

Gorham, New Hampshire, Where Trails Begin



2020 Master Plan

Gorham, New Hampshire, Where Trails Begin 2020 Master Plan

Adopted January 15, 2020

Developed by the Gorham Planning Board

With the assistance of
Community Planning Consultant Tara Bamford

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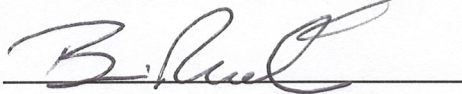
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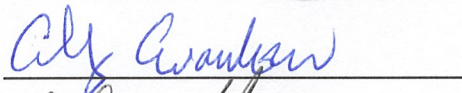
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We, the undersigned, members of the Town of Gorham Planning Board, do hereby adopt this Master Plan pursuant to RSA 675:6 on this 15th day of January 2020.

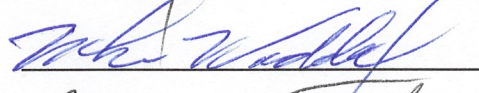


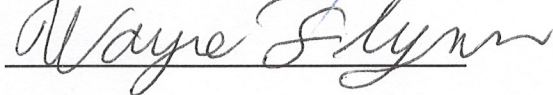




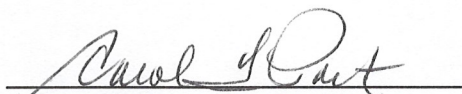




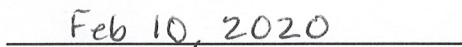




Received by Town Clerk:



Town Clerk Signature



Date

Chapter 1

Introduction

Purpose of the Master Plan

The master plan is a guidance document developed and updated periodically by the Gorham Planning Board. It contains the Planning Board's recommendations on how the town can best balance and achieve the goals of residents for the future of the community. The master plan provides the foundation for land use controls such as the zoning ordinance and subdivision regulations, as well as for other town programs and expenditures.

Process Used to Develop the Plan

Since the master plan is based on residents' goals and desires, public participation is an essential element in the process. The Planning Board began the process with a public workshop to talk in general terms about the town and what people valued the most about life here in Gorham. The features identified by attendees reflected the wide range of benefits Gorham offers due to its vibrant downtown area surrounded by forests and mountains. The characteristics identified most by participants were:

- A walkable downtown with everything you need right here
- Small-town feel, safe, tourist-friendly
- Beauty and opportunities offered by mountains and forests
- Recreation opportunities, including trails for a wide variety of activities
- Centrally located to northeast cities on major US highway

The Planning Board next hired Community Planning Consultant Tara Bamford to conduct a survey to gather input from residents and other landowners on such things as future types of and locations for development, and their opinions on the various tools available to communities to protect natural resources. The survey questions are provided in the Appendix, and the complete results can be found on the town's website at <https://www.gorhamnh.org/planning-board>. When asked "What do you like best about living in Gorham?" responses were very similar to those at the public meeting. The most common themes were as follows:

- Small-town feel/atmosphere/living
 - Quiet, peaceful
 - Safe, low crime rate
 - Friendly people
 - Clean
- Outdoor recreation
 - Beauty, scenic
 - Nature
 - Mountains
- Town services and staff, esp. police, schools, roads, trash/recycling
 - Walkable to amenities/shops
 - Restaurants
 - The Common, events

Responses to more specific questions were consistent with these values. The majority of respondents (80%) favored more development in Gorham. Support for more business development downtown and on the Berlin-Gorham Road was nearly unanimous (97% and 96% respectively). There was a strong focus on the historic and cultural buildings around the Common. Respondents indicated support for town involvement in finding businesses for the vacant downtown buildings, and for more pedestrian facilities. Recognizing the importance of the surrounding landscape, the majority also supported managing the impacts or the location of development to protect the town's water resources and scenic ridgelines and hilltops. Lowering the tax rate by increasing the tax base was a high priority for many respondents.

After receiving and considering the survey results, the Planning Board hired Bamford to assist in developing a master plan for Gorham that strives to maintain the small town atmosphere while increasing the vitality of the downtown, to protect water quality, to maintain the contrast between forested rural areas and neighborhoods, and to strengthen the trails and other outdoor recreation opportunities as an economic driver.

The Planning Board next reviewed local and regional demographic, economic and housing data to better understand and quantify observed needs and trends (*Chapter 2, Community Profile*). The physical limitations of the landscape relative to development and important natural resources were also examined (*Chapter 3, Natural Resources*). A special emphasis was put on strengthening the town's economy. An economic roundtable was held with residents, business owners, and regional and state economic experts to brainstorm on some steps the town could take to build on its assets, and to learn about the many resources available to assist the town. The Planning Board used the information obtained through that workshop and other sources to outline a strategy to grow a strong and diverse economy that capitalizes on the community's strengths (*Chapter 4, Economic*

Development). The Board then spent several meetings thoughtfully examining current land use patterns and considering any changes that might be made to local regulations to ensure that future development provides the desired benefits without undesired impacts (*Chapter 5, Land Use*). The transportation system needed to serve current and future users was also examined (*Chapter 6, Transportation*). Lastly, specific action items and policies were identified along with responsibility for the lead on each (*Chapter 7, Implementation*).

The final step will be implementation by town officials, voters and volunteers. An annual review of the policies and recommendations at a joint meeting of the Selectboard and Planning Board will help ensure that municipal activities and spending priorities remain consistent with the community's vision for the future, within the framework of fiscal responsibility.

Vision for the Future

Downtown

- Has a vibrant, walkable downtown with a variety of year-round small businesses that serve many of the day-to-day needs of residents and visitors.
- Some day-to-day grocery needs can be met without leaving the downtown.
- The downtown has a visible arts, culture and activity element to it.
- A system of sidewalks, bike paths, walking paths and trails connect key destinations, trailheads and parking.
- Amenities such as pedestrian safety features, planters, visible sources of information, benches, and lighting provide a welcoming, positive feel.
- The vicinity of the Town Common and Exchange Street stands out as the town center. New development in and around this focal point has been designed to complement features of the historic structures. Key historic buildings have been restored and well maintained.

Development Patterns

- Business growth has focused on the downtown and on the Berlin-Gorham Road.
- Prospective businesses, whether industry or entrepreneurs, experience Gorham as a business-friendly community starting with their first point of contact.
- Development in the rural areas of Gorham has been compatible with the maintenance of forested areas for recreation, wildlife habitat, watershed protection and scenic beauty. These areas and the town forest provide a transition between the busy downtown and the mountains and forests of the White Mountain National Forest.
- Appropriate safeguards have been put in place to ensure that new development is consistent with protection of water resources.
- A trend toward dark sky compatible lighting has ensured that visitors from cities continue to note with delight the starry night skies.

Community

- Everyone who wants to can easily find a way to experience the feeling of being part of the community, that small-town feel.
- Local seniors find adequate housing, transportation and continued opportunities for engagement in the community.
- Most people still describe Gorham as a very safe place to live, work and play.

Infrastructure and Services

- The US Route 2 upgrade through New Hampshire has been completed.
- US Route 2 and NH Route 16 are both well maintained.
- The local tax rate has been stable through the use of long-term planning and capital reserve funds; no reduction in services has been needed.
- The tax rate has been brought down to the state average by increasing the community's valuation.
- Town leaders cooperate with neighboring communities whenever appropriate for increased efficiency and mutual benefit.
- Emphasis on hazard mitigation has increased to ensure that the increasing frequency of extreme weather events does not dampen the community's economic growth.

Trails

- Every type of trail user has easy access to a quality experience.
- Both motorized and nonmotorized trails continue to be an important part of the town's recreation offerings.
- Trails and related services can be accessed safely, and in a manner compatible with nearby land uses and recreational activities.
- Conflicts between user groups are rare; trail groups work together to mitigate impacts and share resources.

Chapter 2

Community Profile

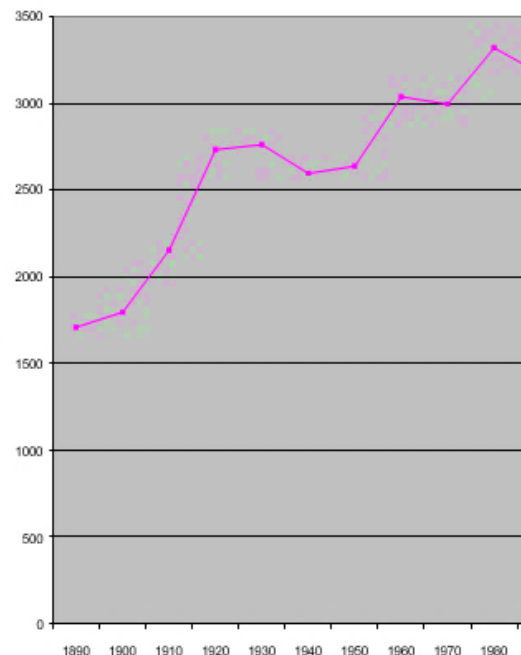
Gorham, like the rest of northern New Hampshire, has been hit with two events that have created challenges for residents, businesses and municipalities. The first was the closure of the region's pulp and paper mills with changes in the market. Gorham Paper and Tissue is northern New Hampshire's last operating mill with 123 employees (NH Employment Security (NHES), December 2018), about half the number laid off with Fraser Papers' bankruptcy in 2009 (240 per *Bangor Daily News*, June 19, 2011). The second event was the recession of 2007-2009. Both of these were global events. This chapter will provide some insight into how Gorham weathered these events compared to the surrounding area and the rest of the state.

Population

Population Trends

After a population peak in 1980 of 3,322 residents, Gorham began to experience a population decline associated with the closing of area mills and loss of jobs. From 1990 to 2000, Gorham's population dropped by 8.8 percent (278 people), from 3,173 to 2,895 residents (U.S. Census, 1990, 2000). From 2000 to 2010, the population dropped by only 1.6% (47 residents), from 2,895 to 2,848. Although the rate of population loss had slowed, Gorham was one of only 40 communities statewide that lost population between 2000 and 2010. Half of these communities were in Coos County.

The most recent U.S. Census Bureau population estimate for Gorham is 2,699 year-round residents (2016 ACS 5-Year Population Estimates). American Community Survey (ACS) samples are taken every year; the most recent 5-year average published represents the best available data for a number of socioeconomic indicators at this time.



Gorham Population Change, 1890 - 1980
(Source: U.S. Census Bureau)

Table 2.1 compares the population trends since 1980 for Gorham and surrounding towns as well as the county and state. For larger geographies, the U.S. Census Bureau provides an additional source for population estimates, incorporating consideration of factors such as changes in housing stock, and birth and death rates. Table 2.1 includes the 2017 Population Estimates where available.

TABLE 2.1 GORHAM AREA POPULATION TRENDS

	1980 Population	1980- 1990 Change	1990- 2000 Change	2000- 2010 Change	2010 Population	2016 ACS 5-Year Population Estimates	2017 Population Estimates
Gorham	3,322	-4.8%	-8.8%	-1.6%	2,848	2,699	n/a
Berlin	13,084	-9.6%	-12.6%	-2.7%	10,051	10,154	10,225
Randolph	274	+35.4%	-8.6%	-8.6%	310	401	n/a
Shelburne	318	+29.2%	+7.8%	-1.8%	372	391	n/a
Coos County	35,147	-0.9%	-4.9%	-4.5%	33,055	32,219	31,634
New Hampshire	920,610	+20.5%	+11.4%	+8.7%	1,316,470	1,327,503	1,342,795

(Sources: U.S. Census, 1980, 1990, 2000, 2010; 2016 ACS 5-Year Population Estimates; U.S. Census Bureau 2017 Population Estimates)

As shown, there are indications that both the state-wide population growth and Coos County decline are slowing down.

Population Projections

In 2016, the state's regional planning commissions partnered with the N.H. Office of Energy and Planning to commission the development of population projections. These projections utilize a complex methodology that examines migration rates and birth/death rates by population cohort on a county-wide basis. As shown in Table 2.2 the population for Coos County is projected to continue to decrease.

TABLE 2.2 COOS COUNTY POPULATION PROJECTIONS

2010	Projected Change 2010- 2020	2020	Projected Change 2020- 2030	2030
33,055	-2.0%	32,389	-7.2%	30,059

(Source: U.S. Census, 2010; RPC and NHOEP Population Projections, 2016)

It is important to note that the projections are based on a continuation of existing trends. It is not possible to forecast all of the variables that will affect population growth or decline. The future population of Gorham compared to the county as a whole will certainly be largely dependent on the ability to attract young people by increasing economic opportunities and marketing the assets already available, such as a safe small town with a clean environment and a wide variety of outdoor recreation opportunities. It will be important to ensure the community is resilient enough to accommodate future changes in the regional and global economy.

Age Structure

New Hampshire has been making the news in recent years as one of the “greyest” states in the country. The median age in the United States has been increasing because of the large number of people born in the two decades following World War II, “baby boomers,” and the following generations having fewer children. As shown in Table 2.3 on the following page, the median age is increasing much faster in New Hampshire than in the country as a whole, and slightly faster in Coos County than statewide. Gorham’s estimate of 47.1 years is only slightly lower than the county-wide median of 47.9 years. In New Hampshire, the increasing median age is exacerbated by retirees moving to the places they have loved vacationing in during their working years, and in places like Coos County, by young residents not returning after college to settle here due to a lack of economic opportunity. Once those who moved away from Coos County as a result of the mills closing left, the continued decline in population is a result of the number of deaths exceeding the number of births, and young people leaving.

TABLE 2.3 MEDIAN AGE OF RESIDENTS

	2000	2016	Estimated Change 2000 – 2016
Gorham	42.0	47.1	+12.1%
Coos County	41.5	47.9	+15.4%
New Hampshire	37.1	42.4	+14.3%
United States	35.3	37.7	+6.8%

(Sources: U.S. Census, 2000; ACS Five-Year Estimates, 2016)

The age distributions for Gorham, the county and state are shown in Table 2.4 below. The figures show a substantial shift in Gorham over the last two decades from the 25-44 age group to the 45-64 age group, and a population over 65 of about 19%.

TABLE 2.4 AGE OF RESIDENTS

Age	Gorham 1990	Gorham 2000	Gorham 2010	Coos County 2010	N.H. 2010
Under 18	21%	21 %	19%	19%	22%
18-24 years	8 %	6%	5%	7%	9%
25-44 years	32%	29%	22%	22%	25%
45-64 years	22%	24%	35%	33%	31%
65-74 years	11%	10%	9%	10%	7%
75 and over	6%	10%	10%	9%	6%

(Source: U.S. Census, 2010)

As shown, both the shift to the later working years and percentage of elderly are similar to county-wide figures. Both have significant implications for planning for Gorham's future. There is concern about the ability to replace the current workforce. Turning this around will be essential for attracting new businesses and entrepreneurs to town. In addition, as the 45-64 cohort ages, the percentage of residents over 65 region-wide is expected to continue to increase for a while. This will mean a temporary increase in demand for more access to health care, transportation, housing and other services.

Households

As shown in Table 2.5 below, the trend of smaller household sizes seen for the past several decades seems to be leveling off. The average household size in Gorham of 2.19 continues to be smaller than the statewide and national averages.

TABLE 2.5 AVERAGE HOUSEHOLD SIZE

	2000	2010
Gorham	2.20	2.19
New Hampshire	2.53	2.46
United States	2.59	2.58

(Source: US Census 2000, 2010)

Of the 1,301 households counted in Gorham by the 2010 Census, 70% (912) lived in owner-occupied units and 30% (389) lived in rented units. This is similar to the county-wide figure of 29% renter-occupied units. Homeowner-occupied units in Gorham on average had a larger household size, 2.35 persons, compared with 1.81 persons for renter-occupied units (US Census, 2010). The same pattern is seen state-wide with an average household size of 2.14 in renter-occupied households compared with 2.59 in owner-occupied households.

Employment and Income

Employment

Gorham's unemployment rate, 3.6% in 2016 (NH Employment Security, Economic & Labor Market Information (ELMI)), is similar to the county-wide figure, which has followed state and national trends, dropping as the economic recovery has continued. (See Table 2.6.) However, it is important to keep in mind that the unemployment rate does not reflect those who are underemployed, those who are working more than one job to make ends meet, or those whose unemployment insurance has run out and have given up looking for a job.

TABLE 2.6 ANNUAL AVERAGE UNEMPLOYMENT RATE

	2013	2014	2015	2016	2017
New Hampshire	5.1%	4.3%	3.4%	2.9%	2.7%
Coos County	6.1%	5.7%	4.4%	3.8%	3.4%
Berlin MicroNECTA*	6.9%	6.8%	5.2%	4.4%	4.0%

* Current OMB labor market area term for Berlin-Gorham socioeconomic area – includes Berlin and Gorham and the following communities shown by commuting patterns to have strong socioeconomic ties: Dummer, Milan, Randolph, Shelburne and Stark.

(Source: NH Employment Security, Economic & Labor Market Information Bureau)

An estimated 1,349 Gorham residents were in the labor force in 2016 compared to 1,638 counted in 2006 (NHES ELMI). These workers face a mean wage for northern New Hampshire that is significantly lower than that for the state as a whole, \$20.03/hour compared with \$24.69/hour (NHES ELMI). Like the rest of northern New Hampshire, Gorham's workers have been hit hard by the shift from well-paying manufacturing jobs to lower-paying retail and service jobs. Table 2.7 on the following page lists Gorham's largest ten employers. Of the largest three, only one is manufacturing, Gorham Paper & Tissue with 123 employees; the other two large employers are both retail, Wal-Mart with 214 employees and Berlin City Auto Group with 183 employees (NHES ELMI).

TABLE 2.7 TEN LARGEST EMPLOYERS IN GORHAM

Business	Product/ Service	Employees	Business	Product/ Service	Employees
Walmart	Retail store	214	Town of Gorham	Municipal services	53
Berlin City Auto Group	Car sales, service	183	Royalty Health Club/Inn	Health club, motel	46
Gorham Paper & Tissue, LLC	Manufacturing	123	Yokohama Restaurant	Restaurant	38
Family Resource Center	Human services	70	AutoNorth Preowned Superstore, Inc.	Car sales, service	37
Mr. Pizza	Restaurant	60	Kelley Trucking	Trucking & logging	36

(Source: NHES ELMI Community Profile, December 2018)

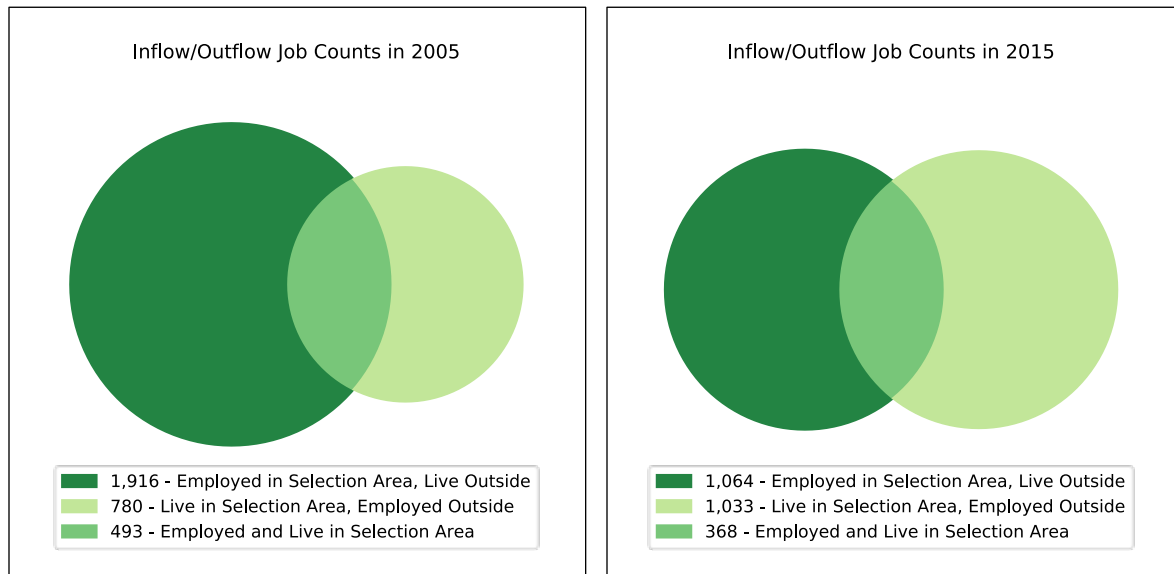
In Gorham, the decrease in the number of jobs available has meant more residents have to commute to another community for their primary job. As shown in Table 2.8 below, in 2005, 38.7% of Gorham's labor force found their primary job in Gorham, compared to just 26.8% by 2015. For most people, this means more money required for gas and vehicle maintenance, and for some, higher day care costs and less time for family and civic engagement. At the same time, the substantial decrease in jobs available in Gorham, coupled with a slight increase in the size of the town's workforce, has meant a higher percentage of Gorham jobs are filled by Gorham residents.

TABLE 2.8 LOCATION OF JOBS

	2005		2015	
Number of jobs in Gorham, primary jobs only	2409		1432	
Number of primary jobs in Gorham filled by Gorham residents	493	20.5%	368	25.7%
Number of primary jobs filled by residents of other communities	1916	79.6%	1064	74.3%
Gorham residents in workforce	1273		1401	
Number with primary job in Gorham	493	38.7%	368	26.3%
Commuting to another community for primary job	780	61.3%	1033	73.7%

(Source: OnTheMap, US Census Bureau Center for Economic Studies)

The graphic below illustrates this shift in Gorham’s role in the area from being a community with twice as many primary jobs as working residents, to one where the number of primary jobs is about the same as the size of the workforce.



(Source: OnTheMap, US Census Bureau Center for Economic Studies)

Gorham is not alone in this pattern. The US Census Bureau Center for Economic Study’s OnTheMap figures for inflow and outflow of the workforce for primary jobs enable us to roughly estimate daytime populations. Looking at figures for the six largest communities in Coos County, it appears that the daytime population of Gorham, Colebrook and Lancaster is about equal to the number of residents. For Whitefield, Northumberland and Berlin, it is actually now lower, for Berlin by about 800 people.

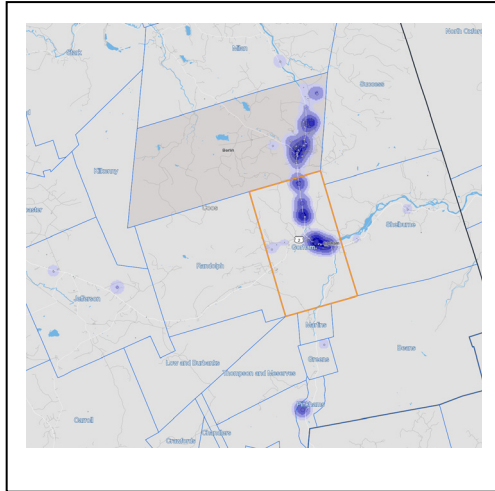
Table 2.9 shows that the number of jobs in Gorham has declined over the last ten years, and wages have stayed about the same.

TABLE 2.9 EMPLOYMENT AND WAGES IN GORHAM

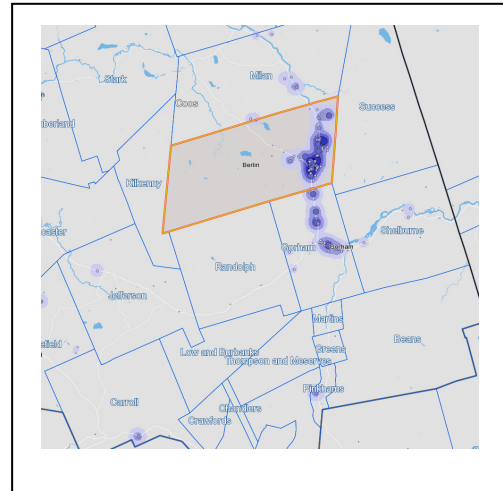
	2006		2016	
	Average Employment (Number of Jobs)	Average Weekly Wage	Average Employment (Number of Jobs)	Average Weekly Wage
Goods- Producing Industries	616	\$910	221	\$919
Service- Producing Industries	1,631	\$502	1,410	\$574
Government	257	\$658	257	\$735
Total	2,505	\$619	1,888	\$636

(Source: NHES ELMI)

Gorham and Berlin's job markets remain closely linked. The following graphic, left-hand image, shows the pattern for the place of primary jobs (highest paying job for those with more than one) for workers who live in Gorham; a darker shade indicates a higher number of primary jobs for Gorham residents are located there. The graphic on the right shows the locations of the primary jobs of Berlin residents.



Place of work of Gorham workers, 2015
(Source: OnTheMap, US Census Bureau,
Center for Economic Studies)



Place of work of Berlin workers, 2015
(Source: OnTheMap, US Census Bureau,
Center for Economic Studies)

The latest projections from NH Employment Security indicate that Coos County will continue to lose jobs in all three sectors, goods-producing, services and government.

TABLE 2.10 LONG-TERM INDUSTRY PROJECTIONS, 2014 - 2024 COOS COUNTY

	Estimated	Projected	2014-2024 Change	
Industry	2014	2024	Numeric	Percent
Total Employment	12,877	12,520	-357	-2.8%
Goods Producing Industries	1,294	1,149	-145	-11.2%
Agriculture, Forestry, Fishing and Hunting	212	204	-8	-3.8%
Mining	16	16	0	0.0%
Construction	419	416	-3	-0.7%
Manufacturing	647	513	-134	-20.7%
Service Providing Industries	10,934	10,739	-195	-1.8%
Utilities	114	105	-9	-7.9%
Wholesale Trade	189	180	-9	-4.8%
Retail Trade	1,729	1,683	-46	-2.7%
Transportation and Warehousing	363	348	-15	-4.1%
Information	68	57	-11	-16.2%
Finance and Insurance	199	154	-45	-22.6%
Real Estate and Rental and Leasing	81	78	-3	-3.7%
Professional, Scientific, and Technical Services	111	96	-15	-13.5%
Management of Companies and Enterprises	129	135	6	4.7%
Administrative and Waste Management Services	185	201	16	8.6%
Educational Services	1,182	1,136	-46	-3.9%
Health Care and Social Assistance	2,194	2,102	-92	-4.2%
Arts, Entertainment, and Recreation	431	424	-7	-1.6%
Accommodation and Food Services	1,835	1,950	115	6.3%
Other Services (Except Government)	309	297	-12	-3.9%
Government ¹	1,815	1,793	-22	-1.2%
1 Employment for public schools and colleges is included in Educational Services				
Self-employed Workers	649	632	-17	-2.6%
<i>n</i> = data does not meet disclosure standards	(Source: NH Employment Security)			

Incomes

As shown in Table 2.11, income data reported by the U.S. Census Bureau indicate that Gorham's median household income is gaining ground. In 1990 the median household income reported by the U.S. Census Bureau for Gorham was well below the figures for the county, state and country. By 2000, Gorham's figure had caught up to that of Coos County overall, and according to current estimates, is now higher than the county figure. Some caution should be used when utilizing U.S. Census Bureau estimates for anything other than relative comparisons, in part due to changing methodologies and in part due to the small sample sizes in rural areas. Through 2000, income data was collected by providing "the long form" version of the Census to a sample of the population. Now a sample is taken every year and the average of five years is reported. In either method, data from small areas such as Gorham will have a higher margin of error than that for larger areas such as the county or state.

TABLE 2.11 MEDIAN HOUSEHOLD INCOME

	1990	2000	2012-2016 ACS 5-Year Estimates
Gorham	\$22,083	\$32,250	\$53,009
Coos County	\$31,593	\$33,590	\$45,154
New Hampshire	\$36,379	\$49,467	\$68,485
United States	\$30,056	\$41,994	\$55,322

(Source: U.S. Census 1990, 2000;
2012-2016 ACS 5-Year Estimates)

Utilizing the American Institute for Economic Research's on-line calculator, we can estimate that \$22,083 in 1990 dollars would purchase \$42,191 in today's goods, indicating that the increase in median household income to \$53,009 per year represents real gain vs. just inflation. Estimates for per capita income also show Gorham's figures exceeding Coos County averages. Gorham residents had an estimated per capita income of \$30,177 per year compared with \$25,467 for Coos County and \$35,264 for the state as a whole (2012-2016 ACS 5-Year Estimates).

