



Pelham, New Hampshire

DRAFT

Existing Conditions Report

November 2022



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Pelham, New Hampshire

Population and Housing

KEY FINDINGS:

- The Town of Pelham’s population has on average increased about 1,700 people per decade since the year 2000 and it is projected to continue to on average increase.
- During the past 14 years the number of residents 55 years and older have increased and now make up 30% of the town’s population.
- Residents 55 to 64 years of age and under 15 years of age are now the biggest age cohorts in Pelham
- The number of residents in the “family-forming age” (25-44 years old) is now lower than the state’s average.
- Pelham’s school enrollment for middle school and high school students have been decreasing over time. However, there has been an increase in kindergarten enrollment.
- Over time, residents in Pelham have been increasing in housing unit size (i.e. number of bedrooms), and there appears to be increased demand for larger single-family structures.
- The majority of the housing units in Pelham are owner-occupied single-family homes.
- Pelham does not have adequate housing inventory for additional residents or to accommodate the increasing aging population in the years to come.
- In Pelham, 7% of the population identify as living with a disability, which has both housing and transportation related implications.
- A little over half of Pelham’s population commute out of state for work, and a large percentage of the population also work from home.
- Pelham’s median income for households exceeds that of its surrounding areas within the county and the state.
- Pelham has an average vacancy rate and the percent of rental units in Pelham (5%) have been increasing since 2014 and is higher than the state (1.8%) according to the NH Housing Authority.
- The vacancy rate for rental housing units in Pelham is higher than that of Hillsborough County.
- Pelham appears to have high home purchase prices and a lack of affordable units.

DATA RESOURCES:

- 2016-2022 NH Housing Resources
- 2006-2020 NH Housing and Demographic Data
- 2016-2020 American Community Survey (ACS)
- 2017-2022 SAU 28 – School Enrollment Numbers and projection enrollment data 2022-2024
- 2019 NH Department of Employment Security Community Profiles

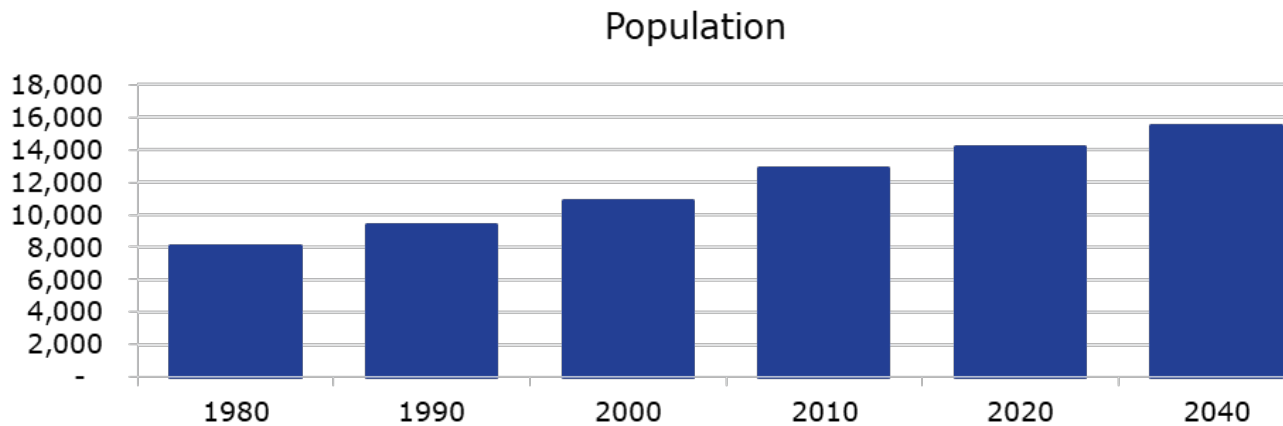
INTRODUCTION:

The analysis of Pelham's existing population and housing helps to identify any major trends or deficiencies the town may have. The community's population has significant impacts to the town's land use, services, housing, and future needs. This section will identify Pelham's population as of 2020, population projections, status of existing types of housing, and more. The 2020 American Community Survey Data and 2020 census were utilized to inform this profile. The American Community Survey Data is an averaging of multiple years (2016-2020).

POPULATION:

According to the American Community Survey data, the year-round population is 14,222 as of 2020. It is estimated that by 2040, the population will increase to approximately 15,500 residents. The historic data indicates that with each decade the population of Pelham has increased. As shown in Table 1, the population has steadily increased with an average of approximately 1,700 new residents. The 2030 projection also appear to follow this trend however it is estimated that by 2040 there will be a plateau. Therefore, with this anticipated continued increase in population, Pelham may need to create more housing units to accommodate the steady influx of new residents.

Table 1: Population Trends	
Year	Population
1970	5,408
1980	8,090
1990	9,408
2000	10,914
2010	12,897
2020	14,222
2030	15,348
2040	15,477



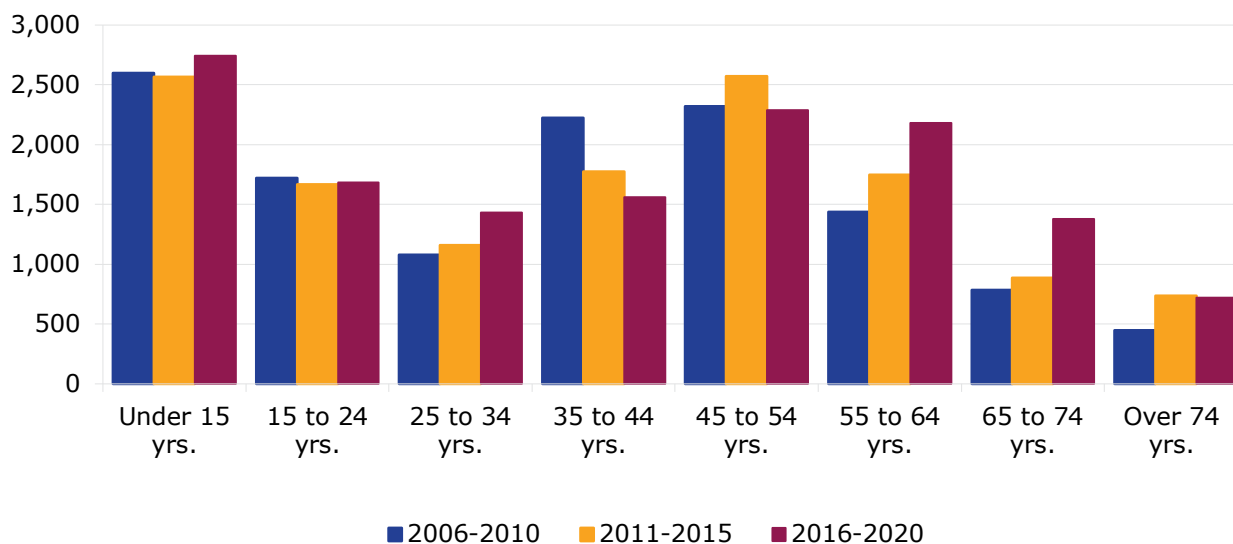
Population by Age:

The average age of Pelham residents is 43 years old, the New Hampshire median age is also 43, and the median age in Hillsborough County is 40. This indicates that the Town of Pelham has a slightly higher average age than that of the county but the same median age as the state. As shown in Table 2, there is a slightly higher population of residents over 45-64 years of age compared to other age groups in town. This may indicate that Pelham should be prepared to meet the needs of an aging population, such as current and future housing needs. However, in recent years (2020), there has been an increase in residents in the 65 to 74 years age group. In comparison to the rest of the age groups within

Age	Estimate	Margin of Error	% of Population
Under 15 yrs	2,744	+/-386	19.6%
15 to 24 yrs	1,684	+/-306	12.0%
25 to 34 yrs	1,432	+/-284	10.2%
35 to 44 yrs	1,560	+/-247	11.2%
45 to 54 yrs	2,289	+/-299	16.4%
55 to 64 yrs	2,179	+/-268	15.6%
65 to 74 yrs	1,380	+/-220	9.9%
Over 74 yrs	723	+/-166	5.2%
Median Age (yrs)	43.3	+/-2.2	-

Pelham, about 30% of the population is over the age of 55. During this 14-year period, residents 45 to 64 years and older have increased in number, but only about 15% of residents are over the age of 65 plus. This average percentage is lower than that of the state's at 18%. Residents in the age group of 25-44 years old identified as the "family forming age" represent 21% of Pelham's population which is lower than the state's average at 23% for this age group. Some age groups in Pelham have increased over time, this includes residents under the age of 15 years old, 55 to 64 years, 65 to 74 years and over 74 years of age. In turn, there has been a decline in the 34 to 44 years age group. The population under the age of 15 years, the 15 to 24 years, and 25 to 34 years age group has remained rather steady over time but in recent data from the 2020 census, these age groups are slowly increasing.

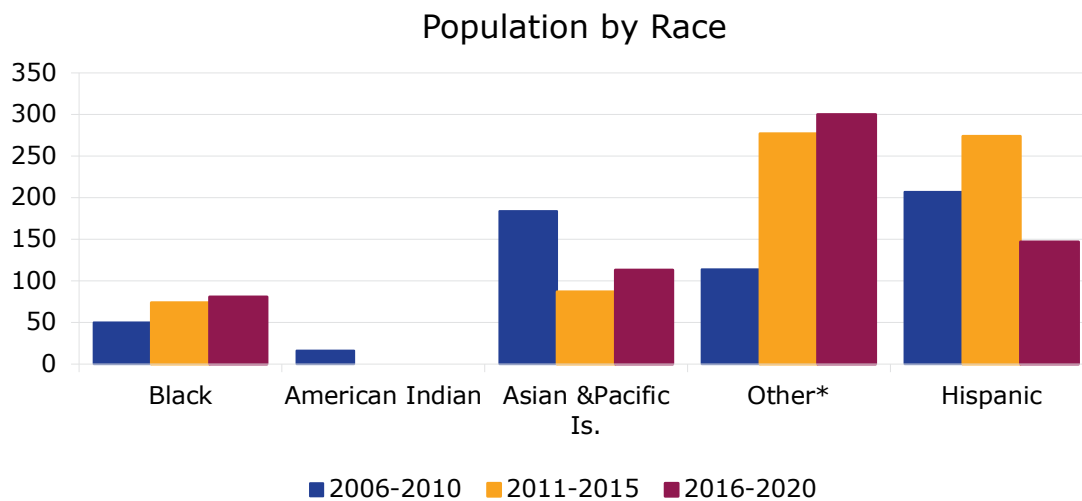
Population by Age



Population by Race:

The following categories are terms identified by the American Community Survey Data. Although most of the population of Pelham identifies as White, there is some diversity represented by residents of other races. An average of 93% of residents in the state of New Hampshire identify their race as White, whereas the Town of Pelham's average is slightly lower at 86.6%. According to the 2020 American Community Survey data as shown in the next graph, there has been an increase in "Black", "Asian & Pacific", and "Other Races" in recent years; therefore, creating additional diversity in Pelham.

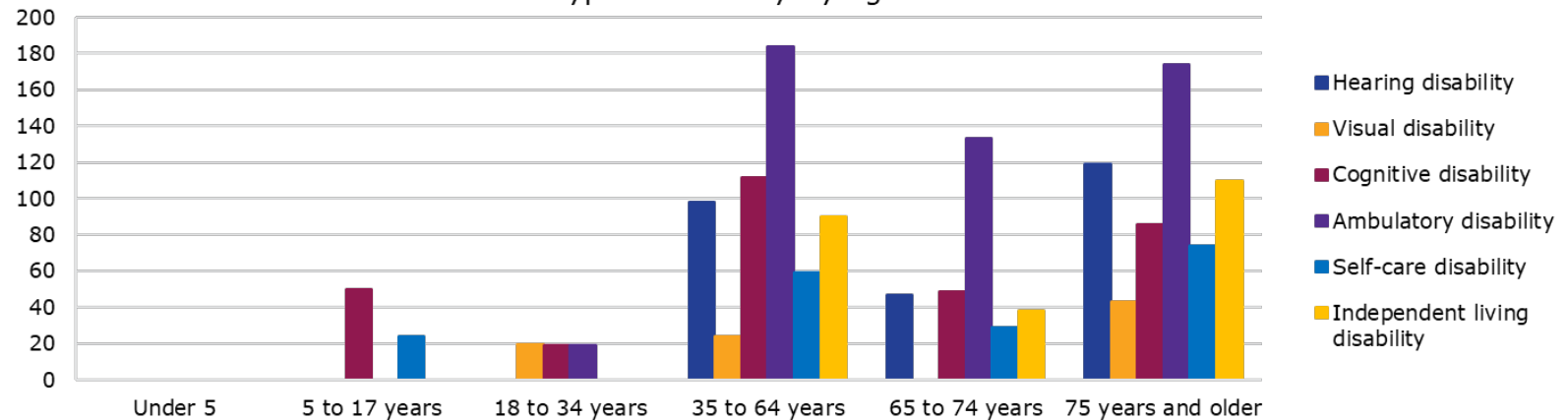
Race(s)	Population
White	12,319
Black	81
American Indian	0
Asian & Pacific Is.	113
Hispanic	147
Other	300



Population Living with a Disability:

In Pelham, approximately 7% of the population, 944 individuals identify as living with a disability. The American Community Survey Disabilities by Age graph depicted below, defines disabilities by category: hearing, ambulatory, vision, self-care, cognitive, and independent living disabilities. It appears that Pelham's two distinct disability demographics consist of residents with an ambulatory disability in the 34 to 64 years age group and the 75 years and older age group.

Type of Disability by Age



Educational Attainment:

According to the 2020 American Community Survey, about 95% of the population in Pelham has obtained a High School diploma or higher level of educational attainment, and about 38% of the population has a Bachelor's degree or higher level of attainment.

Population by School Enrollment:

Though not entirely indicated in Table 6, there has been a slight increase in the number of kindergarten students enrolled in Pelham Elementary School due to the approval of full day kindergarten in August 2022 with 100 students enrolled in six classes.

As shown in Table 6, the number of students enrolled in Pelham schools has been steadily declining since 2017. This data has been derived from the Pelham SAU 28. Using this enrollment data, it is projected that this same trend will follow suit with a gradual decline in grades 1-12. The decline in student enrollment over time may impact Pelham by increasing the median age of residents, and may change the demand for municipal services over time. However, it should be noted that preschool and kindergarten enrollment has been slowing increasing.

Table 4: Education Attainment

Level of Education Attainment	Population 25yrs and over
Less than 9 th grade	128
9 th to 12 th grade, No Diploma	304
High School Graduate	2,872
Some college, No Degree	1,688
Associate degree	885
Bachelor's Degree	2,357
Graduate or Professional Degree	1,287

Table 5: Population by School Enrollment

Grade	Population 3 yrs. and over enrolled in school
Nursery School / pre-school	64
Kindergarten	58
Elementary (grades 1-8)	1,644
High School (grades 9-12)	877
College or Graduate School	563

Table 6: Recent School Enrollment Data by Year

Year	2017-18	2018-19	2019-20	2020-21	2021-22
Preschool	43	59	66	41	50
Kindergarten	72	87	78	75	82
Grades 1-5	670	629	622	607	583
Grades 6-8	479	489	453	438	383
Grades 9-12	655	623	603	613	580
PSD Total	1,919	1,887	1,822	1,774	1,678

It should be noted that in addition to the Pelham Public School District, there are other private schools and home-schooling in Pelham as well. In fact, Pelham has the highest number of children enrolled in homeschooling in the region. In the 2021-2022 school year, 395 students were being homeschooled in town. There are also two private schools in Pelham: Crossroad Christian School and Pentecostal School that some local students attend.

Table 7: School Enrollment Projections		
Year	2022-23	2023-24
Preschool	62	72
Kindergarten	98	100
Grades 1-5	596	590
Grades 6-8	356	341
Grades 9-12	581	573
PSD Total	1,693	1,676

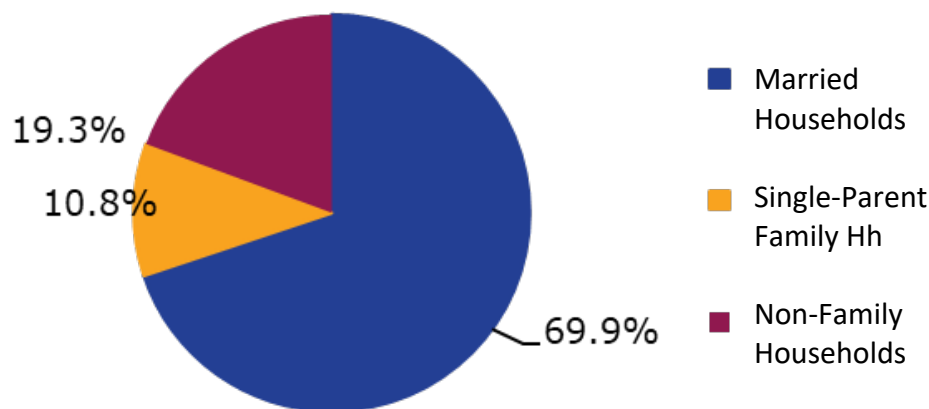
Households and Families:

The total number of households in Pelham has increased 6.8% since 2015. However, the average household size has decreased from 2.96 in 2010 to 2.94. The average family size has remained constant at 3.2 since 2010. If the average household size continues to decline, this may also lead to a need for more housing units.

Table 8 Household Size		
Household Characteristics	Population	% Change 2010-2020
Total Households	4,755	11.5%
Average Household Size	2.96	-
Total Families (as households)	3,835	7.5%
Average Family Size	3.28	-

New Hampshire Housing reports that about 19% of members in Pelham from 2016-2020 were occupied by non-family households. The U.S. Census' American Community Survey defines "non-family households" as a household that consists of a householder living alone (a one-person household) or where the householder shares the home exclusively with people to whom he/she is not related.

Family vs. Non-Family Households in 2016-2020



HOUSING:

According to the 2020 American Community Survey, the town of Pelham has a total of 5,006 housing units. The majority are single-family residences that compose approximately 88% of the total housing stock in Pelham. The remaining 12% of housing units are multi-family or mobile home units. The majority (83%) of these homes in Pelham have been built after the 1960's. The largest group of homes built was in the 1970's at 17.7%.

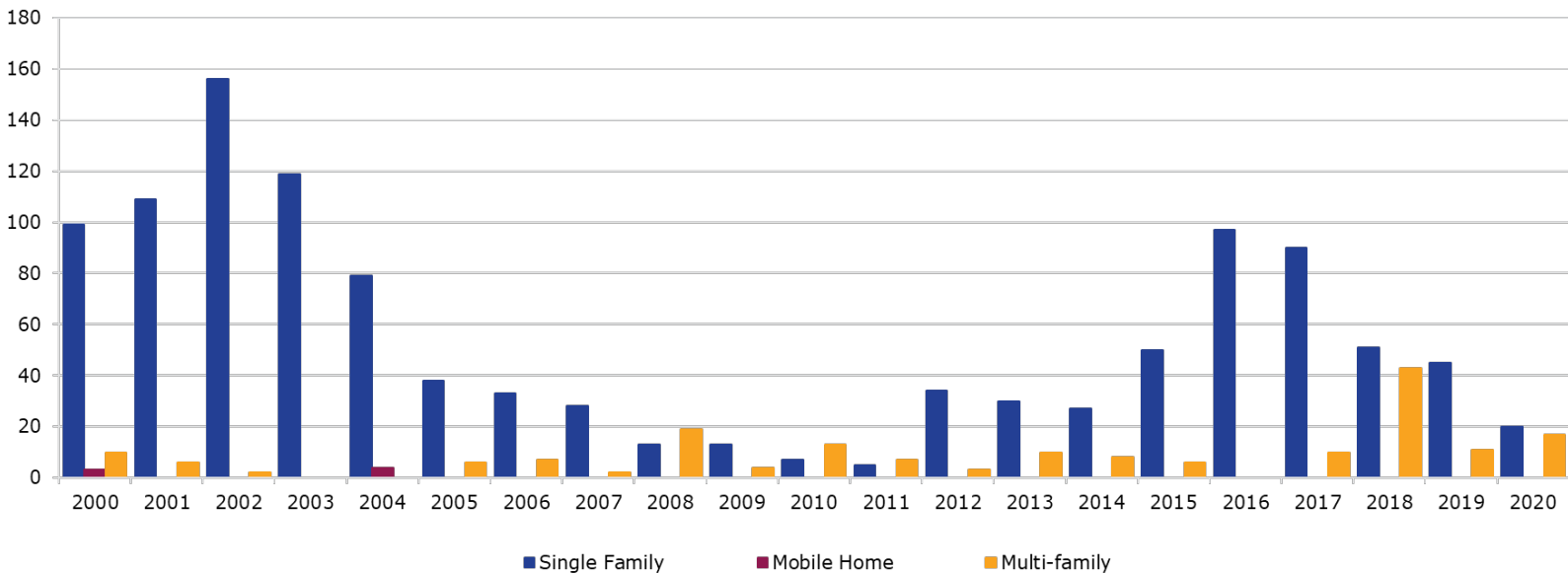
From the years of 1960 through 2005, there was a relatively steady production of homes in Pelham with the decline in the number of homes built between 2005 and 2015. It should also be noted that nearly half (45%) of the households in Pelham have a 3-bedroom home, and about 85% of the households live in a 4+ bedroom unit. This indicates that the residents in Pelham are upgrading the size of their homes. Over time this could influence the footprint and price of homes in Pelham which may have land use and economic impacts. However, Pelham's topography may restrict development somewhat in most areas of town due to soil type, terrain, and lack of infrastructure required for development.

Table 11: Units by # of Bedrooms (2015-2019)			
# of Bedrooms	Estimate	Margin of Error	% of Total Population
No Bedrooms	30	+/-41	1%
1 Bedroom	218	+/-79	4%
2 Bedrooms	1,003	+/-216	20%
3 Bedrooms	2,265	+/-249	45%
4+ Bedrooms	1,490	+/-222	30%

Table 9: Units in Households		
Unit Type	# Of Units	% Of Population
Single-family	4,390	87.7%
Multi-family	576	11.5%
Mobile Home/Other	40	0.8%

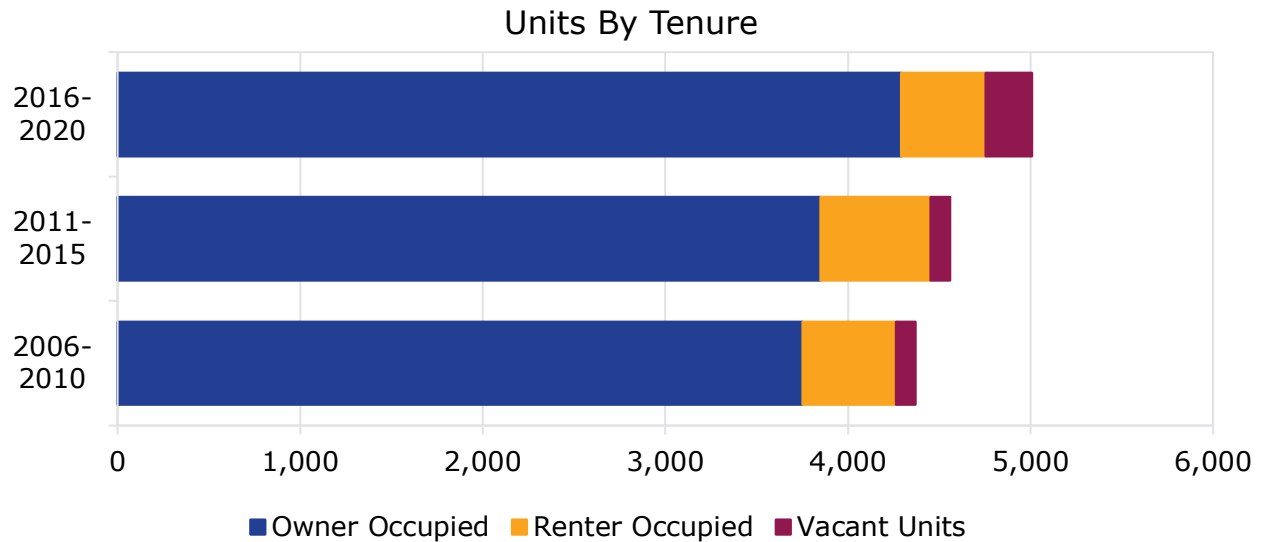
Table 10: Units Built by Year		
Year Built	Units	% Of Total Population
2014 or later	235	4.7%
2010 to 2013	276	5.5%
2000 through 2009	703	14.0%
1990 through 1999	583	11.6%
1980 through 1989	695	13.9%
1970 through 1979	884	17.7%
1960 through 1969	787	15.7%
1950 through 1959	395	7.9%
1940 through 1949	149	3.0%
1939 or earlier	299	6.0%

Housing Units Authorized by Permit



Housing Tenure:

About 4,755, or 95%, of the housing units in Pelham are owner-occupied, which is a larger percent compared to the state at 71%. This indicates that majority of the homes purchased in Pelham are year-round with owner occupancy. The percent of rental units (461 units or 10%) have been declining since 2014, and are now significantly lower than the state which is at 29%. This indicates that over time, many of the existing rental units in town transitioned to owner occupied homes creating a majority of owner-occupied homes and reducing rental housing opportunities.



Age-Restrictive Housing:

To qualify for subsidized senior housing, the individual must be 62 years of age or older and reside in Pelham. Pelham does not have an assisted living facility, but the town has two subsidized senior housing complexes in Pelham. These facilities are owned by private companies.

Beaver Brook Commons is located at 21 Beaver Brook Way off Main Street and is managed by S & K Properties. Beaver Brook Commons is a 2-story facility and has 24 units; one of which is handicapped accessible. All the units are one-bedroom and are approximately 650 square feet in floor area. However, there is a running waitlist of two to three years.

The other senior housing facility is Pelham Terrace located at 25 Windham Road. Pelham Terrace is a Housing Initiative of New England (HINE) property and is managed by Steward Property Management. Pelham Terrace has 48 one-bedroom apartments of which 26 of those units are handicapped accessible. Pelham Terrace creates a sense of community with its cul-de-sac like apartments, outdoor picnic/patio areas, and the facilities offered including a library, an exercise room, and community rooms to provide a social environment for its inhabitants. However, the waitlist for this housing is also a few years.

Although it is an affordable housing structure and not federally subsidized, Kirlin Place provides housing for older adults ages 55 plus. Kirlin Place is located at one and 2 Kirlin Place as this apartment development consists of two apartment buildings housing approximately eight apartments each.

INCOME:

According to the American Community Survey data from the years 2016-2020, the median household income in Pelham for family households is \$120,667 and for nonfamily households is \$62,045. Compared to the median household income for Hillsborough County at \$81,460 and in the state of New Hampshire at \$76,768, Pelham's median income for households exceeds that of its surrounding areas. According to the Households by Household Income Graph, Pelham's median income has steadily increased since 2006.

Poverty Level:

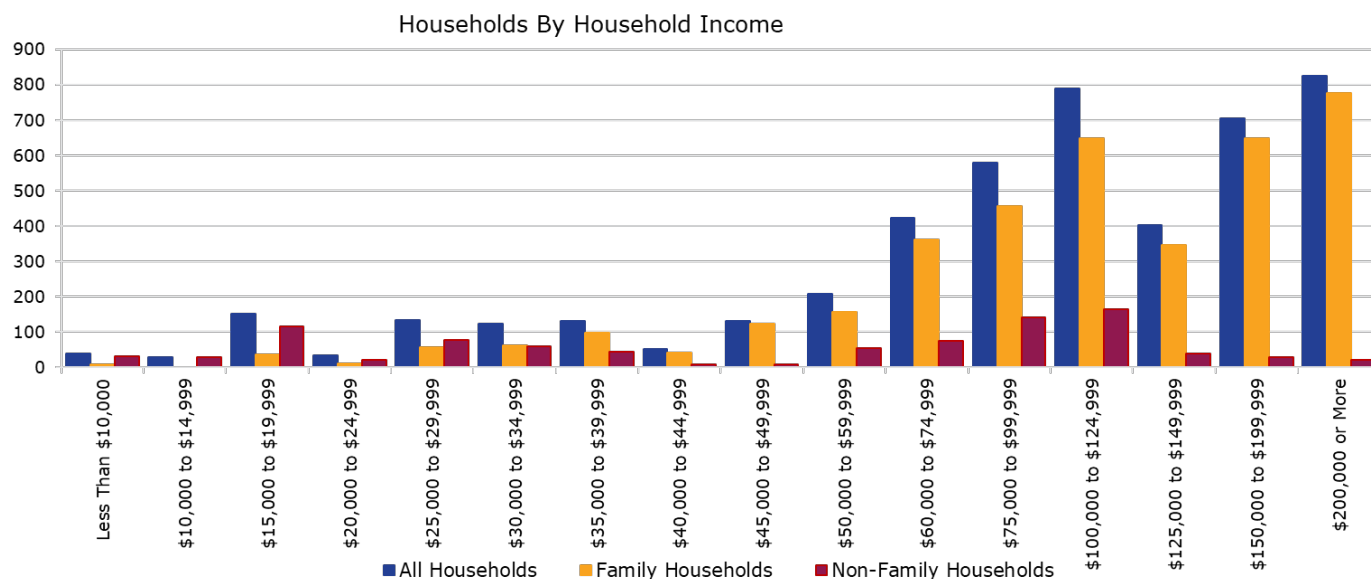
The high median household income correlates with the significantly low poverty rates in Pelham of 1.2% compared to that of the county and the State of New Hampshire. The American Community Survey defines the percent of individuals below the poverty level by using "income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps). The Census Bureau uses a set of income thresholds that vary by family size and composition to determine who is in poverty".

Table 12: Household income 2016-2020

	# Of Family Households	# Of Non-Family Households
Less than \$10,000	8	31
\$10,000 to \$14,999	0	28
\$15,000 to \$19,999	36	116
\$20,000 to \$24,999	11	22
\$25,000 to \$29,999	57	77
\$30,000 to \$34,999	62	61
\$35,000 to \$39,999	98	45
\$40,000 to \$44,999	43	8
\$45,000 to \$49,999	124	8
\$50,000 to \$59,999	158	55
\$60,000 to \$74,999	361	74
\$75,000 to \$99,999	457	142
\$100,000 to \$124,999	648	164
\$125,000 to \$149,999	347	38
\$150,000 to \$199,999	648	30
\$200,000 or More	777	21
Total Households	3,835	920
Median Household Income	\$120,667	\$62,045

Table 13: Residents below the Poverty Level

Geographic Area	% of Individuals Below Poverty Level
Pelham	1.2%
Hillsborough County	7.8%
New Hampshire	7.6%

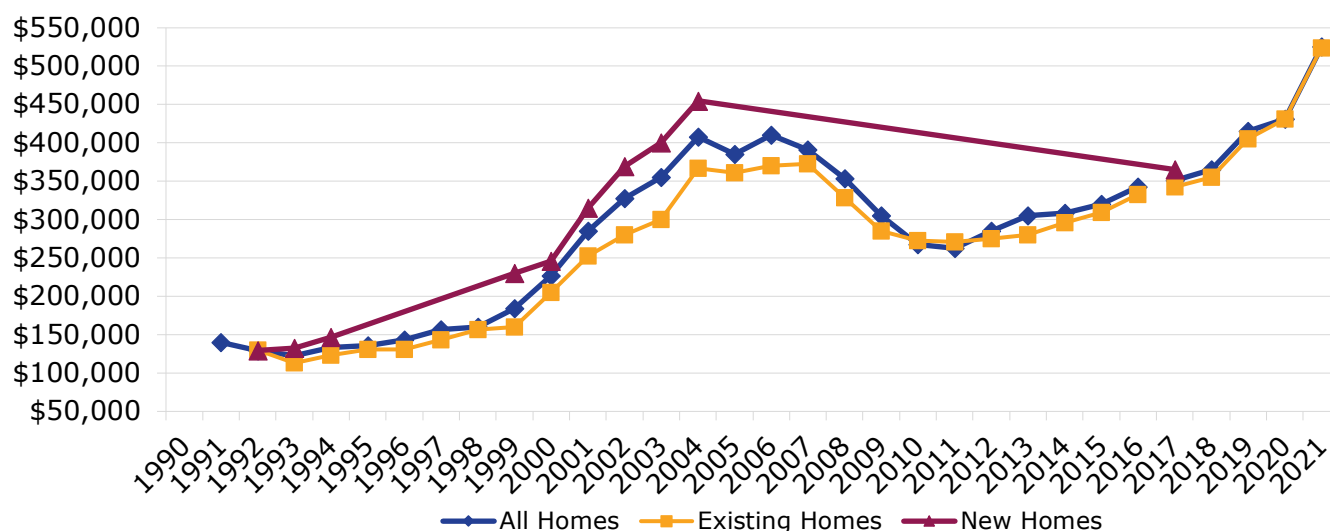


HOUSING COSTS:

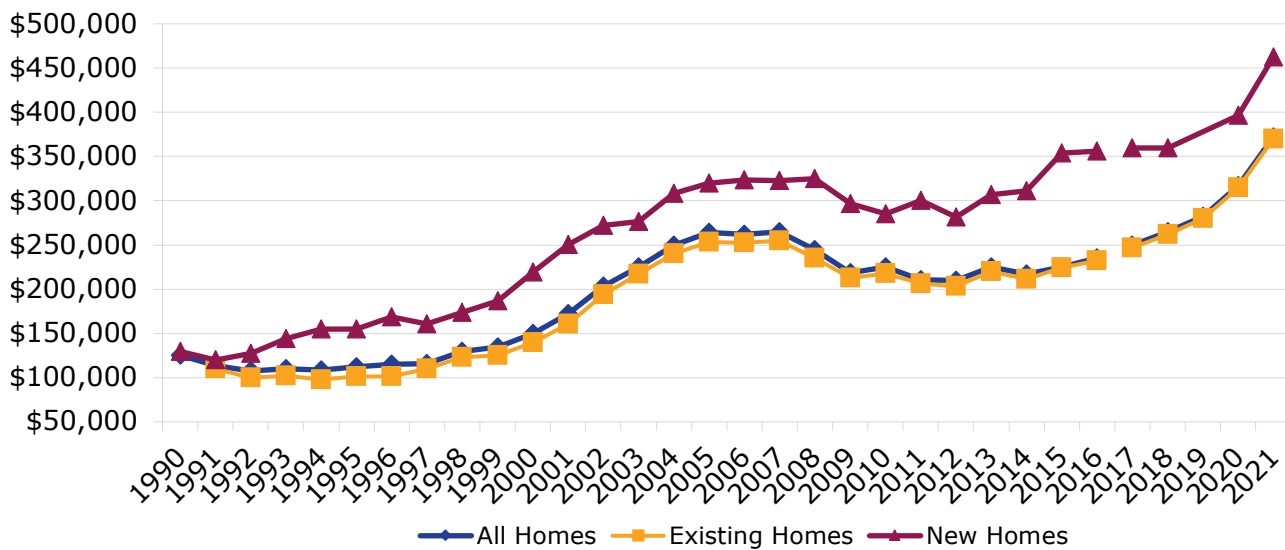
It is important to analyze the Town of Pelham's existing housing supply, the income levels of the residents, and current home values and costs to get an understanding of how housing availability and affordability impacts Pelham residents. According to the American Community Survey data, the median value of owner-occupied housing units in Pelham is \$361,600 or approximately, a median monthly cost of \$2,339 for ownership with a mortgage and \$909 without a mortgage. According to the American Community Survey, the most recently obtained data from 2020 identifies that the median home purchase price is \$287,900 in Hillsborough County which indicates that the Town of Pelham is almost \$75,000 greater than the purchase price of the county. It is important to note that the American Community Survey Data is an average of multiple years from 2016-2020. Updated data from the New England Real Estate Network (NEREN) report that the median sales prices of single-family homes in Pelham from October 2022 is \$589,450 and the median price for condo units is \$473,000.

For renters in Pelham, the median monthly cost of rent is \$1,214 which is lower than the median gross rental costs in Hillsborough County, as estimated for the year 2021, to be \$1,526 per month. Comparing this monthly cost to the year 2015, the cost of rent for Hillsborough County has increased approximately \$378 per month. Housing costs in Pelham also correlate to the vacancy rates for rental units across Hillsborough County. Though the New Hampshire Housing Finance Authority did not have data available past 2016 for the vacancy rate in Pelham, the 2020 Census estimate data approximated that the vacancy rates for all housing units in Pelham in the year 2020 is 5%, and in Hillsborough County is 2.3%. A healthy vacancy rate range for rental units is 4 – 5% to ensure adequate availability according to the 2020 New Hampshire Residential Rental Cost Survey Report by New Hampshire Housing Authority. Updated data from NH Housing Authority indicate that the average renting price in Hillsborough County in 2022 is approximately \$1,526 per month and that Pelham renters' price is the higher end of Hillsborough County more comparable to Rockingham County median renter prices.

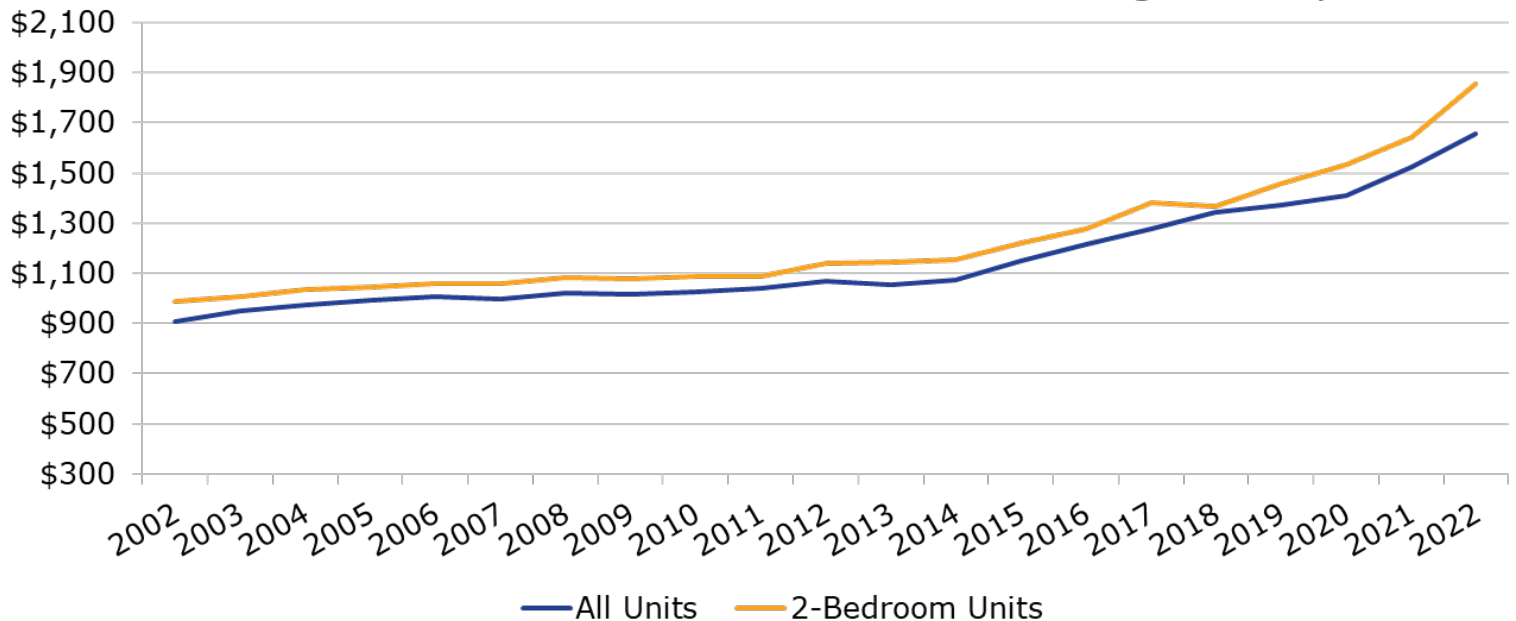
Median Home Purchase Price - Pelham



Median Home Purchase Price - Hillsborough County



Median Gross Rental Cost - Hillsborough County



WORKFORCE COMMUTING:

The commuting patterns of Pelham residents over the age of 16 are related to the potential opportunity for more employment opportunities in town. According to the American Community Survey for Pelham, only about 15% of residents work in town; the other approximately 85% of residents commute out of town to other New Hampshire communities, or out of state. The average commute time for Pelham workers is about 34 minutes. The majority of Pelham residents commute alone by vehicle (approximately 87%). According to the NH Department of Employment Security data in 2019, the total number of Pelham workers 16 and over in the civilian labor force is approximately 8,151, which is 57% of the town's population. The U.S. Census' American Community Survey reported that in 2021, a little over half of the workforce population was working from home.

According to the 2020 census data it is approximated that the majority (approximately 55%) of Pelham's residents have access to 3 or more vehicles.

Table 17: Travel Time to Work	
Transportation Mode	% or # of Commuters
Less than 10 minutes	5.9%
10-14 minutes	8.4%
15-19 minutes	10.1%
20-24 minutes	13.4%
25-29 minutes	8.2%
30 to 34 minutes	16.2%
35 to 44 minutes	10.4%
45 to 59 minutes	12.7%
60 or more minutes	14.6%

Table 14: Means of Transportation to Work	
Transportation Mode	% of Commuters
Drove alone, car/truck/van	87.2%
Carpooled, car/truck/van	5.4%
Public Transportation	0.8%
Walked	0.6%
Other Means	6.0%

Table 15: Place of Work	
Transportation Mode	% of Commuters
Working in community of residence	15.1%
Commuting to another NH Community	31.8%
Commuting out-of-state	53.1%

Table 16: Vehicles Available	
# of vehicles available	% of Population
No vehicle available	1.0%
1 vehicle available	6.7%
2 vehicles available	37.8%
3 or more vehicles available	54.5%

Pelham, New Hampshire

Community Facilities and Services

KEY FINDINGS:

- The conversion of the old Sherburne School into the Municipal Complex and Village Green has greatly improved and addressed municipal space needs since 2002.
- Overall, the Town has a history of investing in its facilities and as a result has no major building needs in the near term.
- The Town does have a need for more meeting space, and there are smaller capital improvements identified by the municipal departments that may not be identified in the CIP or have funding approval/allocation yet.
- There is a gap in senior services in terms of senior housing, and accessible outdoor recreation facilities.
- The Town could consider utilizing an asset management software to track building maintenance.
- The existing senior housing in Pelham does not accommodate all aging residents and more affordable housing for older adults is needed.
- Pelham does not have a public sewer system and relies on private septic systems.
- Only about 9% of Pelham's population is on public drinking water system and 91% of the population in Pelham is on a private well.
- Accessory Dwelling Units (ADUs) act as a creative housing option for Pelham's older adult futures as an alternative for older adults to age in place and stay in their homes.

