

PEMBROKE MASTER PLAN 2020

Pembroke, New Hampshire



TOWN OF PEMBROKE NEW HAMPSHIRE

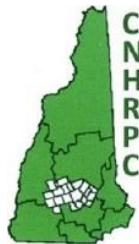
PEMBROKE MASTER PLAN 2020

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1 VISION



A master plan starts with a vision. It is a living document that describes where Pembroke is now, where it should be in the future, and what is required to get there. Preparation of this plan included analyzing demographic trends, patterns of development, and community and regional data to build the profile of what residents experience today. By analyzing these trends and data in combination with the extensive public outreach gathered, Pembroke's story emerges and sets the framework for identifying the challenges that need to be addressed in the future.

This plan should be considered a blueprint to help Pembroke preserve those places and values that are most important to residents – rural character, healthy and diverse natural environments, a vibrant Suncook Village, economic sustainability and the sense of community that is such a mosaic of Pembroke's identity. It also provides direction and guidance to help local officials address the recommendations from the individual chapters of the master plan.

The following core values are derived from the vision statements in each chapter and are a reflection of the long term direction for Pembroke's future as a thriving community.

- We embrace the town's unique **historical character and cultural resources** and encourage an understanding of our town's history;
- We strive to sustain a **high level of community services** that can adequately serve residents of all ages;

- We prepare by making **fiscally responsible decisions** today that do not burden future generations;
- We take pride in our community and continue to **serve as volunteers** on local boards and committees;
- We pursue **energy efficiency initiatives** that promote the concept of energy conservation, efficiency and renewable energy generation;
- We protect our natural resources and natural recreation opportunities with a **strong commitment to environmental stewardship**;
- We provide a **variety of housing types** that meet the current and future needs of residents;
- We plan for the maintenance and improvement of a **multi-modal transportation system** that operates safely, effectively, and cost-efficiently;
- We recognize our **most important land uses**, including forests, farms, and open space, that support a healthy and sustainable environment to live, work, and play.
- We encourage the use of tools and incentives to support a **walkable, dynamic downtown** in the Suncook Village.
- We promote a **strong mix of land uses** that meets the varied needs of the community.
- We support the proactive use of economic development tools to seek **sensible and sustainable economic development** while protecting and enhancing the Town's quality of life.
- We seek to preserve and enhance a vibrant community that embraces its unique, historical character, values its forests, farms and rural character and supports a **healthy, sustainable environment**.

2 IMPLEMENTATION



TOPICS INCLUDE:

Chapter Recommendations

Priorities and Responsible
Parties

This Chapter contains all of the recommendations from each of the Plan's Chapters. These recommendations were developed with input from town boards, town committees, department staff, and local residents and volunteers through the public outreach process. Some recommendations are short term and can be implemented immediately, while other recommendations are long term and will need additional resources in order to be implemented.

It is important to note that a master plan is not a regulatory document but rather a framework that not only provides direction for the future growth and development of Pembroke but includes recommendations that will help to implement the Plan's goals.

RECOMMENDATIONS & PRIORITIZATION

Included with each recommendation in this chapter is its overall priority as well as an identified leader who can assume a key role in achieving the specific recommendation. Timeframes for each recommendation reflect an assessment of the amount of effort and commitment of resources needed to advance each recommendation. The scale for each timeframe is spread out over ten years with some recommendations identified as ongoing efforts. When reviewing the recommendations that follow, it is important to keep in mind that they are really tools for focusing efforts and resources on those key issues that were identified through public outreach and committee work. Some of these recommendations could evolve over time as emerging trends develop or resources need to be refocused by changing priorities. What is most important is that the Plan continues to be relevant and serves as a tool to evaluate progress in advancing the Plan's vision and objectives.

RECOMMENDATION TIMEFRAMES

ONGOING

SHORT TERM
1-3 YEARS

MEDIUM TERM
4-6 YEARS

LONG TERM
7-10 YEARS

CHAPTER 3: HOUSING

OBJECTIVE 3.1:

Encourage housing that meets changing demographic needs.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Continue to support and encourage the development of accessory dwelling units.	Planning Board
SHORT	Consider the development of a senior housing ordinance.	Planning Board
	Consider increased density permitted by right to bring housing costs down for both young people just entering the workforce and for seniors.	Planning Board
	Consider a mix of uses in appropriate areas along Route 3 to accommodate varying development pressures, including greater housing densities.	Planning Board

OBJECTIVE 3.2:

Protect Pembroke's rural character.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Ensure that there are connections between subdivisions to avoid fragmented lands.	Planning Board

ONGOING

SHORT TERM
1-3 YEARS

MEDIUM TERM
4-6 YEARS

LONG TERM
7-10 YEARS

SHORT	Enhance the open space subdivision ordinance by simplifying the density calculation process and establishing density incentives for amounts and preferred types of protected open space uses.	Planning Board
	Consider the development of a range of density incentives for amounts and preferred types of protected open space uses.	Planning Board

CHAPTER 4: ECONOMIC DEVELOPMENT

OBJECTIVE 4.1:

Support the EDC and make use of available economic development tools and incentives that serve to focus commercial development in suitable areas of Pembroke.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Support the activities of the Pembroke Economic Development Committee (EDC).	Board of Selectmen, Planning Board
	Utilize the NH Division of Economic Development's selectnh.com website to advertise the availability of commercial sites and buildings in Pembroke.	Town Administration Planning Department
	Consider the expansion of the Commercial Zone and the encouragement of mixed-use developments.	Planning Board
SHORT	Consider the designation of specific areas along NH 106 and North Pembroke Road as Economic Revitalization Zones (ERZs).	Board of Selectmen, Economic Dev. Committee
	Develop a Business Retention and Expansion Program to support local businesses and attract new businesses.	Economic Dev. Committee, Planning Department
	Enhance the Economic Development section of the Town website with information related to the activities of the EDC and content regarding any available economic development tools and incentives.	Town Administration, Planning Department
MEDIUM	Consider adoption and promote the use of Community Revitalization Tax Relief Incentive (NH RSA-79-e) in the Suncook Village area.	Board of Selectmen, Economic Dev. Committee

OBJECTIVE 4.2:

Promote "quality of life" economic development that capitalizes on the Suncook Village.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Coordinate with the Town of Allenstown in a concerted effort to promote and revitalize Suncook Village.	Planning Board, Board of Selectmen, Town Administration, Planning Department

ONGOING	SHORT TERM 1-3 YEARS	MEDIUM TERM 4-6 YEARS	LONG TERM 7-10 YEARS
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	Support the incremental development of the Pembroke section of the Merrimack River Rail Trail as an important economic development tool.	Planning Board, Conservation Commission
	Address Suncook Village parking availability to improve parking convenience and ease for residents, businesses and visitors.	Board of Selectmen
MEDIUM	Consider the development of a façade/property improvement program in Suncook Village.	Board of Selectmen

OBJECTIVE 4.3:

Promote Pembroke and emphasize how Pembroke is a welcoming community for business and new residents.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Make economic development a key responsibility for the Town Planner or provide support for an alternate staff or contract position on an as-needed basis to promote economic development.	Board of Selectmen, Planning Department
	Continue to review the existing land use regulations and development review process with regards to the predictability of the planning review process.	Planning Department, Economic Dev. Committee, Planning Board

CHAPTER 5: COMMUNITY AND RECREATIONAL FACILITIES WITH UTILITIES

OBJECTIVE 5.1:

To inventory the present condition of the Town's community facilities, equipment, and services.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Review this chapter annually with representatives from appropriate boards and committees to track progress and identify additional needs.	Town Administration
	Continue to have departments participate in the annual update of the Capital Improvements Program (CIP).	Town Administration CIP Committee

OBJECTIVE 5.2:

To maintain a high level of quality services and continue to update services.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Continue to provide timely road maintenance.	Public Works
	Continue to develop the rail trail along the abandoned railroad bed following the Merrimack River.	Conservation Commission, Planning Department

ONGOING	SHORT TERM 1-3 YEARS	MEDIUM TERM 4-6 YEARS	LONG TERM 7-10 YEARS
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	Assess the need for replacement, repair of existing sewer lines.	Sewer Department
SHORT	Extend the town hall's hours.	Town Administration
	Make needed improvements to Memorial Field.	Recreation Commission
MEDIUM	Develop an after school program for teens.	Recreation Commission, School District
	Offer activities, programs, and events for adults and seniors	Recreation Commission
LONG	Provide overflow parking for the town hall/library area.	Board of Selectmen, Town Administration
	Evaluate sites for the location of a transfer station.	Board of Selectmen, Town Administration

OBJECTIVE 5.3:

To ensure that community services, recreational resources, and utilities continue to meet the needs of the community into the future.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Identify town-owned land and land for potential acquisition by the town to locate future community facilities, including more recreation areas.	Board of Selectmen
	Purchase land for the potential location of future community facilities.	Board of Selectmen
	Develop new parks, recreation areas, and facilities, including an area in North Pembroke and a community center.	Recreation Commission, Board of Selectmen
	Maintain services to sustain the current quality of life enjoyed by the residents of Pembroke as the community grows.	Town Administration
	Seek grants for community development and improvements.	Town Administration
	Expand the list of providers to provide utility options for Pembroke residents.	Board of Selectmen
	Extend the existing sewer and water lines as needed.	Sewer Department, Water Works

ONGOING

SHORT TERM
1-3 YEARSMEDIUM TERM
4-6 YEARSLONG TERM
7-10 YEARS

CHAPTER 6: EXISTING AND FUTURE LAND USE

OBJECTIVE 6.1:

Utilize available methods to promote the protection of Pembroke's rural character.

	RECOMMENDATION	WHO'S RESPONSIBLE
SHORT	Promote the use of the open space conservation ordinance by simplifying the density calculation process and the consideration of a range of density incentives (See Housing Chapter).	Planning Board
MEDIUM	Consider the establishment of a Forest Land Conservation District (See Natural Resources Chapter).	Conservation Commission Planning Board
	Consider the establishment of an Agricultural Conservation District (See Natural Resources Chapter).	Conservation Commission Planning Board
	Promote long-term protection of forest land and agricultural areas by purchasing development rights and securing restrictive easements (See Natural Resources Chapter).	Planning Board, Board of Selectmen

OBJECTIVE 6.2:

Consider future land use changes to Pembroke Street.

	RECOMMENDATION	WHO'S RESPONSIBLE
SHORT	Consider the development of a mixed use zone in the vicinity of Route 3 and Academy Road to accommodate a mix of housing and small scale retail/office uses.	Planning Board
	Conduct a Route 3 Pembroke Street Corridor Study as soon as reasonably feasible to develop a community vision for Pembroke Street using a "Complete Streets" approach (See Transportation Chapter).	Planning Board
LONG	Apply access management techniques along major corridors, including US 3 Pembroke Street and NH 106 to improve connectivity, promote safety, improve aesthetics, and maintain community character (See Transportation Chapter).	Planning Board, Board of Selectmen

OBJECTIVE 6.3:

Support the development and revitalization of Suncook Village.

	RECOMMENDATION	WHO'S RESPONSIBLE
SHORT	Consider adoption and promote the use of Community Revitalization Tax Relief Incentive (NH RSA-79-e) in the Suncook Village area (See Economic Development Chapter).	Board of Selectmen

ONGOING

SHORT TERM
1-3 YEARS

MEDIUM TERM
4-6 YEARS

LONG TERM
7-10 YEARS

MEDIUM	Address Suncook Village parking availability to improve parking convenience and ease for residents, businesses and visitors (See Economic Development Chapter).	Board of Selectmen
	Consider the development of a façade/property improvement program in Suncook Village (See Economic Development Chapter).	Board of Selectmen
	Develop architectural design guidelines to enhance the aesthetics, character, and existing design of residences and businesses in the Suncook Village area (See Community and Sense of Place Chapter).	Planning Board, Board of Selectmen

OBJECTIVE 6.4:

Promote existing and future commercial development along NH 106.

	RECOMMENDATION	WHO'S RESPONSIBLE
SHORT	Consider the designation of specific areas along NH 106 and North Pembroke Road as Economic Revitalization Zones (ERZs) (See Economic Development Chapter).	Board of Selectmen
	Consider simplifying the Soucook River Development District regulations.	Planning Board
MEDIUM	Consider the expansion of the Commercial/Light Industrial (C-1) zone and the encouragement of mixed-use developments as appropriate within the Soucook River Development District.	Planning Board

OBJECTIVE 6.5:

Consider long-term issues related to Pembroke's future development.

	RECOMMENDATION	WHO'S RESPONSIBLE
SHORT	In coordination with the Town of Allenstown, study the needs and options for improvements to the Suncook Wastewater Treatment Plant.	Board of Selectmen
MEDIUM	Study options for upgrading the Class VI sections of 3rd or 4th Range Roads in order to improve connectivity and provide an alternative route to Pembroke Street.	Board of Selectmen, Planning Board

OBJECTIVE 6.6:

Continually review and update the land development regulations.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Continue to review the existing land use regulations and development review process with regards to the predictability of the planning review process.	Planning Board, Planning Department

ONGOING

SHORT TERM
1-3 YEARS

MEDIUM TERM
4-6 YEARS

LONG TERM
7-10 YEARS

CHAPTER 7: TRANSPORTATION

OBJECTIVE 7.1:

Maintain the existing transportation infrastructure in an efficient and cost-effective manner, and make improvements and upgrades as safety and economics warrant.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Utilize Road Surface Management Software (RSMS) to help ensure road surfaces are properly maintained using objective data.	Roads Committee, Public Works
	Participate in the Central New Hampshire Regional Planning Commission Transportation Improvement Plan process in order to advance transportation infrastructure projects into the NH Department of Transportation Ten Year Plan.	Planning Department, Planning Board
	The planning board and selectmen should annually review the NHDOT bridge inspection reports for state and town-owned bridges to plan for future maintenance.	Planning Board, Board of Selectmen
SHORT	Study options for upgrading the Class VI sections of 3rd or 4th Range Roads in order to improve connectivity and provide an alternative route to Pembroke Street.	Board of Selectmen

OBJECTIVE 7.2:

Enhance the transportation system to improve its performance, better serve all users (cars, pedestrians, bicycles, transit), and to complement other town goals such as economic development strategies, community character, and quality of life.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Maintain and improve pedestrian and bicycle infrastructure, including sidewalks, crosswalks and crossings, bicycle shoulders and/or bicycle lanes, and other enhancements for non-motorized transportation. Coordinate improvements with economic development initiatives.	Planning Department, Board of Selectmen
SHORT	Conduct a Route 3 Pembroke Street Corridor Study as soon as reasonably feasible to develop a community vision for Pembroke Street using a "Complete Streets" approach as described on p. 7.4. Tie in findings with economic development initiatives.	Planning Board, Board of Selectmen
	Coordinate with a community volunteer effort and initiate other public-private partnerships to implement a Pembroke Rail Trail along the abandoned railroad bed next to the Merrimack River.	Planning Department, Conservation Commission

ONGOING

SHORT TERM
1-3 YEARSMEDIUM TERM
4-6 YEARSLONG TERM
7-10 YEARS

MEDIUM	Utilize traffic calming techniques such as striping narrower travel lanes, speed humps, raised crosswalks, or other treatments in order to promote traffic safety, reduce speeds, and enhance walking, bicycling, and neighborhood livability in targeted areas.	Planning Board, Board of Selectmen
LONG	Continue to explore and promote where feasible an extension of the Concord Area Transit System (CAT) to Pembroke and support other regional transit initiatives such as a connection to Manchester Transit Authority (MTA) which would provide service to Pembroke residents.	Board of Selectmen
	Support and promote Volunteer Driver Programs in the region to provide rides to essential services for seniors and others who do not drive. Consider providing matching funds for the Mid-State Regional Coordinating Council Volunteer Driver Program.	Board of Selectmen, Welfare Department

OBJECTIVE 7.3:

Update policies and practices regarding use and operation of transportation infrastructure to better meet a range of community goals.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Ensure transportation improvement projects are consistent with various community goals, including economic development and preserving community character.	Board of Selectmen, Planning Board, Planning Department
	Evaluate the transportation impact of new development that requires site plan or subdivision review, evaluate and address safety and neighborhood concerns, and provide neighborhood connections to improve connectivity when possible.	Planning Board
SHORT	Continue to evaluate capacity, needs, and usage of existing parking availability in Suncook Village and develop a plan for managing parking based on findings and best practices.	Board of Selectmen
	Evaluate the use and condition of Class VI roads and consider policies that maintain adequate access for landowners, allow for recreation opportunities, respect environmental concerns, and address quality of life issues that may arise from unmitigated ATV/OHRV use.	Board of Selectmen
LONG	Apply access management techniques along major corridors, including Route 3 Pembroke Street and Route 106 to improve connectivity, promote safety, improve aesthetics, and maintain community character.	Board of Selectmen, Planning Board

ONGOING

SHORT TERM
1-3 YEARSMEDIUM TERM
4-6 YEARSLONG TERM
7-10 YEARS

CHAPTER 8: NATURAL RESOURCES

OBJECTIVE 8.1:

Preserve open space through use of land acquisition and easements.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Continue to identify, inventory, and assess natural areas in town and employ parcel assessment methodologies to rank the value of parcels for acquisition or conservation easements.	Conservation Commission
	Actively seek out grant opportunities, donations and bequeathments to fund the acquisition of, or easement establishment on high-value parcels.	Conservation Commission

OBJECTIVE 8.2:

Use regulatory and non-regulatory strategies to preserve open space.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Utilize open-space subdivision, and other zoning options to establish and preserve high-value wetlands, shorelines, wildlife habitat, and trails on private lands.	Planning Board
	Condition the granting of variances and special exceptions to zoning ordinances on the establishment of conservation easements on subdivisions.	Zoning Board of Adjustment
SHORT	Keep existing town-owned conservation areas protected from transfer to alternative uses by the establishment of conservation easements with non-profit trusts such as the Five Rivers Conservation Trust.	Conservation Commission Board of Selectmen

OBJECTIVE 8.3:

Preserve surface water and ground water quantity and quality.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Identify and monitor potential threats to the integrity, sustainability and potential use of water resources in Pembroke, including but not limited to: <ul style="list-style-type: none"> i. Storm-water runoff and its potential effect on groundwater recharge and water quality ii. Surface-water withdrawal and its potential to reduce groundwater recharge iii. The storage of hazardous materials that could negatively affect groundwater supplies 	Conservation Commission Planning Board Water Works
	Perform sufficiently detailed aquifer-yield studies, to establish their sustainable level of groundwater withdrawal, in order to protect the long-term viability of the groundwater resource in the town.	Planning Board, Water Works

ONGOING	SHORT TERM 1-3 YEARS	MEDIUM TERM 4-6 YEARS	LONG TERM 7-10 YEARS
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MEDIUM	Utilize data and mapping from the Pembroke NRI to identify surface water areas of significance in order to enhance protective regulations under the current Shoreland Protection District, including but not limited to:	Conservation Commission Planning Board
	i. Maintenance of the 125-foot setback for all uses including agriculture and forestry	
	ii. Disallowance of any earth-moving activities or other soil disturbances within the 125-foot shoreland zone	
	iii. Identification and mapping of those areas that by virtue of their proximity to the Shoreland Protection Zone may require even greater setback accommodations for the purposes of protecting special habitats, aquifers, floodplains, etc.	

OBJECTIVE 8.4:

Preserve prime agricultural lands and soils, and retain agricultural land uses.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Review zoning ordinance and other regulations to ensure that agricultural uses, businesses, and operations are not unintentionally restricted and are consistent with RSA 21:34-a and RSA 674: 32-a-d.	Planning Board
	Engage the conservation commission to promote long-term protection of these areas by purchasing development rights and securing restrictive easement.	Conservation Commission
MEDIUM	Establish an Agricultural Conservation District that discourages conversion of prime agricultural land to development, and provides tax incentives, beyond the Current Use assessment, to support locally grown food products.	Planning Board Conservation Commission
	Establish an agricultural commission pursuant to RSA 674:44-e to promote local agriculture and advocate for the protection of agricultural resources.	Board of Selectmen

OBJECTIVE 8.5:

Preserve forest lands.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Engage the conservation commission to promote long-term protection of the large lots within unfragmented forest areas of the town.	Conservation Commission
	Monitor the implementation of the 2019 Forest Management Plan and update as needed.	Conservation Commission
MEDIUM	Establish a Forest Land Conservation District that discourages fragmentation, encourages cooperative management agreements among and between private landowners, and provides tax incentives, beyond the Current Use assessment, for owners of parcels that lie within a potential large-lot zoning district.	Planning Board Conservation Commission

ONGOING	SHORT TERM 1-3 YEARS	MEDIUM TERM 4-6 YEARS	LONG TERM 7-10 YEARS
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OBJECTIVE 8.6:

Preserve wildlife habitat.

	RECOMMENDATION	WHO'S RESPONSIBLE
SHORT	Utilize data and mapping from the Pembroke NRI, to prioritize high-quality wildlife habitat for protection by the town.	Conservation Commission
MEDIUM	Identify and seek to protect "green infrastructure areas" to avoid habitat fragmentation and its disruption to native flora and fauna and to act as corridors for the movement of wildlife assets.	Conservation Commission
LONG	Condition future gravel operations along the Soucook River to those which employ reclamation strategies leading to the permanent protection of riparian habitat and the regeneration of the native Pitch Pine-Scrub Oak Woodland described in the town's NRI.	Planning Board

OBJECTIVE 8.7:

Preserve high value wetlands.

	RECOMMENDATION	WHO'S RESPONSIBLE
SHORT	Use the existing wetland assessment study (completed as part of the NRI) to nominate high-valued wetlands for classification under the State's Prime Wetlands designation so that these wetlands, and their riparian buffer areas, may be targeted for heightened protection. <ul style="list-style-type: none"> i. Establish larger general setbacks (e.g. 100 feet) for prime wetlands by town ordinance. ii. Eliminate the allowance of forestry activities within prime wetlands and their protective buffer zones. iii. Require suitable wetland assessment studies for those projects that intend to impact prime wetlands or their buffers by demonstrating no net loss of functional value as a result of such impacts. iv. Provide for the allowance of on-site, permittee-responsible mitigation for prime wetland impacts in order to dovetail with state and federal permitting requirements. v. Maintain a priority list of wetlands that are important to water quality protection or could benefit from restoration efforts to improve their functional value. 	Conservation Commission Planning Board
	Update the existing Wetlands Protection District section of the zoning ordinance to do the following: <ul style="list-style-type: none"> i. Identify the District more clearly with language that defines wetlands within the first subsection. ii. Eliminate the "encouraging uses" subsection A. (4). 	Conservation Commission Planning Board

ONGOING

SHORT TERM
1-3 YEARSMEDIUM TERM
4-6 YEARSLONG TERM
7-10 YEARS

OBJECTIVE 8.8:

Preserve scenic views.

	RECOMMENDATION	WHO'S RESPONSIBLE
MEDIUM	Use data from the Natural Resources Inventory and other sources to further assess and rank the scenic assets of Pembroke and to recommend potential preservation opportunities to the planning board and board of selectmen.	Conservation Commission
LONG	Authorize the public works department to provide roadside pull-offs where informal viewing of scenic vistas can take place in a safe and unobtrusive way.	Board of Selectmen
	Consider entering into agreements with private landowners to provide public access to exemplary viewsheds in return for tax benefits that offset the high valuations (view tax) of publicly used viewsheds.	Board of Selectmen

OBJECTIVE 8.9:

Protect and maintain scenic roads, trails, and public access.

	RECOMMENDATION	WHO'S RESPONSIBLE
SHORT	Investigate the feasibility of additional traffic restrictions on Class VI roads to ensure that they are preserved in conditions suitable for a use by a broad range of agricultural, forestry, and recreational activities.	Board of Selectmen
	Conduct a feasibility study of conversion of portions of the Class VI road network to Class A trails in accordance with the provisions of RSA: 231-A in the most scenic or unique environments, in order to limit uses to those which minimize environmental disturbance.	Board of Selectmen
MEDIUM	Give priority to the acquisition of lands or easements along the Merrimack shoreline in order to facilitate completion of the river rail-to-trails project and the Heritage Trail through Pembroke.	Conservation Commission Board of Selectmen
	Review existing conservation lands in Pembroke to determine areas that are suitable for public trails, layout proposed trails in accordance with sound soil conservation practices, and seek out grants and volunteer programs to implement them.	Conservation Commission
LONG	Consider promoting and developing an interpretive signage program (i.e. nature trail) with area schools (or as an eagle-scout project) at a suitable conservation property such as Ames Brook.	Conservation Commission
	Consider establishing designated parking areas for more of the town's larger conservation lands.	Conservation Commission Board of Selectmen

ONGOING

SHORT TERM
1-3 YEARSMEDIUM TERM
4-6 YEARSLONG TERM
7-10 YEARS

CHAPTER 9: COMMUNITY HERITAGE AND SENSE OF PLACE

OBJECTIVE 9.1:

Respect and value Pembroke's rural character.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Encourage developers and landowners to consider preserving the historic and cultural resources found upon the landscape by promotion and education.	Planning Department, Planning Board
	Encourage legislation and/or policies that establish an incentive for preservation of archaeological and historic resources on private property.	Historical Society
	Protect and preserve stone walls along range roads and encourage landowners to consider retaining or rebuilding stone walls during alteration or development.	Planning Board, Board of Selectmen

OBJECTIVE 9.2:

Support connectivity that links natural, cultural and community networks.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Cooperate with other municipalities in seeking legislation to authorize the adoption of comprehensive policies for managing Class VI roads.	Town Administration, Board of Selectmen
	Preserve existing range roads as Class VI roads or as Class B trails, or upgrade only if necessary while preserving the historical integrity of the roadway	Board of Selectmen
	Look for opportunities to support the planning and creation of public spaces such as park benches, landscaping, community events or creative use of public buildings.	Board of Selectmen, Recreation Commission, Historical Society, Meet Me In Suncook

OBJECTIVE 9.3:

Encourage sustainable development practices that includes historic preservation.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Encourage the granting of discretionary preservation easements as authorized under RSA 79-D.	Board of Selectmen, Historical Society
MEDIUM	Develop architectural design guidelines to enhance the aesthetics, character, and existing design of residences and businesses in the Suncook Village area.	Planning Board, Meet Me In Suncook
	Improve the language of the Architectural Overlay District to stipulate aesthetic guidelines which are appropriate for preserving existing historic architecture and encouraging the adherence of the guidelines by new development.	Planning Board

ONGOING	SHORT TERM 1-3 YEARS	MEDIUM TERM 4-6 YEARS	LONG TERM 7-10 YEARS
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OBJECTIVE 9.4:

Create a community of residents and homeowners that understand and appreciate Pembroke's historic and cultural assets and are interested in connecting and educating others on the importance of preserving historic and cultural assets.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Develop/update educational materials in an effort to engage residents to participate in the protection and preservation of the natural and cultural environment.	Historical Society, Conservation Commission
	Communicate with the NH Division of Historical Resources on a regular basis to obtain current information on resource preservation that can be disseminated to the public.	Historical Society
LONG	Work towards the establishment of a Pembroke Heritage Commission.	Historical Society, Board of Selectmen
	Plan for a town-wide survey of historic structures that will provide direction for any future designations or education programs.	Historical Society
	Encourage town administration to distribute materials to property owners and builders relating to historic and cultural resources and grant opportunities for preserving these features.	Town Administration, Historical Society

CHAPTER 10: ENERGY

OBJECTIVE 10.1:

Keep Pembroke residents and businesses informed on energy efficiency, conservation and renewable energy measures and where to find additional information and funding.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Maintain information and links on Pembroke's website and at the library for residents and business owners on home energy saving strategies, renewable energy system installation, business energy programs, available financing, tax credits, green building design, etc.	Energy Committee
	Sponsor and/or partner with others on workshops or events on energy conservation, efficiency, and renewable energy, and/or notify residents of regional events.	Energy Committee
MEDIUM	Support Pembroke businesses in their efforts to reduce their energy bills, take advantage of renewable technologies, and improve their overall efficiency.	Energy Committee

ONGOING

SHORT TERM
1-3 YEARSMEDIUM TERM
4-6 YEARSLONG TERM
7-10 YEARS

OBJECTIVE 10.2:

Encourage and support energy conscious development.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Continue to support an Energy Committee that advises the town on energy issues and provides resources to residents and business owners relating to energy improvements and development.	Planning Board, Board of Selectmen
	Ensure that the land use regulations do not unduly restrict the use of alternative energy sources or sustainable construction techniques.	Planning Board, Planning Department
	Regularly review amendments to the Energy Building Code and initiate any necessary amendments to ensure that Pembroke is proactive in addressing emerging energy efficient construction and practices.	Building Department
SHORT	Develop an "energy checklist" for any proposed projects that identifies energy efficiency considerations for homeowners, developers and municipal departments.	Planning Department
	Amend zoning, subdivision and site plan regulations that identify opportunities for renewable energy installations and address any potential impacts on surrounding properties.	Planning Board

OBJECTIVE 10.3:

To reduce municipal energy usage and costs and improve energy efficiency in municipal operations.

	RECOMMENDATION	WHO'S RESPONSIBLE
ONGOING	Actively monitor municipal energy usage and costs to track progress resulting from energy saving initiatives.	Town Administration, Board of Selectmen
	Participate in public or private programs that educate and/or fund the retrofit of municipal buildings and infrastructure	Town Administration, Board of Selectmen
	Continue to implement building energy improvement plans to increase the efficiency of municipal buildings, and incorporate planned improvements into the municipal budgeting process.	Town Administration, Board of Selectmen
	Investigate options for renewable energy at municipal buildings.	Town Administration, Board of Selectmen

ONGOING

SHORT TERM
1-3 YEARSMEDIUM TERM
4-6 YEARSLONG TERM
7-10 YEARS

3 HOUSING



TOPICS INCLUDE:

Challenges & opportunities going forward

Current housing trends & zoning framework

Housing needs assessment & results

This chapter explores regional and local housing trends as well as demographic changes. These trends provide a framework for an understanding of the pressures that housing demand places on Pembroke. The chapter also identifies potential housing needs in the future based on these demographic trends and projected population changes. The purpose of such an effort is to help quantify Pembroke's future housing needs. Finally, the chapter explores the current zoning framework in an attempt to understand whether or not it can appropriately respond to and manage housing demand.

Pembroke is...

a community where residents want to preserve and enhance the town's rural character and protect existing quality of life while at the same time provide for a variety of housing types to meet the current and future needs of residents.

WHAT THE COMMUNITY SAID...

Public responses from Pembroke's outreach process, which included a community survey and a Visioning Session, provide a clear and consistent direction for a balance in town that maintains community character while providing for a mix of housing to meet changing demographic needs. Strong feedback was received for maintaining Pembroke's rural character, and that maintaining this rural character should be a main goal of this master plan.

The following tables briefly summarize comments and input received throughout the public outreach process. In general, the results suggested that there is a need to preserve Pembroke's character and find housing solutions for certain segments of the population, notably seniors. Results of these engagement opportunities provide a direction for the objectives and recommendations identified in this chapter.

Table 3.1: Residents Rank the Importance of the Following Housing Types

Identified Feature	Important	Somewhat Important
Senior Housing (55+)	29%	39%
Accessory Dwelling Units	22%	43%
Open Space/Cluster Developments	20%	30%
Independent Living Facility	18%	44%
Assisted Living Facility	17%	43%
Suncook Village Apartments & Duplexes	17%	40%
Condominiums	14%	42%
Combined Residential & Business Space (Mixed Use)	19%	35%

Table 3.2: Residents Show Support for the Following Actions

Identified Response	Percentage
Zoning ordinance amendments that help better separate non-residential development uses from residential development	73%
New housing in North Pembroke area	65%
New housing in Buck Street/NH 28 area	51%

Table 3.3: Residents Views of Strengths, Concerns, and Opportunities

Strengths	Concerns	Opportunities
Mix of housing types	Lack of adequate senior housing & services	Healthy development
Economic diversity	Long term financial impact of new housing	Growing work force
Character of Pembroke Street	Traffic on Pembroke Street	Phasing of housing that leaves time for adjustment
Schools & educational system	Current balance of economic development	Development of a Commercial District
Bedroom community status & local atmosphere	Bedroom community status	Improve quality of rental units
Taxes & Town services	Quality of Suncook Village housing	Obtain land for future Town well/water tower
Current strategic/proactive planning initiatives	High percentage of low income housing units	Tiny Houses

Themes that can be identified from the Visioning Session and community survey include:

- Providing housing choices for seniors;
- Ensuring that the housing stock is current and meets needs;
- Protecting the town's abilities to provide services in the face of growth;
- Ensuring that there is a variety of housing that meets the needs of all demographics, including cost; and
- Current growth rate of Pembroke is not necessarily a concern at this time.

CHALLENGES AND OPPORTUNITIES

DEMOGRAPHIC DEMANDS AND CURRENT HOUSING SUPPLY

For Pembroke, like many towns in New Hampshire, there are a few demographic indicators that can drive housing need. One is the age of the population. The significance of this statistic is that it can suggest a need for housing that is better suited to senior citizens, such as single floor living, smaller living space, and lower costs. Another statistic is that of the average household size. Household size can suggest more than one thing. A reduction in household size might suggest a decrease in the number of children, while an increase could suggest an increasing birth rate or adults are choosing to live together. Pembroke-specific data can help to explore these issues further.

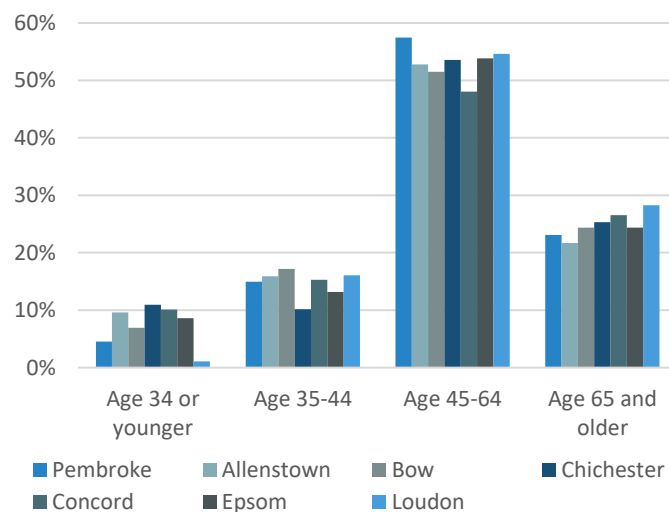
In Pembroke, the median age has steadily increased since the turn of the century. US Census data in 2000 indicated a median age of 36.7 years. By 2010, Census data indicated the median age was 39.6 years. By 2018, American Community Survey 2014-2018 data suggested it was 42.4 years. Clearly, these trends point towards an aging population. With regard to household size of occupied units, Pembroke saw, on average according to American Community Survey 2014-2018 data, 2.75 people per household. In comparison, the figure was 2.59 in 2000 and 2.61 in 2010, respectively. Taken together, the population is aging and household sizes are growing slightly.

AGE OF HOMEOWNERS

The graphic below reinforces the trends of an aging population and housing needs as discussed throughout this Chapter.

Approximately 81% of homeowners in Pembroke are over the age of 45, with nearly 23% over the age of 65. Compared to Pembroke's neighboring communities, Loudon and Chichester have the highest percentage of homeowners in this age grouping, though all of the abutting communities have comparable percentages. It is worth noting that Pembroke has a lower percentage of homeowners under the age of 45 compared to abutting communities with 19%, though only by a marginal amount and still in line with the trends experienced in the abutting communities.

Figure 3.1: Age of Homeowners



Source: US Census Bureau, American Community Survey 2014-2018

The increase in median age, coupled with the increase in household size, suggests that adult children might be living with their parents. This could be due to either the growing cost of housing relative to entry level incomes, and/or a need for seniors to split housing costs with their children as they retire, in addition to caregiving. Accessory dwelling units can be a great tool to address these issues – they allow seniors to downsize and stay in place. Their adult children then have an opportunity to own a home a lower cost. It also would address the caregiver issue as people age.

MATCHING HOUSING SUPPLY TO AGE GROUPS: HOUSING THROUGH THE LIFE CYCLE

As highlighted by the New Hampshire Housing Financing Authority's 2014 publication, "Big Houses, Small Households: Perceptions, Preferences and Assessment," New Hampshire's current housing supply is poorly aligned with evolving preferences among different age groups. This mismatch exists both for aging Baby Boomers and younger workers. Older residents are likely to seek to "down-size" to smaller living arrangements, yet housing units of 3+ bedrooms far outnumber one- and two-bedroom units in the state. Given the relatively small number of young households in the state it's unclear whether the larger units built for Boomers during their child-rearing years will draw sufficient interest from buyers in future years.

The group most likely to purchase larger homes, those aged 35-54, is expected to decline in many NH communities, including Pembroke. As households age, real estate preferences tend to change as well. Many of the baby boomers are looking to downsize, and the trend of smaller household sizes have impacts on supply and demand in the market.

There is the potential for adopting new development approaches through incentives or other techniques but this does not guarantee a solution. There is also an interest in more walkable neighborhoods while still maintaining the rural character of the town, another attractive amenity for an aging population.

Single level housing developments have been successful elsewhere because they can offer one story living with a potentially smaller lot size. Supporting these changes would require an evaluation of overall policies on land use requirements, and regulatory changes to ordinances.

In addition to the ability to age in place, there is a need for expanding the workforce into the future. Housing as an economic development strategy requires the ability to attract those that are not only in the workforce today, but in the future as well. Much of this is similar to what downsizing baby boomers are looking for: smaller homes near amenities and places of employment.

The housing needs assessment (HNA) conducted for Pembroke, described in more detail later in this chapter, shows a projected need for 101 units (three annually, none rental; rental units are actually projected to decrease by about 11% to 891 units) to meet demand by 2040 from the 2010 base year. It is important to note that the HNA should be revisited once the 2020 Census data is available as it would provide a more recent base year for the assessment's projections. While the current results seem to indicate that the current zoning ordinance is adequately addressing the number and balance of housing types, this assessment is only a snapshot in time and needs monitoring of demographic trends. It is important to keep in mind that the HNA gives you a picture of the supply side housing evidence. The

demand side and the impact of housing preferences driven by demographics are equally important. This could lead, for instance, to allowing greater density by right, which would lower costs for seniors and those new to the workforce due to economies of scale. Another example of demand-driven zoning changes could be a focus on smaller homes to prevent future vacancy rates as demographic demands begin shifting to smaller homes rather than larger ones. It is also important to take into account land and infrastructure constraints and other factors that could limit housing supply.

Taken together, housing through the life cycle coupled with Pembroke's evolving demographics, and it seems that the Pembroke housing market would benefit from the addition of some smaller, more affordable homes for both seniors and first time home buyers. Accessory dwelling units (ADU) and enhancing the cluster housing requirements could help address these issues. ADUs would provide a way for seniors to downsize while their adult children live in the home. This meets two housing demographic needs and makes caregiving easier as people age. It also protects community character by requiring, among other things, the ADU is similar to, and smaller than the single family home.

The other approach, enhancing the Open Space Conservation Ordinance, can address a lot of the same issues as it permits clustering of units. First, the act of clustering can lower costs. For example, clustered developments have shorter roads due to smaller lots. This limits road construction costs to the developer and the savings can be passed on. Secondly, clustering can result in smaller homes to fit the smaller lots. This would meet both the needs to seniors downsizing and first time home buyers. Finally, the act of clustering preserves open space and allows for a more walkable community, both of which are consistent with what community outreach has identified.

CHAPTER OBJECTIVES & RECOMMENDATIONS

OBJECTIVE 1 Encourage housing that meets changing demographic needs.	<ul style="list-style-type: none"> → Consider the development of a senior housing ordinance. → Consider increased density permitted by right to bring housing costs down for both young people just entering the workforce and for seniors. → Consider a mix of uses in appropriate areas along Route 3 to accommodate varying development pressures, including greater housing densities. → Continue to support and encourage the development of accessory dwelling units.
OBJECTIVE 2 Preserve Pembroke's rural character.	<ul style="list-style-type: none"> → Simplify the density calculation process in the open space subdivision ordinance. Deducting a percentage of land for roads, slopes, and wetlands and dividing the remainder by the minimum lot size is a potential approach. → Consider the development of a range of density incentives for amounts and preferred types of protected open space uses. Uses such as passive or motorized recreation, farmlands, or natural state could have different density bonuses. → As stated in Objective 1, consider a mix of uses in appropriate areas along Route 3 to accommodate varying development pressures, including greater housing densities. → Ensure that there are connections between subdivisions to avoid fragmented lands.

HOUSING TRENDS

HOUSING TRENDS IN PEMBROKE

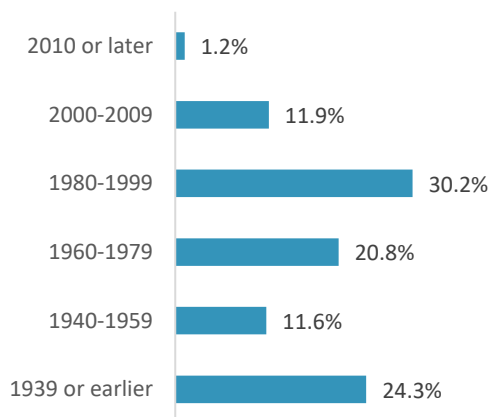
Similar to population trends, the number of housing units grew substantially during the 1980s, with a boom of larger, single family, multi-bedroom houses. As shown in Figure 3.2, the percentage of housing units built during the 1980s is almost equivalent to the number of housing units built in the previous four decades. Since then, the amount of new housing units decreased dramatically during the 1990s before increasing once again during the 2000s, though not to the extent experienced during the 1980s. In recent years since 2010, Pembroke has experienced a modest supply of new housing units, though this accounts for less than one percent of the total housing units in town.

Looking specifically at recent annual data for the years between 2010 and 2018, Figure 3.3. Indicates 23 new housing unit permits were authorized in town, with a peak in 2014 with 10 units. It should be noted that this figure also represents a net gain and takes into account four demolition permits that were approved over the same time period.

Figure 3.4 shows the units by type in Pembroke and adjoining communities, reinforcing the prevailing pattern of single-family homes in both Pembroke and its abutting communities. According to the US Census Bureau, the majority of homes in Pembroke (72%) have two or three bedrooms, while nearly 17% have four or more bedrooms.

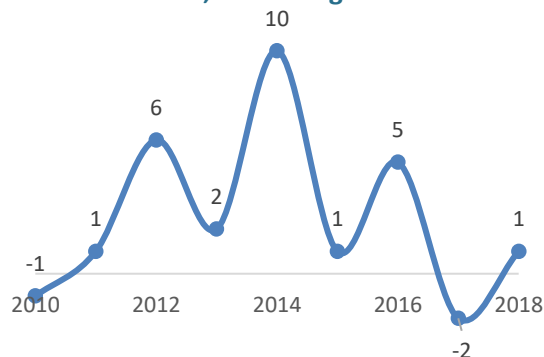
Table 3.4 on the following page documents housing occupancy characteristics for both owner and renter occupied units in Pembroke and abutting communities. As expected, the majority of occupied units are owner occupied in Pembroke and all of the abutting communities, though some communities have higher percentages than others. Approximately 76.2% of Pembroke's occupied units are by the owner, leaving 23.8% as renter occupied. Of those owner occupied, 52.7% are over the age of 55, emphasizing the increasing amount of seniors in Pembroke. The average

Figure 3.2: Occupied Housing Stock by Year Built



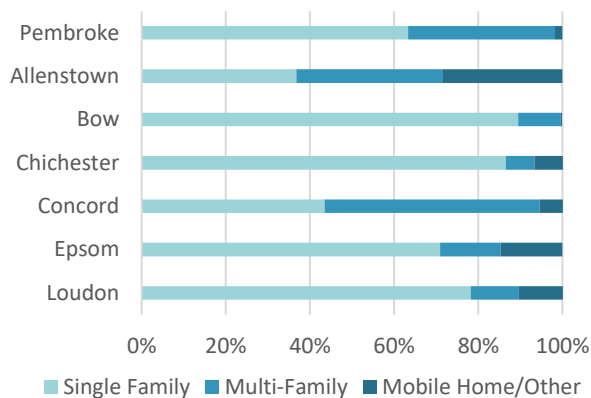
Source: American Community Survey 2013-2017

Figure 3.3: Residential Building Permits, Net Change of Units



Source: NH Office of Strategic Initiatives

Figure 3.4: Housing Stock, By Type



Source: American Community Survey 2014-2018

household size of owner occupied units is 2.85, which has increased compared to past values counter to national and state-wide trends currently being experienced. For renter occupied dwellings in Pembroke, 31.6% of the renters are over the age of 55 and the average household size is 2.41.

Table 3.4: Housing Occupancy Characteristics for Owner and Renter Occupied Units

Community	Owner Occupied Units			Renter Occupied Units		
	Percent Owner Occupied	Percent Owners over age 55	Average Household Size	Percent of Renter Occupied	Percent renters over age 55	Average Household Size
Pembroke	76.2%	52.7%	2.85	23.8%	31.6%	2.41
Allenstown	73.7%	50.0%	2.61	26.3%	37.0%	1.80
Bow	88.7%	52.3%	2.92	11.3%	64.8%	2.28
Chichester	91.7%	48.6%	2.63	8.3%	6.3%	3.89
Concord	53.9%	50.9%	2.60	46.1%	36.6%	1.98
Epsom	79.5%	52.3%	2.73	20.5%	39.1%	2.05
Loudon	84.9%	69.8%	2.78	15.1%	57.5%	1.87

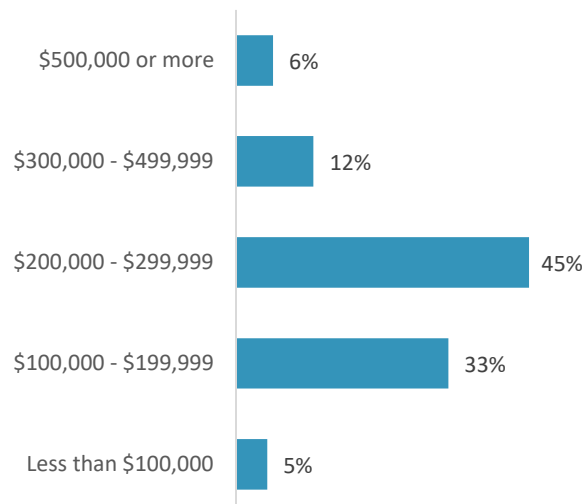
Source: American Community Survey 2014-2018

Due in part to the increased job growth and a lowering unemployment rate experienced over the past few years, median home values statewide have recovered to their pre-recession peaks as trends of increasing home values continue. According to American Community Survey data, Pembroke's median home values are approximately in the mid-range of the surrounding communities. Table 3.5 shows that Bow's median home value is the highest at \$317,500 and Allenstown has least expensive median home value at \$153,200.

Percentages of owner-occupied housing units by value in Pembroke are shown in Figure 3.5. Approximately 45% of owner occupied housing units are valued between \$200,000 and \$299,999, while 33% are valued between \$100,000 and \$199,999. This leaves 18% that is valued above \$300,000.

When comparing median home and rent values for Pembroke and abutting communities, Pembroke's home values are comparable to these communities, with the exception of Bow and Allenstown. The median rent value was also comparable to abutting communities, with the exception of Allenstown that again had a lower median value.

Figure 3.5: Owner Occupied Housing Values in Pembroke



Source: American Community Survey 2014-2018

Table 3.5: Median Home Value and Rent Values

Community	Median Value	Median Rent
Pembroke	\$221,100	\$1,059
Allenstown	\$153,200	\$884
Bow	\$317,500	\$1,138
Chichester	\$252,200	\$1,128
Concord	\$218,600	\$1,052
Epsom	\$229,300	\$1,040
Loudon	\$233,700	\$1,039

Source: American Community Survey 2014-2018

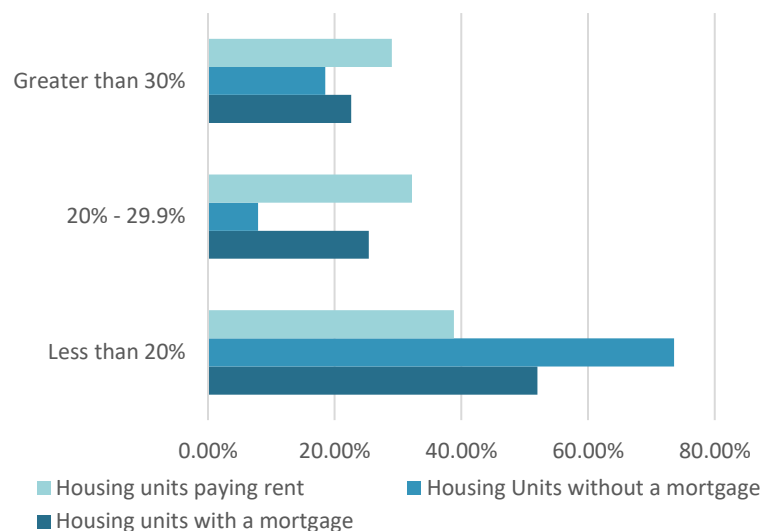
Figure 3.6 shows monthly household costs as a percent of household income in Pembroke. Based on the assumption that no more than 30% of a household's income should be spent on housing, it can be said that the majority of residents fall within this category. Not surprisingly, housing units without a mortgage comprises the largest amount of dwellings with monthly household costs less than 30%. Similarly, housing units paying rent have the largest amount of dwellings paying more than 30% of their monthly household income to household costs.

ZONING FRAMEWORK IN PEMBROKE

PERMITTED RESIDENTIAL USES

Pembroke has six zoning districts: Medium Density-Residential (R1), Rural/Agricultural-Residential (R3), Business/Residential District (B1), Central Business District (B2), Commercial/Light Industrial (C1), Limited Office District (LO), and the Soucook River Development District (SR). Single family homes and duplexes are permitted in five districts by right. Multi-family developments, up to six units, are permitted by Special Exception in four districts. Open space (i.e. cluster) developments are permitted by right in both the R1 and R3 districts, and by Special Exception in the LO district. Manufactured housing parks or subdivisions are permitted in only the R3 district. The effect of this is that in most of the town, various forms of residential uses are permitted while preserving some land for commercial enterprise. Also of note is the fact that multi-family structures between three and six units require a Special Exception, while structures with seven or more units are not permitted and would require a variance.

