

MASTER PLAN

FOREWORD AND ADOPTION

By New Hampshire State Statute, the Thornton Planning Board is responsible for producing a Master Plan, in accordance with RSA 674, which is updated every 5 to 10 years.

The purpose of this document is to assist the citizens, town officials and Planning Board in deciding the future growth of Thornton. The resource data and maps contained herein should provide the critical information necessary to arrive at sound and sensible decisions.

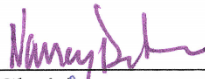
It should be understood that the Goals and Objectives do not represent the definitive course of action to be taken. These are recommendations only, which should be reviewed on a regular basis and amended or revised as the situation may dictate.

This plan has no regulatory power. It is a guideline, a reference, and any action taken to implement any part of this plan will be decided by a voter majority.

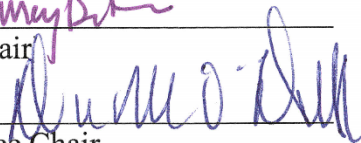
The following Master Plan has been adopted under RSA 675:6 and is an update of the Master Plan last issued in 2013.

Thornton Planning Board

Date Approved: 12/21/23

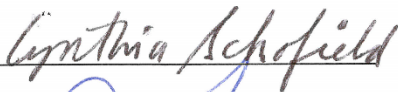


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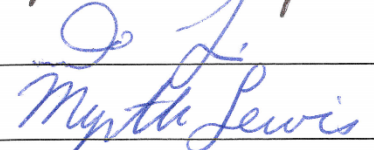




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I. INTRODUCTION

The New Hampshire Planning and Land Use Regulations describe the Master Plan as follows:

RSA 674:2 Master Plan: Purpose and Description

- I. The purpose of the master plan is to set down as clearly and practically as possible the best and most appropriate future development of the area under the jurisdiction of the planning board, to aid the board in designing ordinances that result in preserving and enhancing the unique quality of life and culture of New Hampshire, and to guide the board in the performance of its other duties in a manner that achieves the principles of smart growth, sound planning, and wise resource protection.

The goal of the Master Plan is to be considered as a fluid and living document, though intended to be a comprehensive and actionable plan for the next 5 - 10 years. The Planning Board should review and reference on a regular basis and amend, extend, or add to the plan as deemed necessary, as allowed for in the regulations. The opportunity has been taken here to lay the framework with the hope to initiate momentum moving forward.

Implementation of Plan

The Master Plan occurs through the planning board in public hearing according to RSA 674:1

The implementation of the objectives of the Master Plan requires an understanding of these objectives by the various boards and departments of Thornton and by the residents and landowners of the Town.

To the Select Board falls the ultimate responsibility of governing the Town according to Federal, State and local laws, and the Zoning Ordinance adopted by the citizens. The local statutes are supported by regulations promulgated by the Select Board, Planning Board, Zoning Board of Appeals, etc., after public hearings. However, the personnel of the Select Board do not have the time necessary to determine town wide compliance with these laws/regulations. To a large extent it must therefore rest upon an interested and aware citizenry to ensure that they comply with these regulations and report any major non-compliance(s) observed to the town authorities.

The Select Board and Planning Board will provide direction and guidance to steer the Town in the direction envisioned in this Master Plan.

II. A BRIEF HISTORY

Thornton is a triangularly shaped town in the eastern part of Grafton County, bounded northeast by Livermore, Waterville and a small part of the county line, north and west by Lincoln, Woodstock and Ellsworth, and south by Campton and Sandwich.

The surface of the town is rough and uneven. In some places there are small mountains. There is good farming land. The soil is deep and fertile and there is good interval land along the rivers.

The Pemigewasset River flows through nearly the center of the town, north to south. The stream has several tributaries, Mill Brook from the east, Bagley Brook from the west, and Mad River (with several tributaries of its own) passes through the southeastern part of town to unite with the Pemigewasset in Campton.

The township was granted to Matthew Thornton and others in seventy-three shares on July 6, 1763 to contain 23,000 acres. It was named in honor of Mr. Thornton, who later became a member of the Continental Congress and a signer of the Declaration of Independence. No settlements were attempted under this grant and a new charter was issued on October 21, 1768, including an additional 17,071 acres. The total was now to be divided into ninety shares.

The settlement of the town began with Benjamin Hoit in 1770. Benjamin was married to a sister of Abel Willey from nearby Campton. Their son, Benjamin, Jr. was the first born child in town. Three years later the town's population grew to seventy-four.

By 1783, the population had increased to 280. In 1783, the General Court was petitioned to grant the township incorporation privileges. The petition, dated May 31, 1781, was signed by Abel Willey, Ezekiel Elliot, William Varnum, John Brown, Moody Cook, John Fletcher, Edmund Elliot, Richard Patee, Alexander Lang, Sam C. Fuller, James Rankin and William Webster. In answer to the petition, the town was incorporated November 24, 1763.

From this time, the population gradually increased. By 1800, there were 535 inhabitants. In 1880, Thornton had a population of 774. In 1885, the town had ten school districts with ten common schools valued at \$3000. There were 184 children attending. Eleven of these children were pursuing higher grades. There were two male and twelve female teachers.

There is no central village in the town but it is divided into numerous areas known as Thornton Gore, Knocker's Hole, Millbrook, Thornton Center, Ghost Hollow, Groggy Harbor, Mad River, Goose Hollow, Chickenboro, Sandwich Notch and West Thornton.

For more information, see Appendix G

III. LOCATION

The Town of Thornton is located in the foothills of the White Mountains in the Pemigewasset River Valley approximately 50 miles north of Concord. The town is bisected by Route 3 and Interstate 93. The location of these major roadways allows for easy commuting to the major population centers of New Hampshire as well as the Northeastern United States.

With the pressure to develop extending from the south and the emergence of Northern New Hampshire as a place to live, work, or vacation, Thornton becomes even more attractive to residential development. Its location near major ski areas and the White Mountain National Forest contributes to tourism and the second home market.

IV. A VISION FOR THORNTON

A Master Plan requirement is for: “A vision section that serves to direct other sections of the Plan. This section shall contain a set of statements, which articulate the desires of the citizens affected by the Master Plan, not only for their locality but also for the region and the whole State of New Hampshire. It shall contain a set of guiding principles and priorities to implement that vision.”

The Town of Thornton seeks to preserve and maintain the rural and scenic character of our town by managing development and balancing density, while also sustaining our natural resources, encouraging economic development by way of small businesses, and providing recreational opportunities and a community-oriented lifestyle.

In preparation for the 2023 Master Plan, a town wide survey was conducted. The survey was mailed out in 2022 to 1,536 residents and property owners. There were 505 respondents to the survey. (Appendix A)

Respondents to the survey were also given an opportunity to send in comments and 268 comments were received on various topics. (Appendix B)

As some issues were referenced by many residents, it was deemed important to discuss those topics in further detail in a public forum. Therefore, two (2) public discussion sessions were held, one (1) regarding recreational and community facilities and one (1) on development and zoning. (Appendix C)

Residents also had numerous comments related to town facilities, both positive and negative. The committee passed along a summary of this input to the Board of Selectmen, as this department has discretionary authority over management of town operations as well as enforcement. (Appendix D)

V. LAND USE

This section translates the vision statements into physical terms. Based on a study of population, economic activity, and natural, historic, and cultural resources, it will show existing conditions and the proposed location and extent of future land use.

Thornton land use is governed to a large extent by the Zoning Ordinance and the fact that nearly 50% of our land mass is federally controlled, as part of the White Mountain National Forest. The current land use is not expected to change significantly in the near future.

Thornton's land area = 32,520 acres

USE	ACREAGE	PERCENT
WMNF	15,403	47%
Current use	8,172	25%
Industrial	215	.99%
Public/Semi public	30	0.01%
Residential	2,000	6%
Commercial	300	1%
State and River Basin	600	2%
Unimproved	5,800	18%

Data is from 2013 Master Plan

Most of the National Forest land is in the Northeast and Southwest parts of town and the remaining land is zoned as shown on the Zoning District Map. (Map 1)

Current land use does not completely follow the designated uses as specified in the zoning ordinance. The Commercial and Industrial zones are at present devoted to primarily agricultural land and residences with a few commercial uses.

Prior to the building of Interstate 93, U.S. Route 3 was the primary access road to the White Mountains and that road was zoned primarily for commercial use. The current use along U.S. Route 3 is a mixture of small cabin type resorts, campgrounds, and residential use. Public discussions on this topic pointed to limiting future commercial growth while encouraging further residential development along this road.

The survey and subsequent discussion pointed towards keeping future development along Routes 175 and 49 as residential only.

VI. ECONOMY

Employment levels, wages rates, and diversity of firms reflect the economic health of Thornton and its surrounding area. Comparing economic factors with other like towns in the region reveal the strengths and weaknesses of the particular town.

This section will describe basic factors of the area economy and provide a general picture of the economy and how it affects Thornton residents.

A. LABOR FORCE & EMPLOYMENT

Respondents to the survey were equally divided between full-time workers and retired persons.

Of those who plan to relocate here full time, almost half of those who responded plan to retire, the rest were a mix between full time, part time and starting their own business.

The Town of Thornton resides within Grafton County, New Hampshire. Unemployment data for Grafton County for the years (2010-2021) showed an average unemployment rate of 3.5% for the 12-year period. The data represents an average civilian workforce of 586,225, with 565,629 employed workers and 20,596 unemployed individuals.

History reveals that sound and secure employment will support and lead to local, state, and national economic strength.

The 3-year chart, **UE-1**, below, displays unemployment rates in Thornton and surrounding towns for the years (2019-2021).

The period, displays rates, pre-COVID-19 pandemic, the year following, showing the greatest impact on unemployment rates and the final stage of the pandemic where communities moved through to a recovery timeframe. The pandemic years ushered in remote work and learning which continues.

Chart UE-I

Towns	Year	12 Month	Civilian Labor Force	Employed	Unemployed	Unemployment Rate	Benchmark Year
Ashland	2019	Average	1,199	1,172	27	2.3%	2021
	2020	Average	1,140	1,064	76	6.7%	2021
	2021	Average	1,140	1,064	76	6.7%	2021
Campton	2019	Average	1,963	1,922	41	2.1%	2021
	2020	Average	1,882	1,753	129	6.9%	2021
	2021	Average	1,941	1,876	65	3.3%	2021
Lincoln	2019	Average	726	704	22	3.0%	2021
	2020	Average	723	641	82	11.3%	2021
	2021	Average	722	686	36	5.0%	2021
Plymouth	2019	Average	3,773	3,668	105	2.8%	2021
	2020	Average	3,563	3,337	226	6.3%	2021
	2021	Average	3,691	3,571	120	3.3%	2021

Thornton	2019	Average	1,689	1,657	32	1.9%	2021
	2020	Average	1,603	1,506	97	6.1%	2021
	2021	Average	1,662	1,611	51	3.1%	2021
Woodstock	2019	Average	911	894	17	1.9%	2021
	2020	Average	894	811	83	9.3%	2021
	2021	Average	908	869	39	4.3%	2021
Waterville Valley	2019	Average	134	129	5	3.7%	2021
	2020	Average	134	117	17	12.7%	2021
	2021	Average	129	125	4	3.1%	2021

Thornton recovered from the pandemic year, a high rate of 6.1%, cutting 3 percentage points off the 2020 rate, ending 2021 at 3.1%. March 2023 data indicates Thornton continues to lead the local area with the lowest unemployment rate of 1.3%.

Unemployment rates at the end of March 2023 demonstrate a lower unemployment rate, 1.9%, in Grafton County than in all of New Hampshire, 2.4%, and the United States, 3.9%. The rapidly evolving economic climate inclusive of federal government initiatives such as the National Electric Vehicle Infrastructure (NEVI) program, and local area development between Plymouth and Lincoln indicate the importance of a formal organized approach to community planning in order to maintain Thornton's favorable economic vitality.

Sources: New Hampshire Employment Security, Economic & Labor Market Information Bureau; For current statistics go to: <https://www.nhes.nh.gov/elmi/statistics/laus-data.htm>
New Hampshire Local Area Unemployment Statistics
Not Seasonally Adjusted County, City and Town Estimates - Grafton County

Ending unemployment rates as of December 2022 in Grafton County, the State of New Hampshire, and the United States.

GRAFTON COUNTY	DEC 2022
Labor Force	48,660
Employment	47,570
Unemployment	1,090
Rate	2.20%
SEASONALLY ADJUSTED	
NEW HAMPSHIRE	DEC 2022
Labor Force	773,680
Employment	752,980
Unemployment	20,700
Rate	2.70%
SEASONALLY ADJUSTED	
UNITED STATES	DEC 2022
Unemployment Rate	3.30%
Source: New Hampshire Employment Security Economic & Labor Market Information Bureau www.nhes.nh.gov/elmi	

Results demonstrate a lower unemployment rate, 2.20%, in Grafton County than in all of New Hampshire, 2.70%, and the United States, 3.30%.

Looking at the chart UE-I, one can see while not as strong as the rate of 1.9% in 2019, Thornton recovered from the pandemic year, a high rate of 6.1%, cutting 3 percentage points off the 2020 rate, ending 2021 at 3.1%.

Thornton is in a region with a variety of career opportunities. Residents have access to higher education. Plymouth State University, part of the University of New Hampshire system, is right in Thornton's backyard to the south. Also relatively close is White Mountain Community College to the north and Lakes Region Community College to the east, part of the Community College System of New Hampshire. All campuses have majors that support careers that are abundant in and around Thornton. Citizens living in Thornton and surrounding towns will find a variety of career opportunities. The following list, by needed workers, are employment opportunities that are emerging in and around Thornton and in the State of New Hampshire.

Appendix F: Estimated and projected employment 2023, Quarter 2

B. PROPERTY TAX BASE

The tax rate for the Town is set by the NH Department of Revenue, usually in September or October, when all revenues and other factors have been established.

The appropriations, less the revenues, equal the amount of money needed to be raised by property taxation.

Appropriations – Revenues = Money needed to be raised by taxes

There are five components which make up our property tax, which in 2022 was \$9,071,318.00.

Total assessed values for The Town of Thornton in 2022 was \$453,904,643.00

Component	Amount	Percentage
Town	\$4.23	21.1%
School - Local & Regional	\$12.92	
State Education	\$1.27	6.3%
Grafton County	\$1.59	5.8%
Totals	\$20.01	

The tax rate or tax per \$1000 of property valuation is calculated by dividing the total appropriation, less revenues, by the net assessed valuation of all taxable properties, which for 2022 was \$20.01 per \$1000 of assessed valuation.

$$\frac{\text{Money needed to be raised}}{\text{Net assessed valuation of all taxable properties}} = \text{Property Tax rate per \$1,000}$$

The State Department of Revenue determined the median ratio for the land, buildings, and manufactured housing in the municipality of Thornton to be 79.1% for tax year 2021. The median ratio is the generally preferred measure of central tendency for assessment equity, monitoring appraisal performance, and determining reappraisal priorities, or evaluating the need for reappraisal. It is important to note that it is unwise to compare tax rates with other towns, without knowing the basis of their valuations.

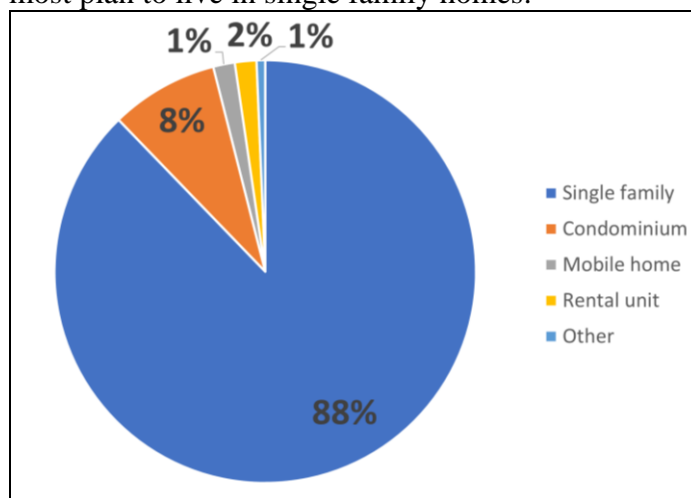
C. HOUSING

1) INTRODUCTION

Housing represents a large portion of a community’s economic stability. Its production, or lack of, has far reaching implications throughout the local, regional and national economy. Housing provides shelter, financial security, jobs and income for a community. The quality of life and the character of a community are closely tied to the available housing opportunities. Therefore, housing is of utmost importance in local decision making. The data on housing is invaluable to local government, developers and businesses: it allows them to identify trends and demographic changes that can affect their decision making process.

2) HOUSING DATA

Of permanent residents answering the survey, 265 are residing in single family homes, 25 in condos, 5 in Mobile homes, 5 in rentals, 2 stated other. Of those that plan to become a permanent resident in the future, most plan to live in single family homes.



In answer to the question regarding the type of residential housing folks would like to see developed over the next 5-10 years:

Single family homes:	278 would like to see 46 would not like to see
Condominium/Cluster:	69 would like to see 200 would not like to see
Workforce Housing:	85 would like to see 209 would not like to see
Multifamily:	57 would like to see 203 would not like to see

Second Home/Resort and Affordable housing were both evenly split.

"About 30 percent of homes bought in New Hampshire last year, 2022, were purchased by people living out of state, compared to 25 to 26 percent in previous years. Definitely more out-of-state buyers, but overall, a modest increase." Heather McCann Director, Housing Research NH.

The American Dream is and always has been Home Ownership. Since 2013 there have been 489 Single Family Homes sold in Thornton per the New England Real Estate Network (NEREN).

Statistics show for the month of February 2023, sales are up 400% since 2022 with a median sales price of \$375,000.00 which has dropped 35.9% since 2022. (Appendix E)

3) PLANNING

Housing development in the Town of Thornton is controlled by zoning and subdivision regulations. These are administered by a planning board comprised of members elected by the town's people. These are designed to ensure that development, including housing, is accomplished in a conscientious and appropriate manner, thus ensuring that the quality and value of living in the Town of Thornton is maintained.

New Hampshire Housing recently estimated the number of housing units that will be needed to accommodate the population of the state in the upcoming years. Considering the growth of Thornton, additional housing units are needed. Though the survey indicated single family homes were most desired, the necessity of rentals as well as workforce housing should be considered.

ESTIMATED NUMBER OF HOUSING UNITS NEEDED

Based on Population Growth

2020-2030	BY HOUSEHOLD TYPE	
TOTAL HOUSEHOLDS ADDED	OWNER HOUSEHOLDS ADDED	RENTER HOUSEHOLDS ADDED
52,501	37,380	15,121
TOTAL UNITS NEEDED	UNITS NEEDED	UNITS NEEDED
59,934	40,319	19,615

2020-2040	BY HOUSEHOLD TYPE	
TOTAL HOUSEHOLDS ADDED	OWNER HOUSEHOLDS ADDED	RENTER HOUSEHOLDS ADDED
74,437	52,998	21,440
TOTAL UNITS NEEDED	UNITS NEEDED	UNITS NEEDED
88,395	58,432	29,963

Note: Assumes the statewide ownership rate of 71%, a rental vacancy rate of 5%, and an owner vacancy rate of 2%.
 Source: RLS Demographics, 2020 5-year ACS estimates, NH Housing Residential Rental Cost Survey, and Root Policy Research.

VII. EXISTING LAND USE

A. CURRENT USE/UNIMPROVED LAND

It has become increasingly obvious that New Hampshire's open lands are being developed at an alarming rate. Forest, farm and open lands are being transformed into shopping malls, commercial and industrial zones and housing of all types. The N.H. Legislature has tried to stem this trend by enacting RSA 79-A "The Open Space Law."

The purpose of this statute is to:

- 1) Encourage the preservation of open space.
- 2) Provide a healthy and attractive outdoor environment for work and recreation.
- 3) Conserve land, water, forest and wildlife resources.
- 4) Maintain the character of the state's landscape, and
- 5) Prevent the conversion of open space land to more intensive use, with a minimum of disturbance to the existing tax base.