DATA SOURCES:

- Town of Pelham Website
- 2021 Annual Town Report
- 2002 Pelham Master Plan
- 2022-2028 Pelham Capital Improvements Plan (CIP)
- 2014 Broadband Plan for the Nashua Region (NRPC)
- 2021 Nashua Region Solid Waste Management District Annual Report
- Interviews with Department Heads
- Nashua Regional Planning Commission (NRPC)
- 6 Pillars of Policing in the Modern World
- Pelham Planning Department

INTRODUCTION:

This section identifies the existing town facilities and utilities in Pelham that provide services to the residents of the community. As Pelham looks to the future and considers population growth, advances in technology and building codes, and recent community pandemic resiliency; this evaluation of Pelham's existing town facilities will help identify any facility and service investments needed in the community. By analyzing Pelham's current community facilities and the range of services offered to residents, the town can plan for necessary changes that will impact the way in which services are provided, the buildings which house them, their capital needs, and therefore, the town budget. The information obtained in this section is informed by relevant documents, information from the town's website, and interviews with Department Heads and other contacts.

Public facilities and services covered in this section include:

- Police Department
- Fire Department
- Town Administrative Offices
- Highway Department/ Transfer Station and Recycling Center
- Cemetery Department
- Schools
- Public Library
- Parks & Recreation Department
- Senior Services (Hobbs Community Center)
- Utilities

POLICE DEPARTMENT:

The Pelham Police Department is located at 14 Village Green in the Municipal Complex. Prior to 2004, the Police Department shared a public safety facility with the Pelham Fire Department. In 2002, voters approved the renovation of the former Sherburne School into the Municipal Complex and Village Green and the Police Station was completed as part of this facility in 2004. The Police Station is a one-story building with two garages, a booking area, six cells -one padded, locker rooms, a dispatch center, a records office, three administrative offices, a training room, a patrol

room, patrol services, a detective/prosecution office, an armory, an evidence room, two kitchens, a shift supervisor office, bathroom facilities, a lobby, two interview rooms, and a public conference room. The Police Department also has an Animal Control Center located on Simpson Hill Road.



The Department manages a vehicle fleet of eight patrol cars, five administrative vehicles (one for Chief, two for Captains, two for Detectives), an animal control vehicle, a Kawasaki side-by-side OHV, a Harley Davidson patrol motorcycle, a speed trailer, two undercover vehicles, and two mountain bikes.

Staffing

The Police Department has twenty-five full-time sworn officers, and four part-time officers (which includes the full-time Animal Control Officer), one Administrative Assistant to the Chief of Police, four full-time Dispatchers, one Police Prosecuting Attorney, a full-time Records Clerk, a part-time Media Specialist, and two part-time Crossing Guards. In 2019, the Police Department initiated the use of police body cameras for officers, to give citizens full transparency.

Police Activity and Calls for Service

Like many other communities during the pandemic, Pelham experienced changes in day to day activity that impacted the statistics when compared with other years. In 2020, the Pelham Police Department increased the amount of building checks and extra patrols in order to establish a sense of security and safety during the unprecedented times. Another notable

observation in 2020 was that the number of pistol permit applications spiked by 29% before falling to a more normal number in 2021. Annual Police statistics dating back to 2018 are found in Table 1.

Table 1: Police Department Statistics				
Activity	2018	2019	2020	2021
Alarm Calls	559	555	407	392
Animal	888	955	659	779
Assist Motorists	10	24	13	11
Building Checks	7,785	6,968	7,999	6,998
Community Policing	273	351	323	273
Extra Patrol	2,411	2,383	3,802	3,676
Motor Vehicle Complaints	311	251	288	267
Pistol Permits	118	156	201	134
School Resource Duties	61	105	86	108
Suspicious Activity	240	205	155	156
911 Hang Up	59	87	67	74
Total # of Calls for Service	27,291	26,537	26,868	26,959

Police Department Programs

The Pelham Police Department is very active in contributing and being involved in the community. The Police Department provides many programs including: Elderly check-in, the Explorers Program (gives young adults a structured program for academic and technical training needed to become a future Law Enforcement Officer), Family Support Programs, the House Check Program, the Police Relief Association, and the S.O.A.R. Special Outreach and Resource Program. Additionally, the Pelham Police Department offers outreach programs involving the Drug Treatment and Prevention Officer and self-defense classes and active shooter citizen response training. The Police Relief Association is a non-profit, 501(c)(3) organization made up of former and active members of the Pelham Police Department. The organization assists the community by providing financial assistance to Pelham residents such as medical expenses or injuries. The S.O.A.R. Program is an identifying system for citizens with mental disorders such as Autism and Dementia. The program allows family members to register their relative to this Police system to help the Police identify them.

Communications

As described in the 2021 Annual Town Report, the Pelham Police Department base their policing decisions off the “6 Pillars of Policing in the Modern World”. The 3rd pillar of this document is “Technology and Social Media” where it states, “implementing new technologies can give police departments an opportunity to fully engage and educate communities in a dialogue about their expectations for transparency, accountability, and privacy”. In response to this with funding support from the community, the Pelham Police Department was able to implement interactive Facebook, Instagram, and Twitter social media accounts that citizens use often. The Police Department also utilizes the Citizen Observer, which allows citizens to sign up to receive specific alerts and share information with the Police Department. The Citizen Observer is a downloadable app that allows residents to interact with the Police Department by submitting tips anonymously with the ability for users to upload photos or videos to better inform their submitted tip. Additionally, the Police Department themselves can put out alerts through Citizen Observer which can be directly linked to the Police Department’s social media accounts to be shared. If citizens do not want to or do not know how to download this app, there is an option to submit tips via text message linked to Citizen Observer that is provided as an alternative way to use this platform. This platform assists the Police Department with outreach to its citizens as well as provide support and has done a good job implementing technology as social media recommendations laid out by the Department of Justice.

Future Needs/Projects/Staffing Needs

According to the 2022-2028 CIP, the Police Department anticipates remodeling and expanding the Police Station to add more space for locker rooms and a fitness facility. The fitness facility is now utilized not only by the staff themselves, but it is also where the self-defense/Rape Aggression Defense (RAD) classes are held. With the growing number of staff required to meet community demand and the increase in RAD classes, the Police Department has insufficient existing facility space. Since 2004 when the Police Station was constructed in the Municipal Complex, the Department has grown and the need for a larger locker room to accommodate all officers and a larger fitness facility is now necessary.

The 2022-2028 CIP identifies the need for a new Animal Control Shelter as the existing shelter is approximately 40 years old and does not meet today’s standards or size for a proper animal shelter. Additionally, the existing shelter does not have bathroom facilities, or adequate HVAC, roofing, fencing, electrical, or water. The proposed new animal shelter will be 2,250 square feet and would meet ADA requirements and have a bathroom with up-to-date building codes. Though this project was ranked as necessary with a project projection date of 2022, it was later identified that more research needs to be conducted prior to construction.

Looking into the future to the year 2040, the Police Department anticipates there will be a projected increase of population, resulting in an increase of residential and commercial development, and traffic. With this in mind, the Pelham Police Department identified a staffing need to slowly increase the existing twelve full-time sworn complement to a total of thirty officers by 2040. The increase in offers and call volume would impact the communications center too which would require the need for one more dispatcher and the need for the Media Specialist role to increase to full time.

FIRE DEPARTMENT:

The Pelham Fire Department is located at 36 Village Green in the Municipal Complex adjacent to the Village Green. As described in the Police Department section above, the Pelham Fire Department once shared its station with the Police Department. However, in 2013 the Fire Station was demolished and rebuilt at the current location. Since 2002, the Pelham Fire Department has transitioned to becoming a full-time staffed department. The Fire Station provides 24/7 service to the residents of Pelham. Since 2002, the Fire Station has significantly improved and grown. Although much of the department today has dramatically changed since 2002, the following list identifies only some of the many improvements to the station:

- integrated high-end police and fire communications apparatus,
- the replacement of equipment,
- garage space to store the larger trucks and vehicles as well as many other significant improvements.

Fire Dept. Vehicle Name	Vehicle Year	Make/Model
Ambulance 1	2022	F-550 PL Custom
Ambulance 2	2012	International Horton Ambulance
Ambulance 3	2017	F-550 Horton Ambulance
Engine 1	2021	Spartan/Marion
Engine 3	2008	Alexis/Spartan
Engine 4	2015	Seagrave Marauder II
Tanker 1	2003	International / 4 Guys Tanker Truck
Forestry 1	2005	Ford F-350 XL heavy duty pickup truck
Forestry 2	2011	Ford F-350 XL heavy duty pickup truck
Car 1	2018	Ford Expedition
Car 2	2011	Ford Expedition
Car 3	2008	Ford Expedition
Special Operations Trailer	2004	Cargo
Boat	2012	AB Rigid Hull

The Department manages a vehicle fleet as seen in Table 2 and manages all Fire Department needs. The Fire Department replaced Ambulance 3 about four years ago leaving Ambulance 2 as the oldest Ambulance. Ambulance 2 is identified in the 2022-2028 CIP as scheduled to be replaced with a 2013 International Ambulance Ford 550, but there are delays in ordering due to supply shortages. It should also be noted that the Ambulance service in Pelham is emergency-only and can transport patients to several hospitals in both New Hampshire and Massachusetts.

Staffing

According to the 2021 Annual Town Report the Fire Department has one Chief, one Deputy Chief, one Fire Inspector/Forest Fire Warden, one Office Manager, one Office Assistant, five Lieutenants, accounting for a total of twenty-line personnel. The staff is broken into four shifts which consist of one Lieutenant and four Firefighter's/ AEMT's or Paramedics. Each shift also has a paramedic within those five members scheduled. The department has six paramedics and each of the line personnel is cross trained/staffed as AEMT's. There are currently no volunteers, however the Fire Station also has two call department staff. Although, due to state requirements and training commitments to maintain this department, the Fire Department anticipates discontinuing the call department in the near future as the Fire Department has observed that the call department is not a necessity to the operation of the station. In 2001, the Fire Department got approval to hire two full-time firefighters on 24/7 and that's when the department started increasing in staffing needs. Since 2002, the Fire Department staff has doubled in response to the community's growing demand for Emergency and Fire personnel. The Fire Department has added a full-time Office Manager and a part-time Office Assistant position as well as a Fire Inspector/Forest Fire Warden position. The department is currently increasing the Assistant Deputy position from part-time to full-time.



Calls for Service and Response Times

The Pelham Fire Department follows fire and emergency response time standards set by the National Fire Protection Association (NFPA). A summary of the calls for service over the last six years is included in Table 3 and are broken out by fire and by medical calls. The fire/other calls include Motor vehicle accidents, outside fires, motor vehicle fires, wires down, building fires, false alarms, hazardous conditions, illegal/permit burns, investigations, mutual aid, service calls, electrical fires/issues, oil burner calls, water problems, carbon monoxide, monitor blasting, and training. Since 2002, the Fire Station has observed a steady increase in calls over time, with the exception being during the covid pandemic when there was about a 30% drop in calls. Although, since then the number has increased again and is steadily increasing following the trends prior to the pandemic.

Table 3: Fire and Rescue Calls for Service						
Call Type	2016	2017	2018	2019	2020	2021
Fire/Other Calls	566	615	752	564	543	583
Med Calls	929	962	920	891	896	1010
Total Calls for Service	1,495	1,577	1,672	1,455	1,439	1,593

Due to the increase in call volumes to both the Fire Department and the Police Department, in 2018, the Pelham Police Department discontinued its dispatch service and this is now provided by Londonderry Fire Department's regional dispatch center. This change was beneficial for the town to initiate a collaborative effort with a regional dispatching service rather than hiring more dispatchers for the town.

Future Needs/Projects/Staffing Needs

According to the 2022-2028 CIP report, the Fire Department anticipates the need for replacement of Ambulance 2 through a Capital Reserve Withdrawal. Ambulance 2 is requested to be replaced with a 2013 international Ambulance Ford F550. This new vehicle will operate for four years as a primary response vehicle, and then will move to second position where the 2 older vehicles rotate to distribute usage as the department currently manages a 12-year cycle of three Ambulances. This purchase was deemed to be scheduled for 2022 and ranked as an urgent priority however, due to shortages and supply issues, the Fire Department has not been able to order this replacement. Funding for replacement is made possible by ambulance revenues, and resident votes. The first \$75,000 of the ambulance revenues is transferred into the Ambulance Replacement Revolving Account. When a replacement is needed a warrant article is put before the town to purchase using the ambulance revolving account. The residents then vote to put the money into the account as well as vote to remove the funds to purchase an ambulance replacement.

The Fire Department also anticipates the need to replace Engine 3, however, this replacement was deferred until 2026 with a delivery 2027-2028 for build. The Department is also a part of the town-wide Covid-19 Remediation Project and will add a second heat/air conditioning unit at the Fire Station to add back up for the only unit in the building that previously failed.

Though not included in a Capital Improvement Plan, the Fire Department has identified a future need for a three-bay garage out-building to be utilized as extra storage space for small vehicles and equipment. The anticipated detached three-bay garage will be located across the driveway from the Fire Station and will have 10' x 10' garage doors as well as a full staircase to access an attic storage area. This department need is in response to the department's growth since the construction of the Fire Station in 2013.

The Pelham Fire Chief identified that there will be a staffing need increase around 2030-2035. This anticipated staffing need will be for 4 new firefighters (1 additional per shift).

TOWN HALL:

The Pelham Town Hall (Municipal Building) is located at 6 Village Green and is connected to the Pelham Police Station. The 2003 conversion of the Sherburne School into a municipal facility and village green now serves as the Municipal Complex for Pelham's Town Hall, Police Station, Fire Station, and Library. The departments that are located within the Pelham Town Hall include Parks and Recreation, Health Department, Pelham Cable Department, Assessor's Department, Planning Department, Board of Selectmen Offices, Human Resources Department, IT Department, and the Tax Collector and Clerk. Additionally, Sherburne Hall is located within the facility and hosts the town's board meetings, can be rented by the public, and the stage is utilized by the theatre.

The Health Department was recently created in response to the 2020 COVID-19 Pandemic. The department consists of a Health Officer and a Deputy Health Officer. The Health Officer acts as the liaison between the state, local elected officials, and residents for local public health issues including enforcing related NH laws and developing effective local and regional public health systems, assisting in enforcing local ordinances and regulations enacted by the community, and to lead and participate in efforts to establish public health capacities. The Deputy Health Officer assists the

Health Officer, and additionally manages health ordinances, soil testing, sewage disposal system design, installation and application, and daycare and foster home inspection responsibilities.

Prior to the completed construction of the Municipal Complex, the Pelham Town Hall was located at 6 Main Street which is now the VFW.

Future Needs/Projects/Staffing Needs

According to the 2022-2028 CIP Report, the Town Hall is scheduled to undergo renovations in 2022. The Planning Department renovations include adding a second floor to the existing department creating more office space, as well as installing heat, air conditioning, Covid-19 remediation technology, and improved technologies such as communications, IT and Security.

The existing Town Hall only has one meeting room, Sherburne Hall, which is utilized by the theater, various boards, and can be rented out by residents. There have been discussions about remodeling the existing classrooms (down the hall from the Planning Department) to create more meeting rooms. However, this project is not yet identified in the CIP. It was also noted that the Town Hall needs more arts and civic areas for the public.

Add Town Hall anticipated staffing needs

HIGHWAY DEPARTMENT:

The Highway Department is located at 33 Newcomb Field Parkway off Windham Road. This new highway garage building was completed in 2021 and will meet the needs of the department for the next 20-25 years. The building is a ten-bay garage most of which is equipped with pull-through garage doors. The building also has 2 storage rooms utilized for tools/everyday equipment, two offices (for the Interim Road Agent and the Administrative Assistant) and a break room.

The Highway Department is responsible for plowing, sanding, and salting town roads and the general maintenance required to maintain the roads. General maintenance includes road sweeping, line painting, brush cutting, replacing signs, cleaning and replacing/repairing catch basins, replacing failed culverts, patching roads, road-side mowing, and litter pick-up. New Hampshire Department of Transportation, District 5 (NHDOT) maintains seven roads in Pelham as listed in Table 4.

Table 4: NHDOT, District 5 Maintained Roads in Pelham
Sherburne Road
Route 38
Windham Road
Mammoth Road
Old Gage Hill Road
Main Street (Windham Road to Route 38)
Keyes Hill Road

In addition to the roads of Pelham, the highway department is also responsible for plowing, sanding, and salting the municipal complex, sanding and salting the Fire Station and the Transfer Station, and plowing town parks and trailheads. The Highway Department maintains approximately 111 miles of roads in Pelham.

In addition to road maintenance the Highway Department also works with the Environmental Regulations Compliance Specialist in the Planning Department in order to maintain good standing with the town's Municipal Separate Storm Sewer System (MS4) permit through the New Hampshire Stormwater Management Program. Through this program, the Highway Department assists the Environmental Regulations Compliance Specialist by accompanying them to inspect culverts/catch basins, as well as maintenance, repair and replacement of culverts and catch basins as necessary. In qualifying circumstances, such as areas with high flood inundation, the Department will replace failing culverts with larger culvert sizes or construct additional culverts to mitigate flooding.

The Highway Department maintains a fleet of 16 vehicles and equipment which is shown in Table 5.

Table 5: Highway Department Vehicle Fleet	
Vehicle Type	#
Ford F350 Pick-up Truck	2
Chevy Impala	1
Intl HV507 Dump Truck	1
Ford F550 Dump Truck	2
Intl 7400SFA Dump Truck	2
Intl 7400 Dump Truck	2
Intl 7600SBA Dump Truck	1
JCB Backhoe	2
Keiz KM6000 Utility	1
Ban Chipper	1
PJ 620E Utility	1
SMC M11757 Message Board	1
SMC M11919 Message Board	1
Carr 5.5x10 Utility	1
Wack Loader (Rental)	1
Scissor Lift JCB	1

Staffing

The Highway Department consists of one Interim Road Agent, one Administrative Assistant, one Foreman, five Equipment Operator's and one Laborer. The Department does not have any part-time employees.

Recent Road Improvements

Since 2002, the Highway Department has conducted and completed many projects that benefit Pelham. Some of these include stormwater management projects like the most recent replacement of two culverts on Gibson Road and Spaulding Hill Road as identified in the 2021 Annual Town Report. In terms of road additions/modifications, NHDOT has created dual roundabouts on Marsh Road (NH 111A)/Old Bridge Street intersection and Marsh Road(NH1 11A)/Main Street intersection; constructed a new Willow Street Bridge with sidewalks; and added a traffic light at the Old Gage Hill Road/Bridge Street intersection.

Future Projects / Needs / Staffing Needs

Due to the increase in the number of roads added to Pelham since 2002, there is a higher demand for the Highway Department to conduct road maintenance. Therefore, the department has a need for extra salt/sand storage and a street sweeper. Additionally, the department has a future need for

two more 6-wheel dump trucks for extended plow routes and general maintenance. In order to better manage and maintain the catch basins in Pelham, the Department also needs a catch basin truck instead of hiring other contractors to conduct this work.

Looking in to the future to the year 2040, the Highway Department has an projected staffing need for three more employees, because of more roads projected, there will be longer plow routes. Additionally, there will be added duties of keeping retention and detention ponds clear. There is also a possibility of the Town to move the Highway Department, to take care of Town Buildings and Parks including mowing lawns and other landscaping.

TRANSFER STATION AND RECYCLING CENTER:

The Transfer Station and Recycling Center is located at 74 Newfield Comb Parkway off of Windham Road (NH Route 111A) just past Newcomb Field. The facility was first constructed as a drop-off center (dump) to replace the town's reliance on a private landfill. In 2000, the dump converted the existing incinerator and recycling program to a transfer station and recycling program. Pelham's Transfer Station facility consists of a Main-Stream Waste (MSW) building, that holds household trash, metals (such as copper, iron, aluminum), propane tanks, refrigerators, tv's, etc.; and a 12' x 60' office trailer that has a lunchroom, employee changing area, storage area/work bench. The Transfer Station and Recycling Center also has four trailers, two Tri- Axel 100-yrd trailers, for hauling MSW (Main Stream Waste) and two Tatum Axel 75-yrd trailers, for hauling SS (Single Stream Recycles). Additionally, there is an area where the transfer station collects brush from residents. Other equipment the department maintains include 2 Skit Steers to haul metal, a 2001 pickup truck used for plowing, and a backhoe.

In the last 5-10 years, the Transfer Station and Recycling Center MSW collection has increased; and the facility receives about four and a half to five full trailers a week to dispose of. The Department has issued about 4,000 permits to Pelham residents to utilize the facility. This is about a third of Pelham's Population. The Town of Pelham hires private companies to dispose of the MSW and SS Recycling once collected. Allied Waste Republic hauls Pelham's MSW to Covanta in Haverhill, MA. The Covanta facility converts waste into energy. Pelham's mixed recycling gets hauled to Billerica, MA where this facility sorts the recycling. Pelham's recycling gets hauled to this facility typically once a week.

Staffing

The Transfer Station and Recycling Center staff consists of an Interim Director, an Administrative Assistant, two Operators, a Forman, and three part-time employees. Pelham is an independent Solid Waste Management District. Pelham does not have trash-pick up service, however if residents wanted curbside pick-up, there are private operators available with a service fee.

Statistics

According to the 2021 Annual Town Report, and as shown Table 6, when comparing the solid waste collected in 2020 vs. 2021, there was approximately a 58-ton (1.7%) increase in the volume of solid waste received at the Transfer Station. When comparing the single stream recyclables collected

in the year 2020 vs. 2021, there was approximately a 93-ton (3.7%) decrease in the number of recyclables collected.

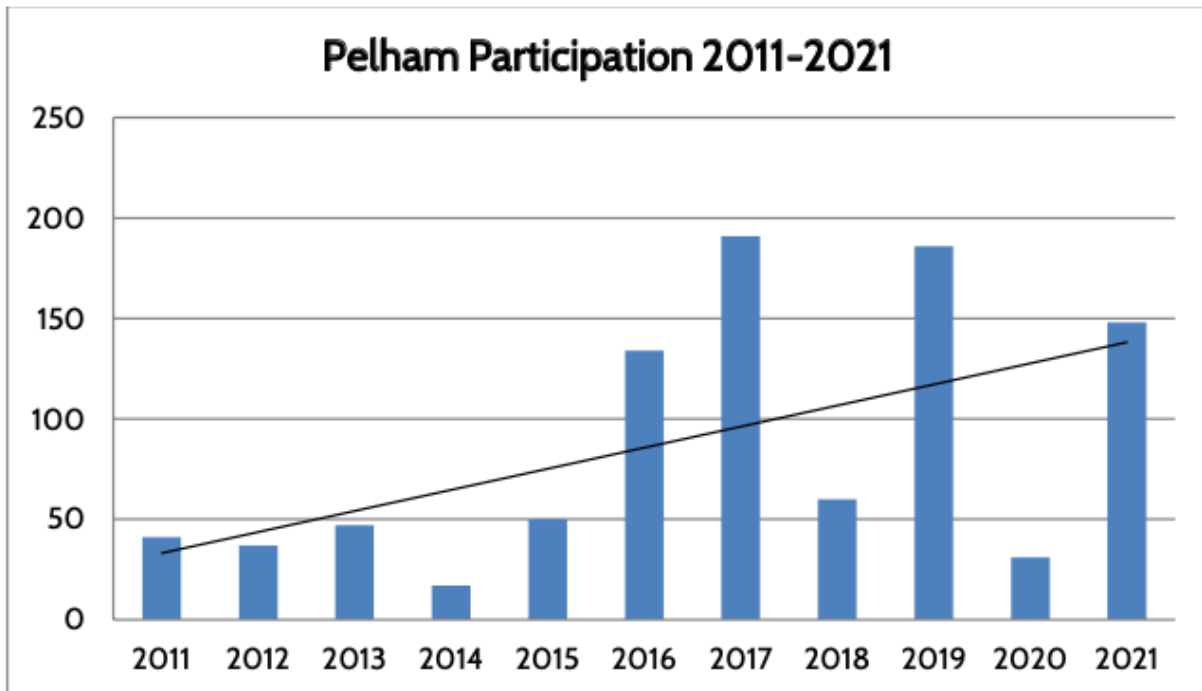
The Recycling Center accepts the following materials:

- Newspapers with Inserts
- Paperboard flattened
- Magazines and catalogs
- Cardboard and packages flattened
- White & Colored Paper, folders
- Junk mail
- Glass food and beverage containers
- Plastic containers 1-7
- Aluminum cans, food trays, and foils
- Steels, tin and metal
- Milk, juice cartons, juice boxes

Table 6: Pelham Transfer Station & Recycling Center 2020 & 2021 Statistics		
Year	2020	2021
Solid Waste	3,348.16 tons	3,406.45 tons
Single Stream Recyclables	921.16 tons	886.90 tons

In addition to the Transfer Station and Recycling Center services, the Town of Pelham also participates in Household Hazardous Waste Events with partners and resources including the Nashua Regional Planning Commission (NRPC), the Northeast Resources Recovery Association (NRRA), Veolia Environmental Services, as well as the neighboring towns of Milford and Nashua. These events are conducted in order to collect Household Hazardous materials from residents on specific dates throughout the year. Pelham's Transfer Station and Recycling Center is a member of the Northeast Resources Recovery Association (NRRA) which is a non-profit organization that provides insight on best recycling practices and works with companies such as Veolia Environmental Services to assist membership towns as needed.

According to the 2021 Nashua Region Solid Waste Management District Annual Report, "a total of 1,659 households participated in the HHW collections district-wide; of those, 148 households or 8.92% came from Pelham". The Pelham Participation 2011-2021 graph depicted below shows the number of Pelham residents who participated in HHW events over the last decade. The COVID-19 pandemic influenced a drop in the number of users in 2020.



Future Needs/Projects/Staffing Needs

Since the Department relies on private companies to haul the collected MSW and SS recycling, the Transfer Station and Recycling Center identified a need for purchasing an additional truck to haul the MSW and SS Recycling trailers to transport the town's waste, and to send a few employees to obtain their Class A Operators License in order to haul the waste internally. Additionally, the Department anticipates the need for a new pick-up truck as the existing truck is a 2001 model. This project is not yet identified on the Pelham's Capital Improvement Plan. The Pelham Transfer Station and Recycling Center can apply for the NH the Beautiful Grant which provides funding for municipality recycling centers. However, the grant only covers about 20% of the total cost.

Projecting to the year 2040, the Transfer Station and Recycling Center identified an anticipated staffing need of an additional part-time attendant.

CEMETERY DEPARTMENT:

The Cemetery Department is located at 68 Old Bridge Street adjacent to the Municipal Village Green. This location used to be at the old Center Cemetery until the department was moved to the Walter J. Kosik Senior Memorial Maintenance Center located on Marsh Road at the Gibson Cemetery. This building is utilized as the office for the secretary, the sexton, the full-time grounds keeper office area, as well as a full-size garage that houses the department's major equipment. There is also a wooden structure located at the old center cemetery that the department utilizes as extra storage. The department equipment consists of: two large trucks (one older and one from 2019) 1 pick-up truck, and 1 backhoe.

Pelham Cemeteries

There are six cemeteries located in Pelham that the Cemetery Department oversees: Gibson Cemetery, Center Cemetery, Gumpas Cemetery, North Pelham Cemetery, Atwood Cemetery, and Lyon's Cemetery. Pelham only has two cemeteries in town that are functional new burial cemeteries: North Pelham and Gibson Cemeteries. Additionally, the North Pelham Cemetery has a one-acre limit for further expansion.

Staffing

The Department consists of one sexton, one secretary, one full-time grounds keeper, and two part-time grounds keepers. The department has enough in the budget to staff three part-time grounds keepers, however, this depends on the number of burials needed in town.

Department Assets

In order to keep Pelham residents informed, the Cemetery Department has a record keeping program that captures burial location data. This service is offered to Pelham residents as a link on the Pelham Cemetery Department page on the Town website. This program provides data on where someone is buried. This program is relatively new to the department and is still a work in progress as previous burial data is converted to this electronic format.

Future Needs/Projects/Staffing Needs

Recently, the Cemetery Department has observed trends within town which includes a decrease in traditional burials and an increase in cremations as well as a new concept of natural compostable burials. The Cemetery Department anticipates a future project for installing a columbarium to hold urns and act as a consolidated burial site. Although there is an increase in the number of cremations and the cost of cremation is less costly than burial, the Cemetery Department does not anticipate a change in funding. Additionally, the Cemetery Department anticipates a future need for the replacement of the backhoe and the big truck. The Department has a trust fund that is utilized for department projects; this is funded through the purchasing of burial lots, 60% of the cost goes into this trust fund.

Add anticipated staffing needs

SCHOOLS:

The Pelham Public School System is a part of the SAU-28 School District and consists of one elementary school, one middle school, and one high school. The Pelham School District facilities' core capacity (library, gymnasium, cafeteria) and classroom capacity can be seen in Table 7. The Pelham schools include: Waiting on capacity data from superintendent

Pelham Elementary School

Table 7: Pelham School District Capacities		
School	Core Capacity	Classroom Capacity
PES		
PMS		
PHS		

The Pelham Elementary School (PES) is located at 61 Marsh Road and is for Pre-Kindergarten through 5th grade students. Additionally, the existing school has a single-story modular building close to where Pre-K is taught and there are district offices housed there. The school facility itself can accommodate 715 students not including this separate modular building.

Pelham's Elementary School was originally located at the old Sherburne School where the municipal complex is now. Then in 2002, the elementary school moved to this new facility on Marsh Road between the Pelham Memorial School and the High School, creating a complete school campus for the Town of Pelham. The old Sherburne Elementary School building was undersized, and the structure was outdated. In March 2022, voters approved full-day public kindergarten to be offered at Pelham Elementary School. Previously, the St. Patrick School (grades Pre-K-8) offered the nursery school education level until it closed in 2015. Full-day public kindergarten has started in August 2022 with student enrollment of 100 students in six classrooms.

Pelham Memorial School

The Pelham Memorial School (PMS) is located at 59 Marsh Road and teaches grades 6-8. The Memorial School was first opened in 1964. The 2002 Master Plan identified many facility needs for the Memorial School. Since 2002, the Memorial School made improvements to address these needs such as ADA lifts and the addition of two modular 1-story facilities behind the Memorial school for performing arts and library space.

Though these efforts were made to address the school's needs, the Pelham Memorial School required a more permanent expansion to fully correct all the facility's needs. The school began construction in July 2021 for additions around the perimeter of the school, construction of a courtyard to be utilized as an outdoor classroom, expanding the parking areas and handicap accessible spaces and walkways, creating a bus loop, reconfiguring the athletic fields and replacing the existing septic system. The renovation and additions to the Pelham Memorial School will address ADA properly by adding an elevator, ADA bathrooms, and wider doorways, a handicap ramp to access the stage, a performing arts/band room, a new kitchen in the cafeteria, library, the FACS (Family and Consumer Science) program, an art room, new nurse suite, soundproofing, new HVAC systems, and second floor air conditioning. The improvements are anticipated to be completed by June 2024.

Pelham High School

Pelham High School (PHS) is located at 85 Marsh Road and accommodates students in grades 9-12. The high school was established in 1974. The 2002 Master Plan also identified facility needs for the high school and in 2015 an addition and renovations were made. The 2015 renovation project to PHS was a 2-story addition on the Marsh Roadside (consisting of primarily classrooms), an upgrade of the science classrooms, an elevator, up-to-date fire code, as well as renovated the existing structure creating a library, and fine arts/theater space.

Future Needs/Projects

According to the 2022-2028 Pelham Capital Improvement Plan (CIP) the High School Addition and Renovation Project from 2015 is on a 20-year NH Municipal Bond Bank Note for financing for 2015-2034. The CIP also addresses the replacement of the student parking lot with a project

projection date of 2025. The existing student parking lot was installed in 2014 and is porous asphalt. Due to this kind of material, replacement is required every 10 years to maintain the surfaces permeability.

The Memorial School update and renovations project is currently underway however, this project is also on a 20-year Bond Bank Note for 2022-2041. The upgrades needed include: modern student and staff restrooms, modern locker rooms, science laboratories, staff work rooms, appropriate special education tutoring/testing/classrooms/offices, an upgraded gymnasium, an upgraded cafeteria/kitchen, and an appropriate located/lit/outfitted art room. New space needs include: a music room, band/drama performance space, maker space, main building library/media space, adequate storage space, adequate conference/meeting rooms, and public restrooms.

The 2022-2028 CIP addresses the need for an air conditioner system to be installed at the Pelham Elementary School. The project projection date is still to be determined, but it was identified as a necessary project in response to the pandemic with social distancing and better air circulation. The 2022-2028 CIP allotted funding for providing AC to the second floor of the elementary school, as well as the cafeteria. In summer 2022, air conditioning has been installed in the PES in 26 classrooms on the second floor and in the cafeteria. However, PES has a capital need for an updated system and air conditioning on the first floor, library, and gymnasium.

In addition to the air conditioning project at Pelham Elementary School, the CIP also identifies the asphaltting of the parking lot and roadways; the project is slated for 2024.

Pelham is a part of a district wide effort for all Pelham schools to lease roof space for solar panels to a selected vendor in exchange for a reduced rate on electricity for the schools. In March 2022, the School Board was authorized by voters to proceed with this initiative. The school district will begin the project planning process starting in the summer of 2022.

LIBRARY:

The Pelham Public Library is located at 24 Village Green in the Municipal Complex. The library offers many services with a book collection of over 30,000 books as well as audiobooks, DVD's, large print books, and over seventy magazine and six daily newspaper subscriptions. The library modernized its website and acquired user-friendly software to make online library services easier to access from home. Easy access to electronic learning resources and e-books was critical during the pandemic.

Programs and Services

The library serves as an essential community resource and community space for residents of all ages in Pelham. The library caters to many groups within town by providing a wide variety of programs, activities, educational classes, and gaming for Adults, Teens, and Kids. Some recent programs offered in 2022 are shown in Table 8 above. In the 2021 Annual Town Report, the library conducted 1,548 curbside pick-ups, 1,643 materials were sent and received through the interlibrary loan service provided by the State Library,

Table 8: Public Library Programs Offered by Age Group 2022

Adult	Educational Classes, Craft Kits, Friends of Library in Pelham (FLIP) meetings, book discussions, One-on-One tech help
Teen	Nintendo Switch Gaming, Scavenger Hunts, Crafts, Mindful Monday, Snack Attack, Teen Movie Showings, Crystal Crew, Craft Kits
Kids	Craft and STEM kits, Story Time, reading to therapy dog, Mario Kart gaming

the children's department distributed over 1,875 craft and STEM kits, as well as over 1,000 teen craft kits. The library programming demand has significantly increased since 2002 with the teen programming seeing the most use generating about 200-400 teen users every month.

In addition to the Pelham Library's extensive inventory, the library is also involved in the Interlibrary Loan Program. This state-run program allows patrons to have access to books that the Pelham Library doesn't have/doesn't have room to house. The Interlibrary Loan Program can be accessed on the library's website and allows patrons to rent books online or in person through this program from other libraries across the state. Each week an Interlibrary Loan service truck comes to deliver books/DVDs, etc. and to take requests from Pelham's inventory to deliver to other libraries for check out. This program acts as a share service between libraries all over the state to provide access to the public to recourses.

The library is working to launch a Library of Things, which is a collection of physical items that cardholders can borrow such as tools, outdoor and sporting equipment, and technology. Access to a Library of Things can remove financial barriers for people to use necessary equipment for projects or hobbies. The collection also reduces waste by allowing items that are needed for a short project to be shared and reused among community members and can also contribute to better health in the community, such as by offering radon detectors for loan.

The Friends of the Library in Pelham (FLIP) is a volunteer, non-profit organization who assist the library in supporting service by organizing fundraisers, and sponsoring programs in order to ensure that all library services can be offered and more. The FLIP also organizes cultural activities like passes to museums.

The Gaming Area, is a recent renovation completed in 2021. This area was once a small nook space, but plexiglass was added to create the gaming area. This room is located upstairs in the young adult section and is a Super Mario themed room with Nintendo Switch, table-top games, color/draw activities and bean bag chairs. This room is heavily utilized by Pelham teens, nearly 50 teens per week.

Staffing

The library staff consists of six full-time employees including a Library Director, an Assistant Director/Emerging Technologies Librarian, a Head of Children's Services, a Head of Circulation and Technical Services, a Head of Teen Services and Marketing, and Head of Adult Services. The Emerging Technologies Librarian assists not only the library facility technology needs but provides 1 on 1 tech support for Pelham residents as well as reference and database research. The Head of Children's Services is responsible for children's programming as well as the children's library collection, and story time. The Head of Circulation and Technical Services is responsible for all circulation of the library inventory as well as the cataloging of all materials. The Head of Teen Services and Marketing is responsible for teen programs, homework help, overseeing community service hours for teens, and after school programs. This staff person also oversees all marketing and promotional outreach for the Library. The Head of Adult Services is responsible for the Interlibrary Loan Program and all adult programs; including acting as a liaison with FLIP to promote book sales and museum passes. In addition to the full-time staff, the library also has six part-time library assistants that serve at the public circulations desks (main desk downstairs and children's desk upstairs) to provide quality assistance to all patrons in the building.

Future Needs/Projects

Current Projects - The 2022-2028 CIP identifies that the Pelham Public Library listed interior renovations as a need of the facility. This project is currently underway to enclose the ceiling area above the first-floor teen area as well as add glass panels in the open mezzanine alcove windows. The existing mezzanine room now allows noise to travel down below to the first floor reading room and disturb its users. With this teen area enclosed, it will create a quiet space on the first floor where library visitors will be able to utilize the quiet room for reading, and to hold meetings, and presentations. The pandemic initially put a halt on the construction of the ceiling enclosure due to high contracting prices. However, the first phase of this project is now underway; adding soundproofing panels to area that help to cut 72% of noise in the stairwell that is open to the children's room. To complete this part of the project, a local artist will be providing the artwork for the soundproof panels.

Future Projects - The Pelham Public Library is also a part of the Covid-19 Remediation project slated for 2022. This project will install new equipment and technology, and Covid-19 remediation technology to the library.

Future Needs - The library has a need for larger meeting space due to the high demand of programming at the library. The Molly Hobbs room is not large enough to accommodate the amount of program participants. This room is utilized for programs, but the library is forced to limit the number of users per program because of the lack of space to hold them. When the library was built, this room originally had library book stacks and was therefore classified as a library stack room. It was not classified as a meeting room and therefore the Molly Hobbs Meeting room has a low capacity for persons. There was previous discussion of maybe adding a youth center addition to the library. Meeting rooms could be constructed in this addition and either shared by all municipal departments as part of the municipal complex or as part of the library facility. The size and location of the Molly Hobbs room restricts users, and the library closes at 8 pm restricting meeting end times. However, if a youth/municipal meeting center addition was constructed, a meeting room could be constructed so that the room could be locked from inside the library with a dual exit to the outside of the building so meetings could run later than 8 pm if the room was rented out.

PARKS AND RECREATION DEPARTMENT:

The Parks and Recreation Department is located within the Town Hall at 6 Village Green.

Staffing

The Parks and Recreation Department staff consist of two full time employees: a Director and a Program Director; additionally, there is one part-time (thirty hours/week) Recreation Assistant as well as many part-time seasonal positions. These seasonal positions include seasonal referees for basketball, soccer, and summer leagues, as well as lifeguards and summer camp employees. The summer camp has the most seasonal employees at about 25-30 part-timers and there are about 6-8 lifeguards hired for the town beach. There are also a few maintenance part-timers that conduct general maintenance to the town owned parks. Trail maintenance is not typically done by the Parks and Recreation Department, but they will do minor work when asked by the Forestry Committee or Conservation Commission such as painting, litter pick up, etc.

Facilities

The department manages the following Town facilities:

Lyons Memorial Park

Located at 6 Village Green behind the Town Hall and Police Station. The park is approximately 4.5 acres and has two lighted outdoor basketball courts, Pelham's Skate Park, a tot playground, a lighted softball field, and a lighted multipurpose field. The Pelham Skate Park is lighted and has a six-foot full half pipe, an eight-foot $\frac{1}{4}$ pipe, and a seven-foot vertical wall.

Veteran's Memorial Park

The park is located on 109 Veteran's Memorial Parkway off Mammoth Road just before the state line. Veteran's Memorial Park is approximately 67 acres. The park features include the Town Beach, a sweet playground, a multi-purpose field, a summer camp lodge, a basketball court, hiking trails, a lifeguard building and restrooms at the waterfront on Long Beach, and a ropes course. The Pelham Veteran's Memorial Park trails connect to Cutter Merriam Conservation Area trails. The park has a three trail (red, green, and blue) network totaling approximately 1.7 miles. In 2021, the Parks and Recreation Department conducted beautification improvements by adding new plantings at the Veteran's Memorial Park Lodge.



George M. Muldoon Park

Located on Mammoth Road just north of Nashua Road, the park serves as a diverse hosting of many programs, activities, and features. The park features include one lighted little league field, a lighted babe ruth field, a softball field, a lighted soccer/lacrosse field, playground, disc golf course, walking path, indoor restrooms, snack shack with storage, small garage for storage, and bleachers. The trails are located next to the playground and the 18-hole disc golf course is within the trail system. The walking trails are approximately one mile long with a crossing and overlook of Beaver Brook. Muldoon Park is also where many of the programs the Parks and Recreation Department and other outside programs are hosted. These programs include Summer Sports Camp, Town of Pelham Little League, Razorbacks Youth Football and Cheerleading, and Pelham Travel Soccer Club. The Park is approximately 52 acres and was named after Theresa Muldoon who donated the land in the 1970's to be utilized for public



recreation purposes. This lot is also known as Scouts Lot. The 2021 Annual Town Report identified that the Parks and Recreation Department implemented beautification improvements by adding new plantings to the park.

