

Notes from Master Plan Public Hearing 3/22/23

COMMUNITY FACILITIES CHAPTER – EDITS & NOTES

General notes: typos have been fixed; information on methodology of population projection included.

TOWN HALL FACILITIES

Existing Conditions, added: There is no elevator access to the lower level although there is a motorized chair lift.

Existing Needs, added: Additional near term needs include improvements related to ADA access and increasing the usage of energy efficient equipment and fixtures. An upgrade of the HVAC system is underway as of Spring 2023.

Future Needs, added: (In relation to equipment upgrades in meeting rooms) Equipment should include enhancements to audio quality to allow presenters or speakers to be properly heard by those in physical attendance.

POLICE DEPARTMENT

Existing & Future Needs, added: The station will be retrofitted with LED lights and new windows to increase energy efficiency. Additionally, the new carport will be roof-mount solar ready and EV charging ready.

MERRILL PARK

Deleted reference to picnic tables. Concrete picnic tables were once in the park but destroyed by vandals.

Public hearing comment noted concern with dumping of street snow in Merrill Park. However, this is the desired area by Department of Environmental Services.

SOLID WASTE

Added: The Town is currently pursuing the construction of a recycling and transfer station facility to provide enhanced recycling and handling of municipal solid waste (MSW). The facility will allow for local processing of smaller loads of MSW and mixed recyclables prior to regional transport including expanding capacity for commercial handling of recyclables and MSW. The Town also intends to contract with their current collection company to utilize the facility to accept materials from smaller surrounding communities to further increase regional hauling efficiency. Currently, smaller loads of curbside collection solid waste and recyclables are individually transported regionally to distant processing facilities.

PUBLIC WORKS

Added: In 2021 the Town's street lights were switched to LED bulbs, the cost of which is being funded by the energy savings realized over a 3-year period.

SCHOOL

Corrected some information, updated per 2023 ballot results.

PUBLIC WATER SUPPLY

Added: Town of Hudson currently operating one well in Litchfield, which produces up to 740,000 gallons per day. Hudson meets the water demands by utilizing the well and two crossings over/under and Merrimack River with the capacity of additional 2 million gallons per day. Our average use is somewhere between 1.3 (winter) -2.3 million (summer) gallons per day. Hudson is currently working to secure additional water supplies , such as rehabilitation of the wells, or installing additional crossings.

Added:

Small Storage

As droughts and periods of heavy precipitation can occur unexpectedly, many businesses and homeowners have chosen to use “rain capture” techniques to store water for times when water resources are more scarce. The Town of Hudson should discourage any policy or Act that discourages or prohibits the sustainable storage of rain water for personal use.

SEWER

Added: The sewer infiltration and inflow yearly program (aka I&I) is related to eliminating ground water that gets discharged to the sewer network due to damaged pipes / outdated infrastructure or illegal discharges , such as catch basins and roof tops. We identify and address both of them through our annual trenchless pipe on call services , approximately at \$300,000/ year. This program has reduced the groundwater entering our system and has provided a healthy sewer allocation balance sheet for current and future need of the Town.

CONCLUSIONS & RECOMMENDATIONS

added subsection “Sustainability”

Overall, the town aims to increase energy efficiency, recycling, and proper waste disposal throughout the town. As such, sustainability best practices including the implementation of energy & resource efficient policies, practices, and technologies should be implemented wherever possible to ensure a more sustainable future for the town of Hudson.

With the passage of Article 20 on the 2020 ballot the Town established an Energy Efficiency Capital Reserve Fund for the purpose of assessing, designing and implementing energy efficiency projects in Town buildings and facilities. The fund was proposed and championed by former Sustainability Committee Chair Linda Kipnes. The Town should continue to maintain and use this fund to reduce energy costs and consumption.

Added subsection “Water”

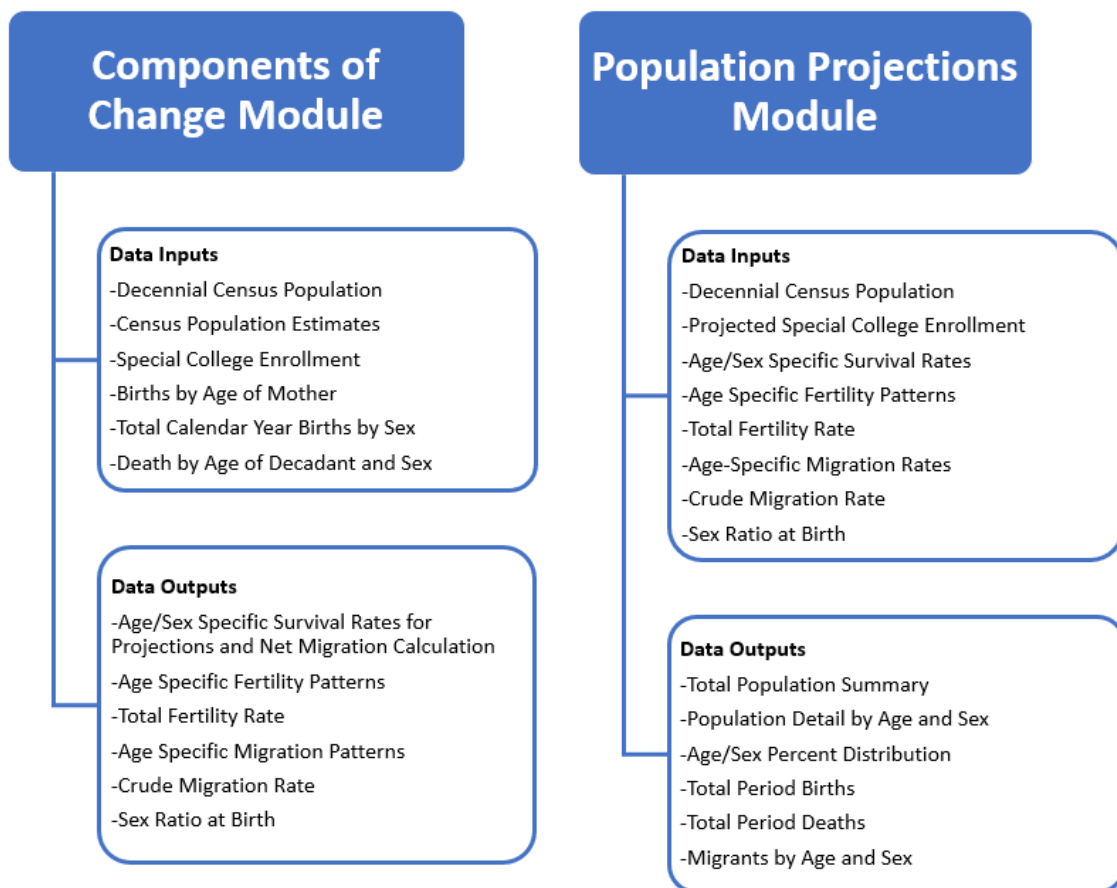
The Town should continue to pursue additional water supplies, such as rehabilitation of the wells, or installing additional crossings. The Town of Hudson should discourage any policy or Act that discourages or prohibits the sustainable storage of rain water for personal use.

New Hampshire Population Change and Projections Overview

The method used for projecting the population of New Hampshire counties by age and sex is a standard demographic Cohort-Component model. This model captures the interactive effects of the population age structure and the components of population change – fertility, mortality and migration. The demographic model provides detailed age and sex population characteristics which is critical to understanding changes in the female population and future births.

Demographic components of change are analyzed to capture the interactive effects of fertility, mortality and migration and how they impact total population change and change by age and sex. This is particularly important for projecting births which are dependent on fertility rates and the number of women of childbearing age. The number of women of childbearing age is a function of the existing age structure and future population change due to migration. This interactive effect is most important in areas of residential change, either growth or decline. Figure 1 illustrates the two phases of the projection process and the various data inputs and outputs.

Figure 1: Projection Process Phases



The State of New Hampshire has grown from 1,316,470 in the 2010 Census to 1,377,529 in the 2020 Census. The 2020 Census captured a larger than expected population when compared to the Census Bureau's 2019 population estimates figure of 1,359,711. The increase between 2010 and 2020 was over 61,000 and reflects a 4.6 percent rate of growth. The rate of growth between the 2000 and 2010 Census was higher at 6.5 percent, indicating that continued growth is likely but not at the earlier high rate. The growth in the State population is not reflected in each of the 10 counties as will be shown below. Absolute growth was highest in Hillsborough County while the fastest rate of growth was in Rockingham at 6.4 percent. Cheshire, Coos and Sullivan all lost population in the last decade with Coos having the largest absolute and percentage change loss.

The higher rate of growth between 2010 and 2020, relative to the 2019 American Community Survey (ACS) estimates, created challenges in reconciling prior Census Bureau estimates and results from the ACS with the new 2020 Census count. This was particularly true for analyzing the age and sex distribution because these detailed data from the 2020 Census will not be available until late 2022 or 2023. When the Census data is released, it will likely show changes in the age distribution (aging of the Baby Boom generation and large Millennial generation) that are not captured in the ACS distributions or in the Census Bureau's Demographic Analysis estimates discussed below.

The percent of population over age 65 in New Hampshire is 18.6 percent based on the 2019 ACS data. This high level reflects an older population than the nation at 16.0 percent. The median age in New Hampshire is 43.0 years compared to 38.2 years in the nation. As with the overall population change, New Hampshire's counties vary in age distribution and median age from a low of 36.8 in Strafford County (with a large college age population) to a high of 53.4 in Carroll County.

