

**2004 Master Plan Update
Northwood, N.H.**



Adopted December 2004

Northwood Master Plan Committee

The Planning Board expresses its appreciation to the members of the Northwood Master Plan Committee. These volunteers spent many hours compiling data from both the Master Plan Survey and the Master Plan Visioning Workshop. Guided by the opinions and concerns of Northwood residents, the Master Plan Committee has prepared this comprehensive 2004 Master Plan Update. Though this work is on-going and there will be future revisions, we thank the Master Plan Committee for the time and energy expended to bring us this very important update.

Victoria Parmele, Co-Chairperson

Mary Tebo, Co-Chairperson

Robert Bailey

Joann Bailey

Richard Blackburn

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List of Maps

These maps, and any additions or revisions to them,
are incorporated by reference and are available by contacting
the Strafford Regional Planning Commission through the town boards and staff.

All maps dated January 21, 1998

1. Base Map
2. Watershed Boundaries
3. Soils Suitability
4. 1997 Existing Land Use
5. Conservation Lands and Wetlands
6. Resource Constraints in Conservation Areas

Signature Page

In accordance with RSA 675:6, this plan shall take effect upon completion of a duly noticed public hearing and certification of a majority of members below:

Eric Reitter, Chairman

Nicole Roy, Vice-Chair

Joann Bailey

Lucy Edwards, Selectmen Representative

Russell Eldridge

James Hadley

Robert Jozokos

Gretchen Colpritt, Alternate

Introduction

According to RSA 674:2-1, the purpose of the master plan is to set down, as clearly and practically as possible, the best and most appropriate future development of the town under the jurisdiction of the Planning Board. The master plan will aid the planning board in designing ordinances that will result in preserving and enhancing the unique quality of life and culture in New Hampshire. The master plan will guide the planning board in the performance of its other duties in a manner that achieves the principles of **smart growth, sound planning, and protection of a broad range of community resources**. The 2004 Master Plan Update is Northwood's fourth master plan. The planning board completed its first master plan in 1979, its second in 1987, and its third in 1998.

Previous master plans have covered a wide range of issues and this plan is no different. What necessitates this revision, however, are growth issues. The citizens of Northwood have expressed tremendous concern about the amount of new development in our town. The growth that we have seen in our surrounding communities is making its way into Northwood, and residents realize the need to manage this growth in order to preserve our quality of life.

This 2004 Master Plan Update is divided into three main categories:

**Northwood Today,
Northwood Tomorrow,
Revised Master Plan Policies.**

Northwood Today is an update on current conditions in the areas of Natural Resources, Existing Land Use, Population, Housing, Economic Resources, Transportation, Community Facilities & Services, and Historic Resources.

Northwood Tomorrow is the analysis of key conservation planning issues that came out of the visioning process, many of which were addressed in the 1998 update. These issues include Resource Conservation & Preservation, Transportation, Economic Development, and Future Land Use.

Revised Master Plan Policies is an update on the policies & implementation steps set forth in the 1998 update along with the new policies and implementation steps for 2004.

Master Plan Vision Statement 2004

“The minute a municipal official begins to see the vacant land in his community not as something to be filled up, but as a natural resource to be husbanded, parceled out grudgingly, cleverly used to produce economic benefits, and conserved, he has made a remarkable discovery. He has found a focus for decision-making, and the instrument by which he can, at once, produce a more desirable physical environment AND a greater degree of fiscal health.”

(From: **The Challenge of the Land** by Charles Little)

The statement above, which introduced Northwood’s 1979 Master Plan, captures the essence of the vision for Northwood in 2004. It is included here not only because of its wisdom, but because it clearly links the present master plan update to the past and reflects an approach to growth that the citizens of Northwood still value.

The need to carefully manage growth has been clearly cited in past master plan efforts. While some of the goals in previous vision statements have become a reality, many have not. Without updated ordinances and regulations, Northwood’s rural, small-town character and valuable natural resources will inevitably disappear.

We hope that the vision of Northwood, developed as part of this master plan, will empower citizens and town officials to make the hard decisions necessary to manage growth in a way that preserves Northwood’s character.

Some of the guiding principles on which to base these decisions (as articulated by residents at our recent visioning workshop) include:

1. Maintain Northwood’s rural & historic character.
2. Protect and preserve Northwood’s natural resources and provide citizens with recreational opportunities to use these resources.
3. Promote small, local business.
4. Work creatively with the reality of Route 4.
5. Develop a deeper sense of community, geographically and otherwise.
6. Achieve a balance between residential development, economic development, the preservation of natural resources, and Northwood’s small-town, rural character.

In the past and present, rural character has been identified as one of Northwood’s most important qualities. The value of open spaces, the beauty of our natural resources, our small-town atmosphere, and our local (and often old-fashioned) businesses, are all features that Northwood citizens want to

preserve. **Rural character** includes, but is not limited to, natural areas, natural resources (trees, lakes, ponds, streams, mountains, fields, and pastures), mountain & pastoral views, villages, farms, and old/historic buildings.

Northwood's remaining expanses of undeveloped land, which include forests, wetlands, hills, mountains, and open fields, have both local and regional importance. Northwood's scenic resources, along with its functioning farmland and agricultural soils, are priceless. Loss of these natural resources would be a tragedy.

Northwood is unique among towns in our region because it is the headwaters of several watersheds. It is not only the rural and scenic nature of our town, but also the fragile nature of our resources, that increases the importance of making sound land use decisions. These decisions impact not only Northwood, they impact our neighboring communities.

Another factor unique to Northwood is Route 4. While providing an essential service to commuters, businesses, and tourists, Route 4 is directly channeling regional growth to the town. Not only is Route 4 an east-west highway for long distance travelers, it has become a home base for commuters. With its old-fashioned appearance and interesting local businesses, Route 4 provides a refreshing change from the commercial strip development and fast food clusters that are close by. Residents clearly understand the need to control development along the road. Many creative ideas with regard to Route 4 were expressed at our visioning workshop; if implemented, these ideas would be instrumental in preserving and enhancing the rural character of Northwood.

Residents now, and in the past, have expressed a need for a greater sense of community. Because Northwood is laid out along 8 miles of Route 4, this town does not have a central physical location to serve as a focal point for community life. Northwood residents feel that at least one, or perhaps several, physical locations will bring a sense of community to the town. Enhancement of these focal points will require more compact land use which, in turn, will provide a more efficient use of resources; provide safer transportation options; encourage the small-scale economic development preferred by residents, and maintain the traditional, historic look of the town.

As evident in the results of the visioning questionnaire and workshop, there is a strong consensus of opinion with regard to the future of Northwood. Though residents do not always agree on the finer points, there is widespread agreement about one thing: we need to manage growth and take time to create a plan that will help us realize our vision for Northwood.



Northwood Today

This chapter provides a succinct update on current conditions in Northwood, including natural resources, existing land use, population, housing, economic resources, transportation, community facilities & services, and historic resources. By understanding these attributes, we hope to better understand the issues and problems facing our town so that we can make informed decisions regarding the future of the community.

Natural Resources

Northwood is a hill town at the headwaters of the Lamprey, Isinglass, and Merrimack River watersheds. The scenic backdrop of the town includes lakes, ponds, forests, hills, and mountains. Elevations range from 310 to 1,184 feet above sea level at the summit of Saddleback Mountain.

Northwood is unusual because it does not lie downstream from any other community in any of its watersheds. Because the town is hilly and located at the headwaters of several watersheds, there are many sensitive areas and resources in need of protection. Further, our natural resource limitations, which include steep slopes, erodible soils, and wetlands, impose significant constraints on possible growth and development of the town. In many respects, our natural resource issues more closely resemble those of White Mountain communities rather than those of closer Seacoast and Merrimack Valley communities.

The federal designation of the lower Lamprey River as a National Wild and Scenic River continues to play an important role in Northwood. The Northwood Meadows area of Northwood is the headwaters of the Lamprey River. While the designation at this time applies only to the river from the Epping/Lee town border downstream to the tidal reaches in Newmarket, this locally initiated federal action has raised public awareness of the importance of conserving this valuable resource. There will also be an effort by the downstream communities to work with all communities in the watershed to cooperatively manage the river.

Care of natural resources continues to be of major concern to Northwood residents. Refer to the 1987 Master Plan for a more detailed discussion of Northwood's natural resources.

Existing Land Use

Increased population growth, evolving housing needs, and changing social & economic trends have had a direct impact on the landscape of the community. Given that land is a finite resource, thoughtful use of land is a critical issue facing all communities. Our use of land has a direct impact on community character, aesthetics, housing affordability, transportation infrastructure, and the property tax base.

Of the 17,438 acres in Northwood, 9,706 remain undeveloped and are taxed at the current use rate (approximately 56% of the total land area). Included in current use are 8,030 acres of forest; 856 acres farmland; 648 acres wetland; and 173 acres of unproductive land. Northwood has 4,840 acres of land that are classified as residential, while 288 are considered commercial/industrial. 2,604 acres of non-taxable land are owned by tax-exempt organizations, including municipal government, schools, churches, etc.

The community of Northwood is still primarily rural (evident in our low commercial and industrial acreage). Respondents to the Master Plan Visioning Workshop value this aspect of life in Northwood. It is important to the residents that Northwood retain its rural nature.

Land Use by Type:

<u>Land Use</u>	<u># Acres</u>	<u>% Total</u>
Residential	4,840	28%
Commercial/Ind	288	1%
Non-taxable	2,604	15%
Current Use	9,706	56%
<u>Total Land</u>	<u>17,438</u>	<u>100%</u>

Current Use Land by Type:

<u>Land Use</u>	<u>#Acres</u>	<u>% Total</u>
Agricultural	856	9%
Forested	8,030	83%
Wetland	648	7%
Unproductive	173	1%
<u>Total Cur. Use</u>	<u>9,706</u>	<u>100%</u>

Source:

NH Department of Revenue Administration – Northwood FORM MS-1 for 2004 (9/1/04)

Town Owned Land

The Parsonage Lot: Town Forest (118 acres)

Deslaurier Lot: Town Forest (26 acres)

Giles Lot: Town Forest (30 acres)

School Lot: Town Forest (137 acres)

State Owned Land

DRED: Northwood Meadows State Park (664 acres)

DRED: Woodman State Forest (146 acres)

Fish & Game: Forest Peters Wilde Life Mgt. Area (456 acres)

Fish & Game: Woodman Marsh Wild Life Mgt. Area (57 Acres)

Fish & Game: Dole Marsh Wild Life Mgt. Area (25 acres)

Other

UNH: Saddleback Mountain (278 acres)

Coe-Brown Academy: Forestry Lots (259 acres)



View from Saddleback Mountain
Population

The 2003 population estimate for Northwood is 3,803 year-round residents (NH Office of State Planning). The year-round population of Northwood is currently growing at an estimated rate of 25% per decade.

