Natural Resources Inventory

Developed for the City of Dover's Conservation Commission & Open Lands Committee
January 2025

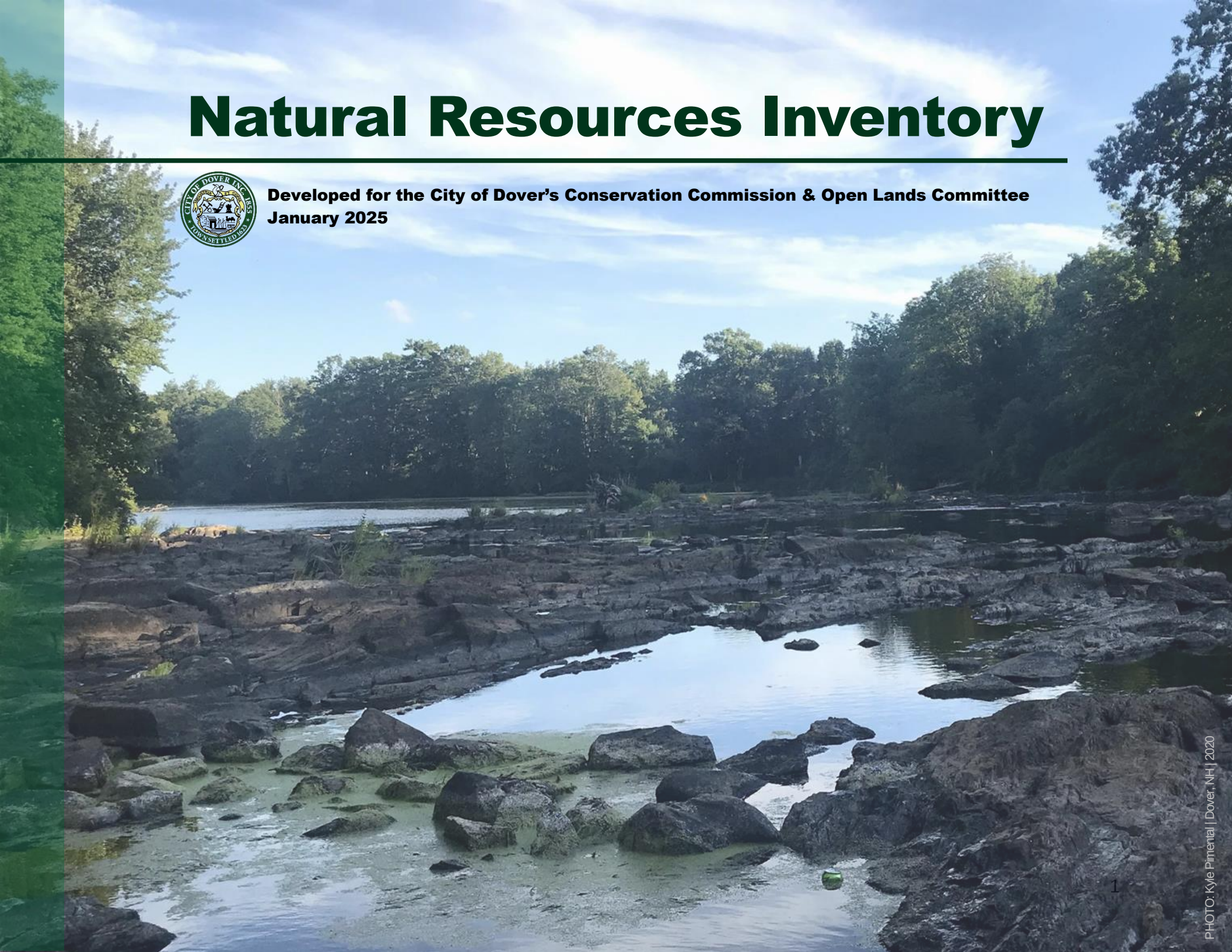

PHOTO: Kyle Pimental | Dover, NH | 2020

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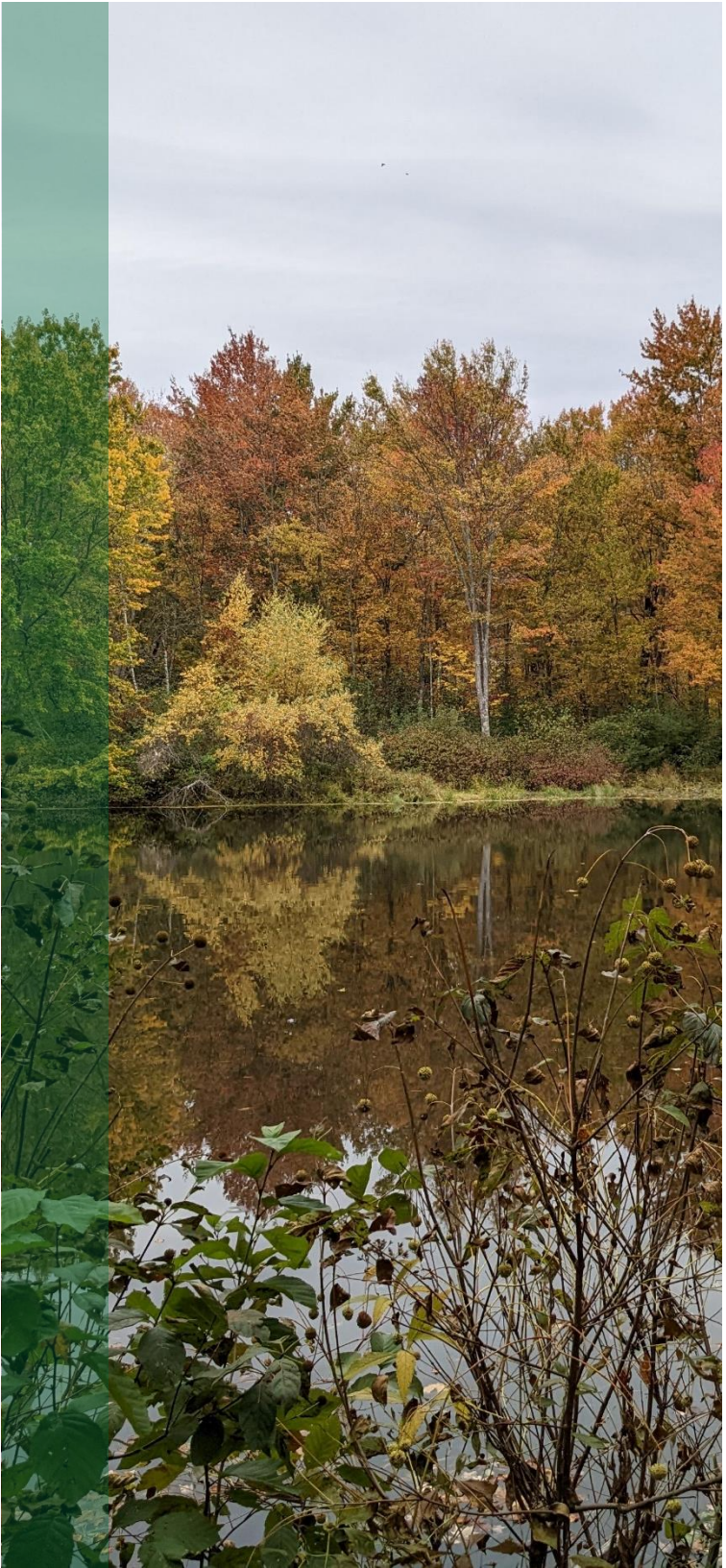

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Section 1: Introduction

1.1 Purpose

A Natural Resource Inventories (NRI) is a critical tool for proactive land use planning. An NRI analyzes the natural landscape of a community using current data and best available science, considers local and regional context and goals, and translates this information into an actionable document that highlights natural resource management priorities.

RSA 36-A:2, which is the enabling statute that allows municipalities to establish a conservation commission, states that a conservation commission, "*shall conduct researches into its local land and water areas…shall keep an index of all open space and natural, aesthetic or ecological areas within the city or town…and shall keep an index of all marshlands, swamps, and all other wet lands in a like manner, and may recommend…a program for the protection, development, or better utilization of all such areas*."

The Dover NRI provides a comprehensive reference to inform decision-making processes for the Conservation Commission, Open Lands Committee, Planning Board, municipal staff, and landowners to create a resilient future in the City of Dover as emphasized in the Citywide Resilience Plan. Additionally, the NRI provides supporting documentation for the City's Conservation and Open Space Master Plan chapter, updated in 2024. Specific action items can be reviewed in the Master Plan.

1.2 Climate Adaptation & Resilience

As written in the mission statement of the Citywide Resilience Plan, "Resilience is the City of Dover's ability as an entire community to respond to adversity in the face of environmental, social and economic stressors." As such, the Natural Resource Inventory provides detailed information crucial to decision-making processes that build the community's adaptive capacity and strengthen resilience in the face of the impacts of climate change. This document supplements a decade of projects aimed at strengthening the City's climate resilience.

1.3 Recommendations

Based on the data gathered and analyzed, the NRI also provides overarching recommendations to be considered in long-term planning decisions and regulatory review. The recommendations focus on improving water quality monitoring, promoting coastal resilience, and integrating natural resource management that considers conservation and development. Additionally, they emphasize community education on ecosystem impacts and establishing a regular review of natural resource inventories to adapt to changing conditions.

Section 2: Water Resources

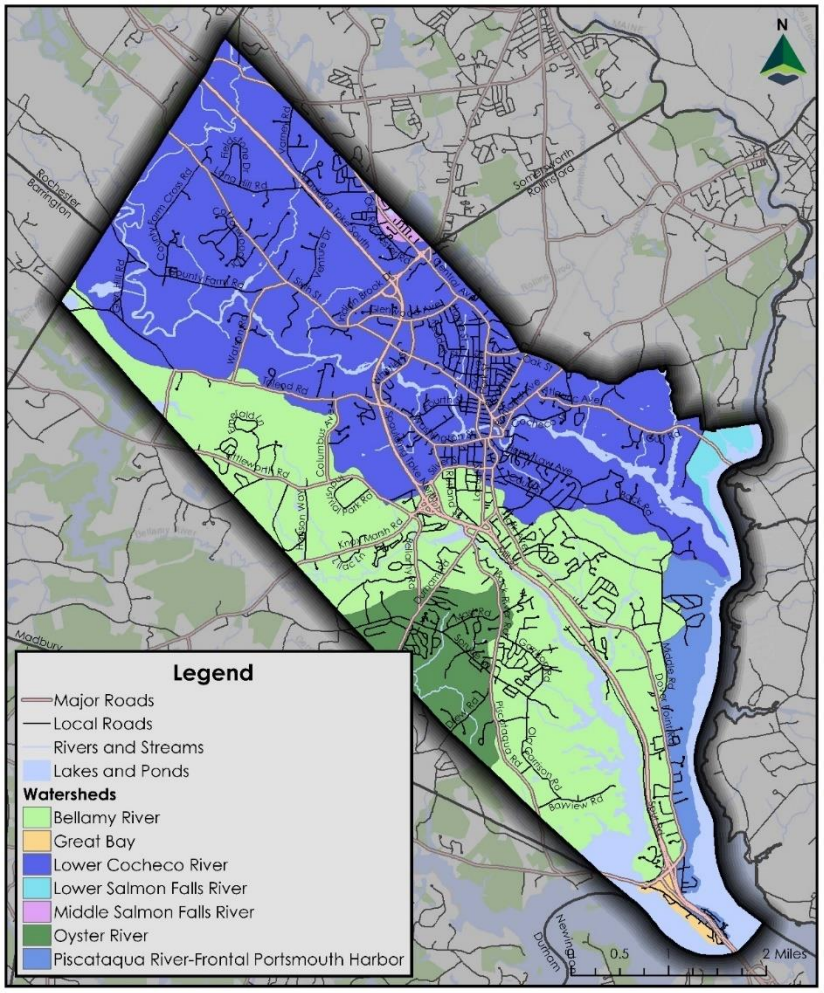
2.1 Watersheds

Watersheds can generally be defined as an area of land where water drains to one common point; precipitation that falls in the defined area will all eventually reach this point.[1]

Watersheds are delineated nationally by the United States Geological Survey using the Hydrologic Unit Code (HUC) system, based on surface hydrologic features. For each level in the hierarchy, two digits are added to the HUC. This system classifies the country into 22 regions, 245 subregions, 405 basins, 2,400 subbasins, 19,000 watersheds, and 105,000 sub watersheds. The HUC for regions are assigned two digits, subregions are assigned four digits, basins are assigned six digits, subbasins are assigned eight digits, watersheds are assigned 10 digits, and sub watersheds are assigned 12 digits.

The table below names each HUC-12 sub watershed that extends through Dover.

Sub watershed	Acres	% of City
Lower Cochecho River	8,998.82	48.4%
Bellamy River	6,736.38	36.2%
Piscataqua River-Front Portsmouth Harbor	1,167.40	6.3%
Oyster River	1,074.24	5.8%
Lower Salmon Falls River	276.85	1.5%
Great Bay	266.57	1.4%
Middle Salmon Falls River	71.83	0.4%
Total (City of Dover)	**18,592.13**	**100%**



Natural Resource Inventory - City of Dover, NH
Watersheds

[1] https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/wmb-19.pdf

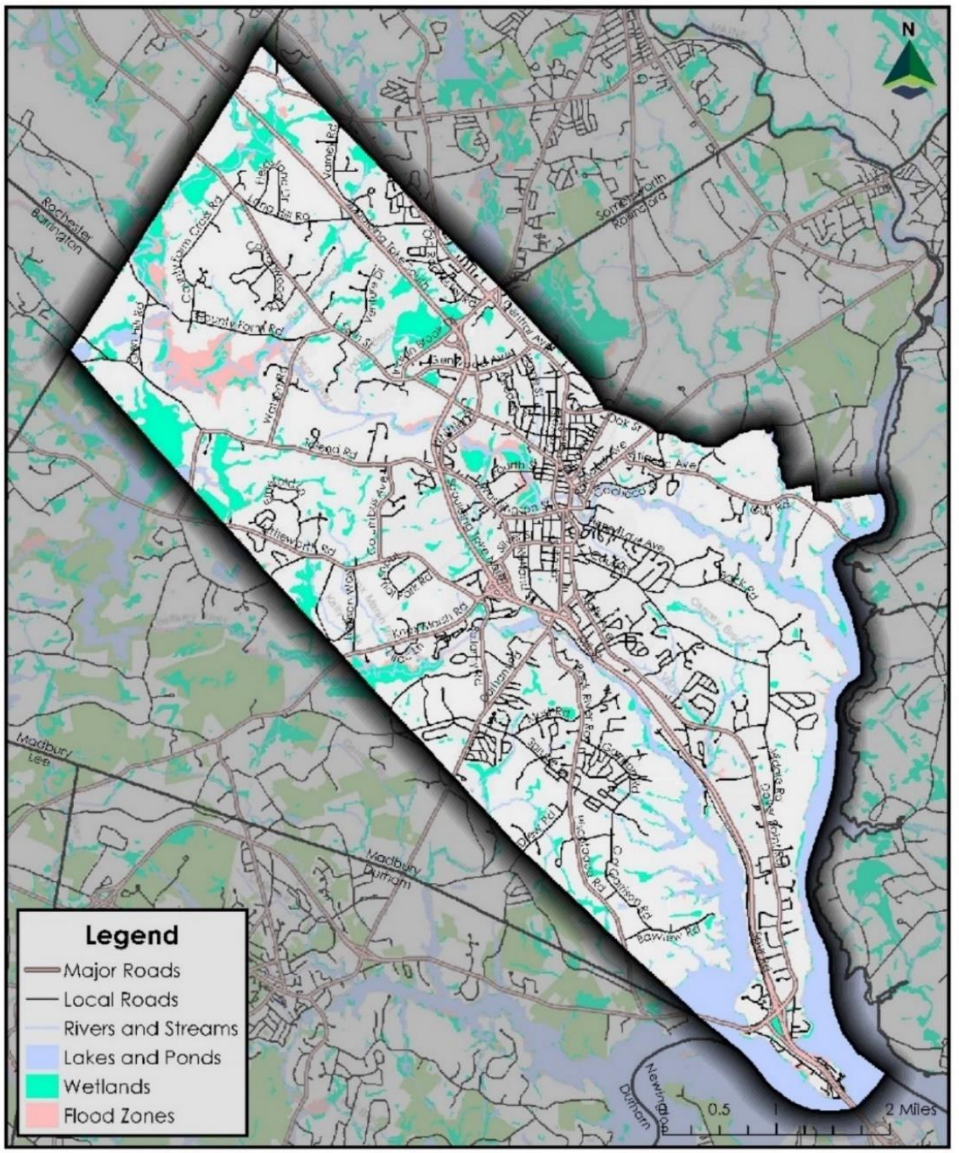
2.2 Surface Waters

Surface waters are bodies of water that are visible on the Earth's surface, such as wetlands, rivers, streams, ponds, and lakes. Surface waters are defined by the state of New Hampshire as, "*perennial and seasonal streams, lakes, ponds, and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses, and other bodies of water, natural or artificial*."

Surface waters in New Hampshire are governed by the New Hampshire Department of Environmental Service Administrative Rules.

The map to the right illustrates these different water bodies in Dover, including freshwater rivers and streams, estuarine systems, lakes and ponds, wetlands[2], and floodplains.

The following subsections characterize each surface water type and describe the prominent habitat which occurs within them. See Section 3.1 for in depth habitat profiles.



Natural Resource Inventory - City of Dover, NH
Water Resources

[2] These are generalized wetlands delineated from a national wetland inventory and additional jurisdictional wetlands subject to the City's local regulations exist in areas not shown on the map.