Figure 3.6: Monthly Household Costs as a Percent of Household Income in Pembroke



Source: American Community Survey 2014-2018

ACCESSORY DWELLING UNITS

Zoning Ordinance Sections 143-18 and 143-18.1 both regulate accessory dwelling units (ADU). In Pembroke, the collective effect of these two sections is that an ADU is permitted anywhere in town that a single family home is allowed (every district but the C1), which is consistent with the new RSA governing ADUs. For Pembroke, the permissibility of ADUs can accomplish several things. First, it can lower the cost of living and provide housing solutions for both seniors looking to down size and provide housing for new families. A typical scenario could involve a retired couple creating an ADU for them to live in and selling/renting/giving the larger home to their adult children to raise their family. A second benefit to the ADU ordinances is it can provide a "safety valve" to meet workforce housing needs. Pembroke should continue to support this tool.

OPEN SPACE DEVELOPMENTS

Open space developments in Pembroke are governed by Section 143-73 to 143-82 of the Zoning Ordinance. Density for an open space development cannot exceed the density allowed by a typical subdivision. A “yield plan” is first presented to identify the number of units permissible under a conventional subdivision. From there, the cluster plan can be developed. Lot sizing is determined two ways. The first lot size method is based on the underlying zone and the availability of sewer and water: 25,000, 30,000, or 40,000 square foot lots. The second method is via a special use permit that can result in smaller lot sizes. With regard to open space, 50 percent of the buildable area is required to be preserved in a “natural state.” Modest reductions in open space are available via special use permit by the Planning Board for design considerations.

The Open Space Ordinance is a great tool for protecting land though it could be enhanced to encourage its use and create specific open space that can better protect Pembroke’s rural character. First, the density calculation process could be simplified. The current method to determine density, designing a conventional subdivision, is timely and can be cost prohibitive. A simpler method could be to deduct wetlands and 10 percent of the remaining land for roads. From there, divide the remaining land by the minimum lot size. This would simplify the density calculation process. With regard to open space, a list of desired types of open space can be developed (for example, agricultural land, passive recreation, forestry, etc.) and a modest density incentive can be affixed to each open space type. This would preserve the types of land Pembroke prioritizes while giving developers an incentive to do so. The ordinance should also take care to allow for interconnectivity between cluster developments to avoid fragmented lands. A more detailed discussion on this can be found in the Transportation Chapter.

The Open Space Ordinance can also address the smaller houses the market is looking for while protecting rural character. Smaller lots can lower construction costs passing the savings on to home owners. Smaller lots also lend themselves to smaller homes. This could help to allow seniors to downsize and first time home buyers to afford a home. Further, the increased density can lead to a more walkable neighborhood.

MIXED USE & HIGHER DENSITY

Balance is a topic mentioned by the community in regard to development overall. For housing, this means balancing the competing interests of rural character and strategically using density to lower costs and meet other housing demands. Cluster developments using the Open Space Subdivision Ordinance is one way to achieve this. Another way is looking at greater densities by right, and even allowing residential densities where non-residential uses are permitted – much like villages of the past.

The Land Use discussions during the Visioning Session supported this concept when they outlined a potential higher density, mixed use zone in the area of Pembroke Street and Academy Road. Such an approach would capitalize on existing infrastructure (sewer, water, Route 3) and could tie into a traffic light at that intersection. Situating low-impact commercial uses with higher density residential could create economies of scale for seniors and first time home buyers alike. It could also put amenities within walking distance from these homes increasing their quality of life. Such a development could balance development pressure with community character in a beneficial way for Pembroke.

POTENTIAL ZONING TOOL: SENIOR HOUSING ORDINANCE

Visioning Session and survey responses suggested a strong need for senior housing options in Pembroke. Currently, the zoning ordinance does not have such an option available. Developing such an ordinance that keeps costs down, has first-floor living, and smaller living spaces would be beneficial for Pembroke seniors looking to stay in the community as they downsize/age in place. Another benefit would be that it would free existing housing units up for those who may be looking for them.

HOUSING NEEDS ASSESSMENT

The Housing Needs Assessment (HNA) draws on U.S. Census data and considers demographic changes and projections and their potential impact on housing need. This information can then be used to help Pembroke better plan for housing demand. The HNA begins with a base year (2010) analysis using U.S. Census data for the number of renters over and under the age of 65 years, as well as the number of home owners of the same age. Ratios were then established between the number of people per household and the number of households in each of the four groupings (renters under 65; renters over 65; owners under 65; and owners over 65). Using the ratios and population growth projections from the New Hampshire Office of Energy and Planning (now known as the Office of Strategic Initiatives), the estimated demand for owner and renter occupied housing units through 2040 were identified.

This section summarizes a projection of housing supply needs for the periods 2015 through 2040 in five-year increments in an effort to inform the community about the expected demand for housing in the future. It should be noted that the further out the projections go, the less reliable they may be. We are now in that period when the population projections are less reliable. The 2020 Census will be initiated in April of 2020 and the general population count will be available at the end of that calendar year. This will then give the projections a new base year and they will be updated in a few years after the 2020 Census. While there is still value in using this housing needs assessment to project housing need, it is important to acknowledge the limitations of using projection data that is less reliable. The overall assumptions of an aging population and slower growth are still occurring in NH.

INTERPRETING THE HOUSING NEEDS ASSESSMENT

The Housing Needs Assessment can serve as the starting point for a dialogue in Pembroke, including the following questions.

WHO CAN OR CANNOT AFFORD TO LIVE IN OUR COMMUNITY? CAN OUR CHILDREN AFFORD TO STAY OR RETURN TO THE COMMUNITY AS THEY MATURE?

As mentioned elsewhere, the aging population has come to account for a greater share of all households in the region and state and a resultant decrease in household sizes. Decreased fertility rates have further reduced household sizes with fewer children per household, and young families represent a smaller share of all households than they have historically. Planning for an increasing older population with lower median income and savings, less mobility, and different physical needs (such as single-level living) will continue to be essential in ensuring that this portion of the population can continue to live in Pembroke.

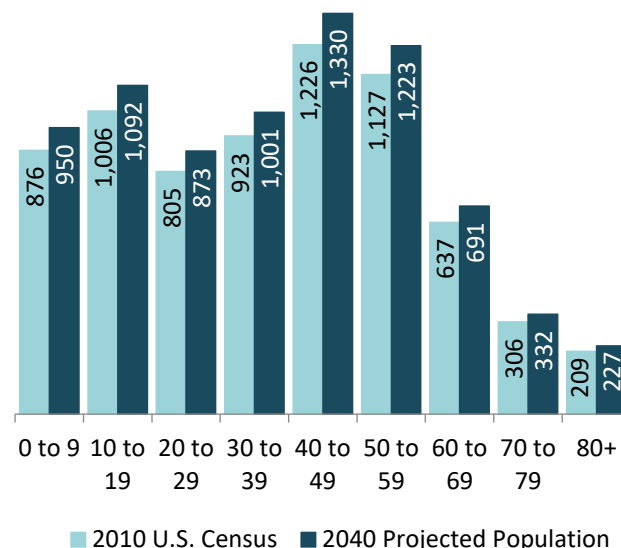
Trends indicate that many young adults in their twenties and thirties are looking for opportunities to spend less time commuting in a car and are buying smaller houses later in life compared to their predecessors. While Pembroke has a large inventory of rental units, young, first time home buyers are competing with well-established senior population looking to down-size. It is important that planning and steps are taken so that the town can sustain an adequate supply of affordable housing as well as economic and employment opportunities that not only attract but sustain young adults and families living or relocating to the community.

DO CURRENT HOUSING TYPES FIT PEMBROKE'S NEEDS? DOES THE ZONING RESPOND TO DEMOGRAPHIC NEEDS AND THEREFORE, THE HOUSING MARKET?

There is a projected need for 101 units (three annually, none rental) to meet demand by 2040 from the 2010 base year. The analysis suggests that rental units are projected to decline by about 11% to 891 units. Data indicates that while the zoning ordinance seems to accommodate the number and balance of housing types driven by demographics, allowing greater density by right - even in rental developments - may lower costs for seniors and younger people just entering the

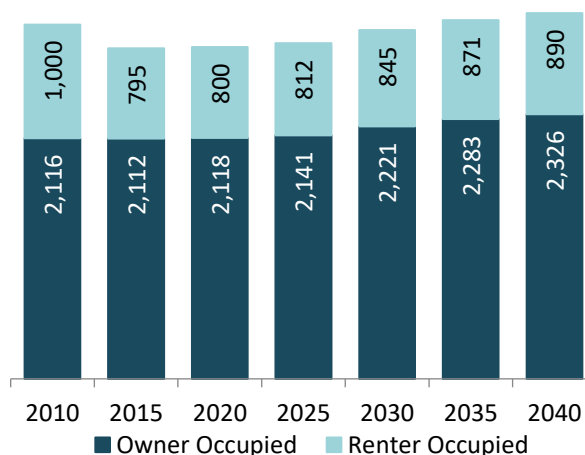
workforce. The analysis also suggests that there may be a need for smaller homes to prevent future vacancy rates as demographic demands shift the demand of smaller homes to outweigh that of larger ones. Changes to cluster provisions and rental densities within the Zoning Ordinance could be pursued. Further, continued support of accessory dwelling unit development could help to alleviate senior and first time home buyer housing issues.

Figure 3.7: Pembroke's Population by Age 2010 to Projected 2040 Comparison



Source: US Census & NH Office of Energy and Planning Population Projections 2010 - 2014

Figure 3.8: Pembroke's Projected Dwelling Unit Demand through 2040



DO OUR SENIOR RESIDENTS HAVE SUFFICIENT ALTERNATIVES TO REMAIN IN THE COMMUNITY IF THEY CHOSE TO?

As more and more seniors choose to age in place, this desire is complicated by determining factors, including high rates of disability, lower median income and savings, declining caregiver population, and accessibility to amenities such as medical facilities and shopping. Amenities such as senior housing, walkable neighborhoods, transportation options, access to recreational opportunities, and community centers with senior programs will become more desirable.

ADDITIONAL DETAILS PROVIDED BY THE HOUSING NEEDS ASSESSMENT

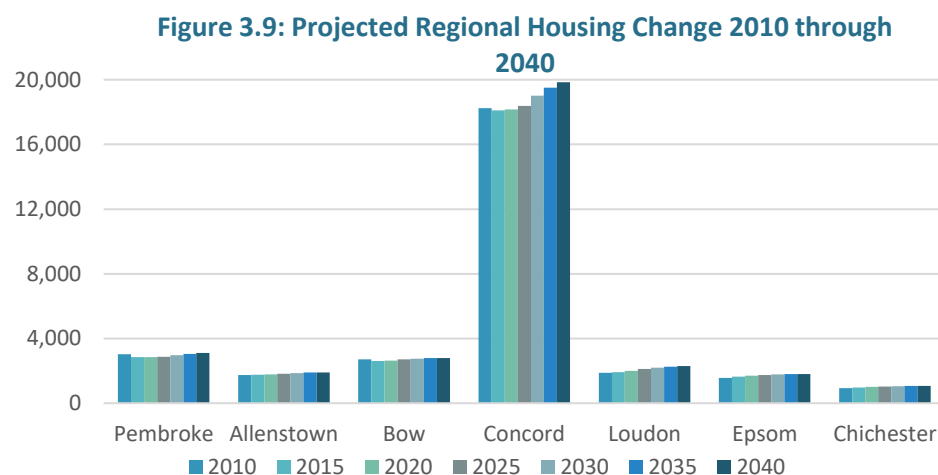
The housing forecast described above is based upon the Population Headship Tenure Model included in *The Evolving Environment and Housing's Future* produced by the NH Center for Public Policy Studies for NH Housing as part of the state's Housing Needs Assessment (2014). The model estimates the future need for housing using anticipated changes in household size, tenure, and age group. Headship is defined as the ratio of the number of household heads relative to the total population. For this model the headship ratio is computed for each population cohort and the total population. The projections are based upon headship rates by age group.

As mentioned elsewhere, the aging population has come to account for a greater share of all households in the region and state and a resultant decrease in household sizes. Decreased fertility rates have further reduced household sizes with fewer children per household, and young families represent a smaller share of all households than they have historically. This model accounts for these trends in household formation and home ownership trends dependent on the age of the head of household and thus presents a more accurate reflection of future housing production needs to meet demand of a changing demographic. For the Central NH Region as a whole, there is a projected need for as many as an additional 6,280 units to meet demand by 2020 from a base year of 2010 (*2015 CNHRPC Regional Plan*). However, it should be noted that new units do not necessarily equal new structures. For example, there could be the opportunity to add a small apartment or accessory unit within a single-family home. Highlights of the HNA for the Region include: a need for about a 6% increase in housing every five years between 2010 and 2025; about a 70/30 split, respectively, between owner-occupied and rental housing in 2015; and, about 47% of the rental housing needed by 2015 would be for those under 35 years of age or over 74 years of age. *For Pembroke, there is a projected need for 101 units (three annually, none rental; rental units actually projected to decline by about 11% to 891 units) to meet demand by 2040 from the 2010 base year. Data suggests: 1) while the zoning ordinance seems to accommodate the number and balance of housing types driven by demographics, allowing greater density by right, especially in rental developments, may lower costs for seniors and those new to the workforce; and 2) there may be a need for smaller homes to prevent future vacancy rates as demographic demands begin shifting to smaller homes rather than larger ones.*

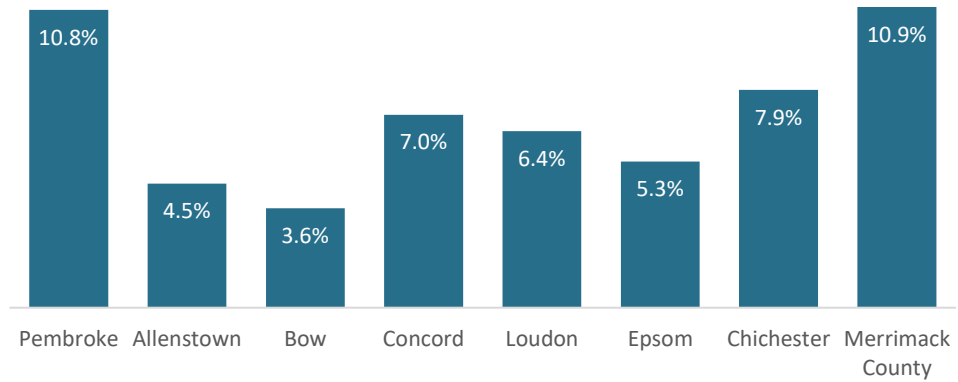
Additional observations based on the Housing Assessment process have found that:

- The largest segment of the population is between the ages of 20 and 69 (“working age”). Within this group, the 40 to 49 cohort adds the most at 124; the smallest increase is the 20 to 29 age group which adds 45.

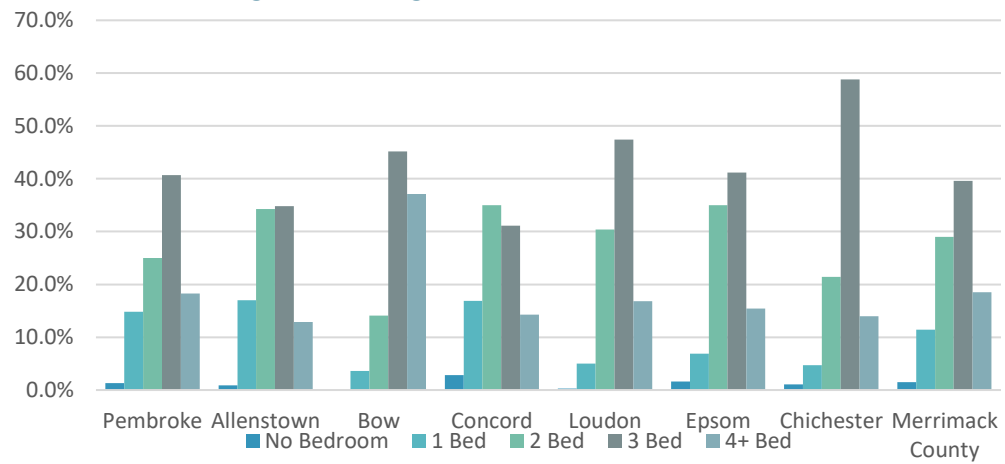
- With regard to housing demand there seems to be a modest increase between 2020 and 2040 – about seven overall units per year (all owner-occupied). Deducting four rental units per year and the average increase is actually *three units per year*.
- Of note is that there are more rental units than what the market requires suggesting a decrease of about 109 units is likely between 2010 and 2040. See Figure 3.9.
- Demand for rental housing seems is likely to decrease resulting in 47.2% of the units being rental in 2010 to about 38.2% in 2040. See Figure 3.9.
- Overall, there is a projected 3.2% increase in housing (both rental and owner-occupied).
- The regional trends suggest that Loudon will experience the greatest rate of change (21.5%) and Concord is likely to maintain the greatest number of units (1597).
- Pembroke's vacancy rate is consistent with that of the county (about 10.8% to 10.9%) and it is significantly higher than the surrounding communities (Bow: 3.6% to Chichester: 7.9%) in 2015. See Figure 3.10.
- Three and four bedroom-plus homes dominate Pembroke's housing stock (40.7% - 18.3%) in 2015. Notably, the units with four or more may be more difficult to fill due to market demands for smaller household sizes. Excessive bedrooms may contribute to future vacancy rates as the housing market, driven by demographics, seeks smaller homes.
- Bow is the only other community with a greater percentage of four-bedroom (or more) homes than Pembroke at 37.1%. Merrimack County is slightly higher than Pembroke as well at 18.5%. See Figure 3.11.



Source: CNHRPC Calculations, 2018

Figure 3.10: Regional Vacancy Rates, 2015

Source: US Census American Community Survey 2010-2015

Figure 3.11: Regional Number of Bedrooms, 2015

Source: US Census American Community Survey 2010-2015

4 ECONOMIC DEVELOPMENT



TOPICS INCLUDE:

A review of public outreach results regarding economic development

Challenges & opportunities going forward related to Suncook Village, available economic development tools, the work of the Pembroke Economic Development Committee, and trail development

Education/Employment/Tax Rate/Commuting Patterns
Data and Trends

This chapter focuses on the Town's economic base and strives to identify the connections between the economy and the Plan's other chapters. Pembroke has many opportunities to enhance its economy through proactive use of available tax incentive tools and the work of the Pembroke Economic Development Committee (EDC). The chapter will also provide an overview of related topics such as trail development and improvements to Suncook Village.

Pembroke is...
 a community that has a great opportunity for sensible and sustainable economic development due to its unique location, strong mix of rural, village and highway related areas, and a continued interest and protecting and enhancing the Town's quality of life.

WHAT THE COMMUNITY SAID...

Input gathered throughout the public outreach process in development of this Master Plan demonstrated resident's high appreciation of the town's small town rural character. That being said, many stated that the Suncook Village is a strength in Town, with potential opportunities including mixed use development in the Village and along Academy Road, tax incentive programs (TIF District, 79-E, and ERZs), and support for local job creation and business development in the Village.

Attendees at the Community Visioning Forum indicated support for an economic development staff person at the Town Hall, though respondents of the community survey had more even results, with 37.1% in support and 35.6% not in support (the remaining had no opinion). Additionally, 77.6% of community survey participants support new businesses along Sheep Davis Road and NH 106 while 71.5% also supported the Suncook Village area.

The following table briefly summarizes the enterprises and services desired for Pembroke. Results of these engagement opportunities provide a direction for the objectives and recommendations identified in this chapter.

Table 4.1: Residents Indicate Enterprises/Services Desired for Pembroke:

Identified Enterprises/Services	Responses
Restaurants	59.9%
Suncook Village Businesses	53.9%
Grocery Store	46.1%
Agricultural-related Businesses	42.5%
Retail Shops	33.8%
Professional Offices	32.9%
Health Clinic/Doctor's Office	32.9%
Day Care/After School Care	31.7%
Craftsmanship Businesses	31.4%

Source: Pembroke Master Plan Community Survey, 2017

Themes that can be identified from the visioning session and community survey include:

- Support for a walkable, dynamic downtown area in the Suncook Village;
- Desire to attract and support new businesses and local job creation in town;
- Support for mixed-use and new commercial development along Sheep Davis Road, NH 106, and in the Suncook Village;

- Interest in tax incentive programs, such as a Tax Increment Financing (TIF) District and Economic Revitalization Zones (ERZs); and
- Interest in establishing an economic development position in the town offices.

CHALLENGES AND OPPORTUNITIES

SUNCOOK VILLAGE

As expressed in the Community and Sense of Place Chapter, Suncook Village is an important facet of the Town's identity - Suncook Village helps set Pembroke apart. It was also noted in that chapter that many expressed their support for preserving Suncook Village as an historic resource and encouraging rehabilitation of Main Street building facades, and there is support for the continued evolution of the Village into a pedestrian-friendly downtown with small businesses and housing options. The following summarizes some of the issues and opportunities related to the continued revitalization of the Village. In addition, the potential designation of a Community Revitalization Tax Relief Incentive (NH RSA 79-E) zone (see page 4.6) could lead to further investment in the Village.

VILLAGE PARKING

The availability of parking in Suncook Village is a key issue. As discussed in the Transportation Chapter, a recent analysis of parking utilization indicated that parking capacity appears to be sufficient, but an evaluation of parking policies and practices may lead to improvements and improved satisfaction for Suncook Village visitors, employees, and residents. Maintenance and layout of parking, hours of enforcement, signage, and various parking management strategies can be evaluated. Even though a majority of survey respondents stated that they have not experienced parking difficulties in Suncook Village, a master parking plan for the Village could address current issues and support its further redevelopment.

VILLAGE REVITALIZATION STRATEGIES

With the help of funding from the New Hampshire Community Development Finance Authority, representatives of the Towns of Allenstown and Pembroke, with support from CNHRPC staff, have worked to initiate the development of a coordinated strategy to revitalize Suncook Village. The effort has considered both sides of the river as one single community with common goals, common challenges, and common opportunities. A committee, made up of citizens from both towns, worked through a process to identify what a single "Suncook" vision looked like and how each community could work towards furthering that goal.

In its simplest form, the character of Suncook Village, shared by both communities, is one built upon its late 19th Century textile mills. Historically, this has meant mixed uses and high density, as well as a lot of brick architecture. The river too, plays a role in the village's character. First, it is a unifying element between the two communities as a shared resource. Second, it provides recreation to citizens of both towns. Third, it has - and continues to - shape the physical character of Suncook. This past then, can serve to guide Suncook's future.

When examining what can be done there are three main areas to focus on: 1) zoning; 2) streetscape and façade; and 3) recreation. With regard to zoning, efforts can be made to see that the zoning on both

sides of the river is similar in terms of density, permitted uses, and architectural standards. For issues relating to street scape, a similar look and feel on both sides, culminating in unifying aesthetics on the bridge could be in order. Features such as comparable light poles, street signs, and landscaping can accomplish this. Finally, recreation along the river should serve to not only keep people active but bring both communities together. The future Merrimack River Rail Trail could incorporate the small bridge near China Mill, linking both communities to each other and with the river. Sidewalks along the river and improved river access put the finishing touches on this effort.

These focal points can unify Suncook even more in this new century. Protecting Suncook's identity by recalling its past is a way for a new generation of Suncook to continue to strengthen their community.

"The Suncook River is not a border; it is a spine."

~ Suncook Village Design Charette.

PEMBROKE ECONOMIC DEVELOPMENT COMMITTEE

The Pembroke Economic Development Committee (EDC) began meeting in December 2019 in an effort to support the Town's future economic development efforts. The EDC is comprised of representatives of the local business community and Town Boards. Efforts to date have comprised of learning about the potential economic development tools available to the Town (see the following section for a description of potential development incentive programs), and meeting with representatives of the NH Division of Economic Development to gain insight on how to work in closer coordination with the State of New Hampshire regarding proactive economic development activities. Beyond the available tax incentive tools, other EDC activities could include the development of a Business Retention and

THE CENTRAL/SOUTHERN NH COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY (CEDS)

The CEDS represents a significant in-depth analysis of the regional economy and the development of regional economic development strategies for the area that included all 20 CNHRPC communities as well as six communities from SNHPC; Bedford, Goffstown, Hooksett, Manchester, New Boston, and Weare. With the most recent updated completed in 2018, major components of the Strategy include:

- Project priority list comprised of 58 projects organized into eight categories;
- A set of six goals that include various objectives each as well as overall performance measures;
- A regional profile of the region including data on demographic trends and economic indicators;
- Information U.S. EPA's Brownfield Assessment Grant Program, including purpose and usage of funds;
- A Strengths, Weaknesses, Opportunities & Threats (SWOT) Analysis that outlines the region's strengths, potential barriers and opportunities related to economic development; and
- A cluster analysis that indicates which industries most greatly impact the local economy.

An important benefit of the CEDS is that it is an important prerequisite for the region to be designated by U.S. Economic Development Administration (EDA) as an Economic Development District (EDD). A designated district enables municipalities and counties to qualify for EDA funding under EDA's current public works, economic adjustment and planning grant programs.

Expansion Program to support local businesses and attract new businesses, the utilization of the State of New Hampshire's supported selectnh.com website to advertise available commercial properties, and providing support for the enhancement of the Town's Economic Development web pages.

The work of the EDC is very proactive in nature. It is essentially charged to highlight the availability of economic development opportunities so the Community can grow in a sustainable manner, while at the same time working to lower the municipal tax rate when possible through appropriate development. In possible coordination with the work of the EDC, support was exhibited during the Visioning Session (and a slight majority in the community survey) for the future establishment of an economic development-related staff position.

DEVELOPMENT TAX INCENTIVE PROGRAMS

There are a variety of tax incentive tools that could be utilized in Pembroke to promote economic development and investment in a variety of areas. In fact, work began in 2003 to develop a Tax Increment Finance (TIF) district that supported the development of Kline Way. While the tools are different in method of implementation and the type of tax incentive offered, the available incentives are some of the few tools available for a Town to support and foster economic development activities. The following is a summary of several of the potential tax incentive programs and how they could be applied in Pembroke.

ECONOMIC REVITALIZATION ZONES (ERZs)

The Economic Revitalization Zone (ERZ) program is enabled in the State of New Hampshire through NH RSA 162-N. The program allows municipalities to establish certain zones in a community where a business can then seek a credit on its New Hampshire Business Profits Tax. To establish a zone or zones, the Town may apply to the program (administered by the NH Division of Economic Development). The ERZ program currently has \$825,000 available per year for tax credits throughout the State of New Hampshire.

To be eligible for the program, a designated zone must meet one of the following requirements:

- (a) Unused or underutilized industrial parks; or
- (b) Vacant land or structures previously used for industrial, commercial or retail purposes but currently not so used due to demolition, age, relocation of the former occupant's operations, obsolescence, deterioration, brownfields, or cessation of operation resulting from unfavorable economic conditions either generally or in a specific economics sector.

In Pembroke, potential areas for consideration as future ERZs could include specific stretches along NH 106 and North Pembroke Road.

TAX INCREMENT FINANCING (TIF)

A Tax Increment Financing District (TIF) is a complex economic development tool where increased tax revenue is used to fund physical improvements in a defined district. The goal is that the improvements will attract or retain economic development in a particular part of town. At its most basic level, when a TIF is established the taxable value of the parcels in the district are identified. Increases above that assessed value are then used to fund infrastructure improvements. A TIF doesn't take money out of the tax base, it merely defers new taxes in a particular area as the increased tax base is used to pay for physical improvements needed for economic development. Once the improvements are paid for the additional tax revenue is directed to the Town's tax base. In 2004, the Town established a TIF in the Soucook River Development District. The TIF eventually resulted in the development of Kline Way.

COMMUNITY REVITALIZATION TAX RELIEF INCENTIVE (NH RSA 79-E)

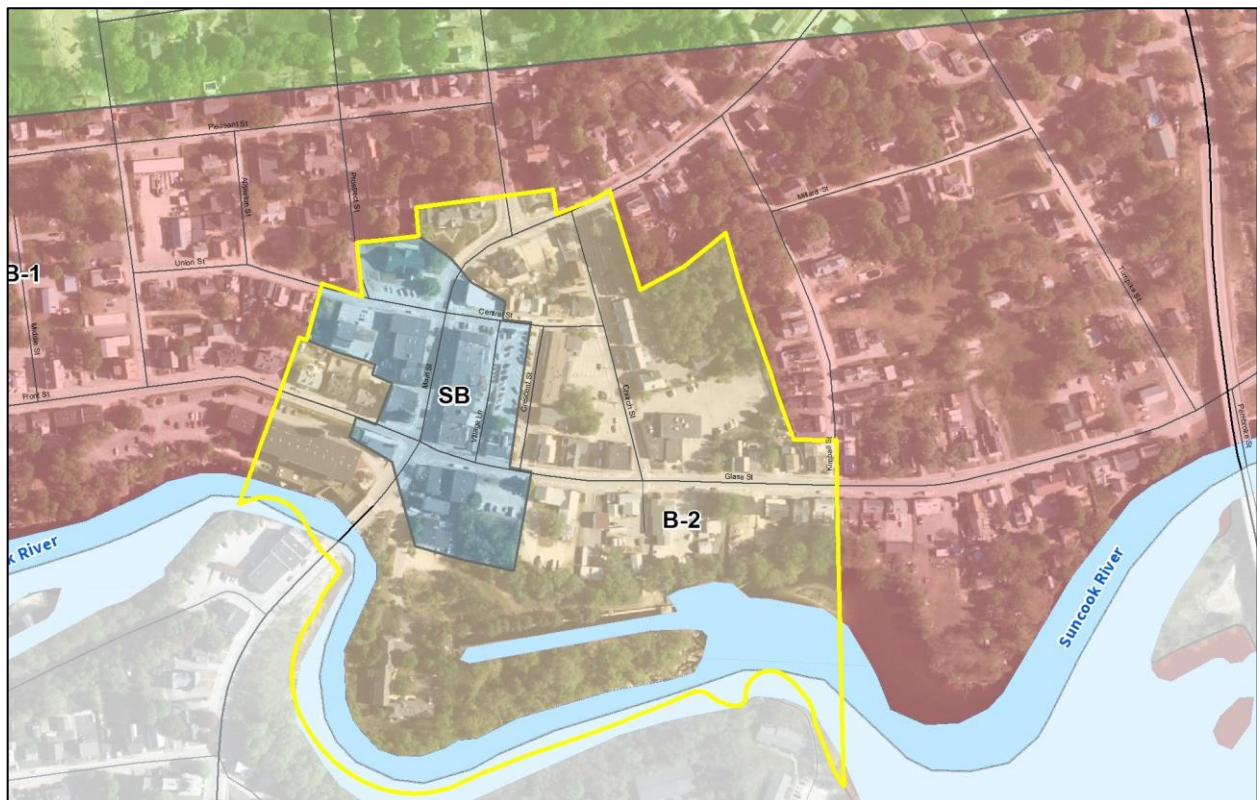
If the provisions of RSA 79-E are adopted by Town Meeting, the Board of Selectmen have the authority to delay any *increase* in taxes for property owners in a designated Village or downtown district if they replace or substantially rehabilitate their property. Its goal is to encourage the rehabilitation and active reuse of under-utilized buildings.

The Community Revitalization Tax Relief Incentive program works in the following manner:

- A property owner who wants to substantially rehabilitate a building located in a designated district may apply for a period of temporary tax relief.
- The temporary tax relief, if granted, would consist of a finite period of time (1 to 5 years) during which the property tax on the structure would not increase as a result of its substantial rehabilitation. In exchange for the relief, the property owner grants a covenant ensuring there is a public benefit to the rehabilitation.
- Following expiration of the tax relief period, the structure would be taxed at its full market value taking into account the rehabilitation.

As the Community Revitalization Tax Relief Incentive is designed for use in a Village or downtown area, the most appropriate use would be in the Suncook Village area. Figure 4.1 below outlines a potential zone boundary that follows the existing Village B-2 zone boundary.

Figure 4.1: Potential Suncook Community Revitalization Tax Relief Incentive Zone



COMMERCIAL AND INDUSTRIAL CONSTRUCTION EXEMPTION (NH RSA 72: 80-83)

If the Commercial and Industrial Construction Exemption is adopted at Town Meeting, the tax exemption for a commercial or industrial use shall be a specified percentage on an annual basis of the increase in assessed value attributable to construction of new structures, and additions, renovations, or improvements to existing structures not exceed 50 percent per year. The maximum period for the exemption is 10 years following the new construction, and only applies to municipal and local school property taxes.

When considering the enactment of the Commercial and Industrial Construction Exemption, the Town Meeting vote must specify the percentage of new assessed value to be exempted and the number of years duration following construction. The vote to adopt remains in effect for 5 years, except that exemptions shall continue for the rate and duration granted.

MERRIMACK RIVER RAIL TRAIL

As described in depth in the Transportation Chapter, Pembroke has an opportunity for the development of a rail trail along the abandoned railroad bed that once connected Suncook Village to Concord and Manchester. The potential route parallels the Merrimack River and Pembroke Street from the Suncook River, Suncook Village and Memorial Field north to the White Sands Recreation area and the Soucook River at the Concord line.

Beyond the positive transportation-related and recreational components of trail development, the quality of life impacts of the trail and its connections to other multi-use trails are a key economic development issue. Projects such as the development of the Merrimack River Rail Trail can further emphasize the positive qualities of Pembroke and assist when residents and business owners are making decisions on when and where to make investments in Town.

CHAPTER OBJECTIVES & RECOMMENDATIONS

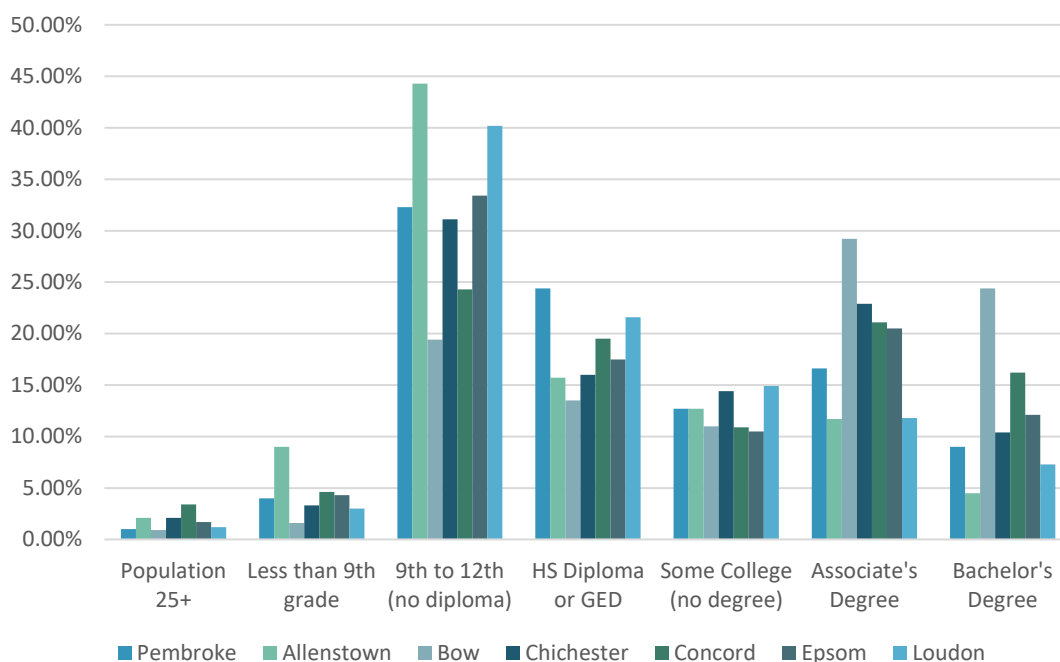
OBJECTIVE 1 Support the EDC and make use of available economic development tools and incentives that serve to focus commercial development in suitable areas of Pembroke.	<ul style="list-style-type: none"> → Support the activities of the Pembroke Economic Development Committee (EDC). → Consider adoption and promote the use of Community Revitalization Tax Relief Incentive (NH RSA-79-e) in the Suncook Village area. → Consider the designation of specific areas along NH 106 and North Pembroke Road as Economic Revitalization Zones (ERZs). → Develop a Business Retention and Expansion Program to support local businesses and attract new businesses. → Enhance the Economic Development section of the Town website with information related to the activities of the EDC and content regarding any available economic development tools and incentives. → Utilize the NH Division of Economic Development's selectnh.com website to advertise the availability of commercial sites and buildings in Pembroke. → Consider the expansion of the Commercial Zone and the encouragement of mixed-use developments.
OBJECTIVE 2 Promote “quality of life” economic development that capitalizes on the Suncook Village.	<ul style="list-style-type: none"> → Coordinate with the Town of Allenstown in a concerted effort to promote and revitalize Suncook Village. → Support the incremental development of the Pembroke section of the Merrimack River Rail Trail as an important economic development tool. → Address Suncook Village parking availability to improve parking convenience and ease for residents, businesses and visitors. → Consider the development of a façade/property improvement program in Suncook Village.
OBJECTIVE 3 Promote Pembroke and emphasize how Pembroke is a welcoming community for business and new residents.	<ul style="list-style-type: none"> → Make economic development a key responsibility for the Town Planner or provide support for an alternate staff or contract position on an as-needed basis to promote economic development. → Continue to review the existing land use regulations and development review process with regards to the predictability of the planning review process.

DATA: EDUCATION/EMPLOYMENT/TAX RATE/COMMUTING PATTERNS

EDUCATIONAL ATTAINMENT

According to the American Community Survey 2014-2018, 95.0% of Pembroke's residents aged 25 years and older have a high school diploma or higher post-secondary education. Nationally, New Hampshire is known for having a high percentage of educated residents. Education attainment for Pembroke and abutting communities are shown in Figure 4.2.

Figure 4.2: Education Attainment for Pembroke and Abutting Communities



Source: American Community Survey 2014-2018

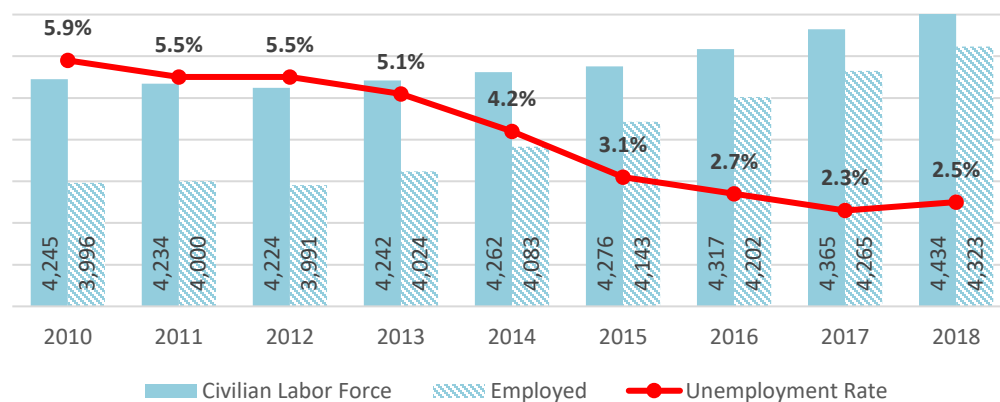
LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT¹

Similar to state trends, Pembroke has seen an increase in the number of civilians in the labor force in recent years after a large decrease that occurred in 2010. As reported by the New Hampshire Economic and Labor Market Information Bureau (ELMI), Pembroke's labor force grew by 4.5%, increasing by 189 people between 2010 and 2018. The town's number of employed civilians in the labor force also increased, rising 8.2% to 4,323 people in 2018. Additionally, the town's unemployment rate has decreased consistently since 2010 to

¹ Persons "in the labor force" are those in the civilian noninstitutional population, age sixteen years or older, who are employed or who are unemployed and seeking employment. People are considered employed if they work at least one hour for pay or at their own business at any time during the week including the twelfth day of the month, are unpaid workers for fifteen hours or more in a family-owned business, or are temporarily absent from their jobs because of vacation, illness, bad weather, or personal reasons.

2.3% in 2017. The rate then increased to 2.5% in 2018. Pembroke's civilian labor force, employed civilian labor force, and unemployment rate for 2010 to 2018 can be seen in Figure 4.3.

Figure 4.3: Civilian Labor Force, Employed Labor Force, Unemployment Rate for Pembroke



Source: New Hampshire Economic and Labor Information Bureau

WAGE AND MEDIAN HOUSEHOLD INCOME

Nationally, New Hampshire is often one of the highest in the nation for a State's median income. According to most recent American Community Survey 2014-2018 data, New Hampshire had a median household income of \$74,057, which is over \$13,000 more than the median household income of the United States. Within the state, trends point towards higher median household income in the southern portion, similar to trends of higher education attainment and lower poverty rate. Pembroke's median household income is higher than that reported for New Hampshire, at \$84,767.

To gain a better understanding of the types and quality of the jobs located in Pembroke, wages paid by employers in Pembroke were compared to that paid in other abutting communities. Pembroke's average weekly wages for private industries fell in the middle when compared to abutting communities with an average weekly wage of \$968. Bow and Concord both had a higher average weekly wage with \$1,081 and \$1,037. In comparing average weekly wages for government jobs with abutting communities, Pembroke's average weekly wage was \$892, less than that of both Concord and Bow.

Table 4.2: Average Annual Weekly Wage for Private Industries and Government, 2018

Community	Private Industries		Government	
	Annual Average Employment	Average Weekly Wage	Annual Average Employment	Average Weekly Wage
Pembroke	1,866	\$968	528	\$892
Allenstown	370	\$878	334	\$887
Bow	3,539	\$1,081	457	\$970
Chichester	703	\$916	85	\$703
Concord	29,665	\$1,037	10,929	\$1,140
Epsom	1,072	\$807	133	\$802
Loudon	852	\$910	98	\$830

Source: Economic and Labor Market Information Bureau, New Hampshire Employment Security

TOWN TAX RATE AND VALUATION

A review of Pembroke's overall tax rate per \$1000 of valuation (Table 4.3) between 2010 and 2019 show that the rate decreased from \$25.84 in 2010 to \$23.58 in 2019. During this time period, increases occurred in 2011, 2012, 2014, 2016, and 2017. Compared to tax rates reported for years previous to 2010, the total tax rate is comparable to that experienced in the mid to late 2000s, though much lower than that experienced in the late 1990s and early 2000s. The municipal, county, local and state school rates also saw various fluctuations in their values for the years presented in Table 4.3.

WHAT IS EQUALIZATION?

Equalized valuation, or equalization, is an adjustment of the town's local assessed values, either upward or downward, in order to approximate the full value of the town's property. Calculated by the NH Department of Revenue Administration, and equalization ratio of 100 means the municipality is assessing property at 100 percent of market value. A ratio less than 100 means the municipality's total market value is greater than its assessed value. The full value tax rate can then be used to make a limited comparison of what a property in one municipality would pay for taxes to a property of equal value in another municipality. This process is due to an imbalance caused by varying local assessment levels. That being said, the full value tax rate is the equalized tax rate for a town.

Table 4.3: Pembroke's Tax Rate, 2010-2019

Year	Municipal Rate per \$1000	County Rate per \$1000	Local Education Rate per \$1000	State Education Rate per \$1000	Total Rate per \$1000
2010	\$5.72	\$2.78	\$14.99	\$2.35	\$25.84
2011	\$5.79	\$2.58	\$15.62	\$2.45	\$26.44
2012	\$5.78	\$2.50	\$16.29	\$2.27	\$26.84
2013	\$6.19	\$2.65	\$15.81	\$2.19	\$26.84
2014	\$6.64	\$2.89	\$17.68	\$2.49	\$29.70
2015	\$7.27	\$2.84	\$16.45	\$2.38	\$28.94
2016	\$7.10	\$2.90	\$16.66	\$2.34	\$29.00
2017	\$6.93	\$2.86	\$17.81	\$2.16	\$29.76
2018	\$6.75	\$2.80	\$14.46	\$2.23	\$26.24
2019	\$5.75	\$2.50	\$13.45	\$1.88	\$23.58

Source: New Hampshire Department of Revenue Administration

Compared to its surrounding communities, Pembroke's total valuation falls in the middle with a total valuation of \$721,824,831 in 2018 (Table 4.4). Pembroke's tax rate of \$26.24 is lower than three of its abutting communities, with Loudon the lowest at \$22.06. Pembroke's full value tax rate of \$24.03 is also lower than three of the surrounding communities, behind Allenstown, Bow, and Concord.

Table 4.4: Equalized Tax Rates of Pembroke and Abutting Communities, 2018

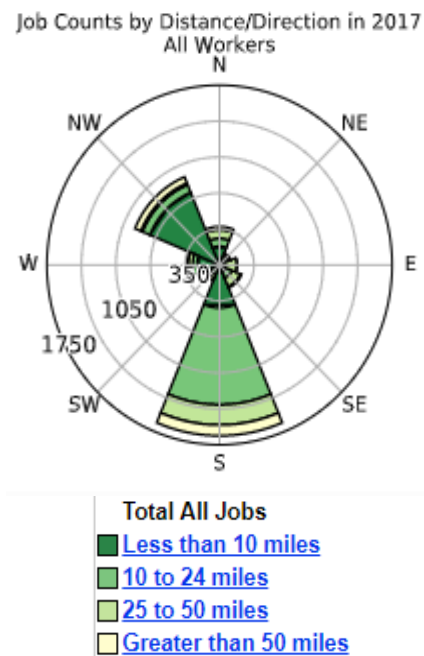
Community	Total Equalized Valuation including utilities & railroad	Tax Rate per \$1000	2018 EQ Ratio	Full Value Tax Rate
Pembroke	\$721,824,831	\$26.24	90.2	\$24.03
Allenstown	\$311,951,378	\$30.15	87.9	\$28.15
Bow	\$1,226,290,335	\$27.78	99.6	\$26.08
Chichester	\$317,850,605	\$23.42	96.0	\$23.41
Concord	\$4,430,221,635	\$28.19	85.3	\$27.00
Epsom	\$501,563,009	\$25.97	84.9	\$22.20
Loudon	\$666,417,289	\$22.06	90.2	\$18.66

Source: New Hampshire Department of Revenue Administration

COMMUTING PATTERNS

According to the U.S. Census Bureau's OnTheMap application, the majority of Pembroke residents in 2017 were employed in a community outside of Pembroke, with 3,726 residents commuting to another community and only 284 residents employed in Pembroke. As shown in Figure 4.4, many residents commute north-west and south, with approximately 23.5% commuting to Concord and 17.1% commuting to Manchester. Other common locations included Hooksett, Nashua, Londonderry, Bow, and Bedford. Additionally, an estimated 2,292 non-residents commute into Pembroke for work, with the most coming from Concord, Manchester, Allenstown, Loudon, Bow, and Epsom.

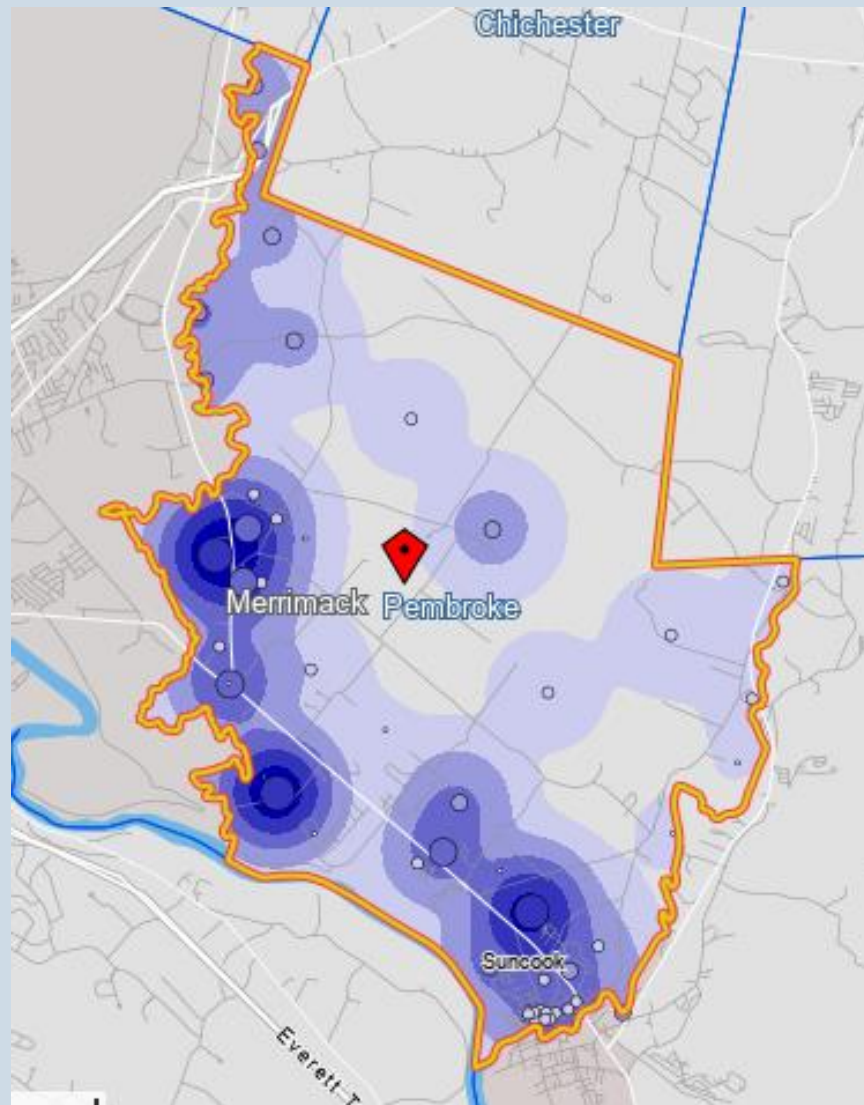
According to American Community Survey 2014-2018 data, residents had a mean travel time to work of 32.3 minutes, which is higher than the New Hampshire's mean travel time of 27.3 minutes. Approximately 84.4% of residents drove alone to work. Others carpoolled, worked at home, or used other means. Additional information on commuting patterns can be found in the Transportation Chapter.

Figure 4.4: Job Count by Distance and Direction of Pembroke Residents

Source: U.S. Census Bureau, Center for Economic Studies, OnTheMap Application

WHERE DO PEOPLE WORK IN PEMBROKE?