Table 1: Northwood Area Population

	1970	1980	1990	2000	2003
Barrington	1,865	4,404	6,164	7,475	8,066
Deerfield	1,178	1,978	3,124	3,678	3,981
Epsom	1,469	2,743	3,591	4,021	4,388
Northwood	1,526	2,175	3,124	3,640	3,803
Nottingham	952	1,952	2,939	3,701	4,031
Pittsfield	2,517	2,889	3,701	3,931	4,265
Strafford	965	1,663	2,965	3,626	3,912
Merrimack County	80,925	98,302	120,240	136,225	143,622
Rockingham County	138,951	190,345	245,845	277,359	290,102
Strafford County	70,431	85,408	104,233	112,233	117,740
State of NH	737,579	920,475	1,109,117	1,235,786	1,287,687

Source: US Census and NH Office of Energy and Planning 2003 Population Estimate

Table 2: Northwood Area Population Growth

	'60-'70	'70-'80	'80-'90	'90-'00	'60-'00
Barrington	80%	136%	40%	21%	301%
Deerfield	65%	68%	58%	18%	212%
Epsom	47%	87%	31%	12%	174%
Northwood	48%	43%	44%	16%	139%
Nottingham	53%	105%	51%	26%	289%
Pittsfield	4%	15%	28%	6%	56%
Strafford	34%	72%	78%	22%	275%
Merrimack County	19%	21%	22%	13%	68%
Rockingham County	40%	37%	29%	13%	100%
Strafford County	18%	21%	22%	8%	59%
State of NH	22%	25%	20%	11%	68%

The educational attainment of residents improved significantly between 1990 and 2000. Adults without high school education or high school equivalency decreased by 39%. The number of adults with any level of college education increased from 51% to 57%. (See Table 3.)

Table 3: Northwood Educational Attainment, People 25+ Years Old

	1990	%	2000	%
No High School Diploma	372	18%	228	9%
High School Diploma	619	31%	827	34%
1 to 3 Years of College	589	29%	785	33%
4+ Years of College	442	22%	577	24%

Source: US Census

Incomes of residents are rising, but per capita and household incomes are lower than the surrounding counties and the state. In 1990, Northwood's median household income was \$31,768 and in 1999 this figure increased to \$50,675. Per capita income increased from \$12,562 in 1990 to \$21,491 in 1999. (See Table 4.)

Table 4: Income

	1999 Household Income	Median Income	1999 Per Capita Income
Barrington	\$50,630		\$21,012
Deerfield	\$61,367		\$24,160
Epsom	\$50,685		\$22,026
Northwood	\$50,675		\$21,491
Nottingham	\$62,423		\$24,879
Pittsfield	\$38,833		\$21,082
Strafford	\$59,044		\$23,500

Housing

According to the 2000 US Census, 485 housing units in Northwood are considered seasonal. The majority of seasonal homes are located around the lakes. The units are typically small homes on small lots (1/4 acre or less) and are used primarily in the summer months.

Table 5: Housing Composition

	Census 1990	Census 2000	Total Units as of 2002
Single Family	1,354	1,461	1,531
Multi-Family	144	187	155
Mfg. Housing	293	257	264
Net Total	1,791	1,905	1,950

Source: 2000 US Census and municipal records

In 1970, there were 624 seasonal housing units, which represented 56% of the total housing units in Northwood. In 1980, 38% of the units were seasonal; in 1990, 30% were seasonal, and in 2000, the number and percentage of seasonal housing units continued to drop, resulting in the fact that 25% of the total housing units existing in Northwood are seasonal. The on-going decline of seasonal units indicates that owners are converting seasonal camps and cottages to year-round housing units. This continuing conversion will have an impact on Northwood's schools and municipal services. (See Table 6.)

Table 6: Seasonal and Year-round Housing Units

Type of Unit	1970	1980	1990	2000	% Change '70 - '00
Seasonal Units	624	538	538	485	-22%
Year Round Units	500	874	1,253	1420	184%
Total Units	1,124	1,412	1,791	1,420	70%

Source: 1970, 1980 and 1990 US Census and municipal records

In 1970, there were 624 seasonal housing units, which represented 56 % of the total housing units. In 1980, that percentage dropped to 38%; in 1990 the percentage was 30%, and in 1997 the percentage of seasonal housing has dropped to 23% of the total housing. This indicates on-going conversions of seasonal camps to year round housing units.

Economic Resources

Northwood has a stable economic base comprised primarily of small-scale and home-based businesses. The three largest employers combined employ about 100 people, while the vast majority of others employ just a few people each.

Employment. In 1990, Northwood's "distribution of employment by occupation" was not dominated by any single profession. The only professional sector with minimal representation in Northwood is the farming/forestry/fishing sector. Except for farming/fishing/forestry and technical/sales/administration, all employment sectors increased in total between 1990 and 2000. As to changes in relative distribution, managerial/professional and technical/sales/administrative support

showed increases while precision production/craft/repair remains relatively unchanged. (See Table 7.)

Table 7: Distribution of Occupation, People 16+ Years Old

	1990	%	2000	%
Managerial, Professional	384	25%	589	29%
Technical, Sales, Administrative Support	508	33%	470	23%
Service Occupations	173	11%	251	13%
Farming, Forestry, Fishing	13	1%	12	1%
Precision Production, Craft, Repair	210	14%	293	14%
Operators, Fabricators, Laborers	238	16%	396	20%

Source: US Census

Property Taxes. Concern about property taxes is one of the driving forces behind current efforts to encourage economic development. The full-value, or equalized, tax rate is useful to allow comparison among communities. Compared to surrounding communities, the town's full value, or equalized, tax rate is the second highest and is higher than the state average. (See Table 8.)

Table 8: Full Value Property Tax Rates

	2000	2003	% Change
Barrington	\$18.52	\$16.37	(12%)
Deerfield	\$19.98	\$18.33	(8%)
Epsom	\$17.81	\$16.67	(6%)
Northwood	\$19.93	\$18.48	(7%)
Nottingham	\$17.97	\$15.88	(12%)
Pittsfield	\$32.17	\$26.16	(19%)
Strafford	\$20.65	\$17.78	(14%)

State of NH	\$20.10	\$16.83	(16)%
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Source: NH Division of Revenue Administration

The tax implications of residential growth are explained in 2002 data compiled by the Society for Protection of New Hampshire Forests and the Center for Land Conservation. The study explained that, on average, new residential development does not pay enough in property taxes to cover the cost of town and school services demanded by the new residents. Cost of community services studies completed in Stratham, Exeter, Dover, and other communities show that for every \$1.00 received in property taxes from residences, a community incurs between \$1.01 and \$1.17 in costs for services. It almost never generates enough income to pay for the services it requires.

Transportation

Since the 1998 Master Plan, the NH Department of Transportation (NHDOT) has completed two intersection upgrades, one at the intersection of Route 43, Route 202, and Route 4 and the second at the intersection of Bow Lake Road and Route 4. As this 2004 revision will demonstrate, transportation has been, and continues to be, a major issue in Northwood.

Table 11: Miles of Road by Statutory Class

Road Classification	Miles
Class I - primary state highways (Routes 4, 9/202)	9.81
Class II - secondary state highways (Routes 107, Main Street, 43, 202A, Lake Shore Drive)	6.85
Class III - recreational roads to/within a state reservation	0.00
Class III-a - recreational roads subject to gates and bars	0.00
Class IV - roads within urban compact areas	0.00
Class V - Town owned and maintained roads	28.32
Class VI - all other Town owned public ways	6.38
Unclassified	0.60
Total Mileage in State classification	51.96

Source: NHDOT

Traffic volume data is collected regularly on the eastern end of Route 4 in Northwood. Traffic data collected from 1988 through 1996 shows a continuing increase in traffic volumes on Route 4. Average annual daily traffic at this point on Route 4 grew 94% between 1980 and 1996. It is reasonable to assume that, since 1996, traffic has continued to increase at a similar rate. (See Table 12.)

Table 12: Average Daily Traffic on Route 4 at the Northwood/Nottingham Town Line

	Sunday Average	Weekday Average	Saturday Average	Adjusted ADT
1980	4,864	4,648	4,646	4,679
1987	6,904	6,909	7,052	6,928
1988	7,344	7,554	7,653	7,538
1989	7,694	7,831	8,104	7,850
1990	7,517	7,805	7,976	7,788
1991	7,509	7,695	7,817	7,668
1992	7,631	7,665	7,669	7,661
1993	7,814	8,133	8,061	8,067
1994	8,299	8,572	8,626	8,541
1995	8,369	8,921	8,716	8,811
1996	8,928	9,099	9,173	9,085
Change '87-96'	29%	32%	30%	31%
Change '80-'96	84%	96%	97%	94%

Source: NHDOT.

There is strong seasonal variation in traffic on Route 4 in Northwood. The 1996 data from the permanent traffic recorder demonstrate a continuation of this trend with average daily summer traffic being about 4,000 vehicles per day higher than in January.

Traffic on Route 4 increases significantly to the west of the intersections of Routes 43 and 9/202. A 1997 summer weekday count west of these intersections and east of Bow Lake Road indicates an average daily weekday traffic volume of just over 15,000. This count is about 4,000 vehicles higher than the August 1996 count at the Northwood/Nottingham town line.

Route 43 has average daily traffic of several thousand vehicles, and Route 107 and Route 202A have even less. Route 9/202 likely has more, but no current data are available. (See Table 13.)

Table 13: August 1997 Traffic Counts

Location	Average Daily Volume
Route 4/NH202/NH9 at the Epsom Town Line	15,098
Route 4/NH9 East of Bow Lake Road	15,368
NH 43 at the Deerfield Town Line	2,188
NH 43 South of Lucas Pond Road	2,527

Source: SRPC traffic volume counts

It is interesting to note that roadway maintenance and improvements are taking up a growing portion of the municipal budget. From 1990 to 1996, Northwood’s total town expenditures rose 21%. Roadway expenses, which include summer and winter maintenance and roadway construction, rose 48% in this same period. Roadway expenditures increased from 15% to 19% of the total municipal expenditures. State and federal roadway subsidies have generally increased, but at a much slower rate than the town’s total roadway expenditures (see Table 14).



Table 14: Highway Expenditures 1990-1996

Year	Total Expenditures	Town Expenditures	Total Roadway Expenditures	Roadway Expenditures as a % of Total Expenditures	State & Federal Roadway Related Revenue Sharing	State & Fed. Revenues as % of Roadway Expenditures
1990	\$1,233,480		\$190,397	15%	\$43,351	23%
1991	\$1,199,541		\$154,302	13%	\$42,892	28%
1992	\$1,218,577		\$167,133	14%	\$45,833	27%
1993	\$1,285,583		\$222,031	17%	\$53,285	24%
1994	\$1,418,169		\$248,107	17%	\$52,878	21%
1995	\$1,434,496		\$241,070	17%	\$55,502	23%
1996	\$1,498,555		\$282,071	19%	\$54,500	19%

Source: Town Reports

Community Facilities and Services

Community facilities and services are important considerations in the growth and development of Northwood. Private development tends to follow the location and quantity of public services. Therefore, planning for community facilities and services should be coordinated with economic development, housing, transportation, conservation, and other land use objectives. The following changes to civic facilities have occurred since 1998:

- a. The town has constructed a large addition on the Northwood School; this addition included additional classrooms, office space, and a gym;
- b. A recycling building was constructed at the Transfer Station;
- c. The Police Department was relocated to the old Northwood Post Office (the building was completely renovated and a garage was added);
- d. The Northwood Post Office was relocated to a new building at the west end of town; and
- e. Coe-Brown Academy constructed a new science center on its campus.

