

DRAFT 1/21/20

## Chapter 3 Existing Land Use



Aerial image of southern Kennebunkport (Source: ME DACF)

# Land Use

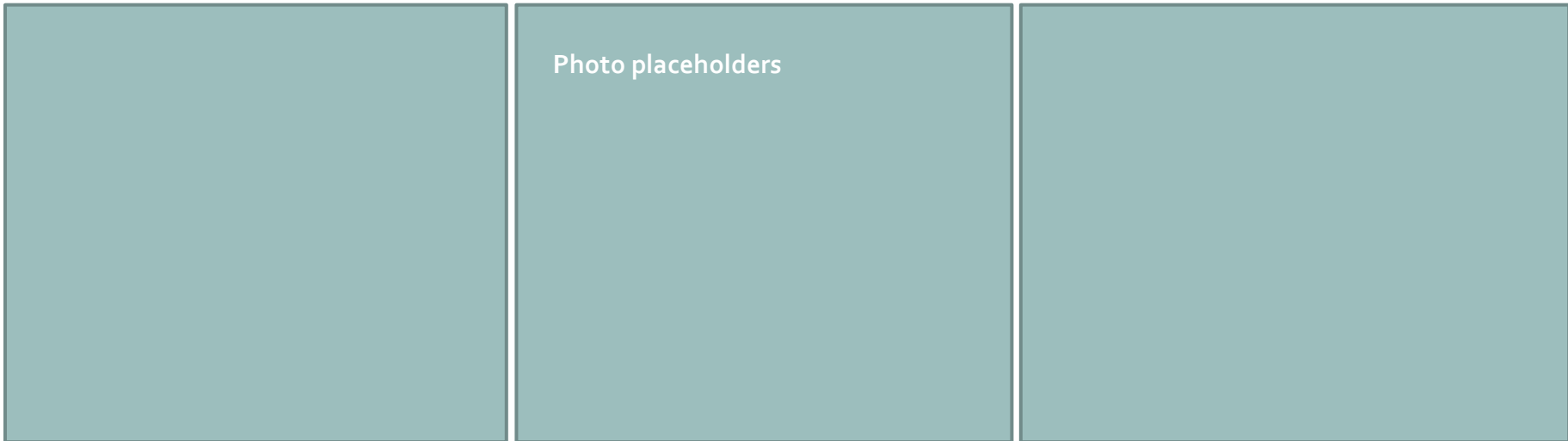
## Land Use Overview

The total land area of the Town of Kennebunkport is approximately 13,141.6 acres, or 20.5 miles. Twelve harbor islands account for 173.5 acres or about 1.3% of the town's area. An additional 28.8 square miles of offshore surface water are situated within the municipal boundaries.<sup>1</sup> The mainland of Kennebunkport has over 31 miles of shoreline along the Atlantic Ocean and tidal Kennebunk River.

Figure 3-1 displays a map of generalized land use in Kennebunkport. Forests, followed by wetlands, are the predominant land uses in Kennebunkport, accounting for approximately 60% and 22% the area of the town, respectively.<sup>2</sup>

Inland surface water comprises approximately 60 acres (0.5%) of the town.<sup>3</sup> Less than 7% of land is classified as developed, which includes residential and non-residential development, roads, and other paved areas such as parking lots.

Developed land is concentrated in the town's coastal areas, including Dock Square, along the Kennebunk River in the vicinity of Cape Arundel, Cape Porpoise, and Goose Rocks. Lower density residential development lines roadways throughout town. In central and northern Kennebunkport, the landscape is rural with forested landscapes and open vistas.



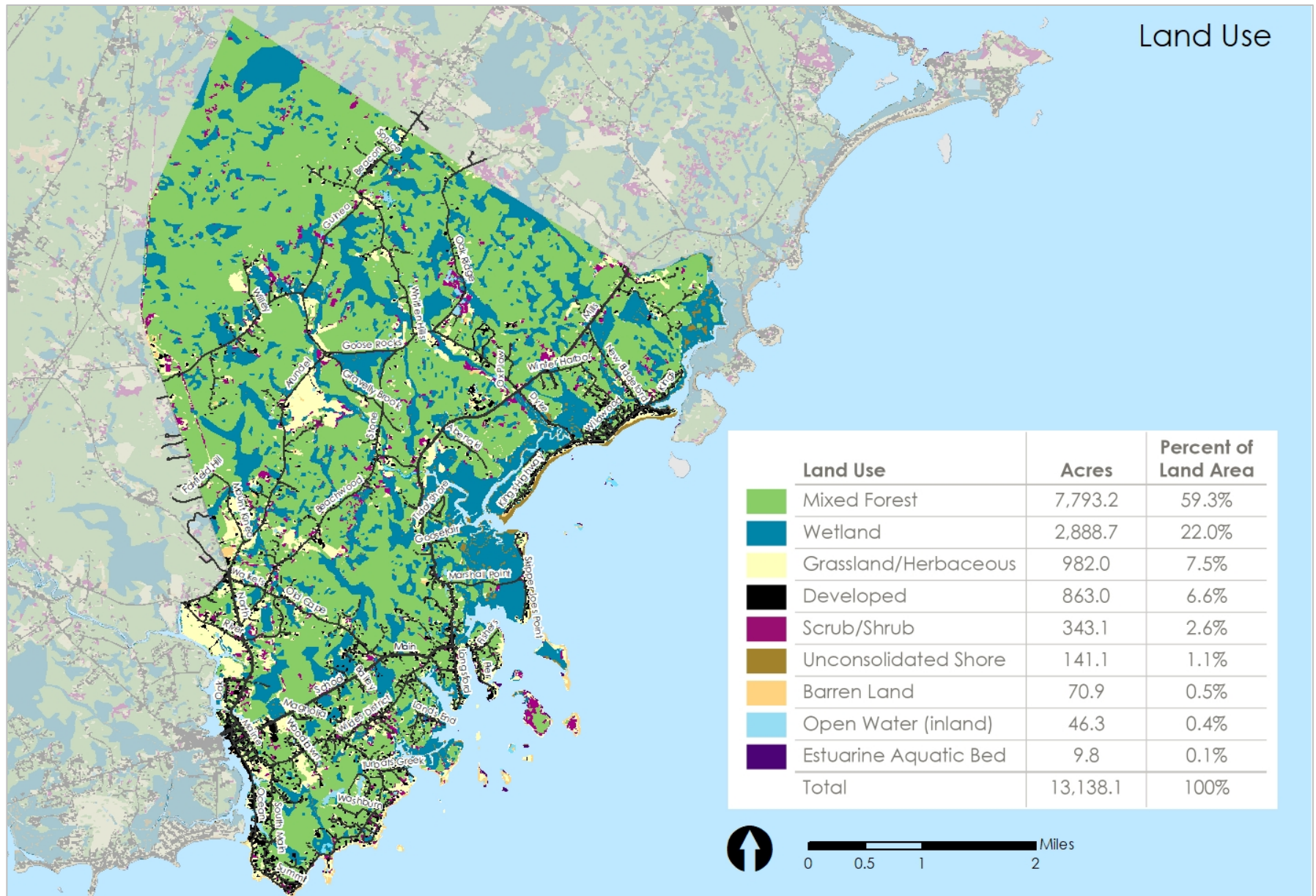


Figure 3-1 Map of land use in Kennebunkport (Source: NOAA C-CAP data, 2015)

*Land Use Classification of Parcels*

Figure 3-2 displays a map of generalized land use by parcel, which is derived from assessing data. Under this classification, nearly half of all land in Kennebunkport is residential, while just three percent is commercial. Four parcels totaling less than 30 acres (0.2%) are classified as industrial. Approximately 27% of land is classified as exempt. This includes land such as municipal lands, churches, schools, public lands, and conservation land. Other partially exempt land includes current use land, discussed in the following section.<sup>4</sup>