Elmer G. Raymond Memorial Park and Athletic Fields

The main entrance is located at 35 Keyes Hill Road in North Pelham and the park is approximately 242 acres in size. This lot was once informally known as Scouts lot. The park facilities include a multi-purpose field, a playground for kids up to age five, a practice field, a scout lodge, and approximately 3.7 miles of hiking trails. According to the 2021 Town Annual Report, the pedestrian bridge crossing over the brook on the blue trail at the park was recently rebuilt as an Eagle Scout Project.

Located at 1201 Mammoth Road is the Elmer G. Raymond Athletic Fields which is approximately 11 acres in size in addition to the Raymond Memorial Park. The facilities offered here are two full size soccer/lacrosse fields, and hiking trails. This hiking trail network connects all the fields to Raymond Memorial Park and extends beyond into the woods. The Raymond Park and Raymond Park Athletic Fields are connected by parcels the town has obtained ownership of since 2002 to expand the recreation facilities offered in Pelham.

Golden Brook Park / Newcomb Field

This facility is located at 321 Newcomb Field Way next to the Pelham Transfer Station. The site provides a lighted softball/baseball field and is approximately 26.5 acres in size. Since 2002 the only changes to this facility include the updating of LED lights and field improvements over time. This field is utilized for adult and youth softball.

Please note that additional information on recreation facilities and programs in Pelham can be found in Recreation Profile in the Existing Conditions Report.

Future Needs/Projects/Staffing Needs

The 2022-2028 CIP report identified that the Parks and Recreation Department intends to renovate Muldoon Park. The park renovation is ranked as necessary and is scheduled for 2022. The renovation would include new swings and swing bays, the addition of 2 tandem swings and mommy and me tandem swings in the tot section. The renovation also will include a new net climbing structure and a shade structure with picnic tables, benches, and a new slide. The Muldoon Park was first constructed in 1997 and has endured significant vandalism and aging. In addition to updating the park facilities, the Parks and Recreation Department also plans to replace the weathered Muldoon Park sign to complete the new-and-improved Muldoon Park renovation.

This project is being completed in phases rather than all at once. According to the Parks and Recreation Director, the project will commence with a funding request for adding a shade structure and to update the swing set.

For anticipated staffing needs, the Parks and Recreation Department sees the need for the part-time Recreation Assistant to become full-time. There is also an anticipated need to increase the seasonal maintenance staff (which is currently at 40 hours a week x 30 weeks per year), though the Parks and

Recreation Department does not anticipate the need for the seasonal positions to become full-time, there is an anticipated need to increase the adding hours per week as the parks grow the Department takes on more responsibility. (Possibly 60 hours per week x 30 weeks).

SENIOR SERVICES:

Hobbs Community Center

Located at 8 Nashua Road, the Pelham Senior Programs at Hobbs Community Center provides a variety of social events, activities, health and wellness, educational, and artistic programs as well as minor transportation services for the Senior Citizens of Pelham. The facility is a partial two-story structure with a screened porch. There are two function rooms, the larger of the two was an addition constructed in 2011 and provides direct access to the main entrance as well as to the back pavilion. The second smaller function room can accommodate up to approximately 40 people and is utilized for programs such as meals, crafts, cards and cribbage. There are restrooms, a kitchen, and a partial second floor that is utilized for storage purposes. Additionally, there are three office spaces: a 6' x 4' room shared between the travel assistant/facilities assistant and an 8' x 10' room with a wall divider shared for the Director and Office Assistant. Attached to the community center is the Pelham Thrift Store which can be accessed from within the community center as well as by a separate entrance.



Staffing

The Senior Center staff consists of a full-time Director, a full-time Administrative Assistant, a part-time travel assistant, and a full-time bus driver/facilities assistant. The Administrative Assistant's position was recently increased to a full-time position in 2021 in response to the high demand of senior services in town due to the increasing number of aging Pelham residents.

Programs and Non-Profit Organizations

The Hobbs Community Center provides a variety of programs for older adults that are categorized by their social, educational, and physical focus. A description of some of the types of programs offered for older adults at the Hobbs Community Center can be seen in Table 9.

Table 9: Hobbs Community Center Programs	
Social	to connect people out of their homes and offer a way to make network social connections: music, parties, dining, movies, games
Educational	classes/programs: best life, spirituality, care givers
Physical	goal to improve physical fitness: weight training classes, fitness classes, tai chi, walking group, snow shoeing

The Hobbs Community Center receives support from non-profit organizations such as the Pelham Good Neighbor Fund, (provide usually 1-time financial assistance needs to residents), Pelham Food Pantry (participate in food drives), Hillsborough County Meals on Wheels, Pelham Public Library tech outreach program, Community Caregivers of Greater Salem (provide medical transportation support to residents with medical appointments both inside and outside of Pelham including Massachusetts).

The Hobbs Community Center provides lunch by Meals on Wheels of Hillsborough County with delivery to homes, in-person congregate full meals, and grab n' stay options. The center also offers three social groups for older adults that participate in outing events. Aside from the social groups for outing events, the Hobbs Community Center also organizes day trips or even multi-day trips that vary in location each year. The community center also provides volunteer opportunities for older adults such as kitchen volunteers for meals on wheels, volunteering at the Pelham Community Thrift Store, managing a program, or as an event helper.

The Hobbs Community Center also has a shuttle bus for Pelham's older adults that provide to and from pick-up from senior's homes for errands such as going to the community center, hair appointments, grocery shopping, pharmacy, and lab tests. The Hobbs shuttle bus does not provide medical transit services to senior residents for doctors' appointments., and only runs errands in Pelham except once a week when the shuttle bus will travel to larger grocery stores in Salem. Additionally, the Caregivers of Greater Salem offers its service to assist residents to transport them to their medical appointments. Finally, the Hobbs Community Center offers assistance, support, and resources for aging adults and their families dealing with financial, medical, or emotional issues.

Pelham, NH Council on Aging

The Pelham Senior Council on Aging (PCOA) is a non-profit 501(3)(c) private organization that was incorporated as a non-profit agency in 2012. Prior to 2012, the POCA was a town managed entity. The PCOA's goal is to advocate to eliminate ageism in our community by calling attention to ageist language and stereotypes (changing the word senior to older adult); to promote age equity in all aspects of life; and to build an age-friendly community by advocating for services and supports for older adults and ensuring that no older adult is left isolated or lonely. The PCOA raises funds and solicits and, trains volunteers, who provide 6,500+ hours of volunteer service. The PCOA assists the Hobbs Community Center through collaborative efforts of fund raising for the betterment of older adults in Pelham as well as helping members to offset costs. The Pelham Senior Council on Aging also runs the Pelham Community Thrift Store where all profits go back into senior programing. The store is open to the public and has an inventory of new and gently used items such as housewares, knickknacks, clothes, and jewelry. The staffing of the Community Thrift Store consists of Pelham NH Council on Aging members and volunteers. Members of the Pelham Senior Council on Aging consists of not only Pelham residents, but residents of surrounding communities in the southern area as well. Total membership is approximately 600 members.

Age-Restrictive Housing

Beaver Brook Commons located at 21 Beaver Brook Way and Pelham Terrace located at 25 Windham Road are subsidized senior residences in town. The ownership of these senior residences is not owned by the town, but by independent housing companies. However, these federally subsidized, 202 senior housing residences are in high demand with a long waitlist. Although it is an affordable housing structure and not federally subsidized, Kirlin Place provides housing for older adults ages 55 plus. The existing senior housing in Pelham does not meet the needs of the community's aging residents. More about senior housing can be found under the Housing and Population section of the Existing Conditions analysis.

Additional Services

The Pelham Police Department provides an Elderly Check-in Program where older adults can sign up for this service, voluntarily, to be added to a check-in list. The program entails that the participant calls the Communications Center at the Police Department between 7am and 11am everyday to confirm safety and wellness. If the number is not called between those times, the Police Department will first call to check-in and if no response, a Police Officer will be sent to the home to perform a wellness check.

Communications

To inform Pelham older adults of events, programs, and local news, the Hobbs Community Center maintains the bi-monthly Hobbs Newsletter that gets sent to members of the Pelham Council on Aging (PCOA). Additionally, the Hobbs Community center posts upcoming programs on Pelham TV and maintains active social media sites including Facebook, Instagram, and a YouTube Channel. Links to these social media profiles are also accessed on the Town of Pelham's website. The Hobbs Community Center also sends out emails to notify older adults of upcoming events or programs; information on upcoming events is sent to the Pelham Evergreen Newsletter.

Recent Projects

In June 2022, a 35' x 40' shade pavilion was constructed at the Hobbs Community Center to host programs and activities such as Corn Hole games, Beanbag baseball, live music, lunches, Tai Chi, and other exercise programs.

In order to expand senior services provided throughout Pelham, the Hobbs Community Center, Forestry Committee and the Conservation Commission are working to modify some trail networks on town parks/land to be more age accommodating. This includes adding railings in steep areas, benches, widening paths, removing stumps and stones obscuring pathways, and improving egress on and off bridges.

Future Needs/Projects/Staffing Needs

As identified in the 2021 Town Annual Report, the Hobbs Community Center is a part of the Covid-19 Remediation project slated for 2022. The project entails installing Covid-19 remediation technology to the community center.

With the assistance and funding from the Pelham Council on Aging, the Hobbs Community Center started construction, in early 2022, of 4 pickle ball courts to be added directly behind the new shade pavilion area.

In addition to the outdoor renovations, the Hobbs Community Center has identified a need for a designated receptionist area to be created. The existing large function room is connected to the main entrance where the check-in desk is currently. When other programs are occurring in the large function room, this can be very disruptive to older adults checking-in and to older adults participating in the programs as well.

With the increasing number of aging residents in Pelham, the Hobbs Community Center lacks the staffing in order to accommodate the demands of the Senior Services in town. Specifically, with mental health a big concern, a designated social worker to assist adults and older adults in Pelham was identified as a need for the facility services. The Hobbs Community Center lacks the staff and funding to provide social services and outreach to senior residents who need these services due to isolation, dementia, caregiving, etc.

The Hobbs Community identified an anticipated staffing need for the year 2040 to include an additional part-time Driver, one full-time Social Worker/Outreach Worker, one part-time (thirty hours a week) Activity/Travel staff (this position is currently at fifteen hours a week).

COMMUNICATIONS:

The Town of Pelham has a franchise agreement with Comcast Communications to provide cable TV and Xfinity internet services throughout the community. The contract franchise agreement between Pelham and Comcast Communications provides funding through franchise fees. Also, as part of the franchise agreement Town departments receive basic cable television services for free; however, internet service for town departments requires payment. The Town of Pelham receives franchising fees from Comcast for Television services only and not Internet services. Approximately 40% of the revenues the town receives are returned to the General fund to offset taxes. Internet

Services in Pelham are also supplemented by the Consolidated /Fidium the local Telephone company.

Cable Department - Pelham TV

Pelham has its own Cable Department that is located within the Town Hall at 6 Village Green. The Department was established in Pelham in 1984 and the original studio was located in the High School until 1986 when the studio/department was relocated in the basement of the town hall annex to be more readily available to users. The Cable Department resided at the old town annex until 2017 when an office was created at the municipal complex including broadcasting equipment in Sherburne Hall.

Since the Cable Department has moved into the Municipal Complex located across the hall from the Planning Department, the office consists of workspace for the Cable Coordinator/Manager and the Production Assistant as well as storage space for equipment. The Department no longer has a designated studio area however, the Sherburne Hall in the Town Hall acts as the department's broadcasting facility where the department conducts its live broadcastings. The department also utilizes the conference room as well as going out in the field.

Pelham TV (PTV) is run by the Cable Department but is overseen by the Board of Selectman who is the Franchising Authority of Pelham. PTV provides public, educational, and governmental broadcasts via community television. The department provides coverage of/for the following meetings/events in town:

- Board of Selectmen Meetings
- School Board Meetings
- Budget Committee Meetings
- Planning Board Meetings
- Zoning Board of Adjustment Meetings
- Conservation Commission Meetings
- School and Town Deliberative Sessions
- School Graduation/Promotions
- PHS Academic Awards
- School Holiday and Spring Concerts
- Old Home Day
- Southern NH Festival of Trees
- Yule Tide Celebration
- Horrible's Parades
- Sherburne Hall Production Support
- Miscellaneous Town and School funtions

The PTV broadcasting channels are Comcast channel 22 for public, Comcast channel 20 for educational, and Comcast channel 21 for governmental board broadcastings. In addition to the town broadcasting services the department provides, PTV also provides an opportunity for Pelham

residents to broadcast programs. All of the PTV channels have a Bulletin Board System where Pelham residents can tune in and stay informed on town events and announcements.

Staffing

The Pelham Cable Department staff consists of a full-time Cable Coordinator/Manager, a part-time Production Assistant, and 5 part-time technicians that aid in broadcasting government and school district meetings and other related events.

Anticipated Staffing Needs for Pelham Cable Department:

Internet

As previously mentioned, although Comcast/Xfinity is the major provider for internet services in Pelham, they are also supplemented by Consolidated/Fidium. Broadband speeds have been obtainable from Comcast for about 12 years, and Consolidated/Fidium has offered its DSL service for many years and recently upgraded their system with fiber throughout the town. Due to this upgrade, Consolidated/Fidium has become a major internet service competitor to Comcast in Pelham. However, Consolidated/Fidium is only offering internet and no television other than recommendation of a streaming provider.

The Nashua Regional Planning Commission is a part of the New Hampshire Broadband Mapping Program. This Program analyzes existing conditions of the broadband services in the region or internet speed access, how these services can be more widely available moving forward, and goals and initiatives to help communities implement increased communication connectivity throughout their town and regional coverage. In the 2014 Broadband Plan for the Nashua Region document, it was identified that Pelham is highly sufficient in broadband availability/accessibility. Comcast Communications offers well over a Gigabit of download speeds and even faster for their business products. Consolidated also offers very fast speeds. According to the data and discussion with the Cable Department Director, there is 100% coverage in Pelham except for usual incidents when the driveway is over 150 feet.

Phone

Pelham has 10 communication towers in town; their locations are shown in the table to the right. There are several phone service providers in Pelham that are accommodated on this communication tower infrastructure. These include: AT&T, T-Mobile, US Cellular, American Towers, Consolidated Communications, and Verizon.

According to US Cellular's coverage map, Pelham gets 4G LTE data, 3G

Location	Owner
53 Gibson Road	American Towers Corporation
20 Ledge Road	Bedard, Monica
50 Bush Hill Road	Raytheon Company
18 Atwood Road	Diaz, Jill
68 Blueberry Circle	Kleczkowski Charles M Jr.
60 A & B Pulpit Road	60 Pulpit Rock LLC
9 Rocky Hill Road	Detellis, Geoffrey & Nora
955 Bridge Street	AT&T Mobility LLC
34 Tower Hill Road #Cell	ATC Iris I, LLC
12 Kirlin Place PVT Driveway #Cell	Crown Castle International Group

data, 1X data coverage, 5G roaming data and 4G LTE roaming data.

As seen in other communities across the country in modern times, since the last Master Plan in 2002, the town of Pelham has seen an increase in use of cell phones and a reduction in land lines in homes. Due to this, more cell phone tower infrastructure is needed in town. There are areas in town where service connections has been reported to be lacking. These areas include a stretch on NH38 from Old Gage Hill Store to Salem town line, an area on Mammoth Road (NH128), as well as minimal service in the Keyes Hill Road area.

UTILITIES:

Water

Pelham's Public Water supply is exclusively owned by Pennichuck Water Works and only provides services to specific neighborhoods in town. There are 5 Pennichuck Water Works (PWW) districts in Pelham that supply Skyview Estates, Williamsburg, Whispering Winds, and the Gage Hill neighborhoods from two pump houses and one pump station. This includes the Williamsburg Pump House, the Gage Hill Pump House and the Meadowview Pump Station. The Williamsburg PWW water district is divided into 2 locations, Williamsburg and Williamsburg Low. The table above, lists the name of the PWW water district, the roads that waterlines are approximately located along, and the number of hydrants. There are fifty-two PWW hydrants in Pelham and four private hydrants. The Whispering Winds water district is located in Pelham's industrial zone in the northwest corner of town. This water district receives a water supply source from the abutting town of Hudson. As of 2022, there are approximately 395 residential, 32 commercial, and 9 municipal users who are tied into the Pennichuck Water Works System.

Table 11: PWW Systems in Pelham		
PWW Water District Name	Approx. Roadways	# Of Hydrants
Whispering Winds	Dick Tracy Drive, Industrial Park Drive,	2 PPW and 2 Private
Williamsburg Low	Mount Vernon Drive, Lane Drive, Monticello Drive, Andrea Lane, Katie Lane	4 PWW
Williamsburg	Holstein Drive, Hancock Lane, Nashua Road, Mossey Lane, Woodbury Ave, Village Green, Saw Mill Road, Timber Lane, Pinewood Drive	31 PWW and 2 Private
Meadowview Booster	Gala Court, Jonathan Road, Collins Way, Meadowview Drive, Monument Hill Road, Longview Circle	10 PWW
Skyview Estates	Majestic Ave, Aspen Drive, Powderhorn	5 PWW
Gage Hill	Wellesley Drive, Vassar Drive, Radcliffe Drive	No Hydrants



Although Pennichuck Water Works is the only public water source in Pelham, as previously mentioned, it only serves select neighborhoods. Therefore, about only 9% of Pelham's population is on public drinking water whereas 91% of the population in Pelham is on private well water. There are approximately 4,809 properties in town that utilize private wells as its water source. The reliance on wells and septic creates challenges in parts of town, for topography reasons, such as well capacity, steep, ledge and terrain, and the bedrock aquifers the wells are sourced from.

Water Infrastructure Future Needs

Due to lack of water supply quantity on Sherburne Road, this location can be described as a “water starved” area of the community, and impacts land use as this area of town is a popular area for development. Route 38 also lacks water infrastructure, and if such infrastructure was developed this area would have greater economic development potential.

One possibility for addressing some of the existing water supply issues in Pelham are the Town wells off of Mammoth Road near Veteran's Park. These wells are currently not in service.

Pelham's aquifers also have 2 major blooms of Arsenic and Uranium contamination as well as PFA's like many other communities in the state. Due to this, new developments are required to do arsenic testing in these areas.

In order to address the water issues in Pelham, the town has formed a Water Commission responsible for analyzing future water infrastructure needs for the community. More information on water related issues and topics in Pelham can be found in the Natural Resources Existing Conditions section.

Sewer

The town of Pelham does not have a public sewer system therefore properties require an individual on-site wastewater treatment systems. Most properties in town have these individual septic/leach fields.

Gas

The Town of Pelham is serviced by Liberty Utilities. The entire pipeline (the Tennessee Gas Pipeline) traverses the eastern United States from the south to northeast and is approximately 11,760 miles long. This pipeline supplies natural gas to the northeast region and a compression station is located on Tennessee Drive.

Kinder Morgan Gas was once the gas provider in Pelham until in 2017 the NH Public Utilities Commission granted Liberty Utilities with the franchise authority to provide natural gas (and electric) services in Pelham. This transition project allowed Liberty Utilities to extend its distribution system 5 miles throughout the town center, down Bridge Street, and heading towards the Dracut town line. This was phase one of the project that provides most of the town buildings, schools and commercial/industrial businesses along Route 38 with natural gas services. The second phase of the project involved the distribution system to be extended out even further, to the adjacent neighborhoods to provide Pelham residents with a cheaper alternative to propane.

Electric

As noted above, Liberty Utilities has franchising rights for both gas and electric services in Pelham. Liberty Utilities has an electric substation located at 196 Main Street, and a second electric substation located at 27 Old Lawrence Road.

Renewable Energy in Pelham

As part of a renewable energy initiative, Pelham residents have been investing in installing solar panels on their homes. The table below depicts the number of solar panel building permits granted by the Pelham Planning Department. In recent years of 2019 to 2022, it appears that the number of solar panel permits granted has steadily increased despite the year 2020. Additionally, the town is investing in the installation of solar panels on all three schools roofs as mentioned in the Schools section earlier in this Community Facilities and Services Profile.

Table 12: Solar Panel Permits								
Year	2015	2016	2017	2018	2019	2020	2021	2022
# of Permits Granted	10	0	2	3	11	8	10	15

Stormwater

Pelham's Planning Department and Highway Department collaborate to comply with the requirements of the Municipal Storm Sewer System (MS4) permit that was issued on July 1, 2018 by the US Environmental Protection Agency (EPA). The MS4 includes stormwater collection, deterrence, and outfall infrastructure within a city or town. These types of infrastructure include culverts, catch basins, swales, drain manholes and other stormwater remediation structures. In New Hampshire there are approximately 60 other communities that have MS4 permits. The MS4 is regulated under the EPA Clean Water Act (CWA) and requires a permit for discharges into waterways. According to the Town's 2018 Stormwater mapping project, the town of Pelham has 1,763 catch basins and 418 outfalls.

The MS4 Permit is a 5-year permit that requires standards to be met in order to ensure compliance. One of the requirements is for the municipality to create a Stormwater Management Program (SWMP) in order to describe the details of the actions and measures that will be implemented to ensure the town will maintain in compliance with the MS4 permit. The SWMP should be frequently updated during the permit term as projects and task are completed and new ones arise. The main elements of the SWMP are:

1. A public education program to affect public behavior regarding potential causes of stormwater pollution
2. An opportunity for the public to participate and provide comments on the stormwater program
3. A program to effectively locate and eliminate illicit discharges within the Town's MS4 regulated area
4. A program to effectively control construction site stormwater discharges to Town MS4s

5. A program to ensure that stormwater from development projects entering MS4s is adequately controlled by the construction of stormwater controls
6. A good housekeeping program to ensure that stormwater pollution sources on municipal properties and from municipal operations are minimized

In order to ensure compliance with Pelham's MS4 permit, in 2020 the Pelham Planning Department created a position for and hired an Environmental Regulations Compliance Specialist to manage the entire project for outreach, investigation, and compliance to the MS4 Permit. The position also works with a separately hired environmental consultant to ensure the MS4 permit and related documentation is properly filled out and filed correctly.

More information on Pelham's Stormwater Management can be found in the Water Resources profile in the Existing Conditions Report.

Pelham, New Hampshire

Transportation Profile

KEY FINDINGS:

- More than half of Pelham's roads are local roads that have low traffic volumes and low posted speed limits. These roads contribute to the small-town character of the community. Pelham also has three important state routes that carry higher volumes of traffic: NH38 (Bridge Street), NH111A (Windham Road), and NH128 (Mammoth Road).
- There are opportunities for enhanced connectivity /walkability from residential and commercial developments to the Town Center.
- No complete streets policy as described later in this profile has been adopted in Pelham.
- Due to its location and proximity to Massachusetts, many residents commute to Massachusetts for work and other services.
- Two of Pelham's bridges were identified as structurally deficient and have been scheduled for replacement: Sergeant Daniel R. Gionet Memorial Bridge located on Main Street over Beaver Brook and its corresponding culvert pipe.
- There are opportunities to focus future open space planning efforts while expanding pedestrian and bicycle infrastructure and connectivity.
- Pelham's residents do not currently have access to public transit or ride share services.
- Pelham has seen rapid housing development with isolated neighborhoods that contribute to a more automobile dominated transportation system.
- According to the 2019 American Community Survey, only about 15% of residents work in town. The other ~85% of residents commute out of town to other New Hampshire communities, or out of state.

DATA SOURCES:

- NH Department of Transportation (NHDOT) Data
- NHDOT Ten Year Transportation Improvement Plan 2021-2030
- Nashua Region MPO Project Viewer
- Nashua Region Metropolitan Transportation Plan
- Nashua Regional Planning Commission (NRPC) Regional Plan
- 2018-2021 Vehicle Accident Data – Pelham Police Department
- 2018-2021 Accidents at intersections and by road – Pelham Police Department
- 2008-2021 NRPC Traffic Counts
- 2021 NRPC Bike and Pedestrian Plan
- 2015 VHB Beaver Brook Study

INTRODUCTION:

An analysis of Pelham's existing transportation infrastructure is critical to identifying current issues, potential future needs of the transportation system, and to better understand what has changed since the 2002 Master Plan. This system both endures and creates impacts related to land use decisions in the community. Through this planning process there is an opportunity to enhance the connectivity between the town center and existing residential and commercial areas. This may require expanding and improving the transportation network to include pedestrian, bicycle, and vehicular infrastructure.

EXISTING TRANSPORTATION INFRASTRUCTURE:

Roadways

Pelham's transportation network consists of roadways, culverts, bridges, sidewalks, and trails. According to data available on the state of New Hampshire's Geographic Information Systems (GIS) GRANIT database, there are approximately 147 miles of town and state roads in Pelham. There are 5 state roads in Pelham maintained by NHDOT; these include:

- Sherburne Road
- NH 38 (Bridge Street)
- NH 111A (Windham Road)
- NH 128 (Mammoth Road)
- Old Gage Hill Road
- Main Street (from Windham Road to Route 38)
- Keyes Hill Road

Table 1: Miles of all Roadways			
Road Class	Maintenance	Miles	Percent
0	Private	22.9	16%
II	State	19.4	13%
IV	State	4.2	3%
V	Local	94.7	64%
VI	None	5.8	4%
	Total	147	100%

Table 2: Road Surface		
Type	Miles	Percent
Paved	127.2	87%
Unpaved	19.8	13%
Total	147	100%

The rest of the roadways are municipally owned and maintained by the Pelham Highway Department.

The New Hampshire Department of Transportation (NHDOT) designates roadways by class ranging from I-IV. Pelham's roadway classification by miles can be seen in Table 2 and shows that more than half of the roads in Pelham are local roads. Class 0 roadways are private, Class I and II are state maintained, Class IV and V are municipally maintained, and Class VI are unmaintained roadways. According to NHDOT in 2021, the state road segments in Pelham have mostly good quality pavement conditions except for NH 111A (Marsh Road) south of the Village Green. Its pavement condition was classified as fair. There are also 4 partial segments of town-owned roads with a pavement condition rating of poor including sections of Nashua Road, Atwood Road, Main Street, and Old Gage Hill Road. As shown in Table 2 above, 87% of Pelham's roadways are paved. In discussion with Pelham's Highway Department Road Agent Director, it appears that Pelham has approximately 110 miles of paved, municipal roads and less than 1 mile of unpaved municipal roads. In June 2022, the Highway Department repaved the following roads: half of Dutton Road,

Newcomb Field Parkway, Spaulding Hill Road, Island Pond Road, Spruce Road, Pond Rosa Road, and half of Tenney Road.

Due to the number of roads added to Pelham since 2002, there is a higher demand for the Highway Department to conduct road maintenance. In order to regulate the construction of these new roads added to Pelham, the town has road development regulations identified in their land use regulations such as roadway construction and driveway design standards in subdivisions. More about roadway design standards can be found in the Town of Pelham's Land Use Regulations.

As identified in the 2002 Master Plan, NHDOT also classifies roadways by their purpose and functionality. The Pelham roadways and their roadway functional classification is identified in the Table 3.

Table 3: Identified roadway functional classification in Pelham	
Functional Classification	Roadways
Urban Other Principal Arterial	NH 38 from MA state line to Main Street
Urban Minor Arterial	NH 111A from NH128 to Main Street; NH128 from MA state line to NH111A
Urban Major Collector	Main Street
Rural Minor Arterial	NH38 from Main Street to Salem town line
Rural Major Collector Road	NH128 from NH111A to Windham town line
Rural Minor Collector Road	NH111A from Main Street north to Windham town line Keyes Hill Road; Gage Hill Road north from NH38 to Methuen town line Currier Road; Jericho Road from Currier Road to Dracut town line
Local	All other roads

Bridges and Culverts

There are a total of 8 Bridges in Pelham, both state and locally owned, located along and off of NH 128, NH 38, NH111A, Willow Street, Old Bridge Street, and Main Street. The Masonry Arch bridge and metal pipe bridge (culvert) located on Main Street over Beaver Brook in the center of town, were identified on the NHDOT 2021 Red List. There were no municipally owned bridges in Pelham that were identified on the NHDOT municipally owned Red List. However, the Abbott Bridge condition was rated as fair. According to the 2021-2024 Nashua

Metropolitan Planning Organization Transportation Improvement Plan, the Main Street Bridge over Beaver Brook (NHDOT project classification number: 111/090) was scheduled to be replaced in 2023 (Project #16145), but at the time of this publication, has been delayed as well as a culvert replacement (111/090). In the addition to the replacement of this bridge, NHDOT and the Town of Pelham plans to extend sidewalks.

Table 4: Bridges in Pelham		
Location	Status	Deficiency
Main Street over Beaver Brook (110/090)	State Red List	Structurally deficient
Main Street over Beaver Brook (111/090) pipe culvert	State Red List	Structurally deficient

Routine maintenance and replacement of culverts is necessary for a town to conduct in order to mitigate flooding by ensuring the culvert size is large enough to allow for a surge of water to flow through/beneath. Culverts also act as critical stream crossings for wildlife habitat by providing adequate connectivity. The Highway Department works with the Town's Environmental Compliance Specialist to inspect the culverts and catch basins and maintain, repair, and replace as needed. It is then determined if the existing culvert size is able to accommodate stream passage, or if a larger sized culvert replacement is needed. With an increase in flooding due to climate change, this will continue to be a bigger issue where replacement will be more frequent. In 2021, 1,617 catch basins were inspected and 220 tons of materials were removed from these catch basins.

SIDEWALKS AND TRAILS:

Pelham has limited sidewalks and crosswalks in town with few connections. The few existing sidewalks are located mainly in the center of town along Marsh Road (NH111A) and Main Street. There is a section of sidewalk on the east side of Marsh Road starting at the Village Green extending towards Willow Street providing pedestrian access to all three of Pelham's schools. The sidewalks also run along both sides of Marsh Road and connects to the east side of Nashua Road. There is a section of sidewalks on both sides of Main Street from the roundabout to the Pelham Veterans of Foreign Wars (VFW) Hall. There is a planned sidewalk extension along Main Street from the VFW to the proposed new Main Street bridge being planned by the NHDOT Bridge Bureau as mentioned above. Though this is an improvement for the connectivity of the town center area, the lack of pedestrian and bicycle connectivity in Pelham still creates isolated pockets of development for Pelham residents. New Hampshire Department of Transportation identified some potential bicycle routes in Pelham which can be found in the Recreation Profile of the Existing Conditions Report. Though Mammoth Road has some wide shoulders that can be utilized for bicyclists, the shoulder widths vary throughout the road, therefore bike accommodations are considered poor, especially due to high traffic volumes and moderately high speeds on this road. Pelham lacks safe pedestrian and cyclist infrastructure along busy roads, connectivity from residential units to the town center, and to recreation facilities and other rural trails.

The existing known network of trails in Pelham is approximately 29 miles, and they are maintained by the Forestry Committee and citizen volunteers as well as the Boy Scouts. More information on Pelham's trail network can be found in the Recreation section of the Existing Conditions Analysis. The Forestry Committee has worked to extend the Gumpas Pond Conservation Area trail network to connect to Husdon's trail system by connecting to Gumpas Red Trail. The Gumpas Pond Conservation Area, Bennie Eaton Hill Family Memorial Forest, Cutler Spaulding Town Forest, Skyview Estates Open Space, Merriam Conservation Area, and the Cutter Woods Conservation Area properties provide the potential to be utilized as a transportation corridor from the Town of Hudson to the Town of Pelham's NH128.

To address the town's need and desire to increase connectivity between the town center and recreation facilities, the Conservation Commission is working with the schools and the town to construct a pedestrian bridge over Beaver Brook and to create walkways and trails around Marsh Road, into the town center, and along NH 38.

TRANSIT AND REGIONAL ISSUES:

The Town of Pelham does not have a transit system in place. The Nashua Regional Planning Commission's Regional Plan, identified that residents from the greater Nashua Region are dependent on personal automobiles due to the lack of transit infrastructure offered. The region also lacks east-west travel routes. The two north-south routes in Pelham are NH 38 which runs through Pelham north-east between the Massachusetts state line and the Salem town line; and NH 128 which runs north-south through Pelham and provides access to Lowell, Massachusetts, acting as an alternative route to Manchester, New Hampshire. Due to the Town of Pelham's location and the access to routes, Pelham was identified in the 2002 Master Plan as a through town.

With a high volume of through traffic in a community such as Pelham, public transit infrastructure would benefit the town by providing less passer-through traffic in town. Public transit would also benefit the senior population in town by giving them more access to transportation. As addressed in the Nashua Regional Planning Commission's Regional Plan, Nashua Region residents identified the need for passenger rail and freight rail transit options and believed that a passenger rail connection to Boston would benefit the Nashua region's economy as a whole by providing greater access to the Nashua Region. The NRPC's Regional Plan also identified other regional transportation needs including a sustainable transportation funding source, investments in alternative travel modes, more flexible land use, and better coordination between transportation and utility providers. Overall, Nashua Region residents said connectivity in the region is good and they can run errands in relatively short trips, but there is a need for more mixed-use development and an improved bicycle and pedestrian infrastructure.

The Hobbs Community Center has an ADA accessible shuttle bus that is free for Pelham residents 50 years of age or older. The shuttle bus is utilized for errands such as the grocery store, pharmacy, bank, Hobbs Community Center, hair appointments, lab tests, and convenience stores. The only time the shuttle bus travels outside of Pelham is for weekly grocery trips to Salem for Market Basket and Walmart. All other trips are within Pelham. The Hobbs Community Center shuttle bus also offers day trips and multi-day trips as part of the Pelham older adults' program. The Hobbs shuttle bus does not provide services for medical transport. The Caregivers of Greater Salem provides medical transportation support to residents with medical appointments both inside and outside of Pelham including in Massachusetts.

Currently, Pelham does not have a Complete Streets policy in place to guide the creation of a multi-modal transportation network. To address transit needs and connectivity through trails and sidewalks in town, Pelham could consider adopting a complete streets policy. This concept will be later discussed in the Master Plan. NHDOT also identifies recommended bike routes throughout town to better connect the region. More detail on this can be found in the Open Space and Recreation section.

CIRCULATION AND DESIGN:

Pelham's transportation system requires long-term planning and good design objectives which may be informed by analysis of vehicle trips and commuting patterns, traffic counts, accidents, traffic calming and access management needs, and identified bicycle and pedestrian infrastructure needs. In 2021 a Congestion Mitigation and Air Quality study was conducted analyzing the Mammoth Road and Sherburne Road intersections. This study was a follow up of 2011 and 2017 studies of this project area. The study recommended that a single lane roundabout be constructed as it is the most suitable alternative to satisfy the purpose and need of improving operations and reducing congestion

and will in turn improve air quality. Since both roads are state owned, this project is identified in the NHDOT 2021-2020 Ten Year Transportation Plan with originally expected to begin construction in 2023, but has been delayed. It should be noted that Pelham's existing streetways are not very age friendly, there are limited fog lights and sidewalk connectivity.

Commuting Data

As identified in the Population and Housing section, the commuting patterns of Pelham residents over the age of 16 are related to their place of employment and their need for housing. According to the 2019 American Community Survey, only about 15% of residents work in town. The other ~85% of residents commute out of town to other New Hampshire communities, or out of state. The average commute time for Pelham workers is about 34 minutes. Additional commuting data from the American Community Survey is available in the Population and Housing Profile.

Traffic Counts

The top five busiest roads in Pelham with traffic count data are shown in the table below. This table depicts the most recent traffic data for these roadways (year 2020-2021) in comparison to the traffic count data from previous years. Traffic count data for Pelham's busiest roadways shows little change in volume over the past decade, but it does indicate that there is a slight increase in vehicle at each traffic count location from 2014/2015 to 2020/2021.

Vehicle Trips and Traffic Count Data				
Location	Total Weekday Vehicles (year)	Total Weekday Vehicles (year)	Total Weekday Vehicles (year)	Total Weekday Vehicles (year)
Gage Hill Rd over Island Brook Pond	11,000 (2008)	10,000 (2011)	11,000 (2014)	12,007 (2020)
Gage Hill Rd @ Salem town line	11,000 (2008)	10,000 (2011)	11,000 (2014)	11,708 (2020)
Bridge St (NH38) @ MA state line	12,000 (2009)	10,000 (2012)	12,000 (2015)	13,600 (2021)
Mammoth Rd (NH128) N. of Sherburne Rd	12,000 (2009)	12,000 (2012)	12,000 (2015)	12,745 (2021)
Mammoth Rd (NH128) @ NH MA state line	8,900 (2009)	9,000 (2012)	8,900 (2015)	9,895 (2021)

Accident Data

From 2018 to 2021, there were a total of 918 recorded accidents on Pelham roadways. Of those 918 accidents, 4 resulted in fatalities. In these 4 years, 265 of these accidents resulted in injuries, 6 of which involved pedestrians and 3 involving bicyclists. There are three roadways in Pelham that accounted for about 50% of all accidents:

- Bridge Street (NH 38) = 311 accidents (34%)

- Mammoth Road (NH 128) = 146 accidents (16%)
- Marsh Road (NH 111A) = 84 accidents (0.09%)

Approximately 35% of all accidents during this four-year period were reported at intersections. The roadways with the most intersection related accidents also included Bridge Street, Mammoth Road, and Marsh Road. It is not surprising that these three roads have the most accidents on them in Pelham because these roads connect Pelham to adjacent communities. All three roads are state owned and the town does not have jurisdiction over them. However, to help address these issues, in 2019 NHDOT added a traffic light on NH 38 with its intersection with Old Gage Hill Road.

TRANSPORTATION RESOURCES AND PENDING INFRASTRUCTURE PROJECTS:

The Pelham Highway Department, Board of Selectman, and the Planning Board are collectively responsible for overseeing the management of the town's transportation system, its maintenance, and future infrastructure investments.

A review of the New Hampshire Transportation Improvement Plan that was approved in May of 2022, identified the following pending project:

- Main Street Over Beaver Brook – Bridge (110/090) and Culvert (111/090) Replacement; Extension of Main Street sidewalks – scheduled for construction 2023
- Old Bridge Street over Beaver Brook – Abbott Bridge, Bridge Rehabilitation – 2022-2023

Longer term transportation projects that are not yet programmed in the state plan but have been identified as needs in the NRPC Regional Transportation Plan or by NHDOT include:

- NH128 and Sherburne Road – intersection improvements at the intersection of NH128 and Sherburne Road and Mammoth Road and NH111A (dual roundabouts)

Longer term town projects identified by the Planning Department include:

- Construction of a pedestrian bridge and extension of the sidewalk from the cemetery on Old Bridge Street to NH38. A plan was submitted to NRPC for the 10-year plan and a TAP grant was applied for, for this project.

Pelham, New Hampshire

Recreation Profile

KEY FINDINGS:

- Pelham's Parks & Recreation Department offers more than 40 programs for all ages at 6 different sites throughout town. These recreation sites are a combination of built structures, natural areas like the town beach, and designated open spaces such as athletic fields.
- Pelham offers a large number of outdoor public and private recreational areas such as the Pelham school fields, the Pine Valley Golf Course, Girls Scouts Camp, a shooting range, and more.
- There are approximately 30 miles of trails in Pelham offering a diversity of recreational opportunities that include but are not limited to walking, bicycling, cross-country skiing/snowshoeing, hunting, and snowmobiling on over ten unique trail systems.
- Data suggests high recreational usage on many of Pelham's roads and trails throughout the year including Mammoth Road, Marsh Road, and on the Pelham School grounds.
- NHDOT has identified about 25 miles of recommended paved bicycle routes in Pelham which include Mammoth Road, Sherburne Road, Gage Hill Road, and Nashua Road.
- Since 2002, Pelham has invested in its recreation facilities and programs to expand accessibility to these activities for residents. Examples of this investment include addition of public fields to Pelham Schools and updating the Fieldhouse at Raymond Park.
- There is a demand on the Parks and Recreation Department to provide more programming for older adults as well as accessibly recreation for this age demographic that will in turn serve families as well.
- The majority of Pelham's established trails are on conserved land owned by the town. In fact, there are very few official trails that are located on non-conserved lands

DATA SOURCES:

- Pelham Parks and Recreation Department
- Pelham Forestry Committee
- Pelham Conservation Commission
- Strava Global Heat Map
- 2021 NHDOT Bike Route Recommendations Map
- Nashua Regional Planning Commission
- NH GRANIT

INTRODUCTION:

In the previous Master Plan, Pelham identified the community's need and desire to have more open space lands to mitigate development, and to increase the amount of town offered recreation opportunities in the community. In the last 20 years, Pelham has significantly improved the recreation facilities and programs offered to Pelham residents. Today, recreation continues to be identified as a high priority for the community as both Pelham older adults and families tend to share interest in recreation infrastructure needs. However, it has been indicated that more ADA accessible recreational facilities, programs, and activities are needed in town due to the rise in the older adult population in Pelham that is also projected to increase in coming years. These improvements will also benefit other residents seeking access to recreation opportunities.

Recreational Facilities and Programs

The Town of Pelham has a Parks and Recreation Department that manages, maintains, and facilitates recreational improvements to the several town-owned parks. Since 2002, with the assistance of the Conservation Commission, the town has purchased parcels of land to expand the network of parks, have created more programs for residents of all ages, and have implemented new recreation infrastructure to expand recreation diversity in Pelham. The full list of sites and facilities offered in Pelham are shown in Table 1. The list of programs offered by the Parks and Recreation Department and other local organizations are shown in Table 2. Descriptions of the Parks and Recreation Department town facilities can be found in the Community Facilities and Services profile of this Existing Conditions Report.