Demographic Cohort-Component Projections

This report presents the New Hampshire county population projections by age and sex for the period 2020 through 2050. The population is projected in 5-year intervals and for 5-year age cohorts of the population to 85 and over. The report contains projections for New Hampshire counties based on analysis of current fertility, mortality, and migration rates as of 2020 and age-adjusted data to reflect the total population results of the 2020 Census. Assumptions about the future course of those components of change yield projections to the year 2050. While this is a likely scenario, many factors can alter the course of future events. This is not a prediction of future population but rather the population outcome if the assumptions about future fertility, mortality, and migration are fulfilled.

Methodology Overview

The model used for the demographic projections is a standard demographic Cohort-Component method. Population is projected forward by 5-year age-sex cohorts utilizing individual transition rates for fertility, mortality, and migration. The age-sex distribution is produced in 5-year age intervals through age 84 with an open-ended category for population 85 and over.

The model is geography independent which means that its design allows for all input data to be defined specifically for each individual county. The model utilizes county specific inputs for fertility, migration, and mortality but could also use state or national rates if local data aren't available. The New Hampshire county populations are large enough to provide accurate fertility data and construction of age-specific fertility rates. However, not all counties are large enough for complete age distributions of deaths and calculation of county specific life tables for males and females. As explained below, the survival distributions use a combination of individual counties and regional aggregated death data for construction of life tables.

Note: It is important to understand that the mortality rates applied here DO NOT take account of changes in mortality as a result of the COVID-19 pandemic due to the lack of data on deaths by age and sex.

Components of Change Analysis

Following is an overview of the components analysis that is more fully described in the separate report "New Hampshire County Population Projections 2020 to 2050: Demographic Components of Change" located in Appendix A.

The measurement of population change over a given period of time is defined by a simple identity known as the demographic balancing equation. In its simplest form, the equation is stated as:

$$P_1 = P_0 + B_{(t,t+n)} - D_{(t,t+n)} + M_{(t,t+n)}$$

Where: P_0 = population at the base period,
 P_1 = population at the end of period n,
B = births between time t and t+n
D = deaths between time t and t+n
M = net migrants between time t and t+n

The Population Estimates Program of the U.S. Census Bureau utilizes a nationwide methodology for estimating total population, age, race and sex characteristics at the county level which follows this basic balancing equation concept. At the city/town level, the Census Bureau

produces estimates of the total resident population only.¹ These estimates, along with the 2020 Census population for all cities and towns become the basis for the Minor Civil Division (MCD) projections discussed below. The total population estimates and the 2020 Census results for the New Hampshire counties are used to define the starting point of the projections process.

Table 2 illustrates the application of the balancing equation for each 5-year period from 2000 to 2020. While the data in Table 2 include the Decennial Census populations for 2000, 2010 and 2020, the 2005 and 2015 figures represent the Census Bureau’s estimates. Given the greater increase in population between 2010 and 2020 than the estimates indicated, the 2015 estimate likely understated population growth. This affects the initial calculations of fertility and migration rates. The model was ultimately recalibrated to reflect what had to be higher levels of migration to account for the higher 2020 population count.

Table 2: New Hampshire Historical Components of Change, 2000 to 2020

| | April 1, 2000 | July 1, 2005 | April 1, 2010 | July 1, 2015 | April 1, 2020 |
|---------------------------------|---------------|--------------|---------------|--------------|---------------|
| Total Population | 1,235,786 | 1,298,492 | 1,316,470 | 1,336,350 | 1,377,529 |
| Population Change | X | 62,706 | 17,978 | 19,880 | 41,179 |
| Percent Change | X | 5.1% | 1.4% | 1.5% | 3.1% |
| Cumulative Births | X | 72,571 | 69,253 | 62,555 | 72,337 |
| Cumulative Deaths | X | 49,433 | 50,929 | 55,059 | 49,804 |
| Natural Increase | X | 23,138 | 18,325 | 7,496 | 22,534 |
| Net Migration | X | 39,568 | -347 | 12,384 | -4,716 |
| Crude Net Migration Rate | X | 3.2% | 0.0% | 0.9% | -0.4% |

Source: U.S. Census Bureau, Decennial Census and Intercensal Estimates of Population. Births and deaths from the New Hampshire Department of State, Division of Vital Records Administration.

The Cohort-Component projection model applies the logic of the balancing equation to the individual age-sex components of the population such that 5-year age cohorts by sex are projected forward in intervals, “n”, of five years to the year 2050.

The projections process is really quite simple and has five basic steps:

1. Special populations (college, prison, and other group quarters populations) are removed from the base period population to remove potential distortions of the underlying rates.
2. Age-specific fertility rates are applied to the mid-period population of women to generate births over the 5-year period.

¹ U.S. Census Bureau, “Methodology for the Subcounty Total Resident Population Estimates (Vintage 2019): April 1, 2010 to July 1, 2019”, <https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2010-2019/2019-su-meth.pdf>

3. Survivorship ratios by age and gender are applied to the base year population to determine the number of survivors, who will be in the next 5-year age group at the end of the interval.
4. Age-specific migration rates are applied to the base population to calculate the number of net migrants over the interval.
5. Following the balancing equation, the end period population is equal to the survivors of the initial cohort, plus births during the interval, plus net-migrants during the interval and the addition of special populations removed in Step 1.

At the end of each 5-year interval, births become the new age 0 to 4 population and all other age categories become age $a+5$ (e.g. age 0-4 becomes age 5-9). The last category, 85 and over, is equal to the sum of the population 80 to 84 who have aged to be 85 to 89, plus the 85 and over population which has aged to be 90 and over. This process is repeated for each 5-year time period.

Data Inputs

2020 Age-Sex Distribution

An important factor that can affect the results is the estimation of the 2020 age-sex distribution. In the absence of the actual 2020 Census results, the age-sex distribution has been estimated using the Census Bureau's county level Demographic Analysis estimates for April 1, 2020. These estimates use a methodology similar to the demographic balancing equation whereby the 2010 population is "aged" to 2020 incorporating birth, death and estimated migration data. The age-sex structure will closely reflect the structure of the 2010 Census but doesn't account for changes other than the natural aging process.

The Demographic Analysis estimates are subject to what is called "error of closure" which is the measurable error between the estimated population and the actual Census result. This is one of the methods the Census Bureau uses to measure the accuracy of the Decennial Census and the estimates. The estimates can over or understate the Census enumerated population and that difference represents error in the estimates process. Lacking the age-sex data from the 2020 Census, the Demographic Analysis estimates have been made to equal the 2020 Census total population count for each county. This is accomplished by uniformly applying the percent difference between the estimate total and the 2020 Census total to each age-sex group.

Special Populations

A second issue of importance is special populations. Special populations reside in group quarters and include populations like college students, prisoners, military and nursing home residents. These populations impact the calculations for age-specific fertility and migration rates because they do not reflect the same behavior of the general population. In the case of fertility, college age women are not prone to having children at the same rates as their counterparts who are not in college. In the case of migration, college students do not "age in

CHAPTER VIII - COMMUNITY FACILITIES

INTRODUCTION

The provision of adequate community facilities and services is the principal responsibility of town government and is vital to maintaining the health, safety, and welfare of the community. Overall, Hudson residents appear to be largely satisfied with the town's existing community facilities and services. This is especially true for the Benson Park and the Library as well as other select facilities such as the Senior Center. The following simple and direct comment taken from 2019 Master Plan Survey expresses the sentiments of many Hudson residents: *"Love the school, parks and library!"*

Frustration at the lack of investment in certain facilities, however, was also raised during the Master Plan public input sessions and survey as expressed in the following comment: *"We have sacrificed for too long trying to save 2 cents on a tax rate. As a result, we don't have the services we should, our schools are in disrepair and we have a lot of work to do. Time to stop being cheap and invest in the future."*

This chapter examines the existing and estimated future level of service needs for each of the town's principal community facilities and services based on information derived from the 2006 Master Plan, the 2019 Master Plan survey and public input sessions, the FY2020 CIP, Town and School District Annual Reports, and other sources. Although a variety of subjects are examined, an emphasis is placed on space needs and capital improvements.

The estimated future space needs of various community facilities are determined largely by the demand for the services they provide. Demand for services is objectively determined by the size of the town's total population and its demographic breakdown and well as the number of housing units and other factors. The demand for local government facilities and services is also influenced by state, federal, and industry standards, requirements, and mandates. Demand for facilities and services must also be weighed alongside the financial capability of the town and the willingness of residents to fund certain facility improvements, programs, and services. This chapter provides a discussion of 1) Town Hall; 2) Library; 3) Police Department; 4) Fire Department; 5) Recreation; 6) Solid Waste; 7) Public Works Department; 8) Public Schools; 9) Public Water Supply; and 10) Public Sewer. The location of existing public facilities is illustrated on Map VIII-1.



TOWN HALL FACILITIES



Existing Conditions

The Hudson Town Hall is located on a 1.4-acre site at 12 School Street. The building is 12,632 square feet (ft²) in area. The original building was constructed in 1965 in a modern adaptation of the Federal style.¹ Additions and renovations were made in 1974, 1987, and 1998. Twenty-five off-street parking spaces are located on the south side of the Town Hall with 11 spaces in front of the building and 21 spaces to the rear.