In addition to changes to civic facilities, a number of private commercial developments have had an impact on the character of the town since 1998. These include (but are not limited to):

- f. Hannaford Brothers opened a grocery store/pharmacy with access from both Route 202 and Route 4;
- g. Two new service stations, Irving and Shell, have opened at the east end of town;
- h. Northwood Power Equipment has opened a retail operation on Route 4;
- i. A small group of shops has opened next to Northwood garage; and
- j. Two new medical-related businesses have come to town (Northwood Physical Therapy and Northwood Primary Care). In addition, Dr. Meyer has constructed a new building at the intersection of Route 4 and 202 for her dental office.
- k. Northwood Power Equipment opened a large facility on Route 4.

Northwood School. Of specific concern, with regard to unchecked residential growth in the town of Northwood, is the capacity limitation of the Northwood School. According to information provided by the School Board, major residential housing developments contribute approximately 0.75 students per new house; the ratio for individual housing units and minor developments (those less than 3 lots) is approximately 0.43 students per household. Currently, the total capacity of the Northwood School is 580 students (based on square footage, using state-published guidelines); attendance data for the 2004/2005 school year indicated approximately 497 students. Although there is a possibility to add an additional two classrooms in the basement of the school, significant issues with respect to handicapped accessibility may pose financial constraints that would hinder development of this additional space. Obviously, with an additional capacity of only 83 students over those enrolled in 2004/2005, growth management is critical to managing demands on the elementary school; 83 students could easily be added to school roles within a year or two, if growth is unchecked (using the established ratio of 0.75, 83 students could result from a large single development of 110 houses). This issue was a driving factor in the decision to evaluate and implement growth management in the town of Northwood. The need for time to plan and construct an addition to the existing facility or construct an independent middle school needs to be addressed by the town.

Coe-Brown Academy. In addition to the physical constraints of the Northwood School, significant growth in town also poses financial limitations with regard to the cost of sending students to Coe-Brown Academy. The relationship between Northwood and the private Coe-Brown Academy is unique, and information provided by several realtors serving the town has indicated that attendance at Coe-Brown is often a motivating factor for relocation to Northwood. According to realtors, residents often move to town when children are of upper elementary school age and then relocate out of town once their children complete high school. According to information gathered by the School Board, the current (2004/2005) cost per Coe-Brown student ranges from approximately \$9,500 (for a traditional student) to \$14,000 (for special education students). Therefore, under the current school-funding scenario, additional high school students have a significant impact on the local tax rate.

Historic Resources

The preservation and use of our historic resources, particularly the wealth of buildings constructed in the nineteenth and early twentieth centuries, continue to be of concern to Northwood residents.

Within the last few years, Northwood has lost nine antique houses, six historic barns, and at least two early storage buildings. As of the writing of this 2004 Master Plan Update, a tenth house is scheduled for demolition. Though a few of these properties were destroyed by fire, most were demolished because of disrepair and changing land use.

Though these numbers alone may not seem significant, they are startling when compared to the number of historic buildings that remain in town. Because they are irreplaceable, we must encourage the preservation of all old houses and barns that remain in Northwood. It is important for the Planning Board to encourage new businesses and organizations to operate out of historic facilities, and fortunately, we have many fine examples of how this can be done.

Strategies to encourage historic preservation include: public support of the Northwood Historical Society in its efforts to protect vulnerable structures; exploration/implementation of tax incentives to preserve significant houses & barns; and pursuit of future grant monies from organizations like the New Hampshire Land and Community Heritage Incentive Program.

Not to be forgotten are the numerous mill sites, old roads, and stonewalls in town. These natural historic resources are also worthy of preservation.

Our historic resources are a critical component of Northwood. We have lost many important houses, barns, and natural elements. Focus on this issue will help the town protect the Community Hall and the Brookside School, among many other endangered historical resources. Preserving historic structures will help us maintain **rural character**, an essential element of our vision for Northwood



Northwood Tomorrow

As we begin the Northwood Tomorrow section of the 2004 Master Plan Update, it is important to revisit the goals set forth in our vision statement. According to the citizen's of Northwood, our goals for the future are to: maintain Northwood's rural & historic character; protect and preserve Northwood's natural resources; promote small, local business; work creatively with the reality of Route 4; develop a deeper sense of community, and achieve a balance between residential development, economic development, and the preservation of natural resources.

Resource Conservation and Preservation

As Northwood grows, it will not grow into a homogenous mass of developed land. Different parts of town will develop differently because of land ownership patterns, proximity to transportation routes, the ability of the property to sustain development, and other influences. Similarly, the town will develop differently than the surrounding region, although it may be quite similar to the immediate neighboring communities. The more urbanized areas along the I-93 corridor to the west and in the Seacoast to the east will continue to intensify their existing urban character. It is also expected that a more urbanizing trend will result from the construction of the new Route 101 to the south. Northwood and many of its neighboring communities, however, hope to retain their rural character and high quality of life.

The Town of Northwood is a member of Bear-Paw Regional Greenways (Bear-Paw), a non-profit, grassroots land trust established in the mid-1990s to identify and protect regionally significant greenways (contiguous tracts of undeveloped land suitable for wildlife and recreation uses) in the towns of Northwood, Strafford, Nottingham, Deerfield, Epsom, Allenstown, Candia, and Raymond. This organization is a non-profit group comprised of volunteers from each of these communities. Bear-Paw partners with state and regional organizations and larger land trusts, such as UNH/Cooperative Extension, Strafford Regional Planning Commission, and The Society for the Protection of NH Forests to work with property owners on voluntary land protection.

In 2003, Northwood established the Northwood Community Resources Committee to work in conjunction with the Conservation Commission and Bear-Paw. This committee works to promote voluntary land protection and conservation of Northwood's natural, historical, and cultural resources.

Bear-Paw has developed several community maps including a map that shows tracts of undeveloped land of 500 or more acres. The 500-acre threshold is considered to be the minimum size necessary for breeding and management of many larger mammals such as bobcats and bear. The Bear-Paw map shows a series of sizeable areas between Bear Brook State Park (Allenstown) and the Blue Hills (Strafford) between Pawtuckaway State Park in (Nottingham) and the Blue Hills Reserve (Strafford).

They have identified these corridors as regionally significant open space corridors and are actively pursuing private land protection arrangements. There are three general areas in Northwood which are of regional importance to the Bear-Paw Regional Greenways (the Northwood Meadows/Saddleback Mountain Area, the Big Woods Area, and the Acorn Ponds Area). These areas are shown on the map entitled, “Resource Constraints in Conservation Areas” and are discussed briefly herein.

In addition, numerous areas in the town of Northwood have been, or will at some point in the future be, identified as significant to protecting Northwood’s rural and historic character due to the presence of wetlands, surface water, agricultural soils, etc.

Conservation Benefits in Northwood:

Tax Benefits: Northwood supports land conservation efforts for many reasons. First, in this era of fiscal concern about property taxes, land protection is tax efficient. There have been a series of studies conducted around the nation and in New Hampshire that indicates that land conservation is good for property tax stabilization. Some of these studies, known as “cost of community services” studies, show that undeveloped land generates more property tax revenue than it demands in municipal & school services, and therefore, has a positive net return. “Does Open Space Pay?” (Natural Resource Network Research Report, UNH Cooperative Extension. Durham, NH. 1995) by Phil Auger, Rockingham County Forester, provides an assessment of Deerfield, Dover and two other southeastern New Hampshire communities. Other studies have taken a different analytical approach and have come to similar conclusions about open space effects on property taxes.

In 2002, the Society for Protection of New Hampshire Forests and the Center for Land Conservation, published data to explain the tax implications of residential growth. The study explained that, on average, new residential development does not pay enough in property taxes to cover the cost of town and school services demanded by the new residents. Cost of community services studies completed in Stratham, Exeter, Dover, and other communities show that for every \$1.00 received in property taxes from residences, a community incurs between \$1.01 and \$1.17 in costs for services. In contrast, for every \$1.00 received in taxes from open space lands (forests, farms, etc.); a community pays between \$.19 and \$.94 for services required. Keeping important land as open space, through zoning, conservation easements, or town acquisition, can help stabilize a community’s property taxes.

Environmental Protection: The protection of land is of benefit to the entire region, as well as the town. The protection of undeveloped land is important for wildlife habitat, recreational activities, aesthetic value, maintaining a high quality of life in the community and in the region, and preserving the rural character of Northwood.

Water Resource Management: Protection of carefully identified areas of land also relates to good water resource management. The Betty Meadow/Saddleback Mountain Area, for example (identified by Bear-Paw as an area of regional importance) is located in the headwaters of the Lamprey River, one of only two nationally designated Wild and Scenic Rivers in this state and of four in New England. The majority of the Acorn Ponds Area (also identified by Bear-Paw as an area of regional importance) is also in the Lamprey River Watershed. The Merrimack River Watershed (via the Lower Suncook River) reaches slightly into the Northwood Meadow Area, as well as into the Big Woods Area (another area identified by Bear-Paw as regionally important). The watershed of the Isinglass River, a major tributary of the Cocheco River, includes a large portion of the Big Woods Area and a small portion of the Acorn Ponds Area. There is also critical benefit in protecting the existing municipal water supply for the Northwood Ridge Water District in the Acorn Ponds area. Conservation of additional land outside of these three designated conservation areas in the town of Northwood will increase protection of these watersheds.

Wetlands. The wetlands provisions in the Zoning Ordinance are the most comprehensive and substantive of the standards contained in the current ordinance.

An analysis of the land area in Northwood revealed that there are about, 4,100 acres of surface water and wetlands in town (about 21% of the total area). The Northwood Conservation Commission completed a study to identify and designate prime wetlands. This designation of prime wetlands is supported by the Planning Board, and the wetland provisions of the Zoning Ordinance have been strengthened with an increase in the buffer zone around prime wetlands to 100 feet.

Aquifers. The majority of drinking water for homes and small businesses in Northwood comes from groundwater in bedrock aquifers that are not typically high-producing. The aquifers surrounding the lakes and ponds are already densely developed. Care must be taken to protect the quality of these water sources.

The 1998 Master Plan and current general sources of information on groundwater resources indicate that the only significant drinking water aquifer in Northwood is located between Northwood and Pleasant Lakes. This area has been subject to a considerable amount of growth and development, but it is not located near any other densely developed area in Northwood so it is unlikely that it will be used for town water supply. There could be some future demand for a private community system to serve development in this area.

A study for the Northwood Ridge Water District, (which serves Northwood School and the homes & businesses along the Ridge) identified three bedrock aquifer areas, all north of Route 4. The district well is in the eastern aquifer area. As a current source of municipal water supply, it is important that the town enact protective measures in the recharge area. Recently, the state has found that contamination from petroleum products may become a threat to the municipal water supply. The

Town of Northwood will need to work closely with the state to monitor this situation and take action to reduce the threat of contamination. Two other sites: one in the vicinity of the intersection of Routes 43, 202 and 4, and a second near the Northwood Meadows State Park have also been found to have petroleum products in the groundwater. These areas must also be monitored in conjunction with the state.

