

2020 Plaistow Master Plan



Acknowledgements

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Introduction



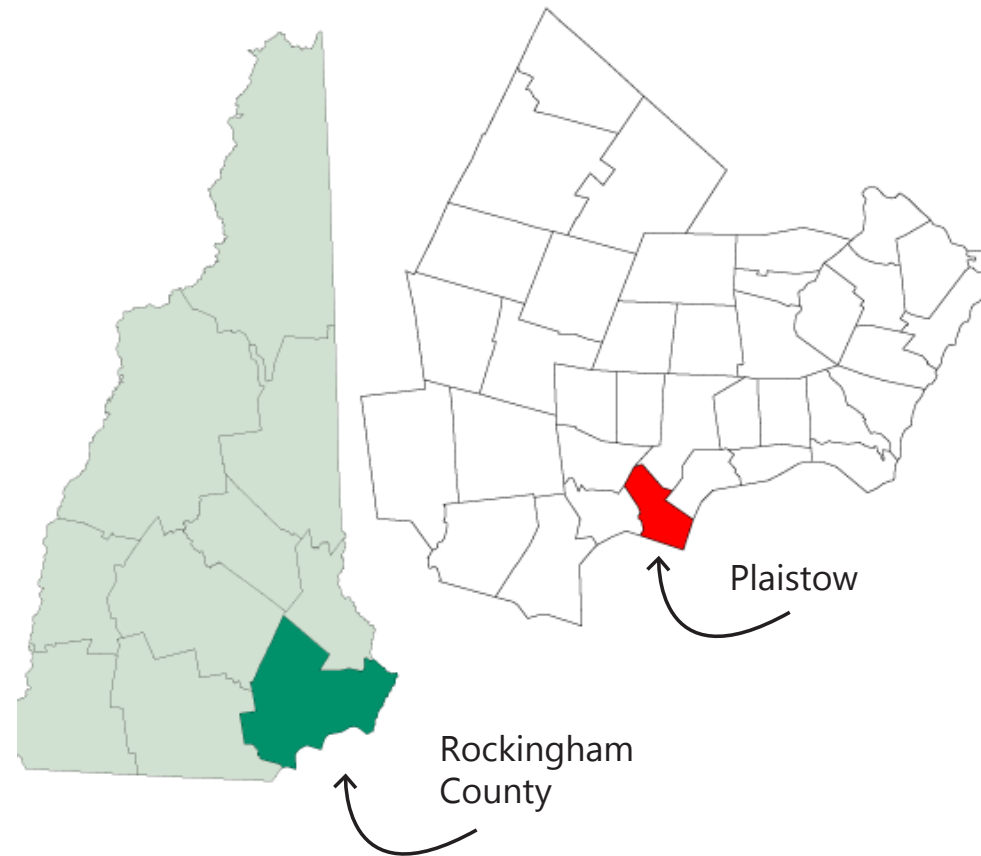
Introduction

The Town of Plaistow is located in Rockingham County in southeastern New Hampshire just north of the Massachusetts border. The Town has a total area of 10.64 square miles and is part of the Merrimack River Watershed. Its character reflects a small-town, New England atmosphere and its development patterns are shaped by natural, cultural, and historic factors. The Town plays a significant role in the region's economy and has a population of 7,642, as defined by the 2017 American Community Survey.

Plaistow was originally part of the territory purchased in 1642, formerly known as Haverhill, Massachusetts. When the New Hampshire-Massachusetts boundary was established in 1741, the portion north of the border became the Haverhill District. The Town was incorporated as Plaistow in 1749, and included the Town of Atkinson, which was separated in 1767.

Plaistow is located at the crossroads of several major highway corridors including Route 125, Route 121A, Route 121 and Route 108 and can be accessed off Interstate 495 in Haverhill, MA. The system of roadways has also stimulated commercial growth along these highway corridors. Most notably is Route 125 which connects northeastern Massachusetts and southeastern New Hampshire communities with New Hampshire's lakes and mountains. Consequently, Plaistow has become primarily a residential community with substantial amounts of commercial development located on major highways.

The traditional settlement pattern that has defined Plaistow's character consists of a variety of residential development, multiple commercial centers located along major transportation corridors, scattered industrial sites, and tracts of undeveloped land and open space located throughout the entire town. Route 121A, Main Street, is the location of the town center that has the characteristics of a more traditional rural New England village center.



Purpose of the Master Plan

The Planning Board is authorized under the provisions of RSA 674 to develop a vision and strategy, in the form of a Master Plan, to guide the future growth of the community. The Master Plan serves many purposes.

This includes serving as a summary and analysis of the social, economic, environmental and physical characteristics of the community. It examines interrelated land use issues such as population, housing, community facilities, and natural resources. It also serves as a blueprint for the Town, outlining broad principles and specific regulatory and non-regulatory strategies that the town can use in planning for wise, coordinated, and appropriate use of land in the community.

Without a Master Plan, the Town would not be able to enact the zoning ordinance and land use regulations that are utilized daily to guide and regulate development activity. Together, the Master Plan, zoning ordinance and other land use regulations balance the rights of individual landowners with restrictions that are designed to protect the rights of many. Additionally, land-use regulations also help promote orderly growth and protect the safety, health, and well-being of the larger community.

Master Planning in Plaistow

1988 Update

The 1988 Master Plan Update was a complete rewrite of the Master Plan and was prepared by Klunder & Associates. The update redefined all of the residential districts and has been the baseline for all future master plan updates. Zoning was updated to match the Master Plan and the permitted use section for each district largely remains in place today.

2004 Update

The 2004 Master Plan Update was a significant overhaul of the 1988 Master Plan and included associated minor updates made in 1995 and 1997. The 2004 Master Plan was prepared with assistance by Appledore Engineering, a consulting firm out of Portsmouth, NH. Various subcommittees provided guidance and input and public feedback was collected during a community forum and through a survey. The results of this survey provided important input and guided the Planning Board philosophically. At the Community Forum held in May of 2001, residents identified important issues related to Transportation, Community Facilities, and Land Use.

2011 Update

Since 2004, updates have been made to various chapters of the Master Plan, including the Vision and Population, and Housing Chapters. Because it has been seven years since the last major update, the Planning Board has been taking an aggressive approach to updating the entire document.

Recent Updates

In 2017 Plaistow drafted its newest Master Plan Chapter, Water Resources. This chapter was created with assistance from Resilience Planning & Design.

Format of the Master Plan

To reinforce the vision for Plaistow and to consider the land use implications across the many topics, this plan has been organized into three primary sections:

- Natural Environment
- Built Environment
- Land Use

Each section will conclude with a stewardship of resources summary relating the findings of the various topics included to each other and the identified implementation actions.

Stewardship of Resources

Plaistow has many resources at its disposal – natural resources, built infrastructure, and human resources that all work together to promote a sense of community with a high quality of life.

The approach of the Master Plan will be to evaluate each resource and plan for its stewardship in a way that will help to meet the future needs of Plaistow while maintaining the high quality of life.

Built
Environment



Land Use

3

Themes



Natural
Environment

Some History

Plaistow has always played a vital role in the area's economy. As early as the 17th century, Plaistow's taverns and waysides provided services to the commercial traffic traveling the County Road en route from Concord, NH to Newburyport, MA.

In the early 19th century, Plaistow was a small community whose residents contributed to the Haverhill, MA factory workforce. The transportation network allowed Plaistow residents to easily commute to Haverhill for work and for shopping. In the latter half of the century, Plaistow's commercial and industrial sector started to expand so that many Plaistow residents could live, work, and shop in Plaistow. As this expansion occurred, so did the population.

Social Capital

Social capital refers to the networks of relationships found among people who live in a community and the inherent value of those relationships. Strong social networks are essential in building healthy, resilient communities, and planning policies have the power to affect social capital positively or negatively. Planning outcomes can be improved by tapping these networks and incorporating local knowledge of issues, generating creative alternatives, and enriching the overall policy discussion.

Social Capital in Action

Examples of Social Capital include:

- A group of neighbors keeping an eye on each other's homes.
- Coming together as a community after a storm.
- Serving on local boards and committees.
- Building friendship networks.
- Engaging with local groups including churches, schools, bridge clubs, civic associations, and local coffee shops.

The importance of building social capital is that it strengthens community ties, enables positive change, and makes community resilience possible. Plaistow is fortunate to be a community with a high level of social capital. The evidence for this is in the large number of volunteers participating in local boards and committees, in the school system, youth sports, and local non-profits.

"Social capital refers to the collective value of all "social networks" [who people know] and the inclinations that arise from these networks to do things for each other ["norms of reciprocity"]."

- Robert Putnam

Vision

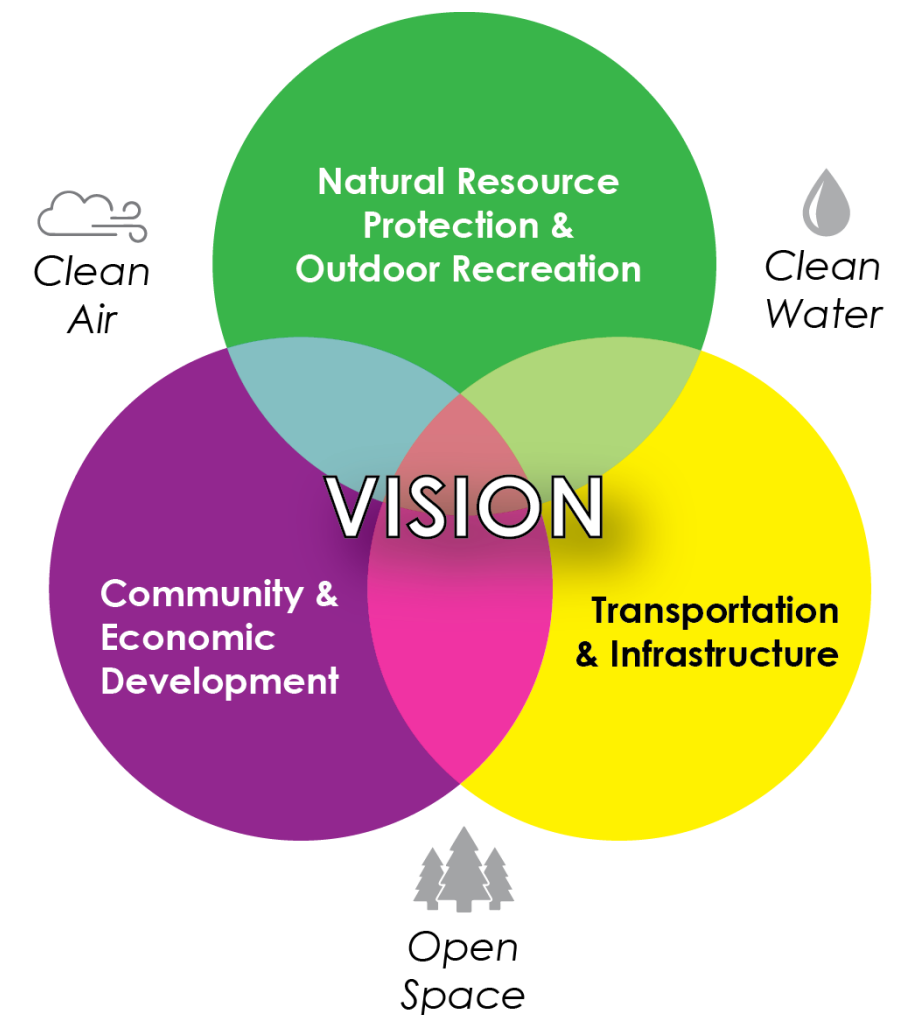
In planning for Plaistow's future, it is important that the Town clearly identify how and where its residents, both young, old, and in-between, want to live, shop, work, and play. Plaistow must also strive for development activity and patterns compatible with its vision:

A vibrant and active community with clean water, fresh air, and plenty of open space that is utilized for diverse outdoor recreation outlets (both formal and informal). A community that balances protecting its natural resources with promoting strong economic development and the expansion of high-quality local and regional job opportunities. A community that invests in its multi-modal transportation network to expand opportunities to its residents and its public infrastructure to promote durability and efficiency of resources.

Working to reach this vision of the future will require a systems approach as each of these topics are inherently connected. The following points expand on the components of Plaistow's vision for the future and serve as goals that will be addressed by clear implementation actions.

Clean Air

Plaistow, like many communities in southern New Hampshire, was in an Air Quality Nonattainment Area as designated by the United States Environmental Protection Agency (EPA) until 2013. The main source of the pollutants causing poor air quality came from vehicular emissions. Poor air quality degrades the environment and contributes negatively to public health. Plaistow passed "No Idling" ordinances in an effort to reduce vehicular emissions. Federal mandates for cleaner burning engines as well as increased vehicle mileage made significant improvements to the town's air quality. In



2013, the EPA removed the Nonattainment status of the southern New Hampshire communities. Although the area is in attainment, there is still work to be done by the Rockingham and Strafford Regional Planning Commissions in their transportation planning efforts as stated in their Travel Demand Model:

"The RPC and SRPC regions (and the rest of New Hampshire) are currently in attainment for both ozone and fine particulates which means there is no requirement to demonstrate transportation conformity at this time. That being said, the maintenance and continued improvement of the regional travel demand model is important as stronger emissions standards may require the transportation conformity process in the future and emissions calculation remains a component of the Travel Demand Model that is used for the Long Range Transportation Plan and other efforts."

Looking ahead, the Town will take steps to minimize emissions that contribute to poor air quality. This will include efforts to make

sure the Town has an efficient transportation system in place that provides a multitude of diverse, safe, and convenient options. The Town will also look for opportunities to replace Town-owned vehicles with cleaner burning engines including possible fuel cell, natural gas, hybrid, and/or electric vehicles. Mixed use development areas can also assist in reducing vehicle trips. Buildings in Plaistow also provide an opportunity to improve air quality. Efforts to make new and existing structures more energy efficient and to establish renewable energy systems will reinforce the Town's Vision, and make the community more resilient over time.

Clean Water

The Town of Plaistow is one of two municipalities in New Hampshire without a named body of water greater than 1 acre, hence Plaistow is totally dependent on subsurface waters for all public and private wells. While the Town will continue to take measures to protect these subsurface waters, it will also establish a municipal water system for portions of the community. The EPA has determined that the largest remaining source of water pollution comes from storm water. In 2003, the EPA passed a set of regulations requiring some municipalities to qualify for a Municipal Separate Sewer Stormwater System (MS4) permit. Plaistow is one of those municipalities.

Looking ahead, in order to comply with the MS4 permit, the Town will continue to maintain its MS4 committee made of up Town staff, volunteers, and professional engineers to ensure that the requisite water sampling is completed, low impact development becomes the standard, and that the annual report gets submitted on a timely basis. Plaistow's commitment to treating stormwater at the site level will reduce the impact of non-point source pollution and the potential for flooding. These efforts will also help to preserve existing natural resource areas while creating new green infrastructure opportunities within the developed portions of the community.

New Hampshire won a lawsuit against Exxon-Mobil who used the MtBE additive in their gasoline products in the 1990s. The approximate \$240 million settlement will be used for remediating the MtBE pollution. As a part of the settlement, Plaistow will be part of a regional system that will supply potable water to Plaistow from Manchester, NH. This is a huge step forward, but it will take a long



Above: Plaistow has significant commercial development, such as the Plaistow Commons shown above.

time to supply all Plaistow residents with municipal water if they want it. Therefore, it is still important to continue efforts to promote sufficient quantities of potable water from Plaistow wells.

Economic Development

Plaistow will continue to promote commercial and industrial growth that will provide jobs, expand the tax base, and support the local economy. Plaistow's fire suppression system was installed along Route 125 to support this activity. One recent change is the decision to convert this system to a potable water distribution system in the 2020 time-frame. Looking ahead, economic development efforts will require coordinated land use and capital improvement planning to ensure that desirable new development is directed to the appropriate areas of the community. Economic development efforts in Plaistow will also require coordinated transportation system improvements to ensure connectivity between the Commercial II district, Village Center District, the Integrated Commercial Residential District and surrounding neighborhoods.

Infrastructure

Plaistow will continually monitor the state of repair of its infrastructure including buildings, recreation facilities, vehicles, roads, sidewalks, bike paths, drainage infrastructure, municipal water system, and communications facilities to ensure good quality, safety, and longevity. Timely repairs and replacement of such infrastructure will be included in the Town's Capital Improvement Program (CIP). These efforts will support the objectives of the land use and transportation policies outlined in this Master Plan.

Open Space and Conservation Lands

Plaistow's natural resources provide a critical balance to the developed portions of the community. The undeveloped lands and conserved properties within the community create a network that provides important ecosystem services. These include stormwater management and flood control, air purification and carbon sequestration, recreation, habitat, food production, and many others.



Above: An example of Plaistow's more rural areas.

Looking ahead, the Town Forest will continue to be a key component of this network and an excellent resource for recreation. The Town will work with residents and interested organizations to lay out new trail connections to the trail networks in Atkinson and Hampstead. Plaistow will also support efforts to develop a Little River trail and will identify parcels of land across the community that should be protected for reasons, including but not limited to: wildlife habitats, wetlands and river protection, recreational uses, scenic views, prime agricultural soils, and hazard mitigation.

Recreation

The Town will work closely with the Recreation Commission and the Recreation Department to ensure the recreational needs of the children, teens, adults, and senior residents of Plaistow are being met. In 2014 the Recreation Commission developed a Strategic Plan that identified deficiencies and prioritized them in the plan. In the same year a Capital Reserve Fund was established to help level fund the capital expenses identified in the Strategic Plan. Additionally, an Impact Fee was established to fund the additional expenses caused by increasing participation in the recreation programs by new residences. Impact fees are not assessed for commercial or industrial uses. Both the Capital Reserve Fund and the Impact Fee Fund are an integral part of the Capital Improvements Program.

Looking ahead, Plaistow will strive to enhance the ability of residents to walk and enjoy the outdoors and a network of neighborhood “mini-parks” will be established. While Plaistow may contribute to their maintenance, residents of neighborhoods where such parks exist will be the primary stewards. This network of shared green spaces will support recreational activities, encourage community, build social capital, and serve an additional benefit as a network of green infrastructure throughout Plaistow. The corner of Elm would be a good location for the first “mini-park” location.

Transportation

Transportation management is generally considered to be a regional or state-wide responsibility, particularly in Plaistow where many state routes cross through town. However, these routes are part of a larger street network that connects Plaistow to neighboring communities as well as other New Hampshire and

Massachusetts destinations. This network also includes local streets.

Looking ahead, Plaistow will continue to work with the Rockingham Planning Commission (RPC) and its associated Metropolitan Planning Organization (MPO) to advocate for improvements to state roads and infrastructure. Additionally, Plaistow will continue to work with the MPO to fill a void in the public transportation needs of the town. These transportation options along with a network of sidewalks and bike paths will improve transportation alternatives while meeting other goals of this Master Plan.

Housing

Plaistow has a total of 3,132 housing units as reported by the New Hampshire Office of Strategic Initiatives. While the majority of these units are single family structures, Plaistow has the highest percentage of multi-family housing units compared with surrounding New Hampshire communities. Plaistow’s current housing market conditions show that both owner occupied and rental units meet statutory requirements for workforce housing. Given these findings, the Town of Plaistow is in compliance with the Workforce Housing statute as the existing housing stock can accommodate its fair share of current and reasonable foreseeable regional need. Looking ahead, Plaistow will continue to monitor its housing stock and ensure there is adequate housing for all ages and income levels including an adequate rental stock.

Summary

Through the implementation of this Master Plan, Plaistow will provide its residents with a high quality of life including functional neighborhoods, flexibility in living and working arrangements, access to alternate modes of transportation, and a sense of community resilience. These actions will also ensure that residents of all ages have access to jobs, shopping, recreational facilities, medical facilities, and a network of open spaces. The Vision sets the tone for this Master Plan and its chapters. The Implementation Chapter will then serve as the detailed work plan for accomplishing this vision.

Challenges and Opportunities

Although Plaistow is not one of the largest communities in the region in terms of population, its proximity to the Massachusetts border and the presence of NH Route 125 give the Town a suburban and urban feel often found in communities with 3 to 5 times the population. In addition, many local residents commute to northern Massachusetts for employment. This situation presents Plaistow with both opportunities and challenges with respect to transportation and service issues. For example, this higher level of urbanization is accompanied by concerns such as traffic congestion and loss of rural character. However, there is also increased opportunity for public transportation, economic development, and infrastructure improvements such as sidewalks and bike paths. Finding an appropriate balance between these opportunities and challenges is one of the goals of this Master Plan and a long-term goal for Plaistow.

The anticipated amount and type of future residential and non-residential development in Plaistow will influence the level of community facilities required by the Town. As the Town’s residential and commercial base increases, the Town continues to need to allocate additional resources to specific community facilities and services.

Plaistow’s natural resources are a critical consideration in establishing a proper approach for land planning and management. Understanding natural resource values provides a rational basis for determining which areas of Town are more appropriate for protection and open space and which areas are more suitable for development. Natural resources such as slope, soils, vegetation, wildlife and water resources add to Plaistow’s character, provide recreational opportunities and contribute to the quality of life for Plaistow’s residents. These natural resources also provide both opportunities and constraints for growth. Steep slopes and wetlands, for example, are less suitable for development; while flatter areas are more suitable. On the other hand, these flatter areas may be associated with groundwater areas that require protection. Thus, the natural resource base of Plaistow provides an important factor as the basis for local land use decisions. The proper balance of land use development, natural resource conservation, and preservation of the character of Plaistow is what this Master Plan seeks to provide.

Plaiستow

Natural Environment



Natural Resources

Introduction

Plaistow is composed of a network of natural resources that form the green infrastructure of the community.

This includes forests, agricultural lands, rivers, ponds, streams, and wetlands that support a diversity of fish and wildlife. This network of natural resources also provides critical ecosystem services to Plaistow residents. While these resources have contributed to Plaistow's high quality of living, development activity has brought about change and the inevitable loss of some of this natural resource network and the benefits it provides. Most noticeably, open space and active agricultural lands have been reduced as land has been developed over time. The Town must work to minimize future losses to both the natural and cultural environment that make Plaistow a great place to live.

Elsewhere in this Master Plan water resources, open space and conservation, and recreation related topics are addressed. All of these topics are related to Plaistow's natural resources and are included in the Natural Environment Section of this Plan.



Ecosystem Services

Ecosystem services are those benefits that humans receive from the natural environment. They support society and contribute significantly to quality of life. Ecosystem services include provisioning services (such as food and water), regulating services (such as flood control), cultural services (such as spiritual and recreational benefits), and supporting services (such as nutrient cycling), that maintain stable conditions for life on earth. Protection and management of open space in Plaistow will ensure the protection of these ecosystem services including improved wildlife habitat, places for outdoor recreation, improved scenic quality, increased property values, and watershed protection.



Topography, Geology, and Soil

Plaistow is part of a geologic region known as New England and Eastern New York Upland. The area is characterized by hills, low mountains, and broad valleys. Many of the hills are either drumlins or bedrock ridges. Low mountains generally have a thin mantle of soil material over bedrock, especially on the upper slopes. Although much of Plaistow's topography reflects the bedrock geology, there are also areas that conform to deep surface deposits that formed during the period of glaciation many thousands of years ago.

The soils in Plaistow have developed over time from the interaction of climate, vegetation, topography, and surficial materials. Since the surface materials of Plaistow are primarily made up of glacial till, many of the soils tend to be moist and/or stony with areas of high water table, shallow ledge, or ledge outcroppings. Where there is stratified drift, the soils tend to be sandier, gravelly and better drained. Hydric soils tend to be found in low spots associated with surface water features or in bedrock depressions throughout the town. The interface of geology, topography and soil type inform land use decisions. This combination of resources alone often indicates areas that are appropriate for development versus areas that provide critical natural resource areas.

Slope

For planning and development purposes the slope or steepness of the land is expressed as a percentage that represents the relationship of horizontal and vertical distance between two points. For example, a twenty-foot rise within 100 feet is a twenty-percent slope. As slope increases the potential for surface runoff and erosion increases. In addition, construction costs for development also increase. Slopes from 0-12 percent are the most suitable for development. Undulating lands up to twelve percent are suitable for residential uses and private roads as well as the above uses with increasing limitations as the slopes increase. Land use limitations based on slope begins when the slope is between twelve and fifteen percent. Development on steep slopes is likely to reduce soil stability, causing erosion and sedimentation into brooks, streams and surface water bodies. Such slopes are usually best left naturally vegetated as part of a community's open space system or to satisfy subdivision open space requirements.



Above: Sweet Hill Farm, Plaistow NH

Soil Types

Soil type is also a significant consideration related to land use decision making. The following is a description of Plaistow's soils based upon soil conditions that are grouped into four (4) broad categories for planning purposes:

Wetland (Hydric) Soils and Seasonally Wet Soils

These include all poorly and very poorly drained soils often associated with marine silts and clays including muck, peat, swamps and marshes as defined by the Natural Resource Conservation Society (NRCS) for the State of New Hampshire. The water table is at or near the surface five to nine months of the year. These areas are best suited to natural open space or limited development because wetland soils provide several natural functions that are beneficial to the community. These functions include: absorbing excess flood waters preventing downstream flooding; providing valuable habitat for fish and wildlife; providing groundwater recharge to local aquifers; and trapping sediment and other pollutants, thus acting as a surface water filter. Hydric soils in Plaistow are typically found near watercourses such as the Little River, Kelly Brook, and Bryant Brook.

Seasonally wet soils are somewhat better drained than the wetland soils, but typically have a seasonal water table within 2 1/2 to 3 feet of the surface, a perched water table or slowly permeable sub-layer during the wet season. They tend to be located on the lower slopes of hills and on low knolls. Flooded basements and submerged leach fields can be expected and in Plaistow these soils can be found scattered throughout the town.

Shallow to Bedrock Soils

This soil group tends to be located on low, knobby hills, and ridges that typically have bedrock within 1-3 feet of the surface. While this group tends to have a shallow to bedrock characteristic, there will be some areas that do have deeper soils. Where bedrock is relatively deep, these soils can be well-drained. The northern part of the town contains the majority of these soils.

Well Drained Soils

Sandy and gravelly soils are excessively well drained soils that are typically associated with the stratified drift deposits from glacial outwash. These soils have excellent potential for development since there are few limitations for construction. However, these areas are

often associated with groundwater supplies. Thus, development density must be managed to prevent groundwater pollution from effluent since these soils are very permeable. Large portions of these well drained soils are found in the middle section of town.

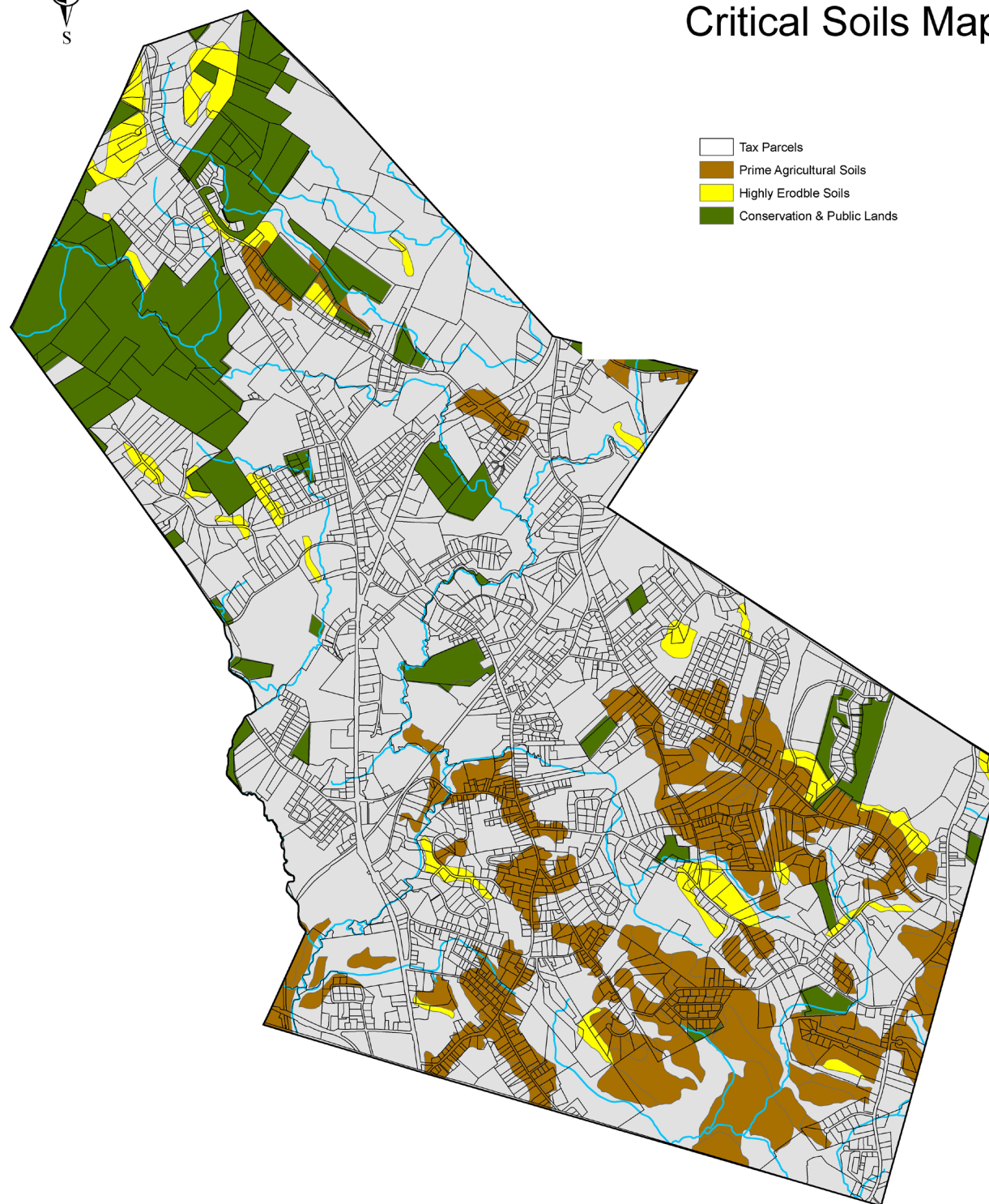
Agricultural Soils

The NRCS has identified three categories of farmland soils in New Hampshire-- prime farmland soils, soils of statewide importance, and soils of local importance. This classification is based upon the productivity of the soils for food and fiber crops. Prime farmland soils have the capacity to produce sustained high yield of crops. Soils of statewide significance are deemed to be important for farming in New Hampshire, but are of less value than prime farmlands because the soils are not as fertile and require more erosion control practices. Similarly, soils of local importance may be important for farming in Plaistow, but are not as valuable as either the prime farmland soils or those of statewide significance. These soils usually have some limitation such as slope that requires more active management.

The encroachment of development on agricultural soils or lands that are currently in agricultural use is an issue of concern for the long-term use of land in Plaistow. Once converted to more intensive uses, these lands are usually irretrievably lost for agricultural purposes. The majority of Plaistow's agricultural soils are found in the southern section of the town.

Forest Resources

Plaistow has many woodland and forested areas most of which are second growth deciduous and coniferous species. These forest resources represent a response to a relatively wet climate with warm summers and cold winters. Variation in soil and



Town of Plaistow Critical Soils Map

- Tax Parcels
- Prime Agricultural Soils
- Highly Erodible Soils
- Conservation & Public Lands

0 0.25 0.5 1 Mile

October 28, 2019

slope will result in a variation in vegetation. Where soils are wet there may be a preponderance of hardwoods such as red maple and yellow birch. A mixed forest including white pine and eastern hemlock will more likely occur on drier sandy/gravelly soils.

Over time, as the town has grown, the amount of contiguous forested and wooded areas have declined. Ensuring a long-term policy toward proper management of the Town's forest and tree resources has a number of values: open space and scenic enhancement, recreation, preservation of wildlife habitat, and water quality protection.

Fish and Wildlife

Plaistow's mixture of remaining habitat areas includes forests and woodlands, open fields and meadows, freshwater wetlands, and surface waters that provide habitat for a wide variety of species. In order to maintain a variety and abundance of wildlife species, maintaining a diverse and interconnected habitat is necessary.

Fields and forests provide habitat for such songbirds as woodpeckers, nuthatches, ruffed grouse, purple finches, woodcock, thrushes, bluebirds, robins, and warblers, along with deer, fox, coyote, and similar species. Wetlands are prime habitat for mammals such as beaver, otter, muskrat, and mink as well as toads, frogs, and salamanders. Heron, black ducks, and loons use wetland areas for nesting.

The New Hampshire Wildlife Action Plan provides a means of measuring the quality and extent of habitat in Plaistow. A map showing important habitat in Plaistow is shown on page 27. Where development has disrupted the connections between habitats the community should look for opportunities to regenerate needed habitat through green infrastructure strategies that also address stormwater and other development related issues.



Above: A White Breasted Nuthatch, photographed by Gordon Dimmig

Rare Species/Exemplary Natural Communities

In Plaistow, there are two rare plant species of special concern and two exemplary natural communities that have been listed by the NH Natural Heritage Inventory (NHI).

Although there are no federally listed endangered species, there are two state threatened plant species. The two endangered plant species include:

- Golden-Heather (*Hudsonia ericoides*)
- Green Adder's-Mouth (*Malaxis unifolia*)

The names of the natural communities reflect either the plants that help define them or the environmental processes that influence them. The two natural communities listed by the NHI include the following:

- Blackgum/Red Maple Basin Swamp
- SNE Level Bog

In an effort to protect these resource areas the NHI does not identify precise locations. It does publish upon request from a local community, a map of the community illustrating general locations.



Above: A NH Purple Finch, photographed by Michael Despines



Above: Green Adder's Mouth (*Malaxis Unifolia*)



Above: Golden Heather (*Hudsonia Ericoides*)

Water Resources

Introduction

It could be argued that water is our most valuable and precious natural resource. This colorless, transparent, odorless liquid falls from the atmosphere in the form of rain and snow, fills our rivers, streams and wetlands in Plaistow, and seeps into the ground to recharge our aquifers. Clean drinking water is expected by residents and property owners, and required for commercial and industrial uses. However, Plaistow is in a precarious situation

when it comes to this critical natural resource and is facing water scarcity. The Town has limited water resources due to the small number of surface water bodies and a low yielding groundwater supply. In the few locations that the groundwater might be able to provide more of the needed supply there are challenges due to the existing development pattern and previously polluted sites. This chapter will explore Plaistow's existing water resources, current and future water-related issues that impact watersheds and the community, and includes a series of implementation actions designed to help Plaistow re-think its relationship with water resources over the next decade.



Ensuring that Plaistow's water resources meet the needs of the entire community for future generations will require a town-wide approach to stewardship. This approach includes new ways to conserve water resources in the community and to regenerate the ecological services provided by existing water resources and other natural resources that help protect water supplies. These stewardship methods are in keeping with efforts outlined in the Rockingham Regional Master Plan, <http://www.rpc-nh.org/regional-community-planning/regional-master-plan> and will better serve the residents, businesses and property owners in the future. The results of concerted water resource stewardship efforts may include:

- Development and redevelopment practices that minimize impacts on natural resources, and improve those resources when possible.
- Development and land use change impacts on water resources are minimized and improved when possible.
- The community develops and redevelops in ways that allow waterways to flow as naturally as possible and to maximize infiltration rates to facilitate aquifer recharge.
- Remaining large, undeveloped blocks of land are protected and interconnected, particularly lands with sensitive habitats and land that protects shared water resources.
- Public and private drinking water supply sources are protected from overuse and pollution.
- Water and wastewater system owners, including municipally-owned systems, collaborate with each other on management and system improvement projects.
- Stormwater is infiltrated on-site using voluntary and regulatory approaches.
- Conservation of water resources become a matter of town pride.

