holden RV, Garrett's Auto, and Feltsbrook mini-golf course and go-cart track.

Limited Commercial Zone. This zone extends along Route 1A from just before the Copeland Hill Road intersection to the Village Center, in areas not zoned as being in the CS/I Community Service/Institutional Zone. It is intended for small, local type service and retail businesses, on individual lots or in clustered mini-malls. New larger, outdoor display and wholesale type businesses are not allowed except through conditional zoning.

The Limited Commercial Zone has not been as successful as the General Commercial Zone. Recent development includes an antique store, a tack shop and expansion of Granville Lumber. The market for smaller commercial developments seems to have dried up. The Town continues to face pressure to approve larger-scale developments than would be allowed in this district.

**Limited Opportunities for People Needing Low Cost Housing.** Holden has concentrated on attracting upscale housing developments, and to a large extent, it has succeeded. Most of the subdivisions have been aimed at attracting more expensive homes. There haven't been any projects designed for low income people, although there are three mobile home parks. Two are located just off Route 1A. One is located on Route 46 south of 1A. Two-family dwellings are permitted in the R-1, R-2 and VC zones; multi-family dwellings of three or more units are permitted only in the R-1 and R-2 districts.

## Land Use Ordinances

Holden has a Zoning Ordinance that is based on the 1995 Comprehensive Plan, as well as a Subdivision Ordinance. Holden is one of only seven communities in the State to be designated by the Maine Department of Environmental Protection to have capacity to administer Maine's Site Location of Development Act at the local level.

**Zoning Ordinance.** The Ordinance is very comprehensive, but some changes are needed:

- The Village Center Zone is not large enough to accommodate much development, given the poor soils, the development limitations imposed by MDOT's access management rules, and the difficulty of developing a village on a busy arterial, etc;
- Lot sizes need to be reduced to encourage village scale growth;
- The Community Service/Institutional Zone is virtually the same as the Limited Commercial Zone, and is thus a redundant district;
- The Zoning Ordinance lacks a mechanism to provide for well planned, village type development when the exact route of the proposed I-395 connector becomes finalized; and
- The Ordinance may be overly strict in preventing residential properties in the commercial zones from being converted to commercial uses.

The zoning districts and lot size requirements are summarized on the next page.

## Summary of Holden Zoning Districts

**High Density Residential Zone (R1).** Encompasses most of the older residential neighborhoods within convenient reach of the business facilities. predominant land use will probably continue to be single-family residences, but multi-family dwellings are permitted. Certain additional uses which contribute to balanced neighborhoods and enhance the attractiveness of the community are permitted.

**Low Density Residential Zone (R2).** A zone primarily for single-family dwellings. Other uses permitted in the zone are those which are harmonious with the traditional pattern and character of these residential neighborhoods.

**Rural Resource/Residential Zone (R3).** Encompasses most of the area outside the settled areas. Intended for the kinds of uses which have traditionally predominated in rural New England, forestry and farming, farm residence, and a scattering of other uses consistent with a generally open, non-intensive pattern of land use. The Minimum lot size requirement is high to prevent over-development where a full range of Town services cannot be provided economically.

**Shoreland Residential Zone (R4).** Provides locations for recreational residences in shorefront areas. Intended for limited non-permanent habitation.

**Village Center Zone (VC).** Encourages a new village center within a three thousand foot (3,000') radius of the intersection of Routes 46 and 1A. The minimum lot size and frontage requirements are smaller in order to encourage a greater density of development than in other parts of the community, and uses are limited to those which would be compatible with a traditional village center.

**General Commercial Zone (GC).** Provides locations for business activities requiring large scale buildings, large outdoor display areas and wholesale areas, and extensive site development providing employment and service beyond the immediate neighborhood or community.

**Limited Commercial Zone (LC).** Provides locations for the traditional retail and service needs of the local community and adjacent neighborhoods. The scale of commercial development is intended to be in keeping with the residential character of these areas. The intent is to limit larger outdoor display areas and wholesale businesses.

**Community Service/Institutional Zone (CS/I).** Provides locations for a range of public, semi-public, and institutional activities, as well as limited private retail and service uses, all established to serve the local community or neighborhood. Such uses should be compatible with the traditional village setting and of a scale in keeping with the residential development of these areas.

## Summary of District Lot Size Requirements

	R1 High Density Residential	R2 Low Density Residential	R3 Rural Residential	R4 Shoreland Residential	VC Village Center	LC Limited Commercial	GC General Commercial	CS/I Community Service Institutional
Minimum Lot Size - Residential	1 Acre	2 Acres	3 Acres	1 Acre	40,000 Ft <sup>2</sup>	40,000 Ft <sup>2</sup>	40,000 Ft <sup>2</sup>	40,000 Ft <sup>2</sup>
Minimum Lot Size - Other	60,000 Ft <sup>2</sup>	80,000 Ft <sup>2</sup>	3 Acres	1 Acre	20,000 Ft <sup>2</sup>	40,000 Ft <sup>2</sup>	40,000 Ft <sup>2</sup>	40,000 Ft <sup>2</sup>
Minimum Road Frontage	200 Ft	200 Ft	300 Ft	200 Ft	100 Ft	200 Ft	200 Ft	200 Ft

**Subdivision Ordinance.** The Town of Holden has a very detailed Subdivision Ordinance. Many of the requirements are in the ordinance so that Holden can continue to have local capacity to review projects under the State's Site Location of Development law. There is no concise way to summarize the requirements of the ordinance, but a listing of some of the required exhibits gives an indication of the professional planning that is required of developers:

### **Overview of major exhibits that developers must submit to the Planning Board**

- Water supply, individual wells: information on availability of water by licensed well driller
- Water supply, common system: report by professional engineer or geologist
- Soil survey: map and report prepared by Maine Certified Soil Scientist
- Erosion and sedimentation plan: if a minor subdivision (4 lots or less) – prepared in consultation with Penobscot County Soil and Water Conservation District; if a major subdivision (more than 4 lots) – prepared by a qualified professional
- Traffic impact analysis: prepared by a registered professional engineer experienced in traffic analysis (major subdivisions only)
- Highway entrance permits: (from MDOT) – required for any entrances onto state highways
- Interior roads: detailed specifications
- Interior road maintenance: a statement on how these roads will be maintained
- Individual sewage disposal: report by licensed site evaluator
- Common subsurface sewage disposal systems: report by registered professional engineer
- Solid waste generation report: for minor subdivisions, a statement estimating amounts of solid waste and sewage sludge; for major subdivisions, a report generated by a qualified individual
- Solid waste disposal facility status and contract: if a commercial landfill is to be used, a letter from Maine DEP and a copy of a contract to dispose of waste for next five years
- Sludge disposal facility status and contract: if a commercial landfill is to be used for sludge waste, a letter from Maine DEP and a copy of a contract to dispose of waste for next five years
- Aesthetic, cultural and natural values impact statement: if a minor subdivision, a statement of impact on historic and archaeological resources, significant fish and wildlife habitats, scenic areas, etc.
- Visual resources impact assessment: if a major subdivision, an assessment by a qualified professional
- Historic resources impact analysis: if a major subdivision, a letter from Maine Historic Preservation Commission and if any, a report from a qualified professional
- Fisheries and wildlife habitat: if a major subdivision, a letter from Maine Department of Inland Fisheries and Wildlife. If significant resources, a report prepared by a qualified professional
- Surface water management statement: a statement of impact on water bodies
- Surface water management plan: if a major subdivision, a plan prepared by a qualified professional
- Nitrate assessment: if a major subdivision, a hydro-geologic assessment, prepared by a registered geologist
- Water quality background assessment: if a major subdivision, and if deemed necessary by the Planning Board, a water quality background assessment
- Flood hazard protection statement: If in a flood-prone area, a statement of steps to minimize flood damage
- Freshwater wetlands: if any freshwater wetlands are on the parcel, a statement and map
- Flowing waters: if any streams or brooks are on the parcel, a statement and map
- Storm water management plan: if a major subdivision, storm water management plan prepared by a qualified professional

## **Historic and Archaeological Resources**

The following is a summary of historical and archaeological sites in Holden, based on information obtained from the Maine Historic Preservation Commission.

