

Chapter IX  
EXISTING AND FUTURE LAND USE

*“The future of Boscawen lies in the respect for the traditional land uses that built the Town. We are stewards of what has gone before and what will be passed on to those after us.”*

*- Existing and Future Land Use Subcommittee*

**INTRODUCTION**

Increased population growth, evolving housing needs, as well as changing social and economic trends discussed throughout the Master Plan have had a direct impact on the landscape of the community. Because land is a finite resource, thoughtful use of land is a critical issue for all communities. How Boscawen utilizes its land has a direct impact on aesthetics, community character, transportation infrastructure, housing affordability, as well as the tax base.

The purpose of this Chapter is to identify and explore land use trends in Boscawen, discuss how regulations impact such trends, as well as offer recommendations as to what regulatory steps should be taken in the future to meet the growing housing and economic needs of the community.

The Community Visioning session held in April 2001 found that issues of importance include the conflict of industrial-zoned land on the floodplain and prime agricultural land; the need for an industrial park; designation of wetlands for protection; and ensuring that a high percentage of lands remain in active agricultural and forestry use. The Community Survey Results discussed later in the Chapter also offer important citizen opinions to guide the objectives and recommendations of the **EXISTING AND FUTURE LAND USE CHAPTER**.

Over the years, Boscawen has undertaken several land use initiatives with the purpose of maintaining and preserving Boscawen’s historical and scenic atmosphere. The Town formed an open space committee in the early 1990s to pursue a Land Conservation Investment Program (LCIP) grant to preserve some of Boscawen’s open spaces. The Town is currently examining the feasibility of applying for a Land and Community Heritage Investment Program (LCHIP) grant to protect land adjacent to the Hannah Dustin Memorial area. In addition, 100 percent (with no cap) of the Town’s land use change tax is put into a land acquisition fund for the Conservation Commission to be used to purchase lands that will be permanently protected from development. In addition, the Upper Merrimack River Local Advisory Committee (UMRLAC) has worked with Local Advisory Committees for other rivers in the area to increase shoreline protection of the Merrimack and Contocook Rivers. The Boscawen Conservation Commission and Board of Selectmen have committed to protecting shoreline in Boscawen.

Recently, the completion of the US Routes 3 and 4 King Street Corridor Study helped tie transportation needs in with existing land uses along King Street by suggesting a number of measures that can be undertaken to improve the conditions.

### OBJECTIVES OF THE CHAPTER AND RECOMMENDATIONS

- To identify and evaluate the past, present, and future uses of the land in Boscawen.
  - ? Create a baseline methodology and monitor ongoing land use changes.
  - ? Track trends in land use.
  
- To review community opinion regarding the existing regulations and ordinances on the use of the land in Boscawen.
  - ? Provide a forum for community input via meetings or surveys.
  - ? Undertake a comprehensive review of the current zoning districts in Town.
  - ? Encourage the Planning Board to annually review the regulations and ordinances.
  - ? Establish Building Codes and a method for enforcing them.
  
- To ensure harmonious and aesthetically pleasing development of the Town, including landscaping, to provide a rural atmosphere.
  - ? Encourage regulatory bodies to enact landscaping standards and green spaces.
  - ? Explore traffic calming measures such as sidewalks and green spaces.
  - ? Review other Towns' standards for enacting such measures.
  - ? Enact commercial and industrial design guidelines to ensure new development is consistent with the rural character of the Town.
  
- To encourage agriculture and forestry as viable land uses to preserve the character of the community.
  - ? Enact agriculture and forestry incentives including those for developers to maintain working lands.
  - ? Examine the current State agricultural protection measures and enact them in Town.
  - ? Examine the current State forestry protection measures and enact them in Town.

- To promote subdivision and development of land which would be beneficial to the health, safety, welfare, and prosperity of the community and to ensure the integrity of its natural resources.
  - ? Ensure that development plans provide for the water supply, satisfactory drainage, adequate transportation, or other public services that would not require excessive expenditure of public funds to provide such services.
  - ? Commission a Cost of Community Services Study to compare the impact of future development versus open space on community facilities.
  - ? Consider Town funding of the purchase of development rights with willing landowners.
  - ? Require that all site plans have an engineered and well-designed plan for handling surface water runoff as not to damage or endanger brooks, streams, rivers, or ground water.
  - ? Require that new subdivisions not disrupt existing drainage along road rights-of-way.
  
- To assure the monitoring and enforcement of gravel pit permitting and reclamation of all operations.
  - ? Develop a system of collaboration among the Planning Board, Conservation Commission, Zoning Board of Adjustment, and Board of Selectmen to monitor and enforce gravel operations.
  - ? Encourage the Board of Selectmen to develop policies, monitor the repermitting of gravel excavation and reclamation activities, and collect fines through RSA 155:E.
  
- To examine the feasibility of establishing a commercial/industrial park to centralize or expand those land uses.
  - ? Review the existing zones for compatibility of uses and availability of expansion.
  - ? Conduct an inventory of existing industrial uses with respect to supporting infrastructure.
  - ? Investigate the need for and potential locations for an industrial park.

- To examine the locations of potential future residential and commercial growth and predict their effects on the community.
  - ? Make a provision for a buildout analysis based on development constraints.
  - ? Produce more public infrastructure as necessary to meet demands.
  - ? Follow the sequence of adopting this Master Plan and producing a Capital Improvements Program to establish impact fees and determine the need for growth management.
  
- To encourage the use of open space development to preserve open space and retain the town's rural character.
  - ? Revise the Town's Cluster Development Ordinance to reflect current open space development practices, such as is identified in this Chapter, to get the maximum benefit for the Town and its natural features.
  - ? Revise the Cluster Development Ordinance to be restricted from the Agricultural/Residential zoning district.

**COMMUNITY SURVEY RESULTS**

Tables IX-1 through IX-8 ask a number of questions related to the use of land in Boscawen. An overwhelming number of responses (75%) indicated that agriculture and forestry were important to address in the Master Plan, although opinions were split 30% (yes, no, and unsure) as to whether residents would support ordinances which would help preserve this same land. This important distinction may indicate that education of the public on the tools available to accomplish these preservation goals should be undertaken.

Table IX-1

Are you concerned that developments and subdivisions may make it more difficult for you to access land – especially private land – for the outdoor activities indicated in question 27?

Development hindering access to outdoor activities	Total	Percent
Yes	203	65%
No	52	17%
Unsure	43	14%
No Opinion	12	4%
Grand Total	310	100%

Table IX-3

Would you support locally – developed land use ordinances that might restrict a property owner’s ability to fully develop their land if these ordinances helped to conserve undeveloped land?

Restricting development to conserve undeveloped lands	Total	Percent
Yes	120	33%
No	121	34%
Unsure	108	30%
No Opinion	12	3%
Grand Total	361	100%

Table IX-5

Should Boscawen encourage commercial/industrial growth to broaden its tax base?