2.2.1 Freshwater Rivers & Streams

Warmwater Rivers & Streams:

Warmwater rivers in New Hampshire encompass a broad spectrum of temperatures, ranging from above 20 degrees Celsius in the summer to cooler temperatures in the winter. They are not as consistently cold as coldwater rivers, and therefore do not support coldwater species such as brook trout. Warmwater rivers vary in size, gradient, and substrate, but are often found in watersheds with abundant wetland systems. Species composition varies depending on the season and stream flow; slow flowing rivers and streams typically include vegetation similar to that of warmwater lakes and ponds, whereas fast flowing rivers and streams support different fish species such as fallfish, longnose dace, and creek chubs.

Development within 50 to 100 feet of rivers, streams and ponds is regulated by the State regulations and through the City of Dover Conservation District Ordinance (Dover City Code 170-27).

Tidal Rivers & Streams:

Tidal rivers in New Hampshire are affected by the ebb and flow of ocean tides due to their proximity to the coast. The tide pushes water upstream, causing noticeable changes in water levels and currents. Tidal rivers experience varying degrees of salinity, with water becoming more saline closer to the coast. This influences the types of organisms that inhabit these rivers, with some species being adapted to brackish or saline conditions. Tidal rivers support diverse ecosystems, including salt marshes, estuaries, and intertidal zones. These habitats provide important breeding and feeding grounds for various species of fish, birds, and other wildlife. In Dover, the Salmon Falls, lower Cochecho, and Bellamy Rivers are tidal rivers.

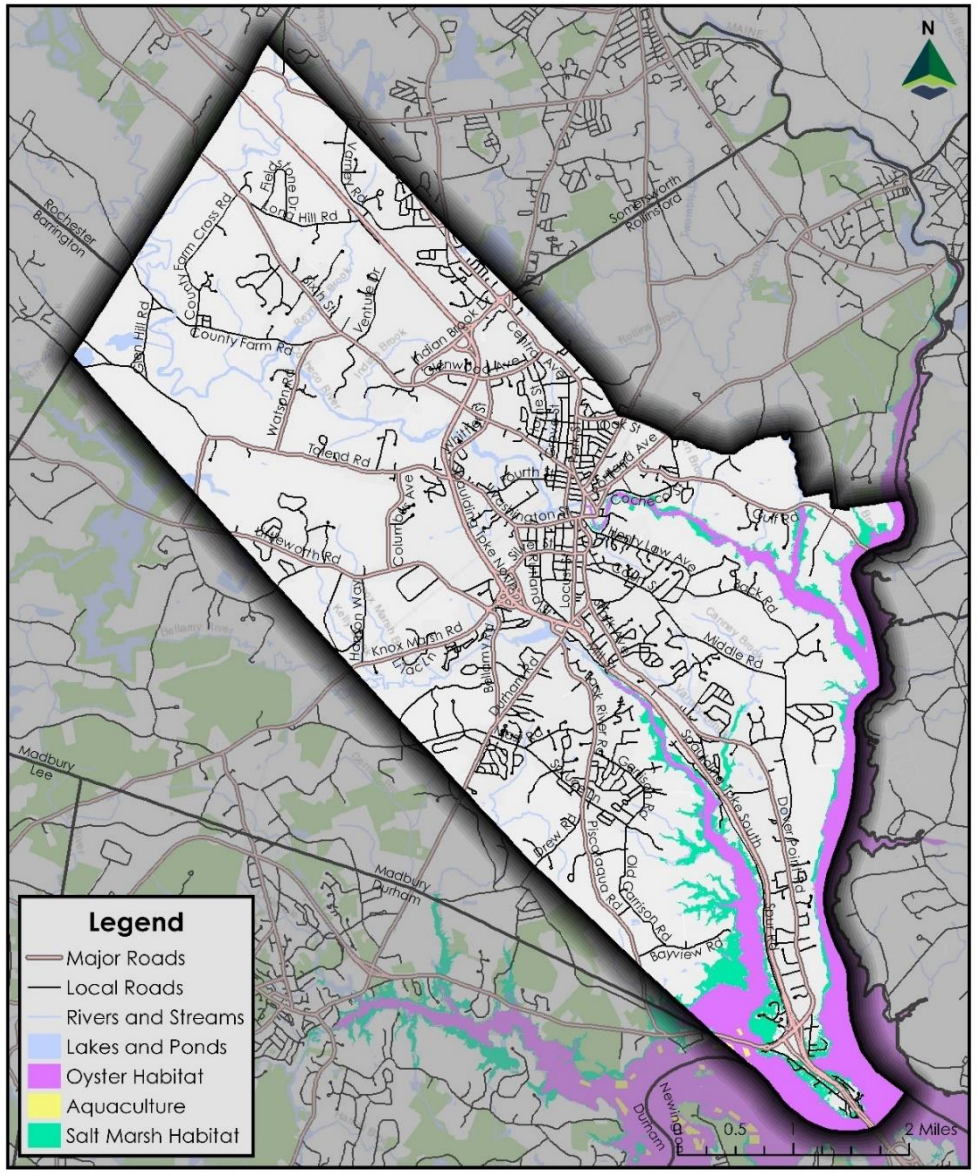
2.1.2 Estuarine Systems

Estuarine systems from where rivers mix with ocean water and include subtidal and intertidal areas characterized by soft sediment. Prominent estuarine systems include eelgrass beds, oyster reefs, and intertidal mudflats. Salt marshes are also considered an estuarine habitat. When rivers mix with ocean water in an estuarine environment, they bring critical nutrients, organic matter, and sediment to support estuarine habitat.

Estuarine habitats are extensively abundant and productive, often teeming with life, as they provide essential nurseries for juvenile fish and breeding grounds for many marine organisms. Plants and wildlife that call these habitats home are adapted to changing conditions, as estuarine habitat is constantly transitioning.

As a coastal community within the Great Bay watershed, with several tidal rivers, these estuary areas make up significant portions of the Dover coastline.

These estuarine habitats, including oyster habitat, aquaculture, and salt marshes, are depicted on the map to the right.

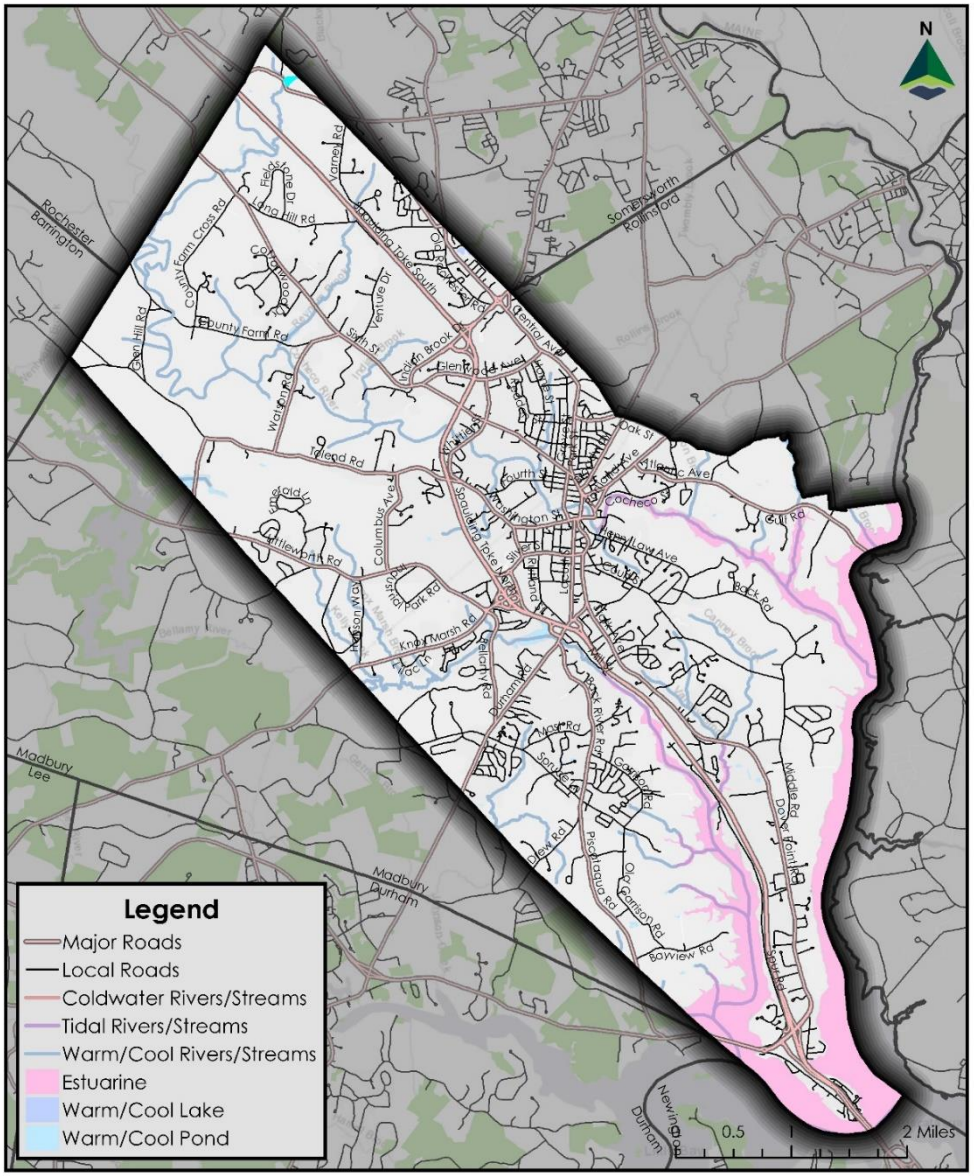


2.1.3 Lakes & Ponds

Warmwater lakes and ponds differ from lakes and ponds with coldwater habitat as they do not have cold, well oxygenated water in the summer and therefore do not support coldwater fish species. These lakes and ponds vary in size, shape, and depth and include substrate such as boulder, sand, and mud.

Underwater vegetation provides spawning and nursery habitat for several fish species. Invertebrates living in underwater vegetation provide feed for turtles, fish, and amphibian species. Waterfowl and wildlife may use these lakes and ponds as nesting areas where shorelines are undeveloped.

In Dover, most of the water resources are made up of rivers and streams. One body of water in the northern corner of the city is classified as a Warm/Cool body of water, where a section of the Blackwater Brook ponds.



Natural Resource Inventory - City of Dover, NH
Wildlife Action Plan Aquatic Habitats

PHOTO: Vernal Pool: Distant Hill Gardens

2.1.4 Wetlands & Vernal Pools

Wetlands

Wetlands provide a variety of ecosystem services including flood control, water quality, water storage, and groundwater and surface water recharge. Wetlands also provide food and habitat for both aquatic and upland plants and wildlife. Several wetland types are described on the following pages. Wetlands, including both freshwater and estuarine are present throughout Dover and are an important consideration in land use decisions throughout the community.

The US Army Corps of Engineers, NH State Department of Environmental Services, and the City of Dover regulate the impacts to wetlands due to development. The State issues permits for wetlands impacts with input from the City of Dover Conservation Commission. Impacts to wetlands, and a locally designated 50 foot buffer around the wetlands are also regulated through the Wetlands Protection District Ordinance (Dover City Code 170-27.1).

Vernal Pools

Vernal pools are seasonal wetlands, and are generally small in size, isolated, and go through periods of flooding and drying. Vernal pools that have a wet period of less than two months in the Spring or Summer may be characterized as ephemeral and are not wet for periods long enough to support the full life cycle of many vernal pool species. Vernal pools with wet periods shorter than four months may not support the full life cycles of some amphibians that rely on vernal pool habitat. Because of their seasonality and disconnectedness from other water bodies, vernal pools rarely support fish species and as such, vernal pool amphibian larvae lack defense mechanisms to protect against fish predators. Vernal pools lack vegetation but those with longer wet periods support some species of sphagnum moss, sedges, rushes, ferns, shrubs, and trees. Shrubs and trees found in vernal pools include buttonbush, highbush blueberry, winterberry, red maple, speckled alder, and eastern hemlock.

No inventory of the number and locations of vernal pools exists in Dover; however, the city Conservation Commission considers potential impacts to vernal pools when reviewing applications for state wetlands impacts permits.

2.1.5 Floodplains

Floodplains are areas adjacent to water bodies, typically rivers or streams, that are prone to flooding during periods of heavy precipitation or water flow. Floodplains serve important ecological and hydrological functions. They act as natural buffers, absorbing excess water during floods and reducing the impact of flooding on nearby property.

As such, development in the floodplain can exacerbate flood risks and environmental degradation by disrupting natural floodplain functions. In addition to reducing flood risk and providing floodwater storage, floodplain functions include groundwater recharge, nutrient cycling, and serving as hotspots for biodiversity.

Floodplains in Dover extend throughout the city and impact both developed and undeveloped areas. Several areas along the Cochecho and Bellamy Rivers, including the downtown area, are within floodplains. (NHDES)

Both the state regulation and the City of Dover Conservation District Ordinance regulate the development that happens within the floodplain. During development reviews a lot of consideration is given to potential property losses based on available and applicable Federal flood insurance inundation risk zones.

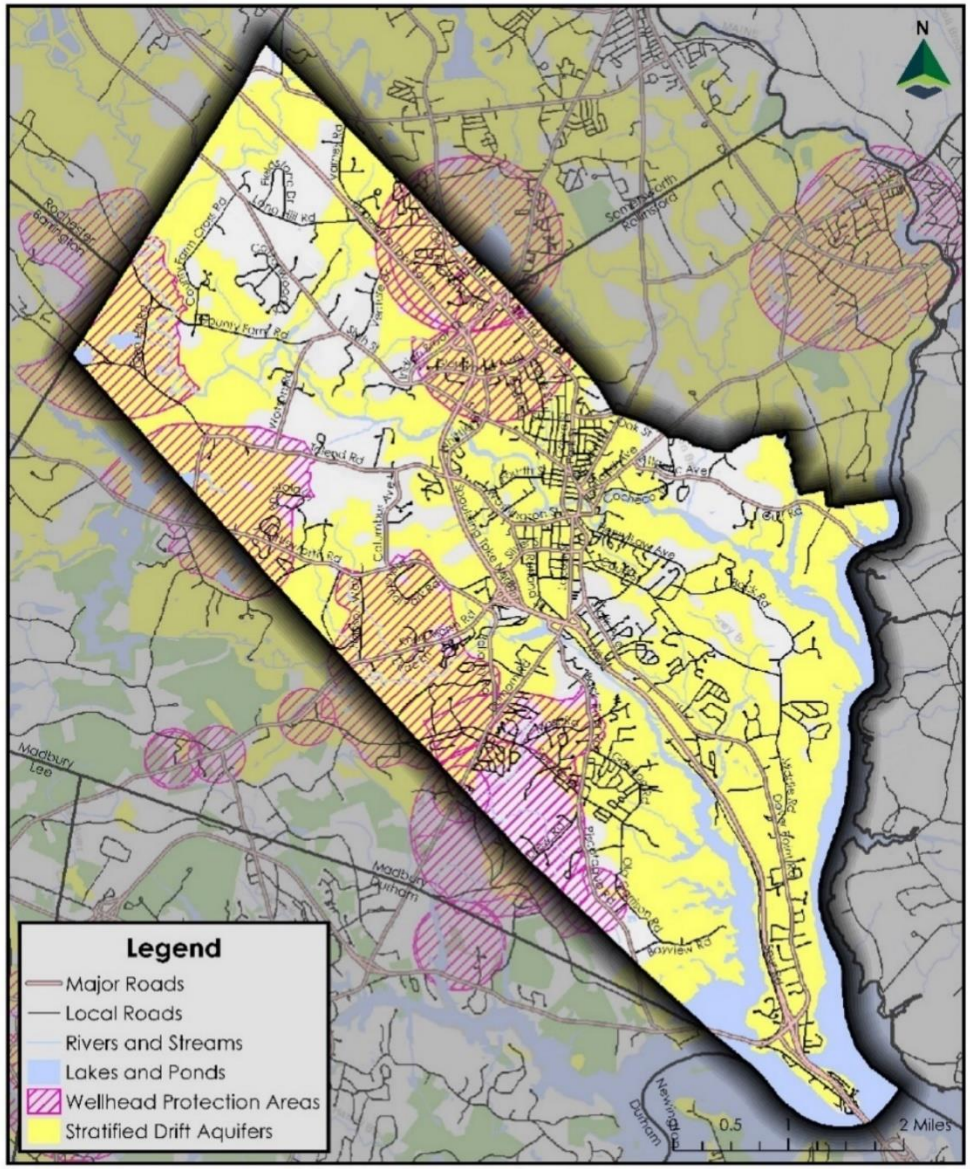
2.3 Aquifers/Groundwater

Greater than 50% of New Hampshire's population relies on groundwater for its drinking water supply. As temperatures shift and rainfall patterns become more erratic due to climate change, and the population continues to grow, groundwater is becoming an increasingly important resource to protect to remain resilient to climate impacts.

Aquifers are areas saturated by water underground between sediment and rock formations that transmit water to wells and springs. Stratified drift aquifers are geological formations consisting of distinct layers of sediments deposited by glaciers, including sand, gravel, silt, and clay. The stratification of sediment in stratified drift aquifers influences the permeability and porosity of the aquifer, which influences its ability to transmit water.

As groundwater is vulnerable to contamination, the state's Wellhead Protection Program enables the city to delineate Wellhead Protection Areas (WHPAs), pictured on the map to the right. These areas are afforded higher protections through local regulation to avoid contamination.[3]

Almost all residents of Dover depend on groundwater for their drinking water source. The City of Dover municipal water system currently relies exclusively on groundwater extracted from sand and gravel aquifers. Future expansion of the municipal water system may utilize fractured bedrock aquifers. Those residents not connected to the municipal system generally rely on privately-owned water supply wells drilled into bedrock.