As shown in the Figure below, the highest density of jobs within Pembroke is along Route 3, Route 106, and in the Suncook Village.



Map Legend

Job Density [Jobs/Sq. Mile]

- 5 - 55
- 56 - 207
- 208 - 460
- 461 - 813
- 814 - 1,269

Job Count [Jobs/Census Block]

- 1 - 4
- 5 - 29
- 30 - 98
- 99 - 232
- 233 - 453

Selection Areas

- Analysis Selection

COUNTS AND DENSITY OF ALL JOBS IN PEMBROKE, 2017

U.S. CENSUS BUREAU, ONTHEMAP APPLICATION AND LEHD ORIGIN-DESTINATION EMPLOYMENT STATISTICS

COMMUNITY AND

5 RECREATIONAL FACILITIES WITH UTILITIES



TOPICS INCLUDE:

Understanding Pembroke's population trends

Challenges & opportunities going forward

Summary of community facilities

Inventory of recreational facilities & utilities

This section focuses on Pembroke's community facilities, town services, recreational facilities, and utilities. This section also identifies several challenges and opportunities and discusses recent population trends.

As the population and demographics of the community grow and change over time, understanding these changes are important so adjustments can be made to meet the needs of the community. In order to provide community services in an efficient and effective manner, the town must assess its current and future needs in order to anticipate future demands and services for the various departments and recreational resources. Keeping the shared vision of preserving the town's highly valued rural character while providing modern services to residents and businesses is what creates Pembroke's unique sense of place and makes Pembroke a desirable place to live.

This section's brief overview of the town's current community facilities, recreational resources, and utilities is not considered an all-inclusive inventory. Readers should refer to town officials for additional information or with specific questions.

Pembroke is...

a community that strives to sustain its high level of community services that adequately serves residents of all ages. We take pride in our town owned and operated services, facilities, and departments and support the improvement or expansion of services as necessary to continue to enhance Pembroke's quality of life. Residents continue to serve and volunteer on town boards and committees while working closely with town staff to provide fiscally responsible planning for future facilities and services for the years to come.

WHAT THE COMMUNITY SAID...

Participants in the Pembroke public outreach process demonstrated their appreciation of the town's rural character, community services, and current and potential recreation opportunities. Throughout the community survey and in the visioning session, residents indicated many strengths in the community, including Memorial Field, White Sands Beach, the Library, recreation department, police, and ambulance service. They also indicated several opportunities in the community, with several identifying additional recreational opportunities, specifically mentioning the development of a rail trail and additional parks/park-related amenities (better signage, welcome gate, etc.).

The following tables briefly summarize comments and input received throughout the public outreach process. Results of these engagement opportunities provide a direction for the objectives and recommendations identified in this chapter.

Table 9.1: Residents Ranked the Following Features for their Importance:

Identified Feature	Important	Somewhat Important
Small Town/Rural Atmosphere	76%	19%
Location	72%	24%
Natural Resources & Open Space	70%	24%
Town Services	62%	33%
Public Parks & Town Forests	59%	32%
Rivers	57%	32%
Community & Recreational Facilities	53%	38%

Source: Pembroke Master Plan Community Survey, 2017

Table 9.2: Residents Ranked the Following Features for their Importance to Provide, Expand, Improve, or Invest:

Identified Feature	Important	Somewhat Important
Road Maintenance Services	69%	27%
Paramedic Services	69%	25%
Fire Department	68%	25%
Solid Waste Disposal & Recycling	68%	25%
Police Department	66%	26%
Athletic Fields (Memorial Field)	52%	36%
Public Green Spaces & Parks	56%	30%
Recreational Trails- Non-motorized	51%	36%
Beautification of Public Spaces	50%	37%
Hazardous Waste Disposal	50%	36%

Source: Pembroke Master Plan Community Survey, 2017

Themes that can be identified from the visioning session and community survey include:

- Importance of maintaining the high level of current community services, including the library, first responders and public works;
- Value of current recreational facilities, including Memorial Field and White Sands Beach;
- Support for acquisition of conservation lands for recreation purposes (i.e. trails, public parks, and recreational fields) throughout town and including the Merrimack River rail bed;
- Interest in the encouragement of renewable energy including the installation of solar, natural gas, and wind facilities; and
- Desire for increased communication regarding community events and happenings (including on the town's website).

CHALLENGES AND OPPORTUNITIES

MEETING THE NEED: BUILDINGS AND FACILITIES

Meeting building and facility needs is often a challenge for municipalities, as facility needs often change over time as a department's needs change or as the use of the facility changes. Budgets for regular maintenance, building additions, or new construction are not always immediately available and funding can be difficult to secure or may require a bond. As the service population and number of services provided continues to grow, additional office, meeting, training, and storage space may soon be needed in various community owned buildings.

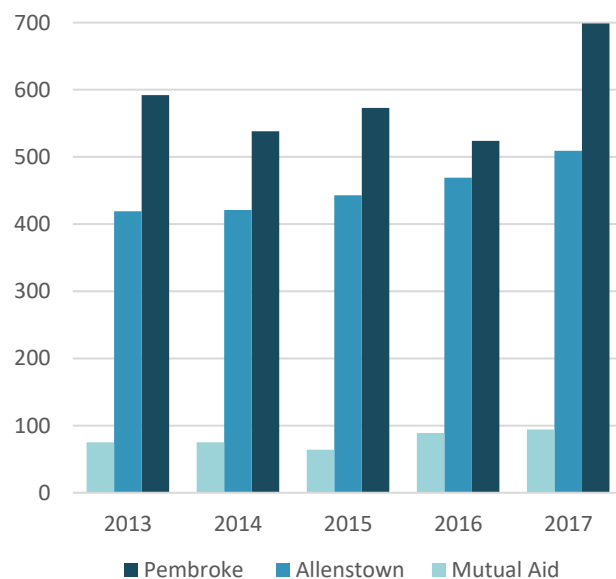
In 2005, the town finished construction of the Public Safety Center, a modern, safe, efficient, and effective facility that services both the police and fire departments and Tri-Town EMS. It is anticipated that additional training space will be needed in the future, where EMS and CPR courses can be held and training aids can be set up for staff to practice their skills. Additionally, a new building will be needed to replace the storage building used by the public works department.

To ensure building and facility needs are met, future and anticipated needs should be included in the town's Capital Improvement Program (CIP) and updated on an annual basis. This planning tool can assist in the town's process of financially preparing for large purchases so to lessen the impact on the tax rate. Capital Reserve Funds can also be used in planning of future and anticipated facility needs. Currently Pembroke has a Municipal Facilities Capital Reserve Fund and an Energy Efficiency Capital Reserve Fund that is contributed to yearly by residents at town meeting and can be used for various building and facility needs. For repairs at Memorial Field, a Recreation Capital Reserve Fund is utilized.

MEETING THE NEED: STAFFING AND PERSONNEL

In addition to building and facility needs, staffing and personnel needs are also often a challenge for municipalities. Responsibilities and positions can vary, often relying on funding and the need for the position. However, as the population continues to grow and needs of the population change, additional staff may be needed. Future call volume and availability of on-call personnel may require additional staff for police, fire, and EMS response. The public works department also anticipates needing an additional two full time employees in the next ten years. Also anticipated, two additional employees may be needed to cover the duties currently held by the Town Administrator and two full time seasonal employees in the sewer department.

Figure 5.1: Annual Call Volume for Tri-Town EMS



Source: Pembroke Annual Reports

Staff should continue to participate in regular and annual trainings to stay up to date on procedures and materials. Many of the departments are responsible for various highly technical procedures which require very regular training. Tri-Town EMS has extended the services they provide to not only traditional 911 calls, but also other services which were historically performed by visiting nurses and nursing homes. Department of public works employees regularly participate in trainings related to workplace hazards and safety measures, equipment operation and product application procedures, and environmental concerns.

MEETING THE NEED: EQUIPMENT & VEHICLES

Maintaining equipment and vehicles that are adequate for a department's needs can be a challenge. Funding for the purchase of new or replacement equipment is not always immediately available and funding can be difficult to secure, especially for higher price items that are not included in annual operating budgets. In many cases, equipment can become outdated and perform below expectations, caused by both wear and tear and technology advances over time. It is also important to consider the purchase of new equipment and vehicles (not just replacement items) as needed by departments. New items contribute to providing a high level of service to the community, but can require additional costs above and beyond the costs associated with existing vehicle and equipment maintenance and replacement.

To be prepared for expected and unexpected purchases, the town should continue to utilize deposits in Capital Reserve Funds annually at town meeting. Currently, Pembroke has Capital Reserve Funds directly related to equipment for the fire, public works, sewer, water, and police departments.

Departments should also continue to participate in annual updates of Pembroke's Capital Improvement Program (CIP) to lessen the annual impact on taxpayers. The most current CIP has equipment and vehicle expenditures for the fire, ambulance (Tri-Town EMS), police, and public works departments. That being said, a municipal improvement as defined in the CIP is an expenditure of \$10,000 or more, thus not including expenditures under \$10,000. These items should also be considered, in addition to items included in the CIP, in planning for future equipment and vehicle needs.

AGING POPULATION

While an aging population is certainly a national and statewide trend, US Census data clearly shows that the trend of an aging population is also present in Pembroke. In the past decade there has been a dramatic shift in the makeup of the population, with the number of residents forty-five and over experiencing a steady increase compared to the modest changes in the younger population. The shift towards an older population with fewer younger adults in the region has many potential impacts, including challenges with transportation, fewer school age children attending schools, and fewer younger adults available to volunteer positions in town.

Recreational needs of the older population should continue to be considered as the population ages. Providing accessible year-round outdoor and indoor recreation opportunities for older residents as they age in place is important, as more and more residents continue to stay in New Hampshire year round. Recreation opportunities include (but are not limited to) trail systems, town parks and fields,

conservation lands and forested areas, and waterbodies. Recreational resources are described in more detail later in this chapter.

DEVELOPMENT OF A RAIL TRAIL

Pembroke has an opportunity for a rail trail along an abandoned railroad bed that once connected Suncook Village to Concord and Manchester. The route parallels the Merrimack River and Pembroke Street from the Suncook River, Suncook Village and Memorial Field north to White Sands Recreation area and the Soucook River at the Concord line. In between are scenic fields and woodlands, with an access point at Bow Lane.

Rail Trails have become increasingly popular over the last decade or more as they provide a relatively flat, wide, and accessible surface for non-motorized transportation and recreation. They are increasingly seen as an economic development opportunity, making towns more desirable places to live and work and drawing in visitors from near and far. This trail also has the opportunity to become part of a larger network of connected multi-use trails spanning much of the state. The proposed Granite State Rail Trail would link up local rail trails along abandoned railroad corridors to form a 115 mile long trail from Salem to Lebanon, plus additional connecting trails. The Granite State Rail Trail is largely completed north of Concord, as well as several miles of trail from Manchester south. Pembroke's trail would energize efforts to complete the Manchester to Concord connection.

Support for the trail was apparent at the Community Visioning Session and in the Community Survey. There appears to be relatively little support for wintertime snowmobile use on the corridor, however additional discussions and potential strategic partnerships should be considered before making a determination. Outreach has indicated little to no support for ATV or OHRV use on the corridor due to various neighborhood and environmental concerns and the impact they may have on the trail surface and other trail users.

Additional information on the development of a rail trail is described in the Transportation Chapter.

ESTABLISHMENT OF A COMMUNITY CENTER

Public input gathered in the development of this master plan demonstrated support for a community center that would provide a place for social and recreational opportunities for residents of all ages. A community center could provide a place for after-school programs, various adult/senior programs, and indoor recreational opportunities. Gatherings could include exercise and yoga classes, art lessons, bridge and bingo groups, guest speaker series, as well as an additional meeting space for town boards and committees. A community center would also be a valuable asset to the town as an amenity that might attract economic development. Existing town-owned buildings could be looked at for potential sites.

PARKING IN THE VILLAGE

The availability of parking in Suncook Village has been identified as a key issue. An analysis of parking utilization was undertaken by the Central New Hampshire Regional Planning Commission (CNHRPC) in Summer/Fall 2018, including the use of both on-street and municipal lot spaces. A total of 127 spaces were identified within the Suncook Village area, with 59 on-street spaces and the remainder in off-street lots. The survey noted that overall use ranged from 35% to 55% at any given time during the day.

In addition to reviewing the use of public parking spaces, CNHRPC also reviewed the hours that parking is enforced throughout the Village. Parking restrictions along Main Street and in the Village Center are currently in place between 6am and 10pm, Monday through Saturday. The future review and possible reduction of the hours of parking enforcement may be one method to ease parking concerns in the area. Please see the Economic Development chapter for more information on Suncook Village parking.

A COMMUNITY FACILITIES CONNECTION TO TRANSPORTATION

A number of New Hampshire communities have proposed Complete Streets projects that incorporate safety improvements, bike/pedestrian amenities such as bike lanes, safer crosswalks and pathways, and other enhancements that together can dramatically improve a specific corridor. If a complete streets approach was applied to Pembroke Road (US 3) in the future, Pembroke's main transportation corridor could be transformed to enhance both the operation and overall impression of the highway. Possible improvements could also include intersection improvements and options for traffic calming that would serve to meet the needs of all residents. For more information on complete streets please see the Transportation Chapter.



PEMBROKE STREET INTERSECTION WITH KLINE WAY

CHAPTER OBJECTIVES & RECOMMENDATIONS

OBJECTIVE 1 To inventory the present condition of the Town's community facilities, equipment, and services.	<ul style="list-style-type: none"> → Review this chapter annually with representatives from appropriate boards and committees to track progress and identify additional needs. → Continue to have departments participate in the annual update of the Capital Improvements Program (CIP).
OBJECTIVE 2 To maintain a high level of quality services and continue to update services.	<ul style="list-style-type: none"> → Continue to provide timely road maintenance. → Extend the town hall's hours. → Develop an after school program for teens. → Offer activities, programs, and events for adults and seniors. → Provide overflow parking for the town hall/library area. → Evaluate sites for the location of a transfer station. → Make needed improvements to Memorial Field. → Continue to develop the rail trail along the abandoned railroad bed following the Merrimack River. → Assess the need for replacement, repair of existing sewer lines.
OBJECTIVE 3 To ensure that community services, recreational resources, and utilities continue to meet the needs of the community into the future.	<ul style="list-style-type: none"> → Identify town-owned land and land for potential acquisition by the town to locate future community facilities, including more recreation areas. → Purchase land for the potential location of future community facilities. → Develop new parks, recreation areas, and facilities, including an area in North Pembroke and a community center. → Maintain services to sustain the current quality of life enjoyed by the residents of Pembroke as the community grows. → Seek grants for community development and improvements. → Expand the list of providers to provide utility options for Pembroke residents. → Extend the existing sewer and water lines as needed.

POPULATION TRENDS

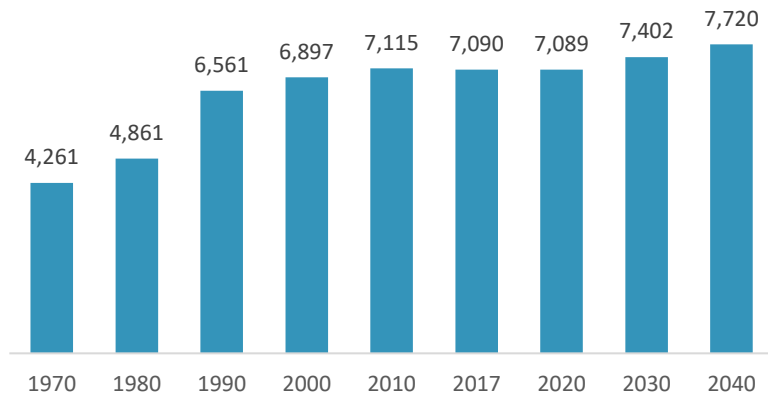
Similar to trends experienced by New Hampshire and Merrimack County, Pembroke saw a consistent, steady growth in population through the 1990s, increasing the number of residents by 50% from 1970 to 1990. However, this trend changed by the year 2000, as Pembroke was still growing but at an increasingly slower rate.

In the fall of 2016, the NH Office of Strategic Initiatives (NH OSI) released population projections through 2040 for NH communities. The projections utilized past trends and 2015 population estimates. Projections for Pembroke (shown in Figure 5.2) show a minor decrease in population in 2020, but then a continued slow rate of growth through 2030 and 2040 with a 2040 population of 7,720 residents.

More recently in August of 2018, NH OSI released 2017 population estimates for NH communities. Pembroke's 2017 estimated population of 7,090 (shown in Figure 5.2) indicates a slight decrease in population since 2010, comparable to that predicted for 2020. However, 2017 population estimates for many other communities in NH show an increasing trend statewide, which may be more apparent in Pembroke over the next few years.

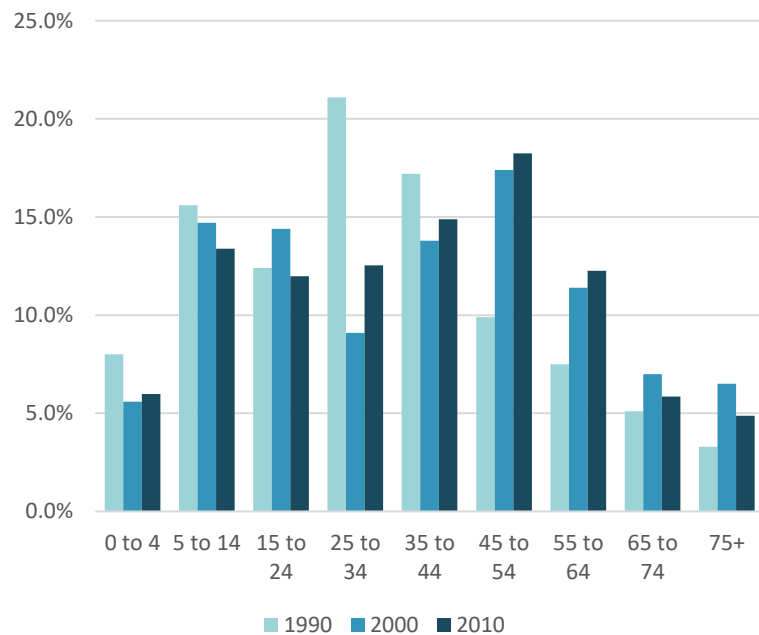
New Hampshire's population is growing older, and Pembroke is no exception. New Hampshire experienced a large increase in births due to the baby boom post- World War II. Baby boomers now contribute to a larger adult population as they start to reach their 50's and 60's, causing a dramatic shift in the makeup of the population. The shift towards an older population with fewer younger adults has many potential impacts, including a decrease in the available workforce for early to mid-career

Figure 5.2: Past and Projected Population



Source: 1970, 1980, 1990, 2000, 2010 US Census; NH Office of Strategic Initiatives Population Projections (Sept. 2016) and 2017 Estimates

Figure 5.3: Population by Age



Source: 1990, 2000, 2010 US Census

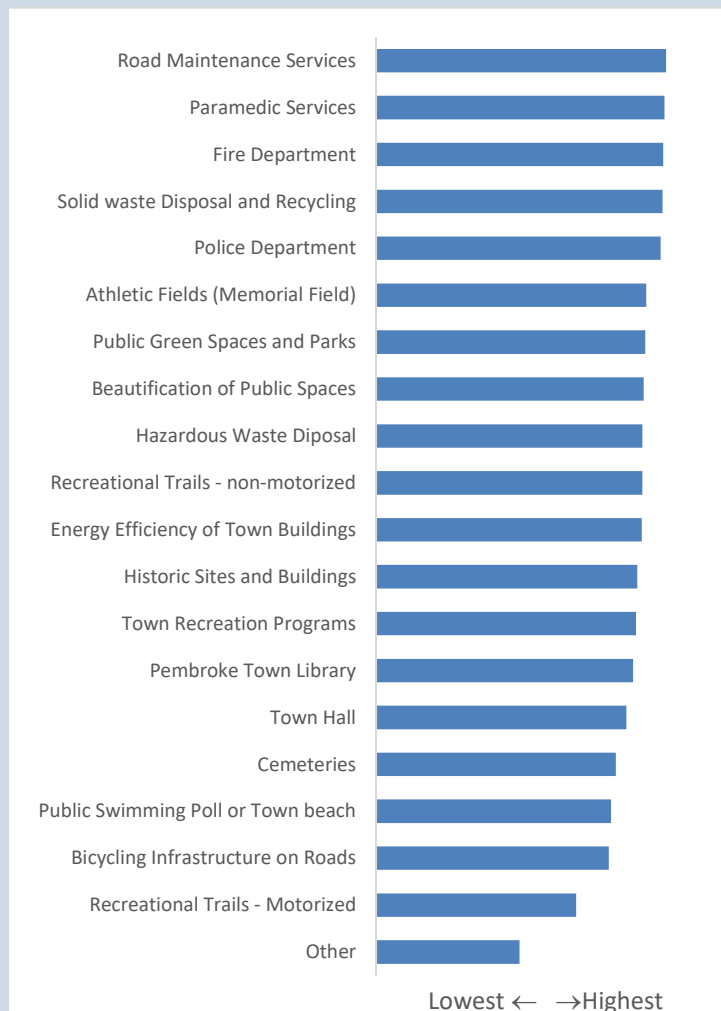
positions, fewer children attending schools, and fewer young adults available for positions on many volunteer departments and committees in town.

While it is certainly true that some older residents leave the state for retirement in the Sunbelt states, more and more of the aging population is choosing to age in place. Additionally, there is a trend of the state gaining older migrants as New Hampshire is an attractive state to retire to with a high quality of life.

COMMUNITY FACILITIES

WHAT THE COMMUNITY SAID...

“How important to you is it for the Town to provide, expand/improve or invest in these facilities and services?”



In preparation of this chapter, each department in Pembroke which serves the population was contacted for their current equipment, staffing and facility needs. These responses are summarized below. Select community facilities are also identified on the **Community and Recreational Facilities with Utilities Map**.

TOWN ADMINISTRATION

Town administration is located in the town hall at 311 Pembroke Street. The town hall was built in 1988, on the site of the old town hall that was destroyed by fire in 1964. Presently the building houses five municipal departments: Town Administration, Town Clerk, Tax Collector, Planning and Land Use, and Welfare. Most town boards, committees and commissions hold their meetings in either of the two meeting rooms in the town hall.

The town hall is in excellent condition and is adequate for the needs of the department. Some upgrades are needed, like new entryway doors with weather stripping for security and energy efficiency, and an ADA accessible electronic door opener. There is a

need to increase storage capabilities for the required retention of certain documents that cannot be saved electronically. Additional technology is also needed to help with the storage and filing of documents.

PUBLIC WORKS DEPARTMENT/SOLID WASTE FACILITY

The public works department (DPW) is responsible for the maintenance of approximately 82 miles of town roads, highways and sidewalks, including snow removal, tree trimming, street sweeping, and constructing and maintaining catch basins and other town drainage infrastructure. In addition, the department is responsible for maintaining all town buildings, which includes cleaning, repairing, snow removal, and general upkeep. These duties extend to parking areas and town cemeteries. DPW also performs maintenance on vehicles and equipment for all town departments (cars, trucks, cruisers, fire apparatus, tractors, mowers, etc.). The department is located on 8 Exchange Street.

The department is responsible for solid waste and single stream recycling collection and provides curbside residential waste pick-up as well as the operation and maintenance of the Transfer Station. All solid waste and recycling generated in the town is transported to Casella Waste in Allentown. Curbside pickup of leaves is also provided to residents during the spring. The Transfer Station is located adjacent to the highway department garage at 8 Exchange Street. The facility is open to residential users on Tuesdays and Saturdays, from 7:30 a.m. to 3:30 p.m.

The department conducts a Household Hazardous Collection Day every other year as funds are available. Provided funds are approved, the next Household Hazardous Waste Collection Day will be in the fall of 2019 at the Transfer Station.

Additionally, the department is responsible for the operation, maintenance and record keeping of the nine town owned cemeteries. Working closely with the cemetery commission, the lawns are maintained by a private landscaper and all burials are performed by a private contractor under the town's supervision.

Looking forward, it is anticipated that the department will need an additional two full time employees in addition to a new building to replace their storage Building. The department currently participates in the annual update process of the CIP where equipment needs and capital reserve fund deposits are identified.

CEMETERIES

The Pembroke cemetery commission was re-formed in 1982 and serves as an advisory board to the board of selectmen. The commission devotes much of its time to assessing the needs for repairs, mainly to monuments and headstones, in the cemeteries as well as planning for cemetery improvements. Currently, the town has nine cemeteries comprising a total 16.25 acres. There is also one known private cemetery in town, although anecdotal information would suggest that more would be found upon inspection.

In addition to yearly upkeep and maintenance, the commission oversaw the survey of Evergreen Cemetery and Old North Pembroke Cemetery. This process clearly marked cemetery boundaries,

allowing space for over 200 new burial plots to be laid out. Looking forward, the commission will continue their ongoing program of monument repairs.

Funding for the cemetery commission is from the Cemetery Improvement Fund, administered by the Trustees of Trust Funds. The commission solicits contributions and bequests to the Cemetery Improvement Fund for cemetery upkeep and improvements. In addition, the commission participates in the annual update process of the CIP where projects and capital reserve fund deposits are identified.

FIRE DEPARTMENT

The Pembroke Fire Department is an on-call department run by a combination of thirty-six part time employees and one full time member. In addition to serving Pembroke, the department also provides assistance to other communities through Mutual Aid agreements. Included in the department's fleet are several apparatus including three engines, tower, rescue, utility, two forestry vehicles, boat, and lighting trailer. The department is located within the Pembroke Public Safety Complex at 247 Pembroke Street.

Future staffing needs of the department are dependent on future call volumes and availability of on-call personnel. Additional EMS training may be needed if EMS response ever became the responsibility of the Fire Department (currently it is the responsibility of Tri-Town EMS). The department participated in the annual update process of the CIP where equipment, vehicle, and capital reserve fund deposits are identified.

TRI-TOWN AMBULANCE

Tri-Town Emergency Medical Service is a service of the Towns of Allenstown and Pembroke that was created through an Inter-Municipal Agreement. The service provides a fully staffed, paramedic ambulance service to the two communities and through mutual aid to nearby communities 24/7. Tri-Town currently has a combination of over twenty full time, part time, and per diem employees with an average response time of 5 minutes and 44 seconds. They are located in the Pembroke Public Safety Center at 247 Pembroke Street.

It is anticipated that an additional ambulance will be needed to handle the growing volume of calls. In addition, more offices and a small meeting room will be needed. A training space is also desired where the Service can host EMS courses, CPC courses, and have training aids set up for staff to practice their skills. Additional training, staffing, and equipment needs may be needed depending on program demands and variety of services provided.

POLICE DEPARTMENT

The police department is responsible for enforcing all laws and ordinances and is committed to preserving peace, order and safety. The department consists of fourteen employees, including ten officers in the patrol division and four in administration. In 2017, the department was awarded the opportunity to obtain a canine and training for a canine officer. The department is located at the Pembroke Public Safety Center at 247 Pembroke Street.

The police department participates in the annual update of the CIP where vehicles, equipment, and capital reserve funds deposits are identified.

LIBRARY

The library relocated in the spring of 2003 to a new building at 313 Pembroke Street next to the Pembroke Town Hall. The new building has a community room and children's room. In addition, the New Hampshire room provides a place for historic town records and artifacts to be preserved and safeguarded. Lastly, the Pinegrove Farm Room, which can accommodate 60 people, is available for educational and community events.

The library has an extensive collection. The current estimate is a total of 19,500 books. In addition, magazines, videos, and audios are available to residents. The library also offers various programs to adults and children throughout the year including a book discussion group, story time, and a summer reading program. Other events held at the library are yoga, Zumba and knitting and crochet. With a current staff of six, the library's future needs include another part-time position as well as coverage for increased children's librarian hours. Over the next decade, the building will require maintenance and upgrades to the roof, flooring, carpeting, HVAC system, and siding. New computers, copier, and furniture, as well as a larger server have also been identified as future needs.

Input gathered through the community outreach process stated that the library was one of the town's strengths; however, many felt that it is underutilized and could offer additional programs and increased hours.

RECREATIONAL FACILITIES

RECREATION COMMISSION

The Recreation Commission oversees the operation of the Recreation Department, which provides recreation opportunities to residents. In addition, the commission is responsible for making and enforcing rules and regulations governing the use of town recreation facilities; establishing reasonable fees and charges for the uses of town recreation facilities; and entering into contracts with organizations for the purpose of conducting leisure-time programs.

The department offers its own recreation programs such as the summer recreation program, swimming lessons, and tennis lessons. The department also supports programs conducted by other volunteers, including the Suncook Youth Soccer League, Suncook Athletics, Suncook Little League, Suncook Babe Ruth Softball, Suncook Rod and Gun Club fishing derby, Old Home Day, and other similar programs.

An important component to a high quality of life, recreation provides a much-needed means of stress reduction and physical well-being. Recreation facilities also provide residents with a place to interact and create a sense of community that is beneficial to residents of all ages. The town has a recreation facilities capital reserve fund that is used for the construction and major maintenance and repair of various recreational facilities as proposed by the Recreation Committee. Selected recreational facilities are identified on the **Community and Recreational Facilities with Utilities Map**.

TOWN RECREATIONAL FACILITIES

Pembroke's major recreational area is Memorial Field, located on the plain at the junction of the Suncook and

Merrimack Rivers. Memorial Field contains a basketball court, soccer field, two softball fields, two Little League diamonds, dugouts and bleachers, a covered pavilion, and four buildings that are used by Little League, men's softball, soccer leagues, summer recreation, and the Recreation Commission for storage of maintenance equipment. Bathroom facilities, a storage room, an uncovered barbeque area, and a covered picnic and recreational activity area are located at one of the buildings. Memorial Field also provides river access by means of a boat ramp and a recreation trail along the Merrimack River. Other activities such as horseshoes, boating, basketball and volleyball are also available at Memorial Field. Playground areas are equipped with swings, jungle gym and slides.

The White Sands beach area is a town owned conservation land that is used by residents for recreational activities, like swimming and picnicking. The area is not maintained or operated by the Recreation Commission; the Conservation Commission manages the area because it falls under conservation land. There are minimal amenities onsite, including a few garbage cans, which are picked up by the Public Works Department. Also, there are no lifeguards at the beach area.

Another conservation area in town is the Whittemore Conservation area, which is town owned and includes several walking/biking trails. This is the largest conservation area in town, totaling 133.1 acres.

Coordination and cooperation with the school system of Pembroke provides additional opportunities for recreational activities for residents of the town. Pembroke Academy, Three Rivers School, and Pembroke Hill School have various fields for soccer, softball, football, field hockey, tennis, track, and playground equipment for children. Indoor recreational facilities at the schools include basketball courts at the Pembroke Academy, Hill School, and Three Rivers School.

WHAT THE COMMUNITY SAID...

Memorial Field and White Sands Beach were highly valued by residents in both the Community Survey and Community Visioning Session. Many stated they often utilize the boat launch and river access but wish for improved facilities. Many also stated that they would like a kid's splash pad, gazebo, benches, and landscaping with trees and flowers available in one of both of these locations.

The Community Survey asked participants if they would support regulations to develop public recreational trails and parks through new developments. The majority of responses, 76%, said yes, 13% said no and 11% had no opinion. Additionally, when asked how important it is for the development of a public, walking and bicycling rail trail along the Merrimack River railroad bed, approximately 83% said it was important or somewhat important to them. The rail trail was also highly desired in the visioning session, as it would provide a resource not only for residents but also act as a draw from other communities.

FUTURE TOWN FACILITIES AND NEEDS

Pembroke should look into adding additional recreational sites. Walking, hiking, swimming, boating, snowmobiling, fishing and camping have been increasing over the past decade and are expected to continue to increase. Planning is already occurring for development of a rail trail on the abandoned railroad bed that follows the Merrimack River (see previous discussion in the Challenges and Opportunities section of this Chapter). A community center was desired by residents at both the Community Visioning Session and in the Community Survey.

Although no specific potential sites have been indicated, the Recreation Commission is aware of recreational needs in other areas of Pembroke. For instance, developing an area in North Pembroke as an outdoor facility would provide additional opportunities for residents, particularly in that area of town. A study to evaluate existing and potential recreation sites in town would assist in planning for future recreational facilities and would preclude developing a Recreation Plan.

Some specific improvements to the Memorial Field facility include installing a fence around the basketball courts and re-installing the fabric on the softball field, according to the most recent CIP. Also included are renovations of the bathrooms to include a handicapped accessible toilet and an annual deposit into the recreation facilities capital reserve fund. The fields at Memorial Field are watered using the municipal water system; however, it would be more cost effective if an irrigation system were installed.

Underutilized or vacant municipally-owned property can sometimes be used to expand recreational opportunities for residents of the community. As land parcels become available that would be suitable for recreational uses, the town should consider “land-banking” or purchasing these parcels for future use.

OTHER RECREATIONAL RESOURCES

The Green-Gold soccer fields on Buck Street, which are privately owned, are an additional recreational resource to the town. Also, the Pembroke Pines Golf Course is a recreational resource open to the public. In addition, there is access to the Merrimack River in town at a canoe launching area on Route 106 and also on Route 3.

There is an extensive snowmobile trail network throughout town that is maintained by the NH Trail Dawgs, a local snowmobile club. These trails cross private land where landowner permission has been obtained for snowmobile use. In addition, some of these trails allow horseback riding and biking during the summer months; however, allowed uses depend on the wishes of each individual landowner. Preservation of these trails from future development should be considered in the years to come.

A summary of recreational resources are displayed in Table 5.5.

Table 5.5: Summary of Recreational Resources in Pembroke

Type of Resource	Name
Fields, Playgrounds, Courts	Memorial Field
	Three Rivers baseball diamonds, playground, and basketball courts
	Hill School baseball diamond and playground, small basketball court

Table 5.5: Summary of Recreational Resources in Pembroke Continued

Type of Resource	Name
Fields, Playgrounds, Courts	Pembroke Academy track, baseball and softball fields, soccer/football field, and tennis courts
	Green-Gold Soccer fields (private) on Buck Street
Water	White Sands area, River access on Route 106 and Route 3
Trails	Whittemore Conservation Area walking/biking trails Network of snowmobile trails
Golf Course	Pembroke Pines Golf Course
Indoor basketball courts	Pembroke Academy, Hill School, Three Rivers School

Source: Subcommittee Input

UTILITIES

Utilities are also essential services that are delivered to residents through private companies. Population, density, and usage are driving forces which determine the level of services a municipality requires. The Town of Pembroke has four capital reserve funds for the Sewer Department and two capital reserve funds for the Water Department. Selected utilities are identified on the **Community and Recreational Facilities with Utilities Map**.

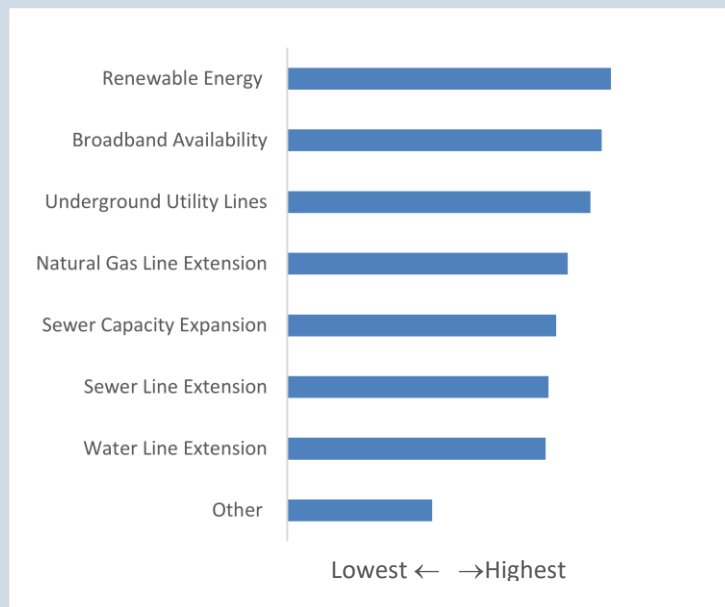
TELECOMMUNICATIONS AND BROADBAND SERVICES

The term broadband commonly refers to high-speed internet access that is always on and faster than the traditional dial-up access. Broadband in Pembroke includes several high-speed transmission technologies including cable, DSL, satellite, and mobile.

Xfinity by Comcast is the primary local internet provider in Pembroke, though other options are available. Public announcements and current activities are posted on the town's website. Downloads can be made available of the master plan, site plan review regulations, subdivision regulations, the zoning ordinance, town reports, and minutes from meetings.

WHAT THE COMMUNITY SAID...

"How important to you is it for the Town to expand/extend, encourage, provide or invest in these utilities?"



There are currently seven cell towers and one radio tower in town. The cell towers are located on Plausawa Hill Road and Buck Street. Landline telephone service is also available from various providers, though it is often bundled with internet and television service for a discounted price.

PEMBROKE WATER WORKS

The Pembroke Water Works is a public water provider serving the communities of Pembroke, Allenstown and a few homes in Hooksett to the southeast. The municipal water system has a capacity of over one million gallons per day that is drawn from a coarse grain stratified aquifer and consists of three well sites that are operated on a daily rotation and produce approximately 60% of Pembroke's daily demand. The system also contains two storage tanks.

The Water Works services 2,205 water connections or units or about 6,260 users.

The Water Works services residential, public, agriculture, business, and commercial users. Cost per residential unit has a base rate of \$25.00 per quarter and \$1.90 per thousand gallons thereafter. The rate for commercial users can vary depending on the type of service lines they have.



WATER STORAGE TANK ON BRICKETT HILL ROAD

There are over 50 miles of water lines in the Water Works franchise area. Water service extends the length of Pembroke Street, all of Buck Street, State Route 106 (Sheep Davis Road) and there are also branch lines serving subdivisions along these major roadways. All of Academy Road, Dearborn Road and the village area are also served. More than 300 fire hydrants are serviced in Pembroke. Some are in private developments but the majority are on public roadways.

Generally, new water main extensions are considered upon request by developers and subdividers if the project can be served by community water. However, the height of the tanks restricts water service to sites whose elevation would prevent water from attaining a pressure of 20 psi at every tap. This arrangement restricts the future shape of denser development to the present area of service unless a developer is willing to install pumps and water tanks at higher elevations.

PEMBROKE SEWER COMMISSION

Sewer service is an inter-municipal operation with the Town of Allenstown. Approximately two-thirds of the town's residents are served by municipal sanitary sewer. The two towns share in the costs of operation and maintenance of the Suncook Wastewater Treatment Plant located on Ferry Street in Allenstown. The sewer lines and pumping stations in Pembroke are managed by the Pembroke Sewer Commission, which is comprised of one full time and one part-time employee. The areas in Pembroke which presently have sewer service are: Pembroke Street, the adjacent areas to Pembroke Street, Route

106 (Sheep Davis Road), residential areas up to Third Range Road, and the Village area. Generally, new sewer line extensions are considered upon request by developers and subdividers if the lines can have gravity flow.

The treatment facility was designed in 1972 with a 1,050,000 gallons per day (gdp) capacity. The plant came on line in 1977 and had a 20-year life expectancy. The five year average of gallons per day for the plant is 631,000. The five year average of gallons per day for Pembroke is 313,000. The Town of Pembroke Sewer Commissioners no longer have a say in the management of the treatment plant.

In 2019, the town voted to sell 4 & 6 Union Street, where the Sewer Department's administrative office is located. The future of the Sewer Commission's office is unclear as of this date.

ELECTRICITY

Electricity in Pembroke is primarily provided by Eversource. While the electrical system in Pembroke is largely adequate and able to accommodate future growth along the major thoroughfares downtown, such as along Route 106 and Route 3, the electrical infrastructure in several fairly remote locations will need to be upgraded to accommodate residential growth. In several locations the system has reached capacity and must be upgraded to carry increased load. The high growth areas include:

- Academy Road – Currently served by a 12.47 KV (12,470 volts) line. PSNH plans to increase the line voltage to 34.5 KV (34,500 volts) for approximately 2.5 miles to the intersection of Buck Street and Route 28 within the next five (5) years if current pace of growth continues. Route 28 toward Epsom may need to be expanded from 12.47 KV to 34.5 KV within 10 or more years.
- Rebecca's Way – The line serving this area was recently converted from 7.2 KV (7,200 volts) to 19.9 KV (19,900 volts) to better serve this road and new load in the area.
- Borough Road – Step transformers currently serving this area will be changed doubling the current capacity. The line voltage will need to be converted to 19.9 KV within five to 10 years.

Eversource will continue to upgrade its distribution system in the more remote areas and side streets of Pembroke to accommodate residential load growth. Although there are no plans at this time to build a substation in town, the line upgrades along Academy Road and Buck Street will be a significant project.

NATURAL GAS

Currently, Liberty Utilities Energy Delivery serves approximately 1,060 residential and commercial customers in the Town of Pembroke. Liberty Utilities Energy delivery has existing mains in Pembroke Street that extend to the intersection of Peaslee Drive on the southern end and to the intersection of Sheep Davis Road on the northern end.

Future plans for expansion would be to connect the two extensions (approximately two miles) in Pembroke Street to improve the reliability of the distribution system in this area as well as add more customers along the route. During the past two years, Liberty Utilities Delivery has investigated extending gas mains to two major residential developments off of Pembroke Street (Route 3). The developments include Donna Drive and the adjacent streets as well as Pembroke Hill Road and the adjacent streets, which would be fed by the new main in Pembroke Street.

Pembroke Master Plan 2020

Community and Recreational Facilities with Utilities

1. Pembroke Hill Cemetery
2. Pembroke Street Cemetery
3. Buck Street Cemetery
4. Evergreen Cemetery
5. Abbott Cemetery
6. French Family Cemetery
7. French-Dearborn Cemetery
8. Richardson Cemetery
9. Blueberry Hill Cemetery (Old North Pembroke)
10. North Pembroke Cemetery
11. Safety Center/Police and Fire Departments
12. Public Works and Transfer Station
13. Pembroke Town Hall
14. Town Salt Shed at Public Works
15. Tri-Town Ambulance Service in Safety Center
16. Pembroke Pines Golf Course
17. Three Rivers School Sports Fields
18. Pembroke Village School Sports Fields
19. Memorial Field Facilities
20. Pembroke Town Library
21. Pembroke Hill School Fields
22. Pembroke Academy Sports Fields
23. White Sands Conservation Area
24. Whittemore Conservation Easement
25. Sewage Pump Station #5
26. Sewage Pump Station #2
27. Public Works Storage Building
28. Pembroke Water Works Office
29. Sewer Pump Station
30. Global Partner Towers (2 cell towers)
31. Water Storage Tank
32. Pembroke 1 Water Works Well
33. Pembroke 2 Water Works Well
34. Pembroke 2 Public Wells/
Bear Brook Pump Station
35. Suncook Wastewater Treatment Plant
36. Sewage Pump Station #3
37. Sewer Department Storage Building
38. AT&T Cell Tower
39. T-Mobile Northeast Cell Tower
40. Eversource Substation
41. Pembroke Hydro Electric
42. Fairpoint Telephone

Facilities Legend

- Community Facilities
- Cemeteries
- Recreational Facilities
- Utilities
- Power Transmission Line
- Water Lines
- Sewer Lines
- Natural Gas

Base Legend

Town Boundary

Roads

- Class I/II State Highway
- Class V Local Roads
- Class VI Unmaintained Roads




Water Features

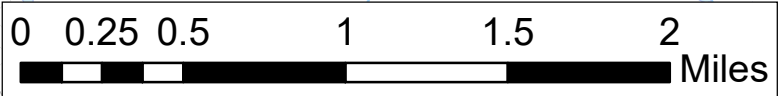
- Waterbodies
- Rivers and Streams

Data Sources for the Pembroke Master Plan Map series includes:

Digital Tax Maps by CAI Technologies, NH Department of Environmental Services, Federal Emergency Management Agency, NH Department of Transportation, US Geological Survey, Town of Pembroke, NH GRANIT, 2016 Pembroke Natural Resource Inventory, and CNHRPC.

Disclaimer:
This map is intended for use with the Pembroke Master Plan. The information presented is to be used for planning purposes and may not fully represent actual geographic conditions. Inaccuracies should be directed to the Town of Pembroke or to CNHRPC.





6 EXISTING AND FUTURE LAND USE



TOPICS INCLUDE:

Pembroke's land use patterns, past, present and future

Challenges & opportunities going forward

Summary of Pembroke's land use patterns

This chapter focuses on land use, the one chapter that comes to mind for most people when they think about a master plan. There are certain features that define what we categorize as land use – geography is the most visible along with the pattern and type of land uses that have developed over time. Regulations adopted by the community have certainly shaped these land uses and will continue to do so in the future. These land uses should support Pembroke's unique sense of place and its rural character. As Pembroke continues to grow and change, commitment to the mix of land uses, the natural environment and sense of place that residents expect and enjoy about living in Pembroke is vitally important. It is clear that Pembroke residents value its rural character and small town atmosphere. This master plan should reflect these values and the recommendations in each chapter should be carefully crafted to implement the vision for Pembroke and keep the community moving in the desired direction.

Pembroke is...
a vibrant community that embraces its unique, historical character,
values its forests, farms and rural character and supports a healthy,
sustainable environment to live, work, shop and participate in
community activities.

WHAT THE COMMUNITY SAID...

Input gathered throughout the public outreach process continued to demonstrate residents' desire to maintain the town's rural character and small-town atmosphere. As shown in Tables 9.1 and 9.2 below, respondents of the community survey also supported the importance of protecting natural resources, providing recreational opportunities for residents, expanding the commercially zoned area for additional businesses, and to better separate non-residential and residential development.

Table 9.1: Residents Ranked the Following for Their Importance:

Identified Land Use Actions	Important	Somewhat Important
Maintaining Pembroke's rural character as a goal of this Master Plan	70.9%	23.5%
Adopting landscape regulations for new development within the Subdivision and Site Plan Review regulations	40.7%	32.8%
Attracting and supporting new businesses in Suncook Village	42.2%	45.5%
Actively promoting Suncook Village as a resource in town	42.5%	37.0%
Developing a public, walking and bicycling rail trail along the Merrimack River railroad bed	48.1%	34.5%
Preserving existing Class VI rural roadways	30.4%	35.5%

Source: Pembroke Master Plan Community Survey, 2017

Table 9.2: Residents Indicated Their Stance on the Following:

Identified Land Use Actions	Yes	No	No Opinion
Regulations to develop public recreational trails and parks through new developments	76.0%	12.9%	11.0%
Amendments to the zoning ordinance to extend the existing Commercial Zone District (C-1) in NH 106 to Borough/North Pembroke Road	67.9%	23.6%	8.5%
Amendments to the zoning ordinance to help better separate non-residential development uses from residential development (i.e. buffers and/or setbacks)	73.4%	15.6%	11.0%
Amendments to the zoning ordinance to increase building setbacks to protect wetlands	69.7%	14.5%	15.8%
Amendments to the zoning ordinance to increase building setbacks to protect groundwater and aquifers	80.8%	9.5%	9.8%
Upgrades to Class VI roads to allow buildable lots	45.3%	35.9%	18.8%
Adoption of ordinances that encourage renewable energy options	74.4%	16.3%	9.4%

Source: Pembroke Master Plan Community Survey, 2017

Attendees at the community visioning session echoed much of the input gathered through the community survey. Identified strengths included the Suncook village, access to recreation through the range roads and the Merrimack River, available infrastructure, and housing availability. Similar to the community survey, protecting the aquifer and other natural resources was a concern. Opportunities mentioned included mixed use development in the Village and along Academy Road, as well as open space development.

Results of these engagement opportunities provide a direction for the objectives and recommendations identified in this chapter. Themes that can be identified from the visioning session and community survey include:

- Maintain rural character
- Support for a walkable, dynamic downtown in the Suncook Village
- Desire to attract and support new businesses and local job creation in town
- Support for mixed-use and new commercial development along Sheep Davis Road, NH 106, and in the Suncook Village
- Importance of preserving/acquiring natural resource areas to overall quality of life
- Interest in focusing development near existing development to retain Pembroke's rural character.
- Strong support to protect streams/rivers, groundwater, agriculture and forests and recreational trails.; increase setback from wetlands, aquifers
- New housing development North Pembroke area (65.1%); Buck Street/NH 28 (51.3%)
- Support increased commercial activity on NH 106 to Borough Road/North Pembroke Road (67.9%)
- Support for extension of Commercial zoning district (C-1) on NH 106 to Borough Road/North Pembroke Road to increase commercial business in Pembroke (68%)



SUNCOOK VILLAGE

CHAPTER OBJECTIVES & RECOMMENDATIONS

OBJECTIVE 1 Utilize available methods to promote the protection of Pembroke's rural character	<ul style="list-style-type: none"> → Consider the establishment of a Forest Land Conservation District (See Natural Resources Chapter). → Consider the establishment of an Agricultural Conservation District (See Natural Resources Chapter). → Promote long-term protection of forest land and agricultural areas by purchasing development rights and securing restrictive easements (See Natural Resources Chapter). → Promote the use of the open space conservation ordinance by simplifying the density calculation process and the consideration of a range of density incentives (See Housing Chapter).
OBJECTIVE 2 Consider future land use changes to Pembroke Street	<ul style="list-style-type: none"> → Consider the development of a mixed use zone in the vicinity of Route 3 and Academy Road to accommodate a mix of housing and small scale retail/office uses. → Conduct a Route 3 Pembroke Street Corridor Study as soon as reasonably feasible to develop a community vision for Pembroke Street using a "Complete Streets" approach (See Transportation Chapter). → Apply access management techniques along major corridors, including US 3 Pembroke Street and NH 106 to improve connectivity, promote safety, improve aesthetics, and maintain community character (See Transportation Chapter).
OBJECTIVE 3 Support the development and revitalization of Suncook Village	<ul style="list-style-type: none"> → Consider adoption and promote the use of Community Revitalization Tax Relief Incentive (NH RSA-79-e) in the Suncook Village area (See Economic Development Chapter). → Address Suncook Village parking availability to improve parking convenience and ease for residents, businesses and visitors (See Economic Development Chapter). → Consider the development of a façade/property improvement program in Suncook Village (See Economic Development Chapter). → Develop architectural design guidelines to enhance the aesthetics, character, and existing design of residences and businesses in the Suncook Village area (See Community and Sense of Place Chapter).

