6. NATURAL RESOURCES

With a variety of forestry, farm, and soil types, numerous plants and wildlife species, and significant rivers, brooks, wetlands, and other water resources, Chichester is rich in natural resources. Chichester has remained a rural community throughout its history, with active agriculture and forestry being important aspects of the Town's economy and character for a long time. As a rural suburb of Concord, it is traversed by the US 4/NH 9/US 202 and NH 28 travel corridors and is continuously threatened by increasing sprawl pressure.

Chichester lies in the highlands to the east of the Merrimack River valley. The Town is framed by the Soucook River to the southwest and by the Suncook River to the northeast. The Suncook River valley cradles a stratified drift aquifer, a potentially valuable source of groundwater for the Town. Wetlands connected by many stream corridors knit together an extensive complex of wildlife habitat.

The protection, preservation, and enhancement of the natural environment are important to the residents of Chichester. Appreciation for the Town's rural character and small-town feel, filled with recreational opportunities and scenic beauty, was a common theme through the input gathered as demonstrated throughout the entirety of this Master Plan.

The Conservation Commission recently went through the process of updating the Town's Natural Resource Inventory (NRI). In 2020, the Conservation Commission updated most of the NRI maps and added new maps related to wildland habitat from the NH Fish and Game Department Wildlife Actin Plan. The previous NRI was completed in 2003 and identifies large tracts of unfragmented lands, wildlife habitats, water resources, scenic resources, protected open space, Town-owned land and historic and cultural features. Although not all inclusive, the 2003 NRI and the recent update comprise the most comprehensive inventory and study of Chichester available related to the Town's natural resources. Information from the NRI has been incorporated into this Chapter along with the input gathered through public outreach, current challenges and opportunities, and a series of objectives and recommendations that can help both decision makers and the public support more informed land use decisions.

For a more detailed analysis of Chichester's natural resources, please reference the most up-to-date NRI document available through the Town's Conservation Commission.

VISION STATEMENT

Chichester continues to support environmental stewardship of its natural resources that so greatly contributes to residents' high quality of life. Town staff, elected officials, and volunteers continue to work towards preserving open space, agriculture, forestry wildlife, outdoor recreation, and clean water for the years to come.

COMMUNITY SURVEY RESULTS

Input gathered through the Community Survey and the Community Visioning Session demonstrate how closely Chichester's natural resources are linked to resident's high quality of life and the rural character that Chichester embodies.

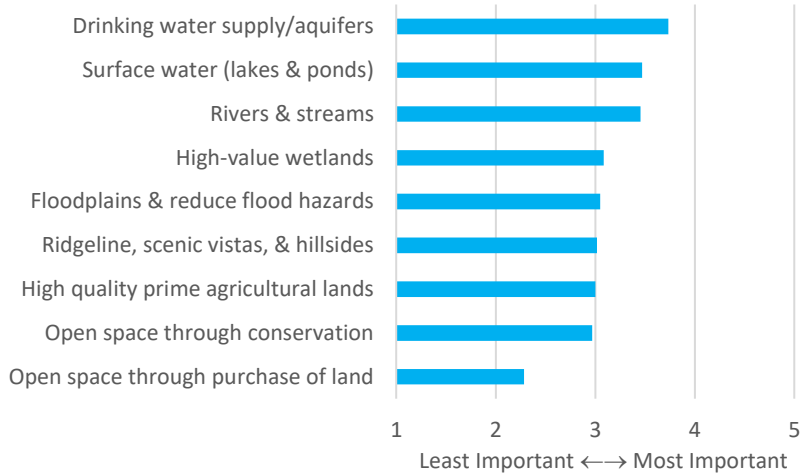
Respondents of the Community Survey were given the opportunity to prioritize the conservation protection goals that they feel the Town should pursue, as shown in Community Survey Question #36. Protection of drinking water supply/aquifers, surface waters, rivers & streams, and wetlands were the most highly rated. In the Community Visioning Session, support was received for a water protection ordinance, recognizing the importance of the aquifer, wetlands, and water resources in Town.

Residents support the protection of lands throughout Town, including remote woodlots and visible open space along Town roads. As shown in Community Survey Question #35, 76% were in support of protecting some combination of these land types.

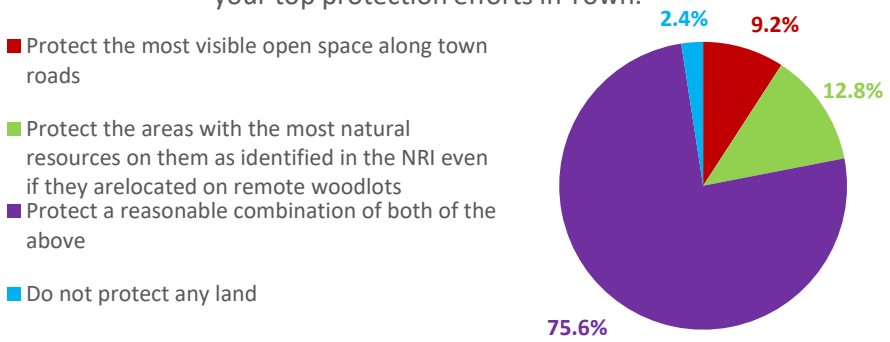
Recreational resources were also highly valued, with 82.2% of respondents supporting a trail system for recreational use. Overwhelming responses indicated the preferred method to develop the trail system would be through landowner permission, as acquiring easements or purchasing land would increase the tax rate. Lynxfield Pond was also highly valued for its trail system, wildlife, and year-round use.

Additionally, support for agritourism was given throughout the Community Visioning Session and the Community Survey. Within the survey, 82.9% of respondents support the accommodation of agritourism throughout Town. As Chichester has a rich history of agricultural uses, many felt that agritourism would be an appropriate extension of this land use without compromising the rural character of the Town.

Community Survey Question #36: Please rate the following conservation protection goals to the level of importance that the town should give.



Community Survey Question #35: Chichester's NRI provides detailed information on natural resources. Please choose your top protection efforts in Town.



LAND & WATER RESOURCES

Chichester lies between the Suncook and Soucook Rivers, which has shaped its unique landscape and natural resources. The Town's Natural Resource Inventory (NRI) contains detailed information on the water resources, topography, agriculture, wildlife habitat, scenic resources, soils and development constraints located within Town. Data from the NRI document was incorporated into the following section, though the NRI should be referenced for detailed information or specific data.

GEOLOGY AND GROUNDWATER RESOURCES

Understanding geology is important to land use as it helps identify sources of groundwater, site development suitability and location of natural hazards. Chichester lies in the highlands to the east of the Merrimack River valley. Underlying bedrock is primarily granitic, with soils varying from steep, stony soils in the hills, swampy bottomland, and deep loams in the river valleys. The Suncook River valley cradles deep, glacially deposited soils and a stratified drift aquifer, a potentially valuable source of groundwater for the Town. These resources can be seen on Figure 6.1 Geologic Resources.

This aquifer under the Suncook River is Chichester's only stratified drift aquifer, and in turn is one of the Town's most significant water resources. The aquifer is small, approximately 71.1 acres in size, with extant areas of potentially favorable for gravel wells totaling approximately 3.4 acres in size. These areas are not yet subject to groundwater threats, yet in the future, continued development along the NH 28 corridor and within the immediate watershed would encroach upon this critical resource. This potential public water supply area is currently unprotected.

Chichester's water is supplied through private water supply systems (commonly referred to as wells) directly to households, businesses, and Town buildings. Given Chichester's dispersed development patterns and absence of centrally located aquifers, it is unlikely public water supplies will be developed to serve residential properties in the near future. The Town's dependence on wells reinforces the importance of good homeowner and municipal practices to protect groundwater, particularly those relating to water and waste management and transportation corridors, including road salt use and storage.

What is a stratified drift aquifer?

Stratified drift aquifers are layered glacial and alluvial deposits of sand and gravel. Typically, they have very high water storage capacity and transmission rates and therefore contain areas suitable for the development of large municipal or commercial water supplies.

RIVERS, BROOKS, AND PONDS

Chichester is fortunate to have an extensive interconnected system of surface water resources. The health and function of these water resources needs to be maintained to ensure high quality water and a well-maintained ecosystem. The connection between rivers, vernal pools and wetlands to the quality of downstream waters also needs to be acknowledged and evaluated when looking at ecosystems.

Marsh Pond, also known as Great Meadow Pond, is located between US 4 and Main Street and abuts the Madeline Sanborn Conservation area. With increasing development along US 4, there is increasing risk of contaminants from runoff. Marsh Pond was monitored in 2004, 2005, and then again in 2019 through the

NHDES's Volunteer Lake Assessment Program. It is anticipated that monitoring will continue on Marsh Pond as well as additional monitoring on other water bodies in Town.

Other surface waters in Chichester include Lynxfield Pond, Deer Meadow Pond, Marsh Pond, Sanders Brook, Giddis Brook, Burnham Brook, Marden Brook, and Perry Brook.

WETLANDS

Wetlands are areas where water is present at or near the soil surface for at least part of the growing season and influence the plants that can grow there, as well as the soil characteristics. Wetlands provide multiple essential environmental functions, including flood control, water storage, groundwater recharge, erosion and sediment control, pollution filtration and wildlife habitat. Chichester has approximately 888 acres of wetlands, which covers approximately 6.5% percent of Chichester's total land area. The most common wetland type in Chichester is palustrine, as shown on Figure 6.2 Topography Wetland.

A wetland study was completed for Chichester in 2008. This study found that with the exception of a few specific wetlands, the majority of wetlands are considered high value wetlands and should be protected the greatest extent possible. Chichester is fortunate in that its high value wetlands are relatively remote, with the upland landscape immediately surrounding them still mostly undeveloped. Additionally, wetlands in Chichester are seemingly much less common than in other communities, which makes their protection even more important. As a result, the Chichester Zoning Ordinance protects wetlands for the purpose of flood water storage and control, wildlife habitat, maintenance of water quality and groundwater recharge. Buffers are required in varying distances based upon wetland type and acreage. Figure 6.3 Water Resources could be a useful tool for field surveys and wetlands planning and evaluation. Prime wetlands designations, combined with additional wetland protection regulations will afford greater wetlands conservation in Chichester.