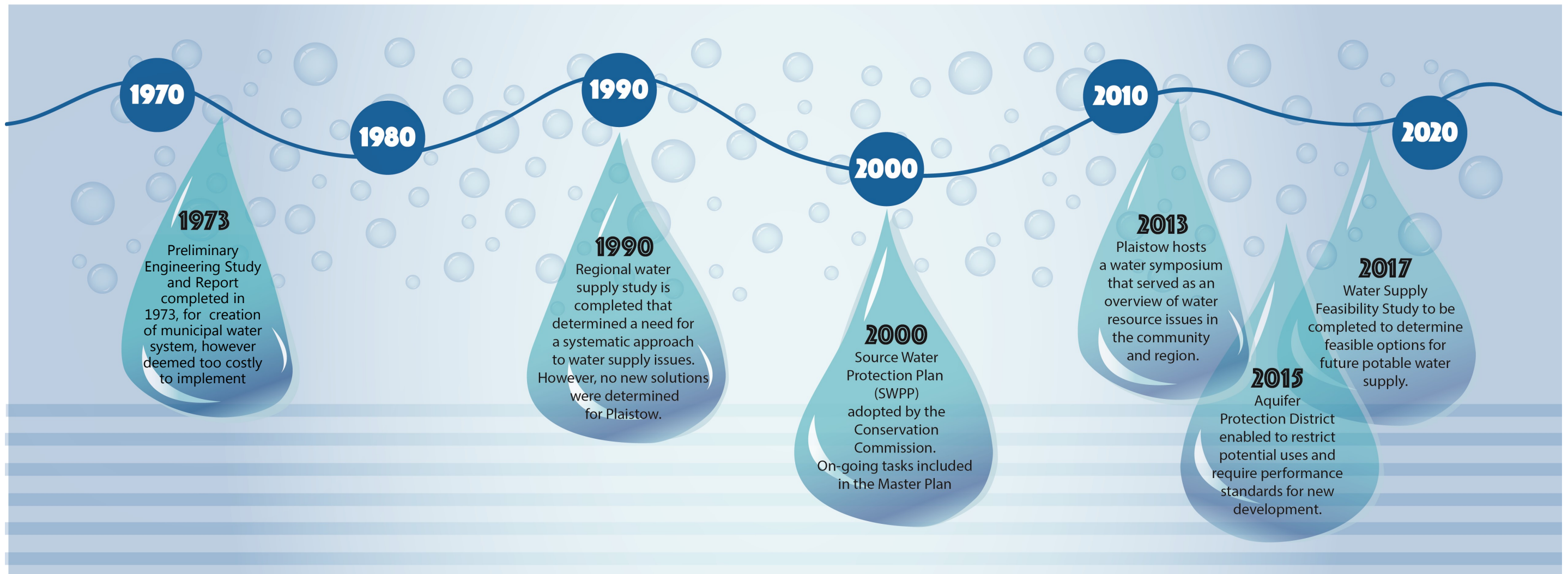
Existing Conditions

The Town of Plaistow is one of only two municipalities in New Hampshire without a named body of surface water greater than 10 acres. Although there are several rivers and streams in Plaistow, none of them have an adequate supply of water to use for either fire protection or for a municipal water supply. Therefore, the Town's primary sources of water are subsurface waters referred to as aquifers (stratified drift and bedrock). It is vital that the Town take measures to protect the remaining surface and subsurface waters. With the exception of the State Line Plaza on Route 125 at the Haverhill, MA state line, all residents and businesses are currently served by private wells and septic systems. State Line Plaza is connected to the Haverhill water and sewer systems.

Plaistow has been studying the issue of water resources since 1973. The Town is in a region with significant water issues due to the existing and anticipated demand, existence of contaminated properties, and other issues related to supplying and delivering clean drinking water. Water studies and initiatives have included:

- Initially, the community completed a Preliminary Engineering Survey and Report in 1973 for the creation of a municipal water system, however, the recommendation was deemed too costly to implement.
- In 1990 there was a regional water supply study completed that determined a need for a systematic approach to the regional water supply issues. This study was revisited in 2005 and noted the development of new water infrastructure in other communities, but no new solutions were apparent for Plaistow.

- A Source Water Protection Plan (SWPP) was adopted by the Conservation Commission in 2000. All of the initial tasks set out by the Plan were completed at the time of adoption, including a new Aquifer Protection District ordinance. The community committed to incorporating on-going tasks into the Master Plan to insure that proper and timely updates would be made.
- In 2013 Plaistow hosted a water symposium that served as an overview of water resource issues in the community and region.
- In 2015 Plaistow updated its SWPP to include a voluntary inspection program of businesses that might use or store chemicals that could potentially contaminate wells and/



or aquifers. The Aquifer Protection District ordinance was concurrently updated to restrict potential uses and require performance standards for new development

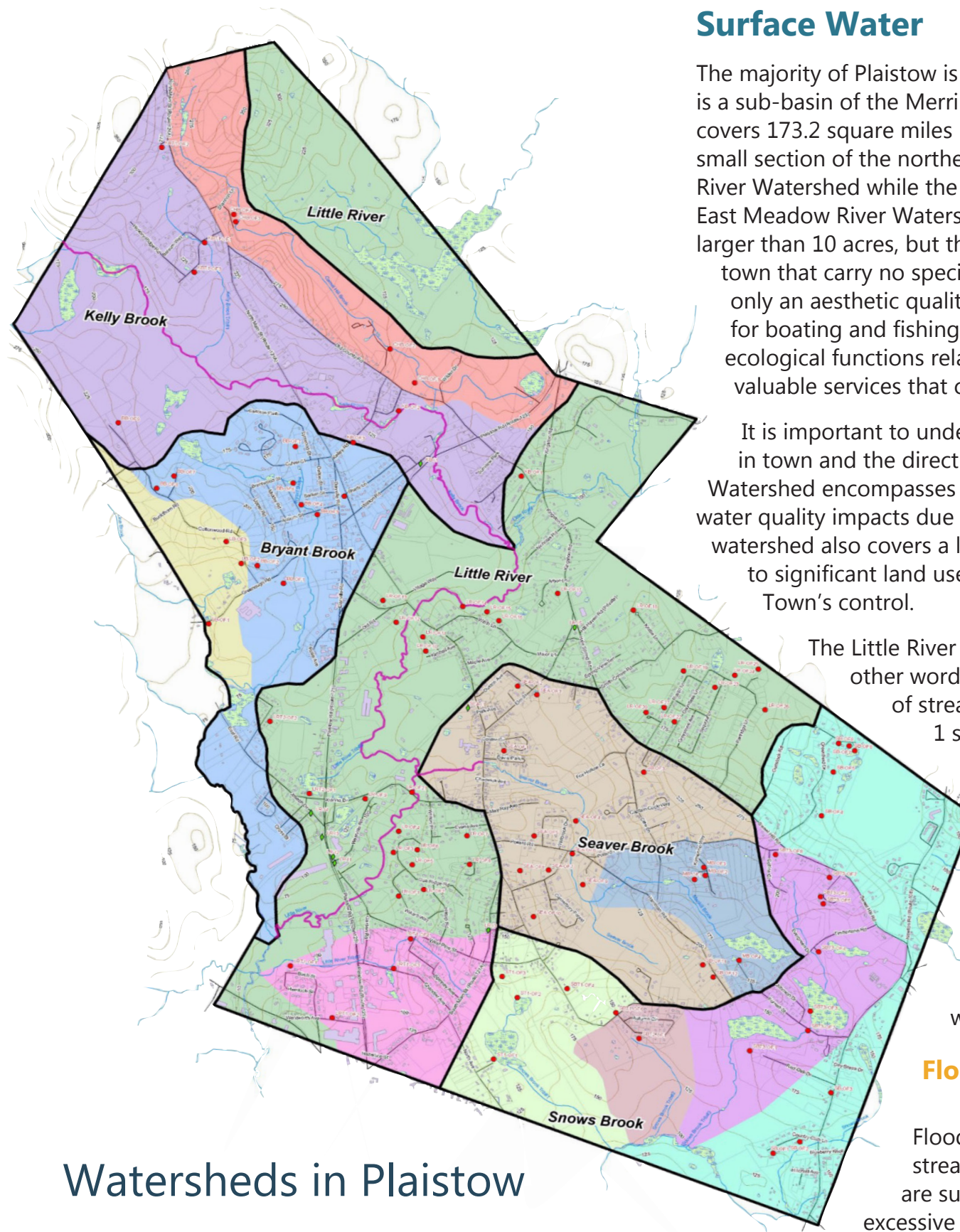
- In 2017, Plaistow completed a new Potable Water Supply Feasibility Study to determine feasible options for future potable water supply.

The issues related to water resources impact many aspects of the community and quality of life in Plaistow. These resource concerns may be an indication that Plaistow's stewardship of natural resources is currently out of balance. In order to better understand our existing water resources and to plan for the future, this section of the chapter addresses the following topics:

- Surface Water Resources
- Groundwater Resources
- Public Water Supply Resources
- Potential Threats to Plaistow's Water Resources



Little River



Watersheds in Plaistow

Surface Water

The majority of Plaistow is located in the Little River Watershed which is a sub-basin of the Merrimack River Basin. The Merrimack River Basin covers 173.2 square miles - 10.5 square miles of it is in Plaistow. A small section of the northern part of town is located in the Powwow River Watershed while the eastern most part of town is part of the East Meadow River Watershed. Plaistow has no large lakes or ponds larger than 10 acres, but there are number of smaller ponds within the town that carry no specific names. These surface waters provide not only an aesthetic quality to the town, but also recreational value for boating and fishing. They also provide a range of additional ecological functions related to habitat, flood storage, and other valuable services that contribute to the community.

It is important to understand the extent of the watershed areas in town and the direction of water flow. Because the Little River Watershed encompasses the majority of Plaistow, it is susceptible to water quality impacts due to development within the community. This watershed also covers a large area outside of Plaistow and is subject to significant land use change and development beyond the Town's control.

The Little River is classified as an Order 4 waterway. In other words, it is the 4th level in the NHDES hierarchy of streams and tributaries that begins with Order 1 surface waters which are the source, or headwaters. All tributaries classified as orders 1-4 are protected by the Shoreland Protection Act. However, many other smaller streams which do not fall within this classification system flow into the Little River, and therefore are not protected. A Town regulatory buffer system could help protect these smaller tributaries and thus improve the water quality of the Little River.

Floodplains

Floodplains are areas adjacent to rivers, streams, and surface water bodies which are susceptible to flooding during periods of excessive stormwater runoff. The Federal Emergency

Management Agency (FEMA) has prepared Special Flood Hazard Area maps for Plaistow for the purpose of identifying the 100-year flood areas within the Town that may be eligible for federally subsidized flood insurance. These 100-year flood boundaries are for the most part associated with the Kelly Brook and the Little River. The Town also has a Floodplain Development Ordinance to regulate development in the flood hazard areas. Due to the changing frequency and volume of rain events here in New Hampshire, we need to look beyond the 100-year floodplains. The surface water resources map identifies Plaistow's 500-year floodplains, and the community must consider issues related to stormwater management outside of these floodplains. This includes culvert sizes and other drainage factors that compose a community-wide adaptation strategy.

Stormwater

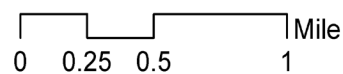
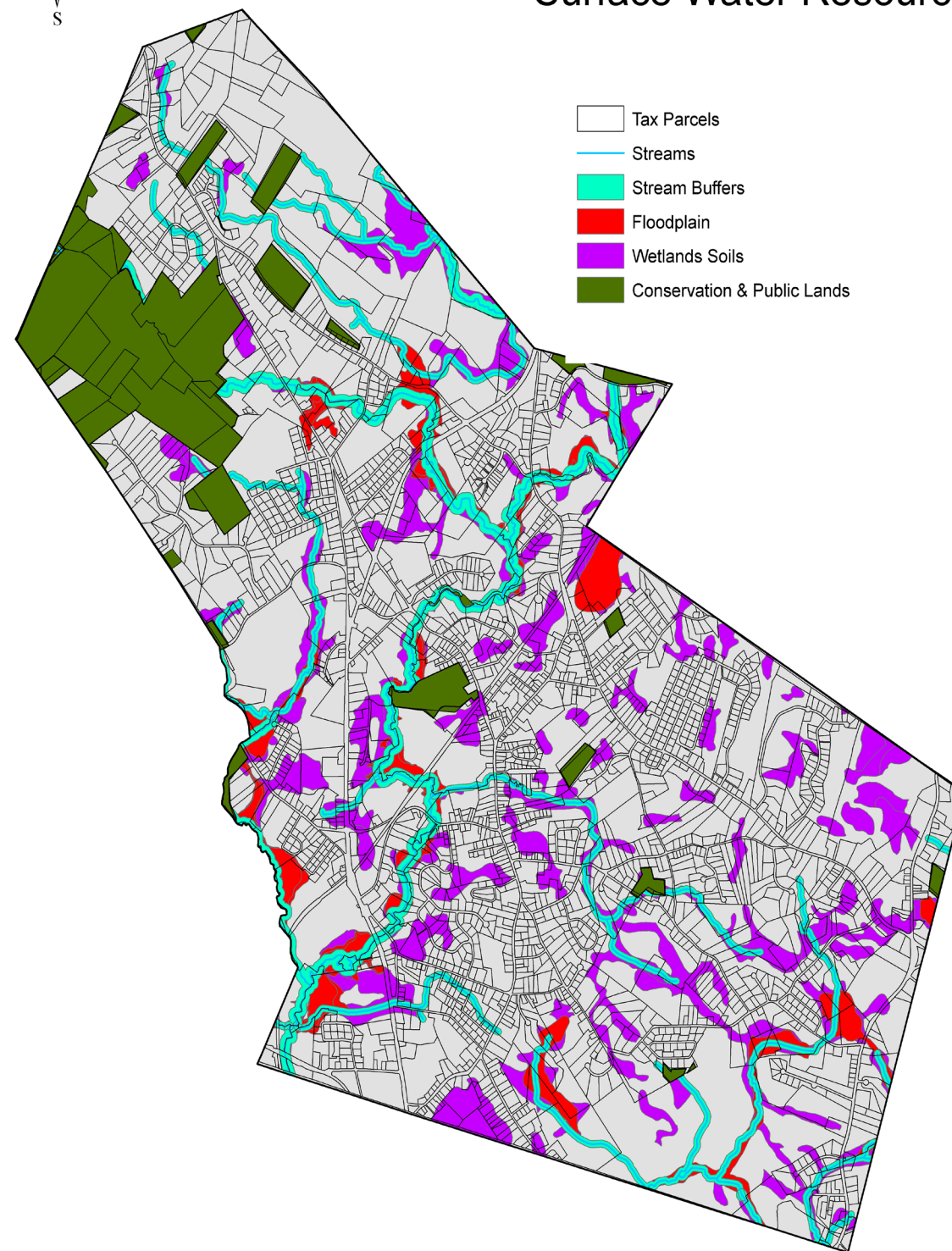
Plaistow's proximity to large urban centers, Haverhill to the immediate south as well as being part of the Boston Urbanized Area, requires that Plaistow obtain a Municipal Separate Storm Sewer System (MS4) Permit. The MS4 permits are multi-year permits and require an annual report be submitted to the EPA. The Town should continue to maintain its MS4 committee made of up Town staff, volunteers, and professional engineers to ensure that the requisite water sampling is completed, that outreach and engagement efforts occur in collaboration with adjacent communities, and that the annual report gets submitted on a timely basis.

Impaired Streams

Surface water impairments are due to a variety of pollutants found in a stream or river. 'Impaired' streams are those which contain levels of pollutants over and above the levels set by the State in order to meet the Clean Water Act water quality standards. Kelly Brook is currently the only surface water considered by the NHDES to be impaired, and is included in the Section 303(d) List: *2014 List of Threatened or Impaired Waters That Require a TMDL*. TMDLs, or Total Maximum Daily Loads, refer to pollutant reductions a water body needs to meet the water quality standards. The Kelly Brook TDML is ranked as a Low priority, indicating that pollutant reduction actions would be initiated only after the water bodies' ranking reaches Medium



Town of Plaistow Surface Water Resources



June 24, 2019

or High. More information on this can be found at: <https://www.des.nh.gov/organization/divisions/water/wmb/swqa/2014/index.htm>

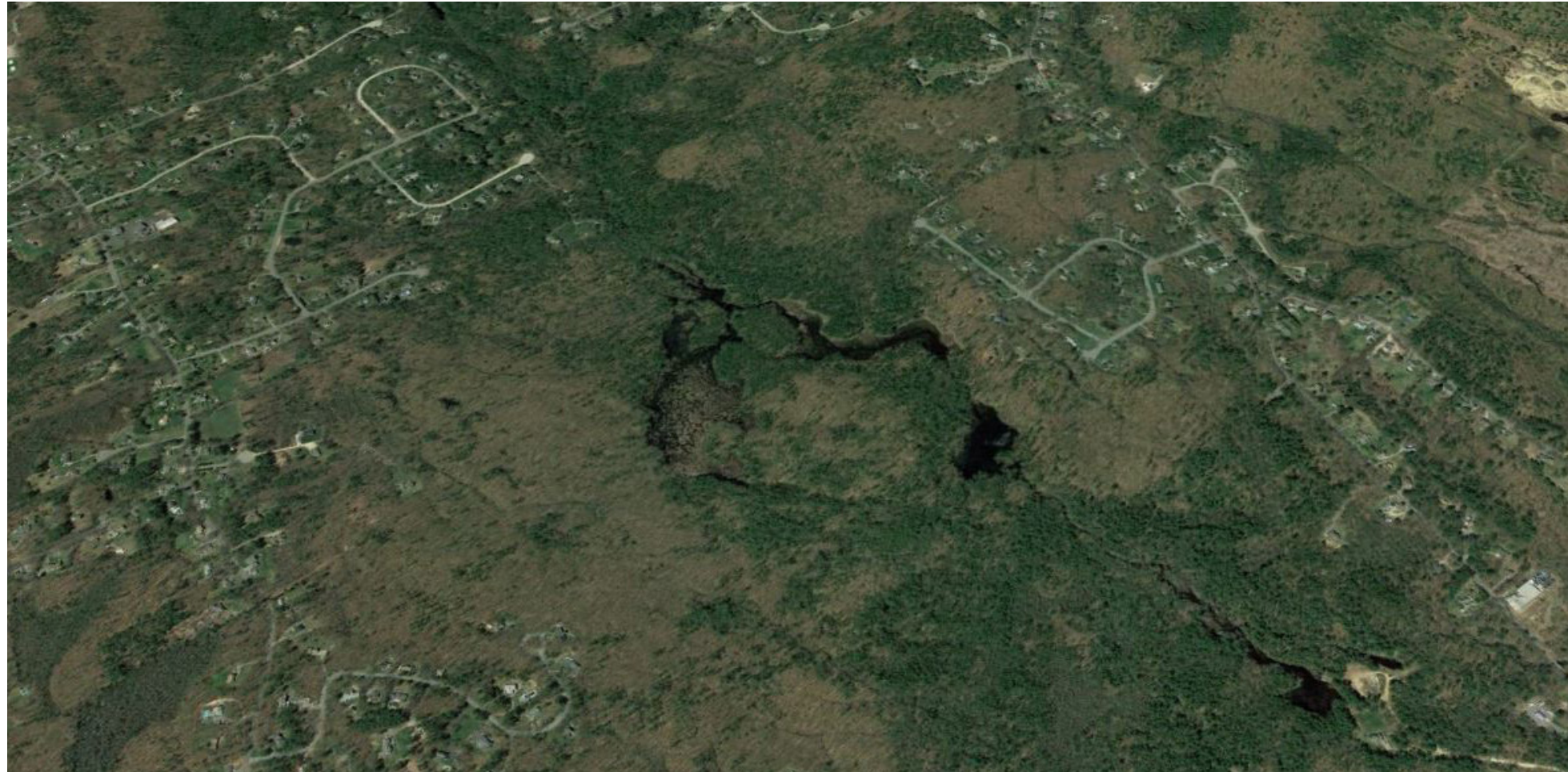
Wetlands

Wetlands form a major part of Plaistow's surface water resources. Most are directly related to the Little River and its tributaries. These areas include shallow ponds, marshes, swamps, bogs, and seasonally flooded land. Wetlands are usually low areas with poor drainage that have standing water for all or part of the year. Wetlands are not only biologically productive, they also help store floodwaters and are critical to protecting downstream areas.

The definition and mapping of wetlands varies from agency to agency within New Hampshire and the federal government. For the purpose of this master plan chapter we used both National Wetlands Inventory data identified from aerial photography and Natural Resource Conservation Service (NRCS) hydric soils mapping data. Both sources have been used to identify potential wetland resources on the Surface Waters Map. By quantifying wetland values, a hierarchy of wetland types can be established and appropriate measures for protection and management can be employed. There are approximately 1,278 acres of soil-based wetlands in Plaistow. A Wetlands Ordinance has been adopted to regulate the uses of lands subject to standing water or extended periods of a high water table. The Town is also working to designate some of its wetland resources as "prime wetlands", ensuring their protection from future encroaching development on Route 125 and Main St.

Dam Sites

There are currently nine dam sites in the town. There are two on the Little River, two on Seaver Brook, and one on Kelly Brook. The remaining four dams are all found on ponds. Four of the nine dams are considered inactive. This includes two on the Little River and one each on Kelly Brook and the Sweet Hill Estates Pond.



An “inactive dam” either no longer exists or has a significant breach in it that it is no longer capable of impounding water while an “active dam” is capable of impounding water. These dams are inventoried and monitored by the New Hampshire Department of Environmental Service’s Dam Bureau.



Groundwater

Plaistow’s groundwater resources are stored in openings in the bedrock or the gaps within glacial deposits of sand and gravel. Groundwater is currently the principal source for water supplies in Plaistow. The groundwater yield is rated by the transmissivity of the aquifer, which is a measure of the ability of an aquifer to transmit a fluid and it is measured in square feet per day. The US Geological Survey (USGS) has classified yield into four categories: less than 1000, 1001 to 2000, 2001 to 4000, and greater than 4000.

The Ground Water Map (on the next page) illustrates the aquifer location and favorable well sites based on transmissivity. The majority of Plaistow falls into the less than 1000 square feet per day transmissivity. These areas are not suitable for municipal water supply since estimated yields are less than 75gpm (gallons per minute). There are a few areas that fall into the 1001 to 2000 square feet per day including several small areas located near Route 125 in the southern portion of Plaistow and on the Massachusetts border in the southeastern area of the community. These areas are

Wetlands provide numerous beneficial services:

- Protecting and improving water quality by filtering sediments and pollutants
 - Flood control through flood water storage
 - Groundwater infiltration and recharge
 - Wildlife, plant, and fish habitat
 - Education, recreation, and scenic diversity

rated at more than 75 gpm, but less than 150 gpm, and are suitable for smaller volume municipal water supply, pending hydro-geologic study. Overall, based on data from the USGS and the NHDES, it has been determined that Plaistow's stratified drift deposits are not deep enough or high yielding. This data could be confirmed with a site specific hydrogeological study. In addition, the NHDES favorable gravel well analysis (FGWA) completed for Plaistow and shown on the Groundwater Map identified that much of the land over the aquifer and favorable well sites is fragmented by development putting these resources at risk of contamination from existing land use activities.

All but one of the existing community wells in Plaistow is located in bedrock. However, water sourced from bedrock wells needs to be carefully monitored for



naturally occurring contaminants. In Plaistow this may include arsenic, lead, manganese, radon, and uranium. The community has a voluntary testing program established to identify any potential concerns, but property owners need to submit samples from their wells to gain this

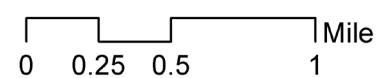
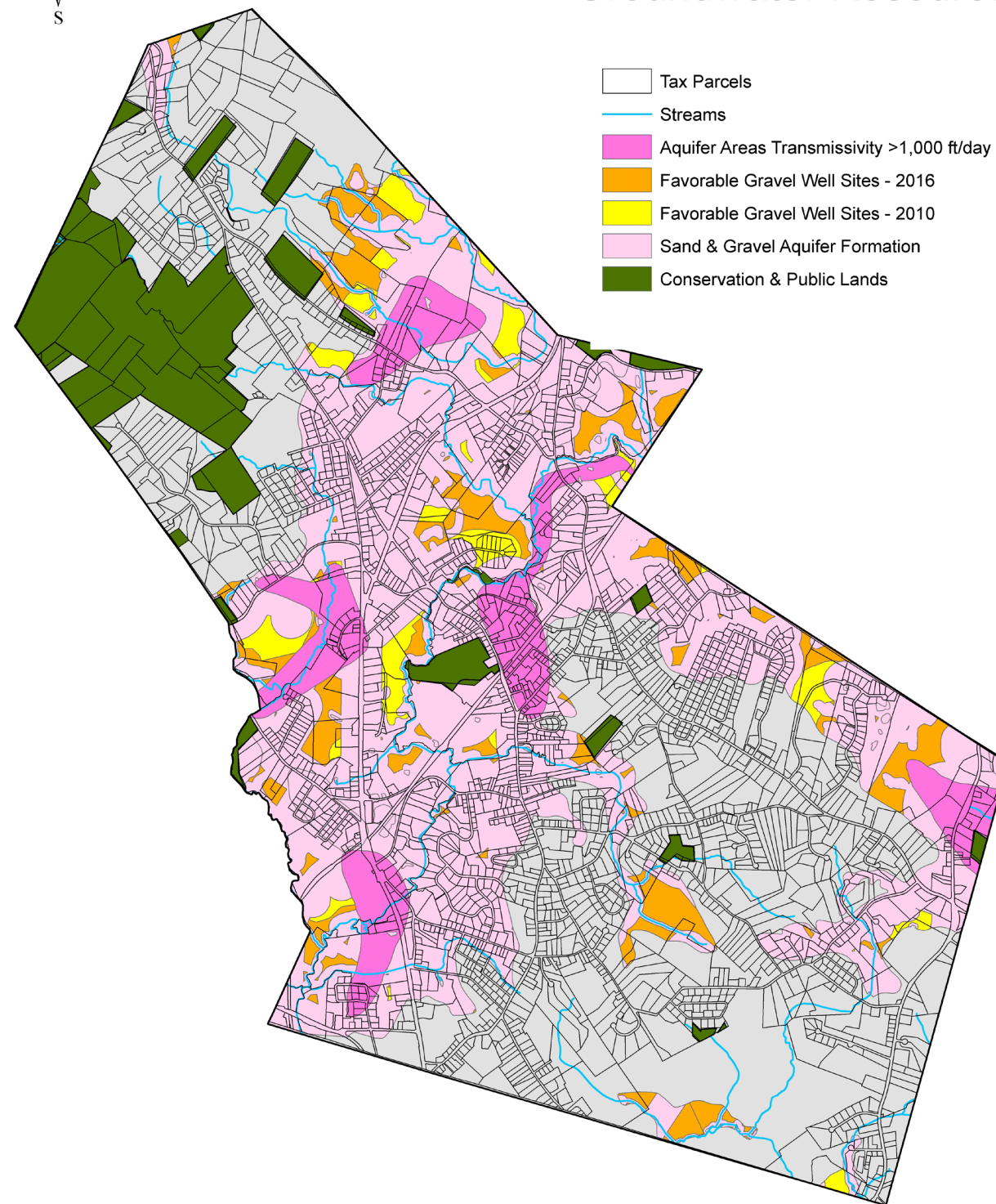
information. After nearly forty-five years of studying the issue it has become very clear that Plaistow has very little potential for developing new municipal water supplies in the aquifer and will need to seek other alternatives outside of the community. To ensure the integrity of existing wells it will also be important for the community to commit to infiltrating as much of the annual precipitation as possible.

Potential Threats to Water Resources

Threats to Plaistow's water resources fall into two categories: point source pollution and nonpoint source pollution. Point sources are uses that discharge directly



Town of Plaistow Groundwater Resources



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into a water body at a specific point. An example of this is a municipal wastewater treatment plant. Nonpoint source pollution involves the diffuse discharge of wastes from sources that are widely spread and sometimes hard to control. Nonpoint pollution sources can be a more serious concern due to their cumulative effect on surface and groundwater quality. Examples of these include landfills, subsurface disposal systems, roofs and parking areas, hazardous waste sites, salted roadways and salt storage areas, lawn chemicals, surface impoundments, and sand and gravel excavation.

Known or Potential Contamination Sites

The Bureau of Hazardous Waste in the NH Department of Environmental Services (NHDES) maintains a statewide inventory by community of all sites that may have hazardous waste or petroleum products associated with them that may pose a threat to water resources or the environment. This inventory is constantly reviewed and updated. The status of each site is measured by its risk level. Risk levels start at CAT 1 and go up to CAT 8. The lower the risk level number is, the more hazardous the site is considered. So, a CAT 1 site poses more threat to the environment than a CAT 8 site. In Plaistow, the NH DES has listed 127 such sites, although a number of these are closed and no longer pose a problem. In addition, others are properly registered with the state and do not pose a threat. The risk level for each is also listed. Plaistow has seven (7) CAT 1 sites, nineteen (19) CAT 2 sites, and 37 CAT 8 sites. There are a number of additional sites that are not active and are of low priority according to NHDES. These usually involve underground storage tanks or fuel facilities and are known as potential contamination sites, of which there are some present in Plaistow. These sites have the potential to pollute the previously mentioned public water systems due to their proximity to one another.

In the 2004 Master Plan it was recommended that Plaistow's site plan review regulations related to regulated substances be updated. It was also recommended that Plaistow review the permitted uses in the zoning ordinance, complete an inventory of existing potential contamination sites, and conduct annual inspections of these sites. The Town of Plaistow continues to review and update its regulations and contamination monitoring initiatives. Several specific implementation actions have also been identified at the end of this chapter.

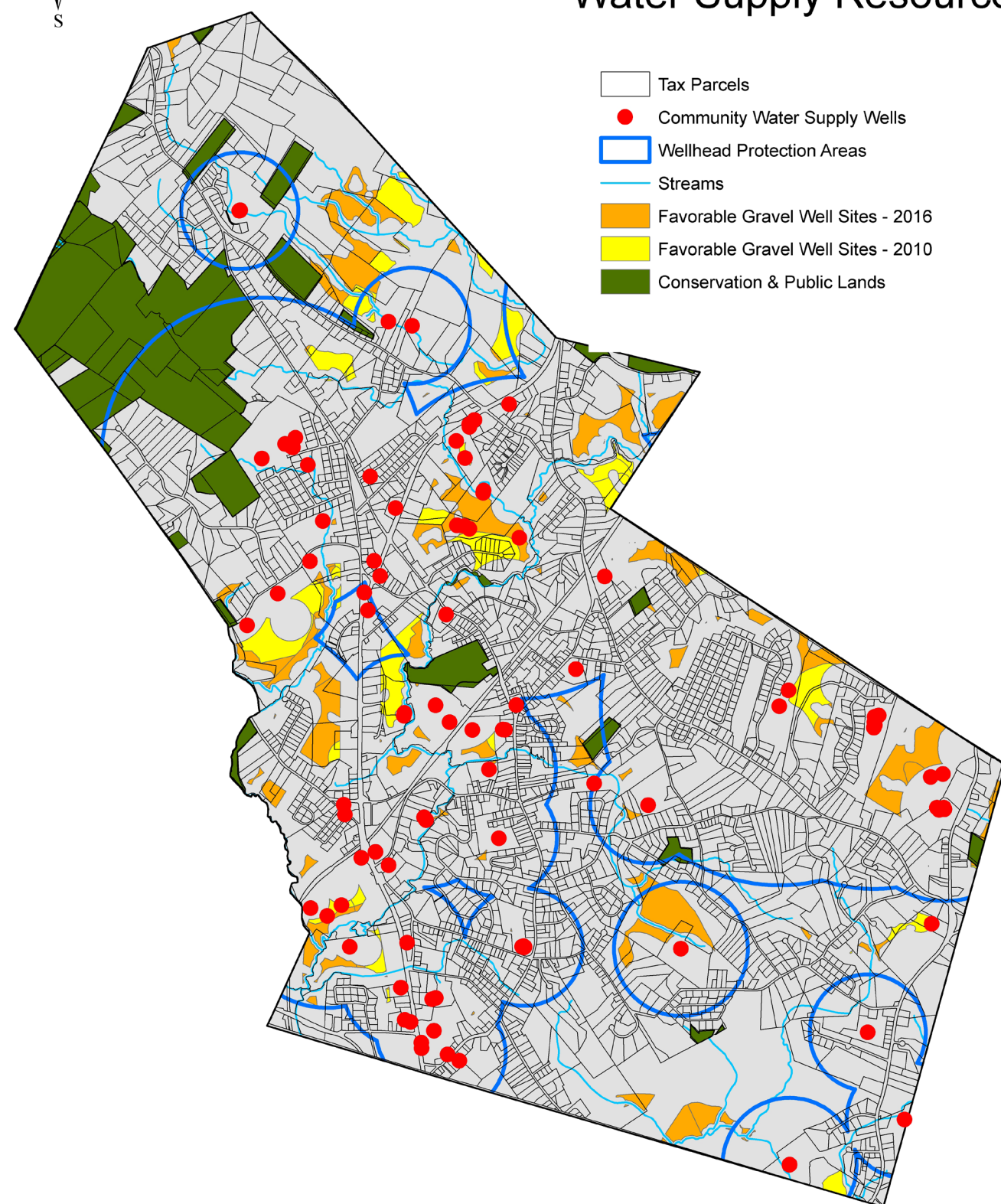
The lack of sewer infrastructure is also an issue that needs continued monitoring. With the number of sub-surface disposal systems throughout the town it may become necessary at some point to provide municipal sewer in the most densely developed portions of the community. This would most likely start with the Route 125 corridor if Haverhill would provide treatment.

Stormwater

The largest source of nonpoint pollution in Plaistow is from stormwater. This potential pollution source needs to be managed on site as close to the source as possible to reduce the negative impacts associated with stormwater (erosion, transport of pollutants, flooding, etc.). Each property owner in Plaistow must be engaged in this important work to infiltrate stormwater so that it can be appropriately cleaned in the soil and allowed to recharge the aquifers in the community. Plaistow's requirements under the MS4 permit and reporting process are a step in the right direction, but will require a long term commitment to managing stormwater using voluntary and regulatory tools as outline in the MS4 Annual Report. From a land use perspective it is important that the community adopt Low Impact Development standards that favor green infrastructure solutions over conventional grey infrastructure.



Town of Plaistow Water Supply Resources



Key Issues and Challenges

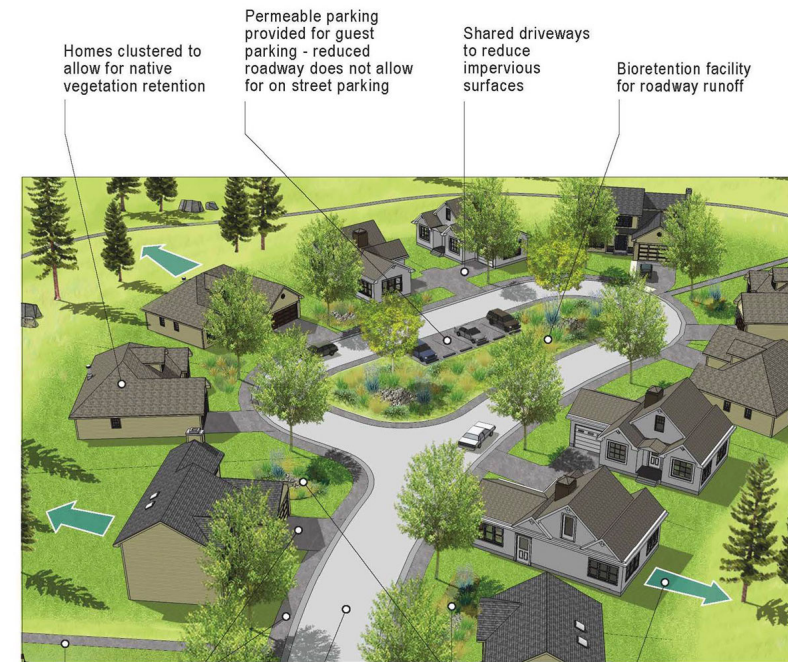
Based on the complexity of the water resource challenges that Plaistow is facing, the community must commit to educating all residents and property owners on this issue and engaging them in implementing a range of solutions. This will be important in ensuring Plaistow can move forward and become a community with a sustainable balance of water resources and uses. While this may seem like a daunting challenge initially there are a number of additional benefits that will result that also contribute to the quality of life in Plaistow. Addressing the water resources issues is an opportunity to:

- Ensure access to clean drinking water,
- Improve flood protection,
- Provide habitat protection and creation which support biodiversity,
- Improve recreation opportunities in the community, and
- Increase social capital within the community by engaging residents in this important work.