The other two aquifers identified in the study for the Northwood Ridge Water District lie westerly of the first: one located between Ridge Road and Bow Lake Road, and the other located in the Big Woods area. Protection of the Big Woods and Acorn Ponds areas will, by default, protect two of these three aquifers. The recharge area of the third aquifer has been defined and a protection overlay district was enacted to protect future groundwater supplies in this area.

Surface Waters. Surface water bodies are important to Northwood as recreational areas and as natural resources. A major concern facing the town is milfoil. In 2002, Northwood established and expendable milfoil trust fund to be used to assist with established treatment programs for preventing the spread of milfoil.

Shoreland. Protection of the shorelines of Northwood's lakes and ponds is very important. The visual integrity of the shoreline is an important contributor to the overall aesthetic and recreational experience of lake users and shoreland owners. The use of the shoreline also has an impact on the natural systems, although land use in the entire watershed plays a more significant overall role in protecting the natural systems. In contrast to the need for conservation are the demands of shoreline property owners to maximize their access to, view of and enjoyment of the water bodies. The shoreland property values are high, and the resulting property taxes are accordingly high when compared to other properties in town.

It is desirable to have basic controls such as minimum shoreline frontage standards to prevent overcrowding of the shore, sanitary septic requirements for new or replacement systems, and groundcover standards to prevent runoff directly into surface waters. Other standards for development can be added to zoning. With the exception of the primary structure setback established in state statute, the town currently relies on the existing state policies contained in the Comprehensive Shoreland Protection Act (RSA 483-B) to ensure consistency of new development with state standards. The town's current primary structure setback from the shoreline is 20 feet; this setback is grandfathered under state shoreland policy and is less stringent than the 50 feet setback required by Comprehensive Shoreland Protection Act. In the interests of preservation of surface water quality in the town and the health and welfare of residents who live on and use the surface water bodies, for new development and construction, the Planning Board should support "rolling back" the less stringent structure setback to be consistent with the setback requirement of 50 feet in the Comprehensive Shoreland Protection Act.

Steep Slopes. The 1998 Master Plan called for protection of steep slopes, those being areas of 15% or greater slope. Currently, the town has enacted ordinances that limit construction near slopes of 20% or greater.

High Elevations. The 1998 Master Plan called for protection of higher elevation areas, specifically suggesting restricted building heights in all areas above 700' elevation and no new buildings above 800' elevation.

The building restriction above 800' is difficult to justify, although at least one other community in New Hampshire, Conway, does impose this restriction above 800' specifically to protect the town's scenic backdrop. In Northwood, there are areas along Old Mountain Road and on Sherburne Hill where Class V town roads traverse areas in excess of 800' but where development would have no scenic impact. Other issues are typically of concern in higher elevation areas, such as length from a single access point and steep road grades. These other issues are more appropriately considered as limits to growth than is elevation. Elevation-related building prohibition is no longer endorsed by the Planning Board.

Agriculture. Agriculture continues to be an important contributor to our quality of life. However, with few active farms in the community (and low overall importance of farms as sources of employment); agriculture is not a significant economic engine for Northwood. In heavily forested areas like New Hampshire, open fields and pastures provide excellent opportunities to view the scenic countryside. As an example, consider the view from Blakes Hill Road amid the fields near the top of the hill. Open agricultural land provides a pleasant and natural frame for such vistas. Open agricultural land is a relatively scarce resource and is declining at a rapid pace.

The 2004 Master Plan stresses the value of high quality agricultural soils, and the desirability of conserving such soils through their continued agricultural use. Comprising only a small portion of the total land area of Northwood, good agricultural soils are an important, non-renewable resource. Ideally, prime agricultural soils and agricultural soils of statewide importance should be protected for long term agricultural needs. Though it is unlikely that large-scale agriculture will return to New Hampshire in the foreseeable future, it is still important to protect these soils. In the context of land use planning, such soils are also relatively easy to develop so there will be conflicting, mutually exclusive demands on this resource. Cluster design of new development would to minimize the impact on the agricultural soils.

Forests. Annual Inventory Forms submitted the State Department of Revenue Administration on September 1, 2004 shows that 46%, or 8,030 acres, of Northwood is forested. Change in ownership is changing our forests. Loss of forests has implications on water quality, erosion, drainage, and scenic beauty. Forests serve many purposes, including stabilization of the soil, absorption of carbon dioxide, oxygen manufacture, dust filtration, stabilization of the water table, shade & wind

protection, support of wildlife, and providing scenic beauty. Since the town of Northwood is 46% forest, it is essential that the town manage forestry to achieve a balance between logging and negative environmental impact.

Historic Resources. The Town of Northwood does have a Historical Society, but because of limited resources, this organization has not undertaken major restoration projects. The town continues to discuss identifying historic districts that could be protected with ordinances. Because Northwood has developed along Route 4, there are several possible locations for historic districts. Another way to preserve our historic buildings would be to reward development siting and design decisions that are compatible with and complimentary to the character of the town.

Nighttime Lighting. There is an emerging awareness of the importance of good nighttime lighting design. The intensity of lighting, the type of lamps used, their location and shielding, and other such factors are the primary aesthetic factor at night time and also can have a significant impact on safety.

There are five municipal priorities for illumination control: intensity, glare, color, energy conservation, and sky-glow. Each of these is addressed below.

Intensity. The intensity of lighting is simply the amount of light. Intensity effects visibility, but it is not a simple matter of more light to improve visibility. The intensity of site lighting should relate to the proposed use.

Glare. Glare is the excessive brightness that causes discomfort or visual disability (impairment). Shielding and directing of lamps to properly contain light is necessary.

Color. The color of lighting is related to the type of lamp. Metal halide, incandescent and high-pressure sodium lamps are the most common types of outdoor lighting. Incandescent and metal halide lamps come the closest to true color rendering. Light that has better color rendering should be required for all new lighting.

Energy Conservation. Energy conservation is important from both the perspective of environmental sustainability as well as economy. All else being equal, energy conservation in lighting is a worthwhile goal. However, the color of lighting and the energy efficiency are inversely related. Combining energy conservation with good color rendering, metal halide lighting should be the outdoor lamp used for most non-residential applications.

The use of the lamp is obvious but often overlooked, and so-called “security lighting” is the worst offender. Constant lighting with floodlights provides little actual security because police and neighbors become immune to a brightly lit site. Bright lights that are triggered by motion or heat

detectors call attention very effectively while having little impact on the night environment. Before approving security lighting on site plans, the Planning Board should require a security plan that may include security lighting.

Sky-glow. This is the glow observed over cities and other expanses of brightly lit areas. It not only obscures the night sky for amateur astronomers, it radically changes the perception of the community at night. In dark locations about 2,500 stars are visible to the naked eye. In suburbs and villages, this can be reduced to as few as several hundred, and in cities as small as Burlington, VT this number can be as low as a few dozen. Research in Vermont indicated that this form of light pollution is the most significant lighting concern in towns the size of Northwood.

Sky-glow is caused by: too much illumination overall; lighting that is directed (at least in part) upwards; the reflective nature of surfaces being illuminated; and weather. The primary steps the town can take to minimize sky-glow in Northwood are to control the following aspects of site and street lighting: avoid excessive amounts of light; require cut-off style fixtures which avoid upwards spillage; require security lighting to be triggered by detectors or use cut-off style fixtures; and generally keep lighting directed downwards (no up-lighting of signs or buildings).

Existing Conservation Areas:

Bear-Paw clearly emphasizes the importance of voluntary land protection efforts, and its participants have focused their energy on this task. The project has demonstrated the importance of a regionally significant open space resource and the need for complimentary municipal policy. As such, prior master plans have supported the protection of three specific conservation areas. Protection of these three areas, as well as other areas in Northwood not explicitly identified in this update, continue to be important because of the conservation benefits described above.

The Northwood Meadows/Saddleback Mountain Area: This is the largest and most important regional conservation area identified by Bear-Paw. This area is approximately 2,800 acres in size with only minor inclusions of existing developments and a Class VI road running through it. (A Class VI road is a closed, unmaintained town road.) This area is enclosed by the Northwood/Deerfield town boundary and a line 1/4 mile inside the following semi-circle of roads: Upper Deerfield Road (all portions), NH Route 43, Bow Street, US Route 4, Harmony Road, and Winding Hill Road. Of the total area, 85% is either protected land or land with major development constraints:

- a. Protected lands comprise 50% of the total area and include the Northwood Meadows;
- b. 65% of the total area has soils with low or very low potential for development; and
- c. 63% of the area is more than the maximum cul-de-sac length from an existing Class V or better road, greatly increasing development costs.

Development could encroach from the west, north, or east, with most pressure at this time coming from the eastern end along Old Mountain Road and new development on Harmony Road. This area is important for its overall size and its location in the series of protected parcels in Deerfield leading down to Pawtuckaway State Park. The 2004 Master Plan recommends continued efforts to protect land within this area through conservation, as well as through protection of ordinances that impose development constraints applicable to this area (e.g., the restriction on maximum cul-de-sac length).

The Big Woods Area: This area is approximately 1,800 acres in size with little if any existing development; it is important for its size and for its location between the Northwood Meadows/Saddleback Mountain area and the Blue Hills Foundation lands in Strafford. The area is enclosed by the following boundary: a line 1/4 mile inside of Jenness Pond Road, Barnstead Road, and Wild Goose Pond Road (Strafford) to the west; the Northwood/Strafford town boundary to the north; a line 1/4 mile inside of Bow Lake Road to the east; and the power line easement to the south. A corridor 1/10th of a mile wide along the existing Long Pond Road is excluded from this area because it is already developed. Of the total area, 97% is land with major development constraints:

- a. 60% of the total area has soils with low or very low soils potential for development; and
- b. 86% of the total area is more than the maximum cul-de-sac length from an existing Class V or better road.

There is no protected conservation land in this area. Development could encroach on this area from any side. The 2004 Master Plan recommends efforts to preserve land within this area through conservation, as well as through protection of ordinances that impose development constraints applicable to this area (e.g., the restriction on maximum cul-de-sac length).

The Acorn Ponds Area: The Acorn Ponds are a series of three ponds and inter-connected wetlands; these ponds and wetlands provide valuable habitat area and are related to the groundwater supply of the Ridge District. This area is approximately 800 acres in size with only the District well and the eastern reaches of the old 10th Range Road running through it. The area is enclosed by: the Northwood/Strafford town boundary to the north; a line 1/4 mile west of Allen Farm Road, Route 202A, and Route 202 to the east; the power line easement to the south; and a line 1/4 mile east of Ridge Road and Tasker Hill Road to the west. Of the total area, 80% is land with major development constraints:

- a. 60% of the total area has soils with low or very low soils potential for development.
- b. 67% of the total area is more than the maximum cul-de-sac length from an existing Class V or better road.

There is no protected conservation land in this area. The 2004 Master Plan recommends efforts to preserve land within this area through conservation, as well as through protection of ordinances,

which impose development constraints applicable to this area (e.g., the restriction on maximum cul-de-sac length).

Transportation

Planning for Northwood invariably comes back to the issues related to US Route 4. Northwood has historically developed along the First New Hampshire Turnpike, so it is not surprising that land use issues are so closely intertwined with this highway. For this reason, this section focused primarily, though not exclusively, on issues pertaining to Route 4.