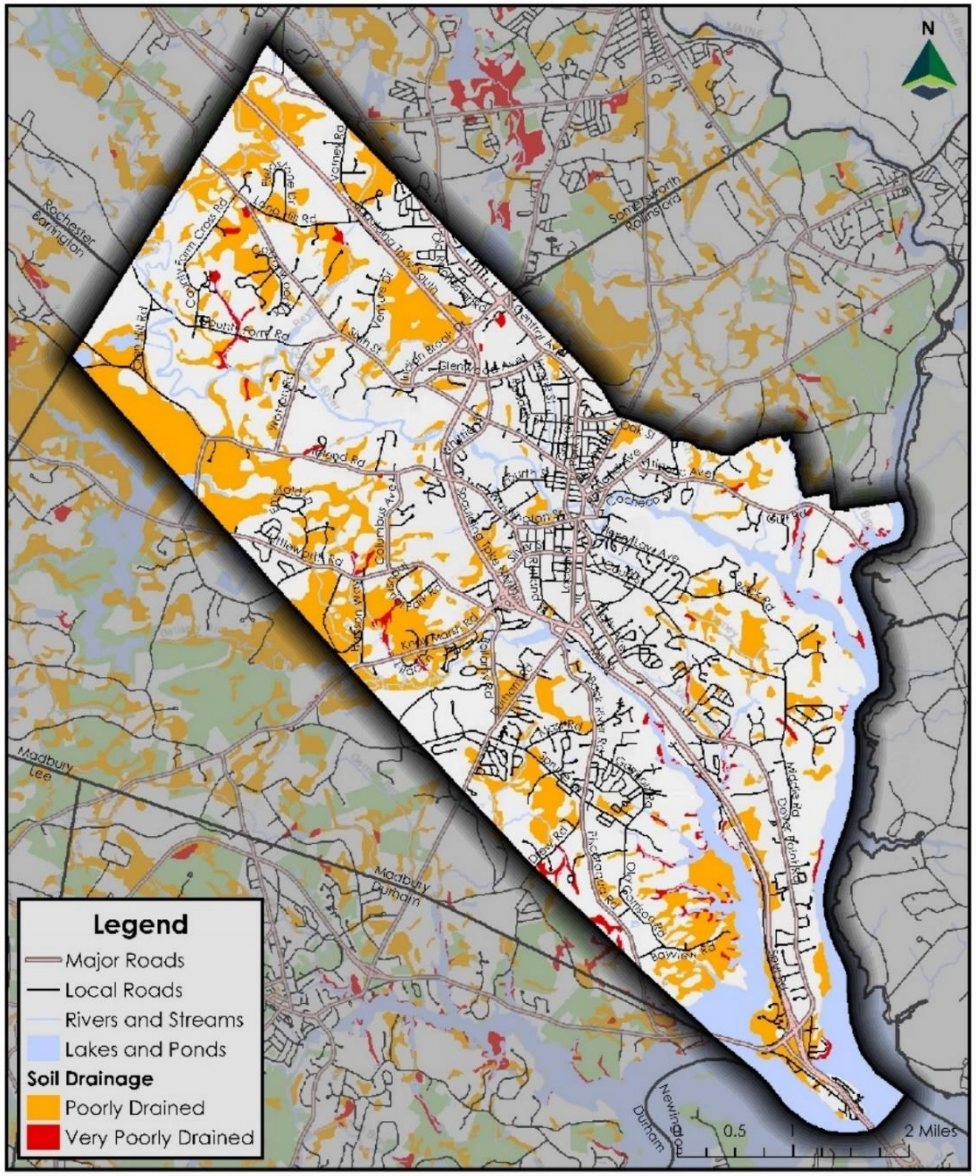


[3] https://extension.unh.edu/nhnriguide/nri-components/water-resources/ground-water-aquifers

2.4 Soil Drainage

Poorly drained and very poorly drained soils in New Hampshire are characterized by their limited ability to allow water to infiltrate and drain away. Poorly drained soils typically have slow drainage rates due to high water tables or impeded drainage caused by compacted layers, clayey textures, or shallow bedrock. They often retain water for prolonged periods after precipitation events, leading to waterlogging and reduced oxygen availability for plant roots. Very poorly drained soils exhibit even slower drainage rates compared to poorly drained soils, and are often saturated with water for extended periods, leading to prolonged anaerobic conditions. Very poorly drained soils may exhibit high clay content and compacted soil layers that limit water movement. Poorly and very poorly drained soils often support a variety of wetland habitats.

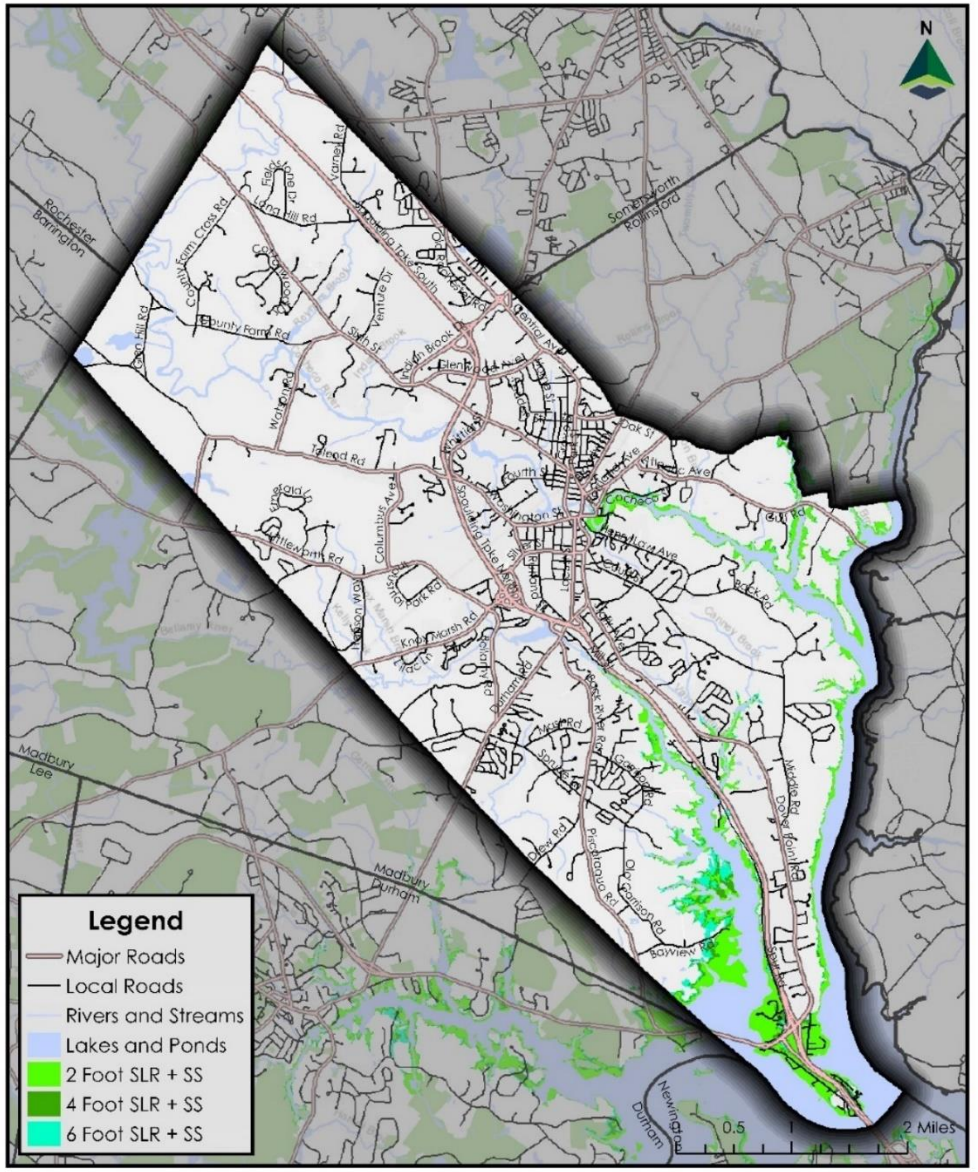
Extensive areas of Dover are underlain by poorly drained soil as seen in the map to the right. Much of these soils are associated with the late glacial period coastal inundation of the NH seacoast region when marine clay layers deposited.



2.5 Sea-level Rise & Storm Surge

As climate change causes global temperatures to increase, ocean water warms and takes up more volume causing rising sea levels. Glacial melt also contributes to this trend.[i] Climate change is also causing increasing frequency and intensity of storms, and contributes to heightened storm surges, or the abnormal rise in sea level above predicted levels caused by a storm.[ii] Sea-level rise and storm surge pose threats to natural resources and infrastructure in high flood risk areas. Conserving land and avoiding development in coastal areas with high flood risk is crucial to preserving habitat along the shoreline. Moreover, strengthening shoreline habitat and using nature-based solutions has been proven to more effectively mitigate coastal flooding compared to hard infrastructure approaches.[iii]

Properties along the coastal area of Dover can be more vulnerable to the impacts of the sea-level rise and storm surge.



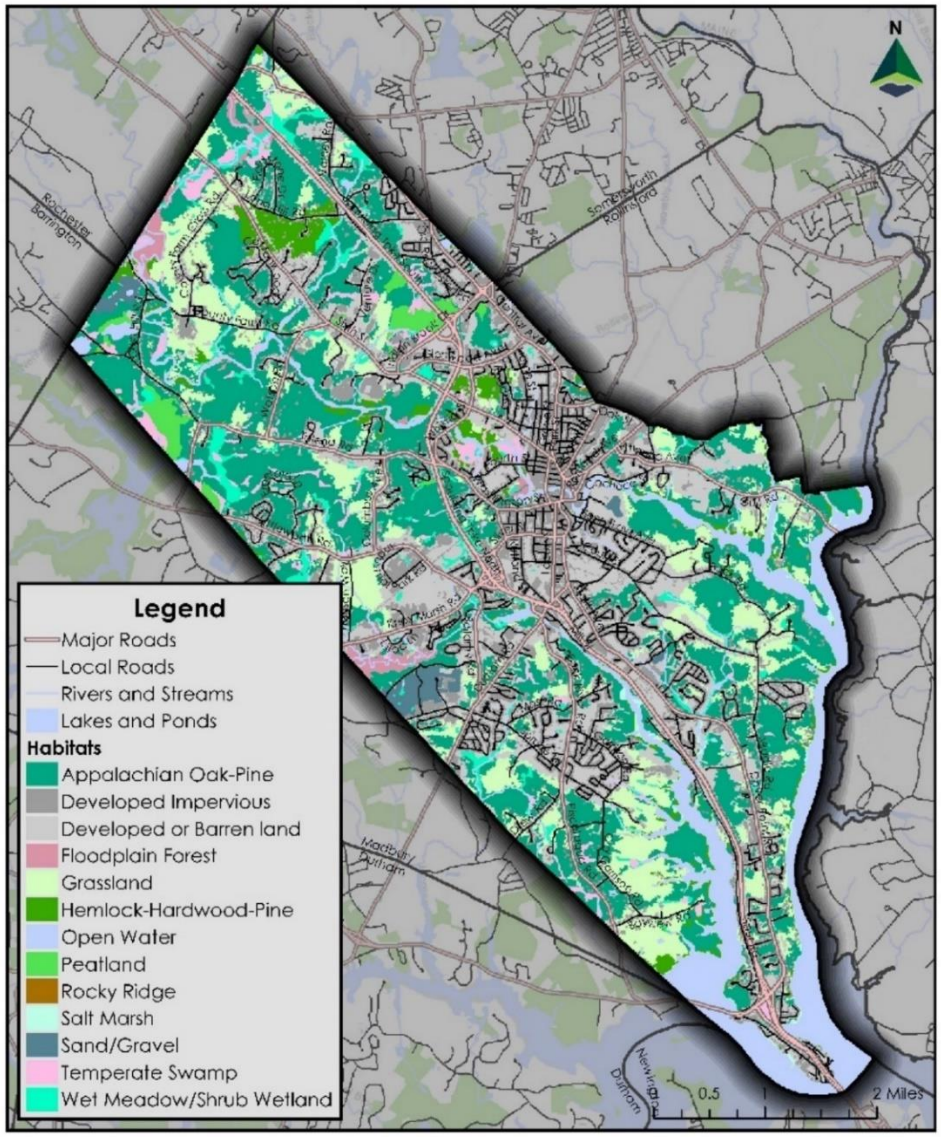
Natural Resource Inventory - City of Dover, NH
Sea Level Rise and Storm Surge

Section 3: State & Regional Coordination

3.1 NH Wildlife Action Plan

The 2015 New Hampshire Wildlife Action Plan (WAP) is the state's foundational document for species and habitat conservation. Section 3.1 is based upon the 2015 NH WAP with updated landcover data from 2020, and includes a description for each habitat type, flora and fauna present in that habitat, climate resilience challenges & opportunities, and stewardship actions by habitat type.

Wildlife Action Plan Habitats	Acres	% of City
Appalachian Oak-Pine	4,895.89	26.3%
Developed Impervious	4,187.71	22.5%
Developed or Barren Land	3,529.26	19.0%
Grassland	2,239.15	12.0%
Open Water	1,446.20	7.8%
Wet Meadow/Shrub Wetland	542.07	2.9%
Hemlock-Hardwood-Pine	487.04	2.6%
Temperate Swamp	465.05	2.5%
Peatland	222.51	1.2%
Salt Marsh	204.01	1.1%
Floodplain Forest	202.53	1.1%
Sand/Gravel	166.08	0.9%
Rocky Ridge	1.67	0.0%
Total (City of Dover)	**18,592.13**	**100%**



Natural Resource Inventory - City of Dover, NH
Wildlife Action Plan Habitats

PHOTO: Nature Conservancy

Appalachian Oak-Pine Forests

Acres: 4895.9
26.3% of Dover's land area

The Appalachian oak - pine forest system in New Hampshire includes several oak species such as black oak, chestnut oak, scarlet oak, and white oak (Quercus alba), as well as hickories (Carya spp.), mountain laurel (Kalmia latifolia), pitch pine (Pinus rigida), and sassafras (Sassafras albidum). These are not widespread in New Hampshire because they are typically found in a dry and warm climate in elevations below 900 ft. These forests have substrates that include nutrient-poor soils, sandy glacial tills and shallow-to-bedrock tills. Appalachian Oak-Pine Forests provide habitat to 104 vertebrate species in New Hampshire, including 8 amphibians, 12 reptiles, 67 birds, and 17 mammals.

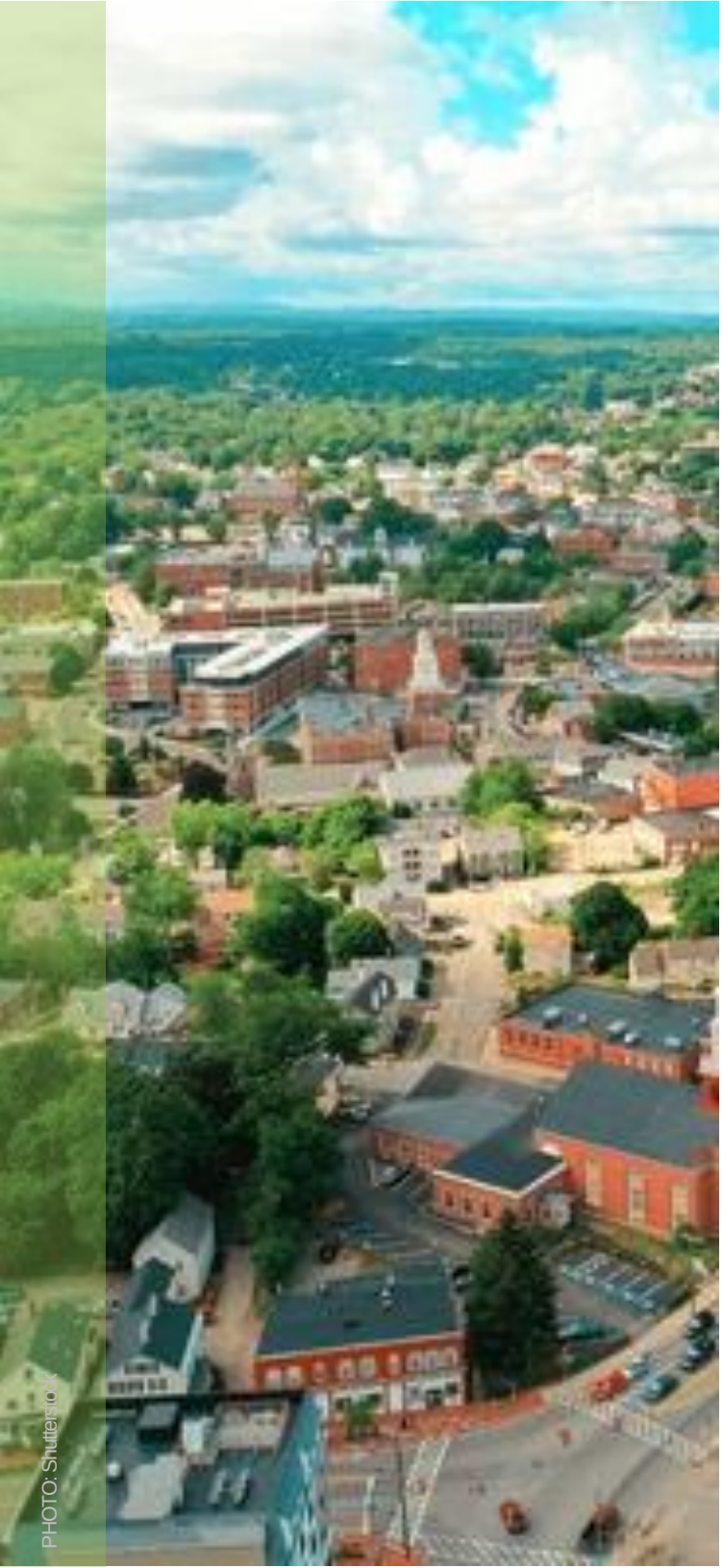


PHOTO: Shutterstock

Developed Land

Acres: 7,717
41.5% of Dover's land area

Developed areas are not considered a key wildlife habitat in New Hampshire and are generally considered a risk to wildlife but are still important to consider because some species have demonstrated capacity to adapt to life in certain types of development. Examples of these adaptations are listed below.