Land Use by Parcel

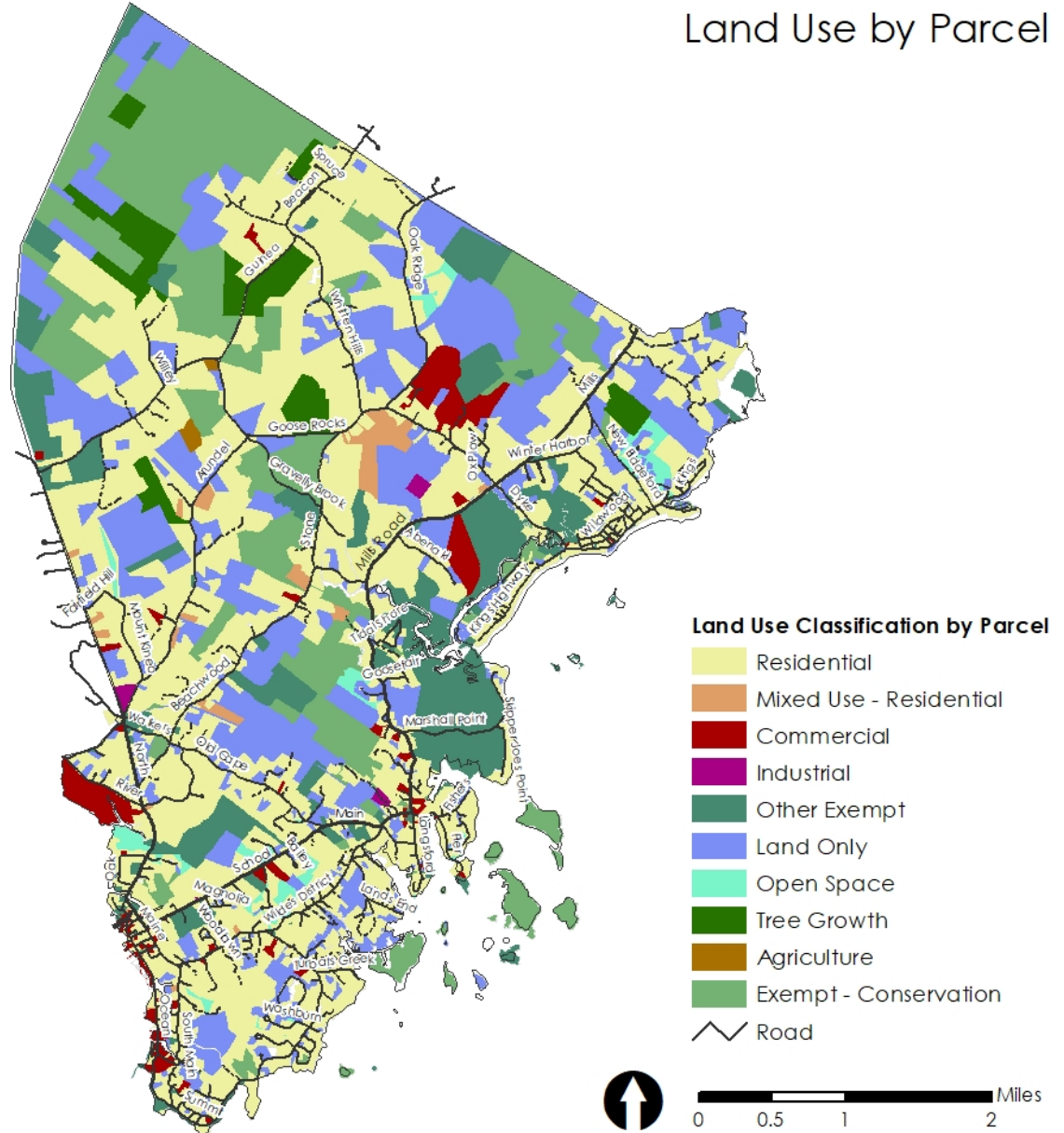
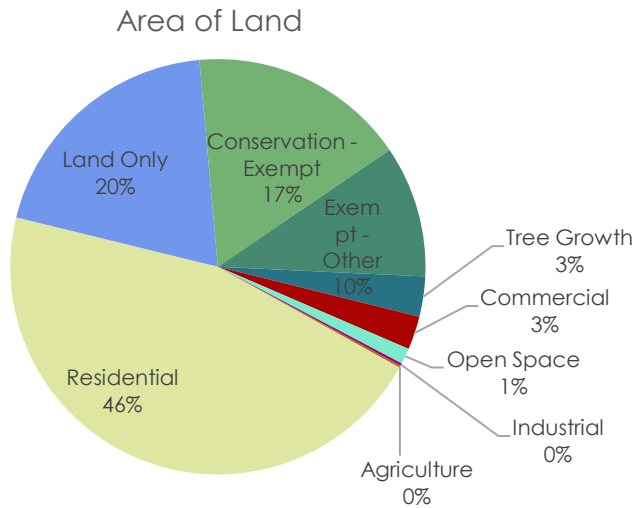


Figure 3-2 Map of general land use classification of parcels (data provided by CAI Technologies)

## Conservation Land

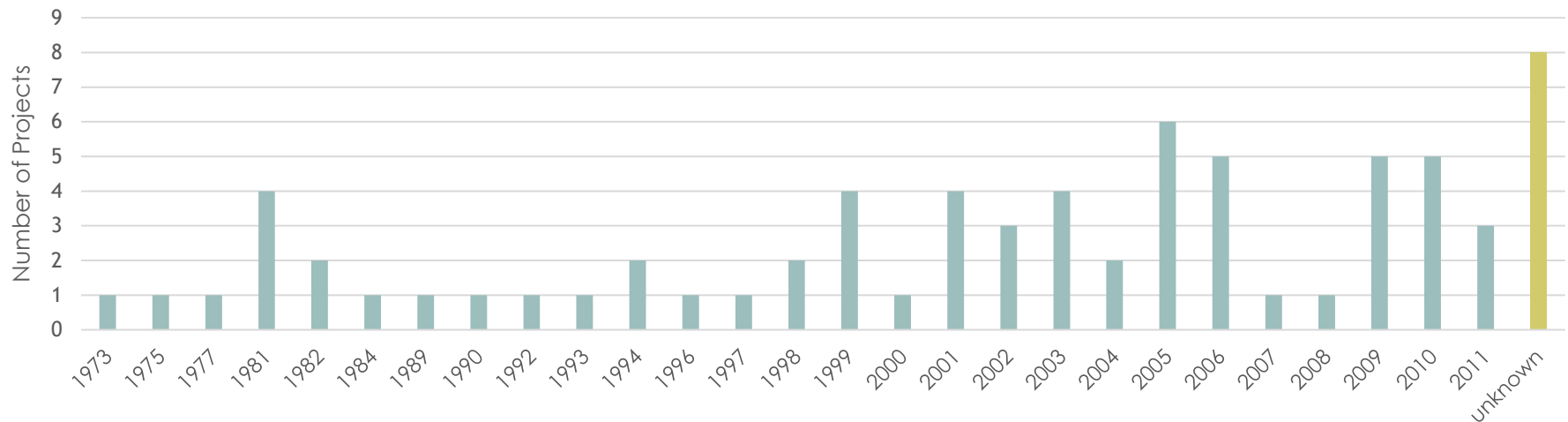
Kennebunkport has a significant amount of conservation land.<sup>5</sup> Conservation land is land that is protected through mechanisms including easements, deed restrictions, or fee simple ownership. Municipally owned land is also often accounted for as conservation land, although it is not necessarily permanently protected. Conservation ensures that high quality natural resources and habitats are protected from development. Undeveloped, open space will play an increasingly important role in sequestering and storing carbon, mitigating the heat island effect

associated with urban areas, and contributing to stormwater management as temperatures and precipitation increase. According to available data from the State of Maine, conservation land accounts for 24% (3,167 acres) of the area of Kennebunkport.<sup>6</sup> As shown in Figure 3-3 (page 6), large tracts of land are conserved along the coast and within a central, north-south corridor of the town. A total of 2,356 acres are permanently protected. A majority of conservation land — approximately 2,247 acres 71% of total conservation land — is held by the Kennebunkport Conservation Trust (KCT).<sup>7</sup> This