Commercial/Industrial growth to broaden tax base	Total	Percent
Yes	210	58%
No	74	21%
Unsure	71	20%
No Opinion	5	1%
Grand Total	360	100%

Table IX-2

Is maintaining agriculture and forestry as economically viable land uses in Boscawen an important objective of the Master Plan?

Maintaining agriculture and forestry land for economical uses	Total	Percent
Yes	268	75%
No	15	4%
Unsure	47	13%
No Opinion	27	8%
Grand Total	357	100%

Table IX-4

Should Boscawen provide incentives for property owners if new land use ordinances limit their ability to fully develop their land?

Incentives if new land use ordinances limit full development	Total	Percent
Yes	200	57%
No	52	15%
Unsure	81	23%
No Opinion	20	6%
Grand Total	353	100%

Table IX-6

Should the Town establish standards for the following?

Stormwater runoff standards	Total	Percent
Yes	176	50%
No	56	16%
Unsure	93	27%
No Opinion	24	7%
Grand Total	349	100%

Table IX-7

Should the Town establish standards for the following?

Groundwater protection standards	Total	Percent
Yes	260	74%
No	29	8%
Unsure	46	13%
No Opinion	17	5%
Grand Total	352	100%

Table IX-8

Should the Town establish standards for the following?

Emergency vehicle access standards	Total	Percent
Yes	228	65%
No	34	10%
Unsure	65	19%
No Opinion	22	6%
Grand Total	349	100%

Respondents have indicated that groundwater (74%) and emergency vehicle access (65%) are high priorities and should have standards produced.

**EXISTING LAND USES**

The Town of Boscawen first adopted zoning in 1973. Thereafter, modifications to the Zoning Ordinance have been made at Town Meetings as needs arose. The Zoning Ordinance was last amended at Town Meeting in 1999.

**Zoning Districts**

The Agricultural-Residential (A-R) zone was designed to preserve land for agriculture, forestry, and related uses with adequate provisions for transition to unrelated uses. Land in the zone is usually unsubdivided with a minimum of roads and public services. The A-R zone is intended to discourage the scattered intrusion of uses not compatible with a rural environment.

The Residential-Low Density (R-1) zone’s purpose is to maintain primarily single-family housing on large lots with provisions for further development of single-family neighborhoods, related land uses, and limited land uses unrelated to single-family neighborhoods.

The Residential-Medium Density (R-2) zone is intended to provide a suitable environment for single- and multi-family residential neighborhoods. Adequate provisions are made for home occupations and related uses, but non-residential activities are generally prohibited. Land in the zone is generally serviced or planned to be serviced by both municipal water and sewer.

The Commercial (C) zone is intended for both individual business establishments and for unified developments of commercial and office centers. Land in the zone is typically located on or having good access to major arterial roads and is generally serviced or planned to be serviced by both municipal water and sewer.

The Industrial (I) zone is intended to accommodate a variety of business, warehouse, and light industrial uses. Residential uses are generally prohibited in the zone. Land in the zone is typically located on or having good access to major arterial roads and is generally serviced or planned to be serviced by both municipal water and sewer.

The Mill Redevelopment District (MRD) zone was established in 1998 to accommodate a variety of commercial and industrial uses and to encourage redevelopment of formerly industrial properties and related land and buildings in the area along the Contocook River. Designated lots are specified in the Zoning Ordinance for the Mill Redevelopment District.

Table IX-9  
Land Use Controls

Town Zoning Districts	Town-Adopted Provisions or Regulations
Agricultural-Residential	Sign Regulations
Residential – Low Density	Off-Street Parking Requirements
Residential – Medium Density	Nonconforming Uses, Structures and Lots
Commercial	Cluster Developments
Industrial	Floodplain Development Ordinance
Mill Redevelopment District	Telecommunications Ordinance
	Sexually Oriented Businesses Ordinance

Source: Town of Boscawen Zoning Ordinance, March 1999

Though sources differ, the generally accepted land acreage for Boscawen is 15,916, while water acreage is approximately 340 acres. The total land and water acreage in Boscawen is 16,256.

Table IX-10  
2001 Zoning District Land Acreages

Cataloged Land Uses for 15,916 acres (Total Land Acreage)	Acres	Total % of Land Area*
Agricultural-Residential	11,887	73.1%
Residential – Low Density	3,034	18.6%
Residential – Medium Density	824	5.0%
Commercial	155	1.0%
Industrial (includes gravel)	305	1.8%
Mill Redevelopment District	43	0.2%
Total Land Area*	15,916	
Water Area	340	
Total Town Acreage	16,256	100%

Source: Boscawen Tax Map GIS, 1997

### Land Use Regulations

In 1967, the Town adopted Subdivision Regulations to establish guidelines for the growth of the Town. The latest revisions to the Subdivision Regulations were adopted by the Planning Board in 1996. Site Plan Review Regulations were first adopted in 1981 to provide standards for commercial growth. They were last amended by the Planning Board in 1996.

### Past Land Uses

The 1989 Master Plan identified the following land uses in 1987 utilizing the tax maps and a windshield survey:

Table IX-11  
1987 Land Use

Category	Acres	% of Total Land Area
Low Density Residential	1,080.9	6.7%
Multiple Family	22.3	0.1%
Manufactured Housing	102.8	0.6%
Commercial	85.9	0.5%
Industrial	78.1	0.5%
Institutional	1,308.0	8.1%
Open Space/Recreational	1,362.6	8.4%
Rights-of-Way	357.0	2.2%
Undeveloped Land	11,806.8	72.9%
Subtotal	16,204.4	100.0%
Water Area	435.6	
Total Acres	16,640.0	

Source: 1989 Boscawen Master Plan

There are differences with this method which make the data not comparable to present-day 2001 land uses. Firstly, the total acres in Town are generally accepted to be 16,256 acres through perambulation and Geographic Information System (GIS) calculations, with 15,916 acres of land and 340 acres of water. Secondly, land use data is now collected in a more generalized fashion such that the categories are consistent with current planning practices. In addition, the method of calculating residential uses has been modified and is explained below.