- Chimney swifts roost in large chimneys within developed areas.
- Little and big brown bats often use attics and abandoned buildings for raising pups.
- Purple martins nest in man-made nest boxes, often in close proximity to development.
- Common nighthawks use rooftops with small stones for nesting.
- Turtles often lay eggs in residential lawns and gardens.

PHOTO: Chris Martin

Grasslands

Acres: 2239.2
12.0% of Dover's land area

Grasslands are areas dominated by grasses with little shrub or tree cover. These include fields, croplands, pastures, airstrips, landfills and similar areas. Native grassland plant species in New Hampshire include aster, big bluestem, little bluestem, goldenrod and meadowsweet. Rare plant species found in New England grassland include butterfly weed, northern blazing star and wild lupine. Commonly found bird species that utilize grasslands for breeding and nesting include the state-endangered Northern Harrier, Upland Sandpiper, state-threatened Grasshopper Sparrow, Horned Lark, Vesper Sparrow, and Eastern Meadowlark. Many of these species are declining and require large expanses of habitat for nesting, exemplifying the importance of conserving networks of land that improve habitat connectivity. Grasslands also provide habitat to species of conservation concern including the Black Racer, Smooth Green Snake, Northern Leopard Frog, and Wood Turtle, among others. This habitat is especially important in supporting pollinators.

Hemlock-Hardwood-Pine

Acres: 487
2.6% of Dover's land area

Hemlock Hardwood Pine Forests are forests with dry, sandy soils. The hemlock forests are usually found in rocky areas and ravines while the beech forests are found in coarse washed till soils. These forests are common for the American beech, hemlock, red oak and white pine. This forest type is the most common in New Hampshire and is found throughout vary topographies and geographic areas in the state. A wide variety of species are supported by these ecosystems and due to the commonality of this forest type throughout New Hampshire, conservation efforts may overlook it.

Open Water

Acres: 1446.2
7.8% of Dover's land area

Open water habitat is defined by the National Land Cover Database as areas of open water, generally with less than 25% cover of vegetation or soil.[iv] This habitat may include different wetland system types or other surface water classifications. Open water areas mainly encompass rivers and estuary spaces in Dover.

PHOTO: Ellen Kenny

Floodplain Forests

Acres: 202.5
1.1% of Dover's land area

Floodplain Forests are areas found typically around lakes and streams. They are dry most of the time but serve as an overflow area during heavy rain events and spring thaw. This community provides many additional benefits due to the periodic flooding of these areas including: filtering of pollutants, improving water quality, and erosion control along the river banks.

The plant species most often noted are mostly red maple, along with American elm, black ash, black cherry, eastern cottonwood, ironwood, river birch, swamp white oak, and sycamore.

The damp conditions create excellent breeding grounds for insects and amphibians, provide nesting areas and food for birds, and corridors for wildlife to move along unfragmented areas. Wildlife species that are commonly found in these areas include Bald Eagle, Big Brown Bat, Blanding's Turtle, Blue-Spotted Salamander Complex, Cerulean, Warbler, Eastern Red Bat, Eastern Ribbonsnake, Hoary Bat, Jefferson Salamander Complex, Moose, Northern Leopard Frog, Purple Finch, Rapids Clubtail, Silver-Haired Bat, Skillet Clubtail, Spotted Turtle, Tricolored Bat, Veery, Wood Thrush, and Wood Turtle.

© Ben Kimball

Peatlands

Acres: 222.5
1.2% of Dover's land area

Peatlands are important habitats from a local and global perspective for carbon removal by storing it away and slowly releasing it into the atmosphere, thereby helping to reduce greenhouse gases. Vegetation found in peatlands includes American larch, leather leaf, northern white cedar, and sphagnum moss. The wildlife species that typically inhabit peatlands include several species of birds, insects, and reptiles including Blanding's Turtle, Blue-Spotted Salamander Complex, Eastern Ribbonsnake, Eastern Towhee, Jefferson Salamander Complex, Kennedy's Emerald, Mink Frog, Northern Harrier, Ocellated Emerald, Olive-Sided Flycatcher, Pied-billed Grebe, Pine Barrens Bluet, Ringed Boghaunter, Rusty Blackbird, Sedge Darner, Smooth Greensnake, and Spotted Turtle. Peatlands are critical for the broader ecosystem, and protection against certain pollutants including road salt, fertilizers, and other materials that threaten them.

PHOTO: UNH Extension

Marsh & Shrub Wetlands

Acres: 542.1
2.9% of Dover's land area

Marsh and shrub wetlands is grouped into the following three categories: meadow marshes, emergent marshes, and shrub-scrub wetlands. Meadow marshes, or wet meadows, are dominated by herbaceous vegetation, most notably sedges, typically less than one meter in height. These systems are wet for most of the growing season but do not experience frequent flooding. Emergent marshes are also dominated by herbaceous vegetation but experience seasonal fluctuations in water levels above typical surface level. Species of note in this system include Blanding's turtle, spotted turtle, pied-billed grebe, American black duck, northern harrier, American bittern, Virginia rail, sora, least bittern, common gallinule, great-blue heron, red-winged blackbird, muskrat, mink, and spring peeper. Shrub-scrub wetlands are dominated by woody vegetation such as saplings and shrubs. These systems flood often in the springtime and may contain areas of standing water. Flora present in this system include highbush blueberry, winterberry shrub thicket, buttonbush shrubland, and alder-dogwood-arrowwood alluvial thicket. Wildlife of note in the shrub-scrub system include Blanding's turtle, spotted turtle, New England cottontail, Canada warbler, American woodcock, gray catbird, moose, and several breeding amphibians. Invertebrate present in marsh and shrub wetland systems include worms, mollusks, crustaceans, mayflies, caddisflies, dragonflies and damselflies, and water beetles, among others. Dover's marsh and shrub wetlands can be sustained through monitoring of invasive species such as Japanese knotweed and purple loosestrife.

PHOTO: Ben Kimball

Temperate Swamps

Acres: 465.1
2.5% of Dover's land area

Temperate swamps are comprised forested wetlands and can be distinguished as three systems including the temperate peat swamp, coastal conifer peat swamp, and temperate minerotrophic swamp system. Temperate peat swamps are typically stagnant basins with saturated, organic soils. Prominent vegetation in this system include red maples, highbush blueberries, and winterberries. Black gum may also be present. The coastal conifer peat swamp system is dominated by the Atlantic white cedar. Temperate minerotrophic swamps are dominated by red maples, but in contract to peat swamps, have less acidic mineral soils, and have more diverse flora with more herbaceous species. Coastal conifer swamps are likely in Dover, and their main threats include insecticides and fertilizers entering the ecosystem.

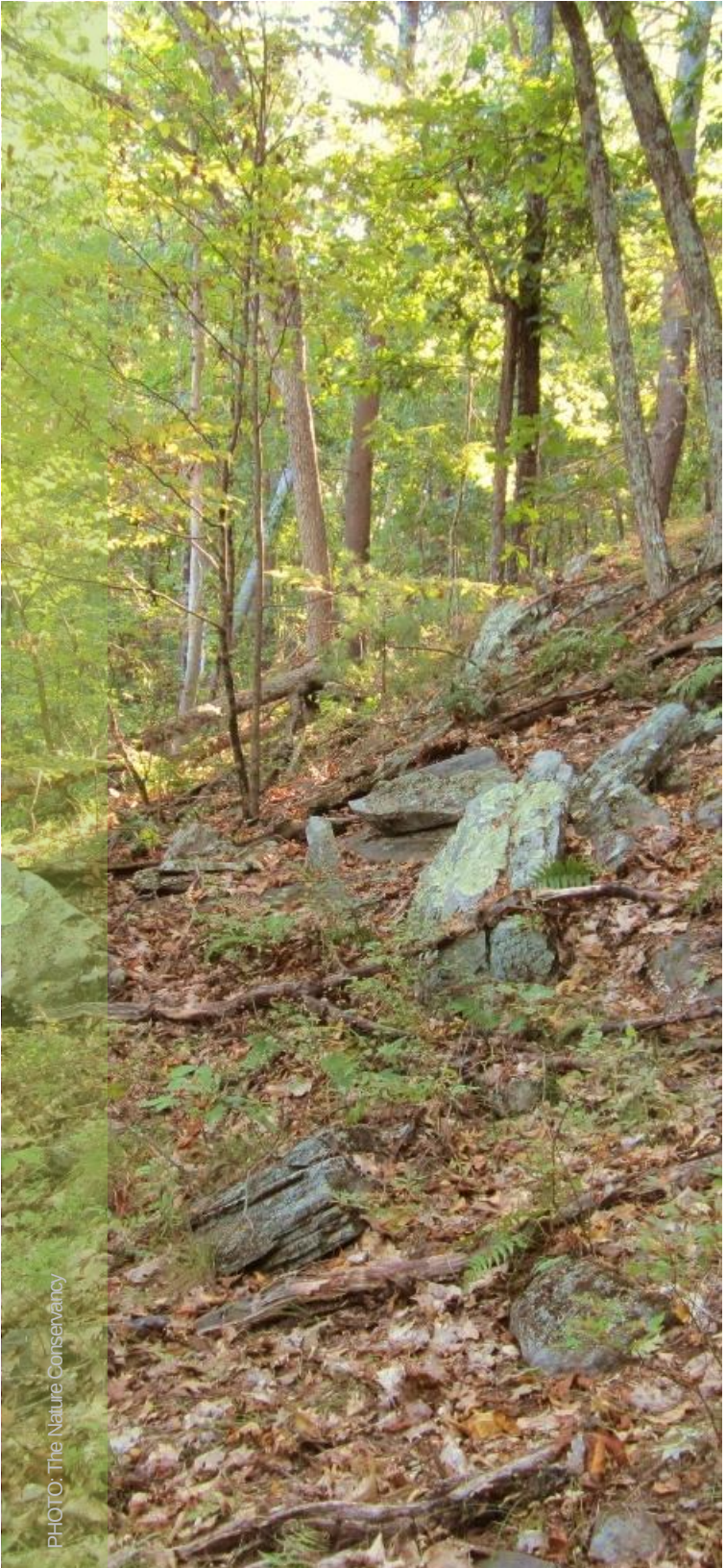


PHOTO: The Nature Conservancy

Rocky Ridge

Acres: 1.67
0.008% of Dover's land area

Rocky ridges are separated into two groups based on elevation and geographic distribution, montane and temperate. Montane systems occur at elevations above 2,200 feet and are mostly found in the White Mountains. Temperate systems, more specifically Appalachian oak rocky woods systems, occur at much lower elevations and are generally closed-canopy forests on slopes with exposed bedrock or loose boulders. These systems are comprised of white oak, hickories, and flowering dogwood, and some bryophytes (mosses, liverworts, and hornworts.) A very small area of Dover includes these areas, yet they are still important components of the ecosystem that supporting certain species.

PHOTO: John Livaitis

Sand and Gravel

Acres: 166.08
0.9% of Dover's land area

While sand and gravel pits are not listed as key wildlife habitat in New Hampshire, like developed lands, these areas have been known to provide habitat to some species. Abandoned sand and gravel excavation areas are dry places that lack the soil health needed to regrow vegetation, and therefore often support shrubland and graqssland habitats for longer periods of time than areas with healthy soils. Some examples of wildlife adaptations to this type of land are listed below.

- Common nighthawk nesting
- Bank swallows nesting in steep sand bank
- Blanding's, spotted, and wood turtles nesting in areas of bare soil without large trees
- Black racers, hognose snakes, and smooth green snakes utilizing the diverse vegetative structure and laying eggs in bare sandy areas
- Tiger beetles using exposed sandy areas provided by excavation areas.
- New England cottontail using dense regenerating shrubland habitat.
- Nesting and migration habitat for shrubland and grassland birds

PHOTO: NH State Parks

Salt Marsh

Acres: 204.01
1.1% of Dover's land area

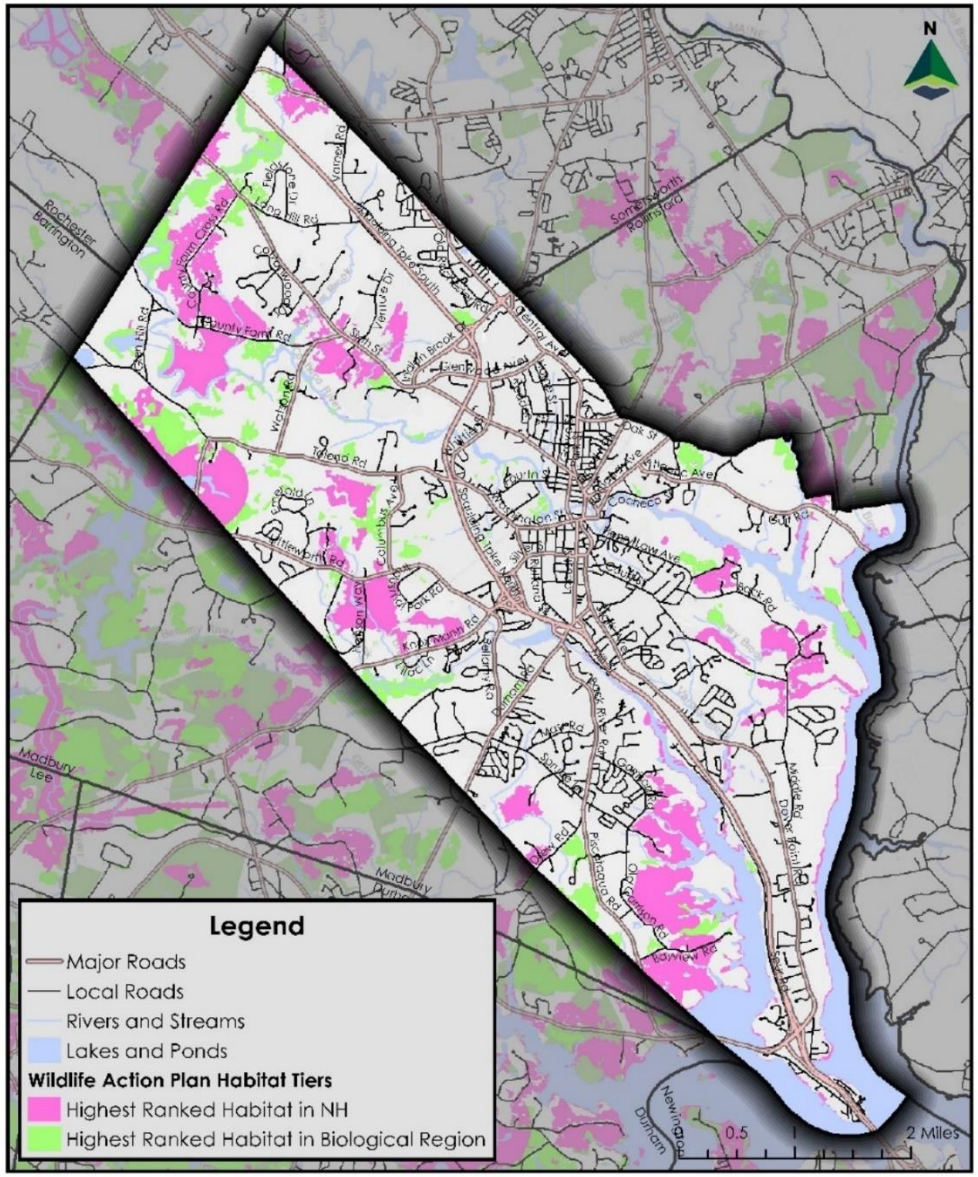
Salt marshes are one of the most valuable habitats in the state, according to the 2015 NH Wildlife Action Plan. By 2060, most high-marsh areas are projected to convert to low-marsh areas due to sea-level rise, unless the marsh can build at a rate greater than 5 mm annually. This is a concern because salt marshes provide critical coastal flood storage, which could be lost if open spaces are not protected to anticipate salt marsh migration. Salt marshes are able to migrate inland and form new marsh in low lying areas of undeveloped land. The 2015 Tides to Storms Report indicates that Dover does have potential for salt marsh migration, a critical nexus in the City's management of natural resources.