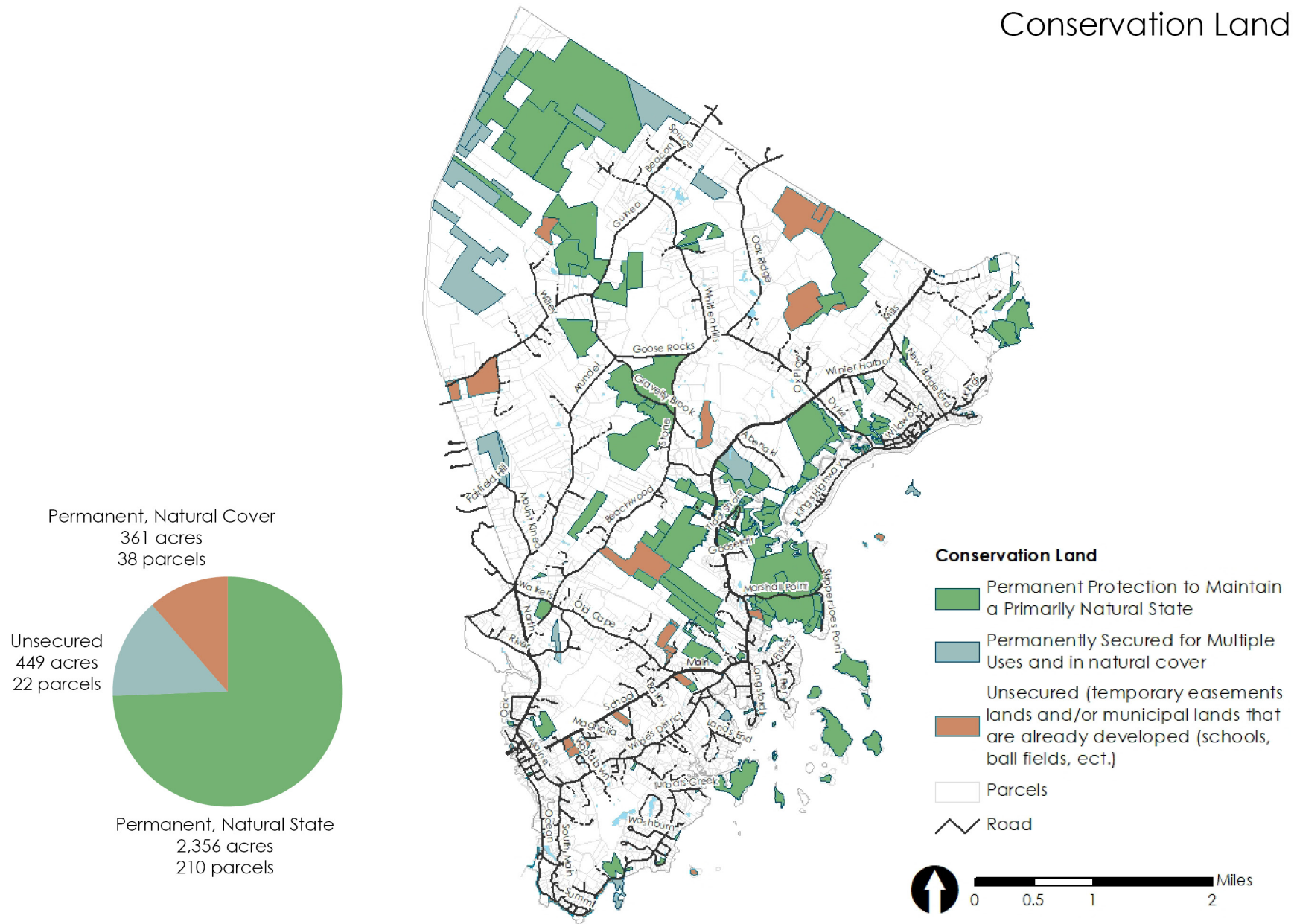
represents an increase of over 355 acres of KCT-owned land since 2012.<sup>8</sup> Approximately 555 acres of conservation land lie within the Rachael Carson National Wildlife Refuge and are owned by the US Fish and Wildlife Service.<sup>9</sup> The Town of Kennebunkport owns approximately 358 acres of non-protected conservation land, all of which is classified as unsecured land consisting of temporary easement lands or municipal lands that are already developed.

Figure 3-4 displays the number of permanently protected conservation projects by year.

**Figure 3-4 Acquisition year of permanently protected conservation land (Source: ME Conservation Lands GIS layer) NOTE: is more current data available?**



# Conservation Land



**Figure 3-3. Area and location of different categories of conservation lands (Source: ME GIS Conservation Lands database)**

### Current Use

There are four types of current use programs in Maine: Farmland, Waterfront, Open Space, and Tree Growth. These programs offer a tax benefit to properties that meet certain criteria. Unlike permanently protected conservation land, properties in current use can be developed if participation in the current use program is discontinued. Twenty-seven parcels totaling 860 acres participate in a current use program in Kennebunkport.<sup>10</sup> While the number of parcels in the tree growth program has declined from 18 to 14 parcels from 2007 to 2017, the acres of land in this program has changed little (Figure 3-5). Similarly, parcels and acres of land participating in the open space current use program in 2017 are comparable to ten years earlier. Over the last decade, land in the farmland current use program has declined from 349 to 77 acres. There is one 0.1-acre parcel participating in the working waterfront current use program.<sup>11</sup>

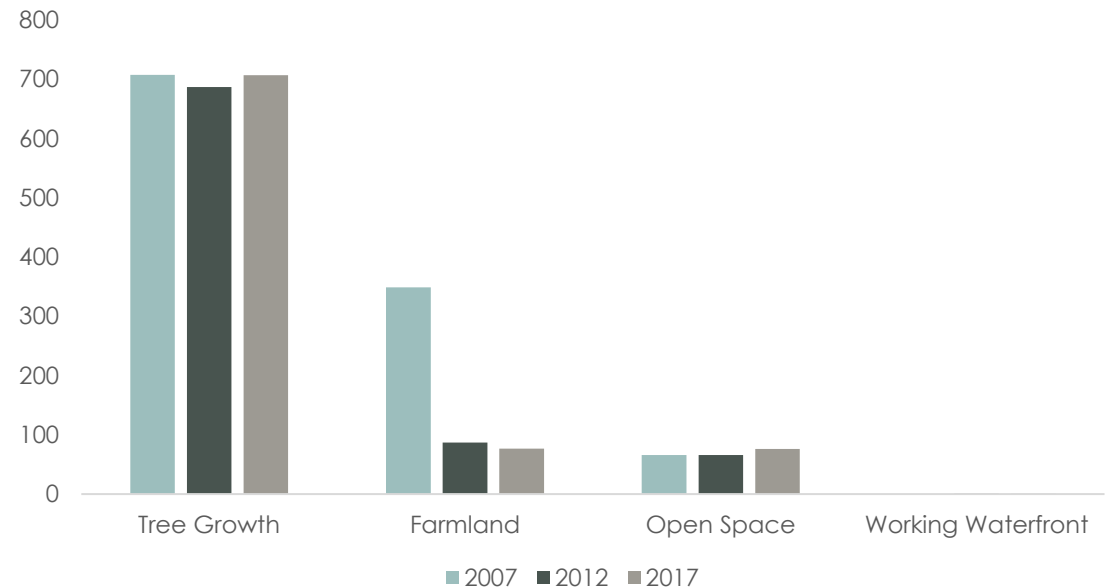


Figure 3-5 Acres of land in current use programs (Source: 2017 ME Municipal Valuation)

# Zoning Districts

## General Zones

Kennebunkport adopted a Land Use Ordinance in 1972 and last amended the ordinance in November 2018. There are 11 general zoning districts in Kennebunkport (Figure 3-6). Nearly half of the town falls within the Farm and Forest district. Large portions of the town are also zoned Free Enterprise or Goose Rocks, which account for approximately 26% and 13% of the town's area, respectively (Table 3-1).<sup>12</sup>

Residential uses are permitted town wide. Zones where commercial uses are permitted include Dock Square, Riverfront, Cape Porpoise Square, Free Enterprise, and Farm & Forest. A limited number of primarily marine-oriented commercial uses are permitted in Cape Porpoise East and West.