FOREST LANDS AND SOILS

Forests serve a number of functions in both the community and the surrounding region, including protecting water supplies and surface waters, serving as a habitat for wildlife, providing outdoor recreational opportunities, and contributing to the rural character of Chichester. Figure 6.4 Forestry Soils shows the relative productivity of soils for forestry and can help landowners, local officials, and resource professionals with management decisions.

Forest soils are organized into categories that identify important forest soil groups, using characteristics such as depth to bedrock, texture, saturated hydraulic conductivity, available water capacity, drainage class, and slope. These groupings can help in evaluating the relative productivity of soils and how soil and site interactions can influence management or land use decisions. There are definitions for each soil grouping with Group 1 soils having the highest potential for commercial forest products, suitability for native tree growth, and overall forest use and management. In Chichester, the predominant forest soil type is Group 1A and Group 1B, with smaller areas of Group IC.

AGRICULTURAL LANDS AND SOILS

The overall health of soil in reference to the physical, mineral and biological conditions and its potential to sustain biological functioning, absorb water and promote plant and animal nutrition and health are critically important. Healthy, resilient soils are better able to retain function during and recovering from stress or disturbance, such as too much or too little rain.

Healthy soil can be achieved through a combination of sound water management and a biodiversity of functional vegetation. Productive soils for farming and forestry are often prime development sites, that when built upon, become unavailable for those important natural resource uses.

Highly rated soils for agriculture are ranked in three classes: prime farmland soils, soils of statewide importance, and soils of local importance. Prime agricultural soils occupy 3.1% of Chichester, of which only about 44% of these lands are in agricultural use. The locations of these soils are displayed on Figure 6.5 Prime Agricultural Soils.

What about Agritourism?

Agritourism has become an integral part of many farm operations and visits by agriculture-related tourists has continued to grow statewide. NH RSA 21:34-a.5 defines "agritourism" as a "means attracting visitors to a farm to attend events or activities that are accessory uses to the primary farm operation, including, but not limited to, being provided a meal, making overnight stays, enjoyment of the farm environment, education which shall be instruction or learning about the farm's operations, or active involvement in the activities of the farm." Permitting agritourism as part of the Town's land use regulations can provide the opportunity to encourage and preserve agricultural land uses in Chichester. Additional information on Agritourism can be found in the Existing and Future Land Use Chapter of this Master Plan.

Wildlife

Protecting habitat for wildlife is important for a healthy environment and ecosystem. The challenge of conserving habitats to support healthy, native wildlife is complicated by the varying habitat requirements of individual species. Some species require less than an acre while others need areas comprised of hundreds of acres; some even require different habitat types throughout the year. Generally, the more habitat diversity within the Town, the more likely it will support a healthy and diverse wildlife population.

The 2015 New Hampshire Fish and Game Wildlife Action Plan and its updated 2020 Habitat Maps offer a large-scale view of likely habitats, species, and habitat ranking in Chichester. It is important to note that Chichester has valuable wildlife habitat around the Suncook River, Perry Brook, and wetlands in the upper half of the community. Habitat types can be seen on Figure 6.6 Habitat Types.

Scenic Views

A common theme throughout this Master Plan is the desire to preserve the rural character of Chichester. While rural character is defined differently by everyone, protection of scenic resources is key to maintaining the Town's idyllic nature for the years to come.

Figure 6.7 Scenic Views (created in 2003) shows the location of 46 different viewpoints that offer picturesque landscapes in Chichester. These were compiled as part of the Town's NRI development by the Chichester Conservation Commission. The Suncook River valley has a relatively high number of scenic views, mostly due to its low-lying topography and farm fields. The area surrounding Horse Corner Road and Towle Road is one popular scenic area. Additionally, Bear Hill Road, Pleasant Street, and Canterbury Road among others also have scenic resources.

Open Space Lands and Current Use

Just like scenic views, protecting open space is important to maintaining the rural character of Chichester. Open space conservation is beneficial to the community and to the region as it

preserves the land while maintaining natural features and habitat. Beyond conservation strategies such as easements and acquisition, the voluntary current use program for landowners is a tool for reducing the amount of property tax paid on open space over 10 acres within their property limits. This incentive retains the land in its traditional use. The current use value is the assessed valuation per acre of open space land based upon the income-producing capability of the land in its current use – not its real estate market value. This valuation shall be determined by the municipality's assessor in accordance with the range of current use values established by the state's Current Use Board (CUB) annually, and in consideration of the class, type, grade, and location of land. Property owners can file for reduced property taxes through this program.

When land is removed from current use, 10% of the full and true value of land, not the Current Use assessed value, must be paid to the community as a Current Use Land Change Tax. The Current Use classification is temporary and can be placed on, or removed from land at the landowner's discretion, which is why these lands vary from conservation lands. In Chichester, 75% of the proceeds from the Land Use Change Tax are dedicated to open space through the Conservation Commission.

What do we mean by Open Space?

Open space land means any or all farm land, forest land, or unproductive land that is not developed for use. This can include open fields, wooded areas, wetlands, farms, and undisturbed areas for wildlife.

As of 2019, Chichester private property owners had enrolled about 8,057 acres, approximately 59.4% of all land in Town, into current use. The table below shows the amount of land in current use and the amount of land use change tax collected over the past five years.

Table 6.1: Historic Current Use in Chichester

Year	Acres of Land in Current Use	Land Use Change Tax Collected	Land Use Change Tax to Town Conservation Fund
2019	8,057.49	$45,000*	N/A
2018	7,984.86	$39,970	$26.978
2017	8,000.61	$18,126	$13,595
2016	8,004.37	$20,499	$14,918
2015	8,008.13	$5,930	$4,448

*Source: NH Department of Revenue Administration *Estimated by NHDRA*

CONSERVATION LANDS

Within Chichester there are a total of 20 conservation parcels, 10 of which are privately owned and 10 that are owned by the Town. These 20 conservation parcels total approximately 850.5 acres of land, of which 29% are Town-owned. These parcels are noted in Table 6.2.

Also noted in Table 6.2, several of the Town-owned properties have protection of conservation easements in place to permanently protect the properties as conservation land. Figure 6.8 Conservation and Public Lands illustrates these parcels, as well as many other Town-owned parcels not permanently protected with a conservation easement. Although many of these parcels were

Table 6.2: Conservation Lands in Chichester

Name	Acres	Protection
Private Lands		
Blackman G	28.2	Private Conservation Easement
Blackman G. & M.	22.1	Private Conservation Easement
Blackman G. & M.	48.6	Private Conservation Easement
Blackman G. & M.	18.7	Private Conservation Easement
Campers World/south half of lot	5.2	Conservation restriction
Drinon	149.3	Private Conservation Easement
Ferman Easement	6.9	Private Conservation Easement
Five Hill Estates Open Space	45.2	Private "Set Aside" Land
Giuda Easement	140	Private Conservation Easement
Humphrey Easement	141	Private Conservation Easement
Town-Owned Lands		
Carpenter Memorial Park	15.2	Carpenter Deed Covenant, LWCF restrictions
Carpenter Memorial Park Suncook River Access	1.1	Carpenter Deed Covenant
Carpenter Memorial Park/Highway Dept.	26.2	Carpenter Deed Covenant
Chichester Central School (Frangione)	41.1	Deed Restrictions
Cray	8.5	Conservation (Town-Owned) LCIP
Plummer Property	5.06	Purchased with Conservation Fund
Sanborn	21.7	Conservation (Town-Owned) LCIP
Sanborn	8.16	Conservation (Town-Owned) LCIP
Shaw Pasture	7.1	Purchased with Conservation Fund
Spaulding Town Forest	111.2	Town Forest Designation (Conservation Easement held by 5 Rivers)

Source: Chichester 2020 Natural Resources Inventory

obtained for the purposes of conservation, there is no legal protection to keep them in that status. Chichester should work towards permanent protection of these properties through easements through assistance from local conservation non-profits such as the Five Rivers Conservation Trust.

As part of the Town's NRI, four conservation focus areas were identified for conservation planning. These areas include Perry Brook, Lynxfield Pond, Suncook Valley, and the Plausawa Highlands.

The Suncook Valley focus area is centered on the Suncook River Valley, Sander Brook Watershed and lands adjacent to Main Street. This is a diverse area with significant water resources as well as scenic and historic resources and potential for abundant recreation opportunities. The most valuable long-term resource here may be the high-producing aquifer, as well as the Chichester Central School wellhead protection area.

This Suncook Valley focus area also includes a large unfragmented land block shared with Epsom and Pittsfield. It includes several agricultural fields and soils of state-wide importance. Additionally, the Main Street corridor is located within this focus area and includes a number of existing Town-owned and conservation lands including Carpenter Memorial Park, the land behind Chichester Central School, the Shaw Fields, and the recently acquired Shaw Pasture and Madeline Sanborn Conservation Area. These lands, while not all connected, begin to establish a string of public lands in the center of Town that provide opportunities for recreation and to link multiple Town facilities.

The Perry Brook focus area is centered around the Perry Brook watershed and includes parts of the Sanborn Brook Watershed which is shared with Loudon and Pittsfield. This area includes large unfragmented lands, wetland complexes, and significant

undeveloped riparian areas with some of the highest ranked habitat in the state or region.

The corridor along Pleasant Street includes areas of scenic value, agricultural lands, historic resources, and grassland habitat/early successional lands. Protection of these features are consistent with the Town goal of maintaining Chichester's rural character.

The Lynxfield Pond focus area is centered on the unfragmented Lynxfield Pond, which is one of the few watershed in Town that feed the Soucook River. A large wetland complex is located around Lynxfield Pond and contains significant peatland habitat and is the only large area of peatlands in the Town. The pond is also one of the only locations for water recreation, such as boating and fishing.

