CHAPTER 1
A VISION AND FUTURE LAND USE PLAN FOR CONWAY

1. Introduction

Since the initiation of the master plan update process in late 2001, the Planning Board has been grappling with a wide variety of transportation, community design, infrastructure, recreation and development related issues. The planning process provided a variety of opportunities for the residents of Conway, and other individuals, to offer direction, input and suggestions about updating this master plan.

This chapter of the master plan addresses the collective vision of the residents of Conway about how land should be preserved or developed in the community. The issues discussed in this chapter are based in part on RSA 674:2; the enabling legislation that outlines master plan requirements in New Hampshire. The statute requires that municipal master plans include, at a minimum, "a vision section that serves to direct the other sections of the plan," and "a land use section upon which [other] sections shall be based." The statute also suggests a more comprehensive approach by recommending that other sections (such as population, economic activity, transportation, housing, implementation etc.) be included in master plans. These recommended sections are included in this master plan.

This chapter presents goals, objectives, policies and direction for guiding development and maintaining the intrinsic character and quality of life in Conway. The methods used to encourage public involvement, which played a significant role in the preparation of these policy statements, are also highlighted.

It is understood that Conway will continue to change and that the town needs to manage growth in a fashion suited to Conway's unique economic, environmental and political features. The policy statements presented in this master plan reflect the values of Conway residents and other interested individuals about their future vision of Conway and how they would like to manage growth.

2. Public Involvement in the Planning Process

In order to prepare a master plan that reflects the issues, desires and visions of the community, it is important to involve the public throughout the planning process. The Planning Board determined that the best procedure for public involvement would require a variety of different approaches. Rather than holding a series of meetings at the beginning and end of the planning process, it was decided that various public outreach efforts (including issue identification sessions, visioning workshops and a charrette) would be used to solicit input, discussion, review and feedback from the public. Additionally, due to the village-centered community identity of Conway, it was determined that holding public meetings in each of the villages would attract a more diverse group of residents to participate in discussions about the future of Conway. It was also felt that varied locations for meetings would encourage a discussion of specific development and planning issues relating to the different villages of Conway. The approaches used to involve the residents of Conway in the process of preparing this master plan update are outlined below:

- *Issue Identification Sessions*
  A total of three issue identification sessions were held. Each session was held in different school facilities to encourage attendance by individuals within each of Conway's villages. This also promoted the identification of issues at the village level. Sessions were held in early 2002 at Kennett High School (January 15), Pine Tree School (January 29), and John Fuller School (February 7). These sessions provided an opportunity for residents and other interested individuals to discuss important strengths and concerns within the community.

  Over one hundred residents and stakeholders attended these sessions. The issues identified by participants were grouped as follows: transportation, environment, economic, land use, government/administrative and other. Handouts outlining baseline economic, demographic and housing conditions were provided to participants in order to encourage discussion (a copy of this handout entitled Master *Plan Update – Baseline Conditions Summary* is contained in an Attachment to this master plan).

- *Vision Forums*
  Three vision forums were held at different venues during late April and early May, 2002. Based on discussions conducted during the issue identification sessions, the vision forums provided participants with an opportunity to share their future vision of Conway. Participants were encouraged to suggest alternative approaches for dealing with issues confronting the town. They were also provided with an *Issue Identification Summary Report* handout that highlighted topics discussed during the issue identification sessions (a copy of this handout is contained in an Attachment to this master plan).

  Each vision forum was divided into three parts. In the first part, a discussion was held with all participants relative to a long-term (ten to twenty years) vision for the town and/or specific areas of the community. Possible methods for achieving these different visions were also briefly discussed. In the second part, participants were divided into smaller groups and provided graphic materials such as maps and various colored markers. The groups were then asked to indicate on the maps where they would like to see various types of future development, open space or other activities in Conway. Once completed, a designated group member presented a summary of each group's vision. The third and final part of the forum involved distributing disposable cameras to participants with the request to take photographs of places, buildings, open space, and other aspects of Conway that they liked or disliked. Participants were also asked to provide commentary about each photograph. A total of fourteen cameras were returned with comments.

- *Charrette – Designing Conway's Future*
  Building on the results of the issue identification sessions and the vision forums, a charrette entitled *Designing Conway's Future* was held on Saturday, June 22 at the Fox Ridge Resort. The purpose of *Designing Conway's Future* was to provide residents with an opportunity to discuss a clear and realistic vision of future development activities and generally provide input into the planning process. Specifically, residents were encouraged to work with community planners and landscape architects to designate development and land preservation sites as well as provide conceptual design ideas. Residents were encouraged to drop-in between 9 a.m. and 4 p.m. to provide their input and work with the planning team. A Saturday was selected in order to provide residents who were unavailable during weekdays a chance to offer comments and suggestions. Following the drop-in session, the planning team presented graphic and text-based design elements and concepts that were discussed during *Designing for Conway's Future*. The text-based elements and concepts were divided into affinity clusters as well as village-specific concepts. The clustered design elements and concepts included: Center Conway, North Conway, Conway Village, open space, aesthetics, transportation and other design issues.

- *Planning Board Meetings*
  Beginning in January, 2002, the Conway Planning Board initiated regular monthly workshops to discuss procedures and issues relative to updating the master plan as well as reviewing and discussing various draft chapters of the master plan. In all, the Planning Board held over thirty public meetings, workshops and forums. At all of the meetings, no matter the purpose, people were encouraged to attend and offer suggestions and comments on the items discussed or material that had been presented at previous meetings.

- *Posting of Master Plan Update Material*
  Draft materials, prepared for public meetings and draft chapters of the master plan update, were posted on the town's website (www.conwaynh.org). The website also presented contact information so residents and stakeholders could provide feedback or obtain more information.

3. A Vision for Conway

The Town of Conway has changed significantly over the past twenty to thirty years. As an outdoor, recreation and retail destination the character of each village and therefore the town as a whole, especially in terms of land use, will continue to change in the future.

During the master plan update process, public discussions about the future of Conway involved a variety of residents and stakeholders (business people, municipal officials, environmental advocates and others). While residents and stakeholders in Conway have experienced differences of opinion on many issues (most notably the proposed bypass issue)[1], the participants demonstrated some consensus regarding goals for Conway's future. These goals and policies, which are discussed on the next several pages, should not be regarded as an inflexible blueprint for the future development of Conway, but rather as a framework or guide for directing and managing future land use changes within the community.

During the preparation of this master plan update, it was determined that an overall vision for the future of Conway should be articulated. The Planning Board created the following statement as an overall vision or guideline for Conway's future:

> ***Recognizing that our natural beauty is our greatest asset, our commitment is to balance growth with the needs of the environment and the community.***

As outlined on the next several pages, a general goal was established for various planning-related issues (e.g. housing, economic development, recreation, etc). Each issue area's goal is supported by primary objectives and recommendations for attaining these goals. It should be noted that the goals and objectives are based upon comments and suggestions received during the different public meetings highlighted earlier, and were then refined by the members of the Planning Board to reflect their understanding of specific planning-related issues.

A. Housing Goal

Due to increasing demand for housing caused by the centralized location and recreation aspects associated with Conway, coupled with a lack of housing units within lower price ranges, the Town of Conway should support the development of a range of housing choices for all ages and income levels.

Primary Objectives

1. The town should encourage the development of affordable housing. Ideally, the town should participate in a regional housing initiative with other communities and agencies in the Mount Washington Valley to produce an equitable, coordinated approach to encourage affordable housing.
2. Encourage the development of residential units above existing and new commercial business establishments within the villages.
3. Consider the development of a limited number of higher-density residential developments in close proximity to commercial business establishments along Route 16.
4. Consider the development of housing for elderly residents due to the changing demographic patterns.

B. Economic Development Goal

Recognizing that the key economic character of the community is its tourism-based economy, future economic development initiatives should strive to diversify the employment and business establishment base within Conway.

Primary Objectives

1. As Conway's economy is focused across such a narrow group of sectors, the town should support economic development incentives which encourage diversification of the local employment and business establishment base.
2. The town should work with the North Conway Water Precinct (NCWP) and the Conway Village Fire District (CVFD) to ensure that water and sewer infrastructure are in place within the Conway's industrial zones in order to improve the potential for light industrial, distribution and/or office establishments.

C. Municipal Services and Infrastructure Goal

Coordinate and harmonize existing municipal services and infrastructure providers in order to provide citizens with a high quality and efficient infrastructure and service network.

Primary Objectives

1. The Conway School District should prepare a comprehensive capital improvements plan that addresses the town's future educational infrastructure needs.
2. The Conway School District should work with the town to identify potential sites for any new facilities, especially a high school. Facilities should be designed in a flexible fashion to serve as an educational facility *and* as a multi-purpose community center that can accommodate performing arts, cultural activities and public gatherings.
3. The town should continue to support water and sewer interconnections between the Conway Village Fire District (CVFD) and the North Conway Water Precinct (NCWP). The Board of Selectmen should work with both the CVFD and the NCWP by informing residents and property owners in both service areas about the advantages of inter-connected water and wastewater systems in terms of resource protection and future economic opportunities; developing funding solutions that recognize the difference in tax bases and financing capabilities between the two service areas; and applying for state and federal financial support that is accessible only through the town (i.e. CDBG and CDAG grants).

4. The Board of Selectmen should work with both the CVFD and NCWP to plan, coordinate and establish water and sewer improvements on a town-wide scale. Priorities for water and sewer improvements include improved treatment capacity for Conway Village and then line extensions to land designated for industrial use along East Conway Road.
5. Explore opportunities for enhancing coordination and cooperation between Conway's current fire and emergency service providers.
6. Consider the changing demographic characteristics of the town's population such as the shifts in age groups, decreasing household size, the reductions in the number of young singles and families, and the growing number of near seniors and seniors when broadening and/or altering municipal services and infrastructure.

D. Roadways and Transportation Goal

The town should use roadway improvements to enhance the character of Conway's villages, as well as introduce mechanisms and infrastructure to promote and encourage transportation system use by pedestrians and bicycle users.

Primary Objectives

1. The town should continue to work with the New Hampshire Department of Transportation to reinvent Route 16. Modifications to Route 16 could include landscaped medians, consolidated driveway access points and shared parking.
2. Consider revising the town's parking standards to encourage a more flexible, usable and visually appealing parking system throughout Conway. Adopted measures should include the sizing of parking lots based on reasonable demand, shared parking facilities, encouraging landscaped parking facilities, and placing lots at the back or side of buildings to discourage the visual blight of endless parking lots.
3. Incorporate traffic calming measures in various locations throughout Conway to slow traffic and improve pedestrian safety and livability in high traffic neighborhoods. Specifically, center island treatments should be incorporated in Conway Village and North Conway Village to act as visual gateways and to slow the pace of traffic.
4. Consider adopting new street cross-section plans in both Conway Village and North Conway Village.
5. Consider adopting a policy that would permit a decrease in street width in certain locations for environmental and safety reasons.
6. Design and incorporate measures to improve way-finding (directional signs) in Conway Village and North Conway Village. Measures may include improving signage, lighting and streetscapes.

E. Recreation Goal

Promote and support a variety of recreational opportunities, including outdoor activities, for Conway residents of all ages and income levels.

Primary Objectives

1. Support and work with the Conway Recreational Access Committee to create a network of multi-purpose trails to connect Conway's significant athletic, recreation, and open spaces, as well as its schools, libraries and other public facilities
2. Insist that all state road enhancement projects accommodate bicycle lanes.
3. Prepare and adopt a bikeway plan that accommodates both roadside and off-road bikeways.
4. Investigate the feasibility for developing a municipal skateboard park.

F. Sense of Community Goal

The Town should preserve and enhance the unique design characteristics, features and identity of each village while at the same time creating locations in Conway which connects and bonds the community.

Primary Objectives

1. Design and construct identifiable gateways that signify the entrance to Conway and each of its villages along major roadways.
2. Recognize and address the issues and concerns of both year-round and seasonal residents.
3. Examine the feasibility and potential for the development of a centralized community gathering area and/or facility to be used as the primary location for major public events by all members of the community.

G. Land Use Goal

Regulations, policies and guidelines used to manage land development in Conway should change. In non-village portions of the town these changes should focus on targeting areas for medium and low density residential development, commercial and light industrial development, and limited development (protected areas). Village areas should be designated for a mix of high density residential, commercial and institutional uses.

Primary Objectives

1. Existing land use patterns in Conway have been created by a multitude of decisions by individuals and various governing bodies over the last two centuries. Changes concerning how land can be developed in the future should, to the extent possible, seek to balance community needs and impacts with the rights of private property owners, while protecting the environment and natural resources.
2. Revise the zoning ordinance, subdivision regulations and site plan review regulations to achieve the objectives outlined in the master plan. The revised land use regulations should consider environmental, social, fiscal and economic impacts in evaluating development proposals.
3. Zoning districts for North Conway Village and Conway Village should contain a higher density mix of residential, commercial and institutional uses. Incentives should be provided for incorporating residential units above existing or proposed commercial establishments. Performance standards for these areas should be developed that define the limits of possible development related impacts such as noise and parking. These zoning areas should incorporate the main corridor through each village as well as the adjacent streets and neighborhood.
4. Center Conway Village should be designated as a residential growth area. Although residential development would be the primary use, there should be opportunities for limited neighborhood commercial and institutional development.
5. Areas to the south of Center Conway Village and Conway Village (Eaton Road area) and west of the Saco River (West Side Road area) should be designated for low density residential development. Cluster development should be encouraged.
6. Water and sewer infrastructure should be extended to the industrial zone along East Conway Road. Performance standards that define the limits of possible development related impacts such as noise, traffic, air pollution, etc., should be incorporated as part of revised land use regulations.
7. Development in the Green Hills area north of East Conway Road and east of the Route 16 should be limited to protect farmlands, woodlands, open space, wildlife habitat and scenic areas.
8. Encourage the permanent protection of environmentally significant lands to avoid incremental

deterioration of qualities which make Conway a desirable community.

9. The Route 16 “Strip area” should contain commercial and retail uses based on development standards that address building size and design features that are comparable with the character of Conway. A limited number of high density residential developments should also be considered for this area.
10. A local area plan should be prepared for the Route 113/302/16 bypass intersection prior to amending any development provisions affecting that area. This will help protect the area from inappropriate developments and commercial uses that may gravitate to the area.
11. An area along Route 302, beginning on the east side of Route 16 and extending into Redstone, should be designated for large commercial, retail, automotive and complementary commercial and service uses.
12. The Board of Selectmen should open a dialogue and establish a memorandum of understanding that involves the town, the CVFD and the NCWP in order to coordinate water and sewer infrastructure and municipal planning efforts among all parties.
13. Develop a plan for the redevelopment and eventual reuse of the Kearsarge Metallurgical brownfield site for passive recreational uses that provide connections to the surrounding neighborhoods.
14. The town should encourage new commercial development to be constructed on existing sites (infill/redevelopment) rather than on raw undeveloped land.
15. Review land use regulations to ensure that wetlands are appropriately protected. This may include a requirement for comprehensive wetland surveys of potential residential and non-residential sites over three acres in size as a part of development reviews.
16. Review existing policies for aquifer protection and water conservation.

4. Future Land Use in Conway

The goals and objectives identified in this master plan provide a framework for managing the future development of the town. It is important to recognize that Conway is a community that contains a variety of distinct villages. Therefore, any land use plan for Conway should strive to protect and enhance the unique characteristics of each village while prescribing land use patterns that enhance the entire town and unify the community.

This section presents a plan that illustrates future land uses within Conway. The land use plan should not be regarded as a rigid blueprint for future development in Conway. Rather, it provides guidance for the orderly development of the community. It should be noted that the elements contained within the land use plan were derived from information, suggestions and comments provided by Conway residents during the meetings and forums held throughout the master plan update process. Future land use patterns are identified on Map 1-1 entitled *Future Land Use Conditions*.

The map presents the following land use categories:

- The **high density mixed use** category applies to North Conway Village and Conway Village. Development in these areas should complement the already established dense mixture of land uses and encourage additional residential and commercial opportunities. The mix should include residential units above existing or proposed commercial establishments, small commercial and business service operations, single and multi-family dwellings, and other compatible uses.
- The **commercial and retail** zone extends from the intersection of Route 302 and Route 16 and then north along Route 16 to the southern edge of the North Conway Village (“The Strip”). The

recommended uses are essentially unchanged from the existing Conway Zoning Ordinance (Highway Commercial Zone). Under the Future Land Use Plan this area would continue to accommodate commercial, retail, service, and hospitality establishments. It should be emphasized that these types of land uses should be concentrated within this area (through infill, redevelopment of existing underutilized properties and finally through the development of vacant land) in order to reduce the potential homogenization of non-residential land uses elsewhere in Conway. In addition to non-residential uses within the area, limited high-density multi-family residential land uses should also be encouraged.

- The **large scale commercial** area generally extends from the East side of Route 16 south along Route 302 into Redstone. This area includes the Mountain Valley Mall, Shaw's, Wal*Mart and Crest Motors. The purpose of this area is to accommodate larger commercial, retail, automotive and service establishments.
- Assuming water and sewer infrastructure are eventually made available to the **industrial** area along East Conway Road, the boundaries of this area would essentially remain unchanged from the existing Conway Zoning Ordinance. The existing industrial area along Hobbs Street (zoned Industrial 1 under the April 9, 2002 Zoning Ordinance) could be considered a performance based zoning overlay (which defines the limits of possible development related impacts such as noise, traffic, air pollution, etc.) and generally be targeted for assembly, warehousing and other non-noxious industrial uses. While development proposals in the industrial area along East Conway Road would be evaluated based on specific performance standards, a broad range of light manufacturing and industrial uses would be encouraged in contrast to just the assembly and warehousing uses in the Hobbs Street industrial area.
- The **neighborhood residential** category applies to Center Conway Village. Residential uses should be predominant in this area. Some limited commercial or institutional uses should be encouraged to serve the neighborhood. Limitations relative to water and sewer infrastructure dictate lower development densities than the high density mixed use areas.
- **Medium density residential** zones should be located to the north and south of Conway Village, as well as to the north of the North Conway Village. The medium density zone would be limited to residential uses.

Map 1-1 future land use

- **Residential planned unit development** area applies to land parcels along West Side Road. This large land area would contain primarily single family residential dwellings. However, in order to preserve the scenic value of the area and to protect existing open space, there should be some options to permit residential clustered development[2]. Incentives, such as density bonuses, could be established to encourage residential cluster developments. In order to provide oversight and guidance, it is recommended that any proposed cluster development plan be subject to a site plan review by the Conway Planning Board.
- The **planned unit development** category applies to two different locations. One area includes property within Intervale, east of Route 16. This area serves as Conway's northern Gateway. The other area includes the triangular portion of land east of Route 16, west of Route 302 (in Redstone) and north of Route 113 (East Main Street). This triangular shaped area serves an important function in that it provides a scenic buffer between the commercial land uses in North Conway Village (along Route 16) and Conway Village, and the neighborhood residential land uses in Center Conway Village. There, however, are opportunities for limited planned unit development within nodes in this area. Site plan review of prospective developments by the Conway Planning Board should also be required for this type of development in this location in order to preserve the existing scenic and environmental

integrity of the area.

- **Low density residential** development generally involves areas south of Route 113, Center Conway Village and the proposed bypass.
- The final land use identified on the map is the **limited development** area which is generally located north of East Conway Road (and the industrial area) and east of Route 16 and North Conway Village. This area would limit, but not entirely restrict, development in order to protect farmlands, woodlands, open space, wildlife habitat and scenic areas. Rigorous performance standards should be established for these areas which would permit certain types of development that would not place undue strain on natural resources.

Identifiable gateways have been proposed for the major vehicular access points to Conway. These major access points would include Route 16 in Conway Village (from Albany), Route 113 (from Fryeburg), and Route 16 in North Conway (from Bartlett). Gateways are generally symbolic structures, signs or landscaped areas created at major access points of a community that provide a sense of arrival and/or welcome to visitors.

The Special Highway Corridor District (SHCD), as established in the existing Conway Zoning Ordinance, runs the entire length of the proposed Conway bypass from the Conway/Albany town line in the south to just north of North Conway Village. The purpose of the SHCD is to allow for appropriate development along the bypass which is compatible with the scenic rural landscape along the corridor. The SHCD applies to all properties within five hundred feet of the edge of the bypass right-of-way.

Although the underlying zoning takes president (for minimum lot sizes and setbacks, etc.), the SHCD incorporates some additional site development requirements. For example, upon development of a property within the SHCD, a vegetative buffer is required within one hundred feet of the bypass right-of-way for industrial, commercial, and multi-family residential land uses and within seventy-five feet for single family residential land uses. Furthermore, properties are subject to additional requirements relative to lot coverage, signage, lighting, building heights and parking.

The transitional area is a small area generally located at the intersection of the proposed Conway bypass and Route 113. This area was highlighted since it represents the nexus between two major roadways (Route 113 and the Conway bypass) and two different types of land uses (limited planned unit development and neighborhood residential). Typically, intersections of two major transportation corridors offer numerous opportunities for non-residential development (commercial, retail and service). Due to the significance of the intersection on surrounding land uses and the limited scope of the master plan to adequately address the issues relative to this small geographic area, no specific future land use recommendations are proposed. However, it is strongly urged that the town prepare a local area plan to address land use issues in and around this area before revising the development provisions that affect this section of the community.

5. Recommended Changes in Parcel Sizes

This section examines current land use conditions within selected areas of Conway. This analysis is based on parcel data from the town's assessment database and the use of a geographic information system (GIS) for mapping and analysis purposes. The purpose of this analysis is to compare existing land use conditions with proposed future land uses. Information within this section is provided for both non-residential and residential parcels. However, due to the abundance of residential properties throughout Conway, most of the analysis focuses on the average and median size of residential parcels in the community[3]. It should be noted that an extensive analysis of the existing use of land in Conway is provided in Chapter 9, entitled *Land Use and Community Design Features*.

In terms of current minimum lot size requirements, with the exception of the Industrial 2 district (outlined in the Conway Zoning Ordinance) and properties within the Kearsarge Lighting District (both which require a minimum parcel size of two acres), minimum parcel sizes are consistent across all zoning districts and are based on the availability of municipal water and sewer. The Conway Zoning Ordinance states that the minimum lot size for land serviced by both municipal water and sewer infrastructure is one-half acre (approximately 20,000 square feet) for the first unit developed. Each additional dwelling unit requires 10,000 square feet of land. Lots serviced by municipal water, but without sewer infrastructure require a minimum lot size of one half acre of qualified[4] land per dwelling unit. For parcels not serviced by municipal water or sewer infrastructure, a minimum of one acre of qualified land is required.

From a town-wide perspective, the average parcel in Conway is 6.97 acres with the median being 0.8 of an acre (meaning that there are some relatively large land parcels in Conway). However, it is interesting to note the differences between Conway's various geographic areas. Generally speaking, the village areas exhibit higher densities (smaller average parcel size) as compared to the more rural areas in the south and western part of Conway (with larger average parcel sizes). The following summarizes the current land use requirements of selected areas of Conway (as shown on Map 1-1) as well as potential direction for future land use conditions based on suggested land use policies. Detailed information for each of the areas is provided in Tables 1-1, 1-2 and 1-3 at the end of this chapter.

Residential Planned Unit Development (West Side)
In this area, along both sides of West Side Road, there are approximately 5,780 acres located on 1,349 parcels of land. It was determined that 701 of these parcels, under 5 acres, were classified for single family residential uses. These parcels contain about 665 acres. The average parcel size is 0.9 of an acre and the median parcel size is 0.8 of an acre. About 321 of the residential acres are considered undeveloped.

As previously noted, it is recommended that this area primarily be devoted to single family residential land uses. It is also recommended that residential uses should be permitted at a density level of about one (1) acre per unit. However, this area could also include some options and/or requirements for cluster types of residential development (density bonuses) which could decrease lot sizes to between 0.5 acres and 0.8 acres per parcel.

Neighborhood Residential (Center Conway)
This portion of the town, which includes Center Conway, currently contains about 283 acres of land that are located on 111 parcels. Approximately 70 acres have been developed as single family houses with the average lot size being 1.1 acres and the median lot size being 0.7 of an acre. It is recommended that this area be primarily used for residential purposes with some limited neighborhood commercial uses. In order to retain and complement the existing residential village character of the area, lots should remain at least one acre in size.

Low Density Residential (South Conway)
The portion of the town, identified as South Conway, contains approximately 11,435 acres on 756 parcels of land. About 7,726 acres are classified as undeveloped. Residential properties, smaller than five (5) acres, have an average parcel size of 1.5 acres and a median parcel size of 1.2 acres. The primary use of this portion of town, as outlined on Map 1-1, would remain single family residential (2+ acre minimums). There may be opportunities to incorporate cluster type development (similar to the West Side area) that could reduce lot sizes to between 0.5 to 0.8 of an acre. However, since a municipal sewer infrastructure is currently not available in this area, independent sewage disposal systems (ISDS) would typically be needed for a high

density or cluster development.

North Conway Village

This portion of Conway contains a mix of retail, business, recreation and residential land uses. It is estimated that there are 372 parcels in this portion of town on 236 acres. Approximately 78 acres are devoted for single family residential uses and 122 acres for single and multi-family uses. Average parcel size for single family use is about 0.4 of an acre and about 0.5 of an acre for single and multi-family use. As the amount of undeveloped land in North Conway Village is relatively low at 29.8 acres, and to preserve the dense village character of the area, future development density should remain high at 0.25 to 0.5 of an acre per parcel.

Conway Village

This mixed use area of Conway contains about 326 acres over 371 parcels of land. In terms of residential land uses, about 117 acres are devoted to single family land uses that represent an average parcel size of 0.6 of an acre and median parcel size of 0.5 of an acre. When multi-family and mobile homes are included in residential land uses the amount of total land in residential use increases to 146 acres and the average lot size remains basically the same. Similar to North Conway Village, with the amount of undeveloped land at approximately 30 acres, future development density should remain high, at 0.25 to 0.5 of an acre per parcel, in order to preserve unique village characteristics.

Large Scale Commercial

This area, which has been designated for large commercial, retail and automotive uses, represents about 134 acres. Currently only about 17 residential parcels, under 19 acres, are located in this area. Currently the average residential parcel size is about 1.1 acres which is primarily due to the lack of water and sewer infrastructure in the area. With future land uses in the area targeted for large commercial, retail and automotive establishments which typically require large parcels of land, future development density should remain relatively low at two (2) to five (5) acres per parcel. Furthermore, performance standards should be incorporated in the area to encourage consolidated driveway access points (thereby reduce the number of “curb cuts”) which helps to minimize traffic impacts on local roads.

Table 1-1. Parcel Attributes for Specific Portions of Conway by Geographic Area or Zone
Town of Conway

	N. Conway Village	Center Conway	Conway Village	South Conway	West Conway	Large Commercial	Total
# Parcels	372	111	371	756	1,349	61	3,020
Total Acres	236.1	282.7	326.0	11,434.6	5,780.5	134.0	18,193.9
Average Parcel Size	0.6	2.5	0.9	15.1	4.3	2.2	N/A
Median Parcel Size	0.4	0.9	0.5	1.6	0.8	1.1	N/A
Undeveloped Acres	29.8	78.6	30.3	7,726.0	2,678.0	16.8	10,559.5

Source: RKG Associates, Inc.
Note: Does not include road, water or condominium parcels.

Table 1-2. Single Family Residential Parcel Attributes by Geographic Area or Zone
Town of Conway

	N. Conway Village	Center Conway	Conway Village	South Conway**	West Conway**	Large Commercial	Total
# Parcels	176	61	195	225	701	10	1,368
Total Acres	78.7	69.7	117.2	340.7	664.8	9.2	1,280.4
Average Parcel Size	0.4	1.1	0.6	1.5	0.9	0.9	N/A
Median Parcel Size	0.3	0.7	0.5	1.2	0.8	0.9	N/A
Undeveloped Acres	29.8	78.6	30.3	295.9	321.4	16.8	772.8

Source: RKG Associates, Inc.
Note: Does not include road, water or condominium parcels.

*Note: Includes only single family residential properties.
**Note: Excludes properties over five acres.

Table 1-3. Residential* Parcel Attributes by Geographic Area or Zone
Town of Conway

	N. Conway Village	Center Conway	Conway Village	South Conway**	West Conway**	Large Commercial	Total
# Parcels	221	70	240	246	735	17	1,529
Total Acres	121.5	82.1	146.2	362.0	684.5	18.8	1,415.1
Average Parcel Size	0.5	1.2	0.6	1.5	0.9	1.1	N/A
Median Parcel Size	0.4	0.7	0.5	1.2	0.7	0.9	N/A
Undeveloped Acres	29.8	78.6	30.3	295.9	323.1	16.8	774.5

Source: RKG Associates, Inc.
Note: Does not include road, water or condominium parcels.
*Note: Includes single family, multi-family and mobile home properties.
**Note: Excludes properties over five acres.
Prepared for Town of Conway Planning Board by RKG Associates, Inc.

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[1] It should be noted that although debate between the state and representatives from the town relative to the proposed bypass is ongoing, the master plan update assumes that the bypass will be constructed based on the proposed and permitted design.

[2] Clustered residential developments are typically planned and developed as a contiguous site with units grouped together in fairly close proximity to one another with a central common open space as a focal point within the development. These types of developments, if designed properly, require smaller developed area when compared to traditional large lot single family residential developments.

[3] The average was calculated by adding up the number of acres for all parcels and dividing the sum by the total number of parcels. The median represents the mid-point of lot sizes, that is 50% of the lots are smaller and 50% are larger.

[4] According to the Conway Planning Director, qualified land is defined as being suitable for development based on soil suitability requirements.

CHAPTER 2
IMPLEMENTATION STRATEGY

1. Introduction

The Conway Master Plan is a document that defines where the community wants to be in the future and how to get there. In order for the town to realize its collective vision and achieve the desirable results identified by the community, an effective implementation strategy must be established. This chapter presents actions that the town should take to realize the goals that emerged from this planning process.

This implementation strategy has seven areas of *Recommended Actions*. These seven areas include: Housing; Economic Development; Municipal Services and Infrastructure; Roadways and Transportation; Recreation; Sense of Community; and Land Use. Each section presents issue statements that identify the strategic objective being addressed. These are followed by a series of specific actions, along with an accompanying time frame for the proposed action and suggestions concerning organizational responsibility for implementation. Specific policy goals and primary objectives discussed in Chapter 1 (A Vision and Future Land Use Plan for Conway) are also identified for each *Recommended Action*. A total of twenty-three recommendations (plus an additional four suggested concepts or approaches) are contained within the various Recommended Actions. These recommendations represent a realistic and practical set of actions which could reasonably be implemented over the next decade.

It must be recognized that the Implementation Strategy, like the master plan, is not a stagnant document. Once adopted, it must be revised and updated periodically to ensure that the proposed actions, based on current conditions in Conway, are still appropriate. Moreover, the Planning Board should prepare an annual report on the progress being made relative to this implementation strategy.

1. Recommended Actions

A. Housing

Issue A1 - Like many communities across the state, housing choices for households with middle and lower income levels has become one of the more pressing concerns facing Conway and the Mount Washington Valley. Creating equitable solutions to housing problems will require a combination of local initiatives, as well as cooperation with the private sector and neighboring communities.

Recommended Actions	**Time Period (Years)**		
A. Housing	**1-2**	**3-5**	**6-10**
1. Amend the town's land use policies to encourage the development of a variety of different residential dwelling types. These could include units above commercial establishments within the village core areas; high density residential developments adjacent to commercial establishments along Route 16; and, housing for elderly residents. Policy Goals and Objectives: A2, A3, G9 Implementation Responsibility: Planning Board (PB) Support Agency: Planning Department	X		
2. Support and encourage the development of various types of affordable housing throughout the region. Policy Goals and Objectives: A1, A3, A4 Implementation Responsibility: Board of Selectmen (BOS) Support Agencies: PB, Planning Department, Mount Washington Valley	X		

	Economic Council (MWVEC), North Country Council (NCC)	
3.	Review and revise Conway's development regulations to encourage the development of cluster subdivisions where appropriate. Policy Goals and Objectives: A1, A2, A3, A4 Implementation Responsibility: Planning Board Support Agency: Planning Department	X
4.	Identify areas that are suitable for manufactured housing and amend the zoning ordinance to expand the provisions for manufactured housing to areas outside the commercial districts. The town should also revise its development standards for manufactured housing developments. Policy Goals and Objectives: A3, A4 Implementation Responsibility: Planning Board Support Agency: Planning Department	X

B. Economic Development

Issue B1 – The economy in Conway and the region is based upon tourism. This is evidenced by the large number of lodging facilities, restaurants, commercial and retail establishments in the town and region. Over the past five years, the local and regional economy has generally faired well due to the record number of tourists visiting the region, as well as increasing visitor spending. As the commercial and service hub for the Mount Washington Valley, most, if not all visitors traveling to, or through, the region visit Conway. This is due, in part, to Conway's recreation facilities and scenic beauty, but also to the promotional and business support efforts of the region's businesses, economic development organizations and chambers of commerce.

However, diversification of the employment and business base could create a more stable and sound local economy. Spreading Conway's future economic "eggs" throughout a number of different baskets (such as light manufacturing, distribution or information technology) and building upon Conway's past economic achievements will require both hard work and cooperation among many individuals and groups.

Recommended Actions **B. Economic Development**	**Time Period (Years)** **1-2**	**3-5**	**6-10**
1. Support and encourage the Mount Washington Valley Economic Council and its economic development, planning and implementation strategies. Policy Goals and Objectives: B1 Implementation Responsibility: Board of Selectmen Support Agencies: MWVEC, Chambers of Commerce (COCs), NCC, and Town Manager.	X		
2. Foster a memorandum of understanding (MOU) between the Town of Conway, the North Conway Water Precinct (NCWP) and the Conway Village Fire District (CVFD) to ensure that water and sewer infrastructure are provided to Conway's industrial zones. Policy Goals and Objectives: B1, B2 Implementation Responsibility: Board of Selectmen Support Agencies: Town Manager, PB, NCWP and CVFD	X		
3. Encourage the development of new commercial establishments on existing sites (infill) rather than on raw undeveloped land by amending Conway's land use regulations. Policy Goals and Objectives: G9, G14 Implementation Responsibility: Planning Board Support Agency: Planning Department			X

4. Encourage the establishment of Business Improvement Districts (BIDs) in North Conway Village and Conway Village. Policy Goals and Objectives: B1 Implementation Responsibility: Board of Selectmen Support Agency: Chambers of Commerce		X	

C. Municipal Services and Infrastructure

Issue C1 – As discussed in the Municipal Services and Infrastructure Chapter, Conway has some unique service and infrastructure systems. As the master plan is the fundamental framework used for guiding Conway through the next decade, it is critical that a coordinated linkage between infrastructure, service providers and land use planning efforts be formalized.

Issue C2 – All proposed infrastructure improvements in Conway should be evaluated in terms of impacts on future growth and development. To the extent possible, improvements should not be undertaken if it is determined that these improvements will foster excessive growth and development in environmentally sensitive areas or areas identified as locations for low-density residential development.

Recommended Actions **C. Municipal Services and Infrastructure**	**Time Period (Years)** **1-2**	**3-5**	**6-10**
1. Encourage the Conway School District to prepare a comprehensive Capital Improvements Plan that identifies the school district's infrastructure needs for Conway over the next ten years. Policy Goals and Objectives: C2, C6, F3 Implementation Responsibility: Conway School District and Board of Selectmen Support Agencies: Town Manager, SAU 9 Superintendent	X		
2. Encourage multi-purpose school and municipal facilities. This should include investigating the feasibility of a community center in the proposed school design. The center would serve as a facility for performing arts, cultural activities and public gatherings. Policy Goals and Objectives: C2, F3 Implementation Responsibility: Board of Selectmen Support Agency: Town Manager	X		
3. The town should continue its support for interconnecting the CVFD and NCWP infrastructure systems and assist in the process by accessing any state and/or federal funding sources (i.e. CDBG and CDAG grants) that may promote interconnection. Policy Goals and Objectives: C3 Implementation Responsibility: Board of Selectmen Support Agencies: Town Manager, CVFD & NCWP, NCC	X		
4. The town should prepare a comprehensive water and sewer infrastructure plan that complements the development objectives represented in this master plan. This infrastructure plan should incorporate the precinct infrastructure plans and water and sewer service extensions to non-precinct areas. Policy Goals and Objectives: G4, C2, G3, B1 Implementation Responsibility: Board of Selectmen		X	

Support Agencies: Planning Board, CVFD and NCWP

5. Examine opportunities for coordination and cooperation among Conway's fire and emergency service providers.
   Policy Goals and Objectives: C5 — X
   Implementation Responsibility: Board of Selectmen
   Support Agencies: Town Manager, Precincts

6. Establish a Capital Improvements Program Committee to prepare and maintain an annual capital improvement program of municipal capital improvement projects over a period of at least six years in accordance with RSA 674:5. — X
   Policy Goals and Objectives: C1, C4, C6, F2
   Implementation Responsibility: Board Of Selectmen
   Support Agencies: Planning Board, Town Manager

D. Roadways and Transportation

Issue D1 – Over the past twenty years, roadway and transportation issues have represented some of the most important issues confronting the residents of Conway. Concerns relating to the Conway bypass, most notably relating to environmental implications and necessity, have been, and will continue to be debated for some time. It should be noted that as a productive and pragmatic planning tool, the master plan has included recommendations that work within the established plan for the proposed bypass and other roadway improvements. It is felt that an opportunity exists to capitalize on these improvements by incorporating necessary design features, where appropriate, which will improve Conway's quality of life.

Issue D2 – Throughout the master planning process, residents indicated that parking was a key issue in several areas of Conway. Residents generally agreed that there was too much parking in some portions of the town, while parking spaces were at a premium in others. Generally, typical parking standards have been designed to accommodate the largest potential volume of vehicles for a respective land use. They also tend to disregard the supply of public parking spaces within the local area - spaces which could potentially be used for a respective development. Conway is in a unique position to review and revise its parking regulations in order to better reflect the distinctive and individual land use characteristics, as well as vehicular travel patterns, found within the village and non-village areas.

Recommended Actions	**Time Period (Years)**		
D. Roadways and Transportation	**1-2**	**3-5**	**6-10**
1. Review and revise the town's land use regulations to address flexibility in street design and encourage alternative designs that would complement neighborhood streetscapes while maintaining safety and efficiency. Policy Goals and Objectives: D3, D5, D6 Implementation Responsibility: Planning Board, Support Agencies: Planning Department and Public Works Department	X		
2. Review and revise Conway's land use regulations to encourage more flexible, usable and appealing parking system throughout the town. Specific emphasis should be placed on sizing parking lots based on reasonable demand, encouraging shared parking facilities, establishing a "parking credit" program, and parking facility placement and landscaping. Policy Goals and Objectives: D2 Implementation Responsibility: Planning Board Support Agencies: COCs, CVFD, NCWP, SAU9, Planning Department			X
3. Prepare plans for gateways at major entrance points to Conway as well as street cross-section plans and traffic calming measures in North Conway Village and Conway Village. Policy Goals and Objectives: D3, D4, F1			

			X
Implementation Responsibility: Planning Board			
Support Agencies: Board of Selectmen, Town Manager, Planning Department			

E. Recreation

Issue E1 – The residents of Conway are in an enviable position of being able to take advantage of an extensive assortment of trails and pathways throughout the community. In essence, these many natural features provide the foundation for Conway's unique quality of life. As such a key feature, it is important for the town to take action to protect and enhance Conway's trail system for the benefit of both residents and tourists.

Recommended Actions	**Time Period (Years)**		
E. Recreation	**1-2**	**3-5**	**6-10**
1. Support the efforts of the Conway Recreation Access Committee to create a network of multi-purpose trails to connect significant athletic, recreation and open space areas. Participation and partnership should also be extended to local environmental groups and snowmobile clubs and other recreation trail users.	X	X	X
Policy Goals and Objectives: E1			
Implementation Responsibility: Conway Recreation Access Committee			
Support Agencies: BOS, Conway Conservation Commission (CCC)			
2. Working with the Recreation Access Committee, the town should prepare and adopt a bikeway/greenway/multi-modal plan that connects public spaces and accommodates both roadside and off-road bikeway trails throughout Conway.			
Policy Goals and Objectives: E2, E3		X	
Implementation Responsibility: Planning Board			
Support Agencies: Conway Recreation Access Committee, Board of Selectmen, CCC			
3. Establish a committee to determine the feasibility, funding options and potential location for recreation facilities such as a municipal skateboard park, tennis courts, etc.			
Policy Goals and Objectives: E4	X		
Implementation Responsibility: Board of Selectmen			
Support Agencies: Town Manager, Recreation Department			

F. Sense of Community

Issue F1 – Conway truly is a community of villages. In addition to the scenic quality and access to outdoor recreational activities, the unique design features and identity of each village adds to the attractiveness and distinctiveness of Conway. Conway residents generally identify themselves not so much as living in the Town of Conway, but rather by their respective village. Conway's development and growth over the past century and a half has been rooted within its villages. With so much community identity resting within the villages it is important to preserve and enhance the qualities which make each village unique, and, at the same time, create spaces which unify and bond the town as a whole.

Issue F2 – Increasingly master plans are being created in order to be a "living document" – a reference to evaluating and updating the master plan at regular intervals to keep the document relevant. Typically, revisions and updates are completed on an ad hoc or chapter by chapter basis by municipal planning officials or planning board members. Although this type of revision may be adequate for some communities, future master plan updates should be completed within a comprehensive unified approach, such as a strategic

master plan. If completed in its entirety and by a single party this document would serve as a cohesive addendum to the master plan for future revisions.

Recommended Actions	Time Period (Years)		
F. Sense of Community	**1-2**	**3-5**	**6-10**
1. Prepare village plans for North Conway Village, Conway Village and Center Conway Village that identifies desirable infrastructure and aesthetic enhancements. The plans should also suggest design standards that can be used to protect and enhance the characteristics that make each village special. These plans should be adopted and incorporated into the Conway Master Plan.		X	
Policy Goals and Objectives: F1, G3, G4			
Implementation Responsibility: Planning Board			
Support Agencies: Board of Selectmen, Planning Department, Chambers of Commerce			

G. Land Use

Issue G1 – In order to accomplish the policies suggested in this master plan, the zoning ordinance and other land use regulations will have to be changed. In addition to changing Conway's land use regulations, other approaches have been recommended, including the preparation of a redevelopment plan for the Kearsarge Metallurgical brownfield site.

Recommended Actions	Time Period (Years)		
G. Land Use	**1-2**	**3-5**	**6-10**
1. Review and revise Conway's land use regulations so that they are consistent with the goals and policies of the master plan. The revised regulations should consider the following concepts:			
▪ Performance based zoning standards that address development related impacts. Provisions for signage, parking facilities and layout, vista protection, and landscaping should be included. The design standards should also include illustrations of practical design alternatives.			
▪ Incentives such as density bonuses for developments that complement the goals of the Conway Master Plan.		X	
▪ Zoning district boundaries that support the goals and objectives outlined in this master plan			
▪ Development and design regulations that are specific to distinct areas of the town (i.e. villages and non-village areas).			
Policy Goals and Objectives: G1, G2, G3, G4, G5, G6, G8, G9, G10			
Implementation Responsibility: Planning Board			
Support Agency: Planning Department			
2. Work with the Nature Conservancy and similar organizations and foundations as well as private landowners in the acquisition of development rights, conservation land and open space areas throughout Conway.			
Policy Goals and Objectives: G8, G13, G15	X		
Implementation Responsibility: Conway Conservation Commission			
Support Agency: Board of Selectmen			

CHAPTER 3
POPULATION AND HOUSING

1. Introduction

This chapter of the master plan examines the changing characteristics of Conway's population and housing stock over the past two decades. The first sections focus on the historical growth rate of the population, as well as demographic composition relative to age and income. Comparisons are also presented with regard to Conway's population growth relative to those of other municipalities in Carroll County. In addition, estimates are provided about seasonal fluctuations in Conway's total population and two different long-term growth projection scenarios are described.

The second part of the chapter provides information on the changing environment associated with Conway's housing supply and residential real estate market. An overview is presented about total housing growth, changes in housing mix in terms of the types of housing units constructed, and the affect that this housing growth has had on historical land use patterns. This is followed by an assessment of local and regional real estate market conditions, as well as an assessment of affordable housing.

In order to obtain data and information for this chapter, four principle methods were used. The first consisted of an analysis of population and demographic data that was provided by the U.S. Census. Where Census data information was not available, demographic data was obtained from Claritas, Inc. – a subscription-based provider of demographic data and information. It should be noted that the estimates provided by Claritas are consistent with the latest Census data. The second involved an analysis of property assessment records that was provided by the Town of Conway. Municipal assessment records provide information about key characteristics of residential and non-residential property within the town. The third method involved interviews with local real estate professionals (property managers and brokers) and municipal and state officials associated with affordable housing initiatives in order to obtain anecdotal information relative to the local residential real estate market. Finally, the fourth method involved analysis of regional real estate sales data provided by the New Hampshire Housing Finance Authority and the New Hampshire Association of Realtors which provided a context for analyzing the regional real estate market.

2. Summary of Findings and Conclusions

The following points summarize key population and housing findings and conclusions presented within this chapter. Additionally, various implications associated with population and housing changes are discussed.

In terms of population changes, the rate of Conway's population growth in the 1990s was slower than the growth rate during the 1970s and 1980s. However, the majority of Conway's recent population growth has been due more to the in-migration of individuals from outside of Conway, rather than by natural increase. The most interesting population findings include:

- Between 1960 and 2000, Conway added over 3,600 residents to its year-round population – representing an increase of 85%.

- The most significant portion of Conway's population growth occurred between 1970 and 1980, when

the population increased by 2,293 individuals.

- Between 1980 and 2000, Conway's population grew at a consistent rate of 27% during the 1980s and 23% during the 1990s. However, the towns with the fastest percentage growth rates were located in the southern portion of Carroll County, while towns in the northern portion of the county had slower population growth rates.

- During the 1980s, it is estimated that 35% of Conway's population growth was due to the migration of new residents into the town. However, during the 1990s, it is estimated that over 70% of Conway's population growth was the result of net migration – people moving into the town.

- Based on Conway's historic growth rate of approximately 1% per year, it is projected that Conway's population will increase to approximately 10,400 residents by 2020.

- Between 1990 and 2000, Conway experienced a decrease in the number of pre-school children (under 5 years) and young adults (20-24 years), and an increase in the number of school age children (5-19 years), middle-age families (35-54 years), near seniors (55-64 years) and seniors (65 years and over).

The development of residential dwelling units in Conway has been strong over the past two decades. Since 1996, the residential real estate market has experienced an upswing in the number of units sold, as well as the average selling price. Current trends indicate that numerous homebuyers are now interested in more affordable housing options such as manufactured homes. Other housing findings include:

- Conway currently has 5,927 housing units which is an increase of 428 units (7.8%) since 1990. Between 1980 and 1990, Conway experienced a surge in residential construction with the number of housing units increasing by 27% (1,169 units).

- Between 1990 and 1999, Conway issued the second largest number of residential building permits (532) for new construction in comparison with other communities in Carroll County.

- Throughout the 1990s, the Town of Conway issued approximately the same number of single family and multi-family residential building permits; approximately 40% of the total permits for each type of dwelling unit. Between 1990 and 2000, the number of permits issued for manufactured homes has steadily increased on an annual basis, which may be an indication that homebuyers are turning toward this type of affordable housing option as a reaction to steadily increasing prices within the region's housing market.

- Prior to the 1990s, residential development was primarily concentrated in small subdivisions (which gradually progressed into the expansion of these subdivisions into larger ones) and small isolated parcels. The most notable residential development pattern exhibited in the 1990s was the continued development of very large remote parcels (southeastern part of Conway) outside of the traditional urban areas.

- Both Conway and the region experienced strong residential real estate markets during the mid to late 1990s. Between 1996 and 2000, the number of single family housing units sold in Conway increased 103%, while the average sale price increased to $111,619 representing a growth rate of 34%.

- Of Conway's 5,927 housing units, 1,797 are for seasonal use – representing approximately 30% of the town's total housing stock. Since 1990, the number of seasonal housing units has declined by about 9%.

Throughout the 1990s, Conway households experienced a gradual shift out of lower income brackets into higher income brackets. Despite this change, there are still a significant number of low-income households within the community. Household income findings include:

- Between 1990 and 2001, a shift of households out of the lower income brackets and into the upper income brackets occurred in Conway. This is particularly evident in the $75,000 to $99,999 and $100,000 and over income brackets.

- Currently there are approximately 1,248 households (35%) in Conway that are classified as low income households (those which earn under $25,000 per year – which represents approximately 50% of the median family household income in rural New Hampshire communities). Of the 1,248 low-income households in Conway, approximately 35% are headed by individuals who are 65 years of age or older.