The Town Offices went through a major renovation project during the summer of 1987 when the original building interior was refitted with new office space and the east wing was added. The west wing of Town Hall includes offices for the Town Clerk and Tax Collector, Welfare, Assessing Department, and Administration. The lower level houses The Finance Department, IT, a staff kitchen and breakroom, and the Board of Selectmen's Meeting Room. There is a chairlift to provide handicapped access to the lower level but no elevator. The east wing houses Planning, Engineering, Zoning/Code Enforcement, and Inspectional Services on the main floor and a lower level meeting room used by the Planning Board,

¹ Town of Hudson Assessor's database. 6,316 ft² is building footprint and therefore interior floor area is estimated at twice this figure. The actual interior floor area is smaller. This figure does not include the Fire Station.

Zoning Board, and other town committees and commissions. **There is no elevator access to the lower level although there is a motorized chair lift.** Further, while it is possible to access the east and west sides of Town Hall's lower level through the Finance Department, there is no public access provided between the two areas.

The former Recreation Center located at 2 Oakwood Street is now used as a facility for storage and archives by various departments in Town Hall.

Existing Needs

Town Hall expansion has been a topic of discussion in Hudson for several years due to the facility's space constraints, layout, and accessibility challenges. In 2020, a proposed expansion plan was submitted to the 2020 Capital Improvements Program for the expansion of Town Hall. The proposal included the renovation of the existing building and an addition to the west side of the building (parking lot side) that would be approximately 30 feet wide by 72 feet long which is approximately 2,160 square feet.

Notwithstanding the project's feasibility, the project identified the following goals:

- Provide a central location for customers to pay their utility bills instead of having them go to the basement to pay bills
- Group Water and Sewer employees together for efficiency,
- Increase security in the Welfare Department
- Provide the IT Department with adequate space to work and add a locked secure area for servers (currently shared space)
- Repair HVAC central air and heating in the entire building
- Increase overall office security
- Provide all employees an office to work from
- Add a conference room to the main floor
- Reorganize parking lot
- Relocate the gas tank
- Create an area for record retention on site

The CIP Committee, however, recommended that an alternatives and feasibility analysis be conducted that would evaluate the potential for Town Hall expansion along with possible relocation scenarios.

Additional near term needs include improvements related to ADA access and increasing the usage of energy efficient equipment and fixtures. An upgrade of the HVAC system is underway as of Spring 2023.

Future Needs

The Town's population is projected to grow from 25,394 people in 2020 to a projected 28,302 by 2050², and it is likely that additional employees may be needed in various departments. Larger meeting rooms have also been identified as a need. Due to public interest in several Planning Board applications between 2020 and 2023, meetings often needed to be held at the Community Center for greater capacity. Expansion or relocation of Town Hall should include an appropriately sized and equipped

² New Hampshire Office of Planning and Development 2022 Population Projections

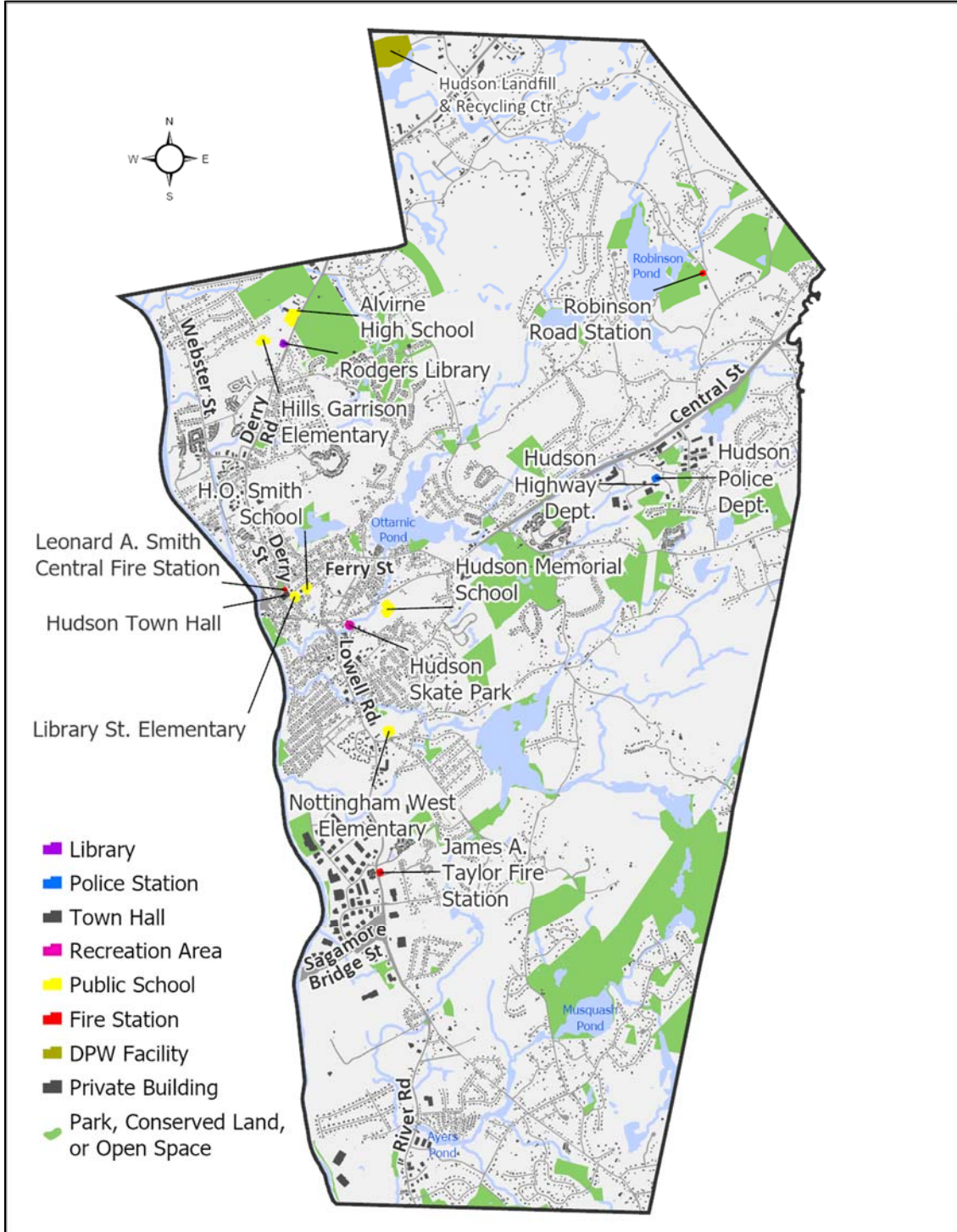
meeting room. Equipment should include enhancements to audio quality to allow presenters or speakers to be properly heard by those in physical attendance.

The Town Hall is a center of community activity and therefore should reflect the community's character as well as provide for practical space needs. The existing Town Hall is of an architectural style and site design that reflects the surrounding residential area, despite being originally constructed in 1965. Any renovations to the existing Town Hall or construction of a new Town Hall should continue this tradition of reflecting Hudson's community character. Further, whether a proposal comes forward to expand or relocate Town Hall, consideration should be given to the ways in which either scenario would serve the goal of creating a defined Town Center for Hudson.

DRAFT

Map VIII-1. Location of Existing Community Facilities

Map Edits: Pickle Ball Court instead of Skate Park; Burns Hill Fire Station



GEORGE H. AND ELLA M. RODGERS MEMORIAL LIBRARY

Existing Conditions

After many failed attempts to finance the expansion of Hills Memorial Library, two local businessmen, Al and Phil Rodgers, made a generous donation of \$4,000,000 in 2008 that led to the building of George H. and Ella M. Rodgers Memorial Library. The brothers made two stipulations with their donation; the building had to be a metal structure and the Library was to be named in honor of their parents. The George H. and Ella M. Rodgers Memorial Library celebrated its 10th Birthday in June of 2019.

The Rodgers Memorial Library is the second-highest ranked town facility in the 2019 Master Plan survey with 64% of respondents rating the Library as “excellent” and 20% rating it as “good”. This survey comment expresses the views of many residents: “We have a fabulous library which is open to many of the community needs. My favorite place in Hudson!” The facility is a 19,661 square foot building with architecture reminiscent of the Arts and Crafts style. The Library is situated on the eastern edge of a 27.43-acre parcel adjacent to the Hills-Garrison Elementary School and just south of Alvrine High School. The first floor includes the Children’s Room (approximately 3,800 square feet), the Adult Reading Room/Reference/Study Rooms (approximately 5,200 square feet), the Lobby (approximately 1,400 square feet), and the Administrative Wing (approximately 2,500 square feet). There are currently 9 full-time employees and 15 part-time employees. The full-time employees all work 40 hours/week and the part-time employees’ schedules range from 6 hours/week to 28 hours/week. The Library also offers extensive eResources grew in response to the COVID-19 epidemic.



Existing Needs

The Library could benefit from more small group meeting space that could also be used for a teen/tween space. There are currently 2 study rooms which seat 6-8 people, a children’s programming area which has child-sized furniture, and the

Community Room which seats up to 60 people. When there is a need for space for a group of 10-15 people, staff must put them in the Community Room. Unfortunately, staff frequently turns groups away due to a lack of meeting space.