Also located within this area is a large unfragmented block of land with high wildlife value and two scenic roads; Canterbury road to the south and Bear Hill Road to the north. These roads include grassland habitat as well as scenic views, historic resources and agriculture.

The Plausawa Highlands focus area lies in the hilly region in the south part of Town and harbors the majority of the Town's existing conservation acreage and significant potential exists for expanding conservation. This area is one of the largest unfragmented blocks in Chichester with some of the highest ranked habitat in the state and region.

This area also contains the Spaulding Town Forest which has a conservation easement held by the Five Rivers Conservation Trust and is the center of the Town's effort to provide recreational trails in the area. Additional privately held easements are located in this area and together with Town-owned easements help make up the largest block of protected land in Town.

CHALLENGES AND OPPORTUNITIES

STEWARDSHIP

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

Stewardship cannot exist without volunteerism. The opportunity in conservation-based volunteerism is that people can incorporate many beneficial conservation activities into their existing routines. If someone walks their dog or runs on the same trail every day, maybe they are interested in becoming a steward of that trail, meaning they volunteer to pick up trash as they walk, or keep a look out and report any illicit behavior. Maybe a parent leads their child's scout troop and see an opportunity to build a trail kiosk as part of a Eagle Scout project. These are seeming small changes to one's life that can make a big difference in the conservation goals of the community. Participating in small ways can nurture a larger interest and may inspire people to get involved in a larger capacity, for example sitting on a committee, organizing a community event, or getting involved in fundraising. In natural resource protection there

are many ways to become a volunteer that fit individual interest and lifestyles.

Funding

Funding plays a significant role in natural resource preservation. Land acquisition, property clean up, stormwater infrastructure, trail engineering, and invasive species removal all come with associated costs. Conservation projects usually require a unique funding strategy combining Town resources, grant money, and private donations. Community awareness and volunteerism plays an integral role in garnering support and funding for projects that promote natural resource preservation. Grant opportunities are competitive but available, like the Land and Community Heritage Program (LCHIP), Transportation Alternative Program (TAP) and the NH Moose Plate grant. Many times, private donors have a personal interest in donating funds to conservation properties with special meaning. Environmental foundations may donate to projects fulfilling ecological goals. Knowing where to find funding and piecing together different funding sources is a challenge for natural resource projects, but with dedicated volunteers and community support, this approach is often successful.

Habitat Loss and Fragmentation

Habitat loss and fragmentation of open space are challenges that many communities face. Ideally, a contiguous network of open space across surrounding communities for the purposes of wildlife migration and ecological connectivity is a goal to strive towards. Practically, difficulties arise due to the variety of ways that open space parcels are acquired and the preferences of landowners.

Habitat loss occurs most frequently through sprawl, a dispersed and cumulative development pattern that can consume the landscape. Since Chichester and the region are home to many threatened species, it is especially important to preserve habitat where identified species are found. In Chichester, these unfragmented lands are important habitat to a variety of species ranging from large mammals like bear, moose, and bobcat to forest interior birds such as certain thrushes and warblers. It is important to create awareness about the threats to these species and strategize plans for habitat protection.

What are Riparian Zones?

Riparian zones, or buffers, are the vegetated uplands adjacent to surface waters and wetlands that help reduce the adverse effects of human activities on these resources. The primary functions of a buffer is to physically protect and separate sensitive areas like rivers and wetlands from future disturbance. RSA 482-A declares that protection and preservation of wetlands ecosystems and surface waters from unregulated alteration and despoliation are for the public good and welfare. Riparian areas and buffers provide valuable functions including:

- Absorbing and filtering runoff to protect water quality.
- Providing flood storage.
- Maintaining ecological integrity.
- Slowing runoff to prevent erosion.
- Providing habitat and migration routes for wetland species and upland species.
- Enriching landscape and scenic qualities.
- Sustaining recreational uses.
- Utilizing the fallen trees into rivers and streams to enhance habitat and support the floodplain.

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

Several large blocks larger than 1,000 acres fall within the Town's boundaries. The Perry Brook block is the largest, extending into the Town of Loudon. The Suncook River and Marden Brook blocks to the east are also large, extending into the Town of Epsom. These blocks have significant conservation potential as no protected conservation lands fall on them. These large blocks could serve as points through which neighboring Towns could collaborate on conservation projects. The Lynxfield Pond block is the largest block existing entirely within the Town; its location, wetland complexes and unprotected status warrants its consideration as a conservation project area as well.

The Suncook River floodplain area near the Town border with Epsom and Pittsfield features primarily wetland/floodplain habitat features and is part of a large unfragmented block extending into Epsom. A significant portion of this area is agricultural and open land, an increasing rate habitat type in New Hampshire.

Again, many travel corridors lead to and from this area in riparian zones and large areas of undeveloped land. Mutual wildlife habitat and water supply protection is a potential area for collaboration with the Town of Epsom. In addition to the municipalities, several land trusts who work in the region can collaborate with communities and landowners.

The area of Perry Brook is centered around the large wetland complex in the northwest section of Chichester and flows through the largest unfragmented block in Town. Wetland resources, undeveloped riparian zones, and open/early successional lands combine to form an area of high habitat value. In addition, scenic values make this area aesthetically valuable. Migratory paths such as ridge lines and stream corridors cross town lines, forming potential linkages between future conserved areas. Linking the Perry Brook unfragmented area to the Osborn Wildlife Management Area complex in Loudon and Pittsfield is a potential goal.

All unfragmented lands are shown on Figure 6.9 Unfragmented Lands.

INVASIVE SPECIES

Invasive species are an increasing concern in NH communities, particularly as a threat to native plants and wildlife due to their ability to reproduce rapidly under a variety of conditions. Some are less vulnerable to diseases than native species and their presence alters the way plants, animals, soil and water interact within native systems, thereby decreasing ecological diversity and native habitat.

Currently known in Chichester, there are invasive plant species present on many public and private lands, including Carpenter Park and Town-owned conservation lands. In the past, the Chichester Conservation Commission has worked to control the growth of phragmites in along the edge of Marsh Pond in the Madeline Sanborn Conservation Area. This grass-like plant has the potential to push out indigenous species from the area, significantly impacting the ecosystem and habitat of native plants and animals that inhabit the area. Even with the efforts of the conservation commission, there is still much that residents and users of the land can do to control the invasive species and prevent their spread to new areas.

Examples of Invasive Species in Chichester

Purple Loosetrife

Common Reed (Pragmites)

Japanese Barberry

Japanese Knotweed

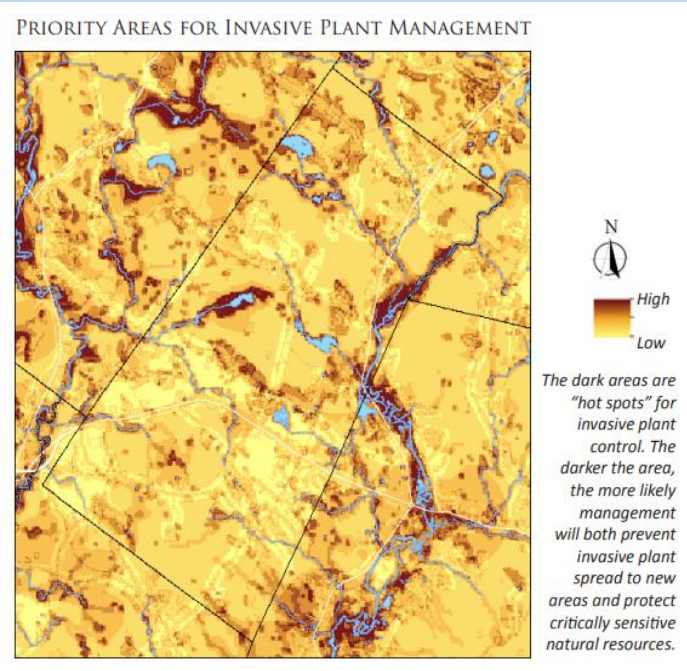
Autumn Olive

Multiflora Rose

Photo source: Mass Audubon

"Picking our Battles"

"Picking Our Battles" was a statewide project lead by NH Fish and Game to develop a customized invasive plant control strategy for each community within New Hampshire, including a map showing priority areas where invasive plant removal will have the most immediate impact and most effectively protect the communities' natural resources in the long-term. This also includes a customized "early detection" list of plant species that is the most easily manageable before becoming fully established. For Chichester, these species included blunt-leaved privet, dame's rocket, and garlic mustard. Priority areas mapped are mostly located around water bodies, including the Suncook and Soucook Rivers.



Source: https://www.wildlife.state.nh.us/invasives/documents/Chichester.pdf

WATER QUALITY & STORMWATER MANAGEMENT

Water quality and stormwater management go hand in hand. Nearly everyone has seen the effects of stormwater at one time or another: streets and basements flood, erosion threatens properties, and drinking water sources become compromised. However, there are other implications of stormwater not so easily seen. For example, without properly maintained stormwater infrastructure, oils and sediments can enter groundwater subsurface water features, deteriorating the water quality and detriment of plants, wildlife and the people who enjoy them. Without proper stormwater management, the quantity and quality of the aquifer, the Town's drinking water supply, is also threatened.

Potential threats to groundwater quality include groundwater hazards such as known leaking storage tanks, facilities generating hazardous waste, aboveground and underground storage tanks, automobile salvage yards, and point/non-point pollution sources. For the most part, these types of existing features are located on or around the US 4/NH 9/US 202 corridors and to a lesser extent along NH 28 and the Town's other main roads.

Educating the community about water quality and managing stormwater should be a priority so residents learn why they should care about water quality. Stormwater management regulations and requiring best management practices for both commercial and residential development should be adopted and enforced. Identifying wetlands that contribute to water quality protection is another strategy.

