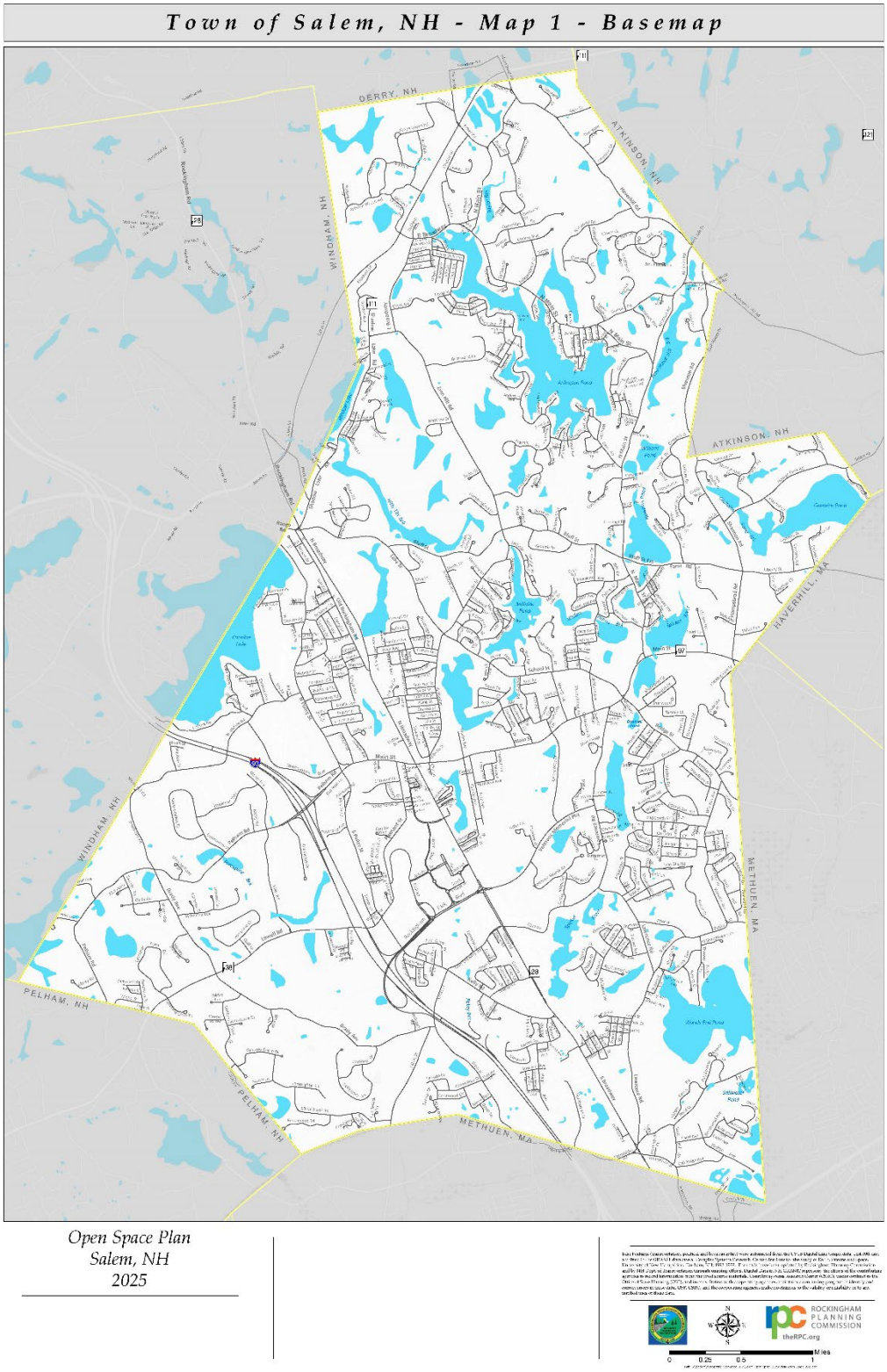
Salem Open Space Plan Update 2025 – Data, Maps and Map Narrative

{Notes from RPC }

Contents

Map 1 - Salem Base Map



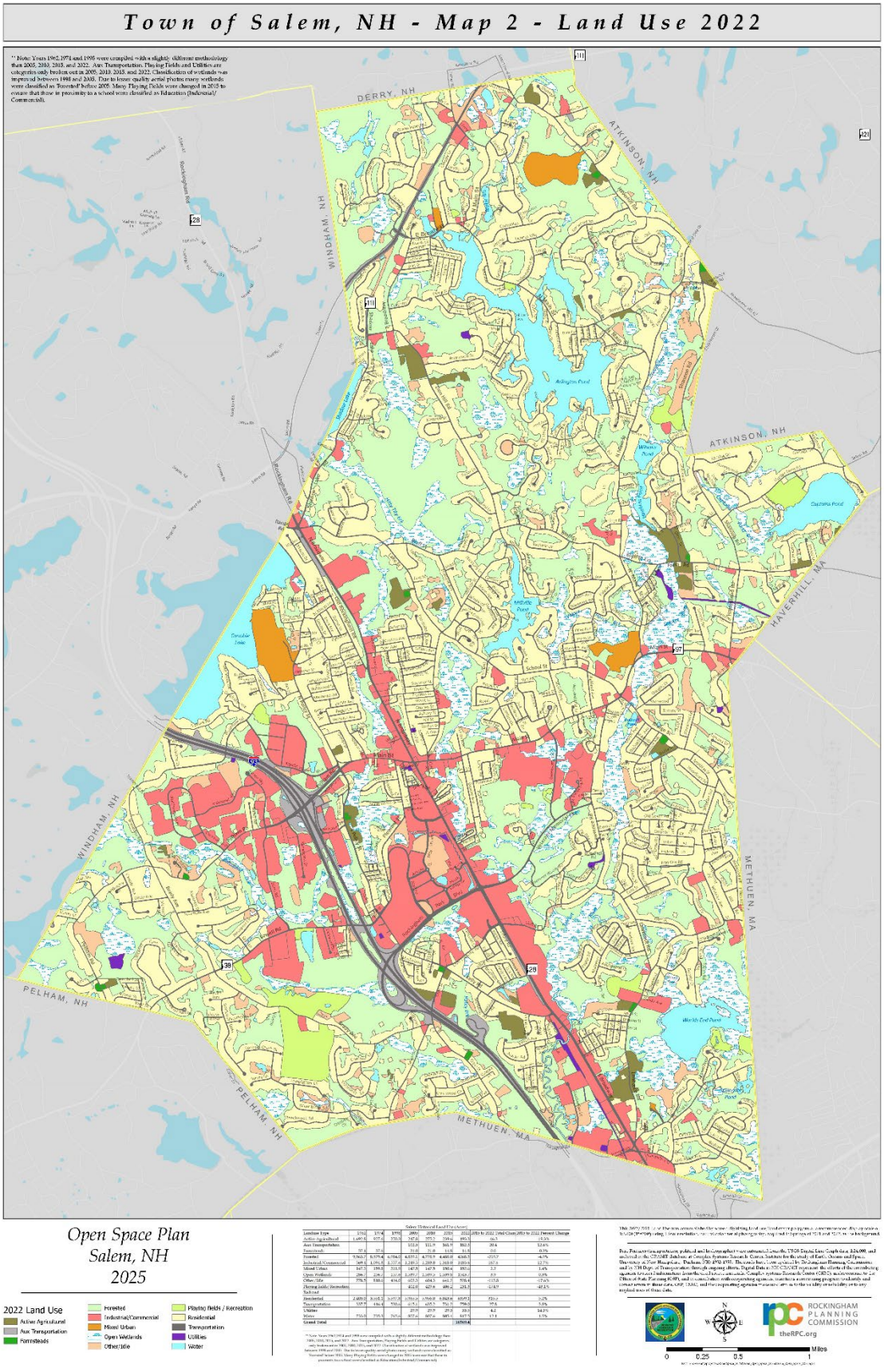
Map 2 – Salem Land Use

The predominant land use in Salem is forested, with 2,808.5 acres or 38.6%, of the town's 7,258.1 acres. Residential land is the second largest land use, with 2,760.4 acres, or 38.0% of town. Land used by utilities increased the greatest between 2015 and 2022, by 7.3%, followed by industrial/commercial at 5.0% and residential at 4.8%.

Table 1 – Historical Land Use {expanded dates}

Land Use Category	1962 Acres	1974 Acres	1998 Acres	2005 Acres	2010 Acres	2015 Acres	2022 Acres	2015-2022 Total Change	2015-2022 Percent Change
Active Agriculture	740.4	397.2	207.6	246.1	268.3	265.8	**257.3**	-8.5	-3.2%
Auxiliary Transportation				12.3	13.6	14.3	**14.7**	0.4	2.6%
Farmsteads	23.4	22.1	12.8	36.6	33.0	33.0	**31.1**	-1.9	-5.7%
Forested	5445.1	5098.0	3996.6	3068.9	3031.3	2936.2	**2808.5**	-127.7	-4.3%
Industrial/Commercial	6.3	31.9	124.1	116.0	119.7	124.0	**130.2**	6.2	5.0%
Mixed Urban		2.0	95.6	9.4	9.4	9.4	**9.4**	0.0	-0.4%
Open Wetlands	120.0	126.2	48.6	381.0	381.0	380.9	**378.2**	-2.7	-0.7%
Other/Idle	147.4	307.9	227.7	233.8	205.1	240.0	**236.4**	-3.6	-1.5%
Playing Fields/Recreation*				188.5	202.3	220.9	**221.4**	0.5	0.2%
Railroad				1.5	1.5	1.5	**1.5**	0.0	0.0%
Residential	574.0	1062.8	2228.1	2580.3	2604.6	2632.8	**2760.4**	127.6	4.8%
Transportation	75.9	99.5	159.6	189.4	190.2	199.5	**207.7**	8.2	4.1%
Utilities				14.8	14.8	14.7	**15.8**	1.1	7.3%
Water	125.9	110.8	157.8	179.9	183.8	185.6	**185.9**	0.3	0.2%
TOTAL							**7258.1**		

*Note – Years 1962, 1974, and 1998 were compiled with slightly different methodology than 2005, 2010, 2015, and 2022. Auxiliary Transportation, Playing Fields, and Utilities are categories only broken out in 2005, 2010, 2015, and 2022. The classification of wetlands was improved between 1998 and 2005. Due to lesser quality aerial photos, many wetlands were classified as Forested before 2005. Many Playing Fields were changed in 2015 to ensure that those in proximity to a school were classified as Education (Industrial/Commercial).