→

→ CHAPTER OBJECTIVES & RECOMMENDATIONS

OBJECTIVE 4 Promote existing and future commercial development along NH 106	<ul style="list-style-type: none"> → Consider the designation of specific areas along NH 106 and North Pembroke Road as Economic Revitalization Zones (ERZs) (See Economic Development Chapter). → Consider the expansion of the Commercial/Light Industrial (C-1) zone and the encouragement of mixed-use developments as appropriate within the Soucook River Development District. → Consider simplifying the Soucook River Development District regulations.
OBJECTIVE 5 Consider long-term issues related to Pembroke's future development	<ul style="list-style-type: none"> → Study options for upgrading the Class VI sections of 3rd or 4th Range Roads in order to improve connectivity and provide an alternative route to Pembroke Street. → In coordination with the Town of Allenstown, study the needs and options for improvements to the Suncook Wastewater Treatment Plant.
OBJECTIVE 6 Continually review and update the land development regulations	<ul style="list-style-type: none"> → Continue to review the existing land use regulations and development review process with regards to the predictability of the planning review process.

CHALLENGES AND OPPORTUNITIES

PROMOTE THE PROTECTION OF PEMBROKE'S RURAL CHARACTER

The results of the community survey and visioning session point to strong support for the protection of Pembroke's rural character. Options for continuing that support can be found in the Natural Resources and Housing chapters and are summarized below:

- (1) Consider the establishment of a Forest Land Conservation District that discourages fragmentation, encourages cooperative management agreements among and between private landowners, and provides tax incentives, beyond the Current Use assessment, for owners of parcels that lie within a potential large-lot zoning district.
- (2) Consider the establishment of an Agricultural Conservation District that discourages conversion of prime agricultural land to development, and provides tax incentives, beyond the Current Use assessment, to support locally grown food products.
- (3) Promote long-term protection of forest land and agricultural areas by purchasing development rights and securing restrictive easements.
- (4) Promote the use of the open space conservation ordinance by simplifying the density calculation process and the consideration of a range of density incentives.

SUNCOOK VILLAGE REVITALIZATION EFFORTS

As outlined in both the Community and Sense of Place and the Economic Development chapters, the revitalization and focus on Suncook Village is of utmost importance. A number of possible methods to approach the support and renewal of the Village are proposed in the two chapters and are summarized below.

VILLAGE PARKING

The availability of readily available parking in Suncook Village is a key element of any future revitalization plan for the Village. As noted in the Economic Development Chapter, an evaluation of parking policies and practices may lead to improvements and improved satisfaction for Suncook Village visitors, employees, and residents. Maintenance and layout of parking, hours of enforcement, signage, and various parking management strategies can be evaluated.

VILLAGE REVITALIZATION STRATEGIES

A summary of the coordinated strategy to revitalize Suncook Village can be found in the Economic Base Chapter. Opportunities exist for a shared vision and process between Allenstown and Pembroke that focus on:

1) zoning; 2) streetscape and façade; and 3) recreation. With regard to zoning, efforts can be made to see that the zoning on both sides of the river is similar in terms of density, permitted uses, and architectural standards. For issues relating to street scape, a similar look and feel on both sides, culminating in unifying aesthetics on the bridge could be in order. Features such as comparable light poles, street signs, and landscaping can accomplish this. Finally, recreation along the river should serve to not only keep people active but bring both communities together.

A key element of the recreational aspect would be the potential Merrimack River Rail Trail, which could attract visitors to the village and improve the quality of life for residents and businesses in the village. The trail could incorporate the small bridge near China Mill in Allenstown, and trail traffic could also be directed to or through the village so trail users can patron local businesses as is the case in many trail towns across the country. Finally, the development of a façade/property improvement program would be a proactive measure to stimulate future investment.

In addition to these methods, the potential use Community Revitalization Tax Relief Incentive (NH RSA-79-e) in the Village is discussed below.

THE FUTURE OF PEMBROKE STREET

A number of methods to enhance Pembroke Street can be found within the Master Plan. In the short-term, the preparation of a “Complete Streets” study of entire Pembroke Street Corridor Study would develop a baseline for future changes that addresses traffic (including lane widths), access from adjoining neighborhoods, pedestrians and bicyclists, and street trees. While Pembroke Street is a major connector of statewide significance, it is also an important local road that residents use in a variety of ways every day.

Beyond the corridor study, the Economic Development Chapter outlines a recommendation to consider the development of a mixed-use zone in the vicinity of Route 3 and Academy Road to accommodate a mix of housing and small-scale retail/office uses. This recommendation acknowledges changes in

demographics and development trends that have led to more interest in small scale housing mixed with small scale commercial development.

IMPROVING PEMBROKE'S COMMERCIAL BASE

A variety of options for the support of Pembroke's commercial base are outlined in the Economic Development Chapter, foremost being the continued work of the Pembroke Economic Development Committee (EDC) to develop the tools to promote and sustain appropriate levels of economic development.

The following potential zoning changes, land use regulation revisions, and potential incentives could be utilized to improve Pembroke's commercial base:

- (1) Consider the expansion of the Commercial/Light Industrial (C-1) zone and the encouragement of mixed-use developments as appropriate within the Soucook River Development District.
- (2) Consider simplifying the Soucook River Development District regulations.
- (3) Consider adoption and promote the use of incentives such as the Community Revitalization Tax Relief Incentive (NH RSA-79-e) in the Suncook Village area, the Economic Revitalization Zone (ERZ) program designation of specific areas along NH 106 and North Pembroke Road, and the Commercial and Industrial Construction Exemption (NH RSA 72: 80-83) in specific commercially zoned areas.
- (4) Continue to review the existing land use regulations and development review process with regards to the predictability of the planning review process.

KEY LONG-TERM ISSUES RELATED TO PEMBROKE'S FUTURE DEVELOPMENT

3RD AND 4TH RANGE ROADS

As described in detail in the Transportation Chapter, there is no alternative north-south route to Route 3 in the community. The potential for extensions to either the Class VI town-unmaintained 3rd Range Road or 4th Range Road to mitigate this issue has been a point of contention in the community for many years. It is possible, if not likely, that these sections of 3rd Range Road and 4th Range Road could at some point be upgraded to Class V town-maintained as part of a private subdivision development.

As noted in the Transportation Chapter, there is no clear consensus in the community on the desirability of improving these roadways; however, there is a consensus that improvements should not be undertaken with town funding. Local concerns as well as options regarding the potential improvements to the Range Roads are outlined in the chapter, and lead to the necessity for future planning efforts to shape the outcomes and investments in the area. In sum, while improvements to each road are possible, it is more likely that improvements to the 4th Range Road will occur in the foreseeable future. The issue summary as outlined in the Transportation Chapter:

Improvements to the 3rd Range Road would not provide the same community benefits as improving the 4th Range Road. Extending 3rd Range Road northerly from Church Road to its current terminus southerly of Belanger Street would provide a second access to the Pembroke Hill Elementary School. Currently, all points of access to this school lead to Pembroke Hill Road. The

relatively short length of 3rd Range Road would limit the potential for cut-through traffic but would allow for alternative routing of emergency vehicles and travel options for residents of this area.

With the abundance of undeveloped land on 4th Range Road and the rising demand for housing in New Hampshire, it is likely that 4th Range Road could see upgrades as a result of private development. If 4th Range Road were to be completed through to Church Road, it would provide an alternate north-south route to Pembroke Street. Site plan and subdivision regulations, as well as town road standards would shape any outcomes of private development and investment in this area. In anticipation of future development, the town should consider a plan for the extension of 4th Range Road and ensure that proper tools are in place for the Planning Board to manage appropriate development. Similarly, the Zoning Ordinance is a planning tool that can help guide future uses on range roads.

The plan should describe who would be responsible for constructing the road, how it might occur in phases, and the standards for the new road segments. It would also need to address how rural character could be preserved including the protection and/or relocation of stone walls and the protection or replanting of trees along the roadway. Further considerations would include any other improvements that should be made to existing portions of 4th Range Road, Pembroke Hill Road, Church Road or Dudley Hill Road, as well as any traffic calming measures which might be utilized to control speeds and discourage cut-through traffic. A similar approach should be considered regarding 3rd Range Road from Pembroke Hill Road to Church Road.

FUTURE SEWER CAPACITY

The Community and Recreation Facilities with Utilities Chapter describes the inter-municipal agreement related to the operation of the Suncook Wastewater Treatment Plant between Pembroke and Allentown.

Sewer service is provided through an inter-municipal agreement with the Town of Allentown. Approximately two-thirds of the town's residents are served by municipal sanitary sewer. The two towns share in the costs of operation and maintenance of the Suncook Wastewater Treatment Plant located on Ferry Street in Allentown. The treatment facility was designed in 1972 with a 1,050,000 gallons per day (gdp) capacity. The plant came online in 1977 and had a 20-year life expectancy.

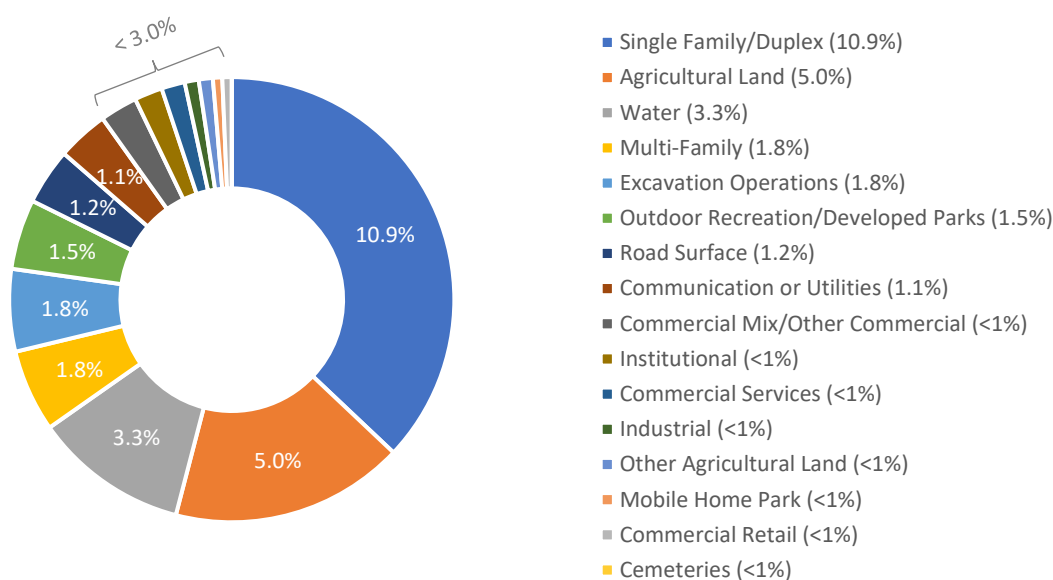
The future provision of sewer capacity to meet the needs of a sustainable and appropriate level development as described in this Master Plan is of key importance. In coordination with the Town of Allentown, the Town should continue to study the needs and options for improvements to the Suncook Wastewater Treatment Plant, as well as the allocation of capacity, in an updated inter-municipal agreement.

LAND USE TYPES AND TRENDS

EXISTING LAND USE

Utilizing aerial photography and assessing data sources, a detailed evaluation of the existing land uses in Pembroke was undertaken. This enabled a view of multiple land use types and how their sizes compare with other land use types. In addition to the analysis described below, the land uses are shown in Figure 6.4 below as well as on the **Existing Land Use Map**.

Figure 6.4: Percentage of Acreage Developed by Land Use Category



Of the developed land uses categorized, single family/duplex had the highest percentage with 1,585 acres, totaling 10.9% of total land area. This land use is present throughout Pembroke, along with multi-family and mobile home parks. Though it should be noted that multi-family and mobile home parks cover much less acreage than single family, with 257 and 26 acres, respectively. Agricultural lands are also a common land use, with 724 acres, totaling 5.0%, as well as water, which covers 490 acres, or 3.3% respectively.

Other uses with much smaller percentages include commercial services (<1%), commercial retail (<1%), commercial mix (<1%), institutional (<1%), industrial (<1%), excavation operations (1.8%), communication or utilities (1.1%), cemeteries (<1%), outdoor recreation/developed parks (1.5%), and other agricultural land (<1%). Much of these uses are located in highly developed areas in town, including along Sheep Davis Road, Route 3, and within the Suncook Village. Exact locations can be seen on the **Existing Land Use Map**.

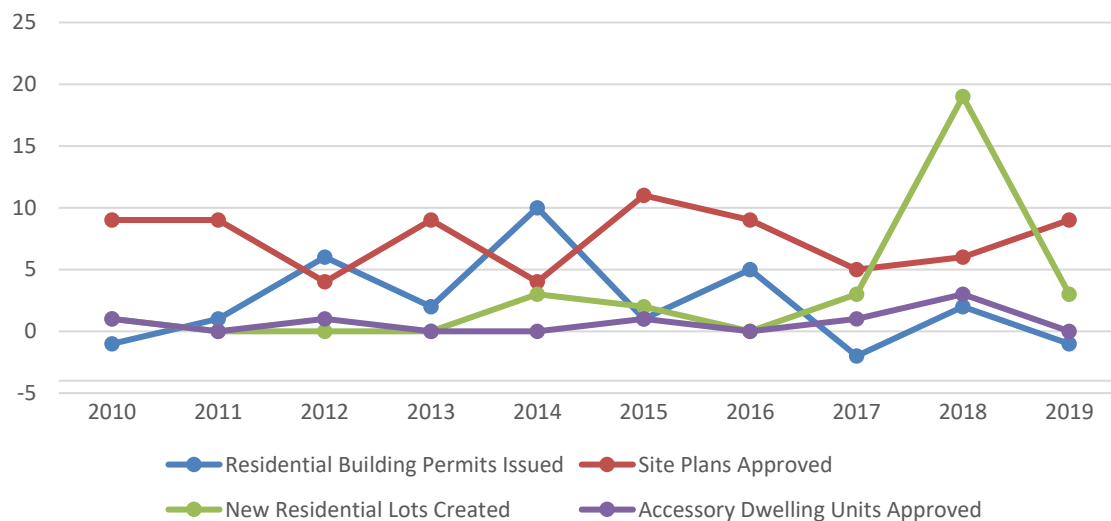
It should be noted that while not included in Figure 6.4, a large portion of land within Pembroke is undeveloped. Undeveloped land provides places for recreational opportunities, contributes to rural character and scenic beauty, and is beneficial to wildlife and natural habitats.

DEVELOPMENT TRENDS

Development patterns help make people aware of the changes taking place within a community, and research and analysis of development patterns is important to help better plan for future development. As described in the 2004 Pembroke Master Plan, new residential development was growing rapidly leading up to 2004, with significant increases in residential building permits and in new residential developments. Commercial development was also increasing, comprising 5% of all new development.

Since 2004, demographic changes reflective of a slowing economy have been evident. The population experienced minimal increase, the number of building permits has significantly decreased, and the amount of commercial development has increased to comprise <2% of the developed land uses. Figure 6.5 displays the number of residential building permits issued, number of new residential lots created, number of site plans approved (by the Planning Board), and the number of accessory dwelling units approved. As shown in the figure, these trends have varied over the ten years displayed, with the most noticeable increase occurring in 2018 with the number of new residential lots created. It should be noted that this large increase was caused by a large multi-family development approved in 2018. It should also be noted that the number of building permits issued is a net change in dwelling units and includes any demolition permits.

Figure 6.5: Development Trends, 2010-2019



Source: Pembroke Town Staff

DEVELOPMENT CONSTRAINTS

Land development projects are typically affected by a range of natural and man-made restrictions. These limitations to development have been charted and are shown herein on the **Development Constraints Map** and what follows are a series of brief descriptions of these various limitations to development.

Wetlands

Wetlands are areas where water is present at or near the soil surface for at least part of the growing season and influences the plants that can grow there, as well as the soil characteristics. There is now a much greater understanding of the function that wetlands provide, including flood control, water storage, groundwater recharge, erosion and sediment control, pollution filtration and wildlife habitat. As part of the NRI, a total of 3,951 wetlands representing 1,587 acres were mapped in Pembroke in the half-mile extended study area.

Floodplains

Floodplains are areas that have the potential to carry and store floodwater, also termed flood storage land. Preserving the floodplain's ability to store this excess water is key to protecting surrounding land uses, especially as the trend of extreme storms and frequency increases. An examination of these floodplain areas indicates that they are mostly open lands which are mostly owned by the town. Few man-made structures are found in these areas though there a number of small-sized privately owned lots along the Suncook River floodplains. Additional areas of concern are found along Route 28 and Bachelder Road because they would be crossed by the occurrence of 100-year floods.

Steep Slopes

Slopes that are greater than 15% are present in area throughout Pembroke and create a number of difficulties and dangers associated with development. Such steep topography is common in North Pembroke and along Route 3 and the Merrimack River from Bow Lane to Fairview Avenue. Similarly, steep slopes also characterize the area between Robinson and Plausawa Roads and other smaller areas located in the vicinity of Borough and Cross Country Roads.

Aquifers

Aquifers are sometimes quite large, underground deposits of porous rock, sand and other similar earth materials containing water into which wells can be sunk. Information obtained from the U. S. Geological Survey indicates that such stratified drift aquifers are broadly located in the vicinity of the Suncook, Soucook and Merrimack Rivers. In a number of instances, these underground water deposits underlie areas of high residential population, especially in Suncook Village as well as in the area between Route 3 and the Soucook and Merrimack Rivers. Significant aquifer deposits are also located at the north end of town beneath Interstate-393 and Routes 9/4/202, as well as in southeast section of Pembroke in the vicinity of Buck Street and Route 28.

Taking advantage of their great water carrying capacity, the Town of Pembroke currently maintains several aquifer-based drinking water wells which are located off Route 3 along the Soucook River near the Concord town line. These important sources of public drinking water are protected by required wellhead protection zones which are designated by the New Hampshire Department of Environmental Services (NHDES). These wellhead protection zones are shown on the **Development Constraints Map**.

The wellhead protection areas are unevenly located around areas of North Pembroke and Burrough Roads and along the Soucook River extending to 6th Range Road. Parts of 3rd, 4th, and 6th Range Roads, Borough Road and all of Beacon Hill Road are also included in this protection zone. Smaller sized wellhead protection areas are also located along Thompson Road and Route 28 near the Allenstown and Epsom town lines.

Public Lands

The Town of Pembroke, along with other public entities or agencies, possesses various public lands along the Soucook and Merrimack Rivers as well as at conservation areas such as the Whittemore Town Forest, Bragfield Pond and at several other parcels generally located in the mid-section of Town. The State of New Hampshire also owns parcels along Route 9 and the Suncook River and the School District has land holdings along Pembroke Street and on Maple Street in Suncook Village. Lastly, the Pembroke Water Commission and the Concord Water Precinct both own land along the Soucook and Merrimack Rivers for the purpose of protecting area water supplies.

LAND USE REGULATIONS

PEMBROKE ZONING ORDINANCE

Pembroke zoning ordinance divides the town into seven zoning districts and six overlay districts.

Table 6.1: Pembroke's Zoning and Overlay Districts

Type	District Name
Zoning District	Medium Density-Residential District (R1)
Zoning District	Rural/Agricultural-Residential District (R3)
Zoning District	Business/Residential District (B1)
Zoning District	Central Business District (B2)
Zoning District	Commercial/Light Industrial District (C1)
Zoning District	Limited Office District (LO)
Zoning District	Soucook River Development District (SR)
Overlay District	Architectural Design District (AD)
Overlay District	Aquifer Conservation District (AC)
Overlay District	Floodplain Development District (FD)
Overlay District	Shoreland Protection District (SP)
Overlay District	Suncook Business District (SB)
Overlay District	Wetlands Protection District (WP)

Source: Pembroke Zoning Ordinance

Pembroke has an extensive zoning framework in place that consists of several zoning districts and overlay districts, all of which are in place to accommodate residential and commercial uses as well as protect community character and foster environmental and resource protection. The seven zoning districts include the Medium Density/Residential District (R1) which is primarily residential with small office and home businesses; the Rural/Agricultural-Residential District (R3) which is a large-lot residential zone; the Business/Residential District (B1) which includes part of Suncook Village; the Central Business District (B2) which establishes a mixed-use village zone in the core of Suncook; the

Commercial/Light Industrial District (C1) consisting of commercial and industrial uses along Routes 3 and 106; the Limited Office District (LO) providing zoning for professional and office spaces; and, lastly, the Soucook River Development District (SR) which is a performance-based commercial district. The effect of these districts taken together is that they locate greater density and commercial uses along Routes 3 and 106, allow for traditional mixed-use village development in Suncook, and protect large tracts of rural residential land to the east of Route 3. The zones are depicted on the **Zoning Map**.

In terms of overlay districts, Pembroke has the Architectural Design District, designed to protect traditional architecture on Route 3; the Aquifer Conservation District which protects Pembroke's drinking water supply; the Floodplain Development District, designed to limit development in flood lands, and, to provide guidance when it cannot be avoided; the Shoreland Protection District, designed to protect water quality and limit the impact of development-driven erosion; the Suncook Business District which protects commercial space by restricting residential dwellings to upper floors of buildings; and, the Wetlands Protection District that protects the abilities of wetlands to function properly. Collectively these overlay districts seek to work with the underlying zones as they protect the environment, natural resources, community character, and the ability to maximize economic development.

In addition to the various districts and overlay districts in place Pembroke has several ordinances that provide guidance for specific types of development. One is Accessory Dwelling Units (ADU) ADUs are governed by section 143-18.1 and comply with recent changes to RSAs. They are permitted everywhere a single family home is by Special Exception and have requirements consistent with the new state law. ADUs are a great tool to alleviate housing pressures for both young people new to the workforce and downsizing seniors.

Home businesses are useful tool to finding a balance between economic development and housings and Pembroke permits them in different parts of town. Specifically, it can keep overhead costs down when someone wishes to start a business. It can also serve to "scale" economic development in a way that it fits in with community character. One challenge to regulating and permitting home businesses is that they often need more scrutiny than merely a building permit would provide but not as much as a site plan. One way to address this balance is between a minor and major home occupation framework that that is just what Pembroke does. Section 143-28 governs minor, while Section 143-29 manages major home businesses.

Section 143-73 governs the development of open space residential development in the Limited Office (LO), Medium Density Residential (R1), and the Rural/Agricultural Residential (R3) Districts. At its most basic level, the Ordinance allows for clustering of housing units. Lots may be reduced to 25,000, 30,000, or 40,000 square feet depending upon the presence of sewer and water and what zoning district the parcel is located in. Fifty percent of the tract must remain as open space and density is generally the same as a conventional subdivision. For Pembroke, this is a great tool to lower housing costs and protect rural character. One way to enhance this is to provide density incentives for different types and uses of open space depending upon the preferences of open space uses for the Town. Another way to improve the tool is by simplifying the density identification process. Currently a "yield plan" must be created to identify the number of permissible units. This process requires that a developer first design a conventional subdivision and then redesign it as a cluster. The challenge with this process is that it can

double the permitting costs which have the effect of dissuading developers from clustering. Simplifying this process could lower costs resulting in more clustering.

A final tool to point out is the Planned Development provisions that are described in 143-83. Planned developments are a tool similar to clustering for commercial development. The ordinance allows for Planned Commercial Developments or Planned Industrial Developments. In both cases, shared access, exit, and parking, as well as ten percent open space are required. This tool allows for more efficient and cost effective economic development. It can also allow for related businesses to cluster together increasing their productivity.

PEMBROKE SUBDIVISION AND SITE PLAN REVIEW REGULATIONS

Like the majority of New Hampshire communities, the voters of Pembroke have authorized the Planning Board to conduct Site Plan and Subdivision reviews. A site plan review is designated for new commercial or a change of use, as well residential developments (3 or more units) or the expansion of any of these categories. Subdivisions involve the division or resub-division (i.e. adjusting the lot line(s) between one or more existing lots) of lots for sale or lease. Both applications involve a similar process: 1) application is made; 2) Board determines if the application is complete; 3) Board determines if there is a regional impact; 4) Board approves or denies. When a plan is approved, it typically has conditions affixed to it and once conditions are met, the plans may be signed and building permits issued.

Pembroke's Site Plan Regulations (Town Code, Chapter 203) and Subdivision Regulations (Town Code, Chapter 205) lay out the process for both types of applications. The objective with such regulations is to provide not only the requirements for each type of application, but to outline a predictable process. For Pembroke, both documents accomplish these goals. With regard to requirements, these are spelled out with clarity and detail. Process is also described in a detailed manner. Some highlights include: major and minor application types in recognition of complexity; clearly defined roles for the applicant, planner, and Board; and, in the Site Plan Regulations, clarity on regional impact and substantial development and what constitutes substantial development. The level of predictability in the process can be improved by addition regional impact and completeness to the Subdivision Regulations. Additionally, the Town uses a Technical Review Process (TRC) which is very useful to identify issues early. This could be added to the regulations as well. Finally, sharing definitions could eliminate potential conflicts.

POPULATION AND GROWTH TRENDS

POPULATION TRENDS

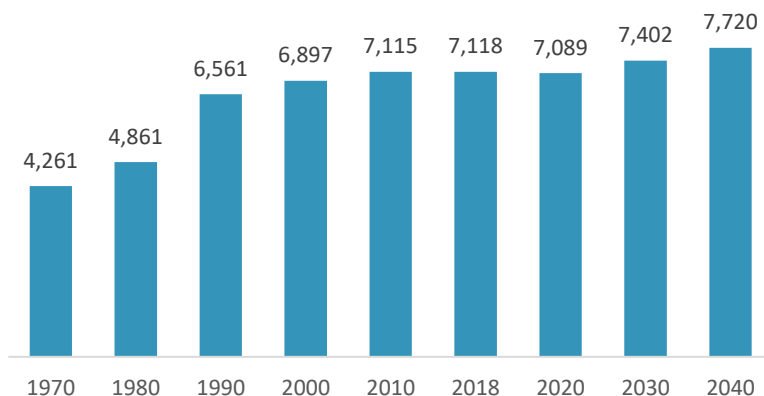
Similar to trends experienced by New Hampshire and Merrimack County, Pembroke saw a consistent, steady growth in population through the 1990s, increasing the number of residents by 50% from 1970 to 1990. However, this trend changed by the year 2000, as Pembroke was still growing but at an increasingly slower rate.

In the fall of 2016, the NH Office of Strategic Initiatives (NH OSI) released population projections through 2040 for NH communities. The projections utilized past trends and 2015 population estimates. Projections for Pembroke (shown in Figure 6.1) show a minor decrease in population in 2020, but then a continued slow rate of growth through 2030 and 2040 with a 2040 population of 7,720 residents. It should be noted that the further out these populations go, the less reliable they are. Updated population projections should be consulted when available.

More recently in August of 2019, NH OSI released 2018 population estimates for NH communities. Pembroke's 2018 estimated population of 7,118 (shown in Figure 6.2) indicates a consistent population since 2010, however higher than what was predicted for 2020. As previously noted, this demonstrates how population projections become less reliable over time. It is also worth noting that 2018 population estimates for many other communities in NH show an increasing trend statewide, which may be more apparent in Pembroke over the next few years.

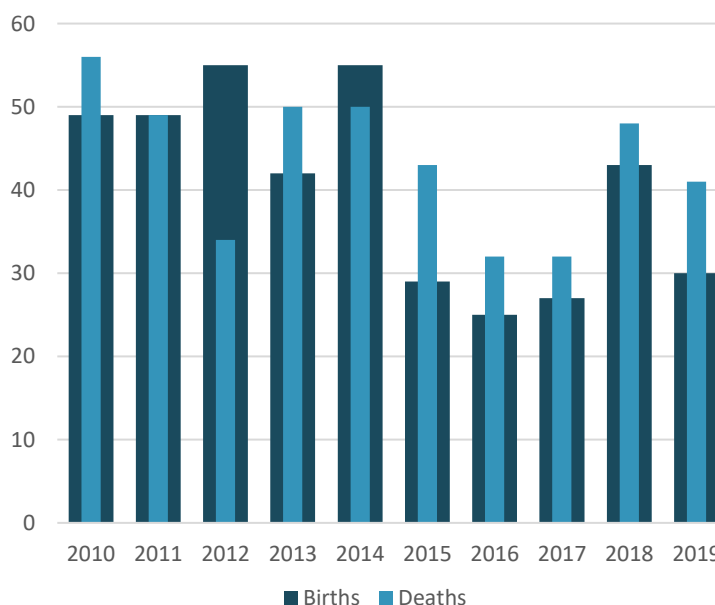
Natural increase, the difference between births and deaths per year, naturally fluctuates over time.

Figure 6.1: Past and Projected Population



Source: 1970, 1980, 1990, 2000, 2010 US Census; NH Office of Strategic Initiatives Population Projections (Sept. 2016) and 2018 Estimates

Figure 6.2: Births and Deaths in Pembroke, 2010-2019

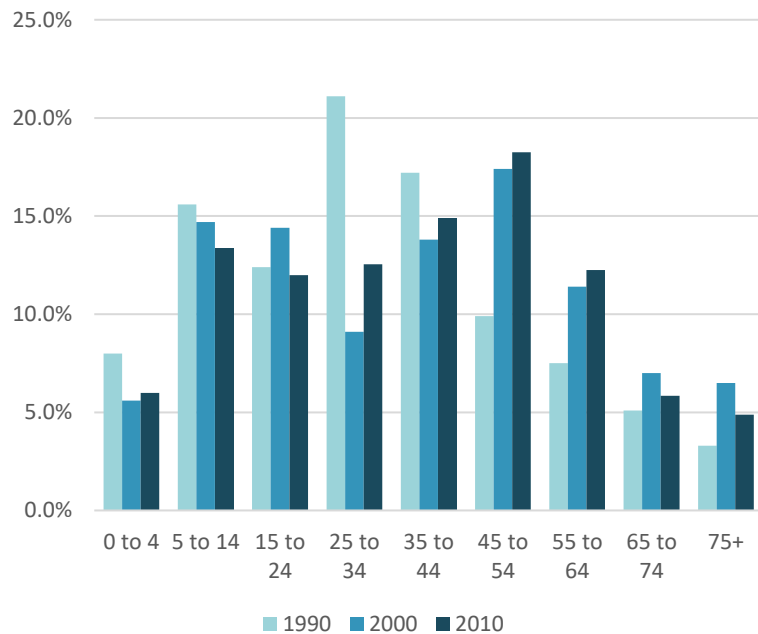


Source: Pembroke's Annual Reports

AN AGING POPULATION

New Hampshire's population is growing older, and Pembroke is no exception. New Hampshire experienced a large increase in births due to the baby boom post- World War II. Baby boomers now contribute to a larger adult population as they start to reach their 50's and 60's, causing a dramatic shift in the makeup of the population. The shift towards an older population with fewer younger adults has many potential impacts, including a decrease in the available workforce for early to mid-career positions, fewer children attending schools, and fewer young adults available for positions on many volunteer departments and committees in town.

Figure 6.3: Population by Age



Source: 1990, 2000, 2010 US Census

While it is certainly true that some older residents leave the state for retirement in the Sunbelt states, more and more of the aging population is choosing to age in place. Additionally, there is a trend of the state gaining older migrants as New Hampshire is an attractive state to retire to with a high quality of life.

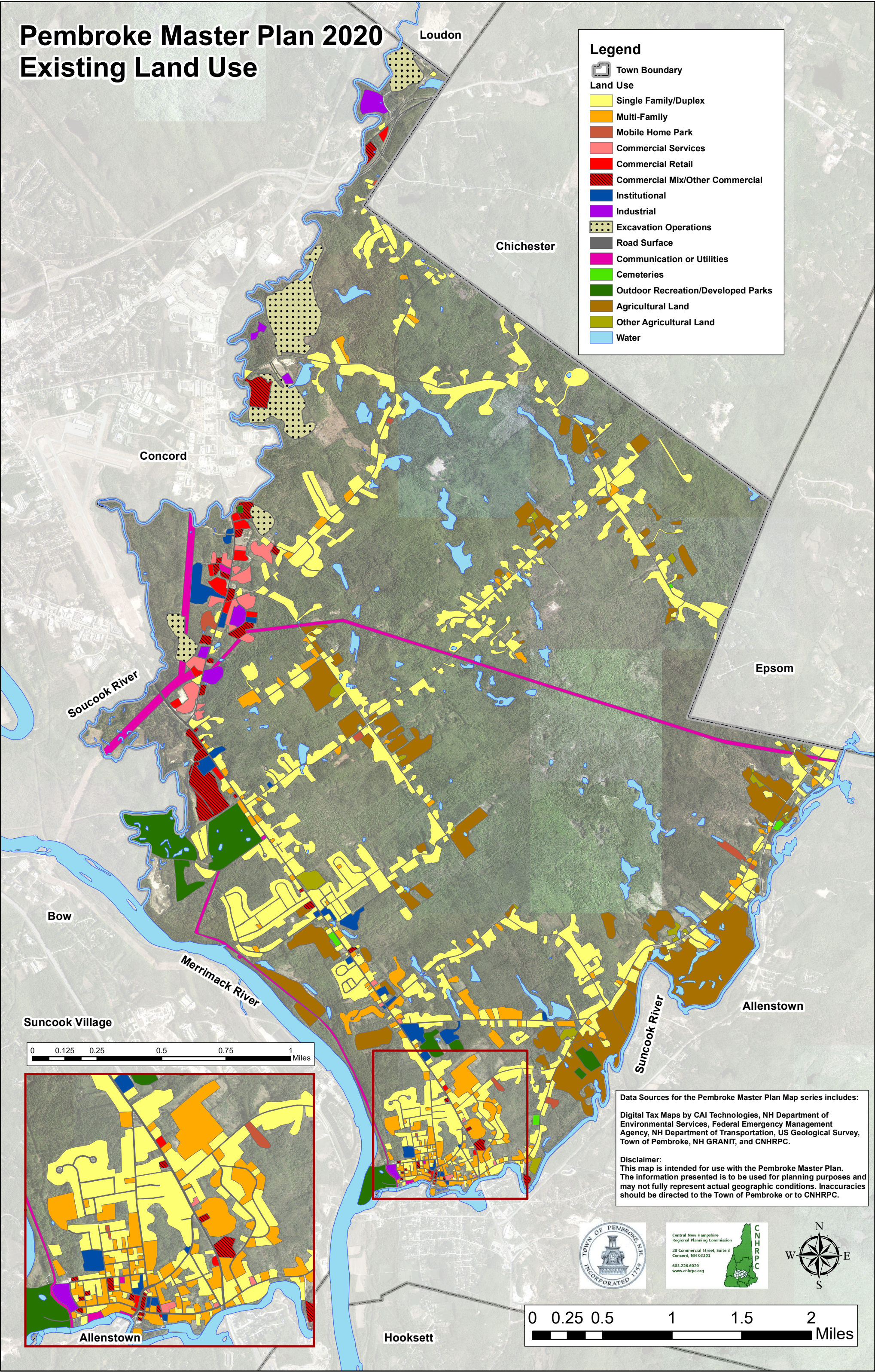
CHALLENGES OF A CHANGING DEMOGRAPHIC

Day-to-day living for an aging population is becoming more of a concern as many retirees are remaining in rural areas to be close to family or to enjoy the scenic and recreation amenities available in the Central New Hampshire Region. Recreational, housing and transportation needs change as the population ages. Providing accessible year-round outdoor and indoor recreation opportunities for older residents as they age in place becomes more prevalent. The demand for smaller houses for downsizing families will likely continue to increase as the average household size continues to decrease statewide. Transportation, and the need for public transportation as the population ages could be especially problematic for those who must utilize different sources of transportation for everyday needs.

Additionally, one of advantages of having a strong middle-aged population is a strong working population, with many in the peak of their careers and earning potential. This also means a large portion of New Hampshire's workforce will be retiring soon, potentially causing a shortfall of qualified workers available to fill their positions.

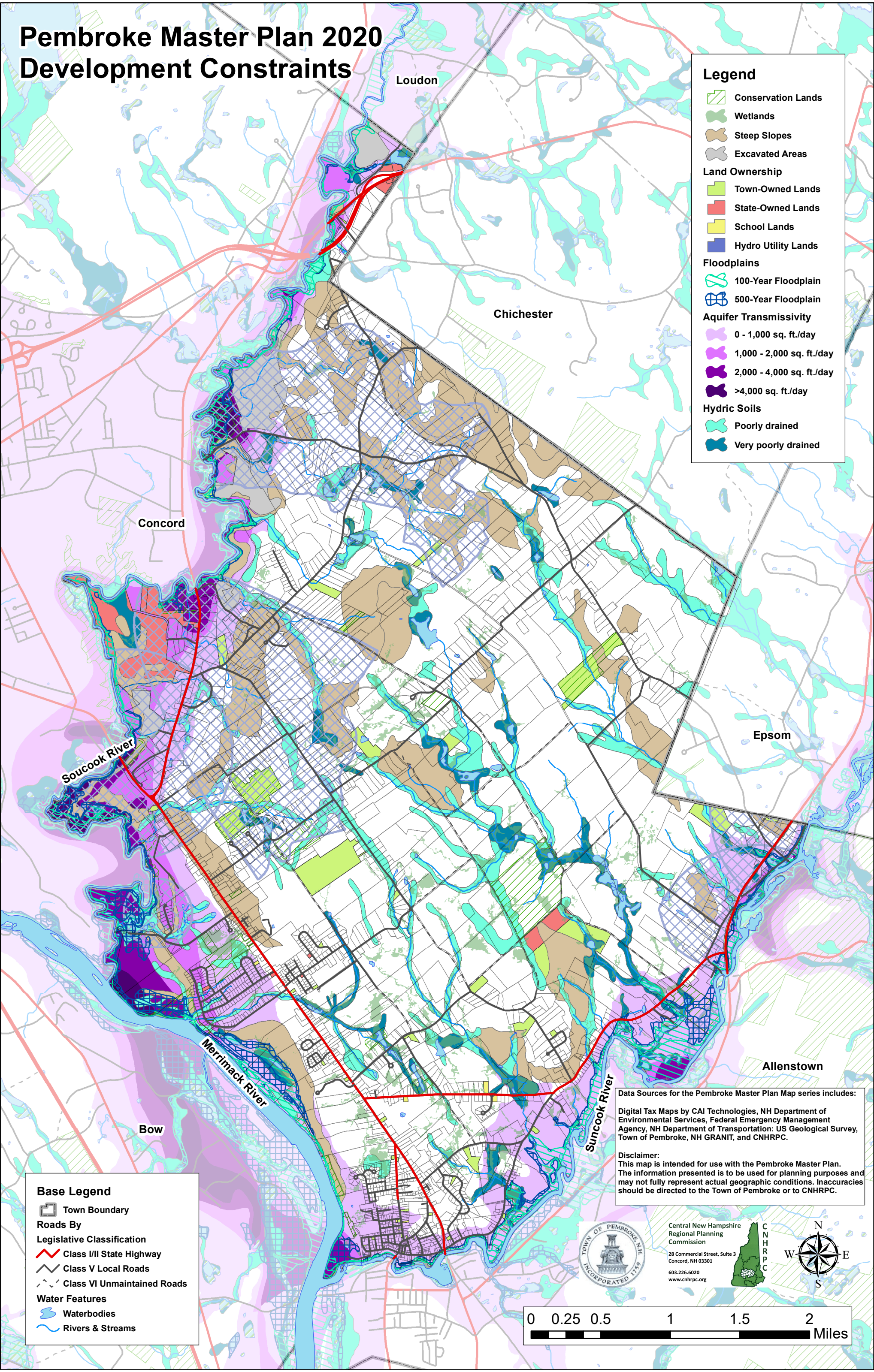
Pembroke Master Plan 2020

Existing Land Use



Pembroke Master Plan 2020

Development Constraints



Pembroke Master Plan 2020

Zoning

Legend

Aquifer Conservation Overlay District

Floodplain Development Overlay District

Shoreland Protection Overlay District

Architectural Design Overlay District

Suncook Business Overlay District

Rural/Agricultural-Residential

Medium Density Residential

Business/Residential District

Central Business District

Commercial/Light Industrial

Limited Office District

Suncook Business District

Base Legend

Town Boundary

Roads

Class I and II State Highways

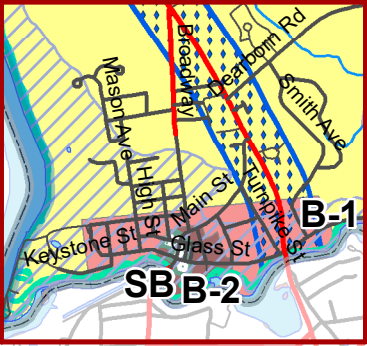
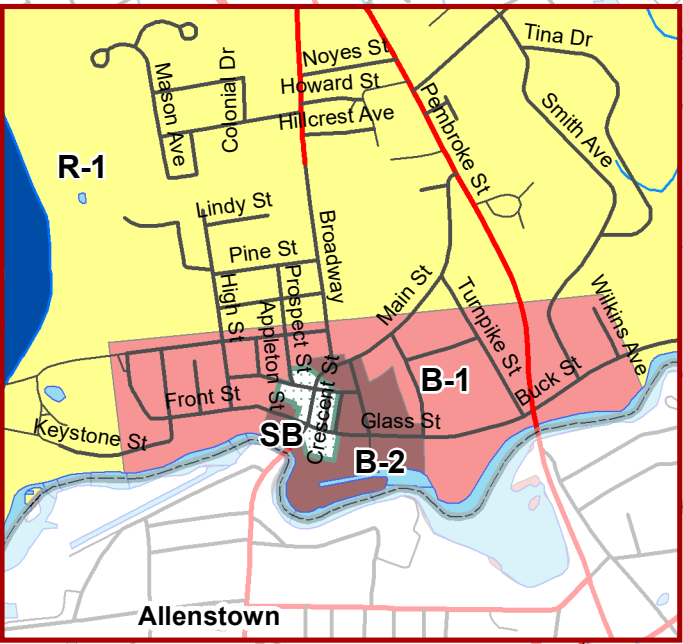
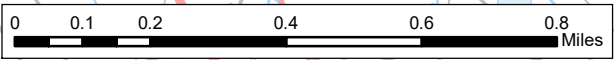
Class V Town Maintained Roads

Class VI Unmaintained Roads

Other Roads/Private

Waterbodies

Rivers and Streams

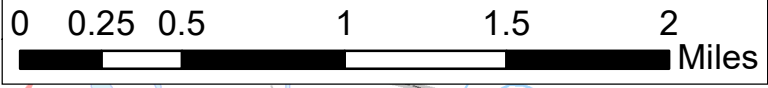


Data Sources for the Pembroke Master Plan Map series includes:

Digital Tax Maps by CAI Technologies, NH Department of Environmental Services, Federal Emergency Management Agency, NH Department of Transportation, US Geological Survey, Town of Pembroke, NH GRANIT, and CNHRPC.

Disclaimer:

This map is intended for use with the Pembroke Master Plan. The information presented is to be used for planning purposes and may not fully represent actual geographic conditions. Inaccuracies should be directed to the Town of Pembroke or to CNHRPC.



7 TRANSPORTATION



TOPICS INCLUDE:

A Review of Pembroke's
Transportation System

Summary of Transportation
Challenges and
Recommendations

Transportation Data and
Trends

This chapter focuses on the transportation system in Pembroke and how it serves the community. A safe and efficient transportation network is an essential component for the development of a well-functioning and accessible community. Although the transportation infrastructure in Pembroke is composed primarily of public roadways and sidewalks, a complete transportation system serves cars and trucks, walking, bicycling, and public transportation. Land use and transportation are inextricably linked. Informed and thoughtful transportation planning is an essential part of guiding development in order to preserve valued community character while achieving and enhancing a broad range of goals.

Pembroke is...

a community that encourages the maintenance and improvement of a multi-modal transportation system for all residents that operates safely, effectively, and cost-efficiently, preserves the rural historic character of the Town, and complements a wide range of community objectives.

WHAT THE COMMUNITY SAID...

Public responses from Pembroke's outreach process (community survey and visioning session) consistently pointed to the desire of town residents to maintain Pembroke's rural character and sense of community. The highest rated feature in the community survey was the town's "Small Town/Rural Atmosphere" with 76% of respondents rating this feature as important and 19% rating this feature as somewhat important. At the same time, residents recognized the need to maintain and promote an efficient and safe transportation system that serves the needs of all residents.

In the survey, the highest ranked feature in "Importance to Provide, Expand, Improve, or Invest" was in "Road Maintenance Services" with 96% of respondents finding this feature to be either important (69%) or somewhat important (27%). Road Maintenance Services include the maintenance of surface conditions, storm drainage, snow removal, and the ability of the roads to serve the traffic volumes and the travel speeds observed.

Another highly rated feature was the Beautification of Public Spaces with 50% of the respondents deeming this to be important and 37% finding it somewhat important. The Route 3 Corridor (Pembroke Street) and Broadway/Main Street are transportation arteries where beautification efforts could improve the image of Pembroke to residents, commuters, and visitors alike.

A unifying theme that emerged following conversations with residents and town officials was the concept that transportation issues must be viewed within the lens of broader community objectives. Each of the transportation challenges and opportunities identified here can be closely tied to a range of issues discussed in any chapter of this plan.

CHALLENGES AND OPPORTUNITIES

Numerous issues and areas of concern have been identified from the data and analysis collected for this Master Plan. Of equal importance are the issues and concerns raised by residents during the public outreach process through the survey and visioning session.

ROUTE 3 – PEMBROKE STREET CORRIDOR

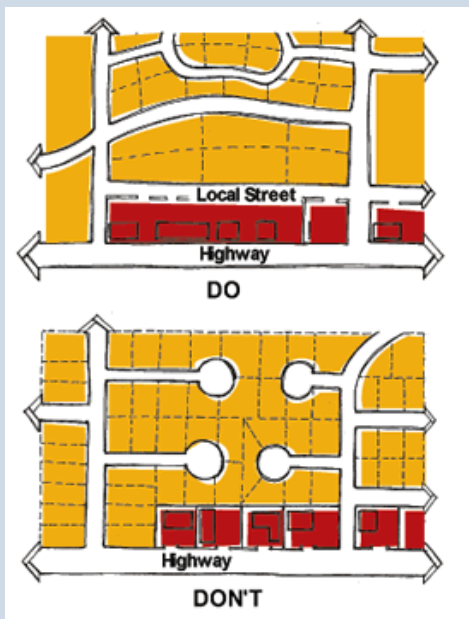
The Route 3 – Pembroke Street Corridor was universally seen as both a concern and an opportunity by participants at the visioning session. This corridor is of utmost importance to the town not only as a

transportation corridor, but as part of the fabric of the community. It hosts schools, town government, the library, businesses, and residences. This corridor plays a large role in defining the character of Pembroke.

Of particular concern was safety and crashes, congestion at major intersections, access from side streets and driveways, and the “unfriendly” nature of the corridor to both bicycle and pedestrian travel. Opportunities may include streetscape enhancements, beautification, and placemaking additions. Discussion during the visioning session indicated a need for further consideration and evaluation of options and alternatives.

There is also significant residential growth underway along the corridor with additional future growth anticipated. Concerns raised at the public hearings for recent large residential projects included safety, the difficulty of accessing Route 3 during morning and evening peak hours, and concerns about the safety of bicyclists and pedestrians, especially children, given the proximity of these developments to schools on the opposite side of Route 3. Traffic studies from these projects have indicated capacity problems at the signalized intersections of Academy Road and Route 3 and at Broadway and Route 3, and at the un-signalized intersection of Whittemore Road and Route 3 by 2030.

NEIGHBORHOOD CONNECTIVITY



Source: Minnesota DOT

Interconnected road networks are preferable to fragmented ones because they offer redundant route options. Redundancy provides alternatives when there are road closures for construction or emergencies, can help reduce unnecessary trips onto major roadways and intersections, and can also foster better neighborhood connectivity especially for pedestrians and bicycles. Excessive cut-through traffic is certainly a concern that should be discouraged and addressed as appropriate, however local connections between developments can better serve the community as a whole. Such connections should be encouraged, and the town’s regulations should have provisions for such connections.

The large number of crashes along the corridor, but the relatively low numbers at major intersections, point out problems with access to the highway from abutting land uses and minor streets. Crash data from 2012-2016 is included later in this chapter. Access management is a process that acts to limit the number of curb cuts or driveways along an arterial roadway like Route 3 that can drastically improve safety by reducing the number of conflict points and directing traffic to intersections designed to safely

allow vehicles to enter and exit the street. Access management must be part of any set of solutions for managing traffic and improving safety on this corridor.

In light of the importance of this corridor to Pembroke and its potential impact on a range of issues, it is recommended the town undertake a corridor study along Route 3 between Route 106 and Main Street. Traffic and safety concerns, bicycle and pedestrian safety and access, residential development, access management, and beautification or placemaking are all concerns and opportunities to be addressed. This corridor study should take a “Complete Streets” perspective, reviewing issues beyond simply motor vehicle traffic, including how the corridor fits within the community and how to serve all users of the roadway. With involvement from the Regional Planning Commission, NHDOT, and public input, the study can help Pembroke envision and plan the future of the corridor.

ROUTE 3 PEMBROKE STREET CORRIDOR STUDY

The Route 3 - Pembroke Street corridor is of utmost importance to the town, and its potential future is relevant to every chapter in this master plan. A “Complete Streets” corridor study could take a holistic view of the corridor to sharpen the community’s vision for Route 3-Pembroke Street, focus on current and future challenges, and evaluate engineering and policy/regulatory solutions.

- **Sharpen the Vision:** What is the desired community character? What architecture and land uses are appropriate? Are there placemaking or beautification opportunities?
- **Technical Analysis:** What is the current traffic situation (traffic volumes, AM and PM peak traffic, turn movements, bicycle and pedestrian counts, crash history and analysis)?
- **Growth and Traffic Projections:** Will there be more traffic in the future and how might the corridor handle it?
- **Design and Engineering Alternatives:** What combination of design elements can best help meet transportation needs and broader community goals?
- **Implementation:** How can a project get funded and what other policy or regulatory changes should be made?

A future corridor study would take an in-depth look at the roadway and build on findings in this master plan. Instead of focusing solely on the needs of moving automobiles, the plan must consider all users of the public way and broader community goals.