### 2001 Estimated Land Use

The *Existing Land Use Map* was created using numerous methods. The tax maps were utilized with a windshield survey technique to ascertain which primary type of use each parcel fell into according to Table IX-12. Residential acreage was assumed to use a maximum of two acres per lot and is reflected as such on the Map. The other types of uses, however, are assumed to utilize the entire lot, and are thus depicted on the *Existing Land Use Map*. The Subcommittee's local knowledge and input in identifying the primary land use for each parcel was essential. Using GIS technology and identification of uses on the tax maps, approximate acreage calculations were completed:

Table IX-12  
2001 Estimated Land Use

Cataloged Land Uses for 15,916 acres	Acres	Total % of Land Area*
<b>DEVELOPED LAND</b>		
Residential	1,202	7.6%
Commercial	331	2.1%
Industrial (includes Excavation Sites)	505	3.1%
Excavation Sites	---	--
Public Land / Institutional Facilities	2,035	12.7%
<b>Total</b>	<b>4,073</b>	<b>25.6%</b>
<b>UNDEVELOPED LAND</b>		
Utilities (Water Precinct Holdings)	81	0.5%
Agricultural Land	2,522	15.8%
Conservation Land	880	5.5%
Forested	8,360	52.5%
<b>Total</b>	<b>11,843</b>	<b>74.4%</b>
<b>Total Land Area</b>	<b>15,916</b>	<b>100.0%</b>
<b>Water Area</b>	<b>340</b>	
<b>Total Town Acreage</b>	<b>16,256</b>	

Source: Windshield survey correlated with Tax Maps

Boscawen has retained almost 75% (over 11,800 acres) of its land as undeveloped. Forested parcels are located in the southwestern and south-central portions of Town between Queen Street and Corn Hill Road, on the eastern side of Queen Street, and on both sides of North Water Street. In 1989, approximately 73% of land was undeveloped according to that particular methodology. Active and agricultural lands (almost 16%) and permanently conserved parcels (5.5%) are also undeveloped according to 2001 methodologies.

The industrial acreage is shown as being higher than expected (3.1%, or 505 acres) because gravel excavation parcels were included within this category. True industrial uses are primarily found on High Street north of the Valley of Industry and off of Commercial Street. Commercial land uses (2.1%, or 331 acres) are concentrated along King Street and North Main Street, but utilize few acres. Scattered commercial enterprises are found off of High Street and Daniel Webster Highway; these uses comprise the bulk of the commercial acreage.

A large amount of land (12.7%, or over 2,000 acres) considered to be Public Land / Institutional Facilities is mainly comprised of the Merrimack County Farm (600 acres), State Nursery (887 acres), the NH Veterans Cemetery, and other county-owned facilities and parcels. Town-owned land is also incorporated into this category, such as the Boscawen Town Forest (440 acres), which is not permanently protected from development.

Few residential parcels with road frontage remain unbuilt; subdivision of larger parcels and the creation of new roadways are inevitable and will infringe upon previously undeveloped land in order to meet a demand for single-family housing.

**Current Use**

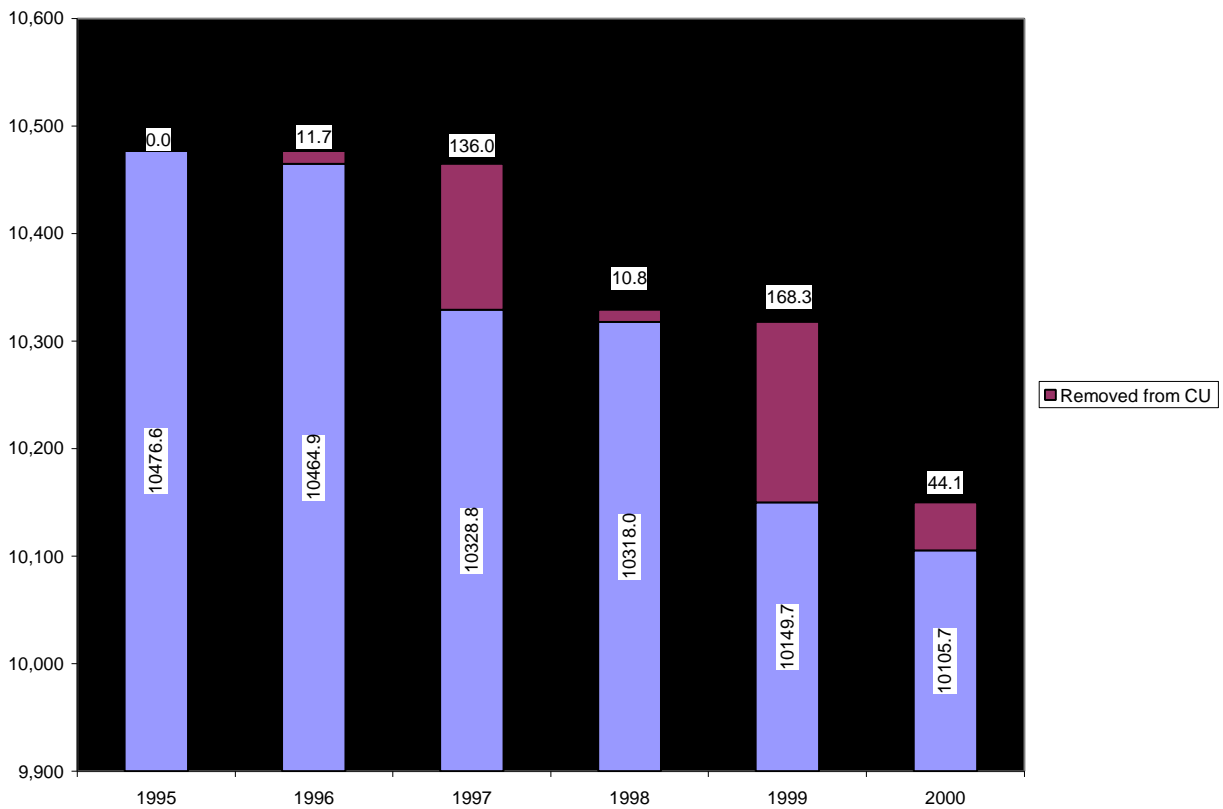
In 1973, the New Hampshire State Legislature enacted RSA 79-A:1 as a result of increased awareness by the State that preservation of open space was in the public interest and that the tax structure was often an obstacle to preservation. Financial burdens were being placed on individuals with large open space land holdings, since property taxation was based on the highest and best use of the land. Thus, the Legislature approved the Current Use tax assessment of property, which allows open land to be assessed at a lower tax rate than the other land uses with the stipulation that the land remain as open space. Any change that disqualifies the land from the Current Use assessment would result in a penalty equal to ten percent of the fair market value of the property. This legislation has been an important element in the preservation of open space and has made it possible for many individuals to retain their property as open space.

In 2001, Boscawen passed a warrant article at Town Meeting to allocate current use land change tax funds to the Conservation Fund for land or easement purchase.

**CURRENT LAND USE TRENDS**

Between 1995 and the end of 2000, Boscawen has slowly been losing acreage out of current use as depicted in Figure IX-1:

Figure IX-1  
Acres in Current Use vs. Removed from Current Use, 1995-2000



Source: Boscawen Annual Town Reports for Current Use Acreage, with Acres Removed calculated by year

Tables IX-13 through IX-16 indicate an increase in the residential population of Boscawen. The result of this increase, although smaller than the majority of its abutting communities, has been the creation of more residential lots and subdivisions over the past decade.