Town of Salem, NH - Map 2 - Land Use 2022
DERRY, NH
ATKINSON, NH
WINDHAM, NH
HAVERHILL, MA
METHUEN, MA
PELHAM, NH
Open Space Plan
Salem, NH
2025
2022 Land Use
Active Agricultural
Aux Transportation
Farmsteads
Forested
Industrial/Commercial
Mixed Urban
Open Wetlands
Other/Idle
Playing fields / Recreation
Residential
Transportation
Utilities
Water
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
0
0.25
0.5
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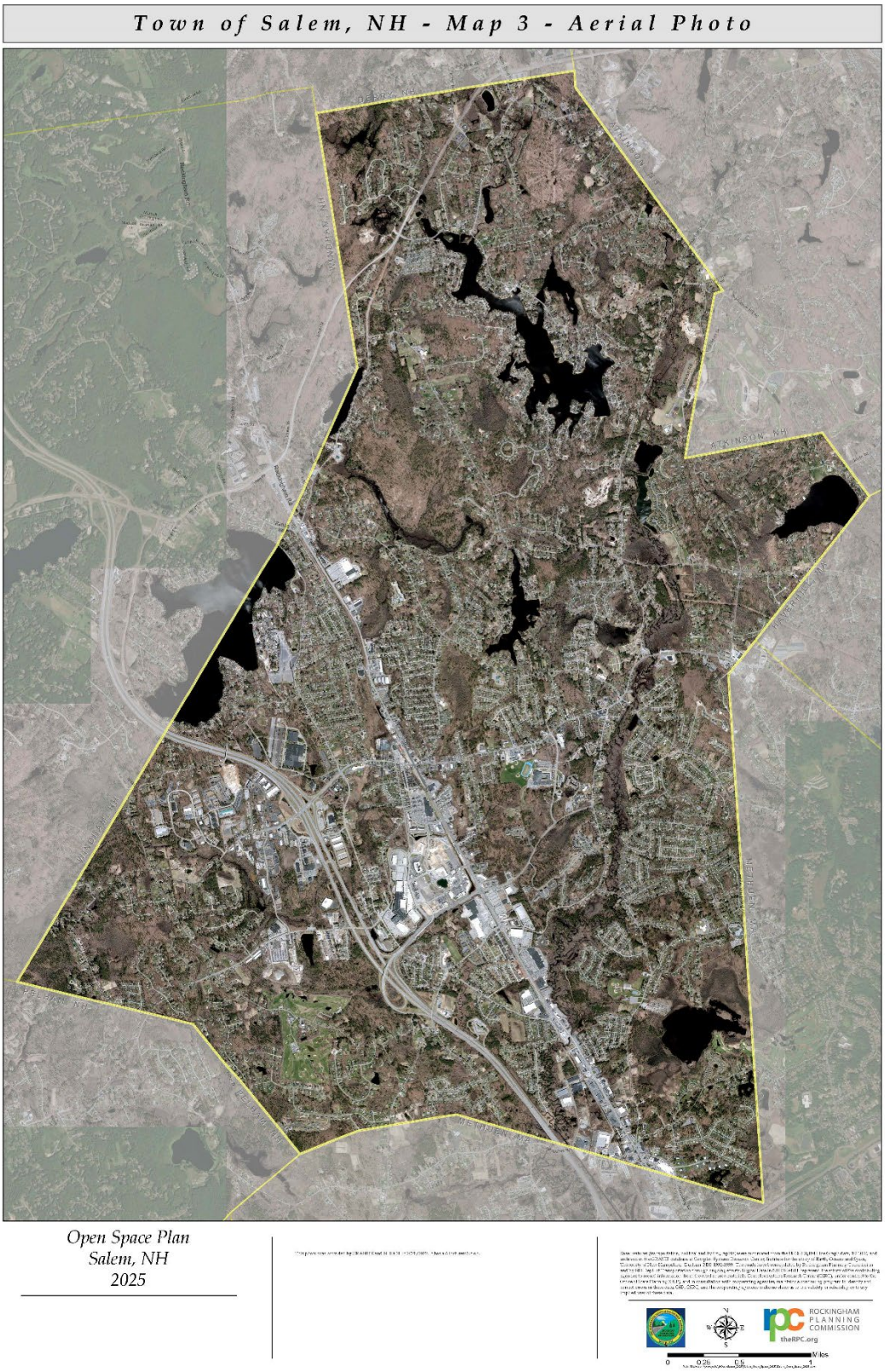
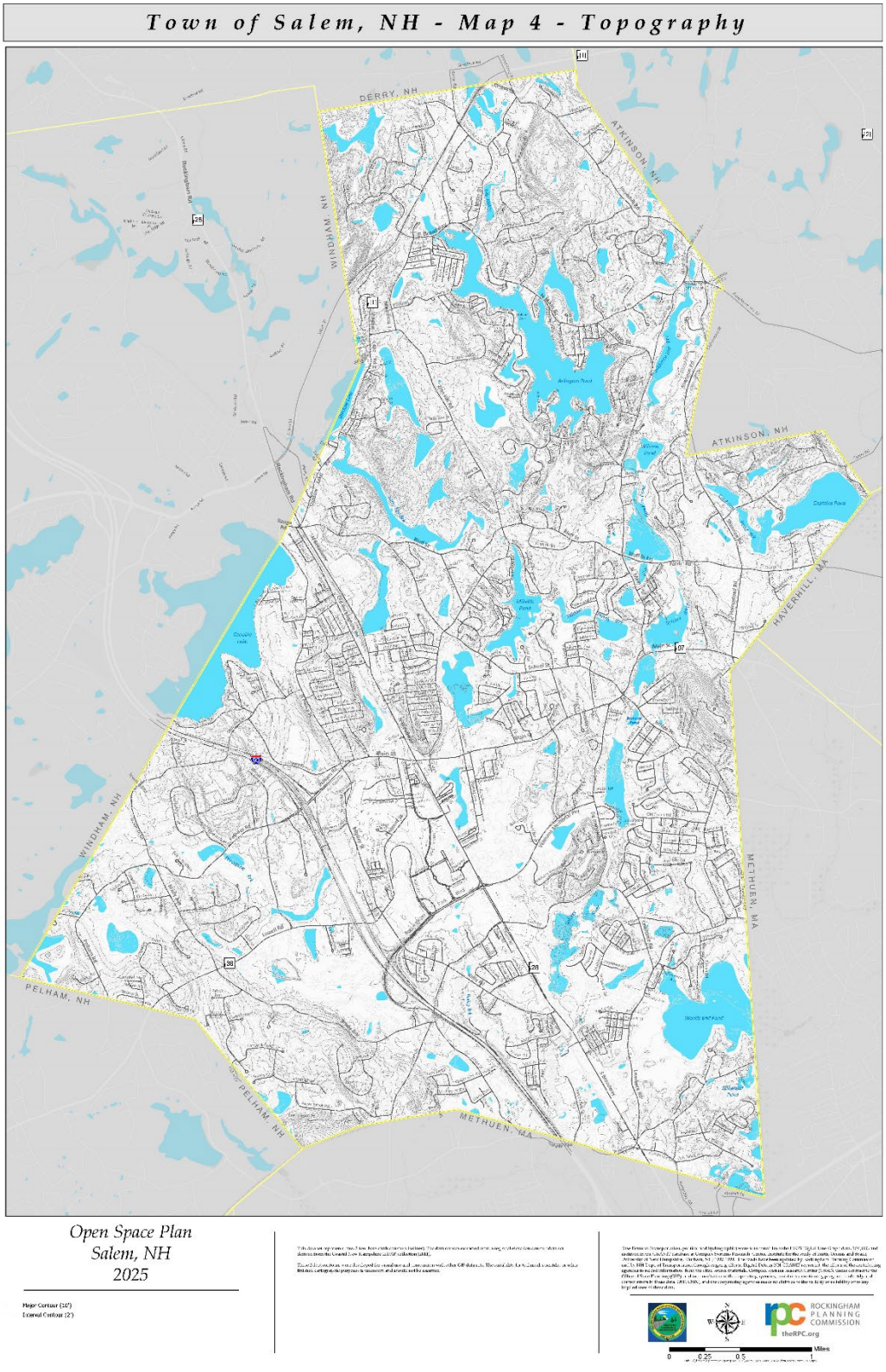
Map 3 – Salem Aerial Photo 2021/2022



Map 4 – Topography

The highest point in Salem is the summit of Gordon's Hill at 380 feet above sea level, along the town's western border. The average elevation in town is 197 feet. Despite the low elevations, Salem was home to the former Spicket Hill Ski area located on Bridge Street, which had a vertical drop of 160 feet and just over 1,000 feet of run.


Town of Salem, NH - Map 4 - Topography
DERRY, NH
ATKINSON, NH
WINDHAM, NH
ATKINSON, NH
HAVERHILL, MA
METHUEN, MA
WINDHAM, NH
PELHAM, NH
PELHAM, NH
METHUEN, MA
Open Space Plan
Salem, NH
2025
Major Contour (10')
Minor Contour (2')
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
0
0.25
0.5
1

Map 5 – General Soils

Understanding the properties of soils is critical to managing and conserving our natural resources. The USDA Natural Resources Conservation Service (NRCS) studies and inventories soil resources across the country. Soil scientists determine what soils are present, where they are located and how they can be used. Soil surveys contain information in the form of detailed soils maps, data tables and text narratives that can be used to determine appropriate uses for the land. Soil surveys also contain predictions of soil behavior for selected land uses and highlight limitations and hazards inherent in the soil and the impact of selected land uses on the environment.

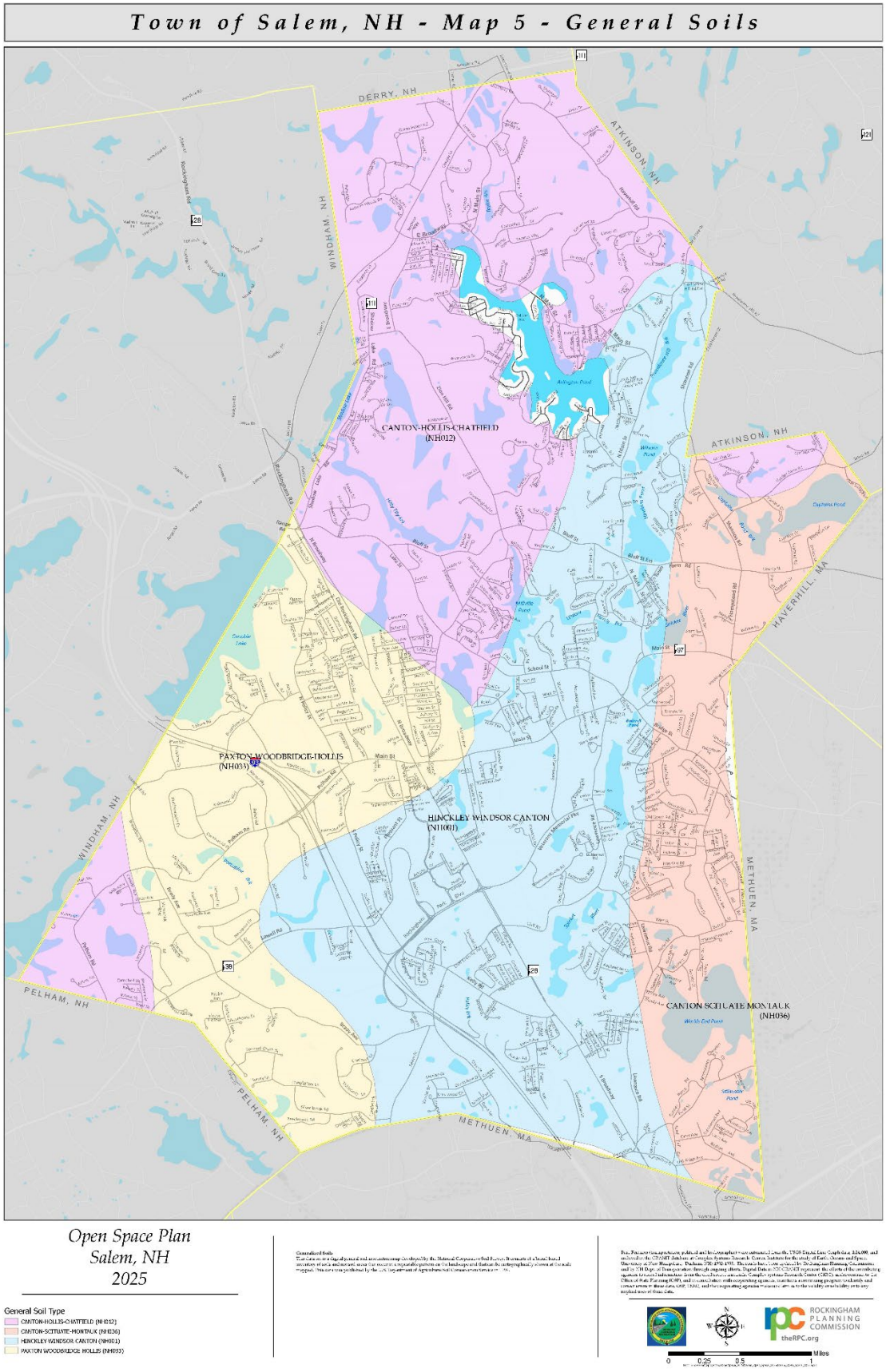
It is important to note that these soil survey maps are designed for general planning purposes and are not at a scale appropriate for site specific use. A site-specific soils map should be done by a licensed professional soil scientist wherever there are concerns about the capability of the land for development.