The average existing parcel size in each district ranges from less than 9,000 square feet in Dock Square to roughly 10 acres in the Farm and Forest district.<sup>a</sup> The minimum lot size required by zoning district ranges from 20,000 sf (approximately 0.5 acres) to 130,680 sf (3

acres). The minimum open space requirement in all districts is 20% of the area of the lot, except for public libraries in the Village Residential Zone, which are only required to preserve 5% as open space.

**Table 3-1 Summary of zoning district characteristics**

District	General Types of Permitted Uses	Area of District (Acres)	Area of District (%)	Average Parcel Size (Sq Ft)
Dock Square	Residential, Public Uses, Commercial Uses	7	0.05%	8,712
Riverfront		35	0.30%	26,136
Cape Porpoise Square		41	0.31%	34,848
Farm & Forest		5,787	44.40%	435,600
Free Enterprise		3,359	26%	217,800
Cape Porpoise West	Residential, Public Uses, Limited Commercial Uses	194	1.50%	34,848
Cape Porpoise East		230	1.80%	69,696
Cape Arundel	Primarily Residential and Public Uses	425	3.30%	65,340
Goose Rocks		1,717	13.10%	78,408
Village Residential		923	7.10%	60,984
Village Residential East		350	2.70%	52,272

Notes: Water and the Goat Island Contract Zone are not included in this table. The average parcel size excludes parcels that are partially located in two or more districts. (Source: CAI Technologies)

Figure 3-6 displays a comparison of the dimensional standards and allowed uses by zoning district. As shown in Table 3-2, there is little distinction between the dimensional standards in multiple zones. This indicates that there may be an opportunity to reduce the number of districts or create more nuanced standards that both reflect the existing and desired uses and land use patterns in certain areas of town.

<sup>a</sup>Parcels that are locat





## STATED PURPOSES OF THE KENNEBUNKPORT ZONING ORDINANCE

THE TOWN'S ZONING ORDINANCE REGULATES LAND USES AND ACTIVITIES TO SERVE A RANGE OF PURPOSES. THESE INCLUDE:

- PROMOTE AND CONSERVE THE HEALTH, SAFETY, CONVENIENCE, AND WELFARE OF THE INHABITANTS.
- ENCOURAGE THE MOST APPROPRIATE INTERRELATIONSHIPS OF LAND USES AND GROUPS OF LAND USES IN THE VARIOUS PARTS OF THE TOWN.
- SECURE SAFETY FROM FIRE, PANIC, EPIDEMICS, FLOODING AND OTHER DANGERS.
- PROVIDE ADEQUATE ACCESS OF LIGHT AND AIR.
- PREVENT OVERCROWDING OF REAL ESTATE.
- LESSEN CONGESTION IN THE STREETS.
- FACILITATE THE ADEQUATE PROVISION OF TRANSPORTATION, WATER, SANITARY FACILITIES, SCHOOLS, PARKS AND OTHER PUBLIC REQUIREMENTS.
- PRESERVE AND INCREASE AMENITIES.
- PREVENT AND CONTROL WATER POLLUTION.
- PROTECT FISH SPAWNING GROUNDS, AQUATIC LIFE, BIRD AND OTHER WILDLIFE HABITAT.
- PROTECT BUILDINGS AND LANDS FROM FLOODING AND ACCELERATED EROSION.
- PROTECT ARCHAEOLOGICAL AND HISTORIC RESOURCES.
- PROTECT COMMERCIAL FISHING AND MARITIME INDUSTRIES.
- PROTECT FRESHWATER AND COASTAL WETLANDS AND VISUAL AS WELL AS ACTUAL POINTS OF ACCESS TO INLAND AND COASTAL WATERS.
- CONSERVE NATURAL BEAUTY AND OPEN SPACE.
- ANTICIPATE AND RESPOND TO THE IMPACTS OF DEVELOPMENT IN SHORELAND AREAS.

TO MITIGATE CLIMATE CHANGE AND TO BETTER PREPARE FOR CLIMATE CHANGE, THE TOWN MAY EXPAND THE PURPOSE STATEMENT TO INCLUDE REDUCING GREENHOUSE GAS EMISSIONS AND PREPARING FOR A CHANGING CLIMATE.

# Zoning Districts

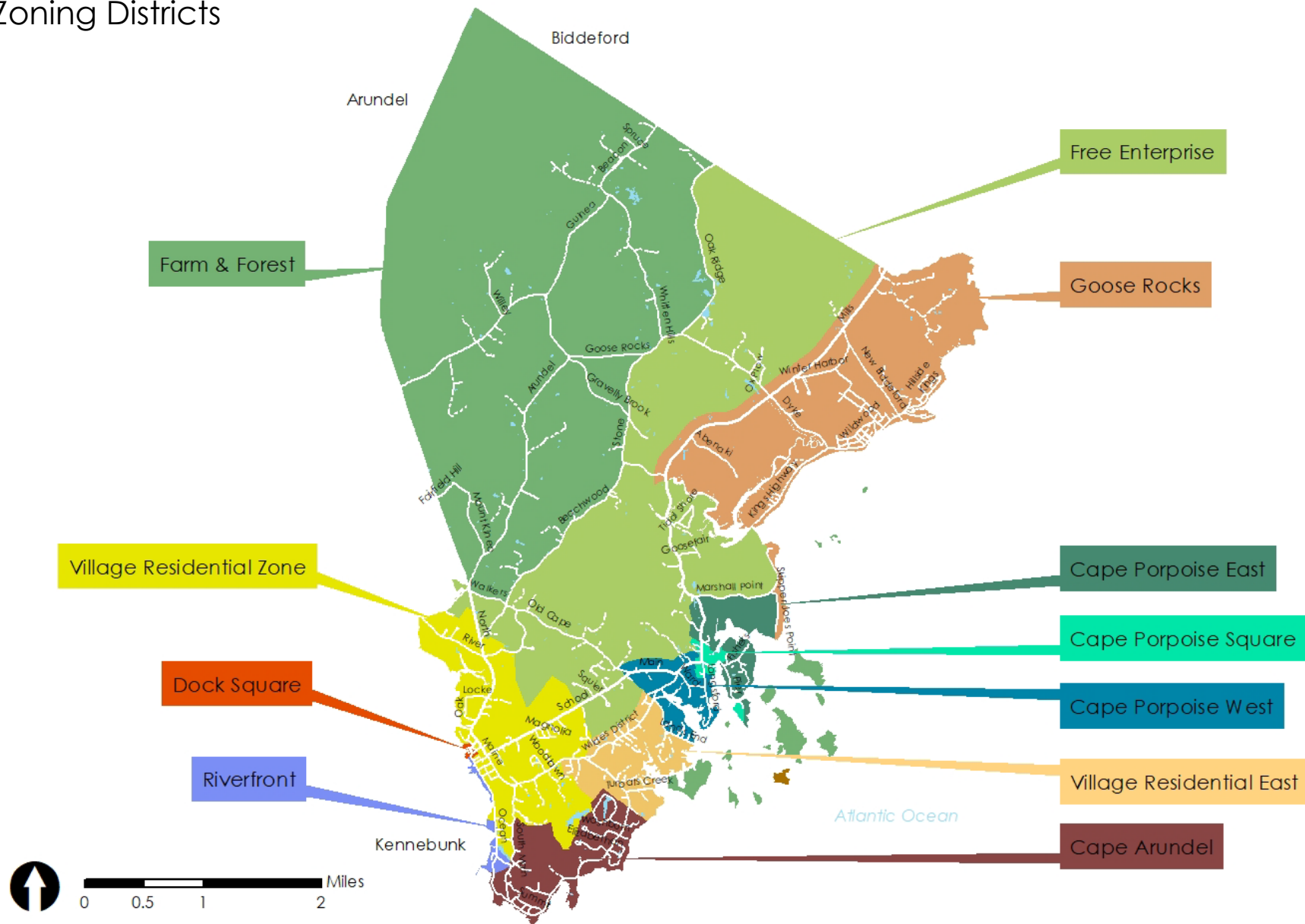


Figure 3-5 Zoning Districts Map (Source: CAI Technologies)