PERMANENT LAND PROTECTION

One unique opportunity to Chichester is to permanently protect areas of Town that are currently undeveloped. Without permanent protection, these properties are susceptible to future development by the Town or others. There are several properties within Chichester that have the potential for permanent protection. Figure 6.8 Conservation and Public Lands indicates several Town-owned lands that are not protected. This includes 17 parcels totaling approximately 95 acres of land.

Another challenge is finding non-profit organizations to hold easements on Town property. There is such a demand for easement holding that many of these organizations are now overwhelmed with requests and lack the resources to take on all of the easements offered to them. Utilizing the Town's NRI document is one way to identify properties that need permanent protection. A land use attorney is another option that can help explore options to protect them in perpetuity (i.e. easements, conservation deed restrictions), and draft deed language that protects the parcels from development but that allows appropriate uses (i.e. trail maintenance, non-motorized use, etc.).

TRAIL MANAGEMENT

Trails create opportunities to access land and water for residents and visitors to enjoy natural, scenic and recreational areas. Trails can enhance residents' appreciation of natural resources and support for conservation initiatives. Access to recreational trails were identified as a priority to those who participated in the Master Plan Survey and Visioning Session.

In recent years there has been increasing awareness and attention on the potential for trails to impact wildlife. Resources such as the Trails for People and Wildlife have become available, and can be a great tool to evaluate and mitigate possible impacts. It may be appropriate for the Town to identify areas or properties that are more suitable for trail development, and areas or properties that may be better left trail free. In any case, new trail building or

changes in trail use should be evaluated for any potential impacts to wildlife or water quality.

Chichester's trail network can be seen on Figure 6.10 Established Trails.

OBJECTIVES OF THE CHAPTER AND RECOMMENDATIONS

OBJECTIVE 1:

Preserve the rural character of Chichester by protecting valuable open space, scenic vistas, and forest and agricultural lands.

→ Strengthen Town ordinances that protect important resources such as surface water, views, wildlife habitat, agricultural and forestry soils.

→ Support local and state ordinances, regulations, and legislation that are farm and forest friendly, including opportunities for agritourism.

→ Work with the Conservation Commission to identify and prioritize parcels of land that the Town feels should be permanently protected and develop a plan for the protection of these parcels. Actively seek out grant opportunities, donations and bequeathment to fund the acquisitions of, or easement on these parcels.

→ Prioritize the four conservation focus areas of Perry Brook, Lynxfield Pond, Suncook Valley and the Plausawa Highlands in future conservation efforts. Pursue strategies for the protection of large unfragmented blocks, travel corridors, vernal pools and other important wildlife habitat features. Work with abutting communities when appropriate for the protection of corridors that traverse Town boundary lines.

→ Work with abutting communities when appropriate for the protection of corridors that traverse Town boundary lines.

→ Use data from the Town's Natural Resources Inventory and other sources to further assess the natural resources of Chichester and to recommend potential preservation opportunities to the Planning Board and Board of Selectmen.

OBJECTIVE 2:

Protect valuable water resources, including rivers, lakes, ponds, streams, wetlands, vernal pools, floodplains, and groundwater.

→ Identify and monitor potential threats to the Town's surface waters and groundwater resources, including stormwater runoff and the storage of hazardous materials.

→ Review Town ordinances and regulations to adequately address the issues of stormwater management, erosion, and sediment control to preserve the quality of the Town's waterbodies to incorporate best management practices.

→ Review and evaluate wetland setbacks included in the Town's zoning ordinance to ensure that wetlands are being adequately protected.

→ Consider an aquifer protection ordinance to regulate the future development of land in the vicinity of the Soucook River to protect the existing high quality groundwater supply. Utilize the Town's high value wetlands study to provide additional protection to these areas and consider impacts to these areas from adjacent developments.

→ Continue to participate in NHDES's Volunteer Lake Assessment Program in Marsh Pond and other water bodies in Town.

OBJECTIVE 3:

Protect, maintain, and create recreation opportunities such as trails and public access.

→ Coordinate across Town boards and committees to develop a trails system linking Town facilities and community nodes along Main Street, including the Elementary School, Library, and Grange Hall. Include trail connections to recreation areas and open spaces, including Carpenter Park.

→ Improve access to the Spaulding Lot/Town Forest.

→ Establish trails along or around parts of Lynxfield Pond in tandem with land protection.

→ Evaluate new trails or trail enhancements on the Plausawa highlands network, near Marsh Pond, the Shaw Pasture, and other locations.

→ Establish access to existing bodies of water.

→ Evaluate potential impacts to wildlife of any new trail building or trail uses. The Trails for People and Wildlife materials developed by New Hampshire Fish and Game can be used as a resource.

→ Work with adjacent communities to create trail systems that span Town lines and connect communities.

OBJECTIVE 4:

Educate the public regarding Chichester's natural resources.

→ Conduct public outreach through participating in local community events and partnering with other Town groups as appropriate.

→ Encourage farmers and forest landowners to follow "Best Management Practices" in the management of their farm including soil management, fertilization, and livestock waste management.

→ Encourage residents to "buy local" to support local agriculture.

→ Educate Town staff, elected officials, volunteers, and residents about the importance of surface water pollution caused by residential, commercial, and agricultural practices. Promote alternative practices that reduce or prevent this type of pollution, including stormwater regulations and best management practices.

→ Continue efforts to prevent the spread of invasive species through education and monitoring.

→ Develop Town wide support and understanding for the long-term health of the aquifer.