The most recently published edition of the Rockingham County Soil Survey was issued in 1994. Map 5 displays soil types in Salem.

Table 2 – Soil Types

Soil Type	Acres
Hinckley-Windsor-Canton	5563.0
Canton-Hollis-Chatfield	4943.2
Paxton-Woodbridge-Hollis	3287.7
Canton-Scituate-Montauk	2371.1
NHW	354.0

- Hinkley-Windsor-Canton soil - Very deep, excessively drained soils formed in glaciofluvial materials and sand outwash. This soil type occurs through the center of town from north to south.
- Canton-Hollis-Chatfield soil - Very deep, well drained soils formed in loamy mantle underlain by sandy till. This soil type occurs primarily in the northwest corner of town around the Arlington Mill reservoir and in a small section of the southwest corner of town near Pelham Road.
- Paxton-Woodbridge-Hollis soil - Well drained loamy soils formed in lodgment till. This soil type occurs in the western side of town on either side of I-93.
- Canton-Scituate-Montauk soil – Well and moderately drained soils formed in a thin mantle of till. This soil type occurs along the eastern edge of town.


Town of Salem, NH - Map 5 - General Soils
DERRY, NH
ATKINSON, NH
WINDHAM, NH
CANTON-HOLLIS-CHATFIELD
(NH012)
ATKINSON, NH
HAVERHILL, MA
PAXTON-WOODBRIDGE-HOLLIS
(NH033)
HINCKLEY-WINDSOR-CANTON
(NH001)
METHUEN, MA
WINDHAM, NH
PELHAM, NH
CANTON-SCITUATE-MONTAUK
(NH036)
PELHAM, NH
METHUEN, MA
Open Space Plan
Salem, NH
2025
General Soil Type
CANTON-HOLLIS-CHATFIELD (NH012)
CANTON-SCITUATE-MONTAUK (NH036)
HINCKLEY-WINDSOR-CANTON (NH001)
PAXTON-WOODBRIDGE-HOLLIS (NH033)
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
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0.25
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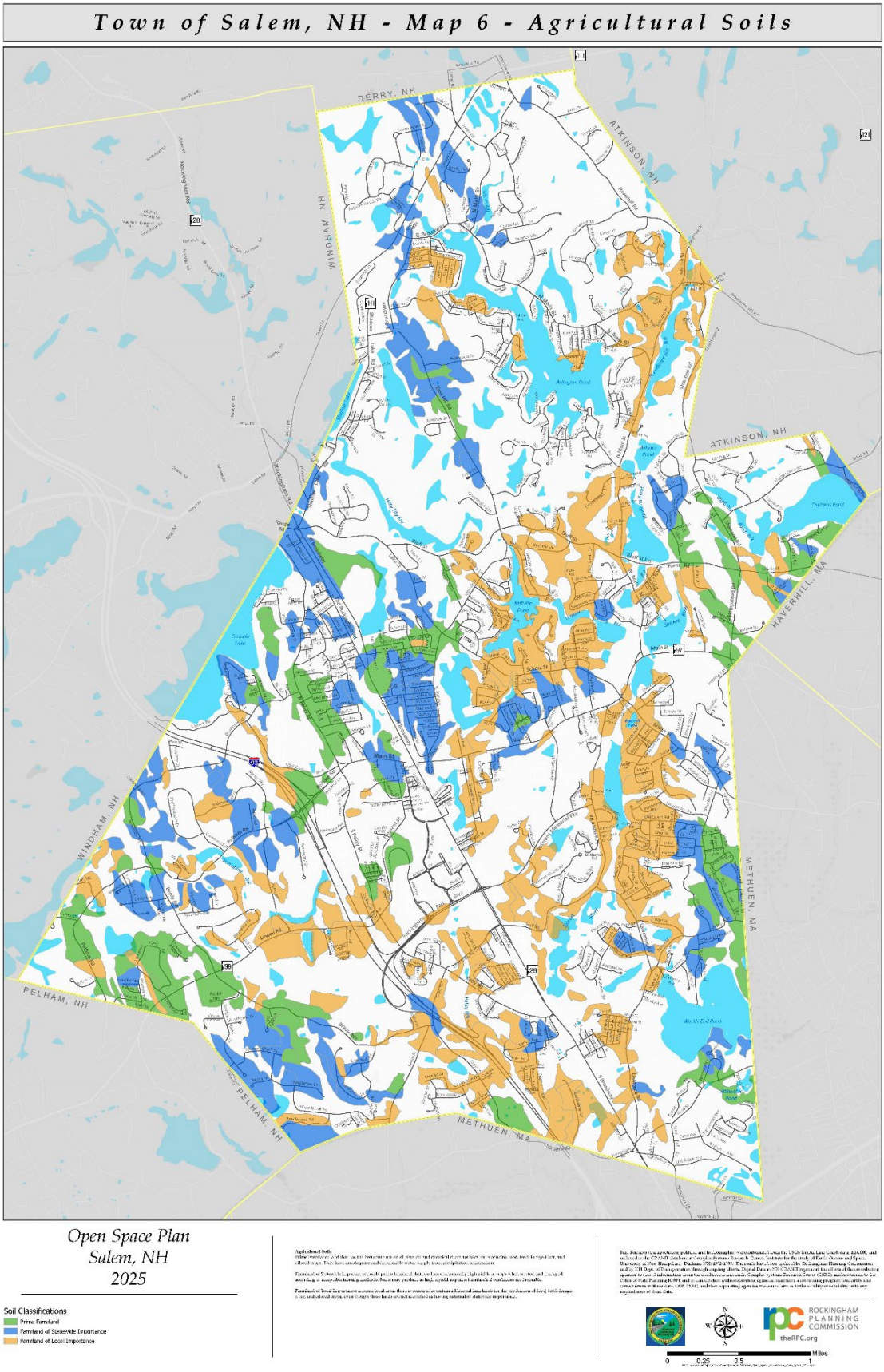
Map 6 – Agricultural Soils

New Hampshire has experienced significant changes in land use patterns over the past few decades, particularly in the agricultural sector. Since 1980, there has been a notable reduction in active farmland, driven by factors such as urban development, economic challenges, and shifts in agricultural practices. Soil properties conducive to agricultural production, level, deep, and well drained, are also conducive to development. Between 2015 and 2022, the amount of active agricultural land in Salem decreased by 3.2%. Map 6 displays agricultural soils in Salem.

Table 3 – Agricultural Soils

Soil Type	Acres	% of Town
Prime Farmland	1111.1	6.7
Farmland of Statewide Importance	1610.4	9.7
Farmland of Local Importance	2519.1	15.2
Total	**5240.6**	**31.6**

- Prime Farmland – Land defined by the US Department of Agriculture to have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It can be cultivated land, pastureland, forestland, or other land that is not urban or built-up land or water areas. Salem has 1111.1 acres of prime farmland scattered throughout town.
- Farmland of Statewide Importance – Land, in addition to prime farmland, that is of statewide importance to produce food, feed, fiber, forage, and oilseed crops. Criteria for defining and delineating this land are determined by the NH Department of Agriculture. Generally, these soils are nearly Prime Farmland that can economically produce high yields of crops when treated and managed according to acceptable farming methods. There are 1610.4 acres of farmland of statewide importance in Salem scattered throughout town.
- Farmland of Local Importance – This is land that is local important for food, feed, fiber, and forage production but is not categorized as prime farmland of farmland of statewide importance. Identification of these farmlands is determined by the Rockingham County Conservation District. Salem has 2519.1 acres of farmland of local importance scattered throughout town.


Town of Salem, NH - Map 6 - Agricultural Soils
DERRY, NH
ATKINSON, NH
WINDHAM, NH
ATKINSON, NH
HAVERHILL, MA
WINDHAM, NH
METHUEN, MA
PELHAM, NH
PELHAM, NH
METHUEN, MA
Open Space Plan
Salem, NH
2025
Soil Classifications
Prime Farmland
Farmland of Statewide Importance
Farmland of Local Importance
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
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Map 7 – Surface Water and Wetlands

Wetlands, as defined by the Environmental Protection Agency, the NH Department of Environmental Services and the Salem Zoning Ordinance are those areas that are inundated or saturated by surface or groundwaters at a frequency and duration sufficient to support and that under normal circumstances do support a prevalence of vegetation adapted for life in saturated soil conditions. A wetland is defined by the three "H's": hydrophytes or wetland vegetation, hydrology and hydric soils. Map 5 displays surface water and wetlands in Salem.

Wetlands are an integral part of Salem's natural resources. They are important for removing excess nutrients and sediment from the water, slowing and storing floodwaters, promoting groundwater infiltration, and providing habitat for a variety of vegetation and animal life. In addition, wetlands provide recreational, educational and research opportunities. Wetlands are most often found along streams and adjacent to ponds and lakes. They can be found in clustered complexes that are of great value. Vernal pools are a special type of wetland that dry out completely in the summer and have no fish population.

There is a diversity of wetland types in Salem, including areas of open water with emergent vegetation such as cattails, forested wetlands, and scrub-shrub wetlands. The principal types of wetlands with standing water in the spring have been mapped from aerial photos by the National Wetlands Inventory (NWI) of the U.S. Fish and Wildlife Service. The NWI wetlands do not include all wetlands, particularly those that do not typically have standing water in the spring.

The types and acres of each wetland type in Salem are displayed on Map 7. The total area for NWI wetlands Salem is 2720.6 acres or 16.4% of the town's land and water area.