Table IX-13  
Population Increase, 1990-2000  
Boscawen and Abutting Communities

	% Increase, 1990-2000
Boscawen	2.4%
Canterbury	17.3%
Concord	13.0%
Franklin	1.2%
Northfield	6.7%
Salisbury	7.2%
Webster	12.4%

Source: 1990 US Census & 2000 US Census, April 2001

While the population in Boscawen increased 2.4% from 1990 to 2000, neighboring Concord, Canterbury, and Webster experienced population growth of over 12 percent.

Table IX-14  
Dwelling Unit Increase, 1990-2000

Building Permit Period of Analysis	1990	2000	% Increase
Total Number of Single Family Units	742	n/a	---
Total Number of Manufactured Units	213	n/a	---
Total Number of Multifamily Units	266	n/a	---
Total Number of Dwelling Units	1,221	1,295	6.1%

US Census 1990, 2000 DP-1

Although Boscawen’s population increased 2.4%, the number of dwelling units increased 6.1%. This could be attributed to apartments or larger family sizes.

Table IX-15  
New Residential Building Permits Issued by Housing Type, 1990 – 2001\*

Housing Type	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*	12-Year Total
Single Family Homes	5	3	4	3	3	3	3	7	7	8	12	17	75
Mobile	0	1	3	1	1	13	3	2	2	0	1	0	27
Yearly Totals	5	4	7	4	4	16	6	9	9	8	13	17	102

Source: Town of Boscawen Planning and Zoning Office; \*2001 figures through 11/27/01

Excerpted from the HOUSING CHAPTER, Table IX-15 indicates that 102 new residential permits were issued for a period of almost 12 years. Upon investigation, it appears that not all permits issued were utilized. Nonetheless, this helps account for small acreage residential growth since the 1989 Master Plan if the two existing land use charts could be compared appropriately.

Table IX-16  
Type of Structure as Total Percent of Development

	Boscawen	Canterbury	Concord	Salisbury	Webster	CNHRPC Region Average
Single Family Units as % of Total Development	45%	97%	67%	91%	84%	74%
Multifamily Units as % of Total Development	19%	0%	31%	2%	0%	10%
Manufactured Units as % of Total Development	34%	2%	3%	7%	16%	13%
Commercial Structures as % of Total Development	1%	0%	n/a	n/a	0%	2%
Industrial Structures as % of Total Development	1%	1%	n/a	n/a	0%	1%

Source: CNHRPC Residential, Commercial, and Industrial Development Trends, 1990-1998

Compared to abutting towns, Boscawen has more manufactured housing units and fewer single-family housing units. The percentage of commercial and industrial structures in Boscawen (about 1%) are about the average as found in the Central NH Region.

### Development Constraints

When planning developments, many natural features of the land must be taken into account, such as aquifers, surface water and wetlands, locations of floodplains, and the presence of steep slopes and hydric soils. These constraints to development, as well as land permanently protected from development, are illustrated on the *Development Constraints Map*. As shown on the map, much of Boscawen's land area has one or more development constraints. Existing development and development constraints combine to leave very little land suitable for development.

Hydric soils are soils that are poorly or very poorly drained and are not suitable for development. Although not available in digital form for depiction on the *Development Constraints Map*, the locations of very poorly drained soils strongly correlate with the locations of wetlands as determined by the National Wetlands Inventory. There is also a very strong correlation between the location of hydric soils and watercourses. In many cases, the hydric soils and wetlands drain into water bodies, streams, and intermittent streams.

The presence of small pockets of stratified drift aquifers, a large proportion of steep slopes, many extensive wetlands, and surface waters in Boscawen make the siting of developments, especially industrial operations, a sensitive environmental issue. Pollutants could leak from developed areas, meaning that a location near the aquifer, hydric soils, wetlands or waterbodies could cause degradation of water quality and pollution of groundwater. Steep slopes are also a constraint to development because of loss of vegetation and the consequent erosion and sedimentation that occurs when slopes are cleared for development.

Development constraints are also discussed in the CONSERVATION, PRESERVATION, AND OPEN SPACE CHAPTER.

### CONSTRUCTION MATERIALS

RSA 674:2 paragraph VIII recommends that Master Plans contain a "Construction Materials" section, consistent with RSA 155-E. This section shall identify all known sources of sand and gravel deposits, the location, and the estimated extent of permitted excavations. In addition, the construction materials section must contain the reports filed with the Planning Board by the owners of the grandfathered excavation sites.

A *Construction Materials Map* has been produced showing the permitted excavation operations throughout Boscawen. It is very important to determine where there are active excavation operations, also to determine the impact to the natural resources on those sites and how the depleted sites should be reclaimed.

### **Gravel Excavation**

A few sand and gravel deposits lie in Town in various locations. The stratified drift aquifers in Boscawen are located along Beaverdam Brook, under the southwestern most parcel of the Boscawen Town Forest, under the Boscawen/Penacook Village area, and span about one mile west from the Merrimack River. The aquifers and excavation areas are indicated on the *Construction Materials Map*. A list of the filed intents to excavate is charted under Table IX-17.

Table IX-17  
Filed Intents to Excavate, April 1, 2001 to March 31, 2002

Map #	Lot #	Location	Total Parcel Acreage	Permitted Acres to Excavate	Acres Excavated as of April 1	Acres Reclaimed as of April 1
81A	19	Depot St.	4.5	1.0	0.125	0
47	40A	Morse Hill	50	6	0.5	2.5
183D	134	Commercial St	13.02	13.02	4	0
47	40A	226 Water St.	35+	2	2	0
81	24	Queen St	250	250	11	0
94	23	Route 4	141	15	0	0

Source: Town Files

Chapter 155:E of the New Hampshire Revised Statutes Annotated was enacted August 24, 1979. Although it has been revised considerably since then, the substance of the law remains the same: the municipality is responsible for the regulation of excavation of earth materials to be used as construction aggregate.

The law states that permits are required for any excavation operation unless the operation was active in the 2-year period before the law was enacted August 24, 1979, if it is used for highway construction, or if it is attached to a stationary manufacturing plant.

Grandfathered operations (operations which produced material of sufficient weight or volume that was commercially useful in the 2-year period before August 24, 1979) are subject to the operational and reclamation standards laid out in the law, and they also must apply for a permit if they wish to expand their operation. In order for a grandfathered operation to retain its status, it must have filed an Excavation Report with the Planning Board no later than August 4, 1991. Failure to do so results in loss of grandfathered status, and a permit must be requested in order to continue work. The permit requires more stringent standards than the ones that must be complied with in order to run an excavation operation without a permit.

Excavation operations being used exclusively for State or local highway construction do not need a permit; however, the Planning Board must have on file an agreement between the pit owner and the State or local government. This type of excavation must not operate in violation of local zoning, unless an exemption has been granted.