### **Prehistoric Archaeological Sites**

"There is one archaeological site (74.168) known, on Eaton Brook. Professional and archaeological survey has been limited to road corridors (planning for I-395 connector) and power line corridor."

"Brook and stream valleys and lake shores are archaeologically sensitive and require professional survey."

### **Historic Archaeological Sites**

ME204-001	Fisher House (American domestic)
ME204-002	Crawford School (American school)
ME204-003	Phillips Mill (American Sawmill)
ME204-004	unidentified sawmill (American Sawmill)

"No professional survey for historic archaeological sites has been conducted to date in Holden. Future such fieldwork could focus on agricultural, residential and industrial sites relating to the earliest Euro-American settlement of the town in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries."

### **Historic Buildings/Structures/Objects**

"A limited amount of survey data exists in the files of the Maine Historic Preservation Commission generated primarily as a result of MDOT projects. At present, there are no National Register listed properties in Holden."

"A comprehensive survey of Holden's above-ground resources needs to be conducted in order to identify those properties which may be eligible for nomination to the National Register of Historic Places."

## **Forestry**

Approximately 90-95% of the land area of Holden is forested. In 2004, there were 14 parcels of land, amounting to 2,580 acres, enrolled in the Tree Growth Tax program. Land that is registered under this program receives favorable tax status and may be less likely to be converted to other uses.

There have been a number of timber harvesting operations in the community since 1991, as indicated in Table 3 (information obtained from the Maine Forest Service did not include information for 1992).

**Table 3**  
**Summary of Timber Harvest Information**  
**Town of Holden**

Year	Selection Harvest Acres	Shelterwood Harvest, Acres	Clearcut Harvest, Acres	Total Harvest, Acres	Changes of land Use, Acres	Number of Timber Harvests
1991	62	0	0	62	0	3
1993	459	0	0	459	0	13
1994	217	0	0	217	0	9
1995	250	40	30	320	30	13
1996	323	60	0	383	30	12
1997	603	3	0	606	10	9
1998	206	3	0	209	0	12
1999	59	9	0	68	3	5
2000	502	23	0	525	56	11
2001	207	1	0	208	15	5
2002	301	23	0	324	4	12
2003	364	180	0	544	0	10
Total	3,553	342	30	3,925	148	114

Source: Maine Forest Service

### Agriculture

Holden is not a farming community, even though there are large concentrations of prime agricultural soils south of Route 1A on either side of South Road, and in the southwest corner of town on either side of Wiswell Road and to the west of Copeland Hill Road south of Wiswell Road. As of 2004, there were no parcels of land enrolled under the Farm and Open Space Tax Law.

There are two farms in the community. The Elmer Carter farm, consisting of about 31 acres, is located at the intersection of Route 1A and South Road. It encompasses some of the prime agricultural soils in that area. The primary crop is hay. The Howard farm, consisting of about 236 acres, is located on eastern Avenue near Rowell Road and the Holden/Brewer line. The farm supplies cattle feed to one or more farms in other communities.

### Analysis

Despite the vision in Holden's 1995 Comprehensive Plan that most of Holden's future residential growth would occur in a new village zone, the opposite took place. Most of the growth occurred in the Town's rural areas, although a 31-lot subdivision was approved in the Village Center Zone in 2002. Some of the reasons why the Village Center Zone did not become the focus of growth include:

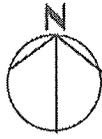
- Most people coming to Holden are looking for a rural or semi-rural location;
- The Village Center may not have been large enough to accommodate the growth;
- Very few parcels in the village became available for development since 1995;
- The Village Center Zone lacks cohesion because it is bisected by Routes 1A and 46. Moreover, growing traffic volumes and noise on these two State highways are a detriment to village-type growth

- MDOT's access management controls preclude the creation of additional lots with direct access to Route 1A;
- Roughly half of the soils in the Village Center Zone are unsuitable for subsurface sewage disposal systems.

There is a need not only to increase the size of the Village Center Zone to include areas with better soils, thereby encompassing more parcels for potential development, but to allow one or more additional Village Center Zones in areas that may be more suitable for accommodating future residential growth.

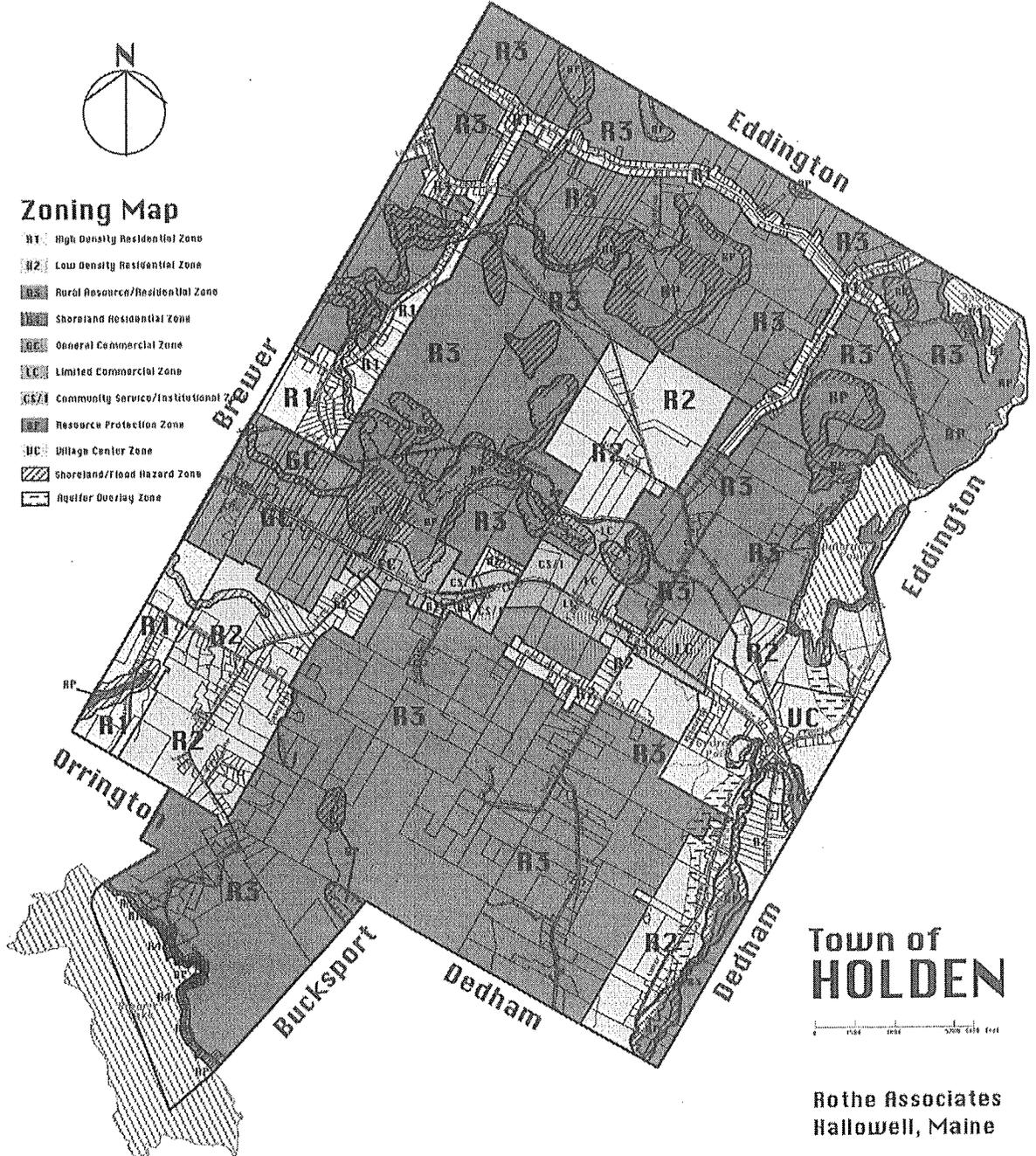
The Town's Zoning Ordinance is very comprehensive, but may need to be changed to encourage more compact, village-type growth:

- Lot sizes and minimum frontage requirements need to be reduced to encourage village type growth;
- There needs to be a mechanism in the Zoning Ordinance to provide for well-planned, village type development, even though the exact route and construction time frame of the I-395 extension is not known at this time.
- Additional incentives are needed to encourage more compact patterns of residential growth while preserving open space and limiting sprawl.