Table 1: Recreation Locations in Pelham				
Site Name	Recreation facilities	Acreage	Location	Conservation Status
Privately-Owned:				
Pelham Fish & Game Club	Shooting Range	294.93	100 Simpson Mill Road	-
Girl Scout Camp	Campsites, ballfield, beach, trails	290	On Little Island Pond	-
Pine Valley Golf Links, Inc.	9-hole course	71	Adjacent to the girl scout camp	-
Pelham Schools:				
Pelham Elementary School	Multi-purpose ballfield, gymnasium, playground	50 total acres between the Elementary and Middle School	61 Marsh Road	Developed Public Land
Pelham Memorial School	Soccer field, Large open space field with trees, small practice field	See above	59 Marsh Road	Developed Public Land

Pelham High School	4 tennis courts, football field, softball field, outdoor running track, 2 multi-purpose fields, indoor basketball/gymnasium	79.4	85 Marsh Road	Developed Public Land
Pelham Parks & Recreation Department List of Facilities:				
Veterans Memorial Park	Town Beach on Long Pond, changing rooms, picnic area, basketball courts, 2 tennis courts, a camp lodge, trails, sand volleyball pit, low elements ropes course, storage building pump house, lifeguard/arts & crafts building, and multi-purpose ball field – summer camp programs	69	Off Mammoth Road (NH128) before the state line 109 Veterans Memorial Parkway	Developed Public Land
Lyon's Memorial Park (Pelham's Skate Park)	2 lighted outdoor basketball courts, a tot playground, a lighted softball field, and a lighted multipurpose field. a 6-foot full half pipe, an 8-foot ¼ pipe, and a 7-foot vertical wall.	4.5	Behind the municipal center – 6 Village Green	Developed Public Land
Muldoon Park	1 lighted little league field, a lighted babe ruth field, a softball field, a lighted soccer/lacrosse field, playground, disc golf course, walking path, a concession stand, storage shed, and indoor restrooms.	40	On Mammoth Road, just north of Nashua Road	Developed Public Land
Raymond Memorial Park	Multi-purpose field, a playground for kids up to age 5, a practice field, a scout lodge, and hiking trails	242.32	Keyes Hill Road/ NH 128	Admin or permanent legal protection
Raymond Park Addition –	2 full size soccer/lacrosse fields and hiking trails?	11	1201 Mammoth Road	Admin or permanent legal protection

Raymond Athletic Fields				
Golden Brook Park (Newcomb Fields)	Softball fields	26.5	Off Windham Road near the transfer station – 321 Newcomb Field Way	Developed Public Land

Table 2: List of Programs in Pelham	
Pelham Parks and Recreation Department List of Programs	
After School Ski Program	Swim Lessons
British Soccer	Teen Pickup Basketball
Extended Care at Summer Camp	Tennis (adult, teen, youth)
Fall Soccer/ Soccer Clinic	Tot Camp
Floor Hockey	Tot Soccer
Golf – Adult and Youth	Women’s Volleyball
Hershey Track	Youth Basketball
Indoor Soccer	Youth Soccer
Jr. Leader Program	Sports Camp
Men’s Pickup Basketball	Parent – Tot Playgroup
Summer Camp	Youth Art Classes
Babysitting Training Class	Basketball, Blacktop
Cardio – Tai Chi	Lil’ Dribblers Basketball
Coloring Contest	Disc Golf
Disc Golf (Youth, Adult)	Guitar Lessons
C-I-T Program	Karate, Introductory Lessons
Lacrosse, Outlaws and Lady Outlaws	Lacrosse, Clinic
Pottery, Intro for Kids / Adult Pottery Classes	Santa Letters
Indoor Soccer	Soccer, World Cup
Girls Softball	Men’s Softball
Coed Softball	Children’s Theatre / Teen Theatre / Adult
Total Body Strength and Sculpt Fitness Class	Track and Field
Youth Wrestling	Yoga (adult, youth) / Gentle Yoga
Programs Run by Local Organizations	
Pelham Little League	Razorbacks Youth Football / Cheerleading
Boy Scouts / Girl Scouts	Pelham Travel Soccer Club
Garden Club	Travel Basketball
Moms Club	Men’s Over 30 Soccer
Community Theatre	Men’s Over 30 Basketball
Pelham Baseball	NH Flag Football League

TRAIL NETWORK:

The Town of Pelham provides an extensive trail network throughout the community which provides a variety of recreation uses including hiking, biking, horseback riding, snowmobile trails, and cross-country skiing. Pelham's trail network includes a total of 29 miles of publicly accessible trails. These trail types are identified in Table 3 as well as the Open Space and Recreation Map at the end of this profile. Pelham's local trail network is broken into several distinct trail system designations, several of which correspond to the publicly accessible recreation facilities listed earlier in this section in Table 1. The list of trail systems and their mileage are shown in Table 4. Individual maps of different trail systems are found on the Pelham Forestry Committee website.

Table 3: Pelham Trail Types	
Trail Type	Miles
Permitted pedestrian trails	29.0
Permitted bicycle trails	23.3
Permitted horseback trails	22.0
Permitted snowmobile trails	19.7
Permitted XC ski trails	23.3
Permitted dog trails	23.3
Total trails	29.0

As shown in the Open Space and Recreation Map shown at the end of this profile, the majority of Pelham's established trails are on conserved land owned by the town. In fact, there are very few official trails that are located on non-conserved lands in general. In order to ensure that all established trails in Pelham will exist in the future, Pelham could consider identifying if the other non-town-owned conservation lands have formal and permanent conservation protection.

Pelham has dramatically expanded its trail network since 2002 acquiring abutting parcels and extending existing trails as well as creating new trails. In 2021, the Forestry Committee worked with its volunteers to extend the Gumpas Pond Conservation Area trail network to connect to Hudson's trail system by connecting to Gumpas Red Trail. Additionally, in order to spread awareness of the town's trail network, the Forestry Committee is involved in community outreach efforts by creating a trail challenge to increase trail usage.

Table 4: Recreational Trails in Pelham/Conservation Status				
Site Name	Total Trail Miles	Permitted Use of Trails	Location	Total Acreage
Costa Conservation Area	1.9 miles	Walking, Biking, XC Skiing/Snowshoeing, Pets, Hunting, Snowmobiling	Frontier Drive	Approx. 117
Cutler-Spalding Conservation Area	2.2 miles	Walking, Biking, XC Skiing/Snowshoeing, Pets, Hunting, Snowmobiling	Aspen Drive	Approx. 175
Cutter Merriam Conservation Area	2.45 miles	Walking, Biking, XC Skiing/Snowshoeing, Pets, Hunting, Snowmobiling	Sherburne Road	Approx. 184

Elmer G. Raymond Memorial Park and Athletic Fields	3.7 miles	Walking, Biking, XC Skiing/Snowshoeing, Pets, Snowmobiling	Keyes Hill Road	253.32
Gumpas Pond Conservation Area	3.3 miles	Walking, Biking, XC Skiing/Snowshoeing, Pets, Hunting, Snowmobiling	Hinds Lane	Approx. 153
Kirby-Ivers Town Forest	1.3 miles	Walking, Biking, XC Skiing/Snowshoeing, Pets, Hunting	NH111A	85.3
Little Island Pond Conservation Area	0.65 mile	Walking, Biking, XC Skiing/Snowshoeing, Pets, Hunting, Snowmobiling	Nature's Way	21.53
Peabody Town Forest	3.83 miles	Walking, Biking, XC Skiing/Snowshoeing, Pets, Hunting, Snowmobiling (<i>only on designated trails</i>)	Briarwood Road	155
Sprint St Town Forest / Moose Pond Conservation Area / Calitri Conservation Area	4.1 miles	Walking, Biking, XC Skiing/Snowshoeing, Pets, Hunting (<i>on Spring St Town Forest ONLY</i>), Snowmobiling (<i>only on designated trails</i>)	Spring Street/Lannan Drive/Drummer Road	80 acres / 50 acres / 50 acres
Wolven Park	0.8 mile	Walking, Biking, XC Skiing/Snowshoeing, Pets, Snowmobiling	Currier Road	Approx. 23
Merriam Farm	1.1 miles	Walking, Biking, XC Skiing/Snowshoeing, Pets	Mammoth Road	46.5 acres

Recent Recreation Projects

Merriam Farm Conservation Area/Town Forest was acquired by the Conservation Commission in 2017 and is maintained by the Forestry Committee. This land will soon be open for public use as a recent project of the Forestry Committees. Additionally, the Eagle scouts have been assisting on projects on trails, as well as many maintenance projects to improve the trails walkability.

Future Projects for Recreation

A Pending project related to trail recreation in Pelham

In 2021, the Planning Department applied for a TAP grant to construct a pedestrian bridge and extension of the sidewalk from the cemetery on Old Bridge Street to NH38. Plans were submitted to the Nashua Regional Planning Commission (NRPC) to be included in the ten-year plan.

The Pelham Council on Aging (PCOA) is currently fundraising for construction of pickleball courts behind the Hobbs Community Center. These pickleball courts will be open to the public, to encourage inter-generational activity, and to discourage the segregation of older adults in isolated senior centers. This project is projected to be completed in 2023. Additionally, the PCOA and the Senior Programs at the Hobbs Community Center are teaming with the Conservation Commission, Forestry Committee, and Parks and Recreation Department to modify some trail networks on town parks/land to be more age accommodating. This includes making trails more accessible for all ages, and to ensure town parks offer activities for older adults and children.

Pelham's Beaver Brook and Golden Brook present major available water resources that can be utilized for recreation. The Parks and Recreation Department has applied for a grant in order to install boat launches (for kayaks and canoes) at some locations along Beaver and Golden Brooks.

Recommended Bike Routes

The NH Department of Transportation maintains an interactive bicycle route map found here: (click here to visit the page to get the full web address

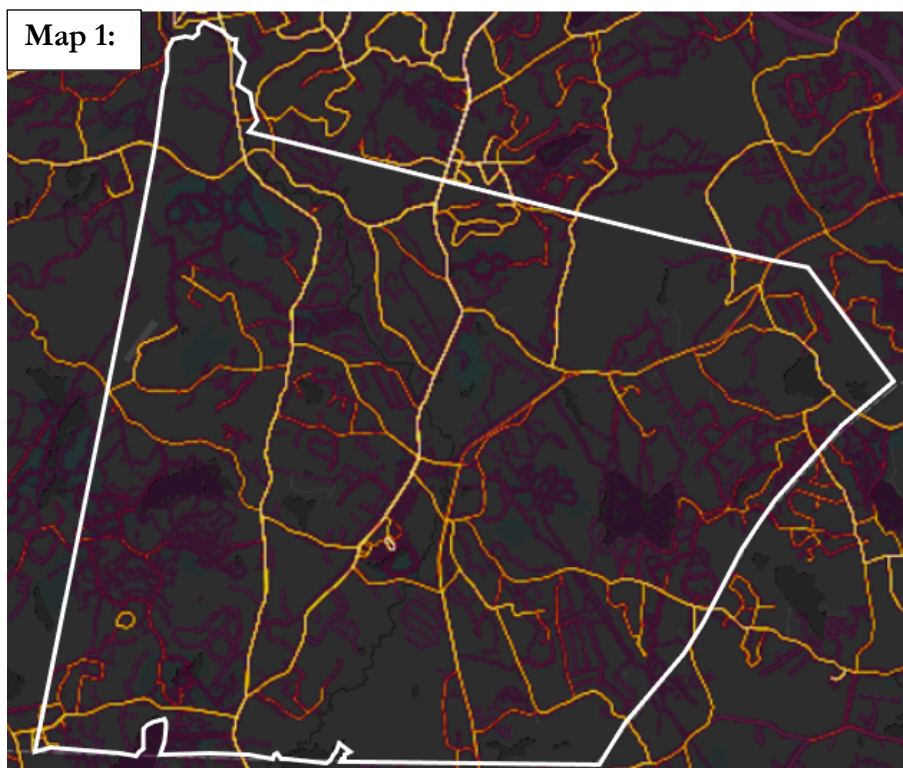
<https://nh.maps.arcgis.com/apps/webappviewer/index.html?id=49c702c328d84a29af3b4a27eb271b37>

Included in this map are NHDOT recommended bicycle routes. The state recommends bicycle infrastructure be implemented on 24.3 miles of paved roads in Pelham. Currently, Pelham does not provide designated bike lanes which also influences the high volume of independent automobile travel to get around town. Some of the roads included in this recommended bike route is Mammoth Road, Sherburne Road, Gage Hill Road, and Nashua Road.

The state recommended bike routes have also been identified on the Open Space and Recreation Map.

Recreation Uses

A helpful resource to observe the popularity of recreation activities and usage areas is through Strava Heat Maps. These maps indicate popular areas in Pelham where users are participating in a variety of recreation activities. This includes both existing recreation assets and other places. Strava describes itself as a “social network for athletes” where the program tracks and analyzes the activities of its users by connecting to the individual's device such as a phone, watch, GPS, etc. Strava then



uses this information to create a usage map (also known as heat maps) to depict wherever their users recreate. It should be noted however, that not all Pelham recreation participants utilize Strava, and therefore should not be used to represent all recreational users in Pelham. To learn more about Strava Heat Maps, visit <https://medium.com/strava-engineering/the-global-heatmap-now-6x-hotter-23fc01d301de>.

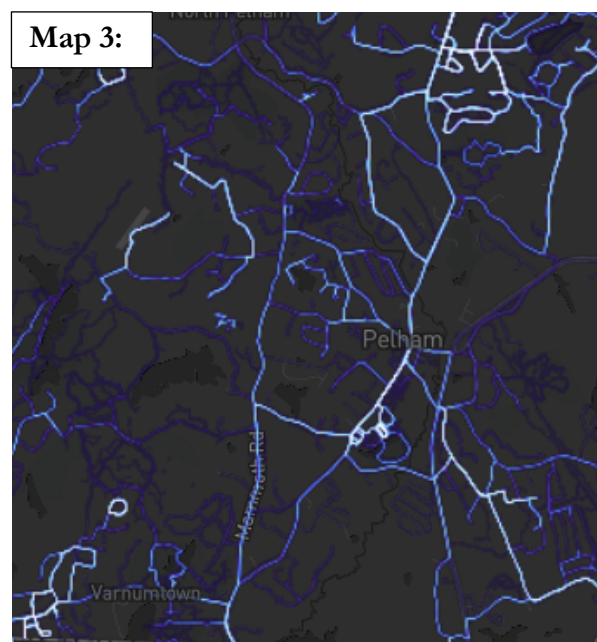
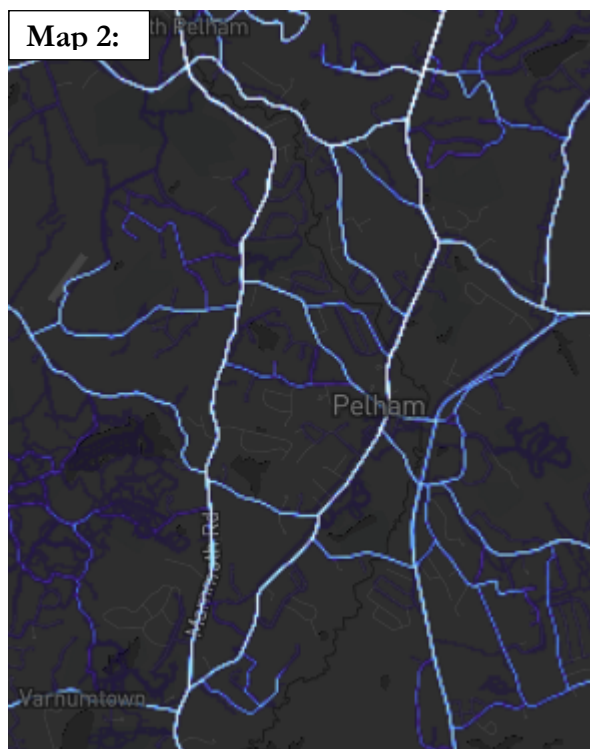
The town wide heat map represents all forms of recreation in Pelham that Strava collects – bicycle, run/walk, aquatic and winter activities. This map indicates that many of the Strava users are recreating on Pelham’s roads and existing trails. In addition to these recreationists utilizing Pelham’s roads, Strava users are also utilizing Pelham’s existing facilities such as the schools and conservation areas.

Bicycle Recreation Usage:

It should be noted that many of Strava’s users seem to already be using roads for recreation that were identified in NHDOT’s recommended bike routes. As seen on Map 2, Pelham’s most popular roads for bicycling are mainly along Marsh Road, Mammoth Road, Windham Road, and Bridge Street which appears to be utilized by users traveling to the center of town. Images like this shown in Map 2 provide the town with visual support of the demand recreation and transportation infrastructure and may help to assist the town in identifying what areas are the highest priority to implement bicycle lanes on existing roads or developing separate routes.

Run/Walk Recreation Usage:

Map 3 shows high run/walk usage of the school property, and along Marsh Road to the Village Green. This area is where some sidewalks already exist and this observation could indicate that if more sidewalk infrastructure was available, more residents would utilize Pelham roads for running/walking. Other roads with a high run/walk usage that could be considered for implementing sidewalks for connectivity is Lington Road and Currier Road. It appears that these roads seem to be utilized as a connection from residential neighborhoods to the grocery store. In addition to Pelham’s roads, the Cutler-Spaulling Conservation Area and the Costa Conservation Area depict many recreational users.



Aquatic Recreation Usage:

There are two areas in Pelham where aquatic recreation activity was recorded by Strava: Long Pond and Gumpas Pond.

Winter Recreation Usage:

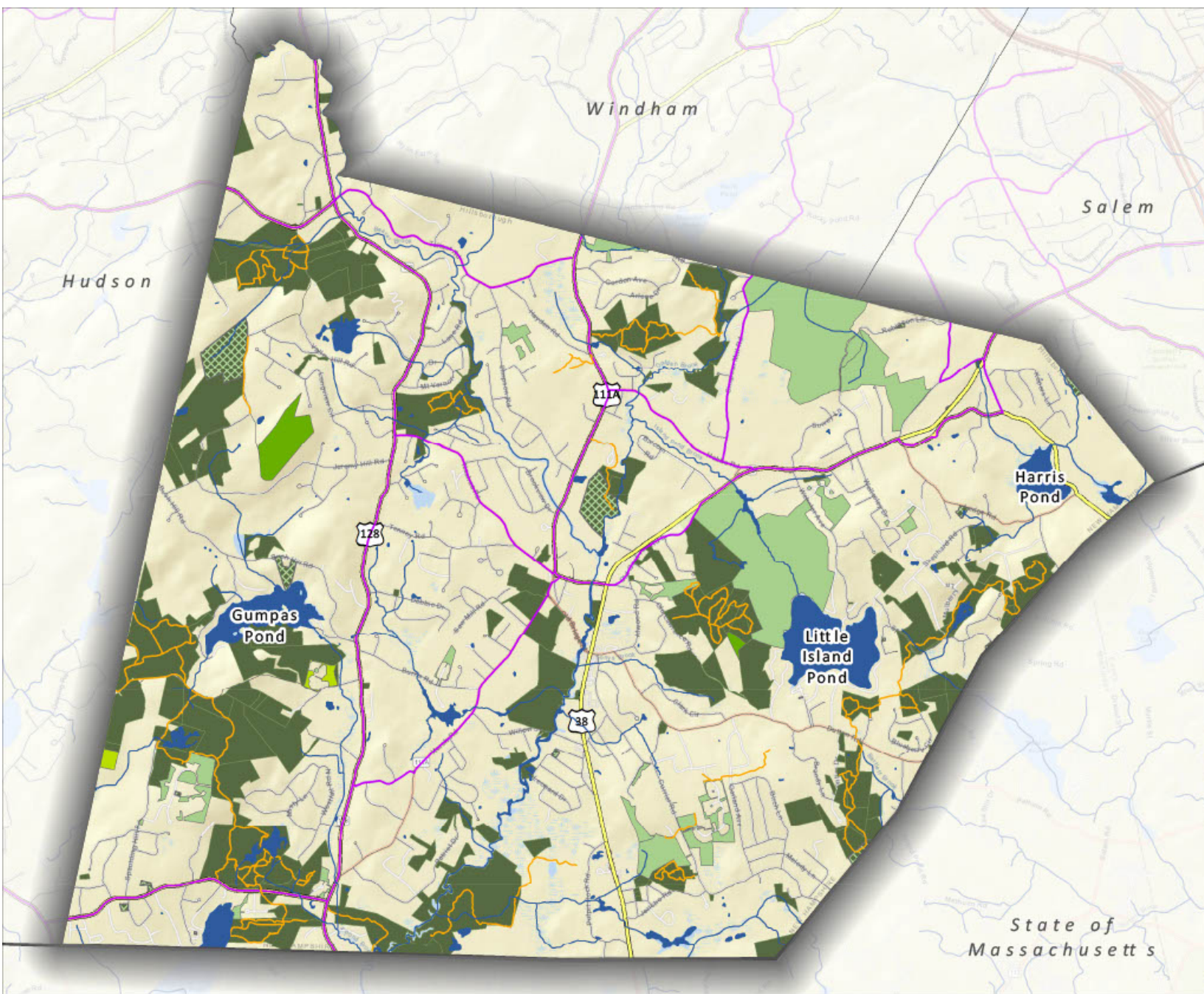
There was no data recorded by Strava depicting winter recreation usage areas in Pelham. However, the existing snowmobile trails and other information reviewed during this master plan process indicate that there is recreation activity during the winter.

PROPERTIES SUPPORTING RECREATION:

There are approximately 2,400 acres of land that support recreation in Pelham. Table 5 shows some of the public and private properties that compose this acreage and support recreation in Pelham. A majority of these properties are owned by the Town of Pelham, which indicates the importance of public recreation accessibility to the town and its residents within the community.

Table 5: Properties Supporting Recreation in Pelham include, but are not limited to:	
Name of Property	Acres
Beaver Brook Wetland	194
Bennie Eaton Hill Family Memorial Forest	57
Blueberry Circle Wood Lot	16
Calitri Conservation Area	52
Costa Conservation Area	42
Currier Road	24
Cutler-Spalding Town Forest	243
Cutter Woods Conservation Area	35
Frontier Drive Woodlot	30
Garland Woods Open Space	14
Golf Course	67
Gumpas Pond Conservation Area	130
Hillside Drive Woodlot	15
Kirby Town Forest	147
Little Island Pond Conservation Area	20
Merriam Conservation Area	146
Merriam Farm	52
Moose Pond Conservation Area	13
Moose Pond Town Forest	30
Muldoon Park	92

Old Ash Dump	6
Peabody Town Forest	228
Raymond Park	232
Skyview Estates Open Space	38
Spaulding Hill Road Wood Lot	25
Spring Street Town Forest	47
Stonegate Estates Open Space	51
The Pines Open Space	16
Town of Pelham Land	235
Veteran's Memorial Park	52
Waterford Estates Open Space	23
Wolven Park Conservation Area	24
Total Acres	2,396



Open Space & Recreation Town of Pelham



- | | | | |
|--|---------------|--|---------------------------|
| | Town Boundary | | Trail |
| | State Road | | Recommended Bike Route |
| | Other Road | | Municipal vacant lands |
| | Waterbody | | Conserved: Town of Pelham |
| | Stream | | Conserved: State of NH |
| | | | Conserved: Private |
| | | | Conserved: Other |

Data Sources: Town of Pelham, NH GRANIT, NH DES, Nashua Regional Planning Commission, USGS

Created by: Resilience Planning & Design July 2022



Pelham, New Hampshire

Natural Resources

KEY FINDINGS:

- For many of the natural resource topics described in this profile, Pelham is above average relative to its neighboring towns. This puts Pelham in a unique position of determining which direction the community will go in the future and where future efforts should be focused. The data includes:
 - 22% of Pelham is conserved land.
 - 75% of Pelham's conserved lands are owned by the town.
 - 38% of all Pelham's Ranked Habitat is conserved. Ranked habitats show where habitats in the best ecological condition in the state are located, based on biodiversity, arrangement of habitat types on the landscape, and lack of human impacts.
 - 35% of Pelham's Tier 1 Habitat - the highest ranked habitat in the state - is conserved.
- According to the State's Wildlife Connectivity Model, there are nine identified blocks in Pelham that are identified as priority habitat. There appears to be a trend across these areas that the smaller blocks contain rarer habitat/species, and the larger blocks consist mostly of more common species.
- Rare habitats in Pelham include Grasslands, Peatlands, Floodplain Forests, Temperate Swamps, Wetlands/Shrublands. Grasslands make up 1,124 acres in Pelham which is 7% of the total land area, and 20% of all grasslands in Pelham are conserved. Considering only 8% of grasslands in New Hampshire are currently under conservation easements, Pelham is ahead in the conservation of this rare habitat.
- Appalachian oak-pine forests are the most common in Pelham accounting for 33% of the town, of which nearly one-third (29%) has been conserved.
- Pelham has eight town forests and one state forest all of which have a current management plan prepared by a licensed NH Forester, or a management plan that is pending.
- As identified in Pelham's 2022 Natural Resource Inventory (NRI), The New Hampshire Natural Heritage Bureau (NHB), records five terrestrial (forest) and two palustrine (wetland) exemplary natural communities in Pelham. Five of the seven listed are ranked as the highest importance in New Hampshire. The rating is based on a combination of the rarity, size, and health of the community.
- Described in the 2022 NRI, New Hampshire Fish & Game identified that the largest concentration of highest tier habitat is located in Musquash Brook and Gumpas Pond Watershed areas.

DATA SOURCES:

- NH GRANIT, Conservation/Public Lands
- NH Wildlife Action Plan
- Nashua Regional Planning Commission
- Town of Pelham, 2022 Natural Resource Inventory
- National Land Cover Dataset
- NH Wildlife Corridors 2018 Report
- 2002 Pelham Master Plan
- Soil Data Access (SDA) Hydric Soils
- Pelham Conservation Commission
- Pelham Forestry Committee
- NHDES Wetlands and Stream Crossings FAQs
- 2020 Pelham Climate Adaptation Forest Management Plan

- The 2022 NRI states that The Conservation Commission is actively working to conserve field habitat. A 16-acre field is currently protected at the Merriam Farm site, a 4-acre field at Cutter Woods, and a 1-acre field is conserved at Wolven Park.
- The NH Natural Heritage Inventory (NHI) records indicate the presence of forty-six threatened, endangered or species of concern plant species in Town. Among the most noteworthy of the Town's important natural communities is the unique collection of plant species found in the vicinity of Jeremy Hill more information can be found in Pelham's 2022 NRI.
- There is a loss of forested land to more urban/suburban development which is illustrated in Map 9: Change in Land Cover 2001-2016 located in the Pelham 2022 NRI.

*** For more information of Pelham's existing natural resources, visit the 2022 Natural Resource Inventory (NRI) and the Water Resources profile of the Existing Conditions Report.**

INTRODUCTION:

Natural resource protection, economic development, and other land use priorities often cause a difficult balancing act for municipalities. In Pelham's case, natural resource protection appears to be a high priority. Pelham's existing natural resources and development pattern reflect the balance the town has set so far, and stands out from neighboring communities. Since nature sees no jurisdictional boundaries, aquifers, rivers, streams, grasslands, forests, soils, and other resources are important to understand beyond Pelham's town boundaries and into neighboring towns. This Natural Resource profile acts as an addendum to the Town of Pelham's 2022 Natural Resource Inventory.

CONSERVED LANDS:

For the purposes of this section, conserved lands can be defined as "acres that are mostly undeveloped and are protected from development". Pelham has a total of 3,797 acres of conserved land totaling in 22% of the town's total land area. Since 2002, the town has made significant advances in conservation efforts. As shown in Table 1, in comparison with surrounding communities Pelham is the leading town with the most conserved acreage.

Table 1: Conserved Lands in Abutting Towns			
Town	Total Acreage	Conserved Acres	Percent Conserved
Hudson	18,780	731	9%
Pelham	17,151	2,861	31%
Salem	16,569	620	15%
Windham	17,772	1,123	12%

A review of ownership of conserved lands in Pelham shown in Table 2 on the following page, identifies that of the total 2,861 acres of conserved land, 75% is owned by the Town of Pelham, 2.2% is owned by the state, and 22.4% are owned by other entities or under private ownership. This indicates that Pelham has an active and engaged mindset for conservation and the town and its residents are willing to invest in natural resource protection. Since 2002 open space lands have doubled due to the Town's ambitious investment in open space protection through the Conservation Commission. Since 2002, \$9.2 million has been spent on land conservation by the Town of Pelham. This resulted in 1,410 acres of open space being acquired by the Conservation Commission through fee simple acquisitions and the purchasing of development

rights. Beyond this investment there have been land donations and open space subdivisions which assess to the conserved open space in Pelham. The Open Space and Recreation Map found in the Recreation Profile of the Existing Conditions Report visually identifies the conserved land throughout town and its ownership.

The 2010 Open Space Plan prepared by Nashua Regional Planning Commission (NRPC) identified several major zones of priority for conservation. There were 11 different areas within Pelham that were identified as high priority, and were then given a priority ranking of one through three. The three categories were identified as:

1. High priority areas with a large total of existing conserved lands and the highest potential for connectivity.
2. High priority areas with existing conserved lands with the potential for connectivity.
3. High priority areas with few existing conserved lands but highly ranked in the co-occurrence analysis.

In 2010, Pelham's highest ranked priority areas included: Raymond Park/Jeremy Area, Kirby Area, Girl Scout Camp to Fish & Game, and Veterans Memorial Park/Gumpas Corridor. Additional identified priority areas included: The Transfer Station Area, Caltri/Costa Corridor, Lower Beaver Brook Area, Dunlap Area, Burns Road Area, Tallant Road Area, and Harris Pond Area. Due to the age of this document and the Pelham Conservation Commission's ambitious achievements in acquiring conservation lands, the town could consider updating the Open Space Plan to identify new priority areas. Ideally, the material covered in this document will offer many items for the Town and Conservation Commission to consider by assisting in the identification of priority areas of concern and future goals to consider.

Land Cover – Forested Land:

This section is based on the 2019 National Land Cover Database (NLCD) and is used to understand the amount of forested lands in Pelham. Although the NLCD resolution is 30m x 30m, it can provide a helpful overview at the municipal scale. Pelham is 46% forested, which is a combination of deciduous, evergreen, and mixed forests. Pelham has a total of 7,967 acres of

Owner	Acres	Percent of Conserved Lands in Pelham
Town of Pelham (including School District)	2,861	75%
NH Dept. of Resources and Economic Development	62	2%
NH Dept. of Environmental Services	6	0.2%
New England Forestry Foundation	8	0.2%
Pattern Environmental Trust, Inc.	9	0.2%
Other	852	22%
Total	3,798	100%

Towns	Total Acreage in Town	Acreage of Forested Land	Percentage of Town
Hudson	18,780	7,912	42%
Pelham	17,151	7,967	46%
Salem	16,569	4,046	24%
Windham	17,772	9,306	52%

forested land of which 2,435 acres (31%) is conserved. The location of these forested lands are primarily located to the west of NH128 and east of NH111A. When compared to neighboring towns, Pelham has an average amount of forested land at 46%. The percentage of forested lands in abutting towns ranges from 24% in Salem to 52% in Windham with an average of 41%. Pelham has the highest percentage of conserved forested land with 31% of forested land being conserved. Due to natural resources having no jurisdictional boundaries, Pelham could consider establishing intercommunity and interstate shared conservation responsibilities in future conservation initiatives.

WILDLIFE ACTION PLAN – HABITAT TYPES & RANKED HABITATS:

The NH Fish & Game Department, along with many partners across the state, updated the Wildlife Action Plan (WAP) in 2020. The WAP includes two sets of data:

1. Habitat land cover – shows where the different types of wildlife habitat are located throughout the state; and
2. Highest ranked habitat by ecological condition – shows where habitats in the best ecological condition in the state are located, based on biodiversity, arrangement of habitat types on the landscape, and lack of human impacts.

The Wildlife Action Plan relative to Pelham can be found in the Wildlife Action Plan Map found at the end of this Natural Resource Profile.

Habitat Types:

Appalachian oak-pine is most common habitat in 33% of the town, of which nearly one-third (29%) has been conserved. This habitat type is common below 900' elevation in the southern part of the state and is known for a diverse age and vegetative structure promoting wildlife diversity. Because of their expansiveness, many large wildlife species depend on this habitat for part or all of their life cycle including black bears.

The second largest habitat type in Pelham is Hemlock-Hardwood-Pine which covers 13% of the town, and 38% of this habitat type has been conserved. The Hemlock-Hardwood-Pine species is the most common forest type in New Hampshire covering nearly 50% of the state. These forests are dominated by hemlock, white pine, beech, and oak trees and have a highly variable composition considering their ability to occur on different elevations, soil types, and topography. When conservation of Hemlock-Hardwood-Pine is done in large unfragmented blocks, it can provide important habitat for some of New Hampshire's largest fauna such as black bears and bobcats.

Grasslands make up 1,124 acres in Pelham, which is 7% of the total land area, and 20% of all grasslands in Pelham are conserved. Considering only 8% of grasslands in New Hampshire are currently under conservation easements (<https://www.wildlife.state.nh.us/habitat/types.html>), Pelham is ahead in the conservation of this rare habitat. Comprised of grasses, sedges, and wildflowers, grassland communities provide ideal habitat for state endangered and threatened species of wildlife including the eastern hognose snake and northern harrier.

There are several other rarer habitat types found in Pelham which include:

- **Wet Meadows / Shrublands**, which are often grouped into three broad habitat categories: wet meadows, emergent marshes, and scrub-shrub wetlands. These habitats are important for flood management, are typically controlled by groundwater, and are vital food sources for many threatened and endangered wildlife species. In Pelham, there are 1,039 acres of wet meadows/ shrublands accounting for 6% of the town's area of which 31% have been conserved.
- **Peatlands**, which the state has determined are of extreme importance for carbon sequestration and vital to many rare plants and wildlife species that depend on them. This habitat type makes up 1% of Pelham's area (122 acres) of which only 13% of Pelham's peatlands are conserved.
- **Temperate Swamps**, contain four Atlantic white cedar communities in New Hampshire and pitch pine-heath swamps, which are rare and typically associated with Pine Barrens. Additionally, hemlock is common in temperate swamps throughout New Hampshire. In Pelham, there are 583 acres of these swamps in town that account for 3% of the total land area. However, only 35% of the temperate swamps in Pelham are conserved.
- **Floodplain Forests**, usually occur in the low, flood-prone areas along rivers, typically less than 20 feet above the river channel. The NH Wildlife Action Plan identified that "along smaller rivers in central and southern New Hampshire, floodplain forests contain mostly red maple trees, along with black ash, black cherry and ironwood growing among vernal pools, oxbows, and shrub thickets. Less common trees such as swamp white oak, sycamore, American elm, eastern cottonwood, and river birch can also be found in floodplain forests in southern New Hampshire". In Pelham, 430 acres or 3% of the town is made up of these floodplain forests adjacent to Beaver Brook and Golden Brook. 34% of these floodplain forests are conserved in Pelham.

The habitat types described above are identified as rare habitat types in the NH Wildlife Action Plan. In fact, the total of these habitat types account for 20% of Pelham's total land area. Of those habitats, more than one quarter (27%) are conserved. If the town wants to focus conservation efforts on these habitats, Pelham could utilize the Prioritized Habitats section described below, to identify the largest unfragmented areas where these habitat types are found in order to determine the town's high priority areas relative to the town's conservation interests.

WAP Tier	Acres in Town	Percent of Town	Conserved Acres	Percent Conserved
Tier 1: Highest Ranked Habitat in State	903	5%	314	35%
Tier 2: Highest Ranked Habitat in Biological Region	1,714	10%	515	30%
Tier 3: Supporting Landscapes	3,444	20%	1,445	42%
Total	6,061	35%	2,274	38%

As identified in Table 4, for Tier 1 habitats (those that are ranked the highest ranked habitats in the state) five percent of Pelham's total land area is classified in the NH Wildlife Action Plan as Tier 1 of which 35% are conserved. For Tier 2 habitats (lands that are highest ranked in the biological region) Pelham has 1,714 acres (10%) of which 30% are conserved. And lastly for Tier 3 habitats, also known as supporting landscapes, Pelham has the most of this Tier with 3,444 acres accounting

for 20% of the town's land area. Tier 3 also is Pelham's the highest percentage of conserved lands of which 42% are conserved.

PRIORITIZED HABITAT AND CORRIDORS:

The NH Fish and Game Department, along with many other partners across the state created the NH Wildlife Connectivity Model using information derived from the state's Wildlife Action Plan. The NH Wildlife Connectivity Model is "a basic, GIS-based, landscape permeability model that predicts broad-scale wildlife connectivity zones across the state". The analysis of this model indicates areas that are key for both land protection efforts and strategic locations for restoring connectivity in currently fragmented landscapes. The model is also based on the NH Wildlife Action Plan's identified rare habitat types, identified habitat corridors, and land cover types. The NH Wildlife Corridors map shows potential corridors that connect core areas of wildlife habitat that are over 50 acres in size and identified as a priority in the NH Wildlife Action Plan (Highest Ranked Habitat in NH and/or Highest Ranked Habitat in Biological Regions). The NH Wildlife Connectivity Model was created to assist municipalities across the state, identify where priority habitat are located within communities. The NH Wildlife Corridors Map assists communities to identify the key surrounding areas, of these identified priority habitats, which may have development pressures; and therefore, impact these state identified priority habitat areas. Together, these resources can help drive community land use decisions and policy making based on the character and vision of the community. The identified prioritized wildlife areas in Pelham, that were identified by the state, are identified in Priority Habitat Blocks based on acreage. The subsections of this profile below present the specific Priority Habitat Blocks and a corresponding table breaks down the districts based on the type of habitat that is located within that block and the amount of habitat that is currently conserved in town.

Priority Habitat Blocks:

This section will help the Town of Pelham identify its existing prioritized habitat locations and its corresponding conservation status which will assist the town in making future conservation decisions. The state has identified nine blocks in Pelham as priority habitat areas. Prioritized Habitat Blocks shows core areas of wildlife habitat (areas over 50 acres in size that are a priority in the New Hampshire Wildlife Action Plan). The larger block numbers correspond with higher acreage of these areas of prioritized habitat. The corresponding Prioritized Areas and Habitats Map located at the end of this profile, provides a visual representation of where these blocks exist in town and correspond with the Prioritized Habitat Block subsections on the following page.

Block 1

As shown in Table 5, nearly the entirety of Block 1 is made of peatland habitat, which is identified as a rare habitat type in the state of New Hampshire. In Pelham, none of this block is conserved which leaves an immediate threat to this area due to development pressures.

Table 5: Prioritized Habitat Block 1				
Block Number	Total block acres	Habitat type	Acres	Percent of total block
Block 1	50	Appalachian oak-pine	0.1	0%
		Developed or barren land	0.2	0%
		Hemlock-hardwood-pine	0.2	0%
		Peatland	49.6	99%
		Wet meadow/shrub wetland	0.1	0%

Block 2

Identified in Table 6, eighty-seven percent of Block 2 is composed of grasslands which is another state identified rare habitat. In Pelham, only 14% of this rare grassland habitat is conserved.

Table 6: Prioritized Habitat Block 2				
Block Number	Total block acres	Habitat type	Acres	Percent of total block
Block 2	51	Appalachian oak-pine	0.6	1%
		Developed impervious	1.5	3%
		Developed or barren land	3.7	7%
		Grassland	44.4	87%
		Open water	0.1	0%
		Wet meadow/shrub wetland	0.7	1%

Block 3

Similarly, to Block 1 and 2, Block 3 composed of rare habitat. 85% of Block 3 is floodplain forest which is a crucial habitat around Beaver and Golden Brook. More than half of Block 3 (51%) is already conserved.

Table 7: Prioritized Habitat Block 3				
Block Number	Total block acres	Habitat type	Acres	Percent of total block
Block 3	73	Appalachian oak-pine	0.8	1%
		Developed impervious	0.2	0%
		Developed or barren land	3.4	5%
		Floodplain forest	62.2	85%
		Open water	0.3	0%
		Wet meadow/shrub wetland	5.9	8%

Block 4

The majority of Block 4 is made up of Appalachian oak-pine, Temperate Swamps and Wet Meadow/Shrub wetland. Though temperate swamps are common across southern and central New Hampshire, they can contain a number of rare natural community types and in Pelham's case, they make up twenty-one of Block 4. Additionally, almost half this block (40%) is wet meadow/shrub wetland, and twenty-nine percent is the common Appalachian oak-pine tree. 63% (55 acres) of Block 4 is conserved.

Block 5

As shown in Table 9, more than half of Block 5 (65%) is made of wet meadow/shrub meadow. Additionally, 22% of Block 5 consists of the rare floodplain forest habitat. Seventeen acres or 13% of this block is composed of conserved land.

Block 6

Almost all of this block (92%) contains common species such as the Appalachian oak-pine and the hemlock-hardwood-pine species. Over a quarter of Block 6 (27%) or forty-six acres are conserved.

Table 8: Prioritized Habitat Block 4

Block Number	Total block acres	Habitat type	Acres	Percent of total block
Block 4	88	Appalachian oak-pine	25.5	29%
		Developed or barren land	2.8	3%
		Grassland	0.8	1%
		Hemlock-hardwood-pine	0.1	0%
		Open water	1.2	1%
		Peatland	0.1	0%
		Sand/gravel	3.2	4%
		Temperate swamp	18.9	21%
		Wet meadow/shrub wetland	35.3	40%

Table 9: Prioritized Habitat Block 5

Block Number	Total block acres	Habitat type	Acres	Percent of total block
Block 5	130	Appalachian oak-pine	8.2	6%
		Developed impervious	0.1	0%
		Developed or barren land	3.8	3%
		Floodplain forest	28.4	22%
		Grassland	1.4	1%
		Open water	0.1	0%
		Temperate swamp	3.8	3%
		Wet meadow/shrub wetland	83.9	65%

Table 10: Priority Habitat Block 6

Block Number	Total block acres	Habitat type	Acres	Percent of total block
Block 6	171	Appalachian oak-pine	50.9	30%
		Developed impervious	0.2	0%
		Developed or barren land	1.7	1%
		Hemlock-hardwood-pine	106.6	62%
		Open water	4	2%
		Rocky ridge	3.2	2%
		Wet meadow/shrub wetland	4.6	3%

Block 7

This block accounts for a total of 205 acres and more than three-quarters of it (78%) is open water. Twenty-five acres or 12% of this block is conserved.