Based on the population and housing findings presented throughout this chapter, implications about how Conway may change in the future include:

- The nature of Conway's population growth (in-migration rather than natural increase) has already affected the town's land use patterns and will no doubt continue to affect future development activities in the town.

- As with most communities, the aging of Conway's population will likely require a broadening and/or shifting in municipal services and infrastructure, as well as an evaluation of land use regulations and policies in order to ensure that these changes are addressed in future development initiatives.

- Because Conway enjoys the economic benefits of being a resort destination, the town must provide municipal services and infrastructure that is capable of handling the large influx of seasonal residents and tourists. This type of infrastructure demand has the potential to dramatically alter land use patterns and strain the community fiscally. In order to maintain a balanced approach to development, future land use regulations, design guidelines and policies will have to ensure that town-wide environmental, social, fiscal and economic impacts are considered in evaluating development proposals.

- Due to the steadily increasing demand for housing caused by the popularity of Conway, coupled with a low supply of housing units within lower price ranges, the town will have to consider policy changes that encourage the future development of affordable housing alternatives for residents. Failure to adopt measures that encourage the future development of affordable housing could constrict the availability of labor that might in turn negatively impact local economic activities.

3. Population Trends

During the past forty years the population of Conway, as determined by the U.S. Bureau of the Census, increased by 100% (4,306 people). A significant portion of this population growth, however, occurred between 1970 and 1980 when the town's population increased by 2,293 individuals, a growth rate of over 47% during that decade.

Between 1980 and 2000, the Town of Conway experienced fairly consistent growth, but at a rate somewhat slower than the 1970s. As shown in Table 3-1, Conway's population increased from 7,158 in 1980 to 8,604 in 2000, representing an increase of about 1,500 residents, or about 21%. Over this twenty year period, the greatest gains in population growth were experienced within the 1980s, as the population increased by 782

residents (11%). Population growth in the 1990s slowed marginally with the number of new residents increasing by 664 (8.4%).

Table 3-1. Population Trends: 1980-2000
Town of Conway and Carroll County

	1980	1990	2000	# Change 80-90	% Change 80-90	# Change 90-00	% Change 90-00
Conway	7,158	7,940	8,604	782	10.9%	664	8.4%
Carroll County	27,931	35,592	43,887	7,661	27.4%	8,295	23.3%

Source: U.S. Census

Although Conway has undergone consistent population growth over the past twenty years, Carroll County has experienced exceptional growth over the same time period. Between 1980 and 2000, Carroll County's population increased by 15,956 residents – representing a growth rate of 57%, or nearly three times the rate experienced in Conway over the same time period. Population growth within the County, on a percentage basis, has been fairly consistent throughout the 1980s and 1990s, increasing by 7,661 (27.4%) residents between 1980 and 1990, and 8,295 residents (23.3%) between 1990 and 2000.

As the economic, healthcare, recreational, population and cultural "hub" of Carroll County and the Mount Washington Valley, it is important to understand the unique characteristics of Conway's population growth, as well as the distribution of people throughout the County. Table 3-2 presents a summary of population changes for all towns in Carroll County between 1980 and 2000. The table indicates, as previously noted, that the County grew at a fairly constant rate between 1980 and 2000, supporting a total population increase of 27% between 1980 and 1990, and 23% between 1990 and 2000. What is noteworthy however, is that the total population growth between 1980 and 2000 is not evenly distributed throughout the County. For example, towns with the largest population increases (nearly or in some cases doubling in size) such as Effingham (113%), Moultonboro (103%) and Wakefield (90%) are located in the southern tier of the County, while towns with slower population growth such as Conway (20%), Jackson (30%), Hart's Location (37%) and Chatham (37%) are located in the northern tier (Figure 3-1). This finding suggests that the population growth experienced in the County's southern tier communities has been influenced by quality of life factors associated with the Lakes Region of New Hampshire, as well as the economic growth and prosperity which has migrated north from the Greater Boston area into New Hampshire's southern and seacoast regions.

Table 3–2. Population Trends: 1980-2000
Carroll County Municipalities

	1980	1990	2000	# Change 80-90	# Change 90-00	# Change 80-00	% Change 80-90	% Change 90-00	% Change 80-00	Pop. Capture Rate 80-00
Albany	383	536	654	153	118	271	39.9%	22.0%	70.8%	1.7%
Bartlett	1,566	2,290	2,705	724	415	1,139	46.2%	18.1%	72.7%	7.1%
Brookfield	385	518	604	133	86	219	34.5%	16.6%	56.9%	1.4%
Chatham	189	268	260	79	-8	71	41.8%	-3.0%	37.6%	0.4%
Conway	**7,158**	**7,940**	**8,604**	**782**	**664**	**1,446**	**10.9%**	**8.4%**	**20.2%**	**9.1%**

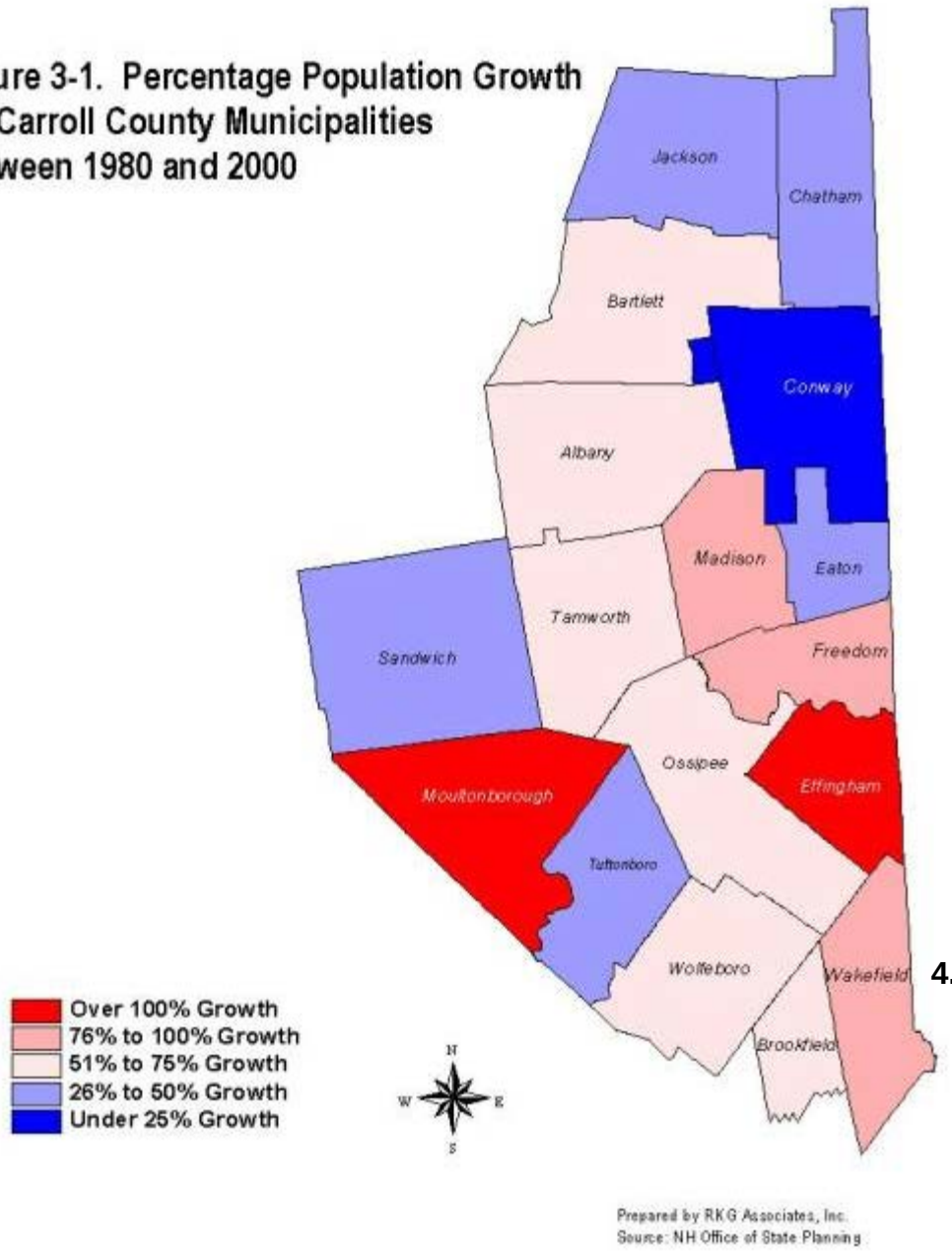
Although percentage growth rates are a useful tool for comparing relative growth among municipalities, it is equally important to examine the actual

Eaton	256	362	375	106	13	119	41.4%	3.6%	46.5%	0.7%
Effingham	599	941	1,273	342	332	674	57.1%	35.3%	112.5%	4.2%
Freedom	720	935	1,303	215	368	583	29.9%	39.4%	81.0%	3.7%
Hart's Location	27	36	37	9	1	10	33.3%	2.8%	37.0%	0.1%
Jackson	642	678	835	36	157	193	5.6%	23.2%	30.1%	1.2%
Madison	1,051	1,704	1,984	653	280	933	62.1%	16.4%	88.8%	5.8%
Moultonboro	2,206	2,956	4,484	750	1,528	2,278	34.0%	51.7%	103.3%	14.3%
Ossipee	2,465	3,309	4,211	844	902	1,746	34.2%	27.3%	70.8%	10.9%
Sandwich	905	1,066	1,286	161	220	381	17.8%	20.6%	42.1%	2.4%
Tamworth	1,672	2,165	2,510	493	345	838	29.5%	15.9%	50.1%	5.3%
Tuftonboro	1,500	1,842	2,148	342	306	648	22.8%	16.6%	43.2%	4.1%
Wakefield	2,237	3,057	4,252	820	1,195	2,015	36.7%	39.1%	90.1%	12.6%
Wolfeboro	3,968	4,807	6,083	839	1,276	2,115	21.1%	26.5%	53.3%	13.3%
Carroll County Total	*27,931*	*35,592*	*43,887*	*7,661*	*8,256*	*15,956*	*27.4%*	*23.3%*	*57.1%*	*100.0%*

Source: New Hampshire Office of State Planning

increase in population within a regional context. As previously noted, Conway's total population increased from 7,158 in 1980 to 8,604 in 2000. This represents an addition of almost 1,500 residents over the twenty year period, which represents the fifth largest actual increase of any municipality in Carroll County over the same time period. The municipalities that experienced larger numeric population gains included Moultonboro (2,728), Wolfeboro (2,115), Wakefield (2,015) and Ossipee (1,746).

Figure 3-1. Percentage Population Growth for Carroll County Municipalities Between 1980 and 2000



4. Components of Population Change

Population growth is comprised of two primary components: natural increase (number of births less the number of deaths) and the net migration of people moving into or out of a community. As shown in Table 3-3, most of Conway's population increase during the 1990s was due to migration rather than natural increase. Furthermore, the net migration of new residents moving into Conway dramatically increased in the 1990s as compared to the 1980s. The change in the natural increase component can be attributed to both the aging and movement of the baby boom generation out of the prime child-bearing years (20 to 34), as well as the attractiveness of the quality of life in the Mount Washington Valley to people living in other parts of New Hampshire and/or Massachusetts.

Table 3-3. Components of Population Change: Net Migration 1980-2000

Town of Conway

Population Change	Natural Increase	Net Migration	Net Migration as % of Pop. Change

1980-1989	817	526	291	35.6%
1990-2000	664	185	479	72.1%
Source: NH Department of Health and Human Services				

Another component of a town's population is the age distribution of its residents. As shown in Table 3-4, Conway, like almost all communities, is experiencing a general aging of the population caused by the progression of the large number of baby boomers into older age cohorts. Specifically, Conway's median age in 2000 was 39.9 years which represents an increase of five years since 1990. Projections indicate that Conway will continue to age over the next four years, with the median age increasing to 40.5 years by 2006. It is anticipated that the town's median age should continue to creep upward due, in part, to the continued aging of the population as well as the in-migration of baby boomers and near seniors who are attracted to the area's high quality of life for retirement.

As illustrated in Table 3-4, the number of near seniors (55-64), as a percentage of Conway's total population, has increased from 8.6% in 1990 to 9.7% in 2000 – representing an increase of approximately 1%. Furthermore, Claritas, Inc. estimates that the percentage of near seniors in Conway is expected to increase by another 3% between 2001 and 2006. In terms of overall actual and percentage gains, there are approximately 835 near seniors in Conway, which denotes an increase of 155 (23%) since 1990. Projections indicate that the number of near seniors is expected to grow faster than any other cohort in Conway increasing by 268 residents (33%) between 2001 and 2006.

Table 3-4. Distribution of Population by Age: 1990 - 2000
Town of Conway

	1990		2000		# Change	% Change
	#	%	#	%	90-00	90-00
65 and Over	1,112	14.0%	1,329	15.4%	217	19.5%
55 to 64	680	8.6%	835	9.7%	155	22.8%
35 to 54	2,162	27.2%	2,797	32.5%	635	29.4%
25 to 34	1,432	18.0%	1,097	12.7%	-335	-23.4%
20 to 24	664	8.4%	411	4.8%	-253	-38.1%
5 to 19	1,329	16.7%	1,677	19.5%	348	26.2%
Under 5	561	7.1%	458	5.3%	-103	-18.4%
Total	7,940	100.0%	8,604	100.0%	664	8.4%
Median Age		34.9		39.9		
Source: U.S. Census						

The largest portion of Conway's population is the middle-age (35-54) cohort which is currently 32.5% of the total population; this represents an increase of 5% since 1990. In addition to representing the largest gains in terms of percent of the total population between 1990 and 2000, the middle-age cohort experienced the largest actual and percentage growth of any cohort over the same time period, increasing by 635 (29.4%). Projections indicate that the middle-age cohort should loose a very small number of residents (23 or 0.8%) between 2001 and 2006. Having a large number of middle-age persons is often viewed as beneficial to a community because members of this respective cohort are generally at the peak of their income earning potential and are on track to move into the near senior cohort.

Interestingly, Conway has experienced a decline in the number of residents in the young families/singles (25-34) cohort over the past decade. Between 1990 and 2000, the number of residents in the young families/singles declined by 335, representing a decrease of 23%. This decline in the number of young families/singles is expected to continue over the next five years. As residents within this cohort typically start to have families, a decline in the number of residents within this cohort may lead to reductions in school enrollment in five to ten years. However, this reduction may be offset by established families with school age children moving into Conway over the same time period.

5. Household Characteristics

The population growth and age distribution of Conway's residents, combined with the nationwide trend of an increase in the number of single-parent households, has resulted in a corresponding impact on household growth and size. Currently the average household in Conway is comprised of 2.27 persons. As shown in Table 3-5, this represents a decrease of 0.10 persons (4.2%) between 1990 and 2000, and 0.10 persons (4%) between 1980 and 1990. Carroll County households, although a bit larger, are shrinking at a slightly slower pace as compared to Conway households. Households throughout the entire County experienced a similar reduction in size (4.1%) as Conway households (4.2%) during the 1990s.

Table 3-5. Average Household Size Trends: 1980-2000
Town of Conway and Carroll County

	1980	1990	2000	# Change 80-90	% Change 80-90	# Change 90-00	% Change 90-00
Conway	2.47	2.37	2.27	-0.10	-4.0%	-0.10	-4.2%
Carroll County	2.51	2.45	2.35	-0.06	-2.4%	-0.10	-4.1%

Source: U.S. Census

As a result of this reduction in household size, combined with a modest increase in population, the number of households increased at a faster rate than population growth. For example, while Conway's population grew by 11.5% in the 1980s and 8.4% between 1990 and 2000, household growth, as shown in Table 3-6, increased by 14.8% and 12.3% over the same respective time periods. Projections for the next five years indicates that household growth rates should be virtually identical to each jurisdiction's population growth rate.

Table 3-6. Household Trends: 1980-2000
Town of Conway and Carroll County

	# Households			# Change	% Change	# Change	% Change
	1980	1990	2000	80-90	80-90	90-00	90-00
Conway	2,879	3,306	3,714	427	14.8%	408	12.3%
Carroll County	11,074	14,253	18,351	3,179	28.7%	4,098	28.8%

Source: U.S. Census

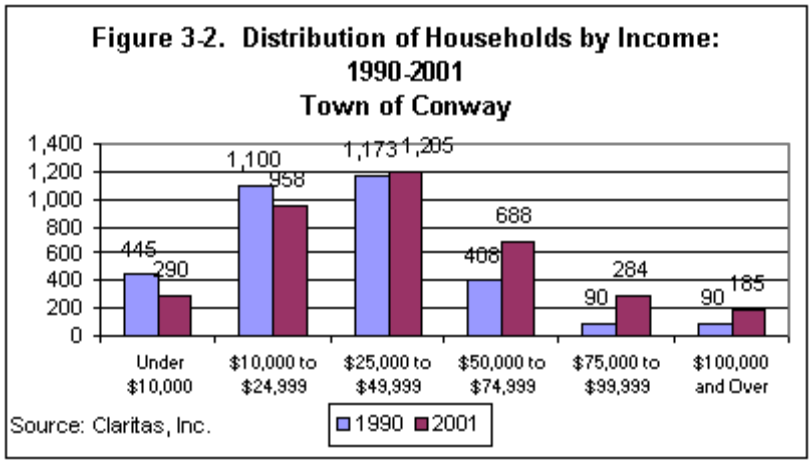
In terms of income trends, the Town of Conway currently has a median household income of approximately $35,500 – which represents an increase of approximately $8,700 (32%) since 1990, and $14,200 (113%) between 1980 and 1990. As shown in Table 3-7, Conway's median household income is slightly less than the County's median household income level for all the time periods presented. However, although Conway's income level is slightly less, it increased by approximately 5% more than the County's level over the same time periods. Income projections indicate that existing household income characteristics in Conway and Carroll County should continue over the next five years, with the County having a slightly higher income level while Conway experiences a larger income growth rate. With Conway's consistently higher income growth rates over the past twenty years, as compared to the County, the disparity between Conway and the County's income level should be virtually nil by 2006-2010. That being said, addressing affordable housing issues on a regional scale should also be recognized.

Table 3-7. Median Household Income Trends: 1980-2001
Town of Conway and Carroll County

	1980	1990	2001	$ Change 80-90	% Change 80-90	$ Change 90-01	% Change 90-01
Conway	$12,586	$26,812	$35,494	$14,226	113.0%	$8,682	32.4%
Carroll County	$13,557	$28,240	$36,126	$14,683	108.3%	$7,886	27.9%

Source: Claritas, Inc.

As shown in Figure 3-2, between 1990 and 2001, Conway experienced a gradual shift of households out of lower income brackets into higher income brackets. This is particularly evident in the $75,000 to $99,999 and $100,000 and over brackets, where the number of households in each bracket increased by 194 (216%) and 95 (106%), respectively, between 1990 and 2001. Despite these gains, the total number of households with incomes below $25,000, which represents approximately 50% of the median family income in non-metropolitan areas of New Hampshire[1], was estimated at 1,248 households – representing about 35% of the total households. Based on this percentage, it appears that there are still a significant number of households in financial need within Conway. Furthermore, of the 1,248 households earning below $25,000, approximately 35% were headed by individuals who are 65 years or older.



As indicated in Table 3-8, although Carroll County currently has a slightly higher percentage of households in the upper-income levels ($75,000 or more), both the County and Conway have a similar distribution of households across all other income levels. Additionally, between 1990 and 2001, the growth of upper-income households in Conway increased by 161% - a pace which is comparable but slightly less than the 163% growth experienced in the County.

Table 3-8. Distribution of Households by Income 1990-2001

Town of Conway

	1990		2001		# Change	% Change
	Households	% of Total	Households	% of Total	1990-2001	1990-2001
Under $10,000	445	13.5%	290	8.0%	-155	-34.8%
$10,000 to $24,999	1,100	33.3%	958	26.5%	-142	-12.9%
$25,000 to $49,999	1,173	35.5%	1,205	33.4%	32	2.7%
$50,000 to $74,999	408	12.3%	688	19.1%	280	68.6%
$75,000 to $99,999	90	2.7%	284	7.9%	194	215.6%
$100,000 and Over	90	2.7%	185	5.1%	95	105.6%
Total	3,306	100.0%	3,610	100.0%	304	9.2%

Carroll County

	1990		2001		# Change	% Change
	Households	% of Total	Households	% of Total	1990-2001	1990-2001
Under $10,000	1,704	12.0%	1,364	7.7%	-340	-20.0%
$10,000 to $24,999	4,486	31.5%	4,387	24.7%	-99	-2.2%
$25,000 to $49,999	5,197	36.5%	6,379	35.9%	1,182	22.7%

Seasonal Population Estimates

Located in the heart of the White Mountains region, Conway is one of the most desirable and traveled tourist destinations in the state. As such, the area is subject to a significant influx of visitors attracted by a variety of outdoor activities, tourist attractions and

$50,000 to $74,999	1,938	13.6%	3,204	18.0%	1,266	65.3%
$75,000 to $99,999	531	3.7%	1,381	7.8%	850	160.1%
$100,000 and Over	397	2.8%	1,058	6.0%	661	166.5%
Total	14,253	100.0%	17,773	100.0%	3,520	24.7%

Source: Claritas, Inc. and RKG Associates, Inc.

shopping opportunities. Some of these visitors reside in seasonal housing units located in Conway, while other tourists seek accommodations in a wide range of motels and similar lodging facilities in the Mount Washington Valley region. Whatever type of temporary lodging used by visitors and tourists, the Town of Conway must provide municipal facilities and services (e.g. sewer, water, roadways, police, fire, etc.) for a population greater than just the number of permanent residents identified by the U.S. Census. Although many of these visitors may only be staying in Conway for a short period of time, most municipal facilities have to be constructed and maintained on a year-round basis.

Since the use of seasonal dwelling units occurs in somewhat unpredictable patterns, it is difficult to estimate, with any certainty, the number of people that should be added to Conway's year-round population as a result of the occupancy of these types of units. However, the Institute for New Hampshire Studies' latest estimates indicate that the average travel party size visiting the state was 2.7 persons (Spring 2000). Therefore, based on a conservative estimate of three persons per seasonal unit suggests that if all of Conway's seasonal units (estimated at 1,797 dwelling units) were occupied simultaneously, the town's population would increase by approximately 5,400 people.

In addition to seasonal housing units, many tourists stay in rooms at local resorts, motels, hotels and bed and breakfast establishments. According to the Mount Washington Valley Chamber of Commerce and Visitor's Bureau, the entire Mount Washington region contains approximately 7,000 beds within lodging facilities. Conservatively assuming that each lodging room contains two beds, this translates into approximately 3,500 rooms within the region. This value is in-line with the 1991 estimate of 2,800 rooms identified in a study prepared by RKG Associates, Inc. in the same year for the New Hampshire Department of Transportation[2]. Under the conservative assumptions that half of the lodging rooms in the Mount Washington Valley are in Conway (3,500 rooms total) and each room contains the average travel party of three persons, it is estimated that Conway's population could increase an additional 10,500 individuals during a peak travel period with full room occupancy. Therefore, factoring in the 5,400 occupants of seasonal dwelling units added to the 10,500 individuals staying in lodging facilities, it is estimated that Conway's population could conceivably increase to 24,500 during peak tourism periods. This represents an increase of about 185% over the residential population of Conway identified by the U.S. Census Bureau for the year 2000.

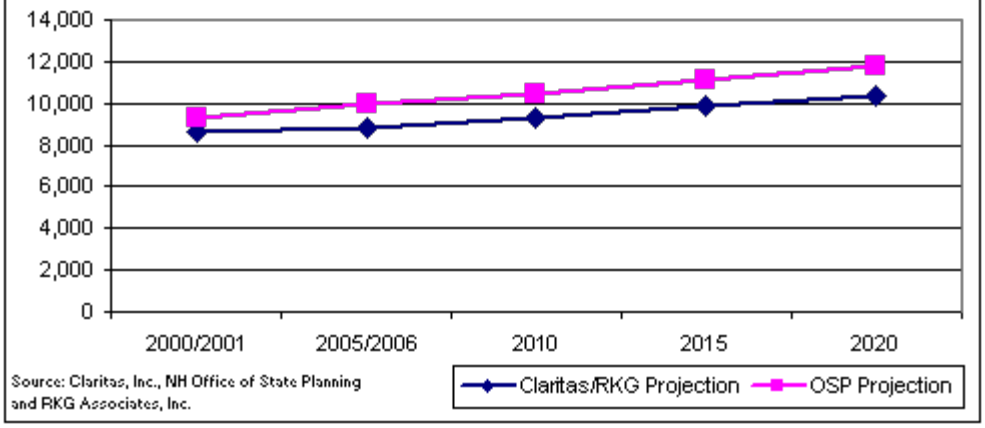
7. Population Projections

The potential long-term growth of a town such as Conway is dependant on many external regional, statewide and national factors such as economic conditions, real estate values and cycles, infrastructure capacity, the availability of land, etc. Basic population projection models typically do not consider these external regional, statewide and national forces and are therefore less accurate since they rely exclusively on historical population growth rates. The population projections presented within this section are a combination of estimates from the New Hampshire Office of State Planning and Claritas, Inc. However, since Claritas' population projections only extend five years to 2006, the consultant used Conway's historical growth rate between 1980 and 2001 (approximately 1% per year) and applied the growth rate to Claritas' 2006 population estimate over the next fourteen years (to 2020) to generate a long-range forecast. Neither population projection considers external factors and therefore should be interpreted as population "guideposts". Since build-out (land scarcity and increasing prices) and infrastructure capacity issues could limit growth rates in southern New Hampshire over the next twenty years, combined with the attraction of the quality of life within the Lakes Region and Carroll County, population growth in Conway could exceed current

and/or historic projection models.

As shown in Figure 3-3, based on recent population estimates and a historic population growth rate of approximately 1% annually, it is estimated that Conway's population would be approximately 10,400 by 2020 – increasing by approximately 1,800 residents (21%). For comparative purposes, population projections prepared by the New Hampshire Office of State Planning (NHOSP) estimates that Conway's total population will increase to approximately 12,000 by 2020 – representing a growth rate of 28%. It should be noted that the NHOSP projection was generated in 1997 using pre-Census baseline (2000) population estimates, which were slightly higher than the Claritas baseline (2001) estimate. Furthermore, the NHOSP projection is based on Conway's share of Carroll County's growth (capture rate) over the past thirty years. The methodology used by NHOSP has produced annual population growth rates in Conway that are one-half to one-third of a percentage point higher than the projection prepared for this master plan.

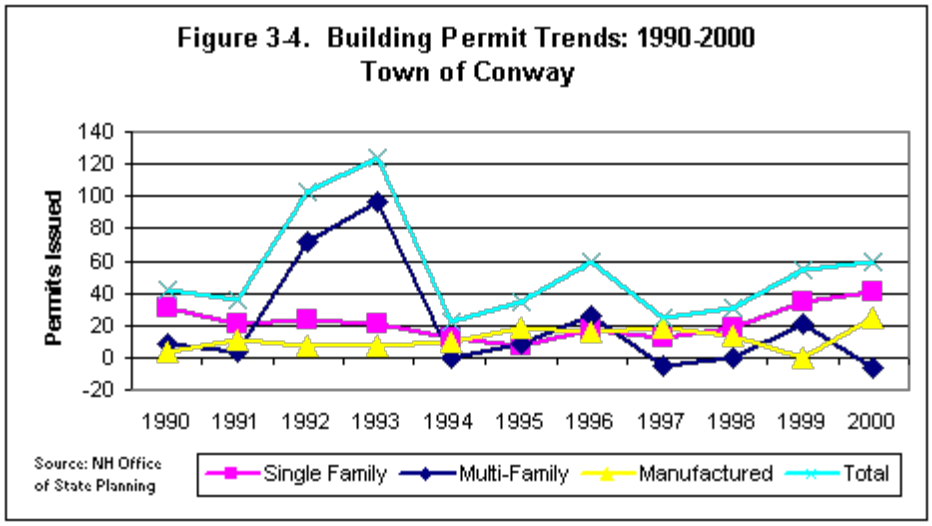
Figure 3-3. Population Projections: 2000/2001-2020
Town of Conway



8. Housing Supply and Construction Trends

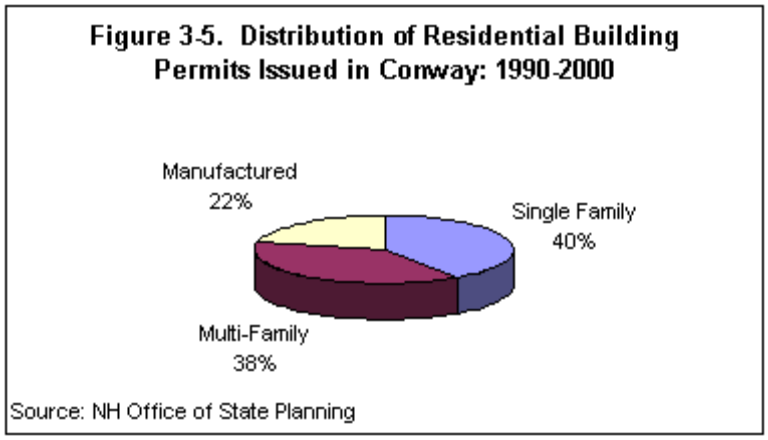
Compared to other towns within Carroll County, Conway's housing supply has undergone considerable expansion over the past ten years. According to the U.S. Census, Conway had 5,927 housing units in 2000, which represents an increase of 428 units (7.8%) since 1990. Interestingly, the increase in housing units (7.8%) is 4.5% less than the household growth rate for the town between 1990 and 2000. This increased growth of households, as compared to housing units throughout the 1990s indicates that Conway's housing supply has not kept up with changes in demand.

According to the NHOSP, between 1990 and 2000, 592 residential building permits were issued for new dwelling units in Conway. As shown in Figure 3-4, the total number of permits issued appears to spike heavily in 1992/1993 which is due to the issuance of a proportionately large number of multi-family permits. Excluding the 1992/1993 surge in multi-family building permits, the number of permits issued has remained relatively constant within a range of between 30 and 60 permits annually throughout the 1990s.



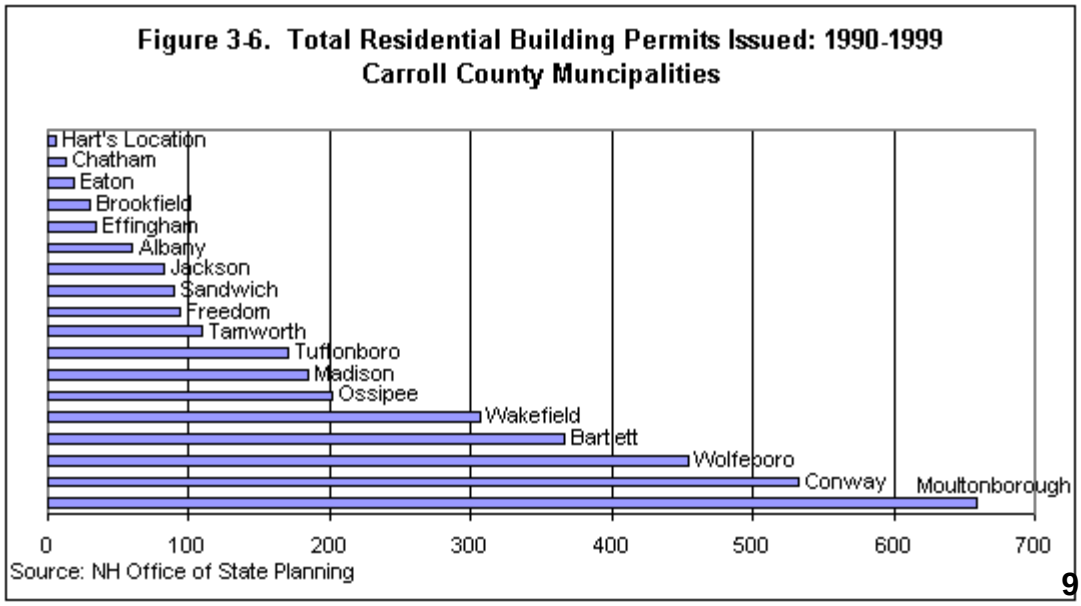
The spike in the issuance of multi-family building permits in 1992/1993 is attributed to the development of the Northbrook Condominiums on Ledgewood Drive in North Conway. This development consisted of eight separate buildings with a total of twelve units in each building. Notwithstanding the Northbrook development, this decline in construction activity in Conway during the early 1990s and the resurgence of construction in the late 1990s is indicative of the economic downturns and expansions experienced throughout New Hampshire during those time periods.

In terms of the distribution of the total number of building permits issued throughout the 1990s, the proportion of single family and multi-family permits issued were about the same, at approximately 40% each (Figure 3-5). Interestingly, between 1990 and 2000, the number of manufactured home permits issued increased on an annual basis. This increase in the number of manufactured homes may be an indication that homebuyers are turning toward this type of lower cost housing option as a reaction to steadily increasing prices within the region's housing market. More details concerning the regional real estate market are provided in a subsequent section of this chapter.



From a regional perspective, Conway issued the second largest number of residential building permits for new construction over the last decade when compared to other communities in Carroll County. As shown in Figure 3-6, Conway was second only to Moultonborough in terms of the total number of building permits issued between 1990 and 1999. Although population growth has been most precipitous in towns in the southern portion of Carroll County, there does not appear to be the same linkage or correlation for residential construction activity. For example, the southern towns of Moultonborough and Wakefield experienced significant percentage gains in population throughout the 1990s (52% and 39% respectively), and also experienced considerable residential construction activity over the same time period (17% and 10% growth in the number of permits issued respectively). However, there are examples of more northerly communities,

such as Conway and Bartlett, which experienced significant residential construction (10% and 11% growth in the number of building permits issued) with only modest population increases (8% and 18% respectively) over the same time period. Furthermore the Town of Effingham, which experienced the largest percentage population increase of any town in Carroll County, issued only 34 residential building permits (the fifth lowest total of any town in the County).



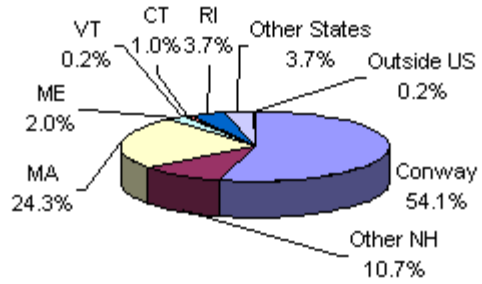
9. Seasonal Housing

In addition to housing units that are occupied on a year round basis, Conway, as a tourist and vacation destination, has a significant portion of its housing supply that is only used on a seasonal basis. Typically seasonal housing units are primarily used during the peak tourist periods, which in many communities is summer. However, due to Conway's niche as both a summer outdoor recreation and shopping area and winter ski destination, many seasonal housing units in the town (comprised of both condominium and non-condominium dwelling units) are used at different time periods throughout the year.

According to the 2000 Census, Conway had 5,927 housing units of which 1,797 are designated as seasonal units – representing approximately 30% of the total housing stock. Based on Census data, Conway, between 1990 and 2000, experienced a reduction of 400 dwelling units classified as seasonal. This represents a 9% decline in seasonal dwelling units as a share of the total housing stock. The drop in the number of seasonal housing units could be attributed to the conversion of some of these dwellings to year-round units. However, the drop in the number of seasonal units may also be attributed to a change in the Census Bureau's definition of a seasonal unit.

In addition to the information on seasonal housing units provided by the Census, Conway's property assessment database was used to identify, in general terms, an estimate of seasonal housing units. It must be noted that this type of analysis provides only a "broad-brush" indicator of seasonal housing as the database does not distinguish whether each respective unit is seasonal or year-round. The assumption was made that due to the attraction of Conway as a seasonal destination, that the majority of units owned by individuals who list a mailing address outside of Conway would be using the Conway property as a seasonal or secondary home. It was also assumed that a small portion of the units owned by individuals who live outside of Conway are rented to local residents. This type of analysis, however, does not indicate seasonal units within Conway that are owned by Conway residents. As indicated in Figure 3-7, 54% of the single family units, condominiums and mobile homes are owned by Conway residents. About 25% of these dwelling units are owned by people who list Massachusetts as their mailing address.

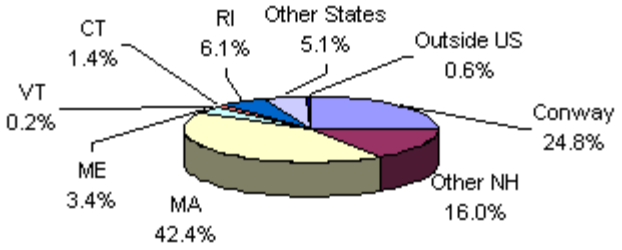
Figure 3-7. Origin of Homeowners: Town of Conway



*Note: Includes single family units, condominiums and mobile homes.
Source: Town of Conway assessment database.

Although Conway residents own the majority of the residential units analyzed in Figure 3-7, when the origin of ownership for condominium units is analyzed, individuals from outside of Conway own a majority of these units. As indicated in Figure 3-8, Conway residents own one quarter of the condominium units with 16% of the units owned by New Hampshire residents that list an address outside of Conway. It is interesting to note that over 40% of the condominium units are owned by individuals from Massachusetts - by far the largest origin of ownership for condominiums in Conway.

Figure 3-8. Origin of Condominium Owners: Town of Conway



Source: Town of Conway assessment database.

10. Age of Housing Stock and Geographic Distribution

The age of a community's housing stock can provide an indication about the condition, quality and safety of the housing units. Older units may have been constructed to standards, from the perspective of building codes and life safety requirements, that may not be as demanding especially in regard to multi-family units. As indicated in Table 3-9, approximately 75% of Conway's housing stock could be considered relatively new having been constructed over the past 40 years (since 1960). Approximately 8% of the housing stock was constructed between 1940 and 1960, with the remaining 18% being constructed before 1940. It should be noted that in order to determine the age of housing units within Conway's housing stock, the Assessor's database for the date of construction (year built) of all residential dwellings was tabulated. As such, reliable year built data was only available for a portion of Conway's housing stock namely single family homes, multi-family homes and condominium units. Year built data was not available for mobile homes (both in parks and on individual lots) and was therefore omitted from the analysis.

Table 3-9. Age of Housing Stock*
Town of Conway

Year Built	% of Total
Pre-1940	17.7%
1940-49	4.1%

1950-59	3.8%
1960-69	7.8%
1970-79	23.5%
1980-89	32.8%
1990-00	10.4%

*Note: For the purposes of this analysis, the housing stock includes only single family, multi-family and condominium units.
Source: Town of Conway Assessor's Database

As shown in Table 3-9, approximately one out of every three housing units in Conway was constructed during the 1980s – which coincides with the large influx of residents during the same time period.

Based on year built data obtained from the town's assessment records, the location of new home construction in Conway has been mapped (Map 3-1) which illustrates how residential development patterns have evolved over time. Between 1940 and 1969, most of the residential development occurred within a combination of small subdivisions (near Trout Pond for example) and numerous sporadic isolated lots – many of which are waterfront parcels on Conway Lake.

The residential development patterns during the 1970s shifted into larger subdivisions, primarily located off of secondary roads, including the areas near Woodland Grove, Thorn Street, Birch Hill, Echo Lake, and Old Mill Road.

The building boom of the 1980s brought about the continued development of existing subdivisions (Birch Hill and along the Saco River) as well as the development of smaller concentrated residential areas (near Pequawket Pond and Weston Way). Additionally, new residential growth, primarily single family homes on large lots, started to spread into the less developed areas of Conway.

Residential growth in the 1990s continued with the build-out of existing subdivisions (Birch Hill) as well as sporadic small subdivision developments (Cranmore Brook area). The most notable residential development pattern exhibited in the 1990s was the continued development of very large remote parcels outside of the traditional urban areas (southeastern part of Conway).

11. Housing Values, Market Trends and Rental Rates

An analysis of housing values and sales provides an indication of the strength of a community's housing market with regard to impacts on the property tax base, the growth in value over time, as well as how sales prices are trending. The supply and demand for housing also affects the affordability of housing within a community. In order to understand the housing market within Conway and the surrounding region, home sales data was analyzed. The three sources of data consulted for this analysis included residential sales provided by Conway's property assessment records, as well as regional and statewide sales data provided by the New Hampshire Housing Finance Authority and the New Hampshire Association of Realtors.

Table 3-10. Existing Home Sales: 1996-2000 White Mountain Regions*, North Country Region and New Hampshire

	White Mountain	North Country	New Hampshire

In terms of the regional housing market, according to the New Hampshire Association of Realtors, 769 homes were sold in the year 2000 within the White Mountain Region[3], which represents an increase of 74% (327 homes) since 1996. It should be noted

	Region	Region	
1996	442	291	13,812
1997	503	336	16,069
1998	686	678	19,887
1999	802	722	20,998
2000	769	750	20,348
# Change 96-00	327	459	6,536
% Change 96-00	74.0%	157.7%	47.3%

*Note: White Mountain Region consists of Albany, Bartlett, Chatham, Chocorua, Conway, Eaton, Effingham, Freedom, Hale's Location, Jackson, Madison, Ossipee and Tamworth.
Source: New Hampshire Association of Realtors

that this data includes the sales of both existing homes and newly constructed units. Comparatively, the White Mountains Region outperformed the state in terms of existing home sales growth by about 27%. However, it is interesting to note that the North Country Region[4] experienced homes sales growth that outperformed both the State (by 110%) and the White Mountains Region (by 84%). Table 3-10 presents a summary of home sales within the White Mountain and North Country Regions as well as the state of New Hampshire.

Map 3-1 Res. Dwellings by year built

As is the case with the growth in home sales, the median sale price of homes has also experienced significant change. Between 1996 and 2000, the median sale price for both new and existing homes in Carroll County increased from $90,000 to $109,900, representing an increase of $19,900 (22%). As illustrated in Figure 3-9, over the same time period the median sale price for homes in Coos County increased from $65,000 to $70,000, representing an increase of $5,000 (8%). The dramatic increase in home sales in the North Country Region/Coos County coupled with the relatively flat sale price growth suggests that this portion of the state is probably an affordable alternative to the White Mountains/Carroll County Region.

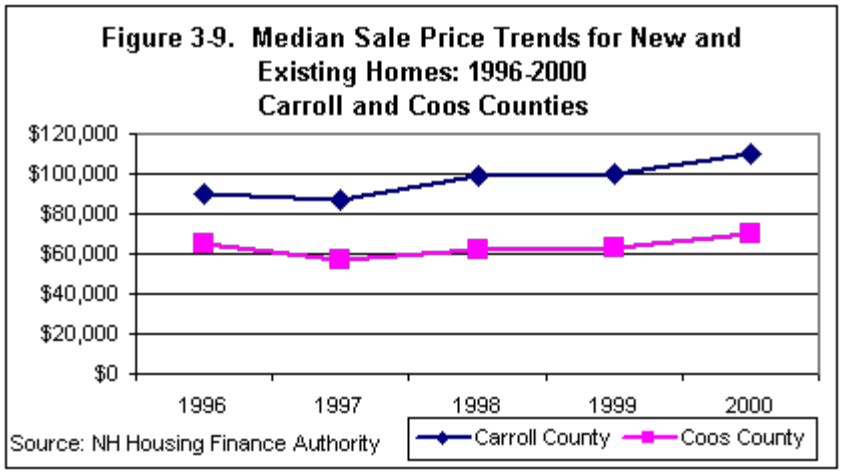


Table 3-11 presents a summary of residential sales in Conway between 1996 and 2000, as provided by the town's assessment records. These sales provide a reliable representation of Conway's current residential real estate market conditions since only arms-length transactions, (sales that do not include foreclosures, distress sales, sales between relatives or government agencies, etc.) were evaluated.

Table 3-11. Average Annual Sales Price* of Residential Housing Units: 1995-2000
Town of Conway

Unit Type	1995 # Sales	1995 Sale Price	1996 # Sales	1996 Sale Price	1997 # Sales	1997 Sale Price	1998 # Sales	1998 Sale Price	1999 # Sales	1999 Sale Price	2000 # Sales	2000 Sale Price	1995-2000 $ Change	1995-2000 % Change
Single Family	77	$80,529	67	$83,466	76	$87,608	86	$91,916	141	$97,740	136	$111,619	$31,091	38.6%
Multi-Family	N/A	N/A	N/A	N/A	4	$138,950	5	$123,940	11	$118,845	5	$96,483	N/A	N/A
Condominium	17	$82,371	32	$68,884	48	$75,360	60	$83,247	72	$79,824	79	$81,632	-$739	-0.9%
Mobile Home**	23	$23,941	20	$23,832	24	$23,721	27	$17,674	27	$20,785	29	$26,790	$2,848	11.9%
Total	117	$69,672	119	$69,031	152	$75,004	178	$78,632	251	$85,248	249	$92,201	$22,529	32.3%

*Note: Only includes arms-length transactions.
**Note: Includes mobile homes in parks and on owner occupied land
Source: Town of Conway Assessment Department.

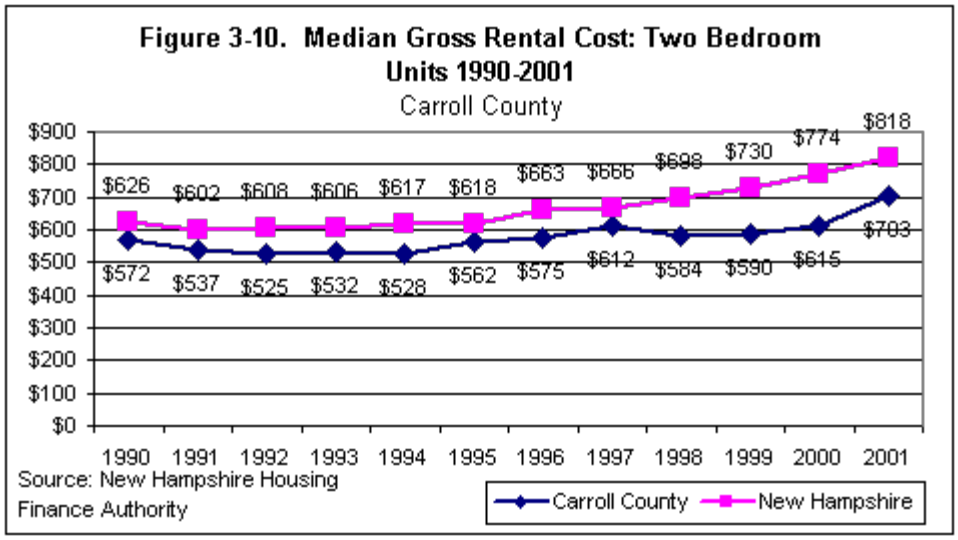
The data indicates that the residential real estate market in Conway has emulated the regional real estate market throughout the late 1990s, with strong growth in the number of units sold (of all types) as well as the average sales price. This strong growth is exhibited in the dramatic increase in the number of single family units sold, from 67 in 1996 to 136 in 2000, representing an increase of 103%. Although the total number of units sold declined slightly between 1999 and 2000, the overall demand for homes in Conway has pushed the average sales price for a single family home from $83,466 in 1996 to $111,619 in 2000, representing an increase of over $28,000 (34%) over this short timeframe.

Other types of residential dwelling units have experienced growth in both the number of units sold and the average selling price. For example, between 1996 and 2000, the number of condominiums sold has more than doubled from 32 to 79 units, with the average selling price increasing from $68,884 to $81,632 (19%). Mobile homes (also referred to as manufactured housing) appear to be the affordable housing option in Conway with the average selling price being less than $27,000[5] in 2000. This finding is substantiated by the steady annual increase in the number of manufactured home building permits issued by the town between 1990 and 2000.

Based on an analysis of the arms-length transactions of residentially zoned land in Conway between 1996 and 2000, indications are that the pace of land sales has been increasing. With the exception of 1997, the number of residential acres sold has increased annually with 27 acres sold in 1996 and 102 acres sold in 2000 – representing an increase of 75 acres (274%). An analysis of the weighted average sale price per acre indicates that during the sample period, residential land has been selling at between $3,600 and $16,400 per acre. Discussions with realtors in Conway revealed that prices for buildable lots vary throughout Conway based on location, view, topography, buildable area and infrastructure services available to the parcel. Due to the variety of site factors, prices normally range from $8,000 to $50,000 per acre.

In contrast to the for-sale housing market, readily available information relative to the rental market in Conway is practically non-existent. In order to effectively determine the strength of the residential rental market in Conway, a market study would need to be completed. However, rental market information is available at the regional level. The New Hampshire Housing Finance Authority (NHHFA) prepares an annual rental housing survey[6] which provides a snapshot of the residential rental market at the county and state level. The NHHFA 2001 survey for Carroll County, which was based on a small sample of developments, found that the monthly median gross rents for apartments were as follows: a one bedroom unit, $515; two bedrooms, $703; and, three bedrooms, $936. Between 1990 and 2001, the median gross rent for a two bedroom unit in Carroll County increased by $131 (23%). As indicated in Figure 3-10, median rental rates for two bedroom units in Carroll County have generally modeled the statewide trend line for median rent. However, median rental rates for two bedroom units in Carroll County are generally between 80% and 90%

of the statewide rental rate.



