

## 10 Growth Forecasts

Based on historic and current trends, projections can be built regarding population and housing units. The projections are used to estimate growth rates and land demand projections in the town, and how the land use plan can best accommodate anticipated residential and commercial growth.

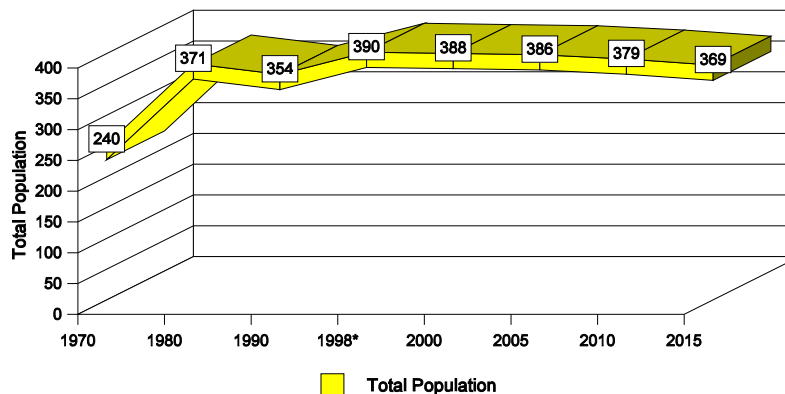
### 10.1 Population Trends and Projections

#### Wisconsin Department of Administration (WDOA) Projections

In 1993 the Wisconsin Department of Administration's (WDOA) Demographic Services Center prepared baseline population projections to the year 2015 for communities and counties of the state. The WDOA utilized a projection formula that calculates the annual numerical population change (yearly population estimates), and which estimated extended community population projections.

The projections prepared by the WDOA are presented in Figure 10-1. The WDOA projections predict the Town of Winchester will experience a population decline of 5.4% from the 1998 population estimate to the year 2015.

**Figure 10-1**  
**Population Trends and Projections**  
**Town of Winchester**  
**1970 - 2015**

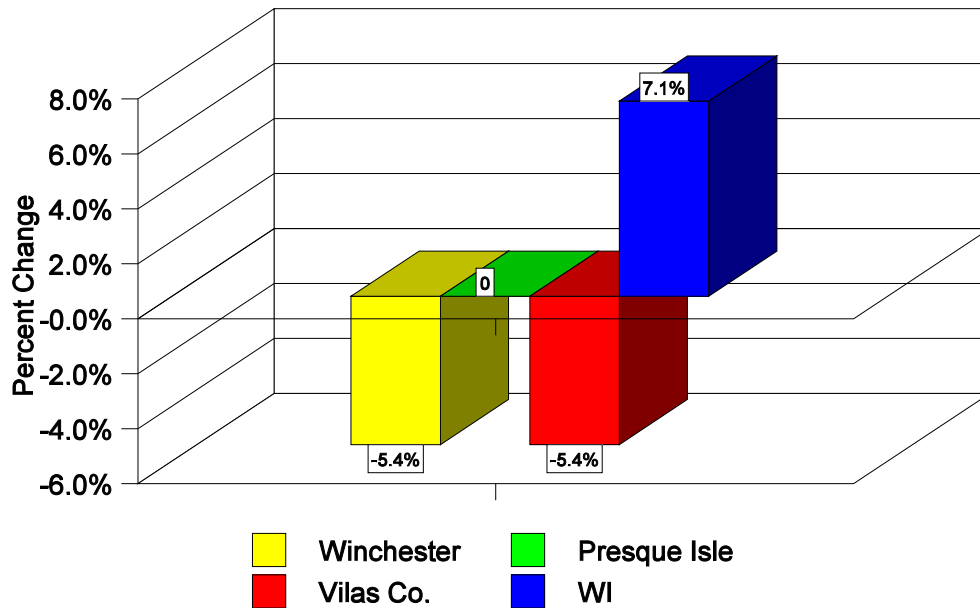


Source: Wisconsin Demographic Services Center *Official Municipal Population Projections 1990 - 2015*.

\*Wisconsin Department of Administration Official Population Estimate 1998.

Figure 10-2 presents a comparison of the projected percent change in population from the 1998 population estimate to the 2015 population projection for the Towns of Winchester and Presque Isle, Vilas County, and the state of Wisconsin.

**Figure 10-2**  
**Comparative Population Projections**  
**Town of Winchester and Selected Areas**  
**1998-2015**



Source: Wisconsin Demographic Services Center *Official Municipal Population Projections 1990 - 2015*.