### Zoning Map

-  R1: High Density Residential Zone
-  R2: Low Density Residential Zone
-  R3: Rural Resource/Residential Zone
-  SR: Shoreland Residential Zone
-  GC: General Commercial Zone
-  LC: Limited Commercial Zone
-  CS/I: Community Service/Institutional Zone
-  RP: Resource Protection Zone
-  VC: Village Center Zone
-  SH: Shoreland/Flood Hazard Zone
-  AO: Aquifer Overlay Zone



Town of  
**HOLDEN**



Rothe Associates  
Hallowell, Maine

## 10. Regional Coordination

Holden is linked in a number of ways to other nearby communities.

**Economy.** The residents of Holden are highly dependent upon Bangor and Brewer for employment opportunities. Approximately 62% of Holden's work force is employed in either Bangor or Brewer.

**Public Water Supply.** Two areas of Holden are served by the Brewer public water system. The first is located along Levenseller Road which runs parallel to a major water distribution line that runs from Brewer's water source to the City. It serves Rooks Road, Levenseller Road, Nolan Road, Clewleyville Road and Lambert Road. A second water transmission main 16 inches in diameter enters Holden along Eastern Avenue and extends through the back part of DeBeck Business Park to Route 1-A. Dysarts and Irving on Route 1-A, as well as several businesses in the DeBeck Park, receive water from this line.

**Future Public Water and Sewer.** During the construction of Route I-395, two pipes were laid under the exit and entrance ramps for possible future extension of public sewer and water from outer Wilson Street in Brewer to Route 1A in Holden.

**Fire Protection:** Dispatching service is provided by the Penobscot Regional Communications Center in Bangor to the Fire Department volunteers through pagers. The Fire Department provides mutual aid to other towns served by the County system.

**Schools:** Holden is one of three towns in Maine School Administrative District (SAD) 63. The other communities are Eddington and Clifton. The Board of Directors, composed of eight people, is the governing body of the District. Representatives of the Board are elected from each Town at their Annual Town Meetings (4 from Holden, 3 from Eddington, and 1 from Clifton).

The Holden Elementary School, located on Route 1-A, serves Holden students in Kindergarten through fourth grade as well as Special Education students. The District's other elementary school is located in Eddington. The Holbrook School, located on Kidder Hill Road, serves grades 5 through 8 for students from Holden, Eddington and Clifton. SAD 63 does not have its own high school. As a result, students in grades 9-12 choose their own high school, usually Bangor, Brewer or John Bapst.

**Holbrook Regional Recreational Program.** The Holbrook Recreation Program is a joint recreational program supported by and providing activities throughout the year to residents of Holden, Clifton, Dedham and Eddington. The program offers 12 activities and in 2004 served approximately 750 people. Activities include T-Ball, Farm Little League, Little League, Senior Little League, Softball, Instructional Soccer, Peewee Basketball, Dribbling Devils, Men's Night, High School Night, Co-Ed Volleyball, and Snowmobiling.

**Solid Waste.** The Town contracts with a private waste hauler (currently Waste Management of Maine) to provide curbside collection of trash on a weekly basis and recyclable materials on a monthly basis, and for the use of Waste Management's recycling facility on Dirigo Drive in Brewer. The Town has a contract with PERC (Penobscot Energy Recovery Company) for trash disposal incineration at the PERC incinerator in Orrington. Items such as old building materials, appliances and brush, may be taken to the Waste Management Transfer Station in Brewer, or to the Pine Tree Landfill in Hampden. Items such as televisions, computers, printers, copiers, fluorescent bulbs and thermostats may be taken to the Brewer Universal Waste Disposal Facility located at 37 Oak Street in Brewer.

## **11. GOALS, POLICIES AND STRATEGIES**

### **INTRODUCTION**

This section of the Comprehensive Plan sets forth Holden's goals, policies and strategies for the next ten years. Detailed information on each of the topics presented here can be found in the various inventory sections of the Plan.

Goals, policies and strategies are differentiated in the following way:

- Goals represent an ideal that the Town would like to reach at some point in the future.
- Policies are more specific directives that should be followed to achieve the goals.
- Strategies are actions to be taken to implement the policies and achieve the goals.

For each of the strategies set forth in this section, the Plan identifies one or more responsible parties and suggests a target year for completion of the action. In some cases, the action is one that requires a sustained effort over a long period of time, and these actions do not have a specific target date but are highlighted by the term "Ongoing."

The goals, policies and strategies are arranged by topic area beginning on the pages shown below:

<b>Housing:</b>	<b>Page 2</b>
<b>Economy:</b>	<b>Page 4</b>
<b>Natural Resources:</b>	<b>Page 5</b>
<b>Public Facilities and Services:</b>	<b>Page 10</b>
<b>Municipal Finances:</b>	<b>Page 12</b>
<b>Transportation:</b>	<b>Page 14</b>
<b>Future Land Use:</b>	<b>Page 16</b>

# HOUSING

## Goals:

1. Encourage and promote affordable, decent housing opportunities for all citizens of Holden, with a goal of 55% new housing units in the next 10 years being affordable.
2. Aim to maintain and attract a diversity of ages and incomes within the Town's population.

Policies	Strategies	Responsibility/Date
<p><b>A. Affordable housing actions.</b> Undertake local initiatives aimed at providing affordable housing opportunities for Holden residents.</p>	<p><b>A. Housing Authority.</b> Support a Housing Authority and/or authorize a housing authority in another jurisdiction to provide affordable housing for low and very low income people in the Town of Holden.</p> <p><b>B. No discrimination.</b> Continue to not discriminate against manufactured housing, mobile home parks, elderly housing or low income projects within the community by proposing new growth districts to allow them.</p> <p><b>C. Mobile Home Parks.</b> Continue to allow mobile home parks in one or more growth districts, but prohibit them in all rural districts.</p> <p><b>D. Lot Size Requirements.</b> Reduce lot size and frontage requirements in growth districts for multi-family dwellings where at least 10% of the units will be affordable for low income households and where mechanisms are established to ensure that such dwellings remain affordable.</p> <p><b>E. Two-family housing.</b> Allow two-family housing on lots of at least 40,000 square feet outside the shoreland zone, provided water and sewer requirements can be met.</p> <p><b>F. Multi-family housing.</b> Continue to allow multi-family dwellings in the R1 and R2 districts.</p>	<p>Town Council/2010</p> <p>Planning Board/Town/2007</p> <p>Planning Board/Town/2007</p> <p>Planning Board/Town/2007</p> <p>Planning Board/Housing Authority/Ongoing</p> <p>Planning Board/Town Meeting/2007</p>

Policies	Strategies	Responsibility/Date
	<p><b>G. 10% requirement.</b> Amend local ordinances to offer incentives to developers, such as reduced lot sizes and setbacks, to provide one affordable housing unit, either on or off site, for every ten lots. Require that such affordable housing unit(s) be priced such that they could be purchased or rented by low and moderate income households, and require that mechanisms be created for protecting the affordability of the units.</p> <p><b>H. Accessory Apartments.</b> In growth districts, allow accessory apartments of up to 600 square feet without an increase in the minimum lot size requirement.</p>	<p>Planning Board/Town Meeting/Ongoing</p> <p>Planning Board/Town Meeting/2007</p>
<p><b>2. Local review.</b> Continue to regulate new housing construction and conversions.</p>	<p><b>A. Inspection.</b> Continue to require inspection and issuance of an occupancy permit for new construction and develop specific standards to encourage the appropriate conversion of seasonal to year-round housing units.</p>	<p>Code Enforcement Officer/Town/Ongoing</p>

## ECONOMY

### Goals

- Promote an economic climate in Holden that increases the Town's tax base, stabilizes local taxes, increases job opportunities for local residents needing employment and encourages overall economic well-being.