3.1.2 Highest Ranked Habitats

The 2020 Wildlife Action Plan analyzes 169 species of greatest conservation need and 27 habitats which support those species and separates them into three tiers. The tiers are defined as follows:

- Tier 1: Highest Ranked in the State by Ecological Condition
- Tier 2: Highest Ranked in the Biological Region by Ecological Condition
- Tier 3: Supporting Landscapes

	Acres	Acres in Conservation	% Tier Conserved
Tier 1	3,200	986	31%
Tier 2	916	373	41%
Tier 3	4,643	1,246	27%



Natural Resource Inventory - City of Dover, NH
Wildlife Action Plan Habitat Tiers

3.2 Natural Heritage Bureau

The Natural Heritage Bureau, a bureau of the NH Division of Forests and Lands, maintains municipality specific lists of rare plants and animals and exemplary natural communities. The following table includes those rare plants and animals and exemplary natural communities which exist in Dover.[v]

Key

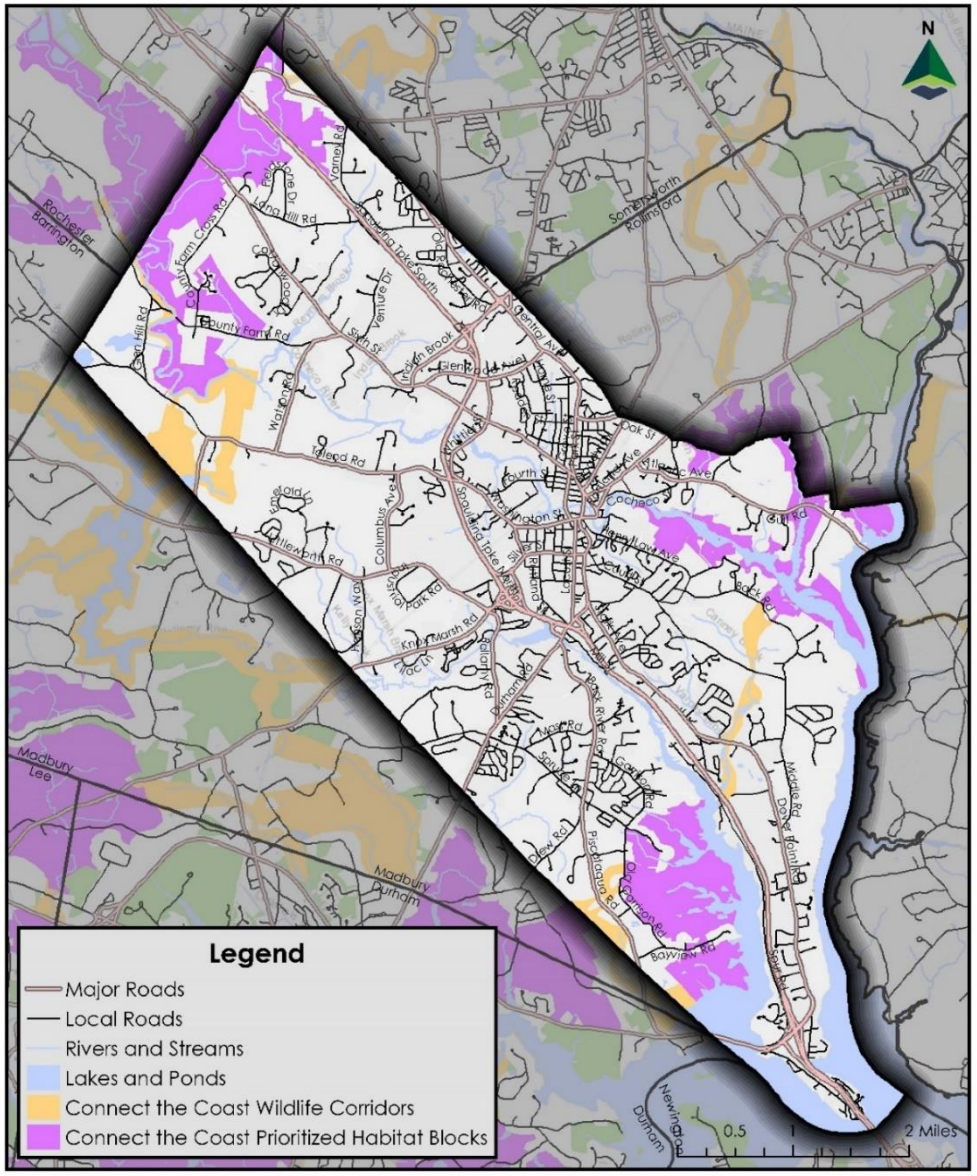
Flags	*** = Extremely high importance	** = Very high importance	* = High importance	~ = Historical Record
Listed?	E = Endangered	T = Threatened	SC = Special Concern	

Species or Community Name	Flag	Listed?		~ Reports Last 20 Years	
		US	NH	Town	State
Natural Communities - Palustrine					
Red maple floodplain forest	**	--	--	1	6
Natural Communities - Estuarine					
Brackish marsh	**	--	--	1	12
Eelgrass bed	**	--	--	1	2
High brackish riverbank marsh	*	--	--	1	3
Low brackish riverbank marsh	**	--	--	2	6
Plants					
eastern grasswort - *Lilaeopsis chinensis*	**	--	E	1	4
Engelmann's quillwort - *Isoetes engelmannii*	~	--	E	Historical	15
Georgia bulrush -*Scirpus georgianus*	~	--	E	Historical	3
great bur-reed - *Sparganium eurycarpum*	~	--	T	Historical	21
greater fringed-gentian - *Gentianopsis crinita*	***	--	T	1	30
hairy hudsonia - *Hudsonia tomentosa*	~	--	T	Historical	17
horned-pondweed - *Zannichellia palustris*	~	--	E	Historical	5
long-leaved pondweed - *Potamogeton nodosus*	~	--	T	Historical	24
lopsided rush - *Juncus secundus*	~	--	E	Historical	8
needle-tipped blue-eyed-grass -*Sisyrinchium mucronatum*	~	--	E	Historical	1
northern blazing star - *Liatris novae-angliae* var. *novae-angliae*	~	--	E	Historical	16

northern shore quillwort - *Isoetes septentrionalis*	~	--	E	Historical	16
northern tubercled bog-orchid - *Platanthera flava* var. *herbiola*	**	--	T	1	18
Nuttall's reed grass - *Calamagrostis coarctata*	**	--	E	1	8
pale duckweed - *Lemna valdiviana*	~	--	E	Historical	4
perennial saltmarsh American-aster - *Symphyotrichum tenuifolium* var. *tenuifolium*	**	--	E	1	6
prolific yellow-flowered knotweed - *Polygonum ramosissimum* ssp. *prolificum*	**	--	E	1	11
red-root umbrella sedge - *Cyperus erythrorhizos*	**	--	E	1	4
resupinate bladderwort - *Utricularia resupinata*	~	--	E	Historical	15
rufous bulrush - *Scirpus pendulus*	**	--	E	1	5
saltmarsh agalinis - *Agalinis maritima* ssp. *maritima*	*	--	T	1	12
seaside brookweed - *Samolus valerandi* ssp. *parviflorus*	**	--	E	1	6
smooth black sedge - *Carex nigra*	~	--	E	Historical	11
spongy-leaved arrowhead -*Sagittaria spatulata*	~	--	E	Historical	2
trailing bush-clover - *Lespedeza procumbens*	~	--	E	Historical	3
Virginia three-seeded-Mercury - *Acalypha virginica*	~	--	E	Historical	5
Vertebrates - Mammals					
New England Cottontail - *Sylvilagus transitionalis*	***	--	E	3	24
Vertebrates - Birds					
Bald Eagle - *Haliaeetus leucocephalus*	**	T	SC	3	140
Cliff Swallow - *Petrochelidon pyrrhonota*	**	--	T	2	29
Eastern Meadowlark -*Sturnella magna*	**	--	T	2	28
Upland Sandpiper -*Bartramia longicauda*	~	--	E	Historical	6
Vertebrates - Reptiles					
Blanding's Turtle - *Emydoidea blandingii*	**	--	E	1	1098
Northern Black Racer - *Coluber constrictor constrictor*	**	--	T	1	70
Spotted Turtle - *Clemmys guttata*	**	--	T	4	165
Vertebrates - Fish					
American Eel - *Anguilla rostrata*	**	--	SC	6	177
Invertebrates - Dragonflies & Damselflies					
Ringed Boghaunter -*Williamsonia lintneri*	***	--	E	1	15

3.3 Connect the Coast (2019)

Connect the Coast is a tool that identifies prioritized blocks of habitat and wildlife movement corridors, including high priority road-crossing areas, that aims to create a landscape of unfragmented habitat for wildlife. Habitat connectivity is critical in ensuring wildlife can move across the landscape to suitable areas that support all stages of species' life cycles. Many species exist in varying habitats depending on their life stage and require a large range of landscape that can't be accommodated by smaller, fragmented habitat blocks. Population growth and development pressures emphasize the need to ensure thoughtful community planning where high priority areas are conserved to maintain and enhance habitat connectivity across Dover, the coastal watershed, and beyond.[vi]

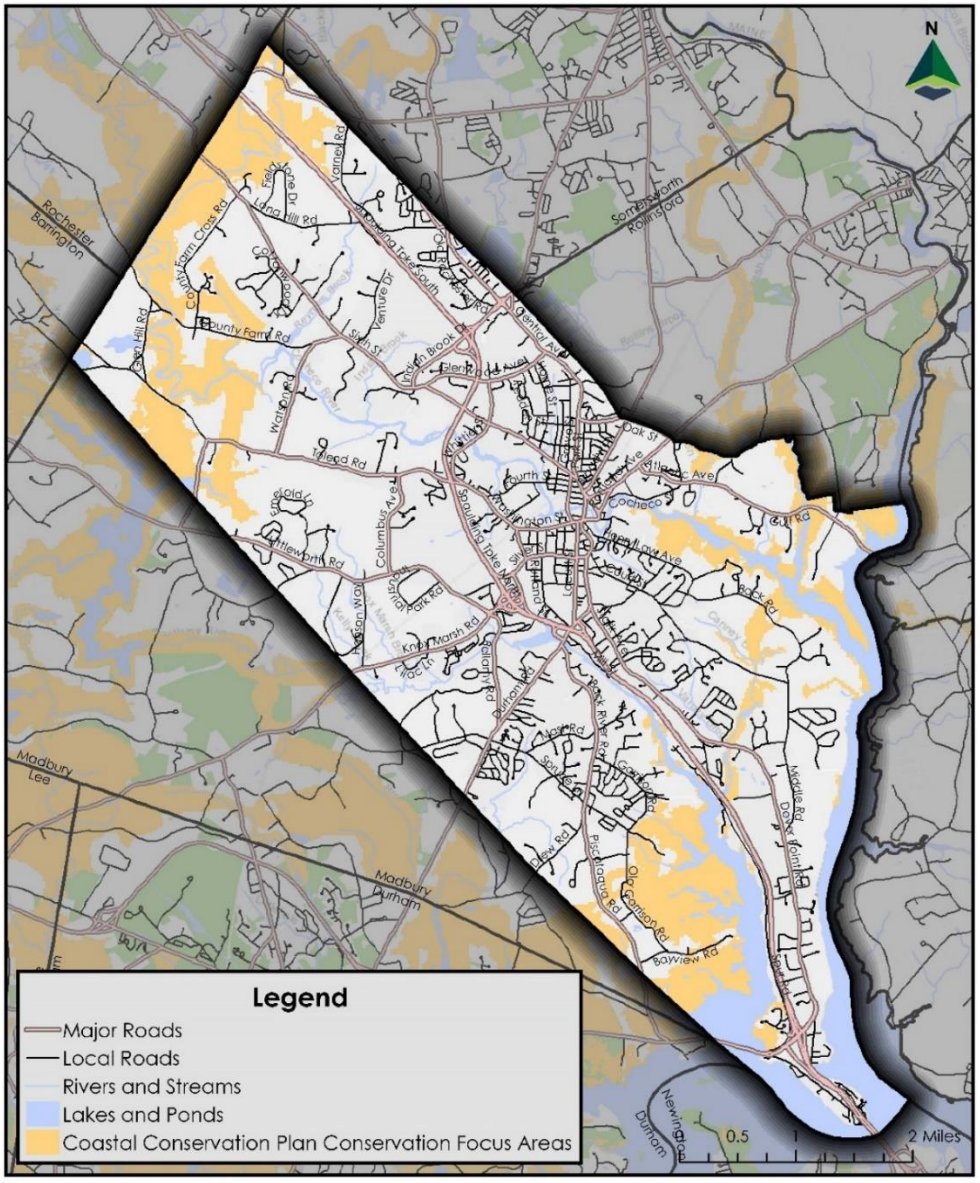


Natural Resource Inventory - City of Dover, NH
Connect the Coast Habitats

3.4 NH Coastal Watershed Conservation Plan (2021)

New Hampshire's 2021 update to the Coastal Watershed Conservation Plan was developed through an extensive community engagement and data synthesis process, using existing regional plans and geospatial datasets to identify conservation focus areas, with the goal of maintaining ecological function and integrity across a landscape that is under threat from habitat loss, habitat degradation, and the impacts of climate change. Input conservation plans used in this analysis are shown in the table below. This plan builds off the 2006 plan titled, "The Land Conservation Plan For New Hampshire's Coastal Watersheds." Coastal Conservation Focus Areas identified in the 2021 update represent priorities such as wildlife and habitat, water resources, coastal resilience, and opportunities for climate adaptation using nature-based solutions. The Conservation Focus Areas, pictured on the map to the right, account for 38.2 percent (265,368 acres) of New Hampshire's coastal watershed area. [vii]

Input Conservation Plan
2019 Connect the Coast – Prioritized Habitat Block
2019 Connect the Coast – Wildlife Corridors
2020 New Hampshire Wildlife Action Plan – Tier 1
Maine Beginning with Habitat Focus Areas
2016 Water Resources – Pollutant Attenuation
2016 Water Resources – Flood Storage and Risk Mitigation
2020 New Hampshire Wildlife Action Plan – Tier 2
Salt Marsh Resiliency Areas
2020 Resilient and Connected Network
2016 Water Resources – Public Water Supply

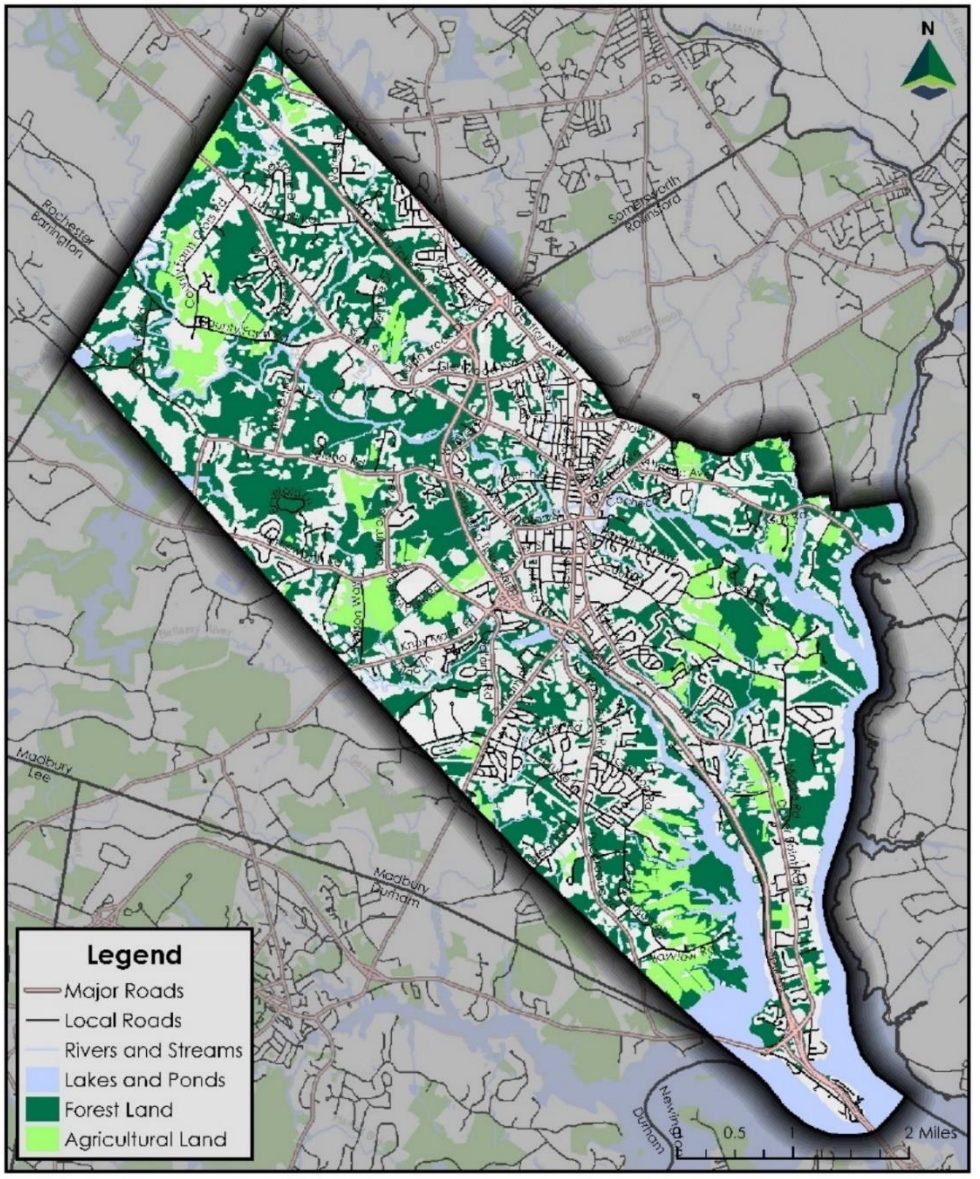


Natural Resource Inventory - City of Dover, NH
Conservation Focus Areas

Section 4: Agriculture and Forestry

The map to the right demonstrates areas in Dover considered agricultural or forest land. Approximately 6,308.4 acres of land in Dover are forested, or 33.9% of the City, and 1,411.8 acres of land are considered agricultural, or 7.6% of the City. Not only do agricultural and forest lands provide important products such as food and timber, but these lands are also valued for their scenic qualities, wildlife habitat, and ability to mitigate the impacts of climate change. The following sections discuss the ideal conditions and areas for forest and agricultural land uses.