A permit is not required for an excavation operation that on August 4, 1989 was contiguous to or on land contiguous to a stationary manufacturing plant that was in operation as of August 24, 1979 and used earth from the excavation site. No additional permits are required for excavation sites connected to stationary manufacturing plants for which permits had been issued by state or local government since August 24, 1979. These operations are subject to the standards set forth in the permits issued to them for their operation.

Table IX-18 documents those gravel pits which are so grandfathered in Boscawen:

Table IX-18  
Grandfathered Gravel Permits

Map #	Lot #	Location
81A	19A	Depot St
81D	10	Route 3 at Plaisted Landscaping
47	29A	High Street
47	40A	Morse Hill

*Source: Town Files*

### FUTURE LAND USE

Responses to the Community Survey can be used to gauge how the community would receive certain types of potential land use changes. As depicted on pages IX-5 and IX-6, Tables IX-1 through IX-8 offer resident opinion on how Boscawen's land should be used. Sixty-five percent (65%) of respondents felt that developments and subdivisions would make it more difficult to access land for outdoor activities, indicating a need for more conservation easements to public or non-posted recreational areas. Yet, 33% replied yes and 34% replied no when asked whether they supported land use regulations which might restrict landowners' ability to develop their land even if the same regulations help conserve undeveloped land. Seventy-five percent (75%) felt that maintaining agriculture and forestry as economic land uses should be encouraged and should be a focus of this Master Plan. Fifty-eight percent (58%) felt that commercial and industrial growth should be encouraged to broaden the tax base. Table IX-12 indicates that only 2.1% and 3.1%, respectively, are active uses in Boscawen. Most respondents felt that performance standards for stormwater runoff, groundwater protection, and emergency vehicle access should be enacted. The summary of community sentiment was that although land preservation measures should be undertaken, existing property owners are resistant to further regulation of their land and that commercial and industrial enterprises should be encouraged to help reduce residential property taxes.

### **The Future Land Use Map**

A *Future Land Use Map* is intended to guide future decisions regarding potential zoning and land use changes in order to preserve the assets of the Town and make consideration for elements such as businesses, homes, and industries already established. As illustrated by the *Existing Land Use Map*, much of Boscawen's existing road frontages have been developed with single-family homes. A great deal of land is used for agricultural purposes and large lots remain in the northwestern corner of Town. Some land is conserved to various degrees throughout Boscawen, but only 4.6% have been permanently protected from development. The Town is fortunate to have many scenic and untouched areas. These observations are challenging to the creation of a visionary *Future Land Use Map*.

With these considerations, the *Future Land Use Map* in this Chapter focuses on areas which are or should be used for agricultural purposes, proposed linkages of conservation land, three industrial "nodes", and two commercial/residential "strips". The industrial nodes are generally located where existing industry is present to encourage the future location of new industries in the areas already occupied by that particular use. The commercial/residential strips are located along King Street and the southern portion of North Main Street, again to encourage future commercial development in these existing commercial areas of Town that are also occupied by residential homes. Future residential use was not addressed on this Map because it is found throughout Town; nonetheless, measures should be taken to ensure that future residential development is managed in a manner consistent with the values and character of the Town.

Beyond the designation of certain areas as specific uses on the *Future Land Use Map*, additional tools and suggestions within this section can be used to guide future land use decisions within Boscawen. They take the form of examining current zoning districts, proposing changes to the Zoning Ordinance and Site Plan Review and Subdivision Regulations, and illustrating how different land uses affect one another.

### **Performance Zoning**

In a future revision of the Zoning Ordinance, the Town could consider the implementation of performance zoning for commercial, industrial, and multi-family developments. Performance zoning establishes both the standards that must be met by development, as well as the process that measures the effect that the impact of development would have on the community.

Performance standards establish definite measurements that determine whether the effects of a particular use will be within permissible levels. Performance standards commonly employed include standards related to noise, vibration, smoke, odor, runoff, illumination, signs, groundwater, road impact (i.e. number of trips generated by a use), landscaping, multi-family and commercial building aesthetics, and school impact. Communities that have adopted performance standards for commercial and industrial development include the Towns of Bow and Bedford, New Hampshire.

### **Incentive Bonuses**

Often employed as part of a performance zoning ordinance, incentives encourage developers to build projects above and beyond baseline standards included in the Zoning Ordinance. Incentive zoning is a voluntary exchange of development incentives for public benefits between a community and a developer. There are three basic categories of incentive bonuses: (1) intensity incentives, (2) use incentives, and (3) inclusionary incentives.

Intensity incentives allow developers a greater or more intensive use of the property. Such incentives usually allow developers to construct more units on a property, have greater amounts of impervious surface, or more square footage for commercial buildings. A typical example of an incentive usually included in this type of ordinance could be a density bonus in exchange for setting aside open space in a development for public use, construction of trails, or construction of recreational facilities.

Land use incentives permit mixing of uses in a development or provide for unspecified uses. For example, a convenience store may be permitted in a housing development, or residential units may be allowed as part of a retail development. In exchange for such benefits, developers are usually required to provide the Town with construction of public infrastructure, such as parks, boat ramps, swimming areas, recreational facilities, pedestrian infrastructure, public parking spaces, or open space.

## Open Space Development

An answer to the sprawling landform created under conventional cookie cutter subdivisions is a new approach to subdivision design for rural areas, as outlined in the book entitled *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*, by Randall Arendt (Island Press, 1996). The Figures below show graphics from Arendt's book depicting the typical scenario for the development of a parcel under the conservation development design process. In its most basic form, the conservation development process can be broken into six logical steps, which are not the typical steps taken for a conventional subdivision.

Under this approach, use existing minimum lot sizes as the basis for conventional residential density on the best soils, with reduced densities according to declining soil quality. The minimum lot sizes that are currently in place for residential uses should represent the maximum aggregate density on the best soils under the soils-based lot sizing approach. Lower quality soils would require lower density development. Primary conservation areas may include wetlands, steep slopes, aquifer recharge zones, and floodplains. Secondary conservation areas may include stonewalls, viewsheds, prominent vegetation, prominent landforms, prime agricultural soils, historic sites and features, archeological sites, and communities and species identified in the Natural Heritage Inventory.

The six steps are as follows:

1. Create a "yield plan" for the site that assesses the number of viable building lots on the site under a conventional subdivision design. This plan establishes the density for the conservation development design. Although a yield plan is conceptual, it must be consistent with Town ordinances and regulations already in place.

Figure IX-2  
Step 1 of Open Space Development



Figure IX-3  
Step 2 of Open Space Development, Part 1

2. Prepare a conservation site analysis plan that identifies prominent open spaces and important natural features broken out into primary and secondary conservation areas. Primary conservation areas are those resources for which development should be excluded almost without exception.