Tracts of land qualifying for current use must meet certain standards. In most cases they will be at least 10 acres in size and actively devoted to agriculture, horticulture or silviculture uses. Once placed in current use status, they are assessed at the state's predetermined values between \$15 and \$590 per acre. The vast majority of this acreage falls under "Forestland" with assessed value of \$28 to \$50 per acre, for tax purposes.

As of September 2012 Thornton had 8,172 acres of land in current use. The majority of this land (7,210 acres) is in "Forestland".

A 10 percent penalty is assessed to the landowner if the land is taken out of current use. This penalty does little to discourage the selling of the property since it is passed on to the purchaser.

The large amount of undeveloped land in Thornton is a reflection of the large land holding in private ownership and the natural characteristics of the land (slope, soils, and ledge) which limits the type of development. Approximately 6300 acres excluding current use acreage is undeveloped. The limitations of this land will eventually be overcome when the present supply of suitable land is exhausted. Over the last decade current use land has increased from 6340 acres to 8082 acres. In a different view, the fully taxable land has decreased by approximately 16% in the last ten years.

ZONING MAP OF THORNTON NEW HAMPSHIRE

Map 1



SCALE: 1" = 5000'

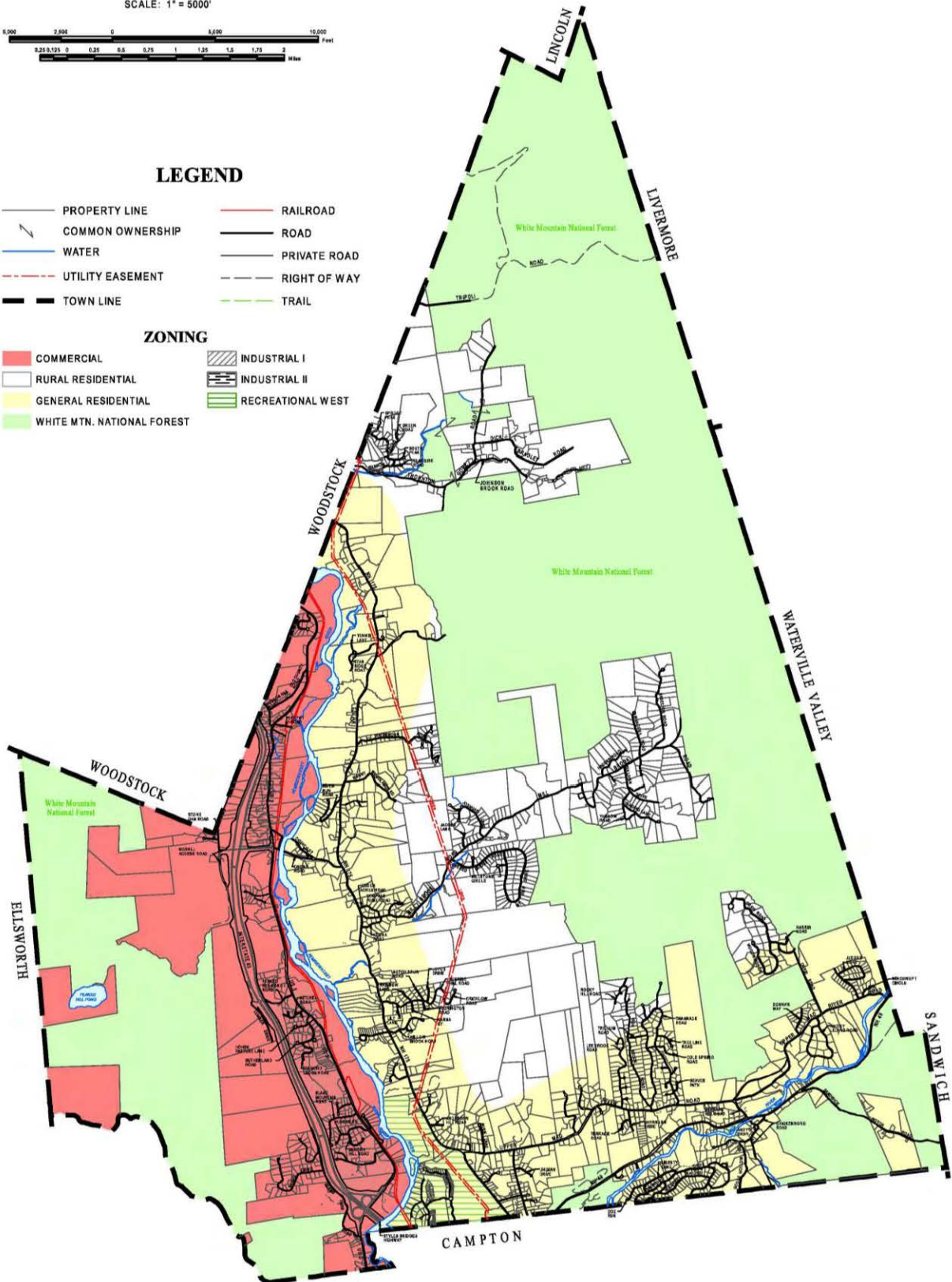


LEGEND

- PROPERTY LINE
- COMMON OWNERSHIP
- WATER
- UTILITY EASEMENT
- TOWN LINE
- RAILROAD
- ROAD
- PRIVATE ROAD
- RIGHT OF WAY
- TRAIL

ZONING

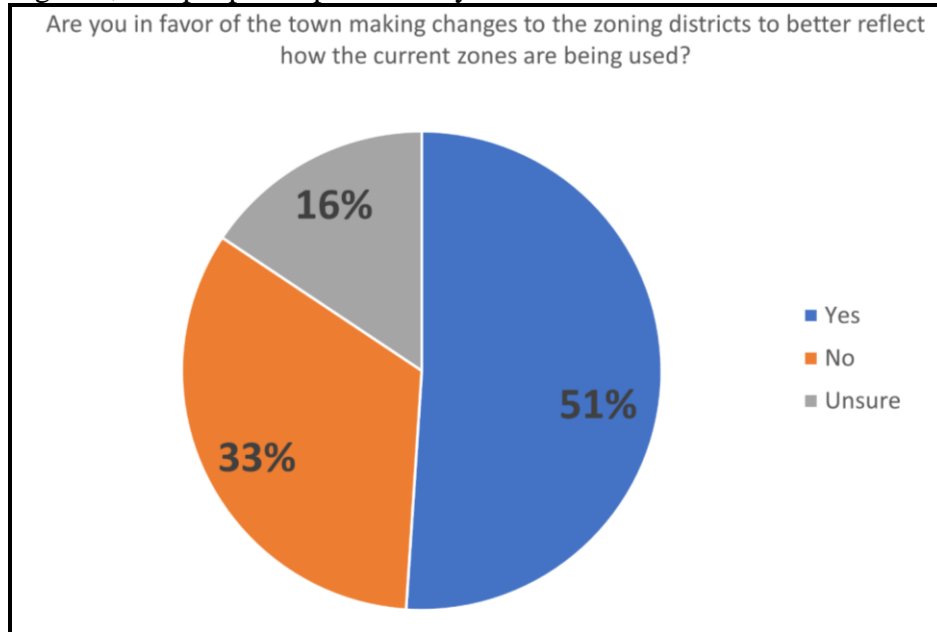
- COMMERCIAL
- RURAL RESIDENTIAL
- GENERAL RESIDENTIAL
- WHITE MTN. NATIONAL FOREST
- INDUSTRIAL I
- INDUSTRIAL II
- RECREATIONAL WEST



B. ZONING

As part of the town wide survey, residents were asked if they would like to see changes to the existing zoning districts. (Map 1)

53% responded yes and when further asked to what districts there should be changes to, 152 people responded they were unsure.



The survey showed people interested in some change in all zones, but most within the current commercial zone.

As cited in the Land Use section of the Mater Plan, the current Zoning Map (Map 1) is not a clear representation of what the current zones are actually being used for. For example, over time, many residential developments have been built within the commercial districts. This could lead to discrepancies, and a future land use plan to alter the residential zoning areas could be in the near future. (Future Land Use Map)

Through public discussion on this topic (Appendix C), it appears that the town could benefit from some form of public education on zoning. The suggestion was made by many that the town website could be improved for a more user-friendly experience and a clearer presentation of the zoning ordinance as well as other topics.

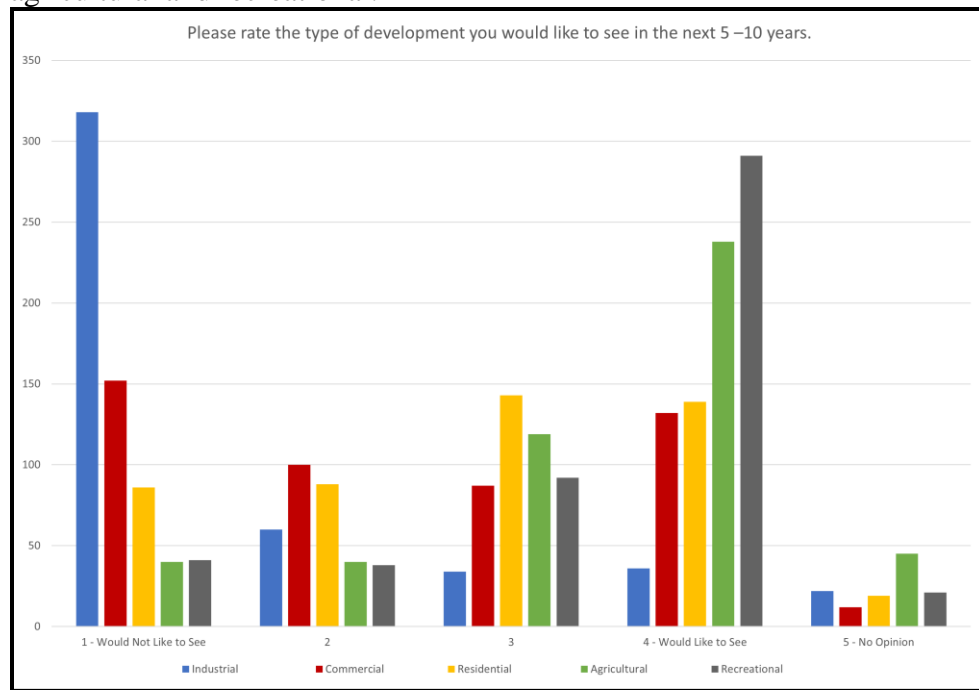
Subsequent to the 2013 Master Plan, the town implemented the position of a Zoning Review Officer. The Town of Thornton does not require building inspections or issue occupancy permits. Builders, developers, and homeowners who want to build, demolish or remove any structures must acquire a Zoning Compliance Application. Permits are issued upon approval of a Zoning Compliance Application by the Board of Selectmen. Compliance was handled by this board until the hiring of the ZRO, who works to ensure compliance as directed in the Zoning Ordinance.

C. INDUSTRIAL

The main industry in Thornton is sand and gravel operations. Approximately 340 acres of land are being utilized for sand and gravel excavation. The surface geology makes many areas in Thornton ideal for gravel excavations. As present operations expand or relocate the Town must enforce RSA 155-E Earth Excavation. RSA 155-E provides the Town with the authority to regulate earth excavations. A permitting system for new excavations ensures certain standards for locating, development and reclamation of the site are followed. The Planning Board is the regulating body.

Grandfathered pits (those in existence prior to August 24, 1979) are encouraged to comply with reclamation but are not easily convinced to comply.

Respondents to the town wide survey indicated that there is little interest in future industrial development in the town. The top two categories for development were agricultural and recreational.

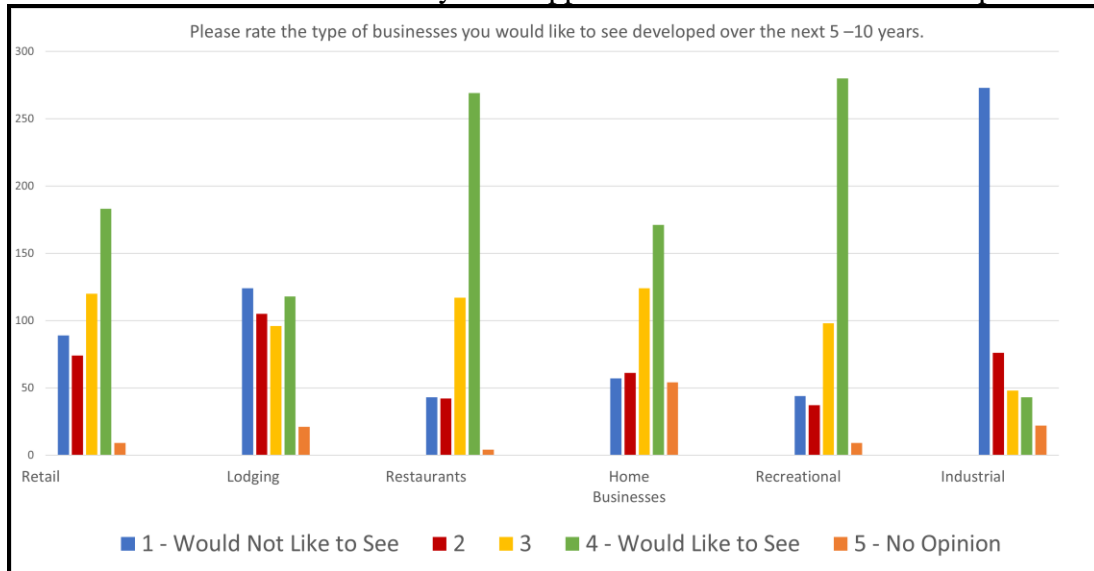


D. COMMERCIAL

The Town of Thornton has a limited amount of land actually devoted to commercial use. The majority of land is occupied by motel/tourist accommodations along Route 3 and grandfathered and home business along Route 175.

The present limited commercial activity may increase somewhat if subdivision development potential is realized. Proper regulation must be developed and utilized to ensure compatibility with surrounding uses.

Respondents to the town wide survey were open to future business development. Most would like to see the development of restaurants and businesses of a recreational nature. Many were opposed to future industrial development.



Since the most desired businesses are restaurants and those of a recreational nature, it should be noted here, that along with those types of businesses, there is a high demand for workers in the service industries. This goes along with the need for housing for those workers.

E. RESIDENTIAL

Residential development is by far the largest land use in the Town of Thornton. Approximately 2,000 acres of land is designated for residential use. This acreage is subdivided into lots of between 1 and 10 acre average.

Information from the 2010 census shows a total of 1862 housing units. Of these 691 (37.1%) are seasonal, recreational or occasional use units.

Residential development is generally occurring along the Town's major travel ways. As residential development expands, the impact on the natural environment increases. Provisions for septic and water systems for each new development should be evaluated for their impact on surrounding land uses; specifically, groundwater.

F. COMMUNITY LAND USE

Thornton has about 40 acres devoted to community facilities which include cemeteries, public schools, an athletic field and a fire station.

G. OTHER

Thornton's other land use include a State Highway Department facility on Route 3 and approximately 600 acres of land utilized by the Interstate 93 corridor and the Pemigewasset and Mad River Basins.

VIII. COMMUNITY FACILITIES

Community facilities and services are essential in promoting and protecting the health, safety and general welfare of the community. Adequate facilities help to make a town a pleasant and convenient place to live and work. However, changes in population, community expectations, legal requirements and technology often result in the need to rehabilitate existing facilities and/or develop new ones. It is important that the Town evaluate the adequacy of its various facilities and services and establish priorities for improvements, as they become necessary.

Thornton currently shares several facilities with surrounding towns; the transfer station the fire and ambulance service. The transfer station is managed by the Town of Thornton which bills the towns of Ellsworth and Campton for its services. The fire and ambulance service is managed by the Town of Campton which bills the towns of Ellsworth and Thornton for its services.

The model presented by the transfer station and fire department has worked very well.

The following is a brief description of the major services and facilities provided in Thornton or in neighboring towns for Thornton's residents.

A. TOWN BUILDING

The Town authorized and constructed in 1989 a new Town Building containing 4,200 square feet located at 16 Merrill Access Road just off Route 3. The building provides working space for the Town Administrator, Town Treasurer, Town Clerk/Tax Collector, Health/Welfare Officer, Assessing, Planning Board Secretary and the Police Department. Select Board Meetings, Planning Board Meetings, and Zoning Board Meetings and Meetings take place in the Town Building. In 2003, the Town authorized an addition to the office, garage and storage facilities used by the Police Department. The Town Building is currently in need of additional office and storage space.

The Capital Improvement Plan has identified a need and provisions for future improvements are included in it. A Building Committee was established to evaluate the needs of the building and forwarded their findings to the Selectboard. The remedy for this is underway.

B. POLICE PROTECTION

The Police Department is headquartered at the Town Building. In addition to office space, there is a holding cell for emergencies and a two bay garage. The Police Department consists of four (4) full time officers, three (3) part time officers and three (3) cruisers. Calls for assistance are handled locally via the Plymouth Dispatch Center. Calls for assistance have been increasing. There has been an increase in reported criminal cases (+10% in two years).

The enhanced 911 Emergency response systems became operational in 2002 so that a person calling 911 does not have to know their location, but the dispatch center automatically has that information.

C. FIRE PROTECTION

Fire protection is provided by the Campton/Thornton Fire Department dispatched from three (3) fire stations; one at the corner of Route 3 and Cross Road, the main station at Route 49 just west of I-93, and one in Campton on Route 175 just north of the Blair Bridge Road. Equipment consists of four (4) engines; two (2) at the main station, one (1) at the Campton substation, and one (1) at the Thornton substation. The department also has a rescue truck, a forestry truck and two (2) ambulances, all of which are housed at the main station. The department continues to get new EMTs on the squad and is always looking for additional help with emergency medical technicians and firefighters. The Thornton station is not large enough to house some of the department's equipment and so, in conjunction with the Town Building needs, the selectboard is also studying the appropriate course of action for the fire station. This need has also been identified in the Capital Improvement Plan.

In addition to taxpayer provided funds, the department is continually applying for and receiving grants to purchase specialized pieces of equipment.

The Fire Department has also had training in Swift Water Rescue. Local towns involved in this training along with Campton/Thornton are Woodstock, Ashland, Plymouth, Bristol and New Hampton.

D. AMBULANCE SERVICE

The Campton/Thornton Fire Department purchased its own ambulance in 2007. By doing this we lessened our dependence on the Plymouth Ambulance Service. Three full time EMTs are now members of the department, primarily to cover the first shift Monday through Friday. The balance of the coverage is provided by the twenty-two volunteer EMTs. The Campton/Thornton Fire Department is a member of Lakes Region Mutual Aid, wherein equipment from surrounding towns is provided to assist Campton/Thornton as needed.

E. HIGHWAY DEPARTMENT

The maintenance of Thornton's roads is done under the guidance of a Road Agent. Since the Town owns limited equipment, much of the work is contracted, although Thornton is gradually acquiring facilities and equipment to permit more efficient use of funds. The Highway Department is headquartered in a garage located adjacent to the town building. The department also stores sand and salt on the property for winter road maintenance.

F. POSTAL SERVICE

In 2006 Thornton received its own ZIP code (03285). Residents receive their mail at the Campton Post Office or via rural delivery. FedEx pick up and UPS services are available in the area.

G. PUBLIC LIBRARY

In 2010 the Thornton Public Library was moved from its location in the Central

School on Route 175 to a separate facility adjacent to the school. It is now housed in the two temporary classrooms purchased by the School District in 2007. Placed on a permanent foundation and upgraded to withstand the added weight of the books, the library will continue to serve as the school library in its new location. Free WiFi is available as well as access to Ancestry.com.

H. SOLID WASTE

Use of the landfill was discontinued at the end of 1994. Since then waste has been handled via recycling and a transfer station. Capping of the landfill site was completed in 1996 and monitoring of any settling and ground water wells is continually conducted. Costs for the recycling center and transfer station are shared with Campton and Ellsworth.

Recyclables, construction debris, appliances, textiles, waste oil, automotive batteries, and electronics are separated at the Transfer Station. Household Hazardous Waste Collections occur annually at neighboring transfer stations in the district.