\*Wisconsin Department of Administration Official Population Estimate 1998.

The comparison of the population projections from 1998 to 2015 presents some interesting information for the planning area. The Town of Winchester and Vilas County are projected to decrease from 1998 to 2015, while the Town of Presque Isle is projected to maintain its population at the 1998 estimated population figure. However, the actual population change for the Town of Winchester through 2015 will likely be different than the projection. While the projections by the WDOA are based on sophisticated modeling using population trends and economic conditions, the attractiveness of the area for year-round recreational opportunities; the ability of commerce and freedom of location afforded through the Internet, and the will likely contradict these projections. The town can expect, as the regional trends have identified, that many of the seasonal/recreational homes will be converted to year-round retirement homes while

new families continue to discover the abundance of recreational opportunities and natural beauty in the area.

### Population Projections Based on Recent Building Permit Data

A comparative method of projecting population growth is based on building permit activity trends. The Town of Winchester’s 19-year average of 11 additional housing units per year was used to calculate the straight-line housing projection from 1998 to 2015. The population projections were derived by using the projected number of total housing units based on the 19-year permit trend and calculating the total number of occupied units based on the breakdown of housing units which existed in the town in 1990, which was 23.6%. The number of occupied units was then multiplied by the projected number of persons per household (Table 10-2) to establish the projected population. The results of these calculations are presented in Table 10-1.

**Table 10-1**  
**Population Projections Based on Building Permit Activity Data**  
**Town of Winchester**  
**1990-2015**

	1990	1998	2000	2005	2010	2015
Total Housing Units	677	803	825	880	935	990
Occupied Units (23.6% of total units)	160	190	195	208	221	234
Persons Per Household	2.21	2.06	2.11	2.03	1.94	1.87
<b>Total Population</b>	<b>354</b>	<b>390</b>	<b>411</b>	<b>422</b>	<b>428</b>	<b>437</b>

Source: 1990 U.S. Census Data; WDOA Wisconsin Household Projections by Household Types 1990-2015, whereby the increments used to obtain the projected number of persons per household for the Town of Winchester were based on Vilas County’s projection increments; Vilas County Zoning Office, Building Statistics, 1980-1998; Foth & Van Dyke, 1999.

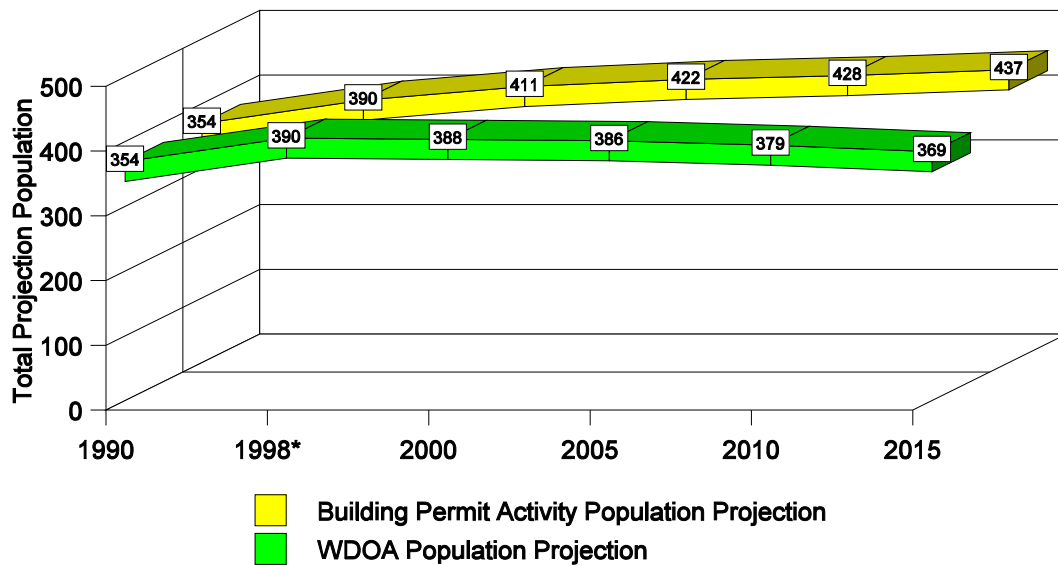
Based on the derived projection presented in Table 10-1, the Town of Winchester’s population is projected to increase by 47 people between 1998 and 2015, from an estimated 390 persons to 437 persons, respectively. This is a 12.1% increase for the 17 year period.