Of utmost importance to the Town of Northwood is safety along Route 4. The fact that the town and Route 4 are so closely intertwined, and that there is a lack of alternative transportation routes from one area of town to another, means that everyone in the community continually uses Route 4. This is an unusual situation that is very different from other communities in this part of New Hampshire.

Safety. The first safety issue is traffic speed. Concerns raised in the 1987 Master Plan are still applicable to today:

Northwood officials should discourage any attempts to improve US Route 4 that would result in increased speeds and reduced safety. Because the high seasonal traffic volumes; rolling terrain and associated limitations on site distance; nearly 300 points of access (driveways, parking lots, and intersecting streets); and the Route 4 corridor's role as the focal point for all town activities, any improvement that facilitates high speed travel on Route 4 will negatively impact the town. (Policy #2 of the Transportation Chapter, page VII-28)

People in the community have discussed the need to reduce the speed limit through Northwood. However, a simple reduction in the legal limit does not typically reduce traffic speed. Road design, not the posted speed limit, is the single most important determinant of traffic speed. It is therefore vital that any construction or design modification along Route 4 in Northwood not be designed to increase travel speeds. In Northwood's case, the most vulnerable users are pedestrians and bicyclists, particularly the children near the Northwood School and Coe-Brown Academy. Additionally, resident drivers are vulnerable because of their constant need to enter and exit the traffic stream. Road design to protect these users is the priority of the community.

The 2004 Master Plan recommends that the town address these safety concerns by looking at a variety of options including design elements, increased law enforcement, and additional traffic lights.

Access management. Although not labeled as such, access management topped the list of transportation recommendations in the 1987 Master Plan. A brochure from the NH Route 16 Corridor Protection Study states:

Access management is a tool to ensure the safe and efficient movement of vehicles by striking a balance between property *access*, in the form of curb cuts, and *mobility*. Curb cuts are places where driveways, both business and residential, intersect with a road. Effective access management ensures that the public's investment in the road system is safeguarded for the future.

Access management attempts to:

1. Limit the number of places where vehicles are turning and entering the roadway.
2. Reduce deceleration in travel lanes.
3. Remove turning vehicles from travel lanes.

For arterial highways like Route 4, it is very important to protect capacity and enhance safety by applying access management techniques. The network of arterial highways throughout the state and the nation facilitates long vehicle trips, and its safe and efficient operation is vital to all levels of government. However, this arterial function must occur while addressing the community needs of access to and from the residential, commercial and civic land uses which access the arterial network directly. Years ago, the Planning Board adopted access management controls in their site plan review and subdivision regulations, and the continued improvement of these controls will be pursued by the board.

During the development of this master plan, many people noted the need for more sidewalks and bike paths. Currently, the site plan and subdivision review regulations require sidewalks for all new development along Route 4. Northwood has also seen construction of sidewalks with the upgrades of the intersections in town. The town's representative to the Seacoast MPO Technical Advisory Committee should work with other town officials, citizens, and transportation officials from the region and state to develop appropriate proposals and apply for funding state and federal funding.

East-West Traffic. Traffic volumes through Northwood continue to increase. It is clear that increasing through-traffic will become less compatible with the community. The town is a linear stretch of homes, businesses, and civic sites primarily stretched along Route 4, and as the arterial function of the highway increases, the rural qualities of the town and its character will be diminished. Despite increased sidewalks, it is still difficult to walk along Route 4 or to cross Route 4, so residents tend to drive around town.

The core question is simple: Can we provide for increasing volumes of east-west traffic while protecting the quality of life in Northwood?

During the course of developing this master plan update, residents have suggested a number ways to address these problems: alternative routes to Route 4, landscaping elements to slow down traffic and increase safety along the road, and increased police enforcement.

Neighborhood Connections. The overall town and regional road network is adequate to accommodate through traffic, but any new roads should be designed for the continuation of streets in adjoining areas, and permanent dead-end roads in excess of 1000 feet should be avoided. Provisions for neighborhood sidewalks and pedestrian or bike paths also needs to be considered. These provisions will allow a higher degree of mobility for residents whether driving, walking, or biking within the community.

Neighborhood roads need to accommodate safe access to properties for residents and customers; for convenient and efficient pickup and delivery of goods; for emergency vehicle access; and other such uses. The local streets need to be linked to traffic-carrying streets in a way that simultaneously provides good access to other parts of the community and region while minimizing the use of residential streets by through traffic. Providing for the flow of traffic should not encourage through-traffic, but should provide for smooth flow of delivery and service vehicles like postal carriers, home heating oil trucks, school busses, snow plows, and so forth.

Emergency Re-routing. One exception to the need to prevent through traffic on local roads is when Route 4 is blocked by traffic accidents. Currently there are alternative routes suitable for car traffic along most portions of Route 4 through Northwood, though none of these are particularly well suited for truck traffic. Route 4 west of the western end of Lake Shore Drive is probably the longest stretch without a nearby alternative route. Apparently major work to Old Turnpike Road in Epsom would be needed to connect it through to the west.

Gulf Road. Access from Blakes Hill Road to the Gulf Road area has been an on-going planning issue for many years. At issue is an area between Northwood Lake and Pleasant Lake which has several hundred year-round and seasonal houses in Northwood, but which has no direct access into Northwood. The only access is via Route 107 and Route 4 in Deerfield and Epsom around the west end of Northwood Lake. The long trip around to this part of town is an inconvenience for year-round and seasonal residents living there. However, it also poses logistical problems for emergency services providers and for school bus routing. Additionally, there is a safety concern for all development in the Gulf Road area because a large number of homes are accessed by a single road. Blockage of Gulf Road by accident or storm would isolate many people. There is no connection, even by private road, around Pleasant Lake.

Conservation Areas. In the Natural Resources section of Northwood Today, three areas were delineated for long term open space protection: Northwood Meadows/Saddleback Mountain, Big Woods, and Acorn Ponds. The town's primary policy approach is to encourage and help facilitate

private land conservation actions (recognizing the limitations of land use regulation for such extensive land protection priorities). However, municipal road policy is extremely important for this land protection effort. If the town can keep new roads out of these areas then further development in these areas is less likely. The town can take three steps to implement this policy. First, allow no new town roads to be constructed in these areas. Second, allow no existing segments of Class VI roads to be upgraded to Class V or better standards in these areas, recognizing, of course, the existing commitments made by past town meetings regarding the extension of the Class V portion of Mountain Road. Third, mandate through the Zoning Ordinance that any private development must be clustered outside of these areas or towards the exterior perimeter of these areas if it cannot be clustered outside of the area. A fourth step should be investigated, that being prohibition of any new private roads for subdivision purposes. This policy should be drafted to permit lesser roads for timber harvest or fire protection, and possibly for access drives needed for infrequent use to things like telecommunications towers. This fourth step could easily run into legal problems and needs to be evaluated in that light. However, it would certainly forward the basic policy objective of no new roads in the protection areas.

Villages. As the town plans for the future, it will be important to consider the creation of new public roads. These new roads would form the basic network for a non-linear neighborhood and would provide access in areas not currently served by public roads. The development of such roads can be left to chance through the subdivision application process, or the town can take a more active role by designing the street networks ahead of time and protecting road corridors with an official map. An official map is a planning tool authorized by RSA 674:10. The official map, adopted at town meeting, is based on a street plan prepared by the planning board, and it protects a surveyed corridor from unnecessary building development so that future road construction costs will be reasonable and adjacent land uses will not be unduly harmed. While not expressly stated in the statutes, the planning board could probably require any future subdivisions to conform with an official map as well. A town meeting would be necessary to authorize the planning board to initiate this work and fund the required survey and engineering design work, and later the town meeting would need to adopt the findings in the form of an official map.

Roadway Design Issues. Roads are complex public spaces, which affect traffic, parking, aesthetics, neighborhood character, and perceptions of the community. Roadway design affects driver behavior, trip patterns, and recreational uses along the road. Beyond the obvious need for quality construction and design which incorporates basic safety principals, there are a host of design issues of importance to the community.

Roads must be safe for all users, so the first issue is preventing vehicles from reaching excessive speeds. In residential and rural areas, vehicle speeds should be limited to 25 to 30 miles per hour. Roads should be designed and built to take advantage of topography and adjacent woods, fields, and yards to create visually interesting environments. Natural views should be protected. Sight lines

towards civic or historic buildings create interesting vista terminations. Adjacent stone walls, large street trees and ground cover should be retained (as was accomplished by the town during the reconstruction of Tasker Hill Road). The scale of the facility needs to be appropriate to the use of the road by cars, trucks, walkers, bicycles, emergency vehicles and others. In Northwood, many of the town roads already have these positive design features. It will be important to retain these qualities during future road maintenance and reconstruction.

Some of the town roads have exceptional scenic quality and the town should designate them as scenic roads. Scenic road designation pursuant to RSA 231:158 restricts the cutting of trees and disturbance or stone walls in the public right-of-way, but does not affect the rights of property owners to use their own property.



Economic Development

As is true in every community, there are opportunities and obstacles facing any economic development effort. The high traffic volumes coming through town are the most obvious opportunity for economic growth. Much of the existing business base is heavily dependent on capture of pass-by traffic (though the Antique Alley shops are a destination for many shoppers). It is reasonable to expect continued growth in the number of small businesses along Route 4. It will be important to manage the traffic flow on Route 4 to make it convenient to patronize these businesses.

In an effort to maintain the rural character of the town, development which relates to the historic amenities in the community, or which relates to the high quality natural setting, would be ideal. Northwood should be presenting the image of a town with heritage and character. Northwood is a quiet town where you don't have to lock your doors, you know your neighbors, and you can see 2,500 stars in the sky at night.

There are obvious constraints to economic development in Northwood. Route 4 is a congested and sometimes dangerous road. There is only a small municipal water supply system at the Ridge, and there is no municipal sewer system. Finally, the nature and configuration of natural resource constraints in Northwood show that there are few if any major expanses of easily developed land.

By establishing community goals, the town can prepare and plan for development by taking advantage of opportunities, enhancing the property tax base, establishing an institutional structure for economic development, and controlling adverse impacts of new development.

Take advantage of local opportunities first. There are opportunities within the community's collective control that can help promote economic development in Northwood, and these need to be addressed first before turning to resources outside of the community.

Create a support system for existing community businesses. Establish a dialog with the business owners to find out what their needs are and how the community can be of service to them. Focus efforts on retaining existing businesses in order to maintain a stable economic base. Encourage local entrepreneurial efforts by facilitating quick approval of suitable, well-designed home occupations and home-based businesses. This policy approach, coupled with advances in telecommunications and the increasing levels of white-collar workers, should result in greater opportunities for residents to both live and work in Northwood.

Though the face of business has changed, given the large acreage in town of forests and fields in Northwood, an increase in forestry and agriculture would play important economic role in the community. These businesses could also be a vital component of a Northwood's economy.

Develop practices that keep money in the community. Hire local firms for jobs in town. Buy products from locally owned businesses rather than corporate chains which will electronically transfer their profits out of state on a daily basis.

Enhance the Property Tax Base. As explained earlier in this update, new residential development does usually not pay enough in property taxes to cover the cost of town and school services demanded by the new residents. Cost of community services studies completed in Stratham, Exeter, Dover, and other communities show that for every \$1.00 received in property taxes from residences, a community incurs between \$1.01 and \$1.17 in costs for services. In contrast, for every \$1.00 received in taxes from open space lands (forests, farms, etc.); a community pays between .19 and .94 for services required. Open space can help stabilize property taxes.