As shown in Table 2.12, data from both the 1990 and 2000 U.S. Census show the majority of Gorham households had incomes between \$10,000 and \$50,000. Current estimates show the majority of Gorham households with incomes between \$25,000 and \$75,000.

TABLE 2.12 INCOME DISTRIBUTION OF GORHAM HOUSEHOLDS

	1990		2000		2012-2016 ACS 5-Year Estimates	
	Households	%	Households	%	Households	%
Under \$10,000	190	14.5%	131	10%	52	4.1%
\$10,000 to \$24,999	448	34%	370	29%	208	16.6%
\$25,000 to \$49,999	454	35%	431	33%	343	27.3%
\$50,000 to \$74,999	179	13.6%	256	20%	267	21.2%
\$75,000 to \$99,999	19	1.4%	78	6%	236	18.7%
\$100,000 and Over	20	1.5%	27	2%	153	12.2%
Total	1,310	100%	1,293	100%	1,259	

(Sources: U.S. Census 1990, 2000; 2012-2016 American Community Survey 5-Year Estimates)

Poverty Status

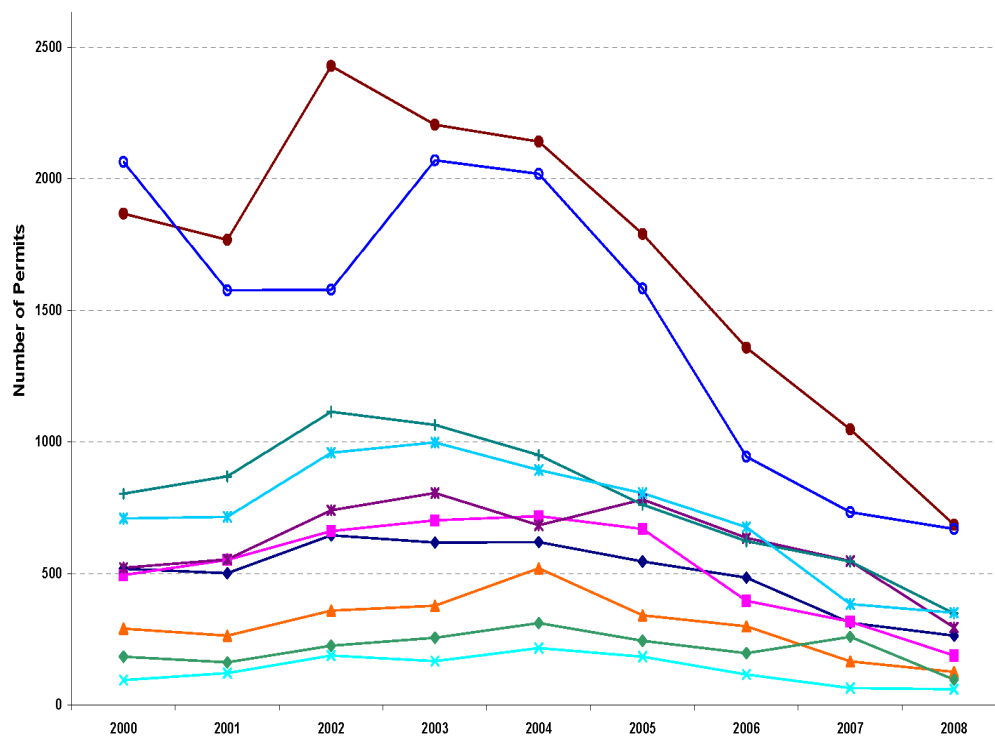
The poverty level is calculated by the U.S. Census Bureau by assigning an income amount to each family based on what is required to support that family considering the number and age of its members. The poverty rate for Gorham residents is estimated at 8.0% (2012-2016 ACS 5-Year Estimates). This is slightly higher than the 2000 estimate of 7% and the 1990 estimate of 5%. Gorham's current estimate is similar to the state-wide estimate of 8.5% and significantly below the county estimate of 13.3%.

Gorham’s increasing poverty rate may seem contrary to Table 2.11 showing a shift in incomes upward. However, increases in the cost of living and changes in the income distribution need to be taken into account as well. Utilizing the American Institute for Economic Research’s online calculator (<https://www.aier.org/cost-living-calculator>), we can estimate that the necessities that could be obtained for \$10,000 in 1990 would require \$19,106 today.

HOUSING

Housing Stock

The 2010 U.S. Census counted a total of 1,487 housing units in Gorham. As shown below, new housing construction throughout the state began to decline prior to the recession.



(Source: <https://www.nh.gov/osi/data-center/housing.htm>, Trend of Housing Stock by County 2008)

In Coos County, from 2000 through 2016, only about 240 permits were issued for new single-family homes. Gorham building permit data submitted to the NH OEP showed no increase in the number of single-family homes during that period. During the same period, at least 156 multi-family units were lost in Coos County. (*Current Estimates and Trends in New Hampshire’s Housing Supply, Update: 2010-2016*, NH Office of Strategic Initiatives (OSI) (formerly Office of Energy and Planning OEP), December 2017)

The 2012-2016 American Community Survey 5-Year Estimates indicate that about 56% of Gorham's housing units are single family homes. About 14% of Gorham's housing units are in duplexes, 14% are in multi-family homes, and 15% of units are mobile homes.

The age of a community's housing stock can provide an indication about the condition, quality and safety of the housing units. Older units may not be constructed according to today's building codes and life safety requirements. With few homes constructed in Gorham and smaller samples used to estimate housing data since 2000, the 2000 U.S. Census still provides the best estimate of the age of Gorham's housing stock. As shown in Table 2.13, over 500 of Gorham's housing units, about one-third, were constructed prior to 1940.

TABLE 2.13 AGE OF GORHAM HOUSING

Year Built	# of units	%
Pre-1940	511	34.4%
1940-49	52	3.5%
1950-59	141	9.5%
1960-69	122	8.2%
1970-79	335	22.6%
1980-89	183	12.3
1990-00	140	9.4%

(Source: 2000 U.S. Census)

It is interesting to note that more than 20% of Gorham's housing stock was built during the 1980s and 1990s when the population was declining. This may be partially explained by smaller household sizes and changing household compositions, as the population has aged and families have had fewer children, as well as the availability of credit for renters to build a home of their own. Some may also be explained by seasonal home construction and conversion.

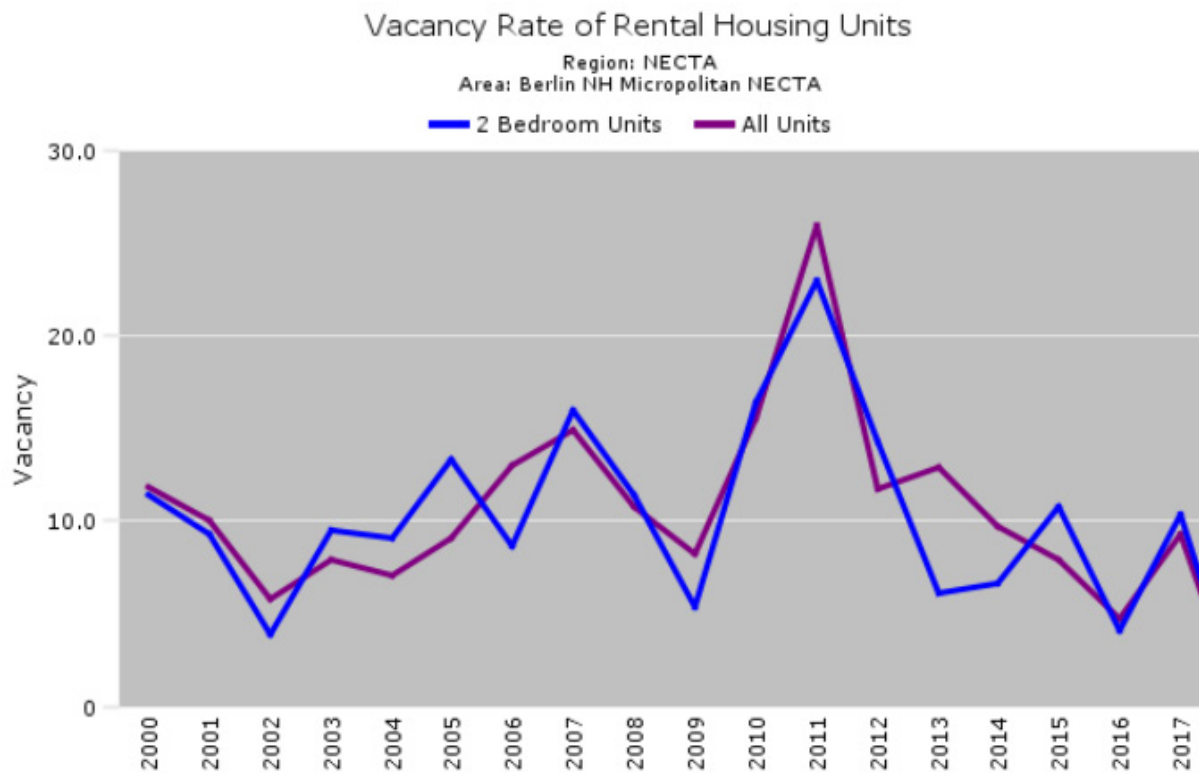
Vacancy Rates

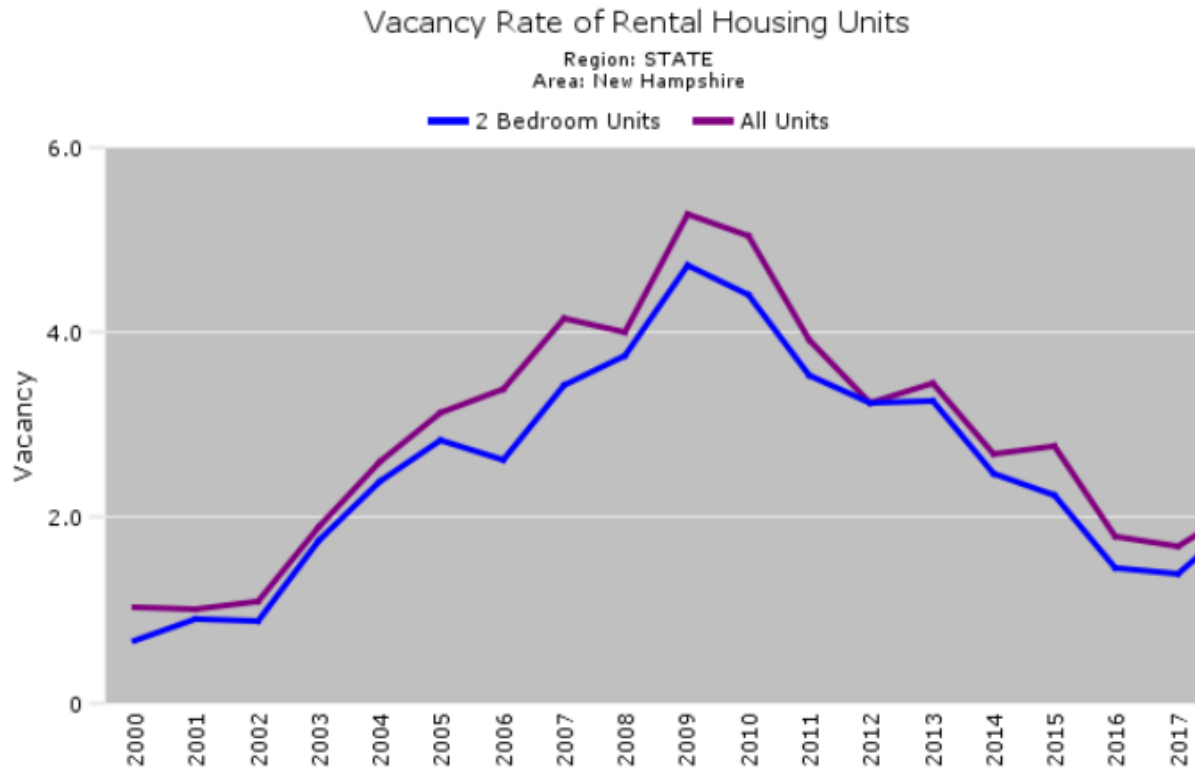
As shown in Table 2.14, like Coos County as a whole, Gorham's vacancy rates have been running higher than statewide averages. The following figures from NH Housing's Annual Rental Cost Survey show that the Berlin-Gorham area vacancy rates, although running higher than the state as a whole, have followed statewide trends with a peak resulting from the financial crisis of 2007-2009 and returning almost to 2000 levels since then.

TABLE 2.14 VACANCY RATES

	Homeowner Vacancy Rate		Renter Vacancy Rate	
	2000	2010	2000	2010
Gorham	2.0%	5.1%	10.6%	9.9%
Coos County	2.7%	3.8%	11.2%	12.7%
New Hampshire	1.0%	2.0%	3.5%	8.1%

(Source: U.S. Census, 2000, 2010)





(Source: NH Housing, Annual Rental Cost Survey)

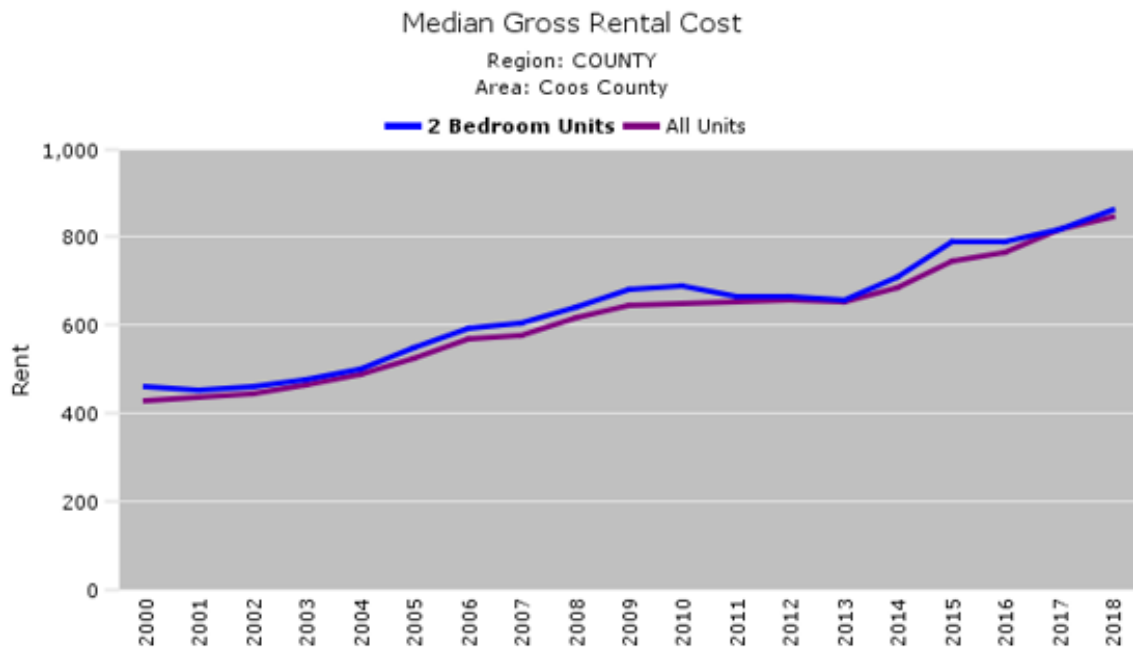
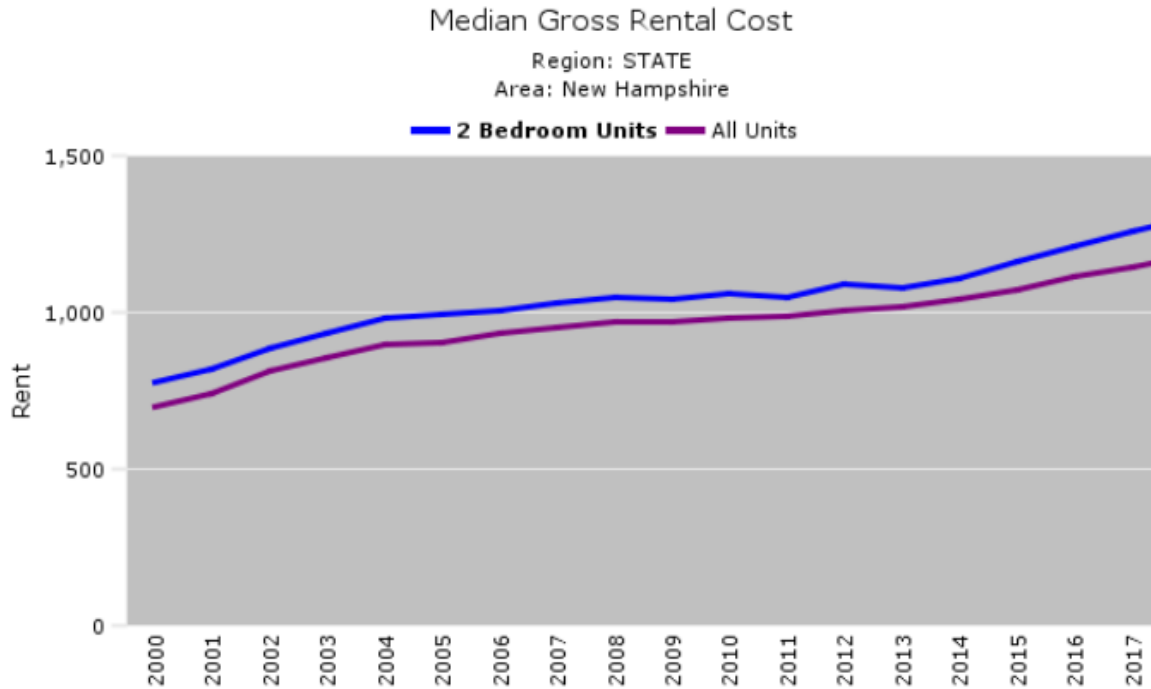
The 2010 U.S. Census reported 49 homes for sale in Gorham. Zillow's on-line real estate site showed 20 for sale as of July 2018, indicating that vacancy rates may be coming down for owner-occupied housing as well.

Seasonal Homes

The 2010 U.S. Census counted 54 seasonal housing units in Gorham. This represents only 3.6% of the town's housing stock. As the county's population has fallen, the percentage of seasonal homes has increased. The 2010 U.S. Census counted 5,488 seasonal homes in Coos County compared to 4,203 in 2000. These figures represented an increase from 21.4% of all homes to 25.7%. During the same period, the state-wide percentage of seasonal homes remained pretty stable with 10.3% in 2000 and 10.4% in 2010 (U.S. Census).

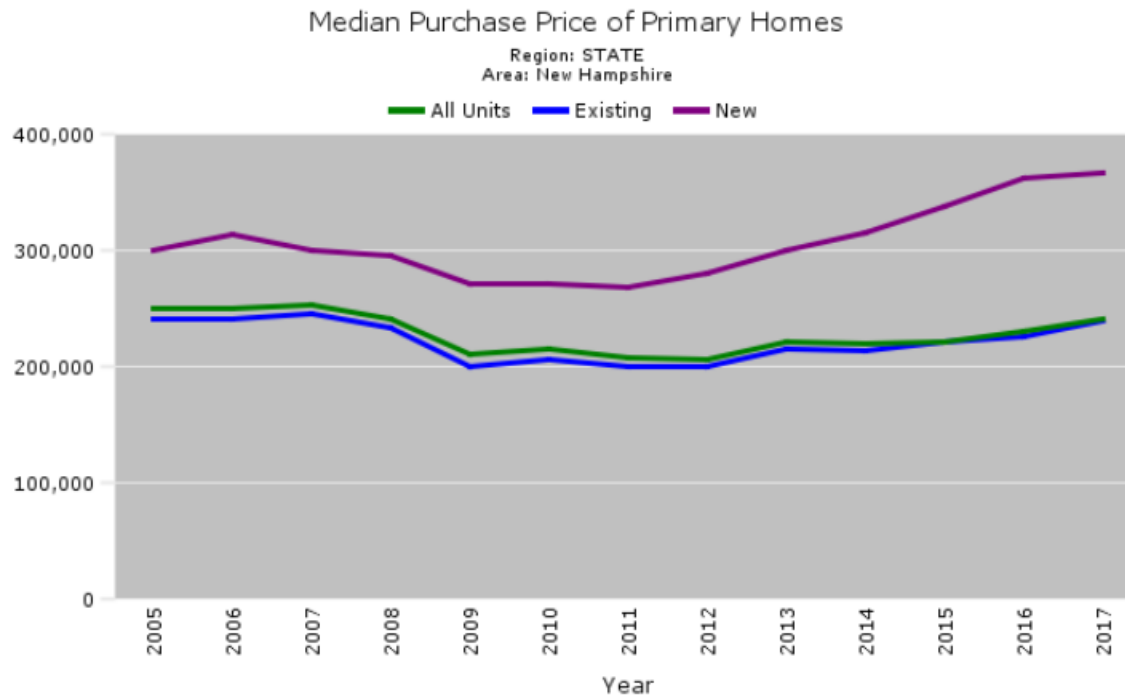
Housing Cost

For renters, housing costs have increased dramatically since 2000. As shown on the following graphs from NH Housing's Annual Rental Cost Survey, for both the Berlin-Gorham area and statewide, after a brief leveling off period during the recession, rental costs have continued to climb.



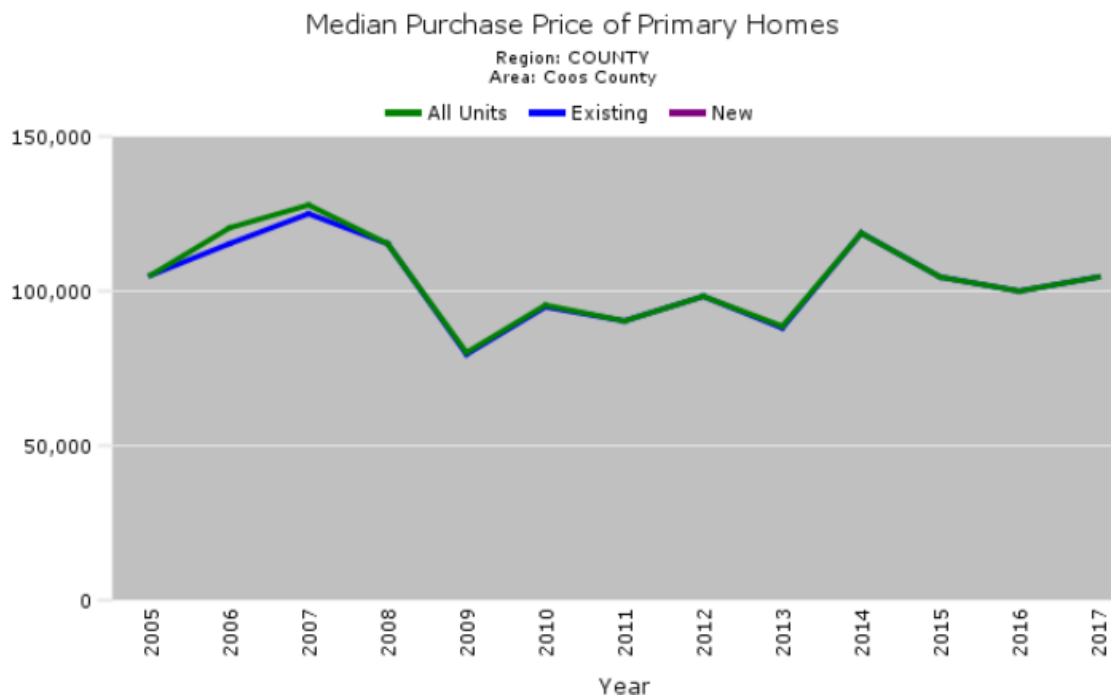
(Source: NH Housing, Annual Rental Cost Survey)

For those purchasing a home for a primary residence, on average, statewide housing costs have almost returned to pre-recession levels, with the median purchase price in 2017 just \$10,000 below that of 2005 (\$240,000 vs \$250,000, DRA and NH Housing). As shown in the following graph, the cost of new construction now exceeds “prebubble” figures significantly.



(Source: NH Housing)

As shown in the following graph, Coos County purchase prices have followed a similar pattern, but are on average about half the cost of the statewide average. The sample size for new housing in Coos County was too small to show on the graph.



(Source: NH Housing)

Affordability

What do the economic trends and housing costs mean for Gorham families? One tool for looking at affordability is the calculations made by New Hampshire Housing for implementation of the state's Workforce Housing statute. These calculations are based on HUD's estimates of Median Area Income. Affordability for a homeowner is considered to be a cost that requires paying no more than 30% of the household income for a mortgage, taxes and insurance. Affordable rent is considered to be 30% of income including utilities. For Coos County, a home is considered affordable in 2018 for a family of four with the Median Area Income of \$58,400 if the price does not exceed \$190,000 (New Hampshire Housing, 2018 Workforce Housing Purchase and Rent Limits). As shown in the previous graph, the median purchase price of homes in Coos County is well below that figure. Renters have a bigger challenge finding affordable homes. For renters, affordability is calculated based on 60% of the Median Area Income for a family of three, \$31,540 for a family of three in Coos County in 2018. This means in 2018 in Coos County rent is considered affordable if it does not exceed \$790. As shown in the graph on page 23, the median rent in Coos County is higher than \$800.

Dr. Amy K. Glasmeier and the Massachusetts Institute of Technology provide an on-line Living Wage Calculator to estimate the earnings one adult working full-time would need in order to pay a typical rent along with other basic necessities in a given location. Estimates for Coos County for several family combinations are shown in Table 2.15.

TABLE 2.15 LIVING WAGE IN COOS COUNTY

Family Size	Hourly Wage	Annualized
1 adult	\$10.60	\$22,048
1 adult with 1 child	\$22.66	\$47,133
2 adults with 2 children	\$22.45	\$46,696
1 adult with 2 children	\$26.10	\$54,288

(Source: Dr. Amy K. Glasmeier and the Massachusetts Institute of Technology provide a Living Wage Calculator, <http://livingwage.mit.edu/>)

As shown earlier in Table 2.12, an estimated 260 Gorham households have incomes less than \$25,000 per year. An estimated 343 households make between \$25,000 and \$50,000.

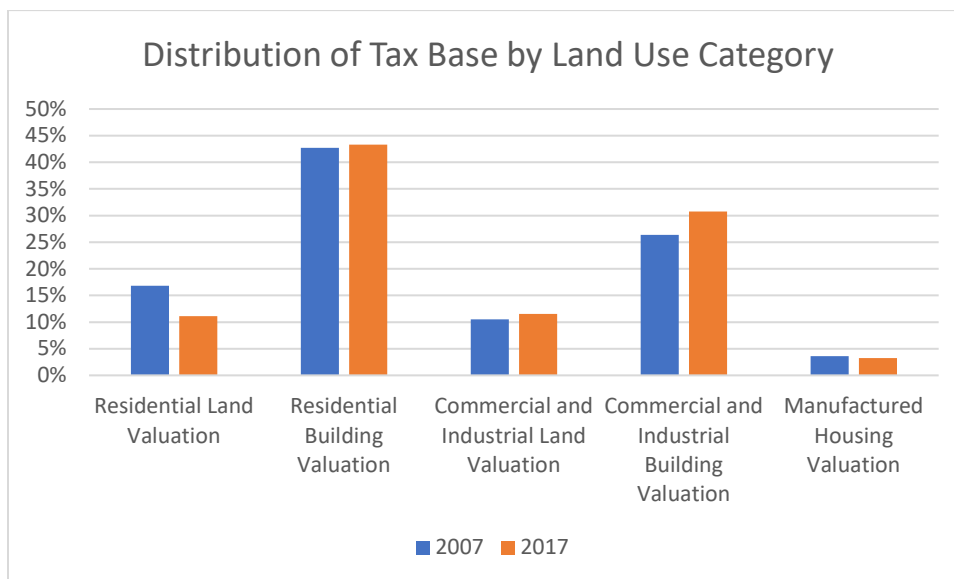
There are two housing complexes in Gorham with assistance available for those falling below income limits. Birch Grove has 43 subsidized units available for those who are 62 years of age or older, or who are disabled. Promenade Court has 24 subsidized units for all ages. (*New Hampshire Housing Directory of Assisted Housing*, 2018)

Housing for those with Special Needs

Of the 43 units at Birch Grove only 4 units are accessible. Only one unit at Promenade Court is accessible. (*New Hampshire Housing Directory of Assisted Housing*, 2018) There are no assisted living facilities in Gorham. This means that seniors and others requiring assistance with daily living need to either relocate to Berlin, Littleton, or Whitefield, if beds are available in facilities there, move to other areas, or try to arrange for in-home modifications and care. This will be an increasing challenge as the senior population continues to increase.