Increasing Thornton's recycling participation is important because it saves natural resources and the costs of landfilling what are otherwise usable materials which we market. More NH towns are marketing with other communities and some with curbside service are collecting co-mingled materials. Market prices vary from month to month and storage capacity helps.

I. HEALTH CARE

Hospital and related care are available in Plymouth at Spere Memorial Hospital, ten miles from Thornton. Care is also available at Littleton Regional Healthcare as well as Concord Hospital in Laconia. All hospitals provide emergency room care, intensive care, outpatient services and surgery. There are several physician practices in Plymouth as well as many dental offices.

The DART helicopter is available for emergency transport to the Dartmouth Hitchcock Medical Center in Lebanon, NH.

There are a variety of Health and Welfare associated agencies such as Red Cross, Lakes Region Community Services, Plymouth Regional Senior Center, ADAPT, Pemi Baker Youth and Family Services, Pemi Baker Home Health Agency, etc., which Thornton supports each year with financial contributions.

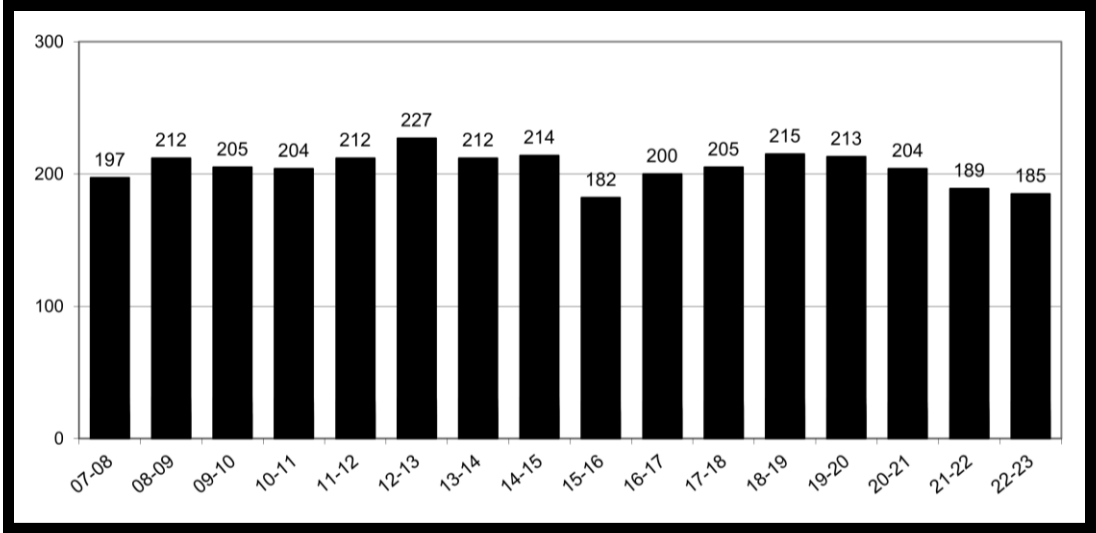
J. CEMETERIES

There are several known cemeteries in Thornton; Pine Grove, Mad River, Hanson-West Thornton, Orris, and Tripoli/Gore. The two currently being used, Pine Grove and Mad River are nearing capacity. Additional property has recently been acquired to expand the Mad River Cemetery. All cemeteries are maintained via trust funds or at town expense and are administered by the Cemetery Trustees.

K. THORNTON SCHOOLS

Thornton is in School Administrative Unit (SAU) 48, headquartered in Plymouth.

The district school (Thornton Central School) is on Route 175 and accommodates grades K through 8. Enrollment as of January, 2023 was 185.



During the summer of 2010 the school added four new class rooms, bathrooms for the middle school, moved the entrance away from Route 175 and added increased security. The school has 22 full or part time teachers and 28 support staff including administration, guidance, nurse, kitchen and teaching support staff.

At the high school level, Thornton students attend the Pemi-Baker Regional High School in Plymouth. The present high school was originally the Plymouth Elementary School, but underwent major renovation in 1990 when it became the high school. A further major expansion renovation has recently been completed.

L. GOVERNMENT

Thornton’s fiscal and policy matters are decided via the “Town Meeting” form of government wherein the administration of the Town is governed by a five person elected select board, five elected school board members for the local school and one elected member for the regional school board. The planning board, town treasurer, town clerk, overseer of public welfare, and various trustees are also elected positions.

M. UTILITIES

The Town of Thornton is serviced by private utilities only. No public or governmental utilities are provided within the town.

1) ELECTRIC SERVICE

Electrical service is provided by two companies, Public Service of New Hampshire (PSNH) and New Hampshire Electric Co-op. (NHEC). There are other consolidators as well. For instance, NHEC is buying power for the Thornton Central School from a new company, Constellation. The entire town is covered by electric service, the majority with NHEC. Service is located on established roadways and is the responsibility of the

homeowner or property owner to cover the cost of connection to the grid. In most cases the electric company will provide service for a given distance from their transmission line.

At this time, the supply of electricity appears adequate. The town does not have any large scale electric generating facility within its borders. Therefore, all grid power is produced outside the town and transmitted in. This means that the town has no control over the cost of this electricity. Some attempts at controlling cost through electric deregulation have been tried from the state level with little or no success.

2) TELECOMMUNICATION

Phone and data service is available through several providers, with Consolidated Communications and Spectrum being the two prominent ones in Thornton.

High speed internet is one area of deficiency in the telecommunication infrastructure of the town. With the increased use of technology for everyday living, this type of data service is becoming increasingly important to residents. Currently, high speed internet is being installed throughout the region thanks to Federal and State funding.

3) GAS AND FUEL

Due to the rural nature of Thornton a natural gas or fuel delivery system is not viable. Fuel such as LP gas, heating oil and kerosene are delivered by truck and stored on an individual basis.

4) SEWER SYSTEM

The Town of Thornton does not have a municipal sewerage system. Sewerage from individual homes and businesses must be dealt with on site through the use of septic tanks and leach fields. The development of a municipal sewer system would have to be geared towards a specific location. At this time, no areas of town have sufficient density to warrant such a system.

5) WATER SYSTEM

The Town of Thornton does not have a municipal water system. Some private water systems exist throughout town but are not controlled by the town. These water systems are meant to service only a given development or group of homes.

The Campton water system does service several homes on Mad River Road. This is due to the fact that the Campton water system utilizes a storage tank located just north of the intersection of Mad River Road and Upper Mad River Road. In addition, Waterville Estates village district, located on the southern edge of Thornton also maintains a water system for the individual homes within its jurisdiction. These private water

systems are governed by the State of New Hampshire rules and regulations.

The development of a municipal water system in the town would be limited at best. At this time, there is no real need or concern for this type of system. In the future, if pollution or degradation of a given water resource negates its use by homeowners, some type of water system may be necessary.

N. RECREATION

In response to the survey question regarding what type of development they would like to see, 291 people out of a total of 483 selected 4 (on a scale of 1 to 4) for wanting to see some sort of recreational development within the town in the next 5 to 10 years. Another 92 selected 3. This means that about 80 percent of the respondents want some kind of recreational development. This is a very large segment of the town. 341 of the respondents would support using town funds to purchase land for recreation. 260 respondents would support community gardens, which can also be viewed as a recreational activity.

There is considerable interest in outdoor recreation: Hiking trails, bike trails, river access, parks for children, dog parks, and community gardens. It should be noted that the type of facilities desired are not overly expensive. They are mostly reserving land for a specific use with some limited additions such as picnic tables, river access points, parking, fencing, etc. It should be also noted that some of the requested facilities currently exist but information about them is not easy to come by on the town website or Facebook page. A recreation map to the town to help identify the existing recreation activities should be available.

IX. POPULATION

A. INTRODUCTION

The population of Thornton at the 2020 census was 2,708. While many of our neighboring towns saw an average of 1.68% growth in population in the last 10 years, Thornton has grown 8.7% in that time.

B. POPULATION TRENDS

The increased growth does not appear to include many families with school age children, as the school enrollment in 2012 was 228 and 185 in 2022.

- 43% of full-time residents indicated are retired.
- 57% of non-residents plan to become permanent residents in the next 5-10 years; 45% of those will be retirees.

All of this indicates an increasingly older population.

C. POPULATION

POPULATION FIGURES – SURROUNDING TOWNS

	2000	2010	2020
Campton	2,719	3,333	3,343
Ellsworth	87	83	93
Groton	456	593	5,69
Lincoln	1,271	1,662	1,631
Plymouth	5,892	6,990	6,682
Rumney	1,480	1,480	1,507
Thornton	1,843	2,490	2,708
Warren	873	904	825
Waterville	257	247	230
Wentworth	798	911	845
Woodstock	1,139	1,374	1,434

X. GOALS AND OBJECTIVES

A. INTRODUCTION

Goals and policies were generated from the community attitude survey recently conducted. In this step of the planning process, the aspirations and needs of the Town are tempered with the realities of limited resources.

B. COMMUNITY AND RECREATIONAL FACILITIES

The 2013 Master Plan stated "The Committee believes that much of the dissatisfaction with recreational opportunity stems from the lack of a community center that can be used by groups of all ages for various activities."

Recreation facilities were noted as being the town service with the lowest favorability rating.

As indicated previously in this document, this theme has continued throughout our research, reinforcing the need to take some action at this time.

Goal and objective:

Enhancement of current and establishment of future recreational and community facilities and opportunities.

Recommendations:

- Inventory current recreational capabilities; promote and publicize current opportunities.
 - Formation of a committee to look into the development of a Parks and Recreation department, whose purpose would be to develop and maintain recreational facilities and programs for all ages, including seniors and young children.
 - Employ a third-party consultant to formalize a recreational development plan for the community. This person would then be able to assist with working to apply for grant funding for projects.
- Identify potential areas for a community facility.
 - Land purchase or use of existing town owned land, and type of facility.
 - Examples: newly purchased land near the town hall for park or gazebo, potential of a combination town library/community rooms, use of old town building.
 - Explore funding opportunities from the state for community facilities.

Comments:

The residents of Thornton have expressed their interest in community areas for residents to gather as well as better communication regarding the recreational opportunities available within the town. Potential development of a recreational map or a kiosk outside the town hall are a couple of solutions.

C. HOUSING NEEDS

"The quality of life and character of a community are closely tied to the available housing opportunities." (2013 master plan)

The lack of housing is holding back our state economy from growing while creating significant financial hardships for our residents.

Goal and objective:

Encourage development of mixed housing that will proactively support the evolving population trends in this region.

Recommendations:

- Review zoning ordinance to be sure it aligns with future needs of the town as well as the desires of the community
 - Provide opportunities for future housing needs for all including seniors, families, second homes as well as housing that supports our workforce -Educate the public on zoning issues
 - Make the town website more user friendly and accessible to the public.

Comments:

Most importantly, the median income in New Hampshire is no longer able to afford the median-priced home in our state. This has never happened in New Hampshire before and is largely due to the lack of housing supply. The challenge is in keeping the character of the town, while moving forward with current trends.

D. FUTURE LAND USE

The authors of the 2013 Master Plan made recommendations to make changes to the zoning map and the 2023 Master Plan Committee are encouraging the same at this time.

The current commercial zone along Route 3 has in some areas developed into primarily residential neighborhoods.

The survey results as well indicate there is little interest in any industrial development.

Goal and objective:

To make changes to the current zoning map in a manner that accurately reflects existing uses and proactively supports evolving population trends.

Recommendation:

(See Map 1, current zoning, and Map 2, future land use)

- Reduce the Industrial Zone, potentially limited to a small area around Exit 29, predominantly sand pit activity.
- Move the Commercial Zone on Route 3 north to include existing commercial establishments, primarily lodging facilities, as well as municipal buildings.

- Bring the residential neighborhood south of the above named commercial area into the General Residential Zone.

Comments:

A reduction of the commercial zone is not intended to discourage small businesses. The zoning ordinance contains multiple provisions within the residential zone for small home-based businesses as well as restaurants and retail establishments that are recreational in nature.

THORNTON NEW HAMPSHIRE

Future Land Use



SCALE: 1" = 5000'



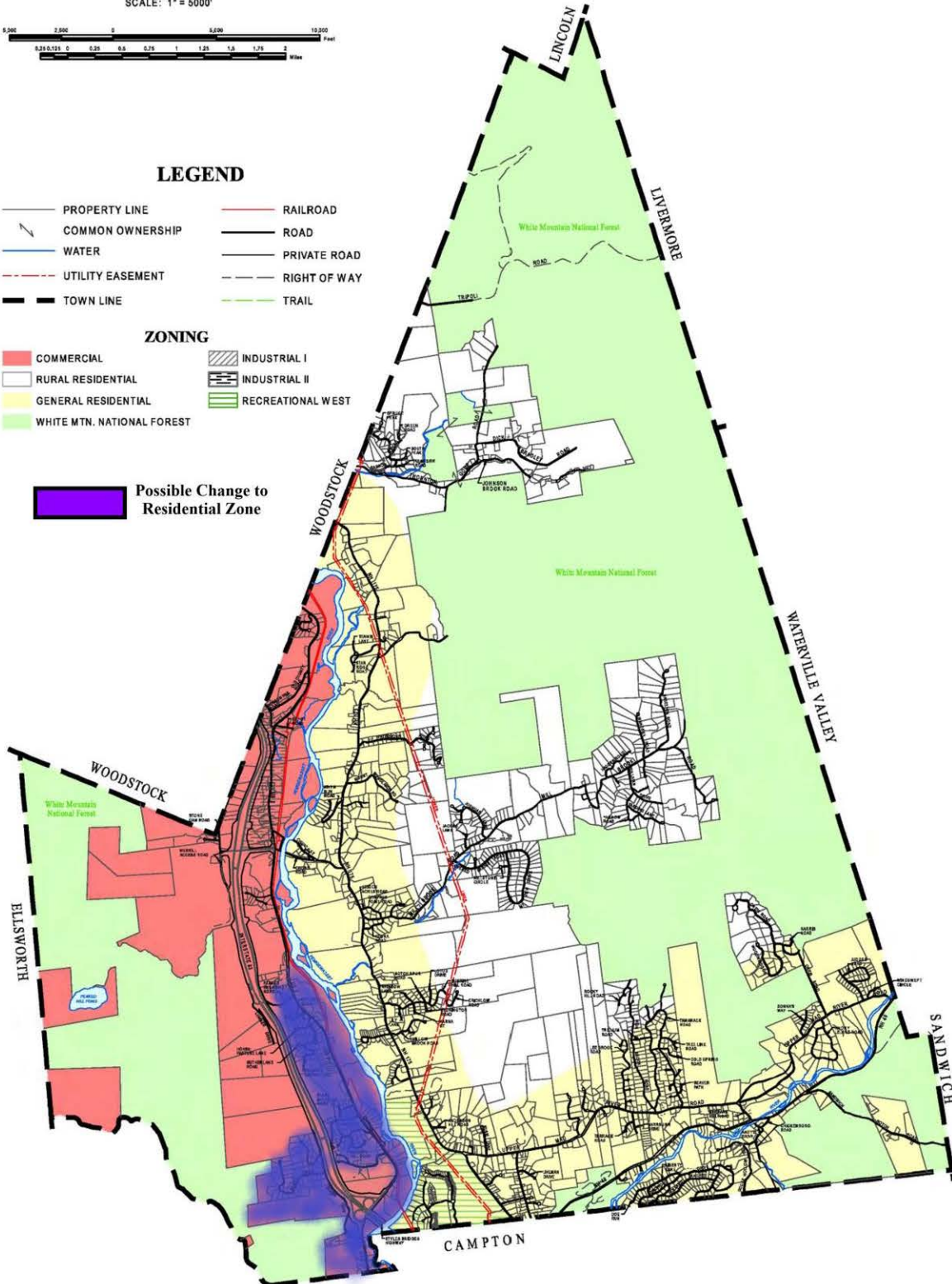
LEGEND

- | | |
|------------------|--------------|
| PROPERTY LINE | RAILROAD |
| COMMON OWNERSHIP | ROAD |
| WATER | PRIVATE ROAD |
| UTILITY EASEMENT | RIGHT OF WAY |
| TOWN LINE | TRAIL |

ZONING

- | | |
|----------------------------|-------------------|
| COMMERCIAL | INDUSTRIAL I |
| RURAL RESIDENTIAL | INDUSTRIAL II |
| GENERAL RESIDENTIAL | RECREATIONAL WEST |
| WHITE MTN. NATIONAL FOREST | |

Possible Change to Residential Zone



XI. SUMMARY STATEMENT

There is a recurring theme throughout this study as well as the two (2) previous Master Plans.

What residents like most about Thornton is the environment, the uncrowded living conditions, the peace and quiet, the outdoor recreation, and the scenery. In addition, this plan has indicated desire to continue the community oriented lifestyle.

In order to encourage thoughtful development and planning that reflects the majority interest in the community, this Master Plan has highlighted a number of areas that should be given consideration as planning decisions are addressed in the coming years.

Understanding of trends in demographics, housing, recreation, land use, zoning, and technology are all integral to successful planning.

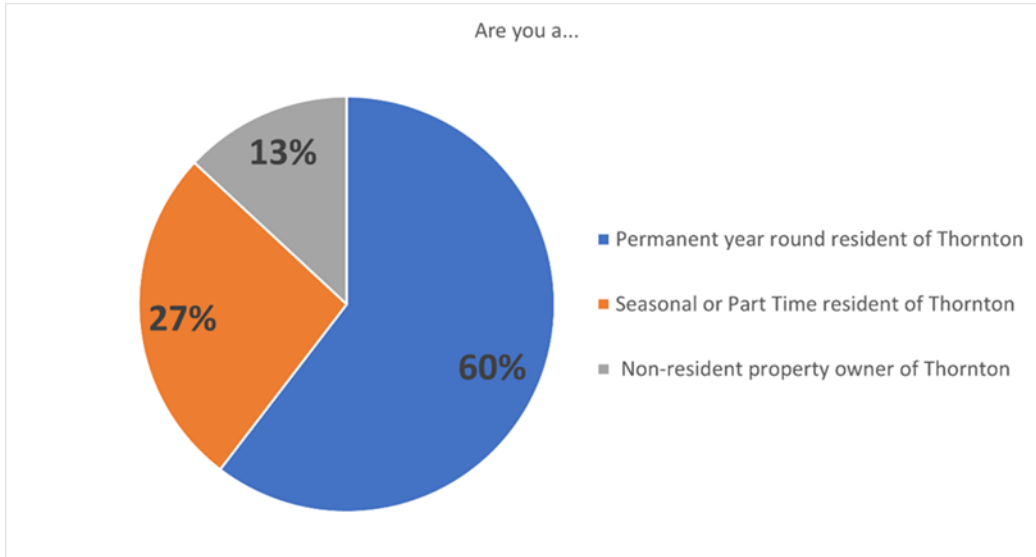
The elected officials of the town should reference this plan frequently and keep the lines of communication open with the community.