Future Needs

Looking to the future, the biggest challenge for the library is that it is located in the north-western part of town. Residents who live south of Walmart and east of Benson Park comment that it is a “long way” to the library. Consideration should be given to increasing the use of the former Hills Memorial Library, especially for meeting space and expanded programming. The historic former library building is more centrally located and is currently used on a limited basis only. The Library should also continue to expand its online virtual programming.

POLICE DEPARTMENT

Existing Conditions

The Hudson Police Department is located on a 4.56-acre site at 1 Constitution Drive near the DPW facility. It contains the Emergency Operations Center, Animal Control Facility, and Kirby Building. The existing 14,000 sq. ft. building was constructed in 1995 and was designed to meet the department’s needs until 2005. The interior of the facility has been modified to accommodate additional staff since its construction. The number of employees in the Police Department is shown in Table VIII-3. As of 2019, there were 69 full-time employees and 16 part-time employees.

Table VIII-3. Police Department Employees

| Employee | # of Employees | |
|-----------------------------------|----------------|-----------|
| | Full Time | Part-Time |
| Chief | 1 | 0 |
| Executive Coordinator | 1 | 0 |
| Department Chaplain | 1 | 0 |
| Field Operations Bureau Captain | 1 | 0 |
| Patrol Lieutenant | 3 | 0 |
| Patrol Sergeant | 3 | 0 |
| Patrol Officers | 20 | 0 |
| Special Investigations Captain | 1 | 0 |
| Special Investigations Detectives | 8 | 0 |
| Special Investigations Sergeant | 1 | 0 |
| Legal Division | 5 | 1 |
| Administrative Bureau Captain | 1 | 0 |
| Support Services Sergeant | 1 | 0 |
| Support Services Officer | 1 | 0 |
| School Resource Officer | 3 | 0 |
| Communications Lieutenant | 1 | 0 |
| Communications Division | 9 | 0 |
| Animal Control Division | 1 | 1 |
| School Crossing Guards | 0 | 6 |
| Facilities Management | 1 | 1 |
| Records Division | 2 | 0 |
| Special-Part Time Officers | 0 | 6 |
| Total | 80 | |

Source: Town of Hudson 2022 Annual Report

Existing and Future Needs

Expansion and renovation of the Police Department facility was approved by Town Vote under Article 9 of the FY 2023 Warrant in the amount of approximately 6 million dollars. The project will expand the size of the police facility by approximately 5,775 square feet and partially renovate the existing 9,544 square foot facility. The expansion is proposed on the west end of the building, taking up some of the employee parking lot. As noted in the Town's 2020 CIP, even with the addition of the 5,700 square feet, the police facility will still not meet the size originally planned for in 1995. This proposal was strongly recommended by the Town's CIP Committee as the top priority in the 2020 CIP.

The station will be retrofitted with LED lights and new windows to increase energy efficiency. Additionally, the new carport will be roof-mount solar ready and EV charging ready.

FIRE DEPARTMENT

Existing Conditions

The Hudson Fire Department utilizes five facilities: 1) the Administration Building on Ferry Street; 2) the Leonard A. Smith Central Fire Station which is adjacent to Town Hall on School Street; 3) the James A. Taylor Memorial Fire Station on Lowell Road 4) the Robinson Road Fire Station on Robinson Road and 5) the Burns Hill Storage Facility located at 88 Burns Hill Road. The Hudson Fire Department is an all-hazards fire department that responds to Fire, Rescue, Hazardous Materials Incidents as well as Emergency Medical Services (EMS) operates out of fire stations that are strategically located to minimize response times throughout town. . The Fire Department consists of 60 employees including 44 in suppression, 5 in Inspectional Services, 4 dispatchers, 5 in administration and 2 part-time personnel.

All three fire stations are staffed 24 hours a day, seven days a week with 11 personnel on duty at all time. The Fire Department is organized into three divisions that include Fire, Administration, Operations/EMS and Inspectional Services. All personnel are cross-trained in both Fire/Rescue and EMS disciplines and respond to all calls for service. There are currently three ambulances with a fourth on order. Hudson contracts to provide ambulance coverage to the Town of Litchfield as well.

Administration Building

The Hudson Fire Department Administration Building is located on a 0.171-acre site at 39 Ferry Street. The existing 980 sq. ft. building was constructed in 1957 and acquired by the Town in 1999. The use of this facility is limited to the Department's Administration and Fire Prevention Divisions. The purchase of this facility provided immediate additional floor area for existing needs when it was acquired. The facility was recently renovated with a new roof, HVAC system, flooring, and windows. Existing parking is limited and provides for employees only. Customers for this facility must find off-site parking.

Leonard A. Smith Central Fire Station

The Central Fire Station, located on the 1.4-acre Town Hall site, was built in 1952 and partially renovated in 2016. The existing 9,800 ft² facility was constructed before the Department had any full-time employees. The facility houses an engine, ladder, ambulance, tanker and squad truck as well as the shift commander's vehicle. The station is the hub of all operations for the department. There are four (4) Captains and sixteen (16) Firefighters at the Central Station.

James A. Taylor Memorial Station

The James A. Taylor Memorial Station was newly constructed and opened in 2018, on a 1.19-acre lot at 204 Lowell Road. It was dedicated to the memory of a fallen Hudson Firefighter, who lost his life in the line of duty on July 27, 1981. There are four (4) Lieutenants and eight (8) Firefighters staffing this station with an engine, forestry truck and ambulance.

Robinson Road Fire Station

The Robinson Road Fire Station is located on a 45.7-acre site at 52 Robinson Road. The existing 5,890 ft² facility was constructed in 1982. The facility includes two bays, meeting room, office and storage space. There are four (4) Lieutenants and eight (8) Firefighters staffing this station with an engine, forestry truck and ambulance.

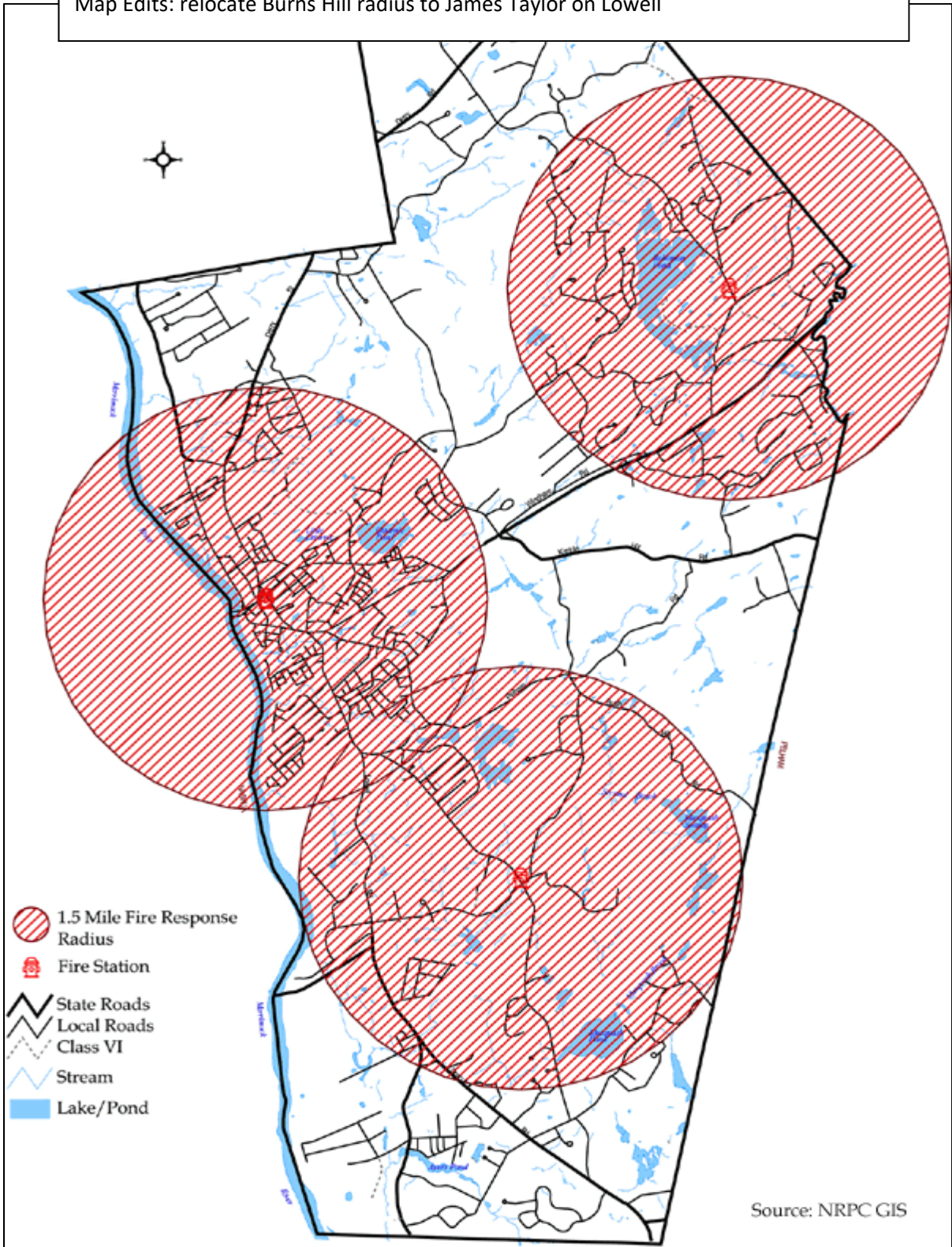
Burns Hill Station
The former station on Burns Hill Road now serves as storage for EMS, fire equipment, Fire Prevention, Administration, and the Police Department.