Policies	Strategies	Responsibility/Date
<p><b>1. Regional efforts.</b> Participate in regional economic development efforts which benefit the Town's economy yet do not negatively affect its environment and character.</p>	<p><b>A. Economic development agencies.</b> Continue to support and participate in the efforts of the Eastern Maine Development Corporation, the Bangor Region Development Alliance and other agencies seeking to bring business growth to the Greater Bangor Area and the Town of Holden.</p> <p><b>B. Government programs.</b> Continue to take advantage of state and federal programs to the maximum extent possible so as to provide land, buildings and services in suitable areas for new businesses.</p>	<p>Town Council/Ongoing</p> <p>Town Council/Community Development Director/Ongoing</p>
<p><b>2. Local efforts.</b> Continue local initiatives aimed at encouraging new businesses that do not negatively affect the Town's environment and character.</p>	<p><b>A. Web site.</b> Continue to utilize the Town's web site as a tool for communicating with and informing the public and prospective businesses about the Town of Holden and its opportunities.</p> <p><b>B. Primary point of contact.</b> Continue to designate one individual as the community development director for inquiries regarding business start-ups and expansions.</p>	<p>Town Office/Ongoing</p> <p>Town Council/Ongoing</p>
<p><b>3. Land use ordinances.</b> Provide opportunity for economic growth through land use ordinances which allow quality compatible commercial growth.</p>	<p><b>A. Site plan review authority.</b> Continue to maintain the Town's eligibility to review development proposal under Maine's site plan review of development act.</p> <p><b>B. Locations for business growth.</b> Continue to designate on the future land use map and in the local land use ordinance one or more specific locations with reasonable access to transportation routes and utilities where the Town will encourage business, industry and office parks, consistent with the goal of preserving the Town's rural character.</p>	<p>Town Council/Planning Board/Code Enforcement Officer/Ongoing</p> <p>Comprehensive Plan Committee/Town Council/Ongoing</p>

## NATURAL RESOURCES

### Goals

1. Protect and manage the quality of Holden's water resources including lakes, aquifers, wetlands, great ponds and rivers.
2. Protect Holden's critical natural resources including, but not limited to, wildlife and fisheries habitat, shorelands and scenic vistas.

Policies	Strategies	Responsibility/Date
<p><b>1. General Protection.</b> Preserve and protect natural resources, through municipal ordinances and enforcement of state laws and actively participate in local and regional programs to conserve and protect the area's natural resources.</p>	<p><b>A. Land Use Regulations.</b> Continue to protect identified significant natural resources through land use as set forth in the Town's Zoning and Subdivision Ordinances.</p> <p><b>B. Environmental Standards.</b> Continue to require that applicants for approval of major subdivisions and non-residential developments submit environmental impact assessments to the Planning Board.</p> <p><b>C. Education.</b> Provide informational outreach to inform the public of the value of each of the Town's natural resources. In addition, educate and inform specific landowners about the natural resources located on their property.</p> <p><b>D. Regional Cooperation.</b> Cooperate with neighboring towns in the development and implementation of programs to protect resources of regional importance.</p> <p><b>E. Open Space Master Plan.</b> Develop an Open Space Master Plan that would include: identification of areas that are unique to Holden; preservation of significant land; preservation of the "visual" look of Holden; recreational opportunities; preservation of wildlife habitat and corridors; preservation of connections between neighborhoods; provision of access to water; and preservation of view corridors.</p>	<p>Planning Board/Town Meeting/Ongoing</p> <p>Planning Board/Town Meeting/Ongoing</p> <p>Conservation Commission/Ongoing</p> <p>Town Council/Planning Board/Conservation Commission/2007 and Ongoing</p> <p>Conservation Commission/2009</p>

Policies	Strategies	Responsibility/Date
	<p><b>F. Open Space Funding.</b> As part of the Capital Improvement Plan, consider periodically adding funds to an account to be used for acquisition of conservation easements or fee ownerships on land that is important to the Town for its natural resource value.</p> <p><b>G. Protection Priorities.</b> Coordinate town priorities for land protection with land trust priorities and other related organizations.</p> <p><b>H. Open Space Requirements for Small Subdivisions.</b> Consider developing a fee-in-lieu of land dedication, impact fee, or other device for smaller subdivisions where land set aside is not appropriate. Consider options for acquisition of property or easements important to the Town for its natural resource value.</p> <p><b>I. Land Trust Input.</b> Provide opportunities for the Holden Land Trust to comment on how open space that occurs on large tracts of land or on land with a high natural resource value in proposed subdivisions can best be structured to preserve the natural resource value.</p>	<p>Town Council/Ongoing</p> <p>Planning Board, Conservation Commission/Ongoing</p> <p>Town Council/Planning Board/2007 and Ongoing</p> <p>Planning Board/Ongoing</p>
<p><b>2. Holden's Lakes and Ponds.</b> Protect and improve the quality of Brewer Lake, Holbrook Pond, Davis Pond and George's Pond.</p>	<p><b>A. Mapping and Study.</b> Encourage the further mapping and study of Holden's water resources, particularly the value of wetlands, location of flood hazard zones, water quality in ponds, especially George's Pond and Holbrook Pond, and water quality of streams such as Felt's Brook, Eaton Brook, and Mill Stream.</p> <p><b>B. Shoreland Septic Systems.</b> Implement a shoreland septic system improvement program by continuing to require, as a condition of approval of Certificate of Occupancy, that conversions of seasonal to year-round homes have their sub-surface sewage disposal systems in compliance with Maine's Subsurface Wastewater Disposal Rules.</p>	<p>Town Council/Planning Board/Ongoing</p> <p>Code Enforcement Officer/ Planning Board/Ongoing</p>

Policies	Strategies	Responsibility/Date
	<p><b>C. Watershed protection program.</b> Inform all property owners of the importance of protecting water quality. Focus on practical steps the property owner can take such as limiting or avoiding lawn fertilizers, maintaining septic systems, correcting erosion, and leaving as much of the shorefront as possible in its natural condition. Use the local print media and web sites, as well as other means, to reach people.</p> <p><b>D. Water Quality Monitoring.</b> Continue to support and encourage volunteer efforts to work with the Department of Environmental Protection to monitor the quality of the lakes and streams and reduce non-point source pollution. Support efforts to control/eliminate invasive aquatic plants in all Holden's lakes, streams and tributaries.</p> <p><b>E. Shoreland Zoning.</b> Continue strict administration and enforcement of the shoreland zoning provisions of the Town's Land Use Ordinance.</p> <p><b>F. Phosphorus Loading.</b> Continue to work with the Department of Environmental Protection in the enforcement of the Town's phosphorus control standards so as to maintain or improve water quality on a long term basis.</p>	<p>Conservation Commission/Ongoing</p> <p>Town Council/Conservation Commission/Ongoing</p> <p>Code Enforcement Officer/ Planning Board/Ongoing</p> <p>Planning Board/Ongoing</p>
<p><b>3. Floodplain Management.</b> Manage the use of floodplains in Holden so as to minimize the threat of future losses from inappropriate development.</p>	<p><b>A. Floodplain Management Ordinance.</b> Continue to strictly administer and enforce the Town's Floodplain Management Ordinance. Continue to prohibit all further incompatible development in designated flood hazard zones.</p>	<p>Code Enforcement Officer/ Planning Board/Ongoing</p>
<p><b>4. Wetlands.</b> Continue to protect wetlands from the adverse impacts of development.</p>	<p><b>A. Shoreland Zoning.</b> Continue strict administration of the Town's Shoreland Zoning Ordinance.</p> <p><b>B. Buffers.</b> Establish a buffer around moderate to high value wetlands consistent with State law and constitutional taking principles.</p>	<p>Code Enforcement Officer/ Planning Board/Ongoing</p> <p>Planning Board/Town Meeting/2007</p>