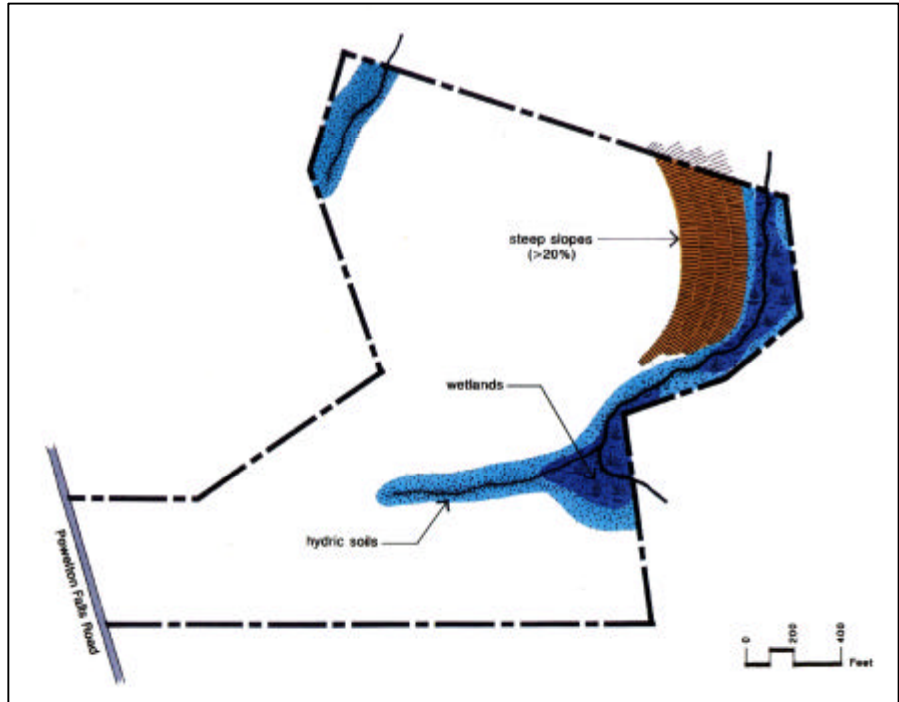


Figure IX-4  
Step 2 of Open Space Development, Part 2

Secondary conservation areas are those that should not be developed, if at all possible.



Figure IX-5  
Step 3 of Open Space Development

- 3. After evaluating the primary and secondary conservation areas, locate the portions of the site most suitable for development.

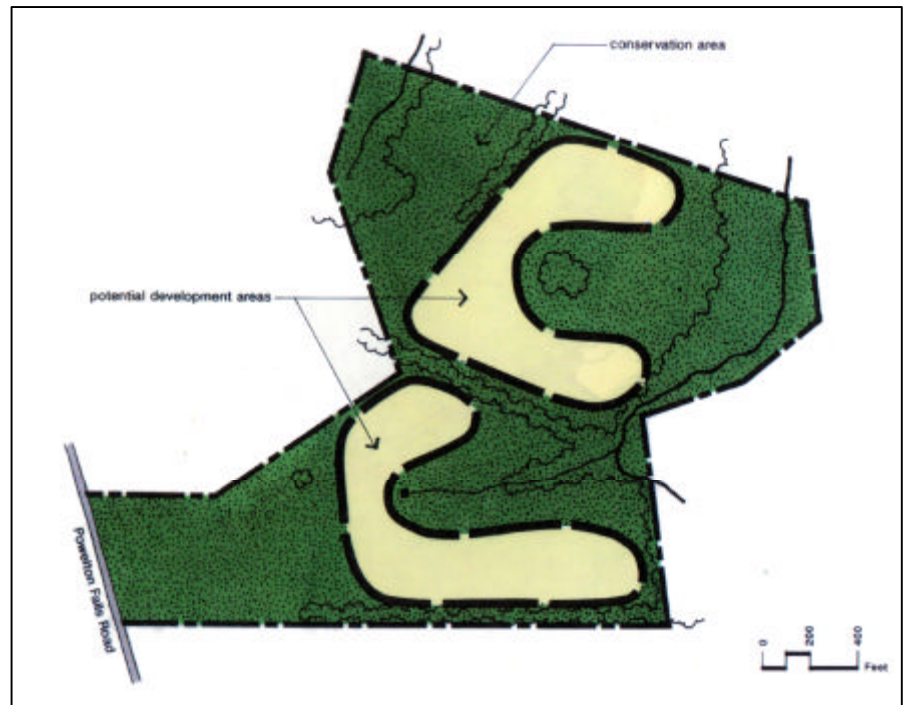


Figure IX-6  
Step 4 of Open Space Development

- 4. Locate dwelling unit sites using innovative arrangements to maximize views of open space and resources.

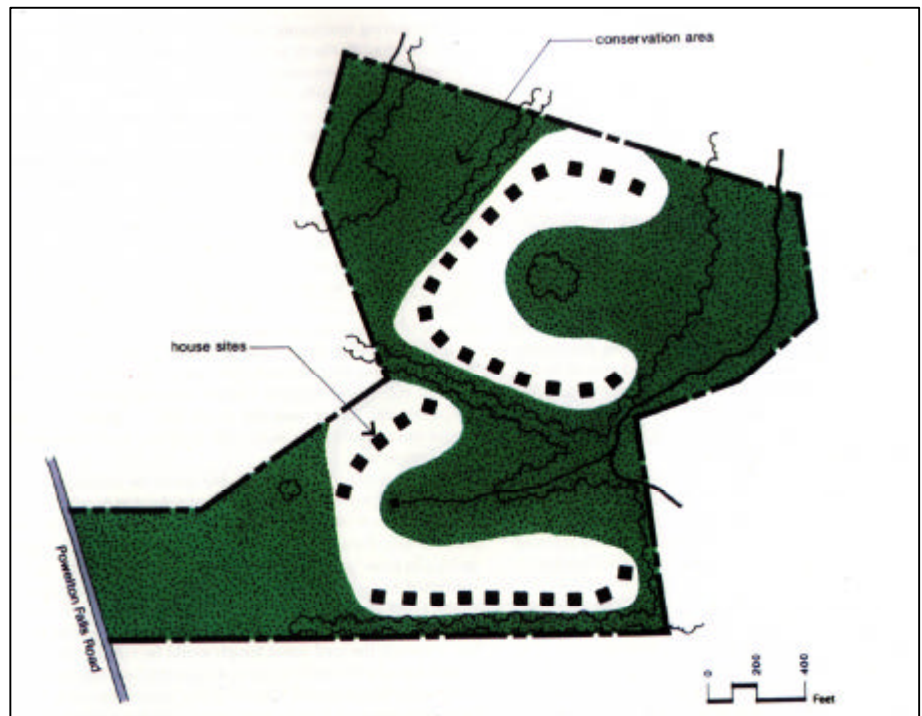


Figure IX-7  
Step 5 of Open Space Development

- 5. Locate and design the roadway and pedestrian travel ways. Maximize the protection of viewsheds and natural terrain in the design. Locate septic fields.