12. Affordable Housing

The issue of affordable housing within New Hampshire has become one of the more contentious problems facing the state and local communities. The booming economic growth experienced throughout the state during the late 1990s and into 2000, fostered employment growth that resulted in an influx of workers into New Hampshire to fill newly created positions. However, although the expansion of the state economy produced positive economic indicators (very low unemployment and increases in the gross state product), these benefits have also contributed to skyrocketing home sale prices and rental rates and plummeting vacancy rates.

In a recent report, entitled *Feeling the Pinch: Wages and Housing in New Hampshire*, completed by the New Hampshire Housing Forum, housing, economic and wage findings show how affordable housing across the state has reached crisis proportions. The findings include:

- New home costs have risen sharply during the late 1990s to a median sale price of $180,000 in 1999; while the median sale price of existing homes has risen to $120,000;
- Between 1995 and 2000, the rent for the average two bedroom apartment unit in New Hampshire increased 25% from $618 to $774, while wages have remained relatively stagnant;
- Increased population growth coupled with low multi-family housing production has pushed vacancy rates below 1% in most cities and towns and 1.6% statewide;
- Despite the economic expansion, only the top fifth of New Hampshire families gained in real income over the last decade;
- Although single family construction has recovered to pre-boom levels, new construction of multi-family units has not. Currently there is a cumulative shortfall of approximately 25,000 rental units throughout the state.

The lack of affordable housing throughout the state is only exacerbated by the decline in real income for most New Hampshire families. Between 1988 and 1998, the average real income (income dollar amounts adjusted to compensate for inflation) for the bottom four-fifths of New Hampshire families declined anywhere from 3.5% to 15%. Only the top fifth of New Hampshire families experienced growth in real income, increasing by about 9% over the last decade.

The findings of this report indicates that the lack of affordable housing are further compounded by the fact

that significant portions of New Hampshire's employment base are structured around low-wage service industry jobs. For example, 38% of the jobs in New Hampshire paid less than $10 an hour in 1997. Occupations within earning incomes at this level include child care workers, safety and security officials and social service workers. A way to define the affordability gap is to analyze what a family would need in order to afford housing in the state – commonly referred to as a "housing wage". Using a formula incorporating the statewide median gross rent level for a two bedroom apartment, the widely accepted 30% of gross income standard for housing costs and a typical working week, a family in New Hampshire needs a wage of at least $14.88 per hour in order to afford housing. In order to meet this wage level and provide basic shelter needs, many families must incorporate two wage earners which typically introduces the need for child care that then places additional strains on the family budget. The report continues to paint a bleak picture for access to affordable housing throughout the state by indicating that 45% of renters throughout the state (50% in Carroll County) cannot afford the fair market rent for a two bedroom dwelling unit.

Typically affordable housing issues affect larger urban areas such as the major cities across the country. However, the lack of affordable housing also impacts suburban and smaller communities as well. In a survey of least affordable housing released in January 2002 by the National Association of Homebuilders (NAHB), the Portsmouth-Rochester region ranked as the tenth least affordable community in the country. The other nine communities, such as large urban and suburban areas are all located in California. The list is compiled annually by the NAHB which compares family incomes and home prices for metropolitan areas around the country. The latest survey is based on third-quarter income and home price estimates for 2001.

As many households are priced out of the expensive home purchase market, many are turning to an increasingly popular and viable affordable housing alternative – manufactured housing. Manufactured housing includes both trailer-style mobile homes and prefabricated homes set on permanent foundations. A typical double-wide manufactured home in New Hampshire sold for approximately $60,000 in 1997. The attractiveness of this type of housing alternative has grown in popularity across the state increasing 11% to a total of 46,375 units in 1999 – representing 8% of the total housing units in New Hampshire[7].

In order to address the affordable housing crisis in New Hampshire, the New Hampshire Housing Forum report offers several recommendations or principles to guide decision makers in responding to the housing shortage issues. These principles include:

- *Face the Problem Squarely*: Due to the inevitability of population growth, communities opposing growth export housing problems to neighboring communities thus creating problems not only for their neighbors, but for the state as a whole;

- *Recognize that Low Wages are as Much a Part of the Problem as Low Housing Supply*: The wages of workers in the services sector have not kept pace with the cost of housing. Although solutions to the wage problem are not given, wages must be part of the overall discussion on affordable housing;

- *Take Advantage of Discounts*: The state should take advantage of all federal housing funds and appropriate matching state funds where applicable;

- *Discourage "No Vacancy" Community Land Use Planning*: Although zoning authority is delegated to local municipalities, the state should encourage mechanisms to ensure that local planning efforts do not limit the construction of housing in certain communities;

- *Reward Creativity*: The state should provide incentives such as tax credits, conservation grants and school aid, to communities who are actively engaged in dealing with the affordable housing problem.

13. Affordable Housing in Conway

As outlined in the previous section, the lack of affordable housing is a significant problem for New Hampshire. The U.S. Department of Housing and Urban Development provides definitions of area income levels that reflect a range between very low (50% of area median family income), low (80% of area median family income) and median income levels. For the purposes of this analysis, a moderate income level of 150% of the median family income level has been provided. Table 3-12 presents a comparison of income levels ranging from 50% to 150% of the median family income threshold for Carroll County housing market as of 2001. In addition to the income levels, the table also identifies the maximum housing costs for home ownership and renter households, based on 28% and 30%, respectively, of the total gross income. Typically, real estate and financial analysts consider that homeowners should allocate no more than 28% of their gross income and renters should allocate no more than 30% of their gross income for housing expenses.

Table 3-12. Estimated Maximum Housing Cost Based on Percentage of Median Family Household Income Levels Carroll County Housing Market

Owner Occupied Units

	Family Income	Max. Annual Housing Cost(1)
150% of Median	$61,950	$17,346
Median	$41,300	$11,564
80% of Median	$33,040	$9,251
50% of Median	$20,650	$5,782

Renter Occupied Units

	Family Income	Max. Monthly Rent(2)
150% of Median	$61,950	$1,549
Median	$41,300	$1,033
80% of Median	$33,040	$826
50% of Median	$20,650	$516

(1) Based on 28% of gross income
(2) Based on 30% of gross income
Source: U.S. Department of Housing and Urban Development and RKG Associates, Inc.

Table 3-13 presents two scenarios related to the annual housing costs required to purchase a average priced ($111,619) single family home in Conway in 2000. The first assumes a 10% downpayment and a 6.5% interest rate, and the second a slightly higher interest rate of 7.5% with a 5% downpayment. Under the first homeownership scenario, households within Carroll County that have incomes ranging from the median to the 150% of the median would be able to purchase the average priced home in Conway based on the sale prices of 2000. Households within the 80% and 50% income range would not be able to afford a median priced home in Conway. Under the second scenario, only households in the 150% range would be able to afford the average priced house in Conway. It is conceivable that households at the median income level could afford the cost, however they would be at the margin allocating 28.2% of their income toward shelter. Households within the 80% and 50% income range could not afford the average priced home in Conway based on 2000 sales values. Discussions with real estate professionals in Conway indicate that since 2000, the residential real estate market has become even “tighter” with almost no single family homes on the market listing for $100,000 or less. Units that are selling for under $100,000 are typically very small, in poor condition or are manufactured housing.

Table 3-13. Estimated Annual Housing Cost Required to Purchase the Median Priced Single Family House in Conway - 2000

	10% Down 6.5% Interest	5% Down 7.5% Interest
Average Sale Price (1)	$111,619	$111,619
Down Payment	$11,162	$5,581
Mortgage Amount	$100,457	$106,038
Annual Mortgage Amount	$7,620.00	$8,892
Real Estate Taxes (2)	$2,482	$2,482
Insurance (3)	$279	$279
Annual Housing Cost	$10,381	$11,653

(1) Based on arms-length sales in 2000, Conway Assessment Department.
(2) Based on 2000 tax rate of $22.24/$1,000
(3) Factored at $2.50/$1,000
Source: RKG Associates, Inc.

The conclusions derived from the above scenarios reinforces the findings outlined in the New Hampshire Housing Forum's affordable housing study in that many households are priced out of the current housing market. If interest rates were to reverse their current course and start to creep upward, affordability would decline further.

For the purpose of examining the affordability of rental units, the median rent rate for a two bedroom unit, based on rent information provided by the NHHFA (Figure 3-10) was used. The median rent for a two bedroom apartment unit in Carroll County in 2001 was $703 based on the NHHFA rent survey. As illustrated in Table 3-12, this rental rate for a two bedroom unit would be considered affordable for family households with incomes between 80% and 150% of the median income in Carroll County. However, those households at 50% of the median would not be able to afford the two bedroom unit in Carroll County without paying more than 30% of their gross income.

Table 3-14 provides a distribution of households in Conway based on their income range relative to the median family income in Carroll County for 2001. The data shows that housing affordability may be an issue for households at or below the median family household income level. Additionally, seniors may be most the affected as almost 70% of senior households have incomes below the County median income level.

Table 3-14. Household (HH) Income in Conway Based on Percentage of Carroll County Median Family Income - 2001

Income Range	Total HH	% of Total	# HH over 65	% of 65+ HH
Over 150% of Median	1,157	32.0%	136	18.2%
Median	681	18.9%	106	14.2%
50-80% of Median	524	14.5%	72	9.6%
0-50% of Median	1,248	34.6%	435	58.1%
Total	3,610	100.0%	749	100.0%

Source: Claritas, Inc. and RKG Associates, Inc.

In addition to the market-rate housing options outlined above, there are an estimated 142 assisted housing units in Conway as shown in Table 3-15. Since Conway has no dedicated housing authority to assist in the

production of affordable housing in the town, individuals interested in renting a subsidized apartment unit must either register with the NHHFA for a Section 8 voucher or register with one of the project-based United States Department of Agriculture (USDA) subsidized developments. The Section 8 program provides vouchers for low-income families and individuals which entitles the holder to pay 30% of their income towards shelter with the balance being subsidized through either the state or federal government. The USDA program is a project-based initiative whereby qualified applicants may apply 30% of their income towards rent within the respective development with the difference being made-up by the federal government.

Table 3-15. Assisted Housing Developments
Town of Conway

Property Name	Program	Number of Assisted Units		
		Elderly/Handi.	Family	Total
Sonata Housing	Sec. 8	8	0	8
Appletree Village	Sec. 8	22	0	22
Pondview	Sec. 8	12	0	12
Brookside	USDA	0	20	20
Millbrook	Sec. 8	0	24	24
Whitman Woods	Sec. 8	24	0	24
Pinewood	USDA	32	0	32
Total		98	44	142

Source: RKG Associates, Inc.

Of the 142 affordable units identified in Conway, only 44 (31%) are dedicated for families with the remainder designated for elderly and/or handicapped residents. According to interviews with property managers at each of the assisted housing developments in Conway, demand for rental-assisted units is very high with most developments being 95% to 100% occupied - generally considered to be fully occupied. Within the largest concentration of assisted housing developments in Conway located on Grove Street (Brookside, Millbrook, Whitman Woods and Pinewood), waiting lists for a rental assisted unit range from three months to three years depending on the respective development.

14. Implications for the Future

The population and housing trends discussed in this chapter have numerous implications with regard to how Conway will function as a community in the future. Conway's dramatic surge in population growth during the 1970s and 1980s and subsequent slowdown in growth during the 1990s, coupled with being a resort destination, has highlighted issues which are common with similar resort destination communities. These issues include the character of population growth, changing demographics of the community, the pressure placed on municipal infrastructure and services to handle the influx of seasonal residents, and the lack of affordable housing.

Although population growth has influenced the type of development that has historically occurred in Conway, the nature of the population growth in the future will probably have more of an influence on the character of Conway. For example, Conway's population growth has changed from one based primarily on natural increase to one that is based more on in-migration. This type of trend, if it continues, has already affected and will no doubt continue to alter land use patterns and future development initiatives wihtin the town.

A significant element of the changing nature of Conway's population growth are changes in the demographic characteristics of the town's population such as the shifts in age groups, decreasing household size, the reductions in the number of young singles and families, and the growing number of near seniors and seniors. Accommodating the various needs of these different groups will likely require a broadening and/or

shifting in municipal services and infrastructure, as well as an evaluation of land use regulations and policies in order to ensure that these changes are addressed in future development efforts.

Conway's position as a regional hub, as well as a tourist destination, is an economic benefit in that tourism provides considerable economic support to the community. However, the downside to being one of the foremost shopping and outdoor recreation destinations in northern New England is having to provide infrastructure and services for a population base that swells to approximately three times the resident population during peak tourist periods. In order to maintain a balanced context sensitive approach to development, future land use regulations, design guidelines and policies will have to consider town-wide environmental, social, fiscal and economic impacts in evaluating land use development proposals. This type of approach has been incorporated in other resort destinations to mitigate the double-edged sword associated with a tourism-based economy.

Finally, with the steadily increasing demand for housing caused by the popularity of Conway, coupled with a lack of housing units within lower price ranges, the town will have to consider changes in local policies in order to encourage the future development of affordable housing alternatives for residents. Failure to adopt measures that encourage the development of affordable housing could constrict the availability of labor that might in turn negatively impact local economic activities.

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[1] A 2001 median family income estimate of $49,900 (for non-metropolitan areas within New Hampshire) was provided by the U.S. Department of Housing and Urban Development.

[2] *New Hampshire Department of Transportation Conway Project: Technical Memorandum Number 2 – Socio-Economics and Land Use*. RKG Associates, Inc., June, 1991.

[3] The White Mountains Region consists of the Towns of Albany, Bartlett, Chatham, Chocorua, Conway, Eaton, Effingham, Freedom, Hale's Location, Jackson, Madison, Ossipee and Tamworth.

[4] The North Country Region consists of the Towns of Academy Grant, Atkinson, Bath, Bean's Grant, Bean's Purchase, Benton, Berlin, Bethlehem, Burbanks, Cambridge, Chandler's Purchase, Clarksville, Colebrook, Columbia, Crawford's Purchase, Cutt's Grant, Dalton, Dix's Grant, Dixville, Drummer, Easton, Errol, Erving's Location, Franconia, Gilmanton, Gorham, Green's Grant, Hadley's Purchase, Haverhill, Jefferson, Kilkenny, Lancaster, Landaff, Lisbon, Littleton, Lyman, Martin's Location, Meserve's Purchase, Milan, Millsfield, Monroe, Northumberland, Ordell, Pinkham's Grant, Pittsburg, Randolph, Sargent's Purchase, Shelburne, Stewartstown, Strafford, Success, Sugar Hill, Thompson, Wentworth, Whitefield, Woodsville.

[5] Includes mobile homes in parks and on owner occupied land.

[6] *2001 Rental Cost Survey* is available through the New Hampshire Housing Finance Authority.

[7] According to estimates prepared by the New Hampshire Office of State Planning.

CHAPTER 4
ECONOMIC CONDITIONS

1. Introduction

Economic growth in a community typically occurs as a result of external forces, such as expansion of the regional, state or national economy, that are usually beyond the control of the community. By contrast, economic development (the creation of new jobs, the attraction of private investment and the expansion of existing businesses) is something that a community can directly influence. In order to encourage and direct economic development, community officials and residents must have a clear understanding of state, regional and local economic trends and conditions.

The first part of this chapter focuses on historical employment and business trends during the 1990s in Conway and compares them to both Carroll County and New Hampshire. The next section provides an analysis of employment and business patterns within Conway. In addition to providing information on trends and changes in total employment and business establishments, within major industrial sectors, a summary of Conway's commercial and industrial land uses and commuting patterns (employment) is presented.

In order to obtain data and information for this chapter, three principle methods were used. The first consisted of labor and employment data provided by the New Hampshire Department of Employment Security and the U.S. Census. The second involved an analysis of property assessment records provided by the Town of Conway. The municipal assessment records were used to generate a summary of commercial and industrial land and buildings throughout the town. The third involved the use of existing literature that provided insights into the economy of the state, as well as the Mount Washington Valley.

2. Summary of Findings and Conclusions

The following points summarize key economic findings and conclusions identified within this chapter. Additionally, various implications associated with Conway's economic trends are briefly discussed.

In terms of the state and regional economy, New Hampshire and the Mount Washington Valley/Carroll County region have experienced strong economic activity throughout the 1990s, with most of the economic growth occurring during the later half of the decade. Indicators of economy change include:

- According to the U.S. Department of Commerce, between 1990 and 2000, the United States' Gross Domestic Product increased by 41.7%. The New Hampshire economy outperformed both the New England and United States' economy with an increase in Gross State Product of over 70% during the same time period.

- A recent report prepared for the Mount Washington Valley Chamber of Commerce indicated that the Mount Washington Valley/Carroll County region has the highest percentage of entrepreneurs (and

fastest growing) of any county in New Hampshire.

- Between 1991 and 2000, eight out of every ten employment positions created throughout New Hampshire were either service or trade related.

As the state and regional economy has experienced solid growth throughout the 1990s, so to has the local economy in Conway. As a tourist and retail destination, Conway's employment and business establishment base is concentrated within the service and trade sectors. Other economic findings include:

- Between 1990 and 2000, Conway's unemployment rate has declined by 3.6% - a decline that outperformed both the state (2.9%) and the county (2.2%) over the same time period.

- Total employment in Conway has increased from 4,421 jobs in 1990 to 5,072 jobs in 2000, representing an increase of over 650 jobs (15%).

- Collectively, about 92% of the jobs in Conway are either services or trade related – approximately 13% more than the county average and 28% higher than the state average.

- Between 1991 and 2000, Conway experienced business establishment growth in all industrial sectors.

- With the exception of the Conway School District all of Conway's largest employers are within the service or trade sectors.

- Approximately half of Conway's jobs in 1990 were filled by workers who commute in from outlying communities. Although the majority of the workers commuting to work in Conway live within Carroll County, about 35% of the workforce commutes in from outside of the region, with most coming from Fryeburg, Brownfield and other Maine communities.

Based on the economic findings and conclusions presented throughout this chapter, implications about how Conway may change in the future include:

- The growth and reliance of Conway's economy on the service and trade sector creates a situation where it may be beneficial for the town to investigate economic development incentives which encourage business diversification of the local employment and business establishment base. Without economic diversification across a range of sectors, the town may be susceptible to larger than average job losses and business closings during economic downturns.

3. Key Employment and Business Trends

Throughout the mid to late 1990s, New Hampshire has experienced unprecedented economic growth which has been evident across a wide range of economic indices including employment, per capita income, population and unemployment. New Hampshire has benefited from a diversified business establishment base that outperformed both the New England region and the country across many major economic indicators. For example, growth in gross state or domestic product is widely considered to be one of the leading benchmarks in which to evaluate an economy. According to the U.S. Department of Commerce, between 1990 and 2000 New Hampshire's gross state product increased by almost 71%. New Hampshire's growth in gross state product outperformed both New England and the nation by over 30% and 29% respectively over the same time period.

Most of New Hampshire's economic activity is focused within the southern portions of the state which is

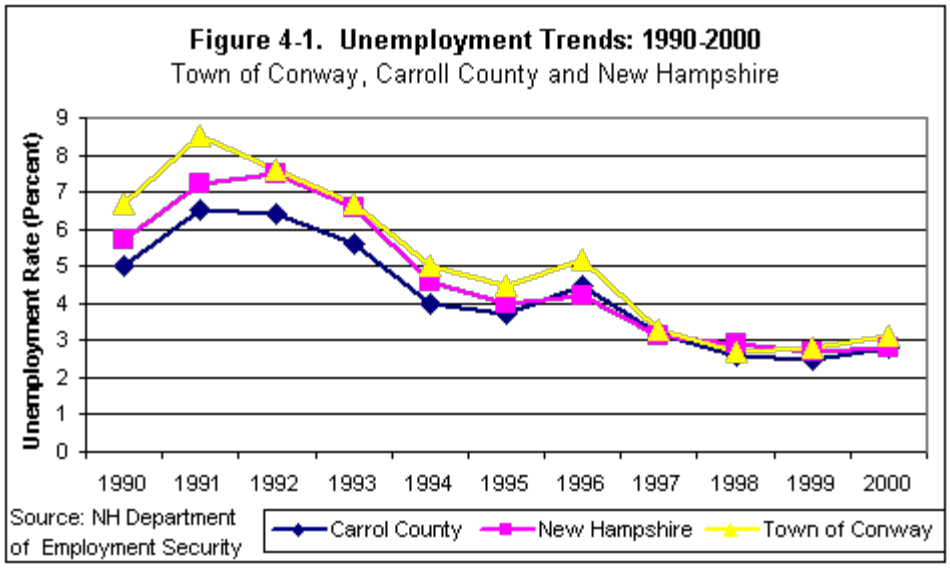
primarily the result of the close proximity of this portion of the state to the large metropolitan market of the greater Boston region. However, the state's more northerly regions, including the Mount Washington Valley for example, have contributed to the state's vibrant economy. According to a recently released report by the Mount Washington Valley Chamber of Commerce entitled *A View of the Mt. Washington Valley's Regional Contribution to the Growing New Hampshire Economy*[1], the region makes an important economic contribution to the state. These economic contributions include:

- More net in-migration from other states and regions than any other county except Rockingham and Merrimack;
- The highest percentage of entrepreneurs (and growing faster) of any county in New Hampshire;
- Employment and business establishment growth above the New Hampshire average;
- Educational test scores and college enrollment rates that are higher than all but two counties; and
- A private sector employment and establishment base that results in the creation or support of another 16,690 full and part-time jobs outside the region and $489 million in labor income in other areas of New Hampshire.

As any local economy is dependent upon the greater regional, state and, to a certain degree, the national economy, the following section examines unemployment, employment and business establishment trends relative to the state and Carroll County throughout the 1990s. That being said, it is intended that framing the Conway economy within the context of the regional and state economy would be most beneficial for comparative purposes.

A. Unemployment Trends

As New Hampshire moved from the economic recession of the early 1990s and into a strong period of economic expansion throughout the later part of the decade, the state's unemployment rate declined rapidly. Since 1993, New Hampshire's unemployment rate has dropped by 3.8 percentage points from 5.5% to its current (2000) average of 2.8%. The state outperformed the nation in declining unemployment by 2.9 percentage points with the 2000 national unemployment rate at 4%. In terms of local unemployment trends, as of 2000, Conway had an unemployment rate of 3.1% which is slightly higher than the rates for both Carroll County (2.8%) and the state (2.8%). As presented in Figure 4-1, throughout the 1990s Conway's unemployment rate modeled the same declining trend as both Carroll County and the state. Between 1990 and 2000, Conway experienced unemployment rates which are on average between one half and one full percentage point higher than both the state and the county. However, between 1990 and 2000, Conway's unemployment rate has declined by 3.6% - a decline that outperformed both the state (2.9%) and the county (2.2%) over the same time period.

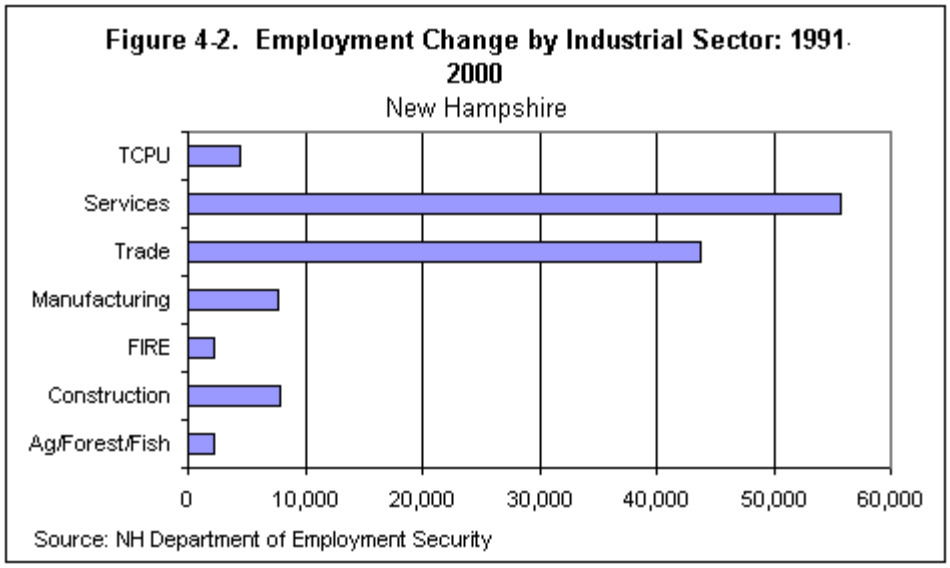


B. Regional Changes in Employment and Business Patterns

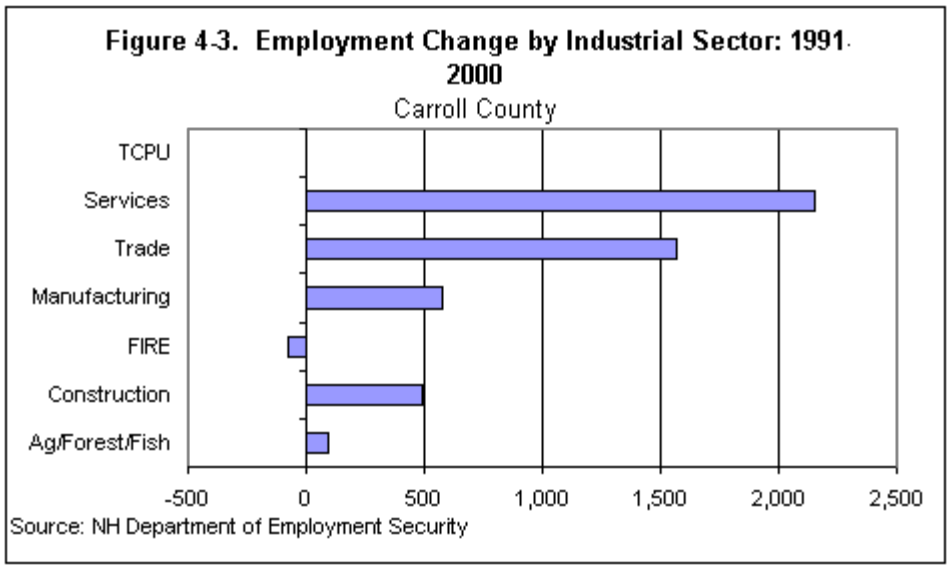
As indicated by data provided by New Hampshire's Department of Employment Security, between 1990 and 2000, total employment in New Hampshire increased from 592,000 to 666,000 jobs – representing an increase of approximately 74,000 jobs (12.5%). On a countywide basis, Carroll County's 2000 employment base of 21,276 jobs represents an increase of approximately 2,700 jobs (14.5%) since 1990. Approximately 3% of New Hampshire's employment base is located in Carroll County.

As job growth in New Hampshire experienced significant gains throughout the 1990s, so to did the number of business establishments. The number of new businesses in New Hampshire increased by more than 9,600 from 1991 (30,353 businesses) to 2000 (40,005 businesses) – representing an increase of 32%. Carroll County experienced solid business establishment growth over the same time period increasing from approximately 1,332 businesses to 1,678 representing an increase of 356 businesses (27%). At approximately 1,700 businesses, Carroll County contains about 4% of the statewide business establishment base.

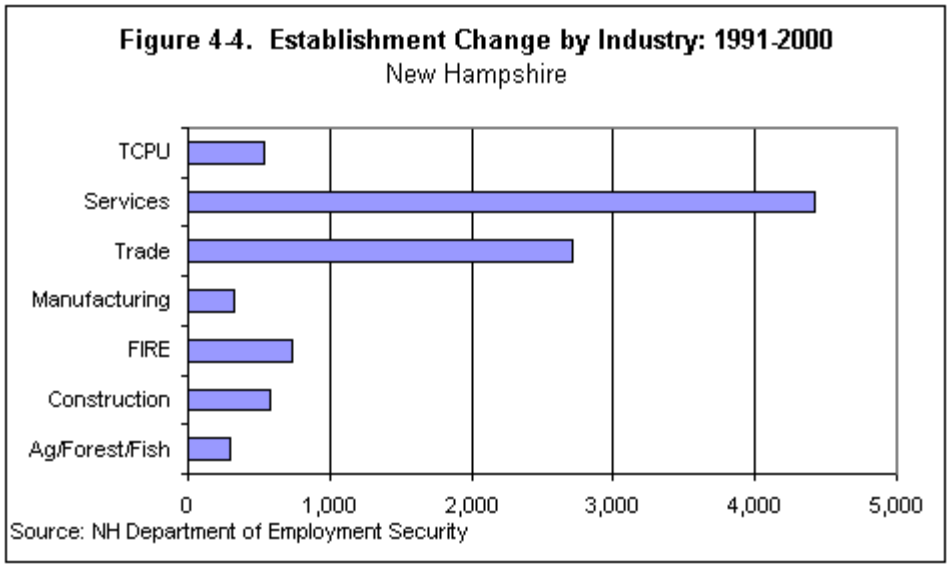
Although examining total job and establishment growth provides a good indication for economic direction, an analysis of the types of jobs and establishments created provides a clearer economic picture. Similar to many states, most of New Hampshire's jobs are concentrated within the trade and services sectors. As of 2000, approximately 64% of New Hampshire's jobs were either service or trade related – representing an increase of 5% since 1991. As indicated in Figure 4-2, between 1991 and 2000, approximately 100,000 trade and service jobs were created in New Hampshire representing 80% of the total employment positions created. Employment growth was also strong within the construction (7,800 jobs) and manufacturing (7,700) sectors over the same time period.



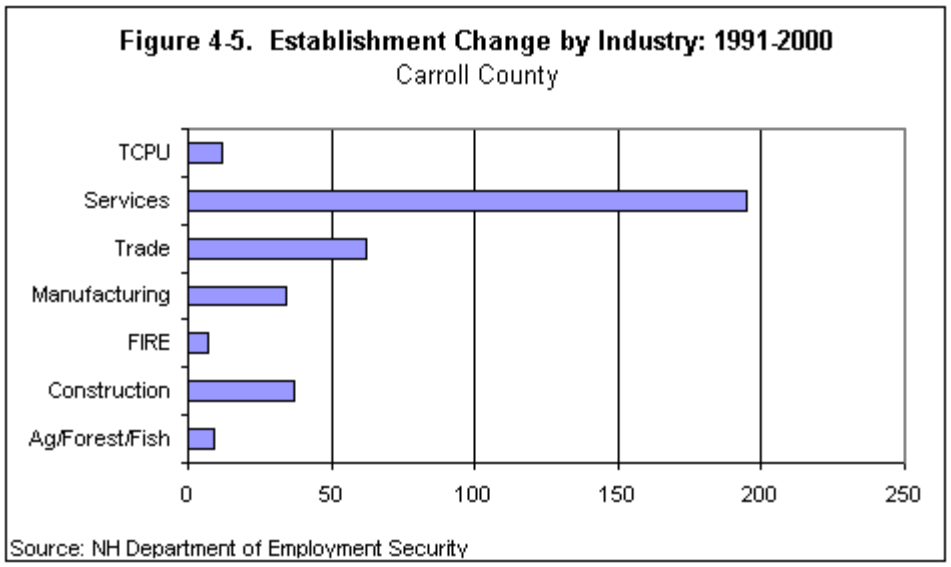
Similar to the growth within the service and trade sectors throughout the state, between 1991 and 2000, 77% of the jobs created in Carroll County fell within these industrial sectors. Significant employment gains were also experienced within the manufacturing (574 jobs) and the construction (494 jobs) sectors. While most sectors experienced job growth, employment within the transportation, communications and public utilities (TCPU) sector remained flat while the number of financial, insurance and real estate (FIRE) jobs decreased by 77. Interestingly, almost 80% of Carroll County's employment base is within the service and trade sectors – 16% more than the statewide average. The large percentage of jobs within the service and trade sectors is likely attributed to Carroll County being a primary destination for tourists. Figure 4-3 shows employment growth in Carroll County by industrial sector between 1991 and 2000.



A change in the number of new businesses in New Hampshire primarily reflects growth in statewide employment (see Figure 4-4). Similar to statewide employment growth, three of every four businesses that were created between 1991 and 2000 were service or trade establishments. In terms of business distribution, currently 70% of business establishments statewide are service or trade related – representing an increase of 1% since 1991. Besides the growth in service and trade establishments, New Hampshire's FIRE and construction sectors also experienced significant growth increasing by 730 (33%) and 576 (18%) business establishments respectively over the same time period.

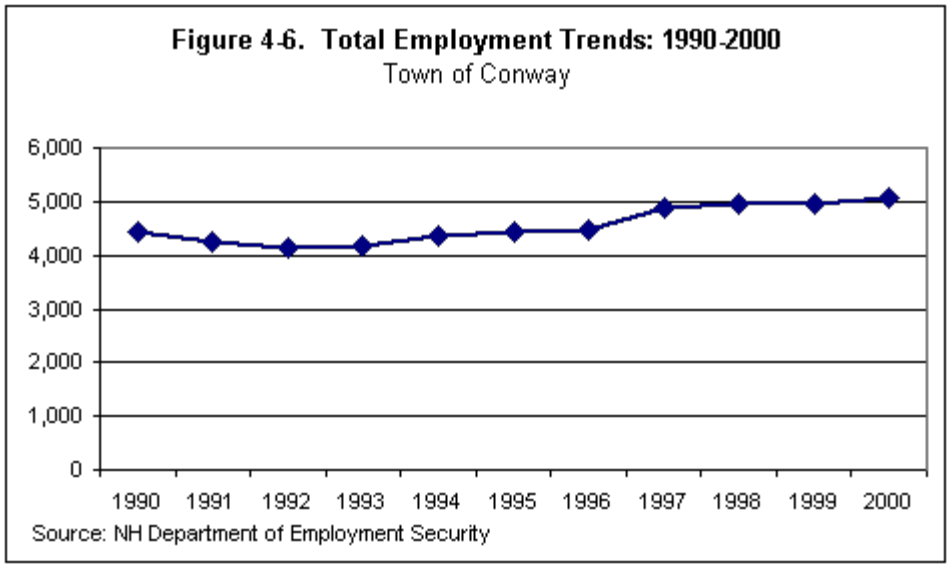


Of the 356 businesses created in Carroll County between 1991 and 2000, almost 55% (195) were service industry establishments. Other sectors that experienced significant growth include the trade (62 businesses or 12%), construction (37 businesses or 22%) and manufacturing (34 businesses or 53%) sectors. Interestingly, although employment within the TCPU sector was flat and the FIRE sector lost jobs between 1991 and 2000, the number of businesses within these two sectors increased by 12 and 7 establishments respectively. This finding would potentially indicate that both of these sectors are experiencing growth in very small or "start-up" businesses. Figure 4-5 presents the growth in businesses by industrial sector for Carroll County between 1991 and 2000.

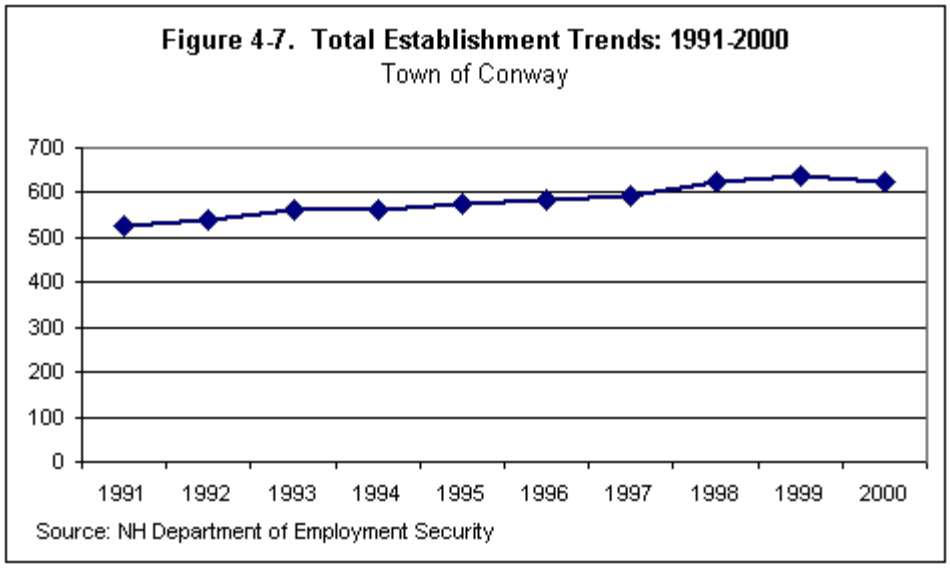


C. Changes in Employment and Business Establishments in Conway

As noted earlier, employment in Carroll County increased significantly during the 1990s. Conway has also benefited from these changes. Total employment in Conway has increased from 4,421 jobs in 1990 to 5,072 jobs in 2000, representing an increase of over 650 jobs (15%). As indicated in Figure 4-6, most of these employment gains occurred during the mid 1990s.

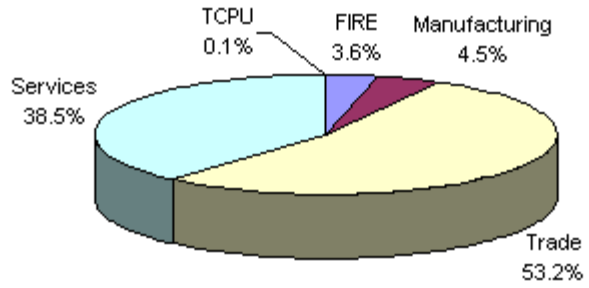


The growth in business establishments in Conway also reflected the significant business growth found throughout Carroll County. The total number of establishments in Conway increased from 493 in 1991 to 602 in 2000, representing an increase of 22% or 4% below the county establishment growth rate. As noted in Figure 4-7, most of the growth in business establishments came with the upsurge in economic growth during the late 1990s. Furthermore, as the national and statewide economy started to show signs of contraction in 2000, the number of businesses in Conway declined by twelve establishments during that year – the first period of negative establishment growth between 1991 and 2000.



As illustrated in Figure 4-8, over half of the jobs in Conway are within the trade sector, with almost 40% of the remainder being within the services sector. Collectively, about 92% of the jobs (over 6,200 jobs)[2] in Conway are either service or trade related – approximately 13% more than the county average and 28% more than the state average. The manufacturing and FIRE sectors comprise a small portion of Conway's employment base with 309 (4.5%) and 247 (3.6%) jobs respectively.

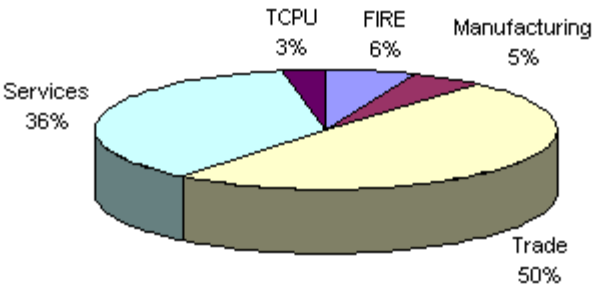
Figure 4-8. Distribution of Private Employment: 2000
Town of Conway



Source: NH Department of Employment Security

Compared to the distribution of employment in Conway, the types of businesses located in Conway are slightly more diverse. As indicated in Figure 4-9, trade (296) and service (219) businesses account for nearly 86% of the town's establishment base, followed by FIRE (39 or 4% of the total) and manufacturing (30 or 5% of the total) establishments.

Figure 4-9. Distribution of Business Establishments: 2000
Town of Conway



Source: NH Department of Employment Security

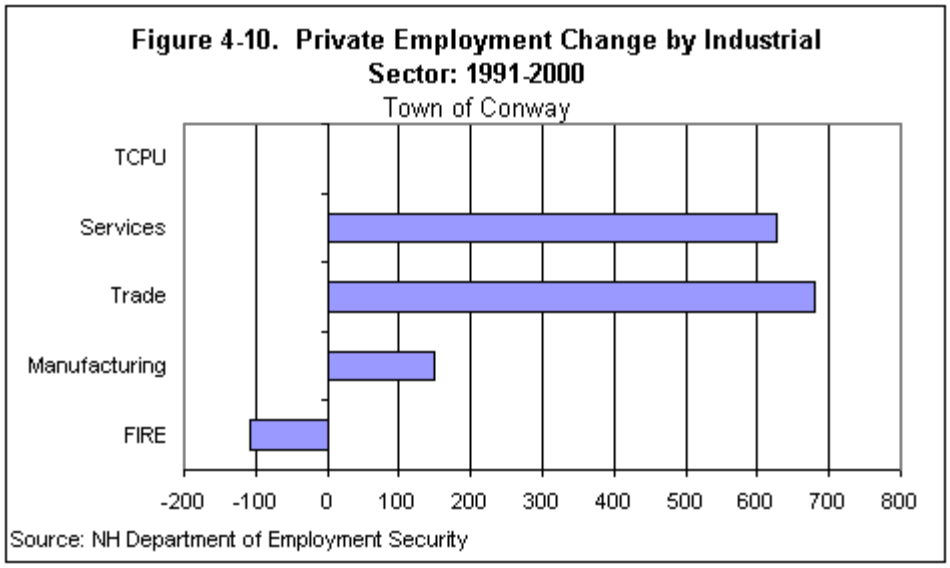
As illustrated in Table 4-1, it is not surprising that with over 80% of the town's establishment base is concentrated within the trade and service sector, and most of the largest employers are all within these sectors. The only exception to this finding is the inclusion of the Chuck Roast (clothing manufacturer) that is within the manufacturing sector.

Table 4-1. Largest Employers (2000/2002)
Town of Conway

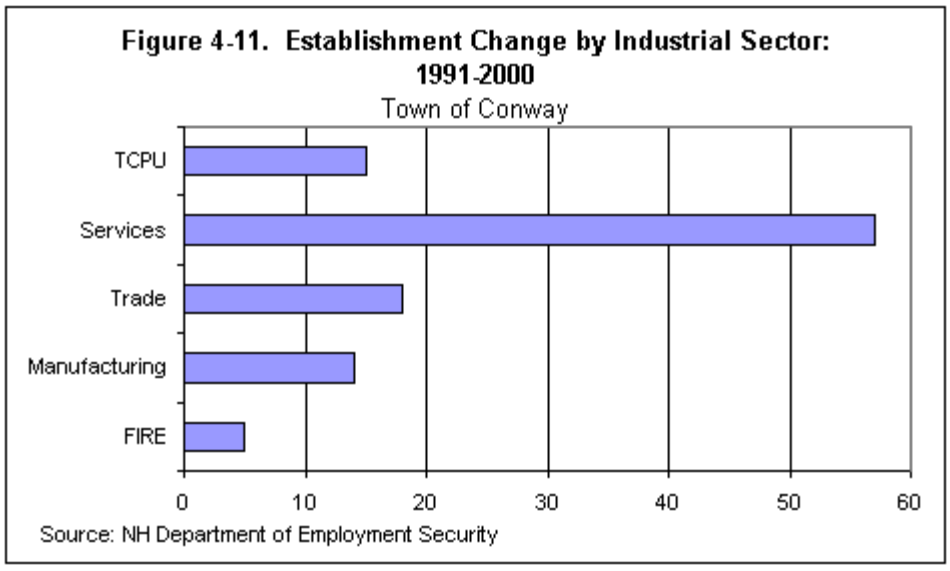
Employer Name	Product/Service	# Employees
Memorial Hospital	Healthcare	350
Conway School District	Education	274
Hannaford	Supermarket	175
Red Jacket Inn	Hotel	156
Wal-Mart	Retail	140-170
Sheraton/Four Seasons	Hotel	138
North Conway Grand Hotel	Hotel	80-100

Source: Mount Washington Valley Economic Council

An examination of changes in Conway's employment patterns between 1991 and 2000 indicates that employment in trade and services experienced the most gains with the addition of 680 (23%) and 628 (32%) jobs respectively. The only other industrial sector to add jobs was the manufacturing sector which added 149 jobs representing an increase of 93%. As shown in Figure 4-10, Conway emulated the employment pattern exhibited by the county by losing FIRE jobs and zero TCPU job growth.



A slightly different pattern was exhibited in the number of new businesses created, as all sectors experienced positive business growth between 1991 and 2000. Specifically, services and trade led in business growth with 57 (35%) and 18 (7%) new establishments. TCPU and manufacturing businesses experienced strong growth with the addition of 15 and 14 new establishments over the same time period. Although TCPU exhibited strong establishment growth between 1991 and 2000, the lack of any TCPU job growth indicates that these new businesses are highly automated or small operations. Figure 4-11 indicates the growth in business establishments in Conway between 1991 and 2000.



D. Location, Acreage and Building Size in Conway

The town of Conway contains approximately 42,780 acres of land of which about 2,180 (5%) are used for commercial activities and 1,367 (3%) are used for industrial purposes. Combined, commercial and industrial land accounts for over 3,500 acres of land (8.3%) in Conway. Most of Conway's commercial and industrial areas are concentrated along major roadways. For example, commercial areas are primarily along Route 16 in Conway Village and North Conway and along Route 302 in Redstone. Industrial activity is concentrated in two areas – along East Conway Road and along Hobbs Street in Conway Village. All land uses in Conway are categorized by property use codes in Conway's Property Assessment database. For example, a selection of commercial and industrial uses include:

Commercial

- Hotels/Motels/Inns/Resorts
- Nursing Homes
- Commercial Hospitals
- Commercial Greenhouses
- Retail Stores
- Shopping Malls
- Restaurants/Drinking Establishments
- Auto Sales/Service/Supplies/Repair
- General Office Buildings
- Banks
- Daycare Facilities
- Fraternal Organizations
- Funeral Homes
- Theatres
- Bowling Lanes
- Storage Facilities
- Mixed Use (Primarily Commercial)

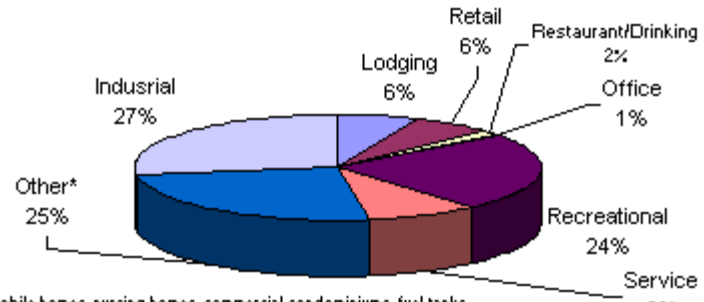
Industrial

- Manufacturing Building
- Warehouses
- Sand and Gravel Operations
- Electric Substations
- Gas Storage
- Telephone Exchange Stations
- Cable Television/Radio Transmitters

It is interesting to note the differences in the distribution of commercial and industrial land and building area by use in Conway. As shown in Figure 4-12, retail and lodging uses each account for 6% of the total commercial and industrial land area in Conway. The proportion of land used for these respective uses is relatively small compared industrial (27%) and private recreational uses such as Cranmore ski area, etc

(24%).

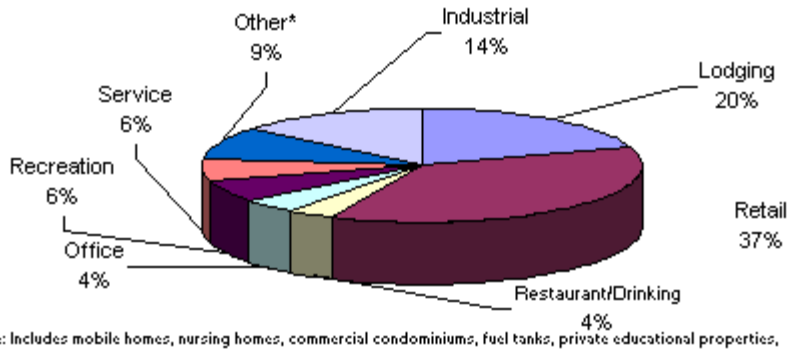
Figure 4-12. Distribution of Commercial and Industrial Land in Acres by Use: 2001
Town of Conway



*Note: Includes mobile homes, nursing homes, commercial condominiums, fuel tanks, private educational properties, fraternal organizations, mixed use properties which are primarily commercial, and commercial developable and undevelopable land.
Source: Town of Conway Assessment and Planning Departments and RKG Associates, Inc.

Although lodging and retail each account for 6% of the total commercial and industrial land in Conway, lodging accounts for 20% and retail accounts for 37% of the commercial and industrial building area (in square feet) in Conway. The difference lies in building density with lodging, retail and office uses having the highest building density compared to the other respective commercial and industrial uses. Figure 4-13 shows the distribution of commercial and industrial building area (square feet) by use in 2001 for Conway.

Figure 4-13. Distribution of Commercial and Industrial Building Area (Square Feet) by Use: 2001
Town of Conway



*Note: Includes mobile homes, nursing homes, commercial condominiums, fuel tanks, private educational properties, fraternal organizations, and mixed use properties which are primarily commercial.
Source: Town of Conway Assessment and Planning Departments and RKG Associates, Inc.