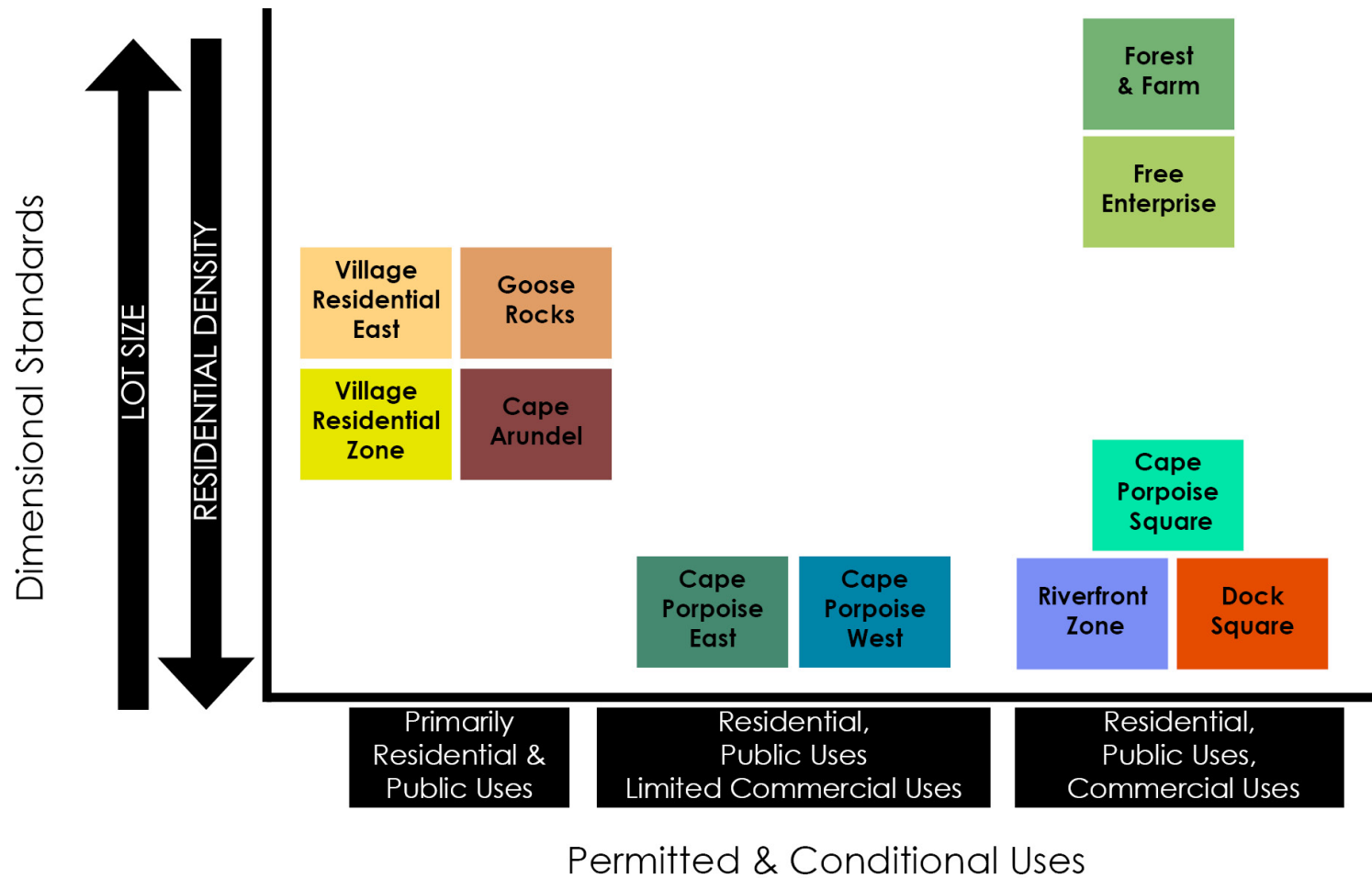


Figure 3-6 Comparison of dimensional standards and permitted and conditional uses of zoning districts (Source: Town of Kennebunkport Land Use Ordinance)

**Table 3-2. Dimensional standards and growth area associated with zoning districts (Source: Town of Kennebunkport Land Use Ordinance)**

	Min Lot Area (sqft)	Min Lot Width (ft)	Max Lot Coverage	Min Net Residential Area per Dwelling Unit (sqft)	Min Setback Front (ft)	Min Setback Side (ft)	Min Setback Rear (ft)	Min Open Space	Max Building Height (ft)	Coastal Wetland Setback (ft)	Growth Area
<b>Village Residential Zone</b>											
Single Family Dwelling or other Use	40,000	100	20%	40,000	20	15	15	20%	35	n/a	Growth
Two-family Dwelling	40,000	100	20%	20,000	40	20	20	20%	35	n/a	
Multiplex	60,000	150	20%	20,000	25	50	50	20%	35	n/a	
Public Libraries	40,000	100	75%	n/a	20	15	15	5%	35	n/a	
<b>Village Residential East</b>											
Single Family Dwelling or other Use	40,000	100	20%	40,000	20	15	15	20%	35	n/a	Growth
Two-family Dwelling	40,000	100	20%	20,000	40	20	20	20%	35	n/a	
Multiplex	90,000	150	20%	30,000	40	50	50	20%	35	n/a	
<b>Dock Square Zone</b>											
Single Family Dwelling or other Use	20,000	100	70%	20,000	20	15	15	20%	30	25	Growth
Two-family Dwelling	20,000	100	70%	10,000	40	20	20	20%	30	25	
Multiplex	30,000	150	70%	10,000	40	20	20	20%	30	25	
<b>Riverfront Zone</b>											
Single Family Dwelling or other Use	20,000	100	20%	20,000	20	15	15	20%	30	75	Growth
Two-family Dwelling	20,000	100	20%	10,000	45	20	20	20%	30	75	
Multiplex	60,000	150	20%	20,000	25	50	50	20%	30	75	
<b>Cape Arundel Zone</b>											
Single Family Dwelling or other Use	40,000	100	20%	40,000	20	15	15	20%	35	n/a	Growth
Two-family Dwelling	40,000	100	20%	20,000	40	20	20	20%	35	n/a	