While Plaistow has many challenges ahead related to water quality and quantity, there is a clear path forward that will address these short comings. The implementation actions outlined in the next section of this chapter need to occur at a variety of scales; from the individual, to the neighborhood, to the community, and beyond to the region. This will require participation from property owners and residents, Town staff and committee members, and many others. Fortunately Plaistow has been hard at work already creating a foundation for addressing drinking water and stormwater management related issues.

What is LID?

LID, or Low Impact Development, is an approach to building development that minimizes, and sometimes mitigates, the effects of development on the ecosystem. There are many decisions made during the design phase of new projects or redevelopment that will have consequences on the health and quality of the surrounding environment. These decisions can range from selection of building materials, to location of the structure on the site, to managing rainwater runoff. Using LID methods to guide these decisions can result in healthier, more sustainable communities.



How Could LID Benefit Plaistow's Water Resources?

Stormwater (water resulting from rain or snowmelt that does not get absorbed into the ground) flows over paved surfaces roofs, and other non-porous surfaces. This water flow picks up pollutants and carries them into drainage systems or other man-made holding systems, and also into rivers, ponds, wetlands, ground water and other natural water bodies. This type of water contamination is called non-point pollution. LID methods, which strive to mimic natural ecosystems and protect water resources, will help filter pollutants from stormwater, improve the quality of the water for home and commercial use and conserve water for the future. These methods could include:

- Protecting land around natural water features
- Filtering runoff through natural bioswales or filtering systems
- Controlling drainage to reduce erosion
- Restricting potentially contaminating uses near water sources, groundwater supplies and aquifers
- Installation of porous paving to encourage infiltration
- Encouraging compact development which limits overall impacts on the land and reserves larger, unfragmented areas of conserved land.

Rain Gardens: Native and perennial plantings in small depressions located to collect rainwater runoff. Rain gardens absorb water, reduce runoff, protect water quality, and help to prevent flooding.

Native Landscaping: Native plants have root structures that build soil quality and increase organic matter content to facilitate infiltration.



Bioswales: Bioswales slowly convey water to storm inlets or natural water bodies, and filter pollutants from runoff

Bioretention Ponds: These ponds are shallow depressions planted with native grasses and perennials. Bioswales hold large amounts of water runoff, slowly allowing it to filter and into the ground.

Level Spreader: Level spreaders dissipate water velocity and prevent erosion by spreading the water flow over a wide area, rather than releasing the flow from a concentrated point source.

Pervious Paving: Pervious paving can support vehicular loads and traffic while allowing rainfall to infiltrate directly into the ground through small gaps in the surface material.

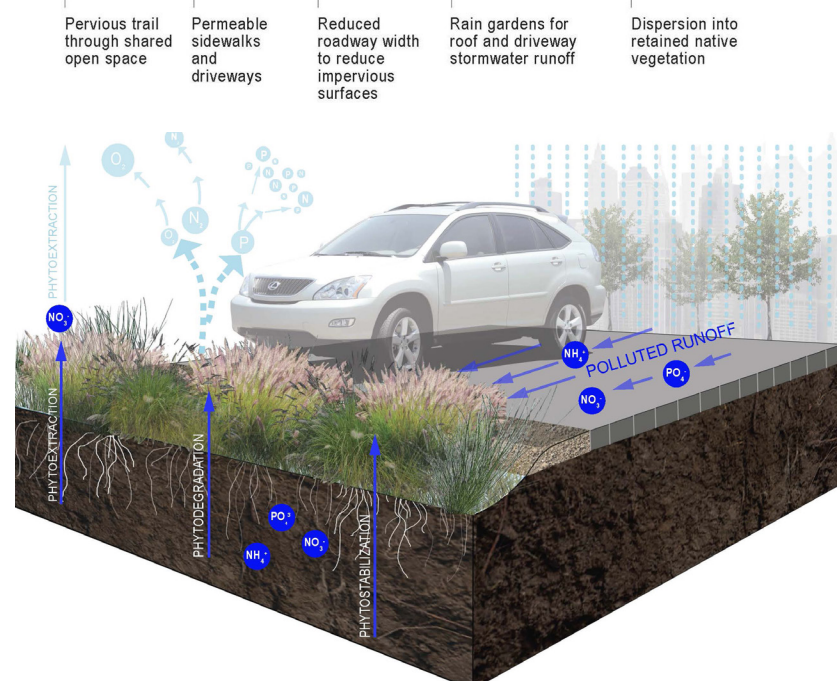


Illustration by Doug Adamson, RDG Planning & Design, provided by USDA-NRCS in Des Moines, Iowa.

Open Space and Conservation

Introduction

Plaistow's network of open and undeveloped land is central to its Vision as a "vibrant and active community with clear water, fresh air, and plenty of open space." In order to achieve these goals and balance the desire for economic development and jobs we must first understand what open space resources exist and their level of protection. These undeveloped areas of the community contain a range of important natural resources and support the developed areas of Plaistow with critical services such as flood protection, infiltration of stormwater, clean air, recreation, habitat, and others. We call these Ecosystem Services, and they are the benefits of Plaistow's existing network of open space. These important ecosystem services are best provided by a network of protected open space and vegetated areas within developed areas. We call such a network of natural resources Green Infrastructure.

Due to Plaistow's location and history of development activity, there appears to be limited remaining opportunities for land conservation. This is an important fact as the community can't replace these resources when they are gone. Many communities strive for a minimum of 25% of their land area conserved. Plaistow's efforts to protect additional conservation land will also assist with its other goals within this Master Plan related to water resources, economic development, quality of life, and other initiatives. This chapter will explore Plaistow's existing open space, current and future conservation related issues that impact the community's vision, regional conservation initiatives, and includes a series of implementation actions designed to help Plaistow pursue land conservation over the next decade.

What is Green Infrastructure?

Green Infrastructure is defined as the open spaces, natural resource systems, and green technologies that collectively provide society with a multitude of economic, environmental and social benefits. These benefits include water quality protection, carbon sequestration, soil stability and health, outdoor recreation, and many others.



Above: Sweet Hill Farm, Plaistow NH

Existing Conservation Land

There are currently **705 acres of land** in Plaistow permanently protected through conservation easements. This equals about **10%** of the land area in Plaistow. The majority of this conservation land (520 acres) is held by the Town of Plaistow. This town-owned conservation land constitutes **74%** of the total conserved land in the community. It is also important to note that the majority of the conserved land is located in the northern portion of Plaistow, and is largely represented by the 400+ acre Plaistow Town Forest.

This is significant for a number of reasons. While having such a significant area of unfragmented land protected in the northwest portion of the community is beneficial to Plaistow and surrounding communities, the remainder of Plaistow is lacking in protected land aside from a few isolated parcels of conservation land. It is important that the community consider in this Master Plan how much additional land can be protected in Plaistow. If these properties can be connected to each other through conservation of remaining open space and the creation of green infrastructure within developed areas, Plaistow may achieve its Vision. There is still an opportunity for Plaistow to meet or exceed the goal of 25% conservation land. As the community strives for this goal, it is also important to consider the location and quality of the lands being protected and to work on the connectivity between parcels.

Remaining Open Space

While only 10% of Plaistow is permanently protected as conservation land, the good news is that there are additional properties with conservation potential. Some of this land is designated as Current Use. The Current Use land in Plaistow totals 938 acres and represents 14% of the town's land area. While this land is currently undeveloped and provides natural resources and other benefits to the community, it may still be developed in the future. However, these properties present some of the best remaining possibilities for land conservation in Plaistow.

10%

of land in town is conserved

14%

of Plaistow's Land Area is in **Current Use**

There is also an additional 158 acres of land (2.3% of Plaistow's land area) designated as "open space set-aside." This land appears to have been designated as open space related to residential developments, but is not designated as permanently protected conservation land. These properties present future opportunities for land conservation. Beyond these two categories there are additional acres of land in Plaistow that are currently undeveloped, but are not in current use and have not been protected from development. The majority of this acreage is on lots that have been partially developed, or in areas with constraints to development.



Resources of Regional and Statewide Importance

Two regional conservation initiatives and the New Hampshire Wildlife Action Plan provide additional information to guide Plaistow's efforts to protect open space and expand the amount of conserved land in the community.

Merrimack Valley Regional Conservation Plan

<https://merrimackconservationpartnership.org/resources/conservation-plan/>

The Merrimack River Watershed, the land area that ultimately drains to the Merrimack River, totals about 2.1 million acres, divided almost evenly between New Hampshire and Massachusetts. Despite being highly developed, the Merrimack Valley still contains critical terrestrial and aquatic habitats and contributes to the larger Gulf of Maine marine ecosystem. The watershed's 2.6 million residents directly depend on the Merrimack River Watershed for drinking water, local food and forest products, and close-to-home outdoor recreation. Plaistow falls within the land area of the Merrimack Valley Regional Conservation Plan. The importance of this plan to Plaistow is somewhat marginal, but there are three areas around the perimeter of the town that are worthy of consideration for future conservation efforts. The most significant of these involves the southeast corner of Plaistow, where all three "tiers" of focus area identified in the plan are found.

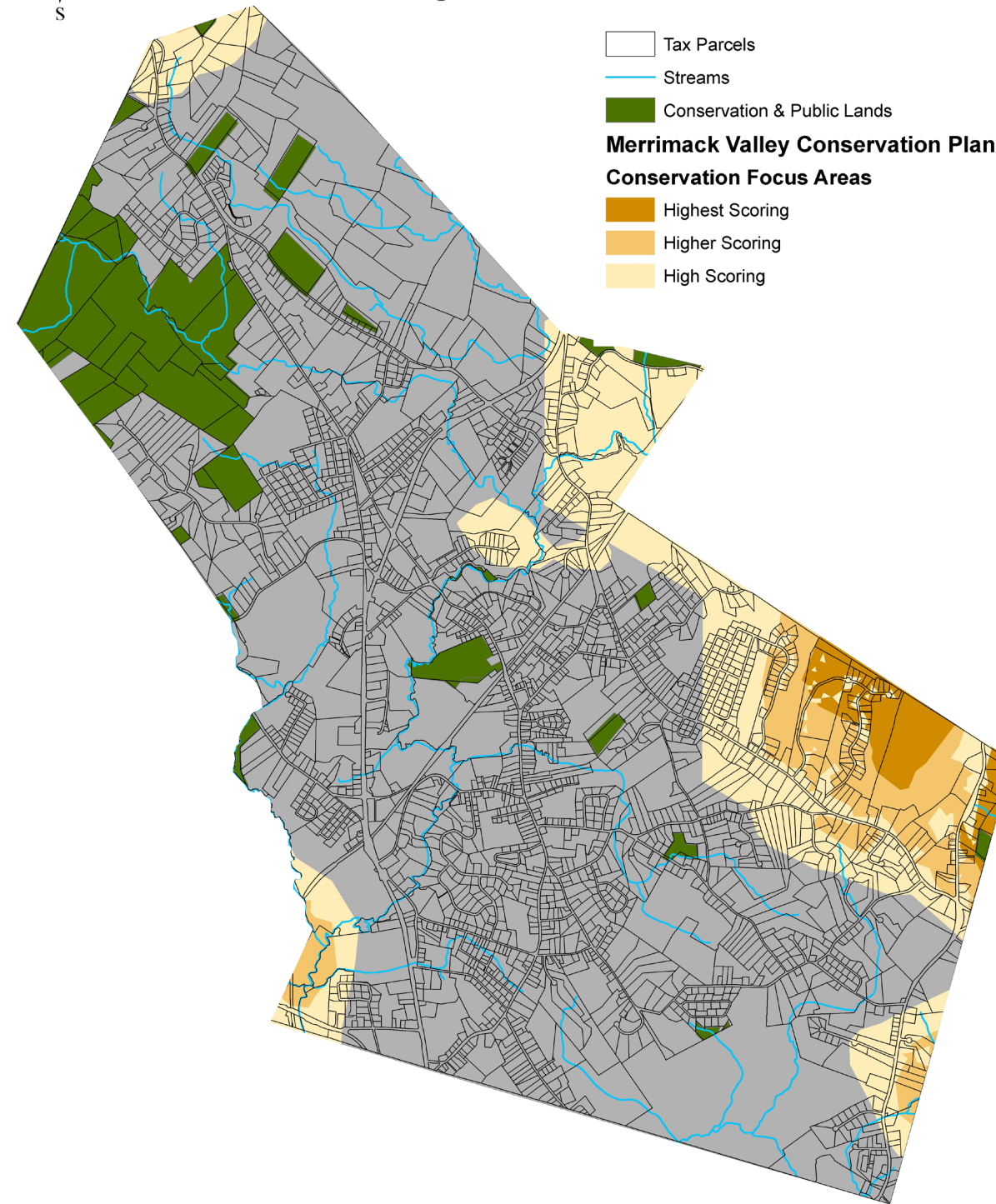
The Southeast Land Trust (SELT)

<http://seltnh.org/>

Working to conserve and steward land for the benefit of people and nature in New Hampshire, SELT serves 52 towns within Rockingham and Strafford counties. SELT has conserved over 13,000 acres of land since 1980, including nature preserves, hiking trails, farmland and scenic vistas. SELT relies on its annual



Town of Plaistow Regional Conservation Focus Areas



contributing members, committed Board of Directors, and talented staff and volunteers to keep advancing critical conservation initiatives in our region.

Their mission is "to protect and sustain the significant lands in our communities for clean water, outdoor recreation, fresh food, wildlife, and healthy forests." SELT's conservation plan uses the Coastal Conservation Plan and the Merrimack Valley Regional Conservation Plan as the basis for their conservation focus areas. However, they have identified focus areas where they intend to work more actively. In Plaistow, SELT has identified municipal drinking water resources as the primary focus area. There is a large wellhead protection area within Plaistow that is a SELT focus area. The location of this wellhead protection area may not be displayed due to a data sharing agreement with the NH Department of Environmental Services that prevents SELT from displaying the wellhead area publicly.

New Hampshire Wildlife Action Plan

<https://www.wildlife.state.nh.us/wildlife/wap.html>

The 2015 New Hampshire Wildlife Action Plan (NHWAP) is a blueprint for conserving Species of Greatest Conservation Need (SGCN) and their habitats in New Hampshire. The Plan identifies 169 SGCN, which represent a broad array of wildlife, and it focuses on the 27 habitats that support these species, such as lowland spruce-fir forest, salt marsh, shrub lands, warm water lakes and ponds, vernal pools, and many others. Each SGCN and habitat has an individual profile that includes information about the population, threats, and actions needed to conserve these features in New Hampshire.

In Plaistow, the NHWAP habitat mapping shows three important areas based on ranked habitat. In the northern portion of the town there are two areas ranked highest in the biological region (Tier 2 – bright green); one is associated with the existing conservation lands in the northwest corner of town, while the other is along the northeastern border and is not well protected at present. A third area is located in the southeastern portion of the

March 5, 2019

community along its border with Newton. The supporting landscapes found in Plaistow constitute a larger area worthy of consideration. These land areas are intended as buffers to protect the integrity of the Tier 1 and Tier 2 areas identified in the NHWAP, but are also relatively high-scoring areas themselves based on the modeling used to create the NHWAP.

Rockingham County Conservation District (RCCD)

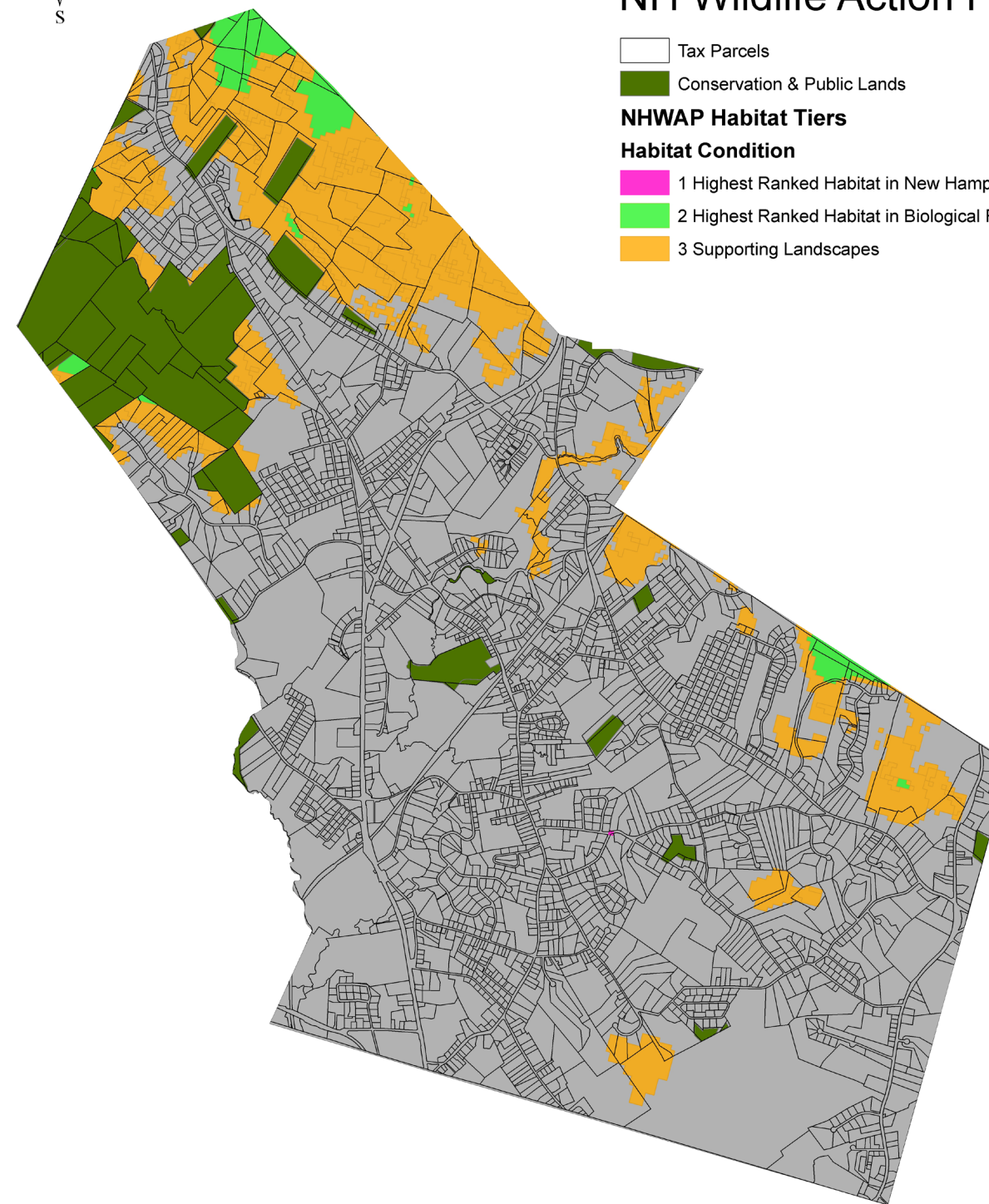
<http://rockinghamccd.org>

In 2005, the Conservation Commission worked with the Rockingham County Conservation District and the heirs to the Cox farm (Crane Crossing Road) to preserve over 20 acres of farmland. This was accomplished by obtaining a matching grant from the federal Ranch and Farm Lands Preservation Program; the Conservation District holds the easement and the Town of Plaistow is the Executor of the easement. The current land owner has a stable on the property and has been a good steward of the land.

Land Conservation Opportunities

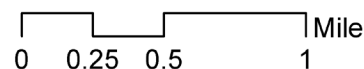
Looking at the mapped constraints to future development, there are several natural resource features that are worth considering for conservation purposes. These tend to involve combinations of wetlands, floodplains, and riparian corridors. Note that the riparian corridors, upland areas adjacent to water bodies, depicted on the map are sized at 100 meters, or about 328 feet. This is to match the NHWAP mapping standards that have an emphasis on wildlife movements, but also work to enhance water quality in these surface waters. Prime agricultural soils are also important, but much of that land in Plaistow is now developed, or underneath the large golf course in the southern corner of town.

The map on the following page shows these features, and highlights in yellow, the larger parcels of land that present the best opportunities for additional land conservation. These parcels are related to the natural water resources present, and a few tracts contain prime agricultural



Town of Plaistow NH Wildlife Action Plan

- Tax Parcels
- Conservation & Public Lands
- NHWAP Habitat Tiers**
- Habitat Condition**
- 1 Highest Ranked Habitat in New Hampshire
- 2 Highest Ranked Habitat in Biological Region
- 3 Supporting Landscapes



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soils. They represent 1,355 acres of potential conservation land if land owners are interested, and the necessary funding can be identified. Note on page 28 how the identified parcels in the northern half of Plaistow have good potential for expanding existing conserved lands while protecting critical natural systems, and areas of high NHWAP habitat quality.

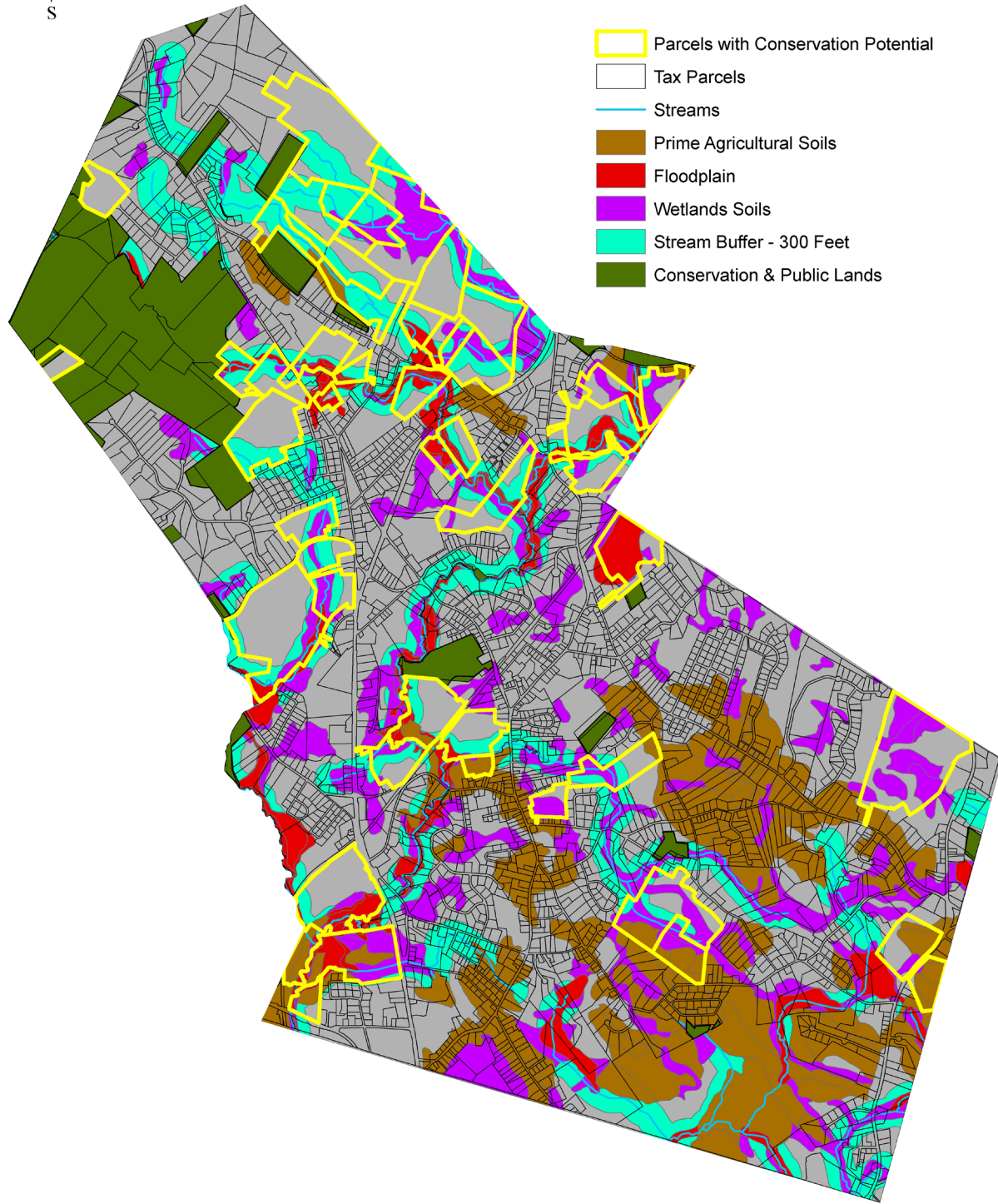
Stewardship of Resources

Plaistow's open space and conservation land play a significant role in contributing to successful stewardship of resources and fulfillment of the community vision. These natural resource areas balance the impact of the built infrastructure and provide valuable services to Plaistow's residents and visitors. As the community works to comply with its MS4 permit requirements this network of conserved lands will play a role in Plaistow's commitment to treating additional stormwater and improving water quality in the region. These lands will also complement site level improvements within the developed portions of the community to reduce the impact of non-point source pollution and the potential for flooding. The combination of these efforts will help to preserve existing natural resource areas while providing connectivity through new green infrastructure opportunities within the developed portions of the community.



Town of Plaistow Potential Conservation Land

- Parcels with Conservation Potential
- Tax Parcels
- Streams
- Prime Agricultural Soils
- Floodplain
- Wetlands Soils
- Stream Buffer - 300 Feet
- Conservation & Public Lands



0 0.25 0.5 1 Mile

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Recreation

Introduction

Plaistow's recreation resources include physical spaces for active and passive activity. Recreation is important to quality of life; and in terms of community development, increasing recreational opportunities is often identified as a way to develop a stronger sense of community through participation in shared activities. Many health experts agree that offering recreational opportunities to the citizens of a community increases the sense of well-being and general health of all citizens. From hiking trails to baseball fields and other infrastructure, these recreation resources should continue to serve all ages and contribute to the community's social capital as residents meet and work together in these shared spaces. The Recreation Department, Recreation Commission, and other town boards and commissions are encouraged to use this chapter as they plan for the future recreational needs of all citizens of Plaistow.

Rockingham County has one of the largest populations of any NH county and therefore the largest need for recreational areas of all kinds. Plaistow, however, does not conform to this trend as evidenced by the comparative lack of recreation areas. Because of this, recreational opportunities are a significant concern in Plaistow, and due to the continued loss of open space areas, it is important that additional land be identified and acquired for recreational purposes.



Above: The Plaistow Recreation Department coordinates programming and manages facilities such as P.A.R.C.



Above: The Recreation Department also manages Smith Field, the smaller of Plaistow's recreation facilities.

Active and Passive Recreation

ACTIVE RECREATION

Consists of leisure activities that "take place at prescribed places, sites, or fields." NSRE, the National Survey of Recreation and Environment, includes over 80 activities in its survey of US citizens that are considered "active recreation." These activities can be land, water, snow, ice or facility based. Some examples from the survey: camping, hunting, hiking, walking, mountain biking, boating, swimming, fishing, skiing, sledding, tennis, golf, soccer, fitness trails and baseball. Also considered as active recreation are playgrounds, league sports and team sports.

PASSIVE RECREATION

Consists of those activities that are relatively less active or less energetic, but require open space for nature and observation purposes. NSRE sites examples such as: bird watching, picnicking, sightseeing, and nature watching. Also considered as passive recreation are those programs that are more cultural in nature: music concerts, arts and crafts events, senior programming, speakers, community trips and community events.



Above: Plaistow Community YMCA hosts summer camps and other recreational programming.

Existing Recreation Conditions and Facilities

Personnel

- **Recreation Director-** Plaistow employs a full-time Recreation Director, who manages the town's Recreation Department. In addition, the Town employs a summer director and staff of counselors to coordinate a summer recreation (6 weeks) program.
- **Recreation Commission-** A 7-member volunteer Recreation Commission works with the Recreation Director to plan and implement programming. Recreation Commission members meet regularly to ensure that programs are promoted and staffed. The Recreation Commission members volunteer many hours helping the Recreation Director by suggesting new programming ideas, coaching, and representing the public's interests.
- **Friends of Recreation-** The Recreation Commission and Recreation Department are also fortunate to have a subcommittee called "Friends of Recreation." The Friends of Recreation have sponsored fund raisers to support recreation programs. They have volunteered their time to landscape Smith Field and PARC, manage the concession stand at PARC, offer programs during Old Home Day, manage the concessions during summer concerts and annually offer a free family "Fall Festival" event on the Town Hall Green.
- **Volunteer Coaches-** The Recreation department is fortunate to have numerous volunteer coaches (parents, grandparents, etc.) who ensure that the recreational philosophy of the department is maintained and that youngsters learn the importance of team play.
- **Part-Time Staff-** The summer recreation program hires part-time recreation councilors to help execute the summer recreation program that includes weekday programs for crafts, sports, field trips, etc.

Programming

The Recreation Department offers numerous programs, both passive and active, including: spring baseball and softball, summer recreation program, senior programs, field trips, community trips,

farmers market, workshops, summer concert series and other community-holiday events. While it is difficult to pinpoint accurate counts of participants in all programs, the Town has experienced consistent growth in programs that are family-oriented and offer low cost/no cost activities for families. As an estimate of current participant numbers, approximately 400 to 600 participate in the youth programming, with seniors and other adults bringing the total estimate to well over 1000 citizens annually. The department has continued to experience an annual increase in demand in the Town's recreation programs.

Recreation Facilities

The Recreation Department manages two recreation facilities: a 2.16-acre field on Ingalls Terrace (Smith Field), constructed in 1974 and a 21-acre facility on Old County Road (PARC), constructed in 2005. Historically, the Timberlane Regional School District had allowed the Plaistow Recreation Department limited use of some School District athletic fields and facilities. But by early 2009, the use of these school facilities by the Town became problematic due to the growth in both the number of school teams and the increased level of Town program participation. Of course, school programming on school facilities is the School District's priority. The construction of PARC has somewhat reduced the need to use Timberlane fields but the need for town-owned athletic fields and gymnasium space continues. While the gyms at TRMS, TRHS, and POLLARD School are used for baseball/softball tryouts, youth basketball programs and summer recreation use (during inclement weather), the school programming takes priority and these facilities are available on a limited basis.

Other Facilities

Since the spaces for recreation are limited, the Town has used other town-owned and private (non profit) venues:

- **Town Hall Green-** for community based passive and active recreation programs such as summer concerts, Easter Egg Hunt, Christmas Caroling, Halloween pumpkin lighting.
- **Great Hall, Town Hall -** for community based passive and active programs such as yoga classes, senior programs, and Christmas and craft events.
- **Vic Geary Senior Center-** for community-based programs for seniors, craft making and community breakfasts.

Friends of Plaistow Recreation, a local non-profit organization, installed a rock wall at the Plaistow Athletic Recreation Complex on Old County Road in 2014. These types of improvements continue to provide children diverse facilities for play and physical activity.



- **The Plaistow Public Library-** for community-based programs such as book clubs, craft events, speaker presentations, technology classes, etc.
- **The Fish and Game Club-** for community events such as Senior Service Fair, craft fairs and community dances and suppers.
- **Plaistow Town Forest and trails-** offer numerous walking, hiking, jogging, and nature viewing activities for all citizens (both passive and active).
- **Plaistow YMCA-** offer summer camps, fitness and exercise classes, sports and recreation, swimming, and other recreational opportunities.
- **Other Venues-** outside of the community are considered as well including movie theaters, community trips to live theater performances (Boston, Epping, Beverly, etc.), bowling alleys, craft events, fairs, and the like, are considered all part of our current facility choices to offer programming for Plaistow citizens.

Recreation Facilities

Facility	Owner	Size (approximate)	Includes
Pollard Elementary School	Timberlane Regional School District (TRSD)	1 Ball Field = 116,480 sq. ft. Gymnasium = 4,250 sq. ft.	1 Ball Field 1 Gymnasium Playground Equipment
Timberlane Regional Middle School	TRSD	All Fields = 845,000 sq. ft.	1 Baseball Field 1 Softball Field 1 Soccer/Multi-Purpose Field 1 Field Hockey Field 1 Cross Country Running Course 1 Outdoor Basketball Court/Gymnasium 1 Indoor Basketball Court
Timberlane Regional Middle School	TRSD	All Fields = 825,00 sq ft.	2 Softball Fields 1 Baseball Field 4 Multi-Use Fields
Recreation Field located on Ingalls Terrace (Smith Field)	Town of Plaistow	2.16 acres	1 minor league baseball field 1 outdoor basketball court Skateboard Park 1 Picnic Area with shaded enclosure Playground equipment 2-story Maintenance Shed Well, bubbler/no toilet facility
Recreation Field located at 51 Old County Rd (PARC)	Town of Plaistow	21 acres	2 Baseball Fields 1 Softball Field 2 Multi-Purpose Fields 1 Playground Area 2 Basketball Hoops 1 Sandbox 1 Concession Stand and Maintenance Shed Running Water and Bathroom Facilities
Town Forest with Walking Trails	Town of Plaistow	400 acres	Includes Numerous Trails Maintained by Boy Scouts and Conservation Commission
Pollard Park (around Town Hall)	Town of Plaistow	1.9	Gazebo Open Space (grassy area) for Various Recreation Events
Plaistow Town Hall	Town of Plaistow	N/A	Open Hall and Stage Area Kitchen Space
Plaistow Public Library	Town of Plaistow	N/A	Meeting space for events Kitchen Space
Fish and Game Club Vic Geary Center, Senior Center American Legion Hall	Fish and Game Club American Legion American Legion	N/A	Open Hall Kitchen Space

Plaistow's Recreation Needs

In order to meet the **evolving recreation needs** of Plaistow's residents and property owners, more recreation facilities and more land area must be dedicated to recreation. This has been true in earlier master planning efforts when comparing Plaistow to the state standards. This lack of adequate land and facilities has been a concern of Town officials and residents for well over two decades. Here are some examples where the need has been identified and documented:

Community Growth

The Planning Board recognized the impact that population growth would have on the existing shortage of recreational facilities and established, per RSA 674:21 V, a zoning ordinance and recreational impact fee in 1999. The latest use of impact fees involves the creation of a new general-purpose field and the required drainage to make the field usable in the early spring and wet summers. This allows the Town to assess a recreational impact fee for new residential development as a means to compensate the town for its share of the recreation's capital costs constructed or to be constructed in anticipation of growth. All funds collected are transferred for deposit in a recreation impact fee account and are used solely for the purposes described in the zoning ordinance.

Beede Site Reuse

The Board of Selectmen identified a community center and additional playing fields as the highest priority the Town needs during the development of the Beede Site Re-use Plan in 2002. When polled by the Environmental Protection Agency (EPA) as to how the Beede Site could best be used by the Town, the Beede Site Re-Use Committee recommended, and the Board of Selectmen unanimously agreed, that a community center and additional athletic fields were the top Town priority. This was voted into the official record and was used by the EPA to determine the level of cleanup required for that site. Currently, the site is undergoing clean-up.

Plaistow First Committee

The Plaistow First Committee, appointed by the Board of Selectmen to study existing town-owned property and to make recommendations for future acquisitions, identified additional Recreation facilities as the highest priority need for the Town. The committee's Phase 1 Recommendations in its report to the Board of Selectmen includes many actions regarding the need for additional space to improve recreation opportunities for all Plaistow citizens. In addition to some specific actions that the Board of Selectmen should take, they urged that the Recreation Commission's Strategic Needs Plan (see below) be used as the driving force to deploy/acquire facilities/land dedicated to recreational activities.

Strategic Needs Plan

The most accurate indication of the demand for the facilities/land space is the needs expressed by Plaistow residents and observed by town officials. The Recreation Commission's Strategic Needs list addressed needs such as passive and active recreation requirements, and low-cost/no cost programming for families. While no formal, costly surveys or studies were completed, the Recreation Commission and Department have informally gathered data from the community. The Recreation Commission used their knowledge of the broad needs of families to support their strategic planning document of 2012.



Above: In 2016, the Plaistow Recreation Department launched a community garden program in partnership with Terra Farms.