Town Hall

The Inspectional Services division of the Fire Department has operated in Town Hall since 2011, sharing office area with the Town's Land Use Division. Inspectional Services includes a Fire Marshal, Fire Prevention Officer, Building Official, Building Inspector and an Administrative Aide.

Map VIII-2. Fire Department Response Radius

Map Edits: relocate Burns Hill radius to James Taylor on Lowell



PARKS AND RECREATION



Library Park

Existing Facilities

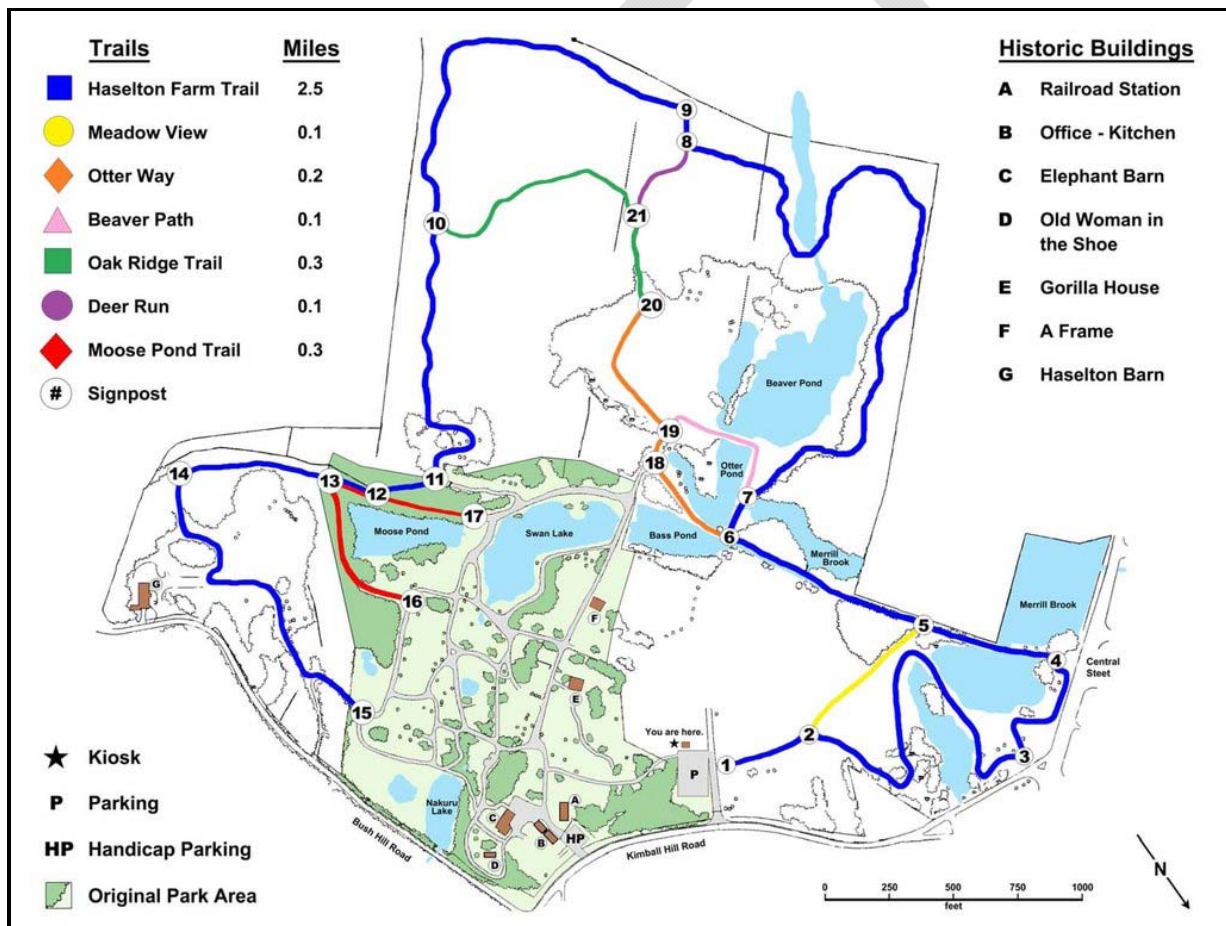
The Town of Hudson provides for a diverse range of active and passive recreational facilities throughout the Town. In addition to parks and athletic fields, Hudson offers a public beach, expansive hiking trails, an indoor recreation center, and a well-programmed senior center. The Town's existing facilities are described in greater detail on the following pages.

Benson Park

Benson Park is one of Hudson's most treasured assets and its most popular park. The park received the highest overall rank of any town facility with 63% rating it as "excellent" and 32% as "good" in the 2019 Master Plan survey. The park was also repeatedly noted as one of the Town's most important features during public input sessions. Benson Park is 166-acre property created on the site of the former Benson's Wild Animal Farm property, a once-popular amusement park and zoo dating back to 1924. The Benson's property was purchased by NHDOT in 1992 to create a wetland mitigation site for wetland impacts that were anticipated to result from the construction of the proposed Circumferential Highway. After state support for the project was dropped, the Town of Hudson and NHDOT entered into an agreement that allowed Hudson to acquire the property at a reasonable price but with stringent

restrictions to maintain the land as a passive recreation park while preserving some its most important historic features. The agreement was finalized in 2008. Key language in the deed reads that “the conditions of the buildings and the property as of the date of transfer of title to the town shall be considered the baseline for evaluating the town’s responsibilities herein,” to ensure that Hudson will maintain and/or improve existing conditions. A *Benson’s Property Master Plan*³ was completed in 2002.

Today, Benson Park features over 4 miles of hiking and walking trails for visitors of all skill levels. The trails are open to the public year-round and leashed dogs are also welcomed. Other features include several ponds, a large playground, a 9-11 memorial, a bandstand, a large parking lot, and a dog park. A number of important historical structures from Benson’s Wild Animal Farm can also be found on the property including the former Elephant Barn, the Old Woman in the Shoe, Gorilla House, the A-Frame, and the Haselton Barn. Some of the park’s main features are depicted on the map below.



One of the park’s newest features is the 9/11 memorial completed in 2012. The memorial features a 23-foot long piece of steel from one of the Twin Towers. Another popular attraction, the Hudson Dog Park, is located within a securely fenced area inside the park providing separate areas for large and small

dogs. Another important recreational facility, the Hudson Senior Center, is located right at the main entrance to Benson Park.

Benson Park is maintained by the Department of Public Works with the assistance of a dedicated group of volunteers including the Benson Park Committee and the Friends of Benson Park. The latter supports the park through fundraising and promotion.



Swan Lake, one of Benson Park's most popular attractions

Existing and Future Needs

Maintaining and improving upon Benson Park should continue to be a top priority for the Town of Hudson. Given its popularity, consideration should also be given to expanding the park through the acquisition of vacant and underutilized properties to the northwest and southwest. The Benson Park Committee submitted two projects to the 2020 Hudson CIP. One is for the replacement of the Haselton Barn roof. The roof was leaking, the shingles are falling off, and the water penetrating the roof is causing rapid deterioration of the structure. In 2022 the Board of Selectmen authorized the expenditure of approximately \$65,000 to be reimbursed by the Benson Park Capital Reserve Fund to repair and install a 25-year architectural asphalt shingle roof. The other CIP project submitted was for the replacement of the kitchen roof. The temporary roof has reached the end of its serviceable life and needs to be replaced before the building suffers damage from water penetration. The New Hampshire Division of Historic Resources has deemed the clay tile roof that was originally on the building to be a “character-defining feature,” requiring the use of the original product manufactured by the Ludowici

Roof Tile Co. However, due to supply issues, an asphalt shingle roof was installed in 2021 as a matter of necessity.

In 2021, at the request of the Conservation Commission, the Planning Board recommended the use of recreation fees to hire the Nashua Regional Planning Commission to produce GIS mapping and navigable, mobile trail maps for seven popular passive recreational areas: Benson Park, Musquash Conservation Land, Robinson Pond Recreational Area, Kimball Hill Town Forest, Rangers Town Forest, Colburn Town Forest, and Pelham Road Conservation Land.

Other future improvements include the completion of a museum within the former Elephant House that houses historic artifacts from the former Benson's Wild Animal Farm. In addition, the Town has identified the following potential improvement projects:

- Identify tree and plant species with markers inside the park.
- Refurbish picnic tables.
- A project on "leave no trace" principles and how to incorporate them in the park.
- Update and install permanent signs to replace the temporary signs on the buildings.
- Design a self-guided nature trail brochure.
- Non-native plant removal and replace with native trees and shrubs.
- Investigate, recreate, and install the totem pole from the old park.
- Create a tree barrier between Route 111 and the Haselton Farm trail.