Table 11: Priority Habitat Block 7				
Block Number	Total block acres	Habitat type	Acres	Percent of total block
Block 7	205	Appalachian oak-pine	26.7	13%
		Developed impervious	0.3	0%
		Developed or barren land	0.8	0%
		Hemlock-hardwood-pine	13.4	7%
		Open water	160.9	78%
		Temperate swamp	1.6	1%
		Wet meadow/shrub wetland	1.3	1%

Block 8

As shown in Table 12, more than three-quarters of this block (78%) is Appalachian oak-pine. 243 acres or 51% of Block 8 is conserved.

Table 12: Priority Habitat Block 8				
Block Number	Total block acres	Habitat type	Acres	Percent of total block
Block 8	474	Appalachian oak-pine	371.5	78%
		Developed or barren land	7.9	2%
		Hemlock-hardwood-pine	47.6	10%
		Open water	7.4	2%
		Temperate swamp	13.2	3%
		Wet meadow/shrub wetland	26.4	6%

Block 9

Table 13 shows that more than one-third (36%) of Block 9 is floodplain forest, and one-third is wet meadow/shrubland. Accounting for the largest state identified priority habitat block in Pelham, 31% of this block is conserved.

Table 13: Priority Habitat Block 9				
Block Number	Total block acres	Habitat type	Acres	Percent of total block
Block 9	566	Appalachian oak-pine	64.9	11%
		Developed impervious	4.5	1%
		Developed or barren land	14.7	3%
		Floodplain forest	202.8	36%
		Grassland	36.6	6%
		Hemlock-hardwood-pine	5	1%
		Open water	32.4	6%
		Sand/gravel	17.3	3%
		Temperate swamp	17.1	3%
		Wet meadow/shrub wetland	167.3	30%

CONSERVATION TAKEAWAYS:

Through the analysis of the information in this profile it appears that the smaller blocks included rarer habitats (Blocks 1-4) whereas the larger blocks (6-8) include more common habitats. Blocks 3,4,5, and 9 have a large amount of floodplain forest and wet meadow/shrub wetland. The above analysis will help the town to identify where to focus future municipal conservation efforts.

WILDLIFE CORRIDORS:

Wildlife corridors connect these habitats so that wildlife can move between areas without significant fragmentation from developed land. As identified in the NH Wildlife Corridors 2018 Report, the NH Fish and Game Department (NHFG) partnered with the NH Department of Transportation (NHDOT) and NH Department of Environmental Services (NHDES) to research wildlife corridors in New Hampshire to address the following research topics:

1. Existing and needed wildlife corridors,
2. Voluntary mechanisms that affect wildlife corridors, and
3. Any existing statutes, rules and regulations that affect wildlife corridors.

This research was then simulated within the NH Wildlife Connectivity Model. Pelham's identified wildlife corridors surround the priority habitat areas. The town may wish to consider future conservation of these wildlife corridors as it establishes priorities for future conservation efforts.

AGRICULTURE AND AGRICULTURAL SOILS:

Pelham's 2002 Master Plan provided an explanation of the diminishing agricultural lands across the state due to the conversion from agricultural uses to development. The 2002 Master Plan also identified a number of factors which incentivize the conversion of agricultural land to developed land. These include:

- Rising land values and a strong demand for housing act as an incentive to the development of agricultural lands, many of which are quite suitable for active use and less costly to develop.
- Inequitable assessment and taxing procedures act as a disincentive to farming uses (and as incentives for the sale of farmland) by placing a heavy tax burden on the farmer.
- The farmer's difficulties in obtaining the capital and credit needed to maintain an efficient farming operation hurts their ability to compete with more affluent developers for the use of the land.

The 2002 Master Plan also identified Pelham's agricultural lands in three groups based on the character of the soils and their suitability for crop production.

1. **Prime Farmland** – “are best suited for producing food, feed, forage, fiber or soil seed crops. Their soil quality, growing season, and moisture supply make them suitable for producing sustained high yields of crops” without significant harm to the environment. Pelham has a total of 212 acres of Prime Farmland or 1% of the town's total land area of which 8% or 18 acres are conserved.
2. **Farmlands of Statewide Importance** – “are rated as being of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. They can be farmed by greater input of fertilizer and erosion control practices and will produce fair to good crop yields when managed properly” Pelham has a total of 6,177 acres of Farmland of Statewide Importance, 36% of the town, of farmlands of statewide importance of which 20% are conserved.

TOPOGRAPHY AND SOILS:

The 2002 Master Plan's Natural Resources Chapter includes comprehensive information about the geologic landscape of Pelham. These features have not changed significantly since 2002, so this important information is summarized and compiled below.

Topography

The 2002 Master Plan identified topography by two measurable characteristics – elevation and slope. Elevation is the relative height of a piece of land at a given point that are expressed in terms of feet above Mean Sea Level. In Pelham, the town's elevations vary from approximately 120 feet above mean sea level near Beaver Brook in the southern-central part of town, to 575 feet on top of Jeremy Hill which is Pelham's highest point. The western third of the town is dominated by higher elevations and steep slopes, and the eastern third of the town is also hilly, but with slopes and elevations that are more moderate.

Slope is the relative steepness or pitch of a piece of land and can be measured in the form of percentages calculated by dividing the difference in elevation of two points by the distance between those two points. Slopes from 0% to 3% are usually associated with wetlands and are not well drained. Areas with slopes from 3% to 8% and favorable soils are generally ideal for development. Construction on slopes from 8% to 15% will require extra care to provide proper drainage and soil stabilization. 25% slopes are the most difficult to develop and account for Pelham's near the Sherburne Road area. These 25% slopes are twice as steep as Sherburne Road itself and generally consist of a very shallow layer of soil covering bedrock. In these areas, safe septic system installation is very difficult, storm water run-off is accelerated rather than absorbed, and soil erosion potential increases. 15-25% slope are areas where development should be taken with extreme care in regards to recognizing environmental sensitivity involved. Areas with slopes greater than fifteen to twenty-five percent are generally found in the western part of town and are more suitable for open space.

Soils

Like topography, soils have not changed significantly since the last Master Plan in 2002. That Master Plan described the three types of soils present in Pelham, and the town identified the importance of its soils due to the community's reliance on subsurface disposal of its wastes. The identification of the suitability of soils to this kind of development is crucial in planning for future growth areas where hazards to public health can be avoided. The 2002 Plan identified the overall rating of soils found in Pelham for a particular use. The rating indicates which soils have low, moderate, or high limitations for use with septic systems in town. These soil type ratings are:

- **Low Limitation** – these types of soils have the best potential for active uses. Soils in this class have properties generally favorable for uses involving septic tank absorption fields. The town only contains a small amount of this soil type. The 2002 Master Plan identified that efficient use of these areas should be actively encouraged if not required.
- **Moderate Limitation** – Pelham has a short supply of land in this class which also suggests efficiency in its development. Soils in the moderate limitation class have intermediate potential for supporting septic tank absorption fields. Though they have properties that are

moderately favorable for septic systems, additional consideration and cost may be necessary for development of specific sites.

- **High Limitations** – Soils in the high limitation class have the poorest potential for supporting septic tank absorption fields. This designation does not limit all development but alerts developers and local officials that substantial effort and cost may be necessary to make the site suitable for development. Due to Pelham's reliance on septic systems, this soils potential for septic tank absorption fields has the greatest impact on development capability. Specific soil types are addressed in more detail by the Planning Board in the Subdivision Regulations. This soil classification also has high permeability which creates limitations to development due the rapid transmittivity of water, which indicates that contaminants can easily and quickly reach surface waters and groundwater.

The locations of these soil limitations throughout Pelham are depicted in the Map IV-2: Soil Classifications for Septic Systems in the 2002 Master Plan, Natural Resource Chapter IV.

CONSERVATION COMMISSION:

The Conservation Commission plays a very active role in the town's effort to acquire lands for public recreation and conservation. The Conservation Commission's role in Pelham is to create open space and plan for the utilization and protection of that land as well as planning for the protection of all watersheds per NH RSA 36-A1- 6. The Conservation Commission can obtain land in the name of the town. If the Select Board sees it necessary to create a Town Forest on that land, it may be turned over to the Forest Committee or the Conservation Commission with the help of a tree Warden for the creation of a Forest Management Plan (NH RSA 31-110- 113).

As noted earlier, 75% of Pelham's conserved land is owned by the town. The town has invested heavily in open space protection in the last ten years through the Conservation Commission, and since 2002, \$9.2 million and 1,410 acres of open space has been protected. The town has a desire to continue to increase open space to have more available trails, and since 2002 the trail network has expanded in collaboration with the Forestry Committee. As of August 2022, the Conservation Commission is working to create an update of the 2010 Conservation Plan in order to identify new conservation goals in line with the future of Pelham.

FORESTRY COMMITTEE:

The Pelham Forestry Committee was established in 1980 and consists of 5 members whose purpose is to plan, preserve and protect public, forested Town owned lands. The scope of these efforts includes forests, parks, open space, water courses, wetlands, wildlife habitat, scenic views, and other forested natural resources. Water, wood, wildlife, and passive recreation are the cornerstones of the Forestry Committee's commitment as these are the NH Tree Farm Program principles which the Forestry Committee has followed for forty-two years.. Below are the cornerstones of the Forestry Committee further defined:

- Wood - Generation of income and enhancement of the quality of the various forest stands through appropriately planned silvicultural treatments.
- Water - Protection of sensitive wetland sites and waterways by maintaining a forested buffer between the open water and adjacent uplands.

- Wildlife - Maintain and manage forestland for wildlife habitat of native wildlife species of New Hampshire.
- Recreation - Retain open space for passive recreation, benefiting from wooded areas for walking and nature watching, including maintaining aesthetics and protection of cultural attributes.

The Forestry Committee is also assisted by the Conservation Commission, the Board of Selectman, the Planning Board, and the Parks and Recreation Department. The Forestry Committee and its citizen volunteers maintain the trail network in Pelham. The Boy Scouts also assists in trail maintenance as well as various larger projects on the trails such as the newly constructed pedestrian bridge over Beaver Brook.

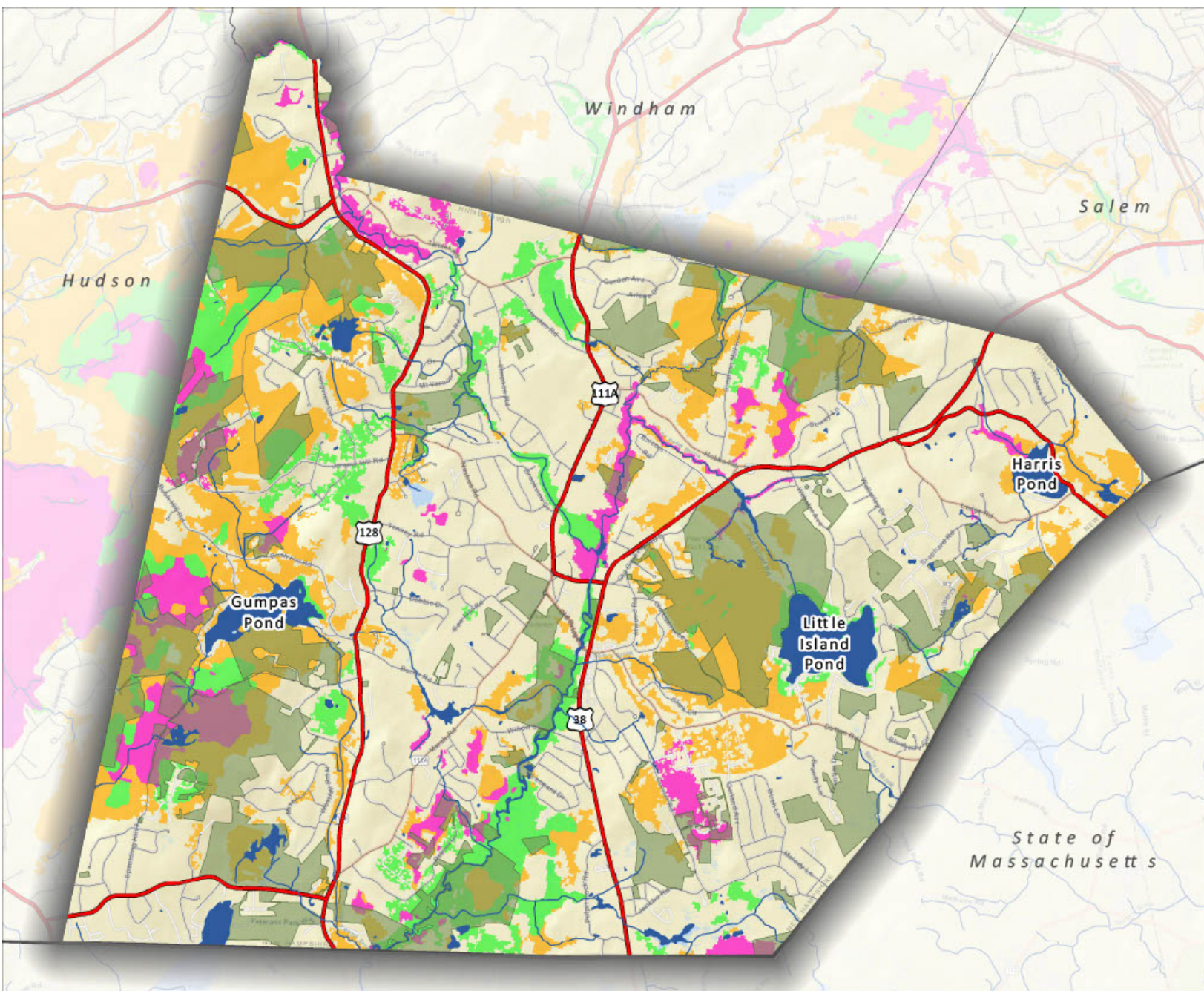
TOWN FORESTS:

Pelham is fortunate to have eight town forests that total 1,791 acres, and the 63 acre Jeremy Hill State Forest. All of the town forests have a current management plan prepared by a licensed NH Forester or a management plan that is pending. All of Pelham's Town Foresters are certified tree farm inspectors and oversee tree farm re-certification which occurs approximately every 10 years. These management plans can be found on the town's website under the Forestry Committee. Pelham has also adopted a Climate Adaptation Forestry Management Plan. A list of the town forests in Pelham can be seen in Table 14.

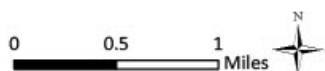
As identified in Pelham's 2022 Natural Resource Inventory (NRI), Pelham has done considerable work in the past two decades to preserve major acreage as forested land providing large blocks of unfragmented habitat and areas for diverse forests to be maintained. The Land Cover Changes 2001 to 2016 Map in the 2022 NRI shows that the distribution of land use changes in Pelham vary by location. Areas around the major state routes that run through Pelham (NH 128, NH 111A, and NH 38) have seen the most development activity over the 2001-2016 time frame.

***More information on Pelham's Town Forests, forestland, and other natural resource categories, they can be found in the 2022 Natural Resource Inventory.**

Table 14: Town Forests in Pelham	
Site Name	Acreage
Peabody Town Forest	155
Kirby-Ivers Town Forest	85
Jeremy Hill State Forest	63
Blueberry Circle Woodlot	20
Doreen Drive Woodlot	24
Moeckel Road Wood Lot	76
Spring St Town Forest	44
Costa Conservation Area	131
Cutler Spalding Conservation Area and Wyndridge Circle Parcels	175
Cutter Merriam Land	181
Elmer G. Raymond Park	241
Gumpas Pond	185
Little Island Pond Conservation Area	21
Merriam Farm	47
Muldoon Park & Town Forest	40
Pelham Veterans Memorial Park	69
Moose Pond, Calitri Conservation Areas, and Quarry Lots	118
Wolven Park	23



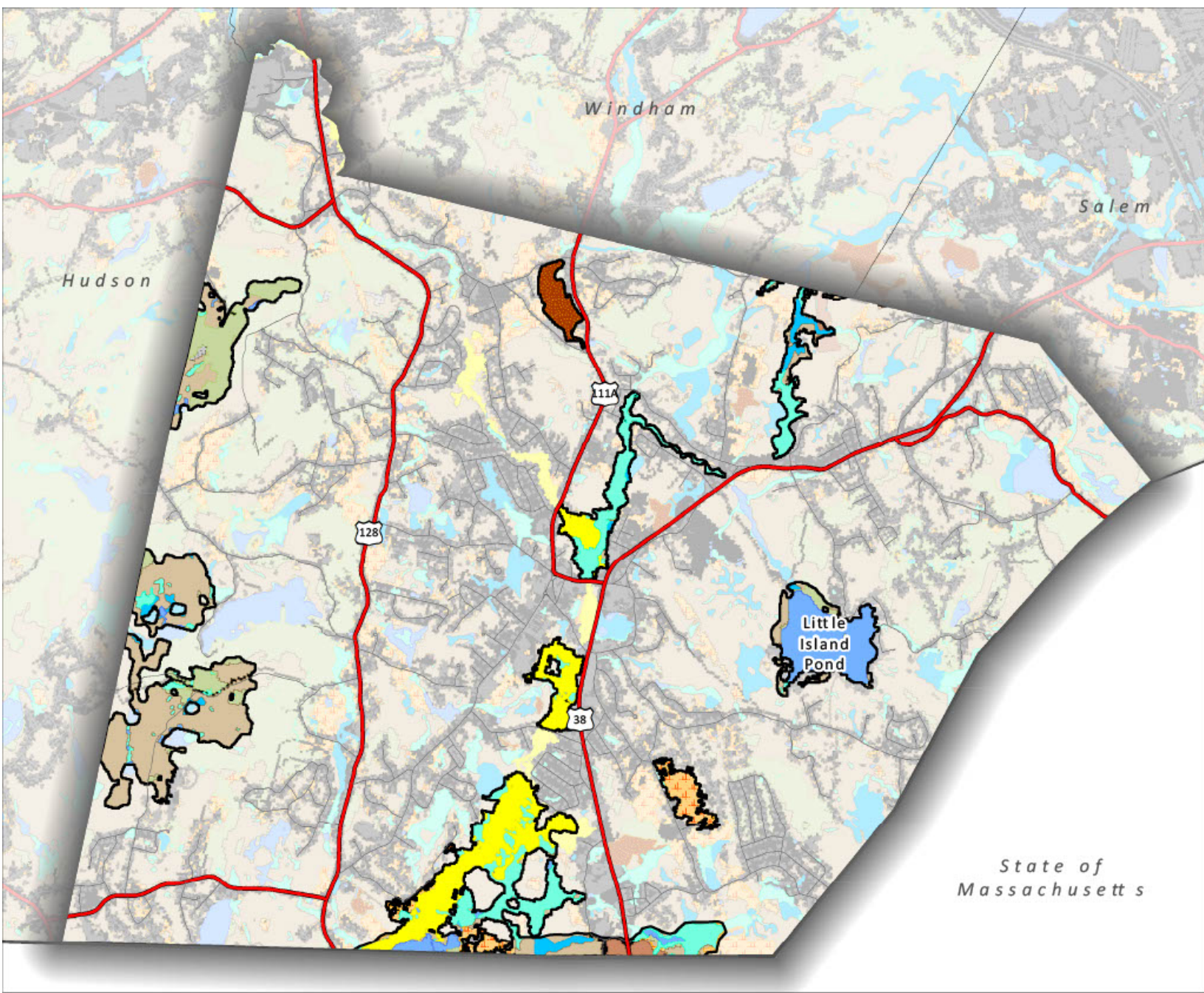
Wildlife Action Plan Town of Pelham



Data Sources: Town of Pelham, NH GRANIT, NH DES, Nashua Regional Planning Commission, USGS

Created by: Resilience Planning & Design
July 2022





Prioritized Areas & Habitats

-  Prioritized Habitat Block
-  Town Boundary
-  State Road
-  Other Road

0 0.5 1 Miles

-  Appalachian oak-pine
-  Developed Impervious
-  Developed or Barren land
-  Floodplain forest
-  Grassland
-  Hemlock-hardwood-pine

-  Open water
-  Peatland
-  Salt marsh
-  Sand/Gravel
-  Temperate swamp
-  Marsh and shrub wetland

Data Sources: Town of Pelham, NH GRANIT, NH DES, Nashua Regional Planning Commission, USGS

Created by: Resilience Planning & Design July 2022



Pelham, New Hampshire

Water Resources

KEY FINDINGS:

- Pelham exists at a mid-elevation within the larger Stony Brook-Merrimack Watershed and a low elevation in the even larger Merrimack River Watershed. 23% of all streams in the Stony Brook – Merrimack River Watershed flow into Pelham.
- Pelham is the confluence of the Beaver and Golden Brooks, and three watersheds, (the Lower Brook Watershed, Golden Brook Watershed, and Upper Brook Watershed) account for 84% of the land area in Pelham.
- 30% of Pelham’s watershed areas are developed, and 22% of them are conserved.
- Beaver Brook is the largest stream in Pelham (a 4th order stream) and accounts for 18% of the stream corridors identified in town.
- Over one third of all Pelham’s wetlands have been conserved.
- The Town of Pelham’s 2022 Natural Resource Inventory (NRI) identifies Pelham’s wetland areas as mostly located adjacent to or very close near open water as found in the Town’s rivers, streams, and ponds. This relationship is the result of a localized higher water table and the source of greater quantities of soil water during periods of high stream flow. There are also some scattered pockets of wetland soils throughout the Town, usually at the bottom of low-lying areas or depressions.
- The NRI describes vernal pools in Pelham and identifies that the only vernal pools in Pelham were in the eight Forestry Management Plans prepared for the Town Forests. Although many pools may be known in the community, they are not recorded. Data for Vernal Pools is scarce as they are seasonal.
- 1,725 acres in Pelham are considered as GA2 areas for groundwater reclassification. GA2 areas are high yielding stratified drift aquifers
- 37% of Pelham is underlain by stratified drift aquifers and about one third (31%) of the land above these aquifers is developed. Pelham’s town center is

DATA SOURCES:

- Shoreland Water Quality Act (SWQA) Summary
- NH’s Guide to Groundwater Reclassification
- NH’s Guide to Groundwater Protection
- The Groundwater Resources in New Hampshire: Stratified Drift Aquifers
- 2022 Pelham Natural Resource Inventory
- NHDES’s assessments of public water supply sources – Pelham
- Pelham Open Space Plan 2009
- Pelham 2002 Master Plan – Existing Conditions
- Pelham’s Stormwater Management Program Website
- Regulated MS in New Hampshire Communities
- Pelham Small MS4 General Permit Year 3 Annual Report 2020-2021
- Interview with Pelham’s Environmental Compliance Specialist
- NHDES Consolidated List of Water Bodies subject to the SWQA
- 2020-2022 Surface Water Quality Assessment Viewer
- NHDES 2020/2022 Section 305(b) and 303(d) Consolidated Assessment and Listing Methodology
- 2015 VHB Beaver Brook Flood Study
- Assessments of Public Water Sources:
 - Upper Beaver Brook Watershed: Lake Assessments and River Assessments
 - Golden Brook Watershed: Lake Assessments and River Assessments
 - Lower Spickett River Watershed: Lake Assessments and River Assessments
 - Merrimack Mainstem-Concord River to Shawsheen River Watershed: Lake Assessments and River Assessments
 - Lower Beaver Brook Watershed: Lake Assessments and River Assessments
 - Merrimack Mainstem-Nashua River to Concord River Watershed: Lake Assessments and River Assessments

located on top of the town's highest transmitting aquifer and 50% of this land above the highest transmitting aquifer is already developed.

- Pelham's potential contamination sources are mostly located in the southern portion of town along NH 38.
- Pelham's (NRI), identifies and describes potential contamination sources in Pelham, these include: Underground Storage Tanks, Per-and Polyfluoroalkyl Substances (PFAS), Household Hazardous Waste, Junkyards, Arsenic and Radon/Uranium and Stormwater Runoff.
- Some areas in Pelham also have water scarcity issues. In order to address this, the town recently put out an RFP for a water feasibility study for public water infrastructure systems.
- Pelham's (NRI) indicated that There are two key issues affecting water resources in the region: the increased amount of impervious surface and the increased demand for water resources.
- Based on the 2021 Stormwater Management Program Update report by the town's Environmental Compliance Specialist, there are two impaired streams and one impaired beach in town.
- There is an identified need for the town to implement stormwater infrastructure at town facilities to filtrate bacteria and phosphorus pollution.

*** For more information, visit the 2022 Pelham Natural Resource Inventory and the Natural Resources Profile of the Existing Conditions Report.**

INTRODUCTION:

Pelham's water resources play a major role in the services, health, and quality of life within the town. High quality groundwater, surface water bodies, wetlands, streams, and other water sources provide many services that benefit community members and the shared natural environment. These resources help to create healthy ecosystems by providing drinking water, recreational opportunities, and help to define the rural character of the town. This Water Resources Profile is an addendum to Pelham's 2022 Natural Resource Inventory.

WATERSHEDS:

The following section describes the watersheds that Pelham lies within, as well as provides an important understanding of how Pelham's geographical location within these watersheds influence its surface waters within and beyond the town's jurisdictional boundaries. A Map of Pelham's Upstream Waterways can be found at the end of this Water Resources Profile. The larger Merrimack River Watershed covers the entirety of Pelham and is made up of several smaller sub watersheds including the Stoney Brook – Merrimack River Watershed, Lower Beaver Brook Watershed, Golden Brook Watershed, Upper Beaver Brook Watershed, Spicket River Watershed, Fish Brook-Merrimack River Watershed, and the Limit Brook – Merrimack River Watershed. It is important to recognize the Town of Pelham's location within these watersheds due to the water that flows into Pelham from other communities and out of Pelham into neighboring communities further downstream.

A total of 125 miles or 3% of the Merrimack River Watershed streams flow into Pelham from upstream waters such as the smaller Stoney Brook – Merrimack River Watershed. Twenty-three percent of all streams in the Stoney Brook – Merrimack River Watershed flow into Pelham. Communities that are upstream of Pelham, that are also located within the Stoney Brook –

Merrimack River Watershed include: Chester, Derry, Hudson, Londonderry, and Windham. This is important to understand because Pelham exists at a mid-elevation within the larger Stony Brook-Merrimack Watershed (and a low elevation in the even larger Merrimack River Watershed). For this reason, Pelham must consider how upstream communities impact the water resources and should also consider the downstream impacts Pelham has on other communities.

Three watersheds, (the Lower Brook Watershed, Golden Brook Watershed, and Upper Brook Watershed) account for 84% of the land area in Pelham. Pelham is the confluence of the Beaver and Golden Brooks. Of all streams flowing into Pelham, 23 miles are from Golden Brook and its tributaries. Almost the entire remaining 102 miles (82%) of streams in Pelham come from Beaver Brook and its tributaries. The remaining three watersheds (Spicket River, Fish-Brook

Merrimack, Limit Brook-Merrimack Watersheds) in Pelham account for a significantly smaller area (16%) of the town.

Table 1: Pelham's Conserved vs Developed Watersheds					
Watershed Name	Total Acres of Watershed	Percent of Town	Percent of Watershed Conserved	Percent of Watershed Developed	Percent of Watershed Forested
Lower Beaver Brook Watershed	7,439	43%	21%	32%	41%
Golden Brook Watershed	3,810	22%	30%	24%	48%
Upper Beaver Brook Watershed	3,181	19%	14%	35%	49%
Spicket River Watershed	1,178	7%	3%	27%	50%
Fish Brook-Merrimack River Watershed	778	5%	40%	31%	52%
Limit Brook-Merrimack River Watershed	765	4%	37%	12%	75%
Total	17,151	100%	22%	30%	46%

Table 1 identifies the watersheds in Pelham and at what percent of the town is located within these watersheds; as well as the percent of the watershed that is conserved and developed. 30% of all Pelham's watersheds are developed, and 22% of them are conserved. Additionally, it should be noted that the most developed watershed is the Upper Beaver Brook watershed at 35% developed. This developed in the Upper Beaver Brook Watershed sees the most flooding which is identified and further discussed in the Natural Hazards profile of the Existing Conditions Report. Relative to these three watersheds within Pelham (Lower Beaver Brook, Upper Beaver Brook, and Golden Brook Watersheds), they are between 24-35% developed with between 41-49% forested land cover. Of the forested parts of these watersheds, between 21-39% are conserved, which leaves a significant amount of opportunity for conservation efforts of forested lands. The three largest watersheds in Pelham have an average of 30% conserved forested land and the three smaller watersheds have an average of 33% of conserved forested land.

This is an indication that Pelham has done a fairly good job at conserving forested land across the watersheds in the town. It also indicates that Pelham is concerned about water quality in Pelham as well as the quality of water that flows out of Pelham to other communities downstream. However,

Pelham could consider implementing additional actions to promote intercommunity and interstate shared responsibilities related to water quality amongst communities.

SURFACE WATER:

This surface water section provides information on the existing rivers, streams, wetlands, and other waterbodies in Pelham; as well as provides insight on the importance of waterbody buffers, describes Pelham's land area that is composed of surface waters, provides information about Beaver Brook a flood study conducted for Beaver Brook. Pelham has approximately 51 miles of streams and rivers including the 9 miles of Beaver Brook considered a 4th order stream. Beaver Brook is the largest stream in Pelham and accounts for 18% of all streams in town. For stream order classifications, the larger the number, the larger the stream or river size. All tributaries of Beaver Brook in Pelham (43.9 miles, 87%) flow south for five miles directly into the Merrimack River. All other streams in Pelham that do not flow into Beaver Brook, which only account for 6.8 miles (13%), also flow into the Merrimack shortly after leaving Pelham. The breakdown of Pelham's stream orders is found in Table 2. A list of Pelham's identified streams and rivers and their corresponding watershed are identified in Table 4 on the next page.

Table 2: Pelham Stream Orders		
Stream orders	Miles	Percent of streams
1	24	47%
2	12	24%
3	6	12%
4	9	18%
Total	51	100%

Table 3: Ponds in Pelham *Data retrieved from NRPC Table 5 in the NRI*

Water Body	Size
Gumpas Pond	89.9 acres
Harris Pond	45.7 acres
Little Island Pond	159.24 acres
Long Pond	120.5 acres

Table 4: Rivers and Streams in Pelham		
Water Body ID #	Stream Name	Watershed
NHRIV700061203-21	Beaver Brook	Upper Beaver Brook
NHRIV700061203-22	Beaver Brook	Upper Beaver Brook
NHRIV700061204-04	Golden Brook – Island Pond Brook	Golden Brook
NHRIV700061204-18	Unnamed Brook	Golden Brook
NHRIV700061204-03	Golden Brook	Golden Brook
NHRIV700061102-31	Unnamed Brook	Lower Spickett River
NHRIV700061102-26	Harris Brook – Unnamed Brook	Lower Spickett River
NHRIV700061102-25	Unnamed Brook	Lower Spickett River
NHRIV700061207-02	Unnamed Brook – Going into Mass.	Merrimack Mainstem-Concord River to Shawsheen River
NHRIV700061207-01	Bartlett Brook – Unnamed Brook	Merrimack Mainstem-Concord River to Shawsheen River
NHRIV700061205-03	New Meadow Brook	Lower Beaver Brook
NHRIV700061205-04	Beaver Brook	Lower Beaver Brook
NHRIV700061205-02	Beaver Brook	Lower Beaver Brook
NHRIV700061205-13	Beaver Brook	Lower Beaver Brook
NHRIV700061205-01	Beaver Brook – Tonys Brook	Lower Beaver Brook
NHRIV700061205-15	Unnamed Brook	Lower Beaver Brook
NHRIV700061205-06	Gumpas Pond Brook	Lower Beaver Brook

NHRIV700061205-10	Unnamed Brook	Lower Beaver Brook
NHRIV700061205-08	Unnamed Brook	Lower Beaver Brook
NHRIV700061205-05	Frost Brook – To Gumpas Pond	Lower Beaver Brook
NHRIV700061205-16	Unnamed Brook	Lower Beaver Brook
NHRIV700061206-20	Musquash Brook	Merrimack Mainstem-Nashua River to Concord River
NHRIV700061206-33	Unnamed Brook	Merrimack Mainstem-Nashua River to Concord River

THE SHORELAND WATER QUALITY PROTECTION ACT (SWQPA):

The Shoreland Water Quality Protection Act (SWQPA) includes all lands within 250 feet of the following waterbodies:

- All lakes and ponds greater than 10 acres.
- All 4th order and greater streams and rivers and most designated rivers, including sections less than 4th order.
- All waters subject to the ebb and flow of the tide.

There are four ponds in Pelham that are greater than 10 acres which have scattered locations in the southern, western, and eastern portions of town. Together, these ponds total approximately 415 acres. A list of Pelham's ponds can be found in Table 3. A 250-foot Shoreland Water Quality Protection Act (SWQPA) buffer is applied on those waterbodies (Gumpas Pond, Harris Pond, Little Island Pond, and Long Pond). More than one-quarter (27%) of SWQPA area is conserved, which is higher than the percent of the entire town that's conserved (22%). For more information on the SWQA relative to Pelham, visit Pelham's 2022 Natural Resource Inventory (NRI).

Beaver Brook

As indicated above, Beaver Brook is the largest River that flows through Pelham. Beaver Brook is approximately 35 miles long from north to south with its headwaters located in Londonderry, NH and eventually discharges to the Merrimack River in Lowell, MA. Beaver Brook is categorized as a moderate gradient stream in the North Pelham above the Golden Brook confluence and below the Golden Brook confluence, it is categorized by a flat gradient with a wide floodplain and many bordering watersheds. Some factors for Beaver Brook being a high flood area could be due to the rapid development that took place in Pelham and within surrounding communities which leads to an increase in impervious surface cover within watersheds. Additionally, the construction and modification of culverts and bridges on Beaver Brook as well as a long history of floodplain alteration created flooding effects. In 2015, VHB conducted a flood study of Beaver Brook in order to evaluate the flooding conditions, evaluate potential mitigation measures, and to make recommendations for future action. The scope of this study was eleven miles of Beaver Brook plus an additional one and a half mile downstream that leads to Dracut, MA. The bridge and culvert crossings for Beaver Brook that are located within the 2015 study area were: Mammoth Road, Castle Hill Road, Tallant Road, Windham Road, Main Street, Old Bridge Street (Abbott Bridge), Willow Street, and an Unnamed Crossing – Dracut, MA.

A USGS river gage is located on Beaver Brook at North Pelham (010965852) and includes a continuous record for the last approximately 30 years. In 2015 when vhb conducted this study, vhb compared predicted flows to the Federal Emergency Management Agency's (FEMA) Flood Insurance Study (FIS). The FIS is a "*compilation and presentation of flood hazard areas along rivers, streams, coasts, and lakes within a community*". Vhb predicted flows are approximately thirty percent higher than the FEMA study flows for all recurrence intervals.

Wetlands

The National Wetlands Inventory, managed by the US Fish & Wildlife Service, is the most comprehensive dataset on wetland abundance, distribution, and detailed characteristics. This dataset identifies permanently flooded areas like lakes and ponds as well as other wetland types. Pelham has 670 acres of permanently flooded waterbodies accounting for three percent of the town's area. Seasonally flooded/saturated wetlands account for eight percent of the town, of which 30% is conserved. Several other wetland types exist in Pelham like semi- permanently flooded and temporarily flooded. Over one-third (31%) of all wetlands in Pelham have been conserved.

In Pelham, 3,183 acres or 19% of the town's total land area are composed of hydric soils of which more than one quarter (27%) are conserved. Hydric Soils, as identified by New Hampshire Department of Environmental Services, are soils that are saturated or flooded during the growing season sufficient to produce anaerobic conditions in the upper soil la

WATER QUALITY ASSESSMENT:

This following water quality assessment is provided by data collected from New Hampshire Department of Environmental Services (NHDES) and the programs and tools NHDES uses to evaluate Pelham's water quality of major ponds, streams, and brooks in Pelham. This section also highlights impaired waterbodies identified in Pelham's 2021 Stormwater Management Program. The Surface Water Quality Assessment Program from the NH Department of Environmental Services provides a thorough report card of water quality assessments every two years for many of the state's rivers, lakes, and beaches. Each waterbody is assessed on (1) aquatic life integrity, (2) fish consumption, (3) potential drinking water supply, (4) primary contact recreation, (5) secondary contact recreation, and (6) wildlife. Figure 1 describes these rankings.

In a cursory exploration of the NHDES 2020/2022 Consolidated Assessment and Listing Methodology (CALM), which provides a full understanding of how the Surface Water Quality Standards are translated into assessments, there was no discussion of the impact from agricultural pollution/runoff. For Pelham to better understand the role of agricultural pollution/runoff, the Town could contact NHDES for more information.

Table 5 shows the overall assessment for the ponds/lakes in Pelham. All waterbodies received a poor grade for fish consumption because of mercury, and although many of the waterbodies do not have data, all of them received a good assessment for potential public drinking water supply.

		Severe	Poor	Likely Bad	No Data	Likely Good	Marginal	Good	
		Not Supporting, Severe	Not Supporting, Marginal	Insufficient Information – Potentially Not Supporting	No Data	Insufficient Information – Potentially Full Supporting	Full Support, Marginal	Full Support, Good	
Figure 1	Description								
	Meets standards							2-M or 2-OBS	2-G
	Category 3	Insufficient Information			3-PNS	3-ND	3-PAS		
	Category 4	Does not Meet Standards;							
	4A	TMDL* Completed	4A-P	4A-M or 4A-T					
	4B	Other enforceable measure will correct the issue.	4B-P	4B-M or 4B-T					
	4C	Non-pollutant (i.e. exotic weeds)	4C-P	4C-M					
Category 5	TMDL* Needed	5-P	5-M or 5-T						

* **TMDL** stands for Total Maximum Daily Load studies

Table 5: Ponds, Lakes, and Major Streams in Pelham									
Waterbody ID#	Water Body Name	Watershed	Aquatic Life Integrity	Fish Consumption	Public Drinking Water Supply	Primary Contact Recreation	Secondary Contact Recreation	Wildlife	Assess. Unit Category
NHLAK7 00061205-01	Gumpas Pond	Lower Beaver Brook	4A-M	4A-M	2-G	3-PAS	3-ND	3-ND	4A-M
NHLAK7 00061205-02-01	Long Pond	Lower Beaver Brook	5-P	4A-M	2-G	5-M	3-ND	3-ND	5-P
NHLAK7 00061205-02-02	Long Pond – Town Beach	Lower Beaver Brook	3-ND	4A-M	2-G	5-M	2-G	3-ND	5-M
NHLAK7 00061204-02	Little Island Pond	Golden Brook	4A-M	4A-M	2-G	5-M	3-ND	3-ND	5-M
NHLAK7 00061204-02-02	Little Island Pond-Camp Runels Beach	Golden Brook	3-ND	4A-M	2-G	2-M	2-G	3-ND	2-M
NHIMP70 0061205-02	Burns Road Dam	Lower Beaver Brook	3-ND	4A-M	2-G	3-ND	3-ND	3-ND	3-ND
NHIMP70 0061207-01	Spring Street Dam	Merrimack Mainstem-Concord River To Shawsheen River	3-ND	4 A-M	2-G	3-ND	3-ND	3-ND	3-ND

NHLAK7 00061102- 05	Harris Pond	Lower Spickett River	3-ND	4A-M	2-G	3-ND	3-ND	3-ND	3-ND
NHIMP70 0061204- 04	Ivers Pond	Golden Brook	3-ND	4A-M	2-G	3-ND	3-ND	3-ND	3-ND

Pelham’s 2021 Stormwater Management Program Update completed by the town’s Environmental Compliance Specialist that is described in the Stormwater Management section below, has identified three impaired waterbodies in town:

- Beaver Brook – E. Coli, Benthic – Macroinvertebrate Bioassessments (streams)
- Beaver Brook/Tony’s Brook – E. Coli, Benthic – Macroinvertebrate Bioassessments (Streams)
- Long Pond – Town Beach – Cyanobacteria hepatotoxic microcystins

For detailed assessments of each stretch of river/stream/waterbody, refer to the Watershed River Assessments referenced on page 1 under Data Sources. An interactive web map, the 2020/2022 Surface Water Quality Assessment Viewer, can be found here. This tool allows users to identify particular lakes, rivers, and waterbodies and their associated assessment every two years dating back to 2008.

For more information on future actions the town could make to remediate these impaired waterbodies, the town could consider contacting NHDES or conducting a further study.

GROUNDWATER:

This groundwater section provides information on Pelham’s groundwater resources such as identifying the types of aquifers in Pelham and their relative percentage of development or forested land that lays above them. The types of aquifers are classified based on the aquifers ability to percolate water through subsurface material (ground) and this is shown through transmissivity. The “Groundwater-Resources in New Hampshire: Stratified Drift Aquifers” document describes stratified-drift aquifers as primarily layers of sand and gravel deposited by glacial meltwater from retreating glaciers. 37% of Pelham’s land area is over stratified drift aquifers. An aquifer’s ability to transmit water is known as transmissivity. The document “Ground-Water Resources in New Hampshire: Stratified Drift Aquifers” further explains the complex concept of transmissivity:

...the higher the value of hydraulic conductivity, the more readily water can flow through the aquifer material. Aquifers that have a large, saturated thickness, and are composed of material with high hydraulic conductivity, will have a high transmissivity and can readily transmit water to wells.