Policies	Strategies	Responsibility/Date
<p><b>5. Ground Water Resources.</b> Protect the Town's ground water resources.</p>	<p><b>A. Aquifer Setback.</b> Continue to prevent the destruction and contamination of aquifers by continuing to prohibit all incompatible development in and within five hundred (500) feet of identified aquifers, until such time as the recharge area and protection priority is conclusively determined.</p> <p><b>B. Well Mapping.</b> Encourage mapping of wells to monitor their location, depth and productivity.</p> <p><b>C. Non-Residential Hazardous Waste.</b> Continue to regulate any new activity involving the processing, storage, generation or handling of hazardous waste as defined by the Maine Department of Environment Protection (not including normal household uses and materials and heating fuel).</p> <p><b>D. Residential Hazardous Waste.</b> Investigate whether or not the current hazardous waste disposal alternatives for residents are being adequately used, and if not, where the material is ending up. Recommend strategies for facilitating proper disposal.</p>	<p>Code Enforcement Officer/ Planning Board/ Ongoing</p> <p>Conservation Commission/2009</p> <p>Code Enforcement Officer/ Planning Board/Ongoing</p> <p>Conservation Commission/2008</p>
<p><b>6. Forest Resources.</b> Encourage the wise use of forest resources.</p>	<p><b>A. Active Forest Management.</b> Provide educational opportunities for owners of forest lands to actively manage these lands in order to keep them healthy, productive, and contributing to the rural character of the Town. Provide information about the tree growth tax program. Encourage landowners to work with licensed foresters and trained loggers to accomplish their goals in a responsible way.</p> <p><b>B. Shoreland Zoning.</b> Continue to regulate timber harvesting through the Town's Shoreland Zoning Ordinance.</p> <p><b>C. Cluster Development.</b> Encourage cluster development when large, contiguous tracts of forest land are proposed for development.</p> <p><b>D. Forested Buffers.</b> Explore options for establishing forested buffers in appropriate areas.</p>	<p>Conservation Commission/Ongoing</p> <p>Planning Board/Ongoing</p> <p>Town Council/Planning Board/2007 and Ongoing</p> <p>Assessor, Conservation Commission/2009</p>

Policies	Strategies	Responsibility/Date
<p><b>7. Wildlife Resources.</b> Protect wildlife and wildlife habitat to the maximum extent possible.</p>	<p><b>A. Mapping and Analysis.</b> Encourage the regular mapping and analysis of the town's wildlife habitat by the Department of Inland Fisheries and Wildlife and/or by consultants.</p> <p><b>B. Development Review Assistance.</b> Request development review assistance from the Maine Department of Inland Fisheries and Wildlife when development proposals would impact resources identified by the Department, including deer yards and waterfowl and wading bird habitat. As the Town develops and revises ordinances, consider consulting with the Beginning with Habitat Program, the Natural Areas Program and similar programs.</p> <p><b>C. Large Habitat Blocks.</b> Strive to maintain undeveloped blocks greater than 250-acres in Holden by considering partnering with the Holden Land Trust or other similar organizations to acquire development rights, obtain conservation easements or fee ownership on large blocks of land, or protect these blocks through other means.</p> <p><b>D. Regional Habitat Blocks.</b> Work with neighboring towns and cities to conserve undeveloped blocks of land greater than 5,000 acres.</p> <p><b>E. Open Space Plan Coordination.</b> Work with the Holden Land Trust when creating an Open Space Plan for the Town. See <i>Natural Resources, 1.E.</i></p> <p><b>F. Habitat Protection.</b> Provide educational opportunities for landowners with high value habitat to enroll in either the Farm and Open Space Program or the Tree Growth Tax Program.</p> <p><b>G. Wildlife Travel Corridors.</b> Encourage protection and preservation of wildlife travel corridors between large blocks of land.</p>	<p>Conservation Commission/2009 and Ongoing</p> <p>Planning Board/Ongoing</p> <p>Conservation Commission/Ongoing</p> <p>Conservation Commission/Ongoing</p> <p>Conservation Commission/Ongoing</p> <p>Conservation Commission/Ongoing</p> <p>Conservation Commission/Planning Board/Ongoing</p>
<p><b>8. Scenic Areas and Vistas.</b> Protect scenic areas and vistas to the maximum extent possible.</p>	<p><b>A. Development Review.</b> Encourage the preservation of scenic areas and vistas and other significant natural resources during the development review process.</p>	<p>Planning Board/Town Meeting/2010</p>

Policies	Strategies	Responsibility/Date
<p><b>9. Prime Agricultural Soils.</b> Protect prime agricultural soils from being lost to development.</p>	<p><b>A. Development Options.</b> Consider options for protecting prime agricultural soils such as cluster development.</p>	<p>Planning Board/Ongoing</p>

## PUBLIC FACILITIES AND SERVICES

### Goals

1. Plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development, consistent with the goals of this Plan to encourage growth in growth areas, and limit growth in rural areas.

Policies	Strategies	Responsibility/Date
<p><b>1. Costs of Future Growth.</b> Limit the extent to which future development imposes costs on the Town of Holden.</p>	<p><b>A. Impact Fees.</b> Require that future developments be assessed through impact fees, assessments or other mechanisms, their proportional share of the cost of any increased public facilities and services attributable to their development.</p>	<p>Planning Board, Town Meeting/Ongoing</p>
<p><b>2. Public Safety.</b> Maintain an adequate level of public safety services.</p>	<p><b>A. Ongoing Evaluation.</b> Continue to evaluate public safety needs on an ongoing basis and recommend cost-effective courses of action, where appropriate.</p> <p><b>B. Public Safety Facility Needs.</b> Evaluate public facility needs to determine whether the existing space is adequate to meet the fire, rescue and police protection needs of the community for the foreseeable future.</p> <p><b>C. New Developments.</b> Continue to require by ordinance the installation of dry hydrant systems, fire ponds, or their equivalent, in all new subdivisions and large scale developments. If developments are within proximity to public water lines, require extension of those lines to serve the development.</p>	<p>Planning Board, Town Meeting/Ongoing</p> <p>Engineer/Ongoing</p> <p>Planning Board, Town Meeting/2007</p>