Hudson Senior Center

Senior Center

The Hudson Senior Center is an attractive facility located in the “North Barn” at Benson Park. The facility includes multiple rooms and spaces for hosting a wide range of activities including a dining room with a coffee station and a piano, a pool table, a sitting area with comfortable furniture, a lounge with an organ, puzzle, card, and game tables and a patio. Activities include billiards, ping pong, snowshoeing, a walking group, book club, knitting, and quilting groups, and other activities. As Hudson’s senior population (65+) is projected to be its fastest-growing population group, ensuring that the facility has the capacity to meet demand should be a priority. The lower level of the North Barn also houses Hudson Community Television studio (HCTV). HCTV provides live cablecasts of Town and School District Meetings and has studios available for local programming.



Community Center

The Community Center is an indoor recreational facility located on an 8.84-acre site on Lions Avenue. The building also houses the Town’s Recreation Department. The Center features a recently installed multi-purpose basketball court that can hold over five hundred people. The site also provides three Pickleball Courts - an increasingly popular racket sport. The Community Center offers a wide variety of recreation programs including youth and adult basketball, a summer youth program, dances, comedy shows, and other activities. Due to its size, the Community Center also hosts civic events including voting, Town and School Deliberative sessions, and Candidates Nights. At the March 2021 Town Vote, the

voters approved an additional polling place. Beginning with the March 8, 2022 election there are two voting wards. Ward 1 votes at the Hudson Community Center and Ward 2 votes at Alvirne High School.

The Community Center was also used for Planning Board meetings on many occasions between 2020 and 2023. Several site plan applications drew the interest of many residents necessitating additional capacity for public hearings. Resultantly, it became evident that larger meeting room at Town Hall may be needed in the future.

Robinson Pond

Robinson Pond is a 47-acre park located on Robinson Road that features the Town’s only public beach providing both a swimming area and a boat launch. At 88-acres, the pond is Hudson’s largest surface water body. The beach is open from Memorial Day weekend until Labor Day weekend but is available only to Hudson residents and their guests. In addition to the beach and boat launch, the site features picnic tables, barbeque grills, and portable toilets in the summer. There are no lifeguards on duty. Water testing is conducted regularly, however, there have been beach closures over the years due to water quality issues. Given the popularity of Robinson Pond, protecting its water quality should remain a high

priority for the town, and consideration should be given to acquiring adjacent underdeveloped land to enhance its long-term protection. Acquiring parcels adjacent to the park would also be consistent with Master Plan Natural Resources goals to “Expand Conservation areas and increase open space” and to “Build on existing open space assets such as Benson Park and Robinson Pond”.

Merrifield Park

Merrifield Park is on a 9.43-acre site located at the junction of Burnham Road and Ferry Street with frontage on Ottarnic Pond. The park offers a regulation size sand volleyball court, playground equipment, picnic tables, barbeque grills, and walking trails.

Merrill Park

Merrill Park is a small underdeveloped park that provides Hudson’s only public access to the Merrimack River. The site has a limited number of parking spaces at the entrance. The property was purchased with a grant from the Land and Water Conservation Fund. Currently, it provides carry-in canoe/kayak access to the river. Various plans have been prepared over the years to develop the park more fully and allow for motorboat access including site plans prepared in 1987 and 1991, but efforts have been hampered by asbestos contamination and associated site development costs. Increased access to the Merrimack River is a recreation/conservation priority identified as part of the Master Plan survey and outreach process. Comments such as the following reflect the views of many residents:

“A boat ramp at Merrill Park should be a top priority. It’s a cheap investment and the residents of this town deserve it.”

“We have long overlooked the Merrimack River and having access for passive recreation would be a great addition. The Lowell boat launch is a great example of what could be accomplished. Merrill Park could be improved to accomplish this idea.”

Given the importance of Merrimack River access to the community, every effort should be made to obtain necessary funding through grants and other sources to develop and implement a site clean-up and improvement plan for Merrill Park that includes a boat ramp, passive recreation areas, and adequate parking. In 2022 the Conservation Commission applied for a \$30,000 grant with a \$10,000 match for a total of \$40,000 to rehabilitate an area of Merrill Park and to install a non-motorized boat launch. The grant was part of the Municipal Boat Launch Investment Program through the Governor’s Office for Emergency Relief and Recovery funded by the American Rescue Plan Act (ARPA) of 2021 from the Coronavirus State and Local Fiscal Recovery Fund. The \$10,000 town match was received in the form of a donation from Brox Industries.



Merrimack River Access at Merrill Park

Greeley Park

Greeley Park is a small 3.47-acre park located on Greeley Street near the intersection with Central Street. The park features a large, ADA accessible playground, basketball courts, and a youth baseball field with bleacher seating.

Jette Field & Sousa Field

Jette Field is a 3.58-acre park located at 20 County Road. It features a softball field with bleachers for spectators. Sousa Field is an adjacent baseball field that was completed in 2008 on School District land to the rear of Nottingham West Elementary School.

Pickleball Courts

At the corner of Central Street and Melendy Road, the Town recently developed new outdoor pickleball courts on the site of a former skate park to accommodate a growing interest in the sport.

Library Park

Though not managed by the Recreation Department, Library Park is a small (.85-acre), but nonetheless prominent green space located at a major gateway into town. The triangular park is bounded by Derry, Ferry, and Library Streets, and overlooking the park are some of Hudson's more notable historic buildings. The park features a largely ornamental bandstand and hosts Hudson's most prominent seasonal Holiday display. Due to its size, limited access and high traffic volumes on abutting roads, the

park enjoys little use. As highlighted in Chapter I – Community Vision & Goals, the desire for a defined Town Center for Hudson is one of the Master Plan’s overriding goals. Though small, Library Park does serve as a town or village green for Hudson and its use should be promoted through enhanced pedestrian access including signalized crosswalks from the northeast corner of Fulton and Ferry Streets to the southwestern corner of the park and a crosswalk to the northern tip of the park from the southwestern corner of Highland and Library Streets. Increased amenities such as additional benches should also be provided and consideration should be given to installing ornamental fencing along the Derry and Ferry Street sides of the park to enhance the safety and security of park users. Additional programming, especially with regard to the bandstand, should also be considered.

SOLID WASTE

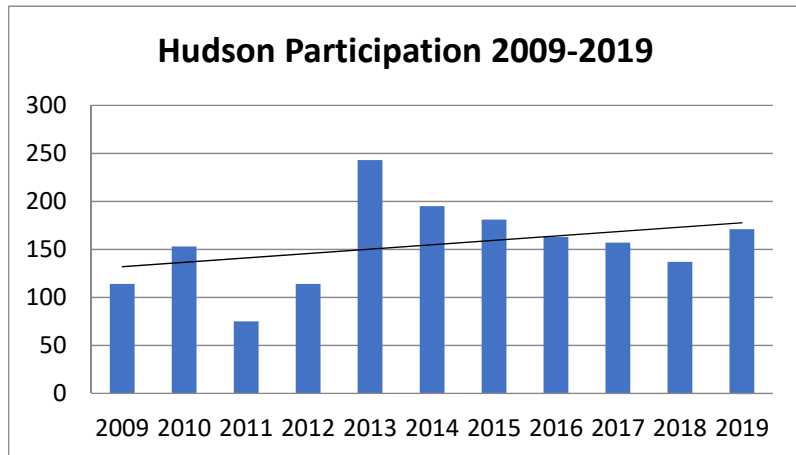
Solid Waste Disposal

The Town of Hudson closed and capped its landfill on West Road in 1991 due to leachate problems. The site is now used as a transfer station and recycling center. In 2022, about \$900,000 of ARPA funds were used to fund improvements at the transfer station: retaining wall, stormwater improvements, grading and pavement. Hudson residents are provided with curbside pickup of residential waste and recyclable materials through a private contractor. A Solid Waste Study Committee is responsible for recommending options for each contract cycle. In Fiscal Year 2019, the Town residents generated 10,472 tons/year of solid waste. Of that total, 2,533 tons/year or 24.19% were recycled.

Household Hazardous Waste

The Nashua Regional Household Hazardous Waste/Small Quantity Generator Collection (HHW-SQG) Program is open to the residents of Hudson and surrounding communities. HHW comes from everyday products used in the home, yard, or garden and is corrosive, flammable, toxic, or reactive. The program provides a location for residents to safely dispose of HHW during various days of the year at a central location at the Nashua Public Works Garage. Hudson’s household participation rates have risen from 114 in 2009 to 171 in 2019. Over the past decade, the peak year of participation for Hudson was 2013 with 243 households partaking in the events of that collection season.

| Year | Number of Hudson Households |
|------|-----------------------------|
| 2009 | 114 |
| 2010 | 153 |
| 2011 | 75 |
| 2012 | 114 |
| 2013 | 243 |
| 2014 | 195 |
| 2015 | 181 |
| 2016 | 163 |
| 2017 | 157 |
| 2018 | 137 |
| 2019 | 171 |



PUBLIC WORKS DEPARTMENT

Existing Facilities



The Hudson Highway Department has formally been changed to Public Works as of November 2018. The Department is located on an 18.6-acre site at 2 Constitution Drive. 8.26 acres of the site is subject to a conservation easement. The 19,600 ft² facility was constructed in 2000 to replace various obsolete facilities. The facility includes a 15,400 ft² covered garage with maintenance functions, 2,000 ft² of office space, and 2,000 ft² of the mezzanine for storage. The site also includes a 3,600 ft² salt shed also constructed in 2000. The salt shed meets all existing environmental regulations for salt containment. The Public Works Department currently has 1 part-time and 26 full-time employees. A list of employees is provided in Table VIII-7.