Appendix A

Town Wide Survey Results

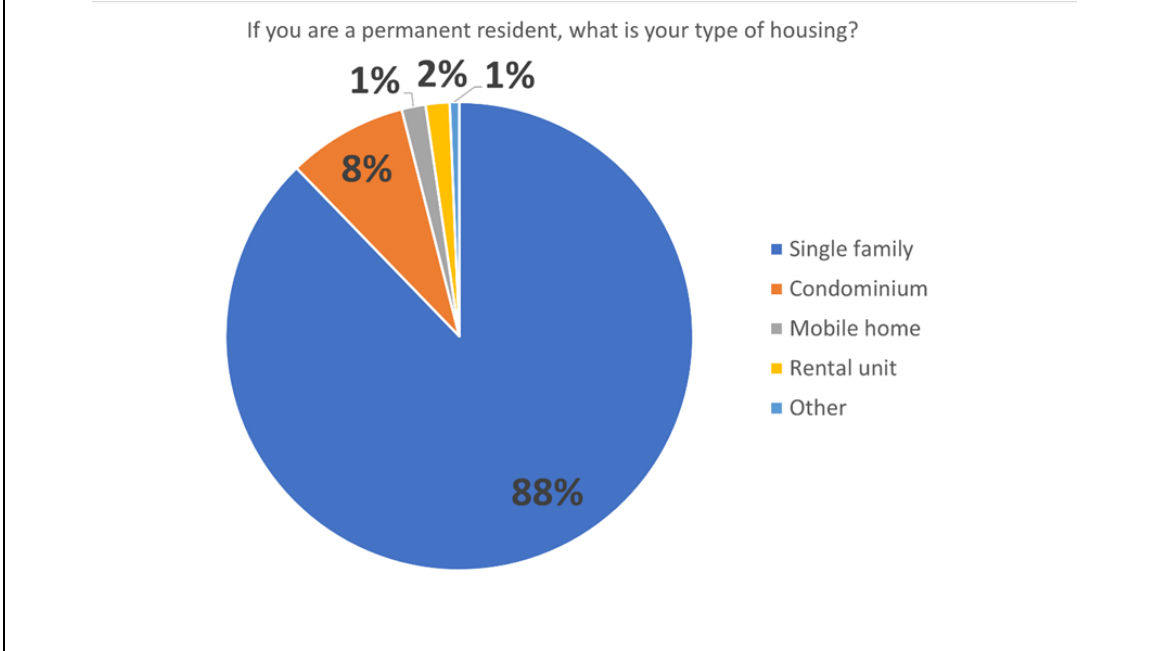
Are you a...

Permanent year round resident of Thornton	305
Seasonal or Part Time resident of Thornton	134
Non-resident property owner of Thornton	66
	505



1a. If you are a permanent resident, what is your type of housing?

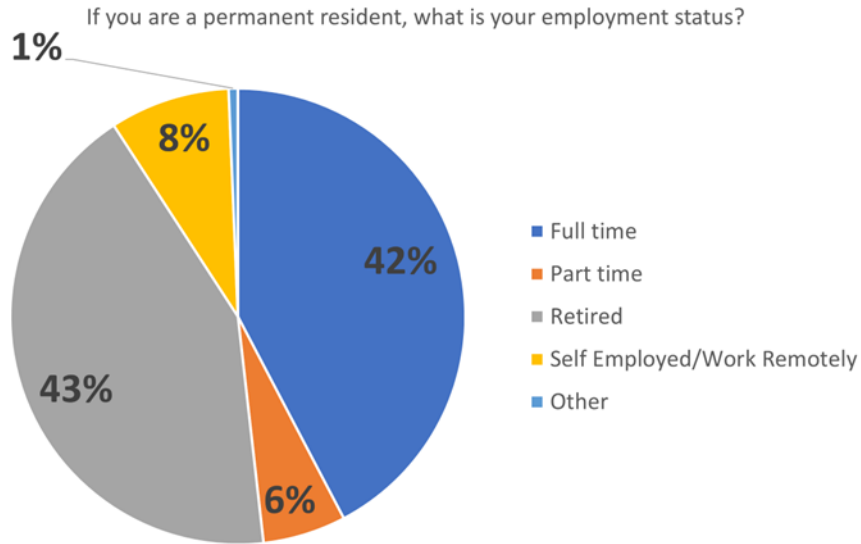
Single family	265
Condominium	25
Mobile home	5
Rental unit	5
Other	2



Appendix A

1b. If you are a permanent resident, what is your employment status?

Full time	129
Part time	18
Retired	130
Self Employed/Work Remotely	26
Other	2

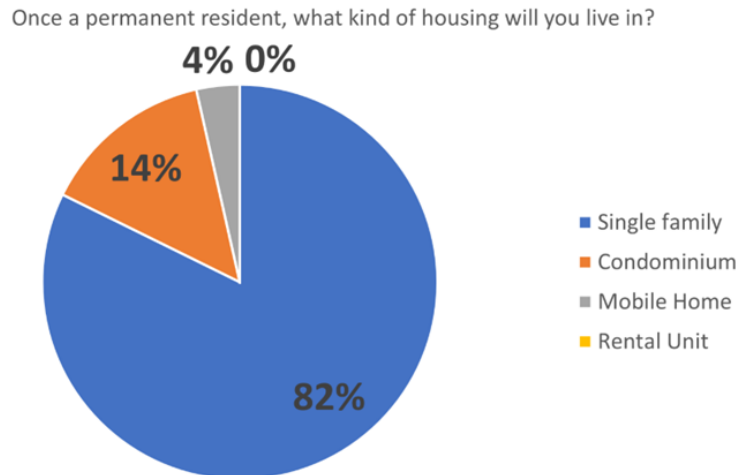


1c. If you are not a permanent resident, do you plan to become one in the next 5 – 10 years?

Yes	110
No	82

1d. Once a permanent resident, what kind of housing will you live in?

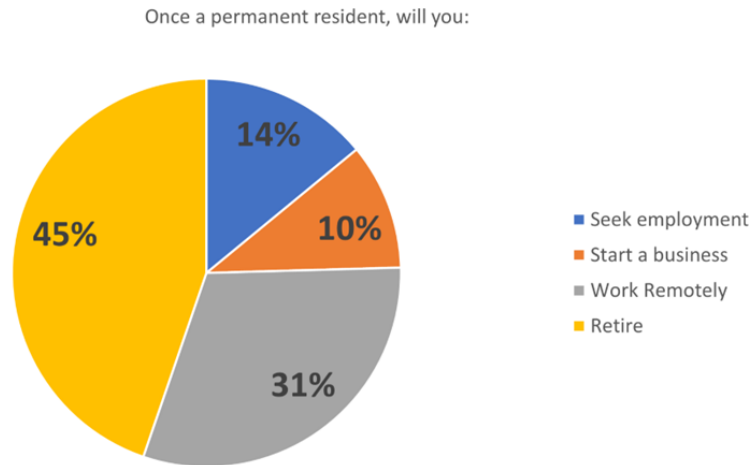
Single family	93
Condominium	16
Mobile Home	4
Rental Unit	0



Appendix A

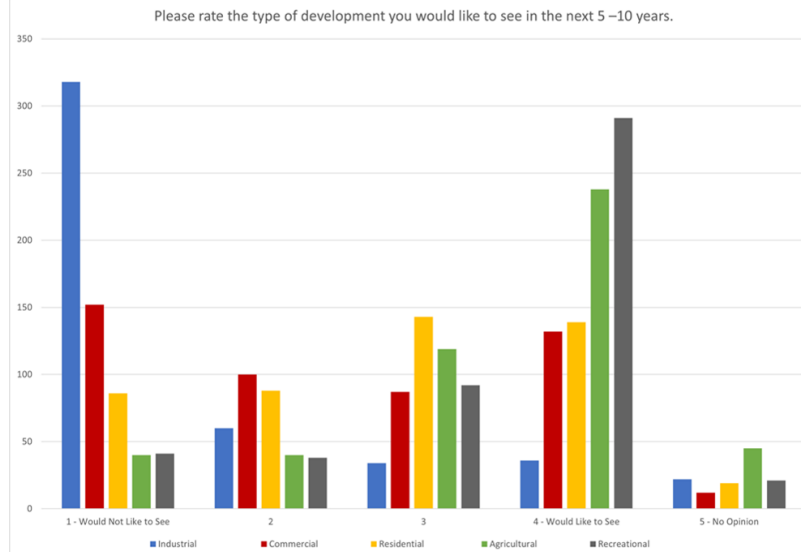
1e. Once a permanent resident, will you:

Seek employment	16
Start a business	12
Work Remotely	35
Retire	51



2. Please rate the type of development you would like to see in the next 5 –10 years.

	1 - Would Not Like to See	2	3	4 - Would Like to See	5 - No Opinion
Industrial	318	60	34	36	22
Commercial	152	100	87	132	12
Residential	86	88	143	139	19
Agricultural	40	40	119	238	45
Recreational	41	38	92	291	21

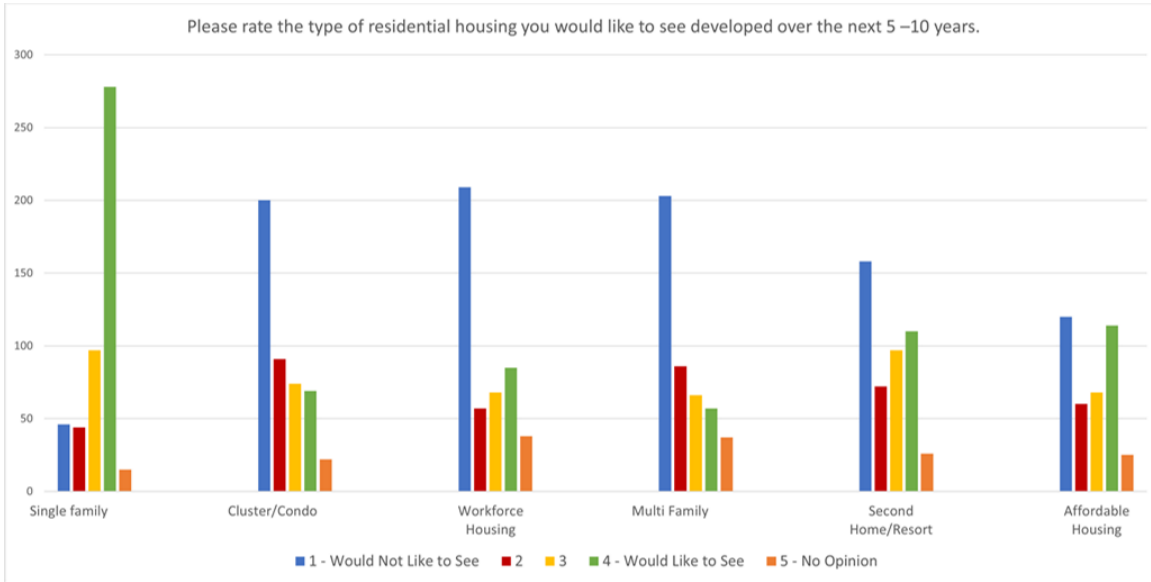


Appendix A

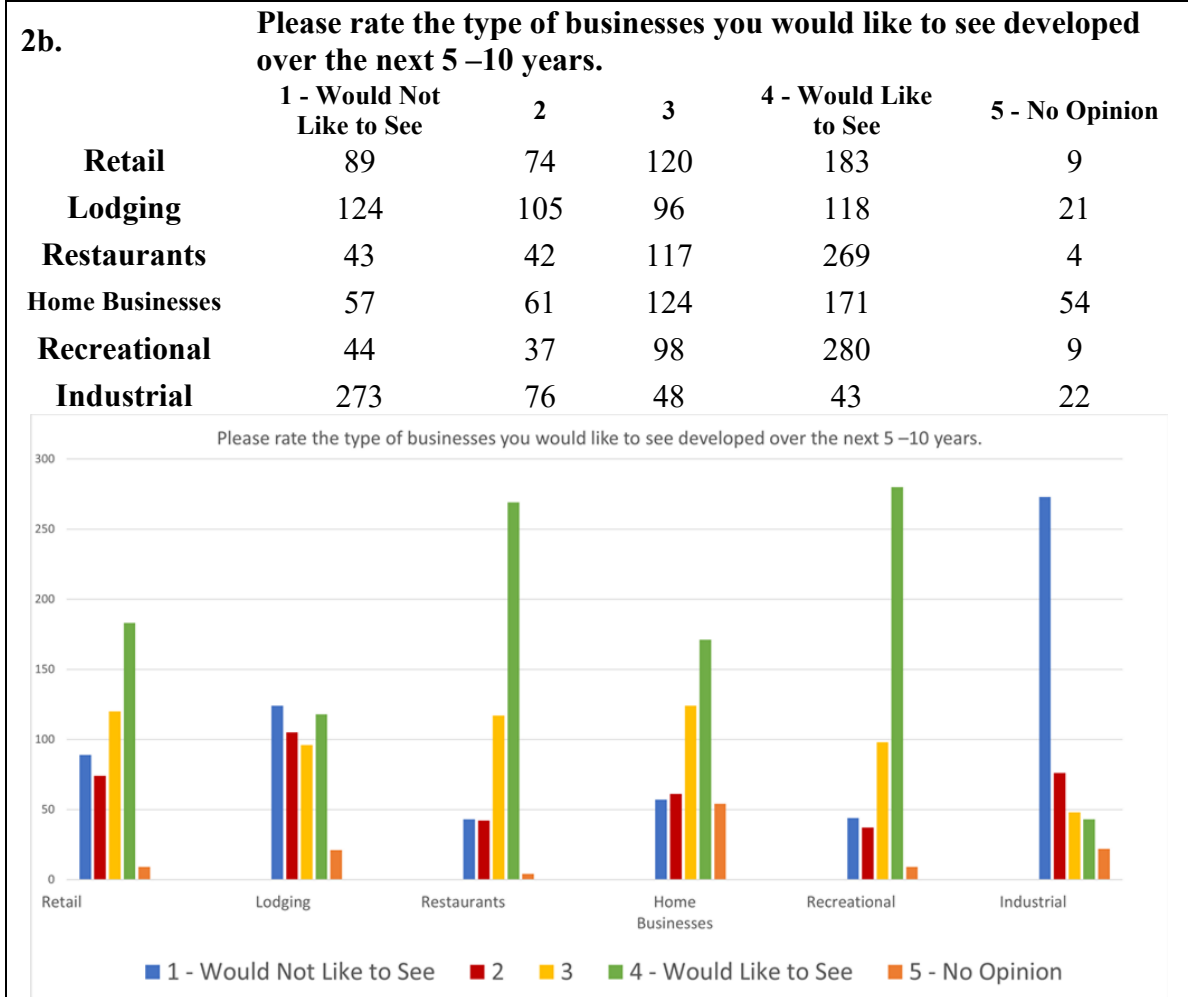
2a.

Please rate the type of residential housing you would like to see developed over the next 5 –10 years.

	1 - Would Not Like to See	2	3	4 - Would Like to See	5 - No Opinion
Single family	46	44	97	278	15
Cluster/Condo	200	91	74	69	22
Workforce Housing	209	57	68	85	38
Multi Family	203	86	66	57	37
Second Home/Resort	158	72	97	110	26
Affordable Housing	120	60	68	114	25



Appendix A



3. Would you support using town funds to purchase land for special use?

Yes	383
No	108

3a. If yes, what types of use are you in favor of? (check all that apply)

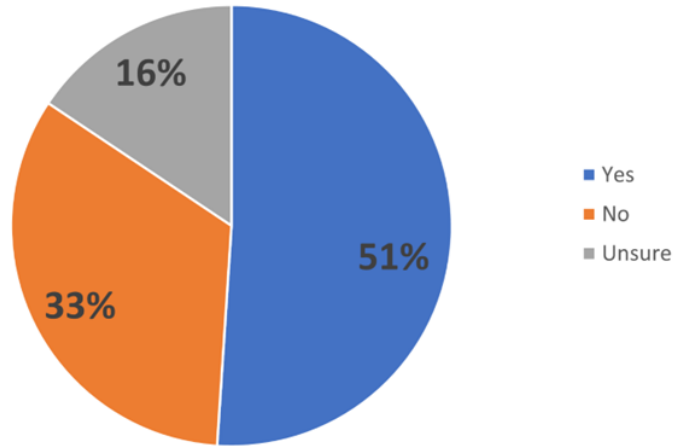
Recreation	341
Protection of wetlands	304
Open Space	313
Community gardens	260
Other	41

Appendix A

Are you in favor of the town making changes to the zoning districts to better reflect how the current zones are being used?

Yes	245
No	160
Unsure	75

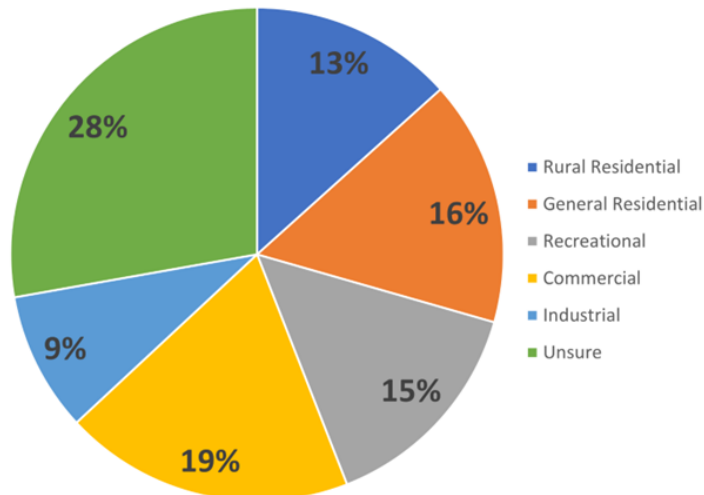
Are you in favor of the town making changes to the zoning districts to better reflect how the current zones are being used?



If yes, what zones are you in favor of making changes to? (check all that apply)

Rural Residential	73
General Residential	88
Recreational	80
Commercial	104
Industrial	50
Unsure	152

If yes, what zones are you in favor of making changes to? (check all that apply)



Appendix A

4 Would you be in favor of alternative fuel/electric car charging stations in Thornton?

Yes 274
 No 143
 Maybe 78

4a. Would you be in favor of park-and-ride lots in Thornton?

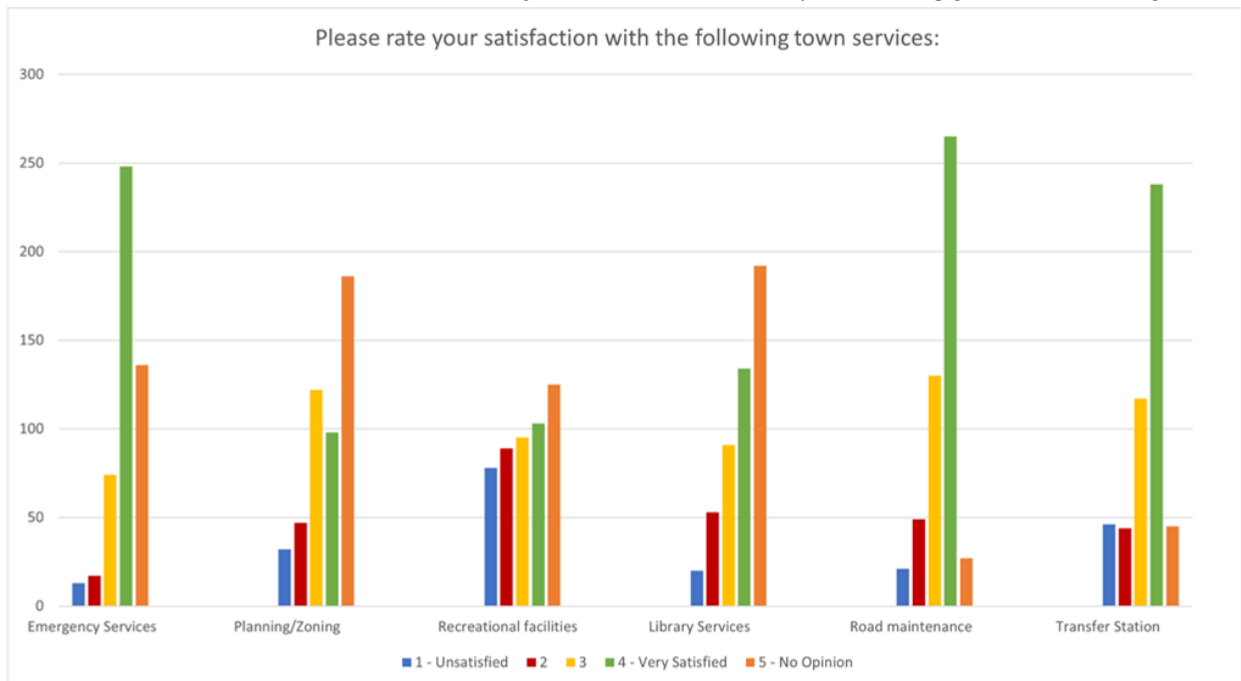
Yes 199
 No 182
 Maybe 110

5 Is your existing internet access sufficient for your needs?

Yes 304
 No 185

6. Please rate your satisfaction with the following town services:

	1 - Unsatisfied	2	3	4 - Very Satisfied	5 - No Opinion
Emergency Services	13	17	74	248	136
Planning/Zoning	32	47	122	98	186
Recreational facilities	78	89	95	103	125
Library Services	20	53	91	134	192
Road maintenance	21	49	130	265	27
Transfer Station	46	44	117	238	45



Appendix A

7. What type of recreational facilities would you like to have in Thornton (check all that apply):

	Hiking Trails & Parking	389
	Mountain Biking Trails & Parking	254
River Kayaking, Swimming & Tubing Put-In & Take-Out Locations and Parking		367
	Picnic Areas	253
	Sports Fields (baseball/softball, frisbee golf, etc.)	198
	Sports Courts (basketball, pickleball, etc.)	192
	Other:	54
	Community Center	5
	Gym Facility/Indoor Pool	2
	Nordic Skiing/Sledding Hill	2
	Multiuse Trails/ATV	2
	Walking Trails	6
	Bike Lanes	5
	Playground/Park	5
	Ice Rink/Inline Skate Rink	2
	No Changes/many already exist	4
	Concert Venue	1
	Increased National Forest interaction	1
	Shooting/Archery Range	1
	Town Forest	1
	Restricting access to certain areas to residents only	1

8. Would you like to see the town enact a noise ordinance?

Yes	276
No	171

9. How do you like to find out about town events? (check all that apply)

	Town website	335
	Social media	256
	Newspaper	112
	Word of mouth	161
	Other	49
	Community forum by email, create local radio station	1
	Sign on Road	1
	Bulletin Board	1
	Mail	1
	Library	1

Appendix A

9a. What is your favorite type of event?