4. Commuting Patterns

Understanding where people live and work is a key factor in evaluating patterns of economic development. Although only 1990 census data was available during the preparation of this master plan to describe employment commuting patterns in Conway, it is assumed that commuting patterns have not changed drastically between the 1990 and 2000 U.S. Census. It is intended that 1990 commuting data should provide a basis for comparing where people who work in Conway live, as well as key employment locations for Conway residents.

As described in Table 4-2, of the roughly 6,200 employment positions in Conway, approximately half of the workers who fill those jobs commute in from outlying communities. The percentage of workers commuting in

from other communities represents an increase of about 7% since 1980. Although the majority of the workers commuting to work in Conway reside within Carroll County, about 35% of the workforce commutes in from outside of the region with most coming from Fryeburg, Brownfield and other Maine communities.

Table 4-2. Commuting Into Conway: 1990
Conway Labor Market Area

Place of Residence		#	%
Within NH	Bartlett	508	16.6%
	Madison	399	13.0%
	Tamworth	208	6.8%
	Albany	143	4.7%
	Freedom	125	4.1%
	Jackson	112	3.7%
	Ossipee	96	3.1%
	Eaton	75	2.4%
Outside of NH	Fryeburg, ME	438	14.3%
	Brownfield, ME	157	5.1%
	Other ME	444	14.5%
	Other States	47	1.5%
Total Non-Residents Commuting In		3,068	
Total Conway Employment Base		6,211	
% of Non Residents Commuting In		49.4%	

Source: NH Department of Employment Security

In terms of resident employment commuting patterns, of the roughly 3,950 Conway residents who are employed, approximately 80% (3,140) work in Conway. This represents a decrease of approximately 4% since 1980. As indicated in Table 4-3, the remaining 20% generally commute to neighboring communities (Bartlett, Madison and Albany) within Carroll County for work. Approximately 21% of the Conway residents who work outside of Conway are employed outside of New Hampshire with roughly 17% being employed in Maine.

Table 4-3. Commuting Out of Conway: 1990
Conway Labor Market Area

Estimated Residents Working		3,948	
Conway Workers Commuting to Another Town		805	
Commuting Rate		20.4%	
Work Destination		#	%
Within NH	Bartlett	235	29.2%
	Madison	68	8.4%
	Albany	57	7.1%
	Tamworth	39	4.8%
	Ossipee	35	4.3%
	Jackson	32	4.0%
	Concord	26	3.2%
	Eaton	18	2.2%
Outside of NH	Fryeburg, ME	71	8.8%
	Paris, ME	10	1.2%
	Other ME	52	6.5%
	Other States	38	4.7%

Source: NH Department of Employment Security

Although the commuting pattern data is over ten years old, the information does reveal some trends that are probably still relevant today. For example, as Conway is the regional economic hub of the Mount

Washington Valley, workers who reside outside of Conway fill approximately half of the jobs in the town. With the continued upward price pressure and low supply of affordable housing within the Conway real estate market, it could be anticipated that workers who live outside of Conway could fill a higher percentage of Conway's employment positions in the future. These types of trends will be better understood after the release of the Census 2000 commuting data for Conway.

5. Implications for the Future

During the past several decades, as obvious to most town residents, Conway's role within the state and regional economy has been one which has been based almost exclusively on tourism. Data and information presented within this chapter reinforces this notion and indicates that Conway's economy may have become even more reliant on tourism over the past decade. To this end, most of Conway's employment and establishment growth has been within the services and trade sectors.

New Hampshire experienced a very strong economy throughout the 1990s (mostly between 1995 and 2000) primarily because of a transition from an economy which was based on resource extraction and manufacturing, to one which is diversified across many industrial sectors. The diversification of New Hampshire's economy has helped the state "weather the storm" during economic downturns which has crippled other states that are more reliant on a select few sectors. However, because Conway's economy is focused across a much more narrow group of sectors, it may be beneficial for the town to investigate economic development incentives that encourage some diversification of local employment and business establishments. A more diverse economy in Conway could alleviate some job losses and business closings during economic downturns. One area of focus may be to build upon the entrepreneurial spirit within the region with incentives to encourage the "incubation" of new small manufacturers and the growth of the existing cluster of small manufacturers and light industrial operations.

If diversification of the local economy is one area where the town identifies a need for attention, it may be beneficial to examine regional approaches to expanding the economic base.

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[1] Prepared for the Mount Washington Valley Chamber of Commerce by Brian Gottlob of Polecon Research.

[2] It should be noted that employment estimates at the major industrial level is provided on an "average employment" basis and therefore may differ slightly from the total employment estimate for a community.

CHAPTER 5
NATURAL RESOURCES

1. Introduction

Conway enjoys an abundance of environmental features and natural resources which contributes to the high quality of life associated with the town. Arguably the prime attraction for year-round and seasonal residents, as well as tourists visiting Conway, is the abundance and access to the varied natural environment. Despite having urbanized nodes contained within the villages, as well as the Route 16 highway corridor (also known as "the strip"), much of the town's landscape can be classified as rural in character. Planning based on natural features is motivated by the desire to conserve and protect important areas, but also by the belief that development of any kind can best be located, with less present expense and future problems, if based on an understanding of natural constraints.

This chapter of the master plan examines natural features located in the town of Conway. Inventory and analysis is provided for water resources, hazardous materials and contaminated sites, floodplains, soils, wetlands, protected and conservation lands, and forest resources.

In order to provide data and information for this chapter, three principle methods were used. The first consisted of an analysis of existing sources of natural resource literature pertaining to Conway and/or the Mount Washington Valley region. Two primary sources of information used for this analysis included *Scoping Report: New Hampshire Route 16 and U.S. Route 302*[1] and *Conway Natural Resources Inventory*[2]. These studies represented the most current inventories of natural resources in Conway completed since 1990. The second method consisted of natural resources map layers provided by the University of New Hampshire Complex Systems Research Center, the Town of Conway, the U.S. Federal Emergency Management Agency (FEMA), and the New Hampshire Audubon Society. The third approach involved a series of interviews with representatives of the Town of Conway Conservation Commission, the U.S. Forest Service, the New Hampshire Division of Forestry, and the University of New Hampshire Cooperative Extension Service (Carroll County branch) to verify and update the information contained within the published natural resource inventories.

2. Summary of Findings and Conclusions

The following points highlight various natural resource findings and conclusions presented within this chapter. Additionally, possible impacts on natural resources due to growth and development within Conway are also discussed.

Conway's water bodies (lakes, ponds, rivers, brooks and streams) serve a multitude of uses including a utility function, an economic stimulus through the attraction of tourists and seasonal residents, and an aesthetic resource which improves the quality of life of residents. Other water resource findings include:

- A total of 71 water bodies have been identified in Conway.
- Conway has over 1,400 acres of surface water contained within six major lakes and ponds.
- The town of Conway obtains its municipal water supply exclusively from the extraction of groundwater with the primary source of this water being the Saco River Valley Glacial Aquifer.

Every community has areas which have been subject to negative environmental impacts such as spills of hazardous materials and chemicals. Most environmental liabilities in Conway are located within close proximity to major arterial roadways and near prominent commercial nodes. Hazardous material findings include:

- According to the New Hampshire Department of Environmental Services (NHDES), there are 132 sites or areas within Conway that are either contaminated with hazardous material or are currently registered for potential contamination monitoring.

- The majority of the contaminated sites in Conway involve leaking underground storage tanks or heating oil tanks.

As water resources, in particular the Saco and Swift Rivers, are dominant features on Conway's landscape, floodplains are also a significant constraint to growth and development in the town. Findings concerning Conway's floodplains include:

- Due to the steep slopes, general topography and concentration of numerous rivers, brooks and streams, Conway is prone to periodic flooding over relatively short time periods.
- Flooding has occurred during all seasons in Conway and can be attributed to the lack of effective storage capacity within ponds and valleys throughout the entire watershed.

Soils and slopes present a planning and development challenge in Conway due to the undulating topography throughout the entire town. Findings on soils and slopes within Conway include:

- The majority of Conway's soils fall within the glacial till group. Soils within the glacial till group consist of either loose till (soils with a loose or granular consistency) or hardpan (a dense subsurface stratified soil layer).

- The majority of land within Conway contains slopes that are less than 35%.

Historically, wetlands were manipulated and destroyed for the benefit of man made development. However, communities now understand that wetlands represent some of the most important materials within an ecosystem for both humans and wildlife as they provide both flood and erosion control, as well as habitat for animals. Observations on Conway's wetlands include:

- The U.S. Department of Agriculture Soil Conservation Service has identified 289 wetland areas within Conway.

- The wetlands within the Page Randall Brook Watershed, the Black Cat Brook Watershed, and the Weeks Brook/White Lot Brook/Black Brook Watershed stood out from other Conway wetland as they provide valuable wildlife habitat, water quality improvements, and flood control functions.

The attraction of Conway to many is that it has a superior quality of life and character that is typically defined by its environmental features such as lakes, ponds, rivers, brooks, farms, forestland, wetlands and scenic views. Protected lands which contain these environmental features are an asset to the town and have contributed to Conway's unique quality of life. Protected and conservation findings include:

- Conway has 62 parcels totaling approximately 8,610 acres protected for conservation purposes, representing about 20% of the town's land area.

- The protected land parcels range from two (2) acres to over 2,700 acres in size.

- Most of the protected land is located in the northern portion of Conway with the largest parcels located within the Mountain Conservation District under Conway's Zoning Ordinance. The vast majority of these areas represent portions of the town with elevations over 800 feet.

Based on the natural resource findings presented throughout this chapter, implications about how Conway may change in the future include:

- As so much of Conway's character, quality of life and economic base is associated with the abundance and accessibility of environmental features, it is imperative that the town encourage the permanent protection of environmentally significant lands. Inability to protect these lands from future development could lead to the incremental deterioration of qualities which have historically made Conway a desirable community in which to live and work.

- The influence of topography on Conway's natural form has created a situation where the most desirable and feasible development locations for residential, non-residential and roadways are flat parcels at relatively low elevations with gradual slopes. Coincidentally, these same locations contain a large portion of the town's wetland areas. In order to ensure that development does not compromise the environmental integrity of these lands, the town needs to maintain guidelines and policies that ensures that the development of wetlands is avoided. In order to reduce the chance of wetland development, it may be necessary to incorporate comprehensive wetland surveys of potential residential and non-residential sites over three acres in size as a condition of development or subdivision.

- Although Conway enjoys the benefits of having an adequate supply of municipal water, future development will no doubt place pressure on water resources. To protect groundwater resources the town should evaluate the need for additional aquifer protection and water conservation guidelines and policies.

3. Water Resources

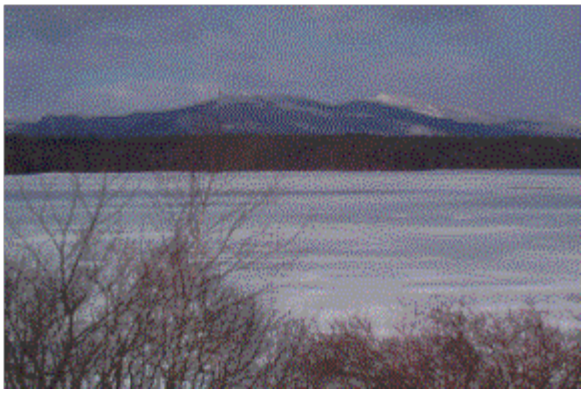
The lakes, ponds, rivers, brooks and streams of Conway represent a uniquely distinct feature of the town's landscape. Their scenic beauty and recreational appeal contributes both to the town's quality of life and economic health. The water bodies are one part of the "scenic package" that enhances the significant draw for the tourism industry which is the foundation for the local economy. In addition to surface water, groundwater is an important water resource as it is the primary potable water source for Conway residents. With many competing demands for the town's water resources, a balance must be maintained between their use and protection.

For many communities in New Hampshire, water resource issues have become one of the most important environmental issue over the past five to ten years. Traditionally, communities across New England have taken an infinite supply of inexpensive, clean water for granted. However, a number of communities are now realizing that the concept of a limitless supply of affordable, uncontaminated water is something that is not a "given" and the unwise use of this resource could result in a very significant financial burden. For the purposes of this section, water resources have been defined as surface water bodies (lakes, ponds and rivers), aquifers, and public drinking water supplies (groundwater wells and surface water intakes).

Surface Water Bodies

Like many communities in central and northern New Hampshire, Conway is home to many forms of surface water bodies. Surface water bodies are defined as perennial lakes, ponds, rivers and streams. A total of seventy-one water bodies have been identified within Conway by various federal, state, and local organizations.

Figure 5-1. Conway Lake



In terms of lakes and ponds, the largest lake in town is Conway Lake at 1,316 acres (see Figure 5-1). A series of smaller ponds are scattered throughout the town with Pequawket Pond being the largest at 64 acres. Table 5-1 indicates significant lakes and ponds within the town's boundaries.

Table 5-1. Lakes and Ponds Town of Conway

Name	Area (Acres)
Conway Lake	1,316
Labrador Point	31
Dollof Pond	21
Pequawket Pond	64
Pudding Pond	22
Echo Lake	16
Total Acreage	1,470

Source: Conway Natural Resource Inventory, 1996.

The major river water bodies in Conway include the Saco River (Figure 5-2) with its respective tributary streams, and the Swift River (Figure 5-3). Both the Saco and Swift Rivers are protected under the New Hampshire Rivers Management and Protection Act (RSA 483) and the New Hampshire Rivers Protection Program. These programs are statewide initiatives which support the local protection of rivers, shorelines and adjacent lands through river management plans. The segments of the Saco and Swift Rivers that run through Conway have been designated as "rural" rivers, which are defined as those rivers which are adjacent to lands which are partially or predominantly used for agriculture, forest management, and dispersed or clustered residential development. Some modifications have been made to both rivers including low dams and diversion works. Other streams and brooks within Conway include:

- Artist Brook
- Black Cat Brook
- Black Brook
- Clarke Brook
- Elm Brook
- Kearsarge Brook
- Lucy Brook
- Mason Brook
- McQuade Brook
- Mill Brook
- Moat Brook
- Page Randall Brook
- Red Eagle Brook
- Shepards Brook
- Weeks Brook
- White Lot Brook
- Willey Brook

Figure 5-3. Swift River

Figure 5-2. Saco River

Map 5-1 indicates surface water bodies within Conway.

Aquifers and Groundwater Sources

Groundwater sources are defined as including both public wells and aquifers, whether tapped or untapped. The town of Conway obtains its municipal water supply exclusively from the extraction of groundwater with the primary source of this water being the Saco River Valley Glacial Aquifer. The United States Geological Survey describes the Saco Valley Glacial Aquifer as:

> *The extensive, unconfined sand and gravel aquifer located along the Saco River from Bartlett, New Hampshire to Fryeburg, Maine, is an important water supply for this region. The aquifer ranges in width from one to three miles, covers a surface area of 39 square miles and is located in the foothills of the White Mountains. Saturated thickness ranged from ten feet or less near the valley walls to approximately 280 feet near the center of the valley in Fryeburg…The principle flow path in the aquifer is in a cross-valley direction from the till-covered or bedrock uplands toward the Saco River, the major ground water discharge zone. Gradients are steepest near the valley walls and flatten towards the center of the valley. A groundwater flow divide, which coincides with a surface water divide, is located to the northeast of Pine Hill in the Redstone area of Conway, New Hampshire. Another groundwater flow divide is located in the rear from north of Swans Falls to northwest of Fryeburg Center, Maine, and has an approximate southwest-northeast trend.*

Map 5-1 Water Bodies

The portion of the aquifer located in the northwestern part of Conway is very productive with transmissivities[3] exceeding 8,000 cubic feet per day. Due to this productivity, the aquifer is an important water supply for the North Conway Water Precinct, the Conway Village Fire District, as well as numerous private wells that draw water from this source.

There are two other aquifers that are found within the town's boundaries, namely, the Weeks Brook Aquifer, and the Pequawket Brook Aquifer. The Weeks Brook Aquifer is located in the northeastern area of Conway within a tributary valley of the Saco River. This aquifer is not as productive as the Saco River Aquifer with transmissivities ranging from 0 to 1,000 cubic feet per day for most of the aquifer, to 8,000 cubic feet per day in the north central and southwestern sections. The Pequawket Brook Aquifer is located in the southwest corner of Conway and extends south through Albany to Silver Lake in Madison. Productivity is limited for this aquifer with transmissivities ranging from 4,000 to 8,000 cubic feet per day. Map 5-2 indicates aquifer locations within Conway.

4. Hazardous Materials and Contaminated Sites

According to the New Hampshire Department of Environmental Services (NHDES), there are 132 sites or areas within Conway that are either contaminated with hazardous material or are currently registered for potential contamination monitoring. As shown on Map 5-3, the majority of these sites are located within close proximity to major arterial roadways near prominent commercial nodes (North Conway Village and Conway Village). The purpose of identifying and monitoring contaminated or potentially contaminated sites is to protect groundwater sources from pollutants. As shown in Table 5-2, the majority of Conway's contaminated sites involve leaking underground storage tanks or heating oil tanks. Many of the other listed sources in Table 5-2, are registrations for potential sources of groundwater contamination including large septic systems and above-ground storage tanks.

Table 5-2. Most Common Existing or Potentially Existing Contaminated Sites
Town of Conway: 2002

Contaminant Source	# Sites	Description
Above-Ground Storage Tank	10	Registration of above-ground storage tank
Holding Tank	5	Non-hazardous, non-sanitary holding tank registration
Underground Storage Tank	32	Leaking underground storage tank
Leaking Heating Oil Tank	9	Leaking residential or commercial heating oil tank
Septic System	32	Registration of sub-surface septic system receiving >20,000 gallons/day
Underground Injection Control	17	Discharges of benign wastewaters not requiring a permit or a request to cease a discharge

Source: New Hampshire Department of Environmental Services

Other sources of potential and existing threats to groundwater quality found within Conway include:

- A Superfund site (1);
- Hazardous waste sites;
- Waste disposal grounds and stump disposal areas;
- Oil spill release areas;
- Septic lagoons; and,
- Spray irrigation sites.

5. Floodplains

For the purposes of determining 100 and 500-year floodplains for the Saco and Swift Rivers, information was obtained from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps for Conway. As mentioned previously within the water resources section, the dominant river features in Conway includes the Saco and Swift Rivers, as well as smaller tributaries (Artist Brook, Black Cat Brook, etc.).

As indicated on Map 5-4, most of the floodplains within Conway are located in the "U-shaped" valleys of the Saco and Swift Rivers. This type of figure indicates the floodway (river course) as well as the 100 and 500-year floodplains. Due to the steep slopes, general topography and the concentration of the region's rivers, brooks and streams, Conway is prone to periodic flooding over relatively short time periods. Flooding has occurred during all seasons and can partially be attributed to the lack of effective storage capacity within ponds and valleys throughout the entire watershed.

According to the U.S. Department of Housing and Urban Development, historic flooding has occurred on the Saco and Swift Rivers, and to a lesser extent on Kearsarge Brook and Pequawket Pond. Furthermore, minor flooding has also occurred on Black Brook, Page Randall Brook, and Lucy Brook as a result of ponding runoff. Conway has also experienced periods of heavy flooding which has been attributed to a deep snow

pack combined with heavy spring rainfall as well as summer downpours. For example, in 1953, a heavy snow melt combined with spring rains contributed to Conway's largest flood which produced a peak discharge of 43,900 cubic feet per second.

Map 5-2 Aquifers

Map 5-3 Contaminated Sites

6. Soils

Soils are a natural three-dimensional body on the earth's surface that supports plants and that have properties resulting from the integrated effect of climate and living matter acting on early parent material, as conditioned by topography over periods of time[4].

Soils differ because of different topography, even though they are formed from the same kind of parent material. A soil's parent material is the disintegrated and partially weathered rock from which the soil has formed. Parent materials for soils are grouped under five categories including:

Alluvial – Soil material such as sand, silt or clay that has been deposited on land by recent rivers and streams.

Marine or Lacustrine – Fine grain clays that have been deposited by lakes and seas. The low permeability of the clay makes these deposits poor aquifers.

Organic – Rotting vegetation mixed with silt, sand and gravel. Organic materials typically occupy poorly drained areas, including lowlands underlain by marine deposits and depressions between ridges of bedrock.

Outwash – Deposited by meltwater from a glacier's retreating front, this material consists of particles ranging from silt to coarse gravel, but medium-sized sands predominate.

Glacial Till – Unsorted mixtures of clay, silt, sand and broken rock which was transported and deposited directly by glacial ice.

Non-Classifiable – a combination of many different types of parent materials.

As indicated in Map 5-5, the majority of Conway's soils fall within the glacial till group. Soils within the glacial till group consist of either loose till (soils with a loose or granular consistency) or hardpan (a dense subsurface stratified soil layer). Outwash represents the second largest parent material category with outwash soils being typically described with a high sand content. Organic soils are found within scattered pockets throughout the town which have formed in Conway's depressions where plant remains have accumulated over a long period of time. The smallest percentage of soils within the town fall within the marine or lacustine parent material category which are essentially former lake beds.

Soils are defined in more narrow classes than parent materials in order to provide more detailed identification and a better understanding of their characteristics. These characteristics are applicable for proper soil management and/or for development and construction purposes. The classification of soils, referred to as

the soil survey, is prepared on a county-wide basis by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service. Field work for the last soil survey in Carroll County was completed in the late 1960s with periodic published updates and mapping. Based on interviews with federal officials, a new soil survey for Carroll County is projected for completion within the next five years. Since the survey covers the entire county, soil surveys are generally considered a "broad brush" type of analyses that is primarily suitable for large-scale analysis and municipal planning purposes. These surveys, however, are usually not an accurate representation of soils at small scales (development parcels) such as the neighborhood or village level.

The kinds of soils present within a community can greatly influence the types of activities that can take place in specific areas. Some areas, such as wetlands and steep slopes, have inherent limitations to development. The potential for development based on soil conditions are defined as follows:

Very High – Site conditions and soil properties are favorable for development with few or no soil limitations.

High – Site conditions and soil properties are not as favorable for development. Costs of measures for overcoming soil limitations are slightly higher than those soils with very high potential.

Moderate – Site conditions and soil properties are below the reference soil (a soil with properties that have the most favorable characteristics for that particular use).

Low – Site conditions and soil properties are significantly below the reference soil.

Very Low – There are severe soil limitations. Measures to overcome limitations are extremely high or prohibitive.

In combination with soil types, the topography, in particular the slope, is a condition that is typically factored into the development potential of a respective area. Depending on the region of the country and the type of development, site development regulations generally place limitations on building activities on slopes over 10% to 15%. The Town of Conway's Subdivision Regulations indicate that parcels with slopes of 35% or more are subject to rigorous development restrictions. As shown in Map 5-6, the majority of Conway contains slopes that are less than 35%.

Map 5-4 Floodplain

Map 5-5 Soils

Map 5-6 Slopes

7. Wetlands

Wetlands are areas that represent an interface between the terrestrial and aquatic environments – essentially where land meets water. Historically wetlands were considered problem areas that had to be drained for agricultural uses or filled for development. However, over the past few decades a better understanding of the important ecological role that wetlands play has emerged. For example, wetlands provide the following environmental and socioeconomic benefits:

- Flood and Storm Damage Protection – In their natural condition, most wetlands serve to temporarily store floodwaters, thereby protecting downstream property owners from flood damage.

- Erosion Control – When located between water courses and uplands, wetlands help protect uplands from erosion because the wetland vegetation increases the durability of sediment through binding with its roots.

- Water Quality Improvement – Wetlands are able to intercept runoff from land before it reaches the water and help filter nutrients, wastes and sediments from water. Wetland plants and microorganisms are able to remove such nutrients as nitrogen and phosphorus from runoff thus helping to prevent eutrophication or over-enrichment of natural waters.

- Fish and Wildlife Values – Wetlands are among the most productive ecosystems in the world and plants located in wetlands serve as a food source for a multitude of animals. Some animals spend their entire lives in wetlands, while others use wetlands primarily for reproduction and nursery grounds. Most freshwater fisheries are considered wetland-dependent because many species feed in wetlands or upon wetland-produced food.

- Recreation and Aesthetics – Many recreational activities take place in and around wetlands. Hunting and fishing are popular activities, as well as hiking, bird watching and photography which are all dependent, in some form or fashion, on wetlands. While these activities are important to the individuals participating in them, but they also represent a significant boost to the economy from the spending by the individuals involved in these type of activities. This is particularly important in Conway due to the integral connection of outdoor recreation and tourism and the local economy.

The most accurate way to identify the existence and boundaries of wetland areas is by field assessments by wetland scientists. However, for the purposes of this chapter, wetlands are identified using soil maps provided by the USDA. The Carroll County Soil Survey identifies hydric (wetland) soils based on current standards for wetland delineation. As indicated in Map 5-7, a total of 289 wetlands were identified based on separate soil units as defined within the soil survey.

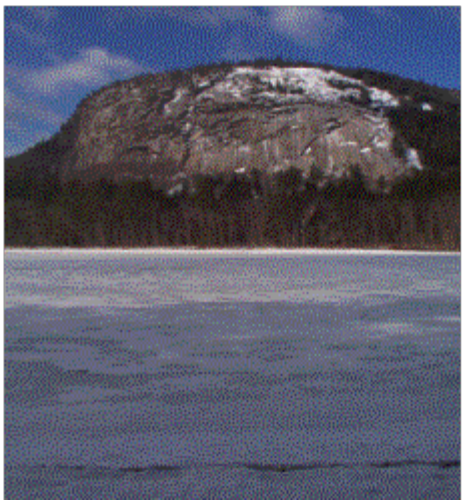
The *Natural Resource Inventory* for Conway evaluated each of Conway's wetlands in the context of watersheds in which they occurred, and their role as part of the larger wetlands complex. Three watersheds stood out as being important since they provide valuable wildlife habitat, water quality improvements, and flood control functions:

- Page Randall Brook Watershed (664 acres);
- Black Cat Brook Watershed (239 acres); and,
- Weeks Brook/White Lot Brook/Black Brook Watershed (1,764 acres).

8. Protected and Conservation Lands

The attraction of Conway for many residents, seasonal visitors and tourists is the quality of life associated with the area. As such, undeveloped land that has been protected from possible future development and conserved through various protection mechanisms is commonly perceived as contributing to a community's quality of life. Quality of life in a community is generally one of the factors that influence people to move to, and stay in a particular community. As shown in Figure 5-4, part of Conway's character is its environmental features such as lakes, ponds, rivers, brooks, farms, forestland, wetlands and scenic views. All of these combinations of features represent open space. Therefore, if the assumption is made that Conway's quality of life is, in some form or fashion, associated with the abundance of environmental features, preserving open space areas must be considered important in maintaining the town's quality of life.

Figure 5-4. White Horse Ledge and Echo Lake



Map 5-7 Wetlands

According to the data provided by the University of New Hampshire Complex Systems Research Center, Conway has 62 parcels totaling approximately 8,610 acres protected for conservation purposes, representing approximately 20% of the town's land area. The protected land parcels range from two (2) acres to over 2,700 acres in size. It should be noted that the Town of Conway owns numerous parcels of land throughout Conway that are used for recreation, municipal infrastructure, utilities, and common uses. However, it is unclear whether these parcels are protected through conservation mechanisms. Therefore, due to these unknown factors, it is assumed that these parcels potentially could be developed for other uses in the future and are not considered protected or conservation lands.

As shown in Map 5-8, most of the protected land is located in the northern portion of Conway, with the largest parcels contained within the Mountain Conservation District as defined by Conway's Zoning Ordinance. The vast majority of these areas represent portions of the town with elevations over 800 feet.

Conway is also home to a portion of the White Mountain National Forest (WMNF). Federal legislation mandates that the National Forests be managed for multiple uses, including timber harvesting, wildlife management and recreation. Land and resource management plans must also be prepared by the federal government to guide this multi-purpose management.

In addition to the mechanisms used by public organizations to protect and conserve publicly owned lands, private landowners may also undertake specific activieis to protect their land from future development. Options include: 1) sell the development rights of their land to a conservation organization who will protect and manage the land; 2) initiate a conservation easement on their land; and, 3) sell or donate their land to a local governing authority with the stipulation that the land be protected in perpetuity. It should be noted that the protected lands indicated in Map 5-8 are a combination of both public and privately protected lands.

9. Forest Resources

As Conway has become more urbanized, increasing pressure has been exerted to convert undeveloped areas of the town into a variety of man-made land uses. Forested land is one of the resources that is continually being transformed into the developed land areas of the town.

Aside from its economic benefit as a scenic resource for seasonal residents and tourists and recreational activities, forestland provides a host of environmental benefits such as:

- Stabilization of soil which prevents erosion and slows water runoff;
- Absorbs carbon dioxide and provides oxygen to the air;
- Acts as a dust filter;
- Stabilizes the water table which protects watersheds and drinking water supplies;
- Provides support and protection for numerous wildlife species;
- Provides shade in summer and wind protection in winter; and,
- Provides scenic beauty.

As shown in Map 5-9, the majority of Conway is covered by deciduous forest with coniferous and mixed forest stands making up the remainder.

In terms of forest management, the Conway Conservation Commission and the State of New Hampshire both manage public forest lands. Private land owners can take advantage of a variety of forest management programs which encourages private foresters to implement sustainable forestry practices including weeding and thinning of young timber, wildlife enhancement, tree cropping, forest fire protection, and erosion control. Information and forest programs for private land owners are available through the USDA Forest Service and the University of New Hampshire Cooperative Extension Service (Carroll County).

10. Implications for the Future

The natural resource findings discussed in this chapter provide insights as to how Conway has historically developed. The following are potential implications of the natural resource findings on the future growth and development in Conway. Since Conway's economic base relied heavily on the capture of spending from tourists attracted by the area's environmental features, how the Town of Conway chooses to balance economic development and natural resource protection will be the one of the most important issues facing the community over the next decade.

As so much of Conway's character, quality of life and economic base is associated with the abundance and accessibility of environmental features, it is important that the town encourage the permanent protection of environmentally significant lands. Failure to encourage the permanent protection of these lands could lead to the incremental deterioration of qualities which have historically made Conway a desirable community in which to live and work.

Map 5-8 Protected Lands

Map 5-9 Forest Cover

The influence of topography on Conway's natural form has created a situation where the most desirable and feasible development locations for residential, non-residential and roadways are flat parcels at relatively low elevations with gradual slopes. Coincidentally, these same locations contain a large portion of the town's

wetland areas. In order to ensure that development does not compromise environmental integrity, the town should adopt development guidelines and policies which ensure that the development of wetlands is avoided. In order to reduce the chance of wetland development, it may be necessary to incorporate comprehensive wetland surveys of potential residential and non-residential sites over three acres in size as a condition of development or subdivision.

Although Conway enjoys the benefits of having an adequate supply of municipal water, future development will no doubt place pressure on water resources. To protect groundwater resources, the town should also consider reviewing existing policy efforts concerning aquifer protection and water conservation.

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[1] Prepared by HMM Associates, Inc. for the New Hampshire Department of Transportation in 1991.

[2] Prepared by the Audubon Society of New Hampshire, The New Hampshire Office of State Planning, The University of New Hampshire Complex Systems Research Center for the Town of Conway Conservation Commission in 1996.

[3] Transmissivity is the measure of the rate at which water is transmitted through the saturated thickness of an aquifer. Higher transmissivity values mean a greater water yield from the aquifer.

[4] As defined by the Carroll County Soil Survey of Carroll County, New Hampshire prepared by the U.S. Department of Agriculture Soil Conservation Service and Forest Service.

CHAPTER 6
RECREATION

1. Introduction

This recreation chapter is prepared in compliance with recently revised state statutes dealing with the completion of municipal master plans [RSA 674:2 III (F)]. This enabling statute requires, as appropriate, the preparation of "A recreation section which shows existing recreation areas and addresses future recreation needs." This is an appropriate component of the town's master plan because recreation is an important part of Conway's quality of life and the taxpayers contribute over a quarter of a million dollars to recreation annually. Furthermore, the recreation facility and service needs addressed in this chapter provide a framework that may be required in order to secure funding for recreation infrastructure and programs.

Recreation facilities and services in Conway are provided by a number of different agencies. Some are private commercial enterprises, a few are private not-for-profit organizations and others are governmental agencies. This chapter will focus on town owned facilities and services administered by Conway's Parks and Recreation Department. Still, references may be made to other recreation resources when they are of significance to the town and it's recreation program.

This chapter is a revision of the Recreation chapter (referred to as Report #11) adopted as part of Conway's Master Plan in April 1994. This revision includes the relevant information contained in the 1994 report, as well as new information and data that have been realized over the past decade. This chapter also addresses the goals and visions that were expressed in various public workshops held throughout the public participation process dedicated to the preparation of this master plan.

2. Summary of Findings and Conclusions

- As a recreation resort destination, the provision of recreation facilities and services in Conway is spread among a myriad of public and private agencies.
- Conway is rich with recreation resources.
- The only significant recreation deficiency in Conway is the absence of an integrated greenway and multipurpose trail system.
- Conway should consider developing a Greenway/Trail Master Plan and implementation strategy.
- The town should be especially mindful of the recreation potential around Pequawket Pond and the rehabilitated Kearsarge site in Conway Village.
- Upon completion of a Greenway/Trail Master Plan, the town should consider amendments to its regulations that would facilitate the development of the greenway/trail system.
- Future enhancements to Conway's recreation resources should incorporate funding and land resources associated with the schools and other units of local governments.
- The Board of Selectmen, through the Recreation Department, should study the feasibility of establishing a skateboard/roller blade park for the community.

3. Recreation Resource Administration

Due to the nature of Conway's governmental structure the administration of recreation resources and services is spread among a myriad of agencies. Along with federal and state agencies, units of local government include the town, School Board (SAU 9) and precincts. There are also not-for-profit organizations, such as the North Conway Community Center, that provide recreation facilities and programs in the community that are administered by Conway's Parks and Recreation Department. This department is also responsible for maintenance of active play services, passive parks and cemeteries. A key function of the Recreation

Department is coordination with the various agencies that share facilities and services with the department.

4. Inventory of Recreation Resources

Conway's recreation resources vary in size, type of facility and intensity of use. Some serve local neighborhoods, some serve the community at large, while others draw users from the Mount Washington Valley and visitors from away. These facilities are represented on Map 6-1. A summary of the types of uses of each facility is outlined in Table 6-1 at the end of this chapter.

As these exhibits illustrate, Conway has a diverse system of parks, playgrounds and recreational facilities. There are more than 25 facilities comprising Conway's recreation system ranging from tot-lots and sitting parks to multi-use town-wide facilities and natural environmental areas. Although this chapter focuses on town owned facilities, other facilities are also included in this inventory of recreation resources that are available in the community and/or affiliated with the Parks and Recreation Department.

- *Conway Lake Beach - 1 Acre - Town Owned*
  This is one of Conway's two municipal beach facilities. It is comprised of two small parcels of land adjacent to the dam at the north end of Conway Lake. The beach itself is located on the south side of Brownfield Road and provides approximately 3,500 square feet of beach area and 150 feet of water frontage. This parcel also includes a boat launch. The second parcel is located on the north side of Brownfield Road and provides 25 public parking spaces and portable toilets (seasonal).
- *Pine Tree School - 16 Acres - School Park*
  This park is associated with Pine Tree Elementary School on Mill Street in Center Conway. It is school property administered by SAU 9, however its use is scheduled by the Parks and Recreation Department. This facility provides two little league baseball fields, a soccer field, a gymnasium with an indoor basketball court, a half basketball court and a newly constructed playground. There are 50 parking spaces and restrooms are located in the school.
- *Mill Street Park - 0.1 Acre - Town Owned*
  Mill Street Park is a tiny space at the intersection of Mill Street and East Main Street (Routes 302/113). Although it has very limited recreation potential, it does serve as a focal point for Center Conway Village.
- *Conway Recreation Center - 5 Acres - Town Owned*
  The Conway Recreation Center includes recreation facilities, administrative space for the Parks and Recreation Department and supplemental office space. It includes a multipurpose ball field that can accommodate little league baseball, soccer, field hockey and football, a gymnasium with an indoor basketball court, an outdoor basketball court, and a playground. The site also includes an indoor gymnasium (with a basketball court), library, art room, game room, computer lab, kitchen and restrooms. There are 50 public parking spaces.
- *Smith-Eastman Park - 1.5 Acres - Town Owned*
  This park is located on the north side of the Saco River at the old bridge site south of the Police Station on East Conway Road. It provides a picnic area along with access to the Saco River and a canoe launch. There are 20 public parking spaces and a portable toilet (seasonal).
- *Nasby-King Field - 4.5 Acres - Privately Owned*
  This multi-purpose ball field can accommodate Babe Ruth baseball, softball, soccer, field hockey and football. The field is owned by American Legion Post 46, a private not-for-profit organization. Although it is privately owned, the town benefits from a long-term lease agreement. The Parks and Recreation Department maintains and schedules the use of the field. This facility has 30 parking spaces and a portable toilet (seasonal).
- *Conway Library Park - 1.5 Acres - Town Owned*
  This passive green space is adjacent to the library and serves as a focal point in Conway Village. There are 28 parking spaces adjacent to the park and restrooms are available in the Library.
- *Washington Street Park - 0.3 Acre - Town Owned*
  Washington Street Park is a tiny space at the intersection of Washington Street and East Side Road. Although it has very limited recreation potential, it does serve as a focal point for Conway Village. There are five parking spaces on the street adjacent to the park.
- *Davis Park - 4 Acres - Town Owned*
  Davis Park is adjacent to the Saco River on East Side Road at the Covered Bridge. The facility includes three tennis courts, two basketball courts, swings, river access and a 5,000 square foot beach. The site also has 18 parking spaces and a portable toilet (seasonal).
- *Swift River Bridge Park - 0.5 Acre – Town Owned*
  This park is adjacent to the Swift River on West Side Road at the edge of Conway Village. It is passive park space with a scenic view of the Swift River, river access, picnic tables and eight parking spaces.
- *Kennett Fields - 13 Acres - School Park*

This recreation facility is adjacent to the Kennett High School/Conway Elementary School complex that is administered by SAU 9. Only the use of the ball field at Conway Elementary is scheduled by the Parks and Recreation Department. It hosts nine ball fields that accommodate a variety of sports including soccer, football, field hockey, baseball and softball. It also has a grass running track. The school complex includes two gymnasiums and restroom facilities. A playground, little league baseball field and a half basketball court is located adjacent to the Conway Elementary School. There are over 120 parking spaces associated with the complex.

- *Conway Village Park - 2.5 Acres - Conway Fire District Owned*
  This facility is located on Main Street in Conway Village adjacent to the Fire Station. It reaches back to Pequawket Pond and Lake Street. The District has been awarded a substantial grant to redevelop the property in accordance with a recently approved park master plan. Upon completion, the park will provide both passive and active recreation spaces including a walking path that meanders along Pequawket Pond, a large greenspace, accommodations for outdoor festivals, a bandstand and an outdoor skating rink. The facility also includes 40 parking spaces accessed from Main Street.
- *Saco Valley Overlook - 12 Acres - Town Owned*
  The Saco Valley overlook provides a small pullout area with eight parking spaces along Route 16 just south of the intersection of Routes 16 and 302. It hosts a spectacular view of the valley.
- *Redstone Park - 0.1 Acre - Town Owned*
  Redstone Park is a tiny space at the intersection of Eastman Road (Rte. 302) and Mountain Street. Although it has very limited recreation potential, it does serve as a focal point for Redstone.
- *Pudding Pond - 207 Acres - Town Owned*
  This land is located on the east side of the North/South Road half a mile south of Artist Falls Road. The Pudding Pond property is under the stewardship of the Conway Conservation Commission. Its improvements, relative to recreation, are limited to a segment of trail that leads to the pond. This parcel, in accordance with a forest management plan, has outstanding potential for recreational trails.
- *North Conway Community Center - 4.5 Acres - Privately Owned*
  This facility is owned by a private not-for-profit organization. Although it is not a town administered facility, a significant amount of its funding ($70,000 in 2002) is appropriated by the town through the town meeting process. The facility includes a bandstand, a gymnasium with an indoor basketball court, an outdoor basketball court, a mini-water (spray) park, a picnic area, a game room, office space and restrooms. The town provides six public parking spaces.
- *Schouler Park - 3 Acres - Town Owned*
  Schouler park is locate in North Conway Village adjacent to the Conway Scenic Railroad. It includes a large open green area with a multipurpose ball field that hosts little league baseball, girls softball, soccer, field hockey, football, an outdoor skating rink and outdoor festivals. There are 40 parking public spaces and portable toilets (seasonal).
- *Whitaker Homesite/Woods - 192 Acres - Town Owned*
  This facility is located in North Conway on Route 16 at the north end of the Village. It reaches eastward all the way to Kearsarge Road. The facilities include a new building with meeting rooms, office space and restrooms. Outdoor uses include a multipurpose ball field that accommodates Babe Ruth baseball, softball, soccer, field hockey and football, as well as over 45 kilometers of trails for walking, biking and Nordic skiing. There are 32 parking spaces and supplemental portable toilets (seasonal). Parking is also available next to the facility at John Fuller School on weekends and during school vacation periods.
- *John Fuller School - 11 Acres - School Park*
  This park is associated with John Fuller Elementary School on Pine Street in North Conway. It is school property administered by SAU 9. The Parks and Recreation Department has no administrative role related to this facility. There is a little league baseball field, a gymnasium with an indoor basketball court and a newly constructed playground. There are 50 parking spaces and restrooms located in the school building.
- *Hussey Field - 18 Acres - Town Owned*
  This facility is located on River Road in North Conway and borders the Saco River. The site includes a multipurpose ball field that accommodates little league baseball, girls softball, soccer, field hockey and football. It also has a large open field that accommodates outdoor festivals. The site provides six parking spaces, but can be expanded to accommodate larger volumes of vehicles during scheduled events.
- *First River Bridge Park - 4 Acres - Town Owned*
  This facility is located on River Road in North Conway. It is across the river from Hussey Field. The facility includes an open field that accommodates a variety of activities including picnics as well as a small beach area with river access. The site also has 20 parking spaces and a portable toilet (seasonal).
- *Shedd Woods - 13 Acres - Town Owned*
  Shedd Woods are located between the Saco River and Route 16 adjacent to the Memorial Hospital. The facilities at Shedd Woods are limited to cross country skiing and hiking, along with mountain bike trails and a picnic area. The site also provides

a scenic view of the valley.

- *Artist Falls Park - 0.1 Acre - State Owned*
  Artist Falls Park is located in the New Hampshire Department of Transportation (DOT) right-of-way at the intersection Route 16 and Artist Falls Road. Even though the park has very limited recreation potential, it does provide some passive green space. Although the property is state owned, it is maintained by the town.
- *Depot Street Park - 1 Acre - Town Owned*
  Depot Street Park is located at the intersection of Route 16 and Depot Street. Although it has very limited recreation potential, it does provide some passive green space, 29 parking spaces and a bus pull-out area.
- *Walker's Pond- 13 Acres - Town Owned*
  Walker's Pond is located on Mill Street adjacent to the Conway Town Beach parking lot. This is a wild preserve area. It includes historic resources and significant trail enhancements that were completed by the Conway Conservation Commission in 2001.
- *Town Common Lands - 900 Acres - Town Owned*
  The Town Common Lands are located off Hurricane Mountain and provides a critical link between the State Forest, land owned by the Nature Conservancy and Pudding Pond for a total contiguous protected area of over 4,500 acres. These lands offer tremendous recreation potential.
- *Echo Lake State Park - 390 Acres - State Owned*
  Echo Lake State Park is located on West Side Road. Covering over 390 acres, this park is adjacent to pristine Echo Lake, and offers visitors locations for swimming and fishing. In addition, there are hiking trails and a scenic drive that leads to Cathedral Ledge. The ledge offers scenic views and opportunities for rock climbing. Approximately 150 acres of the Park are located in Conway. The site also includes 58,000 square feet of beach area on Echo Lake. Although this is a state facility, it is an important resource to the community.

Map 6-1 Recreation Facilities

- *White Mountain National Forest - 800,000 Acres - Federally Owned*
  Approximately 350 acres of the White Mountain National Forest are located within Conway. Biking, hiking, camping, fishing and skiing are just a few of the recreational opportunities that this tremendous resource provides. Although it is not administered by the town, it is the community's most important recreational resource.
- *Mount Cranmore - 740 Acres - Privately Owned*
  Mount Cranmore is a privately owned commercial alpine skiing facility. It includes a private sports complex and multipurpose trails that are enjoyed by Conway's citizens and visitors year round. It is particularly important to the town's recreation resources because it provides an opportunity for linking Conway's conservation lands and existing trails to North Conway Village. It also has infrastructure that, through appropriate agreements, can be a cornerstone for a town-wide greenway system.

5. Future Recreation Needs

The most outstanding needs and foremost recreation goals that emerged from numerous public meetings associated with the master planning process were related to greenways and multipurpose recreational trails. It was proposed that the use of such a greenway system should accommodate cycling, walking and Nordic skiing. However limited facilities for snowmobiles and roller blades were also discussed. There was also a request for a skateboard park to be added to the town's recreation inventory.

The issue of trails was also discussed in the Recreation Chapter, adopted in 1994, of the previous master plan. At that time is was noted that the Conway Parks and Recreation Advisory Committee (CPRAC) had "established the beginnings of a multi-use trail network which offers walking, jogging, bicycling and cross-country skiing opportunities throughout Conway." That initiative was consistent with the goal for a greenway/bikeway trail network currently expressed by the public. Unfortunately, the progress made by the CPRAC was diminished when CPRAC was dissolved in the mid 1990's.

Many miles of trails already exist in Conway. Unfortunately they are disconnected and access is precarious. Map 6-2 at the end of this chapter presents an inventory of some of these trails. This map indicates two classes of existing trails; secured trails which are owned by the town or are subject to a formal agreement with the town for continued public access and unsecured trails over which the town has little or no influence.

Fortunately there is still a dedicated group within the town, the Conway Recreational Access Committee (CRAC), which is attempting to secure access to lands for a trail system. They have no resources or staff, however, to support this initiative. There is

tremendous potential for establishing a greenway/bikeway system in Conway. If the people of Conway want to realize a greenway network that can accommodate multiple uses, it is going to require community support in the form of a clear mandate and resources. Map 6-3 (at the end of this chapter) presents a conceptual layout for a greenway system. *The next appropriate step is the development of a formal Greenway Plan that will illustrate where, when and how this goal can be realized.*

The following discussion revisits specific recreation activities and blends the views expressed during the preparation of this master plan with some of the issues and goals represented in the Recreation Chapter of the previous master plan.

Cycling is an important activity in Conway. It provides many benefits relative to both recreation and transportation. The community has expressed a desire for bikeways and cycling infrastructure enhancements. This has been demonstrated by several major road improvement projects that have included bicycle lanes. Public input indicates that continuing these enhancements is encouraged. Moreover, a review of the state designated bike routes reveals that significant sections of the state's roads need to incorporate bicycle lanes. Map 6-3 presents State identified bike routes and the roadways that have designated bicycle lanes. *It is recommended that the town continue to insist that all state road enhancement projects accommodate bicycle lanes*. This is especially important along the designated state bike routes.

The public participation process also recognized an important distinction between the recreation and transportation benefits of bicycle lanes that are adjacent to roads and those that are separate from automobile traffic. Although both types of bikeways are encouraged and provide transportation benefits, the recreation benefits of a bikeway systems that are free of automobiles enhances recreation opportunities. The elimination of potential automobile/bicycle conflicts makes the cycling experience safer and more enjoyable. *It is recommended that the town prepare and adopt a bikeway plan that accommodates both roadside bikeways and off-road bikeways.*

Skiing, particularly Nordic skiing, is one of the most popular winter amenities of the Mount Washington Valley. Currently the Town of Conway provides an extensive system of groomed trials in Whitaker Woods. These trails connect with other trails that are outside town lands. Expanding skiing opportunities to multi-use trails within a greenway system will enhance the benefits to the community. Of course, maintenance and grooming will be important considerations to any expanded trail system. *It is recommended that Nordic skiing be considered a principal winter activity for the greenway system.*

Hiking is an extremely popular pastime in the Valley and proximity to the White Mountain National Forest is a significant contribution to this popularity. Access to the national forest, as well as the other resources in Conway, is of paramount importance. Any greenway system must incorporate hiking and access to these amenities. *It is recommended that hiking be considered a principal activity for the greenway system.*

Tennis requires significant infrastructure. The town currently provides three tennis courts at Davis Park. These courts are used by the public as well as the Kennett High School tennis program. Unfortunately, when the school uses the courts they are not available to the general public. If additional courts are to be constructed, the school system should participate in providing land and financing.

Basketball also requires dedicated infrastructure. There are six functional indoor basketball courts, four full outdoor courts and two outdoor half-courts. The Recreation Chapter in the previous master plan indicated that there was no apparent deficiency regarding the number of basketball facilities in Conway. However, it did suggest a desire for additional basketball facilities in North Conway Village.