Table 4 – Wetland Soils

Wetland Soil Types	Acres	% of Town
Freshwater Forested/Shrub Wetland	1432.4	8.6
Lake	657.4	3.9
Freshwater Emergent Wetland	250.0	1.5
Riverine	198.8	1.1
Freshwater Pond	181.3	1.0
Other	0.8	0.004
TOTAL	**2720.6**	**16.4**

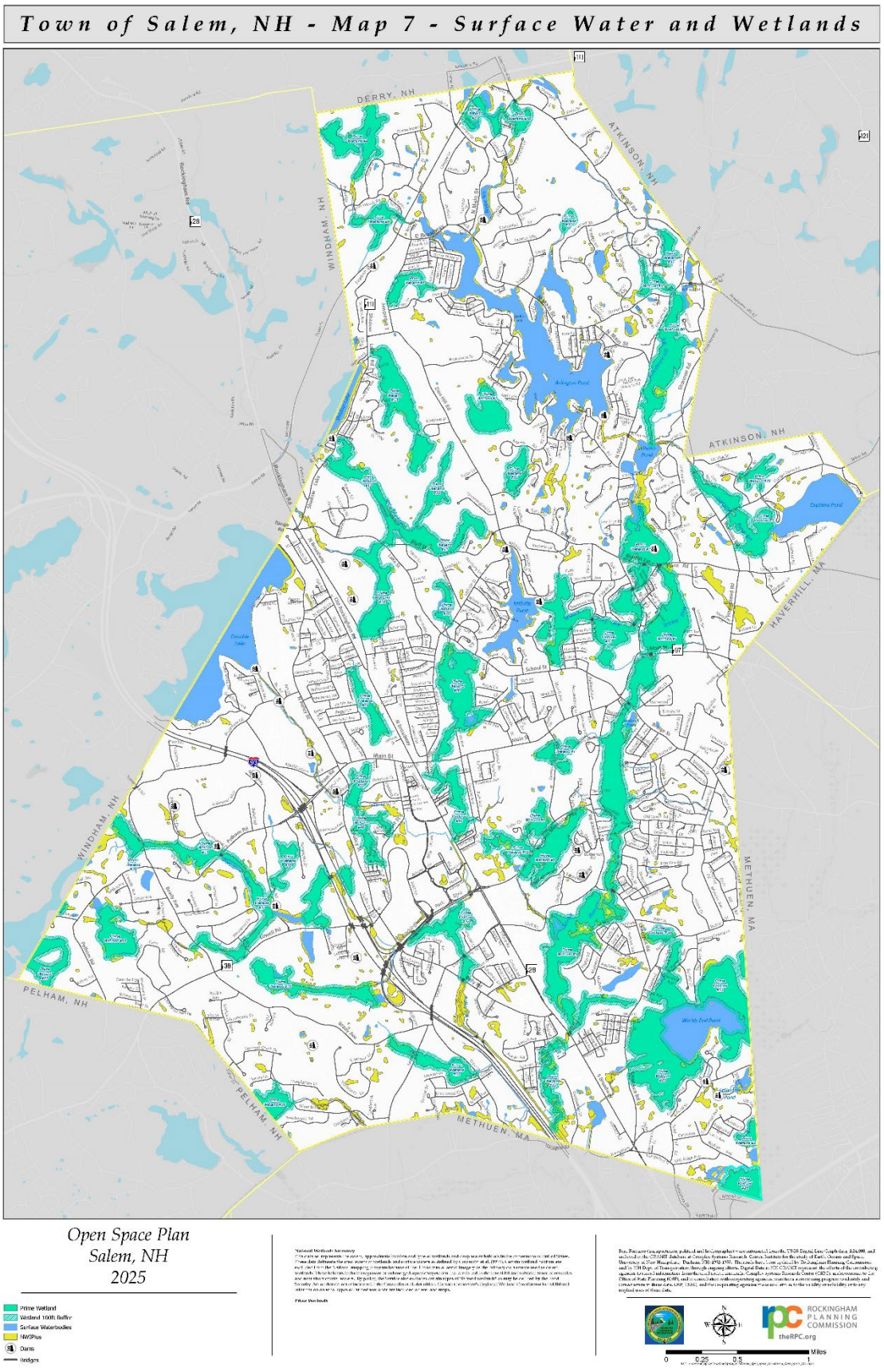
The Town of Salem has identified and mapped prime wetlands in town, per NH RSA 482-A:15. A wetland receives this designation because of its large size, unspoiled character, and ability to sustain populations of rare or threatened species plant and animal species. There are 38 prime wetland complexes located across town, encompassing 1,337 acres. There are an additional 310 acres of wetland that are not designated as prime.

Map 7 also displays surface waters in Salem and Table 5 lists these surface waters and their size.

Table 5 – Surface Waterbodies

Surface Waterbody	Acres/Miles
Arlington Mill Reservoir	279.4 acres
Canobie Lake	150.6 acres
World End Pond	97.4 acres
Captain Pond	86.6 acres
Millville Lake	50.2 acres
Shadow Lake	14.6 acres
Taylors Reservoir	8.1 acres
Hedgehog Park Pond	7.6 acres
Spicket River	10.9 miles
Policy Brook	5.1 miles
Porcupine Brook	4.6 miles
Hitty Titty Brook	2.2 miles
Providence Hill Brook	1.8 miles
Widow Harris Brook	1.7 miles
World End Brook	1.1 miles

Salem uses Canobie Lake and Arlington Pond as its primary surface water sources for drinking water, with Canobie Lake being the primary source from May through October and Arlington Pond during the colder winter months.


Town of Salem, NH - Map 7 - Surface Water and Wetlands
DERRY, NH
ATKINSON, NH
WINDHAM, NH
HAVERHILL, MA
METHUEN, MA
PELHAM, NH
Open Space Plan
Salem, NH
2025
Prime Wetland
Wetland 100ft Buffer
Surface Waterbodies
NWPlus
Dams
Bridges
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
0
0.25
0.5
1

Map 8 – Groundwater Resources and Aquifers

Aquifers are concentrations of groundwater and those having medium to high potential to yield groundwater occur in southern New Hampshire as areas of alluvial deposits of sand and gravel or in bedrock fractures. The sand and gravel deposits are called "stratified drift aquifers" and typically yield more groundwater than bedrock fractures. The major source of recharge to these aquifers is through precipitation filtering directly down into the aquifer. A 1992 study by the U.S. Geological Survey identified stratified drift aquifers within Salem. Map 8 displays groundwater resources, including aquifers, public wells, and wellhead protection areas.

Aquifers are defined by their transmissivity, which is a measurement of the rate at which groundwater flows horizontally through an aquifer. The higher the transmissivity, the higher the capacity for water flow. Aquifers with a transmissivity range of 0 – 2000 encompass 5,148.1 acres in Salem and underlie the center of town from north to south. There is one small aquifer, 8.1 acres, with a higher transmissivity range of 2000 – 4000 located north of Brady Avenue.

Table 6 describes the 20 active public drinking water supply wells in town. Eighteen of these wells rely on groundwater and two wells rely on surface water.

Table 6 – Active Public Drinking Water Supply Wells
Source : NHDES Onestop

Name	Address	System Type*	Well Type	Water Source
Scottish Highland Golf Course	79 Brady Ave	N	Bedrock	Groundwater
Millville Circle/South	100 Millville Cir	C	Bedrock	Groundwater
Ackerman Retirement Park	80 ½ Caddy Dr	C	Bedrock	Groundwater
Derry Salem Elks Lodge	39 Shadow Lake Rd	N	Bedrock	Groundwater
Lancaster Farms	Stanley Brook Dr	C	Bedrock	Groundwater
Lancaster Farms	Stanley Brook Dr	C	Bedrock	Groundwater
Camp Otter	66 Hooker Farm Rd	N	Bedrock	Groundwater
Klein Marine Systems	11 Klein Dr	P	Gravel	Groundwater
Ackerman Retirement Park	80 ½ Caddy Dr	C	Bedrock	Groundwater
Salem Water Dept	161 N Policy St	C	NA	Surface water
Salem Water Dept	161 N Policy St	C	NA	Surface water

Merrimack Valley Montessori School	111 Lowell Rd	P	Bedrock	Groundwater
North Salem Village	15 Ermer Rd	P	Bedrock	Groundwater
Cowbell Corners	418 Island Pond Rd	P	Bedrock	Groundwater
Autumn Woods	Autumn Woods Rd	C	Bedrock	Groundwater
Autumn Woods	Autumn Woods Rd	C	Bedrock	Groundwater
Camp Hadar	92 Hooker Farm Rd	N	Bedrock	Groundwater
North Salem Elementary School	140 Zion Hill Rd	P	Bedrock	Groundwater
Campy Wood	59 Liberty Rd	N	Bedrock	Groundwater
Mill Pond at Wheeler Dam	82 East Broadway	N	Bedrock	Groundwater

*Well Types: C = Community; P = non-transient, non-community (schools, hospitals, businesses, etc.); N = transient, non-community (restaurants, hotels, campgrounds, etc.)

Map 9 – FEMA Floodplains

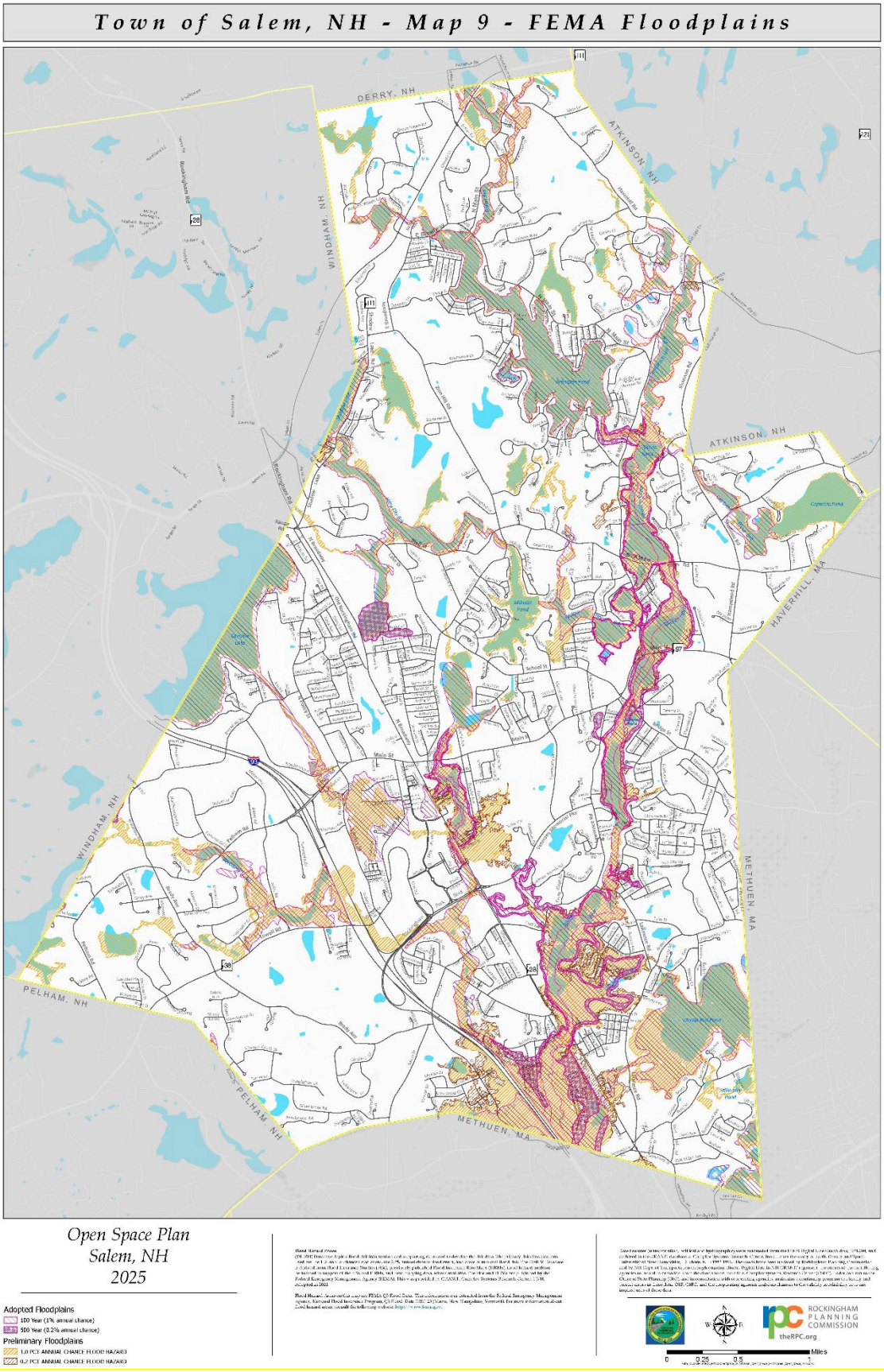
Floodplains are areas of land adjacent to lakes, rivers, and streams that are prone to flooding. Map 9 displays the 100-year and 500-year floodplains in Salem. These terms refer to the probability of flooding occurring in these areas within a given year. The 100-year floodplain is an area that has a 1% chance of experiencing a flood in any given year. The 500-year floodplain is an area with a 0.2% chance of flooding in any given year. While less frequent than the 100-year floodplain events, floods in these areas can be more severe due to the higher volume of water.