### Comparative Population Projections

For comparison purposes, Figure 10-3 presents the WDOA population projections and the derived population projection based on the building permit activity trend. The figure depicts the

differences between projections which should be used as parameters for the actual population growth in the Town of Winchester by 2015, while 1990 data is included as a baseline.

**Figure 10-3**  
**Comparative Population Projections**  
**WDOA Population Projections and Projections Building Permit Activity Trends**  
**Town of Winchester**  
**1990-2015**



Source: WDOA *Official Municipal Population Projections*, Vilas County Annual Zoning Reports 1980 - 1998, Foth & Van Dyke derived population projections 1999; Wisconsin Department of Administration Official Population Estimate 1998.

### Summary of Population Projections

The population projections calculated by the WDOA, and those derived by Foth & Van Dyke based on building permit activity, create a range which the Town of Winchester can use as a guide for future development needs and services. The WDOA population projection for the Town of Winchester projects a population *decline* of 5.4% between the 1998 estimate and the year 2015, while Foth and Van Dyke's building permit-based projection anticipates a 12.1% *increase* over the same period. This comparative trend analysis creates a range for which to plan for, from a loss of 21 persons to a gain of 47 persons between the two projections.

In comparison, during the eight-year period from 1990 through 1998, the town's population increased by 36 persons, representing a growth rate of 10.2%. Overall, the 1998 estimated population of 390 persons already exceeds the WDOA's population projections through the planning period. Therefore, it is anticipated the actual population level will continue to increase ahead of the WDOA projection, but fall short of the Foth & Van Dyke estimate.

## 10.2 Housing Unit Projections

In conjunction with population projections, housing units projections are calculated to determine future land use needs and acreage demands as well as future demands on the town's public facilities and services. To begin the housing unit projections, a review of the average Town of Winchester household size was completed relative to change in the projected persons per household. As presented in Table 10-2, the number of persons per occupied housing unit is projected to decline between the year 1990 and 2015 for the Town of Winchester, as well as throughout the county and state.

**Table 10-2**  
**Projected Persons Per Household**  
**Town of Winchester, Vilas County and Wisconsin**  
**1990 - 2015**

Year	1990	1995	2000	2005	2010	2015
Town of Winchester	2.21	2.19	2.11	2.03	1.94	1.87
Vilas County	2.40	2.38	2.30	2.22	2.13	2.06
State of Wisconsin	2.61	2.59	2.55	2.51	2.46	2.41

Source: Department of Administration, Division of Energy and Demographic Services, Demographic Services Center, Wisconsin Household Projections by Household Type 1990-2015, December 1993; U.S. Bureau of the Census, 1990 Census of Population and Housing, STF3A.

Note: The increments used to obtain the projected household size for the Town of Winchester were taken from Vilas County's projection increments according to the Demographic Services Center.

### Housing Unit Projections Based on WDOA Data

Housing unit projections are an important element to understand potential land demands. Specifically, the projections are used to allocate required acreage to accommodate the expected increase in residential development, and to some degree the commercial development need, throughout the planning design period.

Projections in Table 10-3 are based on the number of year-round housing units, which includes all occupied units and vacant units which are either for sale or for rent. It does not include vacant units which are used for seasonal, recreational, occasional, or other use. The projections for seasonal housing units are presented following the year-round housing unit projections. Table 10-3 provides the total year-round WDOA housing unit projections for the Town of Winchester.

**Table 10-3**  
**Projected Number of Year Round Housing Units**  
**Town of Winchester**  
**1990-2015**

Characteristics	1990	1998*	2000	2005	2010	2015
Population	354	390	388	386	379	369
Person Per Household	2.21	2.06	2.11	2.03	1.94	1.87
Occupied Units (93.6%)	160	190	184	190	195	197
Vacant Year Round Units (@6.4%)	11	13	13	13	13	14
Total Year Round Units	171	203	197	203	208	211

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, STF1A; WDOA Demographic Service Center, Official Municipal Population Projections 1990-2015.

Note: The increments used to obtain the projected household size for the Town of Winchester were taken from Vilas County's projection increments according to the Demographic Services Center.

The important information presented in this projection table is the projected addition of eight year-round housing units between the estimated number of year-round housing units in the town in 1998 and the year 2015, representing a 3.9% increase overall.