**Table 3-2. Dimensional standards and growth area associated with zoning districts (continued)**

	Min Lot Area (sqft)	Min Lot Width (ft)	Max Lot Coverage	Min Net Residential Area per Dwelling Unit (sqft)	Min Setback Front (ft)	Min Setback Side (ft)	Min Setback Rear (ft)	Min Open Space	Max Building Height (ft)	Coastal Wetland Setback (ft)	Growth Area	
<b>Goose Rocks Zone</b>												
Single Family Dwelling or other Use	40,000	100	20%	40,000	20	15	15	20%	35	n/a	Transition	Rural
Two-family Dwelling	40,000	100	20%	20,000	40	20	20	20%	35	n/a	Transition	Rural
<b>Cape Porpoise East Zone</b>												
Single Family Dwelling or other Use	20,000	100	20%	20,000	20	15	15	20%	30	n/a	Transition	Rural
Two-family Dwelling	30,000	100	20%	15,000	40	20	20	20%	30	n/a	Transition	Rural
<b>Cape Porpoise West Zones</b>												
Single Family Dwelling or other Use	20,000	100	20%	20,000	20	15	15	20%	30	n/a	Growth	
Two-family Dwelling	30,000	100	20%	15,000	40	20	20	20%	30	n/a	Growth	
<b>Cape Porpoise Square Zone</b>												
Single Family Dwelling or other Use	20,000	100	20%	20,000	20	15	15	20%	30	n/a	Growth	
Two-family Dwelling	20,000	100	20%	10,000	40	20	20	20%	30	n/a	Growth	
Multiplex	60,000	150	20%	20,000	25	50	50	20%	30	n/a	Growth	
<b>Free Enterprise Zone</b>												
Single Family Dwelling or other Use	40,000	100	20%	40,000	20	15	15	20%	35	n/a	Growth	Transition
Two-family Dwelling	40,000	100	20%	20,000	40	20	20	20%	35	n/a	Growth	Rural
<b>Farm and Forest Zone</b>												
Single Family Dwelling or other Use	130,680	200	10%	130,680	20	15	15	20%	35	n/a	Transition	Rural
Two-family Dwelling	130,680	100	20%	65,340	40	20	20	20%	35	n/a	Transition	Rural

## Contract Zones

Kennebunkport has one contract zone, the Goat Island Light Contract Zone, which is located at the mouth of the Cape Porpoise Harbor. The contract zone was established to enable the reconstruction of a number of historically significant structures while also allowing for recreational and educational opportunities for the general public, with appropriate conditions and restrictions to protect the public.<sup>13</sup> Goat Island is owned by the Kennebunkport Conservation Trust (KCT).

## Shoreland and Resource Protection Overlay Zones

The shoreland and resource protection zones provide protection to coastal and inland water resources. The uses that are allowed by right within the Shoreland and Resource Zones are limited to uses such as management of natural areas and resources, essential services, timber management, and non-intensive and non-commercial recreation such as fishing or hiking. More invasive uses of land within these zones requires a permit from the Code Enforcement Officer or Planning Board.<sup>14</sup>

Within the Shoreland Zones, all structures must be set back a minimum of 75 feet from the normal high water mark of bodies of water, tributary streams, and the upland edge of a wetland, except in the Dock Square and Riverfront Zones where there is more density of development and intensity of land uses present. In **YEAR**, the Town created a Shoreland General Development zone that coincides with the Dock Square and Riverfront Areas within the Shoreland Zone. A reduced setback of 25 feet is imposed in this district.<sup>15</sup>

Refer to the Water Resources Chapter for additional information about shoreland zones.



SHORELAND ZONES

MAINE'S MANDATORY SHORELAND ZONING ACT (MSZA) REQUIRES THAT MUNICIPALITIES REGULATE LAND USE ACTIVITIES WITHIN THE 250-FOOT SHORELAND ZONE TO PROTECT RESOURCES, HABITAT, AND WILDLIFE, AND TO CONSERVE OPEN SPACE AND ACCESS ALONG THE WATERFRONT. THE SHORELAND ZONE IS COMPRISED OF ALL LAND AREAS WITHIN:

- 250 FEET, HORIZONTAL DISTANCE, OF THE NORMAL HIGH-WATER LINE OF ANY GREAT POND OR RIVER;
- UPLAND EDGE OF A COASTAL WETLAND, INCLUDING ALL AREAS AFFECTED BY TIDAL ACTION, AND
- UPLAND EDGE OF DEFINED FRESHWATER WETLANDS; AND
- ALL LAND AREAS WITHIN 75 FEET, HORIZONTAL DISTANCE, OF THE NORMAL HIGH-WATER LINE OF CERTAIN STREAMS.

SOURCE: ME DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

## Growth Areas & Trends

### Growth Rate Areas

The 2012 Comprehensive Plan identified three primary growth areas: Growth, Transition, and Rural. The map in Figure 3-7 displays these areas, along with several parcels with multiple growth area designations. The growth rate areas determine the allocation of building permits for the construction of new dwelling units. A total of 40 growth management permits per year are currently available. The location of permits that were issued from 2012 to 2019 is included in Figure 3-7.

### Zoning & Growth Areas

Zoning districts and growth rate areas play different roles in shaping development in the community. While zoning districts establish the character of specific areas of town through regulating the types of uses and dimensional standards that are allowed by district, the growth management rate ordinance establishes the amount of residential development that can occur on an annual basis in northern, central, and southern Kennebunkport. The purpose of this ordinance is to ensure equitable permit allocation, avoid potential outstripping of the Town's capacity to expand municipal services, guide orderly growth that can be adequately served by community facilities, and manage growth consistent with the Comprehensive Plan.<sup>16</sup> As shown in the right columns of Table 3-2, the growth rate areas do not align with the boundaries of zoning districts and some zoning districts fall within more than one growth area. Aligning the boundaries of growth areas and zoning districts in certain areas of the town may provide the Town greater ability to target future development in areas where this is desired.

### Growth Area

The growth area comprises southern Kennebunkport. This area accounts for approximately 20% of the land area of the Town. It is bounded by the Kennebunk River to the west and Atlantic Coast to the east. The northern boundary is located just north of Old Cape Road. Fifty percent of the growth management permits issued annually are allocated to the growth area.

### Rural Area

The northern half of Kennebunkport is designated as a rural area. Only 20% of permits for residential dwelling units are allocated to this region of town. Four zoning districts are located partially within the rural growth rate area: Goose Rocks, Cape Porpoise East and West, Free Enterprise, and Farm and Forest.

### Transition Area

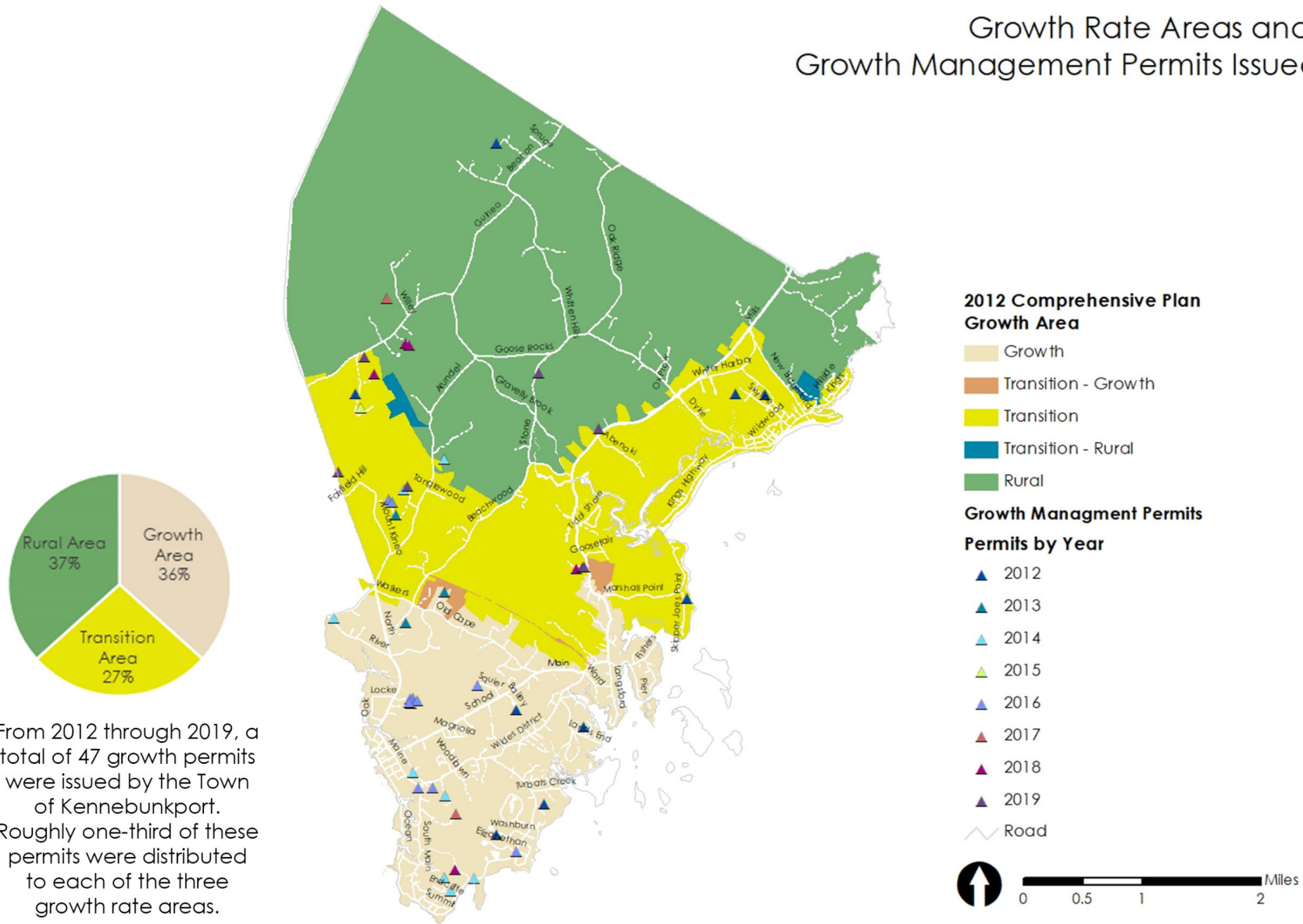
The transition area forms a belt across the middle section of Kennebunkport that comprises approximately 25% of land area. Thirty percent of growth management permits are allocated to the transition area. The zoning districts that fall within the transition area are the same four districts that are located partially within rural growth rate areas.