Figure 6.1
Geologic Resources
Chichester Master Plan
2021

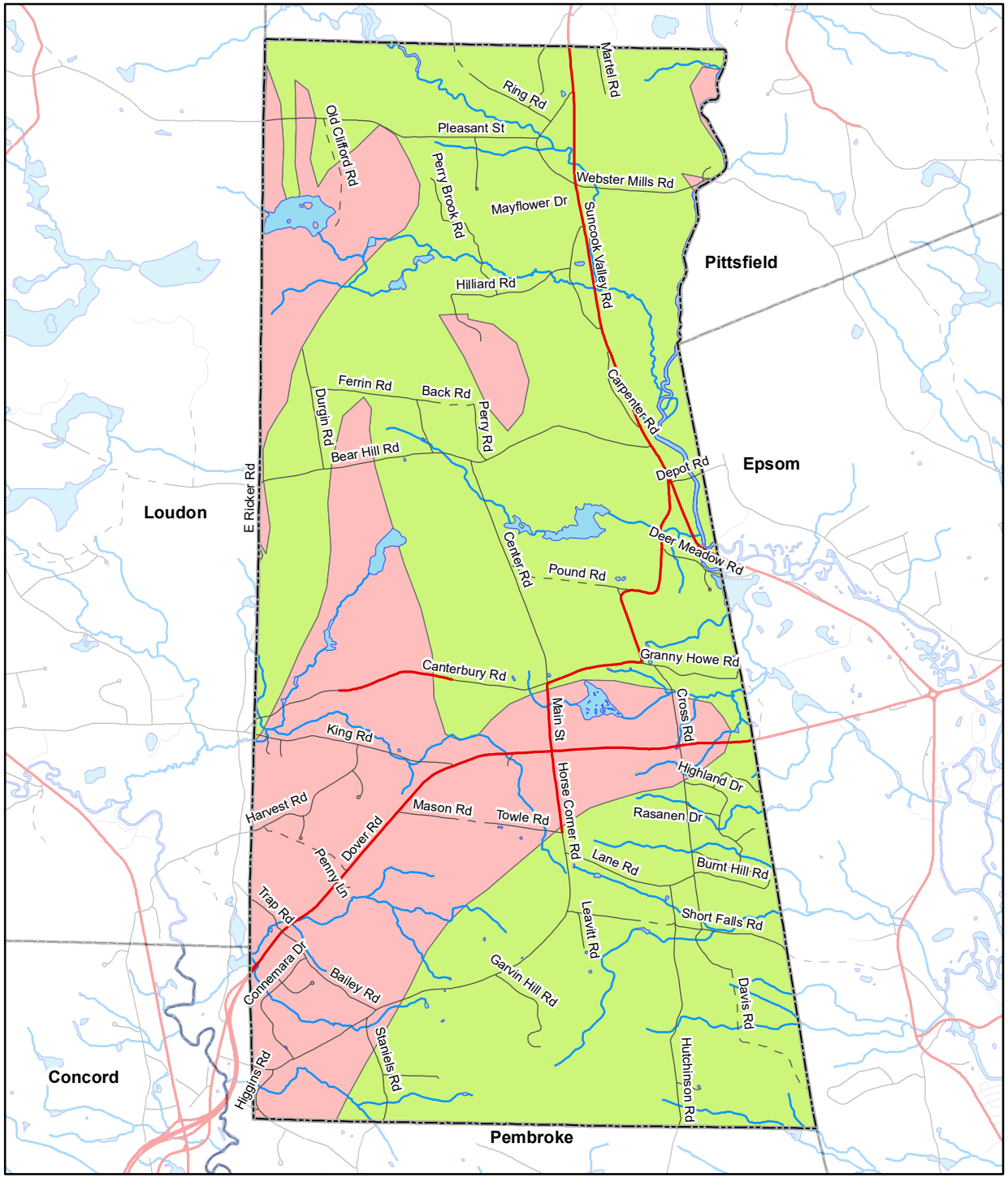


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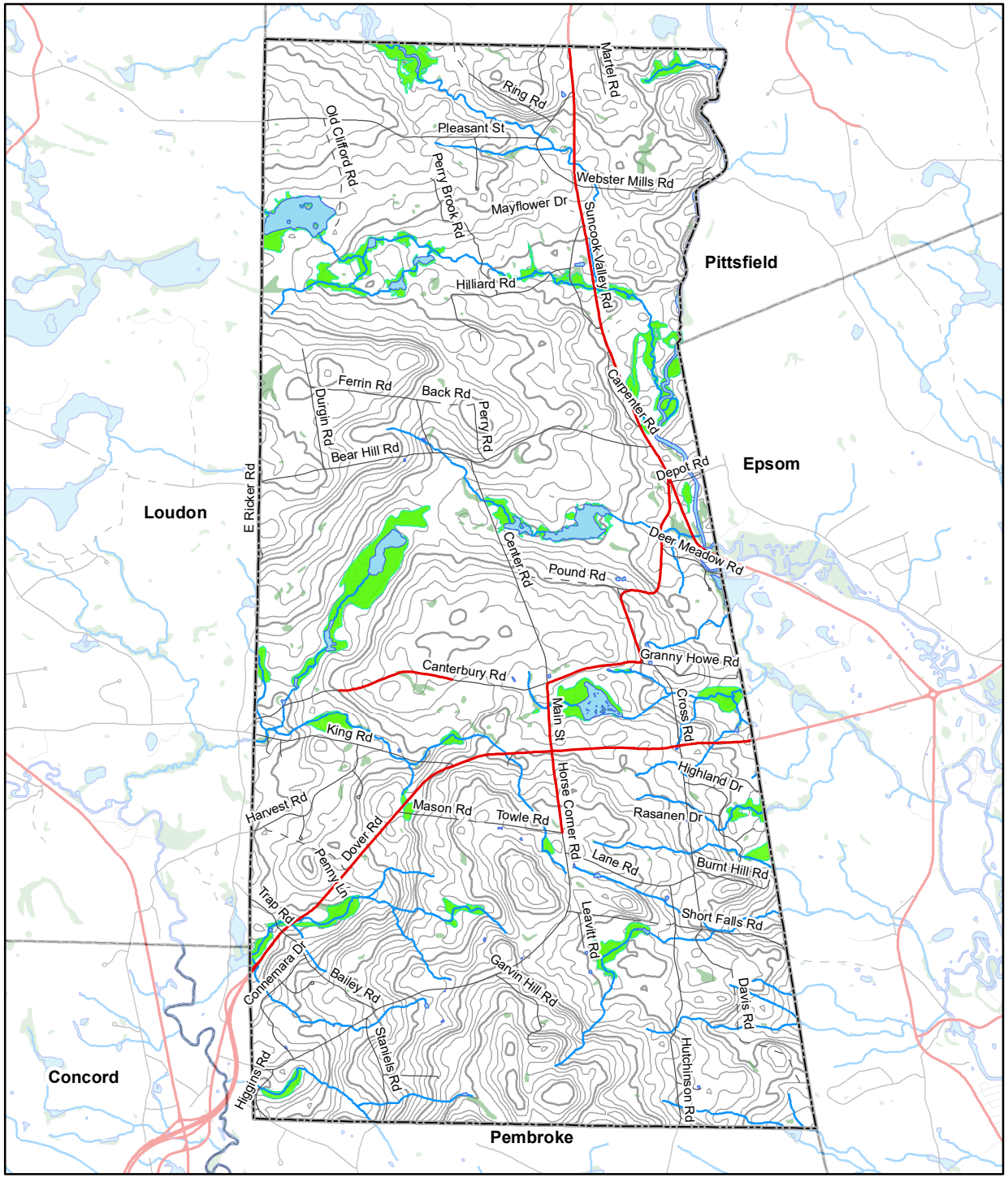
Figure 6.2
Topography Wetlands
Chichester Master Plan
2021



Legend

Topographic Contours

- 20'
- 100'
- Prime Wetlands
- Wetlands

Base Legend

- Town Boundary

Roads

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

Water Features

- Waterbodies
- Rivers and Streams

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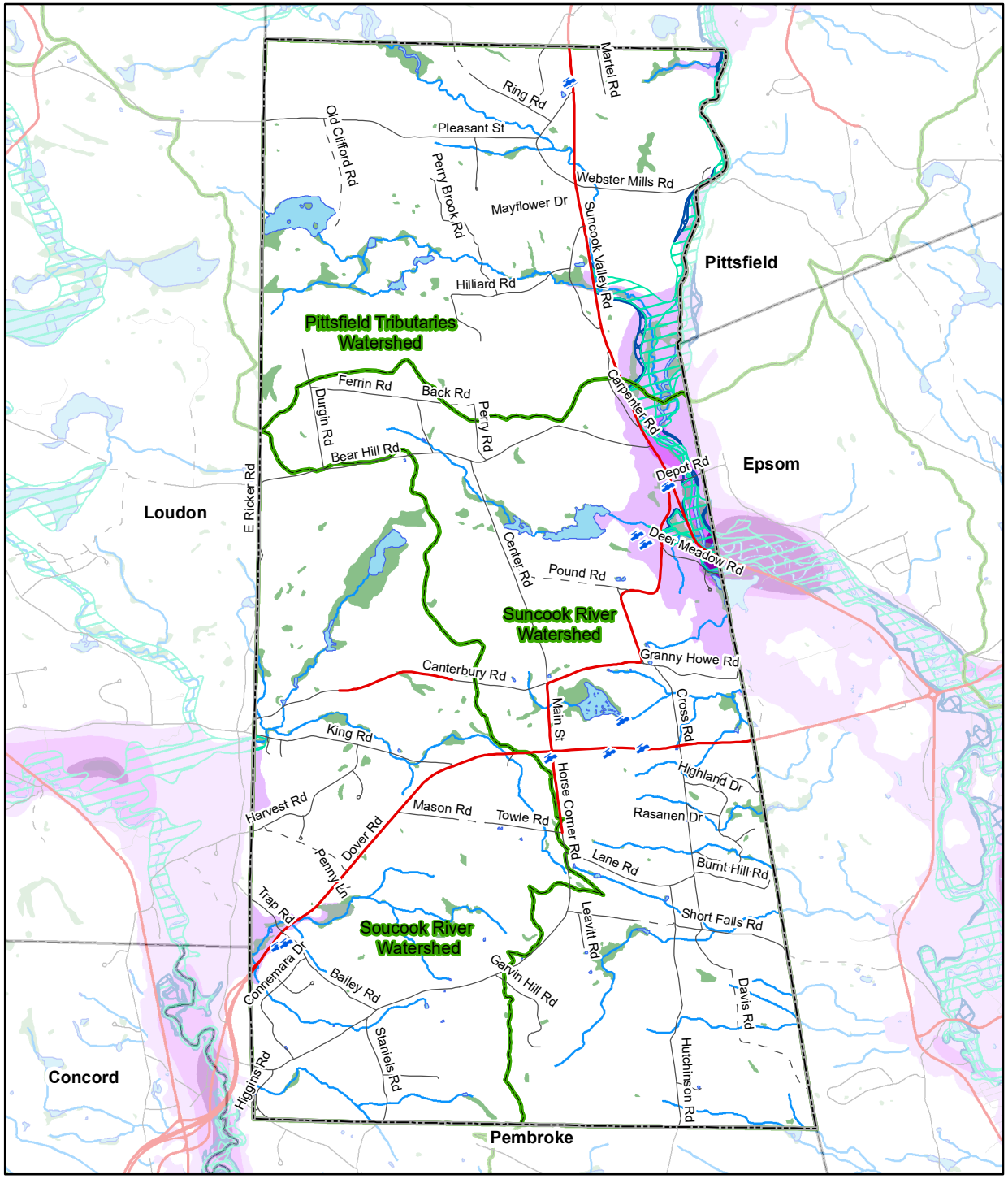
TOWN OF CHICHESTER NEW HAMPSHIRE INCORPORATED 1727

0 0.5 1 1.5 2 2.5 Miles

Figure 6.3
Water Resources
Chichester Master Plan
2021



Legend

- Public Water Supplies
- Watershed Boundary
- Wetlands

Floodplains

- 100-Year Floodplain
- 500-Year Floodplain

Aquifer Transmissivity

- 0 - 1,000 sq. ft./day
- 1,000 - 2,000 sq. ft./day
- 2,000 - 4,000 sq. ft./day
- >4,000 sq. ft./day

Base Legend

- Town Boundary

Roads

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

Water Features

- Waterbodies
- Rivers and Streams

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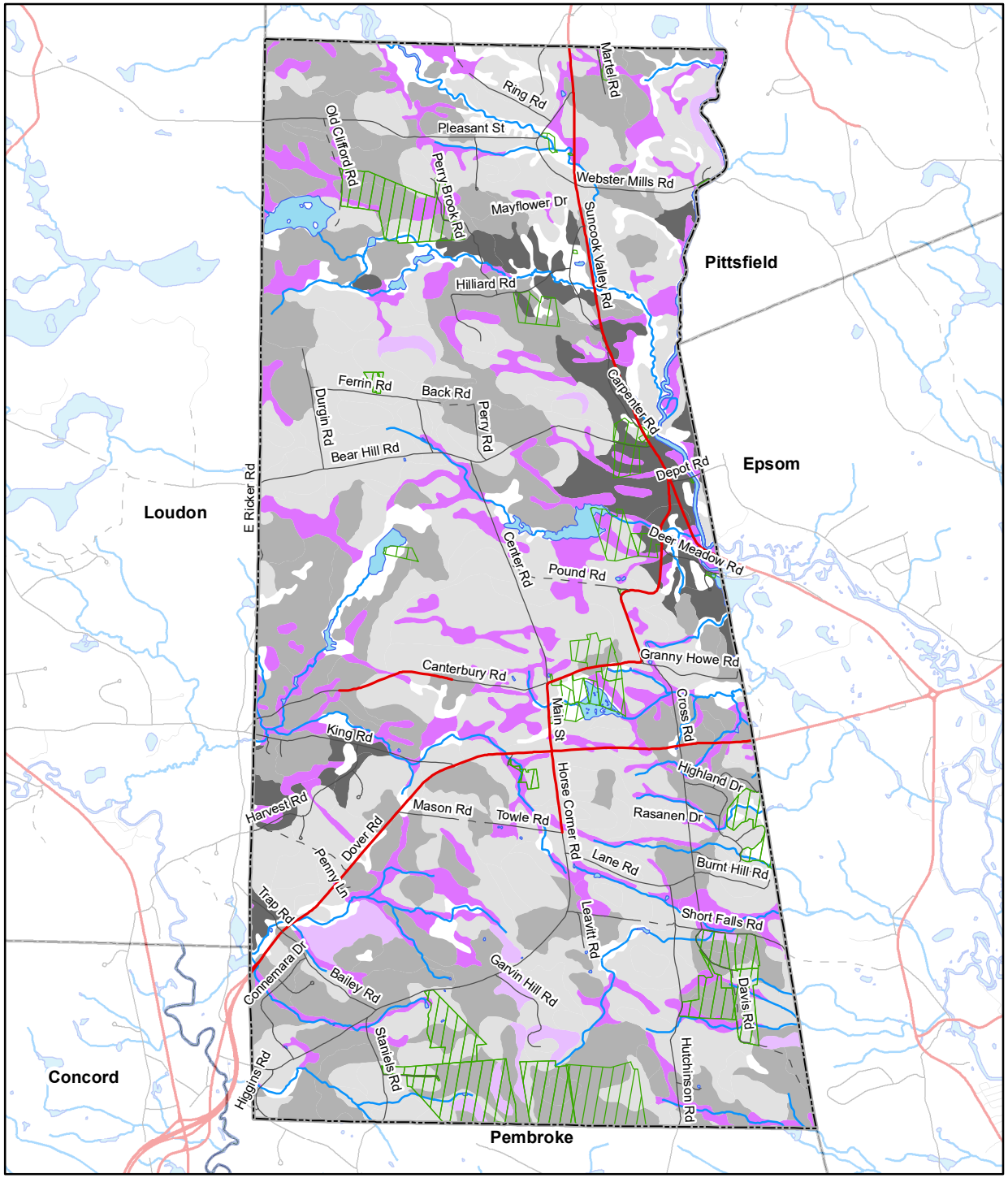
Figure 6.4
Forestry Soils
Chichester Master Plan
2021