MERRIMACK RIVER RAIL TRAIL

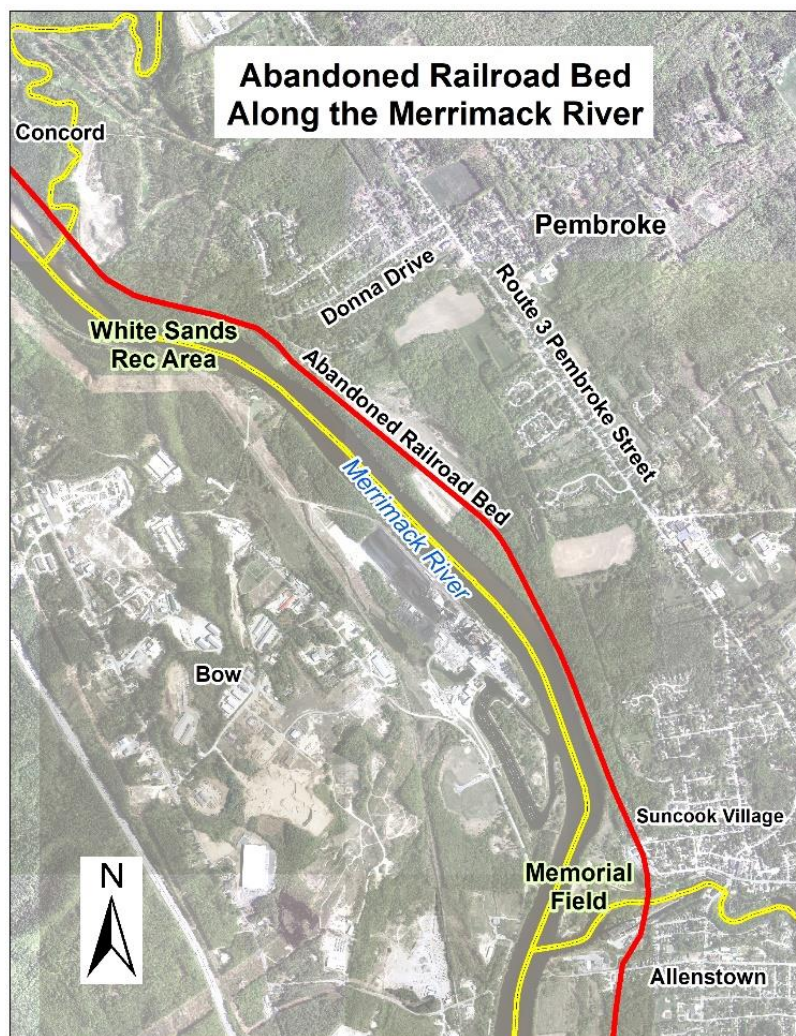
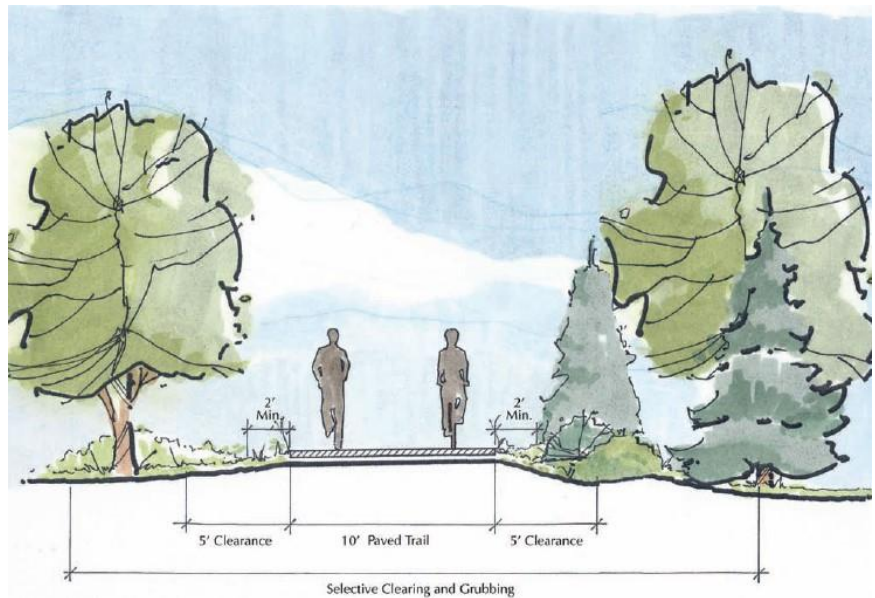
Pembroke has an opportunity for a rail trail along the abandoned railroad bed that once connected Suncook Village to Concord and Manchester. A rail trail was a topic of strong interest during the visioning session and community outreach. The potential route parallels the Merrimack River and Pembroke Street from the Suncook River, Suncook Village and Memorial Field north to the White Sands Recreation area and the Soucook River at the Concord line. In between are scenic fields and woodlands

with an access point at Bow Lane. The trail can continue into Concord to the north and Allenstown to the south, where trail users could be directed to visit local businesses in Suncook Village.

Rail Trails have become increasingly popular over the last decade or so as they provide an accessible surface for non-motorized transportation and recreation. They are increasingly seen as an economic development opportunity, making towns more desirable places to live and work as well as drawing in visitors. Trails in New Hampshire include the popular Windham and Derry Rail Trails, the 58-mile Northern Rail Trail, and the 1.5-mile Head's Pond Rail Trail in nearby Hooksett.

The Pembroke Rail Trail could be an important community facility and could also become a component of a larger network of connected multi-use trails spanning much of the state. Pembroke's rail trail is along the proposed Granite State Rail Trail, a 115-mile long trail from Salem to Lebanon, plus additional connecting trails. The Granite State Rail Trail is largely completed north of Concord, as is much of the route between Manchester and Salem.

Portions of the former railroad bed that would comprise the



Pembroke Rail Trail are publicly owned while significant portions are privately owned. It is important for the community to respect private property rights and concerns of property owners, and it is unlikely this project can be successful without their support. A community effort to communicate with landowners, address their concerns, earn trust, and find mutually beneficial arrangements is critical to this effort. It is recommended that permanent easements be obtained before any significant investments are made. Eversource must also be engaged in the project as the utility owns property and utility easements

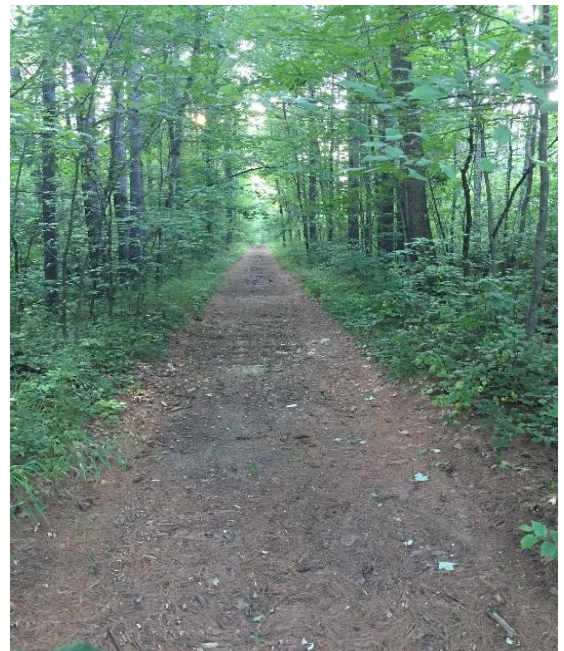
along or across much of the rail trail corridor along the Merrimack River. There appears to be broad public support for the primary use of the trail to be walking, bicycling, and other non-motorized use. This was evident through Master Plan committee meetings as well as during outreach and community conversations regarding the rail trail prior to the Master Plan. There appears to be relatively little support for wintertime snowmobile use on the corridor; however, additional community discussions and potential strategic partnerships should be considered before making a determination. Outreach has indicated little to no support for ATV or OHRV use on the corridor due to various neighborhood and environmental concerns and their impact on trail surfaces. While a paved trail may be the best return on investment and attract a wider range and volume of trail users, the community may also opt for a more natural feel and the lower initial costs of an unpaved trail with a graded, smooth surface. Paved trails can be found at the Windham and Derry Rail Trails, whereas the Hooksett Head's Pond Rail Trail is an example of a smooth hard-packed surface.

Most successful rail trail projects are built using public-private partnerships, where a non-profit organization helps raise matching money and facilitates community efforts. Such an approach appears suitable for Pembroke. In some cases, the non-profit trail organization holds the trail easements.

Funding for the trail would likely come primarily from federal grants such as the Recreational Trails Program (RTP) administered by the NH Bureau of Trails or Transportation Alternatives Program (TAP) administered by NHDOT. Both require a 20% local match contribution. Matching money is often some combination of private fundraising by a local trail non-profit group, private grants, and municipal funds. In-kind contributions can sometimes contribute towards a grant match.



DERRY RAIL TRAIL, DERRY NH



PORTION OF ABANDONED RAILROAD BED IN PEMBROKE

Successful rail trail projects have been able to leverage private contributions from the community, such as donated materials and labor, and in some cases, the outright construction of the trail. Efforts should be made to foster relationships with the business community, developers, and others in Pembroke.

3RD AND 4TH RANGE ROADS

Pembroke has a single main throughway, Route 3 Pembroke Street, passing north and south through the southwestern section of the community between Concord and Allenstown. Between NH 106 Sheep Davis Road and Academy Road, a distance of just over 2.6 miles, there is no alternative north-south route in the community. The potential for extensions to either the Class VI town-unmaintained 3rd Range Road or 4th Range Road to mitigate this issue has been a point of contention in the community for many years. It is possible, if not likely, that these sections of 3rd Range Road and 4th Range Road could at some point be upgraded to Class V town-maintained as part of a private subdivision development.

4th Range Road has the greatest potential for providing alternative access in case of emergencies along the Route 3 Corridor and importantly provides connections to Pembroke Academy and both elementary schools. The completion of an approximately 0.75-mile section of 4th Range Road from Pembroke Hill Road southerly to Church Road would allow residents on the east side of Route 3 to travel through the community without having to utilize Route 3 from Borough Road to Buck Street.

In the community survey, just over 35% of the respondents were in favor of the town upgrading both the 3rd and 4th Range Road to a town road to help alleviate traffic on Pembroke Street (Route 3), while just over 30% indicated that these range roads should not be upgraded. There is no clear consensus in the community on the desirability of improving these roadways; however, there is a consensus that improvements should not be undertaken with town funding.

Of concern to many of the residents along 4th Range Road and other connecting roads would be the anticipated increase in traffic, which would result in a disruption to the quiet, rural lifestyle and a concurrent concern with safety of pedestrians, bicyclists and equestrians which routinely use this narrow rural roadway. The community is also concerned that construction of this road would generate additional rural residential development which would create additional traffic, adversely impact the natural ecosystem and rural environment and create fiscal (tax) impacts from the need to provide additional services.

Improvements to the 3rd Range Road would not provide the same community benefits as improving the 4th Range Road. Extending 3rd Range Road northerly from Church Road to its current terminus southerly of Belanger Street would provide a second access to the Pembroke Hill Elementary School. Currently, all points of access to this school lead to Pembroke Hill Road. The relatively short length of 3rd Range Road would limit the potential for cut-through traffic but would allow for alternative routing of emergency vehicles and travel options for residents of this area.

With the abundance of undeveloped land on 4th Range Road and the rising demand for housing in New Hampshire, it is likely that 4th Range Road could see upgrades as a result of private development. If 4th Range Road were to be completed through to Church Road, it would provide an alternate north-south route to Pembroke Street. Site plan and subdivision regulations, as well as town road standards would shape any outcomes of private development and investment in this area. In anticipation of future development, the town should consider a plan for the extension of 4th Range Road and ensure that

proper tools are in place for the Planning Board to manage appropriate development. Similarly, the Zoning Ordinance is a planning tool that can help guide future uses on range roads.

The plan should describe who would be responsible for constructing the road, how it might occur in phases, and the standards for the new road segments. It would also need to address how rural character could be preserved including the protection and/or relocation of stone walls and the protection or replanting of trees along the roadway. Further considerations would include any other improvements that should be made to existing portions of 4th Range Road, Pembroke Hill Road, Church Road or Dudley Hill Road, as well as any traffic calming measures which might be utilized to control speeds and discourage cut-through traffic. A similar approach should be considered regarding 3rd Range Road from Pembroke Hill Road to Church Road.

CLASS VI ROADS

Class VI roads are roads that are not maintained by the town, may be subject to gates and bars, and normally consist of a gravel or dirt surface. Pembroke's Class VI roads, most of which are range roads, are valued recreational and historic assets. Among concerns regarding Class VI roads are excessive or improper use by recreational vehicles that impact the condition of the roadways and their ability to support other activities such as recreation, logging, or accessing property. There are also concerns and opportunities for upgrading Class VI roads to Class V town-maintained roadways. Upgrades or residential development along many Class VI roadways may be considered the permanent loss of a recreational resource, open space and town character. Upgrades may be desirable however on parts of 3rd Range and 4th Range roads for their potential to enhance roadway connectivity and provide an alternative transportation route to Route 3, particularly in the event of an emergency.

The purpose of RSA 674:41, I(c), development on a Class VI roadway, is to prevent scattered and premature development. It seems that town residents are in agreement with this statute, as a strong view was represented during the community survey and visioning sessions that future development should be limited in remote areas of Town and on Class VI roads.

Pursuant to section 143-103 Lot of Record of the Town of Pembroke Code, any non-conforming lot may be built upon if a number of conditions are met, one being that the lot must have frontage on a Class V, or better road. However, Under RSA 674:41 the board of selectmen has the discretion to authorize the issuance of building permits for lots on Class VI roads after review and comment by the planning board. The planning board has developed a uniform decision making process when it is presented with such a request from the board of selectmen. It is intended that the planning board will consider any factor it deems relevant to the review of a building permit application request.

In the community survey, just under 76% of respondents found it important or somewhat important to preserve the town's existing Class VI rural roadways, and just over 45% did not support the upgrading of Class VI roads to allow buildable lots while approximately 36% were in favor of creating more buildable lots along these roadways if they were upgraded.

One option for Class VI roads is to consider their designation as Class A Trails, also discussed in the Natural Resources chapter. These roads have little or no development associated with them, are scenic, have no inherent liability concerns, public access is already allowed, and also serve to connect large

areas of open space, conservation, and/or agricultural lands. The town can regulate whether or not these Class A Trails are open to Off Highway Recreational Vehicles (OHRVs).

5th Range Road, 6th Range Road and Cross Country Road are examples of Class VI roads which might benefit from Class A Trail Designation. A “Class A Trail Committee” could be established to help determine and report on whether any Class VI roads in town could benefit from the designation. The committee would be best served to have representation from the planning board, conservation commission, board of selectmen, and other interested members of the community.

Class VI road classifications are not a growth management tool, and do not preclude the need for sound land use management practices. The town’s tools for shaping the future of Class VI roads and adjacent lands exist primarily through the planning board with site plan review/subdivision regulations, zoning, and town road standards. Land conservation efforts through easements or fee simple ownership along Class VI roadways would be a sound way to maintain open space and the natural state of Class VI roads where desired.

ALL TERRAIN VEHICLES AND OFF-HIGHWAY RECREATIONAL VEHICLES

Many communities in New Hampshire have been wrestling with decisions regarding use and regulation of All Terrain Vehicles (ATVs) and Off Highway Recreational Vehicles (OHRVs). The challenge has been in finding an appropriate balance between allowing unmitigated ATV/OHRV access to trails, class VI roads, and in some cases maintained roadways, against the concerns of other trail users, residents and property owners, and impacts to the natural environment. Communities will be best served to educate themselves on the rules and regulations for ATV/OHRV use, enforcement options, and experiences in other communities. They must consider both positive and negative impacts.

ATV/OHRV users for their part have had more successes in communities where their interests are served by organized ATV/OHRV groups and committees who can assist with self-policing, signage, education, trail maintenance, and community relations. These groups can coordinate with others to collectively solve problems and concerns as they arise.

In Pembroke there have been concerns raised over illicit or improper ATV/OHRV activity and concerns over the various impacts of a perceived overuse, including erosion, noise, dust, and impacts to wildlife. Severe erosion of the historic Range Roads and class VI roads are of particular concern. Meanwhile, ATV/OHRV users are working to organize and earn the privilege of riding on Pembroke’s class VI roadways and private lands with permission.

Any practices and policies enacted by the town should seek out an appropriate amount and type of recreational use, consider access for landowners, respect environmental concerns, and address quality of life issues. A trails committee with a broad representation of interests may be an appropriate avenue for addressing these issues and presenting options to community leaders.

PUBLIC TRANSIT OPTIONS

As noted in the community survey and visioning session, a high number of residents stressed the need for more public transportation options in Pembroke. Of these, the vast majority requested service to and from Concord and Manchester. Increase in demand for public transit has been established as a defined need for aging populations throughout the United States.

Pembroke does not currently have regular transit service. The community is served by the Belknap-Merrimack County Community Action Program's Senior Bus, the Mid-State Regional Coordinating Council (Mid-State RCC) Volunteer Driver Program which is limited to serving the disabled and elderly, and other social service agencies that provide rides to their clients in Pembroke. These services are essential to meeting basic transportation needs of certain Pembroke residents. Private taxis and ride sourcing companies such as Uber are available on a fee basis. The Mid-State RCC maintains a Regional Resource Directory which is available on the CNHRPC website and at town libraries and other locations throughout the region.

The existing Concord Area Transit (CAT) nearest fixed route is several miles from any transit dependent population in Pembroke. This service does not have the number of routes, service hours and head times needed to effectively serve non-transit dependent populations. The Manchester Transit Authority (MTA) provides service six times per day (Monday thru Saturday) from Concord to Manchester via I-93, bypassing Pembroke. Regional and interstate bus service is provided from the Concord Transit Center by Concord Coach Lines and Dartmouth Coach.

To address the sated need for public transportation, the town should work with CAT, MTA, and the CNHRPC to study the potential for future extensions of CAT service and any potential connections to the MTA system.

TRAFFIC DEMAND MANAGEMENT/CARPOOLING

CommuteSmart New Hampshire (CSNH) is a partnership between the state's nine regional planning commissions and specific transit agencies (partners), working in collaboration with other transit providers, state agencies, municipalities, businesses, and public health organizations. Pembroke residents and employers can utilize the CSNH Rideshare Portal to find carpool matches. Participants who are registered within the Rideshare Portal are also able to participate in the program's Emergency Ride Home so that they never have to worry about getting stuck somewhere without a ride. CSNH is dedicated to encouraging and assisting people to choose sustainable transportation options in place of driving single occupancy vehicles. Effective Transportation Demand Management programs such as CSNH can help reduce demands on transportation infrastructure and parking, reduce congestion, reduce emissions, and increase access to transportation for certain individuals. Park and Ride lots can help facilitate carpooling and future transit service. Such a facility may be appropriate for the area of Route 28 and Route 3 to serve residents of Pembroke and Allenstown.

SUNCOOK VILLAGE PARKING

The availability of parking in Suncook Village has been identified as a key issue. An analysis of parking utilization was undertaken by the Central New Hampshire Regional Planning Commission in Summer/Fall 2018, including the use of both on-street and municipal lot spaces. A total of 127 spaces were identified

within the Suncook Village area, with 59 on-street spaces and the remainder in off-street lots. The analysis noted that overall use ranged from 35% to 55% at any given time during the day. These results indicate that parking capacity appears to be sufficient, but an evaluation of parking policies and practices may lead to improvements and improved satisfaction for Suncook Village visitors, employees, and residents. Maintenance and layout of parking, hours of enforcement, signage, and various parking management strategies can be evaluated. Even though a majority of survey respondents stated that they have not experienced parking difficulties in Suncook Village, a master parking plan for the Village could address current issues and support its further redevelopment.

FUNDING FOR ROAD MAINTENANCE AND IMPROVEMENTS

During the visioning session, concern was raised about the level of maintenance on town-maintained roads. This issue is not unique to Pembroke. Revenue for town roads comes from the State Highway Aid (state gas tax), automobile registration fees, and local property taxes. The local communities are responsible for the majority of all road miles in the state but are restricted by NH law from specifically taxing for this purpose. The recent history of State Highway Aid to Pembroke and town highway budgetary expenditures are included later in the chapter.

Pembroke has also worked with CNHRPC to implement a Road Surface Management System (RSMS) to help prioritize road improvements and develop a transparent system for short, medium and long term improvements. RSMS is a methodology intended to provide an overview and estimate of a road system's condition and the approximate costs for future improvements. RSMS provides a systematic approach for local officials to answer basic questions about their road system, to gauge current network conditions and to guide future improvement and investment in line with the Capital Improvements Program.

Larger projects would be programmed for and eventually funded through the NHDOT 10 Year Plan. This plan is updated every two years, and consists of projects submitted by the Central New Hampshire Regional Planning Commission's Transportation Improvement Plan (TIP). The path to adding a transportation project into the 10 Year Plan involves Pembroke's membership and participation on the CNHRPC's Transportation Advisory Committee (TAC), which produces the TIP. Due to limitations in funding, successful projects require building a strong case and continued support over many years.

NORTH PEMBROKE ROAD BRIDGE

The North Pembroke Road Bridge over the Soucook River is identified as being "Functionally Obsolete" in the New Hampshire State Municipal Bridge Inventory. This bridge was not designed to handle the amount of heavy truck traffic which now utilizes this bridge to access NH 106 in Concord. The North



SUNCOOK VILLAGE SIDEWALK AND PARKING

Pembroke Bridge is the joint responsibility of Pembroke and the City of Concord. Improvements to this bridge were under design in 2018 by the City of Concord with funding provided by the State of New Hampshire Bridge Aid Program, the City of Concord, and the Town of Pembroke. Construction activity is expected to commence in 2020.

BEAUTIFICATION OF ROADWAY CORRIDORS AND PUBLIC SPACES

Nearly 86% of the survey respondents found it desirable to invest in “Public Green Spaces & Parks” with 50% of the respondents deeming to be important and 37% finding it somewhat important. The opportunity exists to establish landscape nodes along Route 3 at the intersections of Route 3 at NH 106, Whittemore Road, Bow Lane/Pembroke Hill Road, Academy Road, Broadway, and along the hillside just north of the Suncook River. Constructing landscape nodes at these locations containing signage that promotes the community could improve the image of the town to both visitors and residents alike and help create a sense of place that distinguishes it from corridors in other communities. The protection and maintenance of existing street trees in the corridor, along with the planning board’s requirements for landscaping for new developments, will maintain and enhance the appearance in this corridor. For residents of the region, their perception of Pembroke is often based on their experience of travelling this corridor. Beautification of the Main Street, Broadway, and Glass Street corridors in Suncook Village could also enhance the experience in the Village. These beautification efforts can be complementary to or incorporated into traffic calming measures enacted along the corridors. These issues could be discussed in a corridor study for Route 3 - Pembroke Street as described earlier in this chapter.

SCENIC ROADS

A major component of a town’s rural character can be its unpaved and scenic roads. These roads help to retain a sense of history and rural quality that Pembroke’s residents have indicated a strong desire to maintain. RSA 231:157 allows towns by town meeting vote to designate any road other than a Class I or II highway as a Scenic Road. A municipality may rescind its designation of a scenic road using the same procedure. Additional regulations could include giving protection to smaller trees or by inserting criteria for the planning board to use in deciding whether to grant permission. RSA 231:157 is an important piece of legislation for the preservation of culturally important and scenic roads in Pembroke. Its residents cherish the historic and aesthetic qualities of the town. Pembroke should therefore consider identifying and cataloguing roads with scenic vistas and aesthetic qualities to protect and preserve the intrinsic qualities of the town.

TRAFFIC CALMING

Traffic calming involves roadway design or other physical solutions to reduce traffic speeds with a goal of making streets safer and more accessible to motorists, bicyclists, and pedestrians. Traffic calming can be introduced in tandem with beautification efforts, and be part of a strategy to maintain rural and Suncook Village character. Physical controls such as curves, bumps, or barriers, and passive controls such as signage and streetscape elements can all send cues to drivers to slow down. They can also be a tool to help mitigate effects of traffic from new development, or to reduce cut-through traffic on residential streets. As described elsewhere in the chapter, traffic calming elements can be components of a “Complete Street” design, where streets are designed and operated for all uses of the roadway beyond supporting automobile traffic. Traffic calming measures can be part of an overall strategy for maintaining Pembroke’s character by keeping it from appearing overly highway oriented.

Lowering speeds is a well-established method of improving safety and comfort on a roadway. However, if a roadway is conducive to higher than posted speed limits, voluntary compliance with the posted speed is unlikely. Police enforcement of speed limits can only be intermittent and is most effective if it can be targeted towards times and locations where excessive speeding has been observed. An example of some effective and applicable traffic calming techniques include:

Speed Humps, Speed Tables, and Raised Crosswalks: These techniques involve raising the height of the pavement in a more subtle fashion than with a speed bump, allowing vehicles to pass over them at the intended speed of the road, but preventing excessive speeds and alerting drivers to the existence of non-motorized users. A raised crosswalk makes the crosswalk and pedestrians more readily visible to drivers.

Chicanes, Medians, Refuge Islands, and Bump Outs: These devices effectively narrow road width and slow down traffic by placing a physical impediment either in the middle of the road (median) or on the side of the road (chicanes and bump outs). These traffic-calming devices lend themselves to landscaping and improve the visual experience for all users of the road, as well as reducing speeds. Both techniques can provide additional safety for crossing pedestrians. Medians may serve as a refuge by allowing pedestrians to cross one lane of travel at a time, while bump outs provided at crosswalks reduce the overall distance from one side of the road to another and slow down traffic at those crossings.



REFUGE ISLAND ON ROUTE 3 IN PENACOOK

Narrow Lane Widths: A number of Pembroke's residential streets have been constructed to such a width that encourages speeding far above posted 25 or 30 mph speed limits. In addition, it can be costly to physically narrow the roadway or install various physical traffic calming measures. A low-cost way of reducing speeds is to narrow the roadway lane through the use of edge lines and centerlines to create 9 to 10-foot-wide lanes. Narrow lanes force drivers to operate their vehicles laterally closer to each other than they would normally be accustomed to. Slower speeds are a natural result. Narrow lane widths have the added benefit of creating a shoulder for walking and bicycling.

Roundabouts: Increasingly more common in New Hampshire, roundabouts require traffic to slow down to speeds under 25mph in order to negotiate a center island that can be landscaped. Such speeds allow pedestrians to safely cross around the perimeter of the roundabout and cyclists to safely become a part of the circulating traffic. Data suggests roundabouts vastly improve safety over traditional intersections by reducing the frequency and severity of crashes.

The potential for implementing traffic calming measures along the Route 3 - Pembroke Street roadway should be considered with the Route 3 corridor study discussed earlier in the chapter. These measures should also be taken in concert with beautification and bicycle and pedestrian improvement efforts. As with any new infrastructure, consideration must be given towards maintenance and snow removal. Traffic calming measures could be included in site plan review/subdivision regulations and the town's road construction standards.

BICYCLE AND PEDESTRIAN INFRASTRUCTURE

Residents of Pembroke value the rural and historic character of the town. In certain locations, the volume of traffic and associated speeds can be detrimental to this sense of place that was evident in the community survey. Pedestrian facilities, such as paved sidewalks, crosswalks, and gravel walking paths, are essential features for roadways with high volumes of traffic or high speeds. The primary purpose of sidewalks is to improve safety and access for pedestrians by separating them from the travel lanes of roadways. Sidewalks can also serve as a source of recreation for residents, a non-motorized mode of travel, and can beautify an area or stimulate economic activity in rural and village settings.

Bicyclists have different needs from those of motorists, including wider shoulders, better traffic control at intersections, and stricter access management.

There is a continuous sidewalk on the east side of Pembroke St from Beacon Hill Road south to the Allenstown line, with almost no sidewalk on the west side of the street. The lack of sidewalk on the west side of the street is particularly problematic when combined with long distances between crosswalks. In fact, along the nearly four miles of sidewalk on the east side of Pembroke Street, there are only two marked crosswalks; one at Pembroke Hill Road/Bow Street and the other at Broadway. This sharply limits safe pedestrian access to businesses, homes, and neighborhoods on the west side of the street.

While there is good sidewalk connectivity in Suncook Village, there are other issues and opportunities related to pedestrian access and safety including street crossings, Americans with Disabilities Act (ADA) accessibility, sidewalk condition, and separation between the sidewalk and roadway. Sidewalks are desired to the Three Rivers Elementary School from Academy Road and from Pembroke Street. Public outreach results from the survey and visioning session also desired improved pedestrian access to Memorial Field.



BICYCLE EDUCATION AT PEMBROKE SCHOOLS



ROUTE 3 PEMBROKE STREET SIDEWALK AND SHOULDER

The Complete Streets approach to roadway design and operation can help improve conditions for bicycling and walking, as can the implementation of traffic calming measures. The rail trail discussed in this plan could also introduce a new facility for walking and bicycling, enhance access to Memorial Field, and offer a parallel route to Pembroke Street. A sidewalk plan could help the community determine the most pressing needs for sidewalks and bicycle and pedestrian infrastructure.

ROUTE 106 TO I-93/I-89 CONNECTION

The Town of Pembroke and the City of Concord officially requested the extension of NH 106 easterly over the Soucook River through the Garvins Falls Area of Concord, across the Merrimack River, to US 3A/I-93/I-89 interchange as part of the environmental impact process for the I-93 Bow-Concord Project. The New Hampshire Department of Transportation in 2015 did not include this connection in their preferred alternative. Both communities are still on record for supporting this project due to the limited capacity of Route 3 - Manchester Street in Concord and the I-93 Exit 13 Interchange. This connection would give residents and businesses in Pembroke a more direct connection to points north and south on I-93 and west on I-89. The recently completed fourth leg of the Routes 3/106 intersection (Kline's Way) completes a portion of this extension. Due to the grades on both sides, and the narrow width of the Soucook River, a crossing at this location could be accomplished with limited or no wetland impacts except for a bridge support in the Merrimack River. Of the 950+ acres in the Garvins Falls area in Concord, 400 acres are deemed suitable for development. Recommended for protection are the bluffs, wetlands, and riverine areas along both the Soucook and Merrimack Rivers.

CHAPTER OBJECTIVES & RECOMMENDATIONS

OBJECTIVE 1 Maintain the existing transportation infrastructure in an efficient and cost-effective manner, and make improvements and upgrades as safety and economics warrant.	<ul style="list-style-type: none"> → Utilize Road Surface Management Software (RSMS) to help ensure road surfaces are properly maintained using objective data. → Study options for upgrading the Class VI sections of 3rd or 4th Range Roads in order to improve connectivity and provide an alternative route to Pembroke Street. → Participate in the Central New Hampshire Regional Planning Commission Transportation Improvement Plan process in order to advance transportation infrastructure projects into the NH Department of Transportation Ten Year Plan. → The planning board and selectmen should annually review the NHDOT bridge inspection reports for state and town-owned bridges to plan for future maintenance.
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<p>OBJECTIVE 2</p> <p>Enhance the transportation system to improve its performance, better serve all users (cars, pedestrians, bicycles, transit), and to complement other town goals such as economic development strategies, community character, and quality of life.</p>	<ul style="list-style-type: none"> → Conduct a Route 3 Pembroke Street Corridor Study as soon as reasonably feasible to develop a community vision for Pembroke Street using a “Complete Streets” approach as described on p. 7.4. Tie in findings with economic development initiatives. → Utilize traffic calming techniques such as striping narrower travel lanes, speed humps, raised crosswalks, or other treatments in order to promote traffic safety, reduce speeds, and enhance walking, bicycling, and neighborhood livability in targeted areas. → Coordinate with a community volunteer effort and initiate other public-private partnerships to implement a Pembroke Rail Trail along the abandoned railroad bed next to the Merrimack River. → Maintain and improve pedestrian and bicycle infrastructure, including sidewalks, crosswalks and crossings, bicycle shoulders and/or bicycle lanes, and other enhancements for non-motorized transportation. Coordinate improvements with economic development initiatives. → Continue to explore and promote where feasible an extension of the Concord Area Transit System (CAT) to Pembroke and support other regional transit initiatives such as a connection to Manchester Transit Authority (MTA) which would provide service to Pembroke residents. → Support and promote Volunteer Driver Programs in the region to provide rides to essential services for seniors and others who do not drive. Consider providing matching funds for the Mid-State Regional Coordinating Council Volunteer Driver Program.
<p>OBJECTIVE 3</p> <p>Update policies and practices regarding use and operation of transportation infrastructure to better meet a range of community goals.</p>	<ul style="list-style-type: none"> → Ensure transportation improvement projects are consistent with various community goals, including economic development and preserving community character. → Continue to evaluate capacity, needs, and usage of existing parking availability in Suncook Village and develop a plan for managing parking based on findings and best practices. → Evaluate the use and condition of Class VI roads and consider policies that maintain adequate access for landowners, allow for recreation opportunities, respect environmental concerns, and address quality of life issues that may arise from unmitigated ATV/OHRV use. → Apply access management techniques along major corridors, including Route 3 Pembroke Street and Route 106 to improve connectivity, promote safety, improve aesthetics, and maintain community character. → Evaluate the transportation impact of new development that requires site plan or subdivision review, evaluate and address safety and neighborhood concerns, and provide neighborhood connections to improve connectivity when possible.

DATA: EXISTING TRANSPORTATION NETWORK

A key component in planning for future transportation improvements in a community is to carry out a complete inventory of the existing transportation infrastructure serving the town. As previously mentioned, Pembroke's transportation network is primarily comprised of Routes 3, 28 and 106; however, there are a number of different types of roads in the town which are equally important to the overall transportation network.

NH HIGHWAY CLASSIFICATION

The State Aid classification system, which is identified by NH RSA 229:5 and 229:231, establishes responsibility for construction, reconstruction, and maintenance as well as eligibility for use of State Aid funds. This classification system also provides a basic hierarchy of roadways. This classification system is familiarly known as "legislative class". Of the seven possible state classifications, Pembroke's roads fall into five of these: Class I, Class II, Class V, Class VI and private roads.

Pembroke's road system is typical of most New Hampshire towns, in that the most mileage is accounted for by Class V roads. Table 7.1 displays the mileage of legislative class roads in Pembroke. These same locations are displayed on the **Roads by Legislative Class Map**.

Table 7.1: NH Highway Class of Pembroke Roads

Class I & II: Trunk Line Highways & State Aid Highways	13.1 miles	16.1%
I-393, Rtes 3, 28, 106 and Academy/Buck Street (part) and NH 9 within Pembroke.		
Class III: Recreational Roads	0.0 miles	0.0%
Not applicable to Pembroke.		
Class III-a: New Boating Access Highways	0.0 miles	0.0%
Not applicable to Pembroke.		
Class IV: Town and City Streets	0.0 miles	0.0%
Not applicable to Pembroke.		
Class V: Rural Highways	49.3 miles	60.7%
Examples in Pembroke: North Pembroke Road, Borough Road and Dearborn Road.		
Class VI: Unmaintained Highways	12.8 miles	15.9%
Examples in Pembroke: Fifth Range Road, Sixth Range Road and Kimball Road.		
Private Roads	5.9 miles	7.3%
Generally provide access within private developments.		

Source: NHDOT

State and Federal highways comprise 13.1 miles or 16.1% of all roadways in Pembroke. The town is responsible for 49.3 miles of Class V roads or 60.7% of the total roadway miles. An additional 5.9 miles or 7.3% of all roads in town are classified as private roads. Private roads in Pembroke primarily provide access within private developments.

Class VI Roads consist of all other existing public ways, including highways discontinued as open highways and made subject to gates and bars, and highways not maintained and repaired in suitable condition for travel thereon by the town for five (5) or more successive years. There are 12.9 miles (16%) of Class VI roads in Pembroke amounting to 15.9% of all roadways.

Except for parts of Broadway and Main Street in Suncook Village, the State of New Hampshire has assumed maintenance responsibility for the most heavily traveled roads in town. Consequently, close cooperation with the NH Department of Transportation, GACIT and the local legislation delegation is essential to insuring that the residents of the town can be adequately served by the highway network they are dependent on.

FUNCTIONAL CLASSIFICATION SYSTEM

The functional classification system identifies roads by the type of service provided and by the role of each highway within the state system based on standards developed by the US Department of Transportation. While the state aid classification system outlined above is the primary basis for determining jurisdiction, the following system is important for determining eligibility for federal funds.

In highway functional classification systems, local roads have the primary purpose of providing access to abutting land uses, while collector roads are intended to carry traffic from to and from local roads to Interstates and arterial highways. Limited to no access is desired from abutting land uses for both Interstates and arterial highways in order to preserve the capacity of these roads to carry high volumes of local and regional traffic. While the local roads make up the vast majority of lane miles in the United States, interstates, arterials and collector roadways carry the vast majority of all vehicle trips.

Table 7.2 presents the mileage of each functional class of road in Pembroke and describes their locations. The **Roads by Federal Functional Classification Map** shows their location. Interstate mileage at 1.7 miles is the smallest functional road class in Pembroke with 2.1% of total road miles, while arterial and collector roads account for another 17 miles (20.9%). As is typical of most communities, local roads are the most prevalent class amounting to 44.5 miles or 54.8% of all road miles within Pembroke. Non-public roads include both private roads and Class VI Roads which are not maintained for public access, totaling 18.0 miles or 22.2% of Pembroke's roadway mileage.

Of the publicly maintained roads, local roads account for 79% of the total road miles in town. Pembroke is responsible for the maintenance of all local roads and several collector roads including North Pembroke Road, Broadway/Main Street (part), and Glass Street/Buck Street (part).

Future development in Pembroke should take place at locations where the primary road function is appropriate for the type of development proposed. As part of its subdivision and site plan review regulations, the planning board should consider the functional classification of any road on which development is proposed to ensure that the type and size of any new development is appropriate for the location proposed.

Table 7.2: Federal Functional Class of Roads

Interstate	1.7 miles	2.1%
A short section of I-393 travels through the northern tip of Pembroke.		
Principal Arterial/Controlled Access	4.5 miles	5.5%
Route 3 is the principal arterial roadway serving Pembroke and is also part of the National Highway System (NHS).		
Minor Arterials	2.1 miles	2.6%
Part of Route 106 (Sheep Davis Road) and Route 28 (Pinewood Road) in Pembroke are minor arterials.		
Collectors	10.4 miles	12.8%
The southern section of Route 106 (Sheep Davis Road), North Pembroke Road, Academy Road/Buck Street (part), Broadway/Main Street (part), and Glass Street/Buck Street (part) are collector roads.		
Local Roads	44.5 miles	54.8%
Local roads primarily provide access to adjacent land uses.		
Non-Public Roads	18.0 miles	22.2%
Not part of the town's network but may be open to travel. Includes private roads and Class VI Roads.		

Source: NHDOT

BRIDGE NETWORK

Bridges are a key component of the highway system and can be the most expensive to construct and maintain for any highway system. Seven (7) bridges in Pembroke are listed on the NHDOT Municipal Bridge Inventory. Table 7.3 lists information about each of the bridges from the New Hampshire State and Municipal Bridge Inventory from 2017 and the **Bridges by Owner Map** shows the location of each of the bridges.

Functionally and/or structurally inadequate bridges can create transportation bottlenecks, which are often expensive and time consuming to remedy. Bridges listed as being either Structurally Deficient or Functionally Obsolete are not necessarily unsafe for use. Roads that are Functionally Obsolete may not meet current standards for such features as roadway width, clearance or other design features. A structurally deficient bridge may be perfectly adequate for light passenger vehicle use, but will likely have weight limits imposed which can result in diverted trips and significant delays for trucking operations, emergency vehicles, logging trucks, or construction vehicles which are prohibited from using a bridge due to these weight restrictions.

All of the bridges are either in good or fair condition, except the North Pembroke Road Bridge over the Soucook River and the Buck Street Bridge over Hartford Brook.

The replacement of the North Pembroke Road Bridge over the Soucook River is the joint responsibility of the Town of Pembroke and the City of Concord. Improvements to this bridge were under design in 2018 by the City of Concord with funding provided by the State of New Hampshire Bridge Aid Program, the City of Concord, and the Town of Pembroke. Construction activity is expected to commence in 2020.

The Buck Street Bridge over Hartford Brook, while not in listed in good condition, is lightly used, very small and the roadway has recently been repaved. This bridge may not need major improvements in the near future but its condition should be monitored on an annual basis.

Table 7.3: Pembroke's Bridge Inventory

State ID Number	Bridge	Location	FSR	Deficiency	Owner	ADT/ Year 20	Inspection Year
045/084	I-393 Westbound Ramp	Over NH 9	93.4	FO	NHDOT	8,200/14	Apr 2017
050/081	I-393, US 4, US202 West	Over Horse Corner Road	98.0	ND	NHDOT	7,500/13	Apr 2017
051/081	I-393, US 4, US202 East	Over Horse Corner Road	89.5	ND	NHDOT	7,500/13	Apr 2017
163/127	Old NH 28, Buck Street	Pettingill Brook	76.5	N/A	NHDOT	2,000/14	Apr 2017
182/106	Buck Street	Hartford Brook	73.9	N/A	Town	1,100/14	Oct 2017
203/088	Main Street	Suncook River	93.7	ND	NHDOT	4,300/14	Apr 2017
183/156	North Pembroke Road	Soucook River	47.5	FO	Concord/ Pembroke	4,300/13	Jul 2017

FO= Functionally Obsolete; SD=Structurally Deficient; ND=Not Deficient; N/A= Not Applicable;

ADT=Average Daily Traffic

Source: NHDOT

TRAFFIC CONDITIONS

Central New Hampshire Regional Planning Commission maintains an ongoing traffic count program for monitoring the region's transportation network. CNHRPC collects traffic count data for the NHDOT in accordance with federal guidelines under the Federal Highway Performance Monitoring System (HPMS).

Average Annual Daily Traffic (AADT) is a basic measure of traffic demand for a roadway and represents the volume of traffic travelling in both directions.

AADT volumes are shown for thirteen (13) locations in Pembroke on the **Traffic Counts Map**. At these locations AADT is shown for multiple years so that trends can be ascertained for the main highways in Pembroke. The AADT volumes are prepared by NH DOT using traffic counts taken by the CNHRPC. Traffic count data is available on the CNHRPC website for each of the communities within the region. Traffic counts taken within Pembroke, and throughout NH, were generally lower between 2009 and 2015 than counts taken immediately prior to the commencement of the great recession in 2008. Since then counts have risen throughout the region and in Pembroke to near or slightly above pre-recession volumes.

Traffic volumes on the major roads in Pembroke are expected to grow at rates well below historical trends but may reach 1.0% per year in certain corridors. NHDOT in 2018 has been accepting background traffic growth rates of 0.5% to 1.0% per year for traffic studies submitted to District 5 for permitting purposes, recognizing that this may not be appropriate for all locations.

ROADWAY CONDITIONS

Pavement condition data from 2016 was obtained from the NHDOT's Pavement Management Section for state-maintained (Class I and II) roads and is displayed on the **Pavement Condition Map**. The pavement condition is rated based on its Ride Comfort Index (RCI), which is calculated directly from the average pavement roughness measured in the left and right wheel paths of roadways. Since 2016, some state maintained highways in Pembroke have been resurfaced. The data indicates many state maintained roadways in Pembroke may require some maintenance, including Broadway, Academy Road and Buck Street.

ROAD SURFACE MANAGEMENT SYSTEMS (RSMS)

The Road Surface Management System (RSMS) is a methodology intended to provide an overview and estimate of a road system's condition and the approximate costs for future improvements. RSMS provides a systematic approach for local officials to answer basic questions about their road system, to gauge current network conditions and to guide future improvement and investment in line with municipal Capital Improvement Programs. The RSMS program utilizes information on the condition, traffic, and importance of roads in a town to create a long term maintenance program.

The RSMS system to be used in Pembroke is based on the Road Condition Decline Curve, which illustrates that roads in good condition cost less to maintain than those in poor condition. Routine maintenance on roadways in generally good condition is often the most important strategy to consider. According to the American Association of State Highway and Transportation Officials (AASHTO), every \$1 spent to keep a road in good condition avoids \$6-14 needed later to rebuild the same road once it has deteriorated significantly. Investing too little on road repair increases these future liabilities.

On local, town-maintained roads, surface conditions vary by location. Naturally, there are issues to be addressed in the town's road network, particularly due to the increasing costs of maintenance. However, the town's public works department, board of selectmen and planning board are to be commended for taking an extremely proactive approach to local road maintenance.

In the community survey, 96 of all respondents indicated that Road Maintenance Services were either important or somewhat important. This was the highest rated service in the survey.

Pembroke has begun to implement Road Surface Management Systems (RSMS) to help prioritize road improvements and develop a transparent system for short, medium and long term improvements. An inventory of Pembroke town roads has been completed and analysis of road surface conditions has been prepared. A Road Surface Management plan is scheduled for review and consideration in 2019. Recommendations from this plan should be incorporated into the town's CIP and the annual public work's highway division budget.

PEMBROKE'S HIGHWAY BUDGET

Town-owned roads, sidewalks and drainage structures require regular maintenance. These projects are funded by the public works department's highway division operating budget, by annual State Highway Block Grant Aid allocation, and by warrant article for large rehabilitations.

The highway division of the public works department was provided with \$1.15m in 2018 to maintain the public roadway facilities. This amount was 12% of the town's entire budget. State Highway Block Annual grant aid in 2016 was approximately \$167,000 which constitutes 14.5% of the highway division's budget.

Table 7.4: Block Grant Aid

Year	Block Grant Aid
2018	\$ 166,638.48
2017	\$ 162,974.32
2016	\$ 158,956.59
2015	\$ 143,173.27
2014	\$ 142,321.65
2013	\$ 141,835.66
2012	\$ 166,211.58

Source: NHDOT

MOTOR VEHICLE CRASHES

Motor vehicle crash data from 2012-2016 was obtained from NHDOT, who receives the data from the Department of Safety for reported crashes with over \$1,000 in damage. The data represents roughly 80% of all crashes with over \$1,000 in damage that took place during this time period; the remaining 20% of crashes are not locatable based on the information contained in the crash reports. Crash data is included in the Appendix. Locatable crashes are shown on the **Crashes by Severity Map** and in summary tabular form for the most frequent locations in Tables 7.5.

Between 2012-2016, the highest proportion of crashes occurred along the most heavily traveled route in Pembroke, Route 3 - Pembroke Street. As such, it is important to work with NHDOT to improve safety along this route. The frequency of crashes at the Academy Road intersection is of particular concern because of the school and regular pedestrian activity. Any crashes reported in Pembroke are a cause for concern and should be monitored at regular intervals to determine locations where safety improvements are needed.

Table 7.5 lists the vehicle crash “hot spot” location and crash data for the most crash-prone locations between 2012-2016. Unsurprisingly, Route 3 sustained the highest number of crashes (164) between 2012-2016. Route 106 (45) and North Pembroke Road (41) had the second and third highest number of crashes, respectively. Route 28 (19) and Academy Road (20) round out where the highest number of crashes occur. The Pembroke intersections with the highest number of crashes are Route 3 at Academy Road (11) and Route 3 at Route 106 (8).

The highest crash intersections shown on the **Crashes by Severity Map** have very low crash rates based on the relatively high volumes found on Routes 3, 106, and 28. Low crash rates at these intersections in contrast to the significant number of crashes elsewhere along the corridor are evidence that minor driveways and curb cuts may be largely responsible for many of the crashes along these routes. It is extremely important that any corridor study and any future improvement projects to address this issue and consider consolidating or eliminating driveways to reduce the points of conflict and the potential for collisions or apply other measures to improve safety for turning vehicles. Such measures are essential for the safety of the motorists, pedestrians, and bicyclists using the corridor.

Table 7.5: Vehicle Crash “Hot Spots” 2012-2016

State Maintained Highways	Number of Crashes
US 3	164
NH 106	45
NH 28	19
Town-Maintained Roads	Number of Crashes
North Pembroke Road	41
Academy Road	20
Glass Street	13
Cross Country	11
Broadway	10
Intersection Locations	Number of Crashes
US 3 & Academy Road	11
US 3 & NH 106	8
Buck St & NH 28	6
US 3 & Broadway	6
US 3 & Donna Drive	3

Source: NHDOT/NH Department of Safety

Contributing factors to the high number of crashes along North Pembroke Road include the narrowness of the road, including the lack of shoulders in many locations; roadway geometry including short sharp curves, steep grades, road crowns, limited sight distances; obstacles along the edge of the road including, steep ditches, stone walls, large rocks, and trees; rural conditions including no street lighting, limited road side development, high beam headlights, and animals (both wild and domestic); road surface condition including bumps, dips, potholes, cracked pavement, and poor drainage in some locations. In addition, drivers may expect to be able to drive at rural speeds of more than 45 mph when road conditions are not conducive to these speeds.

COMMUTING PATTERNS

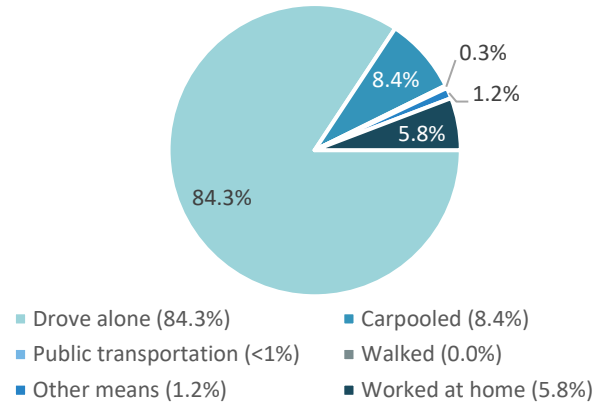
As demonstrated by American Community Survey 2013-2017 data, the majority of the working population residing in Pembroke works outside of the community but within New Hampshire, drives to work alone, and commutes an average of approximately 33 minutes to work.

The most popular transportation option for Pembroke residents is the private automobile (84.3%). Carpooling, where one or more passengers accompany the vehicle driver to a shared destination point represents approximately 8.4% of commuters. In addition, of those commuting to work, over 47% has a commute time that exceeds 30 minutes while 23% commutes exceed 45 minutes.

A potential Park & Ride lot off or near Route 28 could serve Pembroke residents as well as residents in Allenstown and other nearby communities, potentially increasing rates of carpooling and reducing the impacts of traffic growth along the Route 3 corridor.