**Table 3-3 Percent of land area and permits allocated for growth rate areas**

Growth Rate Area	Percent of Land Area	Percent of Growth Management Permits Allocated to Area
Growth	20%	50%
Transition	25%	30%
Rural	50%	20%

Source: Land Use Ordinance Article 11.12(H)(2)

## Growth Rate Areas and Growth Management Permits Issued

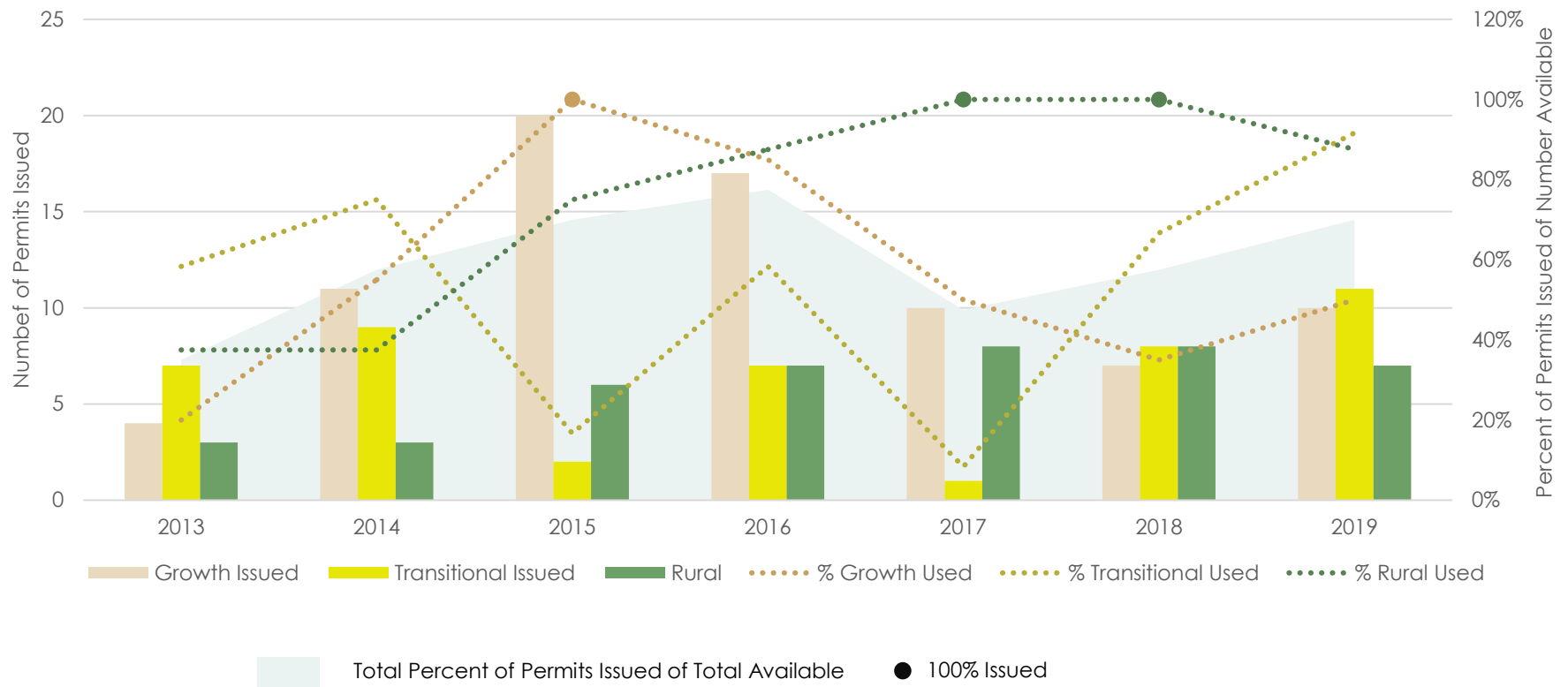


**Figure 3-7 Percent of Growth Permits issued by Growth Area between 2012 and 2019 (left) and map of Growth Areas with the location of permits issued for new residential dwelling units between 2012 and 2019 (right) (Source: Data provided by CAI Technologies and the Assessing Department).**



The Town has not issued all of the permits available for dwelling units in the last seven years (2013-2019). During this time, the Town issued around 60% of the 40 permits that were available each year. In 2015, all 20 of the Growth Area permits were issued, and in both 2017 and 2018, all of the permits allocated to

the Rural Area were granted.<sup>17</sup> Figure 3-8 displays both the number of permits issued by, as well as the percent of the available permits that were issued for each of the three growth areas.



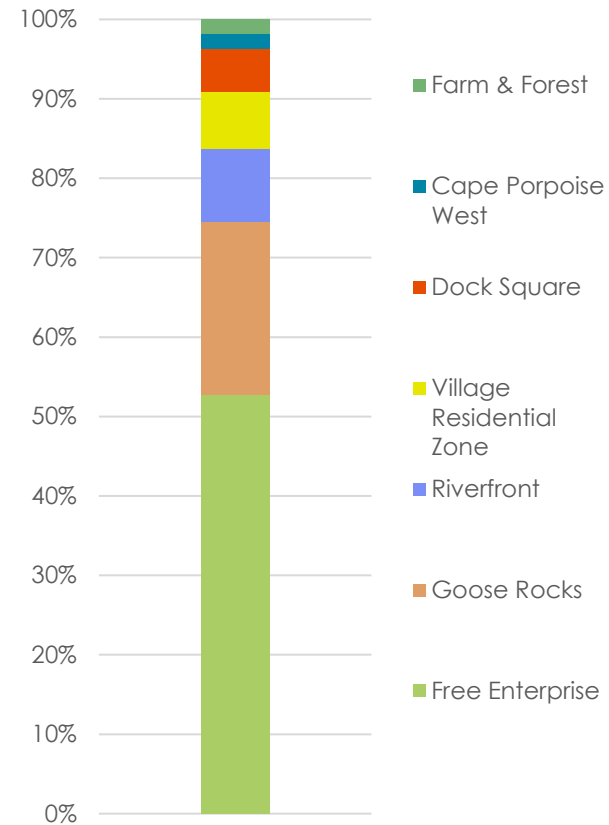
**Figure 3-8 Number of growth management permits issued (bars) and the percent of available permits issued by growth rate area (lines). The shaded area represents the percent of all permits issued each year of the total number available (Source: Code Enforcement/Planning Department)**