Legend

Conservation Lands

Forestry Soils

- Group IA
- Group IB
- Group IC
- Group IIA
- Group IIB

Base Legend

Town Boundary

Roads

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

Water Features

- Waterbodies
- Rivers and Streams

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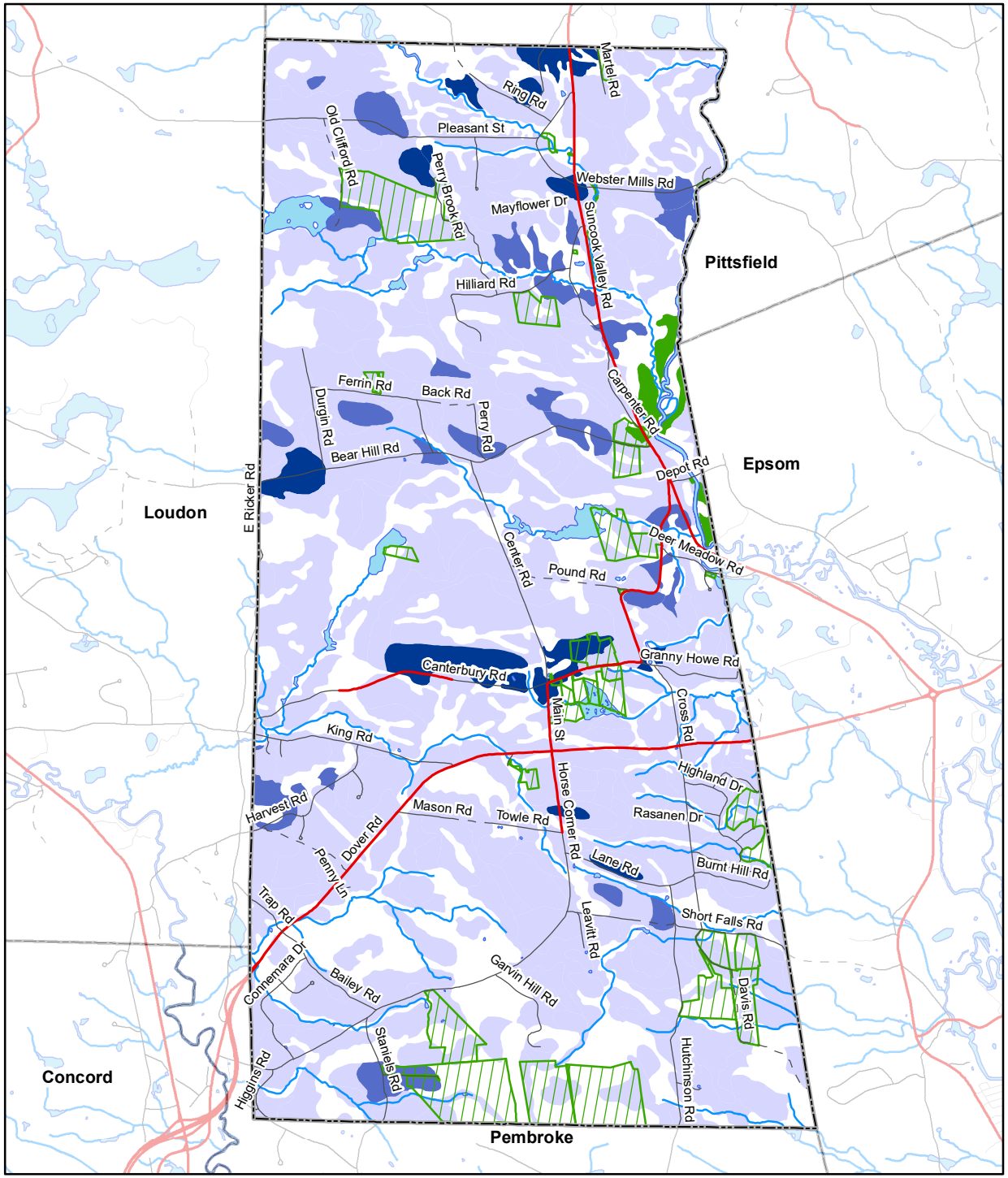
0 0.5 1 1.5 2 2.5 Miles

Figure 6.5
Prime Agricultural Soils
Chichester Master Plan
2021



Legend

Conservation Lands

Soils

All areas are prime farmland

Farmland of statewide importance

Farmland of local importance

Prime farmland if Protected from Flooding

Base Legend

Town Boundary

Roads

Class I/II State Highway

Class V Local Roads

Class VI Unmaintained Roads

Water Features

Waterbodies

Rivers and Streams

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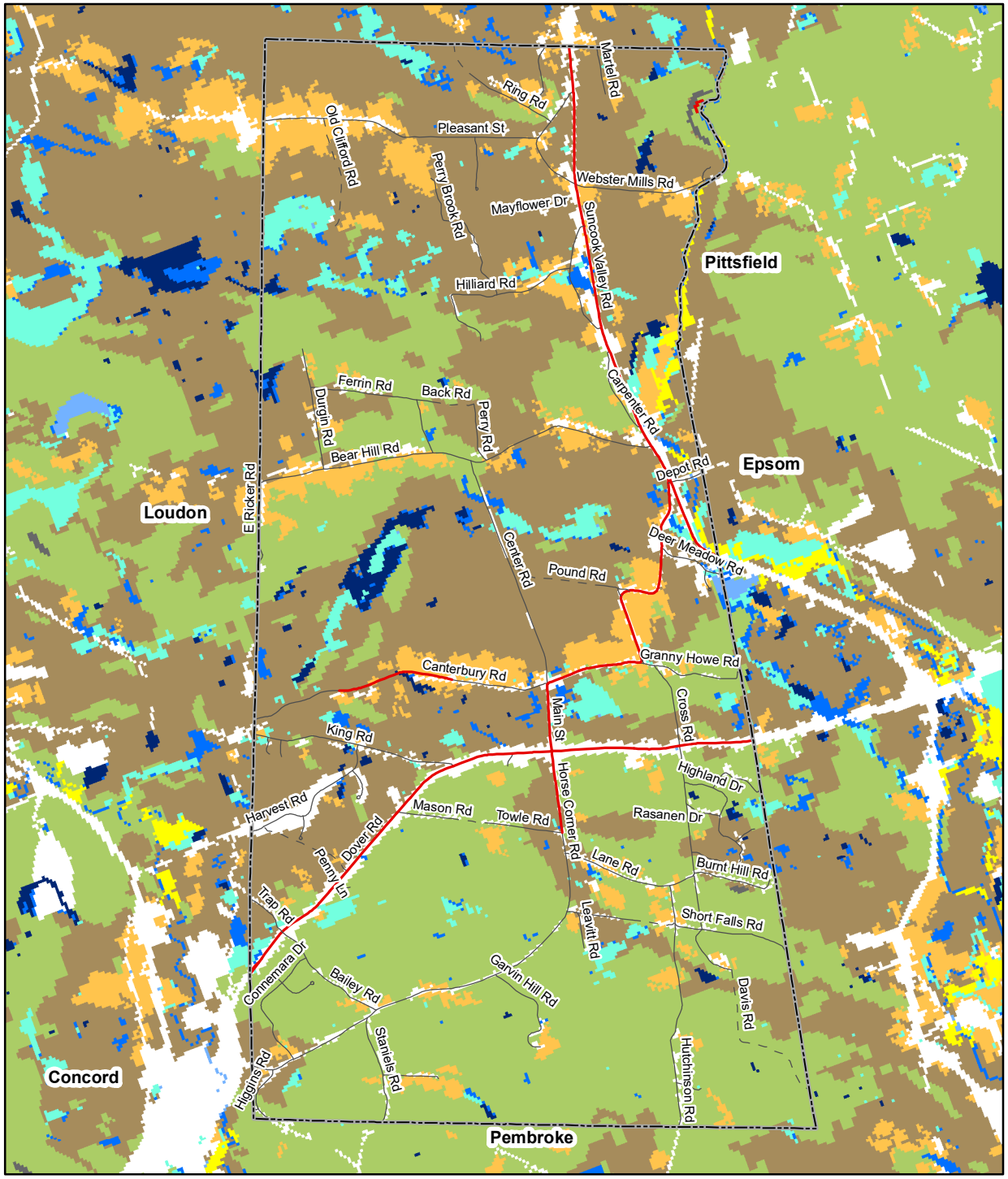
TOWN OF CHICHESTER NEW HAMPSHIRE INCORPORATED 1727