Music/Concerts	57
Town/Community Events - Seasonal, holiday, picnics	37
Outdoor Activities	13
Fairs	9
Family events for all ages	8
National night out	8
Annual community events	7
Festival	7
River Activities	7
None	6
Walking	6
Farmers Market	5
Parades	5
Peace and Quiet	4
Any outdoor activity.	3
Arts and Food/Cultural festivals	3
Trunk or Treat	3
4th of July Celebration	2
Car shows	2
Old Home Day	2

Appendix B

Town Wide Survey Comments (Summarized)

"Only the best for Thornton" (Actual survey response)

The results of the Master Plan have yielded a thoughtful round of opinions on development for the next 5-10 years. Overall, residents support managed growth and development. It was stated in numerous ways that all development should be measured for its merits and impacts before approval.

Housing:

Residents want to focus on affordable residential housing with sound internet service to attract young families. Additionally, cluster development was mentioned as another affordable housing potential for the growing workforce. Both housing types would be a boost to the community of residents living in Thornton.

- The main concern was that there is not enough affordable housing for young families and those that work in the area.
- Many pointed out the need for more affordable rental and ownership options, apartments, and especially starter homes so the young people of the town do not have to move from the area.
- Other comments related to changing the minimum acreage requirements. Some suggested increasing to 2-4 acres per dwelling, while others suggested decreasing to ½ acre for more affordable options.

Preservation of small-town character:

The topic of Thornton's character was mentioned in the survey multiple times. Newcomers indicated that they selected Thornton for the extraordinary natural beauty and access to natural environments in surrounding regions. Concerns were expressed that the inflow of people to Thornton have created an impact on natural environments, animal habitats, lakes, streams, and the Pemigewasset River, located in the heart of Thornton. Many respondents expressed a strong need to protect the natural environment amidst ongoing development.

- Respondents' concerns about the area growing and losing some of its charm and character came through several comments and survey question responses rates. Under Type of Development, "Would Not Like to See" Industrial Growth had the highest response rate of all categories. Under "Would Like to See", Recreation had the second highest overall response rate. These two anchor points demonstrate the overall desire of the respondents to maintain our smalltown character.

Residents did indicate that they were in favor a land purchase by the Town of Thornton to support wildlife protection and maintain open space. Survey responses reflected a desire to develop a town park housing a gazebo and sports fields. Outdoor meeting spaces should provide picnic areas, walking and hiking trails and new recreational opportunities,

Appendix B

It was stated that a community center could be an anchor for the recreational development and community development desired by the respondents.

The 2023 Master Plan survey respondents did submit dismay with the current level of development. They pointed out the downfalls of too many visitors coming into the town and that noise and congestion can and does impact the quality of life in Thornton.

Short term rentals:

One topic that has grown into a public issue is the concept of short-term rentals. Homeowners can advertise their home for rent in a variety of methods around the world. The renters arrive at the property, often time in groups exceeding home size capacity. Most often the rentals are embedded in a permanent residential setting. The survey results focused on the conflict with this type of coexistence with renters and homeowners in the surrounding neighborhoods. The types of disruptions caused by the renters that are of concern to the permanent residents is noise, parking, overcrowding, litter, fireworks and safety issues. Respondents to the survey expressed the need for equitable regulations and oversight of short-term rentals in the town of Thornton.

- The majority were concerned about the negative effects of rentals on neighborhoods and the community. Concerns included absentee owners, excessive noise, disturbance to other residents, trash, drain on town services, increased shortage of affordable housing for young families. More than half these respondents stated they would be in favor of regulations.
- One resident would like to see the zoning regulation open up for short term rentals and another stated concerns about any ordinance governing vacation rentals.

Recreational Facilities

There were a number of comments around community focused events and interest in recreational facilities and access. 78% of survey respondents supported use of town funds to purchase land for special use; a combined 51 % for Recreation and Protection of Wetlands, with an additional 25% in favor of open spaces.

When asked about satisfaction with recreational facilities a significant percentage of respondents indicated "no opinion", while a slightly smaller percentage were "very satisfied", for a total slight majority of the responses for this category. Hiking Trails & Parking, River Access and Mountain Biking along with picnic areas comprised the majority of responses for "Types of Recreational Facilities.

- It should be noted that the type of facilities desired are not overly expensive. They are mostly reserving land for a specific use with some limited additions such as; picnic tables, river access points, parking, fencing, etc.
- It should be also noted that some of the requested facilities currently exist but information about them is not easy to come by on the town website or Facebook page. These would be things like the snowmobile trail that exists on the railroad tracks. In fact some comments were that we should add a snowmobile access to

Appendix B

the tracks. It seems that we, the town, could simply provide a recreation map to the town and help identify the existing recreation activities.

Noise Ordinance:

There were a number of comments around enacting a noise ordinance in Thornton. A significant number of comments were focused on unregulated private fireworks with a strong interest in banning or requiring permits for use and short term rental noise regulations. Barking dogs, and general noise concerns were mentioned in a minority of cases.

Unsafe Roads and excessive speed:

There were a number of comments regarding concerns over unsafe roads and excessive speed. Conversely the Town Service with the greatest number of "very satisfied" responses was Road Maintenance.

Derelict Properties

There were a number of comments concerning property care and maintenance with a focus on dilapidated buildings and abandoned/junk cars. Communication about existing ordinances with guidance for filing complaints is recommended. Future enforcement provisions may be considered as the Town grows.

Zoning:

There were several comments specific to zoning, most in reference to the commercial and industrial zones:

- Commercial zone needs a major overhaul
- General Residential should be made mixed use
- Route 49 should be zoned Commercial and Industrial along Route 3 removed
- Zoning on Route 175 is residential, but there are businesses there

One respondent emphasized the need for a balanced zoning map to manage future growth, another mentioned inconsistency that allow a 25-unit condo next to a 25-acre lot. There were mixed comments on the minimum acreage for building, some stating it should be increased to preserve land and natural resources, others wanting to see a decrease to half (1/2) an acre for more affordable options.

Taxes:

the general concern is the rising taxes and effects on elderly, retired, and fixed income population, lack of services for tax rate, increase tax base wisely to ensure a good fit of business and growth, overall taxes are too high and continue to rise.

Cell and Internet

The general concern is quality of cell service is poor to none in many areas in Thornton. Rte 49 in need of service for cell, remote areas like Mill Brook Road and Centennial Road, Johnson Brook Road, lack of internet/cable service, welcome Broadband now, safety concerns with lack of cell/internet service in Thornton.

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Events:

The wishes/concerns include more events for young people, use of the old town house next to ball field to highlight events of the past, present and future, lack of place to hold events, more music events, town-wide yard sale, how does one find out about town events, continue all events for all ages like music, holiday lights and community fireworks.

Summary of Survey Comments

A vocal minority have expressed their interest in moderated growth through their comments around preservation of our small-town character, roadways and property maintenance. Survey results have provided some contrast to the comments which indicates that these areas will benefit from thoughtful consideration in the new Master Plan.

The survey results reflect the acknowledgement by the community that Thornton has grown in the last 3-5 years. Influencing this growth has been state and national trends in real estate and the workforce. Since 2019, the COVID 19 pandemic reshaped lifestyles and people moved around. Residents want to maintain a safe and peaceful place to live, want more community space to enjoy and want planning and oversight for future development.

Overall, the tone of the survey responses reflects similar attitudes leading to the previous (2013) Master Plan. In general people like the town's rural character and access to outdoor activities/resources. Roads, noise and property care and maintenance reflect an overall sense of pride in the community.

Appendix C

Town of Thornton, NH
Master Plan Public Meeting
Master Plan Survey Results -
Recreation Held at Thornton School
January 17, 2023

Public Comments on future development of recreational opportunities:

1. A resident suggested a regularly scheduled "Thornton resident" afternoon of golf at Owl's Nest. Also, a league could be formed. The resident was aware of the same type of community gathering at the Mount Washington Golf course.
2. Owl's Nest was brought up as a source of recreational opportunities for residents. The Owl's Nest website is a source for information.
3. The residents present expressed a Thornton Recreation Committee be formed based on the results of the survey.
4. Based on the survey results, the meeting participants brought up the potential for a Parks and Recreation Department in Thornton to administer programmed community recreational and leisure activities for residents of all ages in Thornton.
5. With a Recreation Department or Committee, one resident pointed out that first an inventory of recreational assets in Thornton need to be taken. Second, a determination of where we would like to be in the near future. Lastly, goals need to be set to achieve the desired outcome of developing recreational opportunities in The town of Thornton.
6. Additionally, along the line of formal programs, someone commented that there may be a budget line for summer recreational programs at Thornton Central School. The question was raised as to whether some of that funding was available to support new recreational ideas being discussed tonight. It was suggested that this potential be reviewed. Also mentioned was a future sticker program as a source for raising funds for recreational activities.
7. Participants repeatedly commented on the lack of information related to existing recreational opportunities in the town.
 - Start immediately by compiling a list of all existing recreational opportunities in Thornton. Place this information in a visible place on the town's website.
 - Examples noted by participants:
 - Known hiking trails, Peaked Pond and Fisher Mountain.
 - Work with the U.S Forestry office located in Campton for additional trail information in
 - Thornton, possible brochures. Clearly mark parking areas.
 - Install informational kiosks for trail head information.

Appendix C

- Compile lists of walking opportunities. List route's locations, with miles and time it might take to complete the "loop". It was pointed out that many residents walk on Upper Mad River Road. The road is narrow, and drivers are going fast. Someone mentioned there is one gravel pull off that has a walking opportunity.
 - Kayaking on the Pemigewasset River, potential to clean up and improve Robin's Nest
 - site river access and parking in conjunction with NH Department of Transportation.
 - Add "Porta Potties" to support environmental health along the Pemigewasset River.
 - List of commercial businesses and public events currently operating in Thornton that provide entertainment and recreational opportunities.
 - Thornton Central School, playground, ball field, walking on property. Is this outdoor space available for use after school schedule is complete each day?
8. Longer Term Recreational Opportunities to investigate as suggested by residents present at the public meeting:
- Use of the Thornton Central School gymnasium for community recreation
 - Ability to schedule the "ball field" on US Route 175 for youth and adult activities.
 - Use the historical building next to the ball field for recreational programs, events.
 - Also include activities that are within a ten-mile radius of Thornton on the list of current activities, such as the new trail on us Route 3 in Campton.
 - Potential for a "Community Centered location" to be developed around and in front of the Town Hall and Fire Department along US Route 3. This land could be a place to gather for scheduled events, gatherings for music, patriotic events like Memorial Day, possible Gazebo, and playground equipment.
 - Pursue Grant funding for recreational development. If a recreational plan is embedded in a Master Plan, it makes for a more favorable grant application approval.
 - Hire a professional firm to develop a plan for recreation in the Town of Thornton. Grant funding could be used to pay for the service.

Appendix C

Public Discussion #1 Recreational and Community Facilities (January 17th, 2023)
Summary of notes prepared by Donna O'Donnell

From the conversation that transpired, it was determined that the town could benefit by implementing these 3 things:

1. Inventory what we already have
 - Identify trails, parking areas, etc.
 - Coordinate with place like Owl's Nest for use of facilities, which could include leagues and such
 - Publicize what we already have by improving the Town website
 - Have a kiosk at the Town Hall
 - Prepare a recreational Map

2. Identify what we need
 - Possible development of a Park and Rec department for the town, with activities for Seniors as well as kids
 - Walking and biking trails along some town roads, such as Upper Mad River Road
 - Sanitary facilities needed at locations along the Pemi River
 - Downtown area
 - Community areas for residents to gather

3. Future plan
 - Funding requests for grants for specific projects
 - Identify lands that could be acquired for public use

Appendix C

Town of Thornton, NH
Master Plan Committee Public Meeting
Master Plan Survey Results — Zoning and
Development Held at Thornton School
January 28, 2023

The current Thornton zoning map was on display at the meeting. The committee handed out the zoning map from the 2013 Master Plan. In the 2013 plan there were proposed zoning changes shown on the map. After review, the 2023 Master Plan committee determined that the changes had not been executed in the last 10 years and that perhaps the same changes applied in 2023. This determination was presented to the public for discussion.

1. Attendees discussed the fact that zoning was created in Thornton in 1970. This decision was based on the State of NH extending interstate 93 up through the Franconia Notch State Park and beyond in a northerly direction.
2. The "ZONES" were established based on businesses and traffic in 1970.
3. Quite a few residents present stated that they were lifelong residents of Thornton. They shared that in 1970, US Route 3 running through Thornton was "bumper to bumper" traffic. There were gas stations, lodging, restaurants, and other small businesses, farms and houses.
4. The residents reflected that once the interstate was completed, the flow of traffic on US Route 3 subsided substantially. The new road essentially had visitors passing Thornton.
5. It was pointed out that in fact the loss of traffic was because Thornton was a candidate town for an exit off of 93, and not the current location of Exit 29. There was to be an exit off 93 running in front the Thornton Town Hall.
6. Fast forward 53 years and here is the Town of Thornton developing a new Master Plan, asking residents, do we change our zoning? What will work for the town?
7. Residents recommended a balance in density in areas now being developed, such as Owl's Nest Resort. Results of the Master Plan Survey were reviewed. Results are on the Town website.
8. Residents asked about the use of water from the Pemigewasset River and water resources in a resort. Also, impact of septic systems built along the Pemigewasset River.
9. The town has an Economic Development Committee. One area the committee is working on is how to bring businesses to Thornton.

Appendix C

10. How can residents shape the future in Thornton? Should one section of the Master Plan be reviewed every year. Should it be written every 5 years?
11. Current issues brought up by attendees were work force housing and the lack of it in town and the issue of continued short term rentals in the town. Home prices have risen substantially.
12. The committee advised that changes made to zoning would be voted on in 2024 in conjunction with the annual town meeting held in March each year.
13. One resident in attendance was concerned with traffic overflow on Cross Road. Additionally, the resident expressed concern about constant attempts by visitors to the area who want to gain access to the river via private property, including parking issues. The comment was made in relation to re-zoning and the impact of more commercial property being accessed via Cross Road and the increased traffic levels that may follow. It was stated that the traffic is constant since the bridge over the river was replaced.
14. Further comments from the public may be submitted to the Planning Department located at the Thornton Town Hall.

Appendix C

Public Discussion #2 Development and Zoning January 28, 2023
Summary of notes prepared by Donna O'Donnell

The general feeling from the residents was that we need to act now and be thinking ahead the future use of our resources.

Comments from the public regarding residential development:

- Need an inventory of existing our residential homes to make predictions for future needs
- Take a look at condo/cluster development and to assess the effect on town resources
- Afraid that large development will continue without a plan now
- Should we take another look at the 1 acre minimum requirement
- Concern that exceptions made on some projects will set a future precedent

Comments from the public regarding commercial development:

- What types of commercial entities should the town encourage
- Do we put restrictions on chain stores
- Need to study what effect commercial development has on the tax base
- Should impact fees be implemented
- We need to realize that social media is bringing more people to our area
- Need to consider how current residents will be affected by change

Recommendations:

- An outside entity should be hired to do an overall study of the town
- Planning board should review the master plan on a regular basis

Appendix D

Master Plan Town Facilities - Summary

Transfer Station

25 comments

- 12 hours - return Sunday hours
- 9 recycle (more paper, compost)
- 3 Kudos
- 1 negative - refusing trash from non-homeowner
- Pricing - not consistent
- Potholes - pave/no pave
- Transparency of income from recycling
- Sharing TS w/ other towns - good

School

16 comments

- 7 concern w/ budget impact on taxes
- 3 no new school
- 2 need to expand
- Need upgrades
- No voting at school
- 2 slow growth in Thornton for less impact
- Transients are burden to system

Community Center/Downtown

14 comments

- All referenced a need for a gathering place o Town center o Park o Community center
- More open space - funded by special fee on building permits
- Welcome to Thornton signage and landscaping
- Use Historical building on 175
 - Place for events
 - history of town
- Main street
- Community Center o Listed 5 times in Q7 - other (Type of recreational facilities)

Appendix D

Police and Fire

7 comments

- Support
- Need
 - dog officer
 - 24-hour police - no on call from home
- Lack of communication, interacting with residents
- Slow growth to be able to serve town properly without overload taxes

Cemetery

4 comments

- 3 appearance
 - Name change due to no pines left
 - War zone
 - Who responsible
 - How permitted
 - Plant new trees
 - Atrocious
- Ability to find Grave location
- Committee
 - needs makeover
 - Bids for work

Library

7 comments

- 2 Library hours - open on weekends
- Is it necessary
- Not to be the same as school
- Larger space
- No need for new one
- Good services
- Basically a trailer
- Campton had suggested a shared library - not even considered

Appendix D

Solar

4 comments

- 3 positive
 - Mandate solar panels for all houses inc. new builds
 - Would help electric bills
 - Eco friendly
- No broad commercial solar farms

Town Office

6 comments

- 2 Kudos
- Negative - culture of town office is unwelcoming
 - Staff
 - Admin
 - Committees
 - Stifling progress
- Limit hiring of new town employees
- Signage for places in town
- Growth too much - impact on town - would need larger school, town facilities

Appendix E

Local Market Update – June 2023

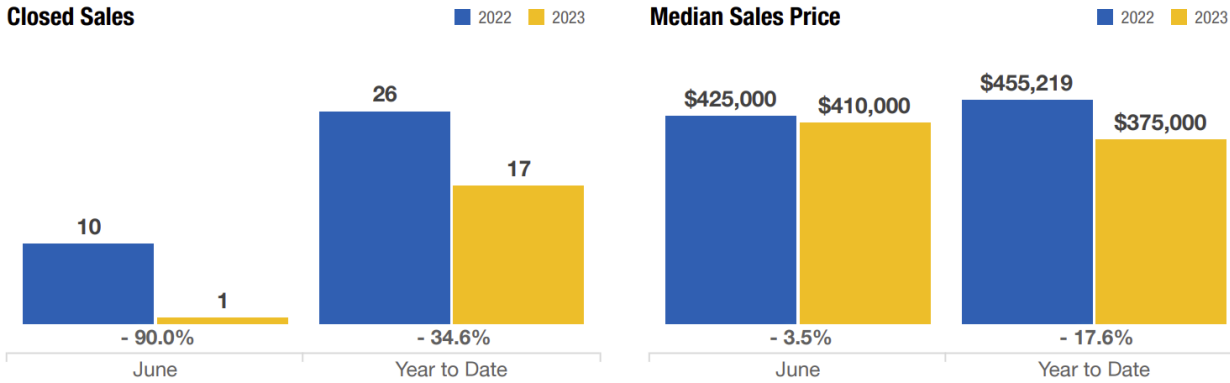
A Research Tool Provided by the New Hampshire REALTORS®