Flood zones are geographical areas that FEMA has defined according to varying levels of flood risk. These zones are depicted on Salem's Flood Insurance Rate Map (FIRM). Flood Zone A are areas that are subject to inundation by a 100-year flood. Salem has 908.6 acres in Zone A. FEMA Flood Zone AE includes areas where analyses have been conducted to determine base flood elevations. Salem has 1512.5 acres in Zone AE. FEMA Flood Zone X500 is also known as the 500-year floodplain. Salem has 283.5 acres in Zone X500.

Table 7 – FEMA Flood Zones

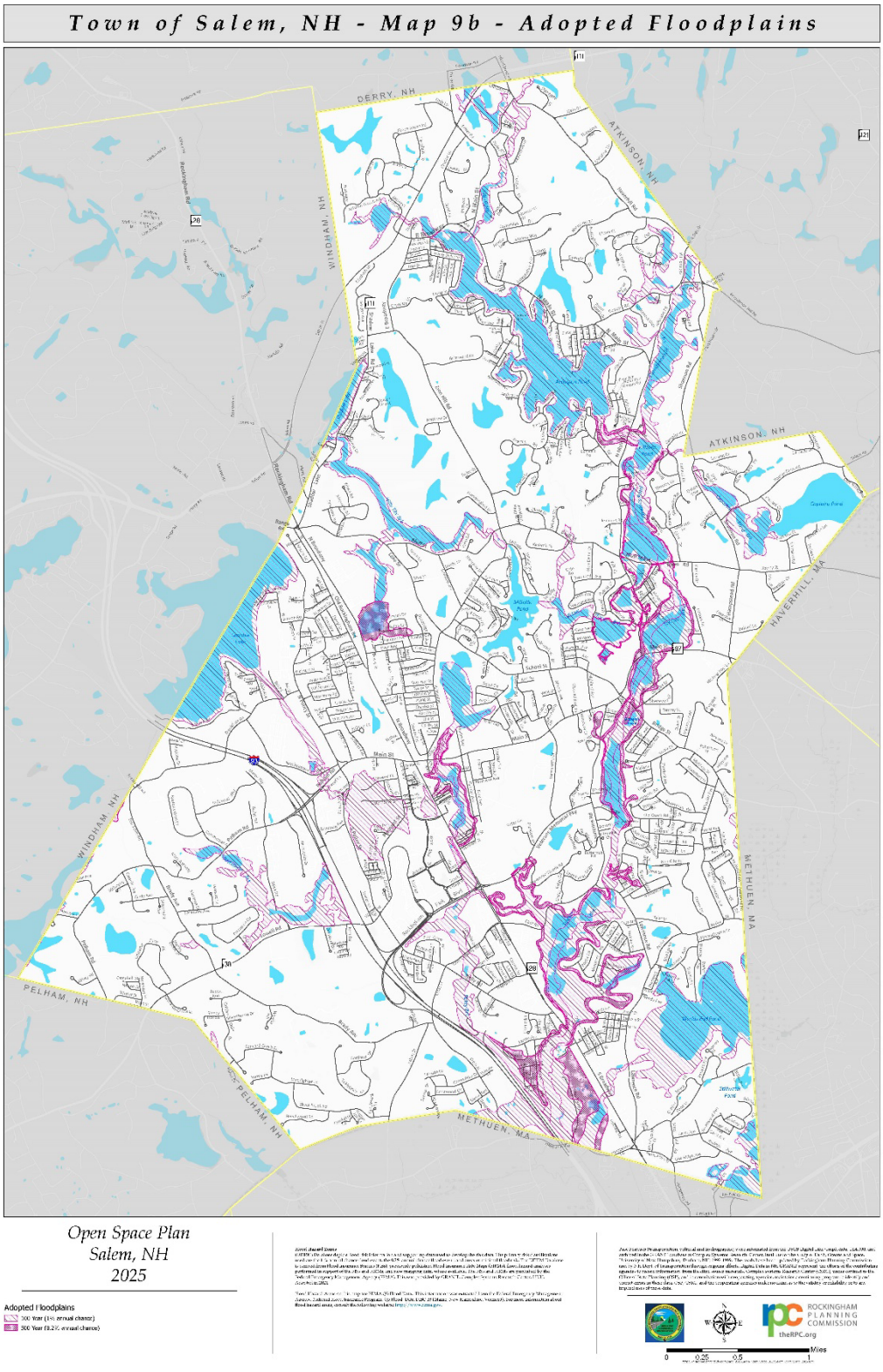
FEMA Flood Zones	Acres
Zone A	908.6
Zone AE	1512.5
Zone X500	283.5
Total	**2704.6**

{Add in Narrative of difference between Adopted & Preliminary FEMA Maps – specifically why both maps are presented.}


Town of Salem, NH - Map 9 - FEMA Floodplains
DERRY, NH
ATKINSON, NH
WINDHAM, NH
HAVERHILL, MA
METHUEN, MA
PELHAM, NH
Open Space Plan
Salem, NH
2025
Adopted Floodplains
100 Year (1% annual chance)
500 Year (0.2% annual chance)
Preliminary Floodplains
1.0 PCT ANNUAL CHANCE FLOOD HAZARD
0.2 PCT ANNUAL CHANCE FLOOD HAZARD
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles

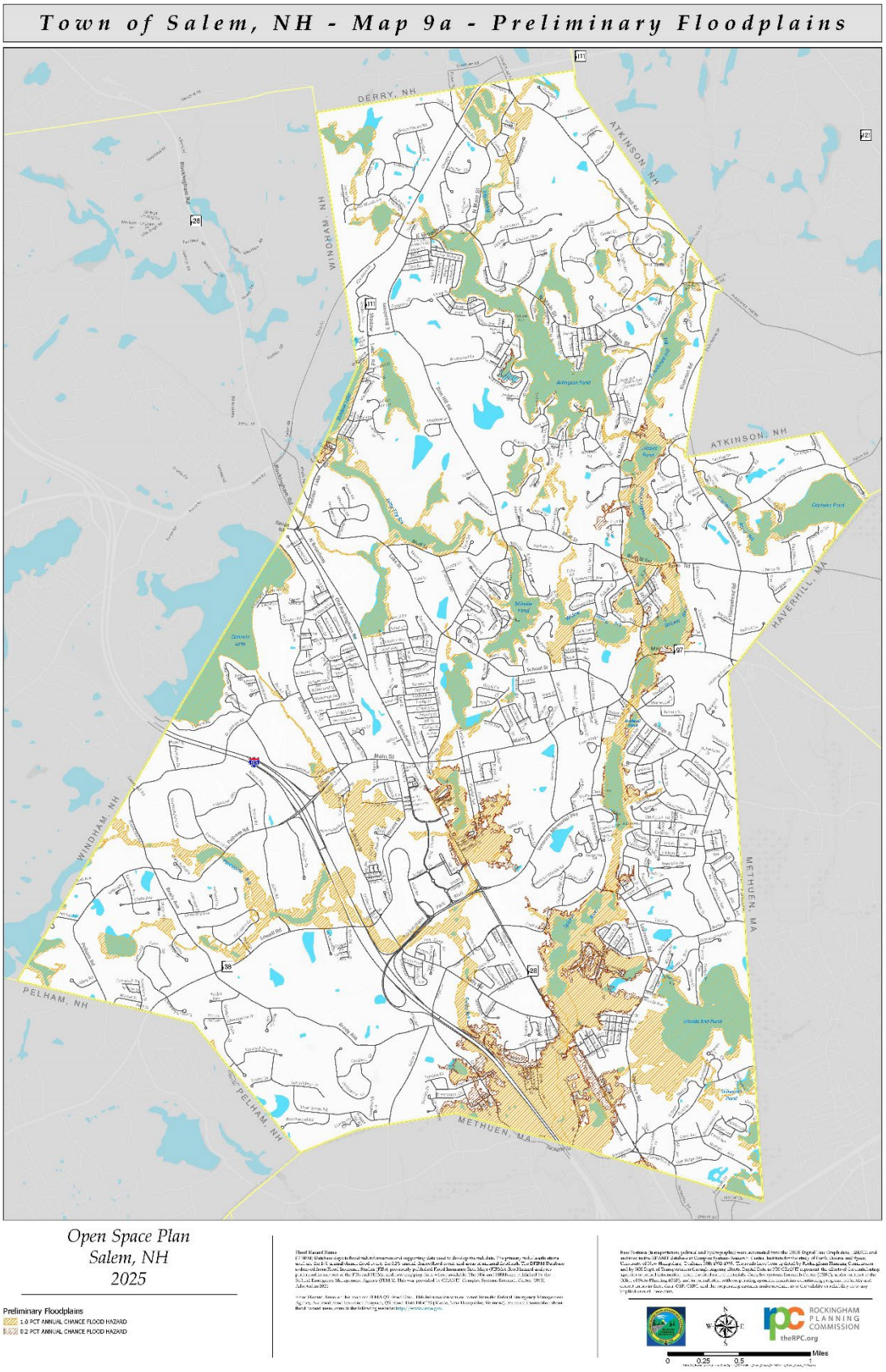
Map 9a – Adopted FEMA Floodplains

Flood Hazard Zon**es** are from the Digital Flood Insurance Rate Map (DFIRM) Database. The Digital Flood Insurance Rate Map (DFIRM) Database depicts flood risk information and supporting data used to develop the risk data. The primary risk classifications used are the 1-percent-annual-chance flood event, the 0.2-percent-annual-chance flood event, and areas of minimal flood risk. The DFIRM Database is derived from Flood Insurance Studies (FISs), previously published Flood Insurance Rate Maps (FIRMs), flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data, where available. The FISs and FIRMs are published by the Federal Emergency Management Agency (FEMA). This was provided by GRANIT, Complex Systems Research Center, UNH in May 2005.


Town of Salem, NH - Map 9b - Adopted Floodplains
DERRY, NH
ATKINSON, NH
WINDHAM, NH
ATKINSON, NH
HAVERHILL, MA
METHUEN, MA
PELHAM, NH
PELHAM, NH
METHUEN, MA
Open Space Plan
Salem, NH
2025
Adopted Floodplains
100 Year (1% annual chance)
500 Year (0.2% annual chance)
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
0
0.25
0.5
1

Map 9b – Preliminary FEMA Floodplains

Flood Hazard Areas on this map were received from GRANIT, Complex Systems Research Center, UNH in February 2004. This data is a pre-release of data that will be published by the Federal Emergency Management Agency (FEMA) National Flood Insurance Program, Flood Hazard Maps. This is preliminary data subject to revision. For more information about flood hazard areas, consult the following website: http://www.fema.gov.