Tax Base

The ratio of Gorham's industrial/commercial to residential tax base was roughly 42:58 in 2017, compared to about 37:63 in 2007 (NH Public Finance Consortium). This indicates that residential property owners are actually paying a slightly lower share of community costs than commercial and industrial property-owners compared to ten years ago, despite the downsizing of the paper mill and the recession of 2007-2009. As shown below, the shift has been from Residential Land (a category that includes both developed and undeveloped land) to Commercial and Industrial Building.



(Source: NH Public Finance Consortium)

Gorham's full value tax rate for 2017 is shown in Table 2.16 on the following page along with those of neighboring communities. As shown, Gorham's rate is substantially higher than the rates in Randolph and Shelburne, communities with low populations and few services, but lower than the larger community of Berlin with its substantially larger population.

TABLE 2.16 FULL VALUE TAX RATE

Municipality	2017 Full Value Tax Rate
Berlin	\$43.67
Gorham	\$35.92
Shelburne	\$18.46
Randolph	\$16.56

(Source: 2017 NH DRA Property Tax Tables)

Table 2.17 below shows Gorham's 2017 full value tax rate compared to the other communities in Coos County with over 2,000 residents. The state-wide ranking is also shown (1 is the lowest full value tax rate, 232 is the highest).

TABLE 2.17 FULL VALUE TAX RATE AND RANK

Municipality	2017 Estimated Population	2017 Full Value Tax Rate	Rank
Berlin	10,282	\$43.67	232
Northumberland	2,255	\$37.57	230
Gorham	2,800	\$35.92	227
Colebrook	2,299	\$31.82	222
Lancaster	3,524	\$29.19	211
Whitefield	2,376	\$26.95	194

(Sources: 2017 NH OSI Population Estimates; 2017 NH DRA Property Tax Tables)

These figures reflect the challenge faced by Coos County's largest communities with shifting economies who bear the financial burden of infrastructure and service levels that were developed to serve much larger daytime populations.

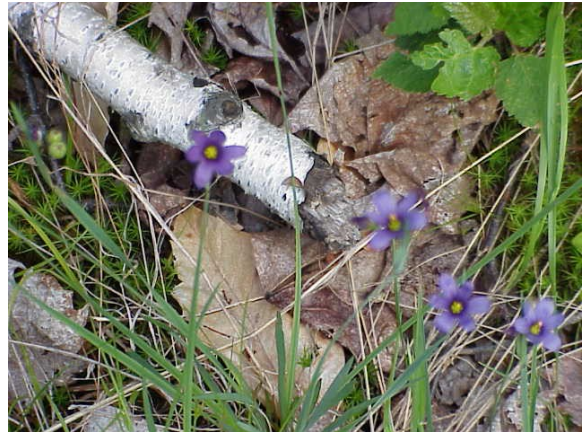
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Chapter 3

Natural Resources

Introduction

Gorham's natural resources support the community's economy, tax base, recreation, quality of life, wildlife, and water supply. The environment created by Gorham's system of natural resources serves both residents and visitors. The type and distribution of the town's natural resource base also influences the location and type of development that takes place within the community. Some areas of the community are better suited for a particular use than others. Some areas are a higher priority for conservation than development due to the natural resources present. Some natural resources such as wetlands and floodplains make land unsuitable for development. The information provided in this chapter will assist Gorham in determining compatible future uses for certain land areas, and significant resource areas that are not currently protected.



This review of the town's natural resources was compiled as part of the 2005 Master Plan update; minor edits and updates were conducted as part of this 2020 Master Plan update. This chapter looks first at the physical environment within which the town's natural resources occur, then at water resources, forest and agriculture, fish and wildlife, conservation lands, and finally, dark skies.

Physical Environment

Climate

The primary characteristic of Gorham's climate is the ability for conditions to change very quickly. A wide range of temperatures and conditions can be experienced in a single day and is guaranteed to occur over the course of a year. The variety of the seasons contributes to the character of the region, and to the variety of recreational and economic activities available. The area also experiences great variability between the same seasons from year to year.

During the warmer half of the year, most of the precipitation comes from showers and thunderstorms. Frontal precipitation in the colder season is occasionally supplemented by coastal "Northeasters" which can bring a strong wind and heavy snowfall, and on occasion, rain or sleet. On average, 160 days per year receive 0.01 inch or more of precipitation in Gorham. The number of days with 1.00 inch or more averages six per year. Gorham receives an average of 41.73 inches of precipitation annually.

Summers are very comfortable, with afternoon temperatures mostly in the middle and upper 70s. Nighttime temperatures usually drop to near 50°. The number of days with 90° or higher has ranged from none to 15 in a season. Only one summer in five tends to reach 95° or higher.

Winters are cold, with a December through February normal mean of 18.0°. The winter of 1933-34 was the coldest, with an average temperature of only 11.4°. The lowest recorded temperature, 44° below zero, occurred on the 30th and 31st of December 1917. The greatest number of days with temperatures at or below zero was 63 in the winter of 1943-44 and the least was 17 in 1931-32.

Seasonal snowfall varies widely from the 99-inch average. Only 45 inches fell in the 1948-49 season while 1943-44 brought 147 inches. The winter of 1958-59 had 250 inches of snowfall recorded; an all-time record of 300 inches was measured in 1968-69.

Based upon the occurrence of the freezing temperature, 32°, Gorham's "growing season" averages 110 days, from May to September.

Topography

Topography describes surface features of the land in terms of shape, relief and relative positions of natural features. Topography is usually expressed as elevation (height above mean sea level) and slope (change in vertical distance over horizontal distance). Gorham's topography is a mixture of various terrain features. Much of the town is steep and hilly with some exposed bedrock, but some of the town contains flat river valley areas.

Gorham's topography plays a major role in the location and impact of existing and future development in town. Topography affects several natural processes, such as climate, drainage, erosion, wind patterns and vegetative growth, in turn affecting human activities. Valleys act as transportation corridors which traditionally influence development patterns. This is evidenced by Gorham's settlement in the Androscoggin River Valley.

Elevations in Gorham are greatest in the southern portion of town, but high peaks flank the town borders on all sides. The town ranges in elevation from 740 feet above sea level as the Androscoggin River enters Shelburne, to 3,000 feet on Mount Madison. Low-lying river valleys cross the center of the community carrying the Androscoggin, Moose and Peabody Rivers. The river valleys are also closely followed by the major transportation routes through the community, US Route 2 and NH Route 16.

High peaks are prevalent around the perimeter of Gorham. The slopes of Mount Madison, the northern terminus of the Presidential Range, extend into the southern portion of the community at an elevation of 3,000 feet. Pine Mountain, 2,404 feet, is also located in this area south of the downtown. The Mahoosuc Range extends into Gorham from the northeast, with the town border crossing this range near the summit of Mount Hayes at 2,555 feet. The northwest section of Gorham contains the slopes of the Crescent Range and Sugar Mountain.

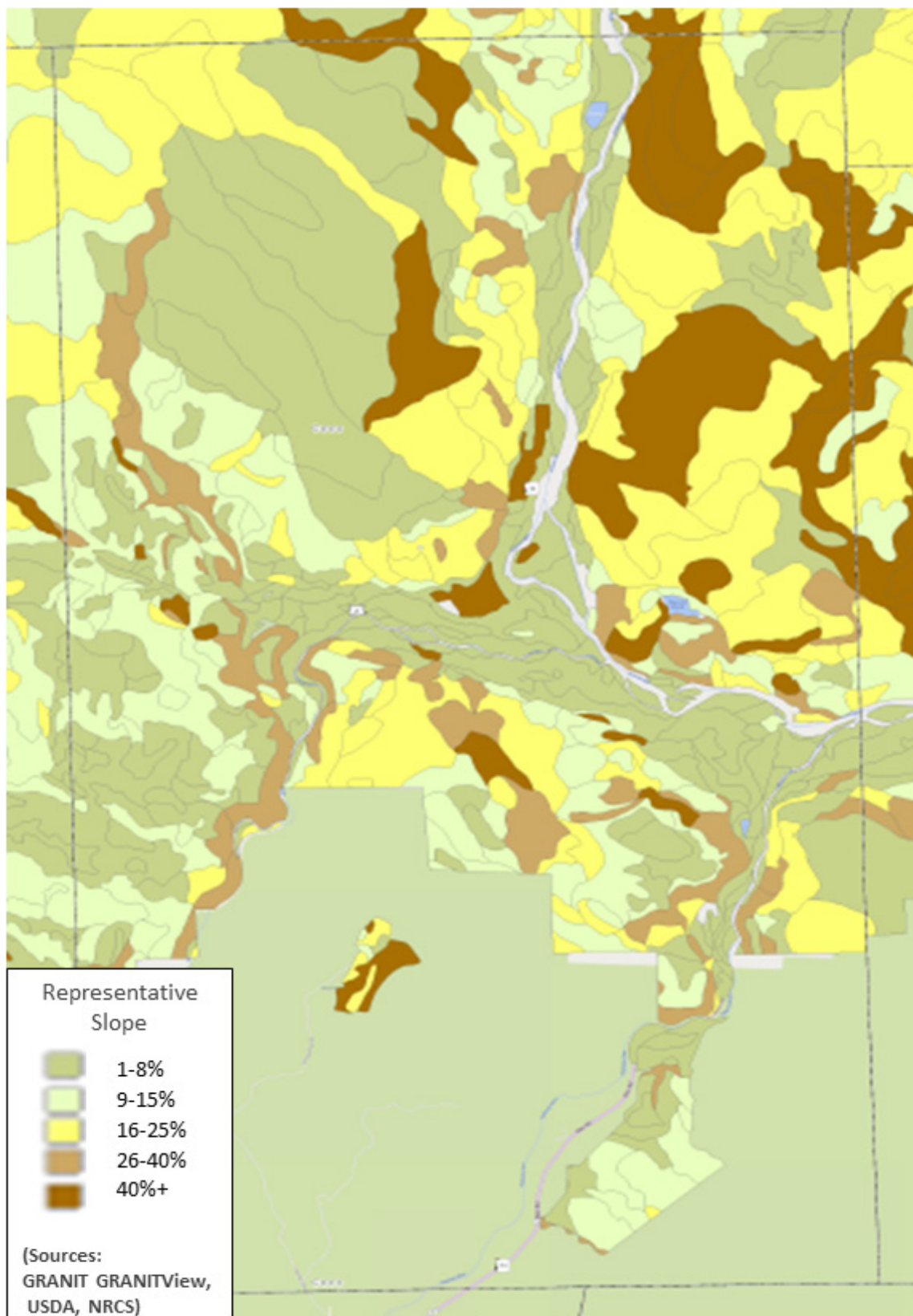
Topography, of course, affects development patterns and the potential impacts of that development. River valleys are often the easiest areas to develop, and a majority of Gorham's development exists in the river valley. These areas also contain all of the floodplain areas, most of the surface water bodies, critical wetlands and aquifers. Minimizing the impact of development in these areas is critical to the quality of both surface and groundwaters. Development at higher elevations on the high ridges and lower hills in Gorham presents a different set of challenges and impacts. Without thoughtful site design, these areas can greatly impact the scenic character of the community and disrupt scenic views. Access to these areas also creates the risk for increased environmental impacts, including erosion, increased runoff rates, and fragmentation of habitat.

Slope

Slope is the amount of rise or fall for a given horizontal distance and is usually expressed in percent. A 6% slope means that for a 100-foot horizontal distance, the rise or fall in height is six feet. Given Gorham's location within a mountainous terrain, steep slopes are prevalent.

The soil-based slope map on the following page shows the generalized slopes for Gorham for the non-National Forest lands. The areas shown in brown are in general over 25% slope, and those in yellow are between 15-25%. As shown, much of Gorham's area has slopes greater than 15%.

Generally, slopes over 25 percent are considered undevelopable. Slopes between 15 and 25 percent are difficult and costly to develop, and special precautions need to be taken to prevent erosion and sedimentation. The steeper the slope, the more it will cost for septic systems, accessways, stormwater management, foundations, and site work. Maintenance of roads and driveways also becomes more costly on steeper slopes. Additionally, as the slope increases, so does the potential for an increase in erosion, stormwater runoff, and nutrient movement, with the potential for public costs. Poor soil conditions combined with steep slopes can present significant development constraints.



Geology

Bedrock Geology

As the name implies, bedrock geology is concerned with the underlying rock or ledge. Formed hundreds of millions of years ago, Gorham's bedrock is composed mostly of igneous rocks such as granite, and metamorphic rock such as schist. The metamorphic rock was formed under heat and pressure from many layers of mud, sand and silt. It was later uplifted by the earth's internal forces. The youngest bedrock in Gorham was formed during the Carboniferous Age, some two hundred million years ago. Being the least eroded of all the bedrock in the region, these rocks make up the rugged, scenic areas of the White Mountains.

Surficial Geology

Surficial geology includes all of the deposits above bedrock but below the soil layer. Surface deposits are unconsolidated, loose conglomerations of rock fragments. These surface deposits in Gorham are the result of glaciation. As the glaciers advanced, the bedrock was scraped and gouged, and this material was picked up and carried along in the glacial ice. This glacial advance, or scraping, did not drastically alter the topography of the area. The profiles of the mountains appear much as they did before the Ice Age. However, the glaciers did have an impact on the valleys.

As the climate warmed and the ice retreated, it deposited two major types of material—till and glacial outwash deposits. Till is composed of a mixture of soil and rock fragments that were scoured loose by the moving ice, carried for a distance, and then deposited directly as the melting ice released its unsorted contents. It is generally highly compacted and contains many large angular stones and boulders. Glacial melt waters also deposited material, but the moving waters actually sorted the material and deposited like sizes together along glacial streams or in glacial pools and lakes. These are outwash deposits, the stratified sand and gravel deposits that line the Androscoggin, Peabody, and Moose Rivers. Outwash deposits are important economically as sources of sand and gravel, and also serve as major groundwater aquifers.

Gorham's geology has an effect on land use decisions and impacts future development in the community. For example, the use of outwash deposits in commercial sand and gravel operations could impair the quality and quantity of the underlying groundwater. As material is removed and the geology is altered, water will not be filtered and stored in the same manner. This could result either in a reduction in the amount of water available to future generations, or in its quality as less filtering is available.

Soils

Soil is the portion of the surface of the earth that supports plants, animals, and humans. There are over 70 different soil types in Gorham. Soils information is an important part of a natural resources analysis because it provides a wealth of data concerning the capability of land to support various land uses. Soils differ from one another in their physical, chemical and biological properties. Soil properties which affect its capacity to support development include depth, permeability, wetness, slope, susceptibility to erosion, flood hazard, and stoniness.



The Soil Survey

Soil scientists from the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) have collected soil information for Gorham. As they walked the land, they regularly sampled the soil to depths of 40 inches or more, and each soil sample was examined for characteristics such as color, texture, and structure. From this information, lines were drawn on aerial photographs outlining the boundaries of the different soils. Numbers were placed within each mapping unit to identify the type of soil found.

One important note in using a soils map is that changes from one soil to another are not usually abrupt but are gradual. Thus, the line on the map represents a transition zone rather than an absolute boundary. Because of the scale of the map, mapping units represent the dominant soil type in the area. On-site soil investigations are necessary for determining exact soil boundaries.

Soil Groups

The soil mapping unit soils found in Gorham can be broken down into seven categories or groups:

Group 1-Wetland Soils

These are poorly and very poorly drained soils that are wet most of the year. The water table is at or near the surface 7 to 12 months of the year.

Group 2-Seasonally-Wet Soils

Included in this group are moderately well-drained soils that have a water table 1 to 1 ½ feet below the ground and where the soil is wet from late fall to late spring.

Group 3-Floodplain Soils

These soils are subject to periodic flooding. Their formation has been the result of sediment deposited from past floodwaters. The areas of floodplain soils are concentrated along the Androscoggin River.

Group 4-Sand and Gravelly Soils

These well-drained to excessively well-drained soils are formed in sand and gravel deposits. This group often has economic value and is found within aquifer areas.

Group 5-Shallow to Bedrock Soils

This group is the dominant soil type in Gorham. These soils have formed on a thin layer of glacial till which is underlain by bedrock. Steep slopes with exposed bedrock are common in some of these soils.

Group 6-Compact Till Soils

The soils in this group are well-drained and have formed in compact glacial till. A hardpan layer is generally found about 2-3 feet below the ground surface. Water moves down-slope on these soils over the hardpan layer and comes to the surface as seep spots.

Group 7-Deep Loose Till Soils

This group consists of well-drained sands or loamy soils that have formed in glacial till. The water table is commonly more than four feet below the ground and bedrock is more than 5 feet below the surface. The soils contain many angular stones of varying sizes.

The soils within Gorham play a major role in the location and impact of future development in the community. The soil type is a significant factor in determining whether the land can support development, what kind of development and how much, and whether that development will need to be served by a public wastewater treatment system or can accommodate an on-site system. Soil characteristics such as depth, permeability, wetness, and slope can be used to evaluate land to determine development suitability and dwelling unit densities. Locating new development in areas without water and sewer infrastructure requires taking a much closer look at the ability of the soils on the lot to handle a well and septic system discharge. Soil information should be used as a determinant of what constitutes an environmentally-sound building lot to prevent degradation of the environment and negative impacts on abutting property owners.

Water Resources

Water is our most precious natural resource. Water moves continuously in an interdependent fashion known as the water cycle. All water is involved in this cyclical movement that continues indefinitely. With increased land use and human activity, the water cycle can become damaged. Humans not only take water out of the cycle (drinking water, for example), but can also put polluted water back into the cycle (such as polluted runoff). However, with good planning and conservation, plentiful clean water should be available for all uses.



Watersheds

Surface water is precipitation that does not soak into the ground, but runs off into streams, ponds, lakes and rivers. Stormwater is also our biggest source of water pollution as it carries with it sediment and other material from impervious surfaces such as roofs, parking lots and roads, and from areas where the soil has been disturbed.

Watersheds are the catch basins for all precipitation falling from the sky. Rain or snow falling within the confines of a watershed's interconnected ridge crests, or high points, eventually becomes surface and groundwater.

A watershed is usually associated with a particular river or stream that it feeds. Gorham is entirely within the Androscoggin Watershed. The Moose River and Moose Brook drain the western half of Gorham to the Androscoggin River. Each tributary of the Moose River has a smaller sub-watershed of its own that contributes to the Moose River–Moose Brook Watershed. While groundwater flows may follow the same watershed boundaries, it is not assured; determining accurate groundwater flow can be an expensive and difficult task.

The watershed approach to water resources planning is important because watersheds are the main units of surface and groundwater recharge. Water resources management in a community up-watershed may have a substantial impact on the water resources of a neighboring community down-watershed. For example, a portion of Gorham's water supply watershed is in Randolph. The size and physical character of the watershed has a large influence on the amount of water that ultimately will end up as surface water and groundwater. Land use within a watershed may be an important factor in water quality; therefore, it is very important for communities to work together in order to plan effectively for protection of water resources. This is especially important in Gorham where many

headwaters originate outside of the community and drain across the Gorham landscape and into the Androscoggin River.

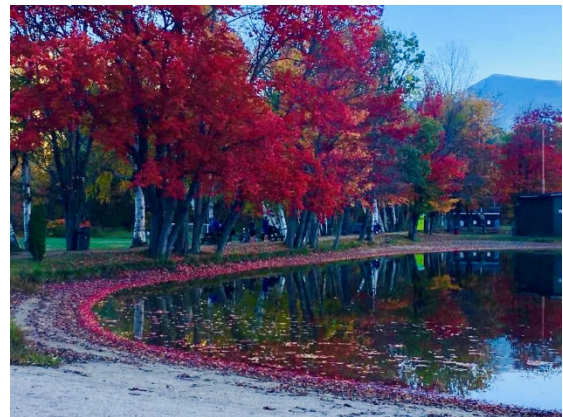
Surface Water

Gorham's main water course is the Androscoggin River. Streams are classified by the state based on stream order, where the highest mapped streams in a watershed are first order streams, their juncture yields a second order stream, the juncture of two second order streams yield a third order, and the junction of third order streams yield a fourth order. A listing of fourth order streams and higher is prepared and maintained by the New Hampshire Department of Environmental Services. In Gorham, this includes the Androscoggin River, Peabody River, and Moose Brook below Perkins Brook. As such, these water bodies are subject to the New Hampshire Shoreland Protection Act which provides some protection for shoreland vegetation and an extra layer of review for shoreland development.

Surface Water Quality

There is a direct correlation between activity within the watershed and the quality of surface waters. Water quality problems in the Androscoggin River date back to before 1900 when sewage, industrial waste, and other pollutants were dumped directly into the river. In the early 1970s, there were 28 outfalls in Gorham on the Androscoggin River, Moose River, Moose Brook, and Peabody River. Of these, 27 were municipal sewers. After the passage of the Clean Water Act in 1971, the federal and state governments spent a substantial amount of money to upgrade municipal sewage treatment plants and other point sources of pollution. Most discharges now have to be treated prior to discharge, and all discharges require a National Pollution Discharge Elimination System (NPDES) permit. Surface water quality in Gorham has greatly improved over the years as a result of these programs. There are now only seven discharges in Gorham, all permitted and monitored to ensure water quality standards are being met (NHDES OneStop Data Mapper, August 2019).

Except for waters experiencing low pH and high aluminum levels as a result of acid rain, the only surface waters on the 2018 NHDES list of impaired waters (NHDES, 2018 303d list) is a one-mile stretch of the Androscoggin River below the Upper Gorham Dam. Gorham's clean water now contributes to the recreation and tourism economy. General and specific land use practices that are widespread throughout the study area can impact water quality. Some potential sources are the result of temporary or short-term land uses that require disturbing the soil, such as logging, construction, or agriculture operations.



Others, such as stormwater runoff may be short in duration, but are continuous in nature. Non-point sources, such as polluted runoff from parking lots and roads, are more difficult to quantify than point sources because they impact water quality through unmonitored, intermittent, or incremental contamination and their impacts may be felt only over a long period of time. There is a direct correlation between impervious surfaces and increased non-point source pollution.

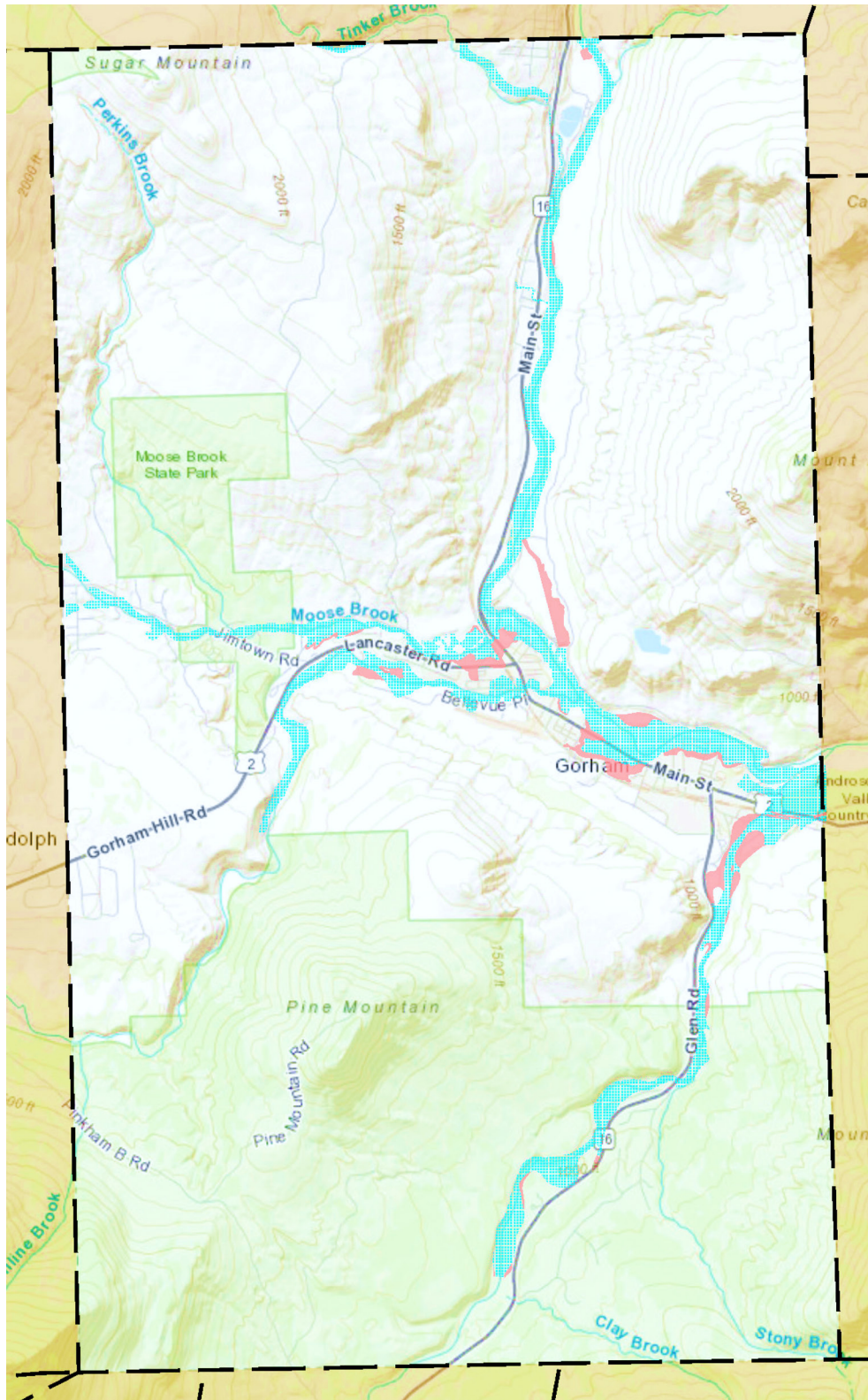
Buffer strips along ponds and streams intercept and store surface runoff, allowing it to infiltrate rather than continue off site as runoff. This can reduce impacts from a variety of pollutants including phosphorus, sediment, pathogens, nitrates, and pesticides. A buffer's capacity to tie up pollutants depends on its width. The wider a buffer is, the more removal of pollutants occurs. A 100-foot buffer is recommended for infiltration (*Buffers for Wetlands and Surface Waters – A Guidebook for New Hampshire Municipalities*, Vicki Chase, Laura Deming, and Francesca Latawiec, 1997).

Modeling specific to northern New Hampshire indicates increased precipitation, particularly in winter and spring, and an increase in extreme weather events. This will mean attention to stormwater management will become even more important to prevent erosion and protect Gorham's water quality and roads. Protecting vegetated riparian buffers would also keep property away from eroding riverbanks.

Floodplains

Floods are a natural and normal occurrence in an area of high rainfall and snowmelt. During normal stream flow, water is carried in a river channel. But in times of high runoff, water rises over the banks and flows onto the floodplain. Floods only become a problem when humans compete with nature for use of the land. The map on the following page produced with CAI AxisGIS system for Gorham shows "100 year" floodplains contained on FEMA's Flood Insurance Rate Map for Gorham, as well as areas with a somewhat lower risk of flooding, "500-year floodplains."