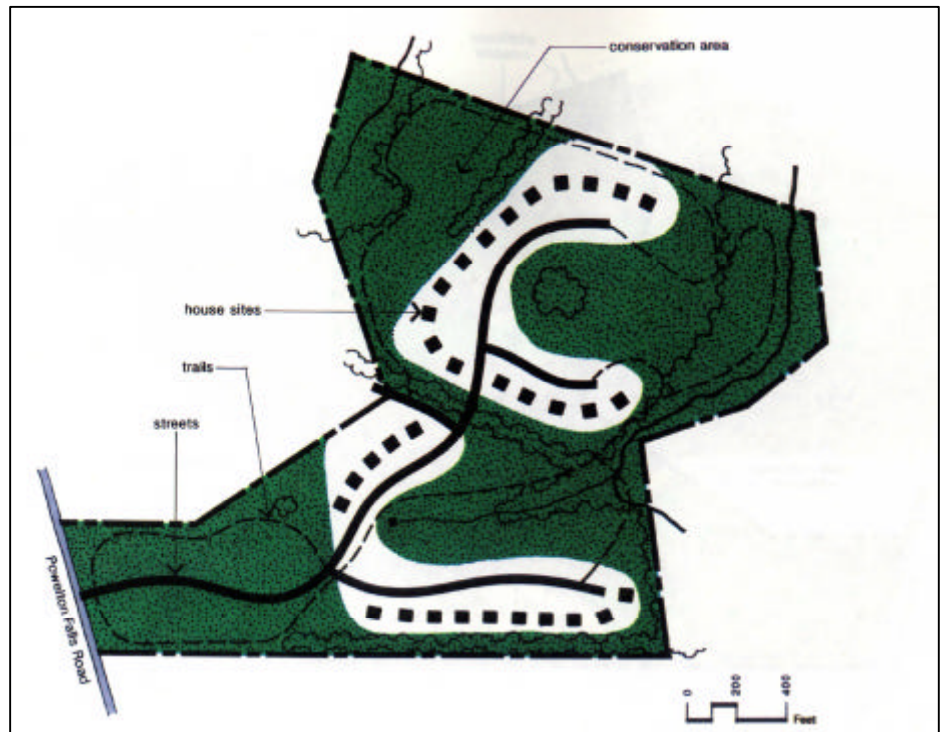


Figure IX-8  
Step 6 of Open Space Development

- 6. Delineate lot lines.



### Driveway Regulations

Long driveways have a tendency to cut unnecessarily through woodlands and frequently cross streams. With houses farther apart and a lesser sense of community, driveways can contribute to sprawl. Because of increased residential and other types of development in the community, the issue of safe and adequate access to homes has become an important one to address.

Communities have the ability to regulate driveway access points under RSA 236, Sections 13-14. In order to ensure safe access to properties for fire fighting and public safety, as well as to develop safe intersections with local roadways, standards should be adopted by the Town, including having a 400' site distance. The following suggestions should be considered by the Planning Board as amendments to the Zoning Ordinance and/or Regulations:

1. For driveways with a grade in excess of 10%, a flat landing area of at least 20 feet in length approaching the street is required.
2. Driveways shall be graded in order to allow reasonable access by emergency vehicles. The minimum width of a driveway must be 12 feet at a road intersection.
3. In order to ensure emergency access, it is recommended that property owners construct driveways with grades less than 15% with inside curve radii of more than 22.5 feet.
4. In the case of dirt driveways exiting onto paved roadways, a paved apron as wide as the driveway and at least 10 feet in depth must be provided.
5. Driveways should be graded so that water does not flow onto the street. Commercial lots located above the street may require a grate across the driveway entrance in order to divert the water and prevent it from adversely affecting the road or right-of-way. Any driveway located over a culvert shall slope to drain into the culvert. All curbed driveways must have catch basins at the back of the sidewalk.
6. All culverts must be at least 15 inches in diameter and have 12 inches of cover.
7. The maximum width of a driveway shall not exceed 20 feet.
8. Driveways shall intersect with the street at a 90 degree angle whenever feasible. In no case shall the angle of intersection be less than 60 degrees.
9. Driveways shall be sited in order to maximize sight distance per best management practices and the discretion of the Highway Agent.
10. Driveways shall be no closer than 5 feet to property lines, except in the case of driveways shared between two abutting parcels.

**Aquifer Protection**

Protection of the Water Precinct aquifers and of any future-located drinking water supplies cannot be over-emphasized. Each year, the Precinct is requested to inspect all lands lying within the aquifer, including all residential or commercial buildings, to monitor whether there are contaminants such as oil, grease, gasoline and diesel fuels being released into the ground. These hazards to the water supply must be contained so as to prevent pollution of drinking water. Education of landowners with respect to utilizing best management practices should be an integral part of each inspection.

**Forest Management**

With a great deal of land in Boscawen covered with trees, forestry is an important, traditional land use. Responsible timber management maintains open spaces, rural viewsheds, and viable income from land without permanently developing it into other uses such as housing.

While voluntary, the implementation of Best Management Practices (BMPs) should be encouraged and supported to assure that soil is conserved and water quality is maintained. Large lot zoning with tax incentives should be considered to encourage landowners to keep parcels under timber management. Incentives should be provided to those owners who responsibly manage their forestlands and implement Best Management Practices.

**Agriculture**

Agriculture is another one of the traditional land uses in Boscawen. Agriculture allows for self-sufficiency in food production, helps maintain the traditional cultural and visual character of the Town, and promotes the conservation of open space.

The NH Legislature has recognized the right to farm as an important component of preserving farmland. Zoning and land-use regulations should be structured to encourage responsible and well-managed agricultural operations. These operations should implement BMPs. While voluntary, the implementation of BMPs should be encouraged and supported to assure that soil is conserved and water quality is maintained. Large lot zoning with tax incentives should be considered to encourage landowners to use their land for active agricultural management. Incentives should be provided to operations that responsibly manage their agricultural lands and implement Best Management Practices.

### **Commercial and Industrial Uses**

Currently, zoning allows commercial uses to occur along King Street following parcels from just north of Depot Street south to River Road, and on the westerly side of North Main Street at its junction with Queen Street. It is logical to place commercial enterprises along main thoroughfares and to encourage future traffic-generating businesses in the same areas as existing commercial uses. These areas are also shared by a residential population, and the encouragement of new businesses in these areas, such as day-care facilities, general stores, restaurants, or health clinics will encourage residents to walk to obtain services. However, the lack of sidewalks interconnecting the medium-density residential areas to the nearby commercial businesses impact safety and discourage the neighborhood atmosphere. The commercial opportunities available in Boscawen should serve the residents as well as people traveling through Town.