Table 6: Aquifer Transmissivity

Transmissivity	Total Acres	% of Town	Conserved Acres	% Conserved	Acres Developed, Open space	Acres Developed, Low/Med/High	Total Developed Land	% of aquifer developed	Acres of Forested land	% of aquifer forested
Less than 1000 ft sq/day	4,559	27%	931	20%	376	886	1,262	28%	1,269	28%
1000-2000 ft sq/day	820	5%	119	15%	73	231	304	37%	204	25%
2000-4000 ft sq/day	581	3%	159	27%	42	142	184	32%	181	31%
Greater than 4000 ft sq/day	359	2%	87	24%	40	138	178	50%	62	17%
Total	6,319	37%	1,296	21%	531	1,397	1,928	31%	1,716	27%

Only 2% of Pelham is underlain by the highest aquifer transmissivity for greater than 4,000 square feet per day. In relation to the surrounding towns, Pelham has an equal percentage of stratified drift aquifers with this level of transmissivity. Pelham's town center is located on top of the town's highest transmitting aquifer in which 50% of the land above the highest transmitting aquifer is developed; and 17% is conserved. About one third (31%) of the land above all aquifers in Pelham is developed. These numbers align with the land use pattern of Pelham with most developed land occurring throughout the center of town and the most conserved and forested lands in the west of town. There are many variables that determine the impact of development over aquifers including specific pollution compounds, upstream contaminants, soil type, and others. Pelham's Aquifers and Development Map can be found at the end of this profile.

If the Town wants to better understand the impact development has on its aquifers, further study would be required and could be identified as an implementation action in this Master Plan update. One place to start would be with a windshield survey through the NHDES Drinking Water Source Assessment Program, which identifies hydrologic areas of concern.

If the town identifies groundwater resources as a high natural resource priority, there are many measures the town can explore. Municipalities are authorized to develop local groundwater protection programs, a result of New Hampshire's Groundwater Protection Act from 1991. In 2011 and 2015, the state undertook a process of reclassifying groundwater areas from GA2 (certain high-yield stratified-drift aquifers) and GB (all other areas) to GAA or GA1, representing certain levels of additional protections from local bodies. The groundwater classifications for GA2 are "potentially valuable stratified drift aquifers defined by USGS, no land use prohibitions, and no active management" as identified in the NHDES Groundwater Reclassification Document. 1,725 acres in Pelham are considered as GA2 areas. GA2 areas lay over almost the entirety of the most productive stratified drift aquifers in Pelham. The GA2 areas are outlined in the [Aquifer and Development Map](#) in yellow. For approaches to groundwater protection refer to the NH Department of Environmental Services Guide to Groundwater Protection and to understand the process to reclassify groundwater to GAA or GA1, refer to the NH Department of Environmental Services A Guide to Groundwater Reclassification

WATER SUPPLY:

This section is intended to highlight Pelham's existing water supply and issues related to water quantity in town. As identified in the Community Facilities and Services Profile of the Existing Conditions Report, about only 9% of Pelham's population is on public drinking water supplied by Pennichuck Water Works. The other 91% (approx. 4,809 properties) of Pelham's population is on

private well water. There are a total of sixty-eight public water supply systems in Pelham in which fifty-one are active. The active Public Supply Wells are shown on Table 7, and also identifies the four well types in these public water supplies which include: Bedrock Wells (BRW), Grave-Packed Wells (GPW), Artesian Wells (ART), and Dug Wells (DUG). New Hampshire Department of Environmental Services only releases public water supply data as public information, therefore data on private wells and private water supply in Pelham is limited.

According to NHDES 2021 Environmental Factsheet, “*Most bedrock wells for household use are 200 to 500 feet deep; some are over 1,000 feet. The median depth of bedrock wells in New Hampshire is approximately 400 feet. The median yield is 15 gallons per minute (gpm)*”. In Pelham Bedrock Wells make up the majority of the public well types in town. There are six bedrock wells in Pelham that are over 1,000 feet but the overall average well depth of the active public wells in Pelham is 400 feet which corresponds with the states average well depth. There are thirty-three active bedrock Public Water supply wells in Pelham that have a yield lower than the state’s median which is 15 gpm. This indicates that Pelham’s wells supply less gallons per minute (gpm) than that of the state’s average. Approximately 56% of Pelham’s active public wells have a below average yielding which can be a call for concern of the town.

Though this information provided by NHDES is only pertaining to the public water supply sources in Pelham, many of Pelham’s residents in the Sherburne Road and Spaulding Hill Road area are seeing water supply issues with very low yields derived from their wells. Many residents have had to redrill/dig their wells in order to try and receive higher yields with similar results occurring. This indicates that Pelham residents, with today’s population, are already experiencing water quantity issues due to the town’s lower yielding wells in comparison with the state’s average. In order to address the water scarcity issues the Town of Pelham has recently put out a request for proposals to conduct a water feasibility study for public water infrastructure.

Table 7: Pelham Active Public Water Supply				
Public Water Supply ID	Population	Well Type	Well Depth (ft)	Yield (gpm)
1855060-001	54	BRW	65	10
1856050-001	200	BRW	420	25
1857040-001	200	BRW	0	0
1858020-001	100	BRW	650	0
1855090-001	100	BRW	425	10
1856040-001	90	ART	0	0
1856010-002	100	BRW	1005	15
1852100-001	39	BRW	520	10
1852080-002	25	BRW	575	35
1858050-001	50	BRW	200	0
1857020-001	184	BRW	75	0
1855040-001	200	BRW	125	0
1856070-002	100	BRW	1920	7
1852020-001	68	BRW	300	14
1852110-001	47	BRW	1005	8
1852060-001	120	BRW	180	60
1852120-002	135	BRW	544	15
1852120-001	135	BRW	620	25
1858140-001	30	BRW	300	5
1852130-003	115	BRW	500	5.22
1852150-001	105	BRW	1000	9.9
1852150-002	105	BRW	1000	9.7
1851010-002	910	GPW	35	250
1859040-001	160	BRW	275	10
1859060-001	40	BRW	0	0
1852090-001	35	GPW	27	12.6
1858150-001	25	BRW	0	0
1852130-002	115	BRW	600	7.5
1852130-005	115	BRW	500	9.42
1858070-002	50	BRW	525	2.5
1858130-001	25	BRW	0	0
1852130-001	115	BRW	600	7.85
1852130-004	115	BRW	500	6.81
1852040-002	123	BRW	160	60
1857050-001	150	BRW	380	30
1858090-001	775	BRW	340	20
1859020-001	75	BRW	255	7
1851010-001	910	GPW	35	150
1856010-001	100	BRW	1200	7
1858080-001	900	BRW	305	40
1855070-001	60	BRW	200	12
1855080-001	28	BRW	0	0
1859070-001	25	BRW	175	10

1852140-001	45	BRW	910	15
1856070-001	100	BRW	125	20
1852080-001	25	BRW	600	35
1852080-003	25	BRW	625	12
1858020-002	100	BRW	400	0
1858120-001	25	PTW	0	0
1855090-002	100	BRW	0	0
1858120-002	25	BRW	245	12

PELHAM WATER COMMISSION:

In order to address water issues in the community, a Pelham Water Commission was formed. The Water Commission consists of five members appointed by the Board of Selectmen. As identified on the Town of Pelham's Water Commission Website, the purpose of the Water District is to *“provide water service to the properties that have had their water supply adversely impacted by MBTE and other contaminants”*.

POTENTIAL CONTAMINATION:

The following section discusses NHDES identified potential contamination sites in Pelham and the importance of monitoring these locations in order to prevent contamination in Pelham and downstream of Pelham. The watershed section described in this profile identified Pelham's location in relation to surrounding towns within larger watersheds. This information provides insight to Pelham's potential upstream and downstream impacts to water resources as Pelham receives water upstream that passes through Pelham and continues outside of town downstream. In reference to Pelham's three smaller watersheds that it are a part of (Spicket River Watershed, Fish-Brook Merrimack, and the Limit Brook – Merrimack Watershed), the town maintains high elevation lands within these smaller watersheds which indicates that the quality of these waters begins in Pelham; therefore, there is a responsibility within Pelham to consider the downstream impacts of the various land uses.

There are a total of 97 active potential contamination sites within the 250-foot SWQA buffer. Table 8 and 9 identified that forty-two percent (41 total) of the active potential contamination sites in Pelham are underground storage tanks. Table 8 shows the total potential contamination sites in Pelham. However, Table 9 compares the number of active potential contamination sites in Pelham with those that are within the 250-foot SWQPA buffer – these numbers look very different.

NHDES has identified local potential contamination sources in town. These potential contamination sources are mostly concentrated in the southern portion of the center of town along NH 38. Not coincidentally, these potential contamination sites are also located downstream from Pelham's business development zone. Additionally, other potential contamination sites are located in North Pelham in the industrial zone. This indicates that there should be some concern with Pelham's land use development in relation to the community's impacts to water resources. This is important to identify as the town must be aware of the potential contamination sites both upstream and downstream of Pelham that could affect surrounding communities as well. The Wellhead Protection Areas and Potential Contamination Sites Map found at the end of this Water Resources Profile provides a visualization of where these potential contamination sites exist in Pelham.

Table 8: Pelham – Total Potential Contamination Sites					
Site type	Number active	Number inactive	Number declassified	Other	Total number
Aboveground Storage Tank	11				11
Air Facility Systems	1				1
Automotive Salvage Yards	4				4
Nonsecure Environmental Monitoring Sites	69	18			87
Hazardous Waste Generators	14	43	13		70
Local Potential Contamination Sources	39				39
NPDES Outfalls	0	1			1
Remediation Sites	42	57			99
Solid Waste Facilities	2	3			5
Underground Storage Tank	41				41
Total	223				358

Table 9: Pelham SWQPA - Potential Contamination Sites within the SWQPA						
Site type	Number active	Number inactive	Number declassified	Applied for	Other	Total number
Aboveground Storage Tank	-					0
Air Facility Systems	1					1
Automotive Salvage Yards	1					1
Nonsecure Environmental Monitoring Sites	38	11				49
Hazardous Waste Generators	3	8	3			14
Local Potential Contamination Sources	5					5
NPDES Outfalls	-	1				1
Remediation Sites	8	11				19
Solid Waste Facilities	-					0
Underground Storage Tank	41					41
Total	97					131

Pelham's 2022 Natural Resource Inventory (NRI) identifies and describes different types of local potential contamination. The identified types of potential contamination described in the 2021 NRI are underground storage tanks, Per-and Polyfluoroalkyl Substances (PFAS), household hazardous waste, junkyards, Arsenic and Radon/Uranium, stormwater, and buffer widths. Another chemical that has called for concern throughout the state of New Hampshire is MtBE in drinking water.

MtBE (Methyl tertiary Butyl Ether)

MtBE is a manufactured chemical created in the 1970's to increase the octane rating of gasoline in 1979 during the time that lead was taken out. In 1995 the percentage of MtBE in gasoline increased a result of amendments to the federal Clean Air Act which required the reformulation of some gasoline to increase the oxygen content. MtBE is an ether and contains 18% oxygen. Although in 2007 MtBE was banned in all gasoline in New Hampshire, MtBE is found to be contaminating groundwater drinking supplies. The NHDES recommends testing for MtBE in private wells and although MtBE is difficult to remove from drinking water, NHDES suggests three treatment methods that are effective in removing MtBE from drinking water: air stripping, adsorption using activated carbon and oxidation. For more information visit NHDES Environmental Factsheet: MtBE in Drinking water.

WELLHEAD PROTECTION AREAS:

Using data from NHDES identified potential contamination sites in Pelham, this section describes the identified types of potential contamination sites that fall within wellhead protection areas. Majority of the properties in town utilize private wells as a primary water source. With this in mind, the Wellhead Protection Areas and Potential Contamination Sites Map found at the end of this Water Resources Profile, follows a similar pattern of wellhead protection areas along NH 38 and in North Pelham where most of the potential contaminants are located. In North Pelham, there is a large wellhead protection site near the headwaters of Beaver Brook and Golden Brook. Table 7 below identifies that there are a total of 181 potential contamination sites located within Wellhead Protections Areas in Pelham. However, there are a total of 108 active potential contamination sites in town. The majority are located along NH 38, Pelham's commercial development, which is upstream of Dracut, MA. The Wellhead Protection Map can be found at the end of this profile.

Table 9: Pelham Potential Contamination Sites WITHIN Wellhead Protection Area (WPA)					
Site type	Number active in WPA	Number inactive	Number declassified	Other	Total number
Aboveground Storage Tank	1				1
Air Facility Systems	1				1
Automotive Salvage Yards	0				0
Nonsecure Environmental Monitoring Sites	20	1			21
Hazardous Waste Generators	9	28	11		48
Local Potential Contamination Sources	35				35
NPDES Outfalls	0	1			1
Remediation Sites	19	27		5	51
Solid Waste Facilities	1				1
Underground Storage Tank	22				22
Total	108	57	11	5	181

STORMWATER MANAGEMENT:

The Town of Pelham's Stormwater Management Program website explains the Municipal Separate Storm Sewer System (MS4) and why Pelham filed for a permit. The Town's Stormwater Management Program webpage explains:

"Local drainage systems, whether natural or constructed, are important features that generally carry stormwater runoff away from developed areas to undeveloped areas, waterbodies, and wetlands. Although these drainage systems help to manage stormwater in our built environment, they are also a primary source of untreated pollutants in receiving waters including bacteria, nutrients oil, trash, and many other pollutants. These untreated pollutants in stormwater runoff are defined by the U.S. Environmental Protection Agency (EPA) as "nonpoint source pollution", meaning that the source of the pollution is not directly attributable to a single place or polluter. Stormwater runoff from streets, parking lots, and lawns picks up and carries contaminants as it moves across the ground surface before entering into local drainage systems."

A municipal separate storm sewer system (MS4) area includes the stormwater collection, conveyance, and outfall structures within a city or town. These structures include (but are not limited to) catch basins, drain manholes, culverts, stormwater basins, and swales. As with approximately sixty other municipalities in NH, the Town of Pelham's MS4 is regulated under the EPA Clean Water Act (CWA) and requires a permit for discharges to the environment.

Pelham Environmental Compliance Specialist (ECS)

In order to properly maintain and meet all requirements of Pelham's MS4 Permit, the town created an Environmental Compliance Specialist in the Planning Department. With the assistance from the Highway Department, the Environmental Compliance Specialist conducts yearly culvert and catch basin inspections. In 2021, over sixteen hundred catch basins were inspected and cleaned as well as the removal 220 tons of materials from catch basins. In July 2020-June 2021, three hundred and seven outfalls were screened accounting for 99% of the town's outfalls/interconnections screened. When inspections of catch basins and culverts is conducted, the Environmental Compliance Specialist looks for signs of illicit discharge by seeing if the water in it has any odor or film on top. These are important to check these out because people could be illegally connected to catch basins and produce gray water.

As part of the MA4 Permit requirements, the EPA requires a minimum of 2-3 educational materials a year; however, Pelham's ECS typically releases educational materials every month. The Environmental Compliance Specialist educates the public by submitting educational materials in the form of Flyers/brochures (located at town hall, parks and recreation department, and the library) through social media and on the town's website. Additionally, education materials are distributed based on the relevance in the season. For example, pet waste brochures are sent with dog licensing forms, yard waste flyers are advertised in the fall, septic information issues during septic smart week in September, leave no trace principles in summer, and park cleanup days in June/sept where the Environmental Compliance Specialist can educate volunteer residents right on scene. In recent work, the Environmental Compliance Specialist is working towards providing more "live action" educational outreach such as working with UNH CO-lab extension and Merrimack to put on a PowerPoint presentation to inform people of stormwater management and also submit a recording to PTV for pelham residents to watch if they could not attend. There is an identified need for the town to put stormwater infrastructure at town facilities to filtrate bacteria and phosphorus pollution.

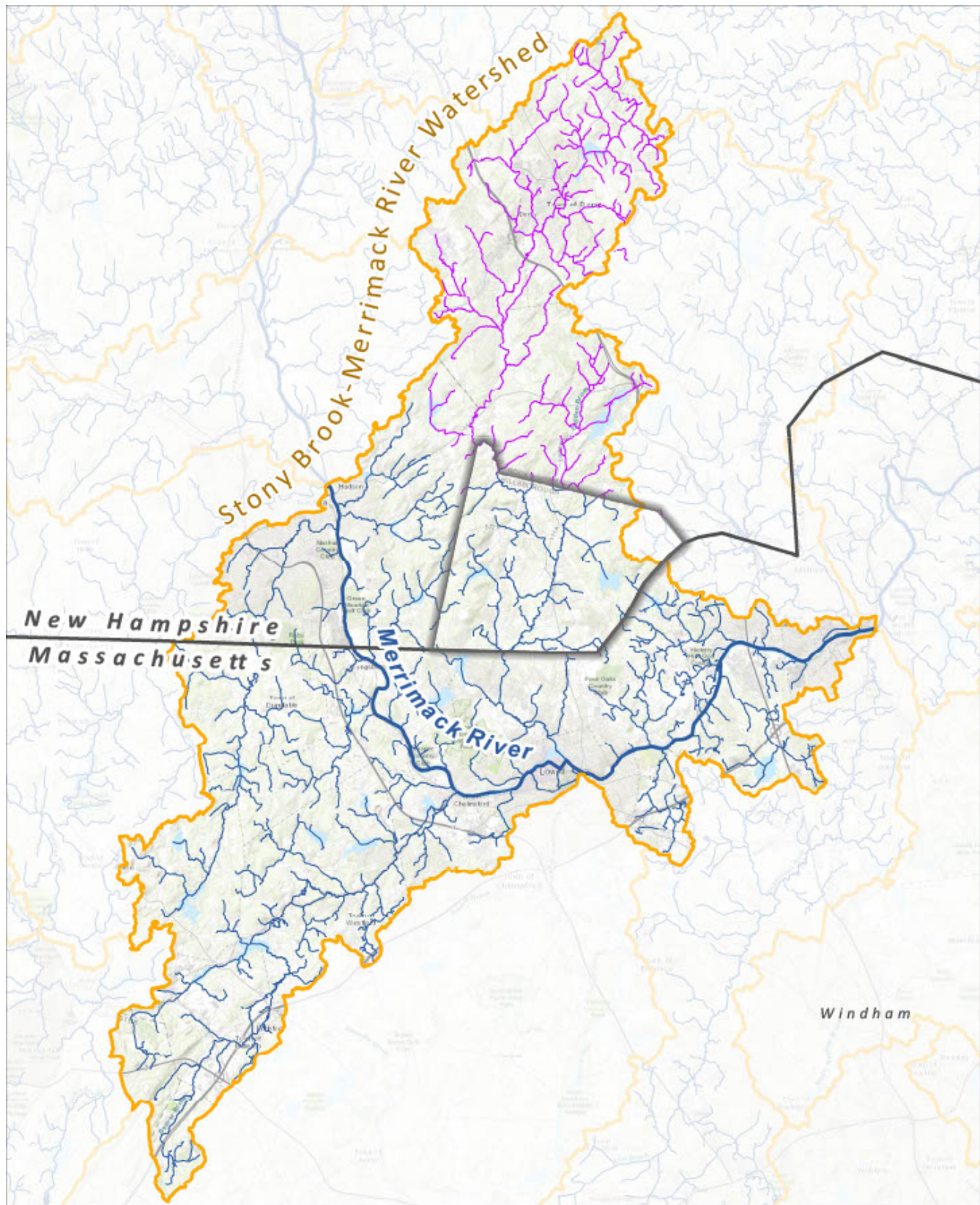
The Schools, Cemetery Department, Highway Department, and the Transfer Station and Recycling Center all have their own Stormwater Pollution Prevention Plan. Pelham's ECS goes out to each facility to make sure the department is complying with the plan and that there is no excess pollution. One person from each department goes out with the ECS and gets trained on how to identify illicit discharge each year.

Recent Stormwater Management Projects





In January 2021, an illicit discharge hotline was established for the Town of Pelham and the Environmental Compliance Specialist had accompanying educational flyer so that the public could understand when this was appropriate to use. The Environmental Compliance Specialist is also responsible for checking and documenting illicit discharge complaints and reporting them to the EPA and NH Department of Environmental Services. In 2021 there were two spills, an oil spill in a residential area of Shagnon Lane and a septic system overflow in Hannaford area.

The Pelham Stormwater Stakeholder Group was reestablished in February 2021. The group is composed of individuals and residents who are interested in the topic of storm water. Many members are from Pelham Pond Associations or are from other committees in town. The group has meetings every 3-4 months.

The ECS also created a contest for environmentally themed murals to be painted on stormwater drains throughout Pelham. This is still underway.



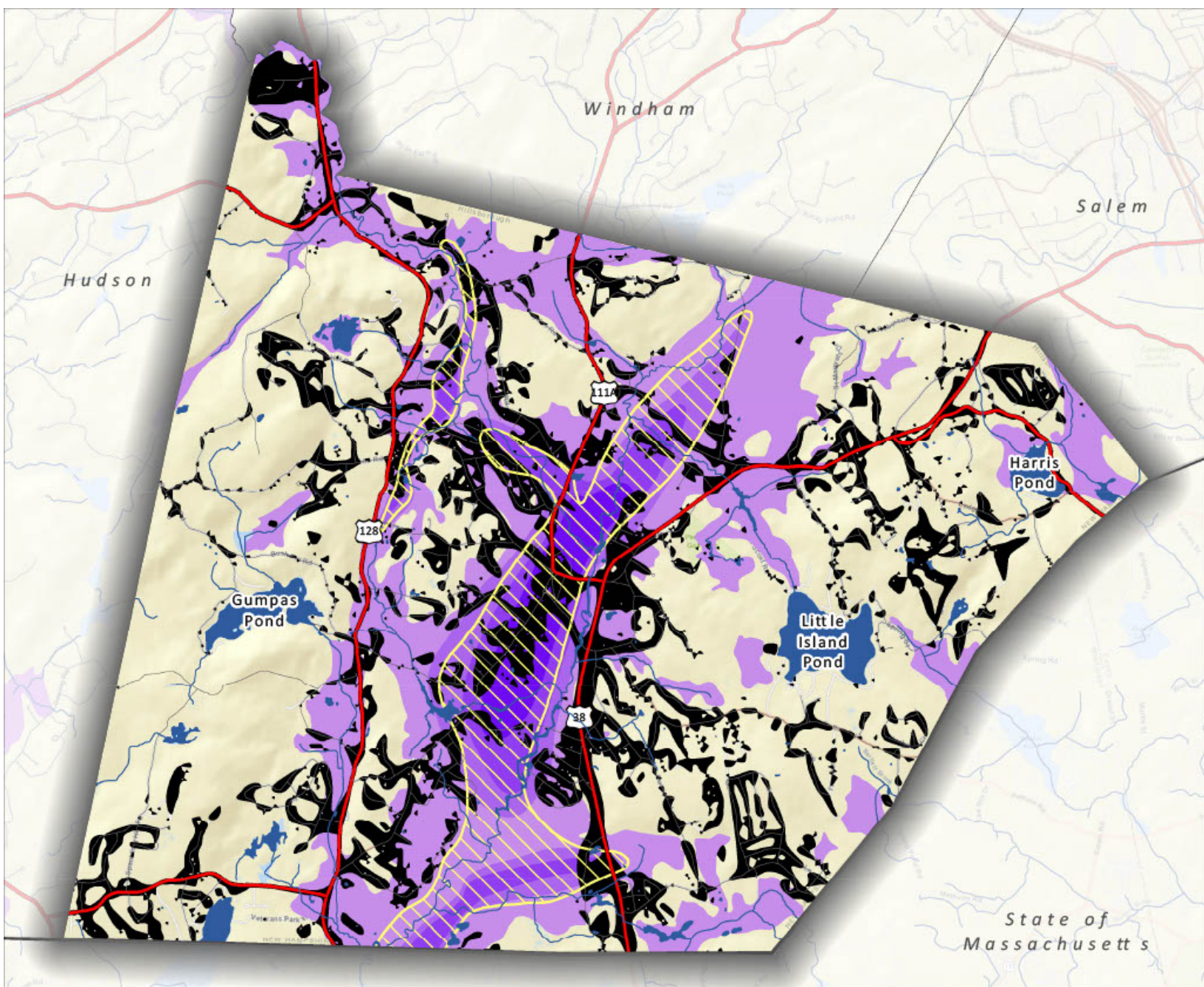
Upstream Waters Town of Pelham

-  Pelham Town Boundary
-  Streams
-  Upstream water flowing into Pelham
-  Watershed (HUC 10)



Data Sources: Town of Pelham, NH GRANIT, NH DES, Nashua Regional Planning Commission, USGS
Created by: Resilience Planning & Design July 2022





Aquifers & Development Town of Pelham

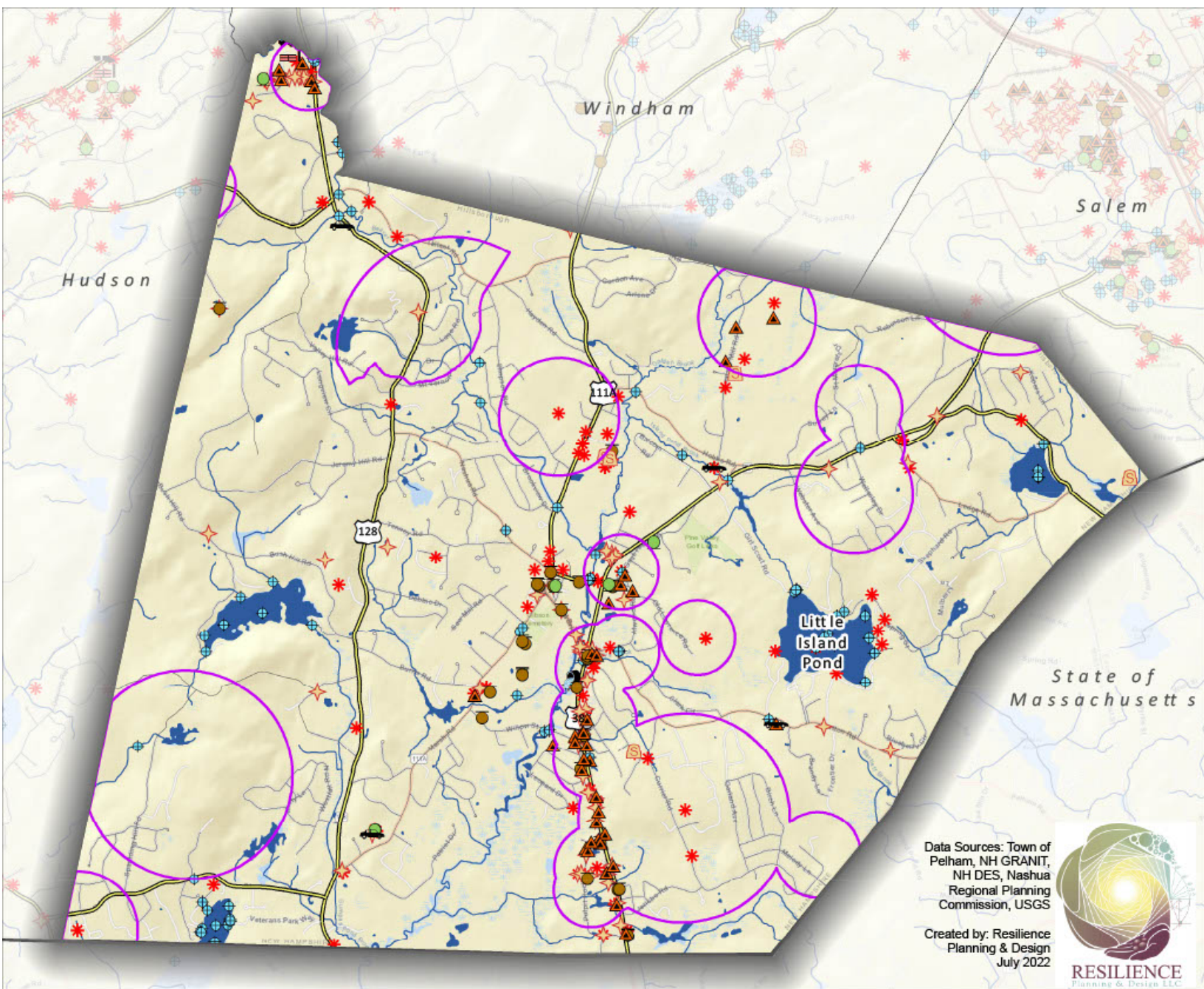


- Town Boundary
- State Road
- Other Road
- Waterbody
- Stream
- Developed Area
- Groundwater Classification: GA2
- Aquifer productivity: Low
- Aquifer productivity: Medium
- Aquifer productivity: High
- Aquifer productivity: Excellent

Data Sources: Town of Pelham, NH GRANIT, NH DES, Nashua Regional Planning Commission, USGS

Created by: Resilience Planning & Design
July 2022





Pelham, New Hampshire

Natural Hazards Profile

KEY FINDINGS:

- The most pressing natural hazards that Pelham is facing are extreme temperatures, drought, wildfires, and flooding.
- The Main Street Bridge and the Abbott Bridge are two areas prone to flooding and are both identified on the NHDOT's Red List.
- The flood zones in Pelham are located throughout the center of town mostly along Beaver Brook.
- Extreme heat, periods of drought, and wildfires all pose a significant threat to Pelham and its water resources.
- Temperatures in New Hampshire have risen more than 3°F since the beginning of the 20th century
- Hillsborough County has experienced more wildfire acres burned than any other county in the state. Additionally, Hillsborough County has the highest number of unpermitted fires.
- In 2021, there were 162 fires reported in Pelham. The causes of these fires include debris burning, campfires, arson, smoking, lightening, and other miscellaneous causes such as power lines, fireworks, and electric fences.
- Fourteen percent of Pelham, or 2,449 acres, is in the 100-year floodplain and an additional two percent or 346 acres are in the 500-year floodplain.
- Three percent of the town's roads, 4.35 miles, are within the 100-year floodplain and 1.95 miles or one percent of Pelham's roads are in the 500-year floodplain.
- Pelham has eight critical facility structures within the floodplain and eight bridges withing the floodplain.

DATA SOURCES:

- Town of Pelham Hazard Mitigation Plan 2017
- State of New Hampshire Multi-Hazard Mitigation Plan 2018
- Town of Pelham Zoning Ordinance March 2022
- 2021 Annual Town Report
- Nashua Region Water
- Resiliency Action Plan 2016
- 2020 Town of Pelham Climate Adaptation Forest Management Plan
- NH Granit Data
- NH Division of Forests and Land
- Nashua Regional Planning Commission (NRPC)
- Unites States Geological Survey (USGS)
- 2021-2030 NHDOT Ten Year Plan
- 2017-2022 National Integrated Drought Information System
- NOAA New Hampshire Climate Summary 2022

INTRODUCTION:

With the impacts of climate change becoming more of a reality for communities in the region, it is important for the Town of Pelham to identify potential natural hazards that can occur in the community, as well as any vulnerable infrastructure that can be affected. The frequency and intensity of natural hazard events is rapidly increasing, and it is essential that communities identify these weaknesses in infrastructure and develop mitigation strategies to ensure resiliency. Pelham has identified Hazard Mitigation goals in the 2017 Hazard Mitigation Plan, and they are listed below:

- Prevent the impacts of natural hazards on the Town's population, critical facilities, infrastructure, emergency services, natural resources, and private property whenever possible.
- Protect the Town's existing critical facilities, infrastructure, and private property from the impacts of natural hazards through cost effective mitigation activities
- Educate and inform the Town's residents to help them become more resilient to natural hazards impacting the community.
- Become more resilient to the impacts that climate change has on the Town's population, critical facilities, infrastructure, emergency services, natural resources, and private property.
- Address the challenges of natural resource degradation and the associated increased risk from hazards.
- Protect emergency services, critical facilities, and other critical capabilities from hazard damage in order for them to remain operational.

Below are natural hazards that need to be understood and addressed in Pelham:

Extreme Temperatures

As identified in the 2018 State of New Hampshire Multi-Hazard Mitigation Plan, extreme temperatures can be defined as, *"a period of prolonged and/or excessive hot or cold that presents a danger to human health and life"*.

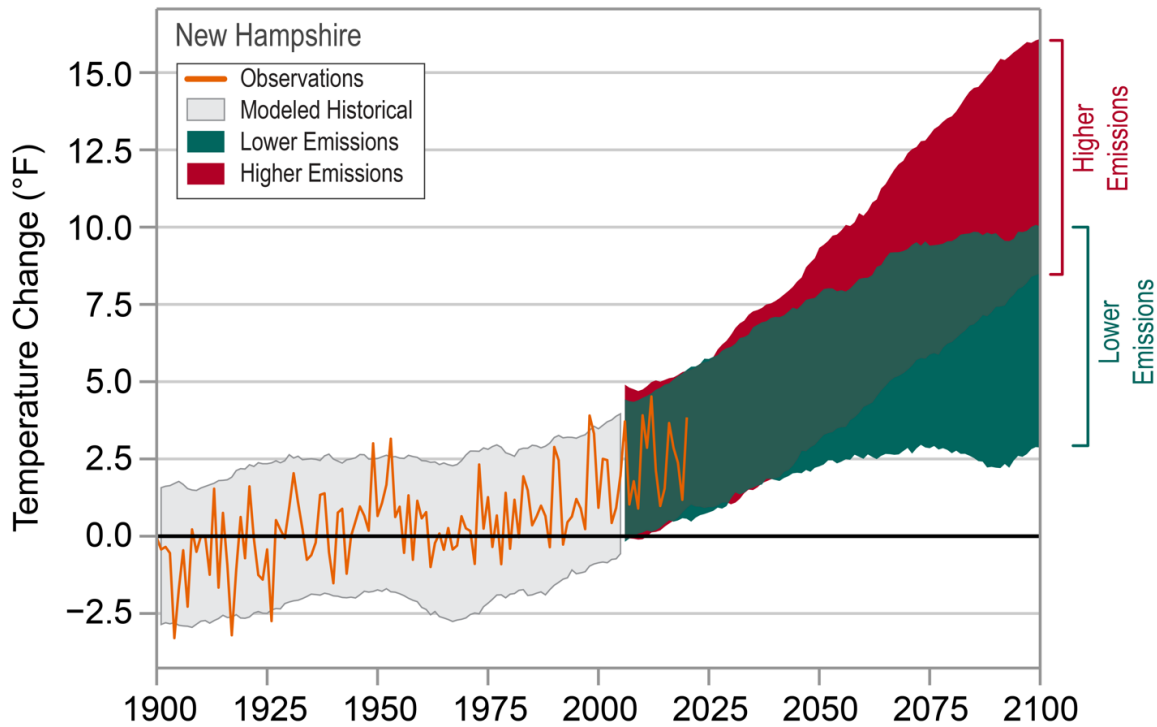
Warmer Temperatures

New Hampshire experiences between two and ten days per year where the heat index reaches 95 degrees. In Hillsborough County, the region is predicted to be impacted by more extreme heat events. The increase in temperatures predicted for longer durations of time indicates that Pelham is expected to be impacted as a result of these warmer temperatures. As addressed in the Nashua Region Water Resiliency Action Plan, in the years 1970-1999 Hillsborough County had an average of seven days per year that had above 90°F temperatures. It is projected that future temperatures will continue to increase and with higher predicted emissions, the probability of days above 90°F will increase to an average of 54 days per year. However, under a lower emissions scenario, it is projected that Hillsborough County will experience an average of 23 days per year above 90°F. Regardless of a higher or lower emissions scenario, the existing climate is expecting to warm and therefore Pelham should act to mitigate these inevitable impacts in response to this change. The impacts to Pelham due to warmer temperatures are identified in the next table:

Impacts from Warmer Temperatures:	
Category	Impacts
Health	Risk of heat related injury or death to humans, pets, and livestock. There is particularly a risk to the elderly and the young.
Transportation	Road damage: can result as asphalt can soften in extreme prolonged heat and concrete roads can explode. Vehicles: increased stress on cooling systems and other components for vehicles.
Agricultural	Livestock can be severely impacted or killed, crop production can be slowed, damaged, or destroyed. Although warmer temperatures will increase the length of the growing season, this could lead to a greater demand for water to irrigate crops and lawns.
Energy	The increased use of cooling systems such as air conditioners creates an increased demand for energy consumption during extreme heat temperatures. This demand can lead to the heating of power lines causing transmission and distribution lines to sag and sagging powerlines can short out causing power outages and brownouts
Water	Water Resources: The demand for water increases to meet animal and human needs in order to prevent illness and water consumption utilized to cool down equipment and structures. Firefighter hose pressure can also be affected. Water Quality: Rises in water temperature can result in lower water quality and can affect fish populations and result in the death of other organisms. Increased temperatures can also lead to more precipitation events in place of snow during winter months, and may result in drought due to increased evaporation.

According to the NOAA New Hampshire Climate Summary 2022, since the beginning of the 20th century, New Hampshire's temperatures have risen more than 3°F. in recent years of 2015-2020, these years had the highest multiyear average of about 9 days. The greatest warming has occurred in the winter, with an increase of more than 4°F since 1900. NOAA's Observed and Projected Temperature Change Graph below shows the state's historical data in comparison to the projected change in temperatures over time based off high versus low emissions.

Observed and Projected Temperature Change



Colder Temperatures

Although the earth's climate is warming it is still probable that other extreme temperature events such as extreme cold temperatures will continue to occur during the winter season as well. As defined in the state of New Hampshire Multi-Hazard Mitigation Plan, extreme cold during winter months, also known as cold snaps, are caused due to the southern transport of arctic airmasses into the northeast. The impacts to Pelham due to colder temperatures are identified in the table below:

Impacts from Colder Temperatures:	
Category	Impacts
Health	Risk of cold related injury such as hypothermia and frostbite, or death to humans (elderly especially at risk), pets, and livestock.
Transportation	Vehicles, batteries, etc. damaged due to freezing or wind.
Agricultural	A freeze or frost early or late in the growing season can cause increases in the cost of products, loss of products, and impacts to livestock.
Energy	Increases in energy use due to heating systems during extreme cold temperatures.
Water Resources	Frozen water resources, pipes, and systems can lead to infrastructure damage, and create a disconnect preventing people and animals from getting water.

Drought






The State of New Hampshire's Department of Homeland Security and Emergency Management defines a drought as "the absence of water in a region that occurs slowly due to below average precipitation over an extended period, resulting in low stream flows, low surface water, and low groundwater levels". In recent years, the State of New Hampshire has experienced increases in drought levels occurring for longer durations of time that have caused significant impacts which require community adaptation and implementation measures. In order for the state to successfully monitor and respond to drought conditions, the state has been divided up into 5 drought management areas in which Hillsborough County is identified as the "Southern Interior" drought management area. The threats to Pelham due to drought are identified in the next table with the following categories of impact:

Impacts from Droughts:	
Category	Impact
Water	Lack of water causes productivity of natural vegetation and agriculture to decrease; risk to summertime drinking water supply, lack of water for public safety, the amount of impervious surface area reduces infiltration and contributes to drought impacts.
Environmental	Loss or destruction of fish and wildlife habitat; lack of food and drinking water for wildlife; increased stress on and possible extinction of endangered species; lower water levels in reservoirs, lakes, and ponds; loss of wetlands; more frequent wildfires; wind and water erosion of soils; poor soil quality.
Economic	Destruction of crops causing higher food costs, cost of irrigation and drilling more wells, timber industry workers may be affected if wildfires are exacerbated by drought destroying timber, water companies having to spend money on new or additional water supplies.
Social	Anxiety or depression about economic losses caused by drought; health problems related to poor water quality, dust and pollen; threat to public safety from an increased number of wildfires, reduced incomes, fewer recreational activities.

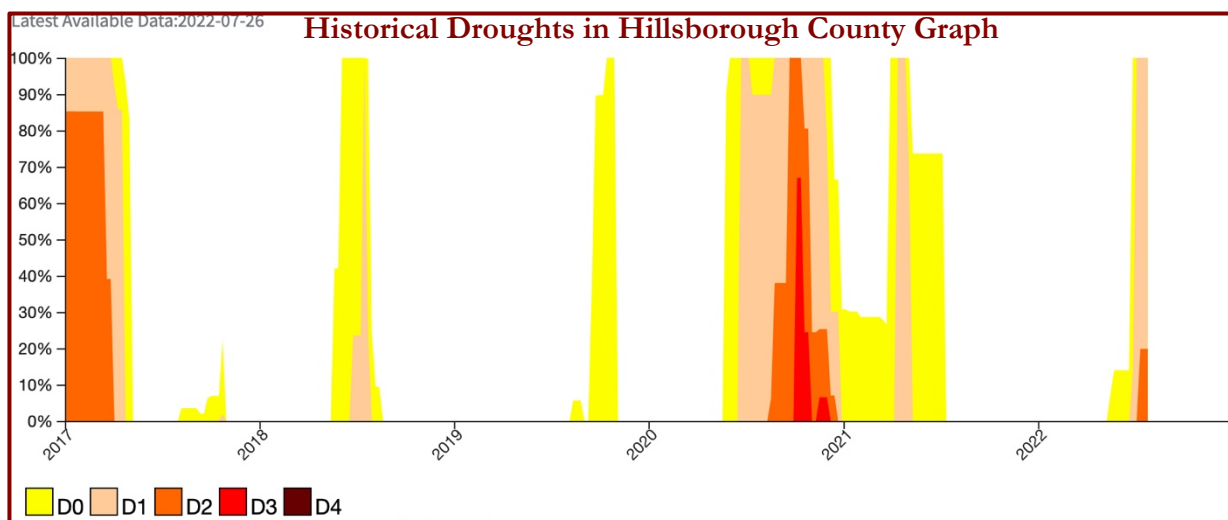
In 2016, the USDA identified the Hillsborough region as in a severe drought and Pelham endured impacts from this drought as a result. Pelham experienced low water levels in private wells. In response to this, the town issued voluntary water restrictions. Additionally, Pennichuck Water

Works issued mandatory outdoor water use bans. The upper Sherburne Road area in Pelham tends to be identified as a “water starved” area of town due to its topography and often experiences the most drought related impacts as there are only private wells in this area. More on the town’s water issues and resources can be found in the Water Resources section of this Existing Conditions Report.

Recent data shows that Hillsborough County has also experienced extreme drought in 2021 and 2022. The below data is derived from “The U.S. Drought Monitor (USDM). The USDM relies on drought experts to synthesize the best available data and work with local observers to interpret the information. The USDM also incorporates information about how drought is affecting people, with its network of over 450 observers across the country, including state climatologists, National Weather Service staff, Extension agents, and hydrologists”. Droughts are classified as D0-D4 which can be described in the image to the right.