Thornton

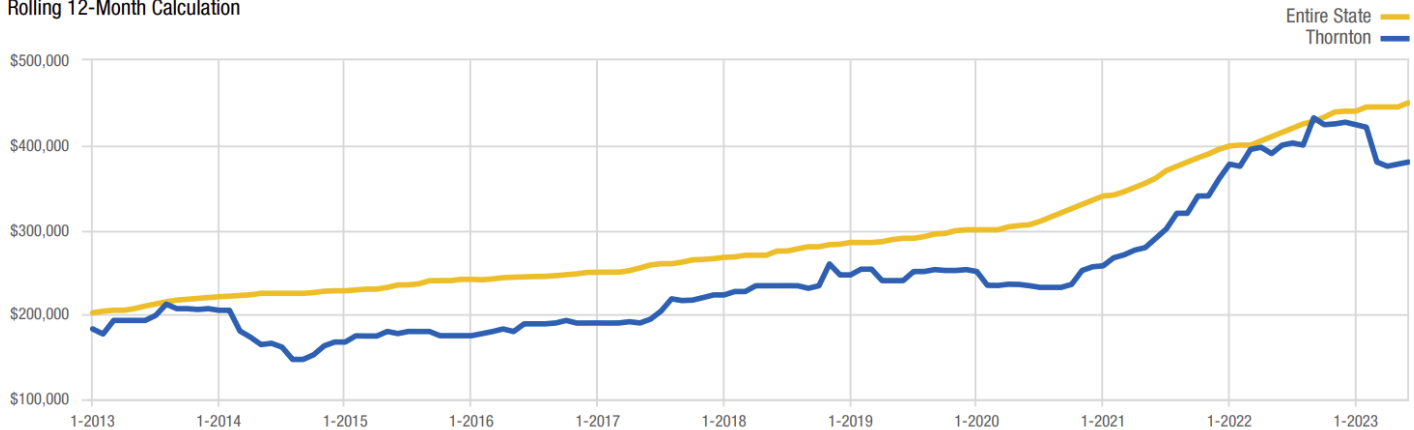
Single Family Residence Key Metrics	June			Year to Date		
	2022	2023	% Change	Thru 6-2022	Thru 6-2023	% Change
Closed Sales	10	1	- 90.0%	26	17	- 34.6%
Median Sales Price*	\$425,000	\$410,000	- 3.5%	\$455,219	\$375,000	- 17.6%
Median List Price	\$549,000	\$550,000	+ 0.2%	\$489,950	\$499,000	+ 1.8%
Volume of Closed Sales	\$4,398,000	\$410,000	- 90.7%	\$11,226,344	\$6,930,800	- 38.3%
Days on Market Until Sale	19	5	- 73.7%	34	48	+ 41.2%
Pending Sales	7	8	+ 14.3%	31	22	- 29.0%
Months Supply of Inventory	1.8	3.2	+ 77.8%	—	—	—
New Listings	9	7	- 22.2%	38	27	- 28.9%
Inventory of Homes for Sale	9	12	+ 33.3%	—	—	—
Percent of Original List Price Received*	99.2%	105.2%	+ 6.0%	98.1%	96.3%	- 1.8%

* Does not account for sale concessions and/or downpayment assistance. | Percent changes are calculated using rounded figures and can sometimes look extreme due to small sample size.



Median Sales Price - Single Family Residence

Rolling 12-Month Calculation



A rolling 12-month calculation represents the current month and the 11 months prior in a single data point. If no activity occurred during a month, the line extends to the next available data point.

Current as of July 5, 2023. All data from New Hampshire REALTORS®, Inc. and Northern New England Real Estate Network. Report © 2023 ShowingTime.

Appendix F

ESTIMATED AND PROJECTED INDUSTRY EMPLOYMENT 2023, Quarter 2

293,000 - Retail Trade
72,000 - Manufacturing
52,000 - Food Services and Drinking Places
45,000 - Elementary and Secondary Schools
45,000 - Ambulatory Health Care Services Professional, Scientific, and Technical Services
25,000 – Construction

ESTIMATED AND PROJECTED OCCUPATIONAL EMPLOYMENT, 2023, Quarter 2

24,000 - Retail Salespersons
23,000 - Cashiers
18,000 - Office Clerks, General
13,000 - Stock Clerks and Order Fillers
13,000 - Registered Nurses
13,000 - General and Operations Managers
11,000- Customer Service Representatives
12,000 -Secretaries and Administrative Assistants, Except legal, Medical, and Executive
13,000 Waiters and Waitresses
9,500 - Janitors and Cleaners, Except Maids and Housekeeping Cleaners

MOST PROJECTED OPENINGS FOR OCCUPATIONS REQUIRING A BACHELOR'S DEGREE, 2023, Quarter 2

1,440 - General and Operations Managers
1,076 - Software Developers and Software Quality Assurance Analysts and Testers
690 - Accountants and Auditors
604 - Elementary School Teachers, Except Special Education
461 - Project Management Specialists and Business Operations Specialists,
390 - Secondary School Teachers, Except Special and Career/Technical Education

MOST PROJECTED OPENINGS FOR OCCUPATIONS REQUIRING HIGH SCHOOL OR SOME COLLEGE, 2023, Quarter 2

2,485 - Stockers and Order Fillers
2,172 - Office Clerks General
1,509 - Customer Service Representatives
1,387 - Home Health and Personal Care Aides
1,196 - Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
1,100 - Teaching Assistants, Except Postsecondary
1,049 - Bookkeeping, Accounting, and Auditing Clerks

MOST PROJECTED OPENINGS FOR OCCUPATIONS REQUIRING MODERATE- OR LONG-TERM OJT, 2023, Quarter 2

1,227 - Cooks, Restaurant

Appendix F

1,049 - Bookkeeping, Accounting, and Auditing Clerks

818 - Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products

614 - Maintenance and Repair Workers, General

5,586 - Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel

544 - Miscellaneous Assemblers and Fabricators

420 - Medical Secretaries and Administrative Assistants

MOST PROJECTED OPENINGS FOR OCCUPATIONS REQUIRING NO FORMAL EDUCATION, 2023, Quarter 2

3,810 - Fast Food and Counter Workers

3,760 - Cashiers

3,318 - Retail Salespersons

2,524 - Waiters and Waitresses

1,534 - Janitors and Cleaners, Except Maids and Housekeeping Cleaners

1,277- Cooks, Restaurant

144 - Landscaping and Groundskeeping Worker

Sources:

Unemployment Data: Economic & Labor Market Information Bureau I NH Employment Security

Job graphs: [short-term-emp-oroi.pdf \(nh.gov\)](#)

Community College System of New Hampshire www.ccsnh.edu

University System of New Hampshire www.usnh.edu

Appendix G

James Rankin and his wife Margaret, from Scotland, were among some twelve persons to establish the first church in Thornton. Mr. Rankin was made an Elder of the church. Rev. Experience Estabrook was ordained the first minister in 1780 and Rev. Noah Worcester followed in 1787.

In 1784, the town voted to build the first meeting house. Previous meetings were held on the east side of the river in a log schoolhouse or someone's barn. After several meetings and changes in the plans, it was decided to build across the road from the current town house. It was completed in 1789. Both religious and business meetings were held here. In 1823, the name "Old Meeting House" was changed to Town Hall and later to Town House. Around 1860 the building was moved across the road and added on to, where it stands today as the "Thornton Town House."

In 1820, the United Congregational Society was founded and they built a church across the road from the present Central School. There were as many as 75 parishioners attending. In 1866 it was torn down. The present Methodist Church was built in 1866 as the West Thornton Union Church, replacing a chapel built on the same location in 1857.

The first road in Thornton ran along the east side of the Pemigewasset River, now known as Route 175. By 1786 roads were built on both sides of the river from Campton to Woodstock. By the early 1790's Millbrook Road and (Upper) Mad River Road came into being. By 1796 the Sandwich Notch Road opened for local and commercial traffic to the Seacoast.

It was around 1800 that Thornton Gore started to settle. These families came from the Merrimack Valley or Canaan, and shared common bonds of family and/or the Free Will Baptist religion.

Most areas of the town were hillside farming communities – Millbrook, Mad River, and Thornton Gore for examples. Farming, logging, saw mills and grist mills were the primary occupations at the time. Dairy products, wool, fruit (apples especially), vegetables and maple sugar were produced and used at home or sold commercially.

This was a way of life until after the Civil War. Young soldiers went to war and did not come home to work the family farms. Instead they chose to live in the cities to the south or head west to another "land of opportunity". As the farmers aged and could no longer carry on, their farms were sold to neighbors wanting to enlarge their holdings, or they were sold to the NH Land Company. Logging became a thriving business for this giant company. Log drives were held each spring on the Pemigewasset River with the landing being near the old Robbins Nest Bridge. The logs were put in there and sent down river to the Merrimack River, eventually reaching big mills in the Lawrence, Massachusetts area.

Some of the larger farm homes took in summer boarders – and thus started the so called "tourist trade." With the expansion of the automobile in the 1930's, small sets of cabins, known as motor courts, were built along Route 3. Nearly all of them had a tea room where

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light sandwiches, pastries, tea and coffee were available. Restaurants and gas stations popped up.

Times were pretty good for a while. Then, in the mid-1960's Interstate 93 came into being. Route 3 was bypassed, and the cabin and restaurant business went the way of the farms. Real estate speculators started buying up large tracts of land and major development of homes and condominiums began. Because of the proximity to the Interstate and the numerous ski areas these speculators did quite well. Many of the older homes were purchased and restored, as well.

Many of Thornton's newest residents have come to seek employment opportunities created by the ski and recreation industries.

Appendix H

NATURAL RESOURCES

Thornton’s basic natural resources are described in this section. They include climate, topography, geology, soils, surface water, groundwater, vegetation, and fish and wildlife.

The type and distribution of Thornton’s natural resources influences the location and type of potential development. The information provided in this section will allow an understanding of Thornton’s physical components. This knowledge can be used to determine compatible uses for certain land areas. It is evident that some areas are better suited for a particular use than others.

The understanding of natural resources such as topography, geology, wetlands, and flood plains as an indicator of potential conflicts for particular uses is critical for proper development. Roadway, residential, and industrial locations should be identified for desirable use such as recreation or preservation.

A. CLIMATE

Climate is the starting point for the description of Thornton’s natural environment. Climatic conditions have a long-term effect on all other natural resources. By creating certain ranges of temperature, precipitation and humidity, climate controls physical habitats and thus the kinds of plant and animal life that can survive in any perspective since little data is available for the town itself.

Data was collected from various sources where Thornton was part of, or close to, the research area. Although the climate in Thornton varies with altitude, it is classified as humid continental with short cool summers and long cold winters. The climate can be characterized by the changeability of the weather, a large range in both daily and annual temperatures and equable distribution of precipitation.

Thornton lies in the heart of the middle latitudes and the majority of the air masses flow from west to east. During the winter months there are usually northwesterlies and during the summer months the air generally flows from the southwest bringing warm maritime air masses to the region.

TABLE 2
TEMPERATURE (°F)
(Averages for 1991-2020)

Month	Daily Max.	Daily Min.	Monthly Mean
January	28.4	7.7	18.1
February	30.7	8.9	19.8
March	39.6	18.6	29.1
April	53.7	29.9	41.8
May	66.0	42.2	54.1
June	74.9	51.5	63.2
July	80.0	56.8	68.4
August	78.4	54.4	66.4
September	71.6	46.9	59.3

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October	57.6	35.8	46.7
November	44.8	26.5	35.7
December	34.8	16.3	25.6

Source: [NOAA NCEI U.S. Climate Normals Quick Access](#)

The growing season in Thornton can be calculated from the probability of the last spring frost to the first fall frost.

The growing season in Thornton is approximately 120 days; however, this can vary greatly from year to year.

The annual precipitation in Thornton is approximately 53 inches. Average annual snowfall is approximately 70 inches. The following tables indicate the area has a small variation in monthly precipitation rates while snowfall and melt make spring a particularly wet time of the year. But again, one has to remember that the weather is unpredictable and a drought could happen at any time.

TABLE 3

PRECIPITATION (Averages for 1991-2020)	
Month	Mean
January	3.38
February	3.05
March	3.34
April	5.18
May	4.21
June	4.76
July	6.04
August	3.90
September	3.83
October	5.44
November	4.74
December	4.66
Yearly Average	52.53

Appendix H

B. GEOLOGY

Geology takes a look at the materials, which compose the earth, and the processes by which these materials are formed and transformed. Geology also attempts to reconstruct geologic events to understand the historical evolution of a particular area.

The three dimensional nature of geology in terms of both materials and processes has important implications for land use. There are four major ways that the understanding of geology benefits planning:

1. The identification of valuable resources, such as construction materials.
2. The evaluation of natural and man-induced hazards such as subsidence, landslides, earthquakes, flooding, erosion, and groundwater pollution.
3. The evaluation of the suitability of a site for construction (including a septic system).
4. The evaluation of groundwater resources.

Understanding the particular geologic processes and features of Thornton permits some prediction of the effects of any proposed action.

The geologic substrate, outcrops of bedrock and stony till in the Thornton area was exposed some 12,000 - 13,000 years ago when the glacial ice sheet retreated northward. Bedrock is derived from highly metamorphosed sedimentary rocks of the Littleton formation and the granite rocks of the Kinsman formation.

The Littleton formation, which occupies approximately one third of the town, is metamorphic rock as indicated on the Simplified Bedrock Geologic Map (See Figure 3). Metamorphic rock results from changes in preexisting igneous, sedimentary or other metamorphic rocks brought about by high temperatures and pressures and chemical activity deep within the earth. The Littleton formation is made up of schist's (mica-quartz and mica-schist) and quartzites. Originally these were shale and sandstone but over a period of some 500 million years were uplifted and horizontally compressed, becoming schist and quartzite. Almost 400 million years ago, these materials started out as layers of mud and sand deposited in a sea; continual deposition led to the compression of these sediments into shale and sandstone.

The Kinsman formation is made up of granitic rock. This is igneous rock formed from molten rock that originated at great depths beneath the surface and has been pushed upward. If the magma solidifies before reaching the surface, the formation is termed plutonic or intrusive; molten rock that reaches the surface and then cools is called volcanic or extrusive. The Kinsman formation is an example of the first

Appendix H

kind and intruded into the Littleton formation about 330-340 million years ago. The formation is a white to gray, coarse to medium-grained granitic rock with quartz, mica and feldspar crystals commonly two to three inches long.

C. SURFACE GEOLOGY

While some of the effects of glaciation may be significant, the basic topography of a mountainous area like Thornton looks much the same today as it did before the coming of the ice. The most substantial alteration to the landscape occurred in the river valleys where meltwater enlarged the river channels, and sand and gravel, brought down from the north, were deposited. The very extensive deposition of till determined the topography of Thornton in the river valleys. The last era of glaciation, the Pleistocene, is responsible for the surficial deposits, the river valleys, and many bogs and lakes.

Till is material that has been deposited directly by the glacier. Rock fragments and soil that accumulated within the ice were laid down in very compressed form as the glacier retreated.

The material was unsorted and this accounts for a significant characteristic; variability of particle size type of original rock, and density. The thickness of till also varies depending upon the position in the landscape as indicated on the Schematic of Glacial Soil Types (See Figure 4). The variability of the till deposits results in considerable variation in soil and groundwater characteristics.

Where meltwater of the retreating glacier was the agent of deposition, the material was sorted out to a certain extent according to particle size. The stratified sand, silt and gravel deposit is a type of glacial deposit known as outwash. Primarily these deposits are located in river and stream valleys and in flatland areas. More recent stream deposits also have produced sand and silt layers. Sand and gravel deposits are found in kame terraces, eskers, valley trains, crevasse fillings, and small outwash plains. Most of these deposits in Thornton occur along the Pemigewasset River Valley.

The sand and gravel deposits are valuable in two respects:

- 1) as an economic resource for the local construction industry and
- 2) as a groundwater source for private and municipal water supplies and for maintenance of the river quality.

Future activities should be reviewed to evaluate their impact on the sand and gravel deposits.

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D. TOPOGRAPHY

The mountains that flank Thornton and the Pemigewasset River Valley are dominant topographic features that help give a sense of place and belonging to the Town's residents. Topography also affects several natural processes, such as erosion and drainage, and thus imposes limitations on human activities. Generally, land that is fairly level is regarded as desirable for development, though a modest slope can assure proper drainage. Good exposure to the sun and natural protection from cold winter winds can reduce a site's energy demands.

Thornton ranges in elevation from 585 feet above sea level on the Pemi to 2609 feet on Fisher Mountain on the Thornton/Waterville town line and about the same altitude on the West flank of Dickey Mountain also on the Waterville line in the White Mountain National Forest as noted on the Natural Resource Map (Figure 5). Most of the higher elevations in the Town are:

Hix Mountain	2198 feet
Cone Mountain	2132 feet
Wanosha Mountain	1777 feet
Blake Mountain	1561 feet

Most of the private land in town lies between elevations of 600 feet and 1300 feet. The lower elevations generally follow the Pemi and Mad River Valleys.

The majority of the development is along the major highways skirting the Pemi and Mad River Valleys, Routes 3, 175, and 49 except for those areas protected as wetlands.

E. SOIL

Soil has different meanings to different people. Farmers regard soil as the medium in which plants grow. Prospective homeowners usually regard soil as a place to build a house and grow a lawn. Engineers have traditionally considered soil as all the unconsolidated material overlying bedrock.

Soil is the layer of the earth's surface (normally three to six feet deep) which supports plants, animals and people. It contains minerals, organic matter and living organisms. With the interaction of time, climate, parent material, topography and organisms, soil has formed. In recent geologic time, man has also played a role in creating and modifying soils.

Physical, chemical and biological properties differ from one soil to another. There are over 100 different soils in New Hampshire; over 1,000 in the Northeast.

Evaluation of soils is done according to particle size and shape, moisture, color, compactness and various other characteristics. This evaluation leads to the further

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classification of soils based on texture, structure, drainage, permeability, erodibility, etc. Characteristics of the soil present different conditions (favorable and unfavorable) for the support of various land uses. Any activities upon soil by humans should be carried out in such a fashion as to avoid undue pollution or soil erosion.

1) SOIL SURVEY

Information for Thornton soils was initially gathered by the United States Department of Agriculture (USDA) soil scientists. They took samples to depths of a least 40 inches and examined the soil for various characteristics, among which were color, structure and texture. From this information, lines were placed on aerial photographs delineating the boundaries of different soils. Symbols identifying each soil were placed within the mapping units along with a slope designation. It is important to realize that changes from one soil to another are gradual rather than abrupt. Therefore, the border outlining a soil represents a transition zone rather than absolute exact soil boundaries. On-site examination is needed to determine a specific soil boundary/zone. The original aerial photographs of Thornton used for mapping purposes are on file at the Soil Conservation Office in Woodsville, NH.

2) SOIL DEVELOPMENT POTENTIAL

In December of 1985 the Grafton County Conservation District published a Soils Potential Ratings Report to assist local planners, developers, engineers and others in their planning activities. This report is a collection of data on soil performance for septic tank systems, roadways and dwellings and other aspects for low density development (single-family units). The report is not included in the Master Plan, but is available through the Grafton County Conservation District Office in Woodsville, NH or online at www.graftonccd.org.

The purpose of this report is as an indicator of the soils potential for low density development. The ratings are useful for a better understanding of problems that may be encountered during and after the construction phases of development.

The Development Capability Map for Thornton (See Figure 6) prepared by the North Country Council is based on this report and illustrates the composite rating for each soil found in Thornton. This map was formed by locating the individual soil types on the map and categorizing each one according to the soil type's potential rating system. The composite rating is an indicator of the soil's overall development potential, but the report should be reviewed in detail for any specific planned development.