Town of Salem, NH - Map 9a - Preliminary Floodplains
DERRY, NH
ATKINSON, NH
WINDHAM, NH
HAVERHILL, MA
METHUEN, MA
PELHAM, NH
Open Space Plan
Salem, NH
2025
Preliminary Floodplains
1.0 PCT ANNUAL CHANCE FLOOD HAZARD
0.2 PCT ANNUAL CHANCE FLOOD HAZARD
ROCKINGHAM PLANNING COMMISSION
theRPC.org
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Map 10 – Wildlife Action Plan

The 2015 NH Fish and Game Wildlife Action Plan (WAP) identifies Species of Greatest Conservation Need (SGCN) and their habitats in New Hampshire. Each SGCN and habitat has a profile that includes information about the population, threats, and actions needed to conserve these features in New Hampshire. All wildlife species native to New Hampshire were eligible for identification as SGCN including game species, nongame species, fish and marine animals. A total of 169 species are identified in the Plan as SGCN, of which 27 species are listed as state endangered and 14 listed as state threatened. The plan identifies 27 distinct habitats that support common species and SGCN.

The WAP ranks habitats in three tiers:

- Highest Ranked in the State – includes the top 15% by area of each habitat.
- Highest Ranked in the Biological Region – compared the habitats within regions of that that have similar climate, geology, and other factors that influence biology. This tier includes the top 30% of each habitat, except the areas already within the Highest Ranked in the State.
- Supporting Landscapes- includes the top 50% of each habitat.

Map 10 displays the habitat tiers in Salem.

Table 7 – Wildlife Action Plan Habitat Tiers

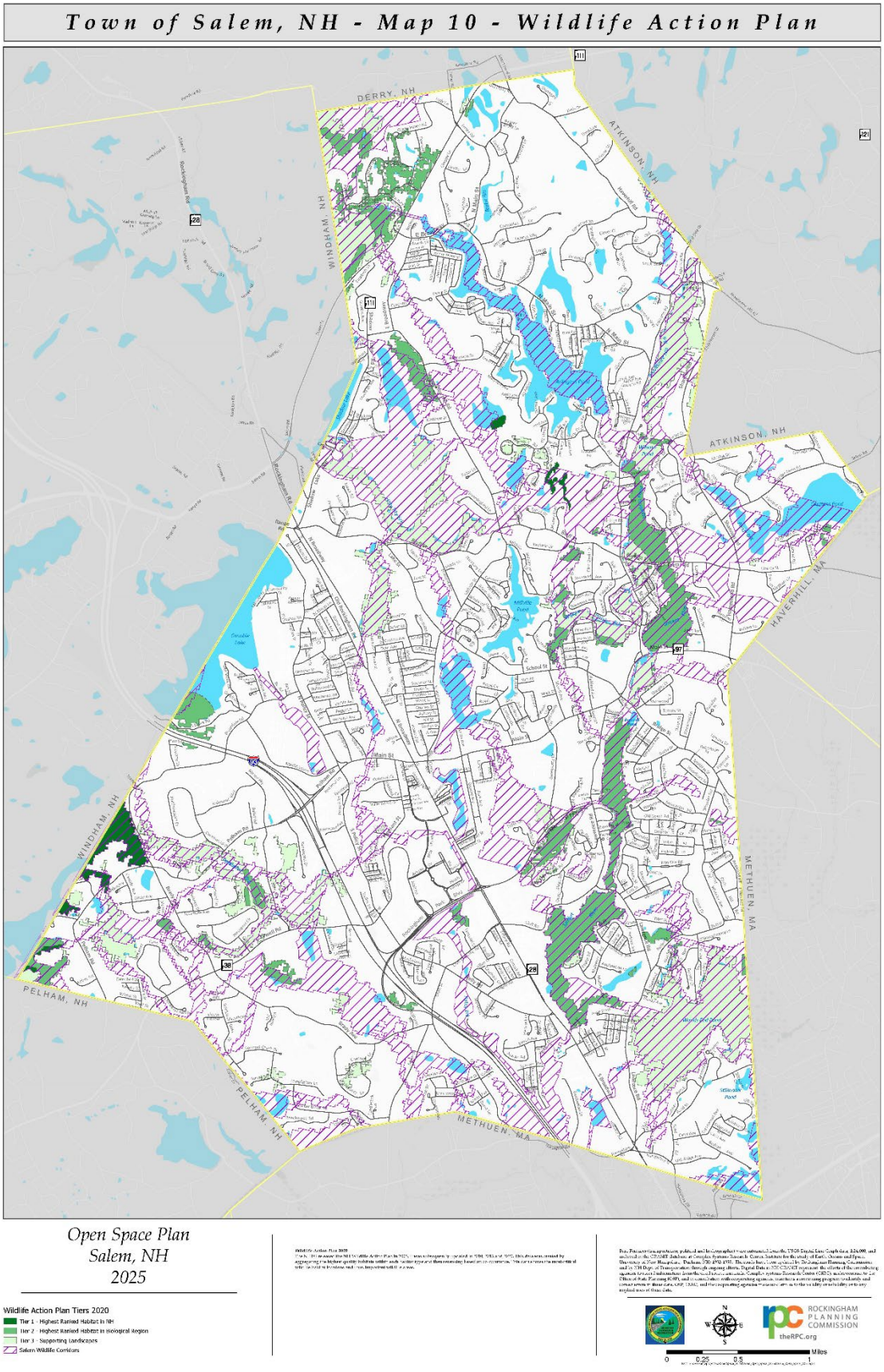
Wildlife Action Plan Habitat Tiers	Acres
Tier 1 – Highest Ranked in State	77.4
Tier 2 – Highest Ranked in Biological Region	694.8
Tier 3 – Supporting Landscapes	1024.4
TOTAL	**1796.6**

Salem has 77.4 acres of Tier 1 habitat, the highest ranked habitat in the state. This land is in the southwest corner of town south of Brookdale Road and in three small patches south of Arlington Mill Reservoir. The town has 694.8 acres of Tier 2 habitat, the highest ranked in the biological region, in several locations. The largest areas are narrow swaths of land east of Lawrence Road. There are 1024.4 acres of Tier 3 habitat, supporting landscapes. This habitat is found in several locations, including World End Pond and Providence Hill Brook.

The Salem Conservation Commission has mapped wildlife corridors in town and created visual imagery using a ARCGIS storymap to engage residents in the preservation of wildlife habitat and encourage voluntary land management that supports wildlife. The map depict habitat blocks totaling approximately 2,938 acres, which are primarily undeveloped and forested land free from the influence or roads, structures, or other paved and occupied surfaces. The largest habitat corridor blocks, 500 acres and greater, include the Salem Town Forest, undeveloped land in the northwest corner of town that abuts the Windham Town Forest, and areas round Captain Pond and World End Pond.

The Conservation Commission has also mapped wildlife corridors. Wildlife corridors are natural or artificially created strips of habitat that connect blocks of wildlife habitat. These corridors allow wildlife to travel safely, which is essential for food, shelter, and reproduction. The map highlights the critical role riparian corridors, primarily the Spicket River and Policy Brook, play in enabling wildlife to move in Salem. The Conservation Commission has set a goal of maintaining these spaces in their natural state to preserve habitat and safe passage.

Salem's 2023 wildlife corridor planning efforts and story map are available at:
https://www.salemnh.gov/888/Wildlife-Corridor-ArcGIS-Storymap


Town of Salem, NH - Map 10 - Wildlife Action Plan
DERRY, NH
ATKINSON, NH
WINDHAM, NH
ATKINSON, NH
HAVERHILL, MA
WINDHAM, NH
METHUEN, MA
PELHAM, NH
PELHAM, NH
METHUEN, MA
Open Space Plan
Salem, NH
2025
Wildlife Action Plan Tiers 2020
Tier 1 - Highest Ranked Habitat in NH
Tier 2 - Highest Ranked Habitat in Biological Region
Tier 3 - Supporting Landscapes
Salem Wildlife Corridors
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
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Below is an listing (2025) of species of greatest conservation need in Salem from the New Hampshire Natural Heritage Bureau.

{RPC is awaiting this list from the Natural Heritage Bureau}

Map 11 – Unfragmented Land

Map 11 displays the locations of unfragmented lands in Salem. These blocks of undeveloped forestland, wetland, and fields total 7,675.9 acres and are unfragmented by development or public roads. Unfragmented land is valuable for many reasons, including:

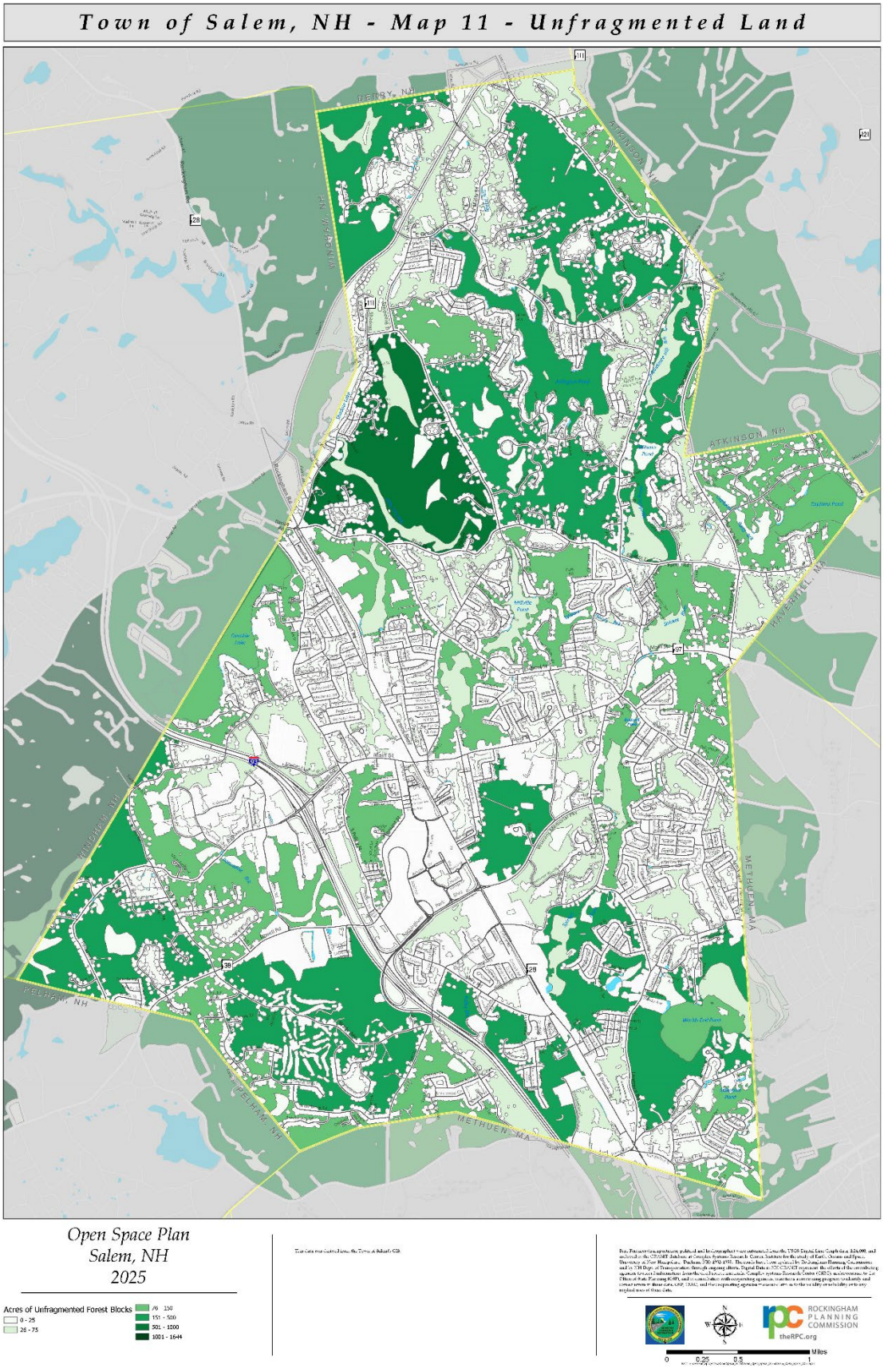
- Provides essential forest interior habitat for species such as some songbirds that need to be distanced from human activity, pets, and the forest edge in order to survive.
- Provides habitat for mammals that have large home ranges and prefer to avoid human contact, such as bobcat, otter, and moose.
- Enables owners of large parcels of forestland to conduct timber harvests that are economically viable.
- Minimizes conflicts that can arise when managed forests and farms are surrounded and interspersed with development.
- Offers opportunities for remote recreation, including hunting, hiking and snowmobiling, where landowners allow.