Establish an Institutional Structure for Economic Development. If the town seeks to retain, expand, and attract desirable new business development, it will require a strong effort by the town government. The Board of Selectmen must lead this effort. The municipal government has not

sustained an active institutional structure for economic development issues. Neither the Economic Development Committee nor the Chamber of Commerce is currently active, though the antique shops do have their own business organization, the Antique Alley Association. Reestablishing the Chamber of Commerce and the Economic Development Committee would give local business owners a support system. These two groups could provide local business with information, networking opportunities, marketing opportunities, and a sense of community.

Control Adverse Impacts of New Development. The town needs to maintain a built environment that blends well with the natural environment and reinforces the connection with Northwood's heritage.

The idea of creating or strengthening village areas in East Northwood, at the Ridge, and in Northwood Narrows is important in this respect. The village design is a New England tradition and is an important design component for the community's future. It will be important to entice new businesses which are not dependent on pass-by traffic to locate off of Route 4 in these village areas.

Future Land Use

At the 2004 Master Plan Visioning Workshop four concerns with regard to future land use emerged as most important to Northwood residents:

1. Maintain rural character;
2. Protect and preserve natural resources;
3. Provide recreational opportunities; and
4. Achieve a balance between residential development and economic development.

The major issue surrounding future land use is achieving a reasonable balance between Northwood's traditional rural character and future development, while understanding the need to allow for growth of the community.

According to the Smart Growth New Hampshire Steering Committee, there are eight principles that summarize the land use issues facing rural New Hampshire Towns. Based on the input received from citizens at the Visioning Workshop, it is fair to say that these eight principles represent the concerns of the citizens of Northwood.

1. Maintain traditional compact settlement patterns to efficiently use land resources and investment in infrastructure.
2. Foster the traditional character of New Hampshire downtowns, villages, and neighborhoods by encouraging development that is comfortable for pedestrians and conducive to community life.
3. Incorporate a mix of uses to provide a variety of housing, employment, shopping, services, and social opportunities for all members of the community.
4. Provide choices and safety in transportation to create livable, walkable communities that increase accessibility for people of all ages.
5. Preserve New Hampshire's working landscape by sustaining farm and forestland and other rural land to maintain contiguous tracts of open land and minimize land use conflicts.
6. Protect environmental quality by minimizing impact from people and maintaining natural areas that contribute to the health and quality of life in New Hampshire.
7. Involve the community in planning and implementing to ensure that the development retains and enhances sense of place, traditions, goals, and values of the local community.

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8. Manage growth locally, but work with neighboring towns to address common goal and common problems more effectively.

In October of 2002, with deep concern about the scattered and premature subdivision developments in Northwood, town officials began looking into growth management strategies that will allow for growth while minimizing negative impacts to residents and existing infrastructures. Because growth can be both positive (economic expansion, revitalization of local commercial districts, tax base increase) and negative (a drain on local resources, congestion, destruction of environmental & cultural features), citizens, developers, and town officials must band together to address the fundamental issue: **it is not whether to grow, but how to grow.**

Smart growth is not “no growth” or even “slow growth.” Northwood citizens want jobs, tax revenues, and many of the amenities that come with development. But citizens want these things without sacrificing Northwood’s environment, rural charm, and quality of life, and without prohibitive budget requirements.

Growth-Management Ordinance. This master plan update recognizes the importance of implementing a growth management ordinance to allow for growth while minimizing the need for building a new school or purchasing new equipment due to unanticipated growth. One method commonly used to manage timing of and amount of growth is to establish a maximum annual growth rate. This would help the town determine how many building permits will be issued annually. This limit can minimize impact on schools and services while still allowing landowners to develop their properties. Statistics used to determine the maximum annual growth rate include the annual percentage increase in residential building permits during the past 10 years, the average annual percentage population growth, forecasts of school enrollment, the annual full value property tax rate, and the capacity of town facilities/services to handle growth.

Land Capability Analysis. Understanding the constraints imposed upon development by land characteristics provides a tool for guiding the location and intensity of future development. The way we decide how our land is developed will have a direct impact on community character, aesthetics, housing affordability, transportation infrastructure, and the property tax base. An analysis of land capability, which includes soil analysis, would provide a foundation and rationale for land use regulations adopted by the town. In addition, the Town should complete a Land Use Build-Out Analysis. This analysis would use current zoning ordinances to determine the number of housing units that could occur if no changes are made to the ordinance. Again, this information can provide a foundation for the development of ordinance updates.

Open Space. Open space is simply large, undeveloped tracts of land including fields, forests, and wetlands. As evident at the Master Plan Visioning Session, open space is very important to Northwood residents. It is apparent that people would like to retain the rural characteristics of our town, and open space is one of these important amenities. Retaining large open space areas preserves scenic beauty, provides recreation space, encourages sustainable forestry, preserves, wildlife habitats, and retains the rural feeling that citizens value.

It is important to note that open space may have less impact on town taxes than developed space. The reason for this is simply that open space requires fewer town services than developed land. So, as a strategy, it makes good sense for Northwood to encourage voluntary protection of large tracts of land. Property owners should be encouraged to donate or establish conservation easements and to work with the Northwood Conservation Commission and Bear-Paw Regional Greenways to promote land protection options.

One way to allow development and protect open space is an open space subdivision. In simple terms, these kinds of developments locate houses on smaller parcels of land and maintain the additional land (land that would have been allocated to that home if it were built on a 3 acre parcel) into a common, shared open space for preservation and recreational use.

Zoning. Zoning is a legal process to implement the master plan. It may enhance the value of private property while protecting the health, welfare, and safety of the public. It is the balancing of private and public interests. In Northwood's case, zoning would establish the legal basis that would enable the town to achieve its land use policies; these may include discouraging further strip-type development along Route 4, revitalizing village areas with mixed uses, and protecting historic resources.

A zoning ordinance sets permitted uses and development standards within defined districts of the town. These standards clarify requirements and limits for all property owners. The Northwood Development Ordinance has changed over the years, and this 2004 Master Plan Update will provide the basis for another revision. Issues expected to be addressed in future master plan implementation ordinances will include: building permit limits, open space requirements, cluster design, impact fees, and protection of natural features.



First NH Turnpike

Revised Master Plan Policies

The following pages provide the policies that will be used to implement our vision statement. In addition to setting forth new goals and recommendations, the 2004 Master Plan Update will review the progress-to-date of the goals set forth in the 1998 Master Plan Update. This update is broken up into the categories listed below.

Natural and Cultural Resources. The town's natural and cultural resources are important amenities to the community, and reasonable measures should be taken to ensure sound resource management and conservation. There are significant resource constraints in Northwood because of its geography, and these constraints restrict the ability to accommodate growth.

Housing. The town should encourage well-designed and thoughtfully sited residential development that is: complimentary to the scenic nature of the town, enhances the social structure of the town, and minimizes adverse impacts on the environment. With over 400 seasonal homes in Northwood, conversion to year-round homes remains a concern, particularly with regard to adequacy of septic systems and impact on school enrollment.

Economic Development. It is the recommendation of the planning board that the town should initiate a community effort focused on increasing local economic development opportunities, broadening the tax base, and ensuring that future development is consistent with the long term interests of the town.

Transportation. Transportation policy focuses on safety, convenience, and quality of life. This policy is centered along Route 4 and includes safety issues, such as speed control, access

management, and spot improvements. It is the planning board's policy that land uses that are most sensitive to high traffic volumes should be encouraged to use roadways other than Route 4.

Community. The citizens of Northwood recognize the importance of the Northwood community. Improvements in communication, land use approaches that will enhance Northwood's sense of community, and activities that bring citizens together, are supported and encouraged in this master plan update.

Facilities. The town should maintain its historic buildings in order to keep the ambience of the town. In addition, the town should work to maintain and improve our recreational facilities that include beaches, wooded trails, and athletic fields,

Administration. The planning board recognizes that the town of Northwood is growing and that changes and/or improvements to our governing bodies may be necessary to effectively manage this growth.

Future Land Use. Land use changes should protect the rural character of the town, protect our natural, cultural and historic resources, and should enhance the quality of life for Northwood residents.

Implementation Steps

Natural Resources Implementation Steps

1. **WETLANDS PROTECTION (1998):** In the 1998 Master Plan it was recommended that the town keep its existing wetlands protection policies with the following changes. Of these recommended changes, some were made and some were not.

Steps that have been implemented:

- a. Bring the definition of wetlands up to date.

Steps that have been partially implemented:

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- b. Require that a 100' buffer be maintained around any wetland or surface water within the conservation areas delineated in this plan (as of today, this recommendation has been applied to prime wetlands).
 - c. Do not allow wetland area to count as part of the required minimum lot size (as of today, this recommendation has been updated to require that lots have at least 1 acre of contiguous uplands).

Steps that have not been implemented:

- d. Amend the Subdivision Regulations to require Site Specific Soils Mapping for all subdivisions to ensure proper wetland boundaries.
- e. Require that new construction maintain a 50' buffer around all other wetlands, streams, and rivers.

RECOMMENDATIONS (2004): The 2004 Master Plan recommends that the incomplete steps listed above be completed in order to better protect our natural resources and that the term “wetlands” be redefined according to state standards...

- 2. **PRIME WETLANDS DESIGNATION (1998):** Complete the process of prime wetlands designation. Upon completion of the designation process, amend the Zoning Ordinance to require that a 100' protective buffer be established around the perimeter of each designated prime wetland.

This recommendation was implemented.

- 3. **AQUIFER PROTECTION (1998):** Enact zoning controls to protect known aquifer areas. The controls should:

Steps that have been implemented:

- a. Encourage new development to be clustered away from recharge areas.
- b. Reduce allowable density of development in recharge areas (4 acres per lot).
- c. Limit non-residential uses to those, which would not make significant use of hazardous materials, which, if accidentally released or improperly disposed of, could contaminate groundwater.
- d. Prohibit underground storage tanks.

RECOMMENDATIONS (2004): In addition, the following implementation steps are recommended:

- e. Explore limitations on future underground storage tanks of gasoline and other potential sources of ground water pollution in all areas, not just aquifers.
 - f. Establish water quality monitoring for all potential surface and ground water problem areas to provide baseline and on-going data.
4. **SHORELINE PROTECTION (1998):** The town shall actively assist with the enforcement of the state's Comprehensive Shoreline Protection Act, Pursuant to RSA 483-B:8. Further, the town shall actively seek to work with adjacent communities where water bodies cross town borders.

RECOMMENDATIONS (2004): The above goal is on-going and the 2004 Master Plan recommends that the town continue to work toward this goal. In addition, the 2004 Master Plan recommends that the following:

- a. Establish local controls that reflect the State's Shoreline Protection Act changing the current setback from 20' to 50'.
5. **STEEP SLOPE PROTECTION (1998):** Enact zoning controls to prevent development on steep slopes. The controls shall:
- a. Prevent construction of new structures and roads in areas with a slope of 25% or greater, and shall prohibit areas of 25% or greater slopes from being counted as part of the minimum lot size.
 - b. Allow any significant construction activity in areas with a slope of 20% but not more than 25% by means of a Special Exception. The conditions for the special exception should require minimizing impact in the steep slope area, and require a suitable erosion control plan be implemented.