Swimming was not raised during public meetings relating to the preparation of this master plan. Moreover, at the 2002 Town Meeting funds that had been set aside for a municipal swimming facility were reassigned. The 1994 recommendation that the town seek a new location for recreational swimming or consider construction of a pool has not been fulfilled. *It is recommended that the Parks and Recreation Department investigate the feasibility of additional municipal swimming facilities*.

Skating/Hockey is supported by two outdoor rinks in Conway. Also, after the adoption of Recreation Chapter in 1994 of the previous master plan, a new arena was constructed. The 2002 master planning forums revealed no indications that there is a deficiency in this area.

Baseball, soccer, football and other field sports are well supported by existing facilities.

Skateboarding, discussed in the Recreation Chapter of the previous master plan, emerged again during the 2002 master planning forums. The 1994 recommendations, however, have not been addressed. Still there remains a need to provide recreational opportunities that are attractive to each user group and skate boarding is one such activity. Rather than simply prohibiting skateboarding on sidewalks and in the streets, the town should consider providing a skateboarding facility. *It is recommended that the*
Parks and Recreation Department investigate the feasibility of a municipal skateboard park.
Map 6-2 Recreation Trails and Bike Routes

Map 6-3 Bike Routes and Conceptual Greenways

Table 6-1. Recreation Facilities and Uses
Town of Conway

Facility	Babe Ruth Baseball	Little League Baseball	All Softball	Girls Softball	Basketball	Football	Soccer	Tennis	Field Hockey	Beach	Water Access	Skating	Hiking	Cycling	Skiing (XC)	Play Ground	Picnic
Conway Lake Beach										k	k						
Pine Tree School		k		k	k		k										
Conway Recreation Center		k		k	k	k	k		k							k	
Smith-Eastman Park											k						k
Nasby-King Field	k	k	k	k		k	k		k								
Davis Park								k		k	k					k	
Swift River Bridge Park											k						k
Kennett Fields	k	k	k	k	k	k	k		k							k	
Conway Village Park											k	k	k				
Pudding Pond											k		k	k			k
N. C. Community Center					k											k	
Schouler Park		k		k		k	k		k			k					
Whitaker Home Site/Woods	k	k	k	k		k	k		k				k	k	k		
Hussey Field		k		k		k	k		k								
John Fuller School		k		k	k											k	
First River Bridge Park										k	k						k
Shedd Woods													k	k	k		k
Town Common Lands													k	k	k		k

Source: Town of Conway

Town of Conway Master Plan Update: Chapter 6-A Trails Plan

INTRODUCTION

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INTRODUCTION

The Town of Conway Trails Plan is a supplement to the Town of Conway Master Plan and is intended for the use of decision makers and advisory boards, such as, the Board of Selectmen, Planning Board, Conservation Commission, Town Departments; trail oriented groups and the general public. The Trails Plan is intended to facilitate the development of a recreation and transportation system with alternatives for cycling, pedestrian and other forms of on and off road transportation and to enhance the pedestrian and cycling facilities that exist in the existing transportation network. While this plan focuses on non-motorized trails it is acknowledged that snowmobiles are in many cases compatible with other non-motorized uses and cooperative efforts between the snowmobile community and non-motorized users will be encouraged.

This plan is a reference document for planning and securing a town-wide trail system. It is not intended to set forth strict standards. Rather, this plan is intended to be a resource for decision makers to consider when: developing a policy for trail acquisition, development and maintenance; give direction regarding priorities for trail funding; provide ideas and options for trail funding; and set policy guidelines for trail implementation priorities, and direction on special projects such as: community volunteer projects, community information materials, user information materials, and user conflicts management.

As the Town of Conway continues to grow, develop and redevelop there is an increasing need and demand for recreational hiking and biking trails, trail-head parking, neighborhood trails and connections, sidewalks, bicycle lanes, signs, and maps. There is a desire in the community to better identify, develop and preserve pedestrian and bicycle access as the land is developed or redeveloped. In addition to encouraging recreation, the development of an off-road trail system is intended to help reduce vehicle trips and traffic congestion. The result will be a community resource providing transportation alternatives, recreational opportunities, environmental aesthetics, open space preservation and increased property values. It has been well demonstrates that a sophisticated trail network can also be a valuable economic resource for enhancing tourism economies.

1. Trails Plan Vision Statement

"Non-motorized travel is a viable transportation alternative to the automobile and off road trails and facilities will enhance the current transportation system. Off road trails and facilities will also enhance recreation opportunities. They improve our community aesthetic, our environment and our quality of life."

VISION:

In the year 2025, a coordinated trail system linking Conway' s housing, shopping, education, medical, recreation and government resources should be realized. This network of paths and trails should provide safe, visible routes between destinations that encourage modes of transportation that are an alternative to the automobile. The trail network enhances the quality of life for residents and visitors and supplements the viability of the Valley's tourism economy.

2. Goals and Objectives

GOAL 1 To develop policies, standards, and an updated trails plan and map which will provide direction for the community to develop an area-wide multi-use trails network. This goal can be achieved by providing a more bicycle/pedestrian friendly transportation network that will:

Objective 1) Create a seamless network of off-road improvements that allows bicycles and pedestrians to reach important destinations easily.

Objective 2) Encourage relevant, convenient and safe bicycle and pedestrian elements in all transportation projects.

Objective 3) Create a network of road improvements that complement and connect off-road improvements where impediments hinder continuity of the off-road network.

GOAL 2 Provide the following benefits and opportunities to the Town of Conway Community:

Transportation: Trails can increase the transportation mode split of bicycling and walking trips, and they can also improve safety and increase access. The trail system should include a commuter system for employees and students that will encourage off-road travel by connecting residential areas with major destinations. This system may ultimately reduce or avoid traffic congestion and air pollution in future years.

Recreation: Trails provide an easily accessible outdoor resource for many forms of recreation, most notably bicycling and walking. Trails greatly increase community access to physical activity and fitness opportunities by providing more miles of safe, attractive bicycling and hiking facilities.

Reduction of Pedestrian/Bicycle/Auto Accidents: Town of Conway should target and eliminate key behaviors that cause accidents resulting in injuries and/or loss of property (e.g., wrong-way riding, motorist failure to yield, speeding, and jaywalking).

Economic: Walkable communities can produce income from shared utility leases, increase the value of real estate, and generate income from tourist, special events, and other users. Improved walking conditions improve the quality of life by making an area more attractive for business relocations and in-migration. Costs of developing and maintaining the road access infrastructure can also be reduced.

Land Use Planning: Trails and other green way corridors promote park and recreation development, wet land preservation, and buffered environmental protection. Trails preserve undeveloped lands in urban areas and serve to separate and buffer contradicting land uses.

Environment: Environmental benefits include wildlife preservation, water quality protection, storm water management, preservation of vegetation, and other benefits, such as firebreaks. They may also reduce noise and visual pollution.

Education: A trail corridor often encompasses several different environments along its route and can be thought of as an outdoor classroom full of educational materials. The

scientific community, educators and students can realize the value of trails through a wide range of studies, such as biology, geography, history, recreation management, and art.

History and Culture: Trails can educate and increase awareness about the history and culture of a region. Preserved historical sites provide unique locations for cultural, local and social events. Methods, such as on site interpretive material and promotional literature, aid in the community's effort to preserve historic sites.

Quality of Life: Increases in the quality of life associated with off-road trails are realized through expressions of community character and pride, aesthetics of the local environment, economic revitalization of the community, access to the outdoors, opportunities for socialization, and easy increase of mobility.

Disability Access: Provide persons with disabilities access to and within the trail system with the level of access provided at posted trail-heads. Physical barriers and hazards that obstruct access should be removed from streets, sidewalks and accessible trails designated as part of the trail system. Trails should be ranked by their level of disability access.

3. Policies

To achieve the above stated goals, public policy should support the construction of this integrated system, just as public policy has created the local road network or our national highway system.

As the community grows and changes, and user preferences change, the specific recommendations of these policies may also change. However, the more general policies should remain constant to provide continuity of the trail system within and between communities.

A. A Trail System Increases Pedestrian Access and is an Asset to Town of Conway

As the town grows, trails can mitigate traffic congestion and other aspects of development. Non-motorized travel is non-polluting. The Town of Conway trail system should be safe, easily accessible, aesthetically pleasing and contribute to the general quality of life in the community.

The trails should connect residential areas to schools and commercial and business areas. Other amenities to consider are: White Mountain National Forest, State Parks, community parks, resorts, dedicated open space parcels, golf courses, and other private recreational facilities.

Where feasible, trails that are separated from vehicle traffic (shared use paths) should be provided. Snow removal and general maintenance are less costly for this type of trail, users are generally safer, and the overall experience is enhanced and preferred when traveling on paths that are separate from the roadway. Where traffic separation is not possible then striping of bicycle lanes, sidewalks and signage, should be provided. Trails consisting of signs only (See American Association of State Highway and Transportation Officials (AASHTO) 1999 Guide for Development of Bike Facilities) should be provided only after all other options are considered infeasible. As portions of the trail system are developed, uniform materials, surfacing, and way finding signage should be installed.

The trail system will also include pathways which are often informal links between houses or businesses. They usually cover short distances connecting residential neighborhoods to trails,

shopping areas or schools. Paths are especially needed in cul-de-sacs where through access is limited. In cul-de-sacs, strategically placed paths (10' between two lots) can provide links for bicyclists and pedestrians to shopping malls, transit stops, parks, and other neighborhoods so that a busy street can be avoided.

Being a critical element of an off-road system, paths should be encouraged to ensure access for pedestrians and bicyclists. A path allows people to shorten an otherwise roundabout trip through a maze of subdivision streets on their way to schools, or neighborhood shopping. Their existence and maintenance are sometimes granted by private homeowners. However, future development and redevelopment can institutionalize these facilities by providing narrow (10') public rights-of- way. Incentives that encourage voluntary easements and rights-of-way should be emphasized.

B. Development of a Comprehensive Pedestrian and Bicycle Network

Town of Conway desires to develop a comprehensive network for public access. The network should coordinate existing and future trail connections with pedestrian friendly zones. It should ensure a continuous system between commercial centers, neighborhoods, and varying land uses throughout the region.

The Town of Conway's trail network should provide safe off-road access along key transportation corridors, to schools, recreation and fitness centers, major retail and service centers. Trails should be constructed to accommodate maintenance and pedestrian and/or bicycle access year- round. To obtain rights-of-way in developed areas, Town of Conway should work with landowners to obtain public access to important existing and desired off-road corridors. New residential and commercial development and redevelopment should include off-road access, trail connections and public easements

C. Development Regulations

Subdivision and Site Plan Review Regulations should incorporate incentives that foster trail improvements in accordance with the Trails Plan. Encouraging trail improvements can help insure the preservation of a proposed trail route. These regulations should also provide incentives for developing the trail network and associated infrastructure. Considerations should include:

a. Sidewalks should be included within the dedicated right-of-way of all roads unless an appropriate alternate location has been identified. In many cases pedestrian paths separate from the road right of way may be preferable due to snow removal concerns. Existing sidewalks should be improved to the specifications prescribed for new developments.
b. Trails, pedestrian paths and bike paths should be related appropriately to topography, require a minimum of site disturbance, permit efficient drainage and provide safe access.
c. Incentives should be provided that encourage developers to incorporate trails, pedestrian paths and bike paths as integral parts of their developments. Trails should connect traffic generators such as, schools, recreation facilities, commercial areas, parks, and other significant natural features. Such trails should be built to Town specifications and easements should be dedicated for such trails. The trails should be constructed at the time of road construction and/or site development.

Regulations should require that developers consider the Trails Plan, and the plan's relationship to proposed developments and redevelopments. This includes the consideration and possible connection of any trail concepts within the proposed development to the town-wide trail system.

D. Master Plan Map Updates

Future needs, generated by new residential and commercial development, may not be anticipated in the Plan. The Master Plan Map should be updated as development occurs with trails and pedestrian friendly zones developing according to the master plan's intention. Public access could be promoted in new developments by providing incentives for public trail easements and other zoning, subdivision and site plan provisions.

E. Funding and Acquisition

The Town of Conway should examine alternatives for the acquisition of trail. Trail easement acquisition and development can be accomplished in a variety of ways including, but not limited to: purchase, donation, prescriptive use, easements, leases or other possessory interests. Town of Conway should explore a variety of local and national funding sources and mechanisms for the development of trails. Real Estate Transfer Tax, grants, special service districts, transportation funds, Conservation Commission funds, joint-funding with other jurisdictions or agencies, exactions, bonding, developer dedication, state parks and recreation funds, private donations, fund raising rides and events, and various taxing mechanisms are a few of the funding mechanisms that are now available. National funding sources for bicycles and pedestrian projects are available through several programs under the federal Moving Ahead for Progress in the 21st Century Act (MAP-21).

4. Liabilities on Trails, Pathways or Sidewalks

Town of Conway can implement the Off-road Trails Plan, in part, by providing incentives that encourage developers and landowners to include trails internal to and connecting through the developer's property as part of the development review process. Developers and owners of undeveloped property adjacent to trail development have voiced concerns about landowners' liability. No activity is entirely free from exposure to liability, but the dedication, construction, and operation of public trails can be at the low end of the landowner liability spectrum.

To address liability concerns, New Hampshire has adopted the following statutes:

NH RSA 508:14 Limitation of Actions

I. An owner, occupant, or lessee of land, including the state or any political subdivision, who without charge permits any person to use land for recreational purposes or as a spectator of recreational activity, shall not be liable for personal injury or property damage in the absence of intentionally caused injury or damage.

II. Any individual, corporation, or other nonprofit legal entity, or any individual who performs services for a nonprofit entity, that constructs, maintains, or improves trails for public recreational use shall not be liable for personal injury or property damage in the absence of gross negligence or willful or wanton misconduct.

III. An owner of land who permits another person to gather the produce of the land under pick-your-

own or cut-your-own arrangements, provided said person is not an employee of the landowner and notwithstanding that the person picking or cutting the produce may make remuneration for the produce to the landowner, shall not be liable for personal injury or property damage to any person in the absence of willful, wanton, or reckless conduct by such owner.

NH RSA 212:34 Duty of Care

I. In this section:

(a) "Charge" means a payment or fee paid by a person to the landowner for entry upon, or use of the premises, for outdoor recreational activity.

(b) "Landowner" means an owner, lessee, holder of an easement, occupant of the premises, or person managing, controlling, or overseeing the premises on behalf of such owner, lessee, holder of an easement, or occupant of the premises.

(c) "Outdoor recreational activity" means outdoor recreational pursuits including, but not limited to, hunting, fishing, trapping, camping, horseback riding, bicycling, water sports, winter sports, snowmobiling as defined in RSA 215-C:1, XV, operating an OHRV as defined in RSA 215-A:1, V, hiking, ice and rock climbing or bouldering, or sightseeing upon or removing fuel wood from the premises.

(d) "Premises" means the land owned, managed, controlled, or overseen by the landowner upon which the outdoor recreational activity subject to this section occurs.

II. A landowner owes no duty of care to keep the premises safe for entry or use by others for outdoor recreational activity or to give any warning of hazardous conditions, uses of, structures, or activities on such premises to persons entering for such purposes, except as provided in paragraph V.

III. A landowner who gives permission to another to enter or use the premises for outdoor recreational activity does not thereby:

(a) Extend any assurance that the premises are safe for such purpose;

(b) Confer to the person to whom permission has been granted the legal status of an invitee to whom a duty of care is owed; or

(c) Assume responsibility for or incur liability for an injury to person or property caused by any act of such person to whom permission has been granted, except as provided in paragraph V.

IV. Any warning given by a landowner, whether oral or by sign, guard, or issued by other means, shall not be the basis of liability for a claim that such warning was inadequate or insufficient unless otherwise required under subparagraph V(a).

V. This section does not limit the liability which otherwise exists:

(a) For willful or malicious failure to guard or warn against a dangerous condition, use, structure or activity;

(b) For injury suffered in any case where permission to enter or use the premises for outdoor recreational activity was granted for a charge other than the consideration if any, paid to said landowner by the state;

(c) When the injury was caused by acts of persons to whom permission to enter or use the premises for

outdoor recreational activity was granted, to third persons as to whom the landowner owed a duty to keep the premises safe or to warn of danger; or

(d) When the injury suffered was caused by the intentional act of the landowner.

VI. Except as provided in paragraph V, no cause of action shall exist for a person injured using the premises as provided in paragraph II or given permission as provided in paragraph III.

VII. If, as to any action against a landowner, the court finds against the claimant because of the application of this section, it shall determine whether the claimant had a reasonable basis for bringing the action, and if no reasonable basis is found, shall order the claimant to pay for the reasonable attorneys' fees and costs incurred by the landowner in defending against the action.

5. Trail System Benefits and Safety

There are two purposes of this section: first, to present some concluding evidence that trails, and other parts of the off-road transportation system, will benefit the overall quality of life in the Town of Conway; and second, to address the issues of safety and community involvement.

A. Ten Economic Benefits of Greenways and Trails

There are many ways in which a trail system, designed with greenway corridors and easy accessibility can benefit a community. The following information discusses ten different economic benefits a community can enjoy from a trail system.

- **Real Property Values--**Many studies demonstrate that parks, greenways and trails increase nearby property values. In turn, increased property values can increase local tax revenues and help offset greenway acquisition costs.
- **Increased Property Tax Revenues--**An increase in property values generally results in increased property tax revenues for local governments. Many arguments made for investments in trails, parks and open spaces claim that these acquisitions pay for themselves in a short period of time, due in part to increased property tax revenues from higher values of nearby property. Locally and national, bicycle and pedestrian facilities have proven to be a cost effective use of public funds. Maryland's Northern Central Rail-Trail found that while the trail's cost to the public in 1993 was $191,893, it generated State tax revenue of $303,750 in the same year. This revenue was a direct result of a growing economy's sales, property and income taxes.
- **Construction/Development Perspectives--**Proximity to greenways, rivers and trails can increase sales price, increase the marketability of adjacent properties, and promote faster sales. Clustering the residential development to allow for establishment of a trail corridor or greenway can also decrease overall development costs and result in greater profits for the developer. For example, a land developer from Front Royal, Virginia, donated a 50 foot wide, seven mile easement, for the Big Blue Trail in Northern Virginia. This easement provided a critical trail link along the perimeter of his subdivision. The developer recognized the amenity value of the trail and advertised that the trail would cross approximately 50 parcels. All tracts were sold within four months.
- **Expenditure by Residents--**Spending by local residents on greenway related activities helps support recreation oriented businesses and employment, as well as other businesses that are patronized by greenway and trail users.
- **Commercial Uses--**Greenways and trails often provide business opportunities, locations and resources for commercial activities, such as recreation equipment rentals and sales, lessons, and other related businesses. The following are two examples of how trails have helped

local commercial areas across the nation:

  - The downtown area of Dunedin, Florida was suffering a 35 percent storefront vacancy rate in the early 1990's until the Pinellas Trail came into town. Now, storefront occupancy is 100 percent and business is booming.
  - A study of the Oil Creek Bike Trail, in Pennsylvania (Pennsylvania State University, 1992) revealed that the average visitor spends $25.85 per day. This was broken down into $9.09 for food, $6.27 for transportation, $2.56 for lodging (many visitors camp) and $7.94 for equipment and other activities.

- **Tourism--**Trails are often major tourist attractions that generate expenditures on lodging, food, and recreation oriented services. Greenways along trails can also help improve the overall appeal of a community to perspective tourists and new residents. Many Americans prefer to visit places, such as greenways and trails that offer safe, scenic recreation and transportation for the whole family. The U.S. Department of Transportation, in its recreation and transportation for the whole family. The U.S. Department of Transportation, in its National Bicycling and Walking Study (NBWS) final report, estimates that 131 million Americans regularly bicycle, walk, skate or jog for exercise, sport or recreation. For example, peak-season hotel rooms along Wisconsin's Elroy-Sparta State Park Trail are booked up to one year in advance. A study revealed that the average visitor travels 228 miles to experience the trail.
- **Agency Expenditures--**The agency responsible for managing a trail can help support local businesses by purchasing supplies and services. Jobs created by the managing agency may also help increase local employment opportunities.
- **Corporate Relocation--**Evidence shows that the quality of life of a community is an increasingly important factor in corporate relocation decisions. Greenways and trails are often cited as important contributors to quality of life. In a June 8, 1989 article, the San Francisco Chronicle noted that when corporations are relocating, the number one factor was a location that would attract and retain key personnel. Corporate real estate executives now say that employee 'quality of life' issues are as important as cost when deciding where to locate a new factory or office. Bicycle and pedestrian trails also attract high quality businesses by providing community options for employees, scenic places for stress-free strolls at lunchtime, and safe, convenient sites for family recreation. The Provo Parkway Trail and the Riverwoods Business Park are a local example of this interaction. Furthermore, natural open space, greenways, and trails are prime attractions for potential homebuyers. According to research conducted in 1995 by American Lives, Inc. for the real estate industry, 77.7% of all home buyers and shoppers in the study rated natural open space as either 'essential' or 'very important' in planned communities. Walking or biking paths ranked third. A community design that offers quiet and low traffic was the top ranked feature.
- **Public Cost Reduction--**The conservation of rivers, trails, and greenways can help local government and other public agencies reduce costs resulting from congested roadways, environmental degradation, and other natural hazards, such as flooding. The construction of multi-use trails allows more Americans to replace automobile trips with non- motorized trips. According to the NBWS report, the American public saves from 5 to 22 cents for every automobile mile replaced by walking and bicycling, due to reduced pollution, oil import costs, and costs due to congestion, such as lost wages, and lost time on the job.
- **Intrinsic Value--**With all of the previously mentioned benefits of trails it is important to remember the intrinsic environmental value of preserving rivers, trails and other open space corridors.

B. Four Social Benefits of Trails

- **Community Character--**Not only do bicycle and pedestrian facilities enhance the quality of life for many individuals, but trails and pathways can also be an expression of community pride and character. In many cases it means preserving the natural and historical resources of a region.
- **Close to Home Recreation--**An explosion in the number of people who participate in outdoor recreation has led to an increased demand for bicycle and pedestrian facilities. Participation in trail uses, such as hiking, walking, mountain biking, and in-line skating have experienced phenomenal growth in recent years. Multi-use trails provide convenient access to the outdoors while promoting health and fitness activities. These trails are becoming especially popular among people living in cities and suburban areas, where recreation opportunities close to home are scarce.
- **Convenient Transportation--**Nearly half of all trips people make within their communities can be made easily on foot or bicycle. Fifty percent of all personal travel trips are less than 3 miles long. Personal business trips, like doctor visits, household errands, and visits to friends account for 415% of all trips. Such personal short distance trips are well suited to travel by walking or bicycling. Public rail-trails, multi-use pathways, and on-road bicycle facilities offer communities a means of safe convenient transportation and keep the essential links within a community open to all. They can connect neighborhoods to schools, work places, commercial and cultural centers, historic sights, and transit stations.
- **Health and Fitness--**The health benefits of exercise derived from recreational activities, such as bicycling and walking lessen health-related problems and reduce health care costs. Trails, spacious sidewalks, and greenway trails offer adults and children alike the opportunity to integrate moderate, individualized exercise with their daily trips to work, school, the library or shopping. Regular, moderate exercise has been proven to reduce the risk of many health problems, such as coronary heart disease, diabetes, certain kinds of cancers, and obesity. Regular exercise can also protect against injury and disability because it build muscular strength and flexibility. In addition to the health benefits that bicycling and walking offer, consider also the improvement of physical health reduces health care costs. People who exercise regularly have 14% lower claims against their medical insurance and spend 30% fewer days in the hospital than people who do not exercise regularly.

C. Community Safety

Conway can take several steps in reducing accidents that can occur between automobiles, pedestrians, and bicyclists. The following are suggestions on how to create a safer environment for all modes of travel:

- **Encourage schools, safety organizations, and law enforcement agencies to deal with bicycle and pedestrian safety issues and to focus on the most important safety problems.** The development of public education campaigns should be keyed to the most important causes of accidents, injuries, and deaths. For example, the leading cause of bicycle accidents occurs when cyclists ride on the wrong (left) side of the street. By educating bicyclists to obey traffic rules and to ride safely with motor vehicles most accidents can be prevented.
- **Promote the use of safety equipment among bicyclists (e.g., lights, helmets, reflectors) and encourage safety groups to develop programs promoting the purchase and use of safety equipment among the bicycling public.** Ideas for public involvement include community 'safety days' centered on trails or group presentations to local clubs and schools. It is recommended that safety presentations are more effective when the information is tailored

to the particular audience. A good example, for school-aged children is to set up a mock street or trail on the school grounds with lines, obstructions and signs. Children who make up a large percentage of bicycle traffic can then practice safe bike riding habits on the course.

- **Discourage agencies' placing marked (painted) crosswalks at uncontrolled locations, i.e. no stop or traffic signal control.** Marked crosswalks on busy streets give pedestrians a false sense of security and are a leading cause of auto/pedestrian accidents.
- **Encourage neighborhood designs for both pedestrians and autos.** Local streets can be designed to induce lower vehicle speeds. Discourage school districts from placing elementary schools along major streets and thus limit children's exposure to traffic and speeding vehicles. Employment centers can contribute to reducing the number or crashes', injuries, and deaths among agency staff. Provide training and awareness programs for employees. Encourage staff to use bicycle safety equipment.

D. Crime Control and Emergency Vehicle Access

A well-designed trail prevents many security problems. Although crime is a common concern many studies have proven that crime does not increase at trail locations or on adjacent properties. If problems will occur they will most likely happen in parking lots. Parking Lot Design (fencing, lighting, one entrance point to trail) can solve most safety concerns. Night security lights installed at trailheads and other activity areas can also solve many problems at these locations. Trails should always be planned to accommodate security, safety and emergency equipment (fire engines and ambulances). Construct bollards at access points that can be removed or folded over in the event an emergency vehicle needs to enter onto the trail.

Other safety considerations should include landscaping. Landscaping along trails should consist of low shrubs and tree branches should be 'cropped close to the trunk, at least 10 feet from the ground,' so that potential offenders will not have an easy place to hide.

E. Cooperation and Community Involvement

The following are ideas adapted from Trails in the Twenty-First Century, by the Rails-to-Trails Conservancy (1993):

To maintain and develop relationships with adjacent landowners:

- Adjacent Landowners need to know who to contact about specific problems.
- Maintain trail on regular basis and consider involving citizens in trail upkeep with volunteer work groups and 'adopt-a-trail' programs.
- Promptly respond to problems, such as unauthorized motorized vehicles use, vandalism, theft of trail signs, and graffiti. Consistent quality upkeep of the trail will build community confidence in the ability to manage the trail.
- Consider scheduling regular meetings to receive input from users, residents and landowners.
- Invite landowners on a trail tour led by a park ranger or someone who is involved with trail management or planning.
- To win support of landowners, consider writing personal letters testifying of the benefits of trails.
- Make sure adequate facilities, such as restrooms and drinking fountains are provided so that adjacent landowners are assured that trail users will stay on the trail.

The Town should consider community trail events and public education programs such as the following:

- Trail Corridor Tours
- Trail Work Day
- Photo Competition
- Trail-athon or Walk-athon
- Poster/Logo Contests “Name the Trail”
- Decorative Bicycle Parade
- Nature Walks
- Newspaper Column

6. Action Items

The Town of Conway should compile an inventory of pedestrian, cycling and recreational trails, as well as, associated infrastructure. This would supplement the current Map 6-2 Recreation Trails and Bike Routes.

The Town of Conway should engage the public for input into setting priorities and preferences relative to designated bike routes, streetscape design and infrastructure improvements.

The Town of Conway should establish and designate bike routes on the existing road network and identify infrastructure improvements (bike lane widening, pavement markings, signage, etc.) that would improve safety and the cycling experience along those routes. This would supplement the current Map 6-3 Bike Routes and Conceptual Greenways.

The Town of Conway should develop village streetscape plans that would give NH DOT guidance for incorporating bicycle and pedestrian facilities into future State highway projects.

The Town of Conway should continue to partner with other agencies, utility companies, organizations and private property owners to enhance the existing trail network as well as establishing agreements to secure voluntary easements that facilitate connectivity among the segments of the existing trail system.

CHAPTER 7
TRANSPORTATION ASSESSMENT

1. Introduction

How people and goods move from one place to another is a fundamental issue that needs to be addressed when planning and managing growth in Conway. As the community continues to attract new commercial and residential development and existing businesses expand, adequate transportation infrastructure and services must be provided.

The primary focus of this transportation assessment is to identify important local and regional issues and opportunities to enhance and diversify the transportation network through expansion, maintenance, land use regulations and development policies. The first section of this chapter defines the existing transportation network. Trends and statistics are evaluated regarding local and state roads (congestion, capacity, traffic patterns, safety), transportation and parking issues in the villages, and alternative travel opportunities.

The next section provides an analysis of planned transportation projects in the community based on the four-pronged approach adopted by the community in 1992. This includes an evaluation of parkways (including the North-South Road and the proposed Conway bypass), Route 16 improvements, local road improvements and maintenance programs, and land use policies and regulations. The final section defines potential future implications of transportation issues and planned improvements in Conway.

In order to obtain data and information for this chapter, several different sources were contacted including the New Hampshire Department of Transportation (NHDOT) District 2 office, the North Country Council, as well as the Departments of Public Works (DPW), Police and Planning in Conway. Additionally, several previous studies and reports that examined transportation projects and issues in Conway were used during the preparation of this assessment.

2. Summary of Findings and Conclusions

The following points summarize the transportation issues and conclusions presented within this chapter. Additionally, various implications (particularly regarding future land use policy) associated with Conway's transportation trends are discussed.

- Conway serves as the confluence of several state highways. Because these highways serve as critical links to other regions of Northern New England, a significant amount of interstate and interregional traffic flows through the community on a daily basis.

Conway Transportation Facts

Local Roads	161 roads totaling 82 miles
Federal Routes	Rt. 302
State Routes	Rts. 16, 112, 113, 153
Nearest Interstate Exit Distance	I-93 (Exit 23, 38 miles), I-95/495 (approx. 45 miles)
Railroad	Conway Scenic
Public Transportation	Statewide (no local)
Nearest Airport	Fryeburg, ME
Runway	4,200 Ft.
Lighted	Yes
Navigational Aids	Yes
Nearest Commercial Airport	Portland, ME.
Distance	60 miles

- Other forms of regional transportation, such as air and rail, have not been a major factor in moving people or goods in and out of Conway.

- Conway has approximately 82 miles of local roads that increased by over 10 miles in the last 25 years. The vast majority of these are Class V roads. The local road system consists primarily of sub-collectors and residential access roads, but similar road design standards are often applied even though they serve different purposes.

- Local public transportation is very limited in Conway with two taxi services, one interstate bus service with two daily runs, and independent human service programs. Like many rural communities, Conway has difficulty in justifying and sustaining regular public transportation. In fact, public transportation services have declined in Conway over the past 10 years.

- There are approximately 665 public parking spaces operated by the town in the three villages including: North Conway Village (416), Conway Village (219) and Center Conway Village (30). Additional parking spaces are provided by local businesses. Parking in the villages is a growing concern and a balance of well distributed public and private spaces, with appropriate time limits and management to accommodate the needs of residents and visitors alike, needs to be determined.

- The only significant sidewalk network in the town occurs in Conway Village and North Conway Village. A sidewalk along the east side of the Route 16 “strip” poses several safety issues and can be difficult to navigate. Walking is a key function in the village areas and sidewalk maintenance and enhancements should be made accordingly.

- There are bicycle lanes located along portions of the NH Route 16 and US Route 302 corridors and West Side Road. However, due to the extensive amount of vehicle traffic and turning movements, these corridors are not friendly for bike riders, particularly along the “strip” and in the villages.

- There are a multitude of trails and paths in Conway serving a variety of users including walkers, hikers, mountain bikers, cross-country skiers, and snowmobilers. Much of this network is informal and privately owned with no formal agreements for continued use.

- Because of the nature of the Mount Washington Valley as a resort destination, traffic volumes in Conway are unusual. Daily traffic counts resemble more of a suburban than rural community in that business hours for area workers and visitor usage create more peaks and lows in volumes than most comparable communities with a more stable year-round population.

- In 1978 there were over 320 reported accidents on Conway roads. About one-third of all these accidents occurred on Route 16. By 1990, the number of accidents dropped significantly with about 185 total reported. In 2001, the number of accidents rose significantly to a level of 684. Nearly half of these accidents occurred on Route 16.

- The North-South Road has the potential to separate a large amount of through traffic from shopping traffic creating new opportunities for higher quality and higher density infill development and redevelopment in other sections of the town. However, this opportunity must be carefully balanced with the need to enhance the vitality of Conway and North Conway Villages. Additional issues include:

    - Careful monitoring of traffic impacts at Kearsarge Road and Mechanic Street at the northern terminus on the North-South Road.

    - The installation of attractive directional signage.

    - Future access to the corridor by additional existing roads and private land parcels.

    - The channeling of bicycle riders and pedestrians to the new corridor

- The Conway bypass should serve as an effective diverter of through traffic, as well as an attractive gateway to the Mount Washington Valley region. The roadway will also have characteristics associated with a parkway, in terms of continuous natural buffers on the edge of the right-of-way, that is interspersed with views and vistas showcasing the natural attributes of the valley which is the foundation of the area’s tourist-driven economy. Local efforts have been made to preserve these natural features including strict development and design controls at the four intersections, protection of view corridors and nearby natural resources, limiting outdoor advertising and lighting, and keeping the public well informed about progress in completing the roadway.

- Route 16 is the major existing arterial in Conway. In order to improve the efficiency, capacity, safety, aesthetics, and economic opportunities on the corridor, several upgrades and improvements are being considered. These include measures such as improving site access, limiting or reconfiguring curb-cuts, and signalizing intersections with poor safety or levels of service (LOS) records. Improving sidewalks, bike networks, and streetscape enhancements should also be considered as important undertakings.

- Although Conway's roadway design standards were established to ensure that new roads would be safe in every situation, the result can be the over-design of rural and lower density residential streets. Additionally, dead-end streets should be connected where possible to provide better emergency access, utility looping, and dispersement of traffic.

- Conway's transportation planning principles should not necessary be based on maximizing a roadway's level of service (LOS), which amounts to vehicles operating at or above a given average speed. Rather, guiding principles for transportation planning in Conway should focus on keeping traffic flowing smoothly within the community and minimizing travelers' delay as well as other adverse impacts associated with stop and go driving. Slow and steady should be the goal rather than a high LOS and speed, which detracts from the sense of community. Additionally, alternative means of transportation must be developed within Conway in order to fully address a variety of local and regional needs.

3. The Existing Transportation Network

In conjunction with local and state officials, the following inventory of the existing transportation network has been assembled. Problem areas, based on existing infrastructure, have also been identified including capacity issues, traffic counts, accident data, and surface conditions.

Regional Transportation Network

Regional transportation facilities include highways, railroads, and airports.

Highways - The regional highway network is comprised of six classifications as defined by the New Hampshire Department of Transportation (NHDOT) and shown in Table 7-1 below.

Table 7-1: N.H. Highway Classifications System

Class	Description
I	Existing or proposed highways on the primary state highway system.
II	Existing or proposed highways on the secondary state highway system.
III	Recreational roads leading to and within state reservations as designated by the legislature
IV	Highways within the compact sections of designated municipalities (not applicable to Conway)
V	All other town maintained roads
VI	All other public ways, including closed roads and roads not maintained in conditions suitable for travel for five or more years

Source: NHDOT

New Hampshire's highway classification system can be divided into two broad categories – state highways and municipal highways. Class I, II, III highways are those controlled and maintained by the New Hampshire Department of Transportation (NHDOT). Class IV, V, and VI highways are controlled and maintained by local municipalities.

Routes 16 and 302 are maintained by NHDOT as part of the federal-aid primary system. Route 113, between Conway Village and Center Conway, is also part of the federal-aid primary system. Portions of Passaconway Road, River Road, and part of Washington Street are also federal-aid secondary roads (see Table 7-2).

Table 7-2: Conway Classified Road Mileage

	1978	2002	Remarks
Class I	16.17	16.07	Route 302
Class II	16.91	23.54	Route 16 +
Class III	0.67	0.69	Recreational Road
Class IV	0	0	Urban Compact Roads
Class V	72.17	82.75	All regularly-traveled town roads
Class VI	4.09	4.06	Subject to gates and bars
TOTAL	**110.01**	**127.11**	**17.1 new miles of roadway in 25 yrs.**

Source: NHDOT and Town of Conway

The primary and secondary classes are defined by NHDOT according to whether a road is considered to be major or minor and the amount of population served by the road. Other Class II highways in Conway include Route 113 (from Center Conway to East Conway), Route 153, Route 16, Route 112, East Conway Road, Green Hill Road, River Road, West Side Road, (north of River Road only), Cathedral Ledge Auto Road, Worcester Hill Road, and Hurricane Mountain Road.

Conway is the confluence where several regional highway corridors merge. The Routes 16 and 302 corridors are critical links in the highway systems of eastern New Hampshire and southwestern Maine. A substantial amount of interregional traffic moves through Conway along these corridors to points north, west and south. In addition, traffic from the south and southwest moves through to recreational areas in the north.

State Routes 16, 113 and US Route 302 carry regional traffic between Portland, Lewiston, Auburn, and more westerly areas of Maine (via Routes 302 and 113). The Crawford Notch-St. Johnsbury areas are served by Route 302; Lincoln-Woodstock areas by Route 112; Laconia-Moultonboro areas by Routes 25 and 113; and Chocorua-Wolfeboro and more southerly areas by Routes 16 and 153.

Airports and Air Service – The major airport in the area is the Eastern Slope Regional Airport in Fryeburg Village, Maine about 12 miles from North Conway. This municipally- owned facility was constructed in 1961 and includes a 3,700-foot long runway, which is barely long enough for a small jet. The nearest commercial airport is located in Portland, Maine (Portland Jetport) approximately 60 miles southeast of Conway.

Air travel at present is a relatively minor economic factor and means of access to the region. However, continued and planned expansions at several regional airports including the former Pease Air Force Base (about 50 miles to the south), Portland Jetport, Manchester (NH) Airport and Bangor (ME) Airport could significantly improve access to northern New England and the Mount Washington Valley.

Railroads – Two rail lines run through Conway – the Maine Central, which follows Route 302 and the Boston and Maine, which enters the southwestern corner of town along Routes 16 and 113, and then runs between Route 16 and the West Side Road, joining the Maine Central above North Conway. The Maine Central runs between Portland, Maine and St. Johnsbury, Vermont, where it connects to the Canadian Pacific. This rail connection served as the primary freight line for area businesses until the mid-1970s. While the line is listed as active by NHDOT, it is no longer in active use. There have been plans recently to reactivate the line as a visitor attraction similar to the Conway Scenic Railway.

A segment of the Boston and Maine line, south of Conway, has been abandoned or is in serious disrepair. Consequently, service to the east is not possible. The B&M line in Conway is currently owned and operated by the Conway Scenic Railroad. Significant policy discussions have taken place in Conway regarding the future use of rail corridors in the town. The major issue is whether railroad transportation could once again become an economically viable transportation entity, or whether the corridors should be put to more immediate uses such as the location for new highways, trails, or communication infrastructure. A NHDOT policy to preserve these corridors for future transportation use, while allowing interim recreational uses, has been considered, but not formally adopted by the town.

Local Transportation Network

Roadways - The regional highway system also includes several major local arterials serving Conway residents. Roads can be broadly organized under these categories: arterials, collector roads, and local access roads. For the most part, the major roads in Conway are a cross between arterials and collectors.

Arterial roads move large volumes of traffic with limited access points. An example in Conway is the new section of Route 302 where it crosses the Saco River, between Route 113 and the new municipal complex.

Collector roads generally serve duel functions. Their primary purpose is to feed traffic from local roads onto arterials, with a secondary and subordinate purpose of providing access to adjacent land uses. Routes 16 and 302 can be classified as collector roads even though they have a significant number of private curb cuts.

Local roads comprise the remainder of roads in Conway. The primary function of local roads is to provide access to various types of land uses. These roads are generally smaller, in terms of pavement width, than collector roads.

An inventory of roads in Conway, as of 2003, that provides descriptive information about each roadway is located in an Attachment to this master plan. The town contains a total of 161 local roads, primarily in the Class V category. There are over 82 miles of regularly maintained local roads and just over four (4) miles of seasonal roads (Class VI). The town has added over 10 miles of locally-maintained roadway in the last 25 years (a 14.7% increase) and over 17 miles of total new roadways.

Conway also has five (5) seasonal roads, which are closed for vehicular use during snow season. Hurricane Mountain Road and Cathedral Ledge Auto Road are state maintained Class II seasonal roads, and neither is subject to significant development pressure. Leavitt Road and Greeley Road in South Conway, and Little Chatham Road in East Conway are town maintained Class VI roads. These roads have been designated as “highways to summer cottages” and state laws do not require that they be maintained for winter travel.

There are eight (8) scenic roads in Conway as designated by Town Meetings over the years including:

- Gulf Road
- Crown Hill Road
- Baird Hill Road
- Potter Road
- West Side Road
- Greeley Road
- Leavitt Road
- Davis Hill Road

With the exception of West Side Road, all of these are dirt roads in South Conway. State law restricts the cutting of trees and the removal of stonewalls along scenic roads. The general intent is to preserve these corridors as attractive rural roads.

The town’s road design standards typically require a 50 foot right-of-way (r-o-w) and 18 to 24 feet of paved area. A review of existing local roads indicates that the average roadway width is generally consistent with these standards (46.5 average right-of-way, and 20.6 pavement width). Many of these roads are very old and predate the town’s design regulations. In most cases, these reduced r-o-w and pavement widths work well, particularly for local residential access roads. However, some roads have become more heavily used sub-collectors and collectors and their narrow width and minimal base construction has required substantial improvements by the town. On the other hand, it’s not unusual for new residential subdivision roads (minor local access roads) in Conway to be built to a higher standard than the collector roads they feed into.

Trucking – Most Conway businesses use trucks to transport their raw materials or products into the area, for distributing goods locally, and to ship products to markets in New England and beyond. There are approximately 10 trucking firms located within 10 miles of Conway and 16 within a 30-mile range. Two firms are located in town and service the Conway area. A bonded warehouse, available for public storage, is also located in town.

Public Transportation – There is no public transportation available within Conway or adjacent communities. Like many rural communities, Conway has not been able to demonstrate the feasibility for such service given the population base, wide dispersion of dwellings, and general independence of commuters. Additionally, there are no major nearby urban areas that serve as employment centers that could justify public transportation. Presently, the only form of public transit is provided by Concord Trailways, which makes two runs daily between Berlin, NH and Logan Airport in Boston via Concord and Manchester, NH.

Taxi Service – There is limited taxi service provided in Conway by two companies. Transportation is available on demand and both companies provide service on a 24-hour-a-day basis.

Special Transportation Services – Many social service organizations provide transportation to individuals and client groups, including the Senior Wheels program of the Tri-County Community Action Program, Headstart, Center of Hope, and Northern New Hampshire Mental Health. Because of the high cost of transportation in rural areas, these agencies are barely able to meet their own needs. However, the service that is provided is critical to individuals, whether they are senior citizens, mentally or physically handicapped, or pre-school children. As an example, Senior Wheels provides rides to over 100 senior citizens of Conway for congregate meals, medical appointments, shopping, and visiting.

Public Parking System – The town operates approximately 665 public parking spaces between North Conway Village (416), Conway Village (219) and Center Conway Village (30). Parking spaces at the Conway Post Office and public schools are not counted as part of this inventory. On-street parking provides the majority of public parking spaces in the villages. Off-street parking in Conway Village is available at Davis Park (36 spaces off East Side Road) and the Conway Library (14 spaces off Greenwood Avenue). In North Conway Village the vast majority of off-street parking is provided by private businesses. The town also leases 49 spaces from a private business owner off White Mountain Highway in North Conway Village. The future of these spaces is uncertain as the lease is scheduled to expire in 2003. Private on-site parking is also provided by various businesses in each of the villages (see Table 7-3).

Table 7-3: Conway Public Parking System

Area	Spaces	Description
North Conway Village	**416**	
Seavey Street	5	On-Street Parallel
Kearsarge Road	41	On-Street Parallel
Pine Street	6	On-Street Parallel
Main Street (RT. 16)	268	On-St. Perp. & Angle
Norcross Circle	41	On-Street Parallel
White Mt. Highway	49	Off-St., privately owned, leased
Conway Village	**219**	
Main Street	84	On-Street Parallel
W. Main Street	36	On-Street Parallel
Washington Street	39	On-Street Parallel
Greenwood Avenue	10	On-Street, Parallel
Conway Library	14	Off-Street
Davis Park	36	On-Street, E. Side Rd.
Center Conway	**30**	
Town Hall	30	Off-Street, municipal

Source: Town of Conway and Dufresne-Henry, Inc.

The majority of public parking in the North Conway Village has a 2-hour time limit, while Conway Village has a 1-hour limit. However, the town currently has no formal enforcement program. In the peak summer and winter weeks parking can be difficult to find, particularly in North Conway Village.

The Conway Zoning Ordinance requires that all new commercial and multi-family developments provide on-site parking, except where there is a municipal parking lot within 400 feet of the site. Although this type of requirement is logical in newer commercial districts where sufficient room is available for on-site parking, in the Villages of Conway and North Conway this is a difficult problem. These villages are densely settled and dependent primarily on existing on-street public parking. Also, there are very few existing and potential new on-site parking expansion opportunities available that would not negatively impact the traditional village development patterns.

Sidewalks – The only significant sidewalk network in town occurs in Conway Village and North Conway Village. There is also a sidewalk in Center Conway, along Mill Street, that is primarily used to provide a safe alternative for children walking to and from the Pine Street School. Pedestrian movement in the villages is a fundamental means of transportation and key to long-term viability. Consequently, streets and intersections should be designed to provide for safe and convenient pedestrian access. However, there are several areas in the North Conway Village where the sidewalk network is in disrepair.

The only other significant sidewalk in town is along the east side of the Route 16 “strip” that begins at the intersection of Route 16 and 302 and extends north into North Conway Village. A partial sidewalk is also located on the west side of the road. There are numerous safety issues associated with these sidewalks including minimal separation from travel lanes, multiple and wide curb cuts, and handicapped accessibility constraints. Navigating the strip as a pedestrian can be a dangerous undertaking.

Bicycle Lanes – As shown in Map 7-1, there are bicycle lanes located along portions of the NH Route 16 and US Route 302 corridors, as well as West Side Road. However, due to the amount of vehicle traffic and turning movements, these corridors are not friendly for bike riders, particularly along the "strip" and in the villages. Over the years there have been several accidents involving bicycles and cars. A network of bicycle lanes along major roads would greatly enhance rider safety and use. This network should include Route 16, Route 302, Route 113, Route 112, Route 153, West Side Road, River Road, East Conway Road, Green Hill Road, North-South Road and Brownfield Road. In order to facilitate this network, Conway will have to work closely with NHDOT, which is responsible for all of these corridors except West Side and Brownfield Roads. Additional information on bicycle lanes is provided in Chapter 6 (Recreation) of this master plan.

Trails and Paths – There are a multitude of trails and paths in Conway serving a variety of users including walkers, hikers, mountain bikers, cross-country skiers, and snowmobilers. Much of this network is informal and privately owned with no formal agreements for continued use.

Map 7-1 Bicycle Routes

The town has been pursuing a formal multi-use trail network for non-motorized uses. The main trail would be located on an existing rural road along the northern bank of the Saco River from Redstone to Conway Village. Ultimately, spurs would be developed and the town would like to see the major villages connected to this network.

The only formal motorized use trail (trail 19) in Conway enters the community at the Albany town line along the railroad tracks then proceeds north, parallel to Route 16, to the area of Barnes Road, where it crosses Route 16 and follows Barnes Road easterly across the North-South Road to the railroad tracks. The trail then heads southbound on the tracks to Redstone and then easterly along private land towards Route 113 and Maine. The Conway Snowmobile Club manages this trail. More information relative to recreational trails and paths throughout the town is available in Chapter 6.

Traffic Circulation & Capacity Issues

Traffic circulation in Conway is probably the most important transportation issue facing the community. Congestion during peak periods is widely known to residents and visitors alike, and can greatly diminish the experiences of both groups. It has been a major quality of life factor that is now beginning to be sufficiently addressed after years of debate and discussion.

The structure of the local highway network requires local and regional travelers to share, to a significant degree, the major arterials in Conway. Local traffic consists mainly of trips from residential areas in Conway, Center Conway, Conway Village, North Conway and surrounding towns to local businesses and services concentrated in the community. Commercial districts in Conway are also attracting more short and long-range trips each year. These linked commercial trips generate substantial turning movements. Combination of local trips and through trips on the major arterials often results in slow traffic, capacity constraints and delays.