These areas also provide some of the town's important habitat. The "moderate-gradient sandy-cobbly riverbank system" in Gorham is listed as an Exemplary Natural Community of very high importance and only one of nine in the state (NH Natural Heritage Bureau, April 2019).



Floodplains - 100-year in blue, 500-year in red
(Sources: CAI Technologies AxisGIS, FEMA)

Dams

Table 3.1 below lists the active dams in Gorham currently registered with Department of Environmental Services. Two dams are listed as having been removed since the 2005 Master Plan. These are the sulfite storage lagoon dam associated with the Fraser paper mill and the Brown Company timber crib dam. As shown, the remaining dams in Gorham are related to a range of uses, including hydropower, conservation, recreation and water supply.

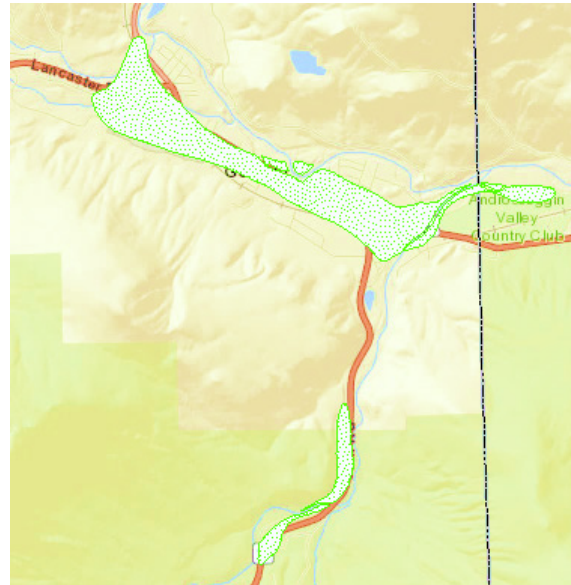
TABLE 3.1 DAMS

Name	River	Type	Acres (Impoundment)	Height (Feet)	Owner	Primary Use
Cascade Dam FERC--Project 2327	Androscoggin River	Concrete	28	53	Brookfield	Hydro 7920--KV
Upper Gorham Dam FERC--Project 2311	Androscoggin River	Timber Crib	45	23	Brookfield	Hydro 4800--KV
Gorham Dam FERC--Project 2288	Androscoggin River	Timber Crib	32	20	Central Rivers Power	Hydro 2150— KV
Gorham Dam Dike FERC-- Project 2288	Androscoggin River	Earthen Dike	NA	Not Recorded	Central Rivers Power	Flood Protection
Peabody River Dam AKA Libby Pool	Peabody River	Earth	1.9	8	Town of Gorham	Recreation
Moose Brook Park Dam	Moose Brook	Concrete	1	7.5	NH DNCR	Recreation
Moose Brook Park Dam	Moose Brook	Concrete	1.5	9	NH DNCR	Recreation
Ice Gulch Reservoir Dam - Randolph	Moose Brook Tributary	Concrete	1.25	18	Town of Gorham	Water Supply
Perkins Brook Dam	Perkins Brook	Concrete	.71	6.6	Town of Gorham	Water Supply
Wildlife Pond Dam	Moose Brook Tributary	N/A	0.5	7	Robert Kent	Conservation

(Sources: NHDES OneStop Data Mapper, August 2019; FERC: Local officials)

Groundwater

A large aquifer system is found in Gorham's river valleys. The area considered to be a high-yield stratified drift aquifer, classified as "GA2" by NHDES, is shown in green in the map to the right. As shown, the largest high-yield aquifer is also the location of the most intense development in the community. As areas above the aquifer are further developed, buildings and parking areas will prevent water from recharging the aquifer. The placement of underground storage tanks and other potential pollution sources within the aquifer area also threatens the quality of this resource for future drinking water if not constructed properly and monitored.



GA2 Aquifer

(Source: NHDES OneStop Data Mapper)

Wells

The Town of Gorham operates two wells in the airport area off of Bellevue Avenue. Both are gravel drilled wells that serve the public water supply of the community. There is a wellhead protection area around the two municipal wells. Municipal drinking water reservoirs, filled with water from Icy Gulch in Randolph, are located off Jintown Road. These reservoirs are within the protection of the Gorham Town Forest.

Some businesses and many residents rely on drilled or dug wells for their water supply. Wells in Gorham range in depth from 12' to 1,000' with the vast majority drilled in bedrock. A bedrock well makes use of a bedrock aquifer. A well drilled into a bedrock aquifer will be constantly filled with water that flows through cracks. Other wells were drilled into a gravel aquifer which is more porous; a well drilled into such an aquifer yields more water than one drilled into a bedrock aquifer.

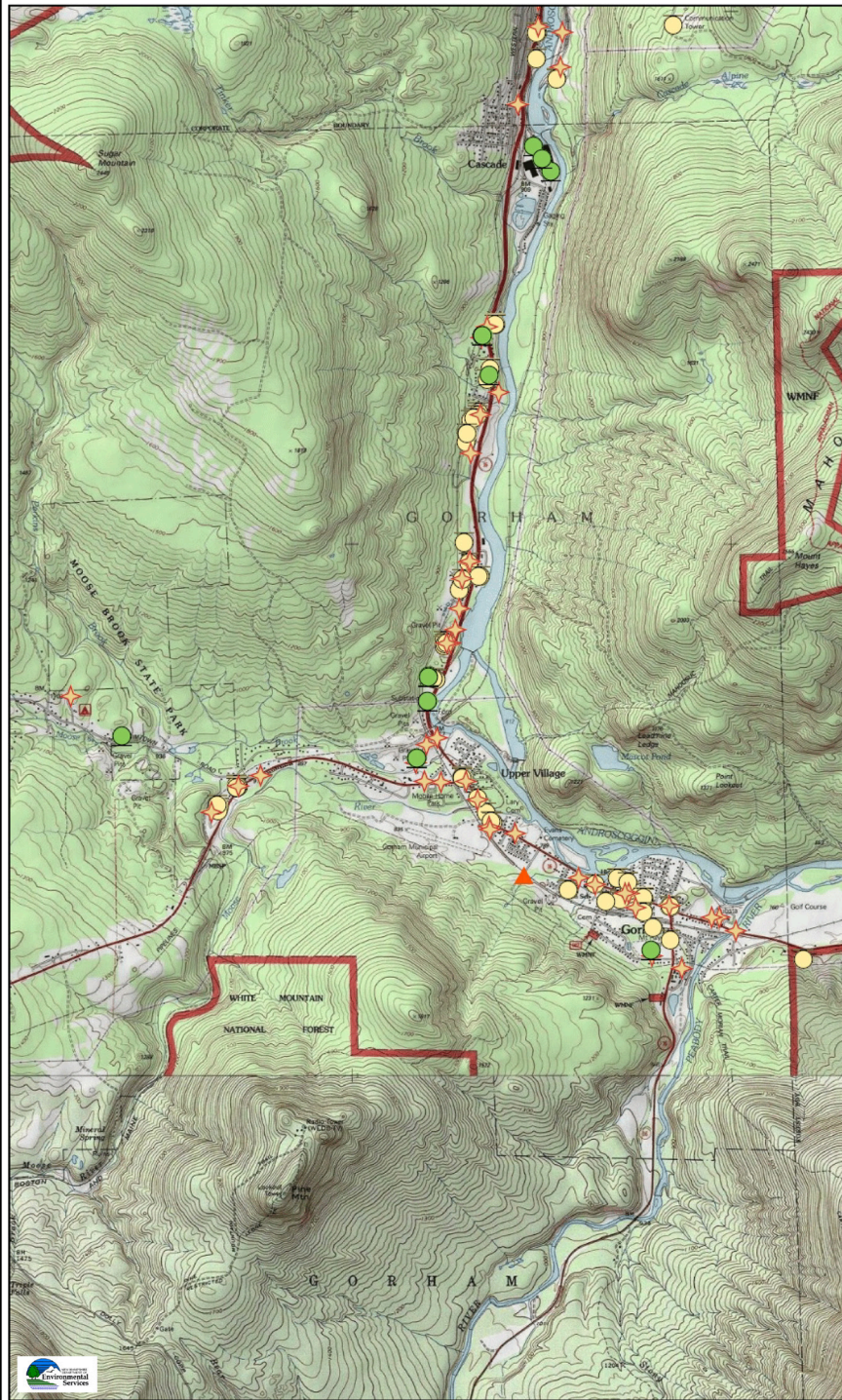
Groundwater Quality

NHDES regulates industrial and municipal discharges and privately-owned wastewater management and wastewater treatment facilities which may have a potential impact on water quality due to a direct discharge to groundwater. A groundwater discharge permit is required for such activity. Groundwater contamination can also occur from a variety of human activities such as land uses where toxic or hazardous materials or petroleum products are used or stored. These activities require permits from NHDES and careful use of best management practices for storage and handling to ensure spills do not occur. NHDES maps and monitors these permitted activities such as underground storage tanks, sites where hazardous waste is generated, and uses that involve fuel oil in larger quantities than found at a typical private home, as well as other known local potential contamination sources.

As shown in the next map, these sites are concentrated wherever nonresidential development is concentrated. As expected, as shown in the next map, spills and leaks that have been reported to NHDES over the years are also concentrated around areas of dense development. This highlights the importance of enforcement and monitoring of potential contamination sources.

Road salt is a growing groundwater concern. Because chloride does not bind with the soil particles, basically all of the salt applied to the roads, walkways and parking areas eventually ends up in the water. The search for cost-effective alternatives to be used in conjunction with sand continues.

Potential Groundwater Contamination Sources



Legend

- Aboveground Storage Tank
- ★ Hazardous Waste Gen
- ▲ Local Potential Contam Sources
- Underground Storage Tank

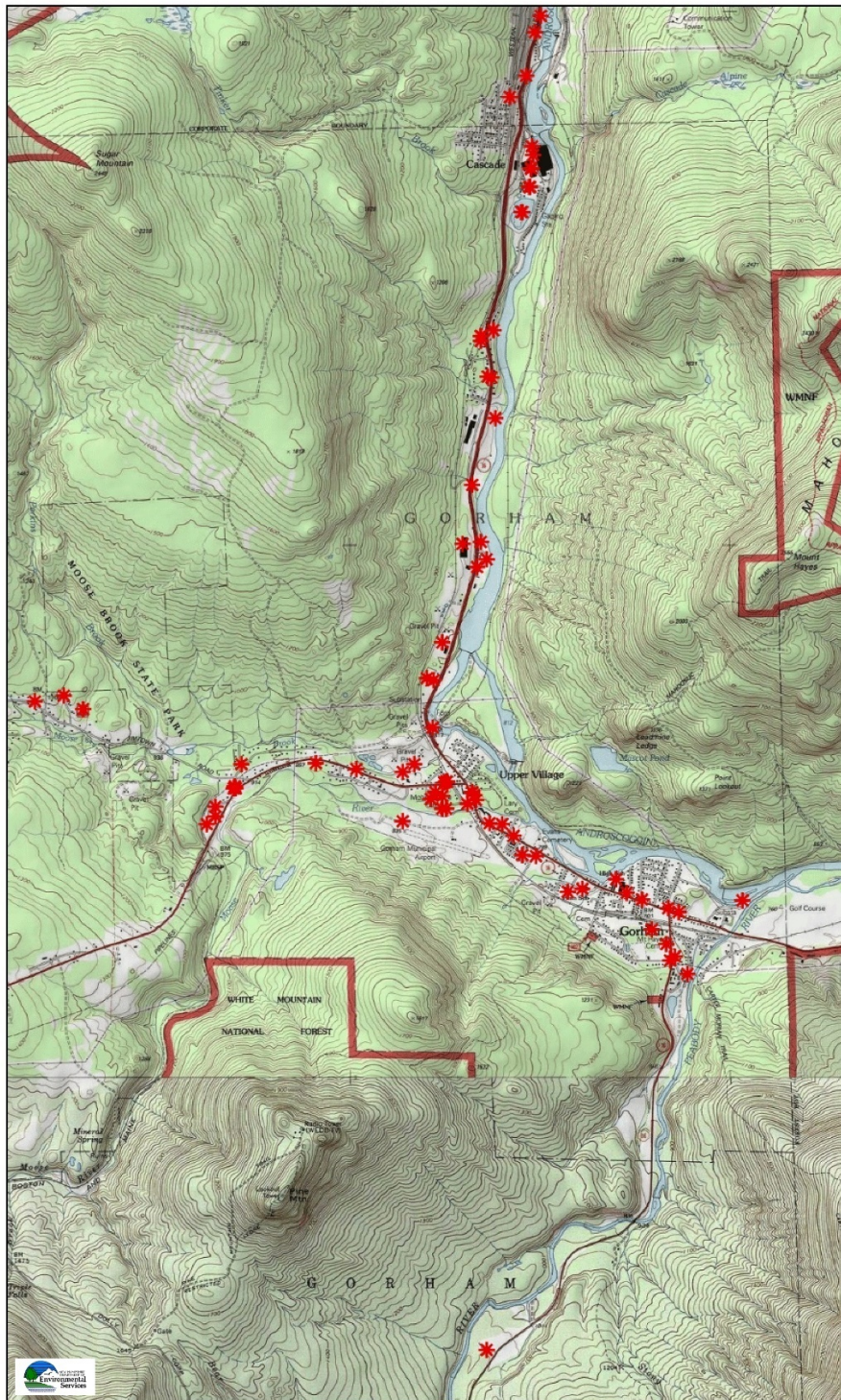
Map Scale
1: 50,000



© NH DES, <http://des.nh.gov>
Map Generated: 11/16/2019

Notes

Remediation Sites



Legend

- Remediation Sites

Map Scale
1: 50,000



© NH DES, <http://des.nh.gov>
Map Generated: 11/16/2019

Notes

Wetlands

One of the most important, environmentally sensitive natural resources in Gorham are wetlands. There are many reasons why wetlands are valuable to the community. Some of those reasons are flood control, erosion control, pollution filtration, water supply, wildlife habitat, environmental health and diversity, recreation, and aesthetics. These are but a few of the important functions wetlands perform in helping protect the quality of water, land and the community.

Wetlands perform all of these functions with no charge to society. Dams, tertiary sewage treatment plants, water purification plants, dikes, and other sophisticated and expensive man-made water control measures all try to copy what wetlands do naturally. Each acre of existing wetland provides significant benefits to Gorham.

In addition, the only Endangered plant to be reported in Gorham in the last twenty years, the climbing hempvine (*Mikania scandens*), is a wetland species (NH Natural Heritage Bureau, April 2019).

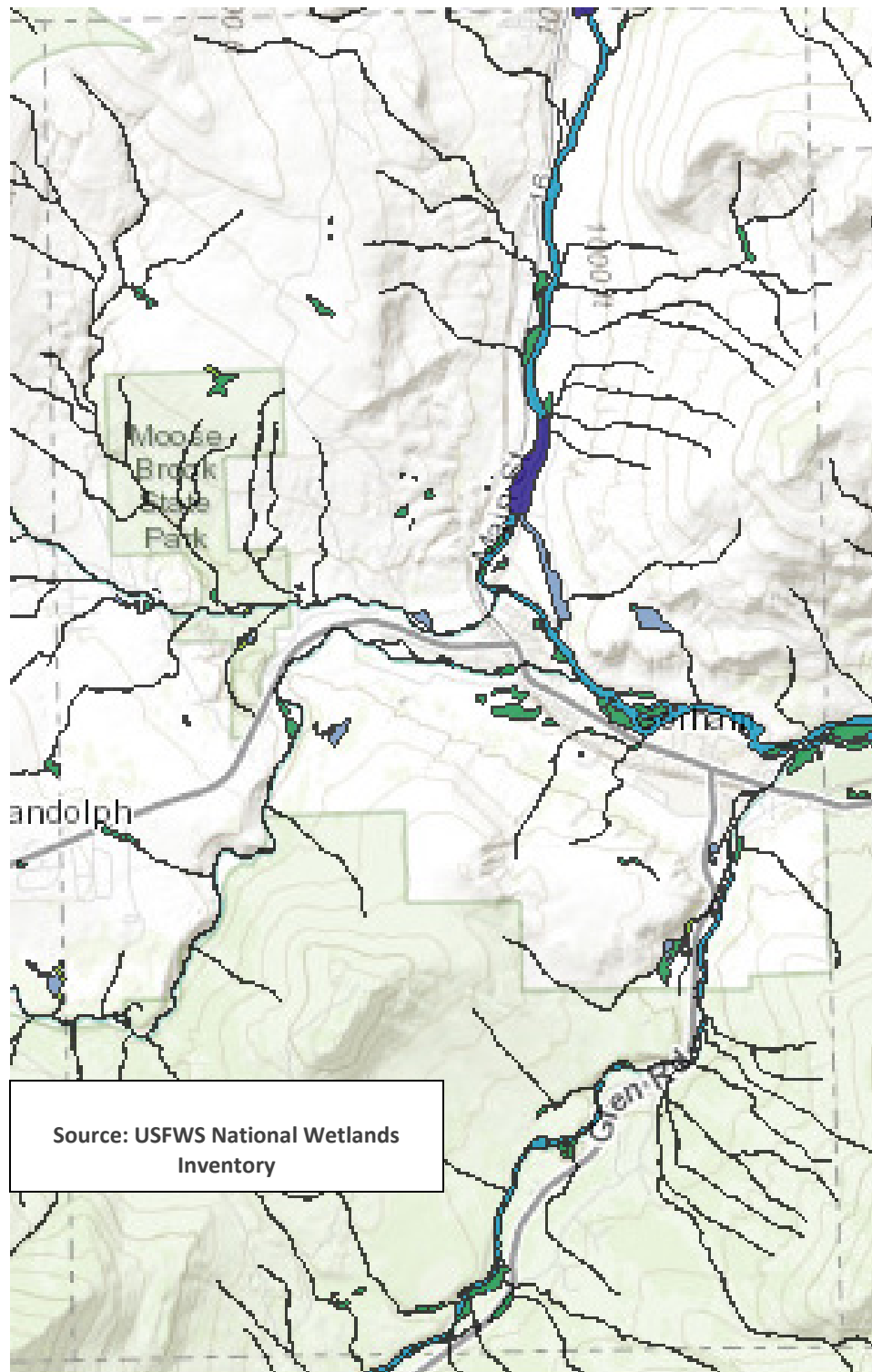
Little has been done locally to protect this important resource to date. The town may wish to consider standards above those at the state and/or federal level. The foresight to protect Gorham's wetlands now will help ensure clean groundwater, ponds, and streams, and a more balanced natural system in the future.

Wetland Delineation

Wetland delineation requires training in the identification of wetland plants and soils. In New Hampshire, the yearly water cycle causes tremendous variation in the level of water in the particular area. During the spring, an area might have two feet of water on its surface while that same area in September may not have water on its surface at all. Any definition of wetlands must take this variation in water levels into account, and any delineation of wetlands requires the identification of the wetland-non wetland boundary on the landscape.

In New Hampshire, two sources of information are used to identify the likelihood of a wetland being present in areas where fieldwork has not yet been done to map wetlands on a site. These are the Soil Survey and the US Fish and Wildlife Service National Wetlands Inventory (NWI). The Soil Survey includes a category of soil types called "hydric" soils, which are those soil types permanently or seasonally saturated with water, such as muck or peat, and also of "poorly drained" and "very poorly drained" soils where wetlands are likely to occur. The National Wetlands Inventory maps were created using infrared aerial photos which show moisture and vegetation.

The map below shows the NWI wetlands for Gorham. As shown, Gorham's wetlands are primarily along the town's water courses, with only a few other small isolated wetlands.



Wetland Permitting

Projects which impact wetlands in Gorham are managed by federal and state regulations. The most comprehensive regulatory program is that of the NH Wetlands Bureau (NHWB). NH RSA 482-A authorizes the NH Department of Environmental Services (NHDES) to protect the state's wetlands and surface waters by requiring a permit for dredging, filling or construction of structures in wetlands or other waters of the state. RSA 482-A and the rules promulgated under that law require that projects be designed to avoid and minimize impacts to wetlands and other state jurisdictional areas. The impacts that are proposed must be only those that are unavoidable. It is the responsibility of the applicant to document these considerations in the application for a permit.

According to NHDES rules, each project that requires a wetlands permit is classified in one of several categories according to the type, urgency, and potential square footage impact of the project. Review and approval of projects needed to address emergencies such as sinkholes or washed out culverts is expedited. Several categories of project such as forestry, trails, road or utility maintenance are allowed to proceed after filing a form to notify NHDES of the intended activity (PBN or Permit By Notification) and agreeing to follow Best Management Practices (BMPs). For logging these are filed at the same time as the "Intent to Cut" forms required by the town. In Gorham, the vast majority of applications to NHDES in the last ten years that did not fall into expedited or PBN categories involved stabilizing riverbanks being eroded by stormwater (NHDES OneStop). The Conservation Commission, by state law, has the opportunity to submit comments to the Wetlands Bureau.

Forest & Agriculture

Agricultural Land

In 1880, 64% of New Hampshire's land was in agriculture. Today less than 15% remains in farming. Traditional agricultural activity in New Hampshire is at its lowest level in history. New Hampshire ranks 49 out of 50 in the level of agricultural production in the U.S. One reason for this is that land suitable for agriculture is also excellent for development. Agricultural land is gently sloping, open, and scenic. The land that remains open and undeveloped adds a special rural character to the town while at the same time providing habitat for local wildlife. According to the NH Department of Agriculture, the face of agricultural operations in New Hampshire is changing quickly. Niche markets including specialty crops and herds, customized farm products, and small-scale operations are redefining agriculture.

As is true statewide, traditional agriculture and agricultural land uses in Coos County have declined substantially over the years. Land once used by small, non-mechanized farms has reverted back to forest land or has been developed. Miles of stonewalls in mature forest stands are testimony to an agricultural heritage that has been lost over the past several decades. Gorham has certainly been part of that trend.

The agricultural land in Gorham is most commonly open fields that may be “idle,” meaning kept open by “brush hogging” or mowing every year or two, but not producing a crop. There is only one full-time farming operation remaining in town.

There are several benefits to keeping some former or potential future agricultural land open. One is to retain the possibility of producing agricultural goods locally in the future. This could become a necessity if global food distribution systems change. There is also an economic benefit when produce and products are generated locally, as the land does not require the high level of town services that development demands. Agricultural lands also add to the visual and habitat diversity of the landscape and contribute to the character of the community.

Forest Land

The vast majority of Gorham’s land cover is forest. Forestland has many uses. Timber harvesting is the most obvious use and is a source of wood products and yield tax. Other uses



and functions include recreation, wildlife habitat, water quality protection, open space, and scenic enhancement. These are all important uses for the people of Gorham, both from a quality of life and economic standpoint. Forest resources provide habitat, erosion control, water filtering, improved air quality, and temperature regulation. These resources also pay their own way in terms of town services because of the little they demand. A properly managed forest can provide all of these benefits concurrently and sustainably. Responsible harvesting of forest resources supports the local economy and provides access to local forest products. The working landscape is an important component of the character of the North Country.

Gorham’s high elevation forests also provide important habitat. The town’s high-elevation spruce-fir forest system is considered to be an Exemplary Natural Community of extremely high importance (NH Natural Heritage Bureau, April 2019).

Subdividing large woodland parcels into small lots for development can have long-term, nearly irreversible impacts. *New Hampshire’s Vanishing Forests* (SPNHF, 2001) predicted that while New Hampshire would remain predominately forested, the amount of forest cover would decline to 80% statewide within the next 20 years, and of that, less and less would be committed to long-term forest management in large tracts. Additionally, most landowners no longer rank timber production as their main reason for owning the land. Only 10% of the landowners include timber production as a primary reason, with aesthetic enjoyment now more than 50% of landowners' reason for owning the land.

SPNHF also reported that parcels of land 500 acres or more are the most common for long-term forest management due to economies of scale.

With regard to the short-term impacts of logging, the town has a built-in mechanism to monitor logging operations – the notice of “Intent to Cut.” Once an “Intent to Cut” is filed, it is reviewed to determine if the logging operation is going to impact sensitive or critical natural resource areas, such as wetlands, deer yards, or fragile biotic communities. In addition, the state publishes Best Management Practices for forestry aimed at preventing erosion and protecting water quality. This provides an opportunity to educate landowners and foresters regarding the need to carry out logging operations in a manner sensitive to important natural resources. It can also help to identify logging operations that are planned on areas used for recreation such as paths and trails. Steps can be taken to work with landowners and foresters to temporarily close or re-route trails during the logging operations.

Trails

As Gorham strives to grow the local economy, it is important that the economic base be diverse and resilient, for example, not dependent on a single global market or resource or the weather. Gorham’s large expanse of forested lands, including many public landholdings, has enabled the development of trail systems for many different activities. These include hiking trails, ATV and snowmobile trails, and the multi-use rail trail, all connected to larger regional systems, as well as local mountain bike trail systems. Participation in outdoor activities has been increasing, and the availability of outdoor recreation is an important factor in the decision of where to live and work for many. As the town develops a central clearinghouse of information for trail users and plans for the needs of various user groups, it will be important to keep abreast of activities growing in popularity such as trail running and fat bikes.

Invasive Species

Invasive species are non-native species that have the potential to do economic or ecological harm due to their ability to outcompete local species. Of most concern in Gorham are invasive plants and insects that affect forest health. According to John Gunn, Research Assistant Professor of Forest Management at UNH, non-native species such as burning bush, glossy buckthorn, multiflora rose, and Japanese barberry already make up at least 30 percent by species of all plants in New England (*UNH Scientist Takes Aim at Invasive, Non-Native Plants Threatening NH’s Forests*, NH Agricultural Experiment Station, March 20, 2017). Gunn and other researchers are trying to learn more about what steps landowners and forest managers can take to make New Hampshire’s forests more resistant to invasive species to protect forest health.

Data show that our climate has been warming, and researchers agree that this trend will continue. Adapting to climate change will include staying abreast of current research focused on the Northeast and ensuring our forest ecosystem is diverse enough to be resilient to insects and disease which may

gain a competitive edge in a warmer environment. Non-native insects such as the Emerald Ash Borer are one example of a species expected to be a growing concern as our climate continues to warm.

Current Use

NH RSA 79-A allows landowners with at least ten acres of certain types of land to place it in a tax abatement program based on their current land use. The goal of this program is to remove the property tax incentive to develop open space lands such as fields and forests. Land in the current use program is taxed based on its income-producing value instead of its value for development. In 2018, 9,564 acres in Gorham were in the Current Use Program. Of these lands, 7,779 acres are managed forest (2,020 acres being transferred from The Conservation Fund to the Town Forest). The remainder of Current Use lands are farm (51 acres), other forest (1,379 acres), wetland (85 acres), and other unproductive land (270 acres).

An additional savings is applied if the land is open to the public for hunting and fishing and other nonmotorized recreation. A total of 9,122 acres of land in Gorham in the Current Use program is receiving the 20% recreation adjustment for allowing public use for nonmotorized recreation. This greatly expands the recreation opportunities in Gorham.

A land use change tax is charged when land is developed or otherwise changed to a nonqualifying use. Under state law, towns can vote to have all or a portion of the money collected for taking land out of current use to be placed in a conservation fund administered by the Conservation Commission. Over 120 towns in the state have voted to do this in order to provide a source of revenue for conservation studies and land protection efforts. Gorham has not yet taken this step.

Fish and Wildlife

Fish

The rivers in Gorham contain a wide range of fish species. The New Hampshire Fish and Game Department, Region 1 – Lancaster, NH, keeps records on predominant fish species found in the largest ponds and brooks organized by town. In the town of Gorham, fish species data are available for the Androscoggin River, Moose Brook, Moose River, and Peabody River.