	D0 - Abnormally Dry <ul style="list-style-type: none"> • Crop growth is stunted; planting is delayed • Fire danger is elevated; spring fire season starts early • Lawns brown early; gardens begin to wilt 	100.0% of NH (D0–D4)
	D1 - Moderate Drought <ul style="list-style-type: none"> • Irrigation use increases; hay and grain yields are lower than normal • Honey production declines • Wildfires and ground fires increase 	85.7% of NH (D1–D4)
	D2 - Severe Drought <ul style="list-style-type: none"> • Specialty crops are impacted in both yield and fruit size • Producers begin feeding cattle; hay prices are high • Warnings are issued on outdoor burns; air quality is poor 	3.4% of NH (D2–D4)
	D3 - Extreme Drought <ul style="list-style-type: none"> • Crop loss is widespread; Christmas tree farms are stressed; dairy farmers are struggling financially • Well drillers and bulk water haulers see increased business • Water recreation and hunting are modified; wildlife disease outbreak is observed 	0.0% of NH (D3–D4)
	D4 - Exceptional Drought <ul style="list-style-type: none"> • New Hampshire has experienced little or no exceptional (D4) drought, so there are no D4-level drought impacts recorded in the Drought Impact Reporter. 	0% of NH (D4)

Source(s): NDMC, NOAA, USDA



Wildfires

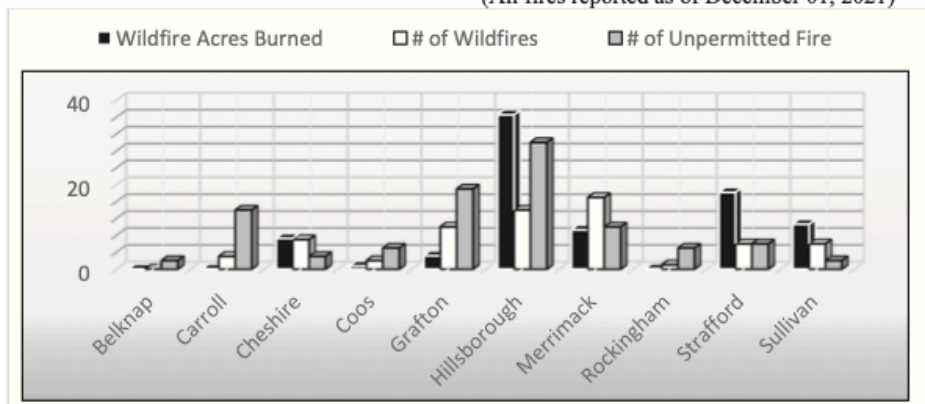
The State of New Hampshire's Department of Homeland Security and Emergency Management defines wildfires as *“any non-structural fire, other than a prescribed fire, that occurs in the Wildland. Wildlands consist of vegetation or natural fuels”*. Drought conditions create high probability of wildfire due to lack of water and dry vegetation that act as fuel. As identified in the NH Multi-Hazard Mitigation Plan, the number of woodland fires in the state increased by over 200% during the 2016-2017 drought. Some factors to consider that can lead to a potential increase in woodland fires are:

- The average length of snowpack has decreased by 12 days over the last 50 years, causing bare ground exposed longer and forests to be more susceptible fires during a drought
- Temperatures are allowing disease and insects to move north, killing trees which provide more fuel for fires
- Other extreme weather events, such as windstorms or ice storms, are drowning more trees adding fuel to fires during a drought.

In order to mitigate the impacts from wildfires, the Town of Pelham has its own Forest Fire Warden who educates the public on safe fires and wildfire prevention as well as the distribution of fire permits. Pelham follows NH State Law (RSA 227-L:17) which requires fire permits for all outside burning unless there is still snow ground cover. According to the 2021 Wildland Fire Statistics below, provided by the Pelham Forest Fire Warden and State Forest Ranger in the town's annual report, Hillsborough County has the most wildfire acres burned than that of any other county in the state. Additionally, Hillsborough County has the highest number of unpermitted fires. A contributor to this could indicate that stricter enforceability in Hillsborough County is necessary for fire permits to mitigate the potential threats caused by a wildland fire outbreak. However, in Pelham despite the year 2020, there has been a reduction in the number of unpermitted fires.

2021 WILDLAND FIRE STATISTICS

(All fires reported as of December 01, 2021)



*Unpermitted fires which escape control are considered Wildfires.

Year	Number of Wildfires	Wildfire Acres Burned	Number of Unpermitted Fires*
2021	66	86	96
2020	113	89	165
2019	15	23.5	92
2018	53	46	91
2017	65	134	100

CAUSES OF FIRES REPORTED

(These numbers do not include the WMNF)

Arson	Debris Burning	Campfire	Children	Smoking	Railroad	Equipment	Lightning	Misc.*
1	81	25	0	7	1	4	2	41

*Miscellaneous includes power lines, fireworks, electric fences, etc...

Wildfires are not only a threat to the forests and neighborhoods of Pelham. Though Pelham has managed to maintain much of its rural character in a quickly developing portion of New Hampshire, much of the Nashua region has seen rapid commercial and residential development. There are several wildfire related factors that Pelham can address in order to mitigate the amount of woodland fire occurring. Due to Pelham's land use balance between development and woodlands/open space, the town should consider its Wildland-Urban Interface (WUI) with the natural land. The Wildland-Urban Interface (WUI) are areas of development that abut and are near wildlands. A WUI area can also be described as a zone where structures and other human developments meet or intermingle with undeveloped wildlands or any point where the fuel feeding a wildfire change from natural (wildland/vegetation) fuel to man-made (urban) fuel.

Other than droughts causing wildfires, the causes of these fires can also be by debris burning, campfires, arson, children, smoking, and lightening. The effects of wildfires include Smoke and fire damage to structures in wild land/urban interface, damage to habitat, impacts to air quality and water resources, and loss of natural resources.

Inland Flooding

The State of New Hampshire's Department of Emergency Management's Multi-Hazard Mitigation Plan defines inland flooding as, "a high flow, overflow, or inundation by water, which causes or threatens damage from the overflow of rivers, their tributaries, and streams throughout the State, primarily from high precipitation events".

Increased Precipitation

The effects of climate change can also cause more severe weather events and result in an increase in precipitation resulting in flash flooding and extreme precipitation events. Flash flooding is defined as, "a rapid rise in water level and extreme velocities in a river or stream, beginning within six hours of the causative event". In New Hampshire, flash flooding also includes ice dams and rapid snow melt. An extreme precipitation event can be identified as those where more than one inch of rain falls within 24 hours, or more than 2-4 inches falls in 48 hours. According to the Nashua Region Water Resiliency Action Plan, average annual precipitation in Southern New Hampshire is projected to increase 17-20% by the end of the century. The threats to Pelham due to increased precipitation are identified below:

- Damage to infrastructure such as buildings, roads, bridges, culverts, increased erosion and degraded water quality.
- Road closures due to flooding and/or culvert and bridge failure
- Loss of utilities due to flooding (overwhelmed wastewater treatment plants)
- Increased rainfall intensity during storms resulting in greater flood damage because flood zones are underestimated on current flood maps
- Loss of homes and business due to flooding
- Possible release of toxic hazards
- Loss of critical facilities due to flooding

Riverine erosion, scouring, and flooding

Increased precipitation and flash flood events along with increased impervious surfaces contribute to riverine erosion. The rivers and streams that are most affected by erosion are those within watersheds that have steep terrain, where rivers have been historically straightened and modified, and those that have development adjacent to them. In Pelham's case, the flooding of Beaver Brook as well as culvert blowouts, contribute to riverine erosion as the Main Street Bridge and Abbott Bridge do not have sufficient freeboard to accommodate high intensity flooding. Scouring typically occurs downstream of bridges and culverts and other structures within rivers such as retaining walls and riprap revetments. The threats to Pelham due to flooding are identified in the next table with the following categories of impact:

Impacts from Flooding	
Category	Impact
During Flood	Risk of drowning, becoming trapped, or emergency services not being able to rescue people in distress.
After Flood	If properties are not properly cleaned, mold and rot can occur in areas that were flooded causing health problems for people and pets. Damage to: personal properties, businesses, industrial complexes, housing units, roads, stormwater infrastructure, bridges, culverts, power and utility lines.
Overtime	Damage to structures causing rot and degradation .
Environmental	Release of hazardous chemicals, pesticides, and chemicals into flood waters contaminate those waters; downstream water quality issues due to overwhelmed storm drainage systems in developed areas being overwhelmed and inundated; disrupts the balance of the existing ecosystem, kills animals/plants/insects; contaminated floodwaters introduced to the ecosystem creates impacts.
Economic	Damage to structures, loss of commerce due to business closure or inaccessibility, and rebuilding and mitigating related costs.

Flood Zones

Designated flood zones are areas described by the Federal Emergency Management Agency (FEMA) as being prone to varying levels of flood risk. These flood zone areas are identified on the FEMA Flood Insurance Rate Map (FIRM) in terms of a designated 1% (also referred to as Base Flood or 100-year flood) and 0.2% (500-year) annual flood zones. FEMA identifies Special Flood Zone Hazard areas as “areas that will be inundated by the flood event having a 1% chance of being equaled or exceeded in any given year”. The FIRM also shows moderate flood hazard areas between the limits of the base flood and the 0.2% annual chance flood.

Floodplains exist in Pelham along Beaver Brook through the center of town, and along its tributaries which extend throughout the northern and southern part of town towards North Pelham and the Dracut, MA line. There are three primary flood zone types in Pelham including:

- Zone A: – 1% annual chance flood (also known as the 100-year floodplain)
- Zone AE – 1% annual chance flood (100-year floodplain)
- Zone X – 0.2% annual chance flood (also known as the 500-year floodplain)

In Pelham, 14% of the town or 2,449 acres is in the 100-year annual floodplain and an additional 2% of the town or 346 acres are in the 500-year floodplain. In terms of roadways, Pelham has 4.35 miles or 3% of the town's roads are in the 100-year floodplain, and 1.95 miles or 1% of Pelham's roads within the 500-year floodplain. The majority of Pelham's roadways that are within designated floodplains are located in the southern portion of the town between NH 38 and NH 111A and roads surrounding Little Island Pond. Pelham's floodplains and roads that intersect the floodplain can be found in the Floodplain Map at the end of this Natural Hazards Profile. In reaction to when natural disasters strike like storm surge flooding, the town could consider identifying areas in town where there is no connectivity and consider implementing emergency evacuation routes through the connectivity of roads.

Due to the town's large floodplain, Pelham is at greater risk of experiencing losses due to flooding. So, in March of 1980, the Town of Pelham joined the National Flood Insurance Program (NFIP). The program involves providing full insurance coverage based on risk shown on the FIRM map for Pelham. Participating communities in the NFIP must agree to adopt a Floodplain Development Ordinance and enforce regulations in order to protect the floodplain from future development impacts. As a result, Pelham had adopted a Floodplain Development Ordinance and the details of this regulatory tool are briefly described below.

Pelham Floodplain Development Ordinance

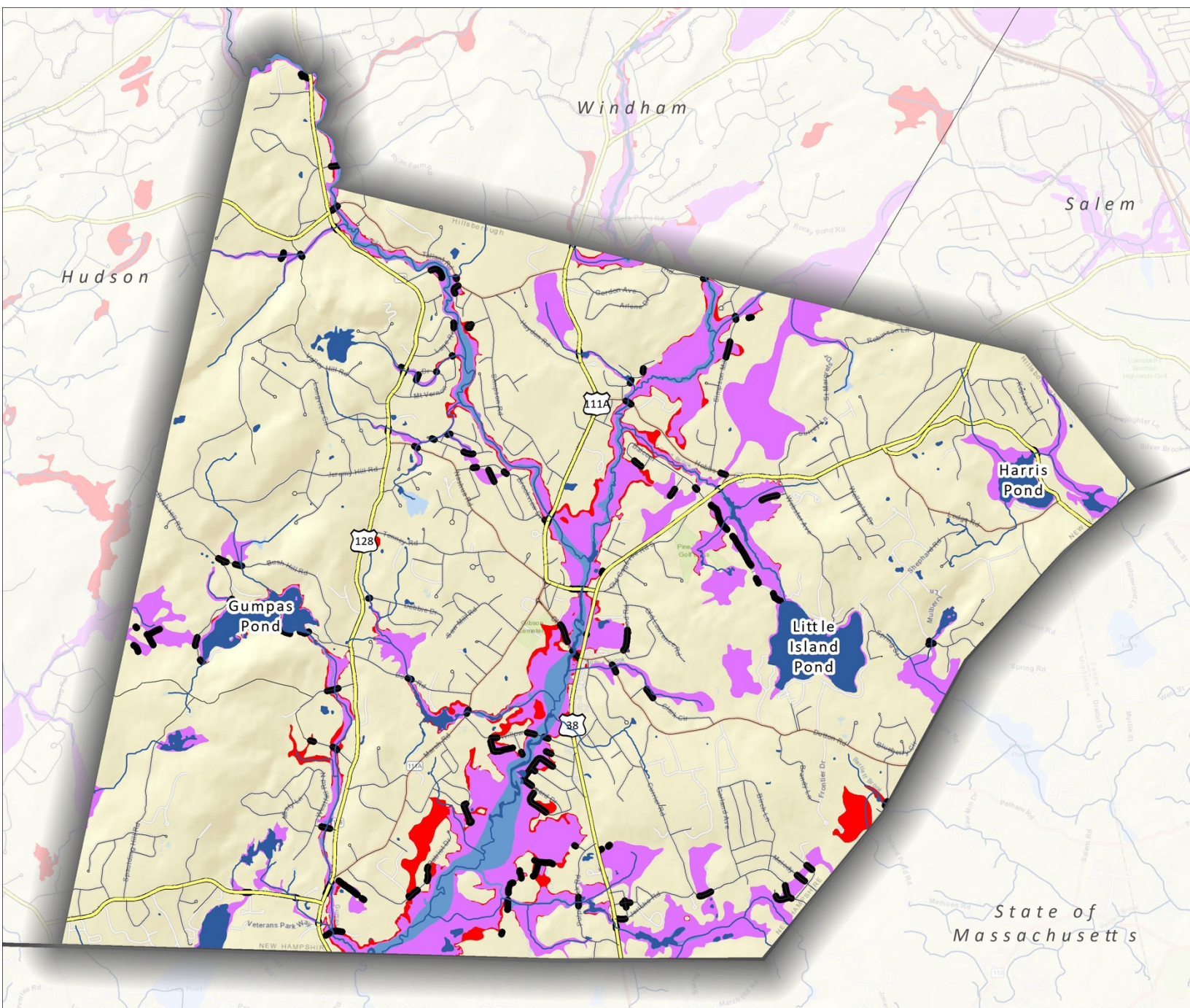
The ordinance's purpose is to prevent the development of buildings, impervious surfaces, and other uses that are hazardous to the health of the floodplain, and impose threats to flooding, natural flows and drainage. The ordinance is also required to comply with the requirements of the National Flood Insurance Act of 1968 (P.L. 90- 488, as amended). Area of Special Flood Hazards are identified in the Floodplain Development Ordinance as "the land in the floodplain within the Town of Pelham subject to a one percent or greater chance of flooding in any given year. The area is designated as Zone A and AE on the Flood Insurance Rate Map."

Existing Pelham Flooding Issues

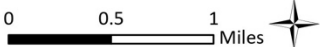
The Town of Pelham experiences flooding from Beaver Brook as it is a low gradient stream and Pelham is located on the downstream end of Beaver Brook. Beaver Brook "flows 35 miles from north to south with headwaters in Londonderry and ultimately discharges to the Merrimack River in Lowell, MA". As identified in the Town's 2017 Hazard Mitigation Plan, Pelham experiences high flood inundation from Beaver Brook, and as a result the town experiences bridge and street overflow as well as culvert blowouts. Additionally, in the 2015 Beaver Brook Flood Study, it was identified that the Willow Street Bridge, Abbott Bridge, and Main Street Bridge are locations in town that are prone to flooding. The hydraulic model described in the Beaver Brook Flood Study

demonstrates that flooding at each of these bridge locations is affected by backwater from the undersized downstream crossings (culverts).

However, in 2019 the Willow Street Bridge replacement and sidewalk extension was complete by NHDOT. In order to address the remaining flood inundation areas in town, Pelham must replace Main Street Bridge and repair Abbott Bridge. The NHDOT Ten Year Plan identified that a bridge and culvert replacement for the Main Street Bridge over Beaver Brook estimated construction is in 2023 and the rehabilitation of Abbott Bridge estimated construction is 2023. However, these projects have been delayed by NHDOT. More information on these projects can be found in the Transportation Profile of this Existing Conditions Report.



Floodplain & Roadways Natural Resources Town of Pelham



- | | | | |
|--|---------------|--|--------------------------------------|
| | Town Boundary | | Road in Floodplain |
| | State Road | | Zone AE: Floodway |
| | Other Road | | Zone A: SFHA 1% annual chance flood |
| | Waterbody | | Zone AE: SFHA 1% annual chance flood |
| | Stream | | Zone X: 0.2% annual chance flood |

Data Sources: Town of Pelham, NH GRANIT, NH DES, Nashua Regional Planning Commission, USGS

Created by: Resilience Planning & Design
July 2022



Pelham, New Hampshire

Historical and Cultural Profile

KEY FINDINGS:

- Pelham has extensive historical and cultural resources, and these are documented in an online history and genealogy library that provide some insight into the community's past and promote the historical significance of the community.
- Pelham's stone walls, historic structures, and landscapes are threatened by development as the town does not have any land use regulations in place for their preservation.
- Pelham's Historical Society is heavily involved in efforts to educate the public about Pelham's rich history.
- Farms that were once central to Pelham's land use pattern and identity are slowly disappearing.
- Pelham could explore the possibility of creating a historic zoning overlay district and a Historic District Commission. Both efforts could help promote awareness and preservation of Pelham's historic and cultural resources.
- Pelham is fortunate to have active cultural organizations and popular community events that bring residents together and build a greater sense of community.

DATA SOURCES:

- Pelham Historical Society's Website
- Hayes-Genotter History & Genealogy Online Library
- New Hampshire Division of Historical Resources (NHDHR)
- Enhanced Mapping and Management Information Tool (EMMIT)
- National Register of Historic Places
- Pelham 2002 Master Plan
- Pelham New Hampshire Economic Development Website
- Organizations and Groups in Pelham Town Website
- Reflections: A Pictorial History of Pelham, New Hampshire 1746 - 1996

INTRODUCTION:

This profile identifies and describes the history of Pelham and the many cultural resources that add a sense of community and unique character to the town. Historic and cultural resources include both physical resources (landscape features, buildings, and physical sites) as well as non-physical resources such as organizations, programs, clubs, and community traditions.

PELHAM'S HISTORICAL BACKGROUND:

European settlement in Pelham began in 1722 when the town was still a portion of the outlying parts of Dracut and Dunstable, Massachusetts. It wasn't until 1746 that Pelham received its charter from King George II and the town was named after British Prime Minister, Henry Pelham. The first settler of Pelham was John Butler. However, local tradition indicates that in 1719 a group of settlers passed by Pelham on their way to Derry and cleared a spot to observe the Sabbath. That location is today known as Pulpit Rock. Prior to this period of settlement many generations lived on the land now known as Pelham, and are collectively referred to as the Abenaki, which is often translated as "People of the Dawnland." While less of this history is documented it provides important context and perspective as Pelham looks to the future.

The town boundaries of Pelham have remained essentially the same since European settlement except for a couple adjustments at both north corners. Due to Pelham's rich natural resources, the town was primarily a farming community, and it was the principal occupation for many residents. In 1898, there were 150 working dairy farms in Pelham that produced over 500,000 gallons of milk. Pelham was also known as the number one producer of chicken eggs in the region. The Town of Pelham remained a farming community until World War II, and then a slow transition of business owners, executives, and service industry workers blossomed. Transportation advancements also influenced the change in Pelham's industries as more residents were able to travel to neighboring cities for work. Although today Pelham's economy is quite different the town is still tied to its agricultural roots and strives to preserve its rural character.



In the late 1800's, early 1900's Pelham's abundance of large prospering farms provided dairy products and vegetables to neighboring mill cities of Nashua, Haverhill, Lawrence, and Lowell. Due to Pelham's scenic and agricultural beauty, the town became a popular summer vacation destination with visitors attracted to Long Pond, Little Island Pond, and Gumpas Pond. Many homes that were already built in Pelham were converted to summer boarding houses and there were also summer cottages built on each of these ponds. New summer boarding houses were also constructed, including the Grand View House opened by the Harris family on what is now known as Harris

Pond, the Pleasant View House operated by the Russ family, and the Walnut Shade Inn which is where the present-day New England Pentecostal Church is located. In 1889, the Hudson, Pelham, and Salem Railway was granted authority by state legislature to construct and maintain tracks from the bridge through Hudson and Pelham Centers. In September of 1902 the line was open and carried workers to textile mills and shoe shops in Nashua, Haverhill, Massachusetts and Lowell, Massachusetts as well as amusement parks, such as Canobie Lake Park in Salem.

Unfortunately, Pelham's period as a summer vacation destination came to an end between 1925 and 1950 when the production of automobiles took off and allowed residents of Nashua, Haverhill, Lawrence, and Lowell to travel to further destinations. The Harris' Inn, then known as the Great View House, remained an operating summer resort until 1961 when the Inn was then converted to function rooms with more space added upstairs in 1962. The Harris' Inn hosted many weddings and events for decades until it permanently closed in 2020 during the pandemic.

Pelham's Recreational History

Pelham's unique landscapes, scenic beauty, ponds, and rivers attracted many recreationists during the period in which the town was a popular summer vacation destination. Although the town's reputation as a popular summer vacation town dwindled, the interest in the town's recreation potential remained constant throughout the community's evolution. In 1926, the Lowell Rotary Club purchased a large 12-room home on Marsh Road with 3 acres of land to be utilized as a children's health camp which operated for many years. In the early 1930s, the Greater Lowell Girl Scout Council purchased more than 200 acres of land on the west side of Little Island Pond (also known as the old Frye Gage Farm) for a camp. Camp Runnels has now been operating for the Girls Scouts at this location since that time. In the 1940's the Lowell YMCA purchased 56 acres of land with frontage on Long Pond and operated the facility as a YMCA day camp until the town purchased the site and created Veteran's Memorial Park and the Town Beach as it is known today. In the 1950's the Nashua Girl Scout Council purchased about 80 acres of the west shore of Long Pond also known as the Old Sherburne Farm. The Nashua Girl Scouts ran Camps Kiwanis at this site for many years. Today, Pelham residents value the town's recreation services and facilities; and recreation remains a high priority and interest for quality of life. To see what recreation services and facilities are offered in Pelham today review the Open Space and Recreation section of this Existing Conditions Analysis.

HISTORICAL SITES AND STRUCTURES:

Though Pelham has a rich history and an abundance of historical documentation, below are a few important historical sites or structures in town that shape the character of the community today. These resources help define the unique sense of place in Pelham and differentiate it from other southern New Hampshire communities.

Abbott Bridge

The Abbott Bridge over Beaver Brook is located on Old Bridge Street off of NH 38. The Bridge was constructed in 1837 and consists of stone arches without the use of mortar. Abbott Bridge is the oldest double-arched stone bridge to survive in the entire state of New Hampshire. The bridge is named after Uriah Abbott, who is believed to be the first member of the Abbott family in Pelham and is a Pelham Patriot who fought in the Revolution. The bridge was constructed near, on what

was then, the home of the Abbott Family. By the 1990's the bridge, after just over 150 years, was in need of rehabilitation to accommodate the volume and weight of Pelham traffic. In 1994, the town applied for a Transportation Enhancement Project under the federal Intermodal Surface Transportation Efficiency Act (ISTEA). After no private contractors bid on the rehabilitation project the New Hampshire Department of Transportation (NHDOT) became involved and "removed inappropriate parapets of sawn granite and repaired a bulging side of the dry-laid stone structure. The roadway was underlain with a hidden concrete pad that leaves the historic stone masonry intact but distributes vehicle loads safely". Today, after over 25 years, the Abbott Bridge needs repair in order to comply with adequate height requirements to mitigate flooding in response to climate change events. More on the repair of Abbott Bridge can be found in the Transportation section of this Existing Conditions Analysis.



Above: Abbott Bridge Pre-Restoration

Schools

In 1719, a Colonial Law was passed that required every town with 50 families to provide a schoolmaster to teach children to read and write; and for towns with 100 families the establishment of a grammar school was required. Minimal schooling was provided in Pelham through subscription for only 3-4 weeks. By 1746, there were no town monies being raised to support education in Pelham and it was not until 1759 that the discussion of schools was brought up at a town meeting. The importance of schooling was still not taken seriously in 1762 when there was a vote to not build any school or schoolhouses in town. Finally, by 1775 a committee was established to appropriate schools to be constructed in each corner of town. The school locations were broken into School District Sections:

- District No. 1: Pelham Center
- District No. 2: Gumpas
- District No. 3: North Pelham
- District No. 4: Gage Hill
- District No. 5: Currier Highlands

School construction was conducted by residents of the school districts area and these structures were also maintained by the residents. By the mid 1880's the schools were built by the town in all designated school districts. Ernest G. Sherburne, father of Ruth Evelyn Sherburne, ancestor of first Sherburne in Pelham, James Sherburne, dedicated his life to education and advancement of Pelham schools and their opportunities they could provide to Pelham students. He was a member of the School Board involved in the planning process that led to the consolidation of Pelham's five schoolhouses into one single school to be located in Pelham Center. In 1920 land was deeded to the school district in order for the town to construct a junior high school for grades 7, 8, and 9 and by

1925 grade 10 was added. During the late 1940's the junior high school was remodeled to become a more modernized eight grade grammar school. In 1948 Ernest Sherburne passed away during the construction of the junior high school and Edward F. Hayes was appointed to finish Sherburne's term on the School Board. When the school was completed, it was named the E.G. Sherburne Grammar School and has since been converted into the Municipal Complex and Village Green.

Pelham's Historical Cemeteries

During the town's early settlement, there were no dedicated cemeteries established. In fact, for the first 75 years of the town's existence, residents were typically buried on their farms and homesteads. Usually, these graves were marked with wooden crosses if marked at all. Unfortunately, all evidence of the earliest farm burial places has disappeared. The Sherburne Family Burial Ground formally located between the farmhouse and Sherburne Road, was one of the more well marked burials. The Sherburne Family Burial Ground was established in 1798 and by 1876 there were 15 family members buried there. The first cemetery established in Pelham was Pelham Center Cemetery, and in 1893 the Gibson Addition to the Center Cemetery was added.

In early 1898, Gardner Willie Sherburne received approval to move his ancestors from the private Sherburne Cemetery to the Gibson addition of the Pelham Center Cemetery. Today, the only family cemetery that remains is the Coburn-Lyon Cemetery located on Pulpit Rock Road. The Town of Pelham's Cemetery Department now maintains the five cemeteries (including the private Coburn-Lyon cemetery). A non-Pelham Polish Catholic Church and a non-Pelham Jewish Synagogue also maintain cemeteries behind the Coburn Lyon Cemetery on Pulpit Rock Road. For more information on Pelham's Cemeteries and their maintenance today please see the Community Facilities and Services section of this Existing Conditions Analysis.

Pelham Public Library

The first library in Pelham was established in 1893 and was originally located in a corner of the Town Hall. Then, a new library building was constructed in 1896 and renovated several times. By 1975 the square footage of the facility had doubled. Pelham Public Library has grown dramatically throughout its history due to the high demand for the facility and its growing collection. In 1894, the library's inventory began with 639 books. This first library building was located at 5 Main Street which is now home to the Pelham Historical Society. When approval of this building was passed, the town stipulated that the building must contain a memorial room to honor the Pelham men who fought in the Civil War. Pelham's first librarian was Mary Hobbs who served from 1892 to 1955. Today, the Pelham Library and Memorial Building (the Pelham Historical Society Building) is the only property listed on the National Register of Historic Places. More information on the Pelham Free Public Library can be found within the Community Facilities and Services profile of this Existing Conditions Report.

SIGNIFICANT EVENTS/LOCATIONS IN PELHAM:

September 1903 Trolley Wreck:

In September of 1903, named New Hampshire's worst trolley wreck, 2 trolleys on the Hudson, Pelham, and Salem railway line collided head on about 2,800 feet west of Pelham town center. The collision killed 6 people and injured many passengers. A single trolley car was carrying 59 passengers. The Hudson, Pelham & Salem Electric Railway ran from the Merrimack River at Nashua through Hudson and Pelham to Salem and Canobie Lake Park. At Pelham Center, it connected to Lowell, MA. The former St. Patrick's Hall was once a trolley car barn and in 2001, a plaque was dedicated to the victims of this trolley wreck and placed at this location.

Butler Monument:

The first European settler in Pelham was John Butler who was deeded land in 1721 from Jonathan Tyng of Woburn, Massachusetts. At that time, this land was part of nearby Dunstable, Massachusetts. John Butler was the first to build a home in Pelham and it was constructed on the eastern side of Mammoth Road near the intersection of Bush Hill and Burns Roads that same year. The home remained for more than 80 years. In the 1880's the town decided to dedicate a monument to the first settler of Pelham, and it is located in front of the First Congregational Church.



Above: The South face of the Butler Monument

STONEWALL MAPPING TOOL:

The NH Department of Historic Resources and the Department of Environmental Services have partnered with NH Granit and others to offer an interactive New Hampshire Stone Wall Mapper. The tool uses Light Detection and Ranging (LiDAR) images from across New Hampshire to map existing stonewalls, even in areas that are completely forested. LiDAR provides a detailed map of the land surface elevations representing the "bare earth" as though treeless, rather than the aerial satellite imagery we are accustomed to.



Above: Looking northwest at the stone wall between the Tyler House and the former Fire/Police Station

The NH Stonewall Mapper provides an opportunity for the public to trace stone walls right onto LiDAR images while panning and zooming across the state on their computer screens. The mapping interface has been designed to be easy to use and only requires access to a web browser and the internet. This data is “open source”, meaning the public creates the data. This data is not a stone wall inventory and does not necessarily represent exact locations of stone walls in Pelham. With that said, there are only a total of 10.5 miles of stone walls mapped in Pelham, most of which are found in the south-western parts of town.

HISTORICAL AND CULTURAL ORGANIZATIONS AND TRADITIONS:

Throughout the years, Pelham’s historical and cultural organizations have evolved and expanded, and some traditions have remained over time. Table 1 shows a list of the organizations and groups in Pelham. (More recreation type programs and organizations can be found within the Recreation Profile of this Existing Conditions Report). Below is a description of some of these historical and cultural organizations and groups.

Table 1: Historical and Cultural Organizations and Groups	
Animal Rescue Network of NE	First Congregational Church
Boy Scout Troop 25	Friends of the Library in Pelham (FLIP)
Boy Scout Troop 610	Historical Society
Center for Life Management	Knights of Columbus
Crossroads Baptist Church	Greater Salem Caregivers
Community Technical Assistance Program	Old Home Day
Club Scout Pack 610	Agriculture Committee
Pelham Economic Development	Forestry Committee
Pelham Community Spirit	Pelham Community Theatre
Pelham Elementary PTA	Pelham Fish & Game
Pelham Garden Group	Pelham Good Neighbor Fund
PHS Class of 78	Pulpit Rock Lodge
St. Patrick Church	Snowmobile Club
VFW Post 10722	Weather Underground

Pelham Historical Society

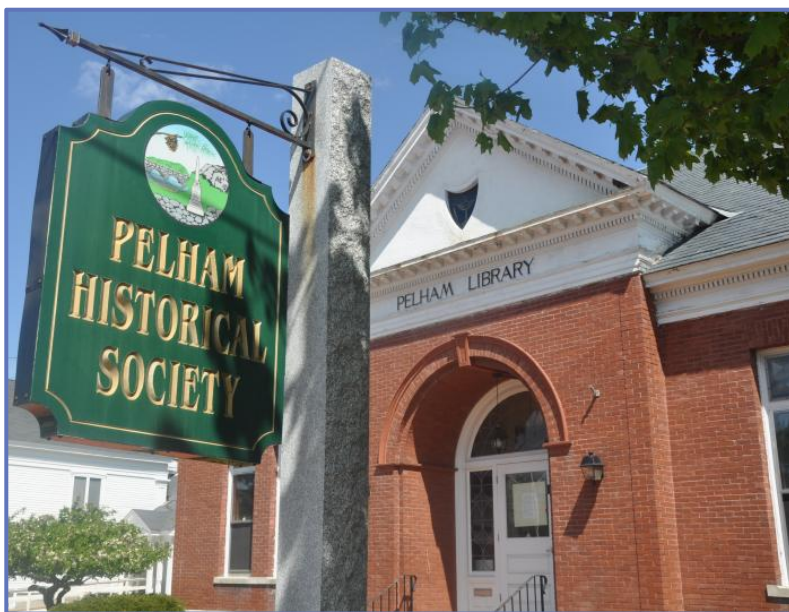
The Pelham Historical Society is located at 5 Main Street in the old Library and Memorial Building. The Historical Society is an independent, non-profit organization and was first established in 1963 when the town identified the need to maintain an inventory of valuable records and documents such as deeds and maps, all town records, any pictures of the early houses, mills or public buildings, and articles. The Society’s programs and services are funded by donations and membership fees.

Items such as newspaper articles, postcards, deeds, letters, or other such materials especially those from prior to 2000, are welcome gifts to the Society. The Pelham Historical Society maintains the Pelham Historical Society Museum, and the Ruth Sherburne Sturris Art Gallery as described below.

In the past year, the Society has partnered with Forever.com, an online memory keeping platform. This has allowed the group to have many of its more fragile items scanned and stored digitally and made available to everyone in a format designed to keep pace with technology. In addition, the Society is working on an updated website that will allow users to search for public records, review town artifacts and even purchase items such as Pelham's history books and keepsakes. Sales and proceeds are used to support the Society's educational programs and the Historical Society Museum.

Pelham Historical Society Museum

The Pelham Historical Society Museum is located at 5 Main Street and is open to the public to view a collection of historic relics of Pelham's past. Although the Pelham Historical Society does not maintain regular business hours, inquirers can request a tour by contacting the Historical Society. The collection consists of the fireplace mantel from General Joshua Atwood's best parlor and the door to his master bedroom, Street Trolley artifacts including railroad spikes, sections of track, model trolley cars, track layout plans, timetables, and photos. Other collections include early kitchen utensils and wood working tools, as well as flags, uniforms, and military items.



Ruth Sherburne Sturges Art Gallery

The Pelham Historical Society houses an art gallery dedicated to Ruth Sherburne, Pelham's best-known artist of her time. . Sherburne gave art lessons at her home for local adults and children, and in her later years, she taught art class at the Sherburne School. Ruth Sherburne is especially known for her water and oil paintings, over 125 in number. She also created an accurate pen and ink map of the entire town. Ruth Sherburne had a big impact on the education of art in Pelham.

The gallery provides local Pelham Artists with a venue to display their artworks and the Society's permanent collection of paintings.

Pelham NH Veterans of Foreign Wars (VFW)

The John H Hargreaves Memorial Post 10722 VFW is located at 6 Main Street. Pelham's VFW is located in the old "Pilgrim Hall" building which the location of the town's first grange meeting in 1898. By 1906, all grange meetings took place at Pilgrim Hall and held many musical performances, dances, dinners, and community functions. The Pilgrim Hall became the Town Hall in later years until it moved into the municipal complex it is today at 6 Village Green. In 2005 the town voted to

give the old town hall building to the Veterans of Foreign Wars Memorial Post 10722. Prior to its location in the old Pilgrim Hall building, the VFW meetings were first held at the Pelham Fire Station. As of 2015 the John H. Hargreaves Memorial Post 10722 had 113 members.

The VFW is very active in the town and along with assisting the community during community events provide opportunities to rent out their hall to local groups. The VFW organizes community events such as community themed dinners, assists with town parades, and host ceremonies for significant national holidays. Additionally, the Pelham VFW Memorial Post hosts their own programs including the Patriots Pen Essay Contest, the Voice of Democracy, the Teach of the Year Award, the Policemen of the Year Award, the Firefighter/EMT of the Year Award, the Boy Scout Award, the Girl Scout Gold Award, the Outstanding Volunteer Award, and Loyalty Day.

Pelham Churches

Pelham has several churches, many of which provide cultural services, programs, and support to Pelham residents. The churches in Pelham include St Patrick Church, Knights of Columbus, First Congregational Church, Crossroads Baptist Church, New England Pentecostal Church, and JESUS aCROSS the Border Church.

First Congregational Church

Pelham's First Congregational Church was established when the town voted to construct a meetinghouse where gatherings would take place. In 1748, the Town of Pelham purchased the Nottingham West meetinghouse that was then disassembled and was repurposed into a First Congregational Church and relocated to Pelham's Town Center (now 3 Main Street) where the structure still stands today. Since its establishment the First Congregational Church members have been significantly involved in community outreach and support including various mens, womens and youth groups. Pelham's First Congregational Church members have organized and sponsored the community's Old Home Days event that takes place every September. Pelham's first Old Home Day event was celebrated in 1906 and by 1931, the Old Home Day events were sponsored by the First Congregational Church.



Above: The First Congregational Church

Pelham Good Neighbor Fund

The Pelham Good Neighbor Fund was established in 1969 by the residents of Pelham in order to assist fellow community members in need by providing emergency assistance including food, rent, utilities, medical bills, etc. The Pelham Good Neighbor Fund is also involved in community events such as The Festival of Trees, The Food Bank, and Veterans Organizations.

Pelham Garden Club

The Pelham Garden Club was established in 1955 and consists of monthly gatherings to share knowledge and common interest of gardening. The meetings are held at the VFW Post 10722.

Pelham Community Spirit

This Organization was founded in 2000 and was formed with the mission to foster a sense of Community within Pelham through fundraisers, special events and community activities. The goal of the Organization is to provide private/public local community organizations, local business, and local families access to the benefits of the funds raised. The Pelham Community Spirit organization also strives to create a unique sense of community through gathering in Pelham and hosts new Pelham traditions such as the Southern New England Festival of Trees, the Independence Day Celebration, and the Concerts on the Village Green.

Agriculture Committee

In order to preserve Pelham's rich agricultural roots, the Pelham Agriculture Committee was recently formed to maintain and oversee Farmer's Market events. The Committee consists of one Chair and five members, and acts in an advisory role to the town and will recognize, educate, promote, protect, and encourage agriculture and agricultural resources throughout the Town.

Pelham, New Hampshire

Economy

KEY FINDINGS:

- The resident workforce is largely employed outside of Pelham.
- Over 50% of Pelham's workers in private industries work from home.
- There are about 600 businesses in Pelham in which approximately 60% are home occupation businesses.
- The earning by workers over time has increased slightly over the last decade with a sharp increase from 2019 to 2020.
- 57% of Pelham's population is over the age of sixteen and is participating in the work force in Pelham and in the surrounding region.
- The largest employers in Pelham are primarily located off NH 38 (Bridge Street) in the center and southern portions of town which corresponds with the zoning and land use regulations.
- The two largest employers in Pelham are Wakefield Engineering and the Pelham School District.
- Pelham's commercial development is mostly located along NH 38 and some areas on NH 128. The location of these developments provides the businesses with easy access to the major highways including Route 93, Route 495, and Route 3.

DATA SOURCES:

- 2009-2021 NH Department of Employment Security Data
- 2010-2021 NH Housing data
- 2016-2020 U.S. Census' American Community Survey Data
- Greater Salem Chamber of Commerce
- Town of Pelham

INTRODUCTION:

Identifying and understanding Pelham's existing businesses and economic activity is vital to informing the future land use pattern of the community. The location of Pelham's business districts and the types of business activity conducted has implications for infrastructure investments, transportation choices, and housing demand. This section will also identify existing economic development tools Pelham may already be using and can begin to identify tools that may be considered in the future.

PELHAM'S LOCATION:

It is important to note that Pelham's location acts as one of the town's greatest assets for economic development. Its central location gives the town access minutes from route 3, Interstates 93 and 495 and close to major airports. Below, are identified distances to the following major routes measured distances from Town Hall.

- 6 miles from interstate 93 (Exist 2) or 7 miles from Exist 3
- 9 miles from Route 3
- 12 miles from Interstate 93
- 19 miles from Manchester-Boston Regional Airport
- 36 miles from Boston Logan International Airport

Pelham acts as a "suburb of Boston" and its metropolitan area. According to the former Pelham Economic Development Committee (later described below) Pelham's "*location on the New Hampshire/Massachusetts border is close to major centers of innovation including education, healthcare, technology, and biotech*". Additionally, "*Pelham's access to major transportation hubs and minimal road restrictions for larger trucks makes for easy transport of goods and materials in and out of town.*" The town's fully developed communications infrastructure provides businesses with the services necessary for today's tech-heavy business climate and more.

EXISTING DEVELOPMENT PATTERNS AND BUSINESS ACTIVITY IN PELHAM:

Currently in Pelham, there are three specific areas with differing levels of economic activity, and a variety of dispersed business activities town wide. These geographic areas of business activity are addressed below.

NH Route 38 Corridor

Pelham's primary commercial development is located along NH 38 starting in the southern portion of town at the Massachusetts state line and extending to Old Bridge Street. Due to Pelham's proximity to the growing employment centers of Lowell and Lawrence, MA during the 1960's, Pelham began to experience residential and automobile dependent commercial development activity. Today, the NH 38 corridor is mostly dominated by strip commercial developments. This area consists of businesses such as gas stations, salons, medical practices, convenience stores, automobile shops/dealers, hardware stores, with miscellaneous restaurants, craft stores, entertainment, and more. Located in the northeast part of the town along NH 38, there are a few scattered automobile sales lots and service shops as well. In recent years, an award-winning Enterprise Bank, a new Tractor Supply store, and a new trampoline/rock wall climbing facility were developed next to Pelham's Chunky's Cinema Pub.



Above: Chunky's Cinema Pub located along NH 38

NH 128

There are only a few existing commercial developments scattered along NH 128 (Mammoth Road), and they are mainly at the Massachusetts state line in the southern portion of town. These businesses include a convenience store and a used car dealership. The majority of the development along NH 128 is residential.