Table VIII-7. Public Works Department Employees

| Department | # of Employees | |
|-------------------------|----------------|-----------|
| | Full Time | Part-Time |
| Public Works Director | 1 | 0 |
| Public Works Supervisor | 2 | 0 |
| Foreman | 3 | 0 |
| Equipment Operators | 5 | 0 |
| Mechanic | 1 | 0 |
| Traffic Technician | 1 | 0 |
| Truck/Driver Laborers | 12 | 0 |
| Operation Assistant | 1 | 0 |
| Receptionist | 0 | 1 |
| Total | 27 | |

Source: Town of Hudson Public Works Director, December 2019.

Existing and Future Needs

The existing facility was constructed in 2000 to meet the needs of the Public Works Department for the foreseeable future. As of 2019, the facility is still adequate to meet current town needs. If the Town sees substantial growth in the future the Public Works Department may need to expand its facility.

PUBLIC SCHOOLS

The Town of Hudson belongs to SAU 81 and offers six public schools. The Early Learning Center offers full-day Kindergarten and first grade at the Dr. H.O. Smith Elementary School. There are two other elementary schools: the Hills Garrison Elementary School and the Nottingham West Elementary School serving grades one through five. The Hudson Memorial School serves as the middle school with grades six through eight. Alvirne High School serves grades nine through twelve and houses the acclaimed Wilbur H. Palmer Career and Technical Center, a program unparalleled in the Nashua region.

Public schools in Hudson are governed by the five-member locally elected Hudson School Board supported by a Superintendent. The School Administration offices are in the former Webster Street School at 20 Library Street. Total school district enrollment as of January 2023 was 3,095, which has decreased from last year.⁴ The district has been experiencing a declining trend in enrollment for grades 1-12 and projects that this trend will continue in future years.



In addition to Hudson's public schools, the community is served by the Presentation of Mary Academy. Presentation of Mary dates back to 1926. The School is housed in a historic building located at 182 Lowell Road. The academy provides a private Catholic school alternative for the region that includes preschool, kindergarten, elementary, and junior high schools with an enrollment of over 500 students. Recent improvements to the school include a state-of-the-art \$1.5 million dollar multi-functional athletic field that is made available to the community on a rental basis, and the

Thompson Center for Athletics and Performing Arts, a 36,000 square foot gymnasium and arts center completed in 2018.

Existing and Future Needs

Each of Hudson's schools together with planned improvements included in the Town's 2020 Capital Improvements Program is described on the following pages by the facility. On March 16, 2020, the Hudson School Board adopted the following facility goals and priority objectives:

As the Board seeks to incorporate the most appropriate and cost-effective risk management techniques for loss prevention and control and to overcome deficiencies in its physical plant, it will strive to provide new and remodeled facilities that will offer the best possible physical environment for learning and

⁴ New England School Development Council Enrollment Projections, 2023

teaching. The Board specifically recognizes the need and importance of regular and substantial capital maintenance, renovation, improvement, and expansion consistent with realistic fiscal constraints. The Board aims specifically toward:

1. Facilities, including buildings, ground, and playing fields, that will accommodate organization and instructional patterns that support the district's educational philosophy and instructional goals.
2. Meeting all safety requirements through the remodeling and renovation of older structures.
3. Providing building renovations to meet requirements on the availability of public school facilities to handicapped persons whenever possible.
4. Building design, construction, and renovation that will lend themselves to low maintenance costs and the conservation of energy.
5. Facilities that will also lend themselves to utilization by the community in ways consistent with the overall goals of the district.
6. Keeping the community informed about the condition of district facilities as well as the perceived needs in the areas of capital improvement expansion and acquisition. Decisions pertaining to education specifications of new buildings and those undergoing extensive remodeling will be developed with the input of teachers, students, parents, and the community.



Alvirne High School

Alvirne High School was originally constructed in 1948 through a generous gift from the Hills family who's stately historic home still stands across the street. The school was badly damaged in a fire in 1974 and was subsequently rebuilt. The legacy of the Hills family, who once operated a dairy farm on the site, is still visible today, most notably in Alvirne's outstanding Wilber H. Palmer Career and Technical Education (CTE) Center.

The Palmer CTE Center is a comprehensive Career and Technical Education program that offers programs in Finance, Accounting, Heavy Duty Mechanics, Pre-engineering, Computer Science, Drafting & Design, Digital Media, Building Trades, Culinary Arts, Education, Health Science, Marketing, Air Force JROTC, Welding and other programs and as a result of the Hills family legacy, Alvirne also offers the region's most robust agricultural program. The school's Farm spans over 100 acres with facilities for horses, donkeys, and a working dairy farm with several milking cows. Milk from Alvirne's cows is used to make cheddar cheese under the well-known Cabot brand name which can be purchased locally in Hudson as well as across the region. Through the Farm, the CTE program is also able to provide a hands-on Veterinary Science program. In addition, Alvirne supports a strong Forest and Wildlife Management

program utilizing its 100-plus acre registered tree farm to train students in operating forest management equipment and in the management and study of forest ecosystems. Complementing its academic offerings, Alvirne's expansive land area also accommodates community hiking trails and a Community Garden. The CTE building was renovated, modernized and expanded in 2021.

On the 2023 ballot, Warrant Article 1 seeks to raise \$27 million to renovate and add to Alvirne High School.



Hudson Memorial School

Hudson Memorial School is a Middle School serving grades six through eight. A \$300,000 warrant article was passed at the 2020 School District Meeting to fund a roof replacement project. The roof membrane was removed and replaced. Roof decking and insulation will be replaced as needed. In addition, a \$350,000 field renovation is planned for 2023/2024. The current football/soccer field will be redesigned, excavated and a new subbase and sod will be installed. The new field will also be graded to allow for safer play and the current irrigation system will be expanded to serve all playing areas. Article 6 on the 2023 ballot passed to raise \$200,000 to improve the school's science labs.

Early Learning Center

The Early Learning Center has full-day Kindergarten at the Library Street School and 1st grade at the Dr. H.O. Smith Elementary School. Both buildings need roof replacements as the current roofs have exceeded the original manufacture warranty. These projects were submitted to the FY 2020 Capital Improvements Plan. Warrant Article 9 on the 2023 ballot passed to raise \$30,000 to expand the playground at Dr. H.O. Smith Elementary School.

The Early Learning Center also has a project submitted to the Capital Improvements Plan to the current half-day kindergarten to full day.

Hills Garrison Elementary School

Hills Garrison is an upper-elementary school serving approximately 400 students in grades 2 through 5. A roof replacement was completed in 2021.

Library Street School

A \$400,000 roof replacement passed as Warrant Article 5 on the 2023 ballot. The entire roof membrane will be removed with decking and insulation replaced as needed.

School District Conclusions

As noted in Chapter II – Population & Housing, no significant increase in school-age children is anticipated in Hudson in the foreseeable future. While the CTE improvements have been made the District is still seeking significant capital improvements to the High School. The remaining facility needs are largely focused on maintenance such as roof replacements and athletic field improvements. A focus on continued investments in school facility maintenance and improvements should continue. A Facilities Study was completed by Lavallee Brensinger in 2023 and should be referred to for greater detail.

PUBLIC WATER SUPPLY

Hudson's public water supply system has two primary functions. The first is to supply water for domestic, commercial, and industrial use and the second is to provide adequate fire protection. Consumers New Hampshire Water Company (CNHWC) previously owned the existing public water supply system. During the 1996 Annual Town Meeting, the Town of Hudson approved a measure to purchase the system and operate it as a municipal utility. The Town of Hudson owns three water supply wells (though two of them are currently shutdown due to PFAS) located in the Town of Litchfield and the water distribution system within the Town borders, including four public booster pumping facilities, three water storage facilities, and over 120 miles of water distribution pipe. The following are discussed herein: 1) existing public water supply system; 2) existing and future water demand and capacity; and 3) recommended improvement plan.

Town of Hudson currently operating one well in Litchfield, which produces up to 740,000 gallons per day. Hudson meets the water demands by utilizing the well and two crossings over/under and Merrimack River with the capacity of additional 2 million gallons per day. Our average use is somewhere between 1.3 (winter) -2.3 million (summer) gallons per day. Hudson is currently working to secure additional water supplies, such as rehabilitation of the wells, or installing additional crossings.

Existing Public Water Supply System

Water Supply Wells

The Town is supplied with water pumped from one active well located in Litchfield, the Weinstein well, which has a safe yield of 0.738million gallons per day (mgd) based on annualized usage. In addition, Pennichuck Water Works supplements Hudson's water supply with water from the Pennichuck Water Works (PWW) Treatment Plant with a minimum of 1 mgd and a maximum of 2 mgd. This is metered

through the Taylor's Falls pumping station meter station which is owned and operated by PWW. Water enters the Town through a newly metered 16-inch water main off Adam Drive and a 12-inch transmission line under Veteran Memorial Bridge (Pennichuck). The well and the Hudson distribution network provides water to the towns of Hudson, Litchfield, Londonderry, Windham, and Pelham. By contract, up to 15% of the safe yield of the three wells can be utilized by Pennichuck Water Works for Litchfield, Londonderry, Windham, and Pelham

Storage Facilities

Three storage facilities provide 3.95 million gallons of water storage capacity in the main service system. The 2.0-mg Marsh Road tank is located off Marsh Road in the northwestern part of Town, the 0.95-mg Gordon Street Standpipe is located off Gordon Street near the geographic center of Town and the third 1 MG tank is located on the south end of town.

