

NMP 2020-2030: EXISTING LAND USE

INTRODUCTION

In the most northeast section of Rockingham County in southeast New Hampshire lies the small town of Newington. This New England town occupies a peninsula surrounded on three sides by inland salt water bays and rivers and on the south shares a land boundary with the Town of Greenland and City of Portsmouth. The town encompasses 12.5 square miles, of which 8.2 square miles is land and 4.2 square miles is water. Newington is relatively flat rising from sea level to an elevation of only 130 feet near Newington Village center. The town’s population has yet to exceed 1,000 inhabitants but is growing slowly as many residential homes replace the large farmsteads lost to agricultural decline.

HISTORICAL LAND USE

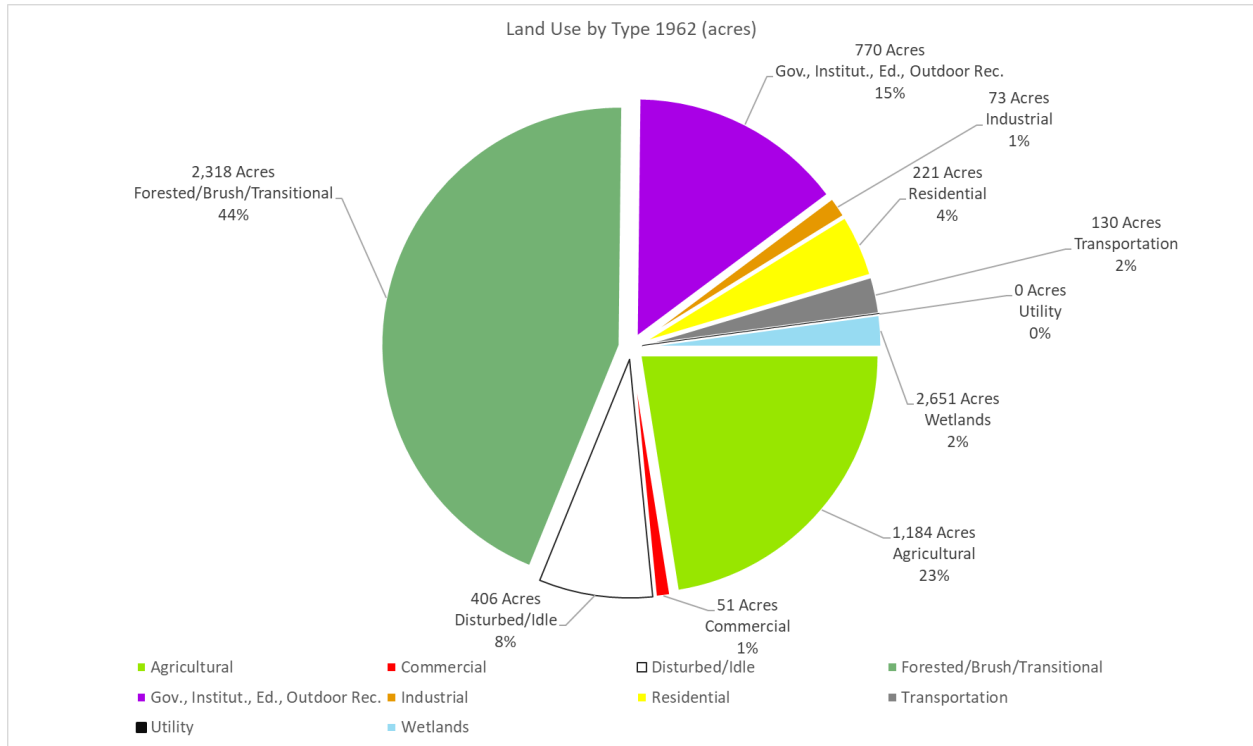
For most of its history, Newington was a town comprised of rural farmsteads and forestland alongside tidal waters. During the 1700s and 1800s, the land use transitioned from forests to farms, some shorefront industry, and a transportation route from coastal to inland New Hampshire. Some parts have seen little change -- even today our residential area retains a traditional New England landscape. Other parts have been divided into land use zones that have enabled distinct commercial, office, and industrial areas. The early 1900s saw the rise then rapid fall of wooden shipbuilding along the Piscataqua River. In the mid-1900s the center core of Newington was carved into a military airport occupying 4.2 square miles, over 50% of the land area. Pease Air Force Base opened in 1956 during the East-West Cold War but lasted less than 40 years. The impact to private ownership was permanent, however, as the majority of the base has been retained under State and Federal land use control. The NH Air National Guard occupies some airport area to support military operations, however the majority of land east of the runway has been redeveloped as the Pease International Tradeport. The land to the west has been conserved from development to establish the 1000+ acre Great Bay National Wildlife Refuge. Only 69 acres of the land taken have been returned to Newington, the original Town Forest.

LAND USE MAPS – PAST 50 YEARS TO PRESENT

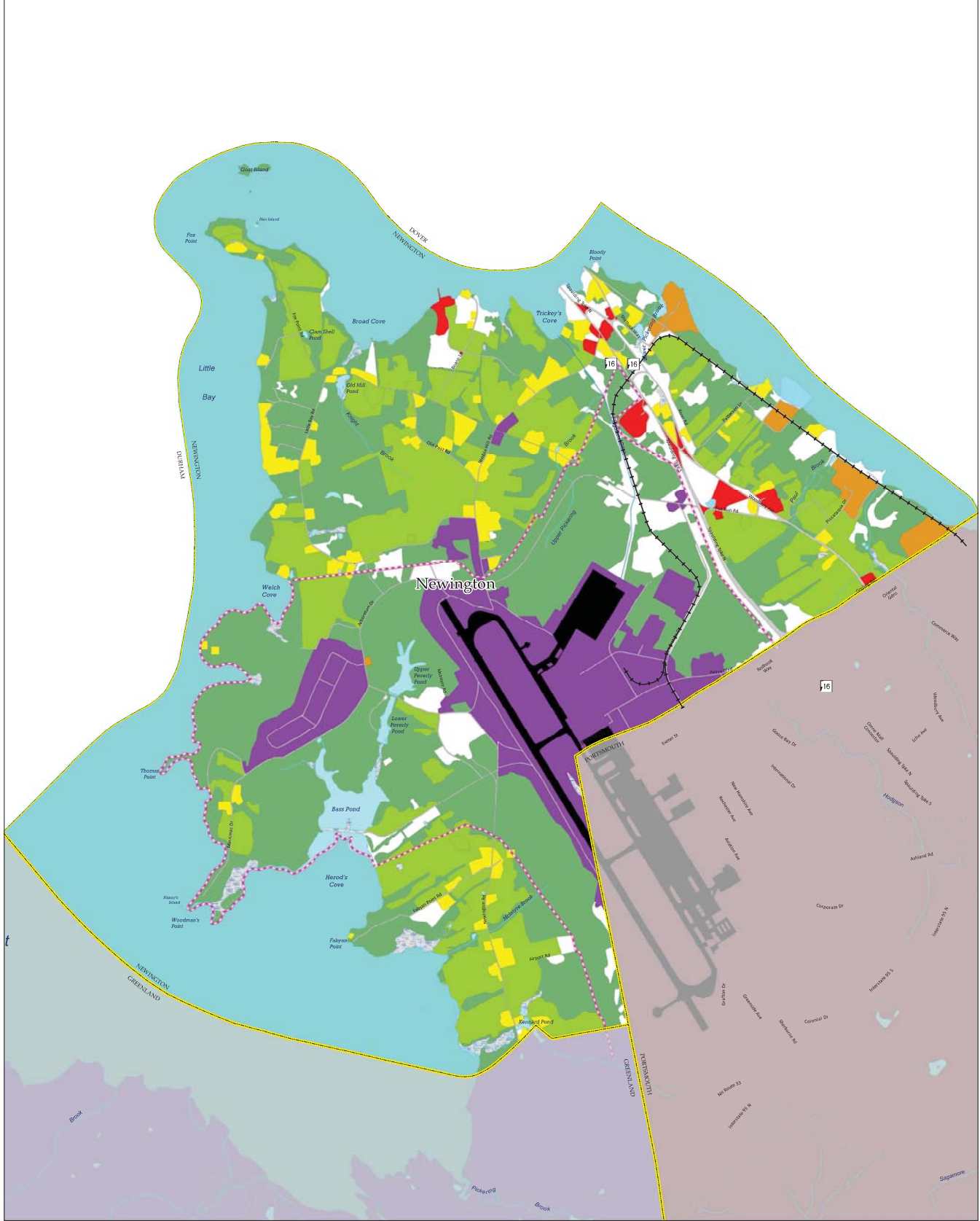
This Existing Land Use chapter¹ uses maps to highlight the recent progression of land use in Newington and describes generalized land use characteristics that will help guide the development of recommendations in the Future Land Use chapter. It contains existing land use information, derived from geographic information system (GIS) data, town records, and local knowledge. The maps and pie charts were adjusted to use the same major land use categories over the last 50 years.