Recreation Strategic Needs Adopted April 11, 2012

- Trails to include running, walking, biking, cross country skiing, snow shoeing, picnic areas and shelter, rock climbing, sledding hills, bouldering, fitness trails, and letterboxing trails
- Additional playing field or diamonds to include T-Ball, Softball, Babe Ruth Baseball, Senior Leagues, etc.
- Community garden space
- Additional courts for volleyball, bocce ball, horseshoes, and badminton
- Dog park
- Pool areas, wading pool and swimming pool, water elements
- Ice rink
- Community center, with gymnasium
- Adult fitness park
- Additional playground
- Additional basketball court
- Wall ball area
- Batting cages
- Driving range
- Chip and putt golf
- Climbing wall
- Floor hockey rink
- Frisbee golf course
- Fenced in whiffle ball court

Planning for Recreation

It should be noted that Plaistow's needs for recreational facilities will be different from state-wide norms due to the specific demographic and physical characteristics of the Town. For example, Plaistow is one of two towns in the state with no natural body of water to use for beaches, boating areas or water supply. Therefore, it is necessary to offer more land based recreational activities than other towns that have water as a resource.

It should also be noted that the desire for additional open space for recreation is aligned with the desire for conserving open space noted elsewhere in this Master Plan. The need to protect the remaining natural resource areas, agricultural soils, and other resources could provide for some of Plaistow's strategic recreation needs. While some forms of recreation are difficult to accommodate without formal facilities and structures, it is clear from viewing open source recreation data from applications like Strava that Plaistow residents are using the existing road and sidewalk network, and are finding unofficial trails for various forms of recreation throughout the community.

A key consideration specific to the expansion of the PARC facility is that large concentrated areas allow for the ability to host large events, such as summer recreation programming, league baseball tournaments, and summer concerts/fireworks. Also, games can occur simultaneously in one area for a variety of age groups (i.e. parents would not have to drive between locations when more than one child is involved in a sport), and this allows for more efficient use of maintenance staff.

Utilizing privately owned facilities such as the Vic Geary Senior Center, Fish and Game Club, and American Legion for recreation has been possible, but the limited availability of these venues reinforces the crucial need for a community center. Such a community center would provide Plaistow's population with a gathering place for meetings, after school youth activities, town-sponsored senior activities during the day, summer events, craft events, weekend events and any other activities that would best be

done indoors.

It cannot be emphasized enough, that gaps exist between the existing recreational facilities and the needs of the community. This includes need for:

- Community center with gymnasium
- Field space
- Open space and trails
- Water resources

The challenge that Plaistow has been struggling with is planning for the actual investment in these needs. This includes finding the funding and land to support such needs.

Summary

It is essential that all town boards and commissions consider this need for recreation infrastructure and programming as essential to Plaistow's future. This is really in the best interests of the present and future citizens of Plaistow. Recreation is extremely important to quality of life, and in terms of community development, increasing recreational opportunities is identified as a way to develop a stronger sense of community through participation in shared activities. Plaistow must work even harder to provide a range of recreational opportunities for all citizens and must remain vigilant in this pursuit.



Above: The Plaistow Summer Concert Series is a popular summer program provided by the Town.



Above: A covered pavilion at P.A.R.C.



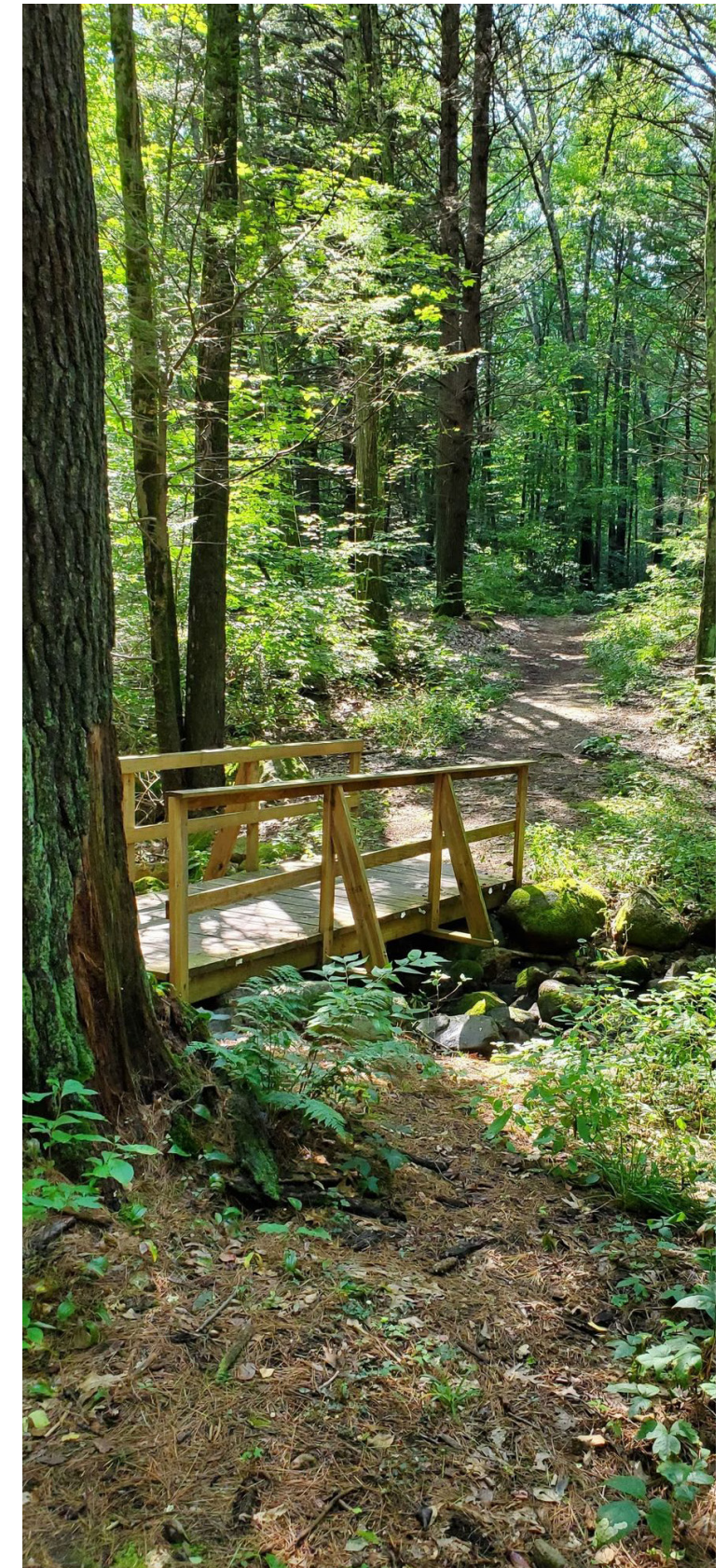
Above: The P.A.R.C. Memorial Field

Stewardship of Natural Resources

The integration of natural resources, water resources, open space and conservation, and recreation topics into one section of this master plan was intentional. This allowed for a systems approach to better understand the many ways these resources affect each other and then to identify potential actions that have implications for several resources. The hope is that this will result in cost-effective and coordinated initiatives that will preserve Plaistow's unique character and quality of life.

Plaistow's natural environment is the foundation of all the other built and social resources in the community. The loss of natural resources impacts the character of the community and reduces the opportunities to meet residents' needs locally. In addition, lost resources can be expensive to restore or replace. This has already been experienced with water resources in Plaistow, and conserved open space is now in short supply as well. As the natural environment is further degraded or lost to development the community's historic/cultural landscape will diminish as well. If not coordinated, these changes will also leave the community more susceptible to natural hazards. An example of this would be the loss or degradation of additional wetland areas that provide flood storage and protection, clean stormwater, and provide habitat and recreational opportunities. If these natural systems are reduced in number and size there will be direct and costly impacts related to stormwater management, flood protection, and habitat alone.

However, new and exciting opportunities exist as new development takes shape and Plaistow's land use pattern changes. Efforts to mitigate stormwater and other impacts within developed portions of the community will work to regenerate declining natural resources while providing recreation, transportation, and other critical infrastructure identified in this Master Plan. To address these challenges and become more resilient, Plaistow must look for regulatory and non-regulatory opportunities to protect and regenerate its natural environment while enabling continued development. Thoughtful development paired with resource protection has the potential to preserve and restore ecosystem services over time and achieve Plaistow's stated vision of "a community that balances protecting its natural resources with promoting strong economic development." All actions related to Stewardship of Natural Resources can be found in the Implementation Chapter on page 65.



Above: Plaistow Town Forest

Plaiستow

Built Environment



Population and Housing

Introduction

Plaistow is a regional hub for economic activity and housing in Southern New Hampshire. As the town's population changes over time, flexible approaches to land use planning should address the needs of Plaistow residents and visitors while also protecting and enhancing the Town's character.

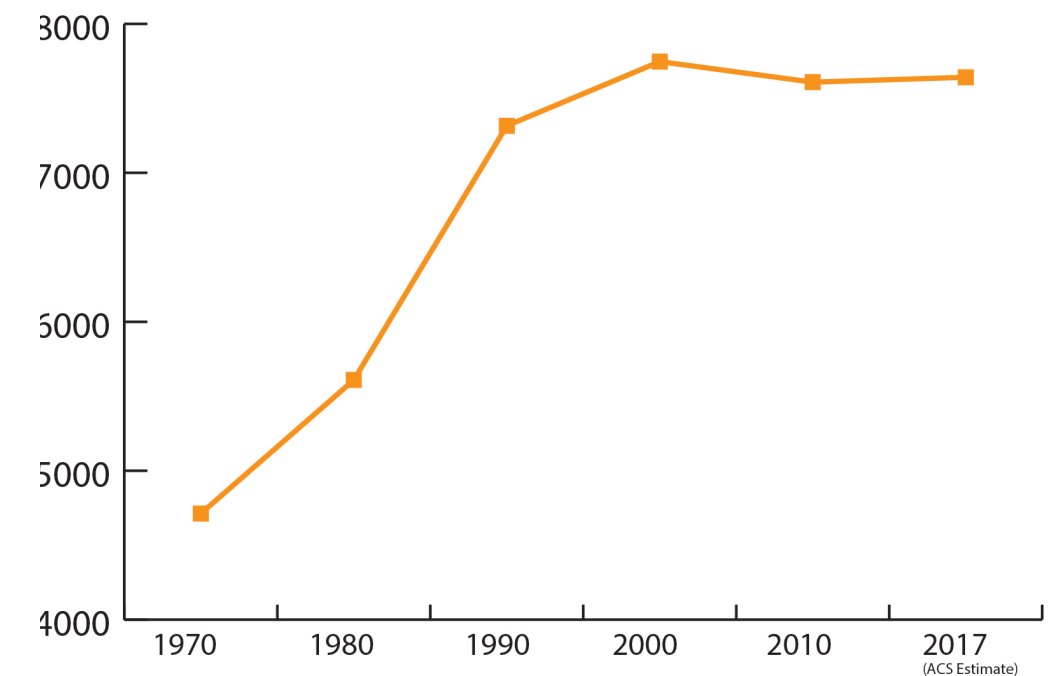
Additionally, changes in the composition of the population by age could impact the type of housing demanded of the community, the type of specialized services needed by an aging population and relative demand for school facilities. Maintaining a population of younger community members is vital to workforce development and meeting the needs of surrounding businesses and the overall community. Local and regional population growth is also important for expanding the availability of a labor force as well as the potential customer base that may support the expansion of local and area commercial development.

Residential land use represents a large portion of Plaistow's development. The Town of Plaistow should ensure it has ample opportunities for safe, affordable, quality housing for all residents while maintaining the existing character of the Town's neighborhoods. To guide smart residential land use planning, the Town must have a strong understanding of current housing costs, types and location of existing housing, and other housing issues that may be present in Plaistow. This section of the Master Plan is designed to provide:

- An overview of population and demographic characteristics
- An assessment of local housing conditions and housing demand and supply
- Future housing and population related issues
- Goals and actions related to housing and population



Population Trends in Plaistow



Population & Growth Trends

The analysis of a town's population is a fundamental aspect of community planning. Changes in population are typically due to in-migration (people moving into town) and out-migration (people moving out of town). Population growth or decline is also influenced by the amount of births and deaths that occur in a community.

During the decades between 1980-2010, the total population growth in Plaistow was 2,897 individuals. Though the population declined between 2000 to 2010 (most likely due to the recession), the population grew less than 1% between 2010 to 2017. Many communities in Rockingham County experienced significant growth during this timeframe. While Plaistow's population increased 61.48% between 1970 and 2010, Rockingham County and the state as a whole grew by 112.47% and 78.49% respectively.

Plaistow's population growth from 1970-2017 has been slower compared to other nearby communities. In general, all communities in Rockingham County are experiencing much slower growth now than in previous decades.

According to the NH Office of Strategic Initiative's 2016 Municipal Population Projections, the population for Plaistow in 2040 is expected to be 7,742, a minor increase compared to its current population. Build-out analysis data shows that there is more than adequate land (with current zoning) to support this projected population level.

Town/Region/State	1970	1980	1990	2000	2010	2017
Plaistow	4,712	5,609	7,316	7,747	7,609	7,642
Atkinson	2,291	4,397	5,188	6,178	6,751	6,839
Danville	924	2,401	2,534	4,023	4,387	4,479
Sandown	741	2,057	4,060	5,143	5,986	6,279
Subtotal TRSD Towns	8,668	14,464	19,098	23,091	24,733	25,239
Hampstead	2,401	3,785	6,732	8,297	8,523	8,601
Kingston	2,882	4,111	5,591	5,862	6,025	6,141
Newton	1,920	3,068	3,473	4,289	4,603	4,824
Subtotal All Above Towns	15,871	25,428	34,894	41,539	43,884	44,805
Rockingham County	138,950	190,345	245,845	277,359	295,223	302,479
New Hampshire	737,578	920,475	1,109,117	1,235,786	1,316,470	1,331,848
Haverhill, MA	46,120	46,865	51,418	59,123	60,879	62,943
Essex County, MA	628,300	633,688	670,080	725,393	743,159	775,860
Massachusetts	5,689,170	5,737,037	6,016,425	6,349,097	6,580,629	6,789,319

Town/Region/State	% Change 1970-1980	% Change 1980-1990	% Change 1990-2000	% Change 2000-2010	% Change 2010-2017	% Change 1970-2017	Annual % Change 1970-2010
Plaistow	19.04	30.43	5.89	-1.78	0.43	62.18	1.323
Atkinson	91.92	17.99	19.08	9.27	1.3	198.52	4.22
Danville	159.85	5.54	58.76	9.05	2.1	384.74%	8.18
Sandown	177.60	97.37	16.67	16.39	4.89	747.37%	15.9
Subtotal TRSD Towns	66.87	32.04	20.91	7.11			
Hampstead	57.64	77.86	23.25	2.72	0.92	258.23%	5.49
Kingston	42.64	36.00	4.85	2.78	1.93	113.08%	2.40
Newton	59.79	13.20	23.50	7.32	4.8	151.25%	3.21
Subtotal All Above Towns	60.22	37.23	19.04	5.65			
Rockingham County	36.99	29.16	12.82	6.44	2.46	117.69%	2.50
New Hampshire	24.80	20.49	11.42	6.53	1.17	80.57%	1.71
Haverhill, MA	1.62	9.72	14.99	2.97	3.39	36.48%	0.77
Essex County, MA	.86	5.74	8.25	2.45	4.4	23.49%	0.49
Massachusetts	.84	4.87	5.23	3.65	3.17	19.34%	0.411



Above: Red Oak Condominium

Demographics

Age

Compared to the County and the State, Plaistow is a younger community and has a higher proportion of families and working age individuals than older adults. According to the 2017 American Community Survey, Plaistow's median age is 39.7 years old, while the County's median age is 44.1 years old and New Hampshire's median age is 42.7 years old. In 2010, Plaistow's median age was 43.2 years old, while the County's median age was 41.4 and New Hampshire's median age was 41.6.

This trend shows that, unlike many other communities in New Hampshire, Plaistow's median age is decreasing and is slightly younger on average than both the County and State as a whole. In 2000, there were 2,480 twenty-five to forty-four-year olds. This number shrunk in 2010 to 1,499 individuals and increased to 2,009 individuals in 2016, approximately 26% of the town's population.

School Enrollment

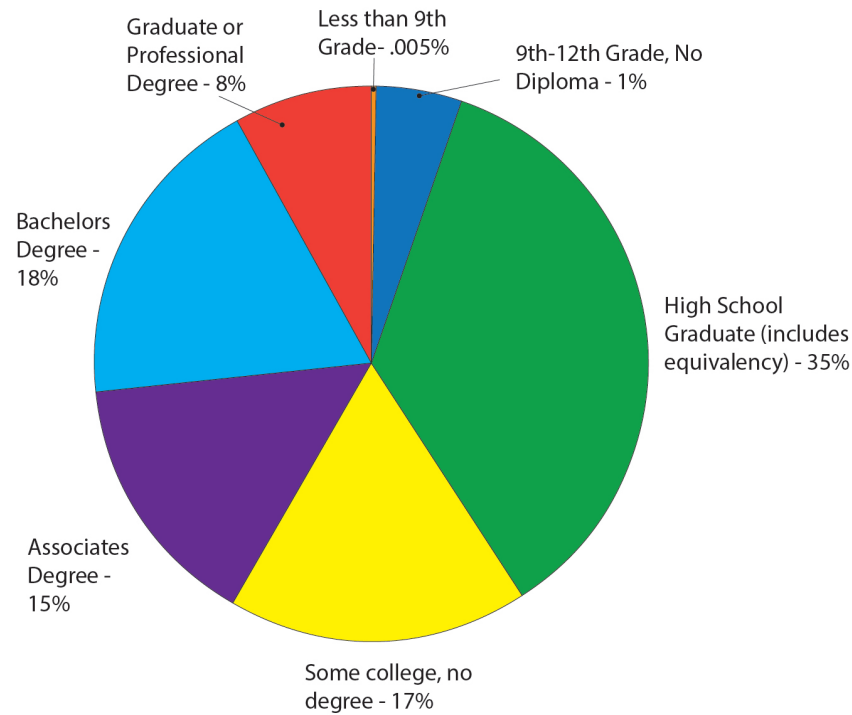
A total of 3,542 children were enrolled in Plaistow public schools in 2016. Since 2008, the population of school children enrolling in Plaistow's public schools has been steadily decreasing.

Year	# of students
2018-2019	3,464
2017-2018	3,556
2016-2017	3,542
2015-2016	3,542
2014-2015	3,767
2013-2014	3,922
2012-2013	4,059

Disability Status

From a public health and social service planning perspective, understanding the proportion of citizens in Plaistow who have a disability is important. According to the American Community

Education Attainment in Plaistow



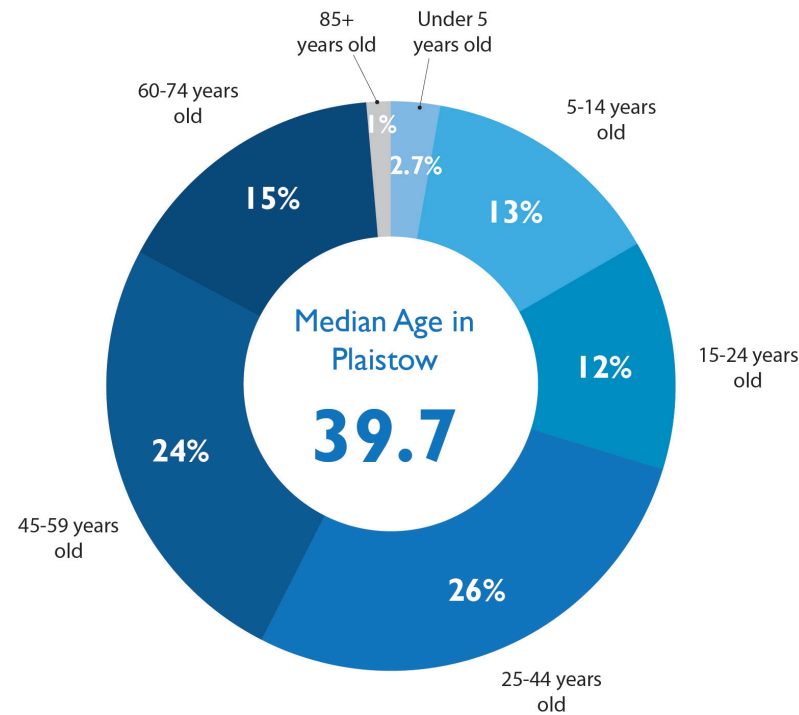
Survey, 356 people qualified for disability status in 2017. This equals to approximately 5% of the total population of those 16 years and over in Plaistow. Since 2014 (the year with the highest number of individuals on disability between 2012-2016), the number of those on disability has been declining.

Education

Education is one of the most important indicators for economic success. Plaistow exhibits lower levels of educational attainment than New Hampshire or Rockingham County. 26% of citizens over 25 years old in Plaistow have a bachelor's degree or higher, as compared to 40% in the County and 36% in New Hampshire. 35% of Plaistow residents over 25 years old are high school graduates only. The figure to the left shows the level of educational attainment of the 25 years and over population in Plaistow.

Income

According to the 2017 American Community Survey data, Plaistow's median household income is \$84,125, which is a decrease compared to the 2010 Census which states \$92,750 as the median household income. The state of New Hampshire's median household income is \$84,125 and Rockingham County's is \$85,619. Median household incomes varies throughout the Region. Median household incomes of surrounding towns include Atkinson at \$ 107,539, Danville at \$88,485, and Sandown at \$102,229.



Unlike the rest of New Hampshire which is aging fast, Plaistow has a relatively younger population and its median age has declined in recent years.

Housing Trends

Shelter is a basic societal need, providing safety, security, and space for personal activities. Much of a community's health, wealth, and overall well-being is linked to the accessibility of diverse housing options for community members of a range of socioeconomic backgrounds. Housing also influences public expenditures on schools, parks, utilities, and other public services and amenities.

New Hampshire's housing environment is currently being influenced by shifting economic and demographic trends. Younger residents are delaying homeownership and a large percentage of them are choosing mobility over homeownership; seniors are the fastest growing segment of the housing market; availability of rental units is dismal throughout much of New Hampshire, while costs remain high for many individuals and families; and land use regulations are not geared towards current market needs.

Plaistow's housing goal is to maintain well-balanced, diverse, and energy efficient housing choices and a land use pattern that meets residents needs in an environmentally, economically, and equitable manner. The following section includes major findings concluded after analyzing Plaistow's housing stock, types of housing units, and other housing trends.

Housing Types

According to the 2017 ACS, there are a total of 3,132 housing units in Plaistow, a slight increase from 3,047 units in 2010. 96% (or 3,000) of the housing units in town are occupied by residents, which is fairly high. 81% of those occupied housing units are owner-occupied, while 19% are renter-occupied. 4% of the housing units in Plaistow are occupied seasonally, for sale, or vacant and constitute a small 4% of the town's housing supply. The average household size of owner-occupied units is 2.59 people, whereas the average household size of renter-occupied units is 2.37 people.

Table 1 shows types and quantity of housing units in Plaistow in 2017. Approximately 69% of housing in town is single-family detached units. About 11.5% of the housing stock consists of multi-family housing units, which are a type of housing that can be particularly important affordable rental housing stock.

The age of housing stock can provide insight into the condition, quality, and safety of the housing units in town. The majority of

Units in Structure	#	% of Total Housing Stock
Single Unit (Detached)	2,160	69%
Single Unit (Attached)	373	12%
Duplex	196	6%
3 or 4 Units	229	7%
5 to 9 Units	78	2%
10 to 19 Units	80	2%
20 or More Units	16	0.5%

the residential buildings in town were built between 1960 to 1990 (approximately 60%). Only 4% of the buildings were built before 1939, suggesting increased development in the community led to many historic structures being demolished. Only 42 housing units were built between 2010 to 2017.

Approximately 77% of housing units in Plaistow are occupied by families, while non-family households (residents living alone or with non-related residents) equals 17% of the housing units. Of family households, 42% of them have children under 18 years old living with them. 3% of family households are occupied by married couples with no kids. According to NH Housing, there was a 2.6% vacancy rate in 2017 in Plaistow. This has jumped to 7.6% in 2018. Rockingham County's vacancy rate in 2017 was 1.1% and it has dropped to 0.8% in 2018.

Housing Costs

The median value of owner-occupied housing units in Plaistow is \$264,500 and the median monthly mortgage is \$1,958, both of which are lower than the County. In Rockingham County, the median value of owner-occupied housing units is \$295,500 and the median monthly mortgage is \$2,131. According to NH

Accessory Dwelling Units

An accessory dwelling unit (ADU), formerly referred to as "in-law apartments," is defined as a residential living unit that is within or attached to a single family dwelling and that provides independent living facilities for one or more persons on the same parcel of land as the principal dwelling unit it accompanies.

ADUs are one way a community can increase its affordable housing options for community members. The state of NH passed an ADU law in 2017 that requires municipalities to allow internal or attached accessory dwelling units in all zoning districts where single-family dwellings are permitted. The law also gives municipalities the option of permitting detached ADUs, which is an accessory dwelling as a stand-alone building on the same parcel as the principal dwelling or in a building such as a garage or a barn not attached to the primary single-family dwelling. The photo below shows an example of an ADU in Plaistow.

The New Hampshire Housing Finance Authority has published two guides (one for municipalities and one for homeowners) on accessory dwelling units. They can be found here: <https://www.nhhfa.org/accessory-dwelling-units>.



Housing, the 2017 median home purchase price is \$245,000 which is lower than the median purchase price for Rockingham County, which is \$312,533.

Rental costs in the state of NH have continued to rise. NH Housing reports that rental costs increased 12% statewide from 2012-2016. According to NH Housing, the 2017 median gross rent in Plaistow is \$1,036. The median gross rent in Rockingham County is \$1,268. When comparing Plaistow rental cost trends with Rockingham County and the State, rental costs appear to be more affordable in Plaistow. Overall, Plaistow's median rent is increasing annually at a much slower rate than the rest of the County and State.

Workforce Housing

According to the 2017 ACS, there are 954 housing units that spend 30% or more of their income on housing cost in Plaistow.

The Rockingham Regional Planning Commission (RPC) published a Regional Housing Needs Assessment in October of 2015. After a review of data analyzed and presented by the Commission, the Town of Plaistow's Planning Board found that the existing housing stock within the community is sufficient to not require the adoption of a Workforce Housing Ordinance.

Housing Development

According to the Town of Plaistow's building permit data, a total of 166 new dwelling units were built and issued residential building permits between 2014 and 2018 in Plaistow. The median number of residential building permits issued per year is __. The majority of residential construction that has occurred since 2014 was single-family housing units, making up approximately 61% of the residential building permits issued between 2014 and 2018. 64 multi-family housing units have been built during this time, making up approximately 39% of the building permits issued. 12 permits were issued for the rebuild of demolished houses.

Workforce Housing

The New Hampshire Workforce Housing Law (RSA 674:58-61) went into effect in 2010. It requires all municipalities to provide "reasonable and realistic opportunities" for the development of homes that are affordable to low and moderate-income families. The intent of the law is to address the statewide shortage of affordable housing, as it presents a threat to economic security, a barrier to the expansion of the state's labor force and prevents the state from fostering a productive and resilient workforce. According to the law, workforce housing refers to homes that are affordable at a 30% cost burden to ownership households of four people making up to 100% of the area median income, or renter households of three making up to 60% of the area median income.



Community Facilities & Services

Introduction

As we consider the future of Plaistow and the infrastructure needed to support existing and future land uses, we must consider the responsibility to provide high quality community facilities. Plaistow's facilities support the many departments and organizations concerned with the health, safety, and welfare of residents, visitors, and local businesses. The ability of Plaistow to supply adequate community facilities and services relates to the anticipated amount and type of future residential and non-residential development in Plaistow.

As the Town's residential and commercial activity increases, the Town will need to allocate additional resources to specific community facilities and services. This chapter provides an overview of the existing departments, facilities, and services and anticipated needs for the future. The Capital Improvement Plan (CIP) is then used to schedule necessary investments in Plaistow's community facilities over time. Typically, community facilities represent public or publicly funded facilities. This chapter examines a variety of town-owned facilities that serve the needs of residents and visitors. Please note that the public schools are owned and maintained by the Timberlane Regional School District. These facilities include:

- Fire Department
- Police Department
- Highway Department
- Solid Waste Management
- Water Department
- Library
- Town Hall
- Historical Society Building
- Cemeteries
- District Court



Public Safety

At present, the Town of Plaistow's Police Department, Fire and Rescue Departments and Emergency Management Department are all jointly located in the newly constructed John D. Fitzgerald Safety Complex at 27 Elm Street. A new facility was constructed from 2016 to 2018 to house all of the departments. Both Fire and Police have 24-hour dispatch service with the Rockingham County Sheriff's Department providing primary back up response.

Police Department

According to the Department, and based upon current fixed and service population trends, there will be a need for an additional dispatcher over the next 5 years and an additional 3 officers over the next 15 years. A detailed list of the Department's cruisers and other equipment can be found in the CIP. Aside from the new Public Safety Complex the Police Department also maintains a training facility building at their Firing Range. The building is generator-equipped and is used for storage and classroom training for officers. Call volumes for the Department are reported in the Plaistow annual report.

The Police Department maintains a fleet of 15 vehicles as shown in the table below. A visual inspection is performed on each vehicle on an annual basis to determine if the vehicle needs to be replaced. Many vehicles are no longer suitable for primary functions get reused in a less-critical secondary function before they are finally replaced. Police vehicle replacement is funded through three sources: The Police Detail Revolving Fund, the Police Asset Forfeiture Fund, and the Police Department operating budget. The CIP Committee is discussing whether or not to create a capital reserve fund as another possible funding source. To date no decision has been made to create the capital reserve fund.

Fire Department

Aside from fire apparatus the Plaistow Fire Department also maintains a transporting ambulance and contracts with a third party for additional transporting ambulance services. According to the Department, and based upon current trends, there will

Vehicle Description	Vehicle Function	Use
2017 Ford Police Explorer	K-9	Primary
2014 Ford Police Explorer	Patrol	Primary
2016 Ford Explorer	Patrol	Primary
2016 Ford Explorer	Patrol	Primary
2017 Ford Explorer	Patrol	Primary
2017 Ford Explorer	Patrol	Primary
2019 Dodge Charger	Patrol	Primary
2008 Dodge Charger	Chief	Secondary
2014 Ford Police Explorer	Detail	Secondary
2015 Ford Explorer	Detail	Secondary
2013 Ford Explorer	Detail	Secondary
2007 Dodge Charger	Detail	Secondary
2011 Toyota Sienna	Detective	Secondary
2013 Ford Police Interceptor	Detective	Secondary
2013 Chevy Tahoe	Patrol	Secondary

Above: Police Vehicle Inventory

Vehicle	Make/Model	Serviceable Lifetime (Years)	Estimated Cost per Vehicle	Number Units per 25-year interval	Estimated total cost per 25-year interval
Command Car 1	2015 Chevrolet	10	\$50,000	2.50	\$125,000
Rescue-2	2006 Chevrolet	15	\$240,000	1.67	\$400,000
Engine-1	2003 KME	25	\$405,000	1.00	\$405,000
Tower-3	1991 Pierce	25	\$450,000	1.00	\$450,000
Forestry-4	1994 GMC	25	\$60,000	1.00	\$60,000
Tanker-6	2018 Pierce	25	\$500,000	1.00	\$500,000
Engine 8	2012 HME	25	\$405,000	1.00	\$405,000
Tanker-5	Pierce	25	\$0	1.00	\$0
Utility/Fire Prev. Car 2	2004 Ford	15	\$0	1.67	\$0
				Total 25-year cost	\$2,345,000
				Cost per year	\$93,800

Above: Fire Department Vehicle Inventory

be a need for additional staff over the next several years. However, the Department currently has an interim Chief so an exact number cannot be determined. A detailed list of the Department's vehicles and other equipment can be found in the CIP.

The Fire Department maintains a fleet of 9 vehicles as shown in the table above. Two vehicles shown with a cost of \$0 are not scheduled to be replaced. A visual inspection is made each year a vehicle is scheduled to be replaced to determine if the replacement can be pushed out to a later year. Because the fire vehicles are very expensive, their purchase is primarily funded with withdrawals from a capital reserve account. Some impact fees may also help to reduce the amount needed to be withdrawn from the capital reserve funds. It is critical to maintain a steady flow of cash into the fund each year and to keep the estimated vehicle costs up to date. The vehicle rotation schedule has been expanded to include information necessary to determine the capital reserve fund balance is sufficient. The vehicle cost analysis shows there should be a deposit of \$93,800 every year.

Office of Emergency Management

The Office of Emergency Management (OEM) works with and coordinate with Federal, State Regional and Local Departments and Agencies to prepare Plaistow for any possible natural or man-made disaster, including public health emergencies. The OEM is responsible for updating the Plaistow Hazard Mitigation Plan which details the Town's response to emergencies and disasters of all kinds. FEMA requires an update to this plan every 5 years. Grants are typically provided to the state's regional planning commissions to assist municipalities with these updates. The OEM also manages the town's Emergency Operations Plan that identifies the procedures in place when some type of emergency exists.

Highway Department

The Plaistow Highway Department is responsible for the summer and winter maintenance of 35.77 miles of Class V (local) roads which represent 63% of the total road miles in Plaistow. The Highway Department is also assisted by outside contractors on a project by project basis. Over the years, the Highway Department has increased its number of employees and equipment. The Highway Department is now responsible for landscaping maintenance on

all Town properties, including the PARC facility on Old County Road. These additional responsibilities translate into the need for additional equipment and additional space to adequately house the larger highway equipment, salt and sand. This is costly and valuable equipment that cannot be properly stored to protect them from weather and premature depreciation.

The existing Highway Garage is located at 37 Old County Road, next to the salt shed and the Town’s landfill site. Built in 1976, it is a small, 2,400 square foot building used for vehicle and equipment space. The office used by employees is actually located in a 320 square foot office trailer and a separate box trailer that was brought in is utilized for storage. One of the reasons for this is the methane gas contamination on site and concern over employee health. The current salt shed structure is in need of repairs to maintain it, and suffered a collapse during the January 2011 storm. Due to the condition of the salt shed, there is loss of product, which, as the salt washes away from the salt shed, it enters the ground water and potentially impairs water quality due to the high levels of sodium chloride.

In 2018 the Town voted to construct a new highway garage and salt shed on a town-owned property at 144 Main Street, formerly known as the Penn Box site. The project was split into three phases. The first phase was constructed in 2018 – 2019 and included some preliminary site work and erected the building shell of the highway garage. The garage is large enough to house all of the highway department vehicles and equipment as well as the water



Above: The new public works building

Vehicle	Make/Model	Serviceable Lifetime (Years)	Estimated Cost per Vehicle	Number Units per 25-year interval	Estimated total cost per 20-year interval
6 Wheel Dump Truck	2010 International	20	\$120,000	1.00	\$120,000
Sander/salter attachment	2010 International	10	\$50,000	2.00	\$100,000
6 Wheel Dump Truck	2015 International	20	\$120,000	1.00	\$120,000
Sander/salter attachment	2015 International	10	\$50,000	2.00	\$100,000
Dump Truck	2012 Ford F-550	15	\$120,000	1.33	\$160,000
Pick-Up Truck	2013 Ford F-350	10	\$50,000	2.00	\$100,000
Pick-Up Truck (Water)	2015 Ford F-350	15	\$50,000	1.33	\$66,667
Front-End Loader	2016 Caterpillar 926M	20	\$160,000	1.00	\$160,000
Roadside Brush Cutter	2010 Ford Newholland	15	\$110,000	1.33	\$146,667
Wood Chipper	2014 100HP	20	\$40,000	1.00	\$40,000
Sidewalk snow removal machine	2005 Holder	20	\$50,000	1.00	\$50,000
Mower #1	2011 Kubota	20	\$15,000	1.00	\$15,000
Mower #2	2011 Kubota	20	\$15,000	1.00	\$15,000
Trailer for Landscaping Equipment	Purchased in 2011	10	\$10,000	2.00	\$20,000
Backhoe (No plans to replace)	1987 Ford	20	\$150,000	1.00	\$0.0
				Total 20-Year Cost:	\$1,213,333
				Cost Per Year:	\$60,667

Above: Highway Department Vehicle Inventory

department vehicles – a fleet that is likely to expand as the potable water system is established and expanded. It will also contain adequate office space for the highway and water departments. The second phase, underway in 2019, finishes the interior of the highway garage. The third and final phase will be completed in 2020 and will complete all site work as well as construct the salt shed. Energy efficiency has been a driving principle in all phases of the project. Phases 1 and 2 were funded by withdrawal from the General Fund – Unassigned Fund Balance. It is expected the third phase will be similarly funded, assuming a majority vote in the affirmative on a warrant article to be presented for the 2020 Town Meeting.