## Projected Seasonal and Recreational Housing Growth

Utilizing the year-round housing unit projections for the Town of Winchester from 1998 to 2015, projections for the number of seasonal housing units were calculated for the same period. These projections are presented in Table 10-4.

**Table 10-4**  
**Projected Number of Seasonal Housing Units**  
**Town of Winchester**  
**1990-2015**

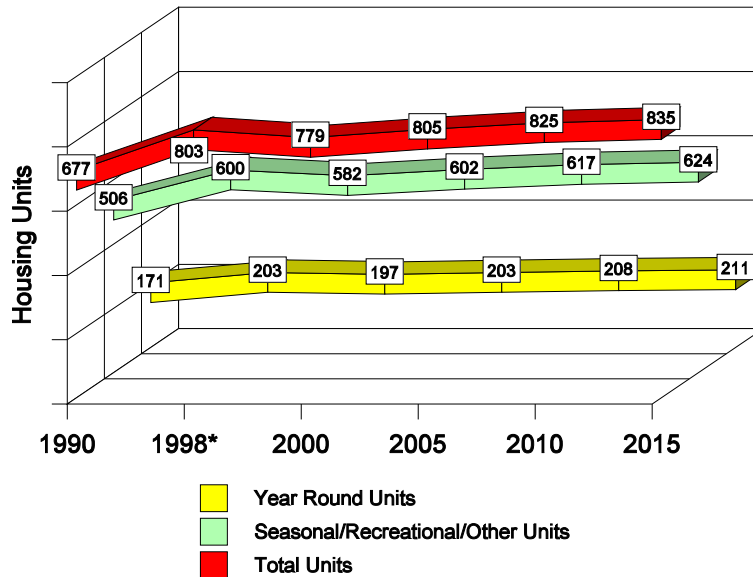
Housing Units	1990	1998*	2000	2005	2010	2015
<b>Year Round Units (@25.3%)</b>	<b>171</b>	<b>203</b>	<b>197</b>	<b>203</b>	<b>208</b>	<b>211</b>
Occupied Units	160	190	184	190	195	197
Vacant Year Round Units	11	13	13	13	13	14
<b>Seasonal Units (@74.7%)</b>	<b>506</b>	<b>600</b>	<b>582</b>	<b>602</b>	<b>617</b>	<b>624</b>
<b>Total Housing Units</b>	<b>677</b>	<b>803</b>	<b>779</b>	<b>805</b>	<b>825</b>	<b>835</b>

Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, STF1A; WDOA Demographic Service Center, Official Municipal Population Projections 1990-2015.

Note: Projections based on actual 1990 census data where occupied units accounted for 23.6 percent, vacant year round 1.6 percent, and seasonal units 74.7% of the total housing units in the Town of Winchester.

Similar to the year-round housing unit projections, seasonal housing units are projected to increase by 4.0% for an additional 24 units by 2015. Overall, the Town of Winchester can expect the total number of housing units to increase slightly from an estimated 803 units in 1998 to 835 total housing units in 2015 based on the WDOA information. This projection indicates the town will experience significantly less growth through the planning period than was experienced more recently between 1990 and 1998 whereby an estimated 126 units were added in the town, resulting in an 18.6% increase in housing units during this eight-year time period. These projections are presented graphically in Figure 10-4.

**Figure 10-4**  
**WDOA Projected Number of Housing Units by Year-Round,**  
**Seasonal, and Total Units**  
**Town of Winchester**  
**1990-2015**



Source: U.S. Bureau of the Census, 1990 Census of Population and Housing, STF1A; WDOA Demographic Service Center, Official Municipal Population Projections 1990-2015.