According to data provided by the US Census Bureau Center for Economic Studies, of those Pembroke residents employed, a high percentage are employed in Concord, Manchester, Hooksett, and Pembroke. Smaller percentages are employed in Nashua, Londonderry, Bow, Bedford, Allenstown, and Merrimack. Other smaller percentages of employed residents commute to other communities not mentioned here. This distribution of employment of Pembroke residents emphasizes the importance of maintaining reliable service without interruptions or excessive delays on the region's highways, including Routes 3, 106 and 28 in Pembroke.

Figure 7.1: Transportation Commuting to Work of Pembroke Residents



Source: American Community Survey 2013-2017

Pembroke Master Plan 2020

Roads by Legislative Classification

Legend

Roads

By Legislative Classification

Class I/II State Highway - 13.05 Miles

Class V Locally Maintained Road - 49.33 Miles

Class VI Unmaintained Road - 12.87 Miles

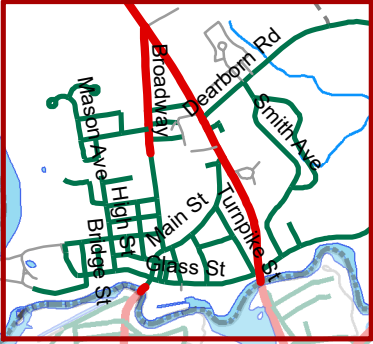
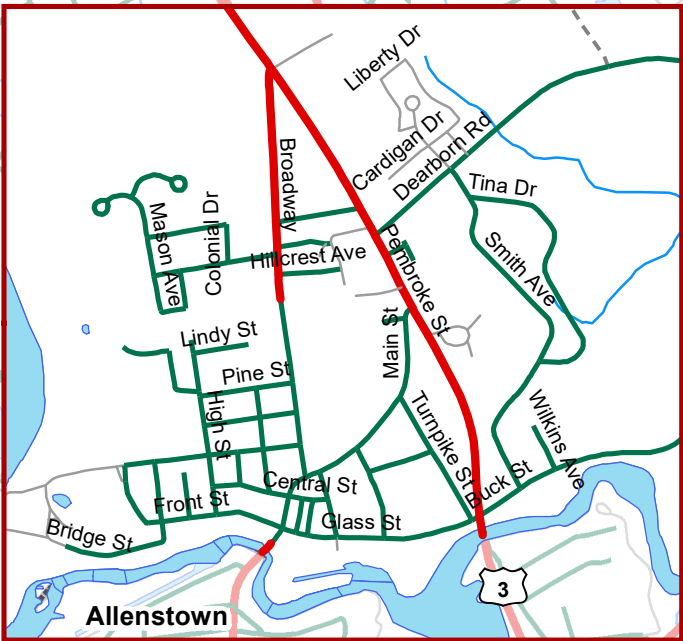
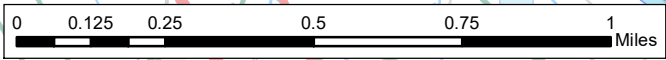
Class 0 Private Road - 5.94 Miles

Base Legend

Water Features

Waterbodies

Rivers and Streams



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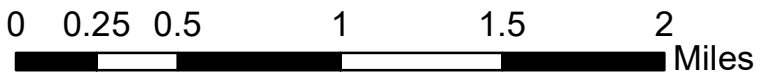
Digital Tax Maps by CAI Technologies, NH Department of Environmental Services, Federal Emergency Management Agency, NH Department of Transportation, US Geological Survey, Town of Pembroke, NH GRANIT, and CNHRPC.

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Pembroke Master Plan 2020

Roads by Federal Functional Classification

Legend

Roads


By Functional Class


 Interstate - 1.70 Miles

 Principal Arterial - 4.55 Miles

 Minor Arterial - 2.08 Miles


 Collectors - 10.37 Miles


 Local Roads - 44.5 Miles

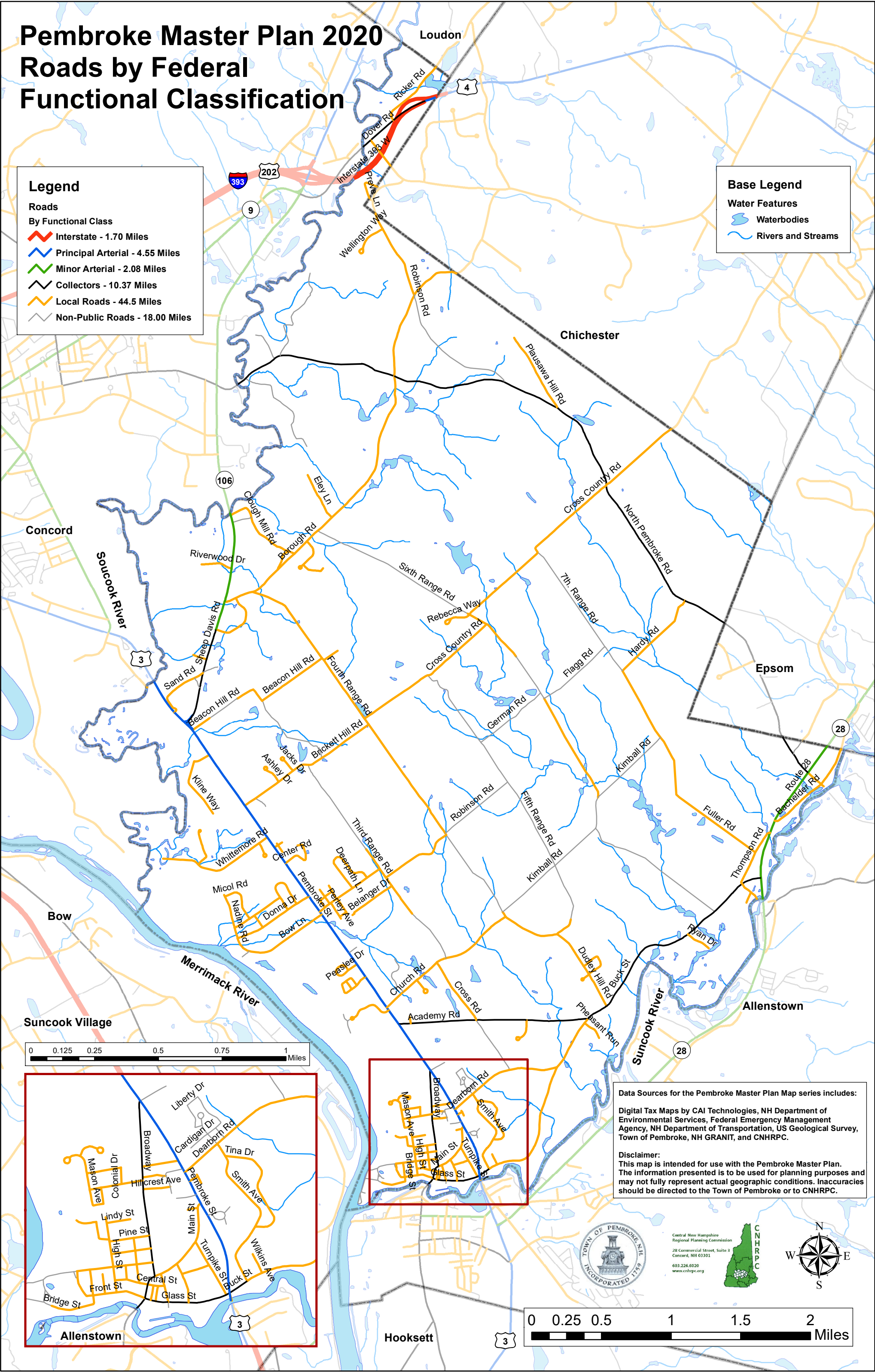
 Non-Public Roads - 18.00 Miles

Base Legend

Water Features

 Waterbodies

 Rivers and Streams



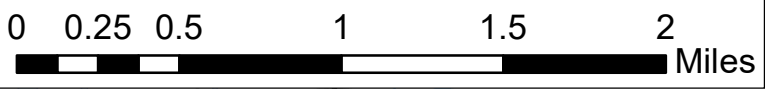
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Pembroke Master Plan 2020

Bridges by Ownership

Legend

Bridges

Ownership

Municipality

NHDOT

Roads

By Legislative Classification

Class I/II State Highway

Class V Locally Maintained Road

Class VI Unmaintained Road

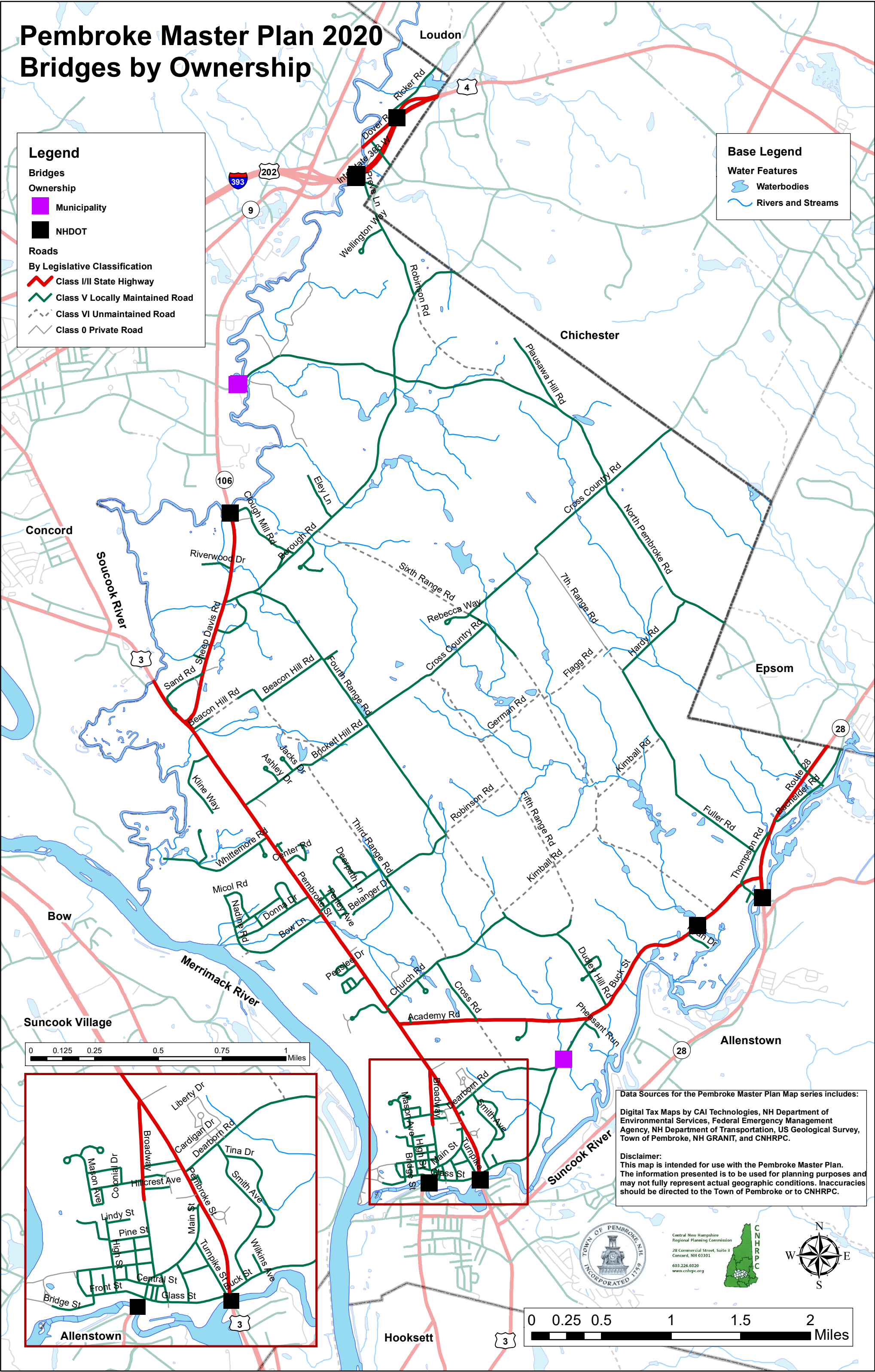
Class 0 Private Road

Base Legend

Water Features

Waterbodies

Rivers and Streams



Data Sources for the Pembroke Master Plan Map series includes:

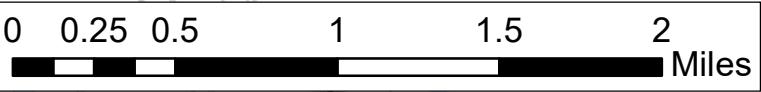
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Pembroke Master Plan 2020

Traffic Counts

Legend

Count Locations

Roads

By Legislative Classification

Class I/II State Highway

Class V Locally Maintained Road

Class VI Unmaintained Road

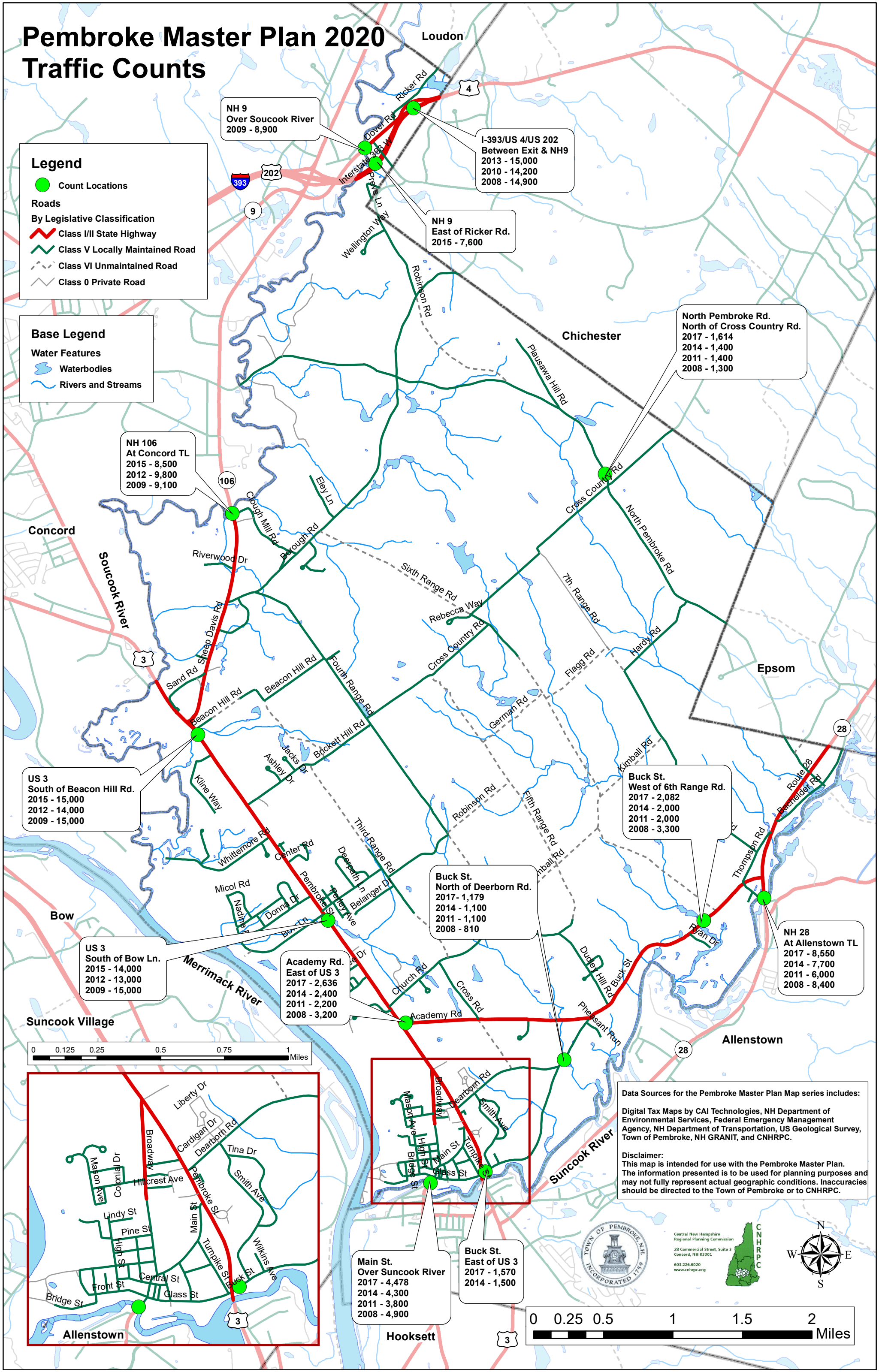
Class 0 Private Road

Base Legend

Water Features

Waterbodies

Rivers and Streams



NH 9
Over Soucook River
2009 - 8,900

I-393/US 4/US 202
Between Exit & NH9
2013 - 15,000
2010 - 14,200
2008 - 14,900

NH 9
East of Ricker Rd.
2015 - 7,600

North Pembroke Rd.
North of Cross Country Rd.
2017 - 1,614
2014 - 1,400
2011 - 1,400
2008 - 1,300

NH 106
At Concord TL
2015 - 8,500
2012 - 9,800
2009 - 9,100

US 3
South of Beacon Hill Rd.
2015 - 15,000
2012 - 14,000
2009 - 15,000

Buck St.
West of 6th Range Rd.
2017 - 2,082
2014 - 2,000
2011 - 2,000
2008 - 3,300

Buck St.
North of Deerborn Rd.
2017 - 1,179
2014 - 1,100
2011 - 1,100
2008 - 810

NH 28
At Allenstown TL
2017 - 8,550
2014 - 7,700
2011 - 6,000
2008 - 8,400

Academy Rd.
East of US 3
2017 - 2,636
2014 - 2,400
2011 - 2,200
2008 - 3,200

US 3
South of Bow Ln.
2015 - 14,000
2012 - 13,000
2009 - 15,000

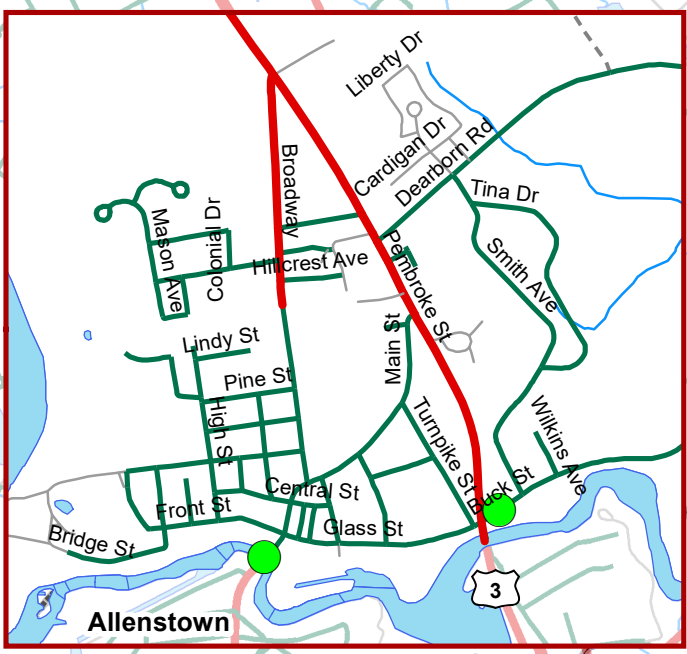
Main St.
Over Suncook River
2017 - 4,478
2014 - 4,300
2011 - 3,800
2008 - 4,900

Buck St.
East of US 3
2017 - 1,570
2014 - 1,500

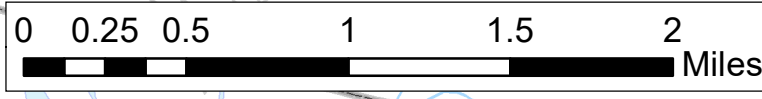
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2016 Pavement Condition

Legend

Pavement Condition 2016

Good

Fair

Poor

Very Poor

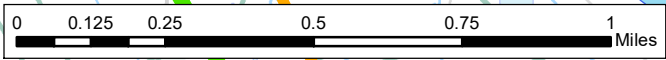
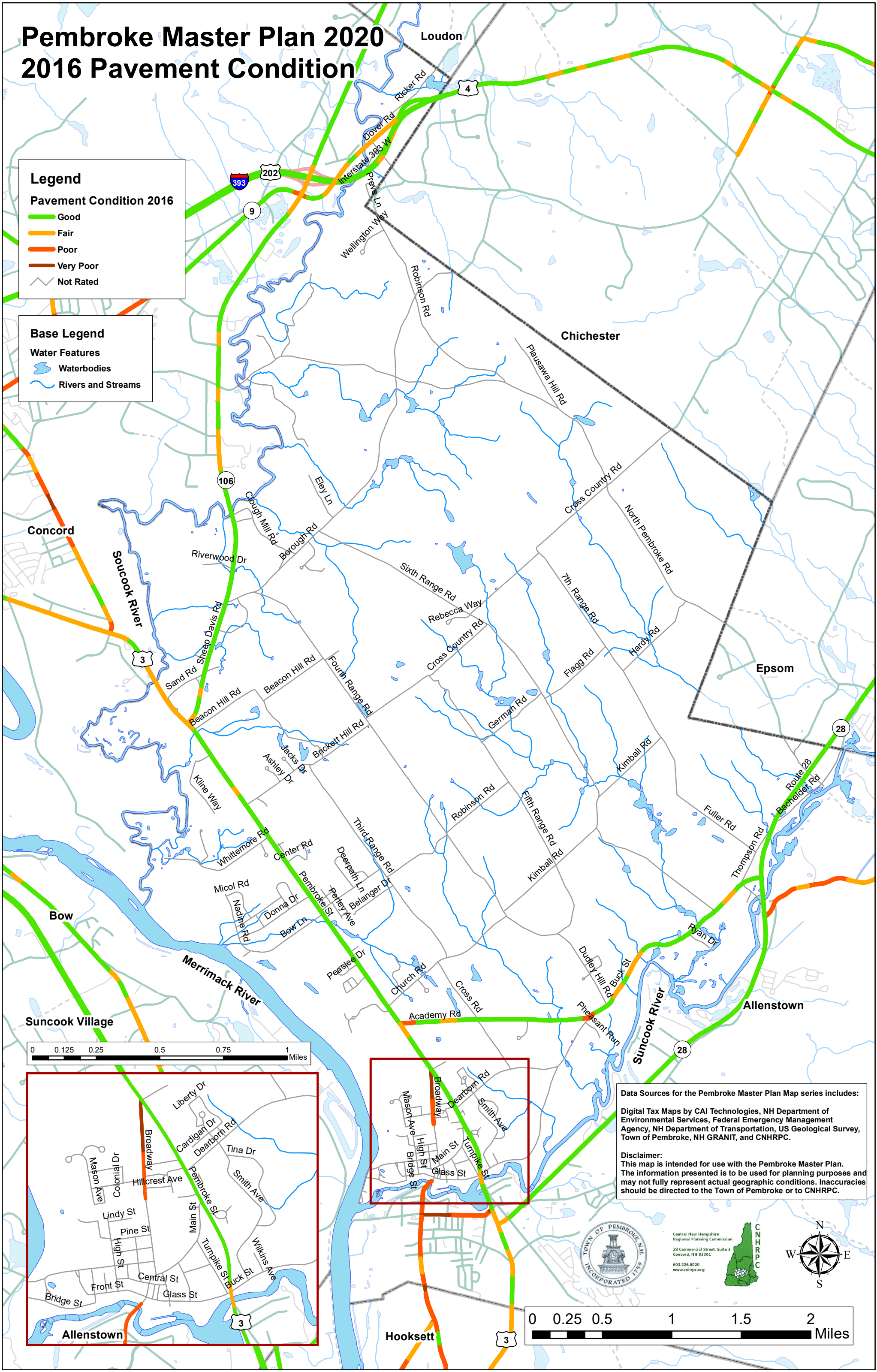
Not Rated

Base Legend

Water Features

Waterbodies

Rivers and Streams



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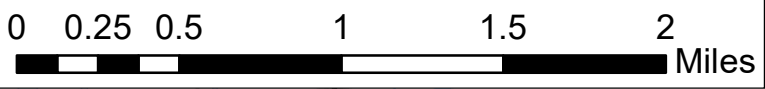
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Crashes by Severity 2012 - 2016

Legend

Crashes

Severity

Fatality

Incapacitating

Non-Incapacitating

Possible

No Apparent Injury

Unknown

Base Legend

Roads

By Legislative Classification

Class I/II State Highway

Class V Locally Maintained Road

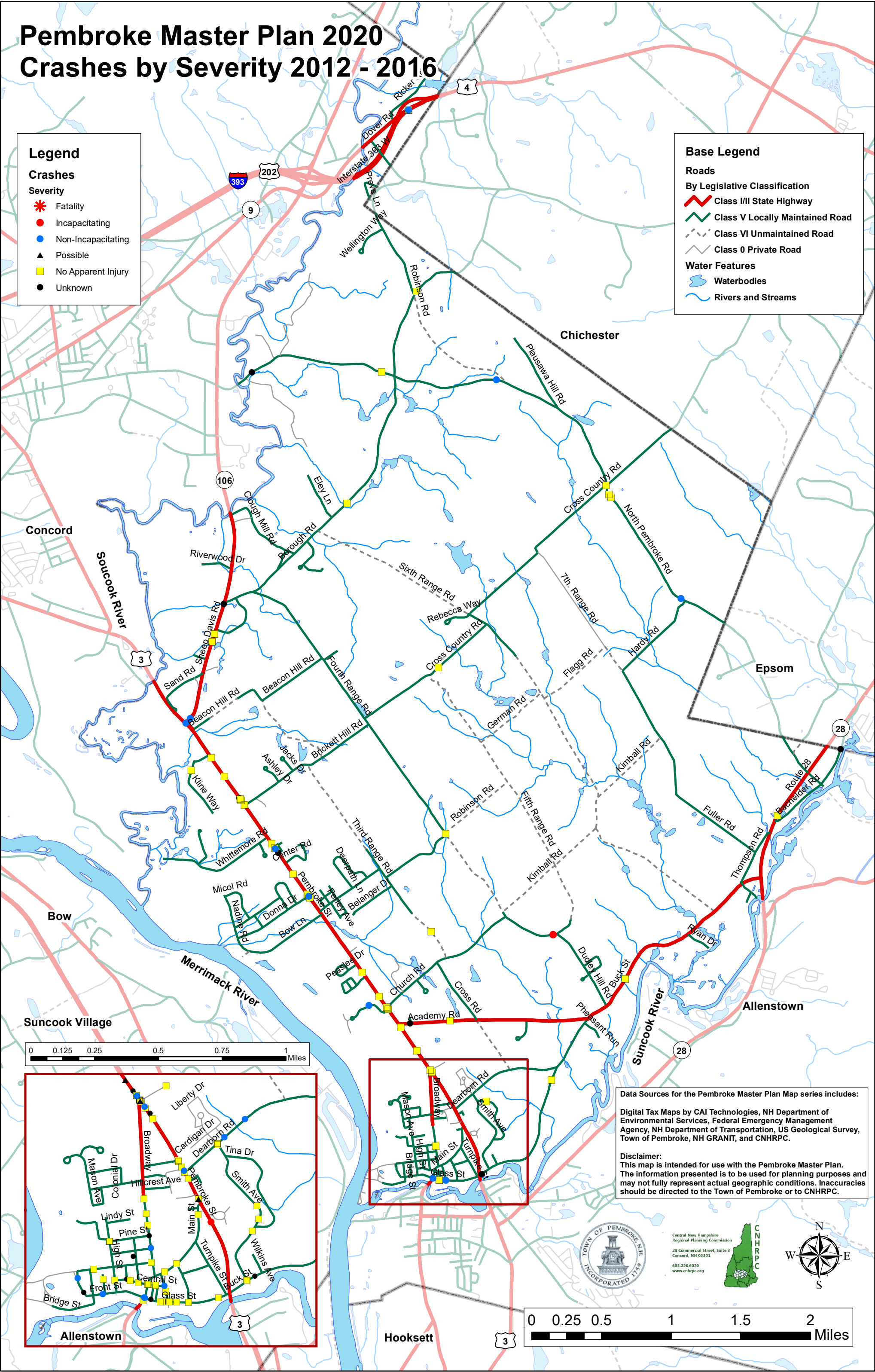
Class VI Unmaintained Road

Class 0 Private Road

Water Features

Waterbodies

Rivers and Streams



Data Sources for the Pembroke Master Plan Map series includes:

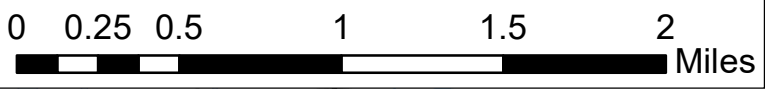
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Pembroke Master Plan 2020





Sidewalks

Legend

 Sidewalks



Roads

By Legislative Classification

-  Class I/II State Highway
-  Class V Locally Maintained Road
-  Class VI Unmaintained Road
-  Class 0 Private Road

Base Legend

Water Features

-  Waterbodies
-  Rivers and Streams

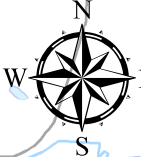
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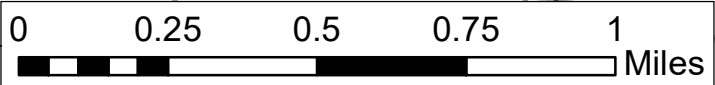
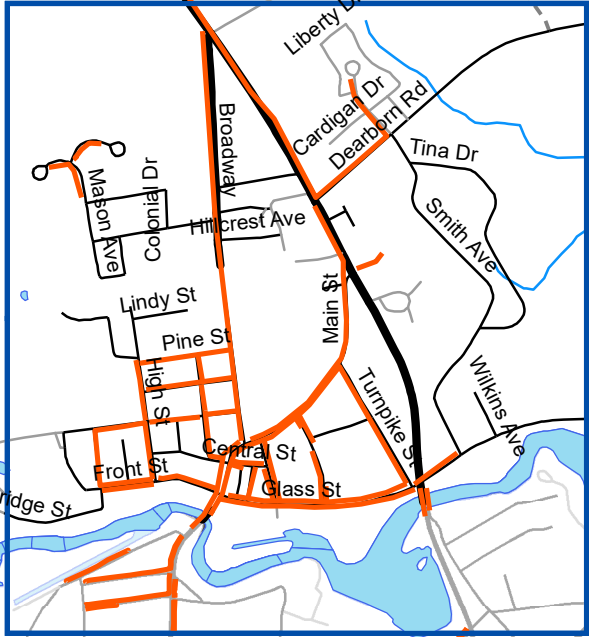
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Suncook Village



8 NATURAL RESOURCES



TOPICS INCLUDE:

Understanding Pembroke's natural resources

Challenges & opportunities going forward

Summary of Pembroke's natural resources

This chapter focuses on natural resources and their contribution to the sense of place that is unique to Pembroke. These natural resources, including land, water and wildlife, shape how residents and visitors not only experience Pembroke but provide opportunities to deepen an understanding and appreciation for how these resources function and enhance quality of life. The 2010 Open Space Plan, the 2017 Natural Resources Chapter and the 2016 Natural Resources Inventory include extensive information on the town's natural resources and readers should refer directly to these reports for more detail. These documents are incorporated into this plan by reference (See Appendix A).

Pembroke is...

a community with strong environmental stewardship of its natural resources. We value our rural character, reflected by the connected network of open space and agricultural lands, forests, water resources and stone walls that provide opportunities for residents to enjoy clean air and water, recreational opportunities, diverse plant and wildlife habitat, and the connections these resources provide to our overall quality of life.

WHAT THE COMMUNITY SAID...

Public responses from Pembroke’s outreach process (community survey and visioning session) provided a clear and consistent direction for the town’s future preservation of its rural character and its natural resources. Throughout successive master plans, residents have consistently voiced support for the protection and conservation of Pembroke’s natural resources. Residents identified rural character, protection of surface and groundwater, land conservation, scenic quality, and access to the community’s natural areas and resources as important features in Pembroke. Proximity/location is also important.

Balancing the protection of key natural areas with development, and access to and use of these resources, is an important concern that was mentioned in the survey and the visioning session.

The following charts briefly summarize comments and input received throughout the public outreach process. Results of these engagement opportunities provided a direction for the objectives and recommendations identified in the chapter.

Table 8.1: Residents ranked the following NR features as very important/important

Identified Feature	Very Important	Important
Small Town/Rural Atmosphere	76%	19%
Location	72%	25%
Natural Resources and Open Space	70%	24%
People/Community Spirit	65%	28%
Public Parks and Town Forests	59%	32%
Rivers	57%	32%
Scenic Areas	51%	39%

Table 8.2: Residents ranked the importance of protecting the following features

Identified Feature	Important	Somewhat Important
Streams/Rivers	86%	13%
Surface/Groundwater	85%	13%
Fields/Agriculture	75%	21%
Town Forests	69%	25%
Recreational Trails	70%	23%
Fish and Wildlife	69%	24%
Stormwater/Runoff	67%	27%
Wetlands	63%	28%
Scenic Views	57%	31%
Scenic/Range Roads	54%	30%

Table 8.3: Support for natural resource protection

Protection Type	Yes
Acquisition of conservation lands/easements	65%
Acquisition for trails	59%
Acquisition for parks	55%
Acquisition for fields	48%
Recreational Trails	70%
Zoning to increase wetland setbacks	79%
Zoning to increase groundwater/aquifer setbacks	81%

Other notable responses to the survey included 82% of Pembroke's residents supporting a trail along the Merrimack River as important or somewhat important. Some 66 percent of respondents identified the preservation of existing Class VI roads as important or somewhat important. The majority of respondents favored the placement of new businesses and services along the Routes 3 and 106 corridors, with less than 23% favoring placement in the Buck St. or North Pembroke areas. Less than 36 percent of survey respondents would support the upgrading of class VI roads to provide for more buildable lots in Pembroke or to alleviate traffic congestion on Pembroke Street.

Themes that can be identified from the visioning session and community survey include:

- Importance of natural resources to overall quality of life;
- Need for balance between economic development and conservation;
- Interest in focusing new development near existing development to retain Pembroke's rural character;
- Desire to maintain rural aspects of Pembroke to preserve the quality of life and community character; and
- Desire to maintain and enhance community connectivity to natural resources through support of conservation protection efforts.

CHALLENGES AND OPPORTUNITIES

STEWARDSHIP

Stewardship of natural resources requires a multi-faceted approach. Conservation lands and trails; rivers and streams; wildlife; agricultural fields; and the aquifer are all ecologically intertwined, but each have their own unique challenges that require management plans for protection. Active stewards who assume the responsibility of natural resources are charged with protecting, managing and providing education about these resources. Active participation and investment by community leaders can inspire others to get involved. Neighborhoods that border natural resources can also serve as stewards and can organize into “Friends” groups to support responsible use of natural resources. Community education and awareness of natural resources and their threats will be important to cultivating stewardship in the community.

VOLUNTEERISM

Stewardship cannot exist without volunteerism. Volunteerism plays an important role in the success or failure of conservation activities. It’s easy to ask people if they care about conservation. The vast majority of people agree that conservation initiatives are important to the town. The survey results confirm that Pembroke residents absolutely value conservation. The challenge is getting enough of those people involved as volunteers on a regular basis. With all of modern life’s responsibilities and stressors, it can be difficult to convince people to add more to their already full plates.

The opportunity in conservation-based volunteerism is that people can incorporate many beneficial conservation activities into their existing routines. If you walk your dog or run on the same trail every day, maybe you become a steward of that trail, meaning you pick up trash as you walk, or you keep a look out and report any illicit behavior you come across. Maybe you lead your child’s scout troop and see an opportunity to build a trail kiosk as part of their Eagle Scout project. These are seemingly small changes to one’s life that can make a big difference in the conservation goals of the community. Participating in small ways can nurture a larger interest and may inspire people to get involved in a larger capacity, for example sitting on a committee, organizing a community event, or getting involved in fundraising. In natural resource protection there are many ways to become a volunteer that fit individual interests and lifestyles.

FUNDING

Funding plays a significant role in natural resource preservation. Land acquisition, property clean up, stormwater infrastructure, trail engineering, and invasive species removal all come with associated costs. Conservation projects usually require a unique funding strategy combining town resources, grant money, and private donations. Community awareness and volunteerism, as touched on previously, play an integral role in garnering support and funding for projects that promote natural resource preservation. Grant opportunities are competitive but available, like the Land and Community Heritage Program (LCHIP), Transportation Alternative Program (TAP) and the Moose Plate grant. Many times, private donors have interest in donating to conservation of property that has special meaning to them. Environmental foundations may donate to projects that fulfill ecological goals they support. Knowing

where to find funding and piecing together different funding sources is a challenge for natural resource projects, but with dedicated volunteers and community support it is not out of reach.

HABITAT LOSS AND FRAGMENTATION

Habitat loss and fragmentation of open space is a challenge that many communities face. Ideally, we would like to have a contiguous network of open space for the purposes of wildlife migration and ecological connectivity. Practically, this can't always be the case due to the variety of ways that open space parcels are acquired. A cohesive open space plan and criteria for high value natural resources can



Photo from Pembroke's Natural Resource Inventory, 2016

HERBACEOUS RIVER CHANNEL ALONG THE MERRIMACK RIVER,
A UNIQUE NATURAL COMMUNITY IN PEMBROKE

help strategize which properties to focus on for connectivity and habitat purposes.

Habitat loss occurs most frequently through sprawl, a dispersed and cumulative development pattern that can consume the landscape. Since Pembroke is home to many threatened species, it is especially important to preserve habitat where those species are found. Bald eagles and hognose snakes, for example, are threatened in New Hampshire and both are found in Pembroke. It is important to create awareness about the threats to these species and strategize plans for habitat protection.

It is also important to preserve ecologically fragile and significant habitat, like wetlands and vernal pools, which serve as feeding and breeding areas for many species. Actively maintaining Pembroke's natural resources and wildlife will help to maintain Pembroke's rural character. Maintaining an accurate list of wetlands that would benefit from restoration efforts and/or are particularly vulnerable to habitat loss is also important.

The NRI identified five separate land blocks in Pembroke that exceed 1,000 acres in size. The largest block lies along the Merrimack River and extends both across and up and down the river. The next largest block lies north of North Pembroke Road and includes portions of Epsom and Chichester in the northeast corner of town. The smallest 1000+-acre block is the unbroken forested tract that spans the Soucook River near the Concord Well Field. This lowland forest includes critical habitat for the pitch pine barrens species. For a more detailed look at these lands, please see the **Unfragmented Lands Map**.

INVASIVE SPECIES

Invasive species are an increasing concern in NH communities, particularly as a threat to native plants and wildlife due to their ability to reproduce rapidly under a variety of conditions. Some are less vulnerable to diseases than native species and their presence alters the way plants, animals, soil and water interact within native systems, thereby decreasing ecological diversity and native habitat. According to the Natural Resource Inventory completed in 2016, of the 28 listed invasive plant species in the state, 23 of them have been located in town. Appendix B contains a list of the more common invasive species in NH.

WATER QUALITY & STORMWATER MANAGEMENT

Water quality and stormwater management go hand in hand. Nearly everyone has seen the effects of stormwater at one time or another: streets and basements flood, erosion threatens properties, and drinking water sources become compromised. However, there are other implications of stormwater that are not so easily seen. For example, without properly maintained stormwater infrastructure, oils and sediments enter the municipal drainage system and are eventually deposited into the Merrimack River, deteriorating the water quality of our New Hampshire rivers to the detriment of plants, wildlife, and the people who enjoy them. Additionally, without proper stormwater management, the quantity and quality of the aquifer, our drinking supply, is also threatened.

So what can be done? Educating the community about water quality and stormwater should be a priority so that people become aware of why they should care about stormwater. Stormwater management bylaws and regulations, utilizing best management practices, for both commercial and residential development should be adopted and enforced. Identifying wetlands that contribute to water quality protection is another strategy. In fact, with the rollout of the EPA's MS4 Permit process over the next few years, municipalities will be responsible for any illicit stormwater discharges and the quality of those discharges, resulting in fines if not compliant. This master plan is a good opportunity to prioritize these issues so that as a community we can start exploring and drafting bylaws to regulate and manage

INVASIVES -PICKING OUR BATTLES

Picking Our Battles is a collaboration of NH Fish and Game, the NH Natural Heritage Bureau, and Great Bay National Estuarine Research Reserve who teamed up with representatives from over 120 communities, natural resource managers, and academics to develop a statewide strategic prioritization plan for the control of upland, wetland, and intertidal invasive plant species.

This statewide project has been used to develop a customized invasive plant control strategy for each NH municipality, including a map showing priority areas where invasive plant removal will have the most immediate impact and most effectively protect our native natural resources in the long-term. They also show a customized "early detection" list of plant species just coming into each community and are most easily manageable before becoming fully established in the community. Invasive plants can cause significant ecological and economic harm and can impact wildlife or alter habitat structure or function.

These maps, including the map for Pembroke, can be viewed [online](#).

Source: New Hampshire Fish and Game

stormwater and water quality for the protection of the aquifer, rivers and streams, and personal property.

PERMANENT LAND PROTECTION

One major challenge to natural resource protection unique to Pembroke is a lack of permanent protection on conservation properties. While the town owns many properties with the intent of preserving them as conservation land, these properties lack the legal protection required (through deed restriction or easement holding) to preserve the land in its natural state in perpetuity. Without permanent protection, these properties, which were chosen for their ecological significance, are susceptible to future development by the town or others.

Another challenge is finding non-profit organizations to hold easements on town property. There is such a demand for easement holding that many of these organizations are now bogged down with requests and lack the resources to take on all of the easements offered to them. Something the town can do is work with a land use attorney to identify properties that need permanent protection, explore options to protect them in perpetuity (i.e. easements, conservation deed restrictions), and draft deed language that protects the parcels from development but that allows appropriate uses (i.e. trail maintenance, non-motorized use, etc.)

TRAIL MANAGEMENT

Trails create opportunities to access land and water for residents and tourists to enjoy natural, scenic and recreational areas. Access to recreational trails was identified as a priority by those who participated in the master plan survey and the visioning session. Pembroke's extensive Range Road network, comprised of over 16 miles of unmaintained Class VI roads, is enjoyed by hikers, bicyclists, horseback riders, snowmobilers, off-road vehicles and other users. These multi-use areas can often lead to overuse with areas subject to rutting, erosion and other types of damage. The 2016 Natural Resource Inventory treated the Class VI range roads as a fragmenting feature since it was quite evident from the roadside surveys that these roads receive a fairly high degree of traffic during most



Photo from Pembroke's Natural Resources Inventory, 2016

THE 'RANGE ROADS' AREA OF PEMBROKE INCLUDES A NUMBER OF CLASS VI ROADS THAT GET VARYING DEGREES OF USE YEAR-ROUND, INCLUDING WINTER-TIME SNOWMOBILES AND SUMMER TIME OHRV'S.

seasons. The town should evaluate the use and condition of these Range Roads and other Class VI roads and consider policies that maintain adequate access for landowners, allow for recreation opportunities, respect environmental concerns, and address quality of life issues that may arise from unmitigated ATV/OHRV use. There may also be interest in reclassifying certain portions of the Range Roads from Class VI to Class A or B trails. (See Transportation Chapter and Community Heritage and Sense of Place Chapter).

Many other town properties, including the town forests, have trails that are marked for users to enjoy. These trails are maintained either by the conservation commission or volunteers. There are occasional snowmobile trails that cross the town forests but none are part of any organized trail system.

Discussed in more detail in the Transportation Chapter, the Pembroke Rail Trail could be an important community resource, and could also become part of a larger network of connected multi-use trails spanning much of the state. The proposed Granite State Rail Trail would link up local rail trails along abandoned railroad corridors to form a 115 mile long trail from Salem to Lebanon, plus additional connecting trails. The Granite State Rail Trail is largely completed north of Concord, and several miles of trail are from Manchester south. Pembroke's trail would energize efforts to complete the Manchester to Concord connection.

CHAPTER OBJECTIVES & RECOMMENDATIONS

OBJECTIVE 1 Preserve open space through use of land acquisition and easements	<ul style="list-style-type: none"> → Continue to identify, inventory, and assess natural areas in town and employ parcel assessment methodologies to rank the value of parcels for acquisition or conservation easements. → Actively seek out grant opportunities, donations and bequeathments to fund the acquisition of, or easement establishment on high-value parcels.
OBJECTIVE 2 Use regulatory and non-regulatory strategies to preserve open space	<ul style="list-style-type: none"> → Utilize open-space subdivision, and other zoning options to establish and preserve high-value wetlands, shorelines, wildlife habitat, and trails on private lands. → Condition the granting of variances and special exceptions to zoning ordinances on the establishment of conservation easements on subdivisions. → Keep existing town-owned conservation areas protected from transfer to alternative uses by the establishment of conservation easements with non-profit trusts such as the Five Rivers Conservation Trust.
OBJECTIVE 3 Preserve surface-water and ground-water quantity and quality	<ul style="list-style-type: none"> → Identify and monitor potential threats to the integrity, sustainability and potential use of water resources in Pembroke, including but not limited to: <ul style="list-style-type: none"> i. Storm-water runoff and its potential effect on groundwater recharge and water quality ii. Surface-water withdrawal and its potential to reduce groundwater recharge iii. The storage of hazardous materials that could negatively affect groundwater supplies → Utilize data and mapping from the Pembroke NRI to identify surface water areas of significance in order to enhance protective regulations under the current Shoreland Protection District, including but not limited to: <ul style="list-style-type: none"> i. Maintenance of the 125-foot setback for all uses including agriculture and forestry ii. Disallowance of any earth-moving activities or other soil disturbances within the 125-foot shoreland zone iii. Identification and mapping of those areas that by virtue of their proximity to the Shoreland Protection Zone may require even greater setback accommodations for the purposes of protecting special habitats, aquifers, floodplains, etc. → Perform sufficiently detailed aquifer-yield studies, to establish their sustainable level of groundwater withdrawal, in order to protect the long-term viability of the groundwater resource in the town.
OBJECTIVE 4 Preserve prime agricultural lands and	<ul style="list-style-type: none"> → Establish an Agricultural Conservation District that discourages conversion of prime agricultural land to development, and provides tax incentives, beyond the Current Use assessment, to support locally grown food products.

soils, and retain agricultural land uses	<ul style="list-style-type: none"> → Engage the conservation commission to promote long-term protection of these areas by purchasing development rights and securing restrictive easement. → Establish an agricultural commission pursuant to RSA 674:44-e to promote local agriculture and advocate for the protection of agricultural resources. → Review zoning ordinance and other regulations to ensure that agricultural uses, businesses, and operations are not unintentionally restricted and are consistent with RSA 21:34-a and RSA 674: 32-a-d.
OBJECTIVE 5 Preserve forest lands	<ul style="list-style-type: none"> → Establish a Forest Land Conservation District that discourages fragmentation, encourages cooperative management agreements among and between private landowners, and provides tax incentives, beyond the Current Use assessment, for owners of parcels that lie within a potential large-lot zoning district. → Engage the conservation commission to promote long-term protection of the large lots within unfragmented forest areas of the town. → Monitor the implementation of the 2019 Forest Management Plan and update as needed.
OBJECTIVE 6 Preserve wildlife habitat	<ul style="list-style-type: none"> → Utilize data and mapping from the Pembroke NRI, to prioritize high-quality wildlife habitat for protection by the town. → Identify and seek to protect “green infrastructure areas” to avoid habitat fragmentation and its disruption to native flora and fauna and to act as corridors for the movement of wildlife assets. → Condition future gravel operations along the Soucook River to those which employ reclamation strategies leading to the permanent protection of riparian habitat and the regeneration of the native Pitch Pine-Scrub Oak Woodland described in the town’s NRI.
OBJECTIVE 7 Preserve high-value wetlands	<ul style="list-style-type: none"> → Use the existing wetland assessment study (completed as part of the NRI) to nominate high-valued wetlands for classification under the State’s Prime Wetlands designation so that these wetlands, and their riparian buffer areas, may be targeted for heightened protection. <ul style="list-style-type: none"> i. Establish larger general setbacks (e.g. 100 feet) for prime wetlands by town ordinance. ii. Eliminate the allowance of forestry activities within prime wetlands and their protective buffer zones. iii. Require suitable wetland assessment studies for those projects that intend to impact prime wetlands or their buffers by demonstrating no net loss of functional value as a result of such impacts. iv. Provide for the allowance of on-site, permittee-responsible mitigation for prime wetland impacts in order to dovetail with state

	<p>and federal permitting requirements.</p> <p>v. Maintain a priority list of wetlands that are important to water quality protection or could benefit from restoration efforts to improve their functional value.</p> <p>→ Update the existing Wetlands Protection District section of the zoning ordinance to do the following:</p> <p>i. Identify the District more clearly with language that defines wetlands within the first subsection.</p> <p>ii. Eliminate the “encouraging uses” subsection A. (4).</p>
OBJECTIVE 8 Preserve scenic views	<p>→ Use data from the Natural Resources Inventory and other sources to further assess and rank the scenic assets of Pembroke and to recommend potential preservation opportunities to the planning board and board of selectmen.</p> <p>→ Authorize the public works department to provide roadside pull-offs where informal viewing of scenic vistas can take place in a safe and unobtrusive way.</p> <p>→ Consider entering into agreements with private landowners to provide public access to exemplary viewsheds in return for tax benefits that offset the high valuations (view tax) of publicly used viewsheds.</p>
OBJECTIVE 9 Protect and maintain scenic roads, trails, and public access	<p>→ Investigate the feasibility of additional traffic restrictions on Class VI roads to ensure that they are preserved in conditions suitable for a use by a broad range of agricultural, forestry, and recreational activities.</p> <p>→ Conduct a feasibility study of conversion of portions of the Class VI road network to Class A trails in accordance with the provisions of RSA: 231-A in the most scenic or unique environments, in order to limit uses to those which minimize environmental disturbance.</p> <p>→ Give priority to the acquisition of lands or easements along the Merrimack shoreline in order to facilitate completion of the river rail-to-trails project and the Heritage Trail through Pembroke.</p> <p>→ Review existing conservation lands in Pembroke to determine areas that are suitable for public trails, layout proposed trails in accordance with sound soil conservation practices, and seek out grants and volunteer programs to implement them.</p> <p>→ Consider promoting and developing an interpretive signage program (i.e. nature trail) with area schools (or as an eagle-scout project) at a suitable conservation property such as Ames Brook.</p> <p>→ Consider establishing designated parking areas for more of the town’s larger conservation lands.</p>

NATURAL RESOURCES

Pembroke lies at the confluence of the Soucook, Suncook and Merrimack Rivers which has shaped its unique landscape and the associated natural resources. The 2017 Natural Resources Chapter of the Master Plan and the 2016 Natural Resources Inventory contain detailed information on the water resources, topography, agriculture, soils and development constraints are both available in Appendix A. A summary of Pembroke's natural resources follows, using information and data from those documents.