## Commercial New Construction Permits

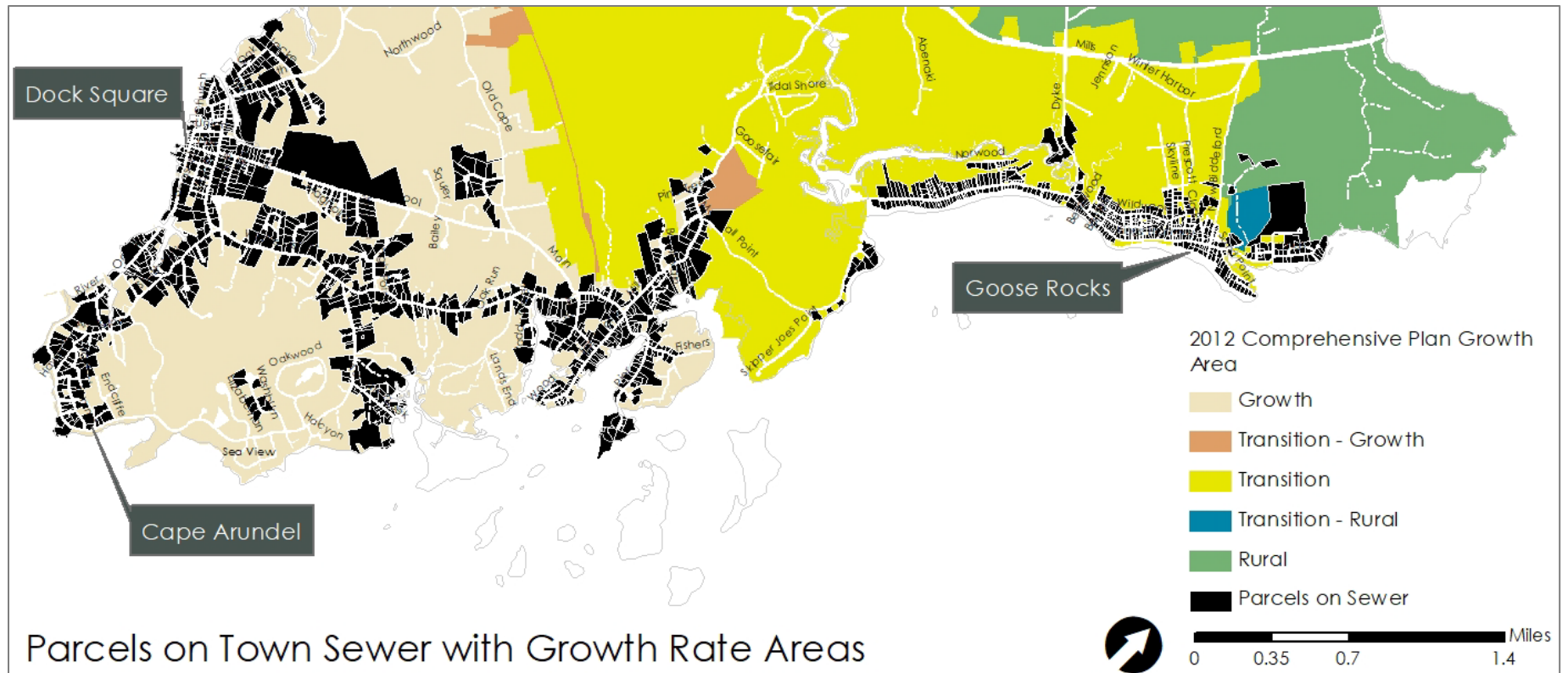
Over 5,000 building permits were issued in Kennebunkport from 2009-2019. Of these, 57 were permits for new commercial construction. Over half of the new commercial construction permits were issued in the Free Enterprise zone.<sup>18</sup> The percent of new commercial construction permits issued during this time by zoning district is displayed in Figure 3-9.

## Access to Town Sewer

Town sewer is available in much of the designated Growth Area (Figure 3-10). The coastal portion of the Transition Area and just three parcels in the Rural Area are on Town sewer. Limiting the number of permits available in the Transition and Rural Areas to 30% and 20%, respectively, of the total permits available for new residential dwelling units helps to guide growth in areas that can be served by municipal services. However, because there are many unsewered lots in the Growth Area and the inland areas of the Transition Area, there is potential for as many as 80% of the annual Growth Management Permits issued to be located on lots that do not have access to Town sewer.



**Figure 3-9 Percent of Commercial new construction permits issued from 2009-2019 by zone (Source: Code Enforcement/Planning Department)**

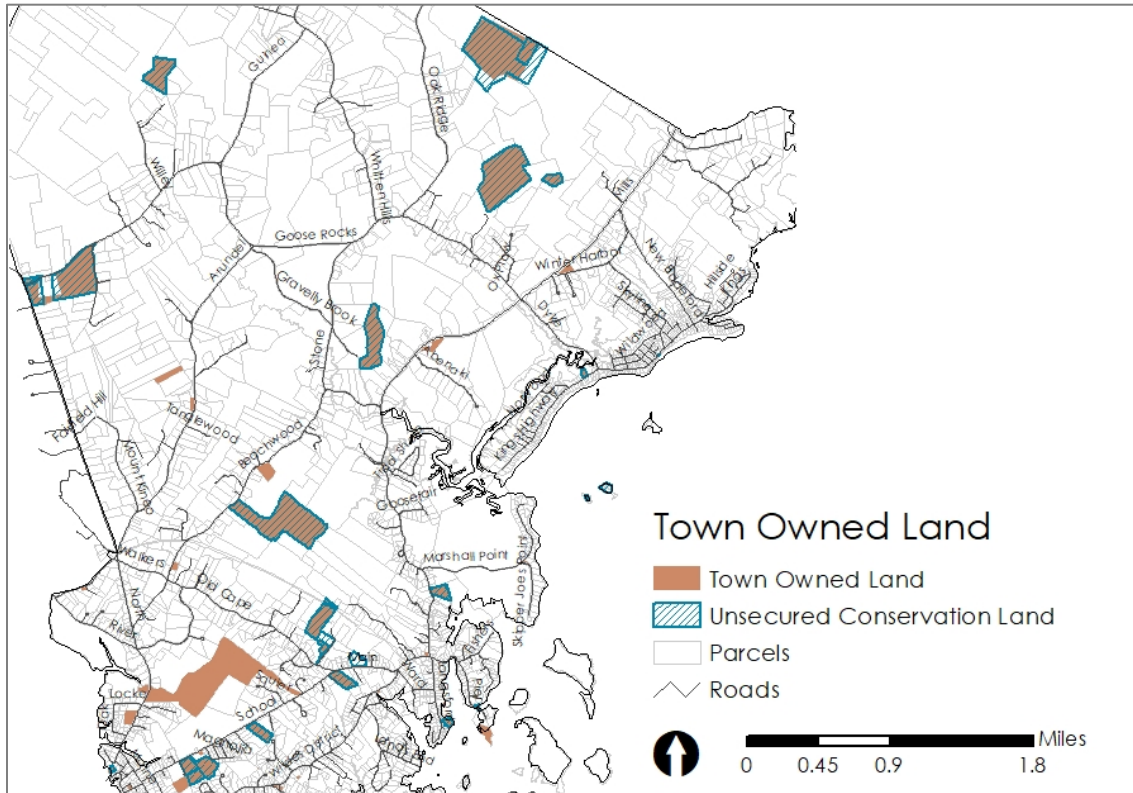


Parcels on Town Sewer with Growth Rate Areas

Figure 3-10 Sewered parcels and growth rate areas (Source: Data provided by CAI Technologies)

## Town Owned Land

Kennebunkport owns 74 parcels of land totaling approximately 542 acres. Thirty-five municipally owned parcels are designated as unsecured conservation land that are already developed, such as schools and ball fields.<sup>19</sup>