Policies	Strategies	Responsibility/Date
	<p><b>D. Mutual Aid.</b> Continue to participate in mutual aid agreements with other communities.</p> <p><b>E. Dispatching.</b> Periodically evaluate the effectiveness of dispatching services providing by the Penobscot Regional Communication Center in Bangor, and take any necessary action to ensure protection of Town residents.</p> <p><b>F. Regionalization.</b> Continue to explore opportunities for the regionalization of services that will save money and better serve the citizens of Holden.</p>	<p>Public Safety Department/Ongoing</p> <p>Public Safety Department/Ongoing</p> <p>Town Council, Ongoing</p>
<p><b>3. Solid Waste.</b> Provide for an efficient system of solid waste disposal.</p>	<p><b>A. Evaluation.</b> Periodically evaluate the effectiveness of the Town's solid waste collection and disposal program including curbside collection, the pay-per-bag system, the use of private haulers, the contract with PERC, the disposal of demolition debris and universal waste, clean-up day, and the effectiveness of recycling efforts, and make recommendations for change, where appropriate.</p>	<p>Town Manager, Town Council/Development Director/2008, 2013</p>
<p><b>4. Schools.</b> Ensure that students from Holden receive a cost effective, quality education.</p>	<p><b>A. Coordination with SAD 63.</b> Periodically meet with school officials to review enrollments and the potential impacts of new developments and changing population levels on school facilities.</p>	<p>Town Manager/Town Council/ Development Director/2007 and Ongoing</p>
<p><b>5. Outdoor Recreation.</b> Provide opportunities for recreation for the residents of Holden.</p>	<p><b>A. Holbrook Regional Recreational Program.</b> Continue to support the Holbrook Regional Recreational Program.</p> <p><b>B. School Facilities.</b> Continue to rely on school facilities to meet some of the recreational needs of the citizens of Holden.</p> <p><b>C. Regional Resources.</b> Continue to rely on recreational opportunities and facilities that are available in other communities throughout the surrounding region.</p> <p><b>D. New Development.</b> Include provisions in the Town's Zoning, Subdivision and Site Plan Review ordinances to require parks, open spaces and/or walking, hiking or bicycle trails in new developments.</p>	<p>Town Council/Town Meeting/Ongoing</p> <p>Town Council/Town Meeting/Ongoing</p> <p>Town Council/Town Meeting/Ongoing</p> <p>Planning Board/Town Meeting/2007 and Ongoing</p>

Policies	Strategies	Responsibility/Date
	<p><b>E. Trail Network Master Plan.</b> Develop a Trail Network Master Plan that would include an inventory of existing trails, areas where residents wish to have trails, and desirable areas of connectivity and destination points.</p>	Conservation Commission/2008
	<p><b>F. Trail System within Holden.</b> In accordance with the Trail Network Master Plan, extend trails throughout the community and provide regional connections. Plan for trail systems that complement the planned I-395 connector.</p>	Conservation Commission/Planning Board/Ongoing
	<p><b>G. Waterfront Access.</b> Consider the need for and impact of one or more public access and/or recreation areas on at least one of Holden's water bodies.</p>	Town Council/Town Meeting/2009 and Ongoing
<p><b>6. Public water and sewer.</b> Ensure that public water and sewer lines can be extended from Brewer to meet the Town's growing needs.</p>	<p><b>A. Extensions under I-395 Connector.</b> Ensure that adequately sized water and sewer lines, or sleeves to accommodate such lines, are placed under the planned I-395 connector prior to its construction.</p>	Town Council/Ongoing

## MUNICIPAL FINANCES

### Goals

1. Plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and development..

Policies	Strategies	Responsibility/Date
<p><b>A. Efficiency and Cost Effectiveness.</b> Provide the most efficient and cost effective operation and finance of existing and future facilities and services.</p>	<p><b>A. State Budget.</b> Continuously review the condition of the State budget and incorporate its implications for revenue sharing into Holden's budget plans.</p>	Town Manager/Ongoing
	<p><b>B. Capital Program.</b> Continue to prepare and update an on-going Capital Program which annually identifies and prioritizes the Town's major capital needs.</p>	Town Manager/Ongoing

Policies	Strategies	Responsibility/Date
	<p><b>C. Budget Review Committee.</b> Continue to use the Budget Review Committee to review the budget prepared by Town officials and the Town Council.</p> <p><b>D. Reserve Accounts.</b> Continue to use Reserve Accounts, where appropriate, for major capital equipment, road improvements and the purchase of land and improvement of Town facilities.</p> <p><b>E. TIF Districts and other Programs.</b> Explore Tax Increment Financing Districts and other programs aimed at promoting economic development and providing for efficient delivery of municipal services.</p>	<p>Town Council/Town Meeting/Ongoing</p> <p>Town Council/Town Meeting/Ongoing</p> <p>Economic Development Director/Town Council/2008 and Ongoing</p>
<p><b>2. Coordination of Services.</b> Encourage cooperation and coordination of services within the community and with other communities.</p>	<p><b>A. Regional Initiatives.</b> Continue to participate in regional initiatives to reduce municipal costs, including the joint purchase of equipment and supplies and jointly using services.</p> <p><b>B. Town/School Coordination.</b> Explore the possibility of sharing resources with the school system to reduce public costs.</p> <p><b>C. Federal/State Incentives.</b> Take advantage of Federal and State financial incentives for regional cooperation and coordination in the delivery of municipal services.</p>	<p>Town Manager/ Ongoing</p> <p>Town Manager/School Superintendent/ Ongoing</p> <p>Town Manager/Town Council/ Ongoing</p>
<p><b>3. Impact Fees.</b> Investigate the applicability and feasibility of charging impact fees.</p>	<p><b>A. Investigate Impact Fees.</b> Investigate the experience of other communities in the use of impact fees and determine the applicability to Holden.</p> <p><b>B. Adopt Fee Programs.</b> Develop and adopt an impact fee program, if fees appear feasible in Holden.</p>	<p>Economic Development Director/2007</p> <p>Town Council/2008</p>

## TRANSPORTATION

### Goals

1. Plan for, finance and develop an efficient system of transportation facilities and services to accommodate anticipated growth and economic development, consistent with the goals of this Plan to encourage growth in growth areas, and limit growth in rural areas.

Policies	Strategies	Responsibility/Date
<p>1. <b>Road maintenance and Improvement Program.</b> Prepare and maintain a long-range Town Road Maintenance and Improvement Program.</p>	<p><b>A. Road Program.</b> Continue to refine and finance a long-range Road Maintenance and Improvement Program.</p> <p><b>B. Financing.</b> Continue to use general equipment reserve accounts, where appropriate, for highway equipment, and continue to budget for road improvements,</p> <p><b>C. Road Intersections.</b> Continue to evaluate intersections with regard to safety, traffic flow and accidents, and plan for and make improvements, where needed.</p> <p><b>D. Footpaths, Sidewalks and Bike Paths.</b> Develop foot paths, sidewalks and bike paths as appropriate.</p>	<p>Town Manager, Town Council, Town Meeting/Ongoing</p>
<p>2. <b>Access Management.</b> Continue to manage access to Route 1-A so as to maintain traffic flow and safety along this highway corridor.</p>	<p><b>A. Standards.</b> Continue to include street design standards in the Town's Zoning and Subdivision Ordinances, and include provisions which encourage the addition of sidewalks and bicycle paths in appropriate areas of town.</p> <p><b>B. Access Management for New Connector.</b> Amend the Town's Zoning and Subdivision Ordinances to extend access management controls to existing roads in the vicinity of access points to the proposed Route I-395/9 connector, and include standards to encourage frontage roads, common driveways and shared parking lots for new development.</p>	<p>Planning Board, Town Meeting/Ongoing</p> <p>Planning Board, Town Meeting/2007</p>

Policies	Strategies	Responsibility/Date
<p><b>3. Public Transportation.</b> Investigate the need for and availability of increased public transportation in Holden.</p>	<p><b>A. Evaluation.</b> Periodically meet with existing transportation providers to consider the opportunities and costs of extending service to Holden, and report to the Town on whether such service is needed, feasible and cost effective, and make recommendations accordingly.</p>	<p>Town Manager, Development Director/2008, 2013</p>
<p><b>4. Growth Management.</b> Limit the extent to which road developments in rural areas contribute to sprawl.</p>	<p><b>A. Road Standards.</b> Establish road standards for new roads that are not part of a subdivision.</p> <p><b>B. Acceptance of Private Roads.</b> Establish a Town policy of accepting private roads only when such private roads are constructed according to Town road standards.</p> <p><b>C. Future Roads.</b> Plan for future roads to meet the needs of the community, taking into account the regional impacts of those roads.</p>	<p>Planning Board, Town Meeting/2007 and Ongoing</p> <p>Town Council/20076 and Ongoing</p> <p>Planning Board/Ongoing</p>

## FUTURE LAND USE

### Goals

1. Provide for orderly growth and development in appropriate areas of the community.
2. Protect the rural, small town character of Holden.
3. Protect Holden's natural resources and open spaces.
4. Encourage more village-type development.