GEOLOGY AND WATER RESOURCES

Understanding geology is important to land use as it helps identify sources of groundwater, site development suitability and location of natural hazards. The bedrock geology of Pembroke is underlain mostly by mica schist of the Silurian Rangeley Formation and it contains an extensive fracture network that forms an aquifer system that is mostly utilized to provide domestic water supplies for the town's rural areas. Please refer to the **Geologic Resources Map** for more details.

The surficial geology is typical of many NH communities, containing a mix of glacial till and sands and gravels closer to the three rivers. The most important resources provided by these deposits are high-quality water that provides the major public water supply for the town and sand and gravel deposits that have been used for construction and road building. Please refer to the **Water Resources Map** for more details.

Pembroke's public water system is fed through five well sites; three are located in close proximity to the Soucook Rivers and two are sited near the Suncook River. These wells serve the downtown area, Buck Street and properties along Routes 3 and 106; the remainder of the town is served by private wells. These water-bearing layers range from 40 feet to over 80 feet in some locales. Both the Concord wellfields and the four Pembroke Water Works wells tap into this abundant source of groundwater. Based on models that utilized several geophysical tools, the stratified drift aquifers in Pembroke have yields of between several hundred and over 9,000 square feet per day. These yields are calculated on the basis of a 0.0969 transmissivity rate per cubic foot of aquifer thickness (Ayotte and Toppin 1995). The highest yield area is mapped for a small area at the mouth of the Soucook River where deep sands within the 100-year floodplain exceed 9999 ft²/day of recoverable groundwater. This area is mostly undeveloped, but does have a current residence and the Merrimack River rail trail running nearby. White Sands Conservation Area lies within the southern edge of this map unit. Other high yield sites include the Soucook River bend area west of Associated Grocers of New England (AGNE), the Pembroke Water Works well #2 just across Pembroke Street, and the Concord Wellfields along the Soucook River at North Pembroke Street. The latter is the highest yielding well that serves the City of Concord with drinking water supplies.

RIVERS

Pembroke has an extensive interconnected system of surface water resources (see the **Water Resources Map**). The health and function of these water resources needs to be maintained to ensure high quality water and a well-maintained ecosystem. Rivers are the defining natural resource characteristic for Pembroke. Over 60% of the town's boundaries are bordered by a river, nearly all of the prime farmland

is associated with a river, and most of the historic travel, settlement, and commercial success of Pembroke was brought about by virtue of a river. It is difficult to find any spot in town that is farther than a few hundred feet from any given stream or river. The three major rivers that border Pembroke are the Merrimack, Soucook and the Suncook, with the Soucook being the longest. The connection between rivers, vernal pools and wetlands to the quality of downstream waters also needs to be acknowledged and evaluated when looking at ecosystems.



Photo from Pembroke's Natural Resource Inventory, 2016

EXPOSED SANDBAR ALONG THE SOUCOOK RIVER, WEST OF THE ASSOCIATED GROCERS PROPERTY

WETLANDS

Wetlands are areas where water is present at or near the soil surface for at least part of the growing season and influences the plants that can grow there, as well as the soil characteristics. There is now a much greater understanding of the function that wetlands provide, including flood control, water storage, groundwater recharge, erosion and sediment control, pollution filtration and wildlife habitat. As part of the NRI, a total of 3,951 wetlands representing 1,587 acres were mapped in Pembroke and the half-mile extended study area. Accordingly, 7% of Pembroke's landscape was classified as wetland, with



Photo from Pembroke's Natural Resources Inventory, 2016

VERNAL POOL AT BUTTERFIELD TOWN FOREST



Photo from Pembroke's Natural Resources Inventory, 2016

FORESTED FLOODPLAIN WETLAND NEAR GARVIN FALLS ROAD WITH RED MAPLE, AMERICAN ELM AND GREEN ASH

open water areas representing an additional 2% of the town's area. The most common wetland type in Pembroke is the forested swamp. Over three-quarters of the non-water wetland types had a predominance of trees in the canopy. One benefit of forested swamps is their frequent support of vernal pools. These small wetland depressions are subject to seasonal filling and drying and contain unique species such as fairy shrimp, wood and the blue-spotted salamander that use these pools especially for breeding. A total of 173 vernal pools were mapped as part of the NRI, many of them through field survey.

Some of the most important wetland types in Pembroke are those that provide direct protection to residences and businesses in the form of floodwater storage. Virtually all of the forested and scrub-shrub wetlands along the Soucook and Suncook Rivers offer this type of benefit for downstream residents. Most lie within the 100-year floodplain, if not within the 25-year floodplain. Given the increase in the frequency and magnitude of flooding events in the last decade, these wetlands have and will continue to save town residents millions of dollars in future flood damage.

Part of the NRI work included a wetlands evaluation and ranking based upon 11 attributes important to Pembroke (See Appendix A for more detailed information). This can include their potential to serve as flood storage, groundwater recharge areas and wildlife habitat. The NRI study also utilized a well-established methodology that looks at more specific assessments, including additional functional attributes, in order to fully understand which wetlands had the highest value for Pembroke and potentially warranted greater protection under the state's Prime Wetland designation. The 31 WEUs that had point rankings above the mean of 27 were selected for more detailed evaluations, including field assessments. These wetlands were then evaluated for the following set of functions using the NH Method.¹

1. Ecological Integrity
2. Wetland-Dependent Wildlife Habitat
3. Fish and Aquatic Life Habitat
4. Scenic Quality
5. Educational Potential
6. Wetland-Based Recreation
7. Flood Storage
8. Groundwater Recharge
9. Sediment Trapping
10. Nutrient Retention & Transformation
11. Shoreline Anchoring
12. Noteworthiness

Appendix A contains the NRI results of the NH Method assessments on the 31 top-ranked wetlands from the assessment. The **Topography and Wetlands Map** shows the location of these wetlands. The NRI results are an important tool for the conservation commission as it looks at identifying wetlands that have high value that could be candidates for designation as prime wetlands through the state process.

¹ *Method for the Inventory and Evaluation of Freshwater Wetlands in New Hampshire* (Stone, Mitchell, Van de Poll, & Rendall 2015).

The NH Method assessment resulted in some clear delineations of value among the largest wetlands in Pembroke. For example, those wetland complexes that were beaver-mediated and lay along one of the large perennial streams were among the highest scoring wetlands. This included Confluence Marsh, West Pettengill Mainstem Marsh, West Branch Pettengill Brook Beaver Ponds, East Pettengill Mainstem Marsh, Lower Frenchs Brook Beaver Pond, Middle Frenchs Brook Beaver Pond, West Fowler Brook Tributary, and Upper Fowler Brook Marsh Complex. The latter two wetlands actually had a ‘perfect score’ for Ecological Integrity, or 10 points each.

Relatively isolated wetlands that acted as good flood storage sites were also highly ranked by the NH Method, such as the Beck-Clark Swamp Complex, Merrimack River Oxbow East, and Borough Road Marsh East. The Beck-Clark Swamp Complex served to capture stormwater runoff from Pembroke Street, Fairway Drive, and Terri Drive. This single swamp system was found to act as a ‘trap’ for sediments, nutrients, and stormwater that flowed into two separate perennial streams above the Merrimack River.

Wetlands highly valued for groundwater recharge included the Central Soucook River, the Soucook Kame Basin, and the Old Soucook Oxbows in the lower Soucook River aquifer. These WEU’s all scored above eight points for this function. For the Merrimack River aquifer, the singular WEU that served as a significant recharge area was Merrimack River Oxbow East. For the Suncook River aquifer, Buck Street Old Field Swamp, Hillman Farm Ditches, and Lower Ames Brook Complex all scored 7.2 points for this function. Each of these wetlands sits atop deep beds of layered sands and gravels, and likely contributes directly to the recharge of potential drinking water supplies.

AGRICULTURAL LANDS AND SOILS

Pembroke is comprised of at least 30 different soil types among 677 units, not including the “Urban Land” complexes that have been previously disturbed (see Appendix A). Over 90% of the soils are non-



CORN GROWING ON LAVALLEY FARM

hydric, upland soils. Most of the upland soils are derived from glacial till, and therefore contain a mixture of particle sizes from silts to fine sands and gravel to medium-sized stones.

Highly rated soils for agriculture are ranked in three classes: prime farmland soils, soils of statewide importance, and soils of local importance. Prime agricultural soils (see the **Agricultural Soils Map**) occupy 5.5% of Pembroke, of which only about 31% are in agricultural use. Soils of local importance represent the largest of the good farmland soils in Pembroke, about 64% of the town. In total, only about 550 acres of the different classes of agricultural soils are in active agricultural uses. This is less than 4% of the landscape of the town, and just over 5% of all of the good farmland soils. Of additional note is the fact that just 32 acres of prime farmland, and 94 acres of soils of local importance are permanently protected from development. Pembroke has a few active farms, including a horse and cattle farm (Gelinas), the Pritchard dairy farm and Found Well Farm (plants).

FOREST LANDS AND SOILS

Forests serve a number of functions in both the community and the surrounding region, including protecting water supplies and surface waters, serving as a source of forest projects, wildlife habitat, providing outdoor recreational opportunities, and contributing to the rural character of Pembroke. The **Forestry Soils Map** shows the relative productivity of soils for forestry to help landowners and resource professionals with management decisions. The predominant forest cover type in Pembroke is a mixed hardwoods-softwoods forest, otherwise known as the Hemlock-Hardwood-Pine Forest (WAP 2015). At least 80% of the forests of Pembroke are comprised of this forest type, which happens to be the most common forest type in the state. The second most common forest type in Pembroke is the Appalachian Oak-Pine Forest, the most common type of forest in central and southern New England and found on the moderate to steep south-facing slopes along Frenchs Brook, Ames Brook and Pettengill Brook in the norther part of town. The third principal type in the Pitch Pine Forest type, located in two or three patches along the Soucook River, in what is known as the Concord Pine Barrens.

The current forest condition in Pembroke can be generally characterized as recently cut-over and high-graded timber stands of a generally young age. The exception to this generalization are those forest areas where white pine has been allowed to regenerate almost to the exclusion of other species and the current level of stocking is sufficient to provide modest timber value. Other examples of harvestable timber stands are also found along the 'Range Roads,' where mixed hardwoods and hemlock appeared in a more mature condition (e.g. > 120 year old trees). The proximity of these stands to extensive wetlands in this part of town, in part, has been the reason they have been allowed to grow for as long as they have.



CLASSIC HEMLOCK BEECH-OAK-PINE FOREST,
BUTTERFIELD CONSERVATION AREA

Most of the town forests were once farmland with evidence of farming activity found within most of the lots. Stone walls, rock dumps and cellar holes are located on three of the town forests, including Whittemore and Butterfield. Whittemore, at 133 acres, is located between the Fifth and Sixth Range Roads, on the north side of Kimball Road. There is a Timber Cruise and Forest Management Plan for the Pembroke Town Forest System that was revised in 2019.

WILDLIFE

Protecting habitat for wildlife is important to Pembroke residents. The challenge of conserving habitats to support healthy, native wildlife is complicated by the varying habitat requirements of individual species. Some species require less than an acre while others need areas comprised of hundreds of acres; some even require different habitat types throughout the year. The more habitat diversity within the town, the more likely it will support a healthy and diverse wildlife population. Certain areas of town contained multiple species in a single locale. Most notable among these was the coincidence of 10 rare plants and 28 rare invertebrate species with the state-ranked exemplary Pitch Pine-Scrub Oak Woodland found along the Soucook River. Coupled with the rare amphibian, snake and turtle species, not to mention the state-listed fish (rainbow smelt, redbfin pickerel and bridled shiner) in the Soucook River, it is clear that this area of Pembroke holds one of the highest value sites for rare and endangered species.

The Merrimack River is also a rich site for rare plants and wildlife. The discovery of flatleaf pondweed, thread-like naiad, and red-root flat sedge in the Pembroke reach of the river underscored its potential for harboring a high number of state-listed rare plants. The documented presence of bald eagle, great blue heron, American eel and the probable downstream occurrence of redbfin pickerel and bridled shiner also highlights a system that provides multiple benefits for rare and endangered species. Detailed information on Pembroke's wildlife (birds, mammals, plants, fish, etc.) is located in Appendix A.

SCENIC VIEWS

The **Scenic Views Map** shows the location of 35 different viewpoints that offer mostly medium to long-range views of picturesque landscapes in Pembroke. These were compiled during survey work for the NRI that took place between March 2014 and April 2015, with most taking place during leaf-off condition. Some viewpoints may, therefore, be partly obstructed during the leaf-on season, although certain ones (e.g. #19 at the end of Ryan Drive), may actually be enhanced by colorful fall foliage. Table 8.4 describes each of these viewpoints.

Table 8.4: Summary of Scenic Viewpoints recorded for Pembroke

Id	Location	Map Location	View Distance (ft)
1	Town Hall	1	150
2	Keniston Conservation Area	2	750
3	Mary Bartlett Grange view	3	250
4	Academy Road Marsh	4	800
5	Soucook River at Sheep Davis	5	500
6	Soucook River at North Pembroke Road	6	375
7	North Pembroke Road/ Lower Ames Brook	7	450
8	Suncook River, bridge at Mills	8	500
9	RR bridge at lower Bridge Street	9	100
10	Entrance into Memorial Park	10	500
11	Suncook-Merrimack Rivers confluence	11	1750
12	Merrimack River at bend	12	2500
13	Upper Pembroke Pines Golf Course	13	1750
14	Upper Ames Brook Conservation Area	14	2000
15	Lower Ames Brook at Batchelder Road	15	575
16	Lower Batchelder Road near Suncook River	16	2000
17	Suncook River from Old Bear Brook Road	17	400
18	Hillman Farm from Buck Street	18	3000
19	Lower Pettengill River from end of Ryan Drive	19	1850
20	Suncook River Bend Marsh from Buck Street	20	600
21	Open fields off northeast Olympic Fields Drive	21	1350
22	Riparian slough fields off Gooses Way	22	700
23	Upper Bragfield Pond from Brickett Hill Road	23	850
24	Vernal pond at Butterfield Conservation Area	24	200
25	AGNE pond and fields at Conservation Area	25	800
26	Lower White Sands view of Merrimack	26	4000
27	North end of Bragfield Pond from edge	27	750
28	Lower Suncook River from Memorial Park	28	850
29	Merrimack River from White Sands	29	3500
30	Lower Soucook River from rail trail	30	750
31	West fork of Hartford Bk Academy Rd	31	1100
32	Kimball & Sixth Range Roads Marsh	32	350
33	Soucook River from Pembroke Street Water Works	33	450
34	Sixth Range Road, field edge	34	475
35	Upper Brush Road, field edge	35	650



VIEWPOINT OF THE OLD AGRICULTURAL FIELDS BELOW THE AGNE CONSERVATION EASEMENT, VIEWPOINT #25

Each of the viewpoints above were categorized in the NRI by approximate distance, with short being viewpoints of less than 300 feet, medium for viewpoints of between 300 and 1000 feet, and long for viewpoints that had distances of greater than 1000 feet. The longer-distance viewpoints tended to be found either near the Suncook or Merrimack Rivers, or from selected high ground vantage points off North Pembroke Road. Given the current absence of agricultural fields on most of the Range Roads, most of these viewsheds were of medium length. Longer distance views were available where agricultural fields were prevalent, such as along Buck Street, Academy Street, Fourth Range Road and east part of North Pembroke Road. Although a considerable number of excellent vista points existed beyond roadside viewpoints, especially at large wetland complexes, these were mostly excluded from the above list (with a couple of 4WD exceptions). More detailed assessments of scenic quality for these 'viewing-by-foot-only' vistas can be found in the NH Method data sheets in Appendix A of the full NRI Report.

The longest distance viewpoints that provide regional views extending beyond the town are not shown on the map but can be found on Pembroke's highest hills, including along Fourth Range Road on Pembroke Hill and on Plausawa Hill Road on Plausawa Hill. Northern sections of Fourth Range road afford limited northwesterly views spans across the Merrimack Valley to high elevations in Henniker, Bradfield and Warner. Fourth Range Road at the Gelinis and Robinson Farms offers limited northeasterly view spans to the high elevations of Pittsfield and Strafford. The top of Plausawa Hill offers panoramic views of the entire region.

OPEN SPACE LANDS/CURRENT USE

Protecting open space is important to maintaining the rural character of Pembroke. Open space conservation is beneficial to the community and to the region as it preserves the land as well as maintains natural features and habitat. Beyond conservation strategies such as easements and acquisition, there is the voluntary current use program for landowners. The current use program is a tool that landowners can use to reduce the amount of property tax that they pay on open space within their property limits as an incentive to keep the land in its traditional use. The current use value is the assessed valuation per acre of open space land based upon the income-producing capability of the land in its current use – not its real estate market value. This valuation shall be determined by the

municipality's assessor in accordance with the range of current use values established by the state's Current Use Board (CUB) and in accordance with the class, type, grade, and location of land. Property owners can file for reduced property taxes through this program.

By allowing open space land to be classified as current use, it acts as an incentive for landowners not to develop property. Owners of parcels of land which are not anticipated to be used for a different type of use in the future can apply at municipal offices, and in accordance with RSA 79-A:2, the definitions of eligible land type are farm land (cleared land devoted or capable of agricultural or horticultural uses), forest land (land growing trees), unproductive land (land, including non-forested wetlands, which by its nature is incapable of producing agricultural or forest products) and wet lands (areas of farm, forest, and unproductive land that are inundated or saturated by surface water or groundwater that is able to support a prevalence of vegetation).

Further noted in RSA 79-A:7, when land is removed from Current Use, ten percent of the full and true value of the land, not the Current Use assessed value, must be paid as a Current Use Land Change Tax. It is important to understand that the Current Use classification can be placed on, or removed from, land at the landowner's discretion which is why these lands vary from conservation lands. In Pembroke, 100% of the proceeds from the Land Use Change Tax are dedicated to open space through the conservation commission.

As of 2016, Pembroke private property owners had enrolled about 8,186 acres (57%) of all land in town into the "current use" system. Acting from a concern that more local lands need to be permanently preserved from development, the 2002 Pembroke Town Meeting voted to place all future monies collected from Current Use Change Taxes into the town's conservation fund where it may then be used by the conservation commission to acquire and preserve land for open space and conservation purposes. Since that time, the conservation commission has begun a land and easement acquisition effort which targets the most appropriate lands for preservation.

Table 8.5 shows the Land Use Change Tax collected for land removed from Current Use for the period of 2010 to 2017. Although the monies collected have not been consistent, this does provide a source of income to the town for natural resource protection and conservation purposes.

Table 8.5: Land Use Change Tax Collected, 2010-2017

Year	Tax Revenue
2010	\$7,740
2011	\$1,320
2012	0
2013	\$6,370
2014	\$8,299
2015	\$17,850
2016	\$7,480
2017	\$3,800

CONSERVATION LANDS

The **Conservation Lands Map** illustrates where conservation lands are located in Pembroke. Table 8.6 lists the 30 recognized conservation properties. These properties total approximately 714 acres, with a minimum size of .24 acres (Robert Frost Park) and a maximum size of 138 acres (Whittemore Town Forest). The total number of conservation parcels owned by the town is 24. One parcel is owned by the State, one by the City of Concord, and four by the private sector with easements held by the town. It should be noted that the following list does not include other town property, such as Memorial Park, Broadway Park, the church properties, the Town Hall/Library parcels, and Pembroke Academy land.

Three of the 24 town-owned properties have additional protection (conservation easements) in place to permanently protect the properties as conservation land. Although many of the properties were obtained for the purposes of conservation, there is no legal protection to keep them in that status. Pembroke should work towards permanent protection of these properties through easements help by conservation non-profits such as the Five Rivers Conservation Trust. As part of the NRI, a review of Pembroke's conservation lands was conducted and results, including more detail on the status and condition of each of these properties, can be found in Appendix A.

Table 8.6: Conservation Lands of Pembroke

Name	Alternate Name	Size (Acres)	Type	Land Owner	Easement Holder
Associated Grocers of New England (AGNE)	AGNE Easement	11.0	CE	AGNE	Town
Ames Brook Conservation Area		48.8	FO	Town	none
Anderson	Bragfield Pond Conservation Area	26.8	FO	Town	NHDES
Baxter		1.5	FO	Town	none
Beacon Hill Conservation Area		42.3	FO	Town	none
Beck Conservation Area		34.3	FO	Town	none
Brittany Conservation Area		10.5	FO	Town	none
Clark Conservation Area		5.0	FO	Town	none
Concord Wellfield		55.5	FO	Concord	none
Doherty Conservation Area		5.1	FO	Town	none
Gamlin Conservation Area		2.5	FO	Town	none
Girard	Robert Frost Park	.24	FO	Town	none
Hillman Farm		46.9	FO	Town	FRCT
Keniston Conservation Area	Keniston Easement	2.7	CE	Topliff	Town
Pembroke Town Forest - Butterfield Tract	Butterfield Conservation Area	22.7	FO	Town	SPNHF
Pembroke Pines Subdivision		33.3	FO	Town	None
Pembroke Water Works		16.0	FO	Town	none
Pembroke Water Works		12.9	FO	Town	none

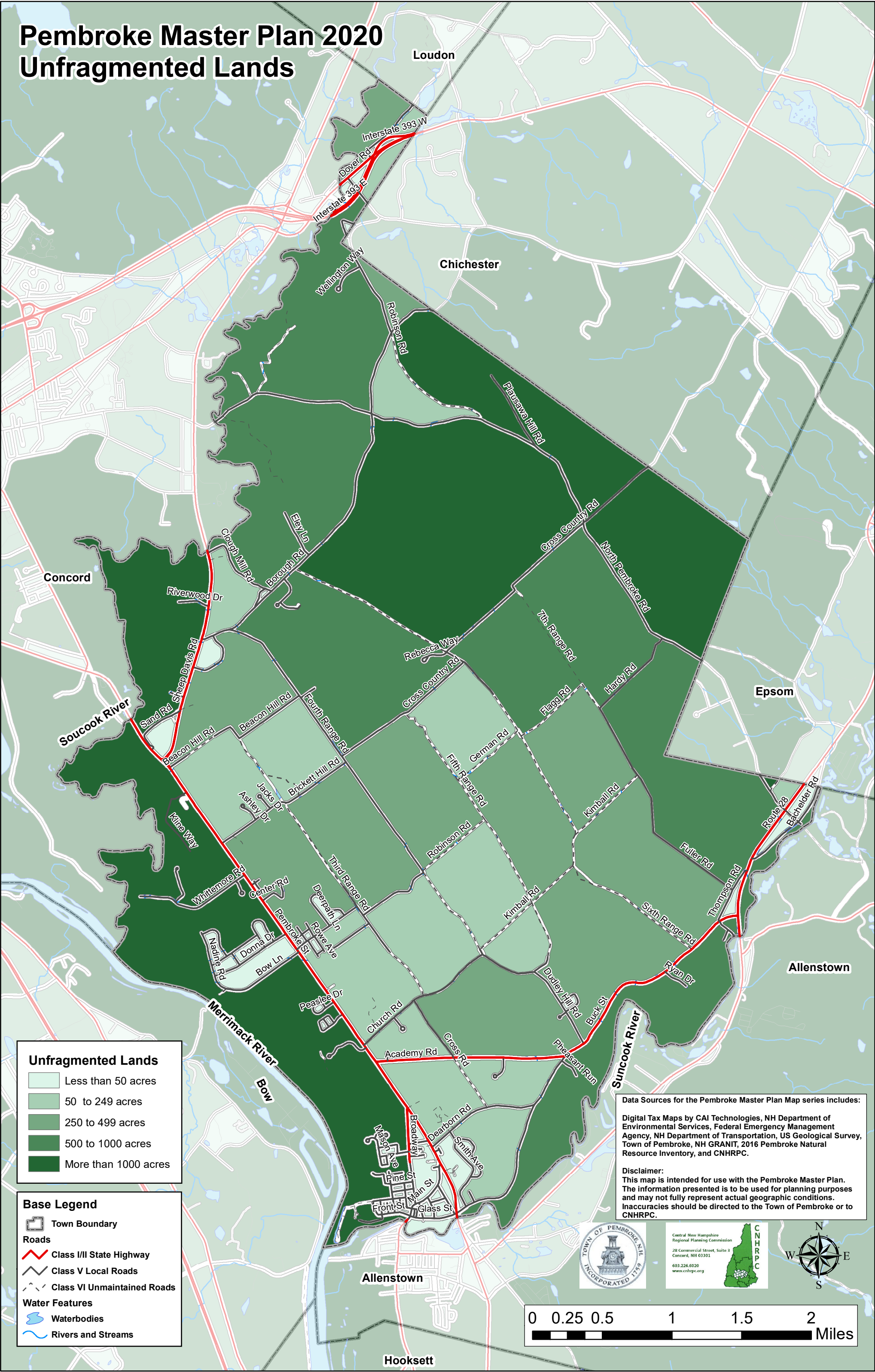
Table 8.6: Conservation Lands of Pembroke Continued

Name	Alternate Name	Size (Acres)	Type	Land Owner	Easement Holder
Poirier		87.2	FO	Town	none
Richard Conservation Area		1.3	FO	Town	none
Schuett Conservation Area		7.3	FO	Town	none
Scripture	Scripture Easement	10.0	CE	Tyler	Town
Suncook River Access		3.8	FO	NHF&G	none
Stoney Brook Conservation Area		0.7	FO	Town	
Taylor Homes Easement	Taylor Conservation Area	7.8	CE	Taylor Homes	Town
Town of Pembroke		11.0	CE	Town	
White Sands Conservation Area		31.7	FO	Town	none
Whittemore Town Forest	Whittemore Conservation Area	138.0	FO	Town	none
356-372 Academy Road		31.5	FO	Town	none
617-619 Sixth Range Road		5.6	FO	Town	none

FO = full ownership; CO = conservation easement; FRCT = Five Rivers Conservation Trust; SPNHF = Society for the Protection of New Hampshire Forests; NHF&G = NH Fish and Game; NHDES= NH Department of Environmental Services.

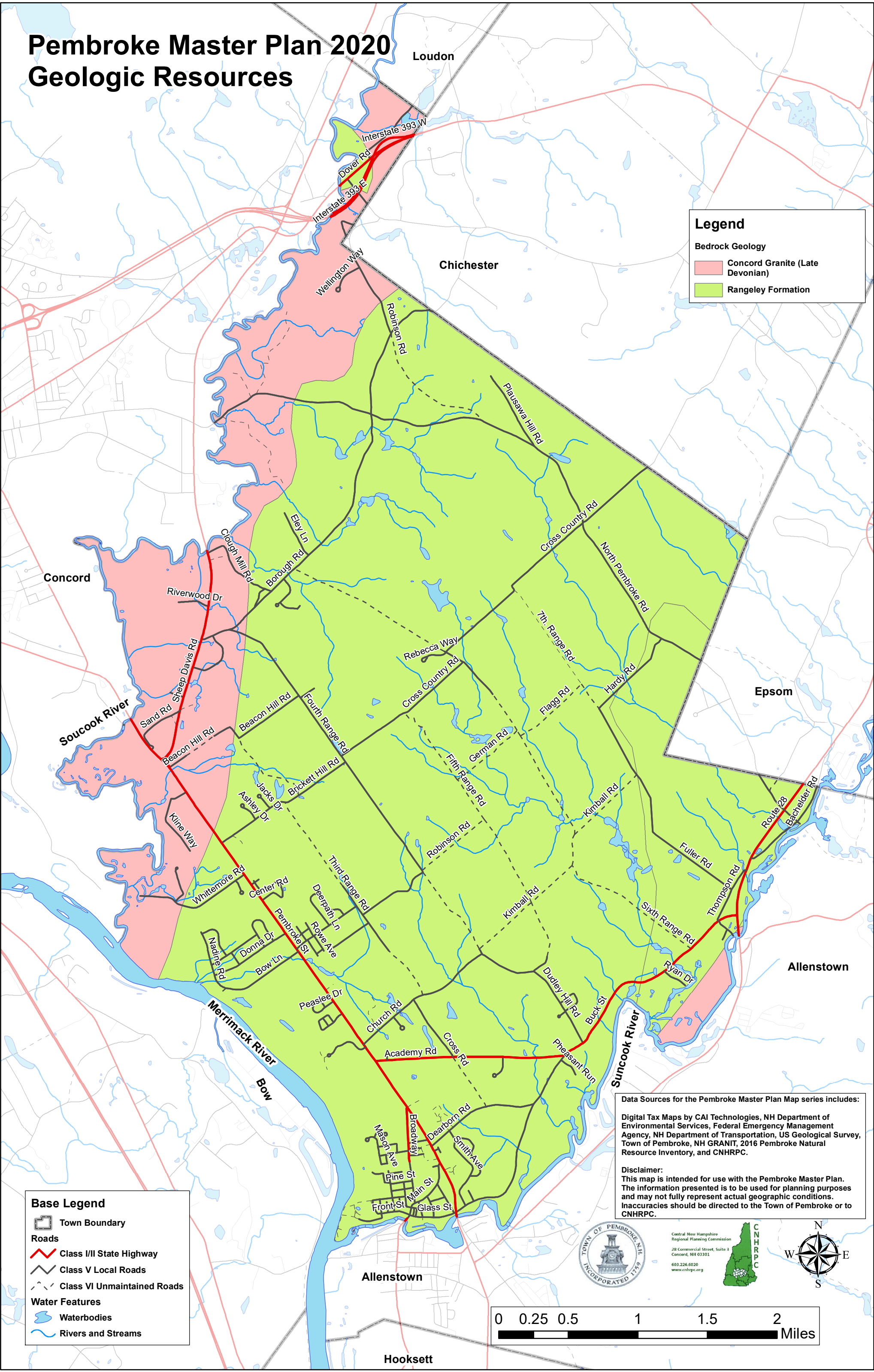
Pembroke Master Plan 2020

Unfragmented Lands



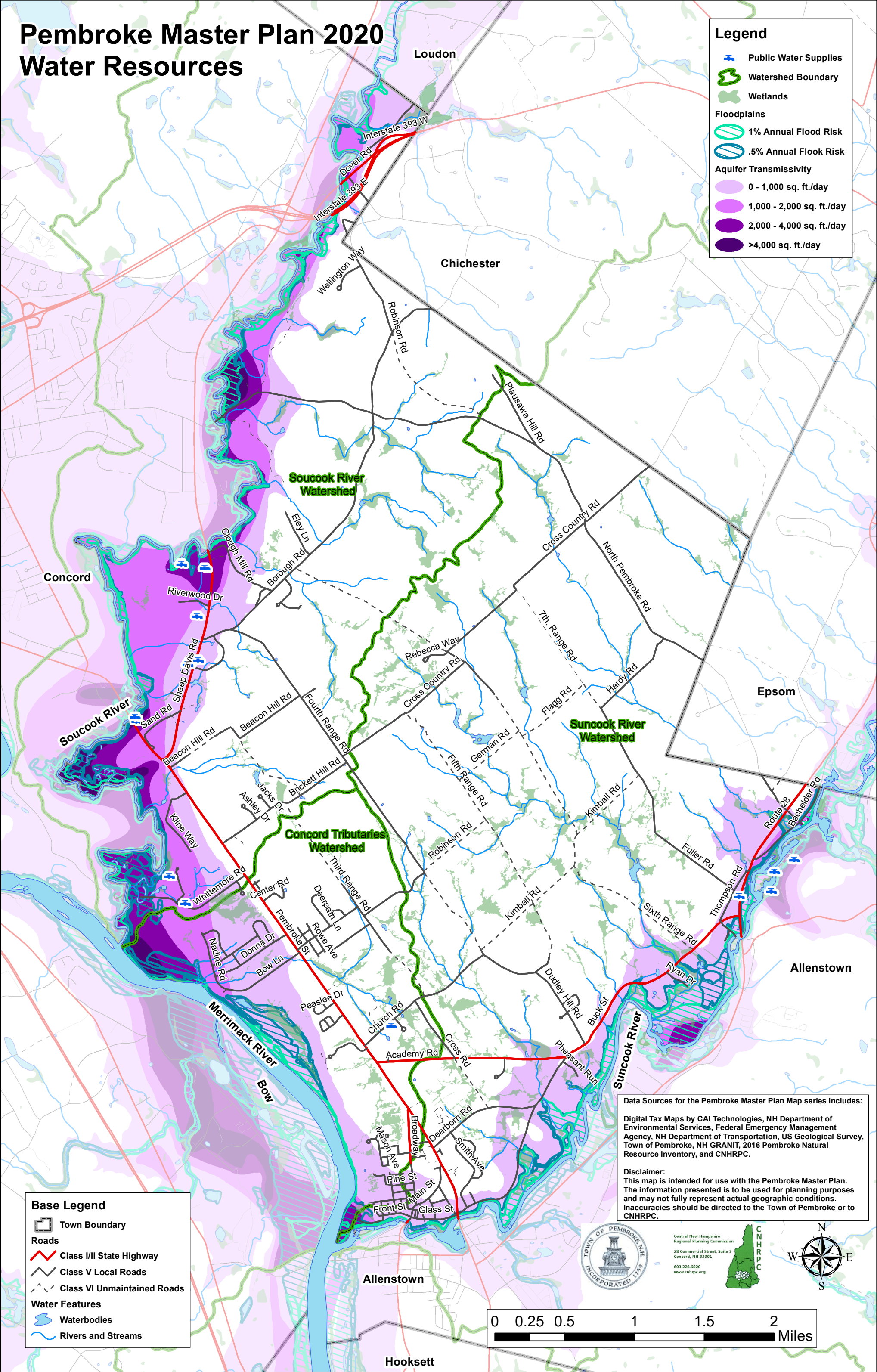
Pembroke Master Plan 2020

Geologic Resources



Pembroke Master Plan 2020

Water Resources



Pembroke Master Plan 2020

Topography and Wetlands

Legend

Topographic Contours

20'

100'

Wetlands

Highest Scoring Wetlands

Base Legend

Town Boundary

Roads

Class I/II State Highway

Class V Local Roads

Class VI Unmaintained Roads

Water Features

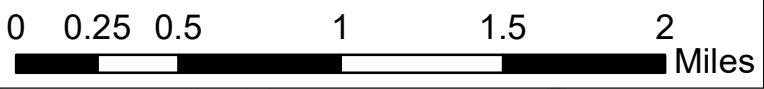
Waterbodies

Rivers and Streams

Data Sources for the Pembroke Master Plan Map series includes:

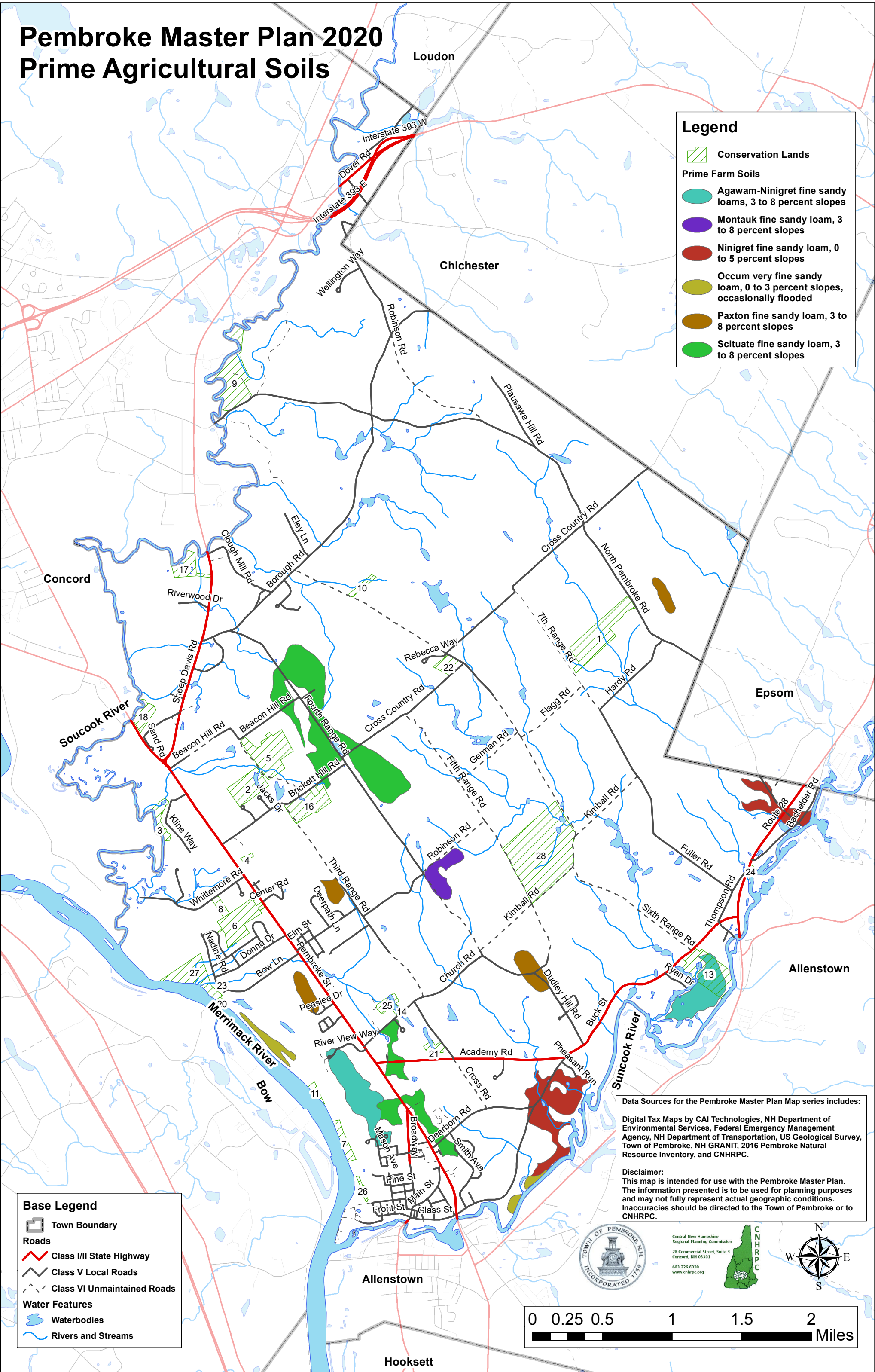
Digital Tax Maps by CAI Technologies, NH Department of Environmental Services, Federal Emergency Management Agency, NH Department of Transportation, US Geological Survey, Town of Pembroke, NH GRANIT, 2016 Pembroke Natural Resource Inventory, and CNHRPC.

Disclaimer:
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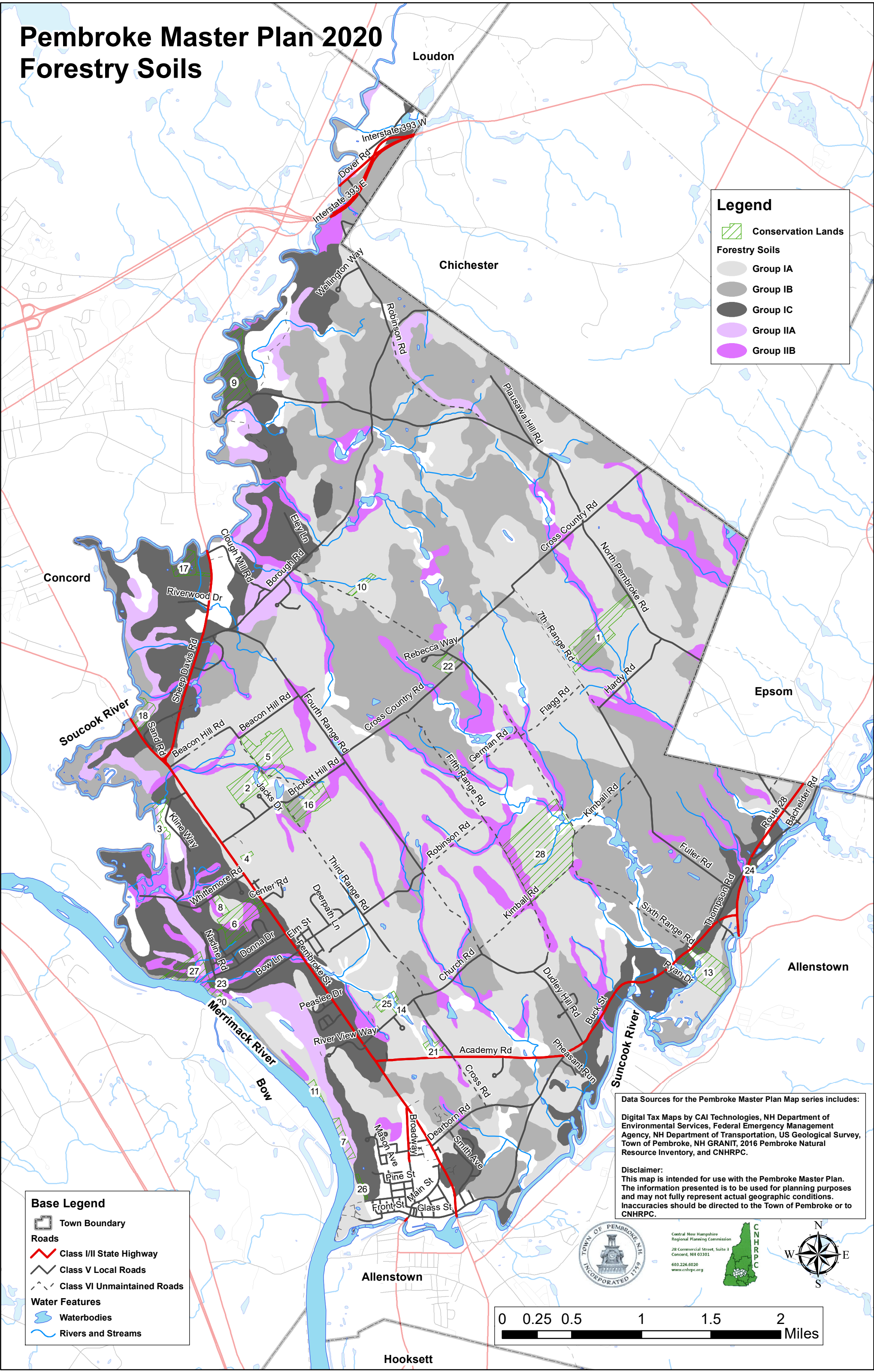
Pembroke Master Plan 2020

Prime Agricultural Soils



Pembroke Master Plan 2020

Forestry Soils




Pembroke Master Plan 2020


Scenic Views


1. Town Hall
2. Keniston Conservation Area
3. Mary Bartlett Grange view
4. Academy Rd Marsh
5. Soucook River at Sheep Davis
6. Soucook River at No. Pembroke Rd
7. No. Pembroke Rd Lower Ames Bk
8. Suncook River bridge at Mills
9. RR bridge at lower Bridge St
10. Entrance into Memorial Park
11. Suncook-Merrimack Rivers confluence
12. Merrimack River at bend
13. Pembroke Pines
14. Upper Ames Bk Conservation Area
15. Lower Ames Bk at Batchelder Rd
16. Lower Batchelder Rd near Suncook
17. Suncook River from Old Bear Bk Rd
18. Hillman Farm from Buck St
19. Lower Pettengill River from end Ryan Rd
20. Suncook River Bend Marsh from Buck St
21. Open fields off NE Olympic Fields drive
22. Riparian slough fields off Gooses Way
23. Upper Bragfield Pd from Brickett Hill Rd
24. Vernal pond at Butterfield Cons. Area
25. AGNE pond and fields at Cons. Area
26. Lower White Sands view of Merrimack
27. No. end of Bragfield Pond from edge
28. Lower Suncook River from Memorial Park
29. Merrimack River from White Sands
30. Lower Soucook River from rail trail
31. W. fork of Hartford Bk Academy Rd
32. Kimball & Sixth Range Marsh
33. Soucook River from Pembroke St Water Wks
34. Sixth Range Rd field edge
35. Upper Brush Rd field edge

Base Legend


Roads


 Class I/II State Highway

 Class V Local Roads

 Class VI Unmaintained Roads

Water Features

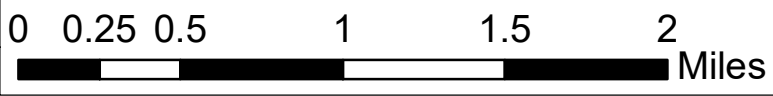
 Waterbodies

 Rivers and Streams

Data Sources for the Pembroke Master Plan Map series includes:

Digital Tax Maps by CAI Technologies, NH Department of Environmental Services, Federal Emergency Management Agency, NH Department of Transportation, US Geological Survey, Town of Pembroke, NH GRANIT, 2016 Pembroke Natural Resource Inventory, and CNHRPC.

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Pembroke Master Plan 2020
Conservation Lands

Legend

Conservation Lands

Conservation Easement

Fee Ownership

Conservation Lands - Surrounding Towns

Town-Owned Lands

Property Boundaries

Base Legend

Town Boundary

Roads

Class I/II State Highway

Class V Local Roads

Class VI Unmaintained Roads

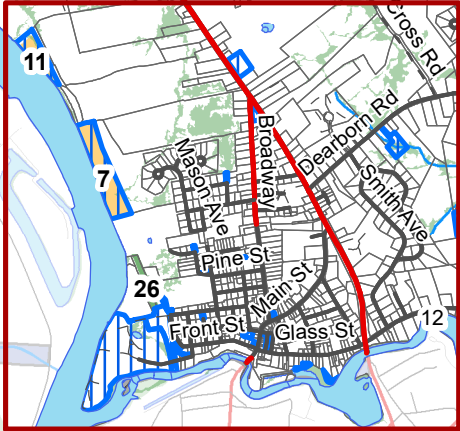
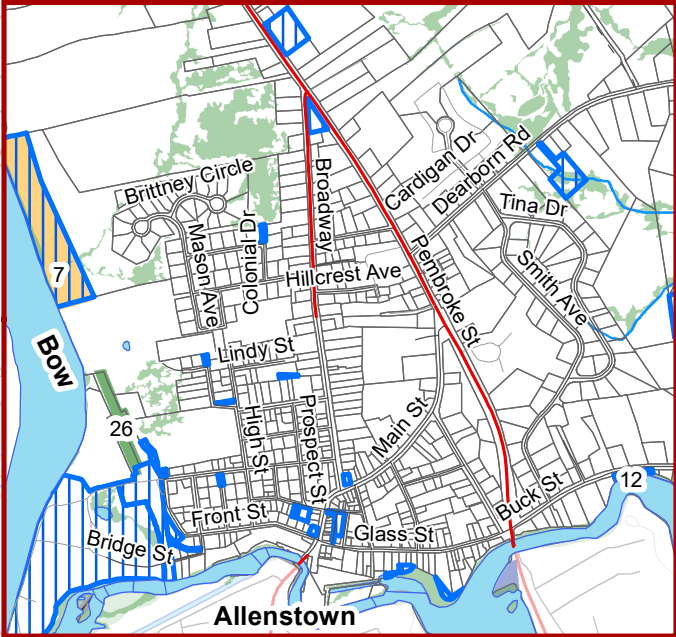
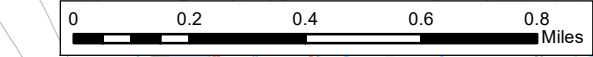
Water Features

Waterbodies

Rivers and Streams

Wetlands

ID Number	Name	Protection Type	Acreage
1	Ames Brook Conservation Area	Fee Ownership	48.8
2	Anderson (Bragfield Pond Conservation Area)	Fee Ownership	26.8
3	Associated Grocers of New England	Conservation Easement	11.0
4	Baxter Conservation Area	Fee Ownership	1.5
5	Beacon Hill Conservation Area	Fee Ownership	42.3
6	Beck Conservation Area	Fee Ownership	34.3
7	Brittany Conservation Area	Fee Ownership	10.5
8	Clark Conservation Area	Fee Ownership	5.0
9	Concord Wellfield	Fee Ownership	55.5
10	Doherty Conservation Area	Fee Ownership	5.1
11	Gamlin Conservation Area	Fee Ownership	2.5
12	Girard (Robert Frost Park)	Conservation Easement	0.24
13	Hillman Farm	Fee Ownership	46.9
14	Keniston	Conservation Easement	2.7
15	Pembroke Town Forest - Butterfield Tract	Fee Ownership	22.7
16	Pembroke Water Works	Fee Ownership	16.0
17	Pembroke Water Works	Fee Ownership	12.9
18	Poirier	Conservation Easement	87.2
19	Richard Conservation Area	Fee Ownership	1.3
20	Schuett Conservation Area	Conservation Easement	7.3
21	Scripture	Fee Ownership	10.0
22	Stoney Brook Conservation Area	Fee Ownership	0.7
23	Suncook River Access	Fee Ownership	3.8
24	Taylor Homes Easement	Fee Ownership	7.8
25	Town of Pembroke Land	Conservation Easement	11.0
26	White Sands Conservation Area	Fee Ownership	31.7
27	Whittemore Town Forest	Fee Ownership	138.0
28	617 - 619 Sixth Range Rd	Conservation Easement	5.6



Data Sources for the Pembroke Master Plan Map series includes:

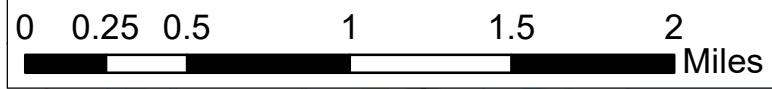
Digital Tax Maps by CAI Technologies, NH Department of Environmental Services, Federal Emergency Management Agency, NH Department of Transportation, US Geological Survey, Town of Pembroke, NH GRANIT, 2016 Pembroke Natural Resource Inventory, and CNHRPC.