Table 8 highlights the size range of unfragmented blocks in Salem.

Table 8 – Unfragmented Blocks of Land

Unfragmented Blocks	Acres
0 – 10-acre block	514.6
11 – 25-acre block	351.7
26 – 50-acre block	772.3
51 – 100-acre block	753.9
101 – 500-acre block	3510.2
500 acres and greater block	1773.1
TOTAL	**7675.9**

Conserving these unfragmented blocks and connections between other significant habitat areas is important if residents want to retain the species that need larger and diverse home ranges and territories. Note that some of these unfragmented lands extend into adjacent towns.


Town of Salem, NH - Map 11 - Unfragmented Land
Open Space Plan
Salem, NH
2025
Acres of Unfragmented Forest Blocks
0 - 25
26 - 75
76 - 150
151 - 500
501 - 1000
1001 - 1644
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
0
0.25
0.5
1

Map 12 – Protected Land

Open space is defined as land that is in a natural, undeveloped condition that contributes to scenic, recreational, and ecological value. The definition of open space can be expanded to include working lands such as forestland and farmland, and managed green space such as parks, recreation areas, and golf courses.

Open space land in Salem plays an important role in enhancing the quality of life for residents, protecting the community's natural assets, and increasing the town's resilience to climate change and natural hazards. Preserving open space serves multiple goals and provides many benefits, including:

- Providing opportunities for recreation, play, and education
- Protecting environmental resources such as water, aquifers, air, and forests
- Mitigating flooding and flood related damage
- Creating places for residents to gather and connect
- Providing wildlife habitat and wildlife corridors
- Mitigating the urban heat island effect
- Increasing nearby property values
- Improving attractiveness, livability, and walkability

Salem's existing open spaces are diverse in their form and composition. They include conserved land, parks, recreational fields, unprotected forests and wetlands, waterbodies and shorelines, and trails. The recommendations in this Open Space Plan will enable the town to protect and improve the open space network. Table 9 lists the types of open spaces in Salem.

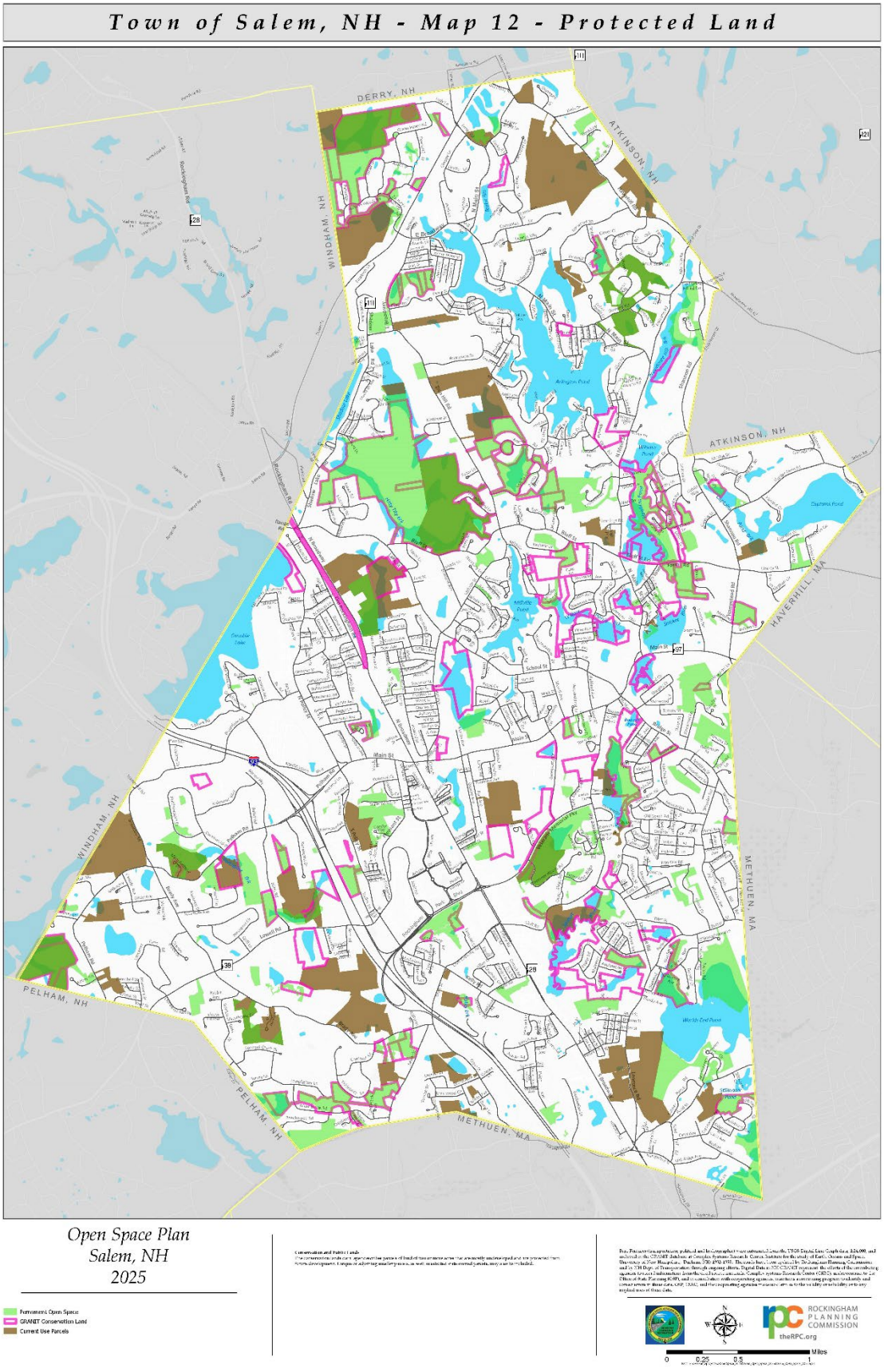
Table 9 – Types of Open Space

Types of Open Space	Acres
Salem Easement	998.5
Salem Conservation Land	599.1
Salem Set Aside	201.3
Deed Restriction	103.7
State of NH	455.7
No-Cut Zone	9.8
No-Cut Zone	0.7
Total	**1958.8**

Salem has 1,536.3 acres enrolled in the State's Current Use program. Current Use is tax assessment law that taxes land at its "productive capacity". This means the land is taxed at its income-producing capability as forest, farmland, or undeveloped land, rather than at its real estate value as a building site. Current Use lowers property taxes for landowners and

provides open space for hunting, fishing, and wildlife conservation. To qualify for Current Use, land must be 10 or more acres, and must be forest, farm, or unproductive land.

The Town's June 2023 Open Space Areas map depicts town-owned conservation land, conservation easements held by the town, land that has been set aside or deed restricted, current use parcels, town and school properties, and land owned by the State of New Hampshire.


Town of Salem, NH - Map 12 - Protected Land
DERRY, NH
ATKINSON, NH
WINDHAM, NH
ATKINSON, NH
HAVERHILL, MA
WINDHAM, NH
METHUEN, MA
PELHAM, NH
PELHAM, NH
METHUEN, MA
Open Space Plan
Salem, NH
2025
Permanent Open Space
GRANIT Conservation Land
Current Use Parcels
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
0
0.25
0.5
1

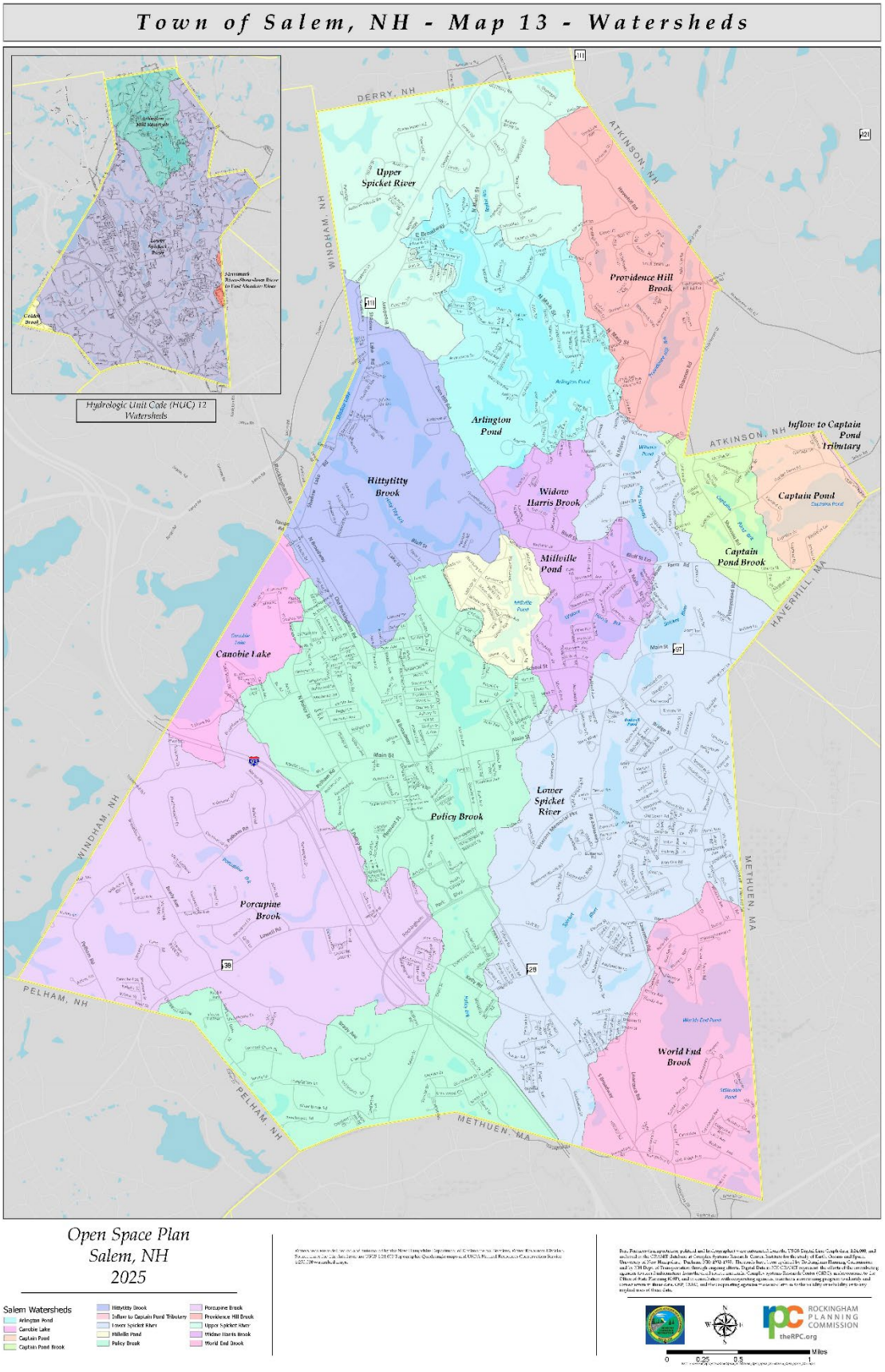
{Add narrative into section regarding the prioritization from Salem planning documents}

Map 13 – Watersheds

Map 13 display watersheds in Salem and Table 10 lists each watershed and the acres associated with each watershed. The Lower Spicket River watershed in the southeast part of town is the largest at 3144.2 acres.