Policies	Strategies	Responsibility/Date
<p><b>1. Orderly Growth and Development.</b> Establish growth and rural areas as shown on the future land use map.</p>	<p><b>A. Zoning Districts.</b> Continue to utilize Holden's zoning districts to manage future growth with boundary adjustments shown on the future land use map and recommended changes in district requirements as noted below.</p> <p><b>Growth Area</b></p> <ul style="list-style-type: none"> <li>• <b>Village Center Zone (VC).</b> This zone should be expanded westward from its existing location as shown on the Future Land Use Map. The minimum lot size and frontage requirements are smaller in order to encourage a greater density of development than in other parts of the community, and uses are limited to those which would be compatible with a traditional village center.</li> </ul> <p><i>The vision for this zone is to create a well-planned village similar to that described in the State Planning Office publication "The Great American Neighborhood" with neighborhood-scale streets, small lots, sidewalks and trails, open spaces, a village green, one or more parks, roads parallel to major thoroughfares, and a cohesive, neighborhood feel to the entire development.</i></p> <p><u>Reduce existing dimensional requirements:</u></p> <p>Minimum Lot Size</p> <p>Residential: 40,000 square feet abutting Route 1A; 20,000 square feet in all other areas with a reduction to 10,000 square feet if served by public sewer and water</p>	<p>Planning Board/Town Meeting/2007</p>

Policies	Strategies	Responsibility/Date
	<p>Other Uses: 20,000 square feet, with a reduction to 10,000 square feet if served by public sewer and water and not on 1A</p> <p>Minimum Road Frontage: 200 feet on Route 1A. All other areas 50 feet (but reduce to zero frontage and allow other types of access, governed by standards, if in a planned village development and on an internal road created by developer)</p> <p><i>The recommended increase from 100 feet to 200 feet of road frontage on Route 1A is for the purpose of complying with the State's access management law.</i></p> <p>Other Requirements: Reduce other dimensional requirements such as side lot setbacks to allow creation of a well planned village.</p> <ul style="list-style-type: none"> <li> <p><b>General Commercial Zone (GC).</b> This zone should be expanded eastward from its existing location as shown on the future land use map and should continue to provide locations for business activities requiring large scale buildings, large outdoor display areas and wholesale areas, and extensive site development providing employment and service beyond the immediate neighborhood or community.</p> <p>Continue existing dimensional requirements:  Minimum Lot Size – Existing residential: 40,000 square feet  Minimum Lot Size – Other: 40,000 square feet  Minimum Road Frontage – 200 feet*</p> <p><i>*The minimum road frontage requirement may be reduced by the Town for shared driveways and parallel roads; see Land Use Strategies 3.B. and 3.C.</i></p> <p><u>New provisions</u>  Allow use of non-conforming lots for commercial development  Allow conversion of dwellings to commercial uses</p> </li> </ul>	

Policies	Strategies	Responsibility/Date
	<ul style="list-style-type: none"> <li> <p><b>Limited Commercial Zone (LC).</b> This zone should be expanded as shown on the future land use map and should continue to provide locations for the traditional retail and service needs of the local community and adjacent neighborhoods. The scale of commercial development should continue to be in keeping with the residential character of these areas. The intent is to limit larger outdoor display areas and wholesale businesses.</p> <p><u>Continue existing dimensional requirements:</u>  Minimum Lot Size – Residential: 40,000 square feet  Minimum Lot Size – Other: 40,000 square feet  Minimum Road Frontage – 200 feet*</p> <p><i>*The minimum road frontage requirement may be reduced by the Town for shared driveways and parallel roads; see Land Use Strategies 3.B. and 3.C.</i></p> </li> <li> <p><b>Community Service/Institutional Zone (CS/I).</b> This zone should be reduced as shown on the future land use map to include only the area around the Town Office and school. The other two CS/I zones should be changed to the LC Zone. This zone should be limited to public, semi-public, and institutional activities.</p> <p><u>Continue existing dimensional requirements:</u>  Minimum Lot Size – Residential: 40,000 square feet  Minimum Lot Size – Other: 40,000 square feet  Minimum Road Frontage – 200 feet</p> </li> <li> <p><b>High Density Residential Zone (R1).</b> Some of the R1 zones are in the growth area, and some are in the rural area. R1 zones in the growth area include a new R1 north of the Town office and school (currently zoned R3 and R2) and along Eastern Avenue. These R1 zones encompass many older residential neighborhoods within convenient reach of business facilities as well as areas that could be served by water and sewer lines from Brewer. The predominant land use should continue to be single-family residences, but multi-family dwellings should also be permitted. Certain additional uses which contribute to balanced neighborhoods and enhance the attractiveness of the community should continue to be permitted.</p> </li> </ul>	

Policies	Strategies	Responsibility/Date
	<p>Continue existing dimensional requirements:  Minimum Lot Size – Residential: 1 Acre  Minimum Lot Size – Other: 60,000 square feet  Minimum Road Frontage - 200 feet</p> <p><b>Rural Area</b></p> <ul style="list-style-type: none"> <li>• <b>High Density Residential Zone (R1)</b> – All R1 zones are in the rural area except those described above. See above description for dimensional requirements.</li> <li>• <b>Low Density Residential Zone (R2)</b>. This zone should continue to be primarily for single-family dwellings. Other uses permitted in the zone should continue to be those which are harmonious with the traditional pattern and character of these residential neighborhoods.</li> </ul> <p>Continue existing dimensional requirements:  Minimum Lot Size – Residential: 2 Acres  Minimum Lot Size – Other: 80,000 square feet  Minimum Road Frontage – 200 feet</p> <ul style="list-style-type: none"> <li>• <b>Rural Resource/Residential Zone (R3)</b>. This zone should continue to encompass most of the area outside the settled portions of Holden. It should continue to be for the kinds of uses which have traditionally predominated in rural New England: forestry and farming, farm residence, and a scattering of other uses consistent with a generally open, non-intensive pattern of land use. The Minimum lot size requirement is high to prevent over-development where a full range of Town services cannot be provided economically.</li> </ul> <p>Continue existing dimensional requirements:  Minimum Lot Size – Residential: 3 Acres  Minimum Lot Size – Other: : 3 Acres  Minimum Road Frontage - 300 feet</p> <ul style="list-style-type: none"> <li>• <b>Shoreland Residential Zone (R4)</b>. This zone should continue to provide locations for recreational residences in shorefront areas. It is intended for limited non-permanent habitation.</li> </ul>	

Policies	Strategies	Responsibility/Date
	<p>Continue existing dimensional requirements:            Minimum Lot Size – Residential: 1 Acre            Minimum Lot Size – Other: 1 Acre            Minimum Road Frontage - 200 feet</p>	
<p><b>2. New Village Centers.</b> Allow for the creation of new village centers in appropriate areas of the community.</p>	<p><b>A. Future Village Center Zones.</b> Amend the Zoning Ordinance to allow for the creation of a limited number of new Village Center Zones through the conditional zoning provision in the zoning ordinance. Include additional conditions for creation of the new Village Center Zone such as, but not limited to:</p> <ul style="list-style-type: none"> <li>• Must be in keeping with the vision set forth in the State Planning Office publication "The Great American Neighborhood;"</li> <li>• Must be based on a comprehensive design plan showing new streets, walkways, open spaces, public spaces such as a town square or village green, fire station, community center, etc.</li> <li>• Must not be limited to strip development along existing town roads;</li> <li>• Must be located on soils appropriate for the use;</li> <li>• Must be in reasonable proximity to Route 1A;</li> <li>• Must utilize parallel access roads when adjacent to 1A or I-395 Connector;</li> <li>• Must provide for water, sewer, storm drainage and other infrastructure.</li> </ul> <p><i>This Plan does not designate specific locations for new Village Center Zones, but allows such zones to be created by the Town in response to private developer initiatives.</i></p>	<p>Planning Board/Town Meeting/2007</p>
<p><b>3. Commercial Sprawl.</b> Limit commercial sprawl on Route 1-A and along the future I-395 Connector.</p>	<p><b>A. Standards for Commercial Development.</b> Continue to administer standards in Article 5 of the Zoning Ordinance that regulate quality of commercial development along Route 1A.</p> <p><i>These standards include provisions that encourage shared driveways, limit driveways to one per lot of record (for two or more uses there can be a second access if it's located 400 feet from the first), and site distances.</i></p>	<p>Planning Board/Ongoing</p>