Resource	Acres	% of City
City of Dover	18,592.1	100.0%
Forest Land	6,308.4	33.9%
Agricultural Land	1,411.8	7.6%



Natural Resource Inventory - City of Dover, NH
Forest and Agricultural Lands

4.1 Implications of Climate Change on Agriculture & Forestry Practices

Climate change has profound impacts on agricultural land, affecting various aspects of crop production, soil health, water availability, and the overall agro-ecosystem. Climate change alters temperature and precipitation patterns, leading to changes in growing seasons. Warmer temperatures can advance planting dates, while erratic weather patterns may disrupt crop growth cycles, affecting yields and harvest times. Warmer temperatures and altered precipitation patterns also create favorable conditions for the proliferation of pests and diseases.

Crop pests expand their ranges into new territories, while changing weather patterns may disrupt natural pest control mechanisms, leading to increased pesticide use and crop losses. Changes in temperature and precipitation regimes may disrupt pollination cycles, decrease genetic diversity in crop plants, and affect the availability of wild plant species that serve as sources of genetic material for crop improvement.

Droughts may become more frequent and severe, reducing crop yields, threatening livestock, and increasing competition for water resources among farmers, urban areas, and ecosystems. Intense rainfall events and prolonged droughts associated with climate change can degrade soil quality through erosion, compaction, and nutrient depletion. Loss of soil organic matter reduces its ability to retain water and nutrients, impairing crop growth and productivity. Rising sea levels may also impact agricultural landscapes.[viii]

In Dover, climate change has resulted in increasing frequency and severity of storms, flooding, drought conditions, and temperature fluctuations which have impacted natural resources throughout the community.

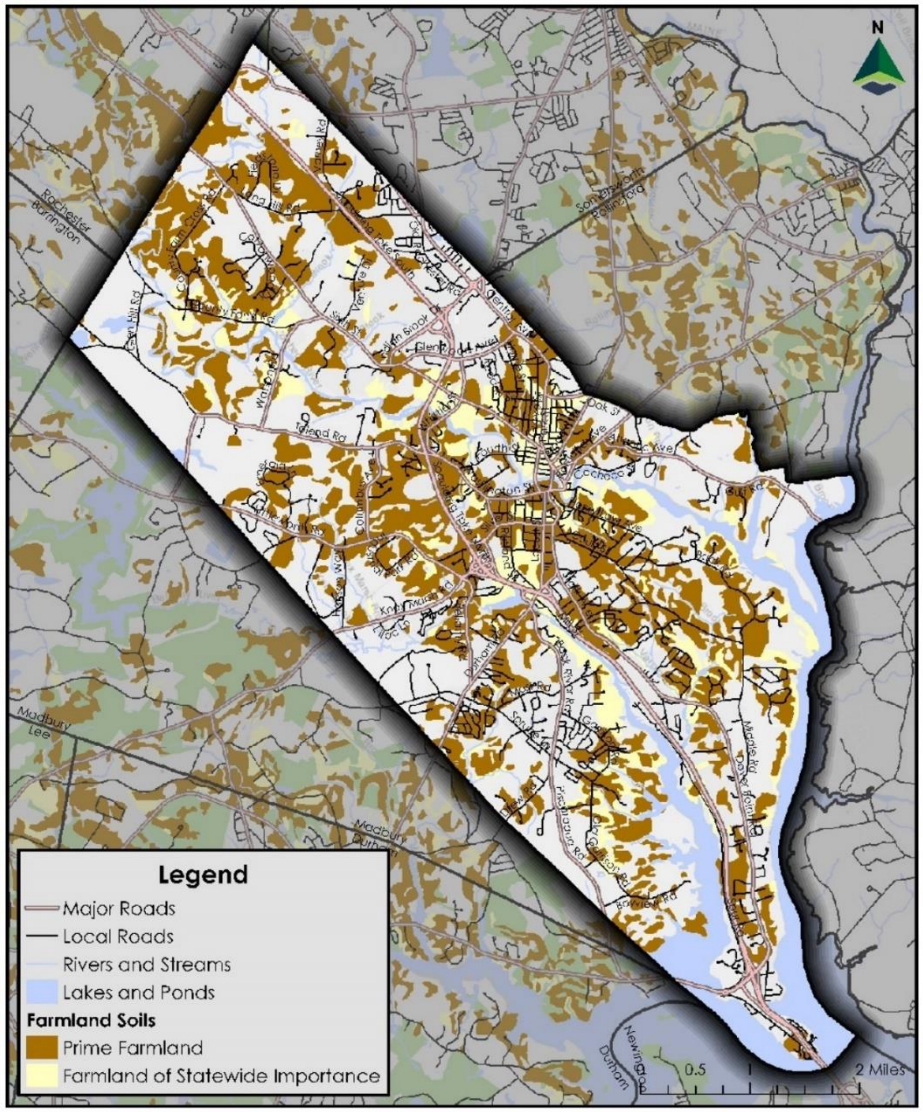
4.2 Agricultural Soils and Active Farmlands

The map pictured on the right illustrates an abundance of both Prime Farmland and Farmland of Statewide Importance. Approximately 5,399.74 acres of land in Dover are classified as Prime Farmland, or 29% of Dover's land area. About 1,499.98 acres of land are classified as Farmland of Statewide Importance, or 8.1% of Dover's land area. As of 2015, 1,411.75, or 7.6% of land in Dover is in active agricultural use.

Prime Farmland is defined by the Natural Resources Conservation Service as land that has an optimal combination of physical and chemical attributes needed to produce agricultural products. The land's soil properties—acidity versus alkalinity, sodium content, and little to no rocks—growing season, and water supply—either from precipitation or irrigation—are ideal to maintain high yields of crops if managed under agricultural best practices.[ix]

While Farmland of Statewide Importance is not considered prime or unique, it is given this designation due to its importance in producing agricultural products. Attributes of land with this designation include slopes of less than 15%; not stony or bouldery; not somewhat, poorly, or very poorly drained; soil complexes with less than 30% shallow soils and rock outcrops and slopes do not exceed 8% and are not excessively drained or generally have low water holding capacity.[x]

Soils	Acres	% of City
City of Dover	18,592.13	100.0%
Prime Farmland	5,399.74	29.0%
Farmland of Statewide Importance	1,499.98	8.1%



Natural Resource Inventory - City of Dover, NH
Farmland Soils

4.3 Forest Soils and Forestry

The following soils are defined by the Natural Resources Conservation Service to aid in planning for productive forest management. These groupings aid in evaluating soil productivity, understanding plant succession patterns, and making informed management decisions for forest resources.

Group IA: These soils are deeper, loamy, moderately well-drained, and well-drained, with high fertility and favorable moisture conditions. They support shade-tolerant hardwoods like sugar maple and beech and are suitable for high-quality hardwood veneer and sawtimber.

Group IB: Moderately well-drained and well-drained soils, slightly less fertile than IA, with adequate moisture for good tree growth. They support similar trees as IA but with beech as a dominant species in climax stands.

Group IC: Soils derived from glacial outwash sand and gravel, coarse-textured, and excessively drained to moderately well-drained. Suitable for softwoods like red spruce and hemlock, with limited potential for hardwoods.

Group IIA: Diverse soils with limitations such as steep slopes, bedrock outcrops, and extreme stoniness. Although productive, management activities are more difficult and costly.

Group IIB: Poorly drained soils with a seasonal high-water table, lower productivity than IA, IB, or IC. Suitable for softwoods like spruce and balsam fir, with less hardwood competition but requiring intensive management.

Not Rated (NC): Some soils are too variable or have limited potential for commercial forest product production, such as very poorly drained soils and those at high elevations.

Primary soil types found in the City of Dover are listed on the next page, and their relative forest soil group is also identified. Data was obtained by using the Soil Survey Geographic (SSURGO) database for New Hampshire, which was prepared by soil scientists as part of the National Cooperative Soil Survey and can be used for resource planning and analysis.

4.4 Soil Types

Soils	Acres	% of City	Forest Soil Group
City of Dover	18,592.13	100.0%	
Buxton silt loam, 3 to 8 percent slopes	2,945.48	15.8%	IA
Scantic silt loam, 0 to 3 percent slopes	1928.605221	10.4%	IIB
Water	1429.412026	7.7%0	NC
Suffield silt loam, 8 to 15 percent slopes	1123.954712	6.0%	IB
Windsor loamy fine sand, clay subsoil variant, 0 to 8 percent slopes	1014.466943	5.5%	IA
Hollis-Charlton fine sandy loams, 3 to 8 percent slopes	867.324315	4.7%	IB
Windsor loamy sand, 3 to 8 percent slopes	762.681671	4.1%	IA
Hinckley loamy sand, 3 to 8 percent slopes	759.88611	4.1%	IC
Saugatuck loamy sand	727.011571	3.9%	IIB
Windsor loamy sand, 0 to 3 percent slopes	663.944108	3.6%	IA
Charlton fine sandy loam, 3 to 8 percent slopes	573.59	3.1%	IA
Scantic silt loam, 3 to 8 percent slopes	407.194656	2.2%	IIB
Elmwood fine sandy loam, 3 to 8 percent slopes	385.82	2.1%	IA
Swanton fine sandy loam, 0 to 3 percent slopes	308.863551	1.7%	IIB
Swanton fine sandy loam, 3 to 8 percent slopes	287.192857	1.5%	IIB
Windsor loamy sand, 15 to 60 percent slopes	276.260308	1.5%	IA
Hollis-Charlton fine sandy loams, 8 to 15 percent slopes	246.081844	1.3%	IB
Hinckley loamy sand, 8 to 15 percent slopes	243.644165	1.3%	IC
Windsor loamy fine sand, clay subsoil variant, 8 to 15 percent slopes	241.617984	1.3%	IA
Tidal marsh	212.52059	1.1%	NC
Suffield silt loam, 15 to 35 percent slopes	202.975389	1.1%	IIA
Buxton silt loam, 0 to 3 percent slopes	193.48	1.0%	IA

Hinckley gravelly loamy sand, 15 to 60 percent slopes	172.47574	0.9%	IIA
Made land	172.172327	0.9%	NC
Elmwood fine sandy loam, 0 to 3 percent slopes	149.71	0.8%	IA
Biddeford silty clay loam	145.62	0.8%	IA
Gloucester very stony fine sandy loam, 8 to 15 percent slopes	144.169161	0.8%	IB
Gravel and borrow pits	130.376506	0.7%	NC
Hollis-Gloucester very rocky fine sandy loams, 8 to 15 percent slopes	127.001068	0.7%	IB
Windsor loamy sand, 8 to 15 percent slopes	123.337944	0.7%	IA
Hollis-Charlton very rocky fine sandy loams, 8 to 15 percent slopes	118.635992	0.6%	IB
Hollis-Gloucester very rocky fine sandy loams, 3 to 8 percent slopes	114.59489	0.6%	IB
Ondawa fine sandy loam	112.25189	0.6%	IA
Hinckley loamy sand, 0 to 3 percent slopes	97.73791	0.5%	IC
Mixed alluvial land, wet	96.806162	0.5%	NC
Deerfield loamy sand, 0 to 3 percent slopes	89.59	0.5%	IC
Deerfield loamy sand, 3 to 8 percent slopes	88.44	0.5%	IC
Hollis-Charlton very rocky fine sandy loams, 15 to 25 percent slopes	80.880275	0.4%	IB
Hollis-Gloucester fine sandy loams, 3 to 8 percent slopes	76.384109	0.4%	IB
Charlton fine sandy loam, 8 to 15 percent slopes	66.52	0.4%	IA
Gloucester fine sandy loam, 3 to 8 percent slopes	63.39	0.3%	IB
Gloucester very stony fine sandy loam, 3 to 8 percent slopes	59.605985	0.3%	IB
Hollis-Gloucester fine sandy loams, 8 to 15 percent slopes	53.216296	0.3%	IB
Podunk fine sandy loam	39.92033	0.2%	IA
Charlton fine sandy loam, 15 to 25 percent slopes	38.91	0.2%	IA
Charlton very stony fine sandy loam, 15 to 25 percent slopes	36.80	0.2%	IA
Gloucester fine sandy loam, 8 to 15 percent slopes	35.68	0.2%	IB
Charlton very stony fine sandy loam, 8 to 15 percent slopes	33.79	0.2%	IA
Leicester very stony fine sandy loam, 3 to 8 percent slopes	33.531325	0.2%	IIB

Hollis-Charlton fine sandy loams, 15 to 25 percent slopes	30.648921	0.2%	IB
Rumney fine sandy loam	24.974421	0.1%	IIB
Sutton fine sandy loam, 0 to 8 percent slopes	24.950031	0.1%	IA
Hollis-Charlton extremely rocky fine sandy loams, 25 to 60 percent slopes	24.929633	0.1%	IIA
Sutton very stony fine sandy loam, 0 to 8 percent slopes	22.882706	0.1%	IA
Gloucester very stony fine sandy loam, 15 to 25 percent slopes	20.659505	0.1%	IB
Hollis-Charlton very rocky fine sandy loams, 3 to 8 percent slopes	19.817554	0.1%	IB
Hollis-Gloucester very rocky fine sandy loams, 15 to 25 percent slopes	18.385007	0.1%	IB
Charlton very stony fine sandy loam, 3 to 8 percent slopes	15.93	0.1%	IA
Hollis-Charlton extremely rocky fine sandy loams, 8 to 25 percent slopes	12.997208	0.1%	IIA
Hollis-Gloucester extremely rocky fine sandy loams, 25 to 60 percent slopes	12.955186	0.1%	IIA
Muck and peat	11.995264	0.1%	NC
Acton very stony fine sandy loam, 8 to 15 percent slopes	7.59	0.0%	IB
Gloucester very stony fine sandy loam, 25 to 60 percent slopes	5.443448	0.0%	IIA
Acton fine sandy loam, 0 to 8 percent slopes	4.51	0.0%	IB
Leicester fine sandy loam, 0 to 8 percent slopes	3.141213	0.0%	IIB
Ridgebury fine sandy loam, 0 to 3 percent slopes	2.963105	0.0%	IIB
Leicester-Ridgebury very stony fine sandy loams, 0 to 3 percent slopes	1.86563	0.0%	IIB

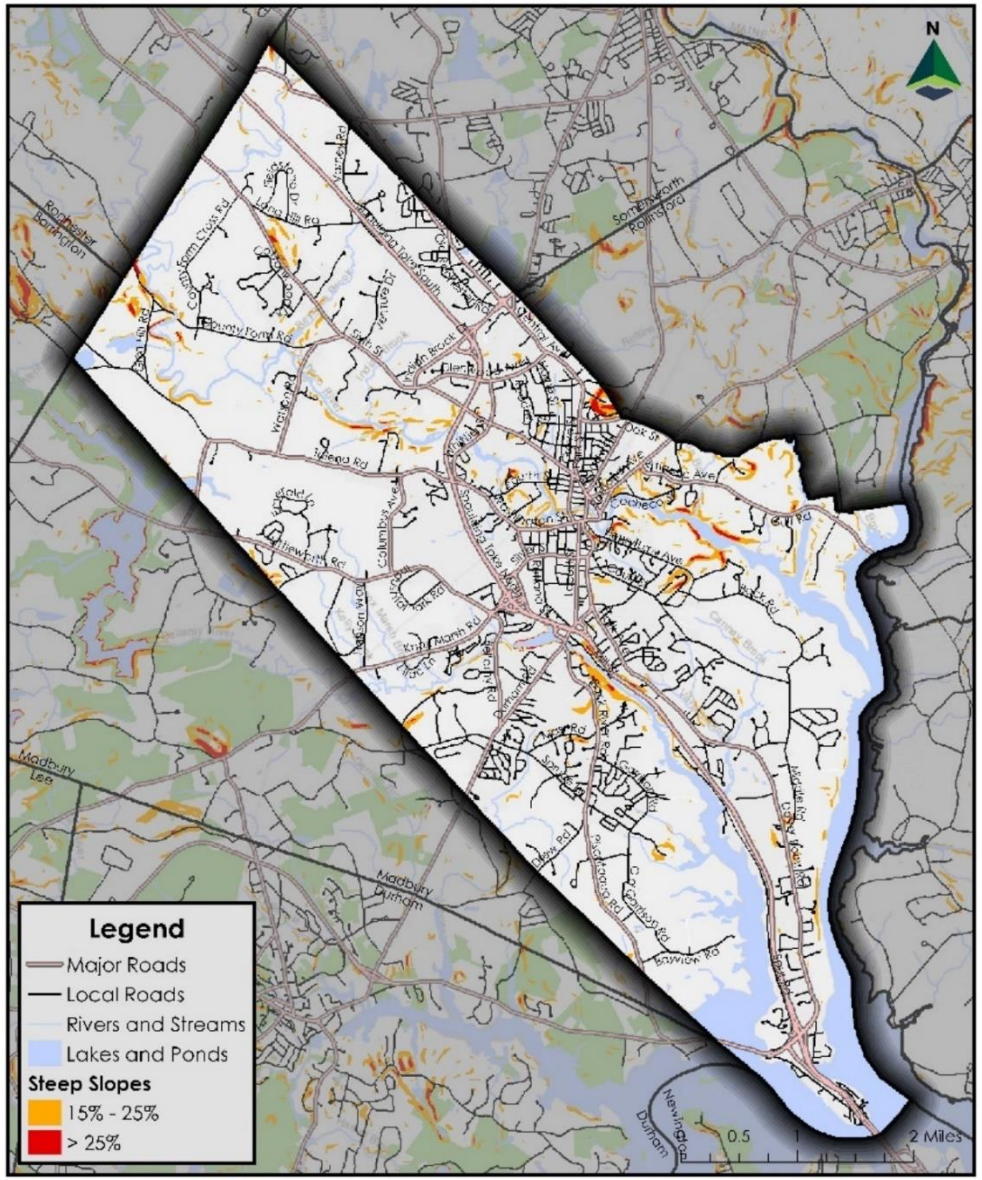
Section 5: Steep Slopes and Ridgelines

5.1 Steep Slopes

Waterfalls and gorges along major rivers develop steep slope communities found mostly at lower elevations, as compared to cliff and talus communities which exist above 1700 feet. Steep slope communities typically have richer calcareous soils. Prominent vegetation includes harebell, red columbine, fringed loosestrife, Canada anemone, virgins bower and spreading dogbane.[xi]

Development on steep slopes, more than 20% grade, is regulated by the City of Dover Conservation District Ordinance (Dover City Code 170-27).