Conway has significantly higher traffic volumes on its major roadways when compared to other communities of similar size. NHDOT has monitored daily traffic volumes for several years at a number of permanent and temporary traffic counting stations throughout the town. Table 7-5 illustrates that the highest daily traffic counts are recorded at the station on U.S. 302 and Route 16 south of Duprey Road where daily traffic averages over 20,000 vehicles per day (vpd) during the last 5 years. Other high traffic count locations (those approaching 20,000 vpd) include U.S. 302/Rt. 16 north of the intersection; Route 16 west of Route 153; and U.S 302/Route 16 south of Grove Street.

Because of the nature of Mount Washington Valley as a destination resort location, traffic volumes in Conway are unusual. Daily traffic counts resemble characteristics often associated with suburban areas, rather than a rural community, in that business hours for area workers and visitor destination trips create more peaks and lows in volumes than most comparable communities with a stable year-round population. Also unusual is that weekend traffic is likely to be higher than weekday traffic (see Table 7-4).

Table 7-4: Annual Average Daily Traffic Volumes in Conway

			Annual Ave. Daily Traffic (VPD)				
Station*	**FC****	**Location**	**1996**	**1997**	**1998**	**1999**	**2000**
101024	2	NH 16 South of Intervale Rd.			12,000		
101045	2	NH 16 North of NH 113 at Saco River Bridge (SB/NB)		13,000	13,000		12,000

Overall, traffic has grown significantly over the past 20 years. Between 1980 and 2001, the annual total vehicle trips

grew by 52% (from 431,091 in 1980 to 629,678 in 2001). Traffic volumes vary greatly over the course of a year in Conway. There are two peaks, one in mid-winter and the other in mid-summer as illustrated on Table 7-5. These peaks correspond to the winter ski season and the summer vacation period.

101046	8	East Conway Rd. east of US 302			4,800		
101047	8	West Side Rd. north of Allen's Rd.	4,600			5,700	
101048	9	Intervale Cross Rd. east of US 302 & NH 16	1,500		2,400		
101049	8	Passaconaway Rd. east of Albany TL	440				
101050	9	Tasker Hill Rd at Madison TL	760				
101051	2	US 302 & NH 16 north of Jct. Of US 302 & NH 16			20,000		
101052	2	US 302 east of US 302 & NH 113		8,700		11,000	
101053	2	US 302 at Maine SL		8,500		9,000	
101054	2	NH 16 at Albany TL		12,000	12,000	13,000	
101055	2	US 302 & NH 16 (North Conway) south of Grove St.		16,000	19,000		
101056	2	NH 16 west of NH 153	17,000			20,000	
101057	2	NH 16 south of US 302			14,000		
101058	6	US 302 east of NH 16		7,900			10,000
101059	2	NH 113 south of US 302 & NH 113	7,300			8,000	
101060	8	Lucy Brook					1,100
101061	2	NH 16 north of Washington St.			14,000		
101062	2	US 302 & NH 16 north of River Rd.		15,000	14,000		11,000
101063	2	NH 113 east of NH 16	7,400			6,800	
101064	8	River Rd. at Saco River Bridge	5,300			6,400	
101065	8	Kearsarge St. east of NH 16	2,300			2,400	
101066	8	West Side Rd. south of River Rd.	5,100			6,500	
101067	8	Passaconaway Rd. at B&M RR Crossing	930	830			
101068	9	Intervale Cross Rd. east of Wyman Ave.			930		
101069	9	Skimobile Rd. east of Kearsarge Rd.	720	760			870
101074	8	NH 113 (East Conway Rd.) at White Lot Bridge	1,500	1,600		1,800	
101076	8	East Conway Rd. north of Road to West Fryeburg, Maine		1,100			
101077	8	East Conway Rd. at Mason Brook			2,900		
101078	9	Old Bartlett Rd. over Kearsarge Brook	390			390	
101079	9	Artist Falls Rd. over Artist Brook	510			540	
101080	9	Mill St. over Conway Lake Outlet	2,000			1,900	
101081	2	US 302 & NH 16 south of Duprey Rd.	20,931	20,970	21,148	20,794	20,583

* All stations are Type 82 except the following: 101052, 10154, (22); 101053 (62); 101081 (02)

** Functional Class of Roadway

AADT: The total two way volume of traffic at a given location for a 24-hour period representing an average day of the year.

Source: NHDOT Traffic Volume Report, 2000

Table 7-5: Town of Conway Automatic Monthly Traffic Recorder Report, 1980-2001

US 302 & NH 16 South of Duprey Road

		Ave. Sunday			Ave. Weekday			Ave. Saturday			Adj. Ave. Daily			Computed Total Veh.			
Month	Total Veh. 1980	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001	1980-2001 Gain/Loss
January	348,982	16,546	17,523	18,521	17,770	17,475	18,156	19,810	21,271	21,332	17,901	18,095	18,613	554,943	560,953	577,006	65.3%
February	359,238	nr	20,830	18,423	nr	19,648	19,613	nr	22,449	22,933	nr	20,135	19,917	nr	583,922	557,673	55.2%
March	351,016	nr	18,591	19,014	nr	19,229	17,493	nr	22,487	21,377	nr	19,567	18,315	nr	606,573	567,776	61.8%
April	334,355	nr	15,466	16,515	22,036	18,378	nr	nr	20,514	nr	nr	18,249	nr	nr	547,474	nr	63.7%
May	408,852	19,202	19,096	nr	19,853	19,039	nr	22,191	22,373	nr	20,125	19,477	nr	623,893	603,764	nr	47.7%
June	438,400	21,379	nr	18,695	22,589	nr	20,892	25,027	nr	22,339	22,753	nr	20,840	682,574	nr	625,214	42.6%
July	637,803	23,605	21,958	22,628	25,505	23,896	24,362	25,818	24,347	25,651	25,310	23,656	24,249	784,618	733,338	751,717	17.9%
August	664,236	23,027	23,179	23,301	25,232	24,569	24,793	25,747	25,488	25,602	24,943	24,507	24,705	773,230	759,747	765,860	15.3%
September	460,305	21,667	20,468	20,783	21,905	21,238	20,497	24,593	23,379	23,202	22,232	21,492	20,996	666,946	644,760	629,869	36.8%
October	nr	19,756	19,734	19,604	21,759	20,827	20,936	23,474	23,404	23,212	21,712	20,983	21,058	673,080	650,474	652,791	nr
November	352,712	17,657	15,615	18,004	18,866	17,172	18,377	22,547	21,209	22,154	19,196	17,503	18,831	575,865	525,086	564,925	60.2%
December	386,104	18,445	17,381	18,647	20,634	19,373	19,100	18,856	20,722	21,922	20,122	19,270	19,482	623,765	597,345	603,950	56.4%
AVERAGE	**431,091**	**20,143**	**19,076**	**19,467**	**21,615**	**20,077**	**20,422**	**23,118**	**22,513**	**22,972**	**21,588**	**20,267**	**20,701**	**662,102**	**619,403**	**629,678**	**52.3%**

nr: Not reported/station did not operate

* Insufficient data to compute

Source: NHDOT Automatic Traffic Recorder Report, 2000

In the extended summer-fall season, from June through October, average daily traffic ranges from 22,000 to 25,000 vehicles.

This is a substantial increase over the 1980 average daily counts, which ranged from 15,000 to 20,000 vehicles. The peak months of the year are July and August when traffic exceeded 25,000 vehicles in 2001. Again, this is a substantial increase over the 1980 average of about 20,000 vehicles per day. Winter volumes are typically lower, between 18,000 and 19,000 vehicles per day. However, these levels again indicated a significant increase over the last 20 years when the average traffic in December and January was 11,000 and 13,000 vehicles per day.

During congested times, area residents have been able to find alternative routes such as West Side Road, the recently completed North-South Road, River Road, Kearsarge Road, Intervale Road, and portions of Routes 113 and 153 which parallel sections of the more widely know Routes 16 and 302 and the North-South Road. However, congestion on the arterials has had the effect of increasing the amount of traffic on alternative routes, and as more travelers discover these local alternative roadways, traffic congestion problems expand.

Sufficiency and Safety Issues

Roadway safety is determined by a number of factors such as road conditions, traffic volume and speed, the number of access points and intersections, driver behavior, and vehicle condition. All of these factors create the potential for accidents. Highway traffic accident data is commonly used to identify hazardous situations and plan for necessary improvements.

Table 7-6: Conway Traffic Accidents

	1978	1990	2001
Total Accidents	322	185	684
Persons injured or killed	124	35	92

Source: Conway Police Department

In 1978 there were over 320 reported accidents on Conway roads (see Table 7-6). About one-third of all these accidents occurred on Route 16. By 1990, the number of accidents dropped significantly with about 185 total reported. In 2001, the number of accidents rose significantly to a level of 684. Nearly half of these accidents occurred on Route 16.

Table 7-7: Conway Reported Accidents by Month, 1990 & 2001

	1990				2001			
Month	**Total**	**Involving Injury**	**Involving fatality**	**Hit cyclist/ Pedestrian**	**Total**	**Involving Injury**	**Involving fatality**	**Hit cyclist/ Pedestrian**
January	19	0	0	0	69	6	0	
February	26	3	0	1	61	11	1	
March	14	4	0	1	79	9	0	
April	6	0	0	0	32	11	0	
May	3	0	0	0	30	2	0	
June	13	2	0	0	54	5	0	Not available by month
July	27	9	0	0	72	14	0	
August	22	7	0	2	77	11	0	
September	10	3	0	0	51	9	0	
October	19	2	0	1	52	2	0	
November	10	3	0	0	40	3	0	
December	16	2	0	0	67	8	0	
Total	185	35	0	5	684	91	1	11

Source: Conway Police Department

It is difficult to determine the reasons for the drastic fluctuation in recorded accidents over the last 20 years. It appeared that as improvements were made to the state highway system during the 1980s and early 1990s (i.e. new signals and reconfiguration of several curb-cuts), accidents levels dropped accordingly. However, as more developed occurred along the “strip” and daily traffic continued to growth, the capacity of the roadway was further strained and accident levels rose.

Accidents reported in 2001 were fairly evenly distributed throughout the years (see Table 7-7). Slight increases occurred during July and August, corresponding to peak summer traffic volumes.

Statewide accident rates estimated by NHDOT (Draft Environmental Impact Statement, 1988) indicated the following statistics:

- Total Accidents: - 270 per 100 million vehicle miles (MVM)

- Property Damage Only – 169 per 100 MVM
- Personal Injury – 99 per 100 MMVM
- Fatal Accidents – 2.38 per 100 MVM

The total reported accidents for Route 16 of 307 in 2001 appear to be well above the statewide average for both "total incidences" and "property damage only incidents".

Highways in New Hampshire are evaluated according to a sufficiency rating system. Road features such as stopping distance, the width of the surface and shoulders, alignment, and grade are evaluated for each road segment under the state's sufficiency rating system. Each segment is given points for condition, safety and service with 100 as the maximum rating. Segments that receive a rating of 60 or less are considered insufficient and generally given priority for improvements depending on traffic, population, and condition of adjacent segments.

In the early 1980's, four segments of Route 16, one segment of Route 302, two segments of 16/302, and one segment of Route 113 had ratings of 60 or less. Reconstruction of Route 302 for 1.4 miles east of the Route 16 intersection has since been completed, as well as several other major roadway improvements.

4. Transportation Network Improvements

In the early 1990s the Town of Conway adopted a four pronged policy approach to improving the roadway system involving the following elements: new parkways (the Conway bypass and the North-South Road); upgrades to Route 16; local road maintenance and improvement program (7-year capital improvements program); and traffic demand management strategies.[1]

This comprehensive transportation policy was based on existing information and studies. It was intended to provide long-term policy direction to the Town of Conway with respect to transportation and the relationship of transportation improvements to land use planning. The primary problem identified in the report was traffic congestion during peak tourist periods. With few viable options for alternative transportation modes, tourists were driving to and through Conway to reach their destination. It was also determined that the existing system at the time was inadequate to handle resident traffic in combination with growth in the volume of regional traffic.

The solution was for the town and NHDOT to work together in providing increased highway capacity and efficiency in the system, develop long-term alternative modes, improve rail access, sustain an on-going planning effort, and make changes in land use policies and regulations in order to enhance transportation improvements.

New Parkways

A parkway is generally defined as a small-scale arterial road with little or no access to adjacent properties. This limited access design allows traffic to bypass existing areas of congestion, but permits traffic connections between the limited existing roads in the regional and local highway network. This approach could serve the needs of both local and regional traffic, as well as be sensitive to both the natural and built environments, especially existing communities and neighborhoods. The proposed Conway bypass and recently completed North-South Road are considered parkways.

North-South Road – The North-South Road, which opened in August of 2002, creates a network of local roads which serve to disperse traffic and partially separate through traffic from business traffic. Recent traffic counts indicate that the road averages about 4,000 to 6,000 vehicles per day.

The use and aesthetic appeal of this new travel corridor is already well established. It has limited access to intersecting streets, prohibits private driveway access, contains high quality directional signage (compared to advertising signs on Route 16), a pedestrian/bicycle network, and is a convenient bypass to areas of commercial development. From the intersection of Routes 16 and 302 this new corridor traverses north, parallel to Route 16, with connections to the following existing local roads:

- Artist Falls Road
- Depot Road
- Grove Street
- Seavey Street
- Kearsarge Road

- Mechanic Street

In designing this new roadway, both residents and NHDOT officials decided to limit access along the corridor to existing intersecting streets. However, there are several existing land locked parcels along the corridor that may need to be accommodated unless other access can be found. Future development proposed on these parcels should also be carefully reviewed in order to avoid creating the types of traffic issues that currently exist on Route 16, such as high turning movements and mixing local and visitor traffic. Other possible future side road connections include Mountain Valley Boulevard, Common Court, and Pudding Drive.

A unique pedestrian and bicycle network is included in this roadway design. Safe bicycle and pedestrian access along the new roadway is critical given the dangerous environment present on the Route 16 corridor due to high traffic volumes, turning movements and multiple curb cuts. The North-South Road corridor provides a convenient replacement and greatly extends the community's alternative transportation network.

The northern terminus (Kearsarge Street) has been an area of concern in terms of allowing for a smooth transition of traffic on the receiving street without disruption to the existing neighborhoods. Reasons cited include its narrow right-of-way and pavement width, the intimate scale and existing neighborhood character, and the area's capacity to absorb traffic entering and leaving the road. This final segment of the corridor will have to be monitored closely for potential negative impacts on the neighborhood.

The North-South Road may, however, indirectly affect growth and development in the community. For example, it is expected that traffic volumes will be reduced on the Route 16 strip thus expanding overall roadway capacity. Separating a large amount of through traffic from shopping traffic may also provide new opportunities for higher quality and higher density infill development and redevelopment. As a result, this opportunity for new development must be carefully balanced with the need to enhance and improve the vitality of North Conway Village.

The Town of Conway should continue to monitor traffic conditions and work with local residents, the business community and other interested groups in preparing a local traffic management plan for the North-South Road that addresses the following issues at a minimum:

- Careful monitoring of the impacts on Kearsarge Street at the northern terminus
- Installation of attractive directional signage
- Detailed evaluation of possible future access to the corridor by additional existing roads and private parcels
- Re-channeling bicycle riders and pedestrians to the new corridor

The Conway Bypass - The Conway bypass has been in the planning stages for nearly 30 years. The purpose of the bypass is to re-route through traffic around the villages of Conway and North Conway via a limited access highway. This would effectively separate local traffic from regional traffic, which has become overwhelming at certain times of the year within the two villages on Routes 16 and 302.

The Conway bypass project is included in the State's Transportation Improvement Program with funding of improvements tentatively scheduled during the next six years. Preliminary work has begun on the project, but the actual bypass is not scheduled to be completed for another 10 years.

Numerous studies and reports have been prepared about the bypass over a number of years in terms of traffic, environmental, social and economic impacts on Conway and the Mount Washington Valley. Much of the early discussion and concerns had to do with the direct impacts of the bypass on land and water resources in the path and adjacent to construction activities. Additional concerns were also raised over indirect and secondary impacts of potential growth and development, resulting from the project, if effective local growth controls were not in place. Specific concerns relate to the intersections, interchanges and properties that have visual exposure to the corridor.

In 1998, a series of special community planning workshops about these issues were held.[2] During these workshops a general consensus was reached that the Conway bypass should serve as an effective diverter of through traffic, an attractive gateway to the Mount Washington Valley, and have the character of a parkway, in terms of continuous natural buffers on the edge of the right-of-way, interspersed with views and vistas showcasing the natural attributes of the valley, which is the foundation of the area's tourist-driven economy.

While the Conway bypass could be considered a parkway in terms of design, the general consensus was that it should also

be in a “park-like setting”. In addition, protecting environmentally sensitive areas and important natural resources along the corridor and downstream from the impact area was a key community goal. Particular natural resources identified for close monitoring included Puddin Pond, Page Randell Brook, Conway Lake, the Saco River and nearby aquatic and wetland areas.

There are four (4) intersections planned for the bypass: Route 153; Routes 113/302; U.S. Route 302 (in the vicinity of Walmart), and the Cranmore area. Possible future development at these intersections is a critical community issue and and it was determined that any development be aesthetically compatible with the site and have minimal land use impacts. The public consensus was that any new development visible or accessible from the bypass be in keeping with the parkway and gateway concept, minimize traffic congestion, and protect nearby natural resources.

The U.S. Route 302 and Cranmore intersections are particularly geared for future commercial development because of their location and highway orientation. Since new development could potentially diminish the efficiency of the bypass in serving through traffic, it was determined that special review requirements should be adopted for these areas to ensure high quality design consistent with the parkway concept. For example, it was suggested that curb cuts on intersecting streets be limited in order to minimize traffic impacts.

Protecting underutilized land areas and green spaces is another important public objective for the bypass corridor. This can be effectively accomplished by directing development to established commercial corridors (i.e. the villages and the “strip”), and emphasizing connectedness of the open space system. Funding mechanisms may be required however to compensate property owners, possibly through the purchase of development rights for example, in order to prevent sprawl or protect critical natural resources.

Based on previous studies, reports and a myriad of public meetings since 1998, the Town of Conway has taken several steps to manage growth as the project gets closer to construction including the following:

- A special highway corridor overlay zoning district was established that included provisions for:
  - An area of jurisdiction from the edge of the bypass right-of-way with a minimum natural buffer abutting both sides in which no tree or undergrowth clearing would be permitted
  - Limitations on tree clearing outside the buffer zone
  - Encouragement of traditional architecture with smaller structures and significant landscaping in parking areas
  - Establishment of limits on impervious surfaces

- Additional measures that should be considered for the inclusion in the overlay zoning district are the following:
  - Select planned opportunities for views of the valley and rural landscape
  - Control outdoor lighting and commercial signs visible from the bypass
  - Control strict curb-cut standards for streets intersecting with the bypass

- Established a design review committee to address the following issues: advertising, outdoor lighting, intersection design, “adopt a highway” program for litter, natural noise attenuation rather than walled noise barriers, and tree plantings where necessary to screen off development

Other future growth management measures that could be considered include:

- Request and work with NHDOT to pursue development of pullovers on the bypass, especially where an entire piece of property must be acquired, thereby increasing the right-of-way corridor width available for such purposes.

- Identify critical wetland resources and then follow through on appropriate measures to protect them through land use regulations

- Prepare a greenway master plan as an amendment to the Conway Master Plan to include concepts for continuous bikeways and multi-purpose pathways as well as a system of interconnected wildlife and green space corridors.

- The town should request funding from the NHDOT (possibly funds earmarked for wetland mitigation and construction costs related to the West Side Connector Road) to be allocated to acquire property rights and/or

conservation easements in locations which might otherwise be critically impacted by development induced by the bypass.

- The town should consider setting aside a predetermined percentage of the current use penalty tax in a special capital reserve account to be used to provide fair compensation for the purchase of property development rights in critical locations (i.e. bypass intersections adjoining critical wetlands).

- The town should keep the general public well informed on land use and environmental issues related to the bypass as the project progresses possibly through public meetings, radio, cable television, print media, the town's website and other methods.

Route 16 Corridor Improvements

Route 16 is the major existing roadway arterial in Conway. It bisects the Villages of Conway and North Conway, and at certain times of the year traffic exceeds the roadway's capacity. In order to improve the efficiency, capacity, safety, aesthetics, and economic opportunities on the corridor, several upgrades and improvements are being considered. The NHDOT has been working with the town in designing various improvements to the corridor between the U.S. 302 intersection and North Conway Village.

In the past, property owners along the corridor have been opposed to significant widening or a median barrier. However, there are other measures that could be examined including, improving site access, limiting or reconfiguring curb-cuts, and signalizing intersections with poor safety or LOS records that could be accomplished without significant changes to the highway's cross section. Improving sidewalks, bike networks, and streetscape enhancements are also reasonable alternatives that could be constructed. The Route 16 Corridor Improvement Plan (included in an Attachment to this master plan) illustrates preliminary corridor improvement concepts currently being considered.

In addition to improvements within the road's right-of-way, several other improvements could be made on town as well as private property. There may be adjoining properties located on the strip where internal connecting roads could be constructed between private parking lots. This could provide shared parking opportunities and improved access resulting in fewer trips and turning movements on Route 16. It may also be possible to connect some public and private dead-end streets, which access the corridor. This would result in improved internal distribution, traffic dispersement, and reduction of trips on Route 16. The opening of the North-South Road in August 2002 will continue to have a significant impact on the corridor in terms of improving access and safety, dispersing traffic and separating through trips from shopping trips.

Local Road Improvement Program

Beyond the major projects discussed above, the town has been evaluating the entire local road network for several years in order to establish priorities for maintenance, safety, and capacity improvements. The town adopted an 8-Year Road Maintenance and Improvement Program in 1997, and the projects, through 2008, are listed in an Attachment to this master plan.

Local road maintenance is an important issue in Conway. The 8-Year Program (which also includes a pavement management system and bridge maintenance program) provides a rationale approach for identifying and undertaking needed improvements. The town has continued to support this program as an efficient and fair use of tax revenues, and also includes many of these projects in the Capital Improvements Plan, which ensures efficient distribution of costs over time.

Land Use Policy & Regulations

Zoning - The Town of Conway has a significant amount of commercially zoned land compared to similar size towns in New England. This is not surprising given the tourist-based regional economy and specific retail function of the community. However, as more and more commercial development has occurred over the past 30 years, so has concern about traffic congestion and safety issues.

With the construction of the North-South Road, and eventually the Conway bypass, traffic congestion is expected to decline along the Route 16 "strip" and in Conway and North Conway Villages. Additionally, the proposed extension of the public sewer system could free up commercial land in areas now designated for septic tank fields. Although this presents an opportunity for new or infill development within existing commercial districts, it should be done carefully. The town should also tightly control the expansion of commercial zoning to new areas, thereby avoiding the spread of traffic congestion over larger

areas of the community.

In addition to potential new commercial development along the "strip", a program could be developed to provide incentives for infill and enhancement of certain properties in the these village areas as well. Possibly a transfer of development rights program (TDR) could be established that would permit the use of development rights from other portions of the community in existing commercial corridors, thereby protecting rural and open lands from future development. This would be in keeping with the community's wishes to prohibit leap-frog and strip development along the bypass and other non-commercial local corridors.

Roadway Design Standards – Conway's roadway design standards, as outlined in existing subdivision regulations, contain minimum roadway material requirements and design elements such as curbing, sidewalks and dimensions. Generally, roadway standards are established to ensure that new roads are safe in every situation. According to Conway's subdivision regulations, as noted earlier, minimum roadway widths range from 18 to 24 feet. Relative to roadway widths, the standards specify:

"The minimum pavement width is 18 feet. This width is only applicable to dead end roads with an average daily traffic count below 160 which do not have any truck traffic. If a road does not meet these conditions than the minimum width shall be 20 feet. When curbing is required…then the pavement width shall be increased by 2 feet. Roads in areas zoned commercial or industrial…the minimum width…shall be 24 feet".

According to Conway's Town Engineer, current roadway design standards are flexible and are applied based on the merits of a respective development. However, in an effort to create safe roads, often an unforeseen result of roadway design standards has been the over-design of rural and lower density residential streets. Typically, over-designed rural and lower density residential streets include elements such as unnecessarily wide pavement widths, as well as sidewalks and curbing which are generally suited for more urban and higher density locales.
Conway needs to redefine the purpose of the town's roads, which can be a difficult task because many of them serve two or more functions. Nonetheless, distinctions should be made between arterials, collectors, and local roads. Further, local roads should be defined as sub-collectors and residential access roads. The stated purpose of each road type should be the basis for its design, use, and maintenance requirements. Local access roads serving smaller residential developments could easily be reduced in scale to enhance neighborhood character, distinguish traffic speeds, reduce construction and maintenance costs, and still provide safe access.

Dead-End Roads – According to Conway's Subdivision Regulations, the maximum number of homes than can be served off a dead-end street is 35. However, there are several streets in town with a greater number of homes than are currently permitted, or include branching dead end roads that have only one access point to an arterial. Where possible connections should be made between dead-end roads. There are several advantages to this including dispersement of traffic, improvement of emergency access, and the ability to loop utility systems. Provisions should be made in the town's land use regulations to facilitate these connections where possible through easements for future use or actual construction. Connections should also be encouraged on existing dead-end streets where possible. Some examples include:

- Crown Ridge off Old Bartlett Road
- Thompson Road off Artist Falls Road
- Artist Falls Road (possible public service right-of-way connection)
- Ledge Road off of West Side Road
- Lamplighter Road
- Mountain Vale Trailer Park off of East Conway Road

A summary of various traffic improvement concepts (Conway Traffic Plan - pages one through five) is included in an Attachment to this master plan.

5. Trends, Issues, and Implications for the Future

Protect Transportation Investments through Growth Management

The combination of the Route 16 Corridor, the North-South Road and the Conway bypass should be viewed as an integrated transportation system with each serving somewhat different travel needs. The bypass (as a limited access roadway) will serve through traffic with a limited access parkway that provides views of a scenic vista of the Mount Washington Valley. The

North-South Road will serve some through traffic and local traffic trying to avoid Route 16 or traveling to specific destinations. It will also provide an opportunity to disperse traffic off portions of the Route 16 corridor. The Route 16 corridor serves as the established high-density mixed-use corridor for the visitor-based economy. Development and redevelopment should be targeted for this area by infill and quality improvements.

Like most communities, Conway has designated the majority of land along major arterials for commercial uses and then waits for retailers and related businesses to gradually fill in the individual sites. Under this scenario, new development is scattered and spread out while sites closer to Conway Village and North Conway Village often remain underutilized. This is often referred to as leapfrog development. Also, by designating more retail than may be necessary, the town could dilute existing and established districts (primarily the villages and the Route 16 strip area) and reduce the effectiveness of both the North-South Road and the Conway bypass.

Land designated for commercial use should be based on regional market demands for various retail businesses and then allocate enough land for this purpose, not more. By controlling (or even reducing commercially-zoned land), Conway could stimulate retail growth, encourage revitalization, improve the quality of established shopping districts, and protect transportation improvements. The town should also consider the following steps:

- Limit the quantity of retail-zoned land to existing districts to provide economic strength and react more swiftly to consumer preferences
- Rezone excess land to encourage reinvestment and improve quality of existing retail properties
- Scale retail-zoned land to reflect the realistic assessment of size, strength, and character of the market.
- Stimulate infill, new forms of mixed use, and pedestrian oriented retail development on remaining land
- Structure zoning for mature strips to encourage denser forms of development than can be reached by multiple access modes
- Reserve some of the previously zoned commercial land for housing, office space, civic uses, recreational features and open spaces.

Reinvent "The Strip"

Conway must anticipate changes in consumer preference as the community growths and changes. Consumers today are looking for attractive, pedestrian friendly and safe environments for shopping and entertainment. Conway should retain the flexibility necessary to adjust to these market demands, particularly in the areas of Route 16 referred to as "the strip".

Transportation improvements should be scaled to the specific nature of the strip and balanced in order to serve multiple needs and purposes. With the added capacity resulting from the North-South Road and Conway bypass, there may be increased flexibility in terms of the roadway design. Intermitted landscaped medians could provide attractive gateway amenities to the strip and create a sense of arrival. This approach would also be effective in protecting turning movements and creating safe havens for pedestrians and bike riders.

Through site plan review, the town could encourage the consolidation of driveways and interconnect parcels so that automobile and pedestrian movements are possible without using the arterial road. Reducing access points could also significantly reduce the accident rate.

Parking commonly dominates the landscape on the strip due to extensive local requirements, which are often necessary because of the unique function of Conway as a retail outlet center. However, local regulations should be based on careful consideration of the following objectives:

- Size parking lots and structures for reasonable demand, as well as provide for peak parking in overflow areas
- Encourage and plan for shared parking among adjacent uses
- Create well-designed and landscaped parking lots
- Place parking on the side or behind buildings where possible to reduce the visual blight of endless parking lots.

Use Transportation Improvements to Enhance the Villages' Character

Individual preferences have changed nationwide over the past several years making older villages with traditional mixed-use development increasingly popular. While this may be considered a land use issue, it is directly tied to the local and regional

transportation system, as all commercial development has been over the past 30 years in Conway.

The existing transportation corridor though the North Conway Village is particularly wide with approximately 80 feet of pavement from curb to curb in the center. A boulevard or center island treatment in the centers of both Conway and North Conway Villages would provide a sense of arrival, a refuge for the numerous pedestrians who cross the street at this point, and a traffic calming device which would slow vehicle speeds.

The existing grid system of North Conway Village provides an attractive and traditional development pattern with older and historic homes and commercial operations (mostly shops, restaurants and bed & breakfasts). Streets are typically narrower with curbing and sidewalks on each side. A number of these local streets, however, are in poor shape with broken curbing and sidewalks. While sidewalk improvements are included in the 8-Year Capital Improvements Plan, the town should also consider adopting new street cross section plans for Conway and North Conway Villages that enhance the pedestrian environment and calm traffic.

Both villages are heavily dependent on public parking to serve local and visiting customers. The primary public parking issues and future improvements needed in the two village areas are as follows:

- More balance between public parking and private parking
- Do not expand parking at the expense of eroding the village character. Additional parking should be located on-street when possible, or on sides or in the rear area of existing and new buildings.
- Visible and high quality directional signage should be provided in North Conway and Conway Villages to direct potential customers to parking areas.
- Shared parking should be encouraged and remote lots should be permitted within a certain distance of a given business or residence.
- Consider a meter system for on-street parking – this will improve short-term parking turnover, and could provide a funding source for enforcement, maintenance, improvements and expansion

Facilitate Transportation Demand Management Strategies

The town adopted a policy in 1992 to "work with the State of New Hampshire and other organizations to develop means of transportation other than personal vehicle use." Developing regional and local mass transportation systems, a multiuse path system, designated bike lanes, changing land use development patterns, and similar approaches are considered a means of reducing demands on the highway network.

The town has made some progress on transportation demand management (TDM) improvements, but other options to the automobile are needed. The following are future issues and strategies that should be considered by the town:

- Ensure that local requirements for access, driveway design, and traffic impact standards are compatible with alternative transportation modes.
- Avoid over-design and over-construction of town roads.
- Improve traffic signal use on Route 16
- Create a multi-use path system and bike lanes on regional highways
- Improve and extend sidewalk network beyond the village areas.
- Evaluate the potential for a satellite parking system on edge of commercial district and in villages with complimentary uses (i.e. bike and blade rentals, shopper storage)
- Evaluate the potential for a village trolley system during peak seasons and times
- Consider storage systems (for parcels and packages) to reduce interior trips, and encourage walking and possibly transit use.
- Encourage TDM programs for employment centers

In order to manage peak hour street demand, TDM approaches such as ridesharing incentives, modified work hours, and telecommuting can help. Large employers such as the major tourist attractions and along the Route 16 Corridor are the best candidates for TDM programs. They have more ability to match employee ridesharing needs, stagger shifts, and the financial resources to carry out an effective program.

Improve Neighborhood Accessibility to Desired Activities

Residential accessibility is measured in terms of access to desired locations such as work, recreation, and shopping.

Accessibility affects residents' ability to efficiently link trips for different purposes and the opportunity to complete more than one activity at a single stop. Residential development patterns have a significant effect on household travel. To better understand travel patterns in Conway neighborhoods, the following variables should be measured periodically through surveys:

- Trips/person (work-related and non-work related)
- Percent that drive alone or carpool with others
- Percent that walk or bike
- Travel time (work and non-work related)
- Total hours of travel/person
- Total vehicle hours of travel/person
- Total vehicle miles per year/household

The Street Network Should Have Multiple Connections and Direct Routes.

Large-scale development projects should have connections to surrounding roads where feasible. This can be accomplished by facilitating internal collectors and subcollectors, multiple entrances, and interconnections between subdivisions. Traditional grids (such as in the village areas) have short blocks, straight streets, and multiple internal connections. They disperse traffic rather than concentrating it at a handful of intersections. These types of roadways offer a more direct route and hence generate fewer vehicle miles of travel. They also encourage walking and biking.

Many new residential streets in Conway have large blocks, curving roadways and branching patterns. There are certain advantages of this type of system such as reducing through trips, discouraging crime, and the ability to circumvent valuable natural resources more easily. The town should strive to provide the advantages of both traditional and contemporary streets – a hybrid network. With proper design, new streets can be safe, easily interpreted by the driver, short, and curved to follow the lay of the land.

Apply Traffic Calming Measures.

The "livability" of streets declines as volume and speed of traffic increases. Controlling traffic speed is a key to pedestrian-oriented commercial streets. Residents are also more likely to walk, bike, and play along streets where speed is low to moderate.

Several traffic calming measures could be applied in Conway (see the Traffic Calming Measures Table located in an Attachment to this master plan). The goal of these traffic calming measures is to reduce speed through design (not just posted speed limits). Design speeds between 20 and 35 mph are recommended. Speed limits should be self-enforcing, however, particularly on local streets.
Roundabouts are a very effective traffic calming device for intersections. They typically have more capacity and produce shorter delays than signals when traffic flows are fairly well balanced. Properly designed, they can slow traffic down as it enters an intersection making them safer than signals. Landscaped islands visually break up expanses of pavement and close vistas. They can also be less expensive to install and maintain than signals. As compared to rotaries, they have smaller center islands, greater angles of deflection at entries, and flared approaches.

The width of local streets is probably the most important factor in effective traffic calming (other important factors include high street-side activity, short blocks, on-street parking, limited building setbacks, and street trees).

Keep streets as narrow as possible.

There is a growing consensus that streets, particularly local ones, are over-designed, and represent a substantial cost for communities. Narrow streets save energy as well as construction and maintenance costs. They require less asphalt and energy to construct, have less effect on ambient air temperatures and thus moderate air conditioning demands. Narrow streets also calm traffic and vehicle operating speeds tend to decline.

Table 7-8: Recommended Residential Street Widths for Conway

Street Type	Typical Stds.	Recommended Stds.	Ave. Daily Traffic
Access Street	22-24 ft.	16-26 ft. (depending on parking)	0-300 tpd
Subcollectors	20-36 ft.	20 feet	301-800 tpd
Minor Collectors	24-36 ft.	24 feet	801-1,200 tpd

Major Collectors	24-36 ft.	36 ft.	1,501-3500 tpd

Source: Dufresne-Henry, Inc.

In the past, Conway's street construction requirements have produced excessively wide roads in some parts of the town resulting in higher speeds and potential safety concerns. However, revised standards have recently been adopted exhibiting narrower roads and with more curves according to DPW. As illustrated in Table 7-8 and on the Potential Roadway Design Standards Figure (located in an Attachment to this master plan), alternative street design standards are applicable to the town.

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[1] Conway Transportation Policy Report, adopted 6/25/92

[2] *Summary Report of Community Planning and Consensus Building Process for the Conway bypass*, Glenn Harbeck Associates, January 1998

CHAPTER 8
MUNICIPAL SERVICES AND INFRASTRUCTURE

1. Introduction

Population and housing growth often results in an increase in the demand placed on municipal services and infrastructure systems. Careful planning for this growth, from a municipal services standpoint, is important in order to ensure that an adequate level of service is provided to residents and businesses at a manageable cost level. Additionally, due to Conway's attractiveness as a tourist and retail destination, municipal service and infrastructure capacity and fiscal planning must also take into account the increased demand for services created by the influx of seasonal residents and tourists.

This chapter examines Conway's municipal services from the perspective of facility and equipment needs of the various town departments to support existing and projected demand. Additionally, staffing levels are also discussed for each respective department The facilities examined in this evaluation include the Town Hall, police services, fire and emergency services, library, public works and the school district. Map 8-1, located at the end of the chapter, identifies the locations of each of the facilities as well as the boundaries of various fire districts/precincts. In addition, the capacity and condition of several public infrastructure systems are also described. These systems include water, sewer, electric, natural gas and telecommunications.

Much of the information presented in this chapter was obtained through interviews with town department heads and representatives from each respective public infrastructure system. Where applicable, recent studies of infrastructure systems were reviewed and are cited within this chapter.

2. Summary of Findings and Conclusions

The following points summarize the municipal service and infrastructure findings and conclusions presented within this chapter. Additionally, various implications associated with Conway's municipal services and infrastructure are discussed.

In terms of Conway's various facilities and buildings, many are in generally good condition considering the age and continual use. Specific infrastructure and buildings findings include:

- The Conway Town Hall is in generally good condition. According to the Town Manager, building systems and space requirements need some attention. Specifically, approximately 1,500 square feet of additional space is needed for storage (with a particular need for secure vault storage), meetings, and small office areas.

- Based on interviews with each of the Fire Chiefs, most of Conway's Fire District's/Precinct's have adequate facilities with the exception of the East Conway Precinct which requires upgrades and renovations to its existing fire station.

- With the exception of Pine Tree Elementary School, all schools within the Conway School District are at or above enrollment capacity and will require upgrades, renovations and additions to the

existing buildings.

- The Conway Recreation Center is in need of upgrades and renovations.

Based on recently completed public water and sewer master plans for the North Conway Water Precinct (NCWP) and the Conway Village Fire District (CVFD), and interviews with Precinct/District representatives, water and sewer findings include:

- Connecting the CVFD water treatment and distribution system to NCWP's system provides the most overall benefit to the town. This strategy is recommended in the CVFD Water Master Plan (CDM, 2002)[1] and is the most cost effective solution to several distribution and treatment issues facing the District. Connecting the water system will enable the CVFD to accomplish the following: meet all Insurance Services Office (ISO) requirements; improve water quality; provide a back-up supply source and additional storage; and overall improved system reliability. Necessary improvements with this connection include:

  - Connection to NCWP's Pine Hill Tank;
  - Construction of a new 12-inch diameter main on Route 16 (north of the Saco River);
  - Construction of a new 12-inch diameter main on Route 16 (from the storage tanks to the Cranmore Shores); and
  - Local improvements on Washington Street, Haynesville Avenue and Tasker Hill Road

- The CVFD is completing a feasibility and implementation study to evaluate the financial and operations aspects of a water and wastewater interconnection between the District and the North Conway Water Precinct. If the study concludes that interconnection is the best course of action, the consultant to the CVFD suggests that the following steps should be taken:

  - Develop an inter-municipal agreement between the precincts setting forth the terms and conditions of the system interconnections, connection fees, and user rates; and
  - Continue to seek outside funding sources for needed system capital improvements.

- If an acceptable agreement can be reached between the CVFD and the NCWP, and all wastewater flows are connected to the NCWP system the following improvements would be necessary:

  - Construction of a pump station and wastewater collection system north of the Saco River to convey flows to North Conway;
  - The installation of a new wastewater interceptor to convey flows from the existing service area to the new pump station on the north side of the Saco River;
  - Upgrading the aeration system for the existing wastewater treatment plant as an interim improvement before the connection is made to NCWP.

Based on the findings and conclusions presented throughout this chapter, implications about how Conway could change in the future include:

- The continued growth of enrollment within the entire Conway School District has placed considerable pressure on the town's educational infrastructure. Pending the outcome of the Conway School District's AREA withdrawal study, a comprehensive facilities plan should be developed by the District in order to address the town's educational infrastructure needs over the next ten years.

- Although Conway enjoys the benefits of having experienced and dedicated professionals using

some of the best equipment in the County, there may be opportunities to better utilize fire protection resources. Based on interviews with each of the Fire Chiefs, it appears that the town as a whole could improve its fire protection services if the five separate fire districts/precincts were coordinated, at the very least, on an administrative and fiscal basis. At a bare minimum, purchasing agreements, drafted in the form of memoranda of understanding, should be initiated to purchase similar products, services, and equipment used by each of the Precincts/Districts. Although coordination has been attempted in the past, the potential administrative and fiscal advantages attained by an integrated fire protection system could be significant and therefore should be revisited. It may be most beneficial for the town to hire an outside consultant to conduct an examination for opportunities of coordination and cooperation among Conway's fire and emergency service providers.

- In order to reduce overlapping zoning requirements and bureaucratic formalities, the Town of Conway's Zoning Ordinance should be amended to include the Kearsarge Lighting District's Zoning Ordinance.

- The CVFD Interconnection Feasibility Study is anticipated to address NCWP residents and property owners' concern that water and wastewater expansion to areas outside the Precinct may use existing capacity and limit future connection opportunities within the Precinct. If the Study determines that expansion can be done by using surplus capacity and without future limitations to existing service areas, both NCWP and CVFD should work with Precinct residents and property owners to inform them of the advantages of this interconnection to the larger community. Additionally, NCWP should continue to evaluate potential future funding eligibility issues if additional revenues are collected from new service areas outside the Precinct.

  The Town of Conway Selectmen should work with both the CVFD and the NCWP by informing residents and property owners in both service areas about the advantages of inter-connected water and wastewater systems in terms of resource protection and future economic opportunities; developing funding solutions that recognize the difference in tax bases and financing capabilities between the two service areas; and accessing state and federal funding sources that are accessible only through the town (i.e. CDBG and CDAG grants).

3. Town Hall

Existing Services – The Conway Town Hall building is located on Route 302 in Center Conway. The building houses many of the town's administrative departments including:

- General Assistance
- Finance Department
- Town Clerk and Tax Collector
- Assessment Department
- Planning and Zoning Department
- Treasurer
- Engineering and Public Works Department
- Building Department
- Town Manager.

In addition to the administrative departments, the building contains a meeting room used by various town committees including the Board of Selectmen. A total of sixteen employees work within the administrative departments in the Town Hall.

The Town Hall was built in the 1870s and sits on a site of approximately two

acres. The wood framed structure contains two stories for a total of approximately 5,400 square feet. The town's administrative functions are located on the first and second floors. The first floor contains all of the town's administrative departments with the exception of the Finance, Planning, Engineering, and Building Departments which are located on the second floor. A meeting room is also located on the second floor.

The Town Hall is handicap accessible with a wheelchair ramp located at the rear of the building. Parking is provided by approximately twenty spaces which are located behind the building.

Needs Assessment – According to information provided by the Town Manager, the building is in good overall condition and is structurally sound. The building's condition has, however, deteriorated somewhat over the past few years as a result of deferred maintenance.

According to the Town Manager, although the Town Hall is generally in good repair, building systems need to be upgraded and there is a shortage of space. Needed improvements include HVAC (heating, ventilation and air conditioning) upgrades and the installation of a fire suppression system. Energy efficient windows are also needed as well as some minor remodeling of the first floor. The remodeling will allow increased visibility and access, thereby improving safety and security for staff and clients. All of these improvements were addressed in the FY 2002 budget.

From an overall perspective, the building provides adequate space for users and employees within the facility. While not critical at the moment, space needs will have to be addressed within the next five to ten years. As shown in Table 8-1, space needs include a variety of small offices, an employee break room, and storage. While some additional space may be created through remodeling, without the acquisition of additional building space, this issue will remain outstanding. The Town Manager estimates that approximately 1,500 square feet of additional space is needed.

Table 8-1. Estimated Town Hall Space Requirements Conway, New Hampshire

Space Type	SF Req.
Storage	100
Copy room	200
Small meeting room	150
Computer room	100
Break room	150
Interns, checklist	200
Assessors help	100
Unspecified Expansion	500
Total	1,500

Source: Town of Conway

4. Community Centers

The Town of Conway has one community center[2], the Conway Recreation Center, located in Center Conway east of the Town Hall.

Existing Services – Conway Recreation Center – The Conway Recreation

Center is located on Route 302 in Center Conway approximately one mile east of the Conway Town Hall. The main part of the building, formerly used as a school, was constructed in the late nineteenth century is a single story (with basement) wood framed structure. The building is the headquarters for the Conway Recreation Department. Adjacent to the building is a brick gymnasium facility which was constructed in the 1980s. Connected to the main structure, located next to the gymnasium, is a small single story building which houses various administrative offices. Surrounding the complex are approximately five acres of property that contain sports fields, play structures and parking facilities.

The main structure is divided into several rooms which accommodate Recreation Department offices and space for recreation programs and events. According to the Town Manager, there are a number of surplus offices in the building that are currently leased to community groups. Whether these offices will continue to be leased to outside parties is currently undetermined.

Needs Assessment – Overall the complex is in good structural condition. However, there are a number of upgrades and renovations needed within the buildings. The Town Manager anticipates that the heating, ventilation and air-conditioning (HVAC) system needs to be upgraded, as well as the replacement of the roof and windows. Furthermore, the existing play structure may need to be upgraded as it was constructed with wooden poles. The Town Manager anticipates that the renovations, upgrades and replacements need to be completed within the next five years. A cost estimate has not yet been prepared for the needed repairs.

5. Police Services

Existing Services – Conway's police services are administered from the police station located at the intersection of Route 302 and East Conway Road. The building, which was constructed in 1988, is a single story wood framed structure with brick veneer. According to construction plans, the building contains approximately 8,400 square feet which is entirely occupied by the police department. It should be noted that a second structure, the Northern Carroll County District Courthouse located next to the police station, was constructed at the same time as the police station. The Town of Conway currently owns the courtroom structure and leases it to Carroll County for a period of twenty years. Upon expiration of the lease, the building will become the property of the County. Although the courthouse is technically owned by the town and is on town property, existing services and needs assessment information will only be provided for the police station.

Police operations within the building include administrative offices, two evidence rooms, conference room, dispatch room, lunch room, equipment room/armory, records/archives room, and seven detention cells. The west side of the building contains two garage stalls. The garage stalls are designed to serve a multitude of uses including a secure means of bringing detainees into the adjoining lock-up cells for short-term detention, as well as for storage, minor vehicle maintenance and impounding evidence.

Full-time staffing for the department includes 21 sworn patrol officers, two administrative assistants and seven dispatch personnel. The dispatch operations housed at the police station are exclusively for the police department. However, a recent

upgrade of the police radio and dispatch system has enabled the Conway Police Department to link with the Conway Village Fire Department's communication system. Having the systems linked provides backup radio and dispatch services for either department in the event that their system should go off-line. The entire town of Conway is covered by enhanced "911" service for both fire and police protection.

The Department's capital needs are primarily associated with regular vehicle replacement. The inventory currently includes six marked cruisers, two unmarked/semi-marked cruisers which are used by the Chief and Detectives, two four-by-four Sport Utility Vehicles (SUVs), one crime scene van, and three bicycles.

Needs Assessment – Overall, the police station is in very good condition and the Police Chief does not anticipate any major structural changes for at least ten years. The only short-term building requirement that needs attention is the lack of storage space for records and archives. The current space presently being utilized for record and archive storage will need to be reconfigured to accommodate additional records and files.

From a personnel standpoint, with the addition of two new sworn officers during 2002, staffing levels appear to be appropriate for providing service during seasonal fluctuations in population experienced within the town. There could potentially be a need for part-time officers to assist full-time officers during the summer months. However, the expense associated with training officers justifies hiring only full-time officers.

In terms of vehicular requirements, outside of regular rotation of police vehicles, there are no planned additions to the current vehicle fleet over the next few years.

6. Fire and Emergency Services

Fire protection and emergency services for the town of Conway are administered through five separate and distinct fire departments. As shown in Map 8-1 at the end of the chapter, all of the departments function within the respective precinct or district that includes: North Conway Water/Fire Precinct; Center Conway Fire Precinct; Conway Village Fire District; East Conway Fire Precinct; and the Redstone Fire District. However, the North Conway Precinct, the Conway Village District, and the Center Conway Fire Precinct serve communities outside of Conway including the Towns of Bartlett, Albany, and Eaton. A series of formal and informal service and/or mutual agreements have also been organized between each of the districts/precincts and communities outside of Conway.

All of the fire districts/precincts have the authority to raise revenues through taxation of properties within each respective district or precinct. Some of the districts/precincts use other fund raising efforts, such as raffles and social events, to complement their regular appropriations.