According to the Fisheries Biologist at the New Hampshire Fish and Game Department, Gorham's fish population includes blacknose dace, brook trout, brown trout, fallfish, golden shiner, lake chub, longnose dace, longnose sucker, rainbow trout, and slimy sculpin.

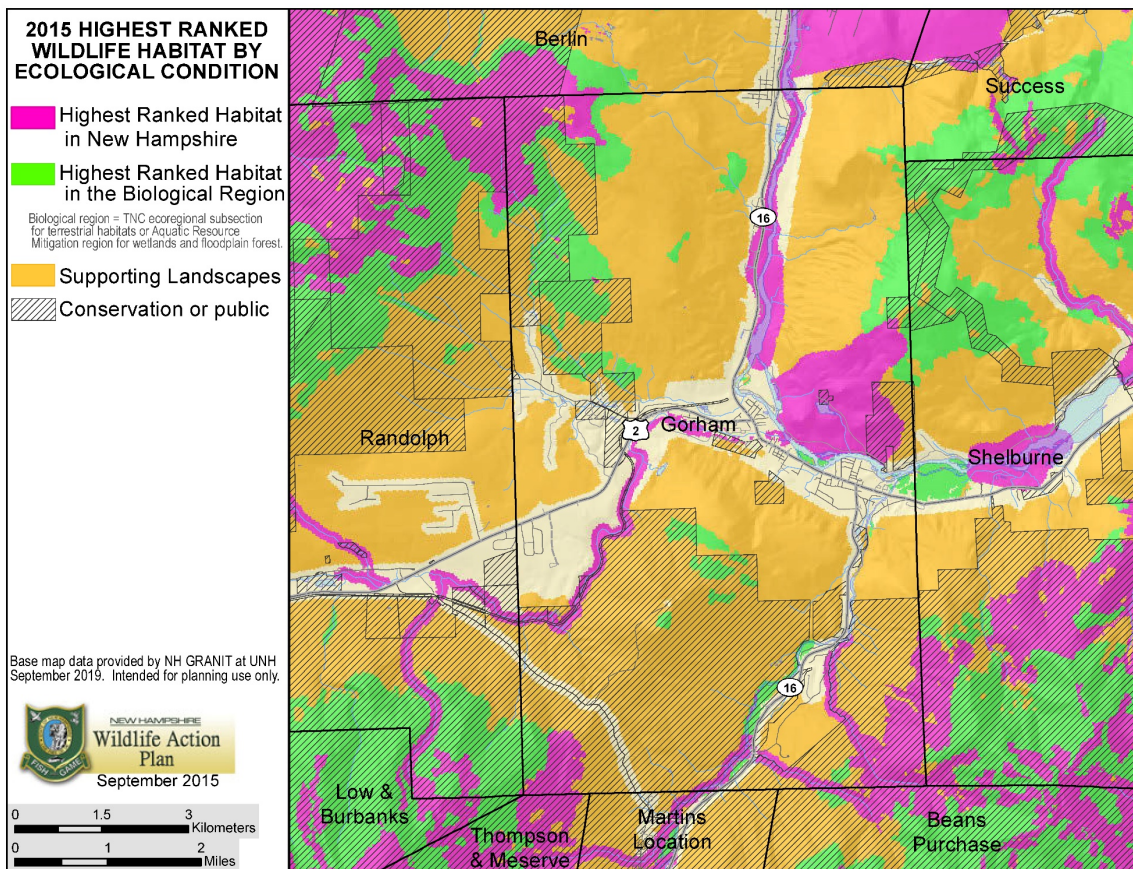
Wildlife

According to the NH Fish and Game Department, many of the 420 species of animals and birds in the state can be found within the North Country. The diverse habitats of Gorham include wetlands, upland hardwood, and softwood forest. The better-known mammal species include moose, white-tailed deer, black bear, rabbit, squirrels, woodchucks, eastern coyote, beaver, muskrats, raccoons, otter, mink, bats, possum, red fox, fisher, and bobcat. Amphibians such as the spotted salamander, newts, toads, tree frogs, bullfrogs, and the morning spring peeper are typically found at the water's edge. Reptiles include four types of turtles, and 11 species of snakes including the garter, milk snake, and black racer.



Nearly 200 species of birds can be found in their various habitats in the area including hawks, 25 species of warblers, many different species of finches, owls, and flycatchers. Many different types of waterfowl reside in the area including Canadian geese, mallards, black ducks, wood ducks, mergansers and blue heron. Newcomers include the turkey vulture and the wild turkey.

The variety of topography within Gorham contributes to diverse wildlife habitat types. Maintaining travel corridors between these distinct areas that provide needs for different seasons and stages of life will ensure the continued health of the species using them. The map on the following page shows the location of important habitat areas in Gorham. As shown, riparian corridors provide important habitat for Gorham's wildlife. Areas of dense evergreen cover are also critical habitat as deer wintering areas.



The NH Natural Heritage Bureau maintains a database of reports of sightings of species that are Endangered, Threatened, or of Special Concern. In the past twenty years the following listed species have been seen in Gorham: Northern Long-eared bat, Bald eagle, Peregrine Falcon, and Smooth Green Snake. In addition, the bat hibernaculum known to exist in Gorham is also on the state’s Endangered list and federal Threatened list because it is one of only 13 locations where bats are known to hibernate in New Hampshire. (NH Natural Heritage Bureau, *Rare Plants, Rare Animals, and Exemplary Natural Communities in New Hampshire Towns*, April 2019.)

Recreation

Wildlife resources are critical to many recreational activities that draw visitors to Gorham and add to the quality of life for residents, such as hunting, fishing, and bird watching. The northeast is an excellent area for recreational hunting and Gorham’s community of recreational hunters is strong. Gorham’s natural resources currently support big game, such as deer and moose, and smaller game such as beaver, mink, hare, grouse and woodcock. The White Mountains partridge and woodcock are the most predominant small game species. While not on a major flyway for migratory birds, Gorham does offer suitable habitat for both short-term migratory waterfowl and for resident birds.

Conservation Lands

Conservation areas are those lands with permanent protection from development through fee ownership by governmental or conservation organizations, or through conservation easements. Gorham has a great deal of land in conservation including large tracts of White Mountain National Forest and Town Forest. These conservation lands provide habitat and recreational opportunities, protect critical natural resources, and are an important feature of the community's character and quality of life.

In addition to those properties with permanent protection shown in Table 3.2 on the following page, the town also owns the 54-acre Alpine Springs parcel, which is an abandoned water source, and an additional 49-acre parcel with the airport and town water supply, both just south of the village area. Also, with the assistance of the bridge-financing of The Conservation Fund, the town is in the process of adding 2,020 acres to the Town Forest.

TABLE 3.2 GORHAM CONSERVATION LANDS

Property	Management	Type	Acres (rounded to nearest acre)
White Mountain National Forest	US Department of Agriculture, Forest	Fee Ownership	5,798
Moose Brook State Park	NH DNCR	Fee Ownership	738
Paul T. Doherty Memorial Town Forest	Town of Gorham	Fee Ownership	1,116 (2,020 being added)
Drew	Society for the Protection of New Hampshire's Forests	Conservation Easement	251
Mascot Mine Natural Area	NH DNCR	Fee Ownership	12
Appalachian Trail Tract	US Department of the Interior, National Park Service A/T	Fee Ownership	50
Libby Pool	Town of Gorham	Fee Ownership	18
Potter	NH Fish & Game	Conservation Easement	27
Gorham Land Co. (adjoins Libby Pool Property and has the pool intake)	Town of Gorham	Conservation Easement	7
Gorham Land Co. (Glen Rd., north of Peabody River)	Town of Gorham	Conservation Easement	approximately 100
Presidential Rail Trail	NH DNCR	Fee Ownership	47

(Source: 2005 Gorham Master Plan; GRANIT, August 2019; CAI Technologies, Gorham GIS Parcel Layer)

Dark Skies

Gorham's dark night sky away from the village areas allows for wildlife and natural ecosystems to remain undisturbed by human light and is an essential element of the town's rural character. Proper design of outdoor lighting is important for maintaining the dark night sky. Some common lighting design issues are glare, over-lighting, light trespass, and skyglow. Glare refers to lighting fixtures that shine a portion of the light into individuals' eyes rather than onto the object or area to be illuminated. Glare can impair vision and cause safety problems. In addition to causing glare, over-lighting negatively impacts the character of the area and wastes energy. Light trespass refers to light falling on a neighboring property because a fixture emits too much light at high angles or projects light too far. Skyglow is light pollution which is visible miles away due to reflection off of atmospheric particles. In the winter, snow adds to the skyglow. The model ordinance language developed by the International Dark Sky Association (darksky.org) IDA together with the Illuminating Engineering Society of North America work provides a good source of information if the town desires to strengthen or update its lighting ordinance in the future. Technology and standards in this area are continuing to evolve so it will be important to maintain up-to-date knowledge and requirements.

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Chapter 4

Economic Development

Context

This century so far has been one of adjustment for northern New England communities like Gorham that grew up around the forest products industry. Pulp and paper mills like the former Brown Company/Fraser Pulp Mill in Berlin that fed the former Brown Company/Fraser Paper Mill in Gorham drove the land use development patterns, and still dominate the landscape in many large communities, but no longer dominate the job market. Berlin's pulp mill closed in 2006 and the property was broken up, a portion repurposed to be Laidlaw's biomass plant. After several fits and starts, Gorham's paper mill is now operating at a much smaller level as Gorham Paper & Tissue.

These properties and their stories stand as more than a reminder of our past and important parts of our tax base still today. They are reminders of the important role the traditional forest products industry continues to play in our local economy; Gorham Paper & Tissue is Gorham's third largest employer. In addition, study after study conducted on the region's economy, plan after plan, remind us that our natural resource base continues to be the foundation of our economy, whether through tourism or the quality of life provided by its scenic natural and recreation resources.



What We Heard

Community Survey

Respondents to the master plan survey overwhelmingly favor growth of the community. Eighty percent (80%) of respondents reported favoring more development in Gorham. Strong support was shown for business development in the downtown (favored by 97% of respondents), in the Upper

Village (70%), and on the Berlin-Gorham Road (96%). Survey results reflected strong concern about the vacant buildings downtown; eighty-nine percent (89%) of respondents supported the town taking a more active role in finding businesses for these properties.

Brainstorming with the Experts

On November 5, 2018 about thirty residents and local business owners gathered with Planning Board members and regional and state economic development experts to brainstorm ways in which Gorham could continue to benefit from its strengths and develop a more diversified sustainable economy. There was consensus on several guiding principles:

- Build on Gorham's strengths.
- Think regionally when marketing the area; build on strengths of both the area and the unique offerings of the town; look at how Gorham fits in with other communities' strengths and offerings.
- Pay special attention to the needs and interests of those in the younger half of the workforce.
- Have a point person and/or group to spearhead economic development projects.

Many of the ideas presented in the remainder of this chapter were discussed at this brainstorming session.

Some of the Key Strengths for Economic Development

In addition to the strong support for business development reflected in the master plan survey results, Gorham has many other strengths to build upon.

Location

Gorham continues to have the opportunity to make the most of the area's abundant natural and scenic resources as it develops a more resilient, more sustainable economy. For those who are self-employed, telecommute, or are seeking a location for a business that is not dependent on transportation infrastructure for getting its wares to market, this quality of life is a key consideration.

Recreation Opportunities

Gorham serves as a hub for trails of all kinds. Trails are readily accessible for walkers, hikers, mountain bikers, Nordic skiers and snowshoers. Also, in recent years, ATVs have joined snowmobiles to bring motorized sports opportunities to the area year-round. Less well known is the Androscoggin River

Trail which also passes through Gorham and links to both the Northern Forest Canoe Trail and the Connecticut River Paddlers Trail.

Gorham is one of only two towns in New Hampshire to be recognized in the Appalachian Trail Conservancy's Appalachian Trail Community Program. This has provided an opportunity to capitalize on this recognition and add value to the increased visibility.

A Small Town in the Mountains with a Real Downtown

One of the special things about Gorham is the downtown that is walkable and offers shops and restaurants and activities on the Common and at the Medallion Opera House, but still feels in many ways like a small town. The town's friendliness and other elements of small-town living jumped out as a strength in the master plan survey results. This atmosphere, combined with the strong support for additional development, provides a unique opportunity for those seeking to start a small business or start a family and telecommute or conduct their business remotely.

Lack of Sprawl

Neighborhoods adjoin the downtown and primary transportation corridors. Beyond these neighborhoods are vast areas of forest and mountain. This land use pattern, with a clear contrast between the developed areas and surrounding resource lands, is becoming harder and harder to find in the northeastern U.S. In many communities the dominant land use pattern is single-family homes on large lots, with no clear differences between the various parts of town. Gorham is a great example of the "smart growth" that planners advocate. Young people increasingly seek the benefits of a downtown with close neighborhoods and easy access to outdoor recreation opportunities.

Infrastructure

Gorham's business districts are on state highways with power, broadband, water and sewer. Several vacant downtown buildings provide readily available business sites.

Recommendations

- Build and maintain a local economic action team to actively partner with municipal government, the business community, and regional and state economic development organizations to spearhead and implement projects that will enhance Gorham's economic development.

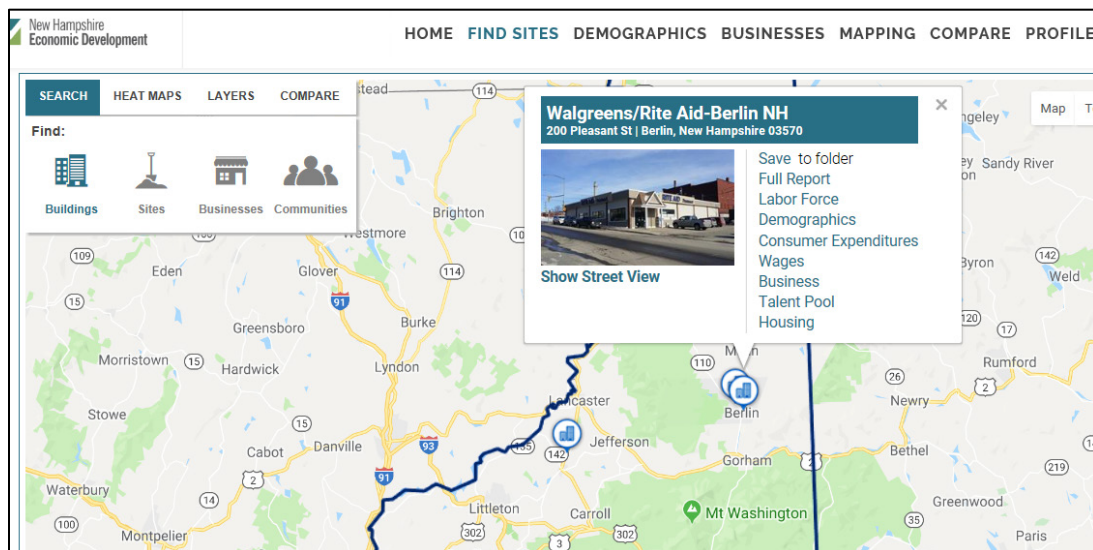
While working in unison with municipal government is essential, an economic development group that is not an official town committee or board can sometimes have benefits such as the ability to move more quickly and work more closely with local businesses. Participation should include municipal government, of course, as well as banks and other businesses, and

any residents ready to roll up their sleeves and take on a project. Although a private group would not be subject to the state's right-to-know laws, transparency is critical nonetheless.

The Groveton Regional Economic Action Team (GREAT) provides one example of a such a local group to learn from. One of GREAT's first projects was a survey to identify the priorities of the Northumberland community. The results gave GREAT direction for several local projects. GREAT also formed a partnership with Northern Community Investment Corporation to offer a revolving loan fund for local businesses.

Some specific actions that would be a good fit for such an economic action team include:

- Populate and maintain NH Economic Development's on-line database of available buildings and sites for business. The state maintains a website with available office, commercial and industrial buildings and specifications (www.selectnh.com). The database is populated by building owners, community groups, and economic development groups. At this time there are very few listings in Coos County. Making this a priority would be one way to give Gorham a competitive edge in northern New Hampshire.



(Source: NH Economic Development, SelectNH.com)

- Develop and maintain a website with a focus on being a resource for existing and prospective businesses and job seekers. Have sections with links to local job opportunities, job training, available housing, business assistance programs, and NH Economic Development's selectnh.com on-line database of buildings and sites available for businesses. If formatted correctly, sections of the website appropriate

to use as a marketing flyer can easily be printed on-demand (rather than paying to develop a print version that will quickly become out-of-date).

- Help existing and prospective businesses learn about and connect with assistance available from town, regional and state groups and programs, such as:

NH Division of Economic Development

Visits companies on a regular basis to assist with a wide range of issues and specific concerns, including workforce development and financial issues. Works with banks and a variety of funders to assist businesses to secure loans, including NH Business Finance Authority (BFA), Community Development Finance Authority (CDFA), US Department of Agriculture Rural Development (USDA-RD), and Northern Community Investment Corporation (NCIC).

Coos Economic Development Corporation (CEDC)

Provides loans and technical assistance to small businesses and start-ups. Assists with grants. Provides grants to nonprofits for economic development and technical assistance grants to businesses. Focus is job retention/creation from 1-50 employees.

USDA Rural Development

Economic Development assistance includes loan guarantees, and grants for housing, business and infrastructure. Role is to make the private sector work, not compete. Works with the other entities, such as money for loan programs.

Northern Community Investment Corporation (NCIC)

Role is lending and developing financing partnerships for business and community development.

North Country Council

Is the lead for the EDA Economic Development District. Assistance includes identifying all of the resources available for community and economic development projects. Develops the Comprehensive Economic Development Strategy (CEDS) with participation of the region's economic development and municipal leaders.

Property Tax Breaks

The town offers tax breaks for business development for 5 years, deescalating. The first year is a 90% discount.

Job Training Programs

The state offers a job training grant program through which the state will match half of training costs. The training has to go through the community college system. White Mountains Community College coordinates with economic development partners to assist with this type of program.

There is a similar program through NH Economic Development for on-the-job training which pays up to 50% of salary for up to six months.

Littleton High School's technical center and the SAU collaborate with area employers on both classes in school and for adult continuing education.

Gorham High School and Middle School programs include opportunity for students to be mentored by a local businessperson and job shadowing. The school also works with the White Mountains Community College.

- Raise local match for grants.
 - Identify action items to ensure the town capitalizes on the Appalachian Trail Community designation; use this activity-focused message as a theme to attract young people to town.
 - Follow up on UNH Cooperative Extension's First Impressions study of Gorham's downtown and associated recommendations. Focus on achievable small steps such as banners, art, and holiday lighting.
-
- The town should emphasize the development director-like function of the Town Manager position to ensure the town has a point of contact for prospective businesses and other developers, as well as economic development partners. This role should also include grant writing, coordinating with the economic action team, recruiting and overseeing interns, and developing a capital improvements program.
 - Hire an intern to identify developable land with water and sewer.
 - Hire an intern to develop a list of available buildings with specs.

- Decide as a community what types of business are appropriate in what locations – downtown, Berlin-Gorham Road, Upper Village – and enlist the help of regional and state economic development experts to align local preferences with market opportunities.
- Review the zoning ordinance to ensure that land is zoned in a manner which will achieve the town’s economic development goals while balancing those with other priorities, such as maintaining the contrast between the downtown and surrounding forests and mountains.
- Identify opportunities to utilize the presence of the river alongside the downtown as an asset.

- Review parking requirements to ensure they are not unnecessarily reducing the density of downtown development.



- Conduct a parking study to identify opportunities to optimize available areas for public parking.

- Develop a capital improvements program to prioritize improvements, identify funding sources, and schedule projects in a manner which avoids significant fluctuations in the local tax rate and reduces the cost of deferred maintenance.
- Implement the town’s hazard mitigation plan to reduce the potential financial impacts of disasters on business.
- Ensure the community’s regulatory environment is supportive of housing for young people to get started in order to replace retirees in the workforce.
- Review the zoning for the downtown and other tools to ensure the community is promoting the kinds of businesses that attract and meet the needs of younger people, such as a brewpub and small coop-type food store.
- Identify opportunities to increase the programming at the Medallion for all ages, including concerts and contradances aimed at participants age 20 - 40.

- Develop a town trails committee to develop a comprehensive trails plan and work on enhancing the physical, visual and service connections between the business community and all kinds of trail users, including hikers, mountain bikers, Nordic skiers, snowmobilers, and ATVers. Build upon the AT Community/outdoor recreation focus and increased popularity of the Appalachian Trail, and participate with the Appalachian Trail Conference to promote the local trail network. Some potential areas of improvement:
 - Develop linkage between Main Street and the mountain bike trails, including signs along Main Street pointing to the trails.
 - Look for ways to make the downtown area more accessible to trail users.
 - Provide a connection for trail users to Berlin-Gorham Road commercial areas. The bus every two hours is not adequate. Explore the possibility of a seasonal market for an Uber or Lyft-type service as a means for providing transportation while providing an earning opportunity for residents.
 - Look at Hogan Road with bridge for bikes/pedestrians as potential alternate route parallel to the busy highway. The road connects with the Appalachian Trail in Shelburne.
 - Identify and mark a bike route through town.
 - Develop a trails map showing trailheads, parking and significant views.
 - Improve existing or former trailheads for the following USFS trails: Mount Moriah on Bangor Street, Stony Brook on Route 16, Pine Mountain on Promenade, Mahoosuc at the Black Trestle, and Hunter's Pass on Jimtown Road.
- Continue to advocate for expanded cell service options.
- Coordinate local elected and appointed Boards toward a unified effort to increase Gorham's tax base.

Chapter 5

Land Use

Introduction

Land is a finite resource, and the thoughtful use of land is a critical issue for all communities. Since 1988, Gorham has regulated land uses with a zoning ordinance. The zoning ordinance is based on the Gorham Master Plan and NH RSA 674:2 II. This statute requires master plans to have a vision and a land use section at a minimum. How a community decides to use its land base clearly has a direct impact on natural resources, community character, transportation infrastructure, housing affordability, the tax base, and the cost of providing services. Changes in demographics, evolving housing needs, and the economic and conservation needs discussed throughout this plan have had, and will continue to have, a direct impact on the landscape of the community.

The purpose of this chapter is to identify land use trends and patterns in Gorham and identify future land use policies and actions for the community to pursue. These recommendations are based on the needs and desires of residents and the characteristics of the landscape.

Land Use Trends and Patterns

As shown in the photo on the next page, Gorham is in the enviable position of having the settlement pattern sought after by Smart Growth advocates, that is, a densely developed village center surrounded by intact working forest. This is due to a combination of factors such as the legacy of working forests and the landscape itself. Land use patterns were shaped by the river valleys which formed the basis for transportation by rail and road, and also provided hydropower.

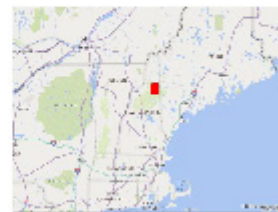
2015 Aerial View



Map Scale
1: 62,500



© NH GRANIT, www.granit.unh.edu
Map Generated: 5/1/2019



Gorham is a product of its location and environment. The town's natural features such as topography and geology as well as its transportation system and economics have greatly influenced its development. The development of Berlin-Gorham into a regional center is a result of its geographic location, and early commercial and manufacturing growth in the area. The Androscoggin River provided the early power for manufacturing, and the town's location provided easy access for neighboring communities.

As described below, recreation began to play an important role very early in Gorham's history.

Excerpts from Some Highlights of Gorham's History by Guy Gosselin, Reuben Rajala Ed.

Prior to incorporation [in 1836], Gorham was known as Shelburne Addition and already was a crossroad of sorts. The road from Shelburne and Gilead, which was the route followed by most of the early settlers of the town, was extended to Durand (Randolph) in 1802, and eventually to Lancaster, the county seat. The road north to Maynesboro (Berlin), made its appearance around 1820, and the Glen Road through Pinkham Notch about four years later.

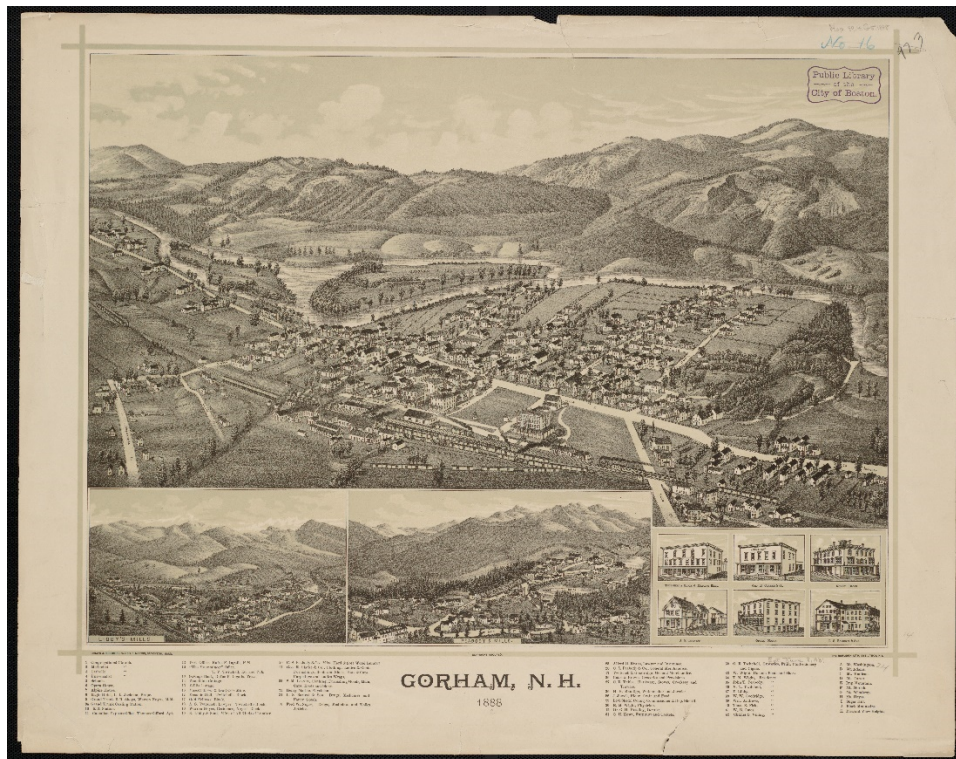
Growth... spiked very significantly around 1851 because of the anticipated arrival of the Atlantic & St. Lawrence Railway, the principal aim of which was to provide Montreal with an ice-free port in Portland, Maine. But there was a second aim, and this was tourism. Prior to the arrival of the railway in Gorham, the only way to visit the White Mountains was by horseback or by bone-jarring stagecoaches. Now whole families could visit with as much luggage as they wished to bring, and they could either stay at the newly constructed White Mountain Station House (later called the Alpine House) in the center of Gorham or at other first class hotels in the area. The railway also sited a large complex of repair buildings in Gorham, being halfway between Portland and Montreal.

By 1861, 25 years after incorporation, Gorham's permanent population had increased tenfold to between 900 and a thousand people... Gorham had quickly become one of the two or three major centers of railroad activity between Portland and Montreal. The completion of the Carriage Road to the summit of Mount Washington in 1861 became yet another attraction for city people to take the train north. Gorham became known wide and far at the "Gateway to the White Mountains."