The Highway Department maintains a fleet of 13 vehicles as shown in the table above. The vehicle shown with a cost of \$0 is not scheduled to be replaced. A visual inspection is made each year a vehicle is scheduled to be replaced to determine if the replacement

can be pushed out to a later year. Because many of the highway vehicles are very expensive, their purchase is primarily funded with withdrawals from an expendable trust fund. Some impact fees may also help to reduce the amount needed to be withdrawn from the expendable trust funds. It is critical to maintain a steady flow of cash into the fund each year and to keep the estimated vehicle costs up to date. The vehicle rotation schedule has been expanded to include information necessary to determine the expendable trust fund balance is sufficient. The vehicle cost analysis shows there should be a deposit of \$60,667 every year.

Solid Waste Management

The Board of Selectmen and the Town Manager coordinate the Town’s solid waste program. The Town closed its sanitary landfill in 1987. At present, the Town only accepts brush, metal and yard waste at the site. The Town installed groundwater-monitoring wells

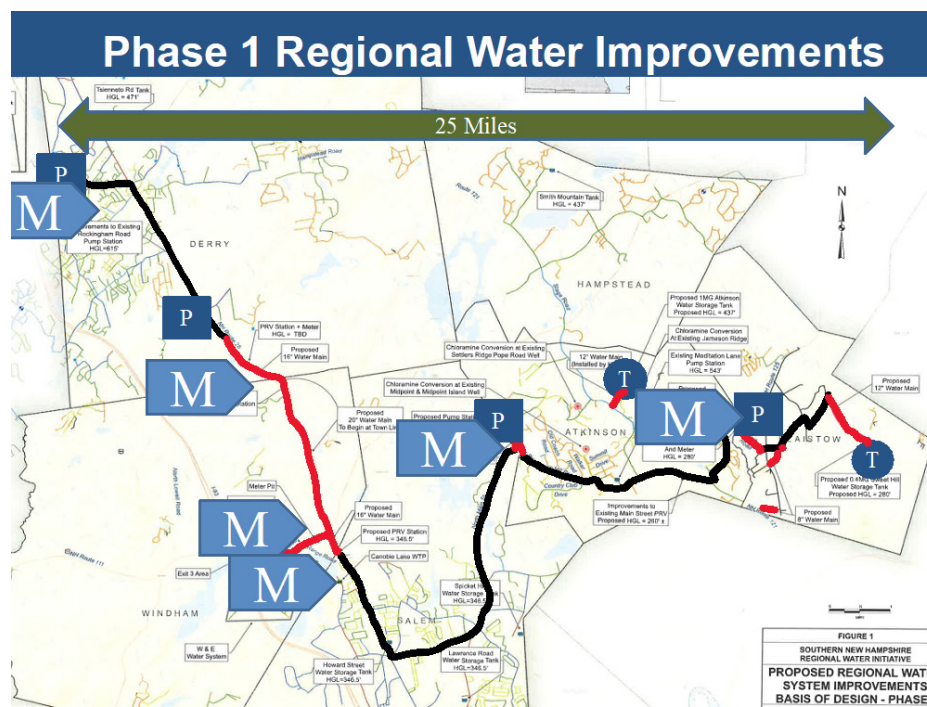
at the former landfill site, which a professional engineering firm supervises. In 2010, the Town of Plaistow began contracting with JRM Hauling & Recycling to provide the solid waste/recycling services. As part of the new service contract, JRM began working to enhance Plaistow's recycling program to make it more convenient and easier for people. JRM has worked with the Town on a campaign to increase the amount of recycled materials and decrease the non-recyclable material that is thrown away in Town. Even with the progress made on recycling, future challenges related to the recycling industry are likely to impact Plaistow residents and businesses as the market for recyclables disappears.

Municipal Water

As of 2018 no residential dwelling units are served by a municipal water system. However, with Ground Water Trust funds, plans are in place to provide municipal water to at least 300 residences. The initial set of eligible residences are those that have a fire suppression water line adjacent to the property, or those whose wells are contaminated by MtBE. The remainder of the residences that are initially connected to the system will depend largely on their location and severity of well contamination other than MtBE. The system is expected to come on-line in 2021/2022.

Further plans to expand that system and any necessary criteria used to prioritize the expansion have not yet been set. There will likely be a change to either zoning or subdivision regulations for new housing that cannot immediately connect to the system. These regulations have not yet been created.

The Fire Suppression system was created originally to provide fire protection for three industries – Penn Box, Process Engineering, and Westville Homes all of which were located along the railroad tracks. None of these industries currently exist. The Fire Suppression was expanded over the years and paid for by the commercial and industrial businesses that tied into the system. This “fire suppression fund” has been converted to create a fund that will be used to operate and maintain the potable water system scheduled to come online in 2021/2022.



Above: Proposed Potable Water Systems map; Legend: M=watering meter points; P=pumping stations; T=storage tanks

Public Water Supply

Although Plaistow does not have a municipal water supply, there are a total of 95 wells supplying public water systems in the community (47 of which are classified as “C”, or community wells). The NHDES defines a public water system as a piped water system serving fifteen or more services, or 25 or more people for sixty or more days per year. This definition is consistent with the EPA’s Safe Drinking Water Act (SDWA). All public water systems are subject to the EPA SDWA regulations and state based rules as implemented by the Department of Environmental Services. State jurisdiction includes public health protections and proper engineering of the system. Community public water systems are typically located in areas serving smaller mobile home parks, condominiums, single family housing developments, apartments, and institutions. Non-community public water systems are those that serve schools, workplaces, motels, campgrounds, restaurants, and others.

The existing public water systems are supplied by on-site wells and protection of these wellhead areas from potential contaminants is important. The existing wellhead protection areas (WHPA) in Plaistow cover 4,742 acres of land, but only 307 acres are permanently protected through conservation easements. This is

only 6.5% of the area, but the existing development pattern leaves little opportunity for additional protection. Most of these wells are in bedrock and not in the stratified drift aquifer. They are also deep and do not produce high volumes of water. It is important to note that other southern tier towns have noticed diminished yields as more wells are drilled in the area. The most effective way to protect these private wells and the shared water resource they are drawing from is through public education efforts. In addition to continued aquifer protection efforts and educational outreach, Plaistow should continue to investigate alternative means of accessing potable water from external sources within the state of New Hampshire in order to supplement the existing well systems.

Library

In May 2000, the Plaistow Public Library relocated from its former location on Elm Street to a new 15,400 square foot building on Main Street in Plaistow village. This new facility includes 13,400 square feet for public space and 2,000 square feet for storage and for use by the staff. Over the past decade since the move, the Library has become well established at its new location. The facility is designed to accommodate a Town population of approximately 10,000 people. Plaistow’s current population is still well within the building’s capacity. The facility was designed to handle a potential expansion once the population exceeds 10,000.

Recent developments in technology have been changing the way people access Library resources. Due to these changes, traditional



The public Library offers programming for all ages and provides a meeting space for community groups, events, and activities.

Library functions are rapidly evolving and being supplemented by new priorities. To ensure that the Library stays vital to the community, a Strategic Long-Range Plan was completed in late 2017 by a diverse group of community members including the Library Board of Trustees, Library Staff, and various interested residents. The goal of this plan was to study the current use of the facility and identify how the Library may better serve the needs of Plaistow's population. The plan identified twenty major goals, including calls for proactive outreach to underserved populations, a new loanable technology collection, and the development of detailed plans for technology and marketing. The Library is in its last year of the 2018-2020 period covered by the Plan and is on track to complete most of its goals.

Town Hall

The Town Hall was built for municipal use and has been used as such for more than 100 years. An attractive brick building with unique architecture, the inside of the building has experienced many changes. As of 2010, a major renovation of the Town Hall has been completed including new office space, the installation of an elevator, heating and cooling upgrades, and all new flooring throughout the Town Hall. It is a beautiful, functional Town Hall that everybody enjoys. Located in a park-like setting, the walkways and grounds around the Town Hall provide a space for community concerts, gatherings, and passive enjoyment by residents. One issue related to the Town Hall is the lack of sufficient parking when a large event occurs, but it is currently adequate for most occasions.

The Historical Society

The Historical Society Building is located at 127 Main Street adjacent to Seaver Brook. Originally built in 1957 to house Plaistow's Fire Department, the structure wasn't occupied by the Historical Society until the mid-1980's when the new Safety Complex was opened. The first floor of the building contains an office area, as well as the museum space and a bathroom. The second floor is mainly used for storage, but also contains a small kitchen. The building's windows are covered in a plastic film to protect photosensitive historical artifacts from sun damage. The Historical Society Museum displays a variety of artifacts from Plaistow's history including the original clock face from Town Hall,



Above: The Historical Society in Plaistow celebrates local history and heritage.

an 1861 Hand Tub from the Fire Department, and a cross section of Plaistow's last Great Elm Tree.

The museum is operated by the Historical Society Members, who welcome the public to come visit during their weekly hours or by calling ahead and scheduling an appointment. Historical pictures and documents are also shared on a popular Facebook Page. A new HVAC system was installed in 2019, but water and septic systems may require renovation in the future. Also, the bathroom can only sustain very limited use and this restricts the facility from offering better service to its caretakers and visitors.

Plaistow District Court

The Plaistow District Court has been located at its current site of 14 Elm Street since 2001. Prior to it serving as the Plaistow District Court, the building was the home of the Plaistow Library which officially opened its doors on August 23, 1977. In 2000 the Town completed construction of the new Library and the Plaistow District Court moved to this location.

Cemetery

According to N.H. Revised Statute Annotated (RSA) 289:2, every municipality shall provide one or more suitable cemeteries for the

interment of deceased persons within its boundaries, which shall be subject to such regulations as the municipality may establish. Located between the Town Hall and Public Safety Complex on the south side of Elm Street, the Plaistow Cemetery began as a burial ground with the earliest marked graves beginning from the year 1831. There is no record of its establishment or original area, but its size can be interpolated by using the dimensions from the two deeds from when the original area was extended by land purchases in 1854 from two abutters, Stephen Badger and Moses Davis.

Today the Cemetery consists of 4.9 acres. As pursuant to N.H. RSA 289:7, I(a), the operation and maintenance of Plaistow's cemetery is owned and maintained by the Town, and is in the charge of the Cemetery Trustees. Plaistow's Cemetery is not in compliance with the State mandated set-back requirement, therefore while it may be enlarged, it can only be done provided that no portion of the enlargement is located any closer than 100 feet of any dwelling house, schoolhouse or school lot, store or other place of business without the consent of the owner of the same, water sources or highways than the existing cemetery, and provided that no such enlargement shall be located within 50 feet of any classification of state highway.

Alden Palmer, a long-time Plaistow resident owned the property directly behind the cemetery and Public Safety Complex. Mr. Palmer agreed to a land swap with Plaistow that not only provided enough space for the Public Safety Complex expansion to occur, but also added several acres abutting the rear of the cemetery. This addition



Above: Plaistow Cemetery

should provide adequate space for the cemetery for many years to come. In 2017 the Town voted to establish a capital reserve account for cemetery maintenance. Although only a modest amount was deposited into the capital reserve, it was a positive step to keep the cemetery in a state of good repair.

Public Schools

The Timberlane Regional School District (TRSD) includes the towns of Atkinson, Danville, Plaistow and Sandown. Supervisory Administrative Unit #55 serves the Timberlane Regional School District and the Hampstead School District. Students living in the Town of Plaistow attend the Pollard Elementary School for grades K through 5, Timberlane Regional Middle School for grades 6, 7 and 8, and Timberlane Regional High School for grades 9 through 12. All three schools are located in the Town of Plaistow.

Changes in projected enrollment are worthy of monitoring, but little can be done to alter these trends. Most importantly they can inform planning for the school facilities and staffing which are managed by the School District. The projected enrollment figures are calculated by the New England School Development Council, which uses a complex algorithm including many variables. However, one variable not included is the role of the housing market in the turnover rate of older families to younger



Above: Pollard Elementary School is located on Main Street near Town Hall and the Historical Society.

families with children. Therefore, it is possible that outside changes, such as an upturn in the housing market, could impact future enrollment.

In order to ensure that the TRSD continues to provide safe, efficient and effective educational services, a Capital Improvement Plan has been written through the cooperation of several parties including the New England School Development Council (NESDEC), New England Association of Schools and Colleges (NEASC), Lavelle Brensinger Architects, Timberlane Strategic Planning Committee and community members at large. The plan identifies district needs for facility renovations, reconstructions, and replacements. There are several critical challenges facing the Timberlane Regional School District, such as rehabilitating/replacing school facilities that do not support 21st century educational programs, increasing school capacities, and pursuing the necessary support and funding for improvements.



Above: Timberlane Region Middle School and Timberlane Regional High School are located on Greenough Road in Plaistow.

Energy

The Board of Selectmen launched an Energy Committee with a charter to review the electrical and thermal energy efficiency of all buildings, streetlights, exterior lighting, and fleet vehicles. The Committee has had great success – the Town was awarded a

contract to convert all streetlights on Town roads to LED lights. This not only reduces the energy required to operate them, but the lights will also be dark skies compliant. The conversion is expected to be complete by the end of 2019. The Library has already converted their interior and exterior lights to LEDs and is on track to save an \$8,000 to \$12,000 per year in electricity costs. RFPs have been prepared to convert the interior Town Hall lights to LED lights and that work should be complete by the spring of 2020.

A thermal and electrical energy audit was completed in the spring of 2019 and will spawn several energy related projects throughout 2019 and 2020. In 2019, the Town Hall, the Historical Society, and the Library have had energy audits completed on them as well. The Energy Committee is also looking into the possibility of constructing a solar panel array on the landfill. While technically feasible, there may be a problem with connecting to the electrical grid via net-metering due to the cap set by the NH legislators and Governor. The final project the Energy Committee is looking into is the practicality of replacing some or all of the police and highway vehicles with electric vehicles.

As climate change continues to progress, its important for the Town to consider ways to increase renewable energy infrastructure including solar and wind systems. Upgrading energy systems of municipal buildings and incentivizing residential and commercial renewable energy development through net metering and other methods would be a great start to achieving this goal. Currently, the Library is looking into installing solar when they replace their roof in the coming years.

Transportation

Introduction

Although Plaistow is not one of the largest communities in the region in terms of population, its proximity to the Massachusetts border and the presence of NH Route 125 have given the town an urban feel often found in larger communities. In addition, many local residents commute to northern Massachusetts for employment. This situation presents the town with both opportunities and challenges with respect to transportation issues. This higher level of urbanization is accompanied by concerns such as traffic congestion and loss of rural character. However, there is also increased opportunity for expansion of public transportation and infrastructure improvements such as sidewalks and bike paths. Finding an appropriate balance between these opportunities and challenges is one of the goals of this Master Plan and a long-term goal for Plaistow. The region's senior population is growing and this demographic in particular will demand transportation alternatives. Meanwhile younger people are demanding transportation alternatives such as bike lanes, car sharing, ride sharing, and public transit.

The continued maintenance and expansion of the local road network, parking, sidewalks, pedestrian amenities, and public transportation services play an important role in Plaistow's effort to maintain a quality of life and to plan for future growth. Maintaining an efficient road network is critical to the Town's economy which relies heavily on its relationship with Massachusetts and plays a critical role in Plaistow's commercial development, as well as residents commuting south for employment. This Chapter provides a focus and direction regarding these concerns and issues.



Above: Southwest Region Planning Commission created a temporary streetscape improvements on Marlboro Street in Keene, NH to demonstrate how the street could be retrofitted to be more accessible, convenient, and safe for all transportation modes.

What are Complete Streets?

Smart Growth America defines **Complete Streets** as “streets designed for everyone”. They are right-of-ways designed, operated, and maintained to enable safe and convenient access for all users of the road, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. By adopting a Complete Streets Policy, communities direct their road agents, transportation staff, and planners to consider the needs of all users and modes of transportation in the redesign or retrofit of any street in town. Currently, there are 7 communities in NH, ranging from small towns to large cities, that have passed Complete Streets Policies or Resolutions and more are expected to follow suit. Additionally, the town can consider adopting Green Streets requirements to a Complete Streets Policy, requiring green infrastructure be considered during roadway design, maintenance, or construction activities.

Resources

National Complete Streets Coalition: www.smartgrowthamerica.org/complete-streets

NH Bike and Pedestrian Plan: <https://nhpedbikeplan.com/>

Healthy Eating, Active Living (HEAL); Complete Streets Policies: <https://healnh.org/index.php/complete-streets-policies>

Complete Streets Demonstration Projects: https://www.nh.gov/dot/programs/bikeped/advisory-committee/documents/NHDOTCompleteStreetsConference_Pop-upDemos.pdf

FHWA Small Town and Rural Multimodal Networks Design Guide: https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/

Existing Transportation Facilities

Roadways

Highway access in the region is provided through Interstates 93, 95, and 495, U.S. Route 3, and a variety of other local and state roads, including Route 125. The commute via automobile from Plaistow to downtown Boston typically exceeds 100 minutes during peak hours, more than 2.5 times longer than a non-congested journey. However, due to environmental concerns, cost, and community resistance, it is unlikely that significant roadway capacity will be added in the region in the near future. Therefore, congestion relief in the region will necessarily have to result from non-highway improvements.

The Town of Plaistow is served by three state highways: NH Route 125, running roughly north to south through the central section of town; NH Route 121-A, also known as Main Street, running roughly diagonally from the northwest corner of town to the south central area of the community; and NH Route 108, which runs north to south along the very eastern boundary of the town. A small section of NH Route 121 also serves the southern area at the Atkinson border. Routes 108, 121, and 125 all intersect Plaistow's southern border with Haverhill, Massachusetts.

In addition to these state roads, NH DOT also maintains an additional 5.4 miles of local roads. There are 57.6 miles of roads in Plaistow, most of which are in two classes of roads. Over 63% or 36.36 miles are classified as Class V Rural Highways and 28.8% or 16.62 miles are classified as Class II State Aid Highways. These include Route 121A and Route 125.

Traffic Volume and Trends

Traffic circulation in and through Plaistow is one of the most important transportation issues facing the community. Congestion during peak time periods is widely known to residents. The structure of the local highway network requires local and regional travelers to share, to a significant degree, the major arterials in Plaistow. The combination of local trips and through trips on the major arterials often results in slow traffic, capacity constraints, delays, and an increase in vehicle collisions New Hampshire Department of Transportation Traffic Reports and Rockingham

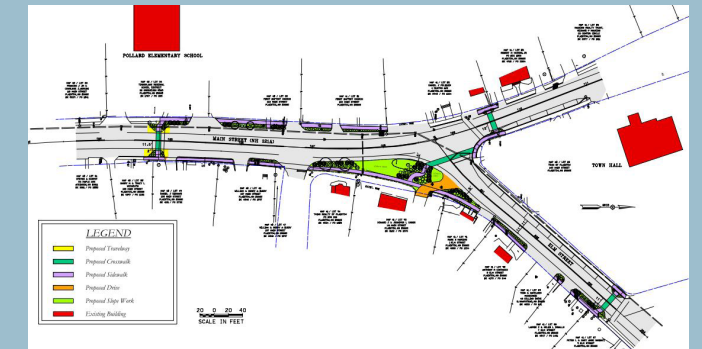
Planning Commission display traffic volume data at key locations along major roadways to help towns better anticipate and prepare for changing transportation needs. The table below illustrates Annual Average Daily Traffic (AADT) counts for key locations in Plaistow in greater detail from 2010-2018. Over the past decade the traffic volumes in these locations have largely decreased over time. Traffic remains heaviest on the state routes that lead between MA and NH and between Plaistow and neighboring communities. Its important to note that while Route 125 was being widened to its current configuration of four lanes, auto users would seek alternate

Traffic Count Location	2018	2013-2015	2010-2012
1 NH Route 125 (at MA Stateline)	22,000	23,000	22,000
2 NH Route 125 (S. of Old Rd.)	15,807	17,000	19,000
3 North Ave (at MA Stateline)	10,181	9,100	9600
4 NH Route 121A/Main Street (at Hampstead Townline)	9,450	11,000	-
5 NH Route 121A/Main Street (E. of Danville Rd.)	4,522	5,000	5,100
6 NH 108 (at MA Stateline)	5,349	4,800	5,400
7 NH 121A (S. of Davis Park Rd.)	11,486	9,300	10,000



Safe Routes to School

Safe Routes to School is a national program that aims to promote walking and bicycling to school. The program is centered around bike and walking education, encouragement, and infrastructure improvements and aims to make it easier, safer, and more convenient for children to walk or bike to school. Plaistow just completed a Safe Routes to School traffic calming project at the Main and Elm streets intersection near the Pollard School in the village center. The project includes the construction of newly marked crosswalks, pavement narrowing, and a short section of sidewalk.

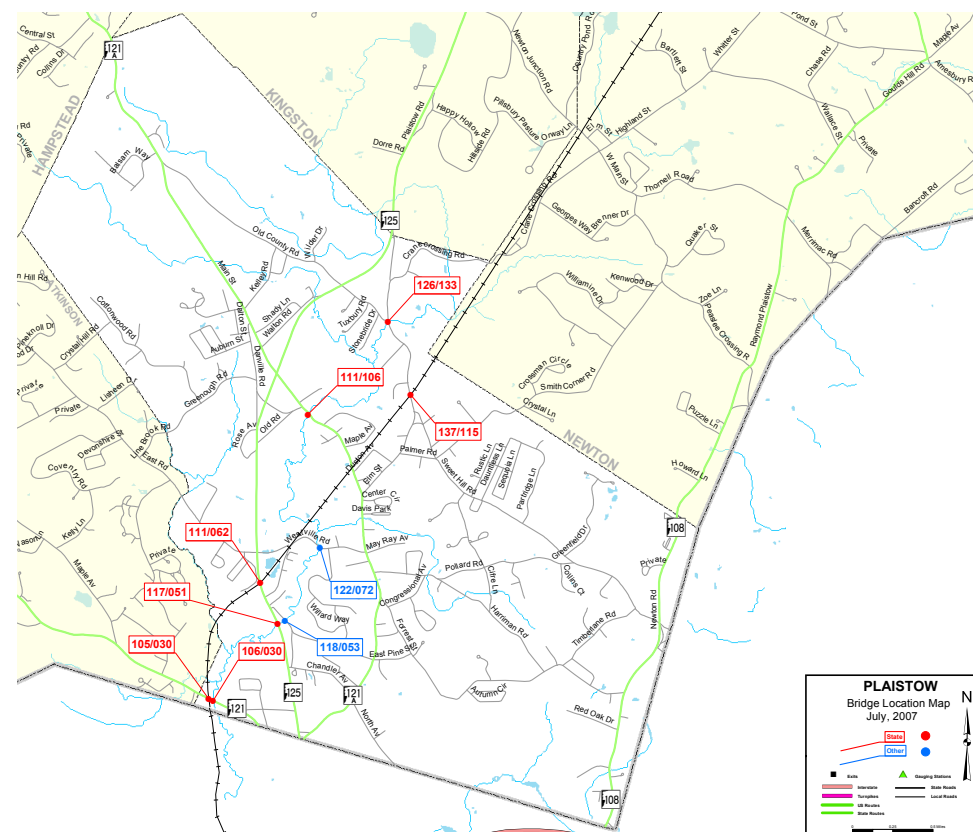


routes, such as Main Street, increasing the use and traffic of this roadway even today. Much of the efforts to calm traffic on Main Street are to encourage traffic to remain on Route 125 rather than using Main Street as a bypass. Traffic volume data can be used by the Town to establish priorities for future roadway improvements. The generally accepted standard for capacity for a two-lane road to maintain a relatively high level of service is approximately 10,000 vehicles per day. Once this figure is exceeded, there is also deterioration in a road's capacity for handling traffic efficiently.

Bridges

The NHDOT and the Plaistow's Highway Department are responsible for bridge maintenance and construction. There are nine bridges in Plaistow. Two of the bridges are under the jurisdiction of the town and the remaining seven are under the jurisdiction of the NHDOT. The map below shows all of the bridges in the Town of Plaistow. Red bridges are those that are maintained by the state; blue bridges are those that are maintained by the town. Most recently, the Westville Bridge and the Garden Road

Bridges in Plaistow



Bridge (also dedicated to the Town's World War II veterans) were replaced.

Crash Data

Roadway safety is determined by a number of other factors, such as road condition, traffic volume and speed, the number of access points and intersections, driver behavior, and vehicle condition. All of these factors are used to evaluate the potential for accidents. Referred to as crashes by the Department of Transportation, crash data is commonly used to identify hazardous situations and plan for necessary improvements. In New Hampshire a reportable crash is an incident that causes over \$1,000 of damage or results in a personal injury. Up-to-date crash data is available from the Plaistow Police Department and the NH Department of Safety.

Traffic Calming

Traffic calming refers to a system of design and management strategies that work to increase pedestrian, bicyclist, and driver safety by slowing traffic speeds. When used in combination with access management techniques they can also assist in preserving the capacity of Plaistow's roadways. Traffic calming techniques would provide an option to the community for protecting the safety and congeniality of Plaistow's neighborhoods, without excluding traffic. Traffic calming techniques includes:

Narrowing streets

Wide streets often encourage motorists to drive faster. Extending curbs, eliminating multiple lanes, adding street trees, and adding bicycle lanes can help reduce speeds on existing roadways. Plaistow's street design standards should incorporate these traffic calming elements.

Breaking up straight-aways

Straight-aways on roads encourage speeding. On existing roadways reductions in speed can be obtained by making physical alterations such as speed humps, speed tables, rumble strips, and traffic circles that require motorists to deviate from a

straight line.

Re-aligning and re-designing intersections

Re-aligning and re-designing intersections to be more pedestrian friendly should also be considered. "Neck downs" can be added to decrease the length of road required by pedestrians to cross and signal times can be changed to add more walk time.

The Main Street Traffic Calming Study included a Level of Service (LOS) analysis for several Main Street intersections. Included in the Traffic Calming Study was a PM peak analysis of eight key intersections along Main Street. Except for Forest and West Pine Streets, six of the intersections demonstrate significant operational delays. Additional analysis will be required to justify the need for the intersection upgrades, but this information provides significant insight into these dangerous intersections.



Above: An example of traffic calming infrastructure.

Bicycle and Pedestrian Facilities

Sidewalks

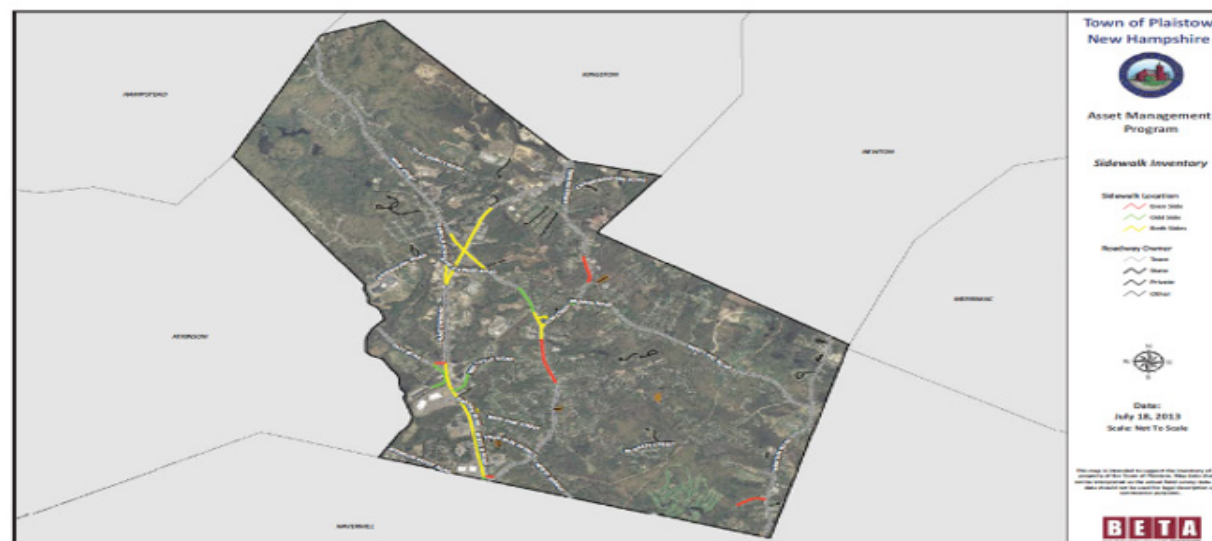
The Town of Plaistow has taken a very proactive approach over the last several years to create a network of sidewalks in the central part of town. Successfully leveraging town funds with federal transportation enhancement grants, the town has established a multi-year program of linking important town facilities with sidewalk infrastructure.

Slowing traffic speeds and reducing accidents on Main Street is a high priority in the community; with improving pedestrian safety highlighted as a major concern at the August 2013 Land Use Summit. Building upon and expanding the existing sidewalk network in the community will increase pedestrian safety and encourage walking. Prioritizing connecting these existing sidewalks should be a priority for future funding and adopting a strategic sidewalk plan, noting locations of existing infrastructure and denoting where new sidewalks should be constructed.

The Village Center District includes the area along Main Street from the bridge over Little River in the north to the intersection with Bittersweet Drive in the south. It also includes Elm Street from its intersection with Main Street to the intersection of Palmer Avenue. One of the tenets of the Village Center District is to provide a pedestrian friendly environment with Americans with Disabilities Act (ADA)-compliant sidewalks on both sides of the road where possible.

The Main Street Calming study was completed in 2011 and two years later Plaistow sponsored a Plan NH design charrette to help formulate concepts that would help obtain the pedestrian-friendly goals of the Village Center District. The first piece of meeting this goal was accomplished with a Safe Routes To School grant which was obtained and will be completed in 2019. The plan is to apply for successive TAP funding grants in every other round of applications or once every four years. The TAP funding grants require a 20% local match, but are so competitive that applicants who supply a greater than 20% match will score slightly higher, and thus, have a slightly better chance of being awarded. Applications also score higher if they have the 20% match "in the bank" as opposed to "will be placed in a warrant article for next year's town meeting".

Plaistow has in place a Transportation Infrastructure capital reserve fund that was created for just such matching opportunities.



The above map shows sidewalk segments in Plaistow. Priority should be given to connecting these sidewalk segments.

Bicycle Routes

The State Bicycle Map designates portions of NH Route 121A, Kingston Road, and Greenough Road as bike routes. However, due to the amount of vehicle traffic and turning movements, these corridors are not always friendly for bike riders, particularly along the commercial strip areas and in the downtown areas.

The town has limited facilities for bicycle transportation currently, and yet there are many known benefits of using a bicycle as a means of transportation. Bicycles are a non-polluting transportation mode with the potential of alleviating traffic congestion while at the same time improving air quality.

The northern section of Route 125 in Plaistow has shoulders four feet in width or greater and although these shoulders are large, the speeds associated with this section of road increases safety concerns for bicyclists. Along NH 121 and NH 121A there are significant sections of roadway with no shoulders at all making these routes less than preferred for bicycle traffic. The safest travel ways in town currently are the local roads. Although the shoulder widths are often narrow, the lower speeds pose a reduced threat of

Creating a network of bicycle lanes along major roads would greatly enhance rider safety and use, and should serve riders of varying abilities. This network should link important destinations in town and serve a broad population of users. In order to create such a network, the Town of Plaistow will have to work closely with the NHDOT, which is responsible for the majority of these corridors. Plaistow may want to consider utilizing shared-lane markings, or "sharrows", on low-volume roads and side streets to provide a designated space for cyclists to ride in the street. Additionally, the placement of bicycle racks within the village area and at retail and employment locations throughout Plaistow should be a priority to support bicycling as a viable transportation mode.

Signage and Wayfinding

Plaistow's signage and wayfinding systems should direct travelers to their destination safely and efficiently, and contribute to the identity of the community. There are several layers of signage, (including statewide, regional, and local) and multiple layers of wayfinding (e.g., directional, informational, vehicle oriented). Each of these levels and layers must be well coordinated in order to effectively serve visitors to the community. These signs should be integrated with Plaistow's transportation and economic development infrastructure. Recently, the Town did pass an ordinance to include street addresses on all free-standing commercial signs as a way to improve traffic safety and clarity for first responders. The following are fundamental objectives of a signage and wayfinding system for Plaistow:

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

Investment in public transportation expands service and improves access and mobility, and if sustained over time can potentially affect the economy by providing:

- Travel and vehicle ownership cost savings for public transportation passengers and those switching from automobiles, leading to shifts in consumer spending;
- Further direct travel cost savings for businesses and households;
- Business operating cost savings associated with worker wage and reliability effects of reduced congestion;
- Business productivity gained from access to broader labor markets with more diverse skills, enabled by expanded public transit service areas and reduced congestion;
- Additional regional business growth enabled by indirect impacts of business growth on suppliers and induced impacts on spending of worker wages.

Park and Ride Lots

Plaistow is served by one NHDOT maintained park and ride lot. Located just off NH Route 125 on Westville Road, the lot serves predominantly as a connection between private automobiles and carpools. The lot has a capacity of 275 parking spaces and attendant amenities now include lights and a shelter. Park and Ride lots facilitate multi-modal transportation where people can easily transfer from one mode to another. The Town should work with NHDOT to pursue these improvements.

Buses

Currently, the Merrimack Valley Regional Transit Authority (MVRTA) Number 13 bus connects Plaistow (at the State Line Plaza) to rail transit and express bus service in downtown Haverhill. However, MVRTA buses and other schedules are not always coordinated, leaving passengers with unpredictable transfers and wait times. In addition, MVRTA buses only operate to Plaistow's southern border, leaving most residents with long walks, cab rides, or finding other means of reaching the limited public transit service.

Rail

Plaistow is not served by passenger rail service. MBTA and Amtrak rail service is provided in downtown Haverhill, Massachusetts. A large park-and-ride lot is located approximately 750' from the



Above: Plaistow's active railroad, largely used for freight. There has been some studies about the possibility of extending commuter rail service to Plaistow from Haverhill, MA.

signalized intersection at Route 125. Amtrak and MBTA service from the Haverhill Station operates frequently and a journey to Boston takes 50 to 71 minutes; the disparity in rail times reflects the impact of express and local service and other schedule service adjustments. Additionally, commuters can opt for rapid transit service by driving to Malden (Malden Center Station), Massachusetts for the MBTA's Orange Line into downtown Boston. All options are significantly more cost effective than driving and paying for garage parking in downtown Boston; however, reaching each mode requires a connecting bus journey or car ride, causing delays and inconvenience for travelers, particularly during rush hour. Additionally, according to the Transportation Research Board, transit passengers are willing to accept longer journey times to avoid transfers.

Cooperative Alliance for Regional Transportation (CART)

CART is a non-profit agency that provides both fixed-route and on-demand transportation services. CART provides rides for all members of the public, but is used primarily by the elderly and disabled populations. Federal funding is obtained from the Federal Transit Agency (FTA) and local funding by assessing participating communities a fee based on population. CART does not service Plaistow but should be considered periodically to see if the service makes sense for Plaistow.

Elderly and Para-transport Services

Currently these services are provided by volunteer and non-profit organizations such as Salem Care Givers and Lamprey Health Care. There is no centralized listing or dispatching for these disparate services.

Taxi & Car Services

There are multiple taxi services serving the Plaistow area, including Haverhill Taxi and American Taxi. Transportation is available on demand through these companies and service is provided on a 24-hour-a-day basis to any location in New England. Other on-demand car services have been established in nearby locations like Haverhill, MA through providers such as Uber and Lyft- expansion of such services in the region is likely over time.

Key Issues and Challenges

Plaistow serves as a gateway to NH and as such traffic on NH Route 125 far exceeds the levels that would be expected for a town of 7,700 residents. The rapid population growth experienced in the 1980s and 1990s has subsided and has slightly decreased in the last four to five years. The same slowing of the population growth has also occurred in the neighboring communities. Improvements to the road network can be made both by updating the physical infrastructure and by updating related policies and regulations.