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F. WATER RESOURCES

1) WATER CYCLE

Water moves in a continuous, interdependent manner known as the water cycle. All water is involved in this cyclic movement which will continue indefinitely. Water vapor condenses in the atmosphere and falls to earth as precipitation.

Once the water reaches the ground, it can be categorized in one of the three following ways:

- Runoff - flows over the surface.
- Groundwater - percolation through the soil with underground flow.
- Surface Storage - collection in depressions in the land to form lakes and ponds.

In any of these categories, heat from the sun can evaporate water and return it to the atmosphere to start the cycle once more as shown schematically in the Water Cycle Diagram (See Figure 7). Plants also play a role by intercepting precipitation as it falls, absorbing water from the soil and losing water in the form of water vapor known as transpiration. Loss of water by evaporation from lakes, ponds, streams, soils and vegetation is collectively called evapotranspiration.

2) SURFACE WATER

a) RIVERS/STREAMS

Thornton is part of the Pemigewasset River Basin. The Pemigewasset River runs southerly through Thornton from headwaters at Profile Lake in Franconia Notch State Park. A major tributary in Thornton is the Mad River, which runs southwesterly generally along the Thornton/Campton town line and joins the Pemigewasset River in the Town of Campton.

Numerous other streams flow into Mad River and Pemigewasset River to drain the Thornton landmass. Many of these are unnamed. Among the named streams are: Hubbard Brook, Mill Brook, Hackett Brook, Johnson Brook, Bagley Brook, Eastman Brook, Talford Brook, Lee Brook, Smarts Brook and Chickenboro Brook.

Since the Pemigewasset River flows through many communities and the watershed comprises nearly 1000 square miles, it is an

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important asset for the region and entire state. Its protection in terms of water quality; scenic beauty and wildlife habitat will influence the quality of life and the economic vitality of the region into the foreseeable future.

In 1988 the New Hampshire Legislature established the New Hampshire Rivers Management and Protection Program (RSA 483). Portions of the Pemigewasset River were included in this Program in 1991 and the Pemigewasset River Advisory Committee (PRLAC) was created and charged with developing a management plan for the section of the Pemigewasset River from the northernmost Thornton Town line to its confluence with the Winnepesaukee River in Franklin. This Plan entitled the "Pemigewasset River Corridor Management Plan" discusses numerous problems, both real and potential, and provides some recommendations for protection of the river corridor without significantly infringing on the rights of the riparian landowners. This plan is hereby included in our master plan by reference.

b) FLOOD/FLOOD HAZARD

Floods are normal occurrences in nature. During regular stream flow, water runs in the channel, but when runoff is high, water level increases and rises over the banks. This water will flow onto the floodplain where the energy of the water can be dissipated through its greater surface contact with vegetation and other natural floodplain features. Floodwaters frequently damage buildings which are located on the floodplain.

Dam and levee construction as regulated by RSA 483:9-aa are measures taken to protect structures susceptible to flood damage, or at least keep damage to a minimum. We now realize that there are significant detrimental by-products of both with dams causing unnatural flow regimes (and associated problems), and levees constraining the breadth of the river which serves to retard the river's use of the floodplain to dissipate energy. The result is greater erosional damage to downstream property owners, and a channel that tends to wander. Land use regulations can prevent flood damage by keeping damageable property away from flood hazard areas and by protecting the important functions of the floodplain by preserving undisturbed vegetative cover.

The National Flood Insurance Program has been promoted by the Federal Government. This program requires that towns regulate construction in areas of flood hazard in order to qualify for flood insurance sales. If a community does not join in the program, all property owners in town are ineligible for flood insurance. Thornton entered the program in the early 70's and the requirement

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imposed by this program is incorporated into the Thornton Zoning Ordinance Article XIV.

Most of the immediate areas along the Pemigewasset River are in a flood hazard area. This was most recently demonstrated by the 1987 spring floods, which were classified as 25-year floods. Area along the Mad River is also in flood hazard zones as indicated on the Flood Hazard Map (See Figure 8). Some other flooding may occur in isolated wetlands or streams but is minimal compared to the Pemi areas.

c) WETLANDS

A wetland is an area characterized by little or no slope, poor drainage and standing water during at least part of the year with water tolerant vegetation present. Wetlands may also be thought of as a transition zone between dry land and open water. The following general functions are performed by wetlands:

- i. floodwater storage and peak flow reduction
- ii. biological and chemical filtering
- iii. settling area for sediments
source of food, shelter, breeding and nesting sites for wildlife -groundwater recharge
- v. home to unique and valuable plant and animal life
- vi. recreational and educational resource

Though these are important functions, a particular wetland's value depends on its location, size, vegetation, and various other characteristics.

Drainage and filling in of wetlands are major causes of concern. This will damage a wetland's ability to perform the aforementioned functions.

Excessive nutrient loading in upstream locations can result in an acceleration of the wetland's natural aging process (eutrophication). In later stages, algae and weeds can deplete oxygen levels in the water resulting in fish kill.

Wetlands are normally defined in one of two ways. They may be defined in terms of vegetation, since vegetation growing in a wetland is usually distinct from vegetation on non-wetland areas. A second way to define wetlands is through soil evaluation since wet area soils differ from dry area soils.

Wetlands are identified on the wetlands map and consist of poorly and very poorly drained soils. These areas in town are generally

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associated with surface waters of the land.

Wetlands in Thornton have not been inventoried or studied. The best information available is the drainage classifications of soils by the Soil Conservation Service. This information is used to delineate wetlands on the Wetlands, Surface and Groundwater Map (See Figure 9).

d) GROUNDWATER

Groundwater occupies the spaces between soil particles and rock fragments. The upper level of the saturated zone is known as the water table. Surficial glacial deposits and bedrock fractures zones in New Hampshire are tapped for groundwater supplies.

A groundwater aquifer is a geologic formation, which transmits water and contains sufficient amounts to be extracted by wells. Physical characteristics of an aquifer determine the rate of water flow and the volume held. An aquifer recharge area is an area on the surface of the land through which rainfall and runoff infiltrate to replenish an aquifer. A recharge area does not necessarily lie directly above the aquifer it supplies; it may be close by or at a distance. Geology, slope, soil, vegetation, and land use affect the ability of surface areas to recharge aquifers.

A United States Geological Survey (USGS) Investigation contains general information regarding groundwater and aquifers in Thornton. The publication is the "Availability of Groundwater in the Pemigewasset and Winnepesaukee River Basins, Central New Hampshire" by John E Cotton. The investigation's accompanying USGS maps, at a scale of 1:250,000 delineate approximate boundaries of high, medium and low potential yield aquifers.

Aquifers shown on the USGS maps generally coincide with areas of sand and gravel deposits. These deposit locations can be seen on the Wetlands, Surface and Groundwater Map (See Figure 9).

Areas of high potential yield are located all along the Pemigewasset River in Thornton. These areas are inferred to be underlain by medium to very coarse sand or sand and gravel with sufficient saturated thickness to have high potential to yield water. Included are areas with fine-grained surficial deposits, which are inferred to be underlain by medium to very coarse sand and gravel. Wells located by systematic groundwater exploration within these areas should yield sufficient quantities of water to meet or augment municipal and industrial requirements. Where deposits are thinner wells would be less productive along the margins of these areas.

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In addition to producing a source of water for private and community use, aquifers also aid in maintaining water levels. They absorb water during periods of high flow and release it gradually during dry times.

Aquifers, as valuable water supplies, do face potential problems. Septic system failure can result in untreated effluent being carried via groundwater into nearby aquifers, thus polluting them. High bacterial counts in water from deep wells may be an indicator of this problem. Contamination can also occur from road salting, solid waste disposal, agricultural practices, outside storage of chemicals, and pesticide use.

Aquifers are also in possible danger of depletion. Increased development can place excessive demand on aquifers thereby depleting the water reserves. The speed and amount of run-off increases when development increases, because this water is blocked from entering the soil. Stream and drainage containment in pipes and culverts also reduce groundwater recharge.

While the majority of homes rely on relatively shallow wells into gravel aquifers, as development increases, more and more homes rely on deep wells drilled hundreds of feet into bedrock to extract water from fracture zones.

Presently, the Town of Thornton's residents rely on groundwater as their main supply of potable water. The protection of the town's aquifers is of the utmost importance.

Future water supplies must be protected now or costly alternatives will become a reality in the immediate future.

Design and location of septic systems and domestic wells are regulated by State and local controls.

G. DRINKING WATER PROTECTION

Thornton does not have a town wide public water system and is unlikely to have one in the foreseeable future due to many factors, among them geology and geography. (There are at present 13 small community wells serving primarily condos and some residences at Owl's Nest). Most people in a sparsely populated town such as Thornton do not think of their water supply until it either runs out or becomes unfit to drink. Then it may be costly to fix the situation.

Along the river valleys of the Pemigewasset and Mad Rivers there are stratified drift aquifers which can provide this water, but are subject to various sources of pollution from disposal of hazardous household chemicals to spills at the scene of traffic accidents. Rules to prevent these occurrences, compliance enforcement and

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mitigation plan must be near the top of our future considerations.

Many homes in Thornton rely on wells drilled into fractured bedrock. These may be less subject to the pollution sources mentioned above, but in general provide much less water for per dollar invested. Protection of these areas is equally important.

H. RIVER CORRIDOR PROTECTION

Over the past several decades some towns along the Pemigewasset River from its source at Profile Lake in Franconia to its confluence with the Winnepesaukee River in Franklin to form the Merrimack River have enacted various rules and ordinances to limit detrimental impact to the quality of the river water. Several towns did not.

The confusion over the various requirements was greatly reduced in 2008 when the New Hampshire Legislature modified the Comprehensive Shoreland Protection Act and included the Pemigewasset River and all fourth order streams in the State under its regulations. In Thornton the fourth order streams are all of the Pemigewasset River, the Mad River, and Eastman Brook downstream from the juncture with Johnson Brook.

As stated above, even though confusion was reduced in 2008 it still motivated a powerful lobby who wanted fewer restrictions than those contained in that version of RSA 483-B. The 2011 session of the legislature has significantly eased the protections so as to make them far less protective of the river water quality than those of the 2008 RSA.

In 2011 the CSPA was modified and renamed the Shoreland Water Quality Protection Act (RSA 483B). The Shoreland Program provides multiple services to the public. Permitting staff review Shoreland permits, waiver and variance requests for compliance with the SWQPA. The review process is designed to provide a level of oversight for construction, fill, and excavation activities to ensure that projects are carried out in a manner that protects water quality. Permitting staff are also available to meet with applicants prior to the official submission of their permit application to review the project for completeness and compliance.

While a town has the authority to impose more strict rules, this has not occurred in Thornton. The following summary of the Shoreland Water Quality Protection Act (RSA 483-B) provides the key elements of this Act which apply to any development within 250 feet of the river bank.

Shoreland Water Quality Protection Act Requirements Summary

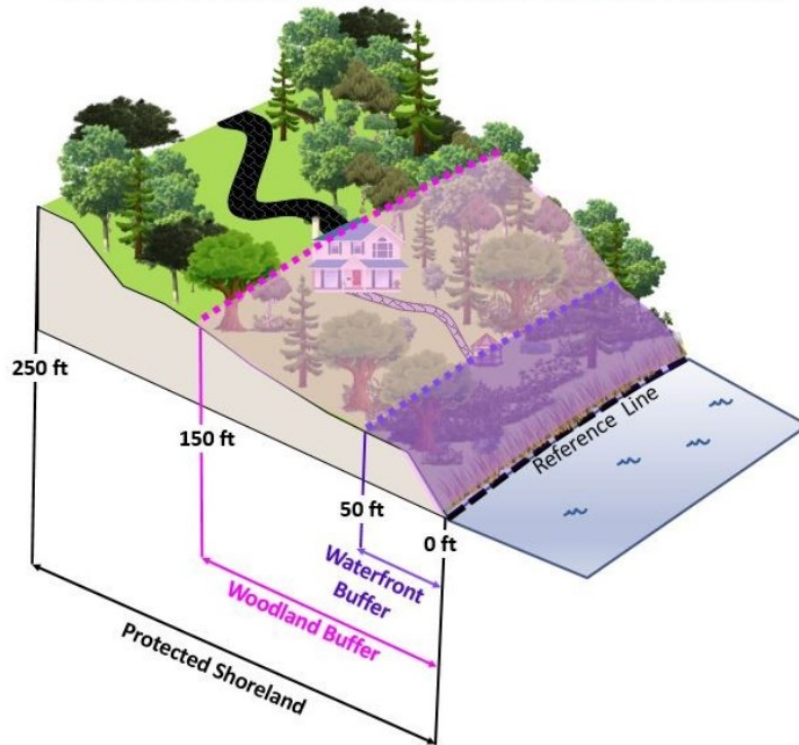
Vegetation is a key component in preserving the integrity of public waters and is also a critical element of wildlife habitat. The New Hampshire Shoreland Water Quality Protection Act, RSA 483-B, has protected a 150 foot wide natural woodland buffer adjacent to public waters since July 1, 1994. Public waters are

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defined in RSA 483-B as lakes, ponds and artificial impoundments greater than 10 acres, rivers and streams that are 4th order or higher, designated rivers and all tidal waters.

Changes to the Comprehensive Shoreland Protection Act in 2008 modified the way RSA 483-B protects vegetation. These changes established a new waterfront buffer zone within the larger woodland buffer zone. Further changes were implemented in 2011 including a name change to the Shoreland Water Quality Protection Act. The natural woodland buffer extends 150 feet from the reference line but, the first 50 feet extending landward from the reference is now considered the waterfront buffer. The purpose of the buffer is to protect the quality of the public waters while allowing the homeowner discretion with regard to water access, safety, view-scape maintenance and lot design.

Areas Within the Protected Shoreland



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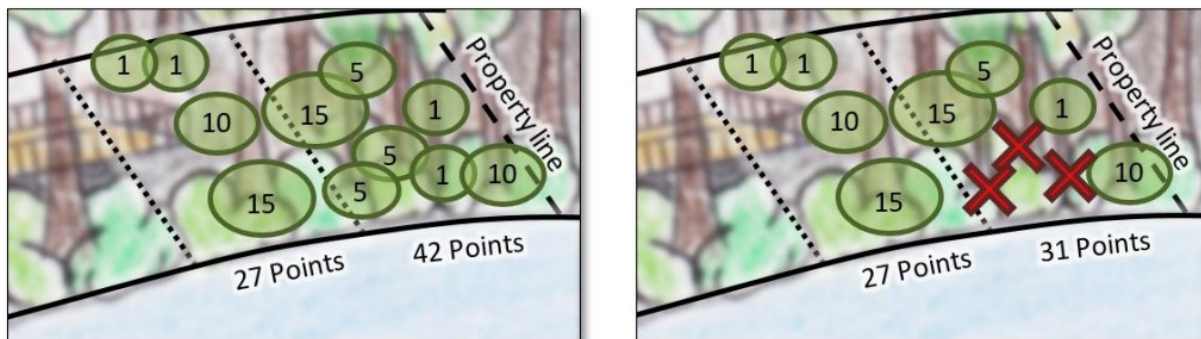
Vegetation Maintenance within the Waterfront Buffer

Within the waterfront buffer, branches may be trimmed, pruned and thinned to the extent necessary to protect structures, maintain clearances and provide views. Limbing of branches for the purpose of providing views is permitted so long as this activity does not endanger the health of the plant. Owners of lots that were legally developed prior to July 1, 2008 that have cleared areas within the waterfront buffer such lawns or beaches are not required to replant or restore these areas. Owners may continue to maintain these areas as they have in the past, but may not enlarge them, with the exception of beaches provided the Wetlands Bureau issues a permit for their expansion. However, owners are encouraged to plant non-invasive species of ground cover, shrubs and trees to meet the criteria shown below.

Ground cover is protected within the waterfront buffer. Vegetation generally less than three feet in height, rocks, stumps and their root systems must be left intact however, clearing ground cover for a six-foot path to the water body is allowed provided the path is designed in such a way not to concentrate storm water runoff or contribute to erosion. During construction a temporary twelve foot path is allowed.

Live trees and saplings may be removed provided certain criteria are met. Starting from the northerly or easterly boundary of the property, and working along the shoreline, divide the waterfront buffer into 50 foot by 50 foot segments. Within each segment a minimum combined tree, sapling and other vegetation score of at least 50 points must be maintained (see below). If for any reason there is insufficient area for a full segment, the number of points required to be maintained is proportional to the requirement for the full segment.

For instance, a segment that measures 50 feet by 50 feet, would only need to maintain at least 25 points worth of trees, saplings and other vegetation.



Before management

After management

Figure 5 -Managing trees and saplings within the waterfront buffer. Trees and saplings are represented by green circles, labeled with their point scores. Trees and saplings to be removed are indicated by a red "X". In this example, three trees and saplings were removed.

To determine if trees and saplings may be removed, the owner must first verify that at least the minimum score will remain within the affected grid segment. To

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accomplish this, at a height of 4 1/2 feet above the ground measure the tree and sapling diameter within each grid segment and score in accordance with the table below. Once the tree and sapling score reaches the minimum point score required to remain within a grid segment, then trees and saplings beyond the minimum score may be removed. If the score within a grid segment is less than 50 points or below the minimum score to remain within a partial grid segment, then no removal shall take place. The stumps of felled trees and saplings may be ground flush to the ground, but the stump and root systems must remain in the ground and care must be taken to avoid removal of surrounding ground cover.

Calculating the tree and sapling score within a 50 foot by 50 foot segment:

Determine each tree and sapling diameter 4 1/2 feet above the ground and score as follows-

1 to 3 inches	1 point
3 to 6 inches	5 points
6 to 12 inches	10 points
12 to 24 inches	15 points

24"

25 points

Greater than

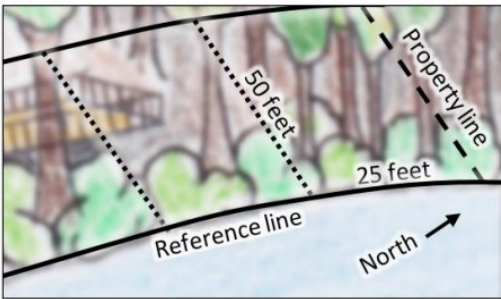


Figure 3 - Mapping out each grid segment.

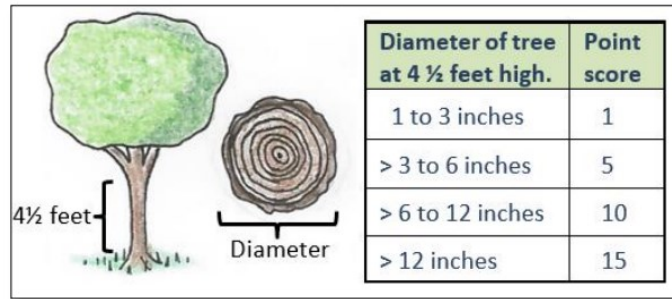


Figure 4 - Scoring each tree by its trunk width.

also; four square feet of shrub is allotted 1 point and 50 square feet of ground cover is given 1 point with a limitation of 25 points within a segment.

If possible, owners are encouraged to retain dead trees as they provide valuable wildlife habitat and nesting opportunities. However, dead, diseased or unsafe trees are not included in the scoring and may be removed provided no damage occurs to surrounding trees and saplings, damage to ground cover is minimized and erosion and sedimentation of the water body is prevented.

No fertilizer, except limestone, can be used within 25 feet of the reference line. From 25 feet to 250 feet slow or controlled release fertilizer may be used on vegetated areas.

Vegetation Maintenance within the Natural Woodland Buffer

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Within the Natural Woodland Buffer (from 50 feet to 150 feet) the vegetation, except lawns, within at least 25 percent of the area must be left in an unaltered state. "Unaltered state" means native vegetation that is allowed to grow without cutting, limbing, trimming, pruning, mowing or other similar activities. Lawns are modified surfaces and are considered altered areas. This does not prevent raking of existing lawns, the removal of non-native or invasive species, or the removal of dead vegetation.