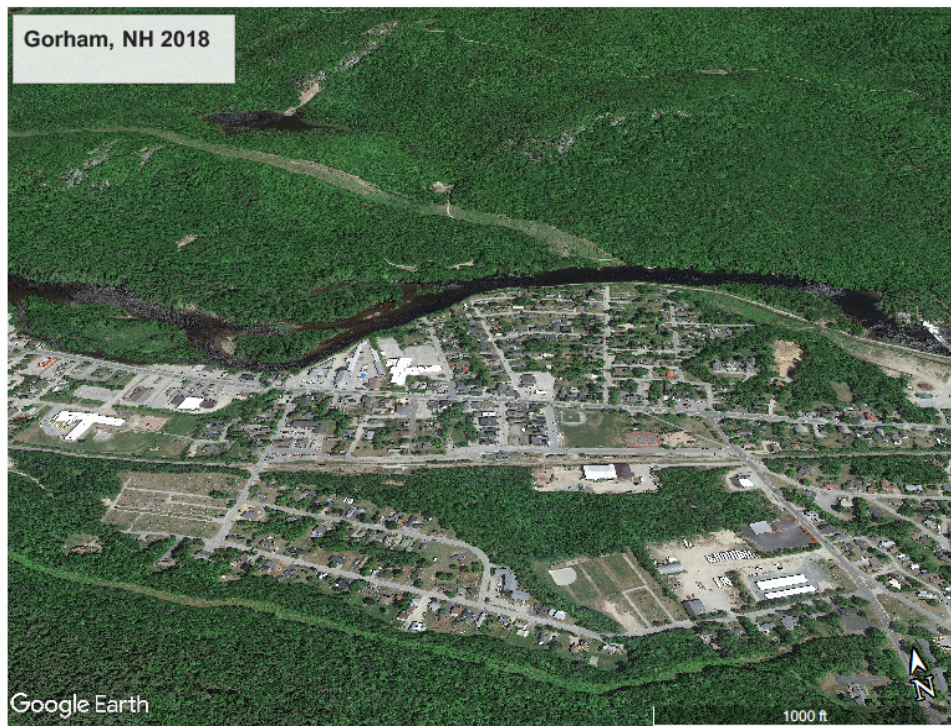
After tourism, as a driver of growth in Gorham, came the timber industry and pulp and paper mills. Lumbering and forest products-based manufacturing took off in the late 1800s and remained the primary industry for the area for many decades. Some area mills suffered during the Great Depression and World War II, but remained a significant factor until recent decades when changes in the market and high energy costs reduced the number of pulp and paper mills operating in the region to one.

As a result of the White Mountain National Forest and other large wood products and conservation-focused landholdings, combined with difficult terrain outside of the major river valleys, today's land use pattern is much like yesterday's.

Gorham in 1888, George E. Norris, courtesy of Wikimedia Commons:



Gorham in 2018, Courtesy of Google Earth:



Land Use Today

The Working Landscape

Gorham is fortunate to still have the vast majority of its land base in working forestland. The forests are combinations of softwood and hardwood species which make for diverse uses by the wood products industry, diverse habitat, and diverse recreation opportunities. Much of the forest land in Gorham is steeply sloped and unsuitable for development. There are also lands throughout the community that were once pastureland, but are now abandoned and in the process of returning to a natural state.

The majority of the 8,141 acres of tax-exempt land in Gorham is managed forestland in public ownership. This is comprised of the White Mountain National Forest, Moose Brook State Park, and Gorham Town Forest. In addition, a 2,020-acre addition to the Town Forest is in process.

In 2018, 9,564 acres were in the Current Use Program (2018 MS-1). Of these lands, 7,779 acres are managed forest (2,020 acres being transferred from The Conservation Fund to the Town Forest). Like the rest of northern New Hampshire, these forestlands had historically been owned by paper companies, but are now owned by a patchwork of private owners and land investment companies. This has in many areas affected the land management objectives, with more focus on short-term profits vs. long-term stewardship. The expansion of the Town Forest will ensure that a significant portion of this land will be sustainably managed for a variety of forest uses.

The remainder of Current Use lands are farm (51 acres), other forest (1,379 acres), wetland (85 acres), and other unproductive land (270 acres) (2018 MS-1).

A total of 9,122 acres of land in Gorham in the Current Use program is receiving the 20% recreation adjustment for allowing public use for nonmotorized recreation. This greatly expands the recreation opportunities in Gorham.

Developed Areas

As a result of its history and role in the region, Gorham today contains a wide array of land uses. The village area is located south of the Androscoggin River, bracketed by Moose Brook to the west and the Peabody River to the east. The village area is densely developed, with a majority of the town's population, along with small businesses and town services. A lesser amount of residential development is located west on US Route 2, in the Jimtown Road area, north off of NH Route 16, and in the Stony Brook development surrounded by national forest off of NH Route 16 South.

Residential land use has not increased in recent years; the number of dwellings has remained about the same. In terms of acreage, there has actually been a decrease in the land assessed as residential, from 1,635 acres reported in the 2005 Master Plan to 1,376 in 2018 (MS-1). There has been an

associated increase in acreage in the Current Use program. Residential land represents 12% of the taxable acreage in town, and 58% of the value of taxable real estate (not counting utilities) (2018 MS-1).

The vast majority of homes in Gorham are year-round homes; the 2010 Census reported less than 4% of the homes in town were seasonal. Additional seasonal home development, building on the scenic beauty and recreation opportunities, would provide one opportunity for the community to increase its tax base. Key to ensuring additional development would provide a net gain for the community financially would be that it is well-planned and appropriately located. Development that is far from town services and infrastructure, or that fragments natural resource lands and/or detracts from the character of the community, would not benefit the town.

The majority of commercial land use is concentrated on Main Street in the village area and on the Berlin-Gorham Road (US Route 16 North). The village area has a variety of small businesses, many associated with the tourism economy such as lodging and ATV rentals, and others such as restaurants that serve local residents as well as visitors. For both types of business, Gorham's village area is the commercial hub for many surrounding communities as well.

The Berlin-Gorham Road has attracted businesses with greater demands for land, such as the Berlin City Auto Group and Walmart Supercenter. These businesses draw customers from a large geographic area.

North of the Berlin-Gorham Road commercial area is an industrial area with a hydroelectric plant and northern New Hampshire's last remaining paper mill, Gorham Paper and Tissue.

Gorham's commercial and industrial lands represent just 6% of taxable acreage, but 42% of the value of taxable real estate in town (2018 MS-1). Being a business-friendly community will remain important for the tax base as well as employment opportunities for residents.

Presently the large area north and east of the Androscoggin River remains largely undeveloped except for energy facilities and a rail corridor.

Development Limitations

Areas of high elevation and steep slopes

Much of the undeveloped land in Gorham is at higher elevations and steep slopes. As shown on the representative slope map on page 32, large areas of the undeveloped land in town is over 15% slope. The slope of the land can greatly impact the economic and physical feasibility of development. The steeper the slope, the more it will cost for construction and maintenance of septic systems, roads, driveways, foundations and stormwater infrastructure. Additionally, as the slope increases so does the potential for an increase in erosion, stormwater runoff, and nutrient movement. Poor soil

conditions combined with steep slopes can present significant development constraints. As a general rule, slopes from 15% to 25% are considered to be difficult and costly to develop, and slopes over 25% are considered undevelopable. The high elevation lands also tend to have shallow soils unsuitable for septic systems. A steep slope ordinance could provide additional site design requirements for development on steep slopes to prevent erosion, and perhaps identify areas suitable only for uses that don't involve permanent construction. In addition, Gorham's subdivision and site plan review requirements should be reviewed to ensure that they incorporate the most current best management practices (BMPs) for stormwater management.

Wetlands

Wetlands are not as large a factor in Gorham as they are in some other communities. As shown on the National Wetlands Inventory map on page 46, other than some small wetlands scattered around town, Gorham's wetlands are primarily associated with the major river corridors.

Floodplains

As shown on page 39, flood hazard areas have been mapped by the Federal Emergency Management Agency along Gorham's major rivers and several tributary brooks. These include substantial areas adjacent to the Androscoggin River in the village, adjacent to Moose Brook and Moose River on either side of Lancaster Road, and surrounding the juncture of the Peabody River with the Androscoggin east of the village area. Significant flood hazard areas are also found along the Moose Brook headwaters along Jimtown Road and Tinker Brook near the Berlin line.

The floodplain maps don't take into account the flood control berms that were built to protect certain areas of town. This is because, although they have never failed, they were not constructed to today's standards. The berms need to be mapped, evaluated and in some cases rebuilt in order to be recognized for flood insurance purposes. The town is exploring options for this work. In some cases, 75% matching funds would be available if the berms were town-owned.

The *2016 Gorham Hazard Mitigation Plan Update* describes the role that the mountainous terrain surrounding Gorham plays in flood hazards:

Heavy rain, particular at the higher elevations in and out of Town, causes the rapid development of fast moving water along the Peabody and Moose Rivers. Records indicate that the Presidential Mountains collect twice the amount of rainfall than the valleys. The rocky nature of the above tree line areas act similar to an impervious surface; there is little to no soil to hold the rain and it flows down to the valley at rapid speeds.

Scientists agree that climate change will lead to more frequent extreme weather events. This makes it more important now than ever to locate future development outside of flood hazard areas, and work to increase the resilience of existing structures and infrastructure.

Riverbanks

Another important consideration in siting future development is riverbank erosion. NHDES describes the erosion hazards associated with flooding like this in its *Flood and Geologic Hazards Environmental Fact Sheet* (CO-GEO-10):

Floods pose inundation risks to properties and infrastructure in floodplains adjacent to rivers, but there is also danger from sudden channel scouring and riverbank collapse, bridge abutment failure and culvert washouts, or even wholesale changes in the course of rivers. The risks are highest during active flood events, when rivers and streams, with high velocities, have the greatest ability to erode and shape the streambeds and banks, particularly in steeper terrain north and west of Concord. The most dramatic kind of erosion event, known as an “avulsion,” occurs when a river cuts through one of its banks and erodes an entirely new path, usually abandoning its old path in the process.

The 2016 Gorham Hazard Mitigation Plan Update included the following discussion of erosion risks in Gorham:

Erosion of the banks of all three of Gorham’s major rivers has a high probability of occurring in the future. During Tropical Storm Irene, the Peabody River experience [sic] significant erosion, despite prior efforts to mitigate the problems. As heavy rains occur at the summits of the mountains, swift moving water gathers and funnels down the Peabody River through the valley and into Gorham where the Peabody meets the Androscoggin. White Birch Lane and others [sic] areas along the Peabody were affected by erosion. According to one Team member, the Peabody River is considered one of the most dangerous small rivers in the country...

The Androscoggin River also has potential for future erosion. “The Androscoggin Valley Country Club experienced river bank erosion and was damaged during Irene”. Other areas, including Cascade Flats, along the Androscoggin have experienced flooding repeatedly.

Despite efforts to stabilize the banks, the Moose River has eroded to a point where “The rock embankment had washed away leaving soil being held by tree roots.” The Gateway Trailer Park is at risk of being flooded by the Moose River. Seventeen trailers are at risk of flooding and perhaps being dislodged from their locations; this could potentially require sheltering for up to 40 persons.

Erosion of Gorham’s major rivers and some of the Town’s smaller rivers has a high probability of occurring in the future.

Although detailed erosion hazard area studies are costly and have not been performed in Gorham, generalized maps of areas likely to be at risk of erosion can be developed as a planning tool using protocols developed for desktop mapping.

Future Land Use

Guiding Principles

Gorham's location in the White Mountains ensures its place in the tourist-based economy of the region. The recreational opportunities available within a short drive greatly enhance the success of tourist accommodations and services. Gorham holds a key position in the development of the North Country. Located on US Route 2, a major truck transportation route between Canada and the Atlantic seaboard, as well as a local transportation route for the region, Gorham receives a diverse stream of traffic year-round.

Gorham's abundant natural resources form the foundation for its recreation and tourism economy, and for potential economic growth. The undisturbed beauty and recreation opportunities are a strong contributor to the quality of life driving the locational decisions of today's young entrepreneurs.

The exact nature of future growth and development, and its placement on the landscape, will be driven by market forces and individual landowner's objectives, within the framework of Gorham's zoning ordinance, site plan and subdivision regulations, and capital improvement plan.

Gorham's challenge for the future will be to promote growth that will enhance the vitality of the town's village center and neighborhoods. This will mean ensuring that growth doesn't begin to take the form of rural sprawl. Gorham's strength is that it offers both a real village area with public parking, restaurants, events on the town common and at the Medallion Opera House, surrounded by thousands of acres of undeveloped forest and mountain. Scattered low density development would greatly reduce the value of the surrounding woodlands for recreation. This clear contrast between the village area and surrounding forestland is a key ingredient of the quality of life that sets Gorham apart from other communities.

In developing recommendations for future land use, the Planning Board gave careful consideration to the vision for the future developed with community input and to the master plan survey results. These considerations as well as those related to the physical landscape and infrastructure can be expressed as a set of Guiding Principles for Future Land Use as follows:

Balance environmental protection with landowner objectives

The master plan survey asked respondents to identify the "strongest" approach they would support in a range of options available for the town to manage the impacts of development on our natural resources, from doing nothing, to restricting where development can occur. As shown in the following

table, there was strong support for managing development to protect our environment, but a majority did not support restricting where development can occur.

TABLE 5.1 RESPONSES TO THE FOLLOWING QUESTION IN THE 2018 MASTER PLAN SURVEY: A RANGE OF OPTIONS IS AVAILABLE FOR THE TOWN TO MANAGE THE IMPACTS OF DEVELOPMENT ON OUR NATURAL RESOURCES. FOR EACH ISSUE OR CATEGORY OF NATURAL RESOURCES, PLEASE PUT AN X FOR THE “STRONGEST” APPROACH YOU SUPPORT. PLEASE JUST PUT ONE X PER ROW.

	Do nothing	Landowner Education	Allow development but put conditions on it to protect the environment	Restrict where development can occur
A. Aquifers	10%	12%	29%	48%
B. Wetlands	11%	12%	28%	49%
C. Moderately steep slopes (15-25%)	15%	15%	49%	21%
D. Very steep slopes (over 25%)	22%	12%	21%	45%
E. Floodplains	8%	18%	28%	45%
F. Riverbank of Androscoggin River	9%	12%	41%	37%
G. Riverbanks of smaller streams	9%	16%	46%	28%
H. Scenic ridgelines and hilltops	16%	12%	32%	40%
I. Stormwater runoff	8%	20%	41%	31%

Resilience/climate change

Future development should be located and designed in a manner which will withstand the natural hazards of today and tomorrow. This includes avoiding areas at risk for flooding and riverbank erosion, and ensuring that new development does not increase these risks by creating additional stormwater runoff.

Resilience/economic change

Recent decades have taught us that, especially in today's global economy, over-reliance on one economic engine makes the community vulnerable to economic changes outside of our control. Land use planning should strive to stimulate a diverse local and regional economy.

A vibrant, walkable village center

A vibrant, walkable village center is one of the qualities most valued by residents and provides an asset to improve and build upon to attract new residents and businesses. One key to this is providing incentives to redevelop and develop sites in the village area and surrounding neighborhoods, and disincentives to develop in the large areas of unfragmented forest. This land use pattern is also associated with a lower cost to the town to provide services and facilities.

Working forest

The large tracts of undeveloped forestland that provide economic, natural, scenic and recreational resources are equally important to the quality of life in Gorham for residents and visitors. Land use planning should continue to recognize the importance of these unfragmented forestlands.

Continue to resist sprawl

One of the most unique factors of Gorham from a land use perspective is the lack of sprawl. Many residents value the opportunity to live in a "real neighborhood" with easy access to uncrowded forests and mountains to hike, hunt, or just enjoy the quiet natural surroundings. Land use planning should strive to continue to maintain clear distinctions between village, neighborhoods and forest areas.

Diverse land uses

One of Gorham's strengths is its wide variety of land uses. Land use planning should continue to enable and encourage this diversity, while ensuring that areas are appropriate for the uses allowed, including consideration of existing neighboring uses, development suitability, and town services and infrastructure.

Balance the needs of residents and visitors

Although visitors benefit from the small-town feel and residents benefit from the tourism economy and the opportunities it supports for dining, entertainment and recreation, careful planning is essential to ensure that conflicts are not created when the needs and desires of residents and visitors are not in sync. The neighborhood concerns about the impacts of the increased use of the state's ATV parking area on Lancaster Road is a good example of these unintended consequences.

Steward outdoor recreation

Gorham's wide variety of high-quality outdoor recreation opportunities depend on cooperation among public, private and nonprofit landowners, user groups, and business owners. These recreation opportunities add to the quality of life for existing and future residents and attract visitors to support local businesses. Land use planning should continue to be done with opportunities to steward and strengthen these opportunities in mind.

Diverse housing supply

One of Gorham's strengths is its diverse housing supply. Land use planning should ensure that opportunities continue to be available for people of all ages, abilities and income levels. This should include creative approaches such as senior cottages and mixed use development.

Be agile

A critical element for attracting new residents and businesses is the ability to attract emerging business and housing types. Today a hot topic in business models is "the gig economy," and for housing, it's tiny homes. Tomorrow it will be something else. It is important that Gorham's land use planning tools can respond to change and new demands quickly.

Zoning Districts Today and Tomorrow

In general, the zoning districts as currently mapped present an accurate view of the desired future land use pattern of the community. The districts are described below along with several changes recommended for consideration:

Commercial A – Village Area

In the village area, Commercial A zoning is mixed in with Residential A zoning, both allowing 10,000 sq. ft. lots. On lots zoned Commercial A, a wide variety of business types are allowed, as well as all of the residential uses allowed in Residential A. The commercial development should continue to be of a nature and scale that is consistent with the village environment. On both in-fill and redevelopment sites in the village core, new commercial development should be consistent with a walkable village center environment; new businesses should reinforce its role as the heart of the community for a

variety of uses and social interactions. Gorham is at an advantage having its municipal offices and schools within the village core, and the community should work to keep these uses in the downtown area.

There are some opportunities to strengthen the role of the village center commercial district, such as:

- Encourage densely developed residential uses that maximize the number of dwelling units per acre, such as townhouses or multifamily housing. Limit other residential use in the Commercial A to above street level.
- Ensure the Zoning Ordinance allows creative approaches to increasing housing density.
- Examine opportunities to expand the Commercial A district to additional adjacent lots when neighboring land uses are compatible. One such example may be the Residential A lots east of the town common.
- Expand the Commercial Compact Overlay District. This overlay allows for new development and redevelopment with more of a “downtown feel” with reduced lot sizes and reduced setbacks, similar to existing buildings in the commercial center. This district would be compatible with existing development around the town common, south to Railroad Street, and west along Main Street for several blocks.

Other initiatives that were identified for the village area include:

- Connect side streets to each other where possible to improve the transportation system.
- Consider building an emergency bypass on the south side of the downtown.

Residential A

Areas of existing small lots are zoned Residential A, along with other areas suitable for residential development on small lots. Residential A is aimed at maintaining the densely developed neighborhoods in and around the village area and along Lancaster Road. Some Residential A is also located out on the Jimtown Road, and north of town off of Route 16. Single family homes are allowed on 10,000 sq. ft. lots (minimum size).

In order to encourage development near the village center and enhance the vitality of the village area, it would be desirable to identify additional adjacent land suitable for residential development on small lots. For example, an extension of Promenade Street may enable homes to be built between the rail line and gas pipeline behind the school, however part of this land is currently zoned Timber and Agriculture.

Residential B

Similar to Residential A, Residential B is focused on maintaining existing neighborhoods and providing opportunities for additional residential development, on 1-acre lots (minimum size). Residential B lands are scattered around town outside of the village area.

Rezoning portions of land currently zoned Timber and Agriculture along Gorham Hill Road to Residential B, consistent with adjacent lands, would provide additional opportunities for home development in Gorham. Additional land similarly zoned north of town west of Route 16 North may provide similar opportunities. This area would require further study to determine the suitability of soils.

Commercial B

Lands along Route 16 north of Route 2 are zoned Commercial B. Allowed uses are very similar to Commercial A, including residential uses. The main difference is that the minimum lot size is one acre. This area is most suitable for and has seen larger-scale highway commercial development. The highway corridor also has the benefit of views and access to the scenic river and hillsides. Development along the west side of Route 16 is envisioned as being somewhat limited to the immediate highway corridor itself, and not spreading further west. Development on the land zoned Commercial B on the west side of the rail corridor is dependent on a safe, approved rail crossing. Development along the east side of Route 16 in this area needs to be of a slightly smaller scale due to its location along the river.

The Commercial B district is the least well-defined in terms of its mix of allowed uses and a relatively small lot size. With the decline of “big box stores” nationwide, as well as the importance of this transportation corridor, Gorham would benefit from a corridor study that would enable a closer look at the desired land uses and desired land use pattern, and access management tools that would enable continued development that would add to Gorham’s tax base without decreasing the safety of the highway or causing congestion.

Industry

Several areas of town are zoned for more intensive industrial land uses that are not compatible with village activities or residential neighborhoods. These areas should remain designated for industrial uses.

Timber and Agriculture

Significant blocks of undeveloped land are zoned Timber and Agriculture to protect the community’s natural resource base and minimize interference with the forest industry from unrelated land uses. Although the community is fortunate to have a high percentage of protected land within the White Mountain National Forest, Moose Brook State Park, and Town Forest, there are other areas that are

of high value to the community for the range of natural resource-based uses they provide. Timber and agricultural zones have been identified with the goal of preserving the working landscapes in Gorham for forest operations, and to discourage sprawling development patterns that will strain the community economically.

Dwellings are allowed in the Timber and Agriculture District on 5-acre lots by Special Exception. If development pressure increases, this type of development could lead to rural sprawl and fragmentation of the forestlands. A combination of land use tools should be considered to ensure that any development in these areas is compatible with the important role these forestlands serve in the community. This might include, for example, decreasing the density of development allowed while also decreasing the minimum lot size. For example, if a landowner has 100 acres, they can currently create up to 20 lots, each 5 acres in size. Suppose that instead the allowable density of development was lowered to one home per 11 acres, and the minimum lot size was also lowered to, say, one acre. In this example, the landowner could create 9 house lots, and they would only need to take 9 acres out of forest management to do so, leaving the remainder in current use if desired. This type of “lot size averaging” approach helps balance the goals of the community with those of the landowner.

Special Land Uses

Excavations

The use of outwash deposits in commercial sand and gravel operations could alter the performance of these areas as groundwater recharge areas. As material is removed and the geology is altered, water will not be filtered and stored in the same manner. This could result either in a reduction in the amount of water available to future generations, or in its quality as less filtering is available. It is important to continue to enforce the town’s excavation regulations and monitor active excavations.

Agriculture

Traditional agriculture and agricultural land uses in New Hampshire and Coos County have declined substantially over the years. Land once used by small, non-mechanized farms has reverted back to forest land or has been developed. Miles of stonewalls in mature forest stands are testimony to an agricultural heritage in New Hampshire that has been lost over the past several decades. Gorham has certainly been part of that trend.

The agricultural land in Gorham is most commonly open fields that may be “idle,” meaning kept open by “brush hogging” or mowing every year or two, but not producing a crop. According to the New Hampshire Department of Agriculture, the face of agricultural operations in New Hampshire is changing quickly. Niche markets including specialty crops and herds, customized farm products, and small-scale operations are redefining agriculture. There is an economic benefit when produce and other products are generated locally, and the land does not require the high level of town services that development demands.

Gorham's zoning and site plan review regulations should be reviewed to ensure they are "farm friendly" and support non-traditional agricultural operations (small scale, seasonal, organic, specialty or "niche markets") and rapidly changing markets.

Trails

Gorham's trails and its location relative to major regional trail systems provide an opportunity for economic growth. However, as has been experienced in recent years, a thoughtful, transparent planning process is required to ensure that the community as a whole benefits from increased use and visitation. This unique land use requires a management process, and one that is outside of the typical set of land use regulations led by the Planning Board. Otherwise conflicts can easily occur between user groups, between visitors and residents, and between use of the trail and protection of other important resources. Several New Hampshire communities have an official trail committee with responsibility for management of town trails and coordination with other trail management entities. This would help ensure that the trail industry in town can continue to grow and be a positive thing for the town and a good neighbor.

Other Land Use Issues

Private Roads/Road Development

The Planning Board has given consideration to dropping the requirement that all new subdivision roads be given to the town. This requirement was borne out of some earlier subdivision roads being poorly constructed and becoming a burden to property owners and the town. In most communities, subdividers have the option to maintain the road as a private road. The keys to the success of this approach are 1. ensuring the road is constructed to town road standards by requiring a performance guarantee for the cost of construction and funds to cover the inspection of construction by the town's engineer, and 2. requiring that covenants be recorded with the plat providing a mechanism for carrying out both summer and winter maintenance of the road and collecting the funds necessary for that maintenance from lot owners. As a precaution in case the mechanism provided for in the covenants fails, a condition of approval should also be that, prior to asking the town to consider acceptance, the road would need to be brought up to town road standards at the property owners' expense.

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Chapter 6

Transportation

Introduction

One of the country's major east-west highways, US Route 2, and one of the state's major north-south highways, NH Route 16, form the foundation of Gorham's extensive road network. Like the railroad in the early years of the community, these highways connect Gorham's residents, businesses and visitors with surrounding communities and to major populations centers. Within the community itself, the road network provides connections to rail, and to trails for motorized and nonmotorized travel and recreation.

The master plan survey results indicated that Gorham residents have a favorable opinion about the town's transportation system. When asked, "What do you like best about living in Gorham?" several respondents identified town services, including roads, as a positive factor, as well as being able to walk to amenities and shops. When asked, "Would you support local funds for improvement of sidewalks and other pedestrian connections to make the community more walkable?" 53% responded "Yes" and 32% chose "Not sure, depends on cost."

Gorham faces challenges similar to other northern New England communities, such as aging infrastructure coupled with the increased costs of deferred maintenance, and the unavoidable conflicts when a community's main street is a major US highway.

This chapter will review the existing transportation system, and the needs and opportunities that system provides for Gorham and its residents, businesses and visitors.

Gorham's Transportation System

Highways

Classification

Gorham has 12.78 miles within its boundaries that are maintained by the state as part of the Primary State Highway System, Legislative Class I (NHDOT, 2018 Roads & Highways Town Centerline Miles by Legislative Class). These are US Route 2, travelling east-west across the country, and NH Route 16, traveling almost the length of the state from Portsmouth north to the Maine line at Wentworth Location. These two numbered routes combine to form Main Street through the downtown area. US

Route 2 and NH Route 16 are both considered to be Tier 2 Highways by NHDOT, second in importance only to the state's divided highways (NH.gov, NH Tiers Online Map).

In Gorham, both US Route 2 and NH Route 16 are part of the NH Scenic and Cultural Byways Program. Byways represented in Gorham are the Moose Path, Presidential Range Trail and Woodland Heritage Trail. Corridor plans were developed by North Country Council and are coordinated by the North Country Scenic Byways Council. The designation is used by the tourism industry in marketing. State law prohibits off-site signs on these highways.

Two additional highway segments totaling 2.69 miles are maintained by the state as part of the Secondary State Highway System, Legislative Class II (NHDOT, 2018 Roads & Highways Town Centerline Miles by Legislative Class). These are the portion of Jimtown Road to Moose Brook State Park and Pinkham B Road. These are both rated priority Tier 4 by NHDOT (NH.gov, NH Tiers Online Map).

Gorham has a total of 17.56 miles of town-maintained roads (NHDOT, 2018 Roads & Highways Town Centerline Miles by Legislative Class). These are Legislative Class V. As part of its Comprehensive Pavement Management Plan for town-maintained roads (*Roadway Improvement Plan for the Gorham Roadways located in Gorham, New Hampshire*, December 15, 2017), HEB Engineers, Inc., developed a road classification system for all of Gorham's paved town roads. Certain roads were classified as secondary roads due to the higher anticipated traffic volumes and their function as important connectors. These included Cascade Flats, Jimtown Road and the following roads connecting important community facilities in the downtown core: Park Street, Exchange Street, School Street, Mechanic Street and Railroad Street.

Traffic Volume

A review of NHDOT traffic volume data for US Route 2 and NH Route 16 for the last twenty years shows both trends over time and the role of various highway segments in the transportation system. As shown in the following tables, traffic volumes on these state highways have not increased in the last twenty years, and in some cases have decreased. At each location on US Route 2, the most recent counts showed the lowest volumes in twenty years. The same was true for NH Route 16 north to Berlin. Traffic on NH Route 16 South is more strongly influenced by the tourism industry and visitation at such locations as Mount Washington, Great Glen Trails, and Wildcat Ski Area to the south of Gorham. The traffic counters used record ATVs as well as motorcycles, cars and trucks.