Village Center

Pelham's village center is located on NH 111A (Marsh Road) and Main Street, and consists of municipal, institutional, and residential uses. The Town Offices, a Library, local schools, churches, VFW, and the Pelham Historical Society are located within this Village Center. This is a mixed-use area and home to the Village Green where many community events are hosted. Some parcels within the village center have recently been rezoned for mixed-use development that could include a combination of retail and residential uses. Recently, the Planning Board approved its first mixed-use project with a multi-unit housing development and a health club in Pelham's Center Mixed-Use District. For more information on Pelham's Mixed-Use District, visit the Land Use Profile of the



Above: Pelham Village Center feat. Pelham Historical Society & First Congregational

Existing Conditions Report. Another recent development project is the Southern New Hampshire Medical Center's Immediate Care facility which is being constructed in the Town Center as well.

Home Occupations and Remote Workers

Many Pelham residents are also working from home, and many have established home-based businesses. According to research done by the Pelham Council on Aging, there are approximately 600 businesses in Pelham of which approximately sixty percent are home occupations. Most of these home occupations consist of computer, design, and technology related businesses. The town has a permit process for businesses classified under General Home Occupations in the Zoning Ordinance however, businesses classified as Minor Home Occupations do not require any town approvals and consist mainly of home office type uses. Some of the businesses were as follows: Photobooth Rentals, Etsy Business, FFL Dealers & Manufacturers, Airport Shuttle Service, Lash Studio, Local newspaper, massage therapy, Locksmith. Though there are many home occupation businesses in Pelham, many are not noticeable from the street. This does not include residents working partially or completely from home for a business located outside of Pelham; and due to Minor Home Occupations not requiring town approvals, they are harder to estimate the total number and type of home occupations that exist in Pelham. The US Census data estimated that in 2021, about 53% of Pelham's employed residents work from home.

Agriculture

Pelham has a rich agricultural history in which many of the town's workforce were farmers. Today, though much of Pelham's civilian workforce is composed of goods-producing industries, service producing industries, and private employment, there are existing agricultural professions in town. Pelham's existing agricultural commercial activity consists of a sawmill, a farm that has beef cows (Hersh Farm), The Bogush Farm, a honey farm, a lumber yard, some wood lots, and landscaping companies.

Table 1: Largest Employers in Pelham Source: U.S. Census' American Community Survey Profile			
Business	Product/Service	Employees	Established
Wakefield Engineering	Aluminum extrusion	300	1997
Pelham School District	Education	258	-
Hannaford Brothers	Supermarket	85	1996
Quality Assured Cable	Cabling	70	1997
Chunky's Cinema Pub	Cinema, restaurant	50	1997
JT Manufacturing	Fabrication	30	2008
Yarde Metals	Metal stock wholesaler	25	2000

PELHAM'S LARGEST EMPLOYERS

The largest employers in Pelham are primarily located along NH 38 (Bridge Street) in the center and southern portions of town. An observation noted in Table 1 above is that it appears the majority of these business were established in the late 1990's early 2000's which suggests that Pelham had a period of economic development which attracted businesses.

Table 2: Pelham's Labor Force Source: NH Department of Employment Security		
Annual Average Labor Force	2011	2021
Civilian Labor Force	7,215	8,151
Employed	6,711	7,815
Unemployed	504	336
Unemployment Rate	7.5%	4.1%

PELHAM'S LABOR FORCE

According to the NH Department of Employment Security, approximately 8,151 workers or 57% of Pelham's population is over the age of sixteen and part of the available civilian work force in Pelham and the surrounding region. The number of available workers has slowly grown over the past decade and there has been an increase in the percent that are actively employed. The increase of the population over the last decade is related to this increase in Pelham workers.

Table 3: Pelham Residents Work Commuting Patterns

Source: U.S. Census' American Community Survey

Transportation Mode	2015-2019
Working in community of residence	15.1%
Commuting to another NH Community	31.8%
Commuting out-of-state	53.1%

The U.S. Census' American Community Survey identified that about 85% of Pelham workers commute outside of Pelham for work. This indicates that there could be potential implications for existing and future businesses in Pelham. This includes a possible need or opportunity for Pelham businesses to attract their employees from outside of town. Additionally, with the amount of Pelham remote workers, there is the potential that these workers may have more need for local services within Pelham.

PELHAM'S EMPLOYMENT AND WAGE STATISTICS

Table 4 identifies the most recent employment and wage data available for Pelham and reflects the fourth quarter of 2021 collected by the NH Department of Employment Security. The table includes both the private sector jobs and government positions. Table 5, from the NH Department of Employment Security, compares the employment numbers and earnings in Pelham for a variety of different industries within the last decade. During this decade, there was an increase in employment in all categories, however the private industry sector had the most significant increase. As shown in the Employment by Industry by Year graph, there was a steady employment increase in the service producing industry until 2019 when the industry employment begins to decline. The pandemic could be the reason for this slight reduction.

Table 4: Employment and Wages in Pelham – November – December 2021

Source: NH Department of Employment Security

Percent of Working Residents	Units	Oct. Employment	Nov. Employment	Dec. Employment	Weekly Wage
Total, private plus government	308	2,940	2,963	3,000	1,590
Total Private	300	2,442	2,475	2,511	1,722
Goods-Producing Industries	81	924	956	958	2,630
Service-Providing Industries	219	1,518	1,519	1,533	1,160
Total Government	8	498	488	498	2,842
Federal Government	1	2	1	2	1,508
State Government	2	12	12	11	395
Local Government	5	484	475	485	939

Table 5: Annual Average Covered Private Employment
Source: NH Housing

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total Change
Goods-producing industries	561	578	595	608	595	594	624	643	626	643	633	72
Service-providing industries	1,136	1,108	1,237	1,230	1,317	1,288	1,326	1,357	1,391	1,401	1,272	136
Total private employment	1,697	1,686	1,832	1,838	1,913	1,881	1,950	2,000	2,017	2,044	1,905	208

Employment by Industry by Year

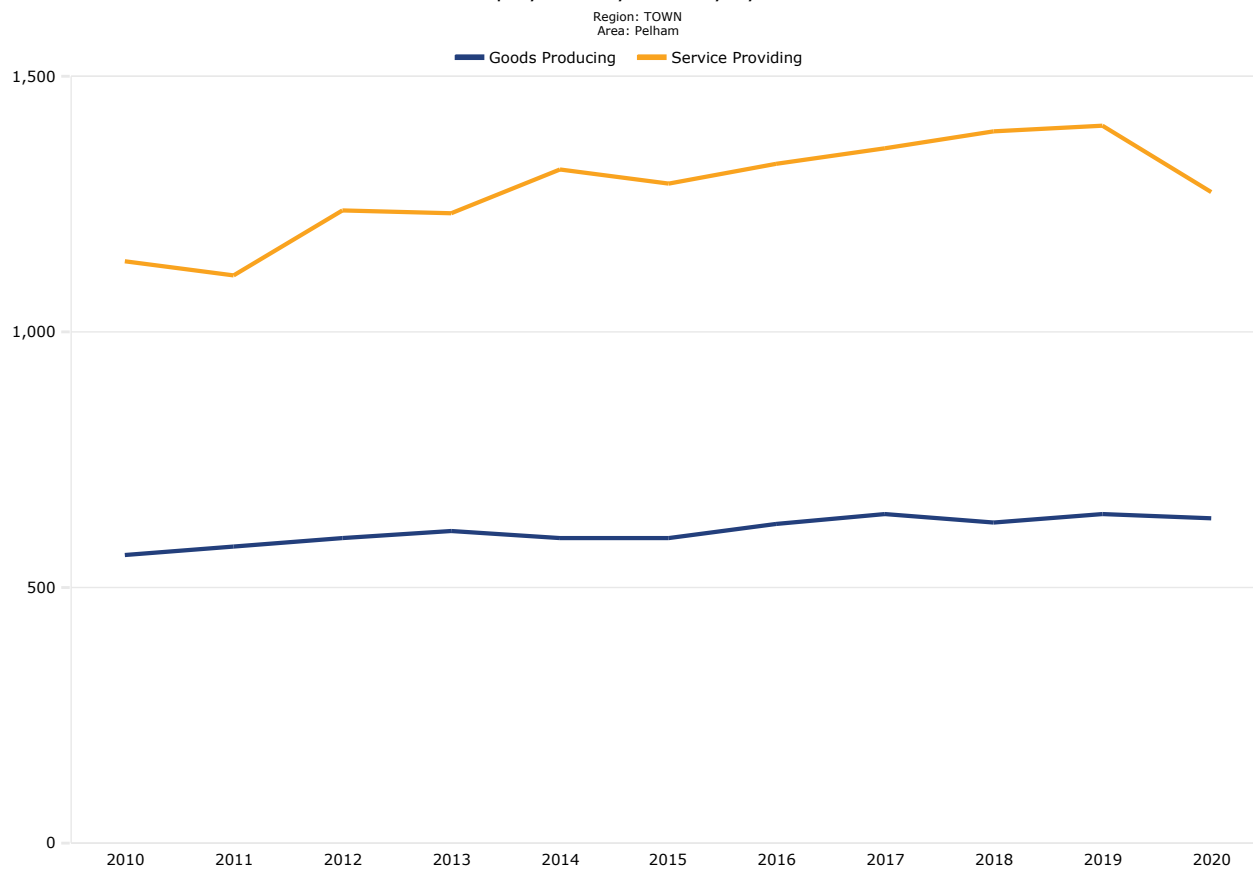
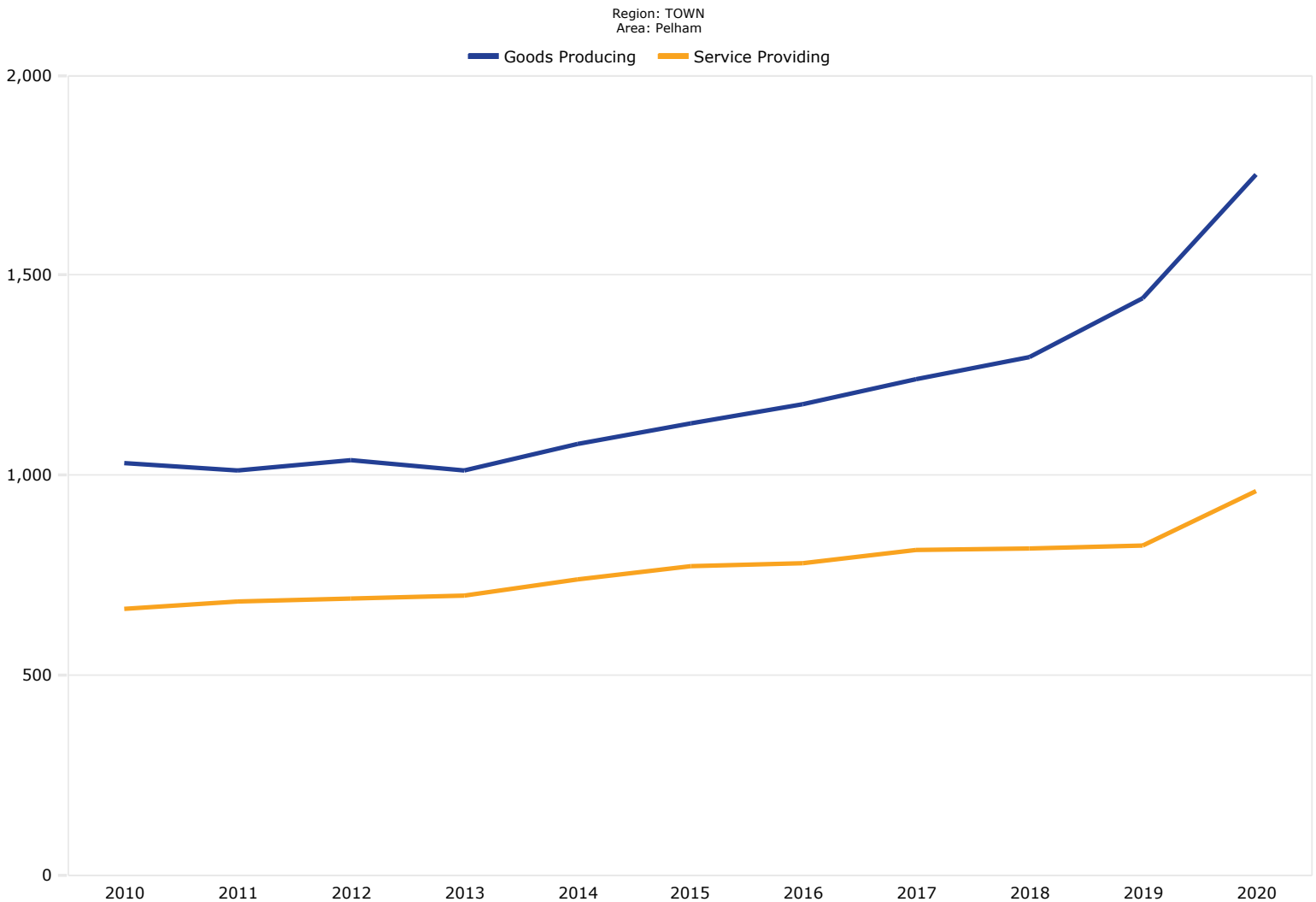


Table 6: Covered Private Employment Wages**Source: NH Housing**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total Change
Goods-producing industries	\$1,030	\$1,013	\$1,038	\$1,010	\$1,078	\$1,131	\$1,177	\$1,241	\$1,294	\$1,443	\$1,750	\$720
Service-providing industries	\$666	\$684	\$692	\$699	\$738	\$772	\$778	\$813	\$815	\$822	\$958	\$292
Total private employment	\$786	\$796	\$804	\$802	\$844	\$885	\$905	\$950	\$964	\$1,017	\$1,221	\$435

Tables 5 and 6 as well as the Covered Private Employment Average Wages graph (next page) identifies the number of Pelham workers and earnings by workers over the last decade. These results, reported by the NH Housing, is based on Quarterly Census of Employment and Wages (QCEW) program files extracted from Quarterly Employer Tax and Wage reports. In Pelham, the earning by workers over time has increased slightly over the last decade with a sharp increase from 2019 to 2020.

Average Annual Wages Covered Private Employment



HOME OCCUPATIONS AND REMOTE WORKERS

The number of Pelham residents working from home (50%+) is important to identify as it is ten times the national average at 5% in 2019. As indicated in Table 8 from the U.S. Census' American Community Survey, almost 100% of Pelham's population has a computer and internet access within their homes.

The Town of Pelham's Zoning Ordinance differentiates home occupations as either Minor Home Occupations or General Home Occupations. Minor Home Occupations are defined as *"an accessory use of a home or accessory structure for the purpose of conducting business activities by a resident of that home. Minor Home Occupations are those businesses limited to home office uses that are unobtrusive to the neighborhood residents and that do not have adverse impacts to abutting properties"*. General Home Occupations are defined as *an accessory use of a home or accessory structure for the*

Table 7: Computer and Internet Use
Sources: U.S. Census' American Community Survey

Computer and Internet Use	2016-2020
Households with a computer	95.4%
Households with a broadband internet subscription	92.7%

purpose of conducting any non-agricultural business activity by a resident of that home that meets specific criteria for which a Special Exception is required. General Home Occupations are reviewed and approved by town boards. The home occupations that compose a portion of these residents working from home are easier to track than the remote workers.

ECONOMIC DEVELOPMENT PARTNERS AND TOOLS

Economic Development Committee

For some time, Pelham had an Economic Development Committee which consisted of seven members. The Committee was also an active member of the Salem Chamber of Commerce. The Economic Development Committee's goal was to evaluate Pelham's existing business development and promote the business activity of these establishments to entice residents, visitors, and passerbys to take interest in Pelham and recognize its unique potential for future businesses. The Economic Development Committee maintained a website dedicated to promoting and educating the public about the treasures of Pelham. Unfortunately, the Pelham Economic Development Committee ended during the pandemic.

Chamber of Commerce

The Greater Salem Chamber of Commerce is a non-profit 501(c)(6) organization that promotes and supports business relationships and community involvement in the region. The chamber is organized to provide businesses advocacy, information, visibility, networking, and community. The Greater Salem Chamber of Commerce includes 5 towns in southern New Hampshire.

<https://www.gschamber.com/about-the-chamber>

Pelham, New Hampshire

Land Use and Zoning Profile

KEY FINDINGS:

- Forty-six percent of Pelham's land area is currently used for single-family residences, and an additional five percent is used for multi-family residences. In total, more than half of Pelham's land area is currently used for residential purposes.
- Open space and recreation use account for 15% of Pelham's land area.
- Vacant lands account for 13% of Pelham's land area.
- Eighty-seven percent of Pelham's land area is zoned for residential uses with more than half of that zone (58%) being used currently for single and multi-family uses.
- The Recreation – Conservation – Agricultural Zone accounts for 6% of Pelham's land area and 62% of that zone is currently providing permanent open space.
- The Industrial Zone accounts for only 2% of the town's land area, but 40% of the zone's parcels contain industrial uses, and an additional four percent contain commercial uses. Sixteen percent of the Zone is currently vacant land and another 16% is being utilized by single and multi-family residential uses.
- Although the Business Zone accounts for only 3% of the town's land area, 38% of it is currently occupied by commercial uses.
- There are also four overlay districts in Pelham: Aquifer Conservation District, Wetlands Conservation District, Floodplain Conservation District, and the Town Center Mixed-Use Zoning District
- General observations of Pelham's existing land uses include: Most of the town is zoned residential, there is only one section of town that is zoned rural residential located slightly northeast in town, The business zones (and mixed use) are concentrated around the center of town, there are only two industrial locations in town and there are seven locations in town that are zoned either rural or recreation/conservation/agriculture.
- All three scenarios identified in the 2022 Buildout Analysis led to outcomes with about a 35% increase in potential workers living in Pelham. Additionally, the majority of the poorly drained soils fall within the center of town – i.e., business zones and in industrial. These areas also fall within the 100-year flood overlay and are over an aquifer.
- The 2022 Buildout analysis also identified that the demand for emergency response to senior housing units is nearly 5 times the rate of traditional homes, an influx of an older population would likely lead to an increase in yearly incidents and the need for additional fire and EMT personnel.
- Under the 2022 Buildout Analysis, the two alternative scenarios for senior housing have a slight drop in population due to the increased density rules governing senior housing. This type of development in Pelham brings a much smaller average household size.

DATA SOURCES:

- 2002 Master Plan
- 2022 Pelham Build-out Analysis
- 2022 MS1 Report
- Pelham Zoning Ordinance and Land Use Regulations: March 2022
- Town of Pelham GIS Data
- Pelham Planning Department
- 2019 Housing Needs Assessment for the Nasua Region
- 2021 Pelham Senior Needs Assessment

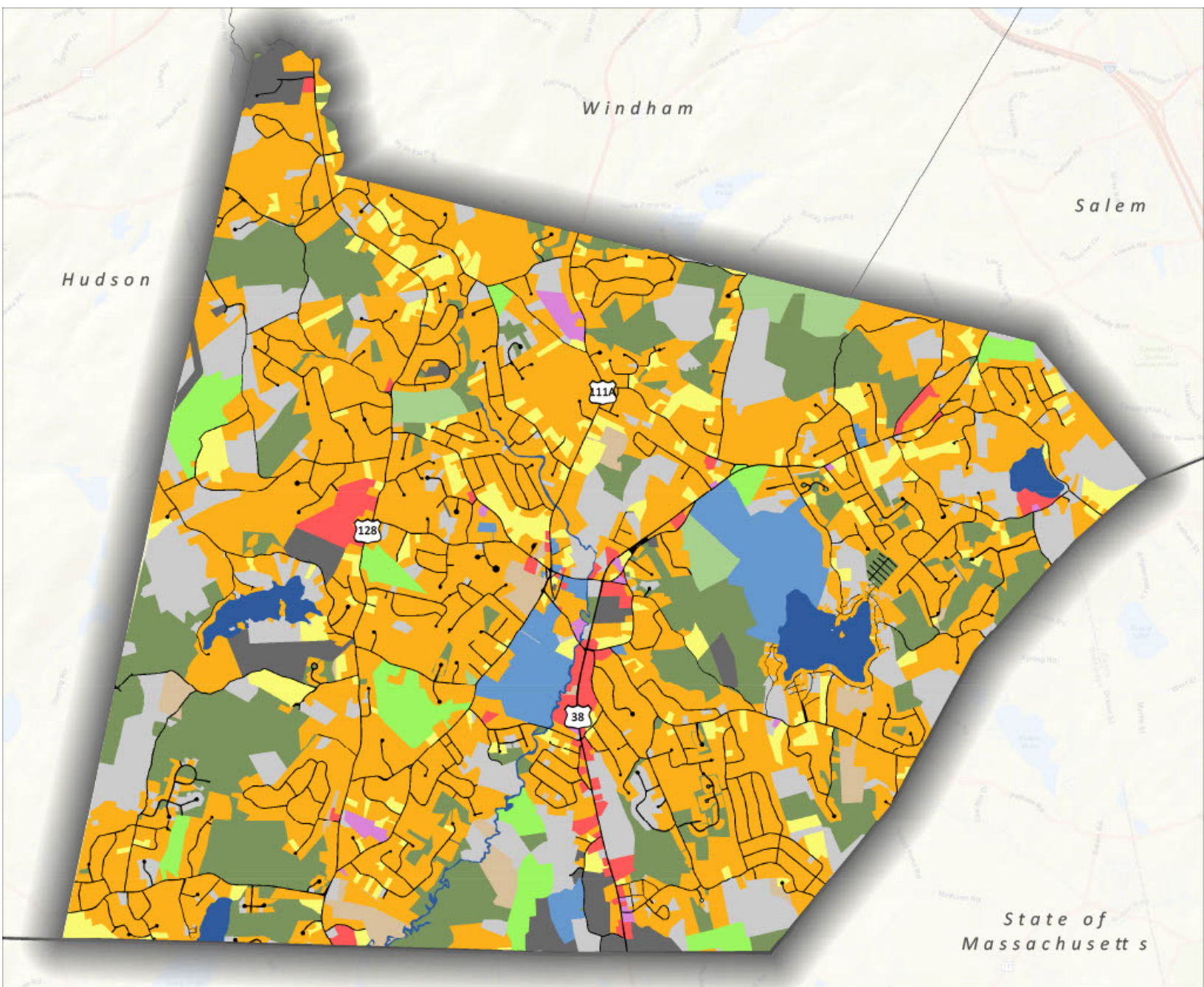
EXISTING LAND USE:

Table 1: Pelham Land Use Distribution		
Use	Acres	Percent of town
Residential: Single family	7,972	46%
Residential: Multi family	924	5%
Commercial	296	2%
Mixed Use	76	0.4%
Agricultural	493	3%
Industrial	288	2%
Municipal & Government	278	2%
Institutional	548	3%
Permanent Open Space	2,613	15%
Recreation	238	1%
Transportation	708	4%
Utility & ROW	158	1%
Vacant	2,203	13%
Water	383	2%
Total	17,178	100%

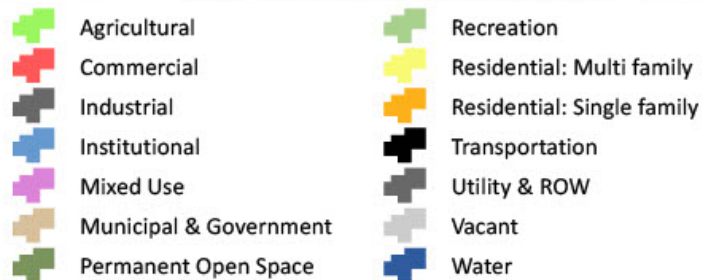
Pelham's existing land use pattern is primarily a network of neighborhoods with single-family residences. However, within the last 10 years, Pelham's network of protected open space has doubled. Approximately 51% of the town's land area is now designated as a residential use, and about 16% is utilized as open space and recreation lands. There are only 2 areas

in town that are zoned for industrial uses and combined they make up 2% of the town's land area. The town's business zoned land area also accounts for 2% of the total land area in Pelham, and about 13% of the town is designated as vacant land. According to the Pelham Planning Department, there are 5,771 parcels in town. Of that number 5245 are occupied by Residential/Commercial/Industrial buildings. There are 526 parcels which are vacant or are owned by Utilities. A summary of the town's land use by acreage and percent of the town's land area can be seen in Table 1. Pelham's Existing Land Use Map can be found on the following page.

The Existing Land Use Map (shown on the following page) illustrates the distribution of land uses across Pelham and highlights the fact that the majority of the town is utilized for single-family residential units. Fifty-two percent of the town's Residential zone composed of single-family dwelling units. Multi-family residential units are only permitted in Business zones, however two-family residential units are allowed in the residential zone. Within the Residential Zone, only 6% of the existing units are two-family residential units, and in the Business Zone 9% of the existing units are multi-family residential units. Additionally, Pelham has a Rural district which permits a wide variety of land uses. The two industrial zones in Pelham are located in North Pelham and in southern Pelham between NH 111A and NH 38. The business zones and mixed-use overlay are located in the center of town along NH 38.



Existing Land Use Town of Pelham



Data Sources: Town of Pelham, NH GRANIT, NH DES, Nashua Regional Planning Commission, USGS

Created by: Resilience Planning & Design July 2022



EXISTING ZONING:

Pelham has eleven zoning districts and four overlay districts and can be shown in the Zoning Districts Map at the end of this profile. Table 2 identifies the total land area of Pelham and the percent of the town that each district accounts for currently. Analyzing the town's existing land use and zoning serves as a useful tool for understanding the town's use of the land, and how these existing uses are supported by infrastructure, regulations, and other aspects of the master plan. The subsections of this profile below present the specific zoning districts, and a corresponding table breaks down the districts based on their use of land area in town.

Table 2: Pelham Zoning Districts		
Zone	Acres	Percent of Town
Business	345	2%
Business 5	128	1%
Industrial	538	3%
Recreation-Conservation-Agriculture	1,001	6%
Residential	15,004	87%
Rural	162	1%
Total	17,178	100%

Residential Zone (R)

Pelham's residential zone is defined as *"development of single and two-family (duplex) residences and customary accessory uses and structures and complimentary nonresidential uses within a rural/residential environment. Intended to provide a diversity of housing types, community facilities, recreational uses and other related uses while protecting the town's rural character and natural resource base"*.

More than half (52%) of Pelham's Residential Zone contains single family uses with an additional 6% of the zone accommodating multi-family units for a combined 58% residential uses. The Residential Zone includes sections of town east and west of Pelham's town center located on NH38 as well as northern areas between NH128 and NH38. In total, the Residential Zone covers about 15,000 acres (87%) of town. Thirteen percent of the zone is designated for open space and recreation, and twelve percent of the town is vacant. Table 3 shows the breakdown of the Residential Zone.

Table 3: Residential Zone Land Use Breakdown		
Land Use	Acres	Percent of Zone
Agriculture	401	3%
Commercial	151	1%
Industrial	51	0%
Institutional	504	3%
Mixed use	68	0%
Municipal & government	211	1%
Permanent open space	1,971	13%
Recreation	71	0%
Residential: Multi family	854	6%
Residential: Single family	7,739	52%
Transportation	652	4%
Utility & ROW	148	1%
Vacant	1,808	12%
Water	375	2%

Business Zones

Business Zones 1 through 4 (B-1, B-2, B-3, B-4):

Pelham has 5 distinct business zones in town, These Business Zones (1-4) allow the same uses whereas Business Zone No. 5 has different allowances. Pelham's Business Zones No. 1-4 are intended to provide opportunities for the development of general retail and wholesale commercial uses, services, office uses, apartments, and customary accessory uses and structures in a manner compatible with the rural/residential character of the town. As identified in Table 4, about 41% of the Business Zone is utilized for Commercial and Industrial uses; 23% is utilized for residential uses and 21% of the Business Zone is vacant. Pelham's Business Zone is located in the center of town along NH 38.

Land Use	Acres	Percent of Town
Commercial	121	35%
Industrial	21	6%
Institutional	3	1%
Mixed use	8	2%
Municipal & government	2	1%
Permanent open space	6	2%
Residential: Multi family	31	9%
Residential: Single family	49	14%
Transportation	25	7%
Vacant	73	21%
Water	6	2%
Commercial	121	35%
Industrial	21	6%
Institutional	3	1%

Business Zone 5 (B-5):

Business Zone No. 5 is for *"businesses such as professional office space, banks, medical services, educational facilities, health clubs, recreation facilities, family entertainment, retail shopping, grocery stores and eating and drinking establishments with consumption limited to the premises, and warehousing and storage facilities"*.

Land Use	Acres	Percent of Town
Commercial	4	3%
Residential: Multi family	10	8%
Residential: Single family	63	49%
Transportation	6	5%
Vacant	43	34%

As identified in Table 5, only 3% of the Business 5 Zone is for commercial use and 34% of the zone is vacant. Additionally, 58% of the Zone is currently residential with nearly half (49%) being single-family units. Pelham's Business 5 Zone is located in the north central part of town along NH 38 adjacent to Business 1-4 Zones.

Industrial Zones (I-1, I-2, I-3)

Pelham has 3 Industrial Zones which are concentrated in two areas of Pelham: Southern Pelham between NH 11A and NH 38 and Northern Pelham between the town boundaries of Hudson and Windham. The Industrial Zones are intended for

"light industrial development, warehousing, limited business and commercial uses and customary accessory uses and structures. The district is intended to be nonresidential in character".

Zone	Acres	Percent of Town
Agriculture	67	12%
Commercial	19	4%
Industrial	215	40%
Institutional	40	7%
Permanent open space	2	0%
Residential: Multi family	11	2%
Residential: Single family	76	14%
Transportation	13	2%
Utility & ROW	10	2%
Vacant	84	16%

As depicted in Table 6, nearly half (44%) of the Industrial Zone has industrial and commercial uses, with industrial accounting for 40% of the zone. An additional 12% is agricultural uses, which is a form of business/industry.

Rural (Ru)

Pelham's rural zone is a very diverse combination of land uses also intended to help protect the rural character of the community. However, it is a fairly small portion of the community. The rural zone permits all uses that are permitted in other districts in town. There is only one area in Pelham that is designated as this zone, and it is located the northeast part of town abutting one of the Recreational-Conservation-Agricultural zoning districts near the Salem town line.

Zone	Acres	Percent of Town
Permanent open space	15	9%
Recreation	24	15%
Residential: Multi family	17	10%
Residential: Single family	41	25%
Transportation	6	4%
Vacant	59	36%

Table 7 shows that nearly one quarter (24%) of Pelham's Rural Zone is utilized as open space and recreation and more than one third (36%) of the Zone is vacant land. Additionally, 36% of Pelham's Rural Zone is being used for residential uses such as single and multifamily dwelling units.

Recreation-Conservation-Agriculture (RCA)

The Recreational-Conservation-Agriculture (RCA) zoning district's intent is *"to protect important natural resources such as prime wetlands from potentially adverse impacts related to incompatible development and to protect and provide opportunities for the continuation of traditional rural land uses related to agriculture, recreation and conservation"*.

Over three-quarters of the RCA Zone (76%) is utilized for open space and recreation purposes and 14% of the zone is vacant land. Conversely, only 2% of the RCA zone is utilized for agricultural use. Additionally, this zone has a very small percentage of industrial and commercial uses. Pelham has 7 areas in town that are designated as the RCA district. There are RCA Zones located in the southern, northeastern and northwestern portions of town between NH 38 and the northwest of NH 128.

Zone	Acres	Percent of Town
Agriculture	25	2%
Industrial	1	0%
Municipal & government	65	6%
Permanent open space	618	62%
Recreation	144	14%
Residential: Single family	3	0%
Transportation	5	0%
Vacant	136	14%
Water	2	0%

OVERLAY DISTRICTS:

Pelham has four overlay districts. An overview of each is presented below with additional information found in the “Town of Pelham, New Hampshire Zoning Ordinance March 2022”.

Aquifer Conservation District (ACD)

The enforcement of this ordinance is *intended to protect Pelham's groundwater resources from pollutants generated by inappropriate land uses in order to protect the town's existing and future water supply*. This overlay identifies the approximate location of the aquifer in town and regulates run-off and storage/containment of hazardous materials. This ordinance also identifies the potential contaminants, wastewater disposal, water supply, and well protection.

Wetlands Conservation District (WCD)

The purpose of this district is to protect the public health, safety and general welfare by controlling and guiding the use of land areas which have been found to be subjected to high water tables for extended periods of time. *It is intended that this Ordinance shall:*

- *Prevent the development of structures and land uses on naturally occurring or compensatory wetlands which will contribute to pollution of surface and ground water by sewage or toxic substances.*
- *Prevent the destruction of or significant changes to, natural or compensatory wetlands which provide flood protection. Protect unique and unusual natural areas.*
- *Protect wildlife habitats and maintain ecological balances.*
- *Protect potential water supplies and existing aquifers (water bearing stratum) and aquifer recharge areas.*
- *Prevent expenditure of municipal funds for the purpose of providing and/or maintaining essential services and utilities which might be required as a result of misuse or abuse of wetlands.*
- *Encourage those low intensity uses that can be harmoniously, appropriately and safely located in wetlands.*

Floodplain Conservation District (FCD)

The Floodplain Conservation Overlay District is intended to minimize the dangers of flooding to life and property by strictly limiting and controlling development within designated floodplain areas. Pelham is a participating community in the National Flood Insurance Program and therefore agrees to have compliance with the National Flood Insurance Act of 1968. The Town of Pelham refers to this section in their ordinance as the Floodplain Development Ordinance as Zones A and AE are consistent in areas of town. Though there are other floodplain areas in town, these floodplains are mostly located in the center of town where the most development has occurred.

More information on floodplains and flood maps can be found in the Natural Hazards profile of this Existing Conditions Report.

Town Center Mixed Use District (MUZD)

In 2014, the town added a Town Center Mixed Use Zoning Overlay District to the Pelham Land Use Regulations and Zoning Ordinance. The MUZD's purpose is *to allow by conditional use permit a mix of business and residential uses within the same building or on the same parcel of land. The district is intended to accommodate a physical pattern of pedestrian-friendly, mixed-use development that is traditionally found in neighborhoods within town centers throughout New England.*

- *Allow the traditional mix of residential, business, governmental and institutional uses within the district;*
- *Accommodate retail, service, and other business uses on the ground floor and residential units above or adjacent to the nonresidential space;*
- *Promote Pelham Center as a vibrant community gathering place;*
- *Implement sidewalks or pathways to provide for pedestrian access, connectivity and safety;*
- *Provide increased and more varied housing types and business opportunities.*

The location of the MUZD District *is bounded to the EAST by Beaver Brook, to the NORTH at the intersection of Beaver Brook and Windham Road (including all lots with frontage along Windham Road and Mossey Lane), to the WEST by the intersection of Nashua Road and Tenney Road from lot 22/8- 136 (including all lots with frontage on Nashua Road and Greenwood Terrace) to the intersection of Nashua Road and Meetinghouse Way (formerly Pelham Common Highway) including all lots with frontage along Meetinghouse Way then southwesterly along the eastern side of Marsh Road to the southernmost boundary of lot 22/7-130 and to the SOUTH by all lots with frontage on Old Bridge Street (excluding the Gibson Cemetery) to Beaver Brook.*

RECENT ZONE CHANGES:

Pelham has been working on amending and updating the Zoning Ordinance over time and has made significant improvements in regulations to the ordinance. Below highlights some of the zone changes since 2002.

Business Zone 5 (B-5) – In 2009 the Town of Pelham added this zoning district to the Zoning Ordinance. Though the purpose of this zoning district was previously identified earlier in this profile, Business Zone 5 is different from Business Zones 1-4 because it allow specific businesses as listed previously, but also “prohibits new or used car dealerships, junk yards, gas stations, car washes, fast food restaurants with drive through windows and single tenant “Big Box” retail buildings that exceed 75,000 square feet”.

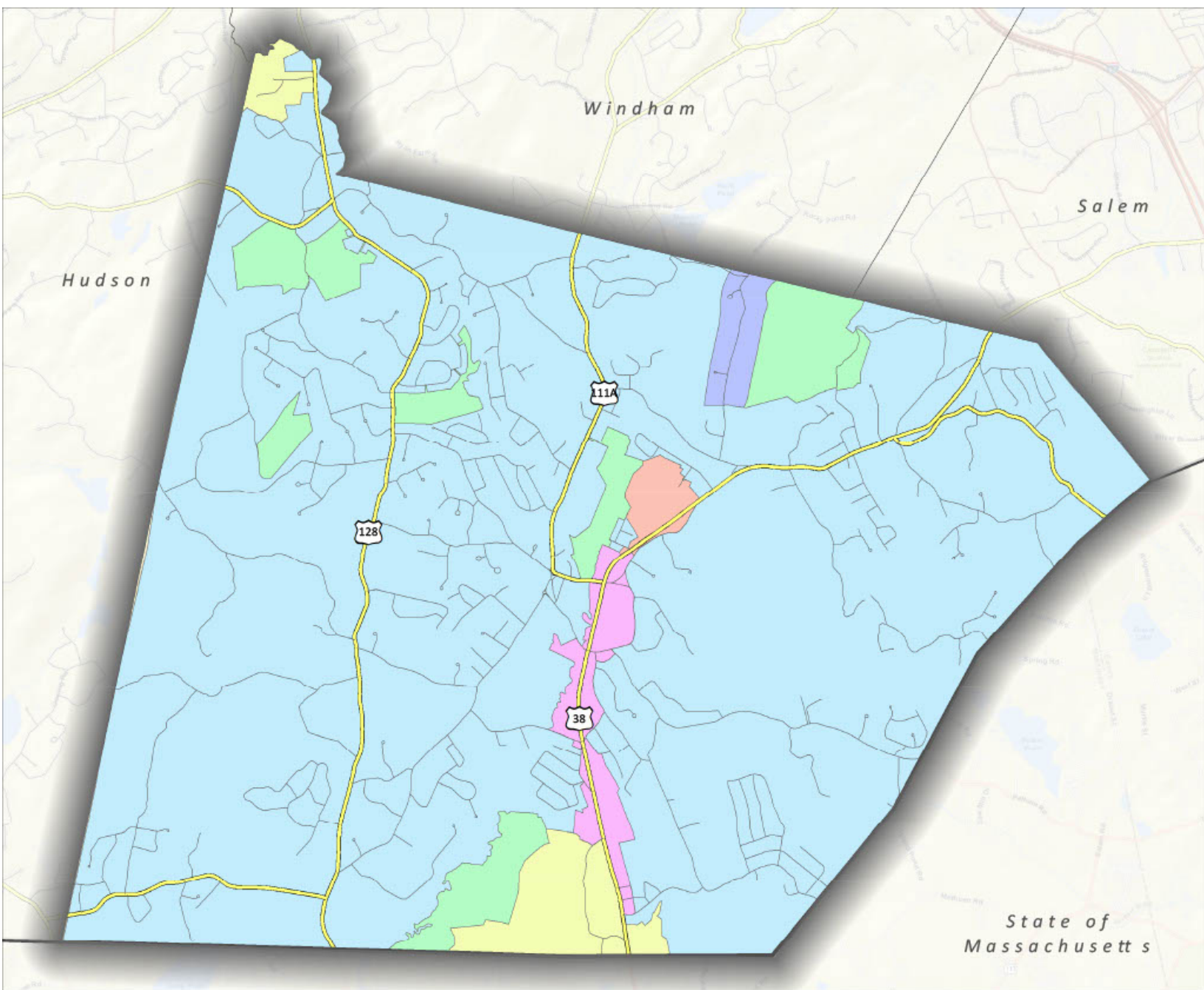
Open Space Subdivisions – In 2021 Open Space Subdivisions were added to the Pelham Land Use Regulations in which replaced the former Conservation Subdivision that was repealed in 2020. The purpose of the Open Space Subdivision addition to the Land Use Regulation is to administer and regulate flexibility of the Open Space Subdivision process with regard to “*each tract of land possessing different and unique development characteristics and limitations, and the process of developing an Open Space Subdivision on any particular tract is a function of how innovative subdivision design interacts with the special characteristics and limitations of the site*”.

Accessory Dwelling Units (ADUs) – The allowance of Accessory Dwelling Units was added to Pelham’s Zoning Ordinance. These ‘Additional Requirements for Accessory Dwelling Units’ were amended several times in order to add detached ADUs as an allowable use by Conditional Use Permit with Planning Board approval. A recent amendment in 2022 allows attached ADU’s to be approved as a Conditional Use Permit by the Zoning Administrator and no longer requires Zoning Board approval. The purpose of the Accessory Dwelling Unit regulations is to *expand the mix of affordable housing opportunities throughout the Town by permitting the creation of secondary dwelling residences as an accessory use to existing single-family detached dwellings while maintaining the visual and functional character of*

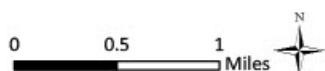
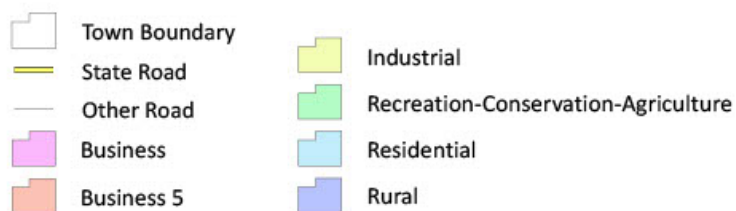
single-family residential neighborhoods, and to provide reasonable and realistic opportunities for the development of Workforce Housing”.

In 2022, workforce housing was added to the zoning ordinance. Workforce housing is allowed in the Mixed-Use Zoning Overlay District in order to enable residents to live close to their workplaces and services with less travel required. This type of housing is also allowed in the Residential Zone as these regulations permit accessory dwelling units to be converted to living space for workforce housing.

Once the Master Plan document is adopted, the Town could consider a complete review of its existing land use regulations (Zoning, Site Plan Review Regulations, Subdivision Regulations, etc.) against the new plan to identify any regulatory changes or additions that are needed to better guide land use changes and development activity toward the identified vision in the Master Plan.



Zoning Districts Town of Pelham



Data Sources: Town of
Pelham, NH GRANIT,
NH DES, Nashua
Regional Planning
Commission, USGS

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