### Housing Unit Projections Based on Recent Building Permit Activity

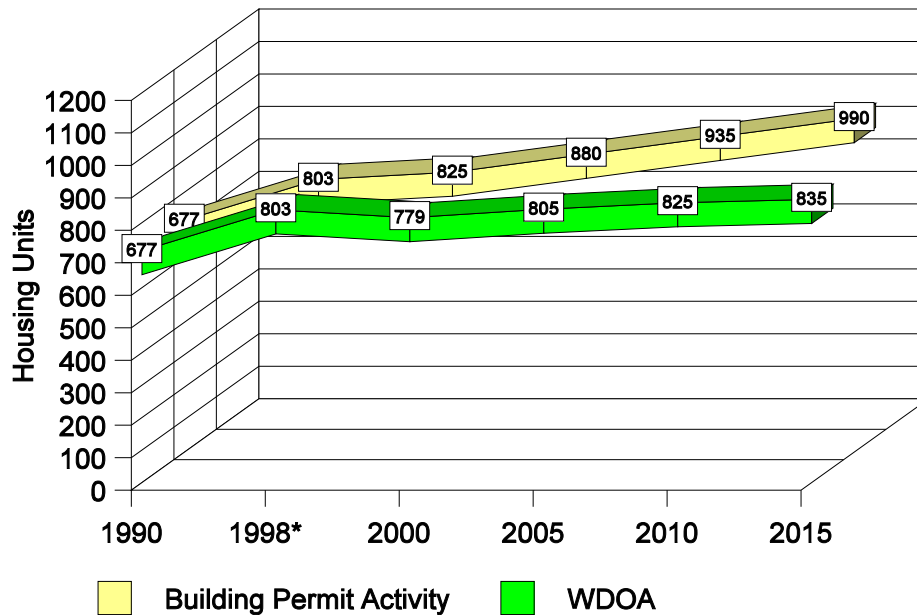
An additional measure that assists in the illustration of the growth in residential housing units for the Town of Winchester is analysis of building permit activity. Table 9-4, shown previously in Section 9, displays the building permit activity from 1980 to 1998 which includes single-family units, multi-family units, and mobile homes or trailers. The 19-year average of 11 building permits annually for the Town of Winchester was used to calculate the projected number of housing units for the town from 1998 to 2015.

Using this method of projecting the housing units, the number of housing units in the Town of Winchester is projected to reach 990 by the year 2015, which is 155 more units than that projected based on the WDOA data.

## Comparative Housing Projections

Figure 10-5 illustrates both the WDOA housing unit projections and the projection prepared based on recent building permit activity data, simultaneously. The figure depicts the differences between projections which should be used as parameters for the anticipated growth in housing units in the Town of Winchester through the year 2015.

**Figure 10-5**  
**Comparative Housing Unit Projections**  
**Town of Winchester**  
**1990-2015**



Source: Vilas County Zoning Office Annual Reports, 1990 - 1998. U.S. Bureau of the Census, 1990 Census of Population and Housing, STF1A; WDOA Demographic Service Center, Official Municipal Population Projections 1990-2015.

The WDOA and building permit projections were then divided into single-family units, multi-family units, and other units. This division of the total housing unit projections by housing type uses the 1990 percentages of housing types provided in the 1990 Census of Population and Housing for the Town of Winchester.

**Table 10-5**  
**Projected Housing Units by Type**  
**Town of Winchester**  
**1990 - 2015**

Type of Housing Units	WDOA						Building Permits				
	1990	1998	2000	2005	2010	2015	1998	2000	2005	2010	2015
Single Family* (@95.7%)	648	768	745	770	790	799	768	790	842	895	947
Multi-Family (@0.5%)	3	4	4	4	4	4	4	4	4	5	5
Other** (@3.8%)	26	31	30	31	31	32	31	31	34	35	38
Total Units	677	803	779	805	825	835	803	825	880	935	990

\* Single family includes attached units, detached units, and mobile homes or trailers.

\*\* Other housing units refers to living quarters that are occupied, or could be occupied, which do not fall into any of the other categories. Examples include houseboats, railroad cars, campers, vans, etc.

Source: U.S. Census of Population and Housing 1990, STF 1 Table H41; Foth & Van Dyke housing unit projections calculated from Wisconsin Department of Administration population data.

The projection of total housing units by type of housing assumes the 1990 percent of housing units by type will remain the same until 2015. Single-family units will continue to account for the largest share of housing units with 95.7% of all housing units.

### Summary of Housing Unit Projections

The housing unit projections prepared using building permit activity trends from 1980 to 1998 are somewhat more aggressive when compared to the projections prepared utilizing WDOA data. Utilizing the building permit activity trends, it is projected that the Town of Winchester will have 990 total housing units by the year 2015, an increase of 187 units (23.3%) from the estimated number of housing units in the town in 1998 (803). In contrast, WDOA data projected the town to have 835 total housing units, an increase of 27 units (3.4%) over the same planning period. The projections vary by 155 housing units.