Table 6.1 US Route 2
Annual Average Daily Traffic 1997-2016

Location	97	99	01	03	10	13	16
US 2 Randolph TL	6100	6200	5800		5900	5000	
US 2/NH 16 East of Dublin St	15000	14000		13000	12000	12000	9586
US 2 Shelburne TL			5300		6400	4100	

TABLE 6.2 NH ROUTE 16
ANNUAL AVERAGE DAILY TRAFFIC 1997-2016

Location	97/98	99/00	01	03	09/10	12/13	15/16
NH 16 Berlin TL	11000	13000	12000		11000	11000	9729
NH 16 N of US 2	15000			12000	12000	13000	9600
US 2/NH 16 East of Dublin St	15000	14000		13000	12000	12000	9586
NH 16 S of Libby St	4200	3500		3600	3000	3800	3200
NH 16 at Martins Location TL	3500	3300	2900		3300	2900	3070

(Source: NH Department of Transportation)

Jimtown Road has shown a similar pattern, decreasing from 880 vehicles per day in 2000, to 720 in 2009, 690 in 2012, and 540 in 2015.

Parking

Gorham is fortunate to have abundant parking in the downtown. On-street parking is available along Main Street (US 2/NH 16), and adjacent to the town hall and town common. Land use regulations have required businesses to provide off-street parking to ensure that public parking is not over capacity.

Sidewalks

Gorham's downtown and adjacent neighborhoods have an extensive network of sidewalks separated from vehicular traffic with curbing.

Signs

Several categories of signage can be found along Gorham's roadways, including:

- Signage along US Route 2 and NH Route 16 provided by NHDOT consistent with the *USDOT Manual on Uniform Traffic Control Devices* (MUTCD) guidance, e.g., route numbers, hazard warnings, speed limits, etc.
- Signage along town roads for similar purposes, e.g., speed limits, passing zones, hazard warnings, etc.
- Town road names
- Wayfinding signs provided by the state under state law for ski areas and other major destinations
- Wayfinding signs provided by the town to welcome visitors to Gorham and direct them to the visitor center
- Other visitor information signs
- Signs posted by civic organizations
- Private business signs

Rail

The St. Lawrence & Atlantic Railroad enters Gorham from Shelburne to the east and heads north out of the downtown to Berlin. This line is an important part of the national rail system, connecting Portland, Maine to the Canadian National in Quebec. Through the Canadian National Railway, connections are facilitated to the Ports of Vancouver/Prince Rupert on the west coast, New Orleans/Mobile on the gulf coast, and Halifax, Nova Scotia on the Canadian east coast. This line in New Hampshire is Class 3, which means both freight and passenger trains are allowed but with a maximum speed of 40 mph due to the topography of the line. A portion of the line in New Hampshire is also rated at a lower maximum gross weight than the rest of the line – 263,000 pounds vs. 286,000 pounds. However, this is the only main line in northern New England capable of double-stack service over its entire length. This has made it a high priority for improvements when funding is available. (*New Hampshire State Rail Plan*, NHDOT, 2012)

Transit

Tri-County Transit runs fixed-route service Monday-Saturday, except holidays, between key locations in Berlin and Gorham. The service runs on a two-hour schedule from about 7 to 4:30 on weekdays and 9 to 4:30 on weekends. The fare is \$2 to ride all day. A flex route service can be arranged for those within 1/4 mile of a stop who are unable to walk to the stop. Tri-County Transit also coordinates with other transportation providers to serve the needs of those unable to drive due to age or disability.

Greyhound bus service to major cities across the country can be accessed from the Irving gas station on Main Street.

Ridesharing services such as North Country Rideshare, Uber and Lyft, have not yet taken off in the region due to the low population density.

Airports

Commercial Service

Portland International Jetport

The Portland International Jetport, two hours away, is the closest commercial service airport to Gorham. The facility served over 2 million passengers in 2018, and almost 20 million pounds of cargo. Several major airlines provide connections with most domestic hub airports. The City of Portland recently completed a master planning effort for the Jetport that will guide the growth of this facility into the future. (PortlandJetport.org)

Manchester-Boston Regional Airport

The Manchester Airport is the second closest commercial service airport, located about 2 and a half hours from Gorham. Like Portland, Manchester served almost 2 million passengers in 2018, but substantially more freight with about 185 million pounds in 2018. Four major airlines provide connections to several hub airports with a wide range of airlines operating regularly scheduled flights. (FlyManchester.com)

Logan International Airport

Those wishing to fly nonstop to the west coast or abroad generally travel to Logan Airport 3 hours away in Boston.

General Aviation

Gorham Municipal Airport

Gorham's airport has a turf runway 2,828 feet long x 60 feet wide and is operated May 15 – October 31. Of the 750 operations counted in 2016, about two-thirds were local, one-third transient and a few military. (FAA Form 5010)

Berlin Regional Airport

Berlin Airport is located 7 miles north of Berlin in Milan. The asphalt runway is 5,200 feet long by 100 feet wide. Of the 3,560 operations counted in 2016, 2,000 were local, 1,500 were transient and a few were military or air taxi. Hangars are available. The airport is classified as cold temperature restricted, meaning adjustments need to be made to correct altitude calculations. (FAA Form 5010)

Mount Washington Regional Airport

Whitefield's Mount Washington Airport has an asphalt runway 4,001 feet long x 75 feet wide. This is the busiest airport in the Gorham area in New Hampshire. Of the 9,490 operations counted in 2016, a bit more than half were transient, a bit less than half were local, and a few were military or air taxi. Hangars are available. The airport is classified as cold temperature restricted. (FAA Form 5010)

Eastern Slope Regional Airport

This publicly owned facility in Fryeburg, Maine is operated year-round with an asphalt runway 4,200 feet long x 75 feet wide. This airport is just an hour away from Gorham. Of the 33,580 operations counted in 2016, a bit more than one-third were transient while almost two-thirds were local and a handful military or air taxi. Hangars are available. (FAA Form 5010)

Needs and Opportunities

Condition

Bridges

"Red-listed" bridges are those that have been deemed to be structurally deficient due to having one or more major elements in poor or worse condition. Gorham is fortunate not to have any state or municipally-owned bridges on the state's red list (NHDOT 2018 State-owned Red List Bridges, February 25, 2019; Municipally-owned Red List Bridges, March 11, 2018).

State Highways

US Route 2 and NH Route 16 in Gorham are both part of the National Highway System. This means they are the highest priority for federal highway dollars. US Route 2 has climbing lanes, wide shoulders, good drainage and is periodically repaved to maintain this good condition. NH Route 16 has also been improved in part and is periodically repaved.

Municipal Roads

In 2017, the town retained HEB Engineers, Inc. to prepare a Comprehensive Pavement Management Plan for town-maintained roads. The resulting report explains that the goal of a pavement management plan is to maintain roads that are in good condition while improving roads that are in poor condition. Roads allowed to deteriorate past a certain point require a much higher expenditure for rehabilitation compared to proactive timely maintenance. HEB's analysis determined the majority of the town's paved roads to be in the lowest Pavement Condition Index (PCI) category, meaning they will require reconstruction. The following cost estimates from HEB include the pavement structure only, not drainage infrastructure, sidewalks, curbing or other utilities.

TABLE 6.3 CONDITION OF TOWN-MAINTAINED ROADS AND COST OF BACKLOG

PCI Range	Total Road Miles	Rehabilitation Method	Rehabilitation Estimate
89-100	1.7	No Action	\$0
76-88	1.4	Routine	\$46,250
63-75	1.7	Preventative	\$150,000
51-62	1.2	Structural	\$398,000
0-50	11.6	Full Depth	\$9,246,000

(Source: HEB Engineers, Inc., Roadway Improvement Plan
for the Gorham Roadways located in Gorham, New Hampshire, December 15, 2017)

HEB looked at several budget scenarios and determined that it would require an expenditure of \$180,000 each year to prevent the town's average pavement condition index from declining further, but obviously much more to begin to address the backlog resulting from years of deferred maintenance.

Safety

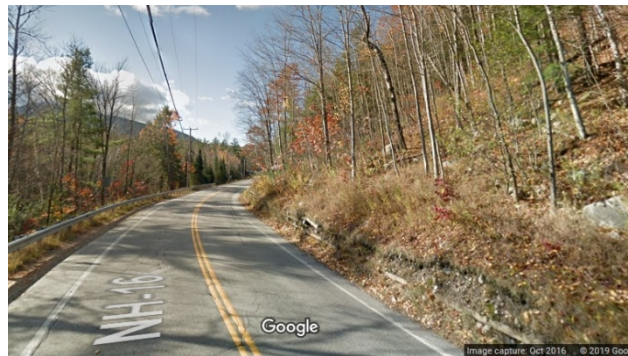
Traffic circulation within and through Gorham remains an important transportation issue. Although traffic volumes have decreased, some congestion is experienced during peak periods. The structure of the local highway network requires local and regional travelers to share, to a significant degree, the

major arterials in Gorham. Local traffic includes trips to and from residential areas in and around downtown Gorham and neighboring communities to local businesses and services. The commercial areas on the Berlin-Gorham Road (NH Route 16 North) are also attracting a significant number of trips. These linked commercial trips generate substantial turning movements. The combination of local trips and through-trips on the major arterials can result in slow traffic, capacity constraints, delays, and an increase in vehicle collisions.

Traffic Safety

Crash data reported to NHDOT was reviewed by North Country Council to identify road segments or intersections where accidents appear to be concentrated. It was noted that minor crashes seem to be clustered around several downtown intersections, however no incapacitating injuries or fatalities have occurred in the past ten years. These intersections continue to be monitored and changes such as signal timing are made as needed.

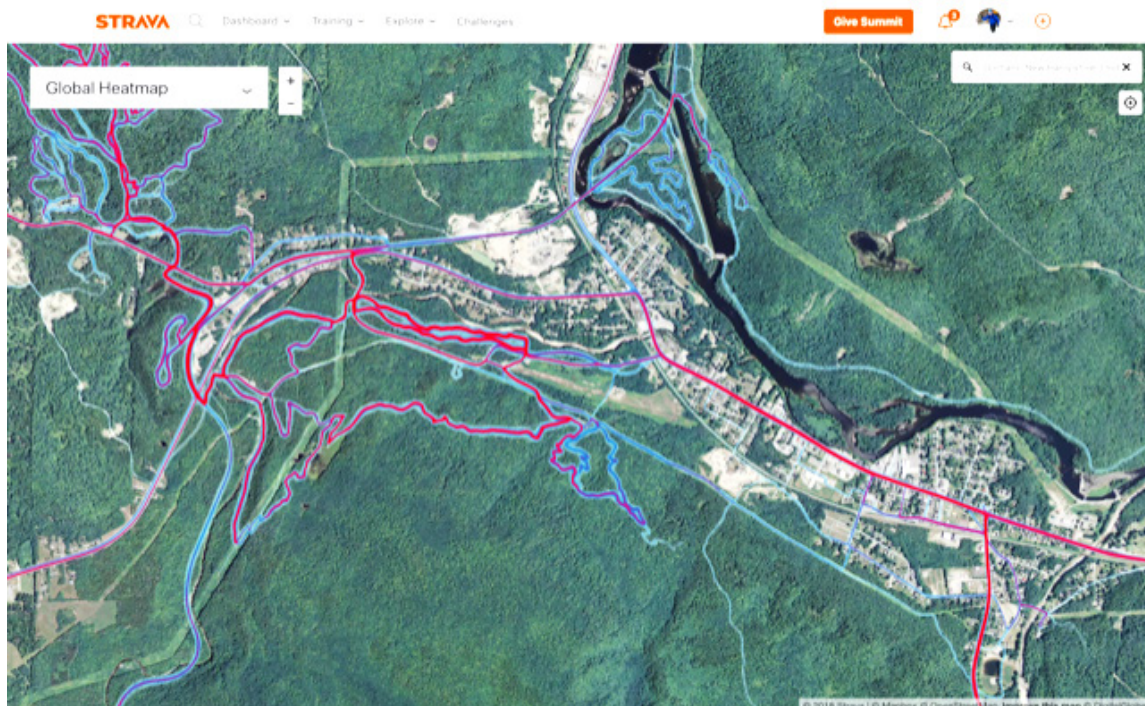
The location of greatest concern is on NH Route 16 South (shown in the photo to the right). Improvement of this section of highway was ranked by the North Country Council Transportation Advisory Council as the highest priority project for submission to the NHDOT for addition to the 2021-2030 Ten Year Plan for federal and state-funded highway improvements.



It should be noted that accident data is not always reported to NHDOT consistently and this data should not be used as the only source of information. The frequency and cause of crashes should be monitored on a regular basis using all available data sources. The Gorham Police and Public Works Departments should be involved in any safety assessment along with NHDOT Region 1.

Bicycle Safety

The number of adults riding bicycles has been increasing, both for the commute to work and for recreation. The improvements made over the years to US Route 2 and NH Route 16 to widen shoulders has improved safety for riders. Shoulders are four feet or wider in most places along these Gorham highways. The Strava heatmap below shows the rides of cyclists who are using the Strava on-line app to track their rides; blue indicates a few rides, red indicates many rides. As shown, NH Route 16 south of the downtown is popular with cyclists, while US Route 2 both east and west of town also see a fair number.



When these state highways reach the downtown area, the bicyclist has nowhere safe to ride. The roadway is plenty wide for on-street parking, but may not be adequate for the additional width of a bicycle lane. A separate bicycle lane may also not be justified by the numbers, and may actually decrease safety due to the level of activity already present with on-street parking, the traffic volume, ATV use of traveled lanes and shoulders, and pedestrians. Another option for increasing the safety of cyclists would be to “officially” designate Main Street as a roadway where drivers share the lane with bicyclists. This can be done with a combination of pavement markings and signage. The following photo shows the standard “sharrow” contained in FHWA’s *Manual of Uniform Traffic Control Devices* (MUTCD).

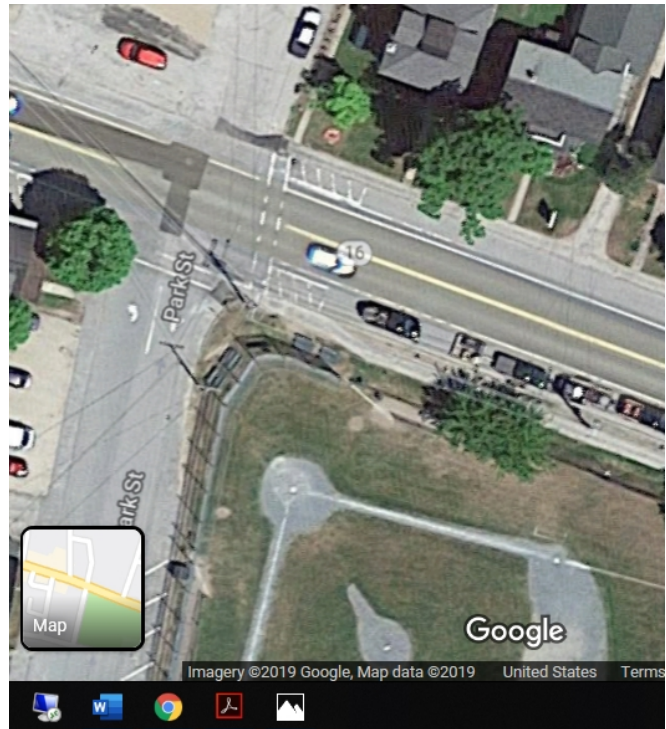


(Source: National Association of Transportation Officials (nacto.org))

Future improvements to the Berlin-Gorham Road, NH 16/US 2 north of the downtown, should incorporate a bike lane to connect the two population centers.

Pedestrian Safety

Approximately 10,000 vehicles pass through downtown Gorham on Main Street in an average day (NHDOT Transportation Management System, 2018 AADT). Crosswalks can be found at several locations through the downtown and markings have been applied to prevent parked cars from blocking drivers' ability to see the pedestrians as they start across. As shown in the photo to the right, these markings are not adequate to attract the drivers' attention after a winter of plowing. Alternative approaches to alerting drivers to the presence of pedestrians should be explored. This might include a combination of an alternative type of crosswalk painting and/or signs placed at the centerline in



the first crosswalks encountered from each direction. Other traffic calming approaches that would tend to slow traffic and make drivers more aware that they are in a center of pedestrian activity would include benches, pedestrian-oriented lampposts and sidewalk trash receptacles. Crosswalk locations should be reviewed periodically as well.

Accessibility

Some of the issues discussed above will also improve safety for those with mobility, hearing and eyesight impairments. Although Gorham's downtown and adjacent neighborhoods have an extensive network of sidewalks separated from vehicular traffic with curbing, in many locations the sidewalk pavement is in poor condition. This is particularly seen at transitions between curb cuts and sidewalk, and transitions are often steep. At some locations, an edge is present that would be impossible for many in wheelchairs to navigate and would pose a hazard to those using a walker or other aid for balance. These conditions would force many to walk or navigate a wheelchair in the shoulder if present or traveled way if not. Traffic calming approaches that alert drivers to pedestrians and bicycles will increase the safety for those with mobility impairments as well as those with hearing or sight loss.

Maintaining Community Character

When highway projects in Gorham are being designed, the town should make sure that the proposed improvements integrate Context Sensitive Solutions (CSS). CSS means taking the impacts on community character, and scenic, historic and environmental resources into account when planning

and designing a solution to a problem. CSS grew out of pushback in many communities when federal funding requirements mandated what seemed like over-sized out-of-place highways with unnecessarily large shoulders and unattractive guardrails. In some instances, stepping back and looking at CSSs has revealed that lower impact, lower cost options other than highway reconstruction can solve a problem, such as traffic calming, access management or demand management. Past corridor studies on US Route 2 and NH Route 16, as well as others performed on northern New Hampshire highways, provide rich sources of design guidance that can inform future projects.

Integrate Land Use and Transportation Planning

Access Management

For highway segments that still have quite a bit of development potential such as US Route 2 West, or development and redevelopment potential such as NH Route 16 North, careful land use planning can manage the impacts of land development on highway congestion and safety. Appropriate zoning, coupled with access management requirements and, where appropriate, traffic calming, can help ensure that future development doesn't have a negative impact on through-traffic or existing local traffic on these highways. NHDOT has a process for developing a memorandum of understanding with communities so that specific access management criteria are required by both the Planning Board and by NHDOT when issuing driveway permits. Some of the objectives the criteria might address would include:

Access Management is the process of managing the placement of driveways on roadways, especially on those roadways classified as arterials. Arterial highways are similar to limited-access freeways in that their primary function is to move people and goods over long distances quickly and efficiently; however, arterials do not have the benefit of strict access controls to adjacent parcels that limited-access highways have. The speed, volume, and safety of traffic on an arterial is greatly reduced by vehicles entering and exiting side streets and driveways. In general, access management policies involve the regulation of the number of driveways, the design and placement of driveways, and the design of any roadway improvements needed to accommodate driveway traffic. A key goal of access management is to prevent the loss of roadway capacity due to development along the arterial by reducing turning movements that conflict with through-traffic.

- Reduce the number of curb cuts along arterials by increasing frontage requirements or the required distance between driveways, and encourage the use of common driveways.
- Encourage the development of service roads parallel to arterials that allow for access to adjacent commercial developments. Depending on the roadway, determine whether buildings, parking, and signs should be set back from the road sufficiently to allow for a future parallel frontage road, or moved closer to the roadway with all access from the rear of the lots.
- Require connections to adjacent developments and other local roads, not just the collector or arterial roadway, to allow employees and customers to move from site-to-site without repeatedly entering and exiting the arterial.
- Require developers to consider their plans within the context of the community and regional roadway system.
- Place parking behind or beside buildings and screen parking when possible to make the building the focal point of the destination. Use green spaces to articulate the differences between driveways, parking, and pedestrian areas.
- Allow for pedestrian access between commercial developments. Crossing points for pedestrians should be across driveways rather than through parking areas.
- Non-residential driveway entrances should be designed to prevent vehicles on the arterial from backing up while waiting to access the site. By providing adequate depth or driveway throat length at the curb cut access, vehicles are allowed sufficient maneuvering space on-site to move away from the entrance and allow other vehicles to efficiently and safely enter or exit the site.
- Vehicular and pedestrian traffic should be separated as much as possible. Foot traffic should be permitted to access buildings without crossing driveways or excessive parking areas.

For the Berlin-Gorham Road, a comprehensive corridor plan should be developed with equal attention on land use and the state highway.

Private Roads

For areas of town in which development is desired but which are not yet accessible by town roads, allowing developers to construct and maintain private roads should be considered. Currently the town's land use regulations require that new subdivisions be on state and town roads. There has been concern about allowing private roads because of a couple areas of town where substandard roads were constructed and now pose a challenge to town DPW crews and the budget. However, private

roads can add to the town's tax base by opening up additional land for development without adding road maintenance costs to the town budget. The keys to the success of this approach are:

- Strong road construction standards requiring private roads to be built to the same standards and construction specifications as town roads.
- Requiring the cost of inspections by a town engineer during and after the construction of the road to be paid by the developer and placed in escrow before plans are signed and recorded.
- Requiring a performance bond or letter of credit, reviewed by the town attorney, to be provided to the town for the cost of road construction prior to plans being signed and recorded.
- Requiring covenants, reviewed by the town attorney at the developer's expense prior to approval, to be incorporated into each deed ensuring that there will be a mechanism in place with the capacity to carry out and pay for summer and winter maintenance of the proposed road in perpetuity.
- In case of the event that the road is allowed to deteriorate despite these precautions, include as a condition of approval that, prior to any request for the town to take over the road, it will need to be brought up to town standards at the expense of homeowners.
- Require that all conditions be either written on the plan to be signed and recorded, or write a separate notice of action including all conditions to be recorded with the plan.

Resilience

In recent years, several culverts in town that have been subject to frequent problems due to heavy rain/snow melt have been replaced. For example, a six-foot culvert on Spring Road was recently replaced with assistance from FEMA and NHDOT. Gorham will now be able to review and prioritize its next culvert replacements based on a system-wide inventory thanks to the efforts of the Androscoggin River Watershed Council (ARWC). ARWC initiated an inventory of stream-road crossings (culverts) in the Androscoggin Watershed last year in partnership with NH Fish & Game, Trout Unlimited and North Country Council. The project used a protocol developed by NHDOT in concert with NH Fish & Game and NHDES. The data collected are intended to be able to answer questions about the condition of the transportation infrastructure, the capacity of the culvert to pass flood waters during an extreme weather event, and extent to which the culvert acts as a barrier to aquatic organisms. The data can then be used to prioritize culvert replacements and identify potential funding sources. This dataset will give Gorham the opportunity to work with other communities, public and nonprofit partners to apply for funds for implementation. This project has addressed a portion of the following recommendation from the 2016 *Gorham Hazard Mitigation Plan Update*:

Develop a written storm water maintenance plan that will include a complete list of bridges and culverts and a record of the maintenance of culverts and ditches with an eye towards improving storm water flow issues and flooding and to identify culverts that need improvements in the future; keep projects on-task and use when seeking funding for improvements.

It will be important, prior to accepting any grant funds, to make sure the grant provisions are in accord with the town's future needs, for example, being able to remove deposits and debris to return culverts to design flow.



Culverts Inventoried in Gorham as part of NH Stream Crossing Initiative (Source: NH Statewide Asset Data Exchange System (SADES))

The 2016 Gorham Hazard Mitigation Plan Update contains the following additional recommendations focused on improving the resilience of the town's transportation system:

Problem statement: Fluvial erosion on the Peabody River is threatening White Birch Lane and NH Route 16.

Action item: Lobby the USFS to provide proper bank stabilization to mitigate the landslide area and the fluvial erosion of the Peabody River as this, and potentially other sites upstream, are causing the river to divert towards White Birch Lane and NH Route 16 and cause flooding.

Problem statement: The bank of the Moose River near the truck run-off ramp is eroding, thus threatening the run-off truck ramp.

Action item: Lobby the State of NH to do the necessary work to mitigate this erosion in an effort to protect the run-off truck ramp by providing the proper bank stabilization.

Problem statement: Although the current Tree Maintenance Program is good, these efforts need to continue into the future.

Action item: Continue efforts to trim tree limbs around power lines and remove brush as part of the Tree Maintenance Program to mitigate the loss of power and road closures during high wind events.

Problem statement: There are multiple areas of Town that are subject to flooding due to riverbank erosion; a comprehensive review of the Town's river banks needs to be completed.

Action item: Conduct a comprehensive review of the Town's river banks, berms and dikes and develop a prioritized list of projects for stabilization or enhancement of undersized infrastructure; this will insure readiness to move forward when grants become available to pursue projects to reduce flooding.

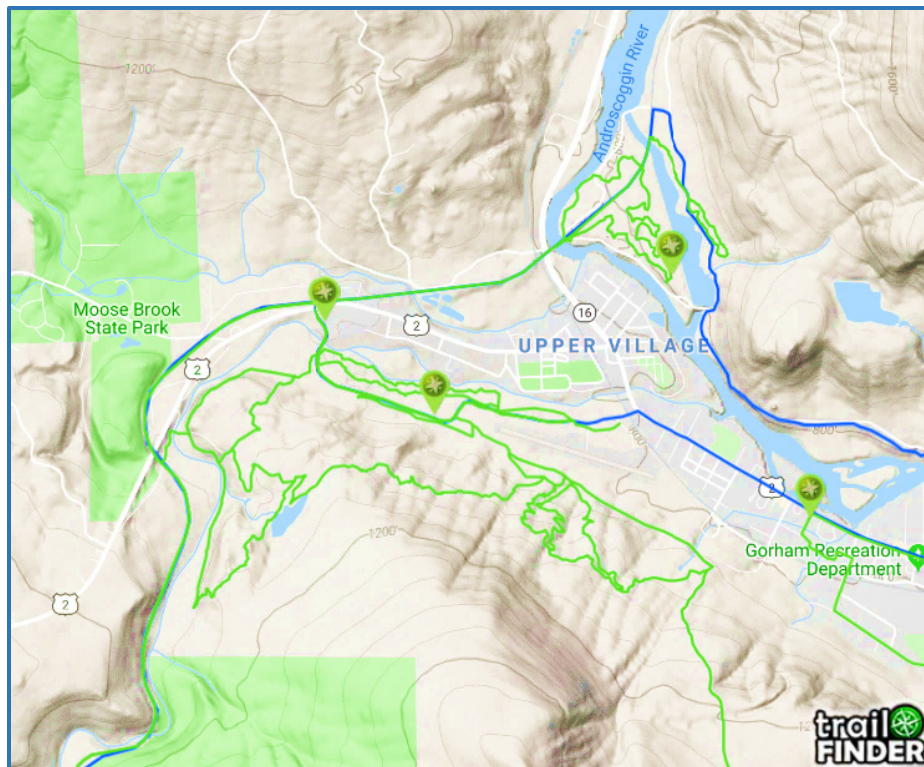
Problem statement: Residents may not be aware of the factors that impede emergency response.

Action item: Educate residents who live on private roads and long driveways of the importance of maintaining their roads for first responders by adding information to the Town's website.

Supporting the Local Economy

Putting the Trails to Work

Gorham's abundant and varied opportunities for trail-based recreation offer an opportunity for excitement and growth. Success will depend not only by building on the recent Appalachian Trail Community designation, but also on connecting the many trail systems to the downtown. This has been done with the ATV trails; with the approval of the Town and NHDOT, ATV riders are allowed to travel between the parking area on US Route 2 and the downtown area where lodging, gas, food and ATV rentals are located. This portion of US Route 2/NH Route 16 is signed as a shared road. No such visual clues are available to show the visitor or passers-by of the abundant walking and mountain biking trails that can be accessed from downtown Gorham. A family of trail-oriented signage along with trail activity-focused banners could help brand Gorham as a trail town for visitors as well as potential residents and businesses.