Booster Pumping Facilities

Three booster pump stations provide water to three separate areas with high topographic land elevation. There are also several privately owned and operated high elevation booster pump stations not included in this discussion. Table VIII-12 summarizes the hydraulic grade line and capacity of the three pump stations.



Table VIII-12. Marsh Road, Windham Road, and Compass Point Pump Stations

| Station | Date Installed | Capacity* (gallons per minute) |
|--------------|----------------|-----------------------------------|
| Marsh Road | 1986 | 1000 |
| Windham Road | 2017 | 2000 |
| Wason Road | 2008 | 1000 |
| Route 102 | 2014 | 1000 |
| Overlook | 2010 | 1000 |

Source: Town of Hudson 2020
 * Domestic Flow Capacity without Fire Pumps

The Marsh Road station draws water from and is located adjacent to the 2.0-million-gallon Marsh Road water storage tank. It is currently the only below-ground station and the Town is planning to bring all the electrical and main mechanical components above ground by 2024. The Windham Road was completely overdone in 2017 and is currently the biggest pump station.

Distribution System

The over 120 miles of the water distribution system (pipeline) is relatively new and of generally good shape. Portions of the original water distribution system in the town center were constructed prior to 1930 and may be of inferior unlined cast iron pipe and in need of replacement. There is a need to locate and document all internal pipe conditions in the town center area and prioritize replacement.

Small Storage

As droughts and periods of heavy precipitation can occur unexpectedly, many businesses and homeowners have chosen to use “rain capture” techniques to store water for times when water resources are more scarce. The Town of Hudson should discourage any policy or Act that discourages or prohibits the sustainable storage of rain water for personal use.

Existing and Future Water Demand and Capacity

Water Demand

Table VIII-14 summarizes the average demand for 2022.

Table VIII-14. Average Water Demand, Hudson 2019

| Year | Population Served | Average Daily Demand (million gallons per day) |
|------|-------------------|---|
| 2022 | ~25,000 | 1.5 (non-peak season) 2.3 peak season |

Water Supply

The well in Litchfield are capable of supplying a safe yield of 0.738 mgd. Of that supply, approximately 15% is supplied through Pennichuck Water Works to the Towns of Litchfield, Pelham, and Londonderry. Approximately 1.5 mgd was demanded by Hudson users in 2022 and the excess demand was supplied by Pennichuck Water Works Treatment Plant. Demand in 2023 is estimated to be the same. Hudson has the Veteran Memorial Bridge Transmission line that can provide an additional 2 MGD and the Merrimack crossing in Litchfield, which was completed in 2019 and can provide an additional 1.0 MGD. Hudson is currently working to secure additional water supplies, such as rehabilitation one of the wells, or installing additional crossings.

SEWER

Existing Conditions

Public sewer infrastructure is owned by the town, but Hudson uses the City of Nashua's wastewater treatment plant to process sewage. The Town has an agreement with the City of Nashua to utilize 12.58% of the capacity of the wastewater treatment plant. The agreement provides the Town with just over 2 million gallons per day (mgd) of treatment capacity.^[4] The existing sewer infrastructure is limited to the more densely populated areas of Town along Ferry and School Streets, and the area bounded by Melendy Road, Pelham Road, and the Merrimack River (see Map VIII-1). The sewer flume connecting Hudson and Nashua has a capacity of approximately 4.0 mgd. The Town is currently discharging 1.1-1.2 mgd in Nashua and that's because of significant improvements in inflow and infiltration done by Hudson Public Works. The Town of Hudson currently has approximately 0.36 mgd of sewer allocations available for properties that could be developed within the sewer district.

The limitations on sewer expansion due to limited capacity of the sewage treatment plant and the inter-municipal agreement can have a significant impact on the type and scale of development within the Town. The limitations essentially ensure that new development in the outside the sewer service boundary will develop at a much lower density due to larger lot sizes needed to accommodate septic systems and as required by the zoning code.

The sewer infiltration and inflow yearly program (aka I&I) is related to eliminating ground water that gets discharged to the sewer network due to damaged pipes / outdated infrastructure or illegal discharges , such as catch basins and roof tops. We identify and address both of them through our annual trenchless pipe on call services , approximately at \$300,000/ year. This program has reduced the groundwater entering our system and has provided a healthy sewer allocation balance sheet for current and future need of the Town.

Future Needs

The Town has completed a sewer treatment facility and a drinking water treatment facility assessment which could be followed in the future, if necessary. Given limitations on available capacity, the town should limit future sewer connections to properties within the existing sewer service area except where an expansion of the service area are closely tied to Hudson's land use and economic development goals.

Conclusions & Recommendations

Overall, Hudson residents express a fairly high level of satisfaction with Town and School District facilities, and facilities such as the Benson Park, the Library, the Senior Center and Community Center. Residents also emphasized the importance of continuing to invest in and maintain existing facilities and suggested several specific improvements to various Town and School facilities. The following recommendations are derived from resident input as well as input from other sources including the 2020 Capital Improvements Program and other existing improvement plans.

Sustainability

Overall, the town aims to increase energy efficiency, recycling, and proper waste disposal throughout the town. As such, sustainability best practices including the implementation of energy & resource efficient policies, practices, and technologies should be implemented wherever possible to ensure a more sustainable future for the town of Hudson.

With the passage of Article 20 on the 2020 ballot the Town established an Energy Efficiency Capital Reserve Fund for the purpose of assessing, designing and implementing energy efficiency projects in Town buildings and facilities. The fund was proposed and championed by former Sustainability Committee Chair Linda Kipnes. The Town should continue to maintain and use this fund to reduce energy costs and consumption.

Town Hall

Improvements to Town Hall are necessary to meet existing needs and to accommodate future growth as well as to provide adequate security, efficiency, and accessibility. Any future expansion of the existing building should include elevator access to the lower level and improved connections between the lower levels of the east and west wings. Should a relocation scenario be pursued, alternative locations should be identified that could advance the goal of developing a defined town center for Hudson. In either scenario, the possibility of a larger meeting space for public meeting outfitted with audio/visual equipment for HCTV should be considered.

Library

The Rogers Library is a relatively new facility and one of Hudson's most highly regarded municipal facilities. The location in the north-western part of town, however, is a bit out of the way for residents who live south and southeastern parts of Hudson and existing meeting space is limited. Consideration should be given to increasing the use of the former Hills Memorial Library, especially for meeting space and expanded programming. The historic former library building is more centrally located and is currently used on a limited basis only.

Parks & Recreation

- Benson Park: Maintaining and improving upon Benson Park should continue to be a top priority for the Town of Hudson. Given its popularity, consideration should also be given to expanding the park through the acquisition of vacant and underutilized properties to the northwest and southwest.

- Robinson Pond: Given the popularity of Robinson Pond, protecting its water quality should remain a high priority for the town, and consideration should be given to acquiring adjacent underdeveloped land to enhance its long-term protection.

Acquiring parcels adjacent to Benson Park and Robinson Pond would also be consistent with Master Plan *Natural Resources* goals (see Chapter I – Community Vision & Goals and Chapter III – Natural Resources) to “Expand Conservation areas and increase open space” and “Build on existing open space assets such as Benson Park and Robinson Pond”.

- Merrill Park: Given the importance of Merrimack River access to the community, every effort should be made to obtain necessary funding through grants and other sources to develop and implement a site clean-up and improvement plan for Merrill Park that includes a boat ramp, passive recreation areas, and adequate parking.
- Library Park: Though small, Library Park serves as a town or village green for Hudson and its use should be promoted through enhanced pedestrian access including signalized crosswalks from the northeast corner of Fulton and Ferry Streets to the southwestern corner of the park and a crosswalk to the northern tip of the park from the southwestern corner of Highland and Library Streets. Increased amenities such as additional benches should also be provided and consideration should be given to installing ornamental fencing along the Derry and Ferry Street sides of the park to enhance the safety and security of park users. Additional programming, especially with regard to the bandstand, should also be considered.
- Senior Center: The Hudson Senior Center is well used and viewed favorably by the community. Given that Hudson’s senior population (65+) is projected to be its fastest-growing population group, ensuring that the facility has the capacity to meet demand should be a priority and future facility expansion, or the development of a satellite facility may be required.

Schools

As previously noted, no significant increase in school-age children is anticipated in Hudson in the foreseeable future that would warrant the construction of an additional school or significant school facility expansions. The Palmer CTE facility was recently renovated and expanded and the School District is seeking voter approval for renovations of Alvirne High School. Remaining facility needs are largely focused on maintenance such as roof replacements and athletic field improvements. A focus on continued investments in school facility maintenance and improvements is prudent and should continue.

Sewer

Given limitations on available sewer capacity, the Town should limit future sewer connections to properties within the existing sewer service area except where the expansion of the service area is closely tied to Hudson’s land use and economic development goals. **The Town should also continue its infiltration and inflow program to increase capacity.**

Water

The Town should continue to pursue additional water supplies, such as rehabilitation of the wells, or installing additional crossings. The Town of Hudson should discourage any policy or Act that discourages or prohibits the sustainable storage of rain water for personal use.

DRAFT