Fire protection and emergency personnel for each of the respective districts/precincts include a combination of full-time and call (part-time) staff, as well as additional administrative support staff in some cases. North Conway and Conway Village are the only districts which employ full-time staff (Chief/Assistant Chief). The remainder of the positions in each respective district are filled by call staff which are available on an as-needed basis. A total of thirty pieces of major equipment (vehicles, etc.) are currently in use by the individual districts/precincts for fire and emergency duties throughout the town. Table 8-2 provides a summary of major equipment and personnel for each of Conway's five fire districts/precincts.

Table 8-2. Fire Department Equipment and Personnel Summary: 2002
Town of Conway

	North Conway	Center Conway	Conway Village	East Conway	Redstone	Total

Major Equipment	6	6	10	5	3	30
Personnel, Full-Time	2.5	0	2	0	0	4.5
Personnel, Part-Time/On Call	40	20	43	20	20	143
Source: Conway Fire District/Precinct Fire Chiefs						

As each of Conway's fire districts/precincts are autonomous units, existing services and the assessment of needs is provided on an individual basis with information concerning existing facilities based on discussions with each district/precinct's Chief.

Existing Services – Center Conway Fire Precinct – The Center Conway Fire Precinct's station is located in Center Conway on Route 302 adjacent to the Conway Town Hall. The building is a single story structure that was built in 1990. There is approximately 5,000 square feet of building space which includes three garage bays for vehicles, an office, meeting room, kitchen and dispatch area. The facility is located on approximately one acre of land.

The building is owned by the Center Conway Fire Precinct and responds to calls in Center Conway (approximately 12,000 acres or 19 square miles) and the Town of Eaton and non-precinct areas in Conway Village. The Precinct's staff includes twenty call firefighters.

Vehicles presently located at this station include two fire engines, an ambulance, a tanker and a reel truck which holds 2,200 feet of hose. The Precinct provides fire protection, rescue services and first response emergency medical services (EMS).

North Conway Water/Fire Precinct – The North Conway Water/Fire Precinct's station is located at the Norcross Circle off of Route 16 near the Conway Scenic Railway in North Conway. The building is a single story structure of brick veneer construction that was constructed in 1963. The building contains approximately 7,200 square feet. In addition to the four garage bays, the structure contains office space for the Chief/Assistant Chief and administrative staff, meeting/lunch room, and storage facilities in the basement. The structure is located on approximately one acre of land.

The North Conway Fire Precinct's jurisdiction is approximately thirty-six square miles and incorporates all of North Conway, portions of the Town of Bartlett, Hales Location and some non-precinct areas. Staff at the Precinct includes a full-time Chief and Assistant Chief, administrative support person and forty call firefighters.

Vehicles within the Precinct's inventory include two engines, a tanker, ladder truck, EMS/rescue vehicle, and one pickup support truck. The Precinct is well equipped and provides a wide array of fire and emergency services including fire protection, EMS, search and rescue, and water rescue.

East Conway Fire Precinct – The East Conway Fire Precinct's station is located on East Conway Road in East Conway. The building is a single story wood framed structure that was constructed in 1900 and sits on approximately one acre of land. The building is the smallest of Conway's fire stations at approximately 2,600 square feet. The structure has two garage bays and a small office and has experienced several renovations and upgrades over the past one hundred years. The most recent renovation included raising the building and replacing the foundation. In addition to the station, the Precinct owns the East Conway Grange Hall and uses the facility for Fire Precinct meetings, as well as a source of revenue through renting the building for local social events.

The East Conway Fire Precinct's jurisdiction incorporates all of East Conway which is approximately defined as the area east of Center Conway and west and north of Route 302. Members of the Precinct staff,

including the Fire Chief, are all on call. Vehicles within the Precinct's inventory include two engines, a tanker, snorkel truck carrying 2,700 feet of 4-inch hose and a utility truck. Services provided by the Precinct are limited to fire protection services.

Conway Village Fire District – The Conway Village Fire District's station is located on Route 16 in the heart of Conway Village. The building is a one and a half story structure that was built in 1999 – the newest fire station within Conway. The structure contains approximately 15,500 square feet of space with four garage bays and a host of other facilities including an office, lunch room, bunk room, dispatch area, laundry and shower facilities. The building also contains an auxiliary source of electrical power. The structure is located on approximately one acre of land.

The Conway Village District's jurisdiction incorporates all of Conway Village and southern portions of West Side Road, eastern portions of the Kancamangus Highway (Route 112), and the Town of Albany. The Department has a formal mutual aid agreement with the Town of Madison. Ambulance service includes all the areas listed and the entire southern half of Conway to the Maine/New Hampshire state line. District staff includes a full-time Chief, an Assistant Chief, a part-time administrative assistant, and 42 call staff.

The District has a varied vehicle and equipment inventory including three engines, two ambulances, ladder truck, forestry truck, heavy rescue EMS vehicle, reel truck, EMS trailer, and one sport utility support vehicle. The wide array of vehicles and equipment allows the Precinct to perform fire protection, EMS, ambulance, search and rescue, and confined space rescue services.

Redstone Fire District – The Redstone Fire District station is located on Route 302 in the Village of Redstone. The building is a single story cinder block facility that was originally built in the 1950s. The structure has experienced additions and upgrades over the past forty years with the latest addition, a third garage bay, completed in 2000. The building site is approximately one acre with the structure being approximately 3,000 square feet in size.

The Redstone Fire District's jurisdiction incorporates all of the village of Redstone – essentially an area adjacent to the North Conway, Conway Village and Center Conway service areas. The twenty members of the Precinct staff, including the Fire Chief, are all on call.

The total vehicle inventory for the District includes two pumper trucks and one tanker truck which are used exclusively to provide fire protection services.

Needs Assessment – Center Conway Fire Precinct – As one of the newest fire stations within Conway, the structure has incorporated most of the features required by modern fire departments of a similar size. However, according to the Center Conway Fire Chief, the building lacks suitable laundry and shower facilities which are scheduled to be installed in 2002.

In terms of vehicle needs, the Precinct has no plans to add to their existing fleet of vehicles outside of regular vehicle replacement. It is anticipated that the Precinct's tanker truck will have to be replaced within the next few years.

North Conway Fire Precinct – According to the Fire Chief, current space within the Precinct's building is adequate. Future building expansions may be necessary to accommodate operational enhancements.

In terms of equipment, the Chief anticipates that communications equipment in the form of radio dispatch and computer systems should be upgraded within the next few years. Although the Chief does not anticipate adding any new pieces of major equipment to the current inventory, the Precinct's existing ladder truck will have to be replaced in the next several years.

East Conway Fire Precinct – The East Conway Precinct's station has a number of issues related to building design. As with most stations, there is inadequate space to accommodate the office and training needs of the Precinct. The station could use another garage bay to accommodate potential future vehicle and equipment needs. Although a formal facilities plan has not been drafted, the Chief feels that these types of uses could be incorporated into the current structure through upgrades and additions.
In terms of equipment and vehicles, the Chief feels that the Precinct will be able to provide fire protection services over the next five or more years with the current inventory of equipment and vehicles.

Conway Village Fire District – The Conway Village Fire District station is in good condition and functions very well according to the Chief. There is adequate space for staff, vehicles and equipment and the building is well sited with regard to the roadway.

Outside of regular upgrades of vehicles and equipment, there are no anticipated vehicle or equipment needs for the foreseeable future. For example, two new thermal imaging cameras have recently been purchased, as well new air packs. These additional equipment items should meet the District's needs for the next few years.

Redstone Fire District – With the recent upgrades and additions to the existing station, the facility functions well and should not need major improvements for many years according to the Chief. There is also adequate space in the upgraded building to handle equipment and staff needs.

The Chief anticipates the necessity to add equipment for the District to provide non-transport ambulance service. This type of service provides immediate emergency medical attention to patients prior to the arrival of an ambulance. Although no new vehicles will be required for the new service, the Chief indicated that approximately $3,000 in medical equipment will be needed. Furthermore, the existing tanker truck will need to be replaced within the next few years as part of the District's ongoing vehicle replacement program. A used tanker truck should be adequate to handle the District's needs and it is estimated to cost approximately $40,000. Both the medical equipment and the tanker truck are items which have been budgeted as part of the District's capital improvements program.

7. Library

Existing Services – The town's municipal library is located at the corner of Route 16 and 302 in Conway Village. Library services are delivered from a two-level historic masonry building that was constructed in 1900 and comprises approximately 8,000 square feet. The structure is situated on approximately three acres of land. The history of the building is unique with initial funding for the construction of the structure being provided by a lawyer/philanthropist at the turn of the century. According to the Head Librarian, the main level was the only useable area within the building until 1984, when the basement was renovated. Parking is provided by fourteen spaces located behind the building.
The basement (lower level) houses the children's section, meeting room (used primarily for children's reading programs), a circulation desk, history (archives) room, mechanical room, washrooms, and a staff room. The structure is handicap accessible with wheelchair ramp facilities.

The upper level contains a reference desk, reference collection, book stack room, custodial room, and a New Hampshire/new book room. The “Great Hall”, which contains the reference desk and materials is the most architecturally impressive room within the building with high ceilings and ornate molding details. Both the upper and lower levels house a total of twenty computer terminals which provide high-speed internet access and library catalog information.

Library personnel consists of four full-time and five part-time staff. A total of ten volunteers assist with various library duties throughout the building. The facility is open for a total of fifty-seven hours per week Monday through Saturday. The library has an agreement with the Towns of Albany and Eaton in which their residents may use the facilities with the associated costs paid by each respective town.

In addition to the Conway Public Library, there is a small private library of approximately 3,700 square feet located on Route 16 in North Conway Village. The North Conway Public Library is a privately funded facility that provides library services to all residents of Carroll County and Fryeburg, Maine. The library contains various reading materials as well as videos, audio materials and offers community programs such as children’s reading initiatives. Although the North Conway Public Library provides library services and infrastructure to the public, it is not directly associated or funded by the Town of Conway and will not be included in this needs assessment.

Needs Assessment – Structurally the building appears to be in good condition. A bond was also recently passed to construct an 8,000 square foot, two-level addition onto the east side of the existing structure. This addition will house a meeting room, children’s room, circulation desk, reference stacks and restroom facilities. The most beneficial component of the project will be the addition of much needed shelf and storage space for books and other materials. Construction of the library addition is scheduled to be completed by early 2004.

Another need identified by the Head Librarian was the lack of computer hardware support for the library’s computer network. Currently, computer hardware and software problems are handled in-house by library staff, which generally satisfies the needs of the system. However, demands on the existing and future computer infrastructure may require a computer technician to handle these issues. Although the Library would not require the assistance of this person on a full-time basis, it is anticipated that this position could be shared amongst all municipal administrative departments.

8. Public Works

The Public Works Department oversees a number of functions within the community which include: road maintenance; drainage system maintenance; public grounds maintenance (excluding school properties); municipal vehicle maintenance (including police and school vehicles); street light maintenance; solid waste collection and disposal; collection and processing of recyclable materials; and maintenance of some cemetery properties.

The public works garage is located on Route 302, across the street and adjacent to the Town Hall, and contains approximately ten acres. The site includes two garages, an office and a number of outbuildings for storage of

various materials and goods. According to the Director of Public Works, the newest garage is a single story, wood and steel structure that was completed in 1990. The second garage is a single story cinder block structure with the construction date unknown. It is estimated that each garage contains approximately 10,000 square feet. The office is a one and a half story, wood framed structure of approximately 1,000 square feet and is estimated to have been constructed around 1900.

Staffing for the Public Works Department consists of a total of twenty-two full-time staff including: one Director; eleven road/grounds maintenance staff; seven solid waste and recycling staff; and three vehicle maintenance and service technicians. Typically, one seasonal grounds maintenance worker is added during the summer months. Since the Director of Public Works' office is located within the Town Hall, the department shares administrative staff with other municipal departments located within that building.

The town's solid waste facility is located on East Conway Road and consists of an operational landfill, a transfer station (located on a decommissioned landfill), dump store (store for unwanted but useable items), solid waste roll-off container area, and disposal areas for various bulky items (used tires, white goods, etc). The Public Works Director estimates that the landfill has approximately twenty-five years of capacity. Conway residents and commercial establishments are currently responsible for the collection and disposal of solid waste and recyclable materials with no municipal curbside collection service being offered.

Needs Assessment – The existing facilities at the public works yard are at or are quickly reaching capacity. With the town having to maintain an ever-increasing amount of road mileage (North-South Road for example), facilities will have to be upgraded and expanded to handle new equipment and staff. According to the Public Works Director, it is anticipated that garage and office facilities at the public works yard will have to be upgraded and expanded within the next few years if additional road maintenance responsibility is added to the system. An approximate amount of new building space required has not been determined.

In terms of staffing, the Department is currently in need of a full-time position which would be split between grounds maintenance and snowplow operation and is expected to require more staff over the next few years. As with the yard facilities, any additional road maintenance responsibility added to the town will require additional staff. The number of new staff required to handle the added road maintenance has not been determined.

9. School District

Existing Services – The Conway School District provides educational and special education services for students in kindergarten through the twelfth grade. The Conway School District is one of seven school districts (Albany, Bartlett, Conway, Chatham, Eaton, Hart's Location, and Jackson) administered by School Administrative Unit #9. The District administers three elementary schools (Conway Elementary, Pine Tree

Elementary, and John Fuller Elementary) and the Kennett Junior/Senior High School which houses grades seven and eight (Junior High) and nine to twelve (Senior High School). Tables 8-3 provides a listing of these facilities along with their most recent enrollment levels and approximate capacity level.

Table 8-3. Conway School District Educational Facilities - 2002
Town of Conway

Facility	Grades	Enrollment*	Current Capacity Level
Kennett Junior/Senior High	7-12	1,337	Above Capacity
Conway Elementary	K-6	300	Above Capacity
John Fuller Elementary	K-6	280	Capacity
Pine Tree Elementary	K-6	268	Below Capacity

*Projected enrollment from promoting existing (2001) students
Source: Conway School District Annual Report - 2001

An analysis of historic enrollment estimates over the past ten years for each of the District's schools reveals that, generally, enrollment has been steadily increasing for Kennett Junior/Senior High School and steadily decreasing for all of the elementary schools.

Currently, the District has a total of 12 administrative staff, 193 teachers/certified instructors, 102 paraprofessional staff, and 44 support personnel (cooks, maintenance, custodians and bus drivers) for a total staff of 351.

Needs Assessment – Due to the potential of Conway's withdrawal from the Conway Authorized Regional Enrollment Area (AREA) – a regional tuition cooperative formed in 1987 among the towns of Albany, Bartlett, Conway, Eaton, Freedom, Jackson, Madison and Tamworth – a formal review of the District's facilities has not been completed. A plan for withdrawal, which was developed by the Conway Withdrawal Study Committee, from the AREA has been sent to the State Department of Education for review. From a facilities and infrastructure perspective, the approval for withdrawal from the AREA agreement is a major determinant of future facilities requirements for the Conway School District. As the withdrawal from the AREA agreement is yet undetermined, information on the overall facilities needs of the District is uncertain. Similarly, reliable enrollment projections for the entire district are not available. However, regardless of the withdrawal situation, there are a number of upgrades and improvements required at each of the District's facilities. The following presents an overview of current facilities needs, recent upgrades and potentially needed improvements.

Kennett – Kennett Junior/Senior High School contains grades seven through twelve as well as a vocational training component. The school is located on Route 16 in Conway Village. The facility was constructed in 1923 and has experienced additions in 1938, 1956, 1963, and 1978. According to the SAU #9 Superintendent, portions of the school are in good structural condition. There are, however, portions of the school that are in need of significant repairs. For example, the physical education facility is in need of major structural upgrades. Furthermore, the "quilt-like" program of building additions to the main structure over the decades has created problems with wheelchair accessibility in certain sections of the structure, as well as significant parking issues. Traffic circulation issues are another problem with entrance and egress from the facility creating circulation problems on-site, as well as congestion on neighboring streets.

From a facility's capacity standpoint, the building is above capacity in terms of total enrollment. The capacity issues may be relieved somewhat due to steady declines within the District's elementary schools. It is

apparent, however, that a detailed evaluation of the buildings at Kennett is needed.

Conway Elementary – The Conway Elementary School contains grades kindergarten through six. The school is located on Main Street in Conway Village. The facility was constructed in the 1950s with renovations and an addition completed in 1978. Overall, the building is in good condition.

According to the Superintendent, the facility is above its designed enrollment capacity and currently has a portable classroom to address this issue. In order to address the capacity issue, the facility needs to have more specialized space added to accommodate specialty education needs and support staff. Specialized needs typically includes space for uses not incorporated in the building's original design such as computer rooms, office space, nursing space, guidance councilor space, etc.

John Fuller Elementary – The John Fuller Elementary School contains grades kindergarten through six. The school is located on Pine Street next to the SAU #9 administrative offices. The building was constructed in the 1950s and has had renovations and additions completed in 1978 and 1990.

The facility is at or near enrollment capacity and, like the Conway Elementary School, requires additional specialized space.

Pine Tree Elementary School – The Pine Tree Elementary School contains grades kindergarten through six. The school is located on Mill Street in Center Conway, approximately one mile south of the Conway Town Hall. The facility is the newest addition to the Conway School District with the building being constructed in 1990.

As shown in Table 8-3, Pine Tree Elementary is below enrollment capacity and has no pressing building requirements. However, improvement and upgrading of the school's recreation fields is necessary. These improvements are not likely to happen over the next few years as the site does not have access to municipal water and therefore cannot accommodate a necessary lawn sprinkling system.

SAU #9 Administrative Office – The SAU #9 Administrative Office building is located on Pine Street next to the John Fuller Elementary School. The two story building, originally a residential structure, was built approximately one hundred years ago and is home to the SAU #9 Superintendent and administrative support staff.

The building is in generally good structural condition, although it currently violates state health and safety codes due to the lack of fire sprinkler and alarm systems, as well as not being wheelchair accessible. To address these issues, the District has budgeted approximately $105,000 to renovate and enlarge the building in 2005.

10. Electrical Power

New Hampshire Electric Cooperative provides the distribution of electric power in North Conway, while Public Service of New Hampshire provides electric power in the remaining portions of the town.

Kearsarge Lighting Precinct

The Kearsarge Lighting Precinct is a small government body with two purposes: 1) to procure electricity for lighting along streets and public ways within Conway's Kearsarge neighborhood; and 2) oversee the District's

Master Plan and Zoning Ordinance. The organization is run by three volunteer commissioners elected for three-year terms with the help of a paid elected clerk, treasurer, and a moderator (for its annual meeting).

In terms of its public lighting responsibilities, the Precinct purchases electrical power on an annual basis from New Hampshire Electric Cooperative. The cost of the electricity purchased is then passed along to Precinct households based on a percentage of the assessed value of their respective property. This amount is added to the precinct portion of the Conway property tax bill. The most recent assessment for the Precinct was $0.21 per $1,000 of valuation with an annual gross budget of approximately $14,000.

Intervale Lighting District

The Intervale Lighting District operates in the same fashion as the Kearsarge Lighting Precinct in that it procures electricity for public street lights in the Intervale area of Conway. However, the Intervale District does not have land use planning or zoning responsibilities. The most recent assessment for the District was $0.07 per $1,000 of valuation with an annual gross budget of approximately $2,400.

11. Telephone

Telephone service is available through any of the large telephone companies (Verizon, etc). High-speed broadband, dial-up and wireless internet service is also available (depending on local topography and proximity to switching facilities) through a host of regional and local providers including Adelphia, First Bridge Internet, Verizon Wireless, Third Rail Broadband Wireless Solutions, and North Country Internet Access.

12. Natural Gas

Natural gas is currently not available in Conway.

13. Cable Television

Cable television is available throughout Conway. Service is provided by Adelphia. Adelphia has also just recently introduced broadband services to North Conway and Conway Village.

14. Public Water and Wastewater Distribution and Treatment Systems

There are seven (7) utility/service precincts/districts[3] in the Town of Conway. Two of them - the Conway Village Fire District (CVFD) and the North Conway Water Precinct (NCWP) also provide public water and wastewater treatment services. Additionally, the Kearsarge Lighting Precinct and the Intervale Lighting Precinct are included in the North Conway Water Precinct and receive both water and sewer services.

The Town of Conway and the two Precincts/Districts providing water and wastewater services (Conway Village Fire District and the North Conway Water Precinct) are separate and distinct entities. While the Town of Conway municipal government is responsible for administering land use ordinances (i.e. zoning, subdivision and site plan review) and targets certain areas for development, the districts have the ability to make zoning work effectively within its boundaries by managing water and sewer distribution and expansion. System capacity can also be a limiting factor in developing certain portions of the town or restricting

development in other areas. Currently, the Town of Conway, the CVFD and the NCFD do not formally collaborate relative to development applications or development issues within Conway.

Conway Village Fire District (CVFD) – In 1999 District officials commissioned the preparation of the *Conway Village Fire District Water and Wastewater Master Plan* (Camp Dresser McKee [CDM], March 2002). The need for a comprehensive evaluation of the water and wastewater systems was based on incidences of minor contamination at existing well fields; low fire hydrant flows throughout the District; lack of wastewater collection north of the Saco River; and an aging wastewater treatment system which will probably be subject to more stringent discharge permits in the near future.

The *Water and Wastewater Master Plan* provides a comprehensive strategy for improvements based on the above issues as well as future growth projections and targeted development areas. Population projections (about 15% per decade) and associated District needs were based on the New Hampshire Office of State Planning projections for Conway Village.

Water Consumption – The District provides water service to almost all of the households in the Village (about 3,714 in 1999). This represents about 30% of the households in the town. Current average demand in the CVFD is about 0.48 million gallons per day (mgd) which is significantly higher that most New Hampshire communities including the North Conway Water Precinct. (NCWP per capita water consumption is 71 gallons per customer per day [gpcd] while CVFD is 190). The master plan concluded that the water consumption rates do not necessarily reflect actual consumer usage (which may not include other factors such as system leakage) primarily because connections are not metered and water bills are based on a flat rate with no incentive for water conservation. Typically, per capita consumption rates range between 75-100 gpcd. Table 8-4 illustrates per capita water consumption rates for residents served by the CVFD.

Table 8-4. Conway Village FD Per Capita Water Consumption Rates

Year	Water Service Area Pop.	Avg. Day Demand (mgd)	Per Capita Consumption (gpcd)
1995	2,480	0.40	161
1996	2,500	0.40	160
1997	2,520	0.48	190
1998	2,540	0.46	181
1999	2,561	0.49	191

Source: Conway Village Fire District Water and Wastewater Master Plan, 2002, CDM

Water Supply and Treatment – The District relies on two gravel-packed wells, located adjacent to the Kancamangus Highway. These wells were developed in the late 1950s and early 1960s. The capacities for Wells 1 and 2 are 1.22 and 0.72 million gallons per day (mgd), respectively. The CVFD is presently unable to meet maximum daily demand if its largest supply source were to go offline. However, if water consumption rates within the District were reduced, the CVFD would be able to meet typical daily demand should the major source go offline.

There is about 17 miles of pipe in the District ranging in size from 4 to 12 inches. Approximately 50% of the District's mains are 6-inches in diameter or smaller.

Wastewater Service – In 2000, approximately 50% of the District's 2,580 residents were served by the wastewater collection system. The District is currently planning to provide sewerage to all of Conway Village. The Distirct also receives treated groundwater from the Kearsarge Metallurgical Corporation (KMC), which is a designated Superfund Site with groundwater contamination resulting from on-site disposal of

hazardous materials.

The wastewater treatment facility was constructed in 1972 and expanded in 1990, increasing the capacity from about 0.2 mgd to 0.36 mgd. The effluent is treated and disinfected prior to discharge into the Saco River just downstream from the confluence of the Swift River.

Key issues identified in the CVFD *Water and Wastewater Master Plan* about the wastewater collection and treatment system are as follows:

- Wastewater collection is not provided for the area north of the Saco River;
- The existing treatment plant has exceeded the design value for biological oxygen demand (BOD) loading and is within 80% of the design flow rate; and
- The existing treatment plant will be unable to meet expected future treatment requirements (i.e. nutrient discharge limitations, likely to be mandated after 2007).

The oldest portions of the District's wastewater collection system were constructed in 1972, when the wastewater treatment plant was constructed. The collection system includes polyvinyl chloride (PVC) and asbestos cement pipes ranging in size from 6 to 15 inches in diameter.

Conveying wastewater flows from the District's existing service area to the North Conway Water Precinct for treatment is considered a possible comprehensive solution to Conway Village's water and wastewater system problems. However, agreements must be reached between the two districts in terms of utility expansion and capacity needs, service rates and connection fees, and capital improvement financing. It is not anticipated that this connection will be necessary until around 2010 when new permit conditions will require upgrades to the District's existing wastewater treatment plant.

North Conway Water Precinct (NCWP) – According to the NCWP *Water and Wastewater Master Plan*[4], approximately 48% of Conway's population and about 400 residents of the Town of Bartlett live within the NCWP service area, which included a total of about 4,470 residents in 1998. The Precinct primarily lies along the Route 16 corridor and is densely developed with many commercial and retail establishments. The NCWP provides water service to almost all Precinct residents. The North Conway *Water Precinct Wastewater Master Plan* and *Water Master Plan* (both completed by CDM in 1999) provides in-depth evaluations of the Precinct's existing infrastructure and future system needs, including the potential connection to the CVFD water and wastewater systems. Since the master plan was completed in 1999, several water and wastewater improvements have been made:

- Completion of a 12-inch water main from Settlers' Green to Artist Falls Road (Local Road);
- Sewer service to the Artist Falls Area and the Woodland Hills/Northface Condominiums;
- Completion of a 12-inch looped water main extension along Old Bartlett Road to the Mount Cranmore Area;
- Sewer upgrades in the village area including locations adjacent to Seavey Street, Pine Street, Oak Street, Sweat Street, Mason Street, and Grove Street;
- Designed plans for the upgrade to a 16-inch water main along Route 16 from Route 302 to Artist Falls Road, and from Artists Falls Road to the Hospital. (The plans are to be coordinated with New Hampshire Department of Transportation [NHDOT] highway improvement projects 5A and 5B); and
- Designed plans for sewer extension along Route 16 from the Hospital to 16A in coordination with NHDOT highway projects.

Water Supply and Treatment - The NCWP provides water service to all residents within the Precinct. There are two water service areas within the Precinct. The northern service area is supplied by the Hurricane Tank and extends to the north of Artist Falls Road. The Pine Hill Tank supplies the southern service area. Both tanks have a capacity of two million gallons, which is sufficient to service the Precinct's current service

territory over the next 20 years. Commercial and residential water demands are expected to increase by about 20% per decade. Table 8-5 indicates projected water demands for the existing Precinct area as well as potential future connections outside of the Precinct.

Table 8-5. North Conway WP Projected Future Water Demands

Type of Use	1998 Demand (mgd)	2020 Demand (mgd)
Existing NCWP		
Residential	0.20	0.30
Commercial/Industrial/ Institutional	0.32	0.48
Wastewater Treatment Plant Use	0.20	0.20
Unaccounted for	0.39	0.39
Average Daily Demand	1.11	1.37
Maximum Daily Demand	1.72	2.28
Potential Future Outside Connections		
Birch Hill & Forest Edge	0.10	0.15
West Side Road	0.09	0.16
Redstone	0.04	0.22
Lower Bartlett Water Prec.	0.14	0.65
CVFD (north of Saco River)	0.15	0.25
CVFD (south of Saco River)	0.39	0.56
Source: NCWP Water Master Plan, CDM, December 1999		

The Precinct has five gravel packed water supply wells. However, only three are anticipated to be in use over the next 20 years. Well 1 is out of service because hydrocarbons have been detected in the well and Well 2 is threatened by the encroachment of the Saco River, which is eroding on the adjacent riverbank. The main contamination threat to the Precinct wells is from underground storage tanks. However, the planned extension of sewers to the Hussey Well Field wellhead protection area will help protect groundwater quality.

There were three areas identified in the NCWP Water and Wastewater Master Plan where fire hydrant flows were determined to be insufficient: Fox Ridge & Route 16; Artist Falls and Thompson Road; Old Bartlett Road & Cranmore Road. The Precinct has been making upgrades in these areas over the past few years and has made substantial improvements to fire flows.

Wastewater Service - The North Conway wastewater treatment facility was constructed in 1997 and is located on the Saco River about four miles upstream from the CVFD wastewater treatment plant (WWTP). This is a tertiary treatment plant (subsurface) providing advanced treatment in order to preserve the water quality of the Saco River, which is designated as a Class “A” waterway at the Maine state line. By discharging effluent within the subsurface, the Precinct avoids seasonal discharge restrictions (during summer months and periods of low flow) associated with the Saco River, which also may apply to the CVFD facility in the future.

The 1.5 mgd wastewater treatment facility was designed with adequate capacity to serve all of North Conway Village. However, only about 30% of the precinct was connected in 1999, when the plant was operating at about 24% of capacity. As shown in Table 8-6, the average daily flows are projected to be 0.77 by 2020 (including approximately 5,000 gallons per day of septage received and treated as of 1998). Therefore the plant has the capacity for projected flows from the Precinct through 2020.

Table 8-6. North Conway Water Precinct Estimated & Projected Wastewater

Flows			
	Estimated Avg. Wastewater Flow 1998 (mgd)	Projected Avg. Wastewater Flow 2010 (mgd)	Projected Avg. Wastewater Flow 2020 (mgd)
Residential	0.032	0.21	0.26
Commercial/Institutional	0.167	0.36	0.43
Infiltration	0.028	0.06	0.07
Septage	0.005	0.005	0.005
Leachate	0.005	0.005	0.005
TOTAL	**0.24**	**0.64**	**0.77**
Source: NCWP Wastewater Master Plan, CDM, December 1999			

The existing wastewater collection system was constructed over the past 12 years and appears to be in excellent condition with minimal inflows and infiltration. The collection system has the capacity to support planned new sewers within the Precinct over the next 20 years. To provide wastewater collection services to all residents within the Precinct, sewers would need to be installed in the following areas:

- Area north of Intervale Crossroads
- Intervale Crossroads Area
- Cranmore and Crown Ridge Road Area
- Side streets between Route 302 and Artist Falls Road
- Redstone and Route 113
- Portions of the North Conway Village Area

Other Water Service Districts - There are approximately 39 small community water systems registered with the New Hampshire Department of Environmental Services (NHDES) within the Town of Conway. Of these systems, eight (8) have been classified as “likely” to be connected to the NCWP water distribution system in the future[5]. Another ten community water systems are considered “possible” future connections to NCWP based on their proximity to the existing system. These systems include:

West Side Road - NHDES has identified four (4) community water systems on West Side Road that may benefit from a connection to NCWP if the water system is extended across the Saco River.

Center Conway - There are three small public water systems in Center Conway: Saco Forest Association (65 housing units), Saco Woods Condominiums (240 housing units), and Woodland Grove. While the CVFD is three miles from most residential areas in Center Conway, it is possible that these system and other areas of the village could be connected in the future. This area could also be connected to NCWP along Route 16.

Albany - The CVFD currently provides service to approximately 10 homes in Albany just west of the village and it’s possible to extend service in the future to connect three small public water systems that have had fairly high iron levels including: Almost There Restaurant, White Mountain Subaru, and Wildwood Development.

Non-Service Areas - There is a limited section of Route 16 between North Conway and Conway Village that is outside the boundaries of both the CVFD and the NCWP. Currently there are no residential or commercial developments along this section of the roadway, but it is anticipated that limited development could occur in the future. NCWP is evaluating this area for potential expansion in the near future.

Additionally, the North-South Road and the Route 16/302 bypass may generate new development in the Redstone area and the NCWP may consider extending water service to this area through an existing 12-inch water main stubbed at Route 302. The Precinct is also considering possible interconnections to the Lower

Bartlett Water Precinct and the Conway Village Fire District to provide supplemental flows in the event of an emergency or fire.

15. Water and Wastewater Trends and Issues

Conway Village Fire District

Water System Issues – According to the CVFD's *Water and Wastewater Master Plan* (CDM, 2002), the key issues for the water system that need to be addressed are the following:

- The water distribution system is not efficiently linked and has a significant number of long dead-end mains, reducing system reliability and raising potential water quality concerns;
- Storage facilities and supply sources are concentrated in one area of the district; and,
- Fire hydrant flow requirements are not fully met at any of the Insurance Services Office (ISO) fire flow locations.

There is about 17 miles of pipe ranging in size from 4 to 12 inches, and approximately 50% of the District's mains are 6-inches in diameter or smaller. Over the next several years the District will need to replace these lines with 8-inch mains at a minimum. Additionally, looping dead-end mains in the District would improve fire hydrant flows and water quality. As shown in Table 8-7, potential looping areas include the following:

Table 8-7. Potential Water System Looping Project in CVFD

Street From	Street To	Diameter (inches)	Length (feet)
Thorne Hill Rd.	Fairview Ave.	6	200
Jack Frost Lane	Quint Street	8	300
Prospect Rd.	Prospect Rd.	6	200
Muster Street	Washington St.	6	500
River Street	River Street	6	300
Source: CVFD Water Master Plan, CDM, 2002			

The New Hampshire Department of Environmental Services (NHDES) maintains an inventory of potential and existing sources of contamination for public water supplies in for Conway Village that was updated in July 1999. The majority of contamination threats to the District's wells are from underground storage tanks.

The District's two water wells are also vulnerable to accidental chemical releases that could possibly occur on Route 16 or the Kancamangus Highway. Inter-connection with the NCWP would address this issue. NCWP's Pine Hill Tank is located approximately 4,500 feet from end of the District's distribution system on Route 16. This could be used as a short-term supply in the event of high demand conditions, emergencies, or contamination events.

The CVFD Water Master Plan evaluated three possible alternatives to rectify current deficiencies in the water distribution and treatment system:

- Connect to the North Conway Water Precinct's distribution system;
- Construct a new Conway Village water storage tank, located north of the Saco River; or
- Extensive piping improvements, with no additional storage.

Wastewater Issues - The Conway Village wastewater treatment plant is about 30 years old and approaching the end of it's designed life. Some equipment is experiencing significant wear and tear such as the aeration system. Given this and more stringent permit conditions anticipated to be imposed in the next seven years by the State of New Hampshire, the CVFD Wastewater Master Plan recommended minimizing significant

capital improvements to the existing facility. However, upgrading the WWTP aeration system is an important short-term improvement. This would reduce the District's energy costs and ensure that the plant continues to meet current discharge permit conditions.

Additional growth is projected in the area north of the Saco River beyond the current service area. Continued reliance on subsurface wastewater disposal systems in the area may cause the deterioration of local groundwater quality.

The CVFD Wastewater Master Plan evaluated three alternatives that could provide a comprehensive solution:

- Convey flows north of the Saco River to the North Conway Water Precinct now and include provisions to ultimately convey all Conway Village flows to North Conway (when more stringent discharge limits are imposed);
- Upgrade the sewage treatment plant (STP) in order to meet all future permit requirements, and convey flows from the north of the Saco River to the North Conway Water Precinct for treatment; or
- Expand and upgrade the District's WWTP in order to accept flows from north of the Saco River and to meet all future permit requirements.

North Conway Water Precinct

The North Conway water and wastewater systems are both in good condition and have sufficient capacity to accommodate anticipated growth for the next several years. However, there are several areas beyond the current precinct boundaries that could be connected and provide significant community-wide benefits in terms of natural resource protection, public health and economic development.

There are limited growth opportunities in the village area, which is bound by the railroad and Saco River to the west, Mount Cranmore to the east, and conservation lands to the north. Much of the land west of the Saco River remains undeveloped with a large portion situated within the floodplain, Echo Lake State Park, or the White Mountain National Forest. Residents in this area rely on septic systems and there are no plans within the near future to provide wastewater service to this area.

There are possible extension opportunities south along the "strip" in terms of infill, redevelopment, and open parcels on the east side of Route 16 behind existing development. North of the village area, along Route 16, there is a possible extension area due to the need to increase protection of the Precinct's water supply watershed.

Potential wastewater services to areas outside the Precinct in the future include: Redstone (to serve new development along Route 302 and 113); Lower Bartlett up to the East Branch River (to protect the Hussey Well Field and LBWP well field); existing CVFD service area; and the CVFD unsewered area north of the Saco River. The cumulative flows of these areas, in addition to the Precinct's own projected growth, would exceed all design parameters of the WWTP. However, the plant's design and capacity ratings may be higher than currently rated and could possibly be re-rated to a higher capacity with minimal capital expenditures.

The Precinct will need to develop new water supply sources if it is going to supply demands outside the Precinct boundaries. Two new wells and pumping station upgrades could potentially increase the capacity from its current estimated level of 7,000 to 12,000 gallons per minute (gpm). The Precinct has recently identified a well site (#6) in the Intervale area that could provide a significant amount of water to accommodate future needs.

16. Implications for the Future

The snapshots of existing municipal services and infrastructure discussed in this chapter provide insight into the current operations and conditions of various types of municipal services. The needs assessment attempts to provide an understanding, on a comprehensive level, where each service or infrastructure provider is headed relative to perceived future needs. The decisions made relative to the town's municipal and service infrastructure will have far reaching fiscal, environmental and social implications with regard to how Conway will function as a community in the future. As mentioned in earlier chapters, Conway's position as a tourist and retail destination places additional demands on existing and future services and infrastructure. Planning for these fluctuations to ensure that adequate municipal services and infrastructure are maintained will be one component of an overall municipal system that will be required to preserve Conway's existing high quality of life.

The continued growth of enrollment within the entire Conway School District has placed considerable pressure on the town's educational infrastructure. A comprehensive facilities plan should be developed by the District to anticipate the town's educational infrastructure needs over the next ten years.

Although Conway enjoys the benefits of having experienced and dedicated professionals using some of the best equipment in the County, there may be opportunities to better utilize fire protection resources. Based on interviews with each of the Fire Chiefs, it appears that the town as a whole could improve its fire protection services if the five separate fire districts/precincts were coordinated, at the very least, on an administrative and fiscal basis. At a bare minimum, purchasing agreements, drafted in the form of memoranda of understanding, should be initiated to purchase similar products, services, and equipment used by each of the Precincts/Districts. Although coordination has been attempted in the past, the potential administrative and fiscal advantages attained by an integrated fire protection system could be significant and therefore should be revisited.
In order to reduce overlapping zoning requirements and bureaucratic formalities, the Town of Conway's Zoning Ordinance should be amended to include elements of the Kearsarge Lighting District's Zoning Ordinance.

In terms of water and wastewater issues, the CVFD Interconnection Feasibility Study will address NCWP residents and property owners' concerns that water and wastewater expansion to areas outside the Precinct may use existing capacity and limit future connection opportunities within the Precinct. If the Study determines that expansion can be done by using surplus capacity that does not limit service potential in existing areas, then both NCWP and CVFD should work with Precinct residents and property owners to inform them of the advantages of this interconnection to the larger community. Additionally, NCWP should continue to evaluate potential future funding eligibility issues if additional revenues are collected from new service areas outside the Precinct.

The Town of Conway Selectmen should also work with both the CVFD and the NCWP by informing residents and property owners in both service areas about the advantages of inter-connected water and wastewater systems in terms of resource protection and future economic opportunities; developing funding solutions that recognize the difference in tax bases and financing capabilities between the two service areas; and accessing state and federal funding sources that are available only through the town (e.g. community development block grants).

Map 8-1 – Mun. Infrastructure/Fire Precincts

[1] Camp Dresser and McKee. *Conway Village Fire District Water and Wastewater Master Plan* – March, 2002.

[2] Town residents may also access the North Conway Community Center located in North Conway. However, this facility is owned and operated by a private non-profit group which receives municipal funding and is therefore not included in this assessment.

[3] Conway's utility/service Precincts/Districts include the North Conway Water/Fire Precinct, Center Conway Fire Precinct, Conway Village Fire District, East Conway Fire Precinct, Redstone Fire District, Kearsarge Lighting Precinct and the Intervale Lighting District.

[4] Camp Dresser and McKee. *North Conway Water Precinct Water and Wastewater Master Plan*. December, 1999.

[5] These are community water systems identified by NHDES where benefits exist in combining the connection during NHDOT roadway improvement projects

CHAPTER 9
LAND USE AND COMMUNITY DESIGN FEATURES

1. Introduction

This chapter of the master plan examines land uses and community design features within the Town of Conway. Recent changes in New Hampshire statutes dealing with the preparation of master plans expanded the types of sections that could be included in a community's master plan (2002). A key change was the addition of a community design section [RSA 674:2 III(k)]. Under this enabling statute a community design section may be used "…to identify positive physical attributes in a municipality and provide for design goals and policies for planning in specific ways to guide private and public development".

This chapter is divided into three parts. The first part of the chapter provides an assessment of the use of land from the perspective of major land use types (including residential, commercial, institutional and undeveloped) that currently exist within Conway. The second part of the chapter presents a build-out analysis, relating to the future development of Conway, based on the town's existing zoning regulations. The third part of the chapter contains an analysis of existing community design attributes and presents alternative design elements and options for various locations throughout Conway. These design features are based on numerous public discussions throughout the master plan update process including a one-day design charrette, entitled *Designing Conway's Future*, which was conducted in June 2002.

The data used to conduct the land use analysis was derived primarily from information in the town's computerized assessment database and geographic information system (GIS), combined with input from local officials and site reconnaissance of the community. The town's property assessment database contains characteristics related to the use and assessed value of each land parcel within the town, including a detailed set of land use codes. By combining the town's assessment data with the GIS parcel base map prepared for this master plan, an Existing Land Use Conditions Map was prepared that provides a current "snapshot" of land utilization within Conway. The data obtained from the assessment records, as well as the GIS base map, were updated through January, 2002.

2. Summary of Findings and Conclusions

The following points summarize existing land use conditions and community design features presented in this chapter. Additionally, various implications associated with existing land use and community design features in Conway are also discussed.

In terms of Conway's existing land use and development patterns, specific findings include:

- Based on property assessment data, Conway's total land area is approximately 42,780 acres. This figure does not include roadways, water bodies and condominium developments. A 2000 land use inventory report indicates that total land area in the town was 46,850.
- The largest use of land in Conway is undeveloped property, representing approximately 57% the total land area in the community.
- Approximately 10,450 acres (24% of the total land area) in Conway are used for residential purposes.
- Commercial land uses account for only about 5% of Conway's land base.

Based on the town's existing development regulations and current development patterns, Conway has a considerable amount of vacant land available for development. Specific findings include:

- Based on Conway's average absorption of approximately twenty single family dwelling units per year, it would take over *700* years to absorb just the *vacant* residential land under the high density level (one acre lots), or over *240* years under the medium density level (3 acre lots), or about *140* years under the low density level (5 acre lots).

In terms of community design features, numerous concepts, issues and ideas have been illustrated. Selected design concepts include:

- Improvement of existing lighting standards under new planning regulations and policies in order to reduce ambient light pollution.
- Preparation of additional regulations to protect ridgeline development at lower elevations.
- Evaluation of current sign regulations and consideration of incorporating basic sign design guidelines in terms of form, siting, scale, materials and color, graphics and lettering, international signs, illumination and signage themes.
- Development of a streetscape master plan to identify opportunities to improve community design.
- Revisions of existing community design guidelines to feature the individual character of the villages and other corridors that the community wishes to preserve and/or enhance through private development and public improvements.
- Considerations of creating plans for the development of a shared civic space (municipal campus) near the Police Station and County Court facility.

Based on the existing land use and design concepts presented throughout the chapter, implications about how Conway could change in the future include:

- Based on the "snapshot" of existing land use conditions in town, it is clear that a substantial amount of Conway's land area still remains largely undeveloped. However, growth trends discussed in the Population and Housing Chapter of this plan indicates that the town will have to make some important decisions about how the remaining land base will be used to support future growth. These decisions will determine whether or not the land is used in the most efficient way possible to accommodate expected growth, while also not detracting from the natural and scenic beauty, and perceived high quality of life associated with this open space.
- In terms of community design issues a variety of conceptual design elements have been discussed for the town as a whole, as well as for respective villages. During the numerous public meetings held during the master plan update, participants have clearly stated that community design elements are becoming increasingly important to the character and attractiveness of Conway. As a tourist and retail destination, the town needs to pay special attention to existing design features throughout the community and provide approaches for considering design related impacts during the review of development proposals. This attention may come in the form of amendments to planning regulations (zoning ordinance, etc.) and policies, devoting additional resources and investment in understanding community design initiatives, and establishing partnerships with local businesses, non-profit agencies and community groups to work through design issues on a local level. Highway and road improvements slated to proceed throughout the town over the next decade present an excellent opportunity to work towards incorporating these design concepts throughout Conway.

3. Existing Land Use

Current land use conditions in Conway are illustrated on Map 9-1, Existing Land Use Conditions. The map divides land use activities into seven major categories including:

- Residential
- Undeveloped Land

- Commercial
- Industrial
- Institutional
- Utilities
- Private Rights-of-Way (ROW)

Additionally, parcels that have conservation or protection mechanisms in place are identified on the map (to the extent possible) as “protected land”. For the purposes of this analysis, these “protected land” parcels are considered undeveloped.

The undeveloped land category includes raw vacant land that may be zoned for various purposes, but is currently undeveloped. Land within this category may also include parcels slated for residential or non-residential development or property that is protected from development through any number of conservation mechanisms. It should be noted that a small number of parcels were not identified within the municipal assessment database as having an existing use. Based on information provided by the Conway’s Assessor, the uses of some of these parcels have been identified. However, a use code was not identified for approximately fifteen parcels. Based on information provided by the Assessor, it is generally assumed that these parcels are undeveloped.

The commercial and industrial categories include all business establishments. These establishments represent banks, offices, gas stations, restaurants, retail stores, light manufacturing, etc.

The institutional category includes public and quasi-public land uses associated with government and quasi-government functions. These include municipal, state and federal land; parks; police and fire buildings; schools; churches; libraries; hospitals; service organizations; and cemeteries.

The utilities category includes electrical power infrastructure and property used for water and sewer infrastructure owned by Conway’s various Districts/Precincts (water, sewer and lighting).

The private rights-of-way category includes privately owned land that provides access to other parcels.

Map 9-1 land use

As shown in Table 9-1, the total land area within the town is estimated at approximately 42,780 acres[1]. This calculation was based on parcel acreage recorded in the town’s assessment records. It should be noted that the total acreage estimate does not represent the total acreage within the town’s municipal boundary since it does not include water bodies, roadways and condominium land. The total area of the town is estimated at approximately 46,900 acres (73 square miles) as reported in a 2000 land use inventory report prepared by the Conway Planning Department.

As noted in the table, the largest amount of Conway’s land area is undeveloped which account for approximately 24,500 acres – representing 57% of the total land area. It should be noted that although the land is categorized as undeveloped, it may be currently used for agricultural purposes and/or have deeded development restrictions which limits development on specific parcels.

Residential properties represent the second largest amount of land area at approximately 10,500 acres or about 24% of the total acreage. It is important to note that a large portion of the properties within this category are single family units on large parcels. These parcels therefore contain a significant land base that has potential for further subdivision and development in the future.

Commercial and industrial properties are shown to be a small portion of the total acreage within the town, representing approximately 3,500 acres or 8% of the total area. The majority of these properties are located along major roadways (Route 16).

Table 9-1. Total Acres by Land Use Type: 2001
Town of Conway

Land Use	Total Acreage	% of Total Acreage
Residential	10,451	24.4%
Commercial	2,180	5.1%
Industrial	1,367	3.2%
Institutional	3,810	8.9%
Utilities	330	0.8%
Private ROW	123	0.3%
Undeveloped	24,524	57.3%
Total*	42,785	100.0%

*Note: This estimate does not represent the total acreage of the town as it does not include roadways, water bodies and condominium developments. A 2000 land use inventory report prepared by the town reported the town total acreage as 46,850 acres.

Source: Town of Conway Planning Department, Assessment Department and RKG Associates,

Inc.

4. Zoning Build-Out Analysis

This section examines the town's zoning regulations and the potential for future development within Conway. The zoning regulations are the primary determinant of land uses within the community. Currently, Conway's land area is divided into seven zoning districts as illustrated on Map 9-2. These zones are accompanied by a set of development standards that define the size, location and density of permitted uses within various areas of the town. The seven zones are listed in Table 9-2 along with the approximate acreage of land area contained in each zone. In addition to the seven zoning districts listed in Table 9-2, the Town of Conway's Zoning Ordinance lists three additional zoning districts which include the Shoreline Protection District (SP), Wetland and Watershed District (WW), and the Special Highway Corridor District (SHC). For the purposes of this build-out analysis, land in all zoning districts are evaluated, with the exception of the SP, WW, and SHC zoning districts.

Table 9-2. Total Acres by Zoning District - 2001
Town of Conway

Zoning District	# Acres	% of Total
Residential/Agriculture (RA)	30,884	69.5%
Village Residential (VR)	379	0.9%
Village Commercial (VC)	847	1.9%
Highway Commercial (HC)	2,213	5.0%
Industrial (I)	900	2.0%
Mountain Conservation (MC)	7,100	16.0%
Resort/Recreation (RR)	2,100	4.7%
Total[2]	44,424	100.0%

Source: Town of Conway Assessment Records, 2001 and RKG Associates, Inc.