¹ NH RSA 674:2, II. (b) states a Master Plan shall include a “land use section upon which all the following sections shall be based. This section shall translate the vision statements into physical terms. Based on a study of population, economic activity, and natural, historic, and cultural resources, it shall show existing conditions and the proposed location, extent, and intensity of future land use.”

1962 Existing Land Use



By 1962, the loss of half (2,600+ acres) of Newington's land area to Pease Air Force Base had converted 650+ acres into a military runway, taxi ramps, weapons storage, and airbase support structures while disturbing or idling an additional 400+ acres still in transition. The Air Force retained the remaining Newington land as forest and brush fields, but it no longer would provide livelihood for the town's longtime residents. As a result, the once primary land use of agricultural had a rapid drop below 1200 acres; this decline would continue.



1962 Land Use Map* Newington

Date: Fall 2018



Pease Air Force Base Boundary (1962, 1974)



0 0.125 0.25 0.5 0.75 1 Miles

1962 Land Use Land Use Type

- Residential
- Commercial
- Gov't/Instit./Ed./ Outdoor Rec
- Industrial
- Transportation
- Utilities
- Disturbed/Idle
- Agricultural
- Forested/ Brush
- Water
- Wetlands

RPC Standard Map Set

- RPC Towns Boundaries
- Water Feature
- Tidal Feature
- Shoreline/ Stream
- Apparent Wetland Limit
- Intermittent Stream
- Other Surface Water Feature

Land Use

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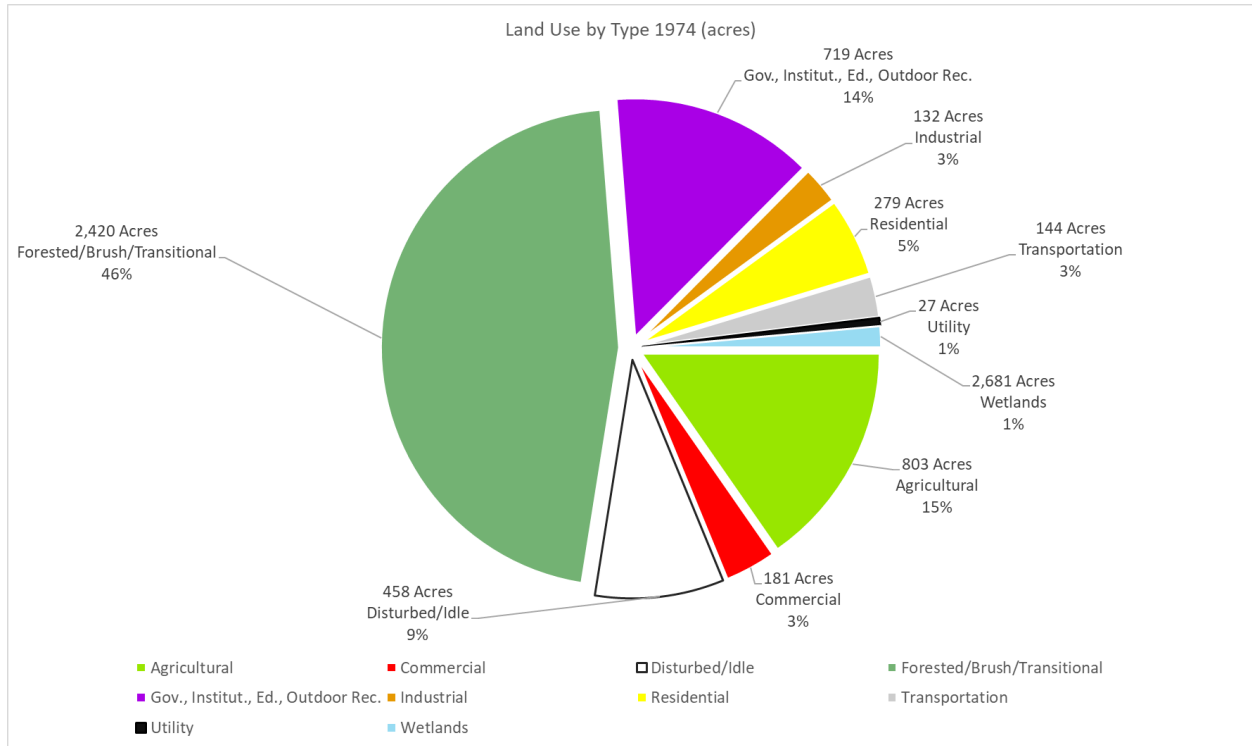
1962 Land Use

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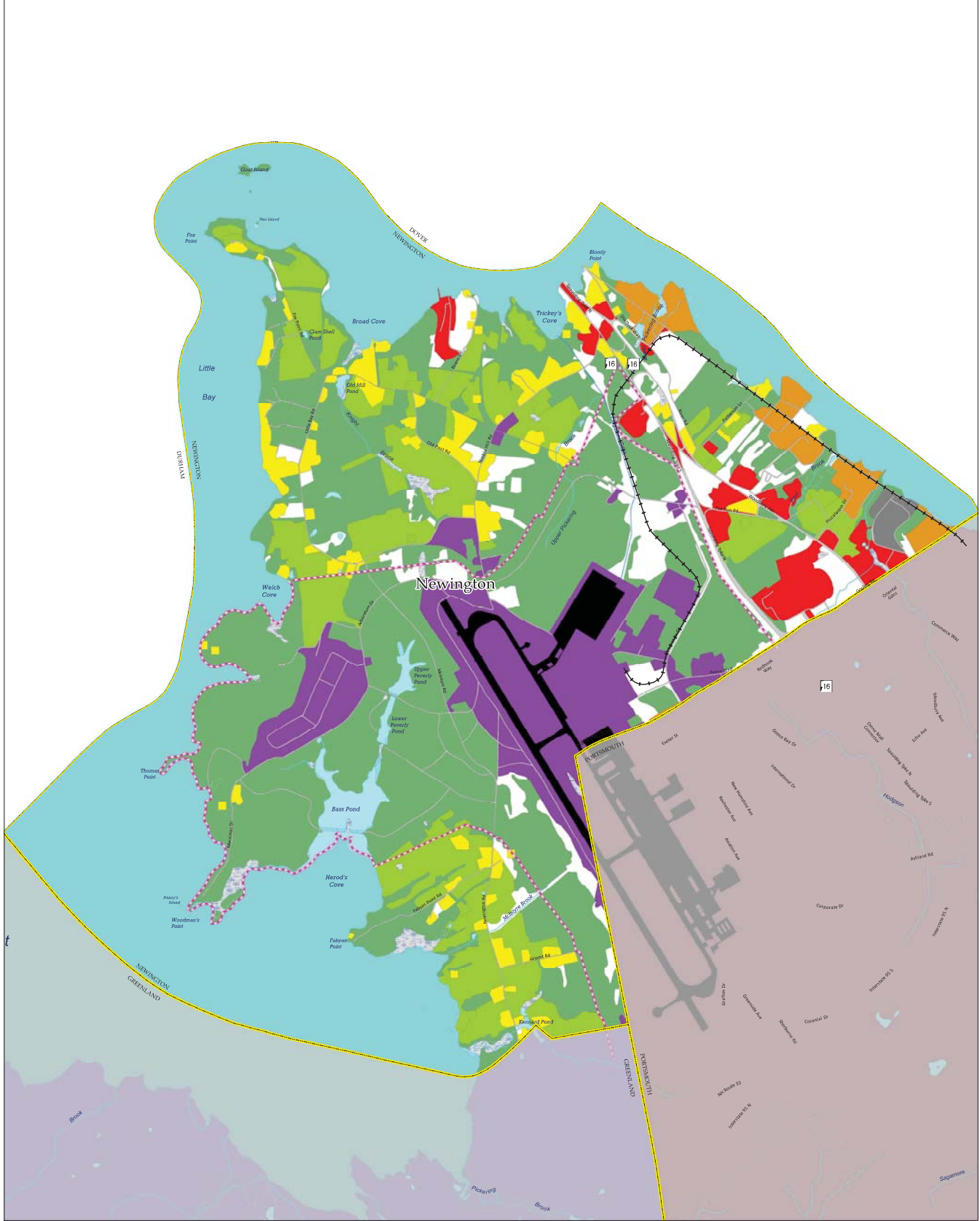
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1974 Existing Land Use



By 1970's, regional growth of the seacoast was channeled by Newington's early zoning east of the Spaulding Turnpike into commercial and industrial development. The town secured its first shopping mall, its first energy plant, and many sea-supported industries gaining a strong tax base. Agricultural use further declined by another one third and would continue to do so.