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Central New Hampshire
Regional Planning Commission
28 Commercial Street, Suite 3
Concord, NH 03301
603.226.6020
www.cnhrpc.org



9 COMMUNITY HERITAGE AND SENSE OF PLACE



TOPICS INCLUDE:

Understanding Pembroke's community heritage

Challenges & opportunities going forward

Summary of Pembroke's historic resources & architectural heritage

This chapter focuses on historic and cultural resources and explores opportunities to connect these resources to other chapters in the master plan. Understanding how a community has developed over time helps to inform future development and protection efforts and is an essential foundation for the important topics covered in other chapters, such as land use, natural resources and economic development. Keeping the shared vision of preserving the town's highly valued community heritage and sense of place should be carried forward to the entire master plan. All of Pembroke's natural and cultural resources contribute to creating the sense of place that is unique to Pembroke.

The 2004 Historic and Cultural Resources Chapter includes extensive information on the town's cultural and historic resources and its archeological resources and historic villages; readers should refer directly to that report for more detail, which is incorporated into this plan by reference (See Appendix).

Pembroke is...

a community that embraces its unique, historical character and encourages an understanding of the town's history and its role in enriching community life and the sense of place that residents enjoy. Pembroke values its traditions as well as the architecture that shapes its surroundings and is committed to ensuring that cultural and historic resources are appreciated for their value in retaining visual character and enhancing quality of life.

WHAT THE COMMUNITY SAID...

Participants in the Pembroke public outreach process consistently voiced a desire to preserve the rural character and sense of place, with a majority ranking the historic character, community spirit and Suncook Village as important. Many expressed their support for preserving Suncook Village as an historic resource and encouraging rehabilitation of Main Street building facades. The overwhelming majority (84%) of responses ranked maintaining Pembroke's rural character as important/somewhat important to them and there was strong support (75%) for community cultural events such as Old Home Day, Summer Concert Series, etc. Some of the responses to the question on identifying a special site or place that should be protected include the clock tower and Suncook Village.

Themes that can be identified from the visioning session and community survey include:

- Importance of historic character and cultural heritage to overall quality of life;
- Need for balance between development and preservation;
- Interest in focusing new development near existing development to retain Pembroke's rural character;
- Desire to maintain rural aspects of Pembroke to preserve the quality of life and community character;
- Support for the continued evolution of Suncook Village into a pedestrian-friendly downtown with small businesses and housing options; and
- Desire to maintain and enhance community spirit and connection through a strong sense of community identity, social investment and sense of place.

SENSE OF PLACE/COMMUNITY

What do we mean by “sense of place?” Sense of place refers to the combination of unique characteristics that make a place special. Aesthetic, historic sites, environmental features, and the intangible community feeling all contribute to a town’s sense of place. The rural character so highly valued by Pembroke residents is deeply rooted in sense of place and is often used to describe all those special places in a community.

In Pembroke, residents identified those characteristics as historic architecture, the cultural and historic significance of Suncook Village, social events like Old Home Days, Christmas in the Village, rowing regattas on the Merrimack River, and the many farms, rivers, and forests. From its mill buildings to its stone walls, to its corn fields and rural-village feel, residents value all of these characteristics. This sense of place inspires a deep feeling of community spirit and pride, and that pride lends itself back to making Pembroke a special place to live. As Pembroke moves into the future, decision-making needs to be conscious of preserving the cultural and natural resources that make Pembroke unique from other towns.

MEET ME IN SUNCOOK

The Meet Me in Suncook Committee was established as a nonprofit organization in 1999 for the purposes of “fostering an appreciation of the history of Suncook and to encourage preservation of its architecture as well as to promote the growth and prosperity of the Village. Since that time, the organization has accomplished many notable achievements in Suncook Village, including:

- Fund raising for the restoration and maintenance of the Suncook Village Clock
- Participated in the planning that led to the town’s retention and maintenance of the old Fire and Police Station (the Perry Eaton Building) on Union Street in Pembroke
- Sponsorship of the listing of the downtown in the National Register of Historic Places
- Writing and petitioning for state historical markers commemorating the village, the “Suncook Connection” double-deck bridge, Robert Frost’s honeymoon in Suncook, and a combined marker for Pembroke Street and the Pembroke Street Horse Watering Trough
- Creating a program offering historic building plaques to downtown property owners
- Organizing a number of walking tours of Suncook Village
- Creating a self-guided tour map for the Village
- Sponsorship of several art contests for local students

All of the organization’s efforts have had a positive economic impact on the village and the broader communities of Pembroke and Allenstown and have enhanced a sense of pride, history, and accomplishment in Suncook Village.

CHALLENGES AND OPPORTUNITIES

STEWARDSHIP

Sound and responsible stewardship of our historic and cultural resources is usually associated with assuming a certain level of responsibility for protecting, managing and providing education about these resources. These responsibilities can take on many aspects, from volunteering for local boards and committees to participating in community events and other educational opportunities, all in an effort to create an interest, and encourage more participation, in active stewardship. Stewardship responsibilities can range from taking care of our own property's resources such as stone walls, cellar holes and historic houses to lands that are held by the town. The challenge is to engage the community at multiple levels, from what they can do with their own property to participating in the protection of these resources by the town or other organizations. One potential opportunity could be the establishment of a Heritage Commission, discussed in more detail in the following section on Objectives and Recommendations.

VOLUNTEERISM

Tied very closely to stewardship of our cultural and natural resources, volunteerism plays a large role in the success or failure of many activities. Why an individual decides to volunteer is instrumental in understanding how to approach recruitment of a broader base of volunteers in our communities, specifically, it is critical that we figure out what will attract a younger demographic to participate in more of our local and regional boards and committees. Reliable data on why people volunteer is not readily available but one can easily assume that it can be for reasons such as a strong commitment to civic engagement, giving back to the community or a personal commitment or interest in a particular asset of the community, a civic function, or an unmet need.

New Hampshire communities like Pembroke have a long tradition of reliance on volunteerism to fulfill many local functions like planning and natural and cultural resource protection. Using volunteers to support efforts for cultural events such as Old Home Day and other initiatives is often critical to the success of the event. Looking for new and creative partnerships to help with a specific project can be invaluable to getting a project off the ground and engaging new residents in town activities. How Pembroke responds to the reality of an aging population, a declining pool of a younger population ready to take over, and the overall drop in the volunteering rate is going to be critical to maintaining the integrity and sense of community so valued by residents.

FUNDING

Funding is another challenge, especially for municipalities. The types of projects that preserve cultural and natural resources usually require some kind of funding. It could be costs associated with the restoration of a historic façade or attorney fees required to draft an easement deed to protect a valuable piece of conservation land. Nearly all community projects require some kind of financial assistance. All towns struggle with balancing a reasonable tax rate and providing excellent service to its residents. When you add in special projects beyond the scope of regular town maintenance and services, like for cultural and environmental initiatives, communities sometimes find themselves scraping the bottom of the funding barrel.

So how can preservation of our cultural and natural resources be funded? First, there are grants available from state and federal governments as well as private organizations. Grant programs like EPA's brownfields redevelopment, the state Land and Community Heritage Investment Program and the National Park Service's grants for historic preservation and technology and training can assist communities in achieving their goals. There is also the option of establishing a non-profit such as a Friends group that could support activities related to not only community heritage, but conservation and other endeavors. Reaching out to create innovative partnerships with different town boards and committees can create new opportunities to also attract volunteers who may not be able to commit to attending meetings and administrative functions.

Private fundraising is also an option and can be pursued with the help of social media and online fundraiser websites like GoFundMe, where donors can follow the progress of the project online and, therefore, feel more connected to the cause they have donated to. There are some recommendations in the next section that are tied to funding and have been a priority since the last master plan in 2004, including the completion of a town-wide architectural survey.

EDUCATION

Creating public awareness for special places and community features can help generate interest and attract more people who may be able to contribute to the cause. Educating the public about the things that make Pembroke special can go a long way. This can be achieved through interpretive signage on-site, information on the town website, organized events (like educational trail walks or historic Village tours), or event booths at Old Home Day promoting Pembroke's cultural and natural resources.

While Pembroke public schools do provide opportunities for students to learn about history through "history days" and other events, finding more ways to collaborate with stewards of the town's cultural and natural resources would support the integration of locally-inspired curriculum into students' education. For example, a lesson plan on New England's mill history might end in a field trip to Suncook Village where students can see the effects of history on modern times and cultivate more appreciation for their hometown treasures.

These are just a few ways to create public awareness and get more people involved. The more community involvement, the more support for preservation of cultural and natural resources.

CHAPTER OBJECTIVES & RECOMMENDATIONS

OBJECTIVE 1 Respect and value Pembroke's rural character.	<ul style="list-style-type: none"> → Encourage developers and landowners to consider preserving the historic and cultural resources found upon the landscape by promotion and education. → Encourage legislation and/or policies that establish an incentive for preservation of archaeological and historic resources on private property. → Protect and preserve stone walls along range roads and encourage landowners to consider retaining or rebuilding stone walls during alteration or development.
OBJECTIVE 2 Support connectivity that links natural, cultural and community networks	<ul style="list-style-type: none"> → Cooperate with other municipalities in seeking legislation to authorize the adoption of comprehensive policies for managing Class VI roads. → Preserve existing range roads as Class VI roads or as Class B trails, or upgrade only if necessary while preserving the historical integrity of the roadway. → Look for opportunities to support the planning and creation of public spaces such as park benches, landscaping, community events or creative use of public buildings.
OBJECTIVE 3 Encourage sustainable development practices that includes historic preservation.	<ul style="list-style-type: none"> → Develop architectural design guidelines to enhance the aesthetics, character, and existing design of residences and businesses in the Suncook Village area. → Improve the language of the Architectural Overlay District to stipulate aesthetic guidelines which are appropriate for preserving existing historic architecture and encouraging the adherence of the guidelines by new development. → Encourage the granting of discretionary preservation easements as authorized under RSA 79-D.
OBJECTIVE 4 Create a community of residents and homeowners that understand and appreciate Pembroke's historic and cultural assets and are interested in connecting and educating others on the importance of preserving historic and cultural assets.	<ul style="list-style-type: none"> → Develop/update educational materials in an effort to engage residents to participate in the protection and preservation of the natural and cultural environment. → Work towards the establishment of a Pembroke Heritage Commission. → Plan for a town-wide survey of historic structures that will provide direction for any future designations or education programs. → Encourage town administration to distribute materials to property owners and builders relating to historic and cultural resources and grant opportunities for preserving these features. → Communicate with the NH Division of Historical Resources on a regular basis to obtain current information on resource preservation that can be disseminated to the public.

HERITAGE COMMISSIONS

Heritage Commissions can offer a valuable opportunity for a community to manage, recognize and protect historic and cultural resources. Since 1992, heritage commissions have provided opportunities for local governments in NH to manage, recognize, and protect historical and cultural resources. As outlined in RSA 673:1(II) and 674:44-b, there are a range of advisory activities and each community can use the enabling statute to meet specific needs or address pressing issues and concerns. Activities of a heritage commission can include advising and assisting other local boards and commissions; conducting inventories; educating the public on matters relating to historic preservation; and serving as a resource on Town history and any revitalization efforts. A heritage commission can also accept and expend funds for a non-lapsing heritage fund, acquire and manage property, and hold preservation easements.

A heritage commission is uniquely suited to advise local agencies and boards on matters that might affect historical or cultural resources. One of its purposes is to serve as steward for all such resources within the community. For instance, the planning board can consult with the heritage commission if it is reviewing a project that might impact a historic building, or the conservation commission might seek background data on a farm building associated with land it is trying to conserve. The commission could testify in support of a variance before the zoning board of adjustment, if the outcome would preserve a significant resource and retain the spirit of the ordinance. The board of selectmen might seek input when it needs to develop a work program for renovating or disposing of a civic structure. There are many opportunities to collaborate with other boards and committees to protect cultural and historical resources. In summary, a heritage commission functions similarly to what a conservation commission does for natural resources.

Source: Based on information from the NH Preservation Alliance

EARLY HISTORY

Granted in 1728, the town was first known as "Lovewell's Town", in honor of Captain John Lovewell. Lovewell was widely regarded as a martyred hero when he and half of his fellow rangers were killed in 1725 in "Lovewell's fight" with the chieftain Paugus and a party of eighty raiders near today's Fryeburg, Maine. Shortly afterward, the town took the name of "Suncook", the Pennacook Abenaki name for the river flowing through the area. When the town was incorporated in 1759 by Colonial Governor Benning Wentworth, it was given the name "Pembroke" in honor of Henry Herbert, ninth Earl of Pembroke in southern Wales.¹

The name "Suncook" given to our village and the river forming Pembroke's boundary with Allenstown is derived from Abenaki words: "Senikok" for at the rocks and "Suncook" for rocky place.²

¹ Elmer Munson Hunt, *New Hampshire Town Names and Whence They Came* (Peterborough: William L. Bauhan, 1970).

² https://en.wikipedia.org/wiki/List_of_place_names_of_Native_American_origin_in_New_England#New_Hampshire

In his pamphlet “Historic Indian Trails of NH,” Chester Price describes the Suncook Trail, noting that the “‘Sen-kek,’ or ‘Sen-kook,’ ‘Stony (water) place’ Trail led from what is now Manchester along the east bank of the Merrimack River to the Suncook River, and followed the banks of that stream though the Suncook valley ...” The pamphlet continues by noting that the regions encompassed by the trail were “much frequented by ancient Indian tribes, as attested by the great numbers of very old artifacts found at these places.”

HISTORIC RESOURCES

Pembroke was a prosperous agricultural community and supported several industrial centers and brickyards for much of the nineteenth and early twentieth centuries. Evidence of Pembroke’s past exists in its historic homes, churches, village center, and the rural outskirts of town, especially the agricultural lands along Buck Street and the horse farms along the Fourth Range Road. The structures and sites that tell the story of Pembroke’s history and culture are irreplaceable. They need to be preserved as Pembroke grows and changes.

The defining characteristic of Pembroke’s cultural heritage can be found scattered throughout town and clustered in its historic village as well as the views and vistas offered along roads lined with mature trees and stone walls. Many of the historical and cultural resources are shown on the **Historical and Cultural Resources Map**. Preservation of these resources is accomplished through a variety of programs, including those listed below.

NATIONAL REGISTER OF HISTORIC PLACES

Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program that coordinates and supports public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the US Department of the Interior. Locally, it is administered by the [NH Division of Historical Resources](#) (the State Historic Preservation Office) in Concord.

In order to promote places of historic importance through National Historic Register designation, a research and writing effort is required of townspeople or consultants. Once a property is listed, the benefits are: recognition that a property is of significance to the Nation, the State, or the community; consideration in the planning for Federal or federally assisted projects; eligibility for Federal tax benefits; and qualification for federal and state assistance for historic preservation, when funds are available. Table 9.1 lists the existing National Register sites in Pembroke.

Table 9.1: National Register of Historic Site Listings in Pembroke

National Register Entry	Date Listed	Location
Noyes Block ¹	02/27/86	48 Glass Street
Pembroke Mill (Emerson Mill)	09/12/85	100 Main Street, Corner of Front & Main
Suncook Village Commercial/Civic Historic District	3/15/05	Central Suncook Village

Source: National Register of Historic Places Database, 01/18

¹ The building has two names on the National Register nomination: a common name and a historic name.

STATE REGISTER OF HISTORIC PLACES

The NH Division of Historical Resources also administers the New Hampshire State Register of Historic Places. The State Register offers a less complex means of listing and recognizing significant buildings, districts, sites, landscapes, structures or objects that are meaningful in the history, architecture, archaeology, engineering, or traditions of New Hampshire residents and communities. The benefits of State Register listing parallel those described above for the National Register. Neither the National nor the State Register of Historic Places impose any restrictions on private property rights.

STATE OF NEW HAMPSHIRE MARKERS

New Hampshire's state highway historical marker program is administered by the NH Division of Historical Resources (NHDHR). Marker requests are reviewed by the State Historic Preservation Officer; costs of the markers are borne either by the Transportation Fund or the sponsoring municipality/organization. Requests for markers must include draft text for the marker, research and justification, and a petition signed by at least 20 persons. There are three state historical markers in town. It should be noted that the NH Division of Historical Resources website does not list the current titles of the markers for the First Meeting House and Pembroke Street/Watering Trough.

Table 9.2: State Historical Markers in Pembroke

State Historical Marker	Date Erected	Location
First Meetinghouse	2008 ²	Route 3 adjacent to Whittemore Homestead
Pembroke Street/Pembroke Watering Trough	2016	Route 3 at Pembroke Hill Road
Suncook Village	2003	Corner of Main and Union Streets, Suncook Village

Source: NH Division of Historical Resources archives, personal communication, James Garvin

LOCAL HISTORICAL MARKERS AND SIGNIFICANT HISTORIC SITES AND STRUCTURES

Local markers are erected by residents to celebrate the uniqueness of the community and its heritage. There are 24 local markers that are known in Pembroke and they are shown on the **Historic and Cultural Resources Map**. Many historic sites and structures document the early community of Pembroke and are also listed on this map.

ARCHAEOLOGICAL SITES AND RESOURCES

Archaeological resources are non-renewable resources - once such a site is disturbed, some or all of the information is lost forever. While there are state and federal laws that protect sites that lie under public lands and waters as well as private sites that require state permits or government funding, many sites are on private lands. For this reason, archaeologists and historians universally urge all private property owners to refrain from investigating known or suspected archaeological sites except under the guidance of a trained archaeologist. The best protection for archaeological resources is almost always to leave them alone until a genuine need, either for information or for changes to the land, arises at some future time.

With its extensive Merrimack River frontage downstream from Garvin's Falls, and with its two other boundary streams, Pembroke clearly offers a high potential for prehistoric archaeological sites. A number of potential locations for such sites have been subjected to potentially damaging activities over the years, and many such sites have probably been destroyed.

The building and rebuilding of Suncook Village in the eighteenth and nineteenth centuries, clay excavation for brick manufacturing along the Merrimack River in the nineteenth century, the grading of Memorial Field and the landscaping of Pembroke Pines Country Club in recent years, and ongoing sand and gravel mining along both the Merrimack and the Soucook Rivers have undoubtedly destroyed many prehistoric sites and deprived posterity of the information they might have offered.

Pembroke is especially fortunate in having a reliable guide to those historic sites that date before 1895. That guide is offered by the *History of Pembroke, N. H., 1730-1895*, written by the Rev. N. F. Carter and Hon. Trueworthy L. Fowler. The two maps and their descriptive keys offer a comprehensive guide to nearly every site that had been occupied in town down to the end of the nineteenth century, including those that had already been transformed through abandonment into archaeological sites.

Because it has been the site of a number of federally-funded highway and bridge projects or of housing projects that have required federal permits, and because its river frontage has been transected by a gas transmission pipeline, Pembroke has been the focus of a number of archaeological investigations. Many of these site reports were written or co-authored by Victoria Bunker Kenyon. Published articles relating to Pembroke's archaeology, several of them by Ms. Kenyon, are cited in the *Historical Documents or Studies* section.

RANGE ROADS

Pembroke has one of the earliest, most regular, and best-preserved systems of range roads and cross range roads to survive anywhere in New Hampshire. In some cases, these roads survive only as nearly abandoned lanes between parallel stone walls, more frequented by hunters or loggers than by ordinary travelers. In other cases, the range roads are the principal routes of automobile travel and of access to homes and businesses. Most of the town's principal roads retain designations like "Third Range Road" or "Fourth Range Road." Even the road commonly known as "North Pembroke Road" bears the alternate name of "Eighth Range Road."

Range roads are defined as parallel highways that provide (or once provided) access to rows or ranges of farm lots of generally regular size. To connect these parallel highways, other roads were laid out at right angles, as needed. These right-angle connectors are often called "cross range roads." Examples of cross range roads in Pembroke are Brickett Hill Road, Cross Country Road, and Pembroke Hill Road. Together, Pembroke's range roads, cross range roads, and farm lots superimpose a grid on the land.

This road system of Pembroke retains the old Suncook layout of the 1730s, and that plan persists today. The system of parallel roads is thus a visible reflection of Pembroke's earliest years of settlement. The careful preservation of that system, both for highway and for trail uses, should be a conscious tribute by present and future generations to the first planners and settlers of the land that became Pembroke.

STONE WALLS

Pembroke has some of the finest stone walls in the Merrimack Valley. The impressiveness of these structures is enhanced by the fact that many of them border the straight roads and rectangular fields that were dictated by Pembroke's range township layout (see "Pembroke Range Roads"). The walls thus became a stone grid that makes the rectilinear town plan visible across our landscape.

Pembroke has varied examples of stone walls. Some are a single stone in thickness, yet rise to a surprising height for structures that seem so unstable and have received so little maintenance for so many decades. Others are built with two separate faces of stone, with the two or three foot gap between these structures filled with thousands of smaller stones and pebbles turned up by the plow during decades of tillage.

While most walls in Pembroke are built from the glacially-rounded fieldstones that are found everywhere in central New Hampshire, some of our finest walls were constructed from split granite along the roadway frontages of such early burying grounds as Pembroke Street Cemetery, Old North Pembroke Cemetery, New North Pembroke Cemetery, and Pembroke Hill Cemetery.

Pembroke also has a rare stone structure in its surviving town animal pound. Built in 1813, this high, rectangular fieldstone enclosure stands on Pembroke Hill Road near its juncture with Fourth Range Road. Built to hold stray livestock until the animals could be claimed by their owners, the Pembroke town pound is one of relatively few structures of its type to survive in the Merrimack River Valley.

PEMBROKE CEMETERIES

Pembroke has eight public cemeteries and two private cemeteries. Several of the public cemeteries were originally established as private burying grounds and later transferred to town custody for safekeeping and maintenance. Among the public cemeteries, three - Old North Pembroke, Abbott, and Richardson—are filled and closed to future use. All of Pembroke's cemeteries are considered historic, and all are subject to protection under RSA 289, the state statute that deals with cemeteries. The oldest gravestones are found in Pembroke Street Cemetery, behind the Hearse House.

Table 9.3: Public Cemeteries

Name	Date	Location
Pembroke Street Cemetery	By 1750	Pembroke Street
Buck Street Cemetery	1799	Buck Street
Old North Pembroke Cemetery	1801	North Pembroke (Eighth Range) Road
New North Pembroke Cemetery	1860	North Pembroke (Eighth Range) Road
Pembroke Hill Cemetery	c. 1860	Fourth Range Road (originally private)
Abbott Cemetery	c. 1815	Borough Road near Sixth Range Road (originally private)
Richardson Cemetery	c. 1850	Sixth Range Road at Cross Country Road (originally private)
Evergreen Cemetery	1885	Buck Street (originally private)

Source: Input from the Natural & Cultural Resources Subcommittee

Table 9.4: Private Cemeteries

Name	Date	Location
French-Dearborn Cemetery	c.1823	Off Borough Road near North Pembroke Road
French Cemetery	c. 1850	North Pembroke Road near Borough Road

Source: Input from the Natural & Cultural Resources Subcommittee

MILL SITES AND HISTORIC DAMS

Pembroke was once the site of numerous mills on the Suncook and Soucook Rivers. Except for Suncook Village, where Pembroke's earliest mills were established in the 1730s, all of these water-powered sites have disappeared and their dams have been removed. At the center of Suncook Village, the river powered gristmills, sawmills, paper mills, a nail factory, and fulling mills for cleansing woolen cloth. Just upstream from the double-deck bridge, a former dam powered grist and sawmills. A window glass factory, not powered by water, operated during the 1830s between the upper and lower Suncook Village mills.

On the western side of town, the Soucook River forms the boundary with Concord and powered sawmills, gristmills, and fulling mills.

Suncook Village was long a site of textile manufacturing. The Pembroke Cotton Factory Company built the first textile mill here in 1811. The first mill was replaced by a second, which burned in 1859. The third mill, Pembroke Mill (now called Emerson Mill for a later corporate owner), which stands today, was built in 1860 and now houses condominiums. It was the first (and smallest) of three mills built in Suncook Village during the 1860s by the Pembroke Mills Company. It is 273 feet long and 72 feet wide. In 1895 it had 20,000 spindles and 422 looms, and was powered by two turbines producing 400 horsepower, and for auxiliary power had two steam engines that produced another 400 horsepower. It was listed in the National Register of Historic Places in 1985.

A second factory, named Webster Mill, was built just upstream in 1865. It burned in 1983. It was larger than Pembroke Mill, being 310 feet long and 72 feet wide. Its dam remains, and supplies water through a power canal and penstock to a modern hydroelectric plant some 1,200 feet downstream from the Webster Mill dam at Pembroke or Emerson Mill, in the approximate location of that mill's original power house.

The third factory, China Mill, was built on the south (Allentown) side of Suncook River in 1868. It is 510 feet long and 72 feet wide, and employed 800 people in 1895. It still produces textiles and generates hydroelectric power through its own turbines and a rope-driven dynamo within the mill.

The waters of the Suncook River generated 2,200 horsepower to turn the turbines of the three mills. By 1900, the mills employed 1,555 men, women, and children, producing 36 million yards of cloth each year.

Another industrial site lay upstream from Suncook Village at East Pembroke, where the natural Buck Street Island invited the construction of two dams to power industries that included grist and saw mills, a box shop, a twine mill, and an axe handle factory. All of these factories disappeared in a major fire in 1900, and the two dams were purchased by Suncook industrialists to store water for the downstream mills. The dams were removed in 2011-12 after an upstream avulsion or channel alteration seemed to increase the hazard of flooding at the island.

Table 9.4: Historic Dams

Name	Location
Buck Street Dams (1908; remodeled 1923); removed except for abutments in 2011-12.	Across Suncook River on each side of Buck Street Island, immediately west of the Route 28 highway bridge at the Pembroke-Allenstown town line.
Osgood's sawmill dam (1890); removed except for abutments and gatehouse.	Across Suncook River just upstream from the double-deck bridge.
Webster Mill Dam (1865); rebuilt in concrete just downstream from the original dam in 1916. Its gatehouse is dated 1921.	Across the Suncook River behind the Post Office on Glass Street.
Pembroke Mill Dam (1860); built of granite.	Across the Suncook River immediately downstream from the Main Street Bridge and adjacent to Pembroke or Emerson Mill.
China Mill Dam (1868); rebuilt in concrete in 1926; gatehouse is dated 1922.	Across the Suncook River south of the intersection of Front Street and Bridge Street.

Source: Input from the Natural & Cultural Resources Subcommittee

PEMBROKE'S ARCHITECTURAL HERITAGE

Pembroke's architecture has evolved with the decades as development, settlement patterns, available materials, and trends dictated the need and desire for different building styles.

Prior to the advent of modern suburban development, the majority of land in Pembroke was in agricultural or forestry use, and therefore its rural dwellings were widely spaced. Pembroke has long had a few nodes of more concentrated population and activity. In these areas are to be found relatively dense groups of early buildings, sometimes of a domestic nature, sometimes industrial or commercial, and sometimes, as in Suncook Village, combining more than one function and architectural attribute. Suncook Village is the single district in Pembroke that displays an urban character, combining many architectural styles, a variety of building materials, blocks of contiguous structures separated by party walls, and diverse building functions, all concentrated within one small area of dense construction. Suncook Village is one of the best preserved small manufacturing centers in New Hampshire, but also retains a number of detached houses that predate its expansive growth as a center for manufacturing cotton cloth after 1860.

The second area of architectural concentration and diversity is Pembroke Street, one of the many parallel range roads that characterize the town's early highway plan. As a wide and straight thoroughfare, Pembroke Street eventually evolved into a "highway village," in which larger farmsteads along the principal street were subdivided or supplanted by smaller house lots. Homesteads are built along the street in fairly close proximity to one another.

Building Materials

To an unusual degree, Pembroke and neighboring Allenstown abound in the materials from which traditional New Hampshire architecture has been constructed. This is due to ample available waterpower, at least in the eastern part of town. A series of dams harnessed the power of the Suncook River beginning in the 1730s, powering the sawmills that were necessary to convert the local forests of conifers to merchantable boards and timber.

Pembroke also abounded in excellent clay and sand for making bricks. Bricks were necessary for building chimneys in wooden houses. After about 1830, buildings constructed wholly of brick became more common in town, especially along Pembroke Street and in Suncook Village, but also in North Pembroke. Between the Civil War and about 1890, the center of Suncook Village was largely rebuilt in brick. By 1878, after the advent of the railroad in Pembroke and adjacent Hooksett, six brick manufacturers in Hooksett, Suncook Village, and the banks of the Merrimack in Pembroke were employing sixty men in making bricks. Each local yard averaged about 80,000 bricks per year per man employed, for an annual total of about 4.8 million bricks.

Nearby ledges ensured the availability of granite in inexhaustible quantities. Although Rattlesnake Hill in Concord, some ten miles from Suncook Village, had been noted for its production of fine, white granite since the early 1800s, another source of comparable stone lay still closer to the growing village. The granite ledges of Allenstown, located less than two miles away, produce a stone that is comparable to that of Rattlesnake Hill, but located at a lower elevation.

Pembroke was unusual in having a local supply of window glass for more than ten years after the opening of the Chelmsford Glass Company on Glass Street in Suncook Village in 1839. The company built a substantial glasshouse and continued in operation until about 1850.

House Styles

Houses in Pembroke reflect the evolution of the town from the late 1700s, when the earliest surviving houses were built, to the present day. A survey of our dwellings through the centuries offers an accurate picture of how our lives have changed—and have generally grown easier and filled with wider possibilities—with each passing generation. Pembroke's houses also show how buildings incorporated local materials and reflected the skill of local builders in a time before easy transportation, and how over time they began to reflect more complex designs and manufactured details that became available through rail and highway commerce.

House styles have evolved to reflect ever-changing American fashions in architecture. Each period has a favored set of features, and often a favored floor plan. House styles can be bewildering in their variety, but the photographs below give an overview of the changing appearance of houses as one style replaced another.



WHITTEMORE HOMESTEAD
374 Pembroke Street - circa 1800

This center-hallway house with two fireplace chimneys reflects the largest type of house built in the late 1700s. It is one of four such houses in Pembroke. The town has a few more modest one-story, center chimney "Cape Cod" houses of the same period.



Photo provided by James Garvin

DOW HOUSE

262 Pembroke Street - circa 1825

The house of the Federal Style of the early 1800s has a floor plan similar to that of the earlier Whittemore Homestead, but its fireplace chimneys are located against the outer walls. The Doe House is thought to be the oldest surviving brick house in Pembroke, and reflects the beginning of an important local brickmaking industry.



Photo provided by James Garvin

LOCKE HOUSE

225 Pembroke Street - circa 1850

With its gable end facing the street and a triangular pediment at the top, the Locke House is meant to resemble a Greek temple, and is a modest representative of the Greek Revival style, dominant from about 1830 to about 1850.



Photo provided by James Garvin

WORKERS' BOARDING HOUSES

1 to 39 Front Street, Suncook Village - circa 1855

The Pembroke Mill Corporation built these boarding houses for workers who were employed at the mill across the street. The buildings reflect the plain detailing of the Greek Revival style, adapted to multi-family use. Multi-family houses are common in Suncook Village as well as other manufacturing centers, with many examples of later styles seen along Glass Street.



Photo provided by James Garvin

CAPTAIN WILLIAM FIFE HOUSE

386 Pembroke Street - circa 1847

As the Greek Revival style began to lose popularity, an array of romantic styles, inspired by English and European architecture, announced the beginning of the Victorian era. This building is intended to resemble an Italian villa, a style considered appropriate for a prominent member of a community.



HENRY T. SIMPSON HOUSE
422 Pembroke Street - circa 1875

This house was built by a prominent brick manufacturer to display the quality of his products. This is one of several fine brick houses on the road between Concord and Hooksett that demonstrate the wealth and skill of brick manufacturers. This dwelling reflects a later version of the Italianate style, without a tower.



'FRENCH SECOND EMPIRE' STYLE HOUSES
47 through 49 Broadway, Suncook Village

This style is identified by the double-pitched mansard roof as seen on these examples. The style was especially popular in the 1860s and 1870s, mimicking fashionable buildings in the city of Paris.



ELEAZER FRANKLIN BAKER HOUSE
3 Prospect Street, Suncook Village – circa 1894

Baker was a son of the owner of the major department store in the village and became a partner in his father's business. His elegant home on Prospect Street was built in 1894 from plans by Concord architect George W. Cunningham. It represents the "Queen Anne" style of the late 1800s, a fanciful late Victorian style that favored complex floor plans, porches, corner turrets, and varied wall coverings.



JOSHIAH FREDERICK BAKER HOUSE

6 Prospect Street (L) & 3 Exchange Street (R), Suncook Village – circa 1894

These houses are mirror images of each other. They represent the use of a mail-order house plan, a popular method of obtaining an attractive house design without hiring an architect. The plans were often reversed, as in these two examples, depending on the wishes of the homeowner.



BUNGALOW

90 Broadway – circa 1915

The bungalow was a highly popular house style of the early 1900s. It was a small, one-story house with broad, sweeping roof surfaces, a porch, simple detailing, and usually a fireplace.



DUTCH COLONIAL HOUSE

207 Pembroke Street – circa 1925

Houses of this style, with a gambrel roof and, often, a porch at one end, were popular throughout the first half of the twentieth century. Some houses of this type were prefabricated and marketed through catalogues by Sears, Roebuck and Company and a number of competing manufacturers. Simpler versions of “colonial” houses remain popular.

Commercial and Industrial Buildings

One of the richest portions of Pembroke's architectural legacy is the center of Suncook Village. Here, in a constrained area a few blocks in extent, is one of the finest concentrations of masonry commercial, residential, and manufacturing buildings to be found in New Hampshire. These structures exhibit excellent design and detailing, displaying a highly skillful use of locally manufactured bricks and locally quarried granite. Because its buildings, formerly of wood, were reconstructed following several fires, lower Main Street in Suncook is largely composed of structures that were built within a ten-year period, between 1876 and 1886.



Photo provided by James Gaudin

MAIN STREET IN SUNCOOK VILLAGE, LOOKING SOUTHWEST

School buildings

Pembroke retains a number of early school buildings that provide a physical record of the evolution of education in the community from the mid-nineteenth century. These buildings may be separated into three groups: district or one-room schoolhouses; consolidated or multi-room school buildings; and Pembroke Academy, which served the town as a high school from 1818.

Until after the Civil War, all elementary education in Pembroke was provided in district schoolhouses that were located throughout the township at sites that were convenient for the children of various neighborhoods. An excellent example of a model one-room schoolhouse is the brick District No.1 School on Pembroke Street.

The rapid growth of Suncook Village after 1860 increased the need for a village school. The first consolidated or graded village school was built on the crest of the hill at the junction of Main Street and the Chester Turnpike in 1872. This large brick building (the property of the Pembroke Water Works since 1951) followed a well-recognized urban model of the period.

In 1907, the town appointed a building committee to construct a modern school in Suncook Village. The committee hired Chase R. Whitcher (1876-1940) one of the most experienced and prolific New Hampshire architects of the early twentieth century, as architect of the new building, which stands on High Street opposite Pine Street.

Education at the high school level in Pembroke has been provided since 1819 by Pembroke Academy. The first academy building was a brick structure that was dedicated in May, 1819. This building burned on June 21, 1900, and was replaced in 1904 by a brick structure that was comparable in size and appearance to the Suncook Village School. The 1904 building, in turn, was gutted by fire in 1936. It was then remodeled within its brick walls and enlarged at the rear, assuming the appearance of a typical high school building of that era. This building remains in use, but it has been surrounded by a number of other structures that have accompanied the dramatic growth of the student population from Pembroke and neighboring towns.

Pembroke Master Plan 2020

Historical and Cultural Resources

Historical Features

Base Legend

Town Boundary

Roads

Class I/II State Highway

Class V Local Roads

Class VI Unmaintained Roads

Water Features

Waterbodies

Rivers and Streams

1. Noyes Block

2. Pembroke Mill

3. Suncook Village

4. First Meeting House

5. Watering Trough

6. French-Dearborn Cemetery

7. Pembroke Street Cemetery

7. French Cemetery

8. Buck Street Cemetery

9. Old North Pembroke Cemetery

10. New North Pembroke Cemetery

11. Pembroke Hill Cemetery

12. Abbott Cemetery

13. Richardson Cemetery

14. Evergreen Cemetery

15. Buck Street Dams

16. Osgood's Sawmill Dam

17. Webster Mill Dam

18. Pembroke Mill Dam

19. China Dam

20. First School-house in District No. 6

21. School-house

22. Grist Mill & Fulling Mill

23. Bridge

24. Saw Mill

25. Methodist Church

26. Saw Mill

27. Grist Mill

28. Ancient School-house

29. Bombay Bridge

30. Turnpike Bridge

31. Richardson Bridge

32. Tannery & Shoe Shop

33. Mill Site (J. Richardson)

34. Blacksmith Shop

35. Old Store

36. Old Store

37. Blacksmith Shop

38. Buckstreet Bridges

39. Saw Mill

40. School-house, District #9

41. Longmaid Monument

42. Old School-house

43. School-house, District #5

44. Kimball's Tavern

45. Cochran Dam Site

46. Old Bridge, Near Main St Bridge

47. Stone Arched Railroad Bridge

48. Passenger Depot Site

49. Freight Depot Site

50. Old Police Station (1870)

51. Old Bridge Site

52. Baptist Church

53. Methodist Church

54. Baptist Church (first)

55. School-house

56. Grist Mill

57. Bakery (formerly Glass Company)

58. Webster Mill

59. Village School, 1908

60. Bridge

61. Pembroke Academy

62. Town Hall

63. Simpson's Brickyard

64. Brickyard

65. Ferry Crossing

66. Presbyterian Meetinghouse

67. Congregational Church

68. Fife Furniture Shop

69. Cochran & Russ Brickyard

70. Cape Cod"" House

71. Whittemore Tavern

72. Cochran House

73. Richardson House

74. Bailey Parker House

75. Doe House

76. Captain William Fife House

77. George P. Little House

The map displays the town of Pembroke, New Hampshire, with its historical and cultural resources. The town boundary is shown in black. Roads are color-coded: Class I/II State Highways in red, Class V Local Roads in black, and Class VI Unmaintained Roads in grey. Water features include waterbodies in blue and rivers/streams in light blue. Historical features are marked with red dots and numbered 1 through 77. The map includes an inset of the Suncook Village area, showing a detailed view of the streets and buildings in that area. The map also shows the surrounding towns of Concord, Epsom, Allenstown, and Hooksett. A scale bar at the bottom indicates distances from 0 to 2 miles. A north arrow is located in the bottom right corner. The map is titled 'Pembroke Master Plan 2020 Historical and Cultural Resources'.

Data Sources for the Pembroke Master Plan Map series includes:

Digital Tax Maps by CAI Technologies, NH Department of Environmental Services, Federal Emergency Management Agency, NH Department of Transportation, US Geological Survey, Town of Pembroke, NH GRANIT, 2016 Pembroke Natural Resource Inventory, and CNHRPC.

Disclaimer:

This map is intended for use with the Pembroke Master Plan. The information presented is to be used for planning purposes and may not fully represent actual geographic conditions. Inaccuracies should be directed to the Town of Pembroke or to CNHRPC.

10 ENERGY



TOPICS INCLUDE:

Pembroke's Energy Activities

Challenges & opportunities
going forward

Energy and its impact on communities in areas such as municipal expenditures, economic development, land use planning, and transportation are increasingly of interest to residents, local officials and business owners. Addressing energy-related issues in a master plan is an important first step towards establishing best management practices and policies that support conservation and energy efficiency in land use development, building construction, maintenance and renovation. This chapter presents a framework that can be used to support town efforts in energy use, efficiencies and planning.

Pembroke is...
a community that continues to pursue energy efficiency initiatives that will generate reductions in municipal expenditures and supports development that promotes the concept of energy conservation, efficiency and renewable energy generation.

WHAT THE COMMUNITY SAID...

The community survey results showed that Pembroke residents have a strong interest in energy sustainability and renewables. Over 70% of residents felt it is important/somewhat important for Pembroke to expand and invest in renewable energy and over 74% supported ordinances that would encourage renewable energy options, including solar, electric and wind. On another question, 88% rated the improvement of energy efficiency of municipal buildings as important/somewhat important.

One example of this is Pembroke's efforts to replace existing street lights with LED technology. This results in a cost savings with less energy use and maintenance for the fixtures. There is also an Energy Efficiency Capital Reserve Fund that is contributed to yearly by residents at town meeting that can be used for various building and facility needs. See the Community and Recreational Facilities with Utilities Chapter for more detailed information.

PEMBROKE'S ENERGY ACTIVITIES

Energy conservation is a theme that continues to evolve and can help residents and businesses alike with efficiencies in expenditures. Energy conservation can mean a number of things, from reducing the amount of fossil fuel one uses to using sustainable building and development practices.

The Pembroke Energy Committee was established at the March 2007 Town Meeting. The primary focus of the Committee is to evaluate municipal energy usage. The Energy Committee's goals include:

1. Seek grants to purchase new equipment and vehicles and implement programs that will save energy costs and reduce air pollution;
2. Complete full energy audits/retrofits for municipal buildings and develop an energy policy for municipal operations for review and approval by the Board of Selectmen; and

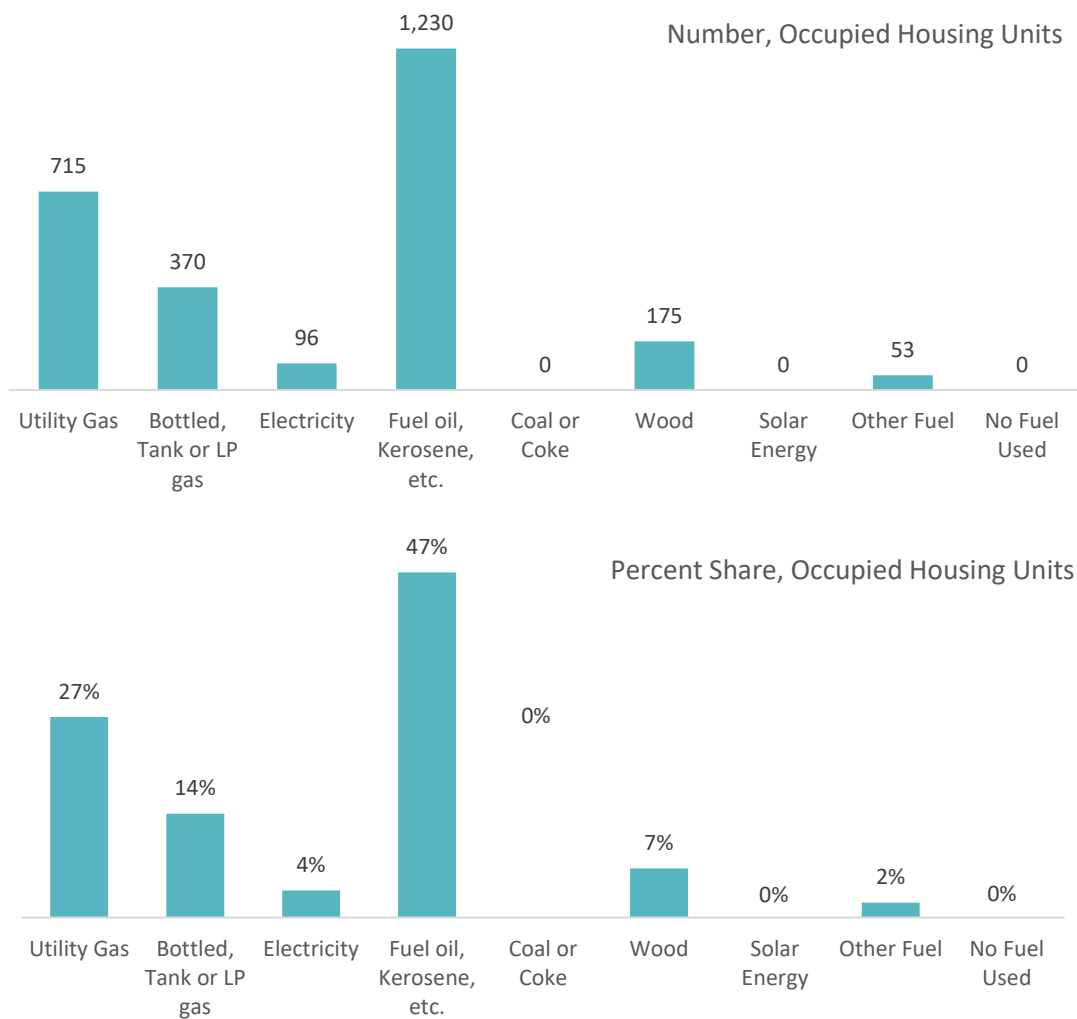
PEMBROKE ENERGY COMMITTEE

The Pembroke Energy Committee has worked on a Street Lighting LED Conversion project, which included replacing overhead lighting with LED format. With the conversion now completed for the Suncook Village area and throughout the town, the committee continues to explore other energy efficiency and conservation projects that would benefit the town.

3. Explore feasibility of using new technology and renewable energy solutions, such as wind and solar power, to increase efficiency and conservation.

Data on Pembroke's heating sources (see Figure 10.2) is provided in the following charts that show a typical Northeast profile of the heavy reliance on fuel oil for heating. Pembroke has a similar percentage at 47% for fuel oil as the state (46%).

Figure 10.2: Pembroke House Heating Fuel, Occupied Housing Units, 2013-2017
By Number and Percent Share



Source: American Community Survey 2013-2017

PEMBROKE SCHOOLS ENERGY PROJECTS

The Pembroke School District has implemented several energy efficiency projects. They have completed three phases of these projects with the last one finished in 2016-2017. Some of the initiatives that have been completed include:

- Low flow toilets;
- Building envelope upgrades: insulation, windows, roofing, roofing insulation;
- Direct Digital Control Computer (Heat/AC managing system for the district);
- Wood Chip boiler;
- Unit ventilator replacement;
- Electrical upgrades and LED lighting for 95% of district;
- High efficient heating and refrigeration motors;
- 260 Solar Panels; and
- High efficiency transformers.

Future projects over the next 10 years include replacement of heating units in Pembroke Academy's gym with gas fired units, upgrades to the hot water heater, district wide and continued replacement of roofs and roof insulation.



SOLAR PANELS INSTALLED AT PEMBROKE ACADEMY

To ensure building and facility needs are met, future and anticipated needs should be included in the town's Capital Improvement Program (CIP) and updated on an annual basis. This planning tool can assist in the town's process of financially preparing for large purchases in order to lessen the impact on the tax rate. Capital Reserve Funds can also be used in planning of future and anticipated facility needs. Currently, Pembroke has a Municipal Facilities Capital Reserve Fund and an Energy Efficiency Capital Reserve Fund that is contributed to yearly by residents at town meeting and can be used for various building and facility needs.

The NH legislature had enacted legislation that permits cities and towns to offer exemptions from local property taxes for certain renewable energy installations. These include solar systems (thermal and

photovoltaic), wind turbines, and central wood-fired heating systems. Woodstoves and fireplaces are not included. The goal of the exemption is to create a tax neutral policy within a municipality that neither increases an individual's property tax, nor decreases the municipality's property tax revenues. By implementing it as a tax neutral policy, homeowners do not have a disincentive of higher property taxes for installing a renewable energy system, and since there is no net reduction in municipal tax revenues, other taxpayers in a municipality are not affected. Pembroke adopted the solar exemption in 2015 for solar energy systems. The property tax exemption is in the amount equal to 100% of the assessed value of qualifying equipment under the statute.

CHALLENGES AND OPPORTUNITIES

TRANSPORTATION & THE AGING POPULATION

As stated earlier in this Chapter, transportation is the leading source of energy use in the state. While it is possible to accomplish both compact design and maintaining rural character, there can be challenges that arise and need to be addressed.

There is also the increasing concern for the aging population at both the local, regional and state levels and its impacts on our abilities to reach destinations - for recreation, health care and social services. This has a direct correlation to the land use patterns and infrastructure of our communities and how we need to get from point A to point B. As New Hampshire's population continues to age, more compact development and transportation options become pressing critical needs in many of our communities. The link between energy efficiency and transportation is a strong one.

FUNDING SOURCES FOR RENEWABLE ENERGY

As tax credits, rebates and other incentives continue to evolve and hopefully stabilize with a consistent funding stream, it is expected that renewable energy installations will become more prevalent. While there are certainly challenges that still need to be addressed, there are also opportunities to improve on the status quo. A wide range of financial and informational resources exist to help municipalities, business owners, and residents make positive changes in their energy consumption. Taken together, these actions will contribute to statewide energy reduction goals and increased energy independence, while creating economic and environmental benefits.

CHAPTER OBJECTIVES & RECOMMENDATIONS

OBJECTIVE 1 Keep Pembroke residents and businesses informed on energy efficiency, conservation and renewable energy measures and where to find additional information and funding.	<ul style="list-style-type: none"> → Maintain information and links on Pembroke’s website and at the library for residents and business owners on home energy saving strategies, renewable energy system installation, business energy programs, available financing, tax credits, green building design, etc. → Sponsor and/or partner with others on workshops or events on energy conservation, efficiency, and renewable energy, and/or notify residents of regional events. → Support Pembroke businesses in their efforts to reduce their energy bills, take advantage of renewable technologies, and improve their overall efficiency.
OBJECTIVE 2 Encourage and support energy conscious development.	<ul style="list-style-type: none"> → Continue to support an Energy Committee that advises the town on energy issues and provides resources to residents and business owners relating to energy improvements and development. → Develop an “energy checklist” for any proposed projects that identifies energy efficiency considerations for homeowners, developers and municipal departments. → Ensure that the land use regulations do not unduly restrict the use of alternative energy sources or sustainable construction techniques. → Amend zoning, subdivision and site plan regulations that identify opportunities for renewable energy installations and address any potential impacts on surrounding properties. → Regularly review amendments to the Energy Building Code and initiate any necessary amendments to ensure that Pembroke is proactive in addressing emerging energy efficient construction and practices.
OBJECTIVE 3 To reduce municipal energy usage and costs and improve energy efficiency in municipal operations.	<ul style="list-style-type: none"> → Actively monitor municipal energy usage and costs to track progress resulting from energy saving initiatives. → Participate in public or private programs that educate and/or fund the retrofit of municipal buildings and infrastructure → Continue to implement building energy improvement plans to increase the efficiency of municipal buildings, and incorporate planned improvements into the municipal budgeting process. → Investigate options for renewable energy at municipal buildings.