Resource	Acres	% of City
City of Dover	18,592.13	100.0%
Slopes 15% - 25%	501.69	2.7%
Slopes > 25%	58.07	0.3%

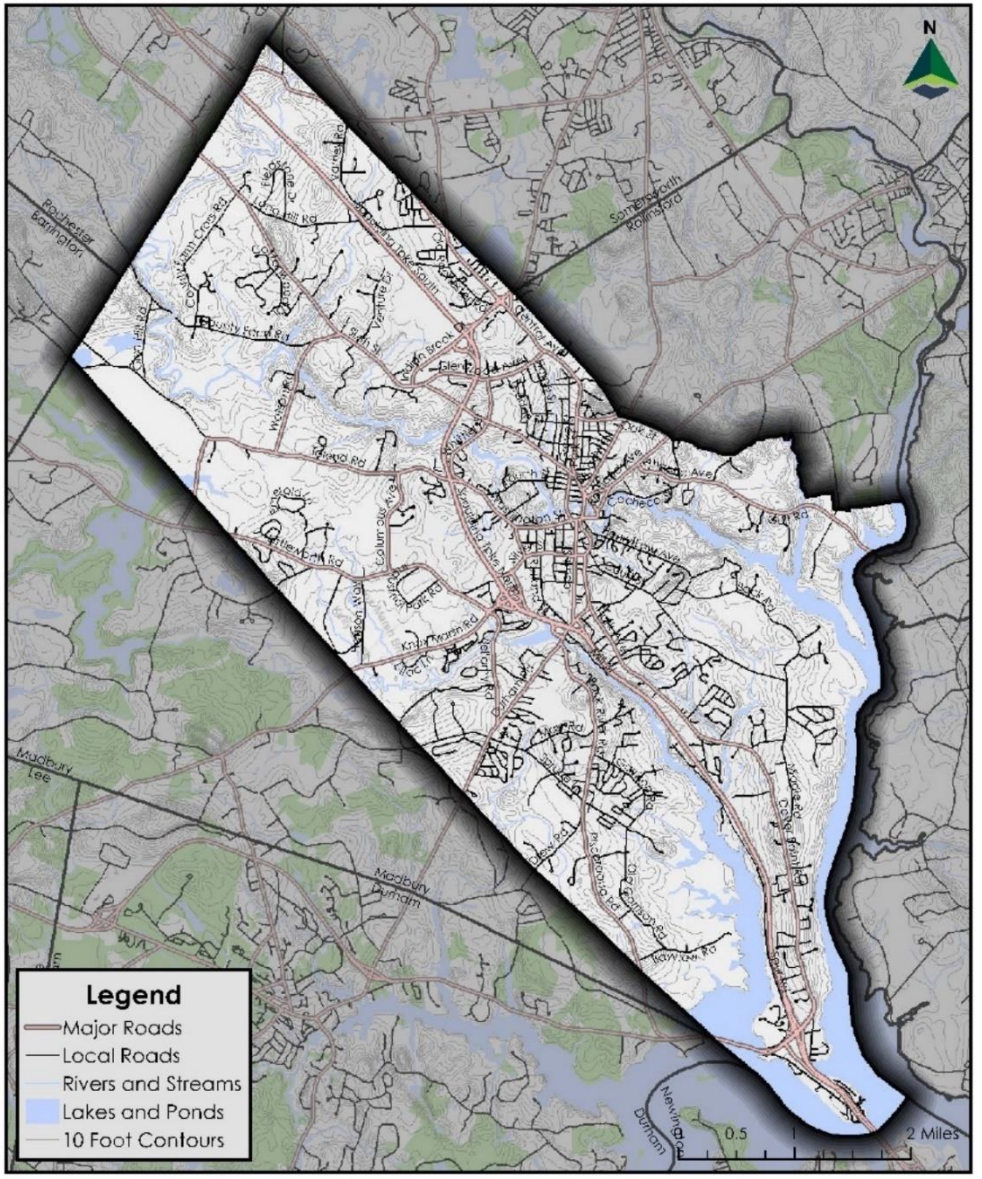


Natural Resource Inventory - City of Dover, NH
Steep Slopes

5.2 Ridgelines

While ridgelines are not present in Dover, a topography map pictured on the right demonstrates the City's varying elevation along 10-foot contours. Shifts in elevation can generate variations in climate across small distances, or microclimates. Microclimates indicate where different natural communities may be found in an area.[xii]

Topographic differences contribute to the categorization of ecological conditions, and support prioritization of Highest Ranked Habitat in the Biological Region.



Section 6: Historic and Cultural Resources

6.1 Historic Resources

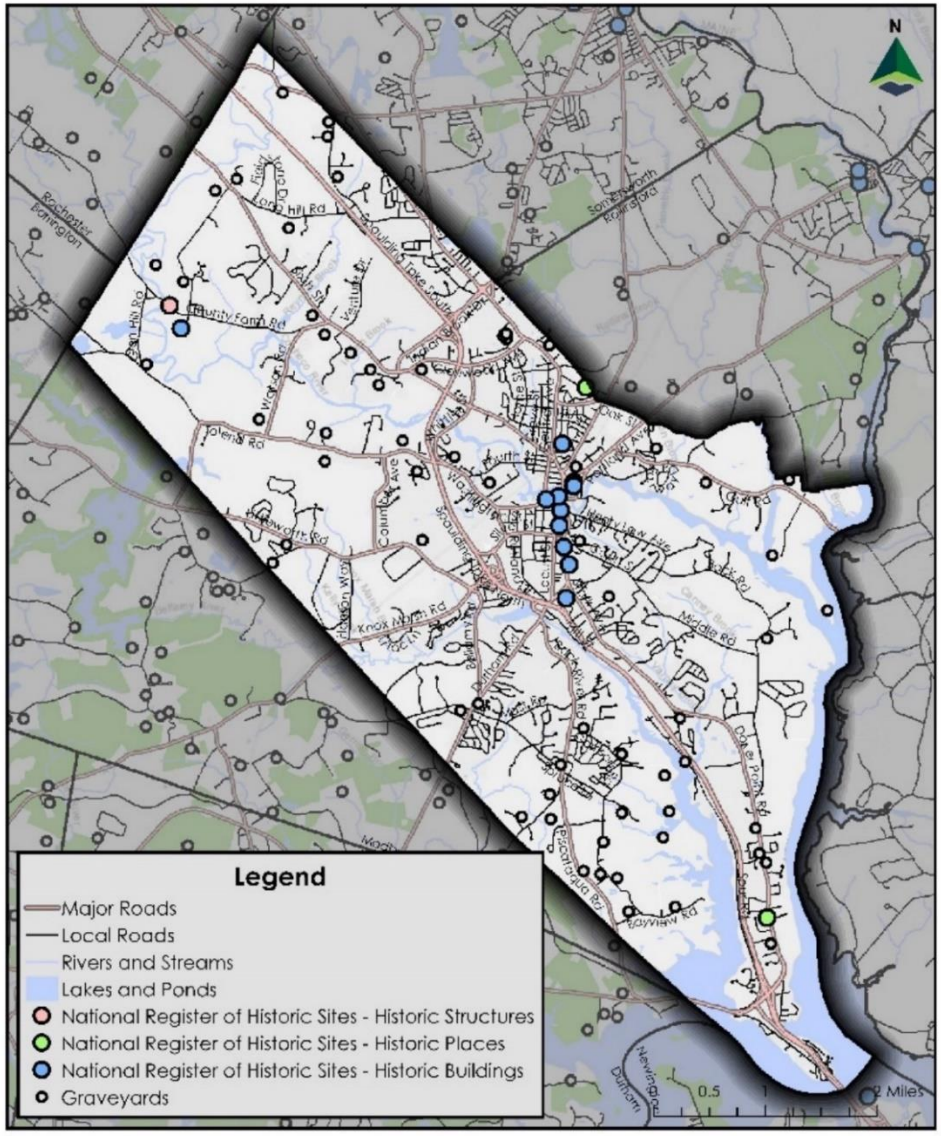
Local history is ultimately linked to a community's natural heritage. Documentation of historic resources can broaden understanding of how a community developed and demonstrate how land-use patterns today reflect patterns of growth in the past. One of the best sources of this information is the National Register of Historic Places.

The National Register of Historic Places (NRHP) is a list of districts, sites, buildings, structures, and objects deemed worthy of preservation for their historical significance by the National Park Service (NPS) and the New Hampshire Division of Historical Resources. Generally, properties are evaluated based on their significance in American history, architecture, archaeology, engineering, or culture. There are several considerations and guidelines for evaluating potential places including:

- **Age and Integrity:** Properties should generally be at least 50 years old and retain their historic integrity, meaning they still convey their significance through physical characteristics, location, and setting.

- **Significance:** Properties should have significance at the local, state, or national level in their respective categories (architecture, history, culture, etc.).

- **Documentation:** Properties must be documented thoroughly with historical research, photographs, maps, and other relevant materials.



Natural Resource Inventory - City of Dover, NH
Historic Resources

- **Owner Consent:** Property owners must consent to the nomination for listing on the National Register.

The table below lists sites registered to the NRHP in Dover as of January 2024.[xiii]

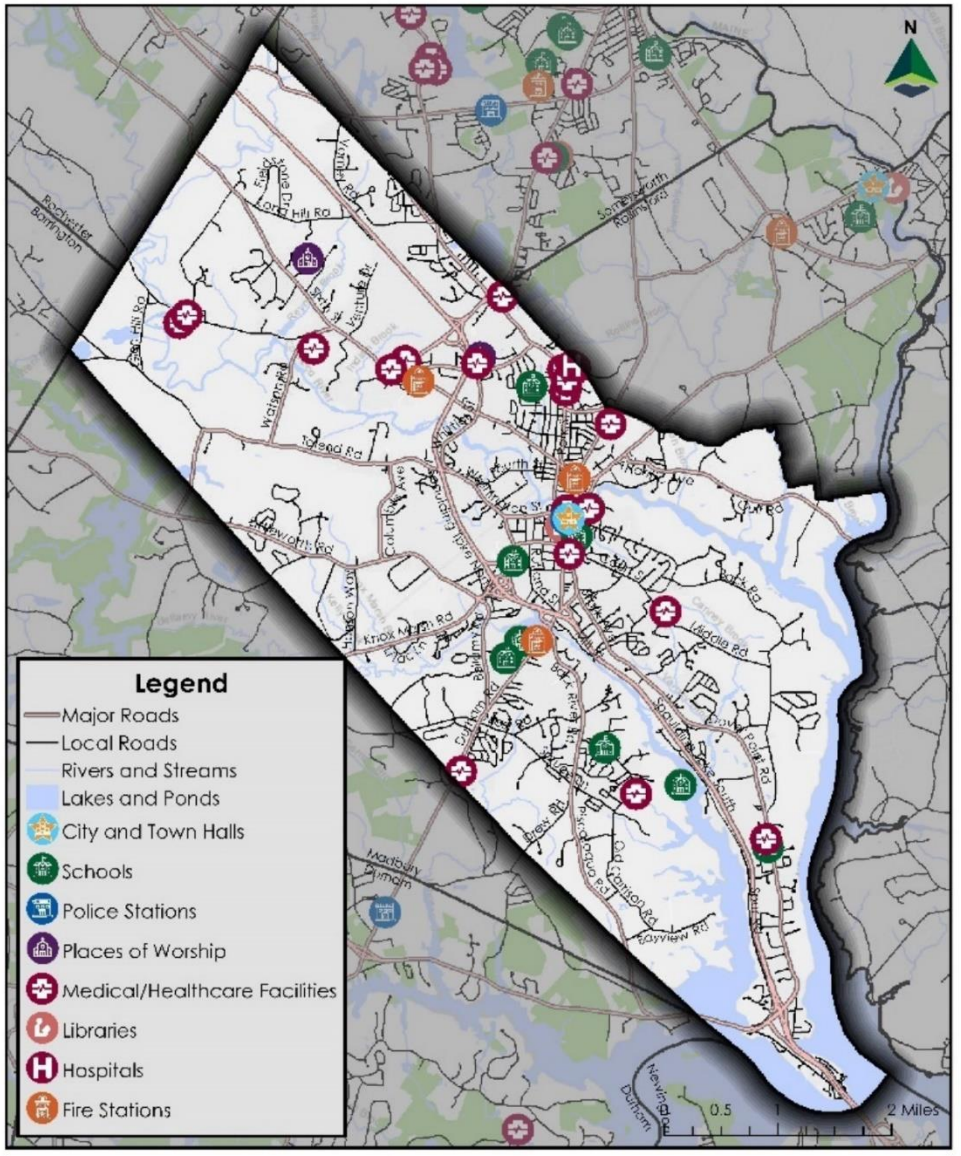
Inventory #	Property Name	Address	NR Listing Date
DOV0171	Public Market	93 Washington Street	3/7/1985
DOV0211	Cochecho Mills	Main & Washington Streets	3/24/2014
DOV0212	County Farm Covered Bridge	County Farm Road	5/21/1975
DOV0213	Back River Farm	99 111 Bay View Rd	6/22/1984
DOV0214	First Parish Church	218 Central Avenue	3/11/1982
DOV0215	Garrison Hill Park and Tower	Abbie Sawyer Memorial Drive	9/11/1987
DOV0216	William Hale House	5 Hale Street	11/18/1908
DOV0217	US Post Office - Dover Main	133-137 Washington Street	7/17/1986
DOV0218	Michael Reade House	43 Main Street	2/12/1980
DOV0219	Religious Society of Friends Meetinghouse	141 Central Avenue	2/29/1980
DOV0220	St. Thomas' Episcopal Church	5 Hale Street	6/7/1994
DOV0222	Sawyer Woolen Mills	1 Mill Street	9/13/1989
DOV0223	Strafford County Farm	County Farm Road	2/25/1981
DOV0224	Woodbury Mill	1 Dover Street	3/25/2013
DOV0225	Woodman Institute	182 Central Avenue	7/24/1980
DOV0226	Samuel Wyatt House	7 Church Street	12/2/1982

6.2 Cultural Resources

Cultural resources reflect some of the values that we place on our natural resources, such as scenic quality, historic significance, recreational opportunity, and general quality of life.

Data shown on the map to the right is sourced from the community anchor institutions data layer from NH GRANIT and includes seven categories of institutions as defined by the National Telecommunications & Information Administration.[xiv]

Cultural resources in Dover are present across the community and include a broad range of sites like schools, places of worship, libraries, and more.