Policies	Strategies	Responsibility/Date
	<p><b>B. Increased Incentives for Shared Driveways.</b> To encourage more businesses to share driveways along Route 1A, increase the lot size/frontage reduction for shared driveways from 10% to 25%.</p> <p><b>C. Incentives for Parallel Roads and Grid Development.</b> Amend the Zoning Ordinance to provide for a 50% reduction in lot size and frontage if commercial businesses are located on a frontage road parallel to Route 1A. Consider limits on the length of the access road leading to the parallel road.</p>	<p>Planning Board/Town Meeting/2007</p> <p>Planning Board/Town Meeting/2007</p>
<p><b>4. Rural Area Sprawl.</b> Take steps to limit rural area sprawl.</p>	<p><b>A. Open Space Subdivisions Requirement.</b> Amend the Subdivision Ordinance to require that all subdivisions in all zones be open space subdivisions. In rural areas, at least 50% of the developable land should be preserved as open space.</p> <p><i>An open space subdivision or development, also known as a conservation development or cluster development, is a technique that concentrates development in a compact area in one portion of the site in exchange for providing open space and natural areas elsewhere on the site. The minimum lot sizes, setbacks and frontage requirements for the zone are relaxed in order to create open space on the site. The municipal ordinance typically permits the same amount of development that is already permitted. The key difference is that this technique requires new construction to be located on only a portion – typically half – of the parcel. This new construction should incorporate buffers, landscaping and design features to preserve the rural character of the zone in which it is located. The remaining open space is permanently protected under a conservation easement held by a local conservation commission, land trust, the municipality itself, or under such terms as the parties may agree.</i></p> <p><b>B. Incentives for Access.</b> Consider incentives that would allow public access to these open space areas.</p>	<p>Planning Board/Town Meeting/2007</p>

Policies	Strategies	Responsibility/Date
<p><b>5. Historic, Archaeological Sites.</b> Protect historic and archaeological sites.</p>	<p><b>A. State Notification.</b> Continue to require that developers notify the State Archaeologist about the location of proposed developments to determine the impact of the development on identified archaeological sites.</p> <p><b>B. Project Modification.</b> Amend Town ordinances to clarify the requirement that if any portion of the site has been identified as containing historic or archaeological resources, the development include appropriate measures for protecting those resources, including but not limited to modification of the proposed design of the site, timing of construction, and limiting the extent of excavation.</p> <p><b>C. Inventory.</b> Develop an inventory of historical and archaeological sites for the purpose of identifying and preserving the history of Holden including the collection and maintenance of historical maps.</p>	<p>Planning Board/Town Meeting/2007</p> <p>Planning Board/Town Meeting/2007</p> <p>Town Council and Holden Historical Society/Ongoing</p>
<p><b>6. Transportation Connectivity.</b> Strive to improve the connectivity of the rural road network, considering the needs of pedestrians and bicyclists.</p>	<p><b>A. Road Network.</b> Work with developers and other communities to meet the future transportation needs of the community. Encourage connections between roads where consistent with the goals, policies and strategies of this Plan.</p>	<p>Planning Board/Ongoing</p>
<p><b>7. Rural Area Growth Management.</b> Take steps to control the rate of growth in Holden's rural area. Strive to achieve a goal of having no more than 30% of future residential growth occur in the rural area.</p>	<p><b>A. Growth Monitoring.</b> Monitor residential growth rates for a period of five years following implementation of the Comprehensive Plan, documenting exact numbers of new dwellings in growth and rural areas.</p> <p><i>According to population projections prepared by the State Planning Office projects, Holden can expect a very modest growth of 42 additional people between 2005 and 2015, resulting in the construction of about 17-19 new dwelling units, depending on household size (17 units based on household size of 2.45 in the 2000 Census, 19 if based on a reduced size of 2.25). This rate of growth will likely have very little impact on the small town character of Holden, even if it occurred entirely in the rural area. However, there are several large scale projects in the pre-proposal stage that could be located</i></p>	<p>Planning Board/Town Meeting/2007</p>

Policies	Strategies	Responsibility/Date
	<p>either in the expanded Village Center Zone, or a new Village Center Zone. If any of these projects come to fruition, it may result in far more than 17-19 additional homes, and will probably ensure that at least 70% of Holden's future residential development takes place in the growth area.</p> <p>Holden's 1995 Comprehensive Plan did not achieve the 30% goal, in large part because there were a large number of vacant, rural area lots, and the Village Center Zone was inappropriately sited. It wasn't large enough, very few parcels were available, and the soil types in much of the zone do not appear to be suitable for subsurface wastewater disposal systems. The expanded Village Center Zone and provisions for new Village Center Zones address these shortcomings. There are very few vacant residential lots currently available in Holden.</p> <p>The exact location and timing of the I-395 connector are unknown at this time. Construction of the connector will undoubtedly stimulate development, particularly in the vicinity of any intersections in Holden. The provision for one or more new Village Center Zones provides the Town with a mechanism to ensure that any resulting development is undertaken in a thoughtful, well planned manner. Developers will be encouraged to apply for a new Village Center Zone because lot size and frontage requirements are far more attractive than in any other zone.</p> <p><b>B. Rural Area Growth Management.</b> If the goal of having no more than 30% of future residential growth occur in the rural area is not met, or if it is obvious that it won't be met during the 5-year monitoring period and growth significantly exceeds the rate of growth projected by the State Planning Office, recommend additional measures to manage growth. Such additional measures may include, but are not necessarily limited to one or more of the following:</p> <ul style="list-style-type: none"> <li>● Changes in lot size or frontage requirements;</li> <li>● Changes in district boundaries;</li> <li>● Creation of one or more village center zones;</li> </ul>	<p>Planning Board/Town Meeting/2007</p>

Policies	Strategies	Responsibility/Date
	<ul style="list-style-type: none"> <li>• Adoption of impact fees;</li> <li>• Moratorium(s);</li> <li>• Rural area growth caps;</li> <li>• Other land use management techniques that appear to have worked in other communities.</li> </ul>	
<p><b>8. I-395 Connector.</b> Minimize disruptive land use impacts of the proposed I-395 Connector.</p>	<p><b>A. Monitoring.</b> Continue to monitor MDOT's plans for the I-395 Connector.</p> <p><b>B. Plan Review.</b> Review the Comprehensive Plan and Zoning Ordinance as the location of the connector is finalized to whether existing zones are adequate. Recommend changes as needed, including the creation of new zones or the location of one or more Village Center Zones to encourage village-type development.</p>	<p>Town Manager/Town Council/Economic Dev. Director/ Ongoing</p> <p>Planning Board/Ongoing</p>
<p><b>9. Comprehensive Plan Implementation.</b> Ensure that the Comprehensive Plan is implemented on a continuing basis.</p>	<p><b>A. Creative Zoning Techniques.</b> Explore the use of creative zoning techniques to implement the vision, concepts and recommendations contained in the Comprehensive Plan. These techniques include, but are not limited to, impact fees, transfer of development rights, to name a few.</p> <p><b>B. Plan Implementation.</b> Take such action as necessary to oversee implementation of the Comprehensive Plan on a continuing basis.</p>	<p>Planning Board/2009</p> <p>Town Council/Ongoing</p>