0 0.5 1 1.5 2 2.5 Miles

Figure 6.6
Wildlife Action Plan Habitat Types
Chichester Master Plan 2021



Legend

WAP Habitat Types

- Appalachian oak-pine
- Cliff and Talus
- Dune
- Floodplain forest
- Grassland
- Hemlock-hardwood-pine
- Lowland spruce-fir
- Developed or Barren
- Northern swamp
- Open water
- Peatland
- Pine barren
- Rocky ridge
- Temperate swamp
- Wet meadow/shrub wetland

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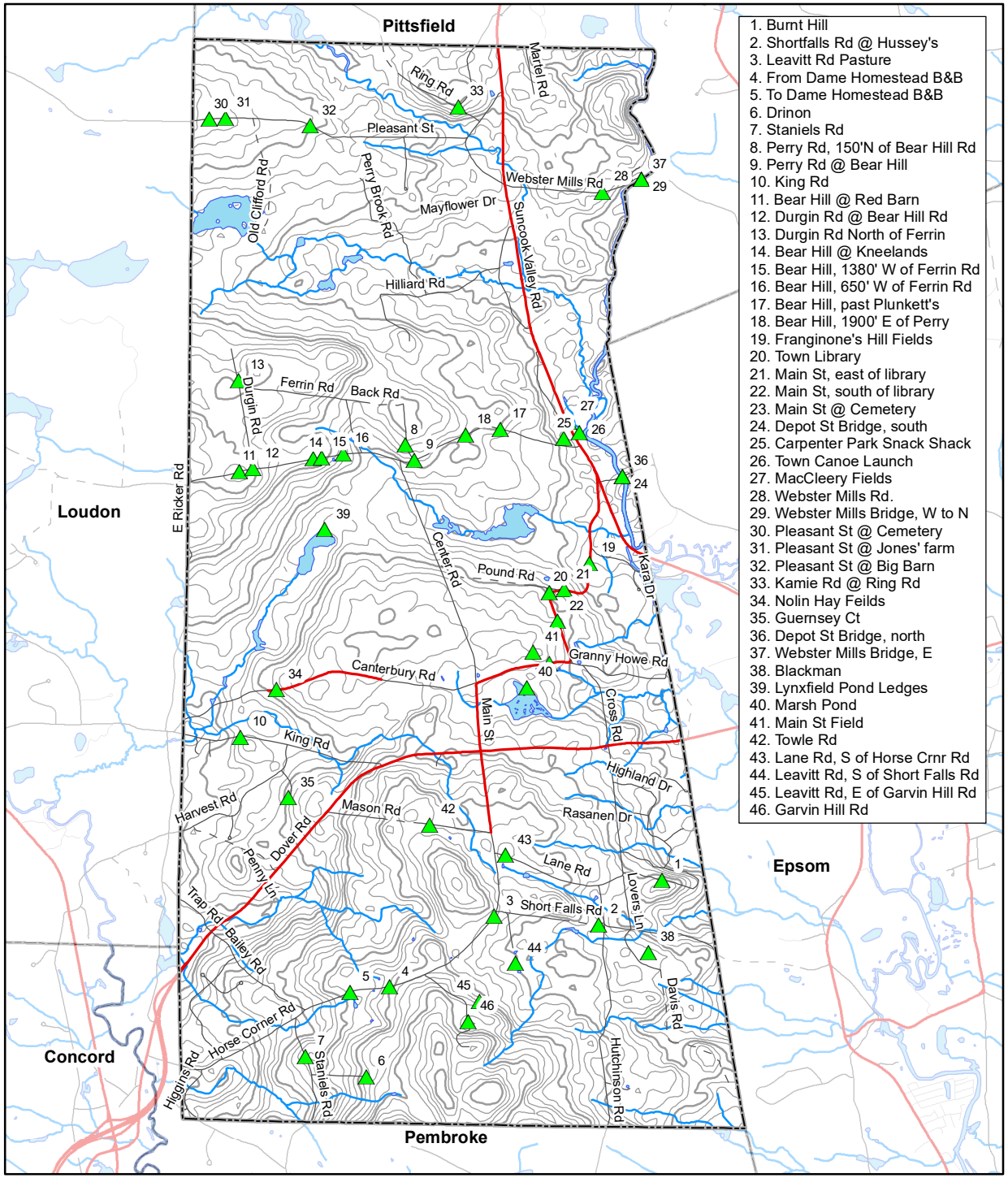
0 0.5 1 1.5 2 2.5 Miles

Figure 6.7
Scenic Views
Chichester Master Plan
2021



Legend

- Viewpoints

Topographic Contours

- 20'
- 100'

Base Legend

- Town Boundary

Roads

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

Water Features

- Waterbodies
- Rivers and Streams

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0 0.5 1 1.5 2 2.5 Miles

Figure 6.8
Conservation and Public Lands
Chichester Master Plan 2021

ID.	ACRES	NAME	OWNER
Conservation Land			
1.	45.2	Five Hill Estates Open Space	T-D Coorperation
2.	149.9	Drinon	Reed, Catherine J, Trustee
3.	141	Humphrey Easement	Humphrey, Patricia
4.	141	Humphrey Easement	Blackman, Marion E S
5.	28.2	Blackman G.	Blackman, Marion E S
6.	18.7	Blackman G. & M.	Blackman, Marion E S
7.	22.1	Blackman G. & M.	Blackman, Marion E S
8.	48.6	Blackman G. & M.	Humphrey, Patricia
9.	6.9	Ferman Easement	Ferman, Barbara J
10.	140	Giuda Easement	Giuda, J. Brandon
11.	5.2	Camper World/ South half of lot	Realty Income Corporation
12.	1.1	Carpenter Memorial Park Suncook River Access	Town of Chichester
13.	26.2	Carpenter Memorial Park/ Highway Dept.	Town of Chichester
14.	15.2	Carpenter Memorial Park	Town of Chichester
15.	7.9	Cray	Town of Chichester
16.	21.7	Sanborn	Town of Chichester
17.	8.16	Sanborn	Town of Chichester
18.	111.2	Spaulding Town Forest	Town of Chichester
19.	5.06	Plummer Property	Town of Chichester
20.	7.1	Shaw Pasture	Town of Chichester
21.	41.1	Chichester Central School (Frangione)	Chichester School District
Public Land			
22.		Land Behind Chichester Central School	Chichester School District
23.	0.22	Sanborn Brook Lot 113G	Town of Chichester
24.	1.74	Sanborn Brook Lot 113D	Town of Chichester
25.	6.5	Martel Road House	Town of Chichester
26.	0.28	Swiggey Brook Road	Town of Chichester
27.	31.5	Hilliard Road Lot	Town of Chichester
28.	8.1	LynxField Pond	Town of Chichester
29.	0.85	Dear Meadow Pond Access	Town of Chichester
30.	0.17	Suncook River Access 2	Town of Chichester
31.	0.2	Historical Society	Town of Chichester
32.	31	Main Street Fields	Town of Chichester
33.	0.7	Town Library	Town of Chichester
34.	0.99	Town/Grange Hall	Town of Chichester
35.	10.92	Land Behind Fire Station	Town of Chichester
36.		Safety Building - Fire Department	Town of Chichester
37.	0.3	Webster Mills Road Lot	Town of Chichester