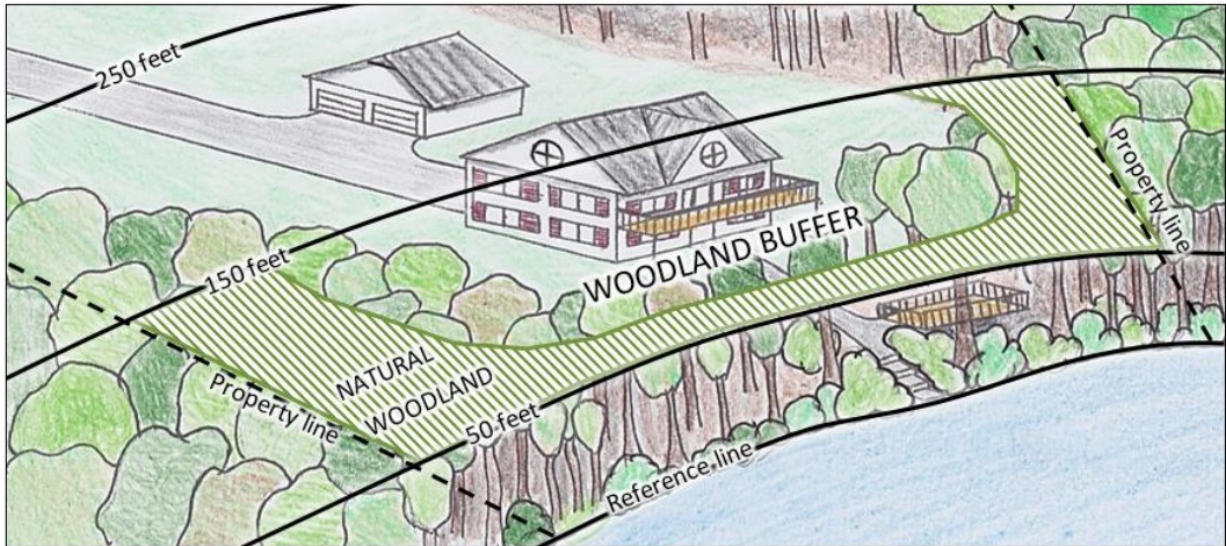


Figure 6 - At least 25% of the area between 50 and 150 feet of the reference line must be designated as natural woodland to be maintained in an unaltered state or improved with additional vegetation.

There are additional requirements relating to impervious surfaces and the permitting process. For detailed information please refer RSA 483-B in the New Hampshire Statutes on the state web site or the Department of Environmental Services web site.

Although only fourth order and higher streams are included in RSA 483-B, the Legislature had considered including third order streams in the 2008 legislative session, since pollution and other detrimental effects such as invasive plants can originate at any place upstream.

Since this did not occur, common sense restrictions should be considered by the land owner. This might include building setbacks and vegetative buffers along even first order streams, albeit less restrictive than the requirements of RSA 483-B.

Source: [vegetation for water quality fact sheet \(nh.gov\)](http://vegetationforwaterqualityfactsheet.nh.gov)

I. ENERGY & CLIMATE CHANGE CONCERNS

The 2007 Town Meeting passed a petitioned warrant article that asked for a national effort to address climate change. State and town citizens were asked to work toward saving energy and reducing emissions. No energy committee has been formed in Thornton, however.

The 2009 Town meeting approved small wind energy systems for all zones in

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Thornton and several have been approved.

Renewable Energy Property Tax Exemption: NH RSA 72:61-72 permits cities and towns to offer exemptions from local property taxes for certain renewable energy installations.

These include solar thermal (for example, to heat water), solar photovoltaic (to generate electricity), wind (to generate electricity) and central wood-fired heating systems (not stoves or fireplaces).

The NH Municipal Energy Assistance Program, made possible through the NH Public Utilities Commission and the Greenhouse Gas Emissions Reductions Fund, audited town owned buildings and presented the report which summarizes greenhouse gas emissions and energy use for the year 2009. Those recommendations have been acted upon and will be incorporated as well in the renovations of the Town Hall and Police Station.

Municipal Greenhouse Gas and Energy Use Baseline: The focus of this report is the municipal operations of the town, with special emphasis on town-owned buildings. It does not encompass residential, commercial or industrial energy use. The following analysis of municipal energy use is based on data gathered from the municipality's utility bills for building electricity, building heating fuel, streetlight electricity, and municipal fleet vehicle fuel. Supporting data was also collected including building dimensions, hours of operation, number of streetlights, and vehicle types.

The data was then analyzed using two software tools, Portfolio Manager software provided online by the US Environmental Protection Agency (EPA) and the Small Town Carbon Calculator (STOCC) software developed by the university of New Hampshire and Clean Air-Cool Planet. The energy use per square foot is presented for each building, and Portfolio Manager allows for comparison of this metric to buildings of similar types across the US and in New Hampshire specifically.

This report was made possible by the Municipal Energy Assistance Program (MEAP), a collaborative project of Clean Air-Cool Planet, Jeffrey H. Taylor and Associates, the SDES Group, the Sustainable Energy Resource Group, Vital Communities, and Carbon Solutions New England and funded by the Regional Greenhouse Gas Initiative (RGGI). The community applied for support from the MEAP program and was selected to receive this baseline energy inventory. Community officials, employees, and volunteers then assisted the MEAP Energy Project Assistant, who collected and analyzed the data in this report.

J. VEGETATION

The kind of vegetation found in an area is primarily influenced by climate, topography, and soils. The vegetation of Thornton is part of the northern hardwood ecosystem, and extensive forest type that extends from Nova Scotia to the western Lake Superior region and southward along the Blue Ridge Mountains. A northern

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hardwood ecosystem entails combinations of deciduous and coniferous species that may occur as deciduous or mixed deciduous-evergreen stands. Principle deciduous species include beech, sugar maple, yellow birch, white ash, basswood, red oak, red maple; the principal coniferous species include hemlock, white pine and red spruce.

The pattern of residential uses bordering and intermingling with transitional and older stands of forests provides vegetative diversity and edges. This diversity supports wildlife species than would not be commonly found in a totally forested environment.

K. WILDLIFE

The State of New Hampshire Fish and Game Department Wildlife Division reports statistics annually.

Grafton County reported deer kill for the past 9 years:

2014	2015	2016	2017	2018	2019	2020	2021	2022
1,667	1,809	1,746	1,904	2,347	1,957	1,887	1,764	2,134

Wildlife is an integral part of the natural environment and is often considered to be an indicator of the 'health' of the natural environs. In Thornton, wildlife is important to hunters, fishermen, and the "observer" of wildlife who note the seasonal migrations of the local wildlife population. Thornton is part of the "F" Wildlife Management Area.

Species found in the Thornton area include white tailed deer, grey squirrel, pheasant, quail, ruffed grouse, woodcock, partridge, wild turkey, grey fox, red fox, coyote, black bear, raccoon, moose, snowshoe hare and fisher, bobcat, mink, otter, beaver, and muskrat. We have a Great Blue Heron rookery identified. Fish include trout, pickerel and bass.

In the past the US Forest Service has indicated that the deer population in the Thornton area is on the decline. This is due to the loss of agricultural land to reforestation and the advanced age of the present forest cover, which is approximately 70-90 years old. These forest characteristics do, however, favor moose and bear populations.

As residential development in Thornton increases, conflicts between humans and animal will increase substantially. The diversity and abundance of wildlife is directly related to development. The protection of critical resources such as agricultural land, water, and forests will help sustain a diversified and "healthy" wildlife population.

L. NATIONAL FOREST

The White Mountain National Forest comprises approximately 47% of Thornton's land area. This dominates the Northeastern portion of town and to a slightly lesser

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extent the Southwestern part of town. Most of this land is classified as Management Area (MA) 2.1 by the most recent White Mountain National Forest “Land and Resource Management Plan” released in September 2005. In MA 2.1 a full mix of recreational opportunities are permitted from low use hiking to highly developed campgrounds. These include mountain biking, snowmobile trails, hunting and fishing, roadside camping and developed camping. A few areas fall into other MA’s which just allow semi primitive recreation and semi non-motorized recreation. (See the above referenced Management Plan for details. It is available on the internet at www.fs.fed.us/r9/white)

Appendix I

TRANSPORTATION

The location, capacity, and condition of a community's transportation network affects the ability of residents to conveniently and safely travel between jobs, schools, stores, and homes; of business to efficiently move goods in and out of the community; and of visitors to travel in and around the area. A community's transportation network, particularly roadways, also affects community development patterns. Good highways and access are necessary for most land uses and may serve to spark development in a particular area. Conversely, certain land uses generate an amount of additional traffic that may require expansion of the transportation network.

A. HIGHWAYS

Roads are placed in one of seven administrative classes depending on which governmental unit is responsible for the road as stated in NH RSA 229:5. Highway classification is as follows:

- 1) **CLASS I** highways consist of all those on the primary state system except those segments lying within compact sections of designated cities or towns. (RSA 229:5 V). Interstate and defense highways and turnpikes are considered to be Class I highways. The NH Department of Transportation pays the cost of construction, reconstruction, and maintenance of Class I highways.
- 2) **CLASS II** highways are those on the secondary state system with the same exceptions as Class I regarding segments in compact areas. The NH Department of Transportation controls and pays the costs of reconstruction and maintenance of Class II highways.
- 3) **CLASS III** highways consist of recreational roads leading to and within state reservations as designed by the Legislature. Class III highways are the responsibility of NH Department of Transportation.
- 4) **CLASS III-a** highways are boating access highways (none in Thornton).
- 5) **CLASS IV** highways are those which are located within the compact sections of cities and towns. The construction, reconstruction, and maintenance of Class IV highways are the responsibility of the municipality in which they are located. (Thornton has no Class IV highways.)
- 6) **CLASS V** highways consist of all other traveled highways which the town has the duty to maintain regularly and are known as town roads.
- 7) **CLASS VI** highways consist of all other existing public ways and

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includes all highways discontinued as open highways and made subject to gates and bars, and all highways which have not been maintained by the town in suitable condition for travel for five successive years or more.

The mileage of the various classes of roads in Thornton is shown in the following table.

CLASSIFIED ROAD MILEAGE

Class I	18.96
Class II	12.56
Class III	0
Class IV	0
Class V	49.00
Class VI	1.51

B. AIR SERVICE

The Plymouth Municipal Airport on Route 25 in Plymouth is a small, municipally owned facility with a 2,300 foot turf runway. The airport, located approximately fifteen miles from Thornton has no lights or other navigational aids. The airport is open to the public and it is used primarily by private planes.

The major airport in the area, however, is the Laconia Municipal Airport located approximately thirty-five miles from Thornton in Gilford. Laconia Airport is municipally owned and offers a wide range of services, including maintenance, storage and rental facilities. There is no scheduled service at Laconia. There is charter service available through Emerson Aviation and Sky Bright. Manchester/Boston Airport about 1 1/2 hours away has grown and offers excellent service throughout the country.

C. RAILROADS

The Concord to Lincoln line is the only rail line, which runs through Thornton. This 72.5 mile, state-owned line (6.3 miles of which are in Thornton) is currently inactive aside from a tourist/scenic railroad, the Hobo Railroad, which operates out of Lincoln/Woodstock on a seasonal basis.

D. PUBLIC TRANSPORTATION

There is no public transportation within Thornton or other area communities. Park and ride facilities are available at Exit 23 on I-93 for carpooling.

The North Country Council adopted a regional transportation plan and a Coordinated Public Transit and Human Services Plan which are both available on the NCC website at www.nccouncil.org. This is a policy document that will guide NCC, NH Dept. of Transportation, member communities and partner organizations

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in making important decisions regarding transportation and other key issues. The lack of access to public transportation and transit makes it difficult to access employment, health care, shopping and recreation for the large portion of people without personal automobiles.

Transport Central focuses on the 19-town Plymouth area and serves people through volunteer drivers. TC recently hired a mobility manager that is arranging these rides. TC is trying to develop relationships with other providers with vehicles in the area. Genesis Behavior Health is willing to coordinate and they have a vehicle. Service has started in Ashland, Holderness and Plymouth and they are trying to recruit drivers. Vans service the Senior Center in Plymouth.

E. BUS SERVICE

Interstate bus travel by Concord Trailways is available. Concord Trailways has a Route between Boston and Plymouth and Boston and Littleton which both stop at Main Street Market in Plymouth, approximately 8 miles from Thornton.

Chartered bus service is available from Buckboard Transportation and Robertson Transportation. Taxi service to and from Thornton is available from Apple Valley and Buckboard Transportation located in nearby towns.

F. STATE OF NH DOT TRAFFIC REPORT

Average Annual Traffic

Bureau of Planning, Traffic Section, Traffic Reports										<i>18-Feb-16</i>	
Town: THORNTON											
STAT	TYPE	LOCATION	FC	2008	2009	2010	2011	2012	2013	2014	2015
449057	82	NH 49 at Mad River Bridge (SB-NB)(81449055-449056)	07	*	1800	*	*	1900	*	*	1900
449059	82	NH 175 at Benton Road	08	*	1400	*	*	1700	*	*	1800
449060	82	Sullivan Dr. north of Yarding Lane	09	*	*	20	*	*	*	*	*
449061	82	Thornton Gore Rd at Woodstock Town line	09	*	*	200	*	*	160	*	*
449062	82	Cross Rd over Pemigewasset River	09	*	*	670	*	*	1100	*	*
449063	82	Upper Mad River Rd over Mad River	09	*	*	380	*	*	380	*	*
449064	82	NH 49 over Lee Brook	07	*	2100	*	*	2200	*	*	2300

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CAPITAL IMPROVEMENTS PLAN

Each year various communities of all sizes undertake a variety of projects, which are major in scope and require the expenditure of large sums of public monies. These projects become the town's municipal facilities and are often referred to as capital improvements.

Municipal facilities are the physical components of the community including buildings, land, equipment, and the system of public services. These facilities add immeasurably to the quality of community life.

Demand for community facilities and services increases as a community expands, as the population grows, as new jobs are created, as older facilities deteriorate, and as living standards and expectations rise. In many communities, services that were thought of as luxuries a few years ago are now regarded as necessities.

Community projects that will become municipal facilities in the future compete for limited available funding. It is frequently easier to respond to regulations and public pressures than it is to determine and adhere to planned spending priorities. However, communities desiring to maximize the use of available funds must have a method of doing "first things first". A capital improvements program (CIP) can ensure that town funds are being wisely spent.

A National Council on Governmental Accounting report entitled "Governmental Accounting, Auditing, and Financial Reporting" put forth a definition of a capital improvements program that has been accepted nationwide. The report defines a capital improvements program as, "a plan for capital expenditures to be incurred each year over a fixed period of years to meet capital needs arising from a long-term work program." The capital improvements program is a strong, directional statement regarding a community's future and presents a rational guide for development and growth.

Structuring major expenditures into a planned scheme coupled with appropriate planning and implementation is the primary function of a capital improvements program.

Additional functions of CIP can include:

- 1) combining Thornton's Master Plan and fiscal plan into a physical growth and development plan.
- 2) estimating needed capital requirements.
- 3) establishing budget priorities, working with department heads and the elected selectboard.
- 4) developing a project revenue policy for each proposed capital improvements project.
- 5) coordinating various departmental activities to address the proposed time schedule of each capital improvements project.

A CIP is comprised of several capital improvements projects. The definition of a capital improvements project is extremely variable, but can be broadly stated as being any major project requiring the expenditure of public funds, over and above public operating expenses, for the purchase, construction, or replacement of the physical assets of a community. The value of each capital improvement project to be included in the program may range from ten

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thousand dollars upward. The time frame of the Thornton capital improvements program is ten years. It has been used as a guide for warrant article proposal for the 2009 and 2010 Town Meeting.

As the Thornton capital improvements program is updated it will be necessary to study the Town's financial history and identify possible future trends. A list of capital improvement projects, based on the community's goals and objectives, may then be assembled. This list may then be prioritized, funding sources identified and an implementation schedule determined.

The following possible funding sources may be viewed as typical of the methods to obtaining funding and each may be used separately or in conjunction with other methods.

- A. **CURRENT REVENUE OR "PAY AS GO"** - This method is the financing of improvements from current revenues such as general taxation, fees, service charges, special funds or special assessments.
- B. **RESERVE FUNDS** - In reserve funds financing, funds are accumulated in advance for capital construction or purchase in capital reserve funds. The accumulation may result from surplus or "earmarked" operational revenues, or the sale of capital assets. These funds are often appropriated at Town Meeting for specific purposes.
- C. **GENERAL OBLIGATION BONDS** - Through this method, the taxing power of a community is pledged to pay interest upon and retire the debt. General obligation bonds can be sold to finance permanent types of improvements such as schools, municipal buildings, parks and recreation facilities. Voter approval of this funding method is required.
- D. **REVENUE BONDS** - Revenue bonds are frequently sold for projects such as water and sewer systems that produce revenue. Such bonds are usually not included in the state imposed debt limits as in the case of general obligation bonds. The reason for this is that revenue bonds are not backed by the full faith and credit of the community, but are financed in the long-run through service charges and fees. The interest rates are almost always higher than those for general obligation bonds and voter approval may or may not be required.
- E. **LEASE PURCHASE** - Local communities choosing this method must first prepare detailed specifications for a needed public work that is then constructed by a private authority or company. The facility is then leased by the community for a given number of years. At the end of the lease period the title to the facility can be conveyed to the community without any further payments since, over the years, rental fees will have paid the total original cost plus interest. Thornton has used this method to fund police and fire vehicles in the past. Voter approval of this funding method is required.
- F. **AUTHORITIES OR SPECIAL DISTRICTS** - Authorities or special districts may be created to provide single-purpose activities such as schools, sewer, water, and the like. Special authorities or districts may be financed through revenue bonds retired by user fees, although they may also have powers of taxation to raise funds.

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- G. SPECIAL ASSESSMENTS - Public works that benefit particular properties may be financed more equitably by special assessments; in other words, by those who directly benefit from the project. Local improvements financed in this manner include street paving and the installation and improvements of sanitary sewer and water mains.
- H. STATE AND FEDERAL GRANTS - State and federal grants-in-aid programs may include street, water and sewer facilities, airports, parks and playgrounds. The cost of funding these facilities may be borne completely by grants or a local matching share maybe required. This funding would need acceptance by the Board of Selectmen at a public hearing depending on amount received and when it is received.
- I. TAX INCREMENT FINANCING This method provides front-end monies for large-scale improvements. This method requires that a district around the proposed development/improvement area is designed with a tax base equivalent to the values of all properties within the area. The tax revenues paid to taxing units are computed on the initially established tax base during the project period. The area is then improved using funds provided by the sale of tax increment bonds. These bonds are sold by the community or specially created taxing district for acquisition, relocation, demolition, administration, and site improvements. Due to the higher value of the newly developed property in the district, more tax revenue is collected and the tax "increment above the initially established level goes into a fund to retire the bonds." After the development is completed and the bonds are retired, the tax revenues from the enhanced tax base are distributed more normally.
- J. CHARITABLE FUND RAISING Charitable contributions are generally made to be used for a specific project. This method is often used for libraries, parks, hospitals and fire equipment. This funding would need to be appropriated at town meeting or accepted by the Board of Selectmen at a public hearing depending on amount received and when it is received.
- K. BONDING RESALE FINANCING This method requires that the community bond a particular parcel of land, develop it for a previously determined use, and sell the developed site or sites to regain the investment. This "turn-key" approach has worked well for developing industrial parks and cemeteries.
- L. STATE HIGHWAY FUNDS to obtain State Highway funds a community submits a proposal for a highway project to the Planning Board and Engineering Division of the Department of Transportation. The Division reviews the proposal and gives the project a priority status. Actual funding originates as a federal disbursement to the State.

Appendix K

HAZARD MITIGATION PLAN

[CLICK HERE](#) to review the **Hazard Mitigation Plan** that was updated in 2024.