1974 Land Use Map* Newington

Date: Fall 2018



Pease Air Force Base Boundary (1962, 1974)



0 0.125 0.25 0.5 0.75 1 Miles

1974 Land Use Land Use Type

- Residential
- Commercial
- Gov't/Instit./Ed./ Outdoor Rec
- Industrial
- Transportation
- Utilities
- Disturbed/Idle
- Agricultural
- Forested/ Brush
- Water
- Wetlands

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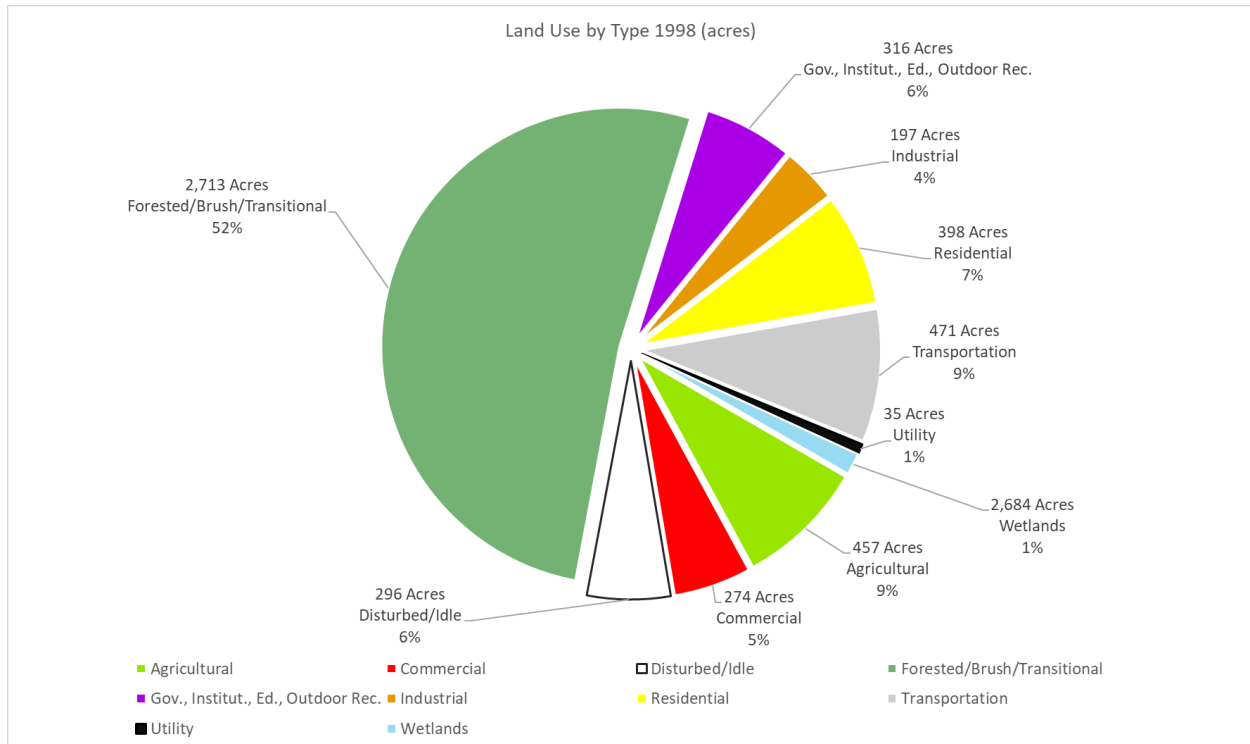
1974 Land Use

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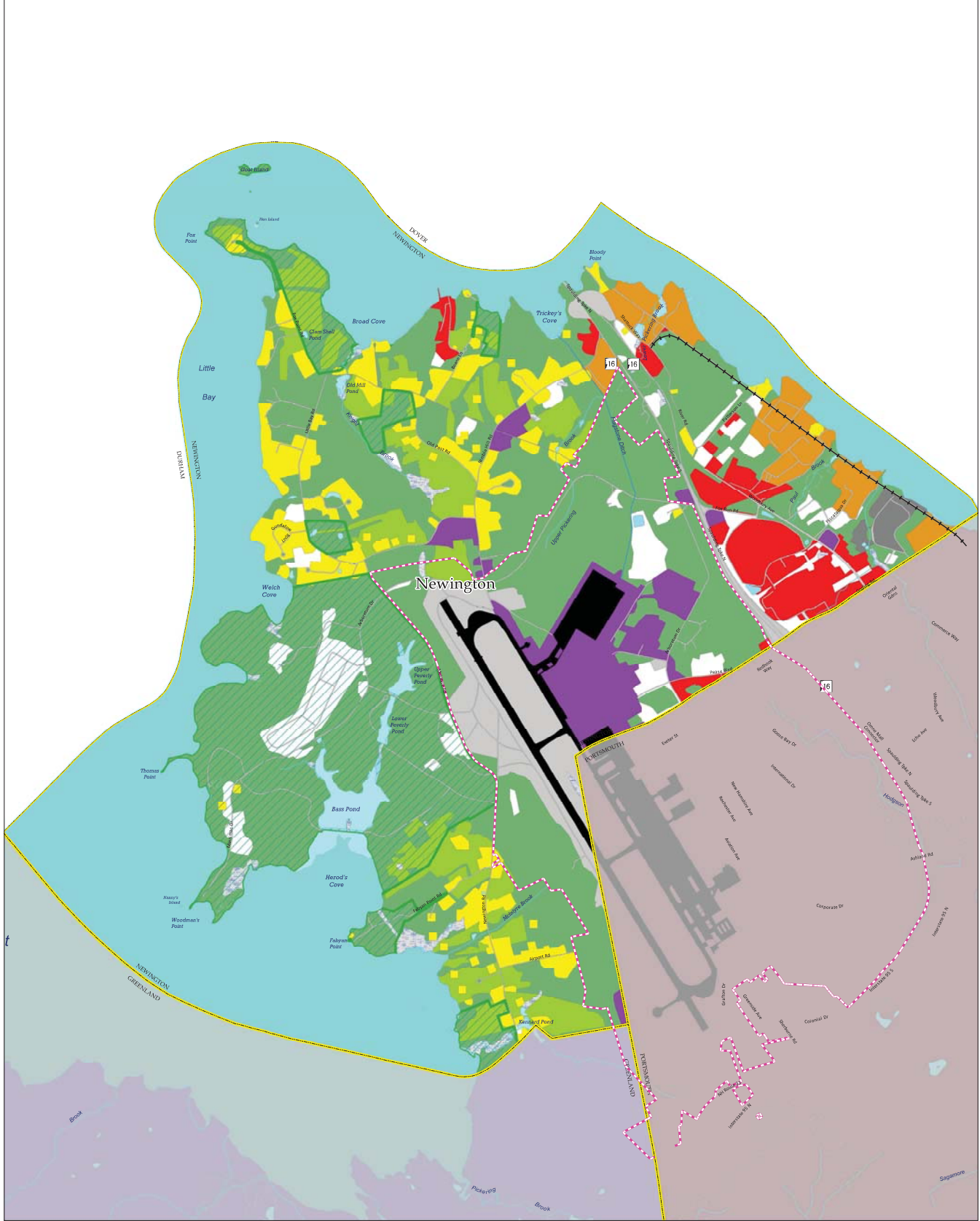
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1998 Existing Land Use



Major shifts in land use came with the 1990's closure of Pease Air Force Base. The Air Force Base boundary is replaced by the Pease Development Authority boundary and the Great Bay National Wildlife Refuge is established. Government use dropped by 400 acres as the military airport became a state transportation use and a commercial trade port. Residential growth rose 50%, spurred by Newington's first subdivisions that converted small family farmsteads into 6-10 homesites. Newington's Fox Run Mall and northern shopping sites further expanded the commercial base to today's level. The disturbed/idle land total declined adding to other uses like forest and fields.