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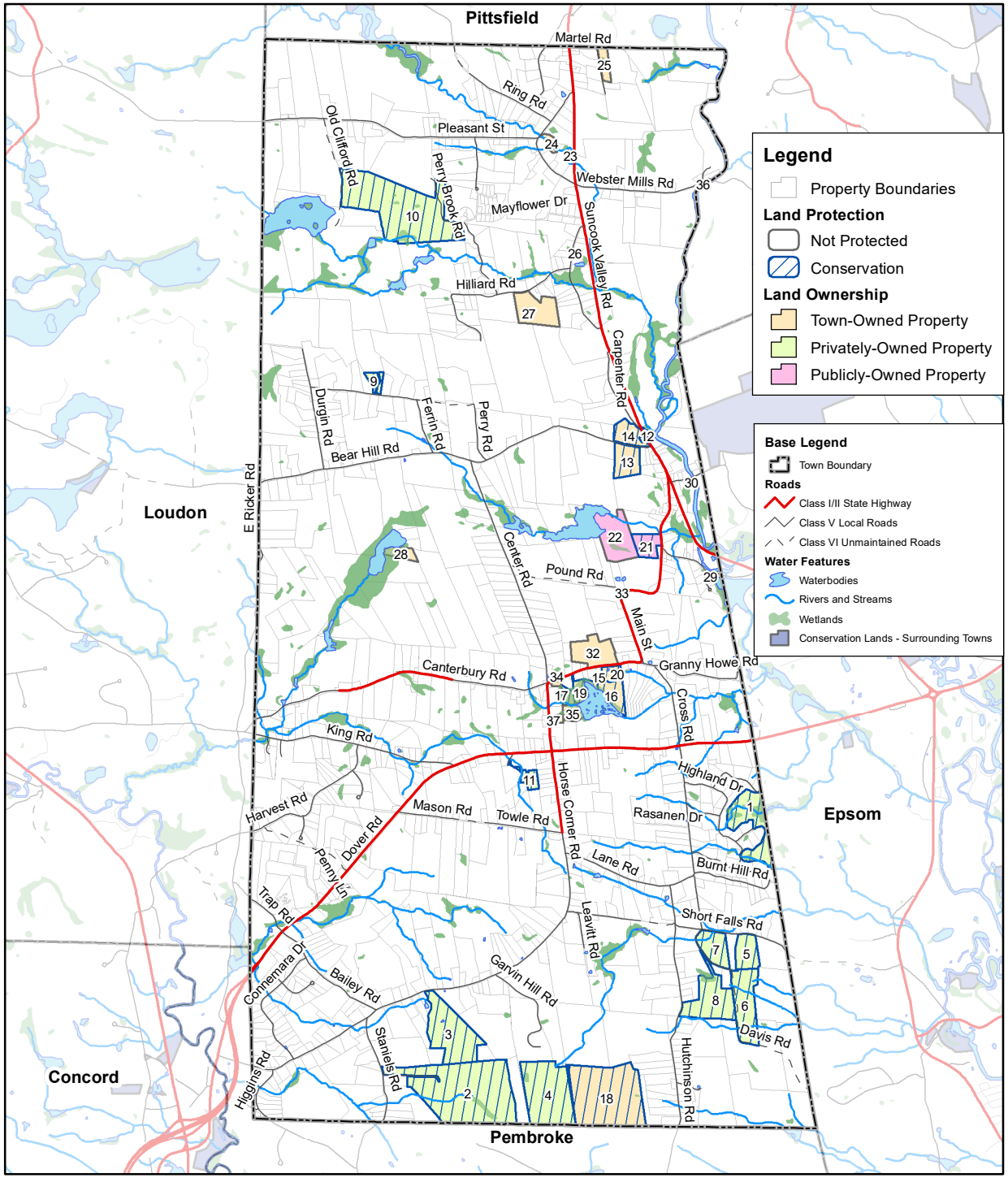
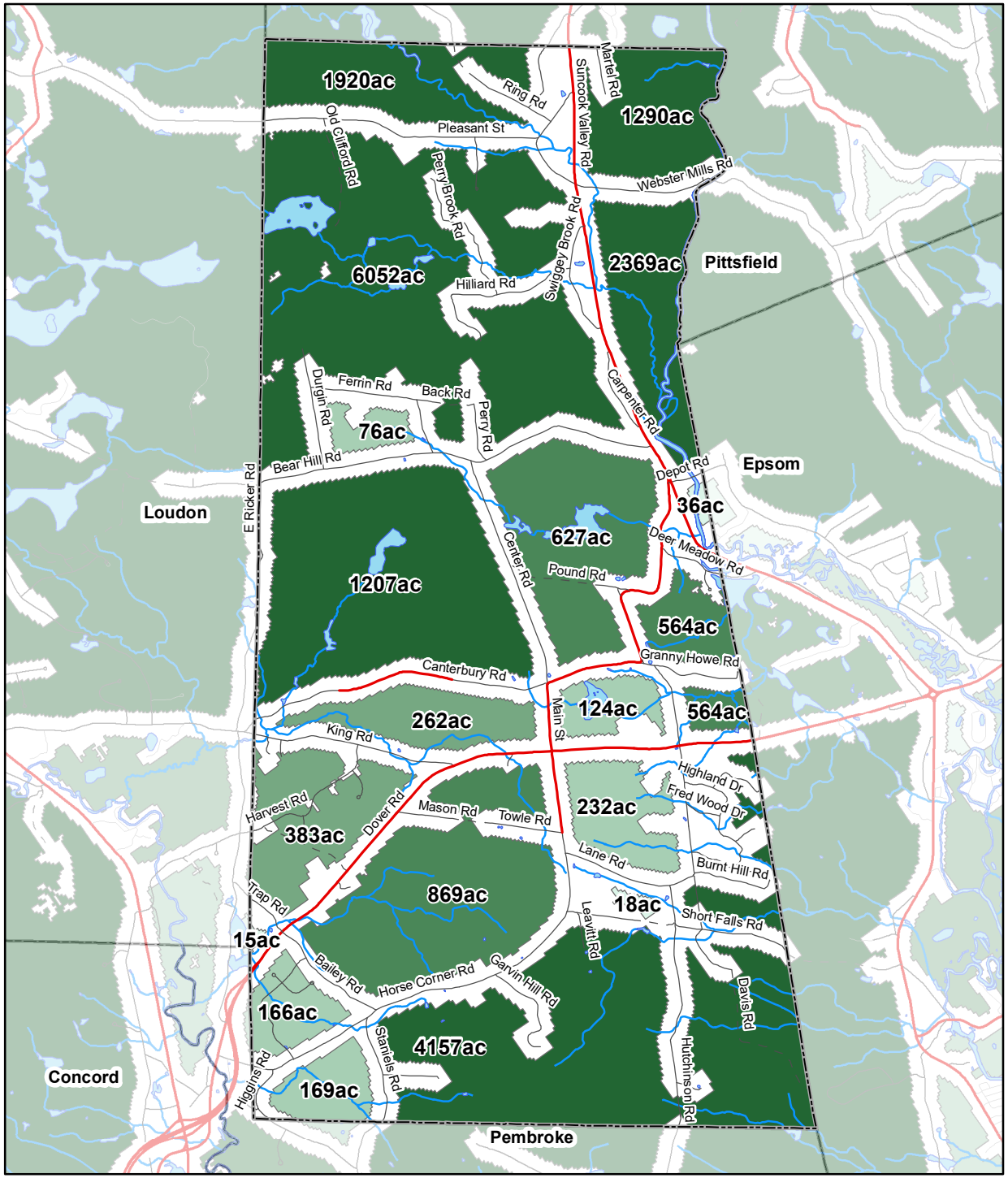


Figure 6.9
Unfragmented Lands
Chichester Master Plan
2021



Legend

Unfragmented Lands

- Less than 50 acres
- 50 to 249 acres
- 250 to 499 acres
- 500 to 1000 acres
- More than 1000 acres

Base Legend

- Town Boundary

Roads

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

Water Features

- Waterbodies
- Rivers and Streams

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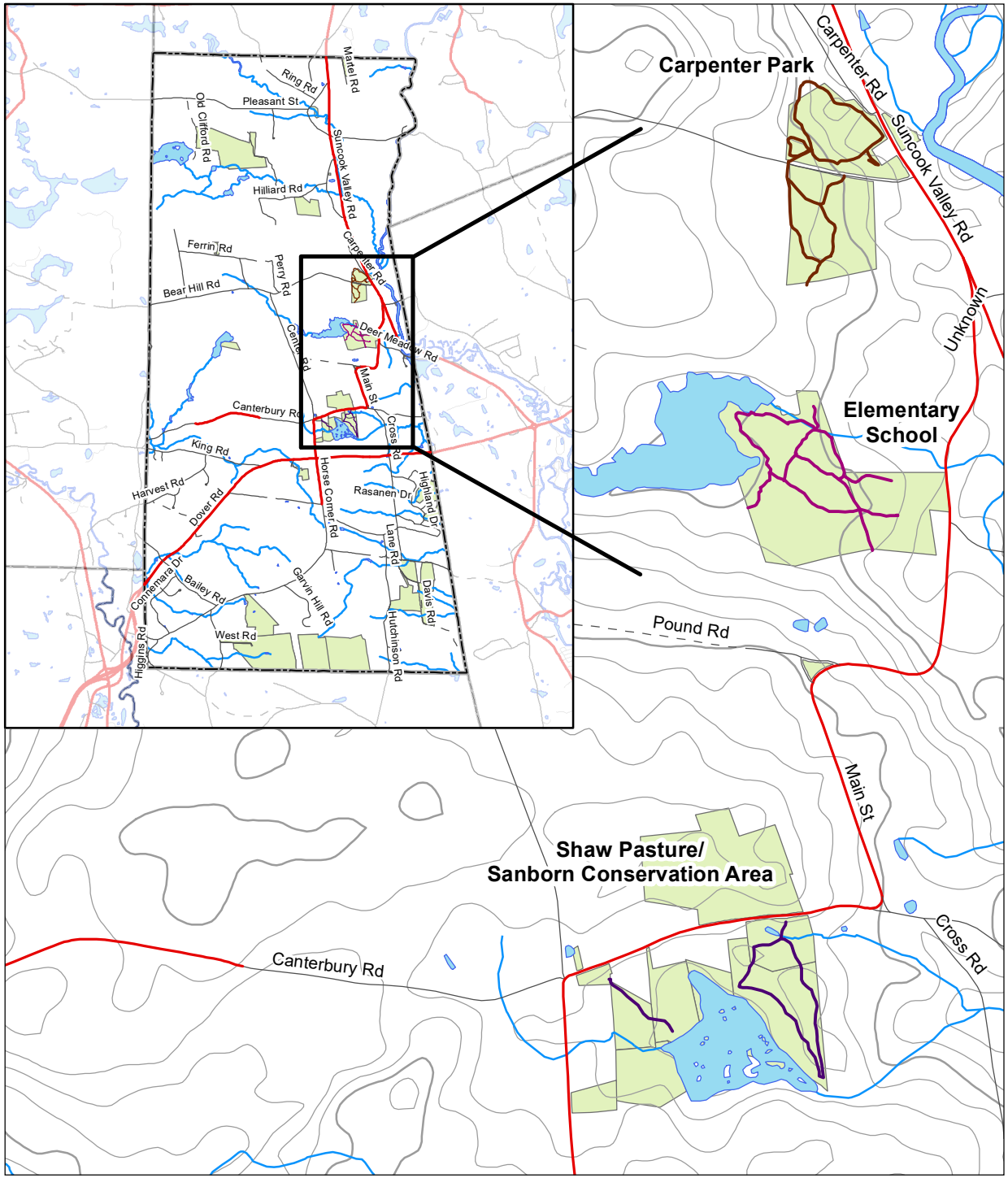
0 0.5 1 1.5 2 2.5 Miles

Figure 6.10
Established Trails
Chichester Master Plan
2021



Legend

- Carpenter Park Trail
- Chichester Central School Trails
- Sanborn Conservation Area Trails

Topographic Contours

- 20'
- 100'
- Conservation Lands

Base Legend

- Town Boundary

Roads

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- Class V Local Roads
- Class VI Unmaintained Roads

Water Features

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- Rivers and Streams

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N

0 0.125 0.25 0.5 Miles