Above: Route 125

Plaistow's transportation infrastructure has a significant impact on the economy by facilitating job access and access to goods and services. Currently, many residents must rely on expensive and congested auto-journeys or inconvenient transit services to major employment centers. Meanwhile individuals from the surrounding communities travel into Plaistow for goods and services. This elevates the importance of the Route 125 Corridor as a major consideration for Plaistow's future.

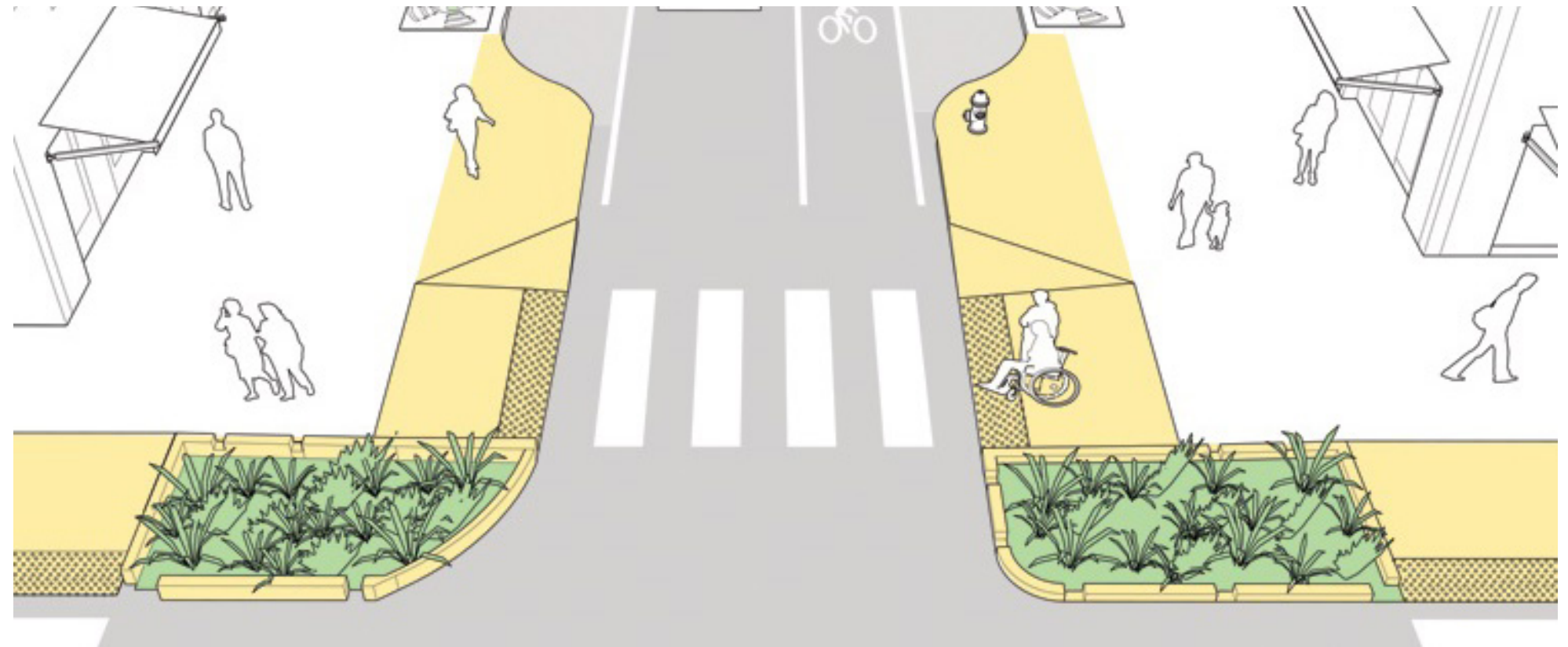
NH Route 125 and Access Management

NH Route 125 is the most prominent piece of transportation infrastructure in the Town of Plaistow. Consequently, Route 125 has a strong influence on transportation patterns for the town and region. Arbitrary, unchecked development along this corridor will result in increased travel times, safety and air quality concerns, and will detract from Plaistow's community character and vision for the future. One of the objectives for this corridor is to ensure that the existing levels of service along the NH Route 125 are improved. A corridor study is needed to better understand the interplay of land use and transportation in this area of the community, and how to better guide changes to both in the future. Route 125 has the potential to support a broader range of transportation options and mixed-use development alternatives if coordinated.

One of the strategies that should be employed in the process is access management. Over the past twenty years access management has emerged as an appropriate technique to address the conflicts between through traffic and traffic generated from development. For the Town of Plaistow, access management strategies are critical for NH Route 125, though the effectiveness of access management extends beyond busy transportation corridors. The goal of access management is to limit the number of conflict points (at driveways, medians, and intersections) along a transportation corridor. This can be accomplished with land use regulations that require connections between sites, shared driveways, and nodes of development rather than automobile-oriented strips of development. While Plaistow has had an Access Management Ordinance in place since 2002 new zoning regulations related to the pattern, density, and mix of uses will be needed once water and sewer infrastructure is available in this area.

Main Street Traffic Calming Study

In April of 2011 the Rockingham Planning Commission completed



Above: A diagram of a curb extension, crosswalk, and sidewalk bumps which improve safety, reduce crossing distance, and create an area for plantings, as shown in The National Association of City Transportation Officials Urban Bike Design Guide.

the Main Street Traffic Calming Study. The scope of the study included all intersections from North Avenue in the south to Danville Road in the north. The intent of the study was to determine ways to enhance the bicycle and pedestrian safety through the Village Center District as well as to give a more rural appearance to the Village Center by improving the transportation environment on the corridor. The study focused primarily on the 3 mile long section of the corridor known as South Main Street that lies between the state line, and where the roadway crosses NH 125 and becomes North Main Street. In addition to the overall goal of enhancing Main Street as a destination within the town, there are some more specific transportation related objectives of the study and areas where recommendations were offered:

1. Reducing vehicle speeds on Main Street
2. Improving the environment for pedestrians and cyclists
3. Redirect heavy vehicles to utilize NH 125 where possible
4. Enhance the aesthetics of the corridor

The lessons learned and techniques suggested in this study should also be applied to other important transportation corridors in Plaistow.

Rail Feasibility Study

In 2012 the Town received \$8.4 Million of funding through the Congestion Mitigation/Air Quality (CMAQ) program to undertake a feasibility study of expanding commuter rail service to the community. The study examined potential alternatives for a train station and layover facility, and their resultant impacts, including a cost-benefit analysis and ridership projections. The project proposal included moving the current layover facility located in Bradford, MA to Plaistow as well as providing an 835-foot high-level boarding platform and rail station to be essentially co-located with the layover facility. The current layover was designed in the late 1980s and has not been upgraded with any technology improvements since. It has a deserved reputation for being noisy and smelly with locomotives idling all night in cold weather.

Prior to the completion of the study public sentiment in the community was clear, residents did not want to replicate the Bradford (MA) layover facility in the Town of Plaistow. However, the noise studies showed that with the distances between the locomotives at the layover and station and the residences and the

newer, quieter locomotives that noise would not be a problem. There are also noise mitigation techniques that are impossible to apply to the Bradford facility that would be used in the Plaistow project. There was also some concern about dealing with the MBTA, but no chance was given to introduce a sample contract that would outline how Plaistow and the NHDOT would deal with the MBTA and possible penalties for non-compliance by all parties. Rhode Island has used a similar technique successfully for approximately 10 years.

Given Plaistow's ties to the Boston area, both economically and its interlocking road network, transportation mobility challenges facing the region will continue to remain a prominent concern for the area. In addition, the greying of New Hampshire cannot be dismissed. Today's younger generation is gravitating towards walkable communities tied to efficient transportation systems. In many cases this age group is even shedding the use of cars all together. Given these factors the community should remain open minded to review, at some point in the future, adding a commuter rail stop in Plaistow given its unique location along an active rail line. The region and state will continue to grow and Plaistow should be prepared to review all transportation options.

Conclusion

In order for Plaistow to create a transportation system that demonstrates functionality, safety, longevity, and accessibility for all modes and supports the preferred land use pattern the community must embrace the following town-wide:

- revised street design standards;
- access management principles;
- traffic calming techniques;
- public transportation services; and
- transportation demand management strategies.

Each of these items can be addressed in the Land Use Regulations. They can also be pursued simultaneously in a non-regulatory process of outreach and education. Business owners may choose to apply access management and traffic calming elements into proposed changes to their properties, and may wish to work with their employees on reducing and reshaping demand on the transportation system. Organizations within the community can then be encouraged to partner on transportation services that meet the needs of their clients as well as the broader community. Plaistow's history and development pattern is tied to the evolution of transportation and that will continue into the future.



Stewardship of Built Resources

The integration of population and housing, community facilities, and transportation topics into one section of this master plan was intentional. This allowed for a systems approach to better understand the many ways these resources affect each other and then to identify potential actions that have implications for several resources. The hope is that this will result in cost-effective and coordinated initiatives that will preserve Plaistow's unique character and quality of life. Plaistow's built environment is one of the three primary infrastructures in the community along with the natural and social resources. The built environment is constantly changing and these changes have been documented throughout Plaistow's history. While the built environment is a visible component of Plaistow's land use pattern it is influenced by demographics and economic shifts, the cost and availability of energy, and other factors. As a community with a slightly younger population in an aging state, the demand for different community services and transportation choices will drive changes to the built environment. This can be done in a way that also protects or improves the natural environment and fosters human interaction to build social capital.

Plaistow's built environment is a multi-tens of millions of dollars investment which must be kept up to date to provide an efficient use of space, have cost-effective thermal and electric energy usage, and be kept in a state of good repair. This can be accomplished by maintaining a robust Capital Improvements Program for all buildings, systems, roads, and sidewalks. Plaistow now uses the Road Surface Management System to maintain its roads. This system should be expanded to include sidewalks in the near future. As new infrastructure is added it must be done so in a manner that is both safe and cost-efficient in the long term. Roadway improvements and future road construction should be designed to control the flow of traffic and the number of access points to the roadway. There should be a focus on infrastructure improvements that enhance safety throughout Plaistow. Measures should include redesign/rebuild dangerous intersections, providing for safe parking at town facilities, and increasing safety awareness in the community.

However, such changes related to housing and transportation options and available community facilities take time and financial resources to implement. Fortunately, our approach to these capital expenses is changing as well. We can no longer afford to provide single use facilities and systems in Plaistow. Instead we must coordinate this infrastructure to get the greatest number of benefits possible for each investment. As an example, future investments in transportation infrastructure must serve residents of all ages and abilities with a variety of transportation choices, and can also be designed to improve environmental quality and builds community. All actions related to Stewardship of Built Resources can be found in the Implementation Chapter on page 65.



Plaistow Land Use



Existing Land Use

Introduction

Understanding the existing pattern of development and mix of land uses is critical to a master planning effort. Plaistow's development pattern has formed as a result of its location on the southern NH /northern MA border, the transportation system, and available natural resources. Understanding the context of this existing land use pattern will help the community plan a path forward toward their vision of the future. The purpose of this chapter is to provide that context through some

baseline information on the physical features of the land, the pattern of land uses, and the role of the existing zoning districts in Town of Plaistow. The following sections describe more fully the determinants of Plaistow's land use pattern and the issues related to the community's character.

A Short History of Land Use

As recently as 1977 half of Plaistow's land area was determined to be undeveloped. Forty years later it is clear that the majority of Plaistow has been developed and only pockets of undeveloped land remain. The resulting pattern of land use is the result of several trends that have resulted in the following results (see graphic left).

Development Trends

Encroachment of single-family residential homes and subdivisions into areas of open space



Strip commercial development along major roadways such as Route 125



The loss of agriculture and forest land resulting in small areas of undeveloped land scattered throughout the town.



Regional Context

Plaistow is located in southeastern New Hampshire adjacent to the Massachusetts border and is at the crossroads of several major highway corridors including Route 125, Route 121A, Route 121 and Route 108. Travelers can take both Route 125 and Route 108 all the way to the Rochester area while users of Route 121A and Route 121 can travel northwest all the way to the City of Manchester.

Heading south, Routes 121A and 121 merge with Route 125 in Haverhill, Massachusetts which then joins with Interstate 495. Route 108 also joins with Interstate 495 in Haverhill. Plaistow's recent pattern of development reflects the town's proximity to nearby employment centers, the excellent roadway network and the availability of housing. The system of roadways has also stimulated commercial growth along these highway corridors – most notably Route 125. Consequently, Plaistow has become primarily a residential community with substantial amounts of commercial development located on major highways.

Existing Land Use

Plaistow is composed of a mix of land use types but the majority of the land area, approximately 47%, is currently being utilized for residential uses. The existing land uses according to municipal assessing records can be found below. For each category of land use the area in acres is noted. Because the assessing database does not identify the area of the lot being occupied for these uses the entire parcel was labelled. In many ways this is helpful because larger lots have the potential to be further developed over time.

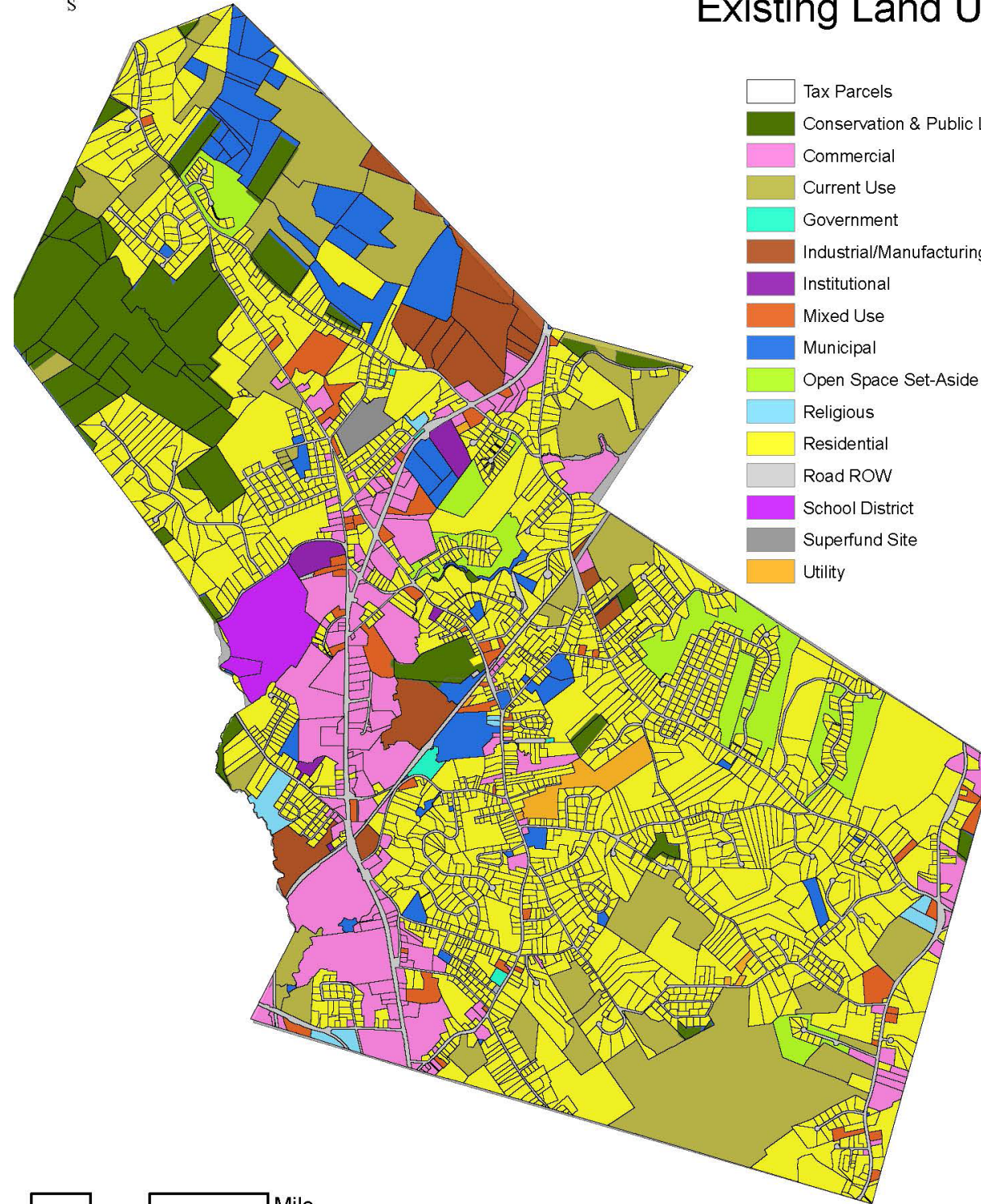
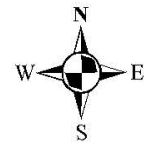
Residential Uses

Land Use Type	Total Acres	Percent of Total
Commercial	604	8.9%
Current Use	920	13.6%
Government	13	0.2%
Industrial/Manufacturing	219	3.2%
Institutional	35	0.5%
Mixed Use	128	1.9%
Municipal	812	12%
Open Space Set-Aside	233	3.4%
Religious	34	0.5%
Residential	3,243	47.8%
Road ROW	380	5.6%
School District	92	1.4%
Superfund Site	21	0.3%
Utility	43	0.6%
	6,779	

Residential development encompasses the largest amount of developed land in Plaistow. In total it comprises approximately 47% of the town's land area. Below is a description of the different types of residential development.

Single Family Housing

Single-family development is spread throughout town and is consistent with the town's Zoning Ordinance, which requires 110,000 square foot lots in the Low Density Residential Zone, 40,000 square foot lots in the Medium Density Residential Zone, and five-acre lots in the Residential Conservation Zone. According



Town of Plaistow Existing Land Use

- Tax Parcels
- Conservation & Public Lands
- Commercial
- Current Use
- Government
- Industrial/Manufacturing
- Institutional
- Mixed Use
- Municipal
- Open Space Set-Aside
- Religious
- Residential
- Road ROW
- School District
- Superfund Site
- Utility

March 5, 2019

to the American Community Survey completed by the US Census, eighty percent (80%) of the housing units in Plaistow are single family units. This is up significantly from 57% in 1990 (1990 US Census). This also includes projects like Snow's Brook which is age restricted but contains over forty single family units. A small number of single family homes are configured as duplexes. These structures with two adjoining units only account for 6% of the units in Plaistow currently.

Multi-Family Housing

These residential units, which include apartments, condominiums, town houses, and duplexes account for 599 units according to the American Community Survey.

Commercial and Industrial Uses

Plaistow has assumed an increasing role as a regional retail center, particularly along Route 125. This phenomenon is one that provides shopping opportunities to an area greater than the Town of Plaistow, as it serves surrounding towns in New Hampshire and nearby Massachusetts and is partially the result of earlier zoning measures. The existing C1 zoning district was created primarily as a 500-foot strip along Route 125 (250 feet from center line on both sides of the road). Now, the district includes full lots that have frontage on Route 125.

The Danville Road Overlay District (DROD) is a small triangular-shaped area between Danville Road and Route 125 north of Greenough Road. The underlying Commercial I (CI) district does not permit residential uses; however, this small overlay area has historically had some residential and some mixed uses. As properties sold, new owners were attracted to the mixed-use concept.

Surrounded by other residential zones, the mixed-use concept makes sense. While the underlying zone is still CI, the overlay adds the residential and mixed-use permitted uses in the district.

For a town the size of Plaistow, this development along Route 125 reaches proportions of over development, particularly since there are currently no municipal services for potable water and sewer. The State Line Plaza, located at the westerly Route 125 right-of-way and at the Massachusetts border, does have municipal water and sewer by virtue of being connected to the Haverhill, Massachusetts facilities. This agreement was reached between the developer and the City of Haverhill since some of the buildings in the shopping center are in fact located in Haverhill. This is currently the only location in Plaistow with such facilities.

The fire suppression water system has been installed along Route 125 for its entire length except for the last several hundred yards terminating at the Kingston, NH town line. Most businesses along Route 125 have been connected to the fire suppression system and it is expected when that system is converted to potable water, they will use municipal water rather than well water for their drinking water needs.

Clearly lack of water and sewer along Route 125 has helped to shape the number and types of businesses that have been developed to date. The ability to supply municipal water will likely help to expand the number and types of businesses; however, the lack of sewer will still factor in as somewhat of a deterrent for some businesses. More detailed information about this expansion may be found in the Water Resources chapter.

Route 125 Commercial Characteristics

Route 125, through Plaistow, is 3.4 miles in length and currently has 3 distinct and nearly equidistant sections that fall within the CI zoning district (Haverhill, MA to East Road, East Road to Main Street, and Main Street to Kingston, NH). The first section from Haverhill to East Road is approximately 1.2 miles in length and is very heavily developed to the point where there are no more undeveloped lots with frontage on Route 125. The second section along Route 125 starts at East Road and ends at Main Street, 1.1 miles to the north of East Road. This section has a different look and feel to it. There are no large shopping centers and it contains one of



Above: Beede Industrial Site

the last large undeveloped areas with frontage along Route 125.

The third section along Route 125 starts at Main Street and ends at the Kingston, NH line, 1.1 miles to the north of Main Street. This section also has a look and feel that is different from either of the 2 southern sections. There are a couple of large wetland areas to the east of Route 125 as well as a large tract of land which is zoned industrial to the west of Route 125, north of Old County Road. This is the only section of any industrial zone with direct access to Route 125 and as such should be treated as a valuable resource.

Commercial II (CII)

This zone includes that part of Main Street extending from the Library to the junction of the Commercial I zone near the Haverhill, Massachusetts border. Presently some portions of Main Street in Plaistow are designated for limited commercial activities. The

continued plan is to reduce intensity in order to preserve its historic qualities and its general town center atmosphere. The CII zone has always permitted both residential and commercial uses, but the owner of the property has to choose one or the other of the uses. That is no longer the case and mixed uses are now permitted throughout the zone.

Village Center (VC)

This zoning district was created in response to concerns that the center of Plaistow, generally defined as the area surrounding the Town Hall, should be better defined. The VC district has the same permitted uses of the CII district including the allowance of mixed uses. The distinguishing characteristics of the districts is an emphasis in being pedestrian friendly. Main Street has a lot of traffic that currently travels too fast. The district boundaries start at the Main Street crossing of the Little River to the north and terminates

at the Plaistow Public Library to the south. It also includes a short stretch of Elm Street that includes the Safety Complex (Police, Fire, and Emergency Management), the Cemetery, and the District Court House. The American Legion, Town Hall, Pollard Elementary School, First Baptist Church, Brookside Chapel Funeral Home, Westville Market, and the Library are all on Main Street. The Smith recreational fields exist in the district just off Main Street on Ingalls Terrace. The Fish and Game Club is just outside the district on May Ray Avenue and is an important community resource.

Integrated Residential Commercial (ICR)

The ICR zone is characterized by small businesses, single family homes, multi-family homes, and Plaistow's last remaining working farm (located on Crane Crossing Rd.). The ICR zone continues to grow at a manageable and orderly rate. There are also some small industrial uses along Route 108.

Industrial I and Industrial II

The majority of industrial use land in Plaistow is located in the vicinity of the town's major routes such as Route 125, Old County Road and Kingston Road in the northern portion of Plaistow, and along the railroad tracks. Both districts have the same permitted uses except that the Industrial I District is adjacent to the railroad tracks and allows rail stations and rail services.

Open Space, Conservation, and Recreation Uses

Plaistow's network of open and undeveloped land is central to its Vision as a "vibrant and active community with clear water, fresh air, and plenty of open space." There are currently 705 acres of land in Plaistow permanently protected through conservation easements. This equals about 10% of the land area in Plaistow. The majority of this conservation land (520 acres) is held by the Town of Plaistow. This town owned conservation land constitutes 74% of the total conserved land in the community. It is also important to note that the majority of the conserved land is located in the northern portion of Plaistow, and is largely represented by the 400+ acre Plaistow Town Forest. These existing conservation lands provide numerous ecosystem services to the community including space for recreation. Some of Plaistow's town owned properties also provide land for recreation.

Government, Institutional, and Education Uses

Government, institutional and educational land use includes such things as post offices, court houses, administrative offices, emergency services, public works, social organizations and schools. Governmental facilities account for 144 acres in Plaistow, municipal lands constitute another 840 acres. Institutional, religious, and educational facilities account for approximately 135 acres in Plaistow currently. The majority of land classified as educational is located near the Atkinson town border along Greenough Road (51 acres) and is associated with Timberlane Regional High School and Timberlane Regional Middle School.

Land Use Trends

The continued expansion of residential land uses into the more rural areas of Plaistow is a major land use trend the community must consider.

This growth in primarily single-family residential land use has implications for housing affordability as well as community services such as fire, police, roadway maintenance and schools. The continued loss of open space also has long term impacts through the loss of important ecosystem services such as stormwater management, flood protection, recreation, habitat, and land management practices such as forestry and agriculture. However, Plaistow's commitment to low impact development and the creation of new green infrastructure in compliance with its MS4 Permit will help to mitigate these impacts.

Plaistow has also experienced commercial growth along the major roadways – more specifically Route 125. Demand for additional highway commercial activities will likely continue because of Plaistow's location and the need to support a growing population.

This trend will have an impact on the capacity of the roadway system to accommodate additional vehicles. In addition, the



Above: Plaistow's land uses include types such as commercial development, municipal buildings, and open space.

aesthetic qualities, air quality, and the overall quality of life of the community are negatively affected if this area becomes congested.

As Plaistow looks to the future and works to implement actions that will fulfill the community's vision it must also consider how transportation facilities, water and sewer lines, and other traditional grey infrastructure will serve the existing land uses without contributing to sprawl. Future investments in these infrastructure elements along with appropriate land use controls can guide future development and redevelopment efforts in a way that preserves Plaistow's character. The addition of green infrastructure will further compliment these efforts while addressing stormwater, air quality, aesthetics, traffic calming and other critical resource management needs that the community is required to address through federal programs.



Above: Residential development still represents a large portion of developed land in town. Above shows a housing development in Plaistow.

Plaistow in the Future

Introduction

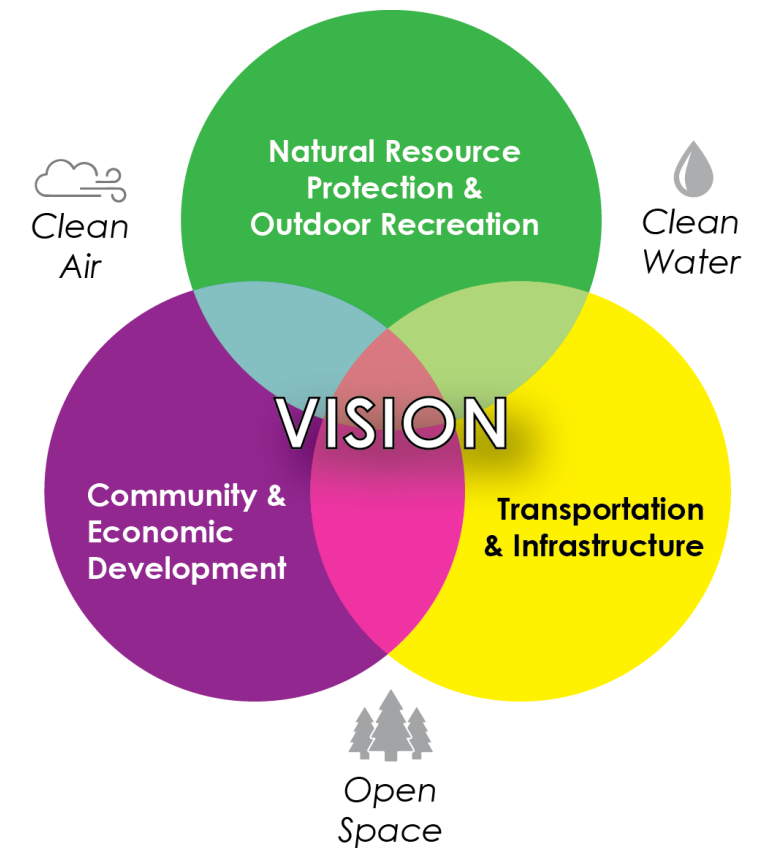
Determining the most desirable land use pattern is an important aspect of the master planning process for a community. For Plaistow this effort was informed by extensive mapping and analysis, an inventory of existing conditions, and identification of future challenges, needs, and opportunities. The goal is to retain the Town's character, protect and restore critical natural resources and functions, support future housing and economic development opportunities, provide for a high quality of life for all residents, and to be mindful of future capital improvements and the cost of supplying municipal services. To accomplish this we must consider the existing pattern of land uses and the Vision articulated in this plan, and then provide clear implementation actions for the Town to take in the coming years to reach the desired development pattern.



The proposed future land use plan considers the existing land use pattern, constraints to development, infrastructure, and the desired character and function of each area of the community. This can later be translated into zoning or use districts for the purpose of managing the type, location and quality of land use activities. It can also be used when considering infrastructure improvements, changes to the transportation network, and land conservation initiatives.

VISION

A vibrant and active community with clear water, fresh air, and plenty of open space that is utilized for diverse outdoor recreation outlets (both formal and informal). A community that balances protecting its natural resources with promoting strong economic development and the expansion of high-quality local and regional job opportunities. A community that invests in its multi-modal transportation network to expand opportunities to its residents and its public infrastructure to promote durability and efficiency of resources.



Future Land Use Recommendations

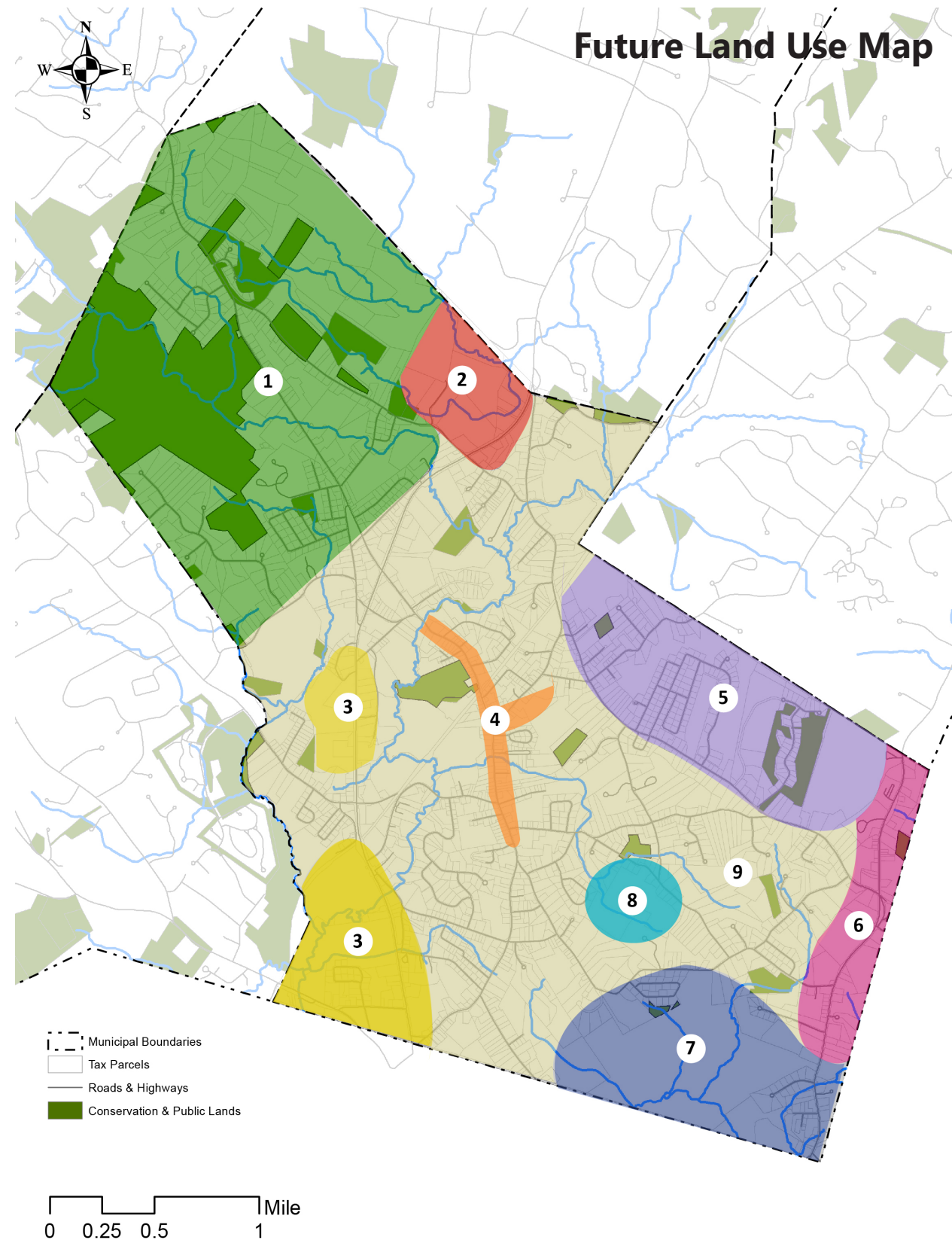
The Future Land Use Map illustrates a vision of Plaistow's future land use and development pattern over time. This was an effort to focus development density where access and infrastructure could support greater activity, and to reduce density in areas with critical natural resources and constraints to development. Working from the north to the south here are descriptions of the areas identified in Plaistow:

1. Rural Conservation Area

The north end of Plaistow contains the largest conserved land area, and has the greatest potential for additional open space protection. This area is currently composed of three zoning districts: Residential Conservation, Low Density Residential, and Medium Density Residential. This currently represents a range of minimum lot sizes from 40,000 sq ft to 5 acres depending on the district. Given the desire to reduce the density of development in this area of Plaistow to preserve its character, the limited opportunities for future development in this area of the town, and the need to conserve remaining open spaces the zoning for this portion of the community should be re-evaluated. Encouraging or requiring the use of the Planned Residential Development provision will also ensure that future developments incorporate natural resource protection and ensure connectivity between open space parcels.

2. Industrial Area

At the eastern end of 125 there is an area with some existing industrial uses that should remain an area within the community where there this type of land use can be accommodated. The area has excellent access to Route



125 and is currently zoned as Industrial 2. The area is not conducive to other uses at this time.

3. Mixed Use Commercial Areas

The development pattern along Route 125 is currently dominated by low density commercial uses that require the use of an automobile for most trips. A corridor study is being suggested for this area of the community to re-imagine the land use and transportation pattern of this district. This will provide an opportunity to create a more efficient and sustainable development pattern that will serve the needs of Plaistow residents long into the future. Once water and sewer infrastructure are available Plaistow should adopt regulations that facilitate the creation of mixed-use development nodes with a higher density of development in multi-story buildings. These new nodes of development should be designed to create walkable neighborhoods with a range of uses including office, retail, services and a range of residential unit types, and green space. This new land use pattern will be more compatible with Plaistow's interest in creating a multi-modal transportation network over time.

4. Village Center Area

Plaistow's existing village area should be retained for municipal, residential, and professional office uses in residential scale structures. Consistent with the existing zoning district in this area the incorporated properties are only one lot deep on along Route 121A and along Elm Street. It is recommended that Plaistow adopt some simple historic district provisions that will provide some design guidelines for new uses in order to compliment and protect existing properties as development and redevelopment activity takes place.

5. Open Space Residential Area

This area of Plaistow consists of low and medium density residential development. Priority should be given to promoting the Town's Planned Residential Development provisions to achieve a balance of open space protection and residential uses.

6. Integrated Commercial and Residential Area

The existing zoning district along route 108 on Plaistow's southeastern border seems to be meeting the need to blend commercial and residential uses. Some of the noted improvements that should be explored in this corridor include the need to mitigate vehicle speeds and noise. This may result in some recommended transportation improvements to calm traffic and ensure that all modes are accommodated, including truck traffic. Performance zoning and access management provisions should also be considered for this area to ensure that future development activity does not impact existing uses or degrade the function of the transportation corridor. A corridor study of Route 108 may be the best way to identify and refine these improvements with input from property owners.

7. Recreational Residential Area

This area of Plaistow is currently the location of the Haverhill Country Club and some limited residential development. Given the extent of the existing open space and recreation area here currently, future development activity should be regulated to emphasize open space preservation and recreation amenities. This will require an evaluation and updating of the zoning for this portion of the community. The Planned Residential Development provisions could play a role in achieving this vision.