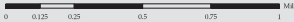
1998 Land Use Map* Newington

Date: Fall 2018

- Pease Development Authority Boundary
- Railroad
- Natural Resource Protection District

1998 Land Use Land Use Type

- Residential
- Commercial
- Gov't/Instit./Ed./ Outdoor Rec
- Industrial
- Transportation
- Utilities
- Disturbed/Idle
- Agricultural
- Forested/Brush
- Water
- Wetlands



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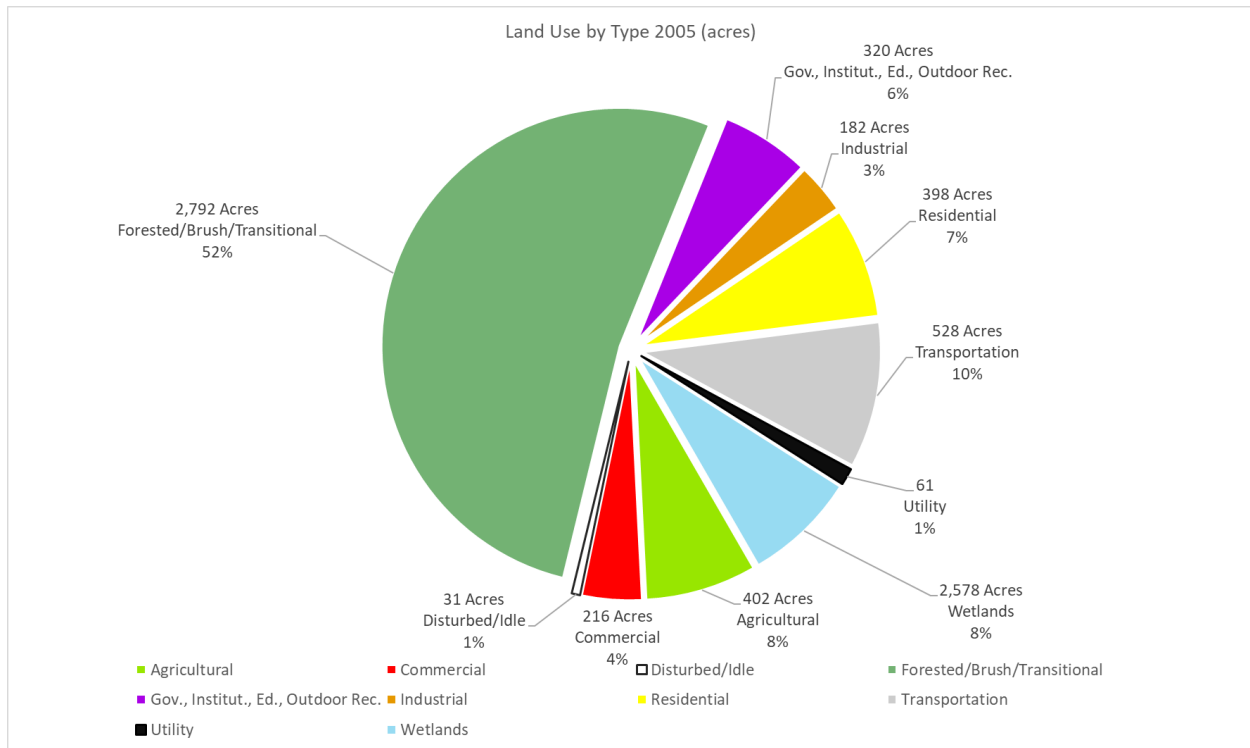
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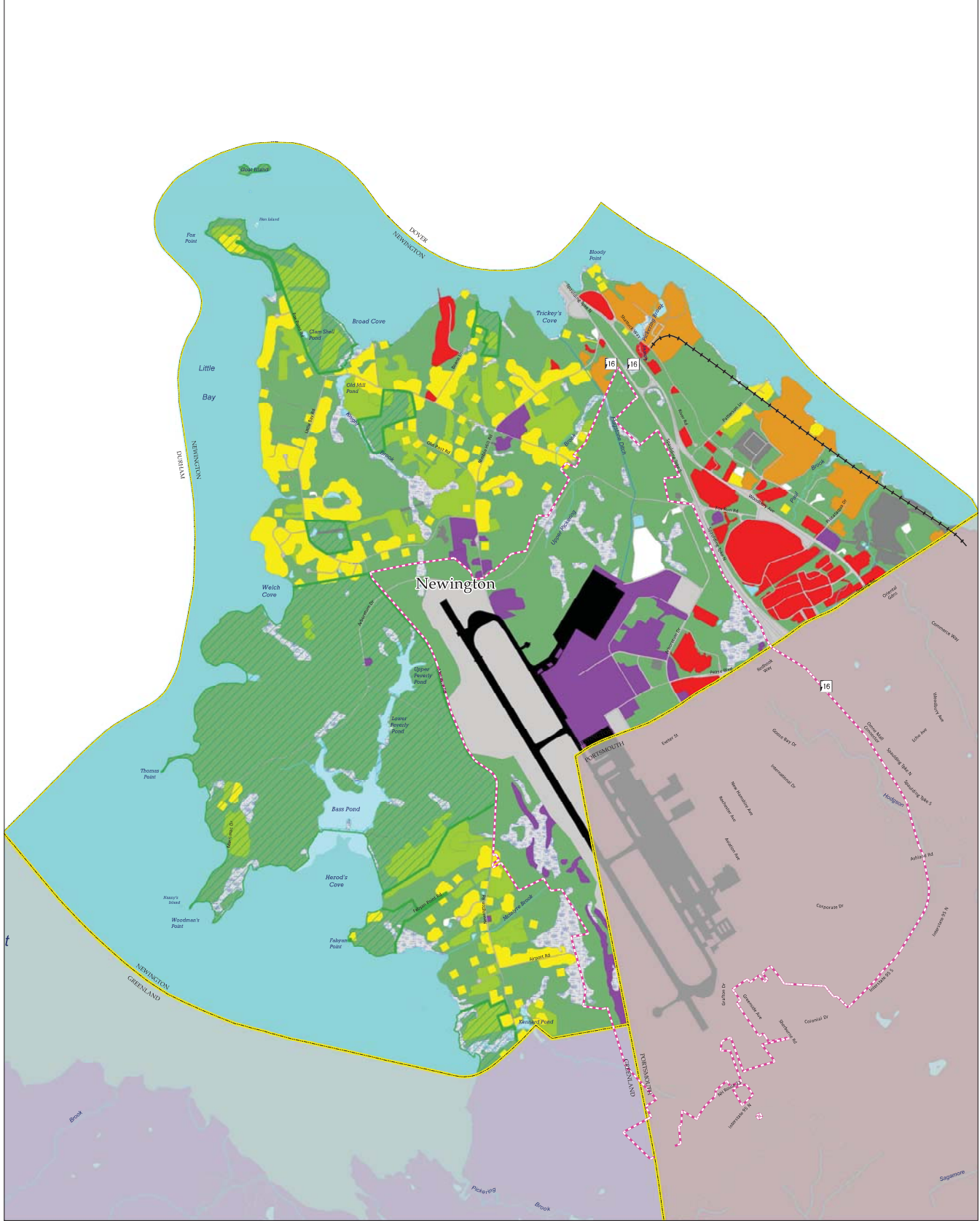
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2005 Existing Land Use



Transportation use rose by 10% with a 2nd expansion of the Spaulding Turnpike and the construction of Shattuck Way. Utility land use doubled with the addition of a second energy plant.