The U.S. Census Bureau indicates that there were 677 total housing units in the Town of Winchester in 1990. However, between 1991 and 1998 there were 126 building permits issued for residential development in the Town of Winchester, resulting in an estimated 803 housing units in the town in 1998. This indicates that in 1998 the town already had approximately the same number of housing units as projected for the year 2005 using WDOA data. Therefore, it is likely that the projected number of housing units for the town is somewhere in upper range between the WDOA and the building permit development projections.

### 10.3 Residential Land Use Acreage Needs

Projections of future land use types are a fundamental element in the development of the Year 2020 Preferred Land Use Map. To achieve "managed growth", demands for acreage to accommodate different land use types must be forecasted and ultimately mapped.

In the Town of Winchester, adequate acreage for planned residential is required to accommodate foreseeable needs and react to anticipated demands.

To accomplish this task, housing unit projections were utilized to develop Table 10-6. The table compares anticipated residential acreage demands based on WDOA and building permit projections. The comparison time line covers a 17-year period from 1998-2015 and is based on the composition of 100% single family units, which includes mobile homes (as a percentage of land use, single family residential occupies over 95.6% of the existing residential land use in the town). The densities of the unit projections were based on input from the Town of Winchester Land Use Planning Committee and assumptions relative to the location of the anticipated development. The building permit forecast was based on the average number of residential housing units (11 new units) that were permitted in the Town of Winchester over the last 19 years (1980-1998). The WDOA projection was based on official census projections.

**Table 10-6  
Residential Acreage Projections 1998-2015**

Parcel Size	Estimated % of Developments	WDOA		Building Permit	
		Potential Dwelling Units	Acreage Requirements	Potential Dwelling Units	Acreage Requirements
10 acres or more	15%	5	50.0	28	280.0
5.0 acres	15%	5	25.0	28	140.0
2.5 acres	20%	6	15.0	37	92.5
1.5 acres	30%	10	15.0	57	85.5
1.0 acre or less	20%	6	6.0	37	37.0
<b>Total</b>	<b>100%</b>	<b>32</b>	<b>111.0</b>	<b>187</b>	<b>635.0</b>

Source: WDOA U.S. Bureau of the Census, 1990 Census of Population and Housing, STF1A; WDOA Demographic Service Center, Official Municipal Housing Unit Projections 1990-2015. Foth & Van Dyke Estimates & Projections

Based on Table 10-6, the Town of Winchester could see a residential acreage need range of between 111 acres and 635 acres from 1998-2015. The acreage associated with residential need

is based on assumptions of continued growth and development occurring in accordance with the percentages allocated in Table 10-6. It is likely that the projected number of housing units for the town is somewhere in upper range between the WDOA and the building permit development projections.

#### 10.4 Commercial Land Use Acreage Needs

Given the Town of Winchester's high seasonal residential and relatively low commercial base in the town, commercial need can be difficult to forecast. To that end, the *Town of Winchester Year 2020 Comprehensive Land Use Plan* used two different alternatives to forecast commercial acreage need. The first option calculated a percentage of commercial land use to total land use to develop a commercial (business) development ratio. The development ratio option anticipates a direct relationship to service demands and population levels. The second option for forecasting commercial land demand projections consisted of analyzing the average number of commercial building permits issued over the last 19 years (1980-1998). The average number of permits were straight-line forecasted throughout 2015, with each permit attributed a land acreage to calculate demands and potential property conversions to commercial use.

**Table 10-7  
Commercial Acreage Projections**

**Option 1: Acreage - Population Ratio<sup>1</sup>**

Existing Commercial <sup>2</sup> Acreage - 1998	Existing Population 1998	WDOA Population Projection		Building Permit Population Projection	
		Projected Commercial Acreage 2015	Projected Population 2015	Projected Commercial Acreage 2015	Projected Population 2015
373.5	390	348 (-25)	364	418.5 (+45)	437

<sup>1</sup>Ratio = Acreage divided by population.

<sup>2</sup>Includes home based business.

**Option 2: Commercial Permit Forecast**

Total Commercial Building Permits 1980-1998	Potential Commercial Building Permits 1999-2015	Acreage Required 2.0 Ac/Permit
18	16	32

The acreage-population ratio (Option 1) anticipates a loss of 25 acres of commercial use based on the WDOA population forecast. In converse, up to 45 acres of commercial may be needed if the population increases in accord with Table 10-1. Option 2, based on commercial permits, anticipates 32 acres of commercial land may be needed if future permit activity mirrors past volume.

The plan acknowledges, based on the existing percentages, continued business growth in the Town of Winchester most likely will be home-based businesses, followed by service related business.