The residential zones include the Residential/Agriculture (RA) and Village Residential (VR) zones. These zones contain about 31,200 acres representing approximately 71% of Conway's land base. It should be noted that this analysis is based on zoning and property data provided by Conway's Assessment Department. The property assessment and zoning data provided by the town is assumed to be reliable and has been verified to the extent possible. However, no warranty is given for its accuracy.

The two commercial zones, Highway Commercial (HC) and Village Commercial (VC) have a combined total of approximately 3,060 acres, or 7% of the town's land base. The HC zone is focused along Conway's busiest highway corridors which includes sections of Route 16 (along "the Strip", north of North Conway Village and west of Conway Village), and a northern section of Route 302 in Redstone. The VC zone incorporates the core commercial areas in each of the three villages.

Conway currently has two industrial zoning districts – the Industrial 1 (I1) and Industrial 2 (I2) zoning districts. The I1 district is located along Hobbs Street in Conway Village, while the I2 district is located along East Conway Road in Redstone. Both industrial zones have a combined total of about 900 acres representing approximately 2% of the town's land base. For the purposes of this build-out analysis, both the I1 and I2 zoning districts will be combined as these areas are designated for similar light industrial and commercial uses.

Map 9-2 Zoning

The Mountain Conservation zone (MC) is located in the northern portion of Conway and incorporates parcels at or above 800 feet in elevation. The MC district contains approximately 7,100 acres representing about 16% of Conway's land area.

The Resort/Recreational zone (RR) is located in North Conway and incorporates the Mount Cranmore Ski Resort as well as some neighboring properties. The RR

zoning district contains roughly 2,100 acres representing approximately 5% of Conway's land base.

Future development potential in Conway can be estimated by identifying the amount of developable land that remains within each zoning district. The geographic information system (GIS), which includes the digital parcel and zoning maps as well as linkage to the computerized assessment database, was used to estimate development potential.

The build-out analysis examined the potential for future development of both residential and non-residentially zoned land in Conway. Within both of these categories the analysis identified the amount of undeveloped and "underdeveloped" land within each zoning district. The term "underdeveloped" refers to those properties that may already be developed, such as with a single family dwelling unit, but also have sufficient acreage to be further subdivided.

The residential build-out analysis, which is summarized in Table 9-3, evaluated development potential based on the number of single family dwelling units that could be constructed at three different levels of density. The first density level is the minimum lot size permitted by zoning. The Conway Zoning Ordinance indicates that the minimum lot size for land serviced by municipal water and sewer is one-half acre for the first dwelling unit developed. Each additional dwelling unit developed on the lot requires only 10,000 square feet (approximately one-quarter of an acre). Lots not serviced by municipal water and sewer must have a minimum of one acre of qualified[3] land per dwelling unit. Lots serviced by either municipal water *or* sewer require a minimum lot size of at least one-half acre of qualified land per dwelling unit. Although Conway's Zoning Ordinance indicates that a minimum lot size for development could be one-half acre, for the purposes of this analysis, the first density level used is assumed to be one acre per dwelling unit. This density level was selected because most potentially developable land is located outside of areas serviced by municipal water and sewer, as well as the fact that most newly subdivided lots are seldom created at the minimum lot size density due to natural constraints and the shape of the parcel being subdivided.

The second density level used to calculate the build-out analysis was three acres per dwelling unit (medium density) which is based on the current average lot size of all improved parcels in Conway. For comparative purposes, the third and final density level used was five acres per dwelling unit (low density).

Part A of Table 9-3 indicates the amount of undeveloped acreage that remains in each residential zoning district, which includes all unimproved land parcels. The total undeveloped land in both residential districts is approximately 19,300 acres. This gross acreage estimate was then reduced by 25% to allow for the construction of roads, utilities, and natural constraints encountered during the subdivision process. This yielded a net developable acreage estimate of approximately 14,500 acres. Dividing this net acreage estimate by the high (1 acre), medium (3 acres) and low (5 acres) density levels within each district suggests that there is the potential for construction of between 2,909 to 14,544 single family homes on undeveloped land in Conway.

A similar analysis was conducted for parcels that have an existing dwelling, but which are considered underdeveloped based on permitted zoning densities. Part B of Table 9-3 shows that there is an additional 7,700 net acres of potentially developable land available in these parcels after allowing for the existing residence[4] and the installation of roads, utilities and allowing for natural constraints. It is estimated that an additional 1,543 to 7,713 single family dwelling units could potentially be constructed on these parcels.

Typically the same type of build-out analysis, applying the GIS mapping and assessment database completed for residential zones, is applied to non-residential zones. In order to measure potential development density for non-residential zones, a floor area ratio (FAR) is used. This is the ratio that exists between the amount of building square footage and the size of the parcel. However, the GIS and assessment data obtained from the Town of Conway does not provide the geographic location (map and lot number) or size (square footage) of buildings within the town. Therefore, due to the lack of building size and location data, developing a build-out analysis based on a FAR is not possible.

Although data is not available to estimate the amount of underdeveloped land, it is possible to estimate the amount of undeveloped non-residential land. Table 9-4 indicates the amount of undeveloped land which remains in each non-residential zoning district. The total undeveloped land in non-residential zoning districts is about 3,000 acres[5]. This gross acreage estimate was then reduced by 25% to allow for the construction of roads, utilities, and natural constraints encountered during the subdivision process. This yielded a net developable acreage estimate of approximately 2,200 acres. Based on average estimated FARs for potential development in each zoning district, it is projected that approximately 4.8 million square feet of non-residential building space could be constructed in the future.

Table 9-3. Residential Build-Out Analysis by Zoning District: 2001

Town of Conway

	Zoning District: Residential/Agriculture RA	Village Residential VR	Total
Part A. Potential Development on Vacant Land			
Gross Undeveloped Acreage	19,302	91	19,392
Potentially Developable Acreage (1)	14,476	68	14,544
Additional Single Family Units based on 1 Acre Lot Size	14,476	68	14,544
Additional Single Family Units based on 3 Acre Lot Size	4,825	23	4,848
Additional Single Family Units based on 5 Acre Lot Size	2,895	14	2,909
Part B. Potential Housing Development on Subdividable Land with Existing Housing Units			
Subdividable Acreage with Existing Unit (2)	10,228	56	10,284
Potentially Developable Acreage (1)	7,671	42	7,713
Additional Single Family Units based on 1 Acre Lot Size	7,671	42	7,713
Additional Single Family Units based on 3 Acre Lot Size	2,557	14	2,571
Additional Single Family Units based on 5 Acre Lot Size	1,534	8	1,543

(1) Represents the gross undeveloped acreage less 25% for roads, utilities and natural constraints
(2) Represents any parcel over 3 acres with an existing dwelling unit
Source: Town of Conway Assessment Database and RKG Associates, Inc.

Table 9-4. Potential Development on Non-Residential Vacant Land: 2001
Town of Conway

	HC	VC	I	RR (3)	MC (3)	Total
Gross Undeveloped Acreage	1,092	148	394	1,011	347	2,991
Potentially Developable Acreage (1)	819	111	295	758	260	2,243
Average Floor Area Ratio (2)	8%	10%	5%	2%	2%	
Potential Square Footage of New Building Space	2,854,077	481,948	643,305	660,261	226,808	4,866,399

(1) Represents gross undeveloped acreage less 25% for roads, utilities and natural constraints
(2) Floor Area Ratio (FAR) is the ratio that exists between the amount of building square footage and the size of the parcel. Calculation of actual average FARs for each zoning district was not possible, therefore, an estimated average FARs was used.
(3) Both the RR and MC zoning districts contain about 6,700 acres of undeveloped land, the acreage values used in this analysis represent only acres that could potentially be developed due to severe development constraints.
Source: Town of Conway assessment database and RKG Associates, Inc.

Summary and Conclusions of Build-Out Analysis

It should noted that the build-out scenarios presented here are based on existing regulations and a specific set of assumptions that are deemed appropriate for existing conditions. If Conway's land use regulations are changed in the future, then potential build-out results would also be altered. None of the scenarios are intended to suggest an absolute potential for development in the town. This analysis offers a "big picture" perspective on the development potential in Conway and should serve as a starting point for a more detailed, site specific analysis.

It should be emphasized that the projected range in the number housing units, which could potentially be developed in Conway, is very broad as it is based on the respective assumptions used within the analysis. The wide range in the number of potentially developable units is not typical and should not be considered realistic. However, what should be highlighted is that Conway has a considerable amount of land available for residential development. Based on Conway's average absorption of approximately twenty single family dwelling units per year, it would take over *700* years to absorb just the *vacant* residential land under the high density level (one acre lots), or over *240* years under the medium density level (3 acre lots), or about *140* years under the low density level (5 acre lots). It should be noted that these estimates are just for existing vacant land and do not account for land available in underdeveloped parcels.

5. Community Design Features, Issues & Ideas

Background

In order to define community design elements and concepts, three public visioning sessions and a one-day public charrette entitled *Designing Conway's Future* was conducted as part of the master plan update process. The purpose of *Designing Conway's Future* was to provide residents with an opportunity to discuss their vision of future development activities and provide public guidance for the planning process. Specifically, residents were encouraged to work with urban planners and landscape architects to help design specific sites and provide conceptual design ideas.

This section provides a summary of the community design issues, opportunities and ideas generated by participants at *Designing Conway's Future*. The section has been divided into six subsections which include: existing policies and regulations related to community design; general aesthetic issues and community design ideas; open space characteristics; transportation issues and design concepts; design concepts for Conway Village, North Conway Village and Center Conway Village; and, other community design concepts, issues and ideas. It should be noted that this section is unique compared to the other respective chapters in this master plan as recommendations relative to community design features have been included accordingly throughout this section. Furthermore, a number of maps and graphics have

been included in order to illustrate the various design concepts.

Existing Policies & Regulations Related to Community Design

Zoning Ordinance – Current regulations in Conway encourage "smart growth" principles; the protection of natural resources, and scenic views; and aesthetic enhancement in several ways. For example, as noted earlier, a reduced lot size requirement is provided for parcels served by municipal water and sewer. For residential lots served by municipal water and sewer, the requirement is ½ acre (vs. one (1) acre) for the first dwelling and 10,000 square feet for each additional dwelling. For lots served by municipal water, the requirement is ½ acre per dwelling. This approach provides greater flexibility in building, lot use and density, particularly in the village areas.

In all districts the minimum frontage requirement is 150 feet, except in the Village Commercial District (VCD), which is 50 feet. Lots on the Saco or Swift Rivers must have a minimum of 150 feet of frontage and setbacks of structures of at least 100 feet. There is a minimum setback of 75 feet for structures from the mean high water mark of all watercourses, except for seasonal streams that require a setback of 25 feet. Height restrictions are designed to keep structures below the tree line, which is typically 60 to 100 feet. Structures cannot exceed 55 feet and buildings 45 feet in height.

Mixed use and village character are protected through the following zoning district regulations:

- **Village Residential District (VRD)** – There are two VRD areas including the residential portions of Conway Village and North Conway Village. Permitted uses include: residential structures including home occupations, lodging houses, tourist homes, boarding homes or rooming houses. Special exceptions are provided for private educational facilities, day care, and post offices.

- **Village Commercial District (VCD)** – There are three VCD areas including the main village areas of Center Conway, North Conway and Conway Village. Several mixed-use opportunities are also permitted in these districts.

Commercial development and design is controlled through the following zoning districts:

- **Highway Commercial District (HCD)** – This district is located along Routes 16 and 302 in Conway and North Conway, and in the Redstone area.

- **Special Highway Corridor District** – This district includes all land within 500 feet of the edge of the right-of-way of the proposed Conway bypass and its intersections. The purpose of this overlay district is to protect and preserve natural features of the Valley's landscape, while allowing for appropriate development that is compatible with the scenic and rural quality of the road corridor. The objectives of the district are to: implement the town's master plan, maintain an attractive gateway to the Valley; prevent adverse environmental impacts, encourage high quality development, prevent uncontrolled commercialization and destruction of scenic vistas; and preserve the traffic moving function of the bypass. In general, the same uses are permitted as allowed for in the underlying zoning district with greater setbacks and buffer strips, extensive landscaping and vegetative preservation in the buffer strips, lighting and density controls, design guidelines, strict sign regulations, and reduced lot coverage. Buildings can be no more than 5,000 square feet in size, 35 feet in height and must be spaced at least 40 feet apart.

Aesthetic quality and scenic views are protected through the following ordinances:

- **Mountain Conservation District (MCD)** - This district includes all lands north and east of the Saco River above 800 feet in elevation. Permitted uses include forestry and conservation uses, and active and passive recreational uses.

- **Shoreline Protection District** – This district includes all land within 300 feet of the following "Great Ponds": Conway Lake, Dolloff Pond, Echo Lake, Labrador Pond, Pequawket Pond, and Pudding Pond. In Conway Village this zone extends to the centerline of Route 16 or 300 feet, whichever is less.

- **Wireless Communication Facilities (147-17.3)** – Towers may be allowed only by special exception from the Zoning Board of Adjustment (ZBA) in the residential/agriculture (R/A), rural residential (RR), industrial (I), and the MCD. Those lower than 55 feet in height are regulated as any other commercial structure in any commercial or industrial district. Those that are taller than 55 feet are not permitted in any village district, Wetland Conservation District (WCD),

Floodplain Conservation District (FCD) or Highway Commercial District (HCD).

Sign Ordinance (147-19) – The intent of these regulations is to prevent private signage from detracting from scenic vistas, or competing with the natural environment, which is a major asset to the town's tourist-based economy. Small A-frame signs (6 s.f.), window signs (less than 50% of window area), directional signs, non-illuminated signs (16 s.f.) are allowed without a permit. This is a fairly restrictive ordinance, but it has not, according to some individuals, been very effective is addressing inappropriate grandfathered signs.

- **Freestanding Signs** – One per lot allowed up to 40 square feet in area, setback 25 feet, 12 feet in width, and not to exceed 15 feet in height. The setback may be reduced to 10 feet if the area is reduced to 30 feet. The town may want to consider reducing the height as well for those signs reduced in size in order to promote signs that have a more pedestrian scale.

- **Projecting Signs** – Not to exceed 20 square feet (s.f.) in HCDs and 6 s.f. in VCDs in lieu of a freestanding sign. Signs must be 10 feet above ground and not higher than 15 feet. Typically, 8 feet from the ground would be an appropriate minimum height in a village setting.

- **Wall Signs** – Height is not to exceed 20 feet and for floor areas of 50,000 square feet or less the formula for sign area is: 20/(total s.f. floor area x 0.0016). This is fairly restrictive with only 6.25 square feet allowed for a 2,000 square foot business, which is typical for small independent stores that exist in the village center.

- **Pedestrian-Oriented Off-Site Commercial Signs (POOC)** – These signs are allowed to encourage pedestrian activity (as opposed to vehicular traffic) in the North Conway Village Commercial District. The signs must be located on private property, have no setback requirements, direct and inform pedestrians, have a maximum area of 4"x18" with no more than 10 per lot, and must be within 400 feet of the lot. These signs are very useful for businesses located on side streets in North Conway Village, which are often difficult to see from Main Street.

- **Design Standards** – Signs may be illuminated by only external light and shielded, neon signs are not permitted, and the structure base and support can be no more than 50% of the sign's message area.

- **Non-Conforming Signs** – These are grandfathered and can be maintained but not improved without bringing them into compliance. Enforcement has been a difficult problem with inappropriate grandfathered signs.

- **Sign Incentives** – To reduce visual clutter and distraction from the natural environment, signs may use up to 20% of this space for changeable copy; the message area can be increased by up to 20 s.f. if the lot has 300 feet of frontage or by 40 s.f. if it has 500 feet; where a freestanding sign is in compliance, wall signage may be increased by up to 50%. This provision has not effectively reduced the grandfathered freestanding signs. The town should reconsider the maximum sign area (up to 80 square feet under this provision) based on the visual impact of the roadway rather than the size of the lot and buildings.

Subdivision Regulations – To address the aesthetic impacts of overhead utility lines, Section 131-48 (Installation of Utilities) requires all utility systems (including electrical) to be placed underground in conformity with the terms and specifications of the utility company involved. The town's road design standards typically require a 50-foot right-of-way (r-o-w) and between 18 and 24 feet of paved area. However, in examining existing local roads, the average in both is somewhat lower (46.5 average r-o-w, and 20.6 pavement width). Many of these roads are very old and predate design requirements made by the town. In most cases, these reduced r-o-w and pavement widths work well and are more in keeping with the rural nature of the community, particularly for local residential access roads.

Site Plan Review Regulations – To enhance site aesthetics and the town in general, Section 123-28 of the regulations requires that all utility systems be placed underground for new development, for new buildings and for expansions greater than 5,000 square feet or 50%, whichever is more restrictive.

- **Landscaping** - Section 123-29A (Buffer Areas) provides an exemption from the Conway Village Commercial Area and North Conway Village Commercial Area districts from the front setback to allow for activities related to the primary building use such as outdoor restaurants or merchandise display. Additional requirements include:

    - Green space shall comprise 25% of the total lot area
    - Trees must be provided at a rate of 1/500 square feet of disturbed area; new 3" caliper trees and 12"+ caliper trees must be preserved within 70 feet of the building; 50% of the trees must be in parking areas; and street trees must be an appropriate species.

- **Parking (123-21)** – Off-street parking is required for commercial uses at the following rate: 1 space per 3 seats for restaurants; 1.1 spaces per unit in hotels, motels and lodges; 1 space per 200 s.f. for retail uses; and 1 space per 250 s.f. for business services, personal services and offices. Public parking lots within 400 feet can be used to reduce up to 20% of the required off-street private parking, but can not be more than 10% of the total spaces in the public parking lot. The public parking lot must also be off-street, in the same zoning district, have documented excess parking, and a recorded parking easement must be in place. On-street public parking cannot be credited for off-street spaces because of the possible re-use of the public right-of-way. These are fairly restrictive requirements and have a significant impact on the village centers in terms of maximizing building and property uses.

- **Historic Sites and Structures (123-33)** – It is requested, but not required, that applicants make every reasonable attempt to preserve, enhance and re-use historic sites and structures. This provision should probably be strengthened, particularly in the village centers.

- **Wheelchair Access (123-36)** – Adequate handicapped access is required unless it can be documented that it is not required by the Americans with Disabilities Act of 1990 (ADA). This section covers curb ramps, handicapped parking and adjoining access aisles, and wheelchair accessibility to the main entrance where practical.

- **Temporary Outdoor Display of Goods (123-41)** – This ordinance regulates outdoor merchandise sales, outdoor restaurant seating, and displays of art and merchandise. Site plan approval is required and the maximum area is the lesser of 1,000 square feet or 5% of interior floor area. One sales area is allowed per business, but it is not permitted within a public or private right-of-way. It must also be located within a covered sidewalk area or within five feet of a building and separated from parking by five feet. If public sidewalk space is expanded in the future in Conway Village and North Conway Village, this ordinance should be re-examine to consider the use of public sidewalk space for outdoor dinning.

Architectural Design (Section 123-40 of the Site Plan Regulations) – These guidelines provide design standards for development or renovation of commercial properties in town to compliment the overall "New England-style ambiance" of the community. The objective is to encourage continued economic development, conserve property values, and further enhance the visual appearance of the community. Specific guidelines include the following:

- Avoid monotony or warehouse style of structures. Variation in detail, form, and siting should be used to provide visual interest. Pitched roofs of 3:12 or greater should be used or gabled roofs, where practical.

- Where pitched roofs are not practical and for long commercial buildings (200 feet or more) false building fronts are encouraged to vary horizontal lines along portions of the façade and to create the appearance of multiple attached buildings.

- Rooftop mechanicals should not be visible from street level.

- Exterior surfaces of all buildings should be covered with wood, stone, brick or man-made materials that simulate natural materials. Pitched roofs should be constructed of shingles, metal, or other traditional regional materials.

- Windows should be comprised of no less than 5% of the exterior wall surface of the portion of the building facing the public right-of-way, parking area, or a development area on or off-site.

General Aesthetics Issues & Community Design Ideas

As indicated in Figure 9-1, the following are general aesthetic issues and community design ideas and recommendations for the town as a whole.

Ambient Lighting – In many communities large-scale commercial developments completed over the past several years have longer business hours and extensive, well-lit parking lots. This has often resulted in a cumulative increase in light pollution. Lighting of this type diminishes one's ability to view the night sky, which is so impressive in locations such as the Mount Washington Valley. The town has adopted lighting standards as part of the Zoning Ordinance and Site Plan Review Regulations requiring fixtures to be shielded in order to reduce external light from escaping. However, additional standards should be considered that establish a maximum lighting level (measured in foot-candles) based on actual need. Lighting, especially in commercial districts (such as on Route 16 "The Strip"), is often used

as a means of advertising rather than for security purposes. Lighting levels need to be controlled based on their intended purpose. Reducing foot-candles and the height of fixtures are good methods for limiting ambient light pollution.

Ridgeline Protection and Viewshed - Some of the most beautiful views in New England are in the Mount Washington Valley and along the main streets and back roads of Conway. However, extensive commercial development along major corridors, hillside residential development, and maturing trees have blocked or diminished a number of these views. While difficult to measure, the views of the mountain peaks, ridgelines and valleys are a significant factor in the local economy as tourists and residents alike are drawn in large numbers to the community. The town has adopted ridgeline protection measures into the Zoning Ordinance, which prevents most types of development above the 800-foot elevation level (only forestry and recreational uses are permitted). However, additional regulations should be considered at lower elevations to ensure that hillside residential development is below the existing tree canopy and that vegetative clearing and slope disturbance are minimized. Significant viewsheds from local roads should also be identified and protected through site layout and height restrictions based on foreground characteristics, rather than general dimensional requirements. The careful placement and maintenance of existing vegetation and new landscaping is also important in protecting scenic views.

Public & Private Signage – Public and private signs play an important role in conveying information and ideas to individuals for a variety of purposes. Signs can also contribute positively (or negatively) to a community's perceived character and quality. In Conway there are many examples of signs that portray a poor image of the community. Further, many public and private signs fail to deliver the messages that they were designed for due to their poor visibility or placement, confusing or distracting nature, or attempt to provide too much information. There are several areas along Route 16 in particular where poorly designed signs cumulatively create a cluttered and low quality image of this important commercial district.

The town has adopted strong sign regulations as part of the Zoning Ordinance that limits the placement, size and number of signs for individual sites. In an attempt to amortize poorly designed grandfathered signs, this ordinance also provides size bonuses if all other signs are in compliance with the requirements. However, this has had limited success. The key to facilitating good signage in Conway is establishing criteria based on functional requirements while allowing for a variety of alternatives, innovative designs, individual expression, and harmony with the surrounding environment. Basic sign design guidelines that should be considered (or re-evaluated) are as follows:

- **Form** – Effective signage is both simple and consistent in form allowing intended information to be easily understood.
- **Siting** – Siting should take into account the functional requirements and aesthetic consistency of the surrounding area. They should be grouped together in an orderly fashion where possible and tied in with other site elements. By integrating and clustering, information from multiple signs is communicated more readily.
- **Scale** – The necessary height and size of signs is determined by their location. Larger signs are necessary in auto-oriented districts and smaller ones in pedestrian oriented districts. However, lower scale signage with smaller message boards and lower profile can work well in commercial districts if they are brought closer to the street.
- **Materials and Color** – Encourage consistent use of materials (such as wood, metal and certain types of plastics), as well as creative and expressive use of these materials. Color is an important decision in terms of visual acceptability and neutral colors are typically the best alternative.
- **Graphics and Lettering** – Signage should be legible, using clear, high-contrast letters and symbols, easily read by moving traffic and pedestrians. Lettering should be clear and distinctive. Graphics attract attention more effectively than words. A clearly understood symbol can enhance sign quality. Some high quality signs (i.e. carved wood with gold leaf lettering) are not always clearly presented with high-contrast lettering making them difficult to read.
- **International Signs** – Universally recognized signs convey messages to a broad range of people by using pictures and symbols to aid the quick communication of directions, identification, regulations and other information across language barriers. These are particularly important in Conway because of the tourist orientation of the community.
- **Illumination** – Lighting is necessary for signage that needs to be seen at night. External lighting sources should be directed solely on the necessary information and with minimal brightness and glare. Well-designed fixtures are available that shield light and direct it to intended areas without glare.
- **Signage Themes** – Signage themes help establish an area as a visual unit and create a common character relating to a specific architectural or historic period.

Traditional signage themes are most suitable in areas of historic significance such as the various villages. However, a more contemporary design theme may be applicable to other areas of the community such as the Strip and Intervale.

Street Furnishings – There are minimal street furnishing around Conway except for a few benches and trash receptacles in and around the three Village areas and most of this furniture is privately owned. The town should identify specific locations where street furniture may be best utilized by pedestrians (both local and visiting) including pedestrian-level and overhead streetlights, trash receptacles, and planters. Materials and equipment should be distinctive and each village area should have its own unique character that can be tied together by uniform design.

Increased Residential Density – Traditional development patterns in Conway are higher density mixed use villages surrounded by rural lands including open farmlands, rolling meadows and forested hills. The predominate residential lot size requirement is one acre unless it is served by public water and/or sewer in which case ½ acre is required. These larger lot sizes are more suburban in nature and when residential development is done cumulatively or on a large scale this becomes very apparent. The typical lot size in the three villages is less than a ¼ acre and reducing the existing ½ acre requirement when served by sewer would allow the traditional development pattern to grow in keeping with the character of these areas. Beyond the villages, planned cluster development should be encourages to preserve open spaces, scenic views and rolling terrain.

Backside of Buildings – The rear areas of a number of buildings in Conway are cluttered with debris, trash receptacles, dumpsters, abandoned materials and excess equipment. Poorly maintain rear-building exteriors pose an aesthetic problem when they are visible to the general public. The town should consider developing guidelines to encourage proper maintenance including façade treatments, proper storage, and common screened dumpster areas where the opportunity exists.

Streetscape and Landscape Improvements – Uniform streetscapes along Conway's major corridors and village areas are an important long-term objective. Site Plan Review requirements have lead to well-landscaped private lots. However, there is often little coordination with adjacent sites or relationship to the public frontage space. The first step is to develop a tree inventory and planting plan. The town should consider developing a streetscape master plan, which identifies a range of street furniture, fixtures and trees that can be implemented incrementally through site plan design as well as by the town and state through highway improvement projects.

Public Parks – Local parks should be evaluated to determine if they are meeting the community's active and passive recreational needs. Future improvements in terms of landscaping, equipment, furniture, lighting, and maintenance should be identified and funding sources sought. Potential new park locations should be identified focusing on small neighborhood parks that provide basic recreational needs to surrounding residents.

Community Design Standards – Conway's Site Plan Review regulations contain design guidelines, which provide direction for private development in terms of scale, context, architectural quality, and parking layout in relation to general area where the project is located. The town should consider revising these guidelines to feature the individual character of the villages and other corridors that the community wishes to preserve and/or enhance through private development and public improvements.

Establish a Municipal Campus – In order to provide efficient and convenient municipal services to Conway residents and property owners, a shared civic space should be considered at the location of the Police Department and County Courthouse (East Conway Road) in Redstone. A campus-like setting with administrative, educational, emergency and infrastructure services could potential reduce duplication in services between districts, provide multiple uses of civic buildings and lands, and redevelopment opportunities for existing public facilities for other purposes.

Figure 9-1 Design Issues

Open Space Characteristics

The Trail System – Conway has an extensive network of trails serving a variety of purposes including hiking, biking, walking, snowmobiling, snowshoeing, cross-country skiing, mountain biking and horseback riding[6]. Many of these trails are not well documented for public use, yet they provide a significant recreational resource to local residents as well as tourists. They may also provide the spine for transportation alternatives to the automobile. A key design consideration for trail development is to provide strong terminuses such as connecting the three villages and other points of interest. Some potential new trail corridors include the Saco River, Swift River, the North-South Local Road, the Conway bypass, Routes 16 and 302, and West River Road. Other key design issues for existing and potential new

trails are the following:

- All trails should be well documented in terms of their location, purpose and relation to other community assets and points of interest. This information should be readily available to the public and considered an economic development tool for local businesses;
- Multi-use trails should be separate from traffic along major corridors. Where trails have to cross local roadways they should be designed to enhance safety. (i.e. the snowmobile crossing at Routes 16/302 and across the North-South Road);
- Trailheads should provide convenient opportunities for use as an alternative to the automobile by providing ample parking areas, attractive signage, and other amenities desired by the intended user;
- Trails should be well marked with locational maps and directional signage;
- Local trails should be connected to state and national trail systems in the region; and
- The various villages in Conway should be connected through a series of multi-purpose trails.

Figure 9-2 shows existing bikeways and large protected land parcels throughout Conway.

Preservation of Farmland and Open Space – Existing farmlands and open spaces in Conway represent some of the key aesthetic elements of the community together with the villages and ridgelines. Most of the remaining farms are located in the western section of town along West Side Road, as well as the eastern section of town along East Conway Road. A number of these farms and other open space areas may be subject to residential development over the next 10 years as the agricultural economy continues to change in the region and the demand for housing grows. In order to protect these important resources the town should consider the following:

- Provide information to property owners on agricultural tax and preservation programs available through the town, state and private foundations;
- Obtain easements to provide new trail corridors;
- Seek “right of first refusal” agreements giving the town an option to buy the property if it’s put up for sale;
- Establish or utilize an existing local land trust (such as the recently established Upper Saco Valley Land Trust) to create a funding mechanism for key farmland and open space acquisitions;
- Provide incentives for cluster/open space residential design to preserve as much of the farmland and open space as possible while allowing limited housing develop in less significant portions of the property; and
- Consider a Transfer of Development Rights (TDR) program, which would allow property owners to sell the development rights to be used in a different area of town where growth is targeted.

River Corridor Protection – The Swift River and Saco River provide a significant natural resource and recreational opportunity for Conway, which should be protected and enhanced. Providing well-designed watercraft access points that connect to recreational facilities (i.e. parks and picnic areas), other means of transportation, and various point of interest in the community (i.e. the villages) are important design elements to be considered in river corridor planning.

Define Village Boundaries – The edges of the Conway and North Conway Village areas are dominated by scattered developed. An important design element that needs to be considered is strengthening the greenbelts or “gateways” to enhance the sense of arrival and distinction of these villages.

Establish Priorities for Infill & Redevelopment –There are many opportunities, based on the principles of smart growth, to increase density in built-up areas throughout Conway as an alternative to continuously expanding into undeveloped areas in a sprawling pattern of land use. There are particularly good opportunities in the three village areas for redeveloping vacant or underutilized buildings and parcels, expanding the mix of commercial and residential uses, and encouraging a gradual extension of the village core by contiguous new development. The Route 16 strip also provides ample opportunities for infill development where buildings have deep setbacks and excess parking. Infill in this corridor should be designed in architectural styles consistent with the rural nature of the community and utilize existing parking where possible.

Figure 9-2 Bikeways and major protected parcels

Transportation Issues and Design Concepts

Alternative Transportation – Well-designed alternative transportation systems, such as seasonal trolleys and multi-use paths, should be considered in Conway.

Transit systems have not been effective in previous attempts in the Mount Washington Valley region. However, a seasonal trolley could be viable if the stops are strategically located and connected to significant points of interest (i.e. retail shopping along the strip and the villages), integrated with other modes of travel and recreation such as multi-use trail systems, contain adequate parking, and provide other amenities desired by visitors such as bike and canoe rentals, storage areas, and tourist information.

Improve Directional Signage – A town-wide "wayfinding" sign system is needed to assist visitors find various points of interest throughout the Mount Washington Valley. A well-designed uniform directional sign system using similar dimensions, materials and colors would also portray a positive image of Conway to residents and visitors alike. Within this system, each village should have a variation in color and graphics signaling to visitors their arrival in distinct areas of the community. The directional signage system should also replace existing signage where possible and contain internationally recognized symbols for travelers.

Improve Parking Areas – Public and private parking areas throughout the community should be evaluated to determine if the existing requirements may need to be modified based on seasonal parking occupancy rates. Flexible parking standards can also produce better design and shared parking, satellite parking and internal connections between parking lots should also be encouraged throughout the community where possible.

Preserve Scenic Roads - There are eight (8) designated scenic roads in Conway, most of which are dirt roads in the southern portion of town. State law restricts the cutting of trees and the removal of stonewalls along scenic roads. The general intent of this legislative organization is the preservation of these corridors as attractive rural roads. There are potentially other local and state roads in Conway that could benefit from this scenic road designation in terms of preserving significant visual elements and community character. In terms of design issues, proposed developments on these corridors should be evaluated for consistent building setbacks and architectural character in context with the surrounding area, and the opportunity to extend important scenic elements such as stonewalls, fences or street trees.

Future Development Along the North-South Road – Regulations have been adopted in the Zoning Ordinance controlling future development along this new corridor as well as the proposed Conway bypass. Included in these regulations are strict controls over access, land uses, architectural design and building scale, signage, lighting, and vegetative buffer zones. The town must adhere strictly to these regulations and provide proper enforcement to ensure that the aesthetic quality of this corridor is maintained.

Route 16 Improvement Plan – The town should work closely with the New Hampshire Department of Transportation (NHDOT) to ensure that adequate pedestrian safety and uniform streetscape improvements are implemented as part of the corridor improvement plan. This should include a separated sidewalk with an adequate green strip on each side, uniform tree plantings and lighting within the green strip. The plan should also include intermittent center landscaped islands, where possible, to provide separation of traffic, visual attraction and a pedestrian refuge for those crossing the road.

Pedestrian Crosswalk Improvements – The town should develop uniform design standards for pedestrian crosswalks throughout the community that provide a clear indication to motorists to slow down and yield to pedestrians. These standards should provide for consistent paint colors, lettering and signage. They should also provide for a maximum crosswalk distance (i.e. 40 feet) without the use of additional safety devices such as curb extensions, center islands, or signals. New crosswalk locations should be identified and existing ones reconditioned under the new design standards. All crosswalks should be properly maintained.

Center Conway Village – Design Concepts

Center Conway Village is a traditional rural hamlet with a limited mix of older homes, civic buildings (i.e. the Town Hall and elementary school), places of worship, and small businesses. Growth potential is limited due to the lack of public water and sewer service, as well as the residents' interest in maintaining the rural character. Some residential development is likely to occur over the next 10 years, but primarily on the outskirts of the village center. Commercial growth potential is limited based on relatively low traffic volumes and population. Specific design issues, concepts and recommendations are as follows:

Streetscape Enhancements – Small improvements such as defining curb-cuts, planting new street trees, directional and welcome signs, and extending a bikepath connection to the other village areas would enhance the overall image of the village and create a sense of arrival in Center Conway. There are many beautiful street trees along Route 302 that should be preserved and maintained. At some locations new street trees could be planted to compliment the immediate vicinity and overall village character. There are also several shoulder areas along Route 302 that are open and unattractive. Limiting curb cuts and providing a more defined street edge (such as with concrete or granite curbing) would create a more orderly and attractive setting that provides separation between vehicles and pedestrians.

Public Water and Sewer Connection – The village is a significant distance from both the Conway Village Fire District (CVFD) and the North Conway Water Precinct (NCWP) water and sewer systems. However, over the next several years, water and sewer connection to Center Conway may be possible. Although this connection will create additional development potential and pressure on the village, it also provides opportunities to protect natural resources, public health, and facilitate quality development of an appropriate density and scale that contribute positively to the village.

Future Land Use - New development should be carefully sited in the village center to maintain and compliment existing key design features including existing setbacks and frontage, architectural styles and scale, landscaping, fencing and limited mixed use. In particular, commercial development must be designed to fit the small scale and rural character of Center Conway.

North Conway Village – Design Concepts

North Conway is the largest of Conway's three villages. It is a traditional mixed use district serving local and visitor needs. Businesses and homes in the village center have a distinct and modest architectural character and scale. This should be emphasized through the town's design standards as renovations and reuse take place in order to maintain the village's character.

Northern Gateway to the Village – For those entering Conway from the north, the Intervale area is the first impression they have of North Conway. There are a number of scenic views of Mount Washington, the Ledges, farmlands, and the Saco River as well as the approaching village. While there are a variety of businesses and architectural styles, the scale of buildings is generally consistent. Future development should maintain this scale with a particular emphasis on building setbacks and heights in order not to obstruct scenic views.

Southern Gateway to the Village – The approach into the village from Depot Street to Grove Street is a transition area from highway oriented strip development along Route 16 to the south and pedestrian orientation in the village to the north. This gateway can be enhanced by providing a uniform streetscape system with attractive street trees, directional signage and sidewalks, which would strengthen the arrival into the village.

Traffic and Circulation – With the addition of the North-South Road residents have an opportunity to get around the village center without entering Main Street as several streets will be connected providing improved internal circulation. Visitors also have the opportunity to bypass most of the village center, which should reduce congestion during peak hours. However, careful attention must be paid to the impact of this new roadway on the residential areas of the village, particularly Kearsarge Street. Left-turn movements to and from Main Street is also a concern.

Parking – While there is a significant amount of parking throughout the village center it is not always identified by visitors and needs to be managed. On-street parking on Main Street should be short-term spaces, with medium-term on side streets such as Norcross Circle, Kearsarge Street and Seavey Street. Off-street parking lots, such as behind the Chamber of Commerce, and new lots being developed off Depot Street and behind the Eastern Slope Inn should be designed as long-term parking for employees and customers. Additional parking can be added in certain areas of the village center. For example, parking around Norcross Circle can be re-organized and coordinated with adjacent private parking to provide several more spaces. In combination with better parking management and more efficient use of existing parking areas, parking requirements should be reduced to increase opportunities for infill development, rehabilitation and mixed-use buildings within the center, which is a key to the long-term economic and financial viability of the village area.

Signage – Public signage is generally poor in the village center. Many of the directional signs are unattractive and not visible to the intended user. A uniform wayfinding sign system is needed to direct visitors to public parking areas, local businesses (particularly on the side streets), and other points of interest. These should be strategically placed at the entrance points to and within North Conway so that both drivers and pedestrians can read them. They should be attractively designed and unique (including street signs) to North Conway with high quality materials and appropriate size and color.

Private business signage in the village center is generally attractive and scaled to fit the character of the area. General coordination of new business signage is necessary to highlight North Conway Village as an integrated and identifiable center of activity.

Streetscape Improvements – The existing streetscape of the village center is generally attractive and complimentary to adjacent buildings and uses. However, there are several improvements that would enhance the character of the area, improve the pedestrian environment, and define it as a center of commerce and activity.

Widening sidewalks, shortening crosswalks and providing street furnishings can improve pedestrian conditions in the village center. A potential opportunity to improve the pedestrian environment is through the planned NHDOT roadway reconstruction program for Route 16. Sidewalks on the east side of Main Street are fairly narrow (an average of 7 feet in width) with little landscaping. Reconfiguring the public right-of-way would provide the opportunity to expand the sidewalks (possibly to 15 feet) which would provide further possibilities to add more street trees, pedestrian-level lighting, benches, trash receptacles, and outdoor sidewalk dining that would greatly enhance the pedestrian as well as the business climate.

The crosswalks on Main Street and several of the sidestreets in the village center are very long (averaging 50 to 70 feet) and potentially dangerous. Providing curb extensions at these locations would shorten the crossing distance, reduce vehicle speed, and create an attractive streetscape element with landscaping opportunities. Creating a landscaped center median in portions of the village center would also provide a refuge for pedestrians crossing Main Street, as well as an attractive streetscape element that would further define the sense of arrival to North Conway as a place of activity.

Several sidestreets, including Kearsarge Street and Seavey Street, have no streetscape at all with asphalt paving across the entire length of the public right-of-way. In order to draw visitors off Main Street and provide a better businesses climate improvements are needed. There is enough width on these streets to maintain two-way traffic flow and parallel parking on each side while providing, curbing, greenstrips with street trees and a concrete sidewalks. This would create an attractive extension off Main Street and separate pedestrians from moving vehicles.

Placing overhead utilities underground or behind Main Street buildings would significantly enhance the village character and image. However, because these are distribution wires it may be difficult and expensive. The possibility of coupling this work with planned roadway improvements by NHDOT should be explored.

Schouler Park – The park is the main public gathering place in North Conway Village and provides a very attractive setting which compliments the built environment of the center as well as the scenic views of Mount Washington Valley. A number of enhancements could be made to the front portion of the park including redesigning the sidewalk to create a more attractive pedestrian setting by using a mix of surfaces (such as brick, stone and concrete), adding period lighting, sitting areas, and landscaping to separate pedestrians from the roadway and other park activities. This could also be the setting for new park activities such as a farmers market and art displays.

Future Land and Building Uses – Infill development on vacant or underutilized lots, rehabilitation of existing buildings, and expanding the types of mixed uses are critical to maintaining and enhancing the vitality of North Conway Village. The focus of future land uses should be on expanding both tourist opportunities and improving the quality of life for year-round residents. Side street mixed use (business and residential) is probably the best opportunity for improving the village center. However, streetscape improvements and a reduction in parking requirements combined with better parking management is necessary to facilitate this vision. Increased residential density (i.e. second floor apartments) is also important to providing year-round economic support in terms of employment and reasonably priced housing. However, building rehabilitation and renovation must be carried out in a compatible architectural style and scale to maintain the village center's character. The town should consider establishing a sign and façade improvement program, which would provide matching funds for private rehabilitation to ensure that they are designed a manner that complements the existing architectural character of the village.

Conway Village – Design Concepts

Conway Village is a small mixed-use center with commercial, recreational, educational, and civic uses. It is surrounded by a well-established neighborhood of predominantly year-round residents. Where North Conway Village is oriented to the tourist economy, Conway Village primarily services local residents. It is the first impression visitors have of the community as they travel from the south. Maintaining and enhancing the village as an attractive local center of activity is of primary interest and concern. Key design concepts and future land use goals for Conway Village include:

- Improve recreation opportunities by developing the new Conway Village Park (behind the Conway Village Fire Department), extend bike paths and trail systems that connect the park to other areas of town and the region, and expand active recreational uses at the Kennett Public High School.

- Development of a plan for the reuse of the Kearsarge Metallurgical brownfield site for passive recreational uses and improve the connection of this site to the surrounding neighborhoods.

- Preservation of the character of the Kennett Street neighborhood and enhance the use of Pequawket Pond through improved access, recreational facilities, and pathways. Improve connections to the village center with a bridge over the pond.

- Improve water quality and recreational opportunities at Pequawket Pond by working with NHDOT on proposed wetlands mitigation and possible public park development as part of the Conway bypass project.

- Expand public parking in the village center by increasing space and usage of the Kennett High School parking lot and working with local businesses to encourage employees to use off-street spaces.

- Use design standards to ensure that new development, building renovations, and accessories (i.e. signs, awnings, canopies) complement existing businesses and are in keeping with the scale and architectural character of the village center.

- Encourage mixed use of existing buildings with retail, restaurant and entertainment uses primarily on the ground floor and office and residential uses above.

- Maximize use and connection of Pequawket Pond to the Swift River in the village center by encouraging recreational uses such as small craft access, trails and rentals, as well as supporting types of businesses (i.e. viewing decks and outdoor dining), and trails.

- Make streetscape improvements within the village center to improve the sense of arrival and perception of the village as a place of activity. This can be accomplished with sidewalk planters, street banners, pedestrian-level lighting, "Welcome" and directional signage to points of interest and public parking, and center landscaped islands in selected locations.

Figure 9-3 illustrates design options for both Conway Village and North Conway Village.

Figure 9-3 design concepts Town of Conway

The Route 16 Strip – Design Concepts

This corridor provides a dramatic approach to Conway from the south with several spectacular scenic views of Mount Washington, rock ledges, rolling hills, and open valleys. The corridor is also an important commercial district. However, there are several areas where buildings are obstructing views and poorly designed sites, with expansive parking and signage, detract from the corridor's natural beauty, especially along the west side of the corridor where most of the scenic vistas of Mount Washington Valley are located. The narrow strip of land between the roadway and the Saco River limits flexibility in terms of commercial site design and layout that would fit more naturally into the foreground of the scenic vistas in the distance. Even commercial landscaping and natural vegetative growth can obstruct scenic views to the west. The result of decades of uncoordinated commercial growth has been several unattractive buildings, short setbacks that block scenic views, expansive parking area with limited landscaping, and poorly designed and oversized signage.

Roadway Reconstruction & Design: Planned reconstruction of Route 16 by NHDOT provides an important opportunity to redesign the corridor as an attractive yet commercially viable approach to the northern portion of the Mount Washington Valley. However, significant design changes will be difficult without the cooperation of adjacent property owners in terms of consolidating curb cuts in numerous locations, redesigning and downsizing several business signs, and providing internal connection and compatibility between adjacent developments. If these changes can be coordinated between property owners, better opportunities could be created to provide landscaped center islands and greenstrip extensions where right and left-turn lanes are no longer needed. Provided this can be achieved, the business community and town should work with NHDOT to maintain the existing 3-lane cross section with additional width to provide: right turn lanes (only where there are particularly heavy volumes); a separate and well-marked bike lane on each side; landscaped planting strips; and separated sidewalks on each side.

Future Commercial Development - Future commercial development should emphasize preserving (or re-establishing) scenic views. Building height and setbacks from the roadway should be based on this objective rather than meeting set requirements, particularly on the west side of the corridor. Architectural styles and materials should enhance community character particularly for commercial developments located directly on the roadway.

The edge of the right-of-way can be strengthened through a tree and shrub-planting program. Access points and screening of parking areas is also important. Placing overhead wires underground (possibly as part of the NHDOT reconstruction program) would also improve the overall aesthetic character of the corridor as well as scenic views of the Mount Washington Valley.

The town should consider an overlay district for areas directly abutting the roadway (similar to the ordinance for the North-South Road) that would provide new opportunities for quality infill development. Emphasis should be on architectural style, scale and material of buildings, internal connections with adjacent developments to consolidate curb cuts and improve internal access, landscaping, and positioning of buildings to preserve or enhance scenic vistas.

Other Community Design Issues, Concepts and Ideas

Several other land use issues where identified during the master planning process that were further considered during public meetings conducted during the *Designing Conway's Future* workshops. These issues include:

- Mobile home parks offer an important option for providing affordable housing option. However, mobile home parks should be properly sited and designed so as not to compete with other town aesthetic and economic planning objectives, as well as minimize impacts on the natural environment.
- Establishing a permanent location for a farmer's market, which would provide economic opportunities for regional farmers, as well as create vitality and community gathering opportunities, that features important public spaces.
- Expanding the pubic water and sewer systems throughout Conway provides more opportunities to facilitate creative design, infill development and preserve open spaces.
- Obtaining a "Main Street" designation for Conway Village and North Conway Village under the New Hampshire Main Street Program in order to utilize their services, resources, and funding for organizational, design, economic, and promotional activities.

6. Implications for the Future

Based on the "snapshot" of existing land use conditions in town, it is clear that a substantial amount of Conway's land area still remains largely undeveloped. However, growth trends discussed in the Population and Housing Chapter of this plan indicates that the town will have to make some important decisions about how the remaining land base will be used to support future growth. These decisions will determine whether or not land in Conway is used in the most efficient manner possible to accommodate expected growth, while not detracting from the natural and scenic beauty, and perceived high quality of life associated with this open space.

In terms of community design issues a variety of conceptual design elements have been discussed throughout this chapter for the town as a whole, as well as for each respective village. During the numerous public meetings held for this master plan update, participants have clearly stated that community design elements are becoming increasingly important to the character and attractiveness of Conway. As a tourist and retail destination, the town needs to pay special attention to existing design features throughout the community and provide approaches for considering design related impacts during the review of development proposals. This type of action will require changes to existing planning regulations (zoning ordinance, etc.) and policies, the allocation of additional resources and investment to improve community design features, and the creation of partnerships with local business establishments, non-profit agencies and community groups to work through design issues on a local level. Highway and road improvements slated to proceed throughout the town over the next decade offer an excellent opportunity to work towards incorporating these design concepts throughout Conway.

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[1] This estimate is similar to the total land area estimate presented in a 2000 land use inventory report prepared by the Conway Planning Department.

[2] It should be noted that the MC district is an overlay zone and therefore overlaps a considerable portion of the neighboring RR district. As such, the acreage estimate within the MC district incorporates acres within both the MC and RR districts. Therefore, the aggregated acreage total for all of the town's zoning districts is overstated as compared to Table 9-1 (Total Acres by Land Use Type).

[3] Qualified land is defined as land that is suitable for development based on an analysis of topography, slopes and soil suitability.

[4] Existing residence with a minimum of a three acre parcel of land.

[5] Due to severe topographical features, development restrictions and other constraints, the gross acreage estimates used for the RR and MC zoning districts represent acres that potentially *could* be developed and not the aggregate acreage for each zoning district.

[6] Additional information on Conway's trails and bicycle routes is available in Chapter 6 (Recreation) and Chapter 7 (Transportation Assessment).