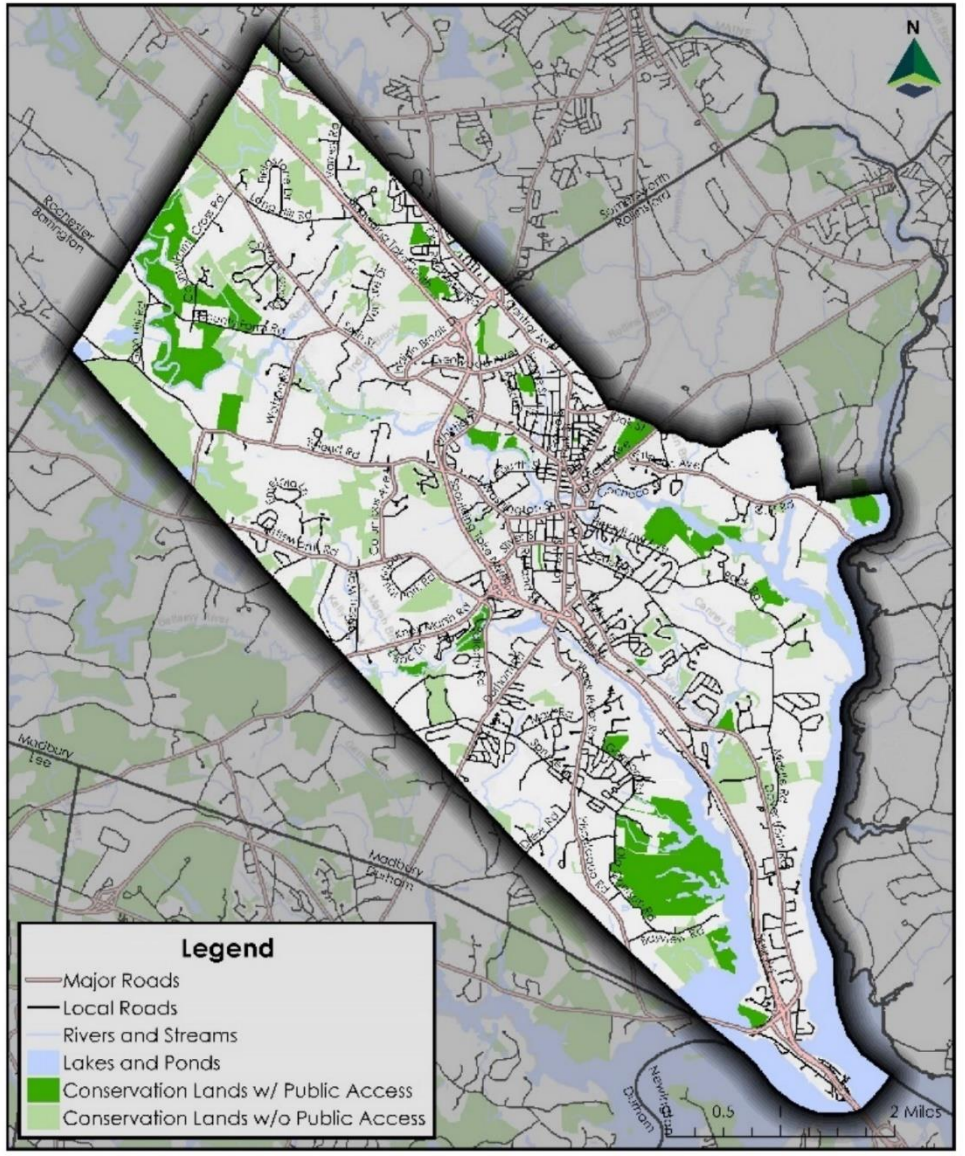
Natural Resource Inventory - City of Dover, NH
Cultural Resources

Section 7: Conserved and Recreational Lands

7.1 Conservation Lands

The map to the right identifies areas in Dover permanently protected through conservation. The map also indicates which areas are accessible to the public. Conservation lands benefit humans and wildlife by preserving critical habitat and providing open space for recreation. Notable conservation lands in Dover include:

- Willand Pond
- Dover Community Trail
    - Paved section: Rutland Street/Central Avenue to Fourth Street
    - Natural section: Fourth Street to Watson Road
- Bellamy River Wildlife Management Area
- County Farm Road Conservation Land
- Cochecho River Canoe Launch
- Sullivan Drive Nature Trail

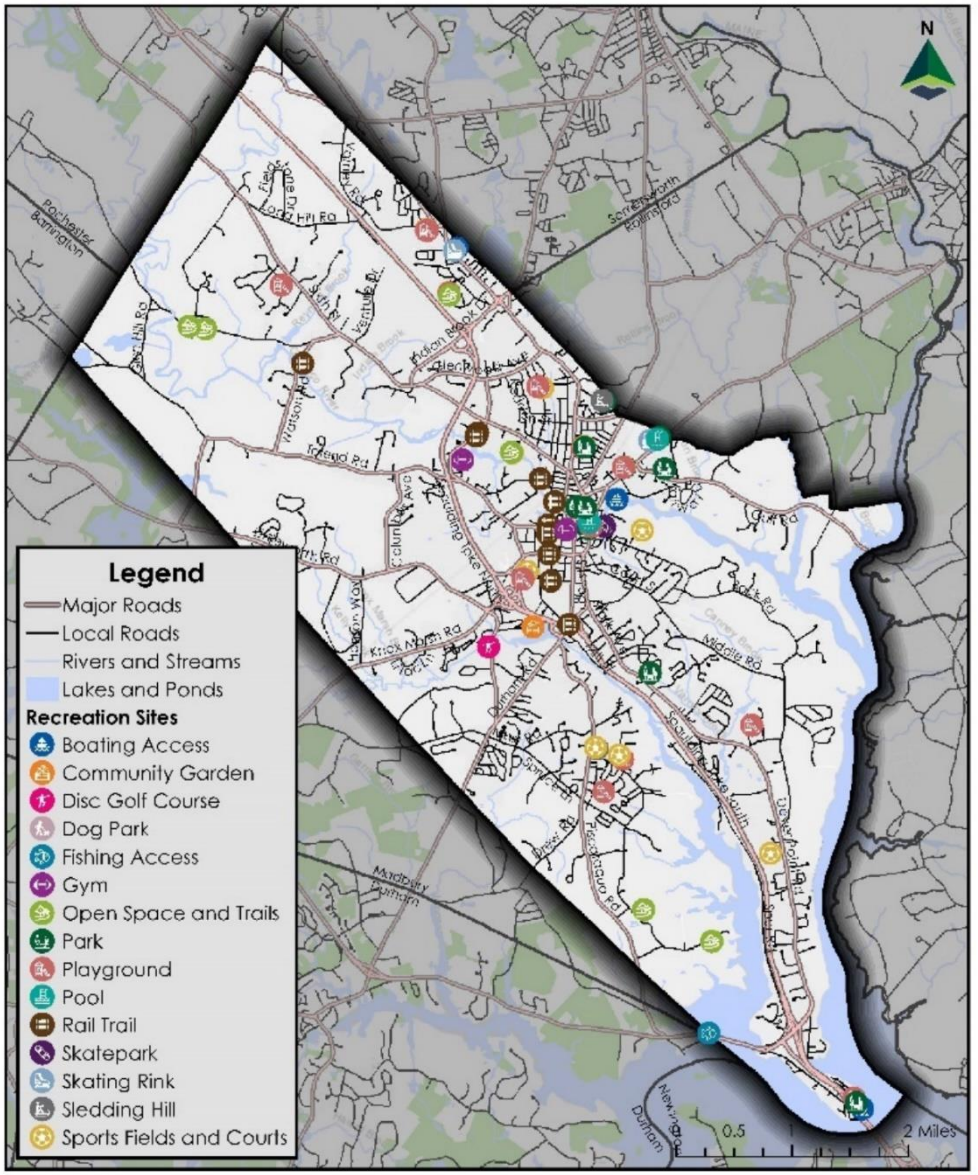


Natural Resource Inventory - City of Dover, NH
Conservation Lands

7.2 Recreational Lands

Parks and recreation sites are important elements of the community that can build social ties and foster a sense of belonging and connection to a person's community. Additionally, recreation sites that add green space to the City provide environmental benefits such as improved air quality, reduced temperatures, and water infiltration.[xv]

Considering the multiple benefits of recreation sites, if planned thoughtfully these spaces can be used to improve habitat connectivity and provide community benefits. Recreation sites shown on the map to the right were identified through the Strafford Regional Planning Commission's Promoting Outdoor Play project and is up to date as of 2023. This project aimed to consolidate and compare various data and resources on recreation sites in the SRPC region. The data layer was validated by SRPC staff through site visits and interviews with municipal staff. All these locations are accessible to the public.



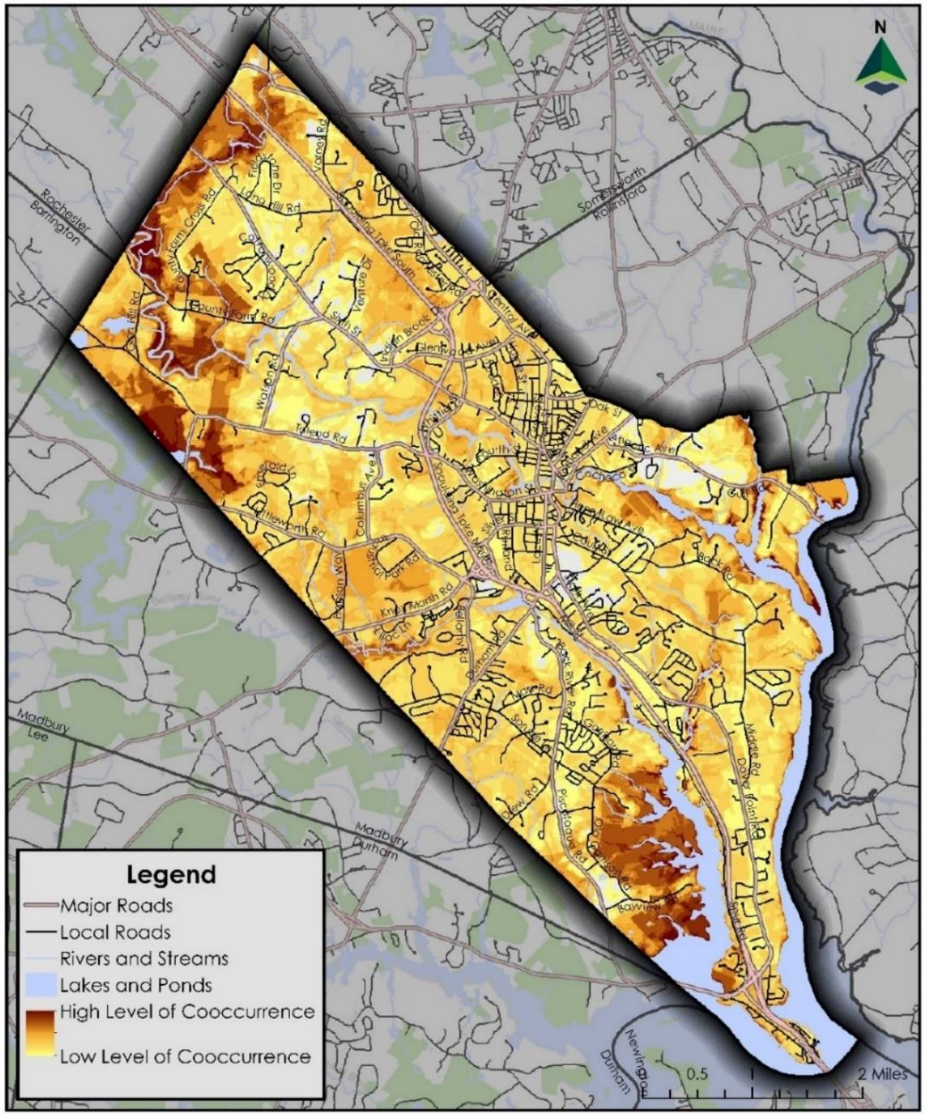
Natural Resource Inventory - City of Dover, NH
Recreation Sites

Section 8: Conservation Focus Areas & Recommendations

8.1 Conservation Focus Areas

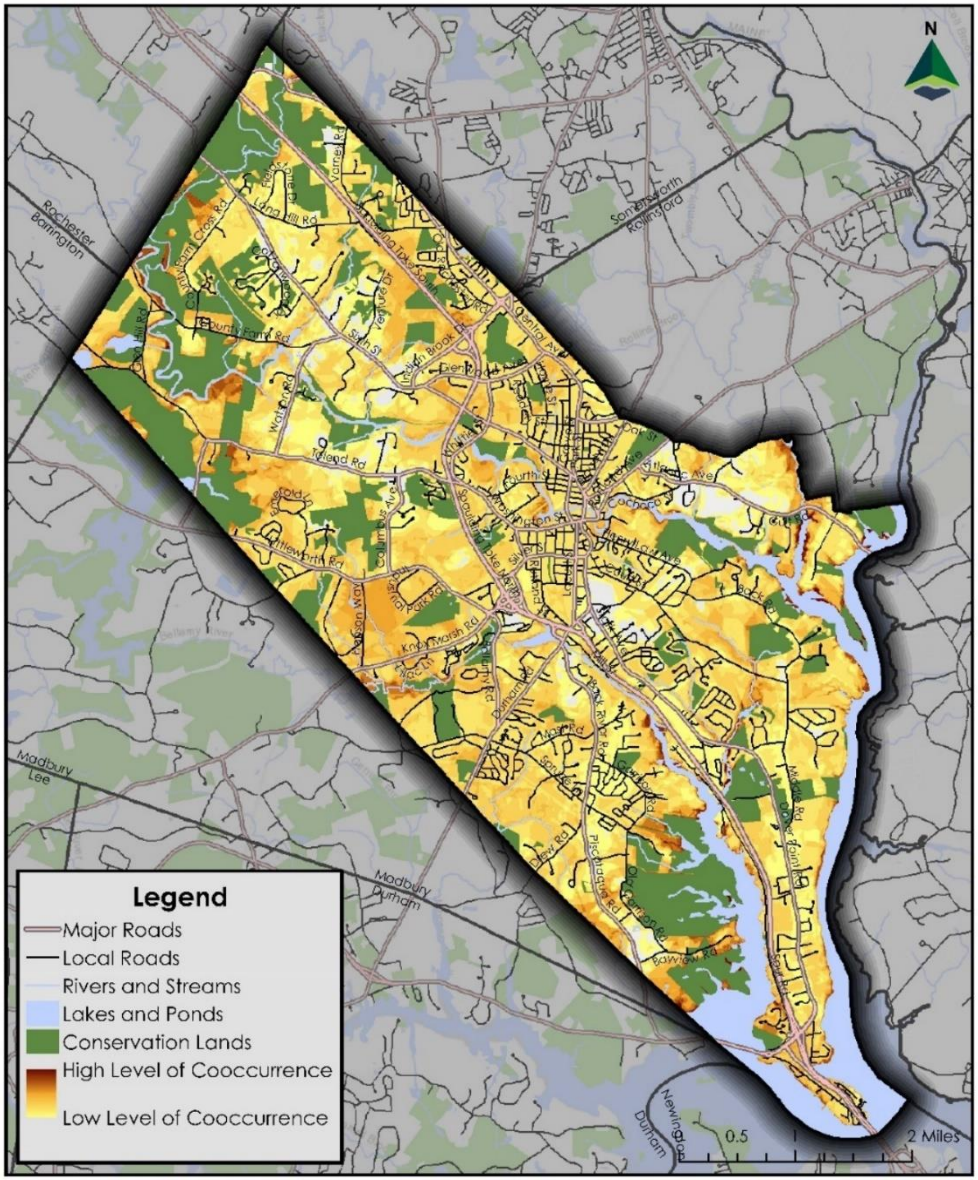
The co-occurrence map to the right and on the following page take multiple data layers and stack them on top of each other, such that the darkest areas on the map indicate the highest number of each layer's features occurring in that area. The map on the next page (47) overlays existing conservation land in the City to demonstrate the areas of high cooccurrence that are already protected. In a natural resources cooccurrence analysis, areas of high cooccurrence often appear near water bodies, as waterbodies and their surrounding habitats provide multifaceted benefits to humans and wildlife. Conversely, more developed areas of the City show low cooccurrence, as there are fewer high-quality natural spaces in these areas. Layers included in this analysis are as follows:

- Rivers and Streams
- Lakes and Ponds
- Wildlife Action Plan
  - Highest Ranked Habitats
  - Highest Ranked Habitat in Biological Region
- Habitats
  - Appalachian Oak Pine
  - Developed Impervious
  - Developed or Barren Land
  - Floodplain Forest
  - Grassland
  - Hemlock Hardwood Pine
  - Open Water
  - Peatland



Natural Resource Inventory - City of Dover, NH
Conservation Focus Areas

    - Rocky Ridge
    - Salt Marsh
    - Sand/Gravel
    - Temperate Swamp
    - Wet Meadow/Shrub Wetland
- Wildlife Action Plan Aquatic Habitats
    - Coldwater Rivers/Streams
    - Tidal Rivers/Streams
    - Warm/Cool Rivers/Streams
    - Estuarine
    - Warm/Cool Lake
    - Warm/Cool Pond
- Watersheds
- Wetlands
- Flood Zones
- Steep Slopes
- Soil Drainage
- Sea Level Rise
- Oyster Habitat
- Aquaculture
- Salt Marsh Habitat
- Forest Land
- Agricultural Land
- Farmland Soils
- Prime Farmland
- Farmland of Statewide Importance
- Stratified Drift Aquifers
- Wellhead Protection Areas
- Conservation Lands
- Conservation Focus Areas (Coastal Conservation Plan)
- Wildlife Corridors (Connect the Coast)
- Prioritized Habitat Blocks (Connect the Coast)



Natural Resource Inventory - City of Dover, NH
Conservation Focus Areas

8.2 Recommendations

Refer to the Conservation and Open Space Chapter of the City's Master Plan for additional action items and recommendations.

- Enhance water quality monitoring of streams, marshes, wetlands, and other natural resources and enhance stormwater management and to manage stormwater runoff and limit intrusion of pollutants into these areas.
- Promote restoration and resilience along coastlines through education and incentives for property owners that enhance wildlife habitats and mitigate the impacts of storm surges on coastal habitats.
- Ensure natural resource management plans consider water, land, biodiversity, conservation, and development in thoughtful ways.
- Develop educational resources and community outreach campaigns that inform community members about the natural and cultural resources throughout the community, their impact on ecosystems, their threats, and efforts and actions that can mitigate those threats and improve resiliency.
- Create a regular schedule to review and update the inventory of natural resources in the community to better adapt to changing conditions and ensure that recommendations and efforts are aligned with needs and priorities.

[i] https://www.wildlife.nh.gov/wildlife-and-habitat/climate-change-and-wildlife/rising-sea-levels
[ii] https://oceanservice.noaa.gov/facts/stormsurge-stormtide.html
[iii] https://scholars.unh.edu/cgi/viewcontent.cgi?article=1210&context=ersc
[iv] https://www.mrlc.gov/data/legends/national-land-cover-database-class-legend-and-description
[v] https://www.nh.gov/nhdfl/documents/town-lists.pdf
[vi] https://www.nature.org/content/dam/tnc/nature/en/documents/nh-connect-the-coast-report.pdf
[vii] https://connect-protect.org/wp-content/uploads/2022/07/NH-Coastal-Watershed-Conservation-Plan-20210630.pdf
[viii] https://nca2023.globalchange.gov/chapter/21/
[ix] https://efotg.sc.egov.usda.gov/references/public/CO/5a_Prime_Farmland_Definition.pdf
[x] https://www.nrcs.usda.gov/sites/default/files/2022-11/NH%20Soil%20Data%20Dictionary-2013.pdf
[xi] https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/Documents/EcoregionalPlans/NAP/Steep.pdf
[xii] https://explorenaturalcommunities.org/ecology-basics/physical-setting/topography
[xiii] https://mm.nh.gov/files/uploads/dhr/documents/national-register-listing.pdf
[xiv] https://hub.arcgis.com/datasets/0e72c823edc848789b60b15326980f58_0/about
[xv] https://tomorrow.norwalkct.org/news/importance-open-spaces-city/