Putting out the Welcome Mat

Signs

Gorham's signage and wayfinding systems should direct travelers to their destination, including parking areas, safely and efficiently, and contribute to the identity of the community. There are several layers of signage (including statewide and local) and multiple layers of wayfinding (e.g., directional, informational, vehicle-oriented). Each of these levels and layers must be well coordinated in order to effectively serve visitors to the community. Signage needs to be integrated with Gorham's transportation and economic development infrastructure. The following are fundamental objectives of a signage and wayfinding system for Gorham:

- Identify the routes and destinations that travelers need to get to.
- Identify important decision points along each route that will be important to travelers.
- Provide accurate information, in a legible and consistent format, at key locations along each route.

There are opportunities to improve the appearance and placement of signage and identification of parking for visitors to the downtown to develop a more coordinated-looking approach. Visible and high-quality signs with a related design with accurate information in a consistent format to direct travelers to key locations, parking areas and routes would help with wayfinding. An ongoing program of signage repair and replacement is also important.

Parking

Marking the on-street parking on Main Street would help clarify for visitors where parking is allowed and where it is not, through painting lines and/or signage. In addition, the informal parking on town land between the railroad and Railroad Street could be signed and designated with parking blocks. A parking study would help the town understand how much parking is available, and whether there may be an opportunity to relax the parking requirements in the town's land use regulations to enable a higher intensity of development in some downtown areas.

Rail-Oriented Industry

The improvements NHDOT is making to the St. Lawrence & Atlantic tracks and railroad bridges could support redevelopment of inactive industrial sites in Gorham (*New Hampshire State Rail Plan*, NHDOT, 2012). Existing local industries may also benefit from this improvement to the region's transportation system.

Market Scenic Byways

In addition to trails for many different kinds of user and levels of expertise, and walkable neighborhoods and downtown, Gorham can boast almost 13 miles of state Scenic Byway for enjoyment by cyclists and drivers. Gorham's state highways are part of the Moose Path Trail, Presidential Range Trail and Woodland Heritage Trail.

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Chapter 7

Implementation

Natural Resources Recommendations

Land Conservation	Responsibility (Lead in Bold)
1. Continue efforts to secure conservation easements on land with high priority natural resources. Considerations should include lands adjacent to permanently protected parcels to preserve contiguous corridors or undeveloped land for forestry, recreation and habitat.	Conservation Commission, Forest Management Committee, Town Manager, Selectboard, Town Meeting
2. Continue to work collaboratively with neighboring communities, and other public and private partners to protect and manage the town's natural resource lands.	Conservation Commission, Forest Management Committee, Planning Board, Town Manager, Selectboard, Town Meeting
3. Continue to have a licensed forester inspect all logging jobs to ensure compliance with wetland and erosion and sediment control regulations. The forester also inspects the sites relative to the amount of timber harvested. This may increase the amount of tax revenue from logging in Gorham, and could provide an opportunity to educate loggers on Best Management Practices (BMPs) to use on site.	Forest Management Committee, Town Manager, Selectboard, Conservation Commission

Water Resources	Responsibility (Lead in Bold)
1. Stay abreast of affordable safe alternatives to road salt in order to reduce contamination of private wells from road salt.	Town Manager , NH DOT, Selectboard, Conservation Commission
2. Pursue easements for shoreline buffers along the Androscoggin River, Moose Brook, Moose River, Peabody River and Tinker Brook.	Conservation Commission , Planning Board, Town Manager, Selectboard, Town Meeting
3. Review the stormwater management elements of the site plan review regulations and subdivision regulations to ensure they require the most current best management practices (BMPs) and do not allow stormwater to leave the site in greater quantity or lower quality post-development.	Planning Board
4. Strive to reduce the quantity and improve the quality of stormwater currently being discharged into surface waters.	Planning Board , Selectboard
Energy	Responsibility (Lead in Bold)
1. Keep abreast of grant opportunities to improve energy efficiency of town buildings, vehicles and equipment.	Town Manager , Selectboard
2. Incorporate renewable energy into town facilities where practical.	Town Manager , Selectboard
3. Support private efforts to provide charging stations for electric vehicles.	Town Manager, Planning Board
4. Encourage alternative modes of transportation such as walking, biking, ride sharing and public transportation.	Town Manager, Planning Board

Dark Skies	Responsibility (Lead in Bold)
1. Implement and periodically review the town's lighting regulations to ensure they adequately prevent glare, over-lighting, light trespass and skyglow.	PLANNING BOARD

Economic Development Recommendations

Economic Action Team	Responsibility (Lead in Bold)
1. Build and maintain a local economic action team to actively partner with municipal government, the business community, and regional and state economic development organizations to spearhead and implement projects that will enhance Gorham's economic development.	Town Manager, Selectmen, AV Chamber of Commerce, North Country Council (NCC), Coos Economic Development Corporation (CEDC)
2. Populate and maintain NH Economic Development's on-line database of available buildings and sites for business.	Economic Action Team, Property owners, Real estate agents
3. Hire an intern to develop a list of available buildings with specs.	Town Manager, Economic Action Team
4. Hire an intern to Identify developable land with water and sewer.	Town Manager, Economic Action Team

5. Develop and maintain a website with a focus on being a resource for existing and prospective businesses and job seekers. Have sections with links to local job opportunities, job training, available housing, business assistance programs, and NH Economic Development's selectnh.com on-line database of buildings and sites available for businesses. Format so that sections of the website appropriate to use as a marketing flyer can easily be printed on-demand (rather than paying to develop a print version that will quickly become out-of-date).	Economic Action Team
6. Help existing and prospective businesses learn about and connect with assistance available from town, regional and state groups and programs.	Economic Action Team, Town Manager, NH Division of Economic Development, Coos Economic Development Corporation (CEDC), USDA Rural Development, Northern Community Investment Corporation (NCIC), North Country Council (NCC), White Mountains Community College (WMCC), Local schools
7. Raise local match for grants.	Economic Action Team
8. Identify action items to ensure the town capitalizes on the Appalachian Trail Community designation; use this activity-focused message as a theme to attract young people to town.	Economic Action Team
9. Follow up on UNH Cooperative Extension's First Impressions study of Gorham's downtown and associated recommendations. Focus on achievable small steps such as banners, art, and holiday lighting.	Economic Action Team, First Impressions Committee

Municipal Leadership	Responsibility (Lead in Bold)
1. Emphasize the development director-like function of the Town Manager position to ensure the town has a point of contact for prospective businesses and other developers, as well as economic development partners. This role should also include grant writing, coordinating with the economic action team, recruiting and overseeing interns, and developing a capital improvements program.	Town Manager, Selectboard
2. Decide as a community what types of business are appropriate in what locations – downtown, Berlin-Gorham Road, Upper Village – and enlist the help of regional and state economic development experts to align local preferences with market opportunities.	Town Manager, Planning Board, Selectboard, Economic Action Team
3. Review the zoning ordinance to ensure that land is zoned in a manner which will achieve the town’s economic development goals while balancing those with other priorities, such as maintaining the contrast between the downtown and surrounding forests and mountains.	Planning Board, Town Meeting
4. Identify opportunities to utilize the presence of the river alongside the downtown as an asset.	Town Manager, Conservation Commission, Planning Board
5. Review parking requirements to ensure they are not unnecessarily reducing the density of downtown development.	Planning Board
6. Conduct a parking study to identify opportunities to optimize available areas for public parking.	Planning Board, North Country Council (NCC)
7. Renew Town Meeting CIP authorization for Planning Board or Selectboard-appointed CIP Committee. Develop a capital improvements program to prioritize improvements, identify funding sources, and schedule projects in a manner which avoids significant fluctuations in the local tax rate and reduces the cost of deferred maintenance.	Selectboard, Town Meeting, Town Manager, CIP Committee, Budget Committee, Planning Board

8. Implement the town's hazard mitigation plan to reduce the potential financial impacts of disasters on business.	Town Manager, Selectboard, CIP Committee, Emergency Management Director
9. Ensure the community's regulatory environment is supportive of housing for young people to get started in order to replace retirees in the workforce.	Town Manager, Selectboard, Planning Board, Code Enforcement Officer
10. Review the zoning for the downtown and other tools to ensure the community is promoting the kinds of businesses that attract and meet the needs of younger people, such as a brewpub and small coop-type food store.	Planning Board, Town Meeting
11. Identify opportunities to increase the programming at the Medallion for all ages, including concerts and contradances aimed at participants age 20-40.	Medallion Opera House Committee
12. Continue to advocate for expanded cell service options.	Town Manager, Selectboard, AV Chamber of Commerce, Coos Economic Development Corporation (CEDC), NH Division of Economic Development
13. Coordinate local elected and appointed Boards toward a unified effort to increase Gorham's tax base.	Selectboard, Town Manager
Trails Committee	Responsibility (Lead in Bold)
1. Develop a town trails committee to develop a comprehensive trails plan and work on enhancing the physical, visual and service connections between the business community and all kinds of trail users, including hikers, mountain bikers, Nordic skiers, snowmobilers, and ATVers.	Selectboard, Town Manager, Conservation Commission, Town Forest Committee

2. Build upon the AT Community/outdoor recreation focus and increased popularity of the Appalachian Trail, and participate with the Appalachian Trail Conference to promote the local trail network.	Trails Committee, Selectboard, Town Manager, Town Forest Committee, Conservation Commission
3. Develop linkage between Main Street and the mountain bike trails, including signs along Main Street pointing to the trails.	Trails Committee, Town Forest Committee, Conservation Commission
4. Look for ways to make the downtown area more accessible to trail users.	Trails Committee, Town Forest Committee, Conservation Commission
5. Provide a connection for trail users to Berlin-Gorham Road commercial areas. The bus every two hours is not adequate. Explore the possibility of a seasonal market for an Uber or Lyft-type service as a means for providing transportation while providing an earning opportunity for residents.	Trails Committee, Town Forest Committee, Conservation Commission
6. Look at Hogan Road with bridge for bikes/pedestrians as potential alternate route parallel to the busy highway. The road connects with the Appalachian Trail in Shelburne.	Trails Committee, NHDOT, Town Forest Committee, Conservation Commission
7. Identify and mark a bike route through town.	Trails Committee, NHDOT, Town Forest Committee, Conservation Commission
8. Develop a trails map showing trailheads, parking and significant views.	Trails Committee, Town Forest Committee, Conservation Commission
9. Improve existing or former trailheads for the following USFS trails: Mount Moriah on Bangor Street, Stony Brook on Route 16, Pine Mountain on Promenade, Mahoosuc at the Black Trestle, and Hunter's Pass on Jimtown Road.	Trails Committee, Conservation Commission, Selectboard, Town Meeting

Land Use Recommendations

Land Use Planning	Responsibility (Lead in Bold)
1. Develop maps of water and sewer service areas and ensure that future extensions are compatible with the town's land use goals.	Town Manager , Water & Sewer Commission, Planning Board, Town Meeting
2. Renew Town Meeting authorization for Planning Board or Selectboard-appointed CIP Committee. Develop and maintain a capital improvement plan to ensure that facility and infrastructure improvements support the location and type of development desired.	Selectboard , Town Meeting, Town Manager, CIP Committee, Planning Board
3. Strengthen the focus on the Androscoggin River to increase the degree to which it can be an asset to the town.	All
4. Keep key municipal functions in the village area.	Selectboard , Town Meeting
5. Conduct a corridor study on Route 16 north of US 2 including the Commercial B District and other lands with the potential to generate traffic in the future.	Planning Board
Regulation of Land Use	Responsibility (Lead in Bold)
1. Consider zoning overlay districts to ensure that development on steep slopes and ridgelines is designed to minimize impacts on scenic views and prevent erosion.	Planning Board , Town Meeting
2. Enable a diversity of year-round and seasonal residential types.	Planning Board , Town Meeting
3. Ensure that the town's Zoning Ordinance is flexible enough to respond to emerging land uses, business models and residential arrangements.	Planning Board , Town Meeting

<p>4. Maintain the existing land use pattern which is currently supported by the Zoning Ordinance and which sets Gorham apart from many other northern New Hampshire communities:</p> <ul style="list-style-type: none"> ➤ Development concentrated around the major river and transportation corridors ➤ Surrounding forestlands available for forest-based industries such as wood products and recreation ➤ Clear contrast between the developed areas and surrounding forestlands, i.e., no sprawl ➤ Developed areas with discrete characters, e.g., village, neighborhoods, highway commercial, industrial 	<p>Planning Board, Town Meeting</p>
<p>5. Consider the following possible zoning amendments to strengthen the role of the village center commercial district:</p> <ul style="list-style-type: none"> ➤ Encourage densely developed residential uses that maximize the number of dwelling units per acre, such as townhouses or multifamily housing. Limit other residential use in the Commercial A to above street level. ➤ Ensure the Zoning Ordinance allows creative approaches to increasing housing density in the village. ➤ Examine opportunities to expand the Commercial A district to additional adjacent lots when neighboring land uses are compatible. One such example may be the Residential A lots east of the town common. ➤ Expand the Commercial Compact Overlay District. This overlay allows for new development and redevelopment with more of a “downtown feel” with reduced lot sizes and reduced setbacks, similar to existing buildings in the commercial center. This district would be compatible with existing development around the town common, south to Railroad Street and west along Main Street for several blocks. 	<p>Planning Board, Town Meeting</p>

6. Explore whether there is any developable land in the Timber and Agriculture District adjacent to the Residential A that would be suitable for residential development on small lots if rezoned to Residential A	Planning Board
7. Explore whether there is any developable land in the Timber and Agriculture District adjacent to the Residential B that would be suitable for residential development if rezoned to Residential B. Consider, for example, land along Gorham Hill Road.	Planning Board
8. Consider decreasing the density of development allowed in the Timber and Agriculture District and at the same time decreasing the minimum lot size, i.e., a lot size averaging approach.	Planning Board
9. Review the zoning ordinance, subdivision and site plan review regulations to ensure they are “farm friendly” and support non-traditional agricultural operations (small scale, seasonal, organic, specialty or “niche markets”).	Planning Board, Conservation Commission, Town Meeting
10. Continue to enforce the earth excavation regulations.	Code Enforcement Officer, Town Manager, Selectboard, Planning Board
Access to Development	Responsibility (Lead in Bold)
1. Review road slope requirements.	Planning Board
2. Maintain strict limits on road construction to discourage development in the Timber and Agriculture zoning district.	Planning Board, Town Meeting

<p>3. Consider allowing subdivisions on private roads with strong controls on required design, construction and long-term maintenance, including:</p> <ul style="list-style-type: none"> ➤ Strong road construction standards requiring private roads to be built to the same standards and construction specifications as town roads. ➤ Requiring the cost of inspections by a town engineer during and after the construction of the road to be paid by the developer and placed in escrow before plans are signed and recorded. ➤ Requiring a performance bond or letter of credit, reviewed by the town attorney, to be provided to the town for the cost of road construction prior to plans being signed and recorded. ➤ Requiring covenants, reviewed by the town attorney at the developer's expense prior to approval, to be incorporated into each deed ensuring that there will be a mechanism in place with the capacity to carry out and pay for summer and winter maintenance of the proposed road in perpetuity. ➤ In case of the event that the road is allowed to deteriorate despite these precautions, include as a condition of approval that, prior to any request for the town to take over the road, it will need to be brought up to town standards at the expense of homeowners. ➤ Require that all conditions be either written on the plan to be signed and recorded, or write a separate notice of action including all conditions to be recorded with the plan. 	<p>Planning Board, Town Manager, Selectboard</p>
<p>Resilient Land Use</p>	<p>Responsibility (Lead in Bold)</p>
<p>1. Continue to pursue federal funds for easements for maintenance of flood control dikes.</p>	<p>Town Manager, Selectboard</p>
<p>2. Promote uses in floodplains and shoreline areas that don't put lives, property or infrastructure at risk.</p>	<p>Planning Board, Selectboard</p>

Transportation Recommendations

Condition	Responsibility (Lead in Bold)
1. Continue to advocate for Gorham's needs for regular maintenance of US Route 2 and NH Route 16, and improvement of the section of NH Route 16 South identified as the region's highest priority, to the NHDOT and elected leaders through the Ten Year Plan process and through the District 1 Engineer.	Town Manager, Selectboard, NCC Transportation Advisory Committee appointee
2. Regularly budget amounts adequate to maintain municipal roads that are in good shape.	Town Manager, Selectboard, Budget Committee, CIP Committee
3. Utilize the HEB Roadway Improvement Plan to plan capital expenditures for rehabilitation or priority roads.	Town Manager, Selectboard, Budget Committee, CIP Committee
4. Periodically review and update the Roadway Improvement Plan and integrate with a municipal Capital Improvement Plan.	Town Manager, Selectboard, Budget Committee, CIP Committee
Safety	Responsibility (Lead in Bold)
1. Continue to monitor crash data and work with NHDOT and North Country Council to evaluate areas of emerging concern.	Town Manager, Selectboard
2. Ensure that consistent accident data is collected and provided to NHDOT to enable continued monitoring of the safety of the town's roadways.	Town Manager, Selectboard
3. Request that NHDOT provide signage and/or identifying markings for the downtown to warn drivers that US Route 2/NH Route 16 is a shared roadway with bicycles and ATVs.	Town Manager, Selectboard, Trails Committee

4. Review options to improve the markings and warnings for crosswalks.	Town Manager, Selectboard, Trails Committee, NHDOT
5. Consider possibilities for additional traffic calming through the downtown, such as a portable radar speed sign, and enhanced crosswalks, e.g., textured or painted in bright color.	Town Manager, Selectboard, NHDOT
6. Periodically review crosswalk locations.	Town Manager, Selectboard, Trails Committee, NHDOT
7. Consider building an emergency bypass on the south side of the downtown.	Selectboard
8. Implement traffic calming techniques on new roadway projects when appropriate, and on existing roadways when possible.	Planning Board, Town Manager, Selectboard, NHDOT
9. Implement access management techniques when appropriate as part of site plan and subdivision reviews. Coordinate these requirements with the NH Department of Transportation and consider signing a Memorandum of Understanding with the Department. This will ensure better coordination over future curb cuts. Implement access management improvements through development exactions and through municipal and state roadway projects. Consider the following access management measures:	Planning Board, Town Manager, Selectboard

- Reduce the number of curb cuts along arterials by increasing frontage requirements or the required distance between driveways, and encourage the use of common driveways.
- Encourage the development of service roads parallel to arterials that allow for access to adjacent commercial developments. Depending on the roadway, determine whether buildings, parking, and signs should be set back from the road sufficiently to allow for a future parallel frontage road, or moved closer to the roadway with all access from the rear of the lots.
- Require connections to adjacent developments and other local roads, not just the collector or arterial roadway to allow employees and customers to move from site-to-site without repeatedly entering and exiting the arterial.
- Require developers to consider their plans within the context of the community and regional roadway system.
- Place parking behind or beside buildings and screen parking when possible to make the building the focal point of the destination. Use green spaces to articulate the differences between driveways, parking, and pedestrian areas.
- Allow for pedestrian access between commercial developments. Crossing points for pedestrians should be across driveways rather than through parking areas.
- Non-residential driveway entrances should be designed to prevent vehicles on the arterial from backing up while waiting to access the site. By providing adequate depth or driveway throat length at the curb cut access, vehicles are allowed sufficient maneuvering space on-site to move away from the entrance and allow other vehicles to efficiently and safely enter or exit the site.
- Vehicular and pedestrian traffic should be separated as much as possible. Foot traffic should be permitted to access buildings without crossing driveways or excessive parking areas.

Planning	Responsibility (Lead in Bold)
1. Connect side streets to each other where possible.	Selectboard , Planning Board
2. Ensure that proposed highway improvements are designed and scaled to fit the character of the community and nearby land uses.	Town Manager , Planning Board, NHDOT
3. Develop a corridor plan for the Berlin-Gorham Road (NH Route 16 north of the downtown) that looks at future development potential and the highway in an integrated way.	Planning Board , North Country Council, NHDOT
Transportation Alternatives	Responsibility (Lead in Bold)
1. Continue to accommodate walking as a key mode of transportation in the downtown and adjacent neighborhoods by maintaining and enhancing existing sidewalks and other pathways as well as connections to trails, and connections between parking areas and trails.	Town Manager , Selectboard, Trails Committee, Conservation Commission, Planning Board
2. Require provisions for bicycle and pedestrian facilities in site plans and subdivisions when appropriate.	Planning Board
3. Continue to support Tri-County Transit. Periodically review the schedule and stops with Tri-County Transit.	Town Manager , Selectboard
4. Ensure that information on public transportation is easily available to residents and visitors through a variety of mechanisms.	Town Manager , Everyone who distributes or displays information about the community for the public

5. Encourage rideshare services to develop a network in the Berlin-Gorham area.	Economic Action Team, Trails Committee
6. Continue to promote mixed-use development in the downtown area through planning and land use regulations so that daily activities are walkable.	Planning Board, Town Meeting
Resilience	Responsibility (Lead in Bold)
1. Work with Androscoggin River Watershed Council, Trout Unlimited and North Country Council to develop grant proposals to replace high priority culverts. (Prior to accepting grant funds, it is important to make sure the grant provisions are in accord with the town's future needs, for example, being able to remove deposits and debris to return culverts to design flow.)	Conservation Commission, Town Manager, Selectboard

<p>2. Implement recommendations from the town’s Hazard Mitigation Plan that will increase the resilience of the town’s transportation infrastructure:</p> <ul style="list-style-type: none"> ➤ Problem statement: Fluvial erosion on the Peabody River is threatening White Birch Lane and NH Route 16. Action item: Lobby the USFS to provide proper bank stabilization to mitigate the landslide area and the fluvial erosion of the Peabody River as this, and potentially other sites upstream, are causing the river to divert towards White Birch Lane and NH Route 16 and cause flooding. ➤ Problem statement: The bank of the Moose River near the truck run-off ramp is eroding, thus threatening the run-off truck ramp. Action item: Lobby the State of NH to do the necessary work to mitigate this erosion in an effort to protect the run-off truck ramp by providing the proper bank stabilization. ➤ Problem statement: Although the current Tree Maintenance Program is good, these efforts need to continue into the future. Action item: Continue efforts to trim tree limbs around power lines and remove brush as part of the Tree Maintenance Program to mitigate the loss of power and road closures during high wind events. ➤ Problem statement: There are multiple areas of Town that are subject to flooding due to riverbank erosion; a comprehensive review of the Town's river banks needs to be completed. Action item: Conduct a comprehensive review of the Town's river banks, berms and dikes and develop a prioritized list of projects for stabilization or enhancement of undersized infrastructure; this will insure readiness to move forward when grants become available to pursue projects to reduce flooding. 	<p>Emergency Management Director, Town Manager, Selectboard, Conservation Commission</p>
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<p>➤ Problem statement: Residents may not be aware of the factors that impede emergency response.</p> <p>Action item: Educate residents who live on private roads and long driveways of the importance of maintaining their roads for first responders by adding information to the Town's website.</p>	
Supporting the Local Economy	Responsibility (Lead in Bold)
1. Develop a plan for downtown signage that will result in effective wayfinding to key locations including trailheads/parking. Utilize a related design and consistent format for the various types of signs. Coordinate with NHDOT and the North Country Scenic Byways Council.	Economic Action Team, Trails Committee, Conservation Commission, First Impressions Committee
2. Conduct a parking study to quantify, and identify opportunities to improve the usability of, downtown parking, and to review the current parking requirements for downtown land uses.	Town Manager, Selectboard, Planning Board, North Country Council, NHDOT
3. Stay abreast of the status of improvements to the St. Lawrence and Atlantic Railroad to ensure economic development opportunities are marketed to potential businesses when appropriate.	Town Manager, Economic Action Team
4. Include mention in marketing the community of the fact that Gorham boasts three state scenic byways.	Economic Action Team, AV Chamber of Commerce
5. Continue to apply to multiple sources to fund improvements to the town's transportation infrastructure.	Town Manager

APPENDIX

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Gorham Master Plan Survey

December 2017

1. What is your relationship with the town of Gorham? (Please check ALL that apply)

☐ A. I live in Gorham year-round
☐ B. I vote in Gorham
☐ C. I own or manage a business in Gorham
☐ D. I live in Gorham part of the year
☐ E. I vacation in Gorham
☐ F. I retired to Gorham
☐ G. I own an undeveloped lot in Gorham
☐ H. Other (please specify) _____

2. What do you like best about living in Gorham? (Please list up to 3 things below.)

A. _____

B. _____

C. _____

3. Do you want to see more development in Gorham?

A. Yes _____ B. No _____ C. Don't know/Don't care _____

4. If you answered Yes to Question 3, are there specific kinds of development you would like to see more of? (Please check off UP TO 3.)

☐ A. Manufacturing
☐ B. Retail/wholesale
☐ C. Educational services
☐ D. Health care
☐ E. Offices and services
☐ F. Tourism
☐ G. Single family homes
☐ H. Apartments
☐ I. Senior housing/Assisted living
☐ J. Other (please specify) _____

5. In the table below, for both residential and business development, please indicate with an X which areas of town you prefer to see growth occur in over the next 10 years. (Please check ALL that apply.)

Area of town	Residential Growth	Business Growth
A. Downtown		
B. Upper Village		
C. Jintown		
D. Lancaster Road		
E. Berlin-Gorham Road		
F. Cascade Hill		
G. Cascade Flats		
H. Lower Village		
I. Stony Brook		
J. Gorham Hill/Heights		

6. Should the town take a more active role in finding businesses for the vacant buildings in the downtown?

___ Yes ___ No ___ Not sure, please explain _____

7. Are there specific facilities or services which you feel Gorham should invest more in? If so, please list up to 3.

A. _____

B. _____

C. _____

8. Would you support local funds for improvement of sidewalks and other pedestrian connections to make the community more walkable?

___ Yes ___ No ___ Not sure, depends on cost

9. Should the town actively explore forming regional schools with Berlin?

___ Yes ___ No ___ Not sure, explain _____

10. A range of options is available for the town to manage the impacts of development on our natural resources, from doing nothing, to restricting where development can occur. For each row below, please check off the “strongest” approach you support. Please just put one X per row.

	Do nothing	Landowner Education	Allow development but put conditions on it to protect the environment	Restrict where development can occur
A. Aquifers				
B. Wetlands				
C. Moderately steep slopes (15-25%)				
D. Very steep slopes (over 25%)				
E. Floodplains				
F. Riverbank of Androscoggin River				
G. Riverbanks of smaller streams				
H. Scenic ridgelines and hilltops				
I. Stormwater runoff				

11. The Town Forest is located on the western edge of town in Jintown and used primarily for watershed protection.

Should the town:

- ☐ A. Add acreage to the Town Forest?
☐ B. Add another Town Forest at another location?
☐ Both A. and B.
☐ Neither

12. Of the following types of recreation, please check off each of those you would like to see more of in Gorham.

- ☐ A. Cross-country ski trails
☐ B. Snowshoe trails
☐ C. Mountain bike trails
☐ D. Bicycle lanes/paths
☐ E. Walking paths
☐ F. Motorized recreation
☐ G. River access
☐ H. Annual recreational events
☐ I. Art/cultural/historical events

13. Should the town actively maintain the existing flood control berms to protect properties near the town's major waterways?

_____ Yes _____ No _____ Not sure, please explain

14. Are there specific historic or cultural buildings or sites in town that would like to see preserved or rehabilitated/repurposed? If so, please list one or two.

A. _____

B. _____

15. How do you feel about using the following slogan to market the community to potential residents, businesses and visitors: "Gorham, Where Trails Begin"?

___ A. I don't think we need a slogan

___ B. I like it

___ C. I don't like it, and here is my suggested alternative: _____

16. What have you seen in other communities that you would like to see Gorham explore?

17. Do you have other ideas for Gorham that you would like the Planning Board to consider as they update the Master Plan to guide the development of the community over the next 10 years?