These goals have been implemented.

6. **BUILDING HEIGHT LIMITS (1998):** Enact zoning controls to limit maximum building height to help address public safety and aesthetic concerns.

Steps that have been implemented:

- a. Generally keep structure heights below the prevalent tree canopy.
- b. Keep all occupied portions of a structure at a sufficiently low height to ensure that town firefighting equipment can reach people in the event evacuation is required.
- c. Provide a Special Exception that allows for structures that need to be taller, such as silos, church steeples, and telecommunications mounts (towers). As part of the Special Exception for new telecommunications mounts, require that a provider prepare a comprehensive plan for their eventual complete coverage of the town, known as build-out coverage. This needs to include a complete evaluation of all existing possible mounting locations and alternative proposals for obtaining the provider's build-out coverage. This should include coverage with a small number of tall telecommunications mounts, a larger number of medium height telecommunications mounts, and a large number of low height telecommunications mounts.

Steps that have not been implemented:

- d. Include provisions to encourage the protection of the tree-line around buildings along ridgelines where such ridge lines are a significant part of a scenic view.

RECOMMENDATIONS (2004): The 2004 Master Plan recommends that the above goal be completed.

7. **PROTECT PRODUCTIVE AGRICULTURAL SOILS (1998):** Enact zoning controls to require cluster subdivision design on lots where there is a significant amount of prime agricultural soil or agricultural soil of statewide importance, as defined by the Natural Resources Conservation Service. The Northfield, NH zoning ordinance should be used as a model.

This goal has been implemented.

8. **PROTECT DESIGNATED CONSERVATION AREAS (1998).** The Town shall make an effort to conserve three large areas of valuable natural resources: Northwood Meadows/Saddleback Mountain; Acorn Ponds; and Big Woods. Purchase or donation of conservation easements or land in fee simple for conservation use, privately funded primarily, are the primary means recommended to accomplish this protection. However, the town shall enact policies which restrict the construction of new roads or the upgrading of

closed roads, and which require that any development that occurs in these areas be clustered and otherwise designed to minimize adverse impacts.

RECOMMENDATIONS (2004): These goals have not been completely implemented. The 2004 Master Plan recommends that the town continue to work toward this goal and that the town looks at the full range of tools and techniques most likely to protect these areas. In addition, we recommend the implementation of the following:

- a. Explore the possibility of using local tax incentives to encourage the conservation and preservation of large tracts of land.
 - b. Work with the Northwood Conservation Commission, the Community Resources Committee, and Bear-Paws Regional Greenways to educate residents on the cost and benefits of open space.
 - c. Increase awareness of Northwood's natural resources through establishing a natural resource inventory.
 - d. Create a Town Land Trust.
9. **PREVENT EROSION (1998):** Because of the sensitive nature of the resources in Northwood, an erosion and sediment control plan should be required for all major subdivision and site plan review applications.

This goal has been implemented. In addition, the 2004 Master Plan recommends that erosion & sedimentation plans, as well as storm water management plans, be consistent with the most recent model ordinances.

10. **SOILS MAPPING (1998):** Site Specific Soils Mapping should be required for all major subdivision and site plan review applications.

This goal has not been implemented. The subdivision regulations require site specific soil mapping in areas of prime agricultural soil, and the 2004 Master Plan recommends that the town continue to evaluate concerns in this area.

11. **COMMERCIAL EXCAVATIONS (1998):** Any existing or future surface mining or excavation in Northwood should be required to adequately protect the mined site from erosion, and to prevent adverse off-site impacts to the environment and aesthetic quality. This should be accomplished simply by implementing the provisions of RSA 155-E.

This goal has not been implemented. The 2004 Master Plan Update recommends that the provisions of RSA 155-E be adopted into the development ordinance.

12. **SCENIC ROADS (1998):** There are nine road segments identified in this plan which should be recommended to town meeting for designation as scenic roads. Scenic road designation provides a measure of protection for large trees and stone walls.

RECOMMENDATIONS (2004): This goal has not been implemented. The 2004 Master Plan recommends that the town designate the following roads as scenic roads: Jenness Pond Road, Old Barnstead Road, Tasker Hill Road, Ridge Road, Sherburne Hill Road, Old Mountain Road, Winding Hill Road, Blake's Hill Road (from Kelsey Mill Road to Winding Hill Road), and Harmony Road.

13. **HAZARDOUS MATERIALS LOCATIONS (1998):** Restrict storage of flammable liquids and gases in large quantities to areas in town that are not heavily populated or congested with buildings. In addition, segregate industrial properties from residential properties if significant quantities of toxic chemicals and flammable materials are used in industrial processes.

RECOMMENDATIONS (2004): The above goal has not been implemented. The 2004 Master Plan recommends that the town adhere to State requirements.

14. **WATER RESOURCES STUDY (2004):** Work with Strafford Regional Planning to conduct a study to determine the amount of water available to support existing and future uses. Consider both the ground and surface water in terms of present and future quality and quantity.
15. **STATE SUPPORT (2004):** Support and promote state legislation that will safeguard our water supplies and water bodies.
16. **GROWTH MANAGEMENT & WATER (2004):** Maintain safe, clean private wells and groundwater by managing growth.
17. **TIMBER REMOVAL (2004):** Explore the establishment of bonding requirements prior to timber removal and intent-to-cut permitting.

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18. **OPEN-SPACE SUBDIVISIONS (2004):** Explore the possibility of expanding open space subdivision requirements and minimizing lot size for new development. Consider expanding the incentives for open space subdivisions for conservation areas (and other areas) in order to promote rural character, efficient use of land, and protection of natural resources.

 19. **RECREATION AREAS (2004):** In an effort to preserve and protect water & land for recreation purposes (boating, biking, hunting, hiking, fishing, swimming, horseback riding), ask the Northwood Recreation Commission to work with Strafford Regional Planning to compile an inventory of public woods roads & trails, beaches, and other recreational resources.

 20. **LANDSCAPE REVITALIZATION (2004):** Increase the landscaping requirements in town ordinances and subdivision & site plan regulations.

Cultural Resources Implementation Steps

1. **PROTECT HISTORIC RESOURCES (1998):** Enact performance zoning standards that encourage and reward the siting & design of new development that is consistent with, and complimentary to, the town's historic resources.

RECOMMENDATIONS (2004): The above goal has not been implemented. The 2004 Master Plan recommends implementation of incentives that will encourage development that is consistent with, and complimentary to, Northwood's historic resources.

Housing Implementation Steps

1. **SEASONAL HOME CONVERSIONS (1998):** Seasonal homes converted to year-round use should be monitored and regulated. Consideration should be given to the type and adequacy of the septic system, source and proximity of water supply, potential impact on the immediate area, and potential impact on community facilities. All seasonal home conversions should be thoroughly checked for potential health and safety threats.

This goal has been implemented. The 2004 Master Plan recommends that the code enforcement officer continue to monitor these conversions and enforce town policy.

2. **OPEN SPACE DESIGN (1998):** Amend the land use codes to allow and encourage open space development and require cluster design where it would result in protection of important natural resources. This provision permits landowners who plan to subdivide their land to build houses on smaller portions of the land while reserving sizeable areas as open space. This design option results in no net change in the amount of development which can be accommodated, yet helps to retain more useable open space, preserve natural beauty, and enhance a neighborhood's recreational space.

This goal was implemented with the 2000 Open Space Ordinance. The 2004 Master Plan recommends that the town continue to carefully explore the various provisions that could be added to this ordinance to ensure that new residential growth is in keeping with the town's vision.

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3. **LIGHTING (1998):** Enact performance zoning standards, which encourage and reward good night time lighting for non-residential development. During the process of revising the Zoning Ordinance, the Planning Board shall investigate suitable standards and design criteria to implement the policies of this plan and are acceptable to the community.

This recommendation was implemented with an ordinance permitting exterior lighting not to exceed 14' in height.

4. **GROWTH RATE (2004):** Establish a maximum annual growth rate to help determine the number of building permits that will be issued each year. Use this information to minimize the impact of growth on our schools and municipal services while allowing landowners to develop their properties. The 2004 Master Plan recognizes that growth issues are on-going and the plan recommends that the town continue to explore effective growth management options.
5. **AFFORDABLE HOUSING GUIDELINES (2004):** Explore the development of an affordable housing ordinance. Develop guidelines that will insure up keep of property, number of residents per unit, etc. Work to minimize the impact of affordable housing on local services including police, fire, and welfare departments.
6. **ELDERLY HOUSING (2004):** Consider increasing the elderly housing age requirements from 55 to 62 years of age.
7. **ROUTE 4 (2004):** Maintain a development and growth pattern along Route 4 that encourages and emphasize villages and neighborhoods.
8. **SUBDIVISION PHASING (2004):** Implement an ordinance that limits the number of building permits issued per year within a single subdivision,

Economic Development Implementation Steps

1. **HOME OCCUPATIONS & HOME-BASED BUSINESSES (1998):** Modify land use codes to develop standards which encourage the establishment and operation of home occupations and home-based businesses while also guarding against adverse impacts on neighborhoods and the town.

RECOMMENDATIONS (2004): The 2004 Master Plan recommends that the town continue to encourage the establishment of home businesses and home-based occupations as outlined in 1998.

2. **REINVIGORATE THE ECONOMIC DEVELOPMENT COMMITTEE (1998):** The Economic Development Committee should be re-activated and charged with the following duties:
 - a. Serve as liaison to the Northwood Chamber of Commerce and all town boards.
 - b. Provide a contact point for business inquiries to the town, and develop information and materials that will be disseminated in response to such inquiries.
 - c. Establish and maintain contact with relevant economic development organizations such as the Rockingham Economic Development Corporation, DRED, the Small Business Administration, and others so that the town can take advantage of any opportunities or offerings from such organizations.
 - d. Develop and implement a community initiative to “plug the leaks” so that money that enters the town re-circulates through town rather than being lost to other communities.
 - e. Monitor annual changes in the equalized assessed valuation per capita.
 - f. File an annual report to the town to keep its citizens aware of issues and progress.

Other related duties as may be appropriate.

RECOMMENDATIONS (2004): Northwood does not have an economic development committee at this time nor does the town have a Chamber of Commerce. The 2004 Master Plan suggests that the town reestablish these groups. In addition, it is recommended that the Economic Development Committee works with existing business organizations, such as the Antique Alley Association.

3. **LOCAL BUSINESS (2004):** Support local business ownership and encourage the development of business that is in keeping with the current culture of the town (professional offices, antiques shops, artists, farming, service organizations).

Transportation Implementation Steps

1. **TRAFFIC SENSITIVE LAND USES (1998):** Discourage the development of residential and other sensitive land uses along Route 4.
2. **ACCESS MANAGEMENT (1998):** Continue to implement and refine access management policies that address access onto US Route 4 and other arterial highways. The NHDOT has the final authority to issue driveway permits on arterial highways, this does not diminish the town's policy powers pursuant to its land use authority. Town land use codes impose standards that are and should continue to be more restrictive than the statutory standards imposed by NHDOT.
3. **INITIATE DISCUSSIONS ABOUT EAST-WEST TRAFFIC (1998):** Increase in traffic through the town on Route 4 will continue to create problems until long term solutions are found. The East-West highway study came and went without closure leaving the fundamental issues unresolved. It is time to initiate discussions again to see what options are available to accommodate the increasing traffic volumes while protecting the safety and quality of life of Northwood's citizens.