2005 Land Use Map* Newington

Date: Fall 2018

- Railroad
- Pease Development Authority Boundary
- Natural Resource Protection District

2005 Land Use Land Use Type

- Residential
- Commercial
- Gov't/Instit./Ed./ Outdoor Rec
- Industrial
- Transportation
- Utilities
- Disturbed/Idle
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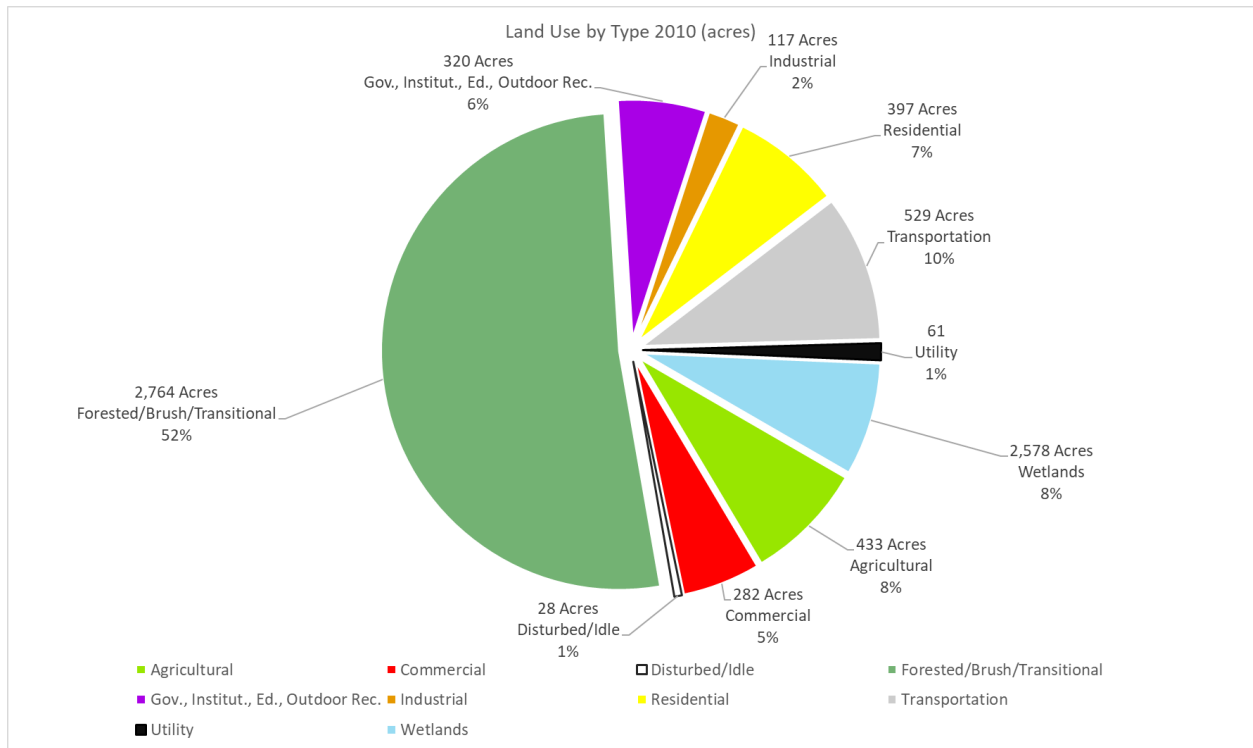
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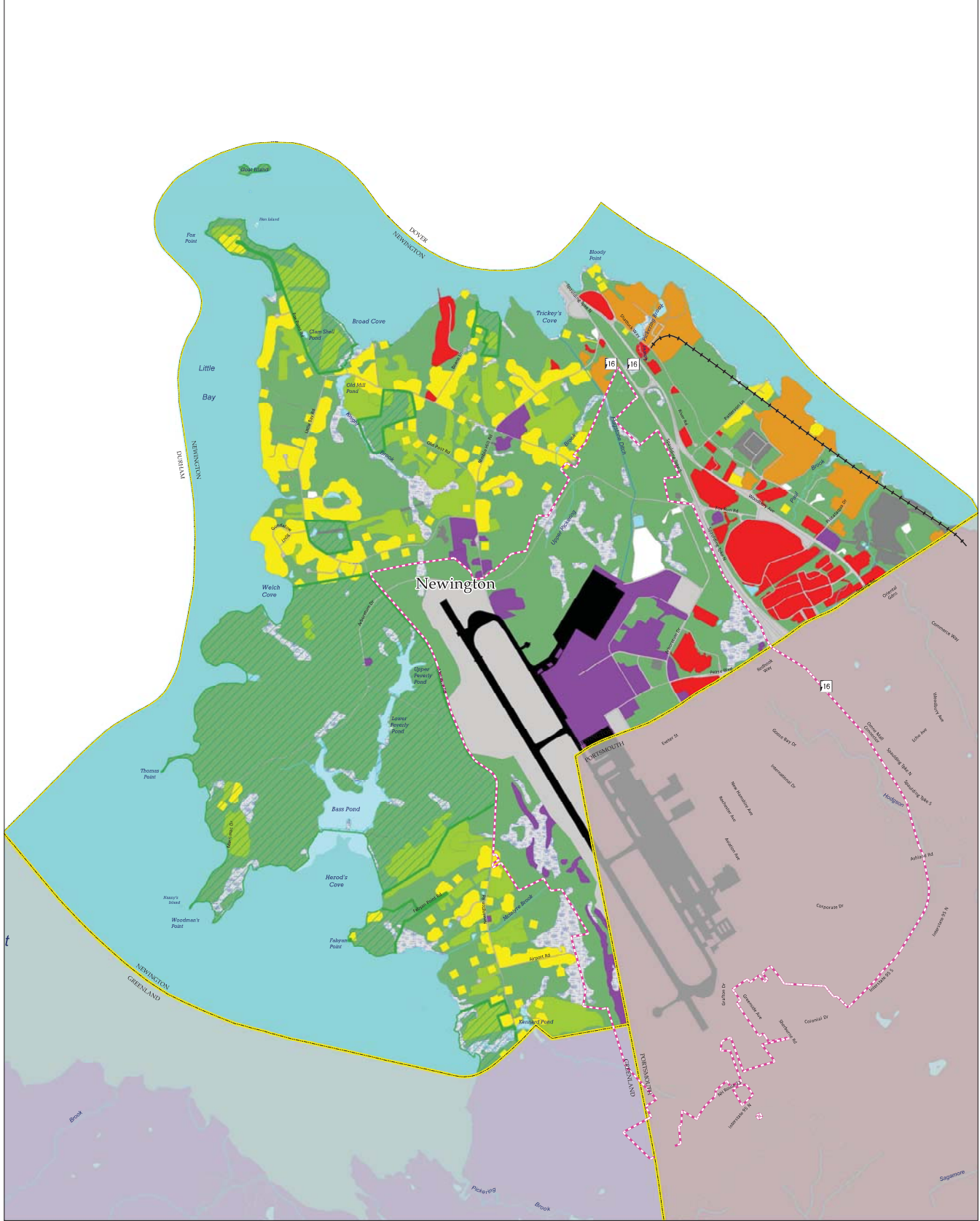
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2010 Existing Land Use



During the recession and recovery before and after 2009, land use had no significant change.

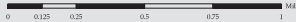


2010 Land Use Map* Newington

Date: Fall 2018

- Railroad
- Pease Development Authority Boundary
- Natural Resource Protection District

- 2010 Land Use
Land Use Type**
- Residential
 - Commercial
 - Gov't/Instit./Ed./ Outdoor Rec
 - Industrial
 - Transportation
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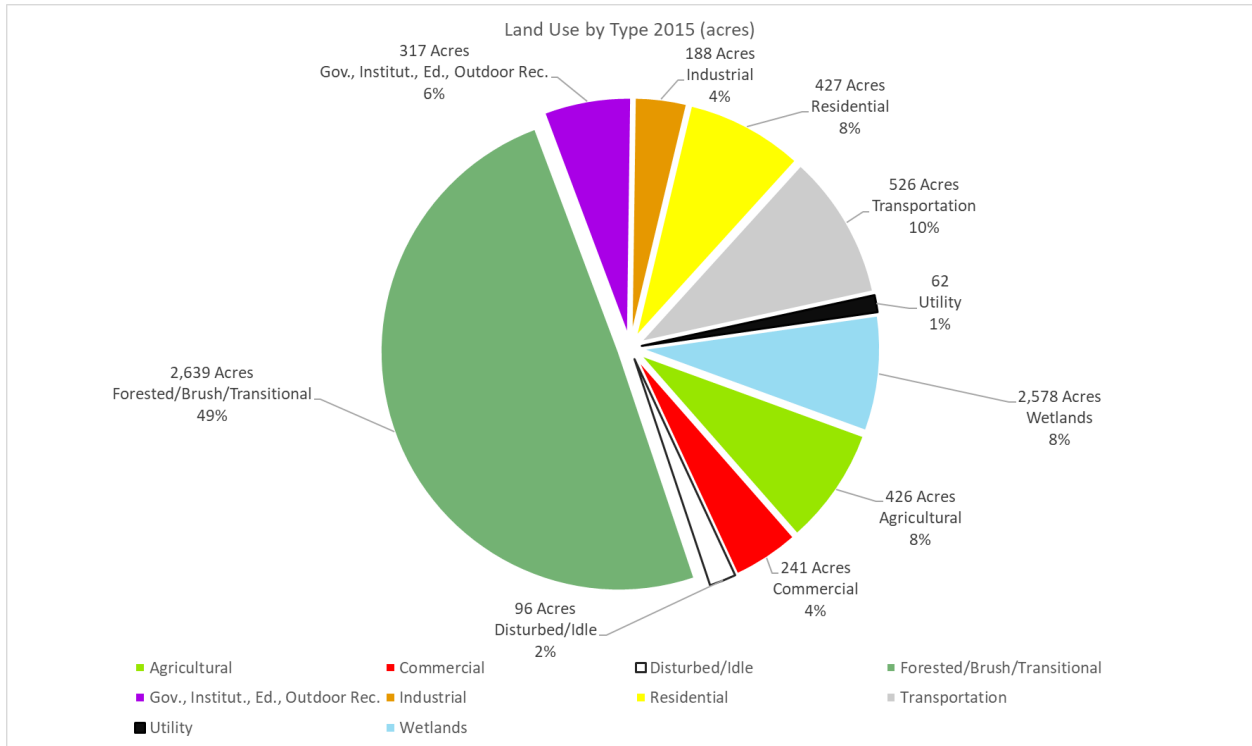
2010 Land Use