There are a handful of large industrial enterprises in Town which are located on High Street and North Main Street. The tannery buildings in the Mill Redevelopment District, which has not yet been fully utilized, represent an opportunity for future expansion of the industrial tax base. Zoning should be reconsidered to designate locations for industrial uses, notably excluding the current industrial zone along both sides of River Road. The maps included with this Chapter and with the **CONSERVATION, PRESERVATION, AND OPEN SPACE CHAPTER** will assist with that process.

### **Residential Uses**

As indicated previously from the *Existing Land Use Map*, most of the intended residential lots in Boscawen have been built upon. The existing roadways can sustain more single-family housing for the next few years, but large undeveloped or agricultural parcels will increasingly become targeted for subdivision in the future to meet the demand for single-family housing. Preserving these large parcels while still meeting development needs will be challenging. However, many tools are available to assist with this process as discussed earlier in the Chapter. Concentrating cluster development to certain areas of Town will be necessary (such as the R-1 and R-2 districts), as will be the employment of performance zoning and incentives. Residential growth cannot and should not be discouraged, yet proper guidance of this growth will help retain Boscawen's rural character and unfragmented landscape.

### **Erosion and Sedimentation Control**

During site preparation of a residential or commercial development, pollution loads can increase, sometimes dramatically, as sites are excavated and developed. Soil is exposed during development as vegetation is removed and excavation takes place. Bare soil particles are dislodged by rainfall and can be carried downslope as sediment to streams, lakes, and wetlands. Runoff can increase and have a greater ability to transport pollutants and constructed impervious surfaces (roofs and pavements) reduce infiltration and can modify flow patterns. Higher runoff rates can result in flooding and erosion of previously stable streams and act as a vector for delivering much larger quantities of pollutants.

Erosion control and prevention plans should be submitted for subdivisions and site plans for verification that specific conditions will be met prior to the issuance of a building permit. The review and verification process for submitted plans will also determine whether or not a Site Specific Permit is required from DES. RSA 485-A:17, known as the Alteration of Terrain Program or "Site Specific Program," requires a permit from DES for any earth disturbance greater than 100,000 square feet, or 50,000 square feet within the protected shoreline area. The permit involves both temporary erosion control measures during construction and permanent controls on the impacts of stormwater effects following construction.

At a minimum, developers and contractors need to demonstrate that they will provide pollutant control by professional planning, design, construction, and implementation of BMPs. Designs and site plans should demonstrate measures to retain natural vegetation where possible, especially at waterbodies, wetlands and steep slopes. Developers and contractors should not only have a commitment to integrating BMPs into overall development plans but also for monitoring practices and adjusting, maintaining, and repairing periodically and after every storm.

#### **Protection / Buffers / Setbacks from the Merrimack River**

Walker Pond and Couch Pond are included in the State's Comprehensive Shoreland Protection Act (CPSA). However, only public lakes and ponds exceeding ten acres are included in the Act. Since 1999, the Merrimack and Contoocook Rivers have been included in the CSPA. These rivers are included in the program because they are fourth order streams. Currently, there are many streams and wetlands in Boscawen that do not enjoy this protection because they are of smaller orders. Not only are these brooks tributaries of the larger rivers, but they support a diverse and important variety of habitat including plants and wildlife. Boscawen should build on the protections offered to larger water bodies by the CSPA and enact similar ordinances for smaller brooks and wetlands. These ordinances should maintain vegetated buffers including trees in shore areas and establish building, land clearing, and fertilization setbacks.

#### **Landscaping to Avoid Conflicts with Neighboring Uses**

Boscawen has an opportunity to utilize King Street for economic development while retaining the character the Town desires by employing techniques such as buffer and landscaping standards. The King Street Corridor Study identified a number of recommendations that, if implemented, will complement the historic surroundings with existing and future commercial structures. Techniques such as screening parking lots from view or situating them behind the buildings are recognized as valuable tools and should be considered in Boscawen when reviewing site plan review applications. In addition, appropriate plantings and landscaping should be required of the developer at both the subdivision and site plan review stage in order to mitigate the disruption of the natural landscape. Alternative landscaping scenarios can be proposed by the developer which would be more aesthetically pleasing, help retain the rural character of the Town, discourage strip development and chain stores, encourage nodal or clustered development, and propose combined access locations. The **TRANSPORTATION CHAPTER** addresses these and similar techniques.

### Potential Changes to the Zoning Districts

The *Existing Zoning Map* contains examples of “spot” zoning which were retroactively applied after certain developments or land uses occurred. Examples include Ross Express, zoned industrial in the middle of the R-1 and R-2 zones, and Marshall’s, zoned commercial also in the middle of the R-1 and R-2 zones. Instead of reacting to future, and often desirable, developments, the limitation of certain uses to specific districts should be undertaken.

Proactive zoning could occur in Boscawen to group complementing uses together and dissuade uses in areas that are detrimental to the environment or character of the community. An example of a potentially harmful area is the industrial zone in the southern-most Merrimack River intervale along River Road. This area is actively utilized for agriculture, is within the floodplain, and an industrial use could damage the aquifer underlying the River. Complementary uses are already found along King Street, which is zoned Commercial, Industrial (off of Depot Street), Low-Density Residential, and Medium-Density Residential. Instead of the array of zones, one mixed-use district of commercial and residential, as depicted on the *Future Land Use Map*, would simplify the zoning, encourage more traffic-calming measures, and encourage the redevelopment of existing historic buildings into businesses providing services to residents and travelers. If the Mill Redevelopment District, which is industrial-oriented, is not functioning as originally thought, perhaps it could be modified and rezoned to industrial.

Overlay districts such as a cluster development district, groundwater protection district, mountain conservation district, steep slope district, historic district, forestry district, agricultural district, or wetlands district should be considered to protect the natural and cultural heritage of the community. These types of districts would afford additional protection while still allowing the specific uses permitted in each existing zoning district. The maps of this Chapter and those of the **CONSERVATION, PRESERVATION, AND OPEN SPACE CHAPTER** should help the Planning Board to make determinations of what districts are best for the Town.

### SUMMARY

Boscawen lies just north of Concord and may be the next town to feel the growth that has befallen its southern neighbors. Although the Town is very fortunate to have several large tracts of land owned by people concerned about the future and do not want to develop, there are several parcels that are ripe for development. Boscawen contains several tracts of land under permanent conservation, but several other parcels that are considered conservation land and are owned by the State or County may one day be sold or developed.

Therefore, this Chapter has tried to identify how the Town is currently utilizing its land and how it should look in the future if residents want to preserve the rural character of Boscawen. Specific ideas, which cross many Chapters in this Master Plan, include protection of the water supplies, monitoring and possible control of development, permanent conservation of land, and attraction of small and large industries to help offset the taxes paid by residents. The key is preserving what Boscawen now has and planning wisely for future generations with respect to land use.