RECOMMENDATIONS (2004): The issues addressed in the three goals listed above are ongoing. The 2004 Master Plan recognizes that the town needs to continue to evaluate issues of access management and that the town should work toward creating a detailed transportation plan that will address safety, mobility, and aesthetic issues. The goal of this plan is to balance residential and commercial development.

4. **HIGHWAY SPEED CONTROLS (1998):** Northwood officials should discourage any attempts to improve Route 4 that would result in increased speeds and reduced safety. With high seasonal traffic volumes; rolling terrain; limitations on site distance; nearly 300 points of access (driveways, parking lots, and intersecting streets), and Route 4 role as the focal point for all town activities, road improvements that facilitate increased traffic should be discouraged.

RECOMMENDATIONS (2004): This issue is ongoing and the 2004 Master Plan recommends that the town continue to explore and evaluate these on-going safety issues.

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5. **SAFETY IMPROVEMENTS (1998):** Monitor motor vehicle collision locations and evaluate possible improvements as necessary. These potential improvements should then be recommended for inclusion in the Capital Improvement Program and application should be made for transportation funding through the Seacoast MPO.

RECOMMENDATIONS (2004): This recommendation has not been implemented. The 2004 Master Plan suggests that the town consider implementation of this goal in conjunction with other safety related goals listed here. In addition, it is recommended that the Planning Board, Board of Selectmen, and Police Department meet on an annual basis to review accident data.

6. **SPECIAL SERVICE TRANSPORTATION PROVIDERS (1998):** Northwood should support the efforts of special service transportation providers. These services are extremely important to many elderly and handicapped residents of Northwood and, as such, add a valuable dimension to Northwood's overall quality of life.

This goal has been implemented. The 2004 Master Plan recognizes the necessity of these services to town residents.

7. **BICYCLE & PEDESTRIAN IMPROVEMENTS (1998):** Develop applications for transportation funding for spot improvements. It is expected that these will primarily be for sidewalks in the vicinity of the schools and clusters of businesses along Route 4 rather than extensive facilities along the entire length of the highway.

RECOMMENDATIONS (2004): This goal is a work in progress. The Planning Board is now requiring sidewalks for all new construction along Route 4. In addition to this, the 2004 master Plan recommends:

- a. **TRAFFIC CALMING:** Consider creation of well-defined, signaled crosswalks at controlled locations.
 - b. **FOCAL POINTS:** Continue to explore the idea of town villages or focal points that can help control access to and speed along Route 4.
 - c. **BIKE PATHS/SIDEWALKS:** Consider the creation of bike paths as an alternative to riding bicycles along Route 4. Develop a sidewalk system/bike path between the Northwood School and Coe-Brown Academy.
8. **ROAD NETWORK DESIGN (1998):** Require that all roads sited in new developments be consistent with the existing roadway networks as a condition of subdivision approval. New

roads that could potentially serve as neighborhood through roads at some future date should be planned and built accordingly. Investigate the possibility of creating new town roads to enhance the local road network, providing alternative ways around town to enhance emergency access.

RECOMMENDATIONS (2004): This goal has not been met; The 2004 Master Plan recommends that the Northwood continue to consider this recommendation as a possible component of the town's future transportation plan.

9. **GULF ROAD GROWTH MORATORIUM (1998):** To prevent the worsening of the access and safety problems that have already occurred in this area, the Planning Board should propose to the 2000 Town Meeting a growth moratorium which would be lifted upon provision of a secondary emergency access.

RECOMMENDATIONS (2004): The 2004 Master Plan recommends that Northwood develop a committee to work with the Town of Deerfield to improve access to the Gulf by reconstructing the Pleasant lake Dam and this specific area of Gulf Road. The town should develop a district that would be financially responsible for the improvements to Gulf Road. Furthermore, since there is an overwhelming public sentiment that the Gulf area should be preserved (as it is a unique undeveloped area), the Planning Board should consider creating a conservation district encompassing the Gulf area and requiring a minimum lot size of 10 acres.

10. **SCHOOL SAFETY (1998):** Enact regulatory controls which discourage land uses along Route 4 in the vicinity of the Northwood Elementary School that would sharply increase traffic flows.

This goal has been partially implemented with an ordinance restricting adult entertainment business from operating within 1000 feet of the school.

11. **TRANSPORTATION PLANNING (2004):** Work with the existing transportation plan developed for Northwood by Strafford Regional Planning, along with community input, to develop a local transportation management plan for Route 4. This plan should consider various access management strategies (turning lanes, stop lights, shared driveways, etc.) and should reflect the aesthetic character of the town. This plan should also consider ways to direct traffic away from Route 4 onto other roadways. Ultimately, the town needs alternatives to Route 4. The 2004 Master Plan recognizes the importance of these issues and recommends that these options be studied for inclusion in the town's future transportation

plan.

12. **MAP DEVELOPMENT (2004):** Develop an official map of the town that shows existing roadways and potential future roadways. This type of plan would allow the town to control traffic and transportation issues by giving developers parameters to work within.
13. **SAFETY (2004):** Work with the Police Department to better enforce speed limits along Route 4. Consider electronic speed signs, increased surveillance, and signage at town entry points.
14. **TRAFFIC LIGHTS (2004):** Work with the Board of Selectman and the Police Department to evaluate the need for adding traffic lights to dangerous Route 4 intersections, including Bow Lake Road, Route 107, Route 152, Coe-Brown Academy, and Northwood School.
15. **LANDSCAPING ELEMENTS (2004):** Increase safe driving along Route 4 with landscaping (bump-outs, trees, signs). Create more stringent landscaping requirements for new development.

The following areas of concern were not a part of the 1998 Master Plan. However, our visioning workshop and survey clearly demonstrated public concern in the following areas. The 2004 Master Plan includes recommendations in the areas of Community, Facilities, and Administration.

Community Implementation Steps

1. **COMMUNICATION (2004):** Develop a town information board where all essential notices and calendars can be posted. Continue to use and improve the town cable channel and website. Consider the publication of a town newsletter.
2. **TOWN FOCAL POINTS (2004):** Work to create “town centers” or “town focal points” where residents can come together socially (suppers, fairs, holiday parties, old home days).

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3. **TOWN ORGANIZATIONS (2004):** Encourage the re-organization of community groups like the Chamber of Commerce, The Rotary, The Lions, etc.

 4. **RECREATION COMMISSION (2004):** Hire a Recreation Director and establish a Recreation Commission to bring together a cohesive recreation program. A consistent recreation plan (including swimming lessons, summer day camps, holiday celebrations, athletic events, senior trips) would help to bring a stronger sense of community to Northwood. Issues that should be managed by this commission include:
 - a. **Beach Access:** Increase access to town beaches for town residents. Explore adding additional access or increasing the size of the current access points.

 - b. **Teen Center:** Explore ways to support and enhance the teen center.

 - c. **Recreation Areas:** Continue to increase and expand the number and size of recreation areas available to town residents.

Facilities Implementation Steps

1. **LIBRARY (2004):** Increase library parking and plan for future growth as the size of the library cannot be added onto currently.

2. **TRANSFER STATION (2004):** Use the new building as a recycling center and swap shop. Work to increase recycling.

3. **HISTORIC BUILDINGS (2004):** Encourage the Historical Society to find funding for the preservation of the town's historic buildings.

Administration Implementation Steps

1. **PUBLIC WORKS DIRECTOR (2004):** The town should explore hiring a Public Works Director to function as facilities manager and road agent.
2. **RECREATION DIRECTOR (2004):** The town should hire a full-time Recreation Director to coordinate year-round activities and oversee long-term projects (such as the existing Recreation Fund set aside to pay for new athletic fields).
3. **FIRE DEPARTMENT (2004):** The town should analyze the need for a future full-time Fire Department vs. a volunteer department based on expected growth.
4. **TOWN PLANNING (2004):** Explore hiring a professional planner to assist our volunteer boards.
5. **GRANT APPLICATIONS (2004):** Research the possibility of applying for grants to fund some of our recreation-related projects. A recreation director and/or commission could oversee this process.
6. **MIDDLE SCHOOL (2004):** Using growth data to determine if and when the town may need to build a middle school. The current facility cannot be easily or indefinitely expanded so a new location and building will be necessary. Recommend that the School Board consider setting aside town land (as soon as possible) for this purpose.
7. **WATER DISTRICT (2004):** Transition management of the Water District to the town as the district will likely expand in the future.
8. **ZBA MEMBERS (2004):** Establish length of term and election guidelines for Zoning Board Members. Provide opportunities for ZBA members to learn and understand their role in the decision-making process.
9. **TOWN OFFICIALS (2004):** Establish better communication between town boards, committees, and elected officials so as to better coordinate economic development,

transportation needs, recreation needs, natural resource preservation, etc.

Future Land Use Implementation Steps

Northwood's future land use should be based on the input of citizens, as expressed in the 2004 Master Plan Visioning Workshop and Questionnaire.

1. **SMART GROWTH (2004):** Base future land use on the principles of Smart Growth, as presented in this 2004 Master Plan Update. These principles include traditional compact settlements patterns (villages); development that is in keeping with the characteristics of the town; mixed land use (to provide a variety of housing, employment, shopping, services); create livable, pedestrian-friendly communities, preserve Northwood's working landscape; protect the environment; involve the community in planning and implementation; and manage growth locally but work with neighboring towns to address common goals and problems,
2. **VILLAGE ENHANCEMENT (1998):** Enact zoning controls which encourage new housing units and community-oriented businesses to be located in or near the villages of East Northwood, the Ridge, and Northwood Narrows.

RECOMMENDATIONS (2004): The above goal has not been implemented. The 2004 Master Plan recommends that the town continue to explore this option.

3. **CONSERVATION AREAS (2004):** Link future land use development with the three contiguous areas previously identified: Northwood Meadows/Saddleback Mountain, the Acorn Ponds Area, and the Big Woods Area. Develop regulatory strategies to preserve additional conservation areas that are of local value to Northwood (e.g. agricultural soils, aquifer recharge areas, etc.).
4. **GROWTH MANAGEMENT ORDINANCE (2004):** Adopt an ordinance that will limit the number of building permits issued so that growth of the town is adequately managed.
5. **INCENTIVES (2004):** Use incentives to encourage development that will protect our rural characteristics (including open space development, planned residential developments).
6. **OPEN SPACE PRESERVATION (2004):** Explore the adoption of ordinances that will provide incentives for developers to preserve open space.

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7. **RESEARCH (2004):** use proven methods to develop the statistics necessary to update the current zoning ordinance. These methods include Land Use Build Out Analysis and Land Capability Analysis.
 8. **ZONING ORDINANCE (2004):** Revise Northwood's current zoning ordinance to be sure it is in keeping with the philosophies of the citizens of Northwood as articulated in this 2004 master Plan Update.
 9. **IMPACT FEE ORDINANCE (2004):** Adopt an impact fee ordinance that requires developers to pay for the impact of their projects on the community resources, infrastructure, and services.