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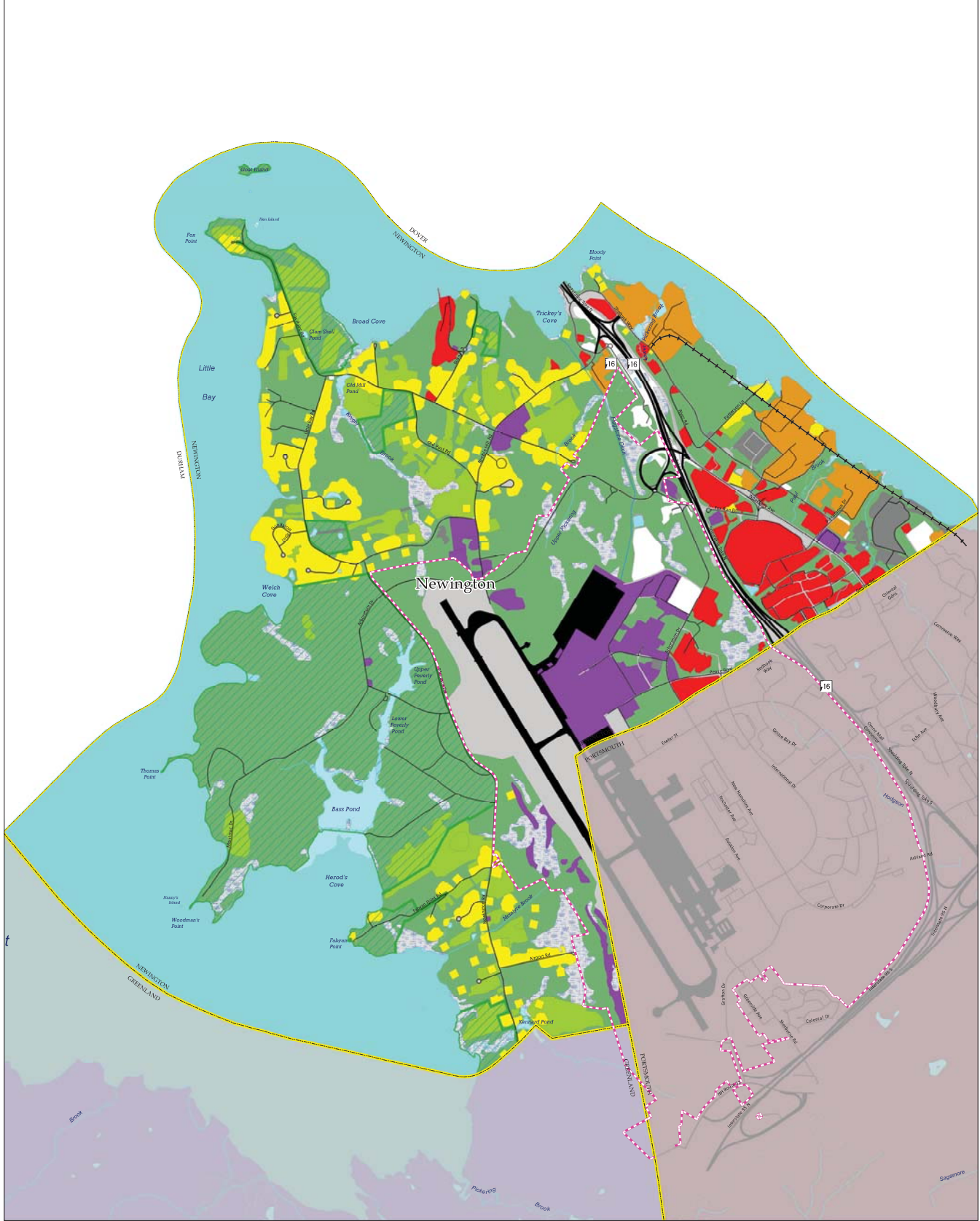
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2015 Existing Land Use



As with all previous analyses, forested land remained the predominant land use and transportation remained the second most common use. Currently, Newington has low and steady growth in industry, commercial and residential land use.



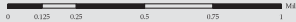
2015 Land Use Map* Newington

Date: Fall 2018

- Railroad
- Pease Development Authority Boundary
- Natural Resource Protection District

2015 Land Use Land Use Type

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LAND USE SUMMARY TABLE – PAST AND PRESENT

Table 1: A Summary of the Historical Land Use

Land Use Type	1962 acres	1974 acres	1998 acres	2005 acres	2010 acres	2015 acres	1962 to 2015 Change Acres	1962 to 2015 Percent Change	2005 to 2015 Change Acres	2010 to 2015 Percent Change	
Agricultural	1,184.0	802.5	466.7	402.2	433.4	425.8	-758.2	-64.0%	+23.6	+5.9%	
Commercial	50.9	181.0	229.7	225.0	225.0	241.3	190.5	374.3%	+16.3	+7.3%	
Disturbed/Idle	405.7	457.6	286.4	30.6	27.5	96.3	-309.4	-76.3%	+65.7	+214.7%	
Forested/Brush/Transitional	2,318.3	2,419.8	2,735.4	2,792.2	2,764.0	2,639.1	320.8	13.8%	-153.1	-5.5%	
Government, Institutional, Education, Outdoor Recreation	770.4	724.6	319.6	311.2	311.2	316.6	-453.8	-58.9%	+5.4	+1.7%	
Industrial	73.1	131.9	190.9	182.2	182.2	188.3	115.2	157.5%	+6.1	+3.4%	
Residential	221.0	273.0	403.8	398.4	397.0	426.7	205.8	93.1%	+28.4	+7.1%	
Transportation	130.2	143.6	488.4	527.8	529.2	526.0	395.7	303.9%	-1.9	-0.4%	
Utility	0.0	26.7	34.7	61.2	61.2	61.5	61.5	N/A	+0.4	+0.6%	
Tidal Waters	2,651.0	2,681.2	2,684.3	2,577.6	2,577.6	2,577.9	-73.1	-2.8%	+0.3	0.0%	
Wetlands	112.2	74.8	76.9	408.5	408.5	417.3	305.1	271.8%	+8.8	+2.20%	
Total Acres	7,916.8										

Note: Data for the years 1962, 1974, and 1998 were compiled with a slightly different methodology than 2005, 2010, and 2015. This accounts for some variance between the various land uses when no actual change has taken place. A definition of land uses in this table may be found in the Appendix.

LAND USE TRENDS

Trends in land use can be determined by the maps on previous pages depicting land use in Newington from 1962 - 2015. Noteworthy trends include:

- Forest and field have remained the dominant land use through joint conservation effort by the US Air Force, federal and state agencies, and especially local residents. Nearly half of Newington has remained forest and fields, although slight declines are likely ahead for this prized land use.
- There has been a 64% decline in Active Agricultural use; this likely will continue in decline
- 93% increase in Residential land with further gains in housing expected
- 304% increase in land dedicated to Transportation with an airport and the Spaulding Turnpike
- A 130% increase in Utility acreage, from 27 acres in 1974 to 62 acres in 2015.
- Continued increases in impervious surfaces such as roads, parking lots, driveways, and rooftops that prevent rainwater and snowmelt from soaking into the ground. Analysis of land use by the Piscataqua Region Estuaries Partnership (PREP) estimated 24% of Newington was impervious surface in 2015, an increase from 13% in 1990. Although Newington's watersheds are short runs to tidal waters, they are vulnerable to flooding if not kept clear of debris.