8. Recreation and Open Space Opportunity

In the center of the southern half of Plaistow there is a unique opportunity to work with existing land owners to protect an unfragmented block of open space. This would benefit the surrounding neighborhoods, protect the headwaters of Seaver Brook, ensure that habitat remains, and potentially create opportunities for recreation. While this area could be rezoned it is



also possible that Plaistow could attract some conservation partners to aid in the protection of this unique land area.

9. Traditional Residential Development Areas

The remainder of the Town is envisioned as an area for residential development that avoids Plaistow's remaining natural resource corridors. The existing zoning provisions should be evaluated to ensure that they will provide the necessary tools for guiding future land use changes. Ensuring habitat connections, buffers to surface waters, and other low impact development techniques will help Plaistow meet its stormwater management commitments. These efforts will also preserve the towns character for the enjoyment of all residents.



Stewardship of Shared Resources

The integration of these shared natural, built, and social systems in Plaistow provides a more comprehensive understanding of the interplay between the many issues addressed in this master plan. The intent of this approach is to identify a future land use plan that reflects the community's vision while anticipating the changing world around us.

Plaistow is striving to be a "vibrant and active community with clear water, fresh air, and plenty of open space that is utilized for diverse outdoor recreation outlets." This will require coordination between development regulations and strategic conservation initiatives. The results of which have the potential to benefit the health of each resident, increase social capital, and enhance the character of the community.

This can be accomplished while "protecting natural resources and promoting strong economic development", but it will require coordination between the many municipal boards and commissions, staff, and the public at large. As new infrastructure becomes available higher density mixed use development opportunities will be possible in Plaistow, but this activity needs to be balanced with resource protection efforts elsewhere in the community.

Lastly, Plaistow seeks to invest in its "multi-modal transportation network" and this should be coordinated with other infrastructure investments, zoning changes, and the other topics addressed in this plan.

All actions related to Stewardship of Shared Resources can be found in the Implementation Chapter on page 65.



Plaistow Implementation



The Action Plan

The action items listed in the following tables are a direct result of the research and community input received for each of the chapters addressed in this Master Plan. Implementation of these actions can help Plaistow to oversee the realization of the Vision that has been established for the future of the Town. It is important to recognize that the community itself is a dynamic system, and does not operate in isolation. To that end, this Action Plan has been created as a dynamic tool, and is intended to be modified and updated as necessary to optimize its usefulness. On an annual basis, the status of each action item outlined here will be reported by the responsible party and recorded in the Town Report. Additionally, the Built Environment Section of the Action Plan should be reviewed and updated every 2 years starting in 2022.

Action #	Strategy	Target Completion Date	Responsible Agency
THE NATURAL ENVIRONMENT			
Natural Resources			
NR - 1	Create a natural resource inventory that identifies protected land, critical land in need of protection, recreation trails and corridors, and possible green streets and other design strategies that should be pursued over time via regulatory and non-regulatory initiatives in the developed portions of the community to restore some natural resource functions that will balance and support the community.	2022	Conservation Commission and Planning Board
NR - 2	Initiate and maintain a street tree inventory including locations and enter the information into the town's GIS database.	2022	Conservation Commission and Planning Board
NR - 3	Identify and protect the remaining agricultural soils to support future food production opportunities and to preserve the remaining rural aspects of the community's history.	On-going	Conservation Commission and Planning Board
NR - 4	Incorporate green infrastructure design requirements for stormwater management in the site plan review.	2021	Planning Board
NR - 5	Undertake a town-wide education program aimed at informing Plaistow citizens about the importance of protecting and managing the Town's natural and cultural resources by:	2022	Planning Board
NR - 6	Review and revise curriculum and programs in the schools.	On-going	Timberlane Regional School District, and Conservation Commission
NR - 7	Conduct public workshops on timely environmental topics.	On-going	Planning Board
NR - 8	Exploring the possibility of cooperative use of the Town's public lands with the school and recreation departments and conservation commission for mutual education, recreation and sustainable resource management programs and activities.	2023	Conservation Commission and Planning Board
NR - 9	Look for other synergistic opportunities to promote natural and cultural resource management and protection in Plaistow.	On-going	Conservation Commission and Planning Board
Water Resources			
Secure and Protect Drinking Water Resources			
WR - 1	Complete a water balance study to calculate the water usage and existing available water resources. The results of this study should then be used as the basis of outreach and education activities related to water conservation and any policy changes.	2023	Planning Board
Conservation and Stormwater Management			
WR - 2	Expand outreach and engagement activities to address conservation measures (low flow fixtures, behavior change, etc.), rainwater capture and storage, and stormwater infiltration strategies.	On-going	Planning Board
WR - 3	Investigate the creation of a Stormwater Utility to address this water resource and fund improvements to the community.	2022	Planning Board
WR - 4	Require some Low Impact Development (LID) solutions during development and redevelopment activity.	2022	Planning Board
WR - 5	Create some LID demonstration projects on municipal sites and with other partners. These may include rain gardens, bioswales, green streets, green roofs, rain barrels, and other stormwater management strategies.	2022	Planning Board and Highway Department

Action #	Strategy	Target Completion Date	Responsible Agency
WR - 6	Collaborate with neighboring communities on MS4 related tasks. This could include sharing a consultant to complete similar tasks such as communications through Facebook, website resources and updates, and the creation of a video.	On-going	Board of Selectmen, Planning Board, and Conservation Commission
WR - 7	Adopt land use regulations requiring a vegetative buffer along all surface waters.	2021	Planning Board, Conservation Commission
WR - 8	Review all wetland and water resource related ordinances to ensure they are current.	2021	Planning Board and Conservation Commission
WR - 9	Expand floodplain related regulations and consideration to include the 500-year floodplain.	2023	Planning Board, Conservation Commission, and Regional Planning Commission
WR - 10	Improve the condition of Hale Spring and the surrounding property so the community can begin using it again as a source of water.	2024	Planning Board and Recreation Commission
Pollution Prevention			
WR - 11	Continue to encourage private residential well testing for property owners in Plaistow.	On-going	Planning Board and Conservation Commission
WR - 12	Promote participation in the Green Snow Pro certification program for all public and private sector winter maintenance operators in Plaistow to insure there is a decrease in salt used.	2021	Planning Board and Conservation Commission
WR - 13	Continue to provide outreach to homeowners related to household hazardous waste collection.	On-going	Board of Selectmen
WR - 14	Continue to implement a Best Management Practices assessment program for businesses operating in Plaistow.	On-going	Board of Selectmen
WR - 15	Continue to install signage related to drinking water source protection areas in the community.	On-going	Board of Selectmen
WR - 16	Promote Plaistow Pride Day as a Town-wide effort to clean up neighborhoods and roadways and prevent potential contamination of our groundwater.	On-going	Board of Selectmen
WR - 17	Continue to utilize the Town website to increase awareness of preventing groundwater pollutants from affecting Plaistow's drinking water resources.	2023	Planning Board and Conservation Commission
Open Space and Conservation			
OS - 1	Create a Green Infrastructure Inventory and Plan that includes existing conservation land, parcels identified for conservation, and strategies within developed areas and along roadways to incorporate low impact development that provides a range of ecosystem services. Engage regional and statewide conservation groups in this process to get them invested in land conservation initiatives in Plaistow. This effort can be related to the MS4 Permit requirements.	2022	Planning Board, Conservation Commission, and Board of Selectmen
OS - 2	Prepare an acquisition plan that defines the qualities and general areas for open space acquisition on a town-wide basis.	2023	Planning Board and Conservation Commission
OS - 3	Actively participate with regional organizations that support acquisition and protection of open space such as the regional planning commission and the Rockingham Land Trust.	On-going	Planning Board and Conservation Commission
OS - 4	Create a town-wide strategic conservation plan to prioritize future conservation and open space protection opportunities.	2023	Planning Board and Conservation Commission
OS - 5	Continue to allocate an established amount of funding to the Conservation Fund each year.	On-going	Conservation Commission & Capital Improvements Program Committee

Action #	Strategy	Target Completion Date	Responsible Agency
OS - 6	Apply for grants and technical assistance available through non-profit state and federal agencies for open space protection.	On-going	Board of Selectmen
OS - 7	Identify wildlife habitat preservation as part of the management conservation areas. Also identify wildlife BMPs when a threatened or endangered species is discovered on property that is undergoing subdivision or site plan review.	2022	Planning Board and Conservation Commission
Recreation			
R - 1	The Recreation Commission should update the 2012 Recreation Strategic Needs Plan to reflect completed action items and to develop a proposed implementation plan that includes a "time-phasing" of the items and estimated costs.	2024	Recreation Commission
R - 2	The Recreation Commission should collaborate with the Conversation Commission to determine how the Town Forest and other properties could be better utilized to support recreation-related needs, such as: 1. Make use of existing trails in the Town Forest for a broader array of activities. 2. Consider new trail areas elsewhere in Plaistow. 3. Create and maintain trails that could use the existing PARC facility as a trail head. 4. Future trail development should provide opportunities for fitness as well as historic, cultural, and environmental awareness.	2024	Recreation Commission and Conservation Commission
R - 3	Explore the best way to connect recreation facilities, including sidewalks and/or bike paths.	2023	Recreation Commission and Conservation Commission
R - 4	Work with the Historical Society to identify historic sites (e.g. Kelley Town) that could be incorporated into any proposed trail system.	2024	Recreation Commission, Conservation Commission, and Historical Society
R - 5	The Conservation Commission work with representatives from the abutting towns of Atkinson, Hampstead and Kingston to expand on the Town Forest trail system.	On-going	Conservation Commission
R - 6	Neighborhood-based recreational facilities should be considered as another strategy for meeting the needs of the community. This decentralized approach could also help meet some of the stormwater management needs identified in the Water Resources Chapter.	2025	Planning Board and Conservation Commission
R - 7	There are a number of town-owned parcels, some of them quite near PARC, which would be suitable for some recreational activities, such as trails, etc. These properties should be evaluated for recreational use by the Town.	2024	Recreation Commission and Conservation Commission
THE BUILT ENVIRONMENT			
Population and Housing			
P - 1	On even-numbered years, review the town's current land use regulations in order to determine if the existing regulations adequately encourage the type and location of quality affordable housing in Plaistow.	On-going	Planning Board
P - 2	Review the objectives and density for the Low Density Residential Zone. Such large lots may contribute to sprawl and keep significant open space in private ownership. Consider increasing the density for residential uses in the ICR Zone and requiring open space protection in order to promote more compact development adjacent to certain transportation nodes along Newton Road/NH Route 108.	2023	Planning Board

Action #	Strategy	Target Completion Date	Responsible Agency
P - 3	Investigate techniques and strategies to ensure that the Town promotes affordable housing in new residential developments. These could include but not be limited to: 1. Housing size and design, 2. Smaller lot sizes, 3. The concept of using zero lot lines, build to lines or maximum setbacks rather than minimum setbacks, 4. Flexibility for accessory dwelling units, 5. Incentive zoning that might include density bonuses, and 6. Modification of infrastructure requirements for subdivisions which are practical and appropriate and do not sacrifice public safety.	2022	Planning Board
P - 4	A sizable percentage of respondents (42.9%) to the 2014 Master Plan Community Survey indicated that Plaistow residents would like to see more opportunities for over 62 housing. Investigate ways to encourage new housing units that accommodate elderly housing needs.	2024	Planning Board
P - 5	Workforce housing affordability statistics should be reviewed on odd-numbered years to ensure compliance with statutory requirements. The present average rental rate is very close to the maximum allowable rent, which further justifies the yearly review.	On-going	Planning Board
P - 6	Encourage the construction of single-family homes and multi-family dwellings which are energy efficient in their design and use construction materials that are energy efficient in their design.	2025	Planning Board and Building Inspector
Community Facilities			
CF - 1	Establish a capital reserve fund for the purpose of providing a steady source of funding for building and grounds maintenance	2020	CIP Committee, BOS, Budget Committee
CF - 2	Perform periodic inspections of all buildings and note problems that need to be addressed.	On-going	Building Maintenance Supervisor
CF - 3	Perform energy audits of all buildings where appropriate and note structures and systems that are not energy efficient.	2020	Energy Committee, CIP Committee, BOS, Budget Committee
CF - 4	Perform periodic inspections of the cemetery and note problems that need to be addressed.	On-going	Cemetery Sexton, Town Manager
CF - 5	Perform annual inspections of all Police Department vehicles and replace those that can no longer perform their assigned duties safely or with excessive maintenance costs.	On-going	Police Chief, Town Manager
CF - 6	Perform annual inspections of all fire department vehicles and replace those that can no longer perform their assigned duties safely or with excessive maintenance costs.	On-going	Fire Chief, Town Manager
CF - 7	Maintain fire department vehicle rotation schedule and the associated capital reserve fund and impact fee fund balances.	On-going	CIP Committee, Fire Chief
CF - 8	Make an annual deposit into the fire department vehicle capital reserve fund and monitor the fund balance to ensure there is sufficient funding to maintain the vehicle rotation schedule.	On-going	CIP Committee, Fire Chief, BOS, Budget Committee
CF - 9	Perform annual inspections of all highway department vehicles and replace those that can no longer perform their assigned duties safely or with excessive maintenance costs.	On-going	Highway Supervisor, Town Manager
CF - 10	Maintain highway department vehicle rotation schedule and the associated capital reserve fund and impact fee fund balances.	On-going	CIP Committee, Highway Supervisor

Action #	Strategy	Target Completion Date	Responsible Agency
CF - 11	Make an annual deposit into the fire department vehicle capital reserve fund and monitor the fund balance to ensure there is sufficient funding to maintain the vehicle rotation schedule.	On-going	CIP Committee, Highway Supervisor, BOS, Budget Committee
CF - 12	Automate cemetery records and verify the automated records match the physical cemetery plots.	On-going	Cemetery Sexton
CF - 13	Continue pursuing the construction of the landfill solar array.	2022	Energy Committee, BOS
CF - 14	Continue pursuing the practicality of replacing as many vehicles as is practical with electric vehicles or other types of alternative energy vehicles.	2023	Energy Committee, BOS
CF - 15	Develop a plan to expand the potable water system	2021	Water Commissioners, BOS, Water Consultants
CF - 16	Update Master Plan with potable water system updates	2021	Planning Board, Water Consultants
CF - 17	Adopt zoning, subdivision, site plan regulations to account for a potable water system	2020	Planning Board
CF - 18	Adopt a new road profile that accounts for a potable water line, underground utility lines, and gas lines.	2020	Planning Board, Water Consultants
Transportation			
T - 1	Develop strategies for improving bicycle and pedestrian connectivity by evaluating the location and condition of existing sidewalks, paths and trails in to determine ownership, future improvements and connections.	2020	Planning Board, Recreation Commission
T - 2	Apply for Transportation Alternative Program (TAP) funds, through the NH Department of Transportation, for the construction of additional sidewalks and multi-use paths along state routes.	On-going	Planning Board, Board of Selectmen
T - 3	Complete a Wayfinding Study to evaluate the quality and effectiveness of the existing signage and wayfinding systems. Provide visible and high-quality signage with accurate information in a consistent format to direct travelers to the routes and destinations the community has identified. Commit to an ongoing program of signage repair and replacement.	2022	Planning Board with help from Regional Planning Commission
T - 4	When adopting changes to Plaistow's land use regulations, consider promoting mixed-use development so that daily activities are integrated rather than separated. Activities that are separated require vehicle trips between zones, reducing the ability to walk/bike between destinations.	On-going	Planning Board
T - 5	Consider adopting a town-wide Complete Streets Policy to ensure all roadways are designed to accommodate all modes of transportation to the highest extent possible.	2021	Planning Board & Board of Selectmen with help from Regional Planning Commission
T - 6	Consider adopting a Green Streets Policy to ensure that the design and construction of transportation infrastructure minimizes the impact on water quality and sensitive environmental area.	2021	Planning Board & Board of Selectmen with help from Regional Planning Commission
T - 7	On an annual basis, establish capital projects that should be included in the town's Capital Improvement Program. Such projects would include: roadway maintenance and improvement that are consistent with the Master Plan and alternative transportation mode projects including facilities for pedestrians, bicycles, and transit. The Capital Improvement Plan should identify a methodology for prioritizing projects which emphasizes the importance of maintaining the existing roadway system as well as intersection upgrades.	On-going	Board of Selectmen, Budget Committee, CIP Committee
T - 8	Work with the NHDOT on Context Sensitive Solutions for roadway improvements in Plaistow.	On-going	Board of Selectmen, Highway Safety Committee,

Action #	Strategy	Target Completion Date	Responsible Agency
T - 9	Better educate the public on how they can access public transportation, and all of the economic, social, and environmental benefits of public transportation.	2021	Planning Board, Cable Committee, Elder Affairs Committee
T - 10	Work with local employers to encourage Transportation Demand Management (TDM) programs for employment centers and new paving solutions.	On-going	Planning Board, PACE, Merrimack Valley Chamber of Commerce
LAND USE			
Future Land Use			
FLU - 1	Revise the District Standards in the Zoning Ordinance. The planning board should complete a regulatory audit of the existing zoning once the master plan has been adopted. This should include a review of the existing district standards to identify changes needed to reinforce the future land use plan.	2022	Planning Board
FLU - 2	Encourage or require the use of the Planned Residential Development provision in the Rural Conservation and the Recreation Residential Areas identified in the Future Land Use Plan.	2022	Planning Board
FLU - 3	Complete a corridor study along Route 125 to re-imagine the land use and transportation pattern of this district. This will provide an opportunity to create a more efficient and sustainable development pattern that will serve the needs of Plaistow residents long into the future.	2021	Planning Board and Planning Consultant
FLU - 4	Complete a corridor study of Route 108 to identify and refine traffic calming and access management related improvements. This effort should be interactive and informed by input from property owners.	2023	Planning Board and Planning Consultant
FLU - 5	Manage the Quality of New Non-Residential Development. New commercial and industrial development should be guided to identified areas of town. In addition, the quality of new development should be managed through design standards articulated in the Site Plan Review Regulations.	2023	Planning Board
FLU - 6	Establish Site Plan review standards designed to improve the visual and ecological quality of commercial development, including integrated landscaping, low impact development, and screening requirements to address noise, stormwater, and aesthetics.	2021	Planning Board
FLU - 7	Strategic conservation and green infrastructure standards. Used in combination, these efforts will work to preserve Plaistow's character while also ensuring that natural areas can help the community meet its stormwater management goals, provide open space for recreation, and ensure a high quality of life for all residents.	2021	Planning Board
FLU - 8	Pursue the protection of the remaining Recreation and Open space Opportunity identified on the Future Land Use Plan. This could be addressed through zoning, but collaborating with willing land owners and conservation partners to conserve this land may be the most effective approach.	2024	Planning Board, Recreation Commission, and Conservation Commission
FLU-9	Research alternatives to sewage treatment along the Route 125 corridor so that the Town can coordinate a new development pattern along this corridor.	On-going	Board of Selectmen, Planning Board

Plaistow

Appendix



Town of Plaistow Implementation Actions for 2020 Master Plan

The action items listed in the following tables are a direct result of the research and community input received for each of the chapters addressed in this Master Plan. Implementation of these actions can help Plaistow to oversee the realization of the Vision that has been established for the future of the Town. It is important to recognize that the community itself is a dynamic system, and does not operate in isolation. To that end, this Action Plan has been created as a dynamic tool, and is intended to be modified and updated as necessary to optimize its usefulness. On an annual basis, the status of each action item outlined here will be reported by the responsible party and recorded in the Town Report. Additionally, the Built Environment Section of the Action Plan should be reviewed and updated every 2 years starting in 2022.

Action #	Strategy	Target Completion Date	Responsible Agency	Status?
THE NATURAL ENVIRONMENT				
Natural Resources				
NR - 1	Create a natural resource inventory that identifies protected land, critical land in need of protection, recreation trails and corridors, and possible green streets and other design strategies that should be pursued over time via regulatory and non-regulatory initiatives in the developed portions of the community to restore some natural resource functions that will balance and support the community.	2022	Conservation Commission and Planning Board	
NR - 2	Initiate and maintain a street tree inventory including locations and enter the information into the town's GIS database.	2022	Conservation Commission and Planning Board	
NR - 3	Identify and protect the remaining agricultural soils to support future food production opportunities and to preserve the remaining rural aspects of the community's history.	On-going	Conservation Commission and Planning Board	
NR - 4	Incorporate green infrastructure design requirements for stormwater management in the site plan review.	2021	Planning Board	
NR - 5	Undertake a town-wide education program aimed at informing Plaistow citizens about the importance of protecting and managing the Town's natural and cultural resources by:	2022	Planning Board	
NR - 6	Review and revise curriculum and programs in the schools.	On-going	Timberlane Regional School District, and Conservation Commission	
NR - 7	Conduct public workshops on timely environmental topics.	On-going	Planning Board	
NR - 8	Exploring the possibility of cooperative use of the Town's public lands with the school and recreation departments and conservation commission for mutual education, recreation and sustainable resource management programs and activities; and	2023	Planning Board and Conservation Commission	
NR - 9	Look for other synergistic opportunities to promote natural and cultural resource management and protection in Plaistow.	On-going	Conservation Commission and Planning Board	
Water Resources				
Secure and Protect Drinking Water Resources				
WR - 1	Complete a water balance study to calculate the water usage and existing available water resources. The results of this study should then be used as the basis of outreach and education activities related to water conservation and any policy changes.	2023	Planning Board	
Conservation and Stormwater Management				
WR - 2	Expand outreach and engagement activities to address conservation measures (low flow fixtures, behavior change, etc.), rainwater capture and storage, and stormwater infiltration strategies.	On-going	Planning Board	
WR - 3	Investigate the creation of a Stormwater Utility to address this water resource and fund improvements to the community.	2022	Planning Board	
WR - 4	Require some Low Impact Development (LID) solutions during development and redevelopment activity.	2022	Planning Board	
WR - 5	Create some LID demonstration projects on municipal sites and with other partners. These may include rain gardens, bioswales, green streets, green roofs, rain barrels, and other stormwater management strategies.	2022	Planning Board and Highway Dept.	
WR - 6	Collaborate with neighboring communities on MS4 related tasks. This could include sharing a consultant to complete similar tasks such as communications through Facebook, website resources and updates, and the creation of a video.	On-going	Board of Selectmen, Planning Board, and Conservation Commission	
WR - 7	Adopt land use regulations requiring a vegetative buffer along all surface waters.	2021	Planning Board, Conservation Commission	
WR - 8	Review all wetland and water resource related ordinances to ensure they are current.	2021	Planning Board and Conservation Commission	
WR - 9	Expand floodplain related regulations and consideration to include the 500-year floodplain.	2023	Planning Board, Conservation Commission, and Regional Planning Commission	
WR - 10	Improve the condition of Hale Spring and the surrounding property so the community can begin using it again as a source of water.	2024	Planning Board and Recreation Commission	
Pollution Prevention				
WR - 11	Continue to encourage private residential well testing for property owners in Plaistow.	On-going	Planning Board and Conservation Commission	
WR - 12	Promote participation in the Green Snow Pro certification program for all public and private sector winter maintenance operators in Plaistow to insure there is a decrease in salt used.	2021	Planning Board and Conservation Commission	
WR - 13	Continue to provide outreach to homeowners related to household hazardous waste collection.	On-going	Board of Selectmen	
WR - 14	Continue to implement a Best Management Practices assessment program for businesses operating in Plaistow.	On-going	Board of Selectmen	
WR - 15	Continue to install signage related to drinking water source protection areas in the community.	On-going	Board of Selectmen	
WR - 16	Promote Plaistow Pride Day as a Town-wide effort to clean up neighborhoods and roadways and prevent potential contamination of our groundwater.	On-going	Board of Selectmen	
WR - 17	Continue to utilize the Town website to increase awareness of preventing groundwater pollutants from affecting Plaistow's drinking water resources.	2023	Planning Board and Conservation Commission	
Open Space and Conservation				
OS - 1	Create a Green Infrastructure Inventory and Plan that includes existing conservation land, parcels identified for conservation, and strategies within developed areas and along roadways to incorporate low impact development that provides a range of ecosystem services. Engage regional and statewide conservation groups in this process to get them invested in land conservation initiatives in Plaistow. This effort can be related to the MS4 Permit requirements.	2022	Planning Board, Conservation Commission, and Board of Selectmen	
OS - 2	Prepare an acquisition plan that defines the qualities and general areas for open space acquisition on a town-wide basis.	2023	Planning Board and Conservation Commission	
OS - 3	Actively participate with regional organizations that support acquisition and protection of open space such as the regional planning commission and the Rockingham Land Trust.	On-going	Planning Board and Conservation Commission	
OS - 4	Create a town-wide strategic conservation plan to prioritize future conservation and open space protection opportunities.	2023	Planning Board and Conservation Commission	
OS - 5	Continue to allocate an established amount of funding to the Conservation Fund each year.	On-going	Conservation Commission & Capital Improvements Program Committee	
OS - 6	Apply for grants and technical assistance available through non-profit state and federal agencies for open space protection.	On-going	Board of Selectmen	
OS - 7	Identify wildlife habitat preservation as part of the management conservation areas. Also identify wildlife BMPs when a threatened or endangered species is discovered on property that is undergoing subdivision or site plan review.	2022	Planning Board and Conservation Commission	
Recreation				

R - 1	The Recreation Commission should update the 2012 Recreation Strategic Needs Plan to reflect completed action items and to develop a proposed implementation plan that includes a "time-phasing" of the items and estimated costs.	2024	Recreation Commission
R - 2	The Recreation Commission should collaborate with the Conversation Commission to determine how the Town Forest and other properties could be better utilized to support recreation-related needs, such as: Make use of existing trails in the Town Forest for a broader array of activities. Consider new trail areas elsewhere in Plaistow. Create and maintain trails that could use the existing PARC facility as a trail head. Future trail development should provide opportunities for fitness as well as historic, cultural, and environmental awareness.	2024	Recreation Commission and Conservation Commission
R - 3	Explore the best way to connect recreation facilities, including sidewalks and/or bike paths.	2023	Recreation Commission and Conservation Commission
R - 4	Work with the Historical Society to identify historic sites (e.g. Kelley Town) that could be incorporated into any proposed trail system.	2024	Recreation Commission, Conservation Commission, and Historical Society
R - 5	The Conservation Commission work with representatives from the abutting towns of Atkinson, Hampstead and Kingston to expand on the Town Forest trail system.	On-going	Conservation Commission
R - 6	Neighborhood-based recreational facilities should be considered as another strategy for meeting the needs of the community. This decentralized approach could also help meet some of the stormwater management needs identified in the Water Resources Chapter.	2025	Planning Board and Conservation Commission
R - 7	There are a number of town-owned parcels, some of them quite near PARC, which would be suitable for some recreational activities, such as trails, etc. These properties should be evaluated for recreational use by the Town.	2024	Recreation Commission and Conservation Commission

THE BUILT ENVIRONMENT

Population and Housing

P - 1	On even-numbered years, review the town's current land use regulations in order to determine if the existing regulations adequately encourage the type and location of quality affordable housing in Plaistow.	On-going	Planning Board
P - 2	Review the objectives and density for the Low Density Residential Zone. Such large lots may contribute to sprawl and keep significant open space in private ownership. Consider increasing the density for residential uses in the ICR Zone and requiring open space protection in order to promote more compact development adjacent to certain transportation nodes along Newton Road/NH Route 108.	2023	Planning Board
P-3	Investigate techniques and strategies to ensure that the Town promotes affordable housing in new residential developments. These could include but not be limited to: housing size and design, smaller lot sizes, the concept of using zero lots lines, build to lines, or maximum setbacks rather than minimum setbacks, flexibility for accessory dwelling units, incentive zoning that might include density bonuses, and modification of infrastructure requirements for subdivisions which are practical and appropriate and do not sacrifice public safety.	2022	Planning Board
P - 4	A sizable percentage of respondents (42.9%) to the 2014 Master Plan Community Survey indicated that Plaistow residents would like to see more opportunities for over 62 housing. Investigate ways to encourage new housing units that accommodate elderly housing needs.	2024	Planning Board
p - 5	Workforce housing affordability statistics should be reviewed on odd-numbered years to ensure compliance with statutory requirements. The present average rental rate is very close to the maximum allowable rent, which further justifies the yearly review.	On-going	Planning Board
P - 6	Encourage the construction of single-family homes and multi-family dwellings which are energy efficient in their design and use construction materials that are energy efficient in their design.	2025	Planning Board and Building Inspector

Community Facilities

CF - 1	Establish a capital reserve fund for the purpose of providing a steady source of funding for building and grounds maintenance	2020	CIP Committee, BOS, Budget Committee
CF - 2	Perform periodic inspections of all buildings and note problems that need to be addressed.	On-going	Building Maintenance Supervisor
CF - 3	Perform energy audits of all buildings where appropriate and note structures and systems that are not energy efficient.	2020	Energy Committee, CIP Committee, BOS, Budget Committee
CF - 4	Perform periodic inspections of the cemetery and note problems that need to be addressed.	On-going	Cemetery Sexton, Town Manager
CF - 5	Perform annual inspections of all police department vehicles and replace those that can no longer perform their assigned duties safely or with excessive maintenance costs.	On-going	Police Chief, Town Manager
CF - 6	Perform annual inspections of all fire department vehicles and replace those that can no longer perform their assigned duties safely or with excessive maintenance costs.	On-going	Fire Chief, Town Manager
CF - 7	Maintain fire department vehicle rotation schedule and the associated capital reserve fund and impact fee fund balances.	On-going	CIP Committee, Fire Chief
CF - 8	Make an annual deposit into the fire department vehicle capital reserve fund and monitor the fund balance to ensure there is sufficient funding to maintain the vehicle rotation schedule.	On-going	CIP Committee, Fire Chief, BOS, Budget Committee
CF - 9	Perform annual inspections of all highway department vehicles and replace those that can no longer perform their assigned duties safely or with excessive maintenance costs.	On-going	Highway Supervisor, Town Manager
CF - 10	Maintain highway department vehicle rotation schedule and the associated capital reserve fund and impact fee fund balances.	On-going	CIP Committee, Highway Supervisor
CF - 11	Make an annual deposit into the fire department vehicle capital reserve fund and monitor the fund balance to ensure there is sufficient funding to maintain the vehicle rotation schedule.	On-going	CIP Committee, Highway Supervisor, BOS, Budget Committee
CF - 12	Automate cemetery records and verify the automated records match the physical cemetery plots.	On-going	Cemetery Sexton
CF - 13	Continue pursuing the construction of the landfill solar array.	2022	Energy Committee, BOS
CF - 14	Continue pursuing the practicality of replacing as many vehicles as is practical with electric vehicles or other types of alternative energy vehicles.	2023	Energy Committee, BOS
CF - 15	Develop a plan to expand the potable water system	2021	Water Commissioners, BOS, Water Consultants
CF - 16	Update Master Plan with potable water system updates	2021	Planning Board, Water Consultants
CF - 17	Adopt zoning, subdivision, site plan regulations to account for a potable water system	2020	Planning Board
CF - 18	Adopt a new road profile that accounts for a potable water line, underground utility lines, and gas lines.	2020	Planning Board, Water Consultants

Transportation

T - 1	Develop strategies for improving bicycle and pedestrian connectivity by evaluating the location and condition of existing sidewalks, paths and trails in to determine ownership, future improvements and connections.	2020	Planning Board, Recreation Commission
T - 2	Apply for Transportation Alternative Program (TAP) funds, through the NH Department of Transportation, for the construction of additional sidewalks and multi-use paths along state routes.	On-going	Planning Board, Board of Selectment
T - 3	Complete a Wayfinding Study to evaluate the quality and effectiveness of the existing signage and wayfinding systems. Provide visible and high-quality signage with accurate information in a consistent format to direct travelers to the routes and destinations the community has identified. Commit to an ongoing program of signage repair and replacement.	2022	Planning Board with help from Regional Planning Commission
T - 4	When adopting changes to Plaistow's land use regulations, consider promoting mixed-use development so that daily activities are integrated rather than separated. Activities that are separated require vehicle trips between zones, reducing the ability to walk/bike between destinations.	On-going	Planning Board
T - 5	Consider adopting a town-wide Complete Streets Policy to ensure all roadways are designed to accommodate all modes of transportation to the highest extent possible.	2021	Planning Board & Board of Selectment with help from Regional Planning Commission
T - 6	Consider adopting a Green Streets Policy to ensure that the design and construction of transportation infrastructure minimizes the impact on water quality and sensitive environmental area.	2021	Planning Board & Board of Selectment with help from Regional Planning Commission

T - 7	On an annual basis, establish capital projects that should be included in the town's Capital Improvement Program. Such projects would include: roadway maintenance and improvement that are consistent with the Master Plan and alternative transportation mode projects including facilities for pedestrians, bicycles, and transit. The Capital Improvement Plan should identify a methodology for prioritizing projects which emphasizes the importance of maintaining the existing roadway system as well as intersection upgrades.	On-going	Board of Selectment, Budget Committee, CIP Committee
T - 8	Work with the NHDOT on Context Sensitive Solutions for roadway improvements in Plaistow.	On-going	Board of Selectment, Highway Safety Committee,
T - 9	Better educate the public on how they can access public transportation, and all of the economic, social, and environmental benefits of public transportation.	2021	Planning Board, Cable Committee, Elder Affairs Committee
T - 10	Work with local employers to encourage Transportation Demand Management (TDM) programs for employment centers and new paving solutions.	On-going	Planning Board, PACE, Merrimack Valley Chamber of Commerce

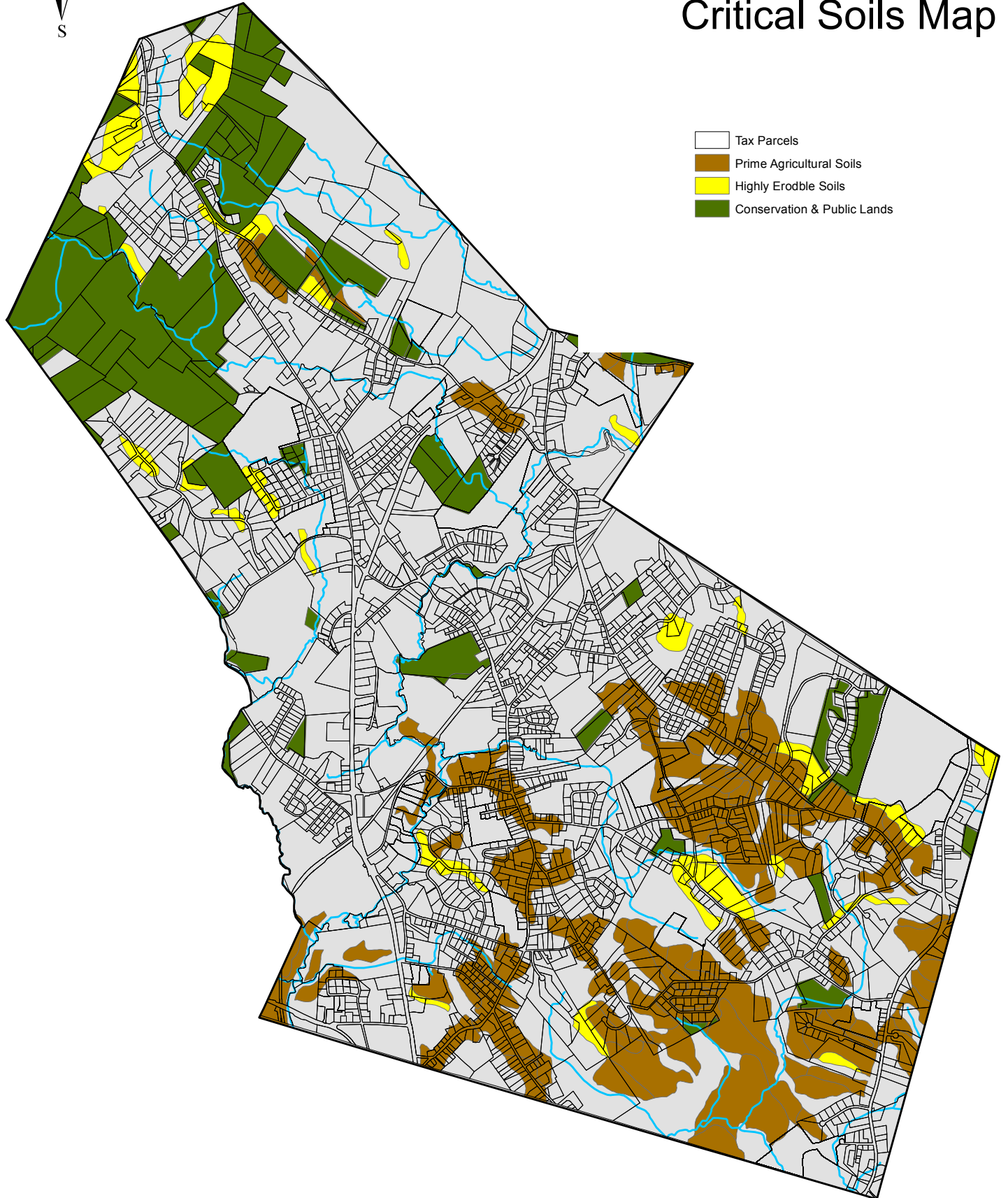
LAND USE

Future Land Use

FLU - 1	Revise the District Standards in the Zoning Ordinance. The planning board should complete a regulatory audit of the existing zoning once the master plan has been adopted. This should include a review of the existing district standards to identify changes needed to reinforce the future land use plan.	2022	Planning Board
FLU - 2	Encourage or require the use of the Planned Residential Development provision in the Rural Conservation and the Recreation Residential Areas identified in the Future Land Use Plan.	2022	Planning Board
FLU - 3	Complete a corridor study along Route 125 to re-imagine the land use and transportation pattern of this district. This will provide an opportunity to create a more efficient and sustainable development pattern that will serve the needs of Plaistow residents long into the future.	2021	Planning Board and Planning Consultant
FLU - 4	Complete a corridor study of Route 108 to identify and refine traffic calming and access management related improvements. This effort should be interactive and informed by input from property owners.	2023	Planning Board and Planning Consultant
FLU - 5	Manage the Quality of New Non-Residential Development. New commercial and industrial development should be guided to identified areas of town. In addition, the quality of new development should be managed through design standards articulated in the Site Plan Review Regulations.	2023	Planning Board
FLU - 6	Establish Site Plan review standards designed to improve the visual and ecological quality of commercial development, including integrated landscaping, low impact development, and screening requirements to address noise, stormwater, and aesthetics.	2021	Planning Board
FLU - 7	Strategic conservation and green infrastructure standards. Used in combination, these efforts will work to preserve Plaistow's character while also ensuring that natural areas can help the community meet its stormwater management goals, provide open space for recreation, and ensure a high quality of life for all residents.	2021	Planning Board
FLU - 8	Pursue the protection of the remaining Recreation and Open space Opportunity identified on the Future Land Use Plan. This could be addressed through zoning, but collaborating with willing land owners and conservation partners to conserve this land may be the most effective approach.	2024	Planning Board, Recreation Commission, and Conservation Commission
FLU-9	Research alternatives to sewage treatment along the Route 125 corridor so that the Town can coordinate a new development pattern along this corridor.	On-going	Board of Selectmen, Planning Board