Table 10 – Watersheds

Watersheds	Acres
Lower Spicket River	3144.2
Policy Brook	3065.7
Porcupine Brook	2498.7
Upper Spicket River	1348.5
Hittytitty Brook	1258.1
World End Brook	1144.7
Arlington Pond	1095.3
Widow Harris Brook	742.6
Canobie Lake	381.4
Captain Pond Brook	367.5
Captain Pond	332.7
Millville Pond	272.3
Inflow to Captain Pond Tributary	10.7
TOTAL	**16568.4**


Town of Salem, NH - Map 13 - Watersheds
Hydrologic Unit Code (HUC) 12 Watersheds
DERRY, NH
ATKINSON, NH
WINDHAM, NH
PELHAM, NH
METHUEN, MA
HAVERHILL, MA
Upper Spicket River
Providence Hill Brook
Arlington Pond
Inflow to Captain Pond Tributary
Hittytitty Brook
Widow Harris Brook
Captain Pond
Captain Pond Brook
Millville Pond
Canobie Lake
Lower Spicket River
Policy Brook
Porcupine Brook
World End Brook
Open Space Plan
Salem, NH
2025
Salem Watersheds
Arlington Pond
Canobie Lake
Captain Pond
Captain Pond Brook
Hittytitty Brook
Inflow to Captain Pond Tributary
Lower Spicket River
Millville Pond
Policy Brook
Porcupine Brook
Providence Hill Brook
Upper Spicket River
Widow Harris Brook
World End Brook
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
0
0.25
0.5
1

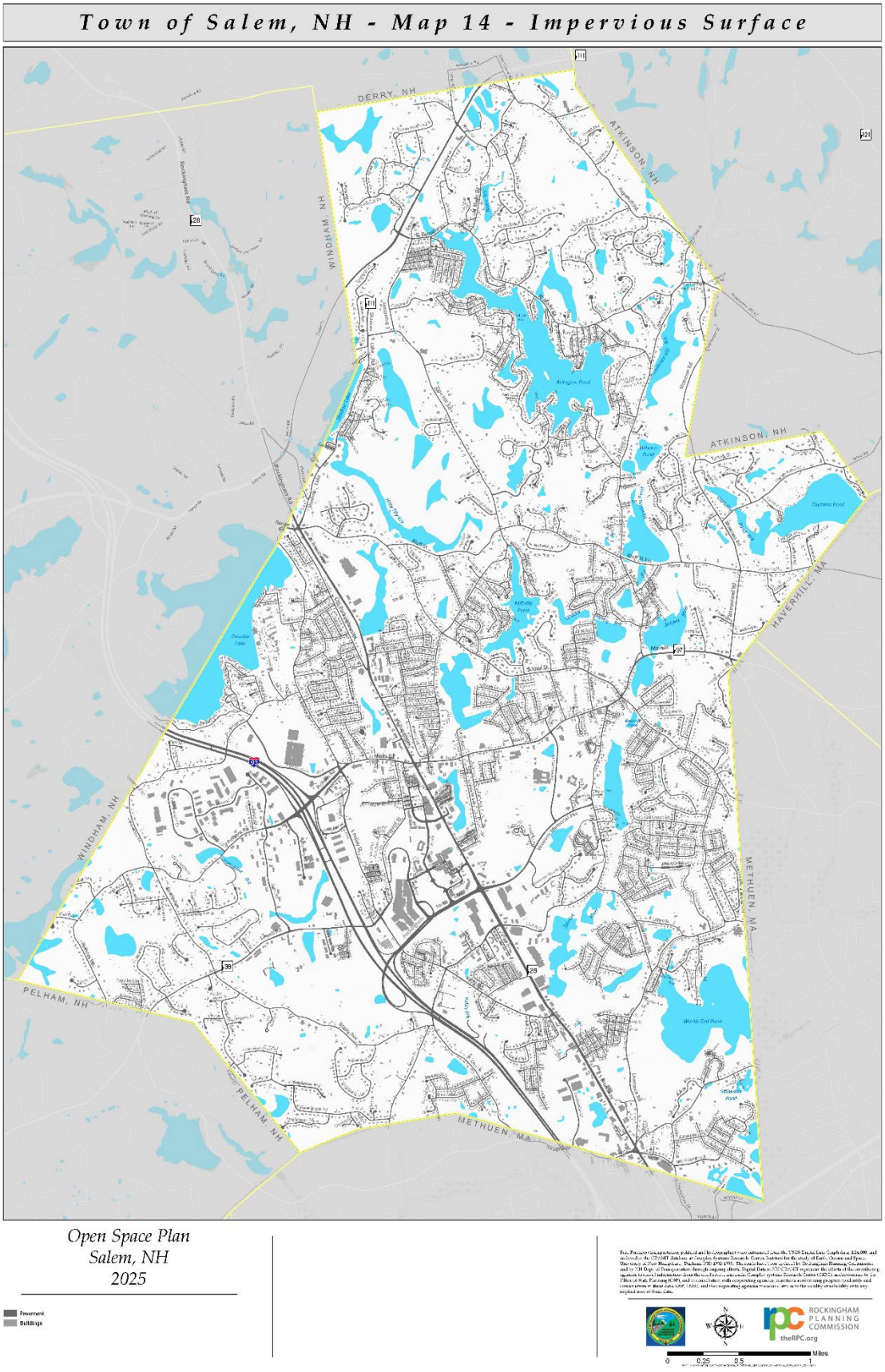
Map 14- Impervious Surfaces

When a watershed is increasingly covered with pavement, buildings, and other compacted surfaces that are impervious to water, significant changes in water quality and quantity result. When rain falls on impervious surfaces, it runs off faster into surface waters, carrying with it sediment and pollutants from road surfaces, lawns, construction sites, and parking lots. Flooding, warming water temperatures, and channelization of streams are the result. Infiltration of rainfall into the ground to replenish groundwater is reduced, reducing the quantity of groundwater available for withdrawals for drinking water.

This type of run-off, called “non-point source pollution”, is now the most serious threat to water quality for New Hampshire and for Salem. Low impact construction and site designs that promote retention and infiltration of rainwater and runoff, narrower streets and driveways when possible, shrub and tree buffers to waterways, and more compact development patterns can protect water quality and quantity

Studies conducted in the northeast have documented that by converting as little as 10% of a watershed to impervious surfaces, stream water quality and organisms begin to deteriorate. Above 25% impervious surface, water quality is seriously degraded. Over 90% of the surface water pollution in New Hampshire is attributable to stormwater runoff (NH Department of Environmental Services. 2024). Of Salem’s total land area, 10.3% is impervious, with 5.1% being pavement and 5.2% being buildings. (Town of Salem GIS Data.)

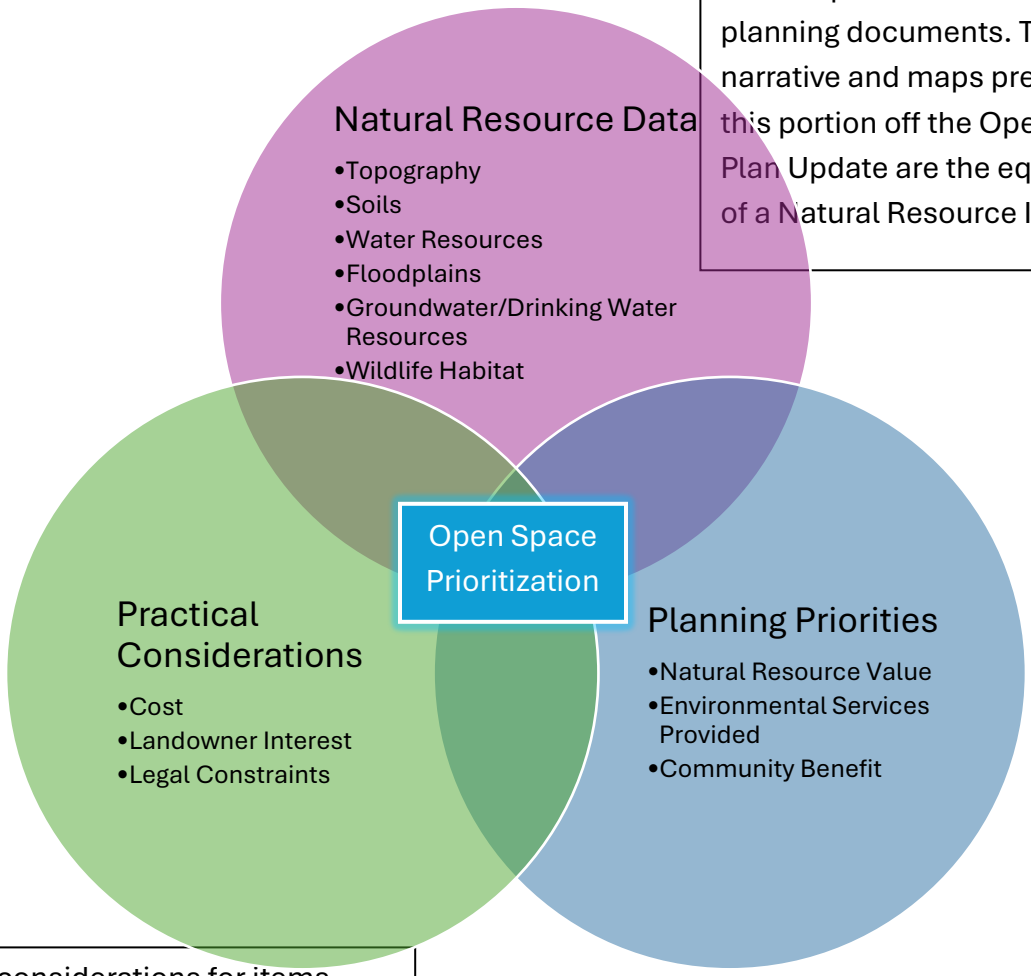
{Note that this map will be included as a segway into the Salem Planning Priorities Section of the overall Plan}.


Town of Salem, NH - Map 14 - Impervious Surface
DERRY, NH
ATKINSON, NH
HAVERHILL, MA
METHUEN, MA
WINDHAM, NH
PELHAM, NH
Open Space Plan
Salem, NH
2025
Pavement
Buildings
ROCKINGHAM PLANNING COMMISSION
theRPC.org
Miles
0
0.25
0.5
1

Map 15 – Co-Occurrence

{This map will be the ultimate prioritization map based on the Natural Resource inventory work, Planning Priorities and the Stakeholder input. Diagram included for context }

Natural Resources Data is derived from state, regional and Salem specific datasets and planning documents. The data, narrative and maps prepared for this portion off the Open Space Plan Update are the equivalent of a Natural Resource Inventory.



The considerations for items such as the cost and landowner interest for maintaining open spaces will be based on input from key stakeholder interviews and from the Open Space Task Force. This input in to identifying opens space preservation opportunities will shift the most frequently of the three input areas.

Priorities derived from Open Space Task Force input based on existing Salem planning documents: Existing Open Space Plan, Local Hazard Mitigation Plan, Draft Master Plan, Salem Open Space Zoning Ordinance, 2024 Conservation Commission Goals, 2024 Department and Committees Town Wide Goals