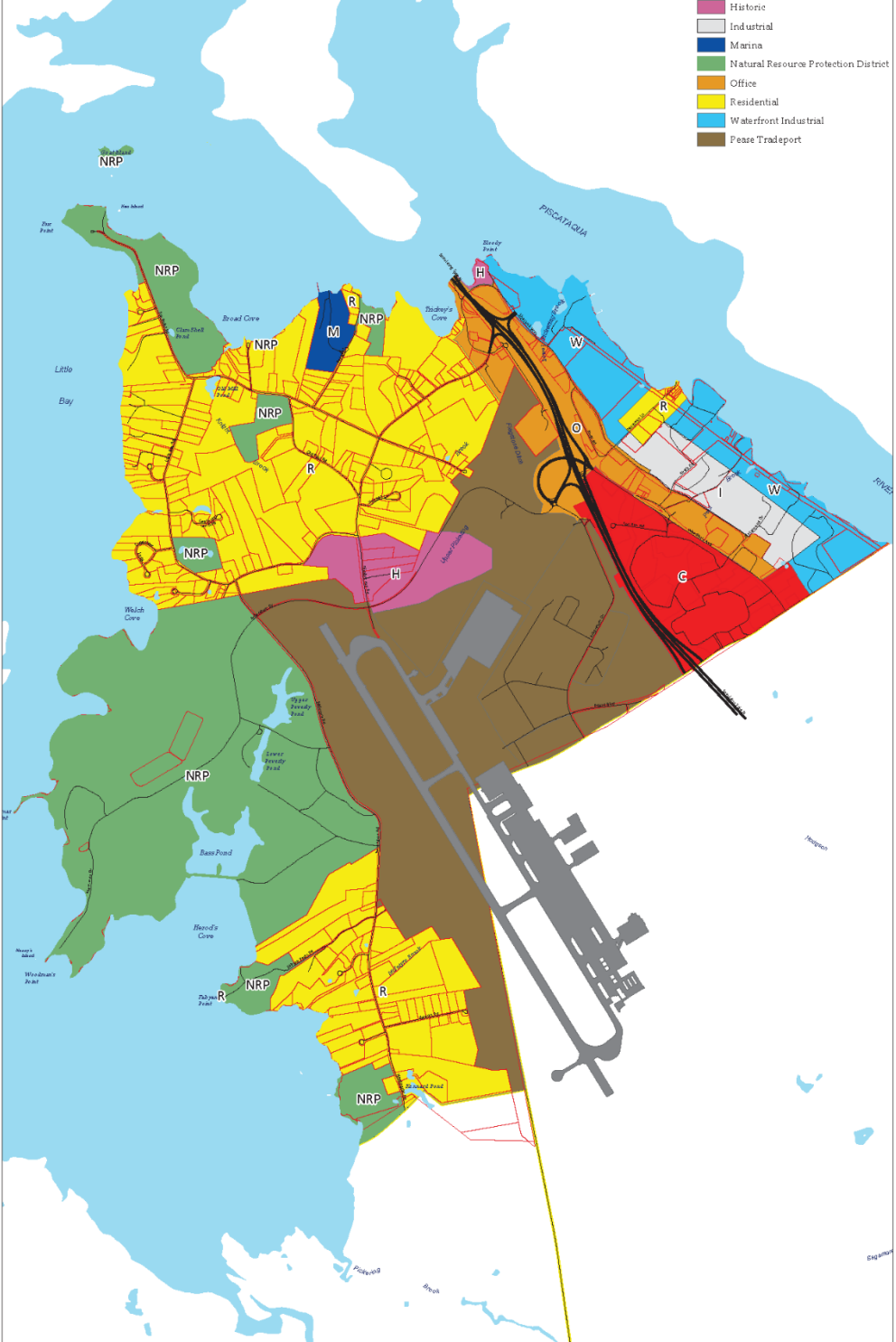
ZONING DISTRICTS

A trend critical to the history of land use in Newington is the taking of land by eminent domain in 1952 to create the Pease Air Force Base. This single action removed 4.2 square miles (50+%) of land in Newington from local control, preventing the Town from guiding development. Immediately after the loss of land to Pease Air Force Base, Newington became one of the first towns in New Hampshire to establish land use districts to direct land use on the remaining acres under town control. The town's three primary Zoning Districts of Residential, Commercial, and Industry clearly segmented land use separated by major transportation routes minimizing incompatible use conflicts. The Residential areas encompass 2,133 acres, or 38% of the town. The Commercial Zone encompasses 280 acres, or 5% of land area in Newington. (Note: Newington's Office Zone was established in 1994 out of the Commercial Zone as a transition to the industrial land uses on the east side of town. The Office Zone portion encompasses 176 acres or 3% of the Town's land area). The current zoning map planned for the town for Newington and the current zoning map used by the Pease Development Authority for the Tradeport.

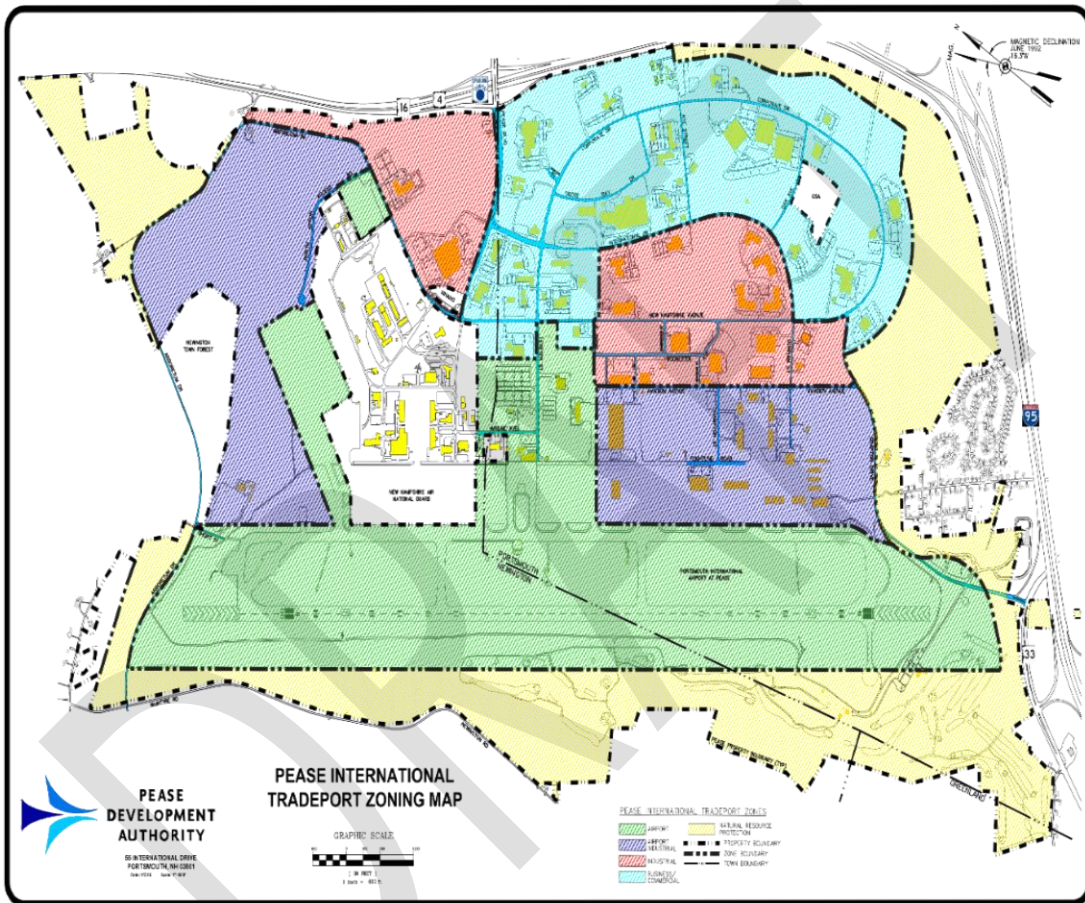
The following maps depict the current zoning in the Town of Newington as of 2018 and the zoning map used by the Pease Development Authority in 2018 for the Tradeport.