Town of Plaistow Critical Soils Map



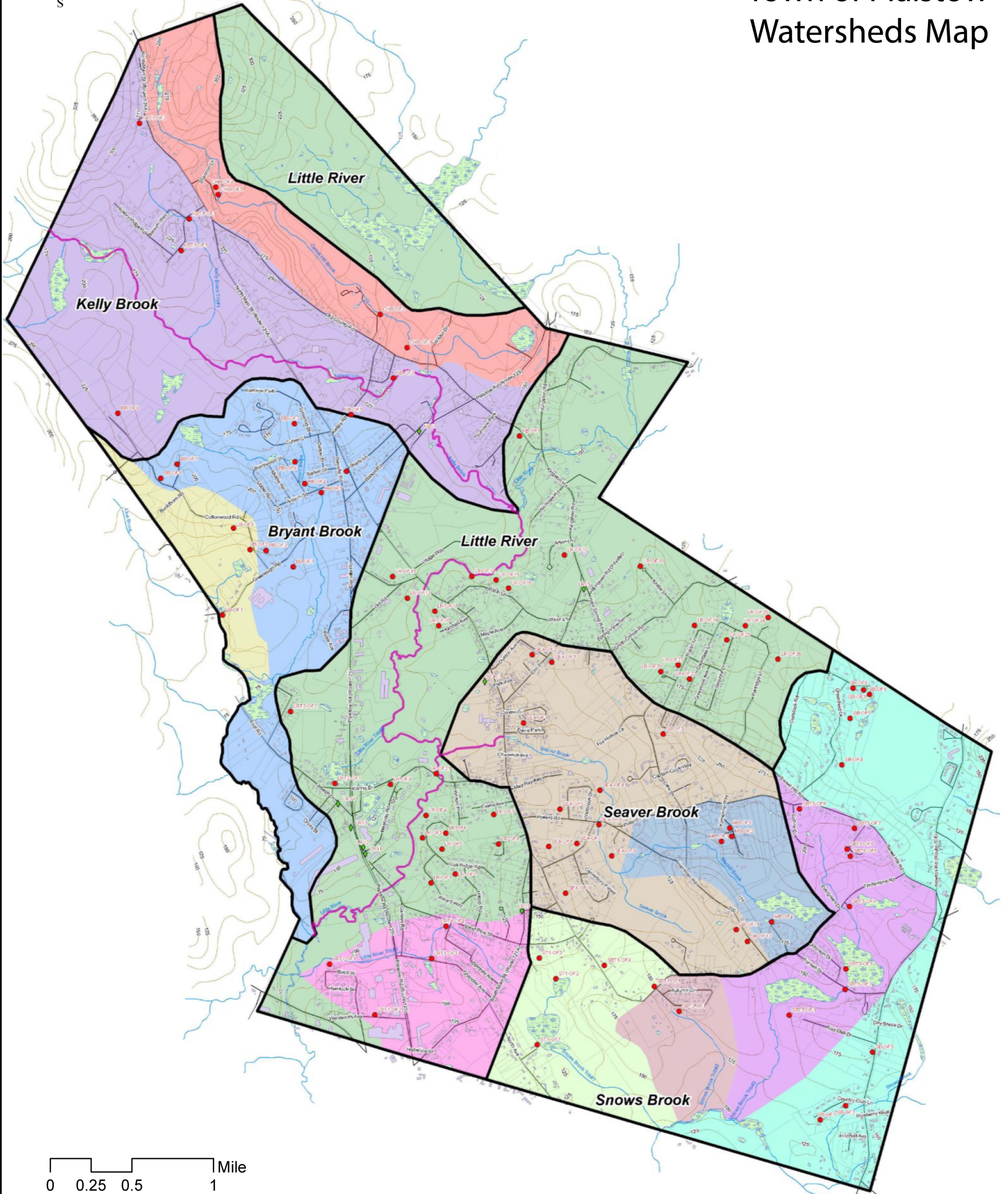
- Tax Parcels
- Prime Agricultural Soils
- Highly Eroddle Soils
- Conservation & Public Lands

0 0.25 0.5 1 Mile

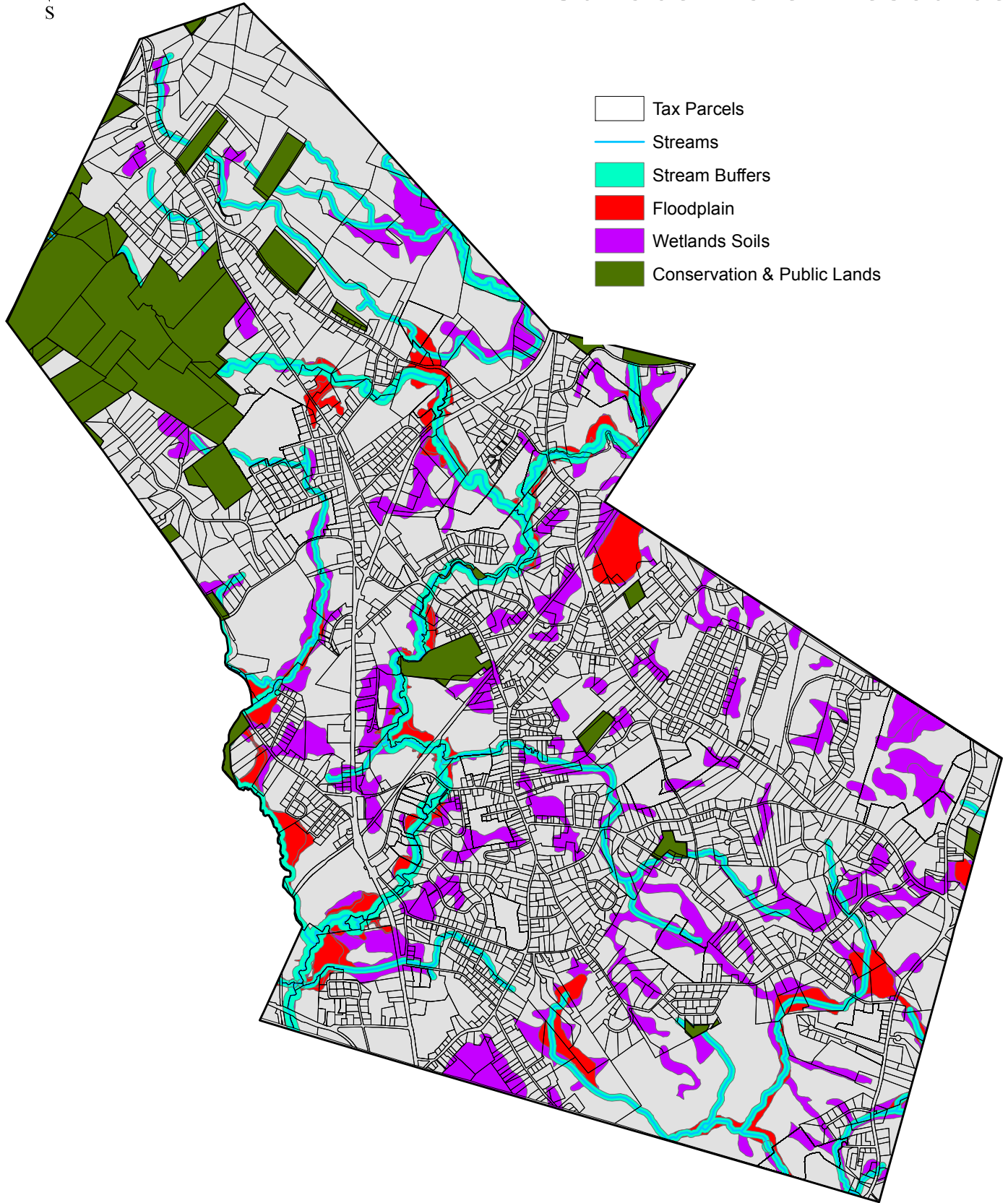
October 28, 2019



Town of Plaistow Watersheds Map



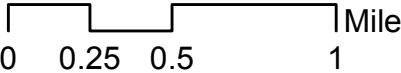
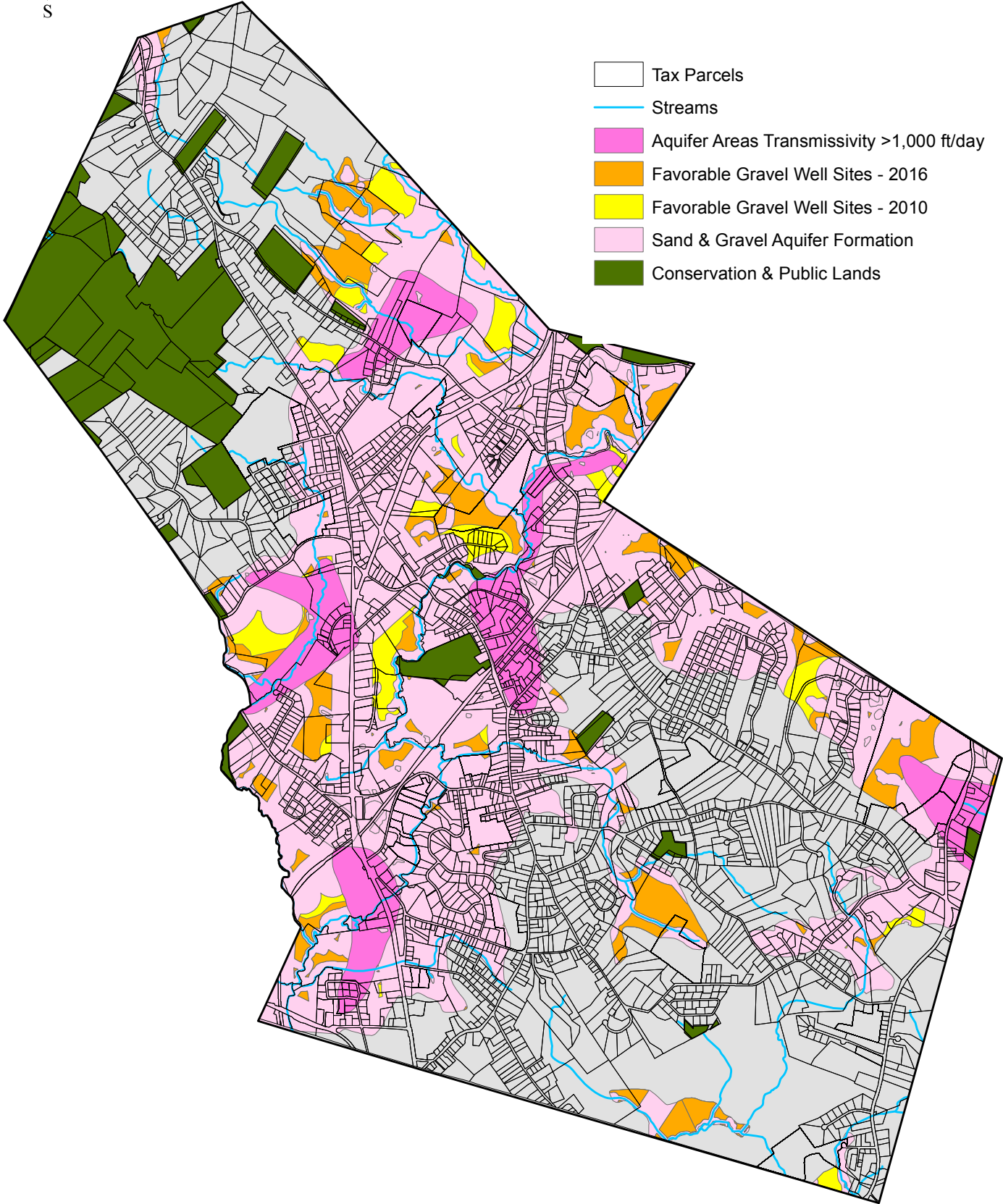
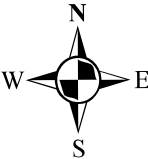
Town of Plaistow Surface Water Resources



-  Tax Parcels
-  Streams
-  Stream Buffers
-  Floodplain
-  Wetlands Soils
-  Conservation & Public Lands

0 0.25 0.5 1 Mile

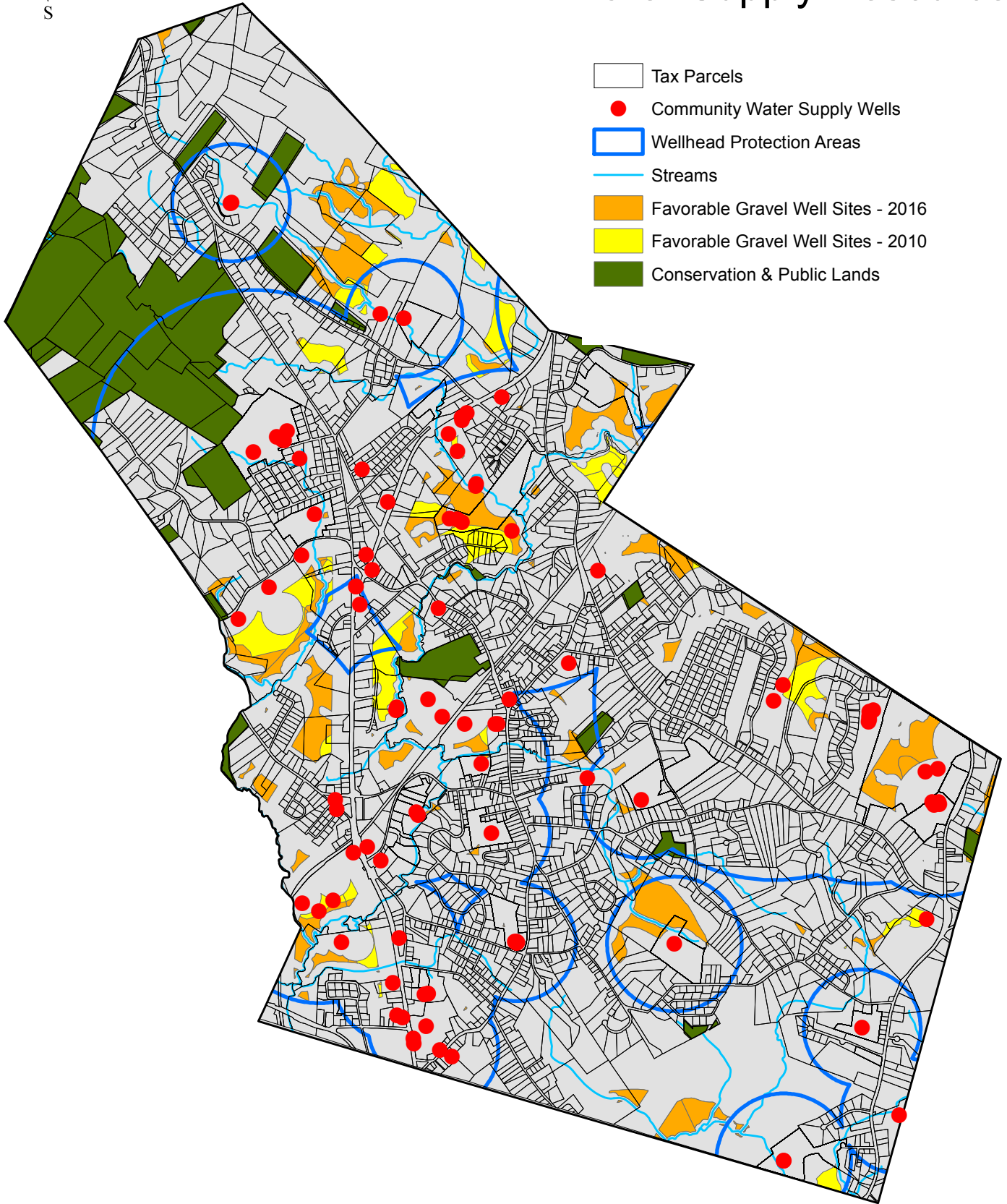
Town of Plaistow Groundwater Resources



Town of Plaistow Water Supply Resources



- Tax Parcels
- Community Water Supply Wells
- Wellhead Protection Areas
- Streams
- Favorable Gravel Well Sites - 2016
- Favorable Gravel Well Sites - 2010
- Conservation & Public Lands



0 0.25 0.5 1 Mile

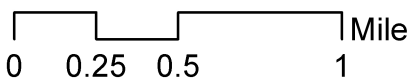
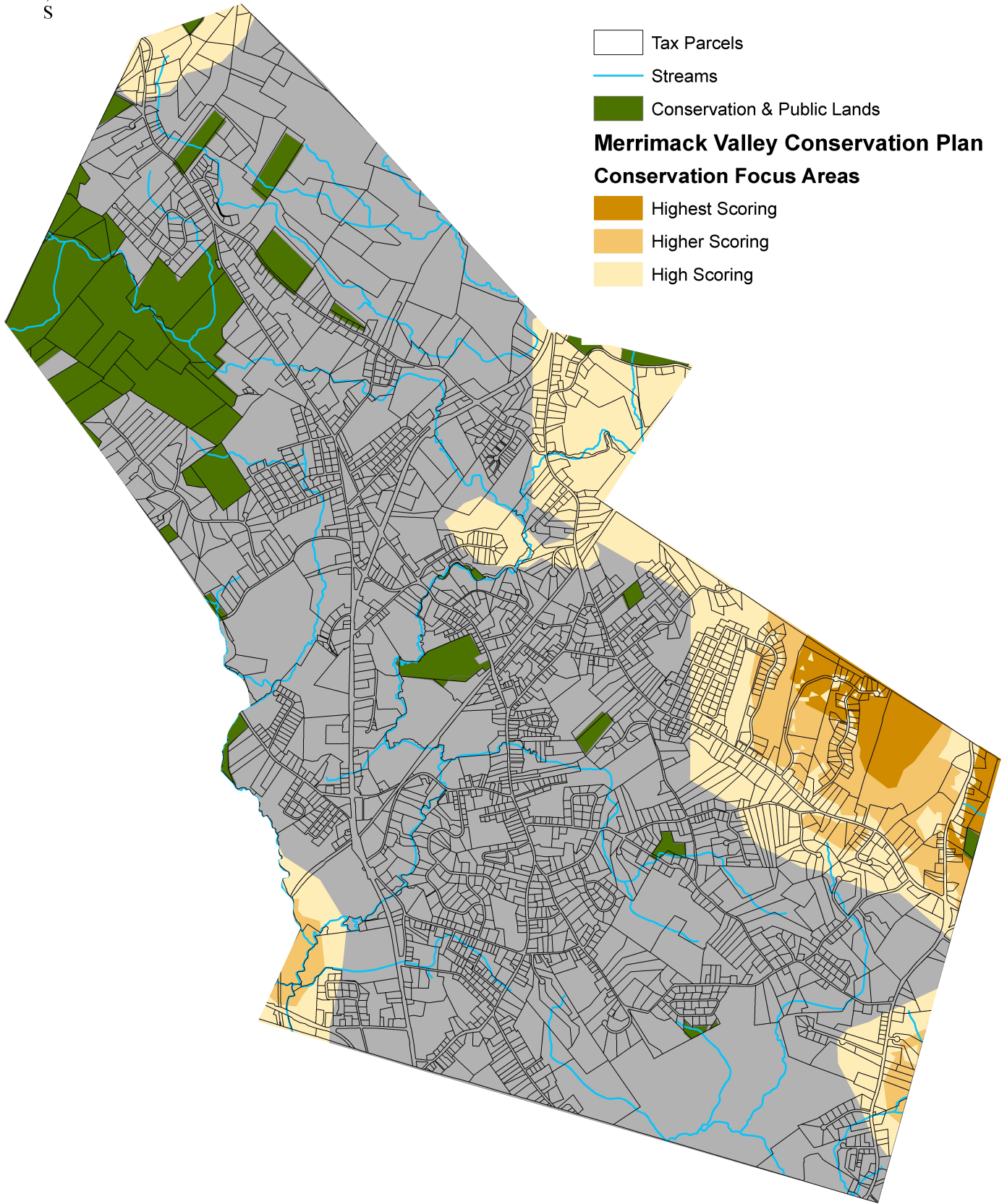


Town of Plaistow Regional Conservation Focus Areas

- Tax Parcels
- Streams
- Conservation & Public Lands

Merrimack Valley Conservation Plan Conservation Focus Areas

- Highest Scoring
- Higher Scoring
- High Scoring





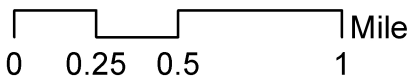
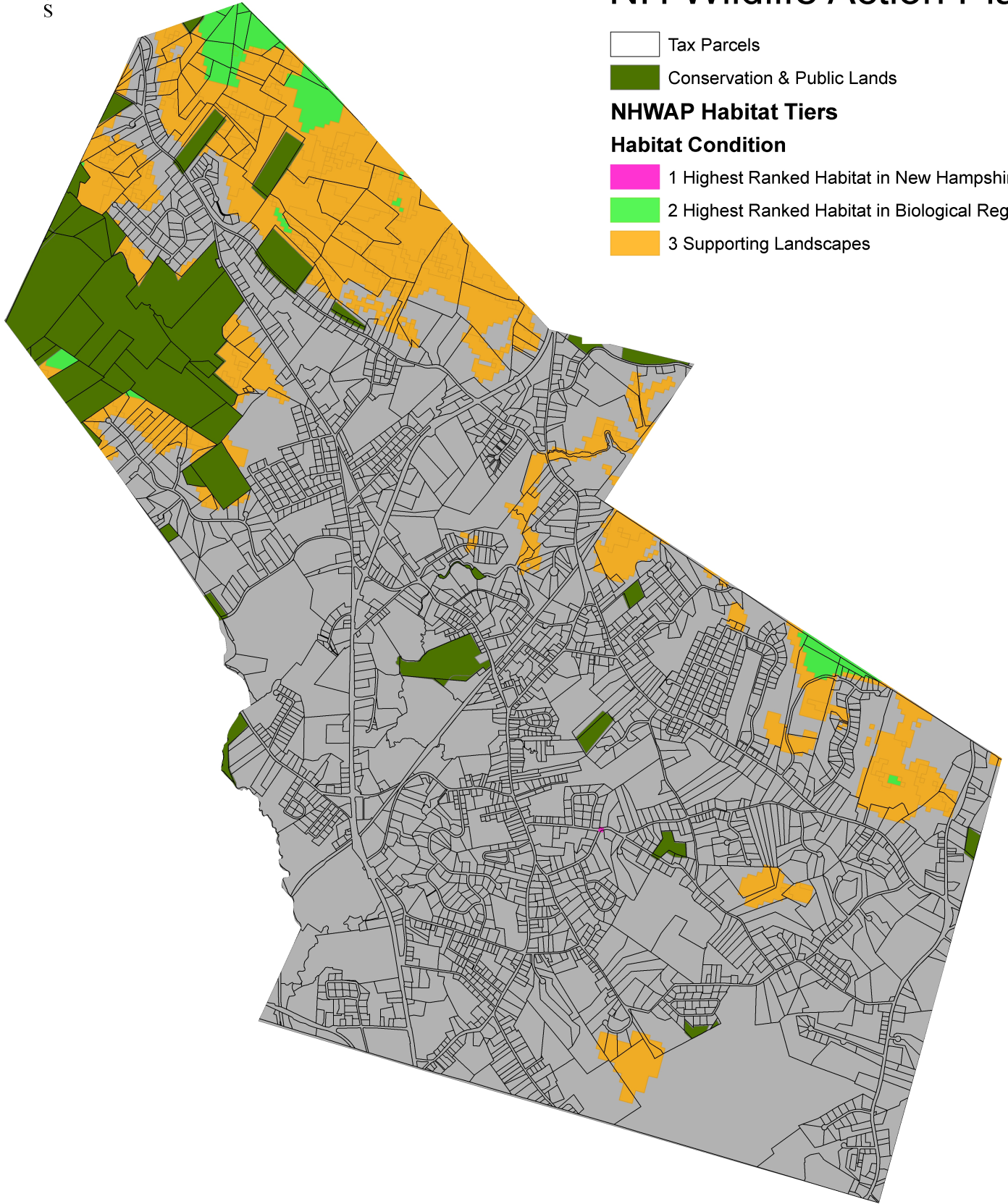
Town of Plaistow NH Wildlife Action Plan

- Tax Parcels
- Conservation & Public Lands

NHWAP Habitat Tiers

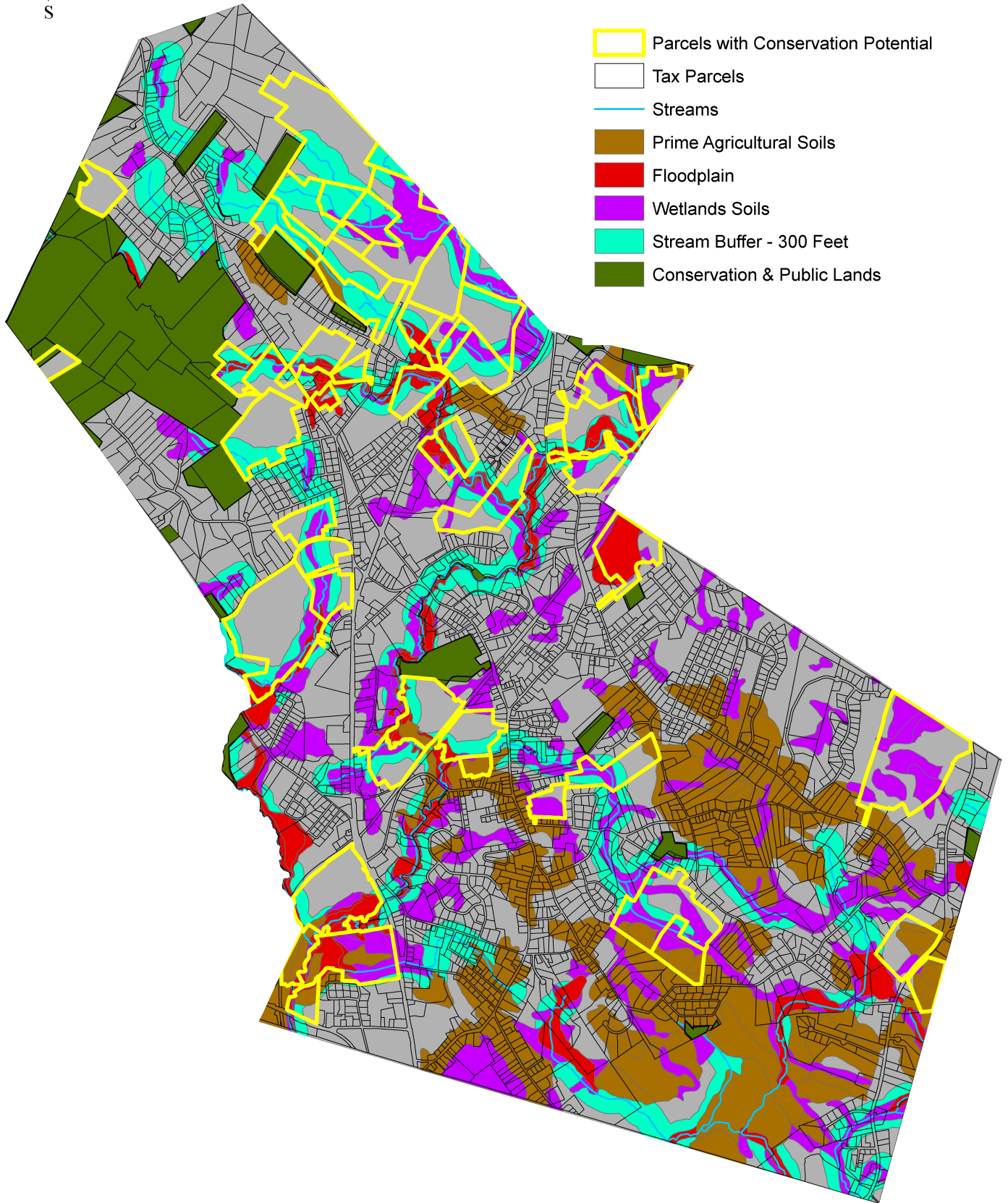
Habitat Condition

- 1 Highest Ranked Habitat in New Hampshire
- 2 Highest Ranked Habitat in Biological Region
- 3 Supporting Landscapes

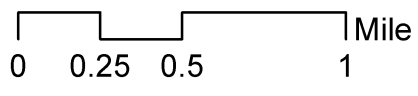




Town of Plaistow Potential Conservation Land

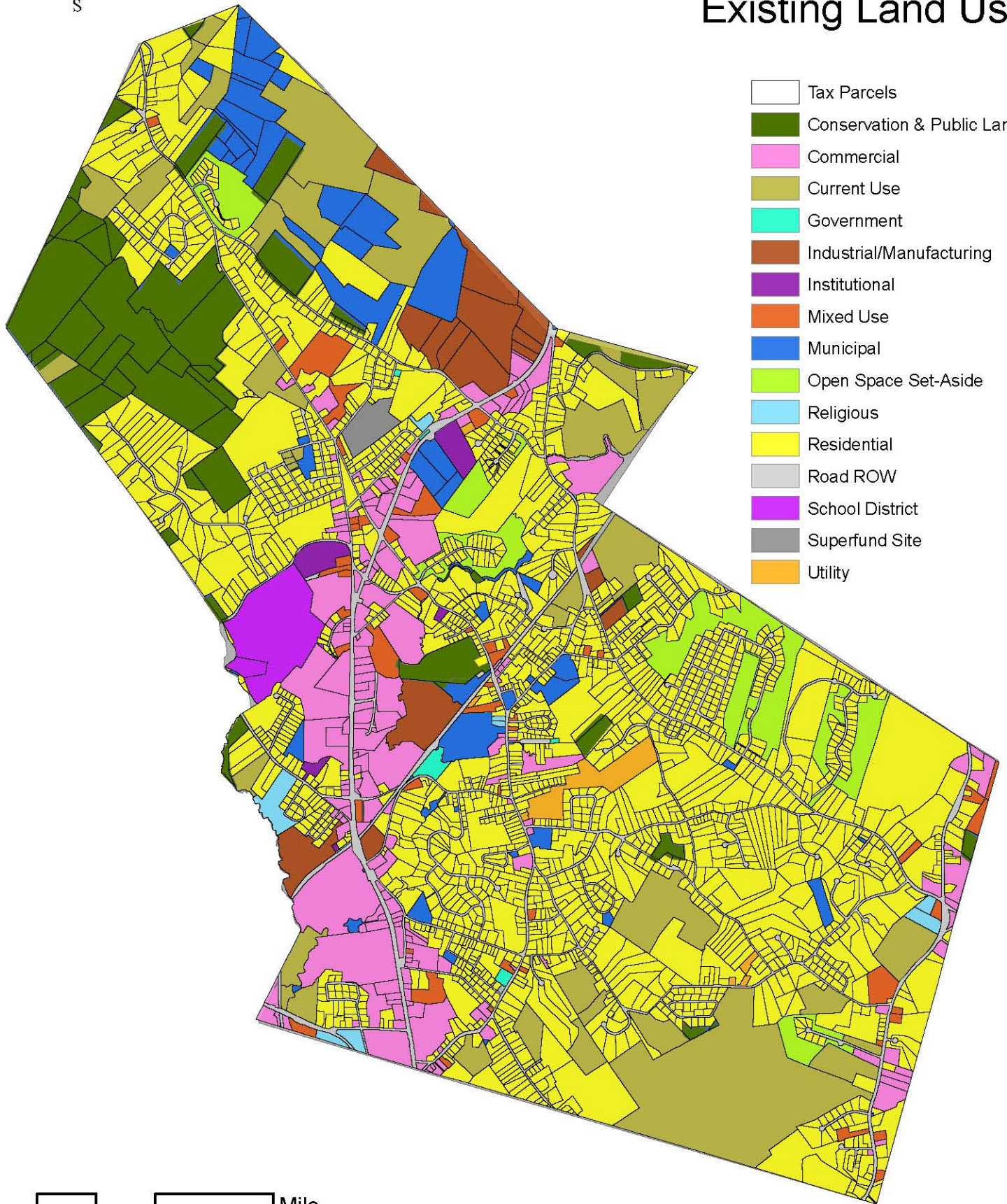
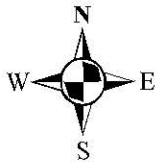


- Parcels with Conservation Potential
- Tax Parcels
- Streams
- Prime Agricultural Soils
- Floodplain
- Wetlands Soils
- Stream Buffer - 300 Feet
- Conservation & Public Lands

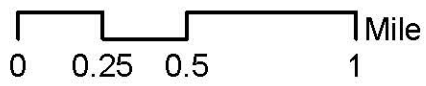


Revised

Town of Plaistow Existing Land Use



-  Tax Parcels
-  Conservation & Public Lands
-  Commercial
-  Current Use
-  Government
-  Industrial/Manufacturing
-  Institutional
-  Mixed Use
-  Municipal
-  Open Space Set-Aside
-  Religious
-  Residential
-  Road ROW
-  School District
-  Superfund Site
-  Utility



March 5, 2019

2020 Future Land Use Map Town of Plaistow



- 1: Rural Conservation
- 2: Industrial
- 3: Mixed Use Commercial
- 4: Village Center
- 5: Open Space Residential
- 6: Integrated Commercial and Residential
- 7: Recreational Residential
- 8: Recreation and Open Space Opportunity
- 9: Traditional Residential Development

- Municipal Boundaries
- Tax Parcels
- Roads & Highways
- Conservation & Public Lands