Map 7 - Preliminary Zoning 2019

- Zoning 2018**
- Commercial
 - Historic
 - Industrial
 - Marina
 - Natural Resource Protection District
 - Office
 - Residential
 - Waterfront Industrial
 - Pease Tradeport



Pease Zoning Map



INDUSTRIAL AND WATERFRONT INDUSTRIAL ZONES

Newington's proximity to the tidal Piscataqua River and the Spaulding Turnpike provides the town with critical assets enabling robust industrial and commercial activity. The Piscataqua River waterfront in Newington comprises a substantial portion of New Hampshire's only deep-water port. This land is of enormous economic value to the town, region, and state, and since the enactment of zoning in Newington in 1952, Town officials have worked thoughtfully and deliberately to ensure land is reserved in the Industrial Zones for optimum utilization so that its economic benefit may be realized to the fullest. Newington's Industrial Zones are host to three major tank farms, housing 63 tanks with a combined capacity of 3.1 million barrels. There are also two electric generating plants and several other manufacturing enterprises providing above average employment opportunity. Most of the industrial facilities are dependent on proximity to ocean going transport. These ocean dependent industries cover 331 acres; utility industrial facilities account for an additional 61 acres.

COMMERICAL ZONE

The Commercial Zone encompasses 280 acres, or 5% of land area in Newington. The zone is dominated by retail uses and restaurants, including two of the largest shopping malls in the state, the Fox Run Mall and the Crossings at Fox Run. These two malls account for over one million square feet of retail floor space and are the highest revenue generating properties in the Commercial Zone, accounting for 60% of the tax revenues raised in the zone. The Fox Run Mall encompasses 612,000 square feet of floor area and the Crossings at Fox Run covers 415,000 square feet. The present malls would be better served by additional access point to provide connection between the Crossing at Fox Run and the Fox Run Mall. Most small New Hampshire towns devote only a small area to commercial uses, usually less than 2% of land area. With the current population estimated to be only 800 residents, Newington's commercial establishments are patronized primarily by people from outside the community. While the zone is nearly fully developed, redevelopment is a likely possibility. The Town of Newington will be monitoring the evolution of the commercial sector in Town. Across the nation, retail malls have seen dramatic declines in patronage due to online retail competition. Although closures of malls have occurred, the more common response has been to re-purpose malls to provide professional office space, health care services, and other non-retail uses.

OFFICE ZONE

Newington's Office Zone was established in 1994 and encompasses 176 acres or 3% of the Town's land area. It serves as a transition zone between industrial land uses on the east side of town and retail and commercial land uses on the west side of town. In addition to office use, the Town's Zoning Ordinance permits light industry, warehousing, medical clinics, hotels, and other similar uses.

RESIDENTIAL ZONES

Newington has three distinct areas of town zoned Residential: Patterson Lane, South Newington, and the area near the town center, sometimes referred to as Newington Village. These residential zone areas encompass 2,133 acres, or 38% of the town.

- Patterson Lane is the smallest residential zone with over 30 acres and nearly 20 home sites along a single roadway.
- South Newington is a 607-acre zone with over 75 dwellings and a mile of local highways.
- Newington Center is a 1,514-acre zone with over 275 existing dwellings, protected open space, town buildings, and several miles of roadway.

NEWINGTON'S TAX BASE

A town's land use creates more than a town character; it creates value for the owners of the property. While the property value is owned by the residents and businesses of a town, the real property has long been taxed by the government since colonial days. Each town assesses the highest value use of the property to form a tax base for the community. By its location and early steps to grow high value land uses, Newington, with a small and stable population, has built one of the highest per capita property values in the state. When coupled with sound fiscal discipline by town residents, Newington's local government has been able to consistently deliver one of the lowest tax rates in the New Hampshire. This is even more significant when you consider that over half the land value of Newington is excluded from the tax base due to State control of the Pease Tradeport and Spaulding Turnpike, as well as Federally owned conservation land at the Great Bay National Wildlife Refuge.

NEWINGTON PROPERTY TAX BASE (2017)

UTILITY BASE (50%)

Energy Generation Facilities (2)	\$494,252,700
Transmission Systems (Electric, Gas)	\$35,815,500
Distribution Systems (Electric, Gas, Communications)	<u>\$14,789,400</u>
Utility Subtotal	\$544,857,600

COMMERCIAL BASE (22%)

Retail Mall Properties (2)	\$96,186,500
Retail Product Sales (Chain stores, Auto sales, Storage Buildings)	\$92,223,500
Retail Services (Repairs, Restaurants, Medical care, Entertainment)	<u>\$45,422,200</u>
Commercial Subtotal	\$233,832,200

RESIDENTIAL BASE (17%)

Single Family (262 dwellings)	\$158,491,500
Multi-Family (46 dwellings)	<u>\$28,927,900</u>
Residential Subtotal	\$187,419,400

INDUSTRIAL BASE (11%)

Manufacturing (Energy, Optic Cable, Electronic, Wall Board)	\$69,512,300
Bulk Storage (Oil & Gasoline Fuel, Asphalt, Propane, Gypsum, Salt)	<u>\$48,855,400</u>
Industrial Subtotal	\$118,367,700

TOTAL NEWINGTON TAX BASE (100%) **\$1,084,476,900**

OPEN SPACE PROTECTION

There is a long tradition of open space protection and land conservation in Newington, with 1,483 acres, or 18% of land area protected from development. The land may be protected through a deed restriction, conservation easement, or other legal restriction, and all are tied to the title of the land, regardless of its subsequent ownership. Such land may be given to the Town or an organization specializing in managing conservation land. Conserved land is not required to be open to the public, unless it is the specific request of the landowner or is required by an entity providing funding to purchase the land or the conservation easement. One of the primary purposes of open space protection is to protect the land's natural resources and values. Table 6 lists conserved lands in Newington.

Table 6: Conserved Land

Conservation Land Name	Tax Map-Lot #	Owner	Acres
Great Bay National Wildlife Refuge	45-1	US Fish & Wildlife Service	1,100
Fox Point	1-1	Town of Newington	110
Town Forest	Pease	Town of Newington	69
Frink Farm	17-8	Frink Family	38
Jack Mazeau	53-6, 53-7, 55-1	NH Fish & Game Dept	37
Baird Estate	53-5	Estate of Barbara Baird	35
Fabyan Point	50-1	US Fish & Wildlife Service	34
Old Town Center	24-6	Town of Newington	20
Flynn Pit	23-2	Town of Newington	19

Paul Bean	6-2	NH Fish and Game Dept	13
Bloody Point	N/A	NH Dept of Transportation	3
Beane Farm	19-9	Northeast Medical	3
Carter's Rocks	5-2	Town of Newington	1
TOTAL ACRES			1,483

COASTAL HAZARDS, CLIMATE CHANGE, AND ADAPTATION PLANNING

In 2017, the Rockingham Planning Commission completed a Vulnerability Assessment for the Town of Newington to map and assess the impacts of flooding from sea-level rise, storm surge, and increased precipitation events on roads and transportation assets, critical facilities and infrastructure, and natural resources. Newington has significant miles of coastal tidally-influenced shoreline along the Great Bay, Little Bay, and Piscataqua River, however due to an increase in elevation landward only certain areas are particularly vulnerable to flooding from seasonal high tides, coastal storms, and sea-level rise. These high-risk flood areas include land currently used for commercial, industrial, residential and recreational development, and small sections of local roads. The following areas are most susceptible to sea-level rise and storm related flooding:

- North Shattuck Way under highway loop and along the Piscataqua River industrial waterfront
- Great Bay Marina and low-lying supporting lands
- Fox Point and Knight's Brook conservation lands
- Residential parcels properties along the west and southwest shorelines
- Fabyan Point, Herod's Cove, and throughout the Great Bay Wildlife Refuge

Several waterfront businesses may experience modest to moderate flood impacts from sea-level rise and coastal storms. Planning members and staff from the Rockingham Planning Commission met with representatives from Great Bay Marina, Sprague Energy and Little Bay Lobster Company to present results from the Vulnerability Assessment report and review maps of high potential flood risk areas. The goal of these meetings was to facilitate discussion about the working waterfront and how best to protect its sustained use by commercial businesses.

Few residential parcels are impacted by projected sea-level rise and storm related flooding. No homes are directly impacted but rather flood inundation is limited to undeveloped portions of residential lots. These high-risk flood areas should be designated as "no build" areas including roads, buildings, structures and septic systems, and driveways except where crossing is necessary to gain access to buildable land. Any crossings within high risk flood areas should be designed to accommodate future projected sea-level rise and storm surge conditions. Drainage watersheds need to be cleared frequently to function well.

The complete report and maps are available from the Rockingham Planning Commission.

LAND USE RECOMMENDATIONS

There is a strong consensus among Newington residents and officials about land use in the community, and a high degree of satisfaction with how land use zones enable a mix of land use types. Decisions about future land use can be guided by the following recommendations:

- Preserving rural residential character
- Maintaining waterfront industrial activity along the Piscataqua River
- Encouraging high value land use
- Preparing for changes to the town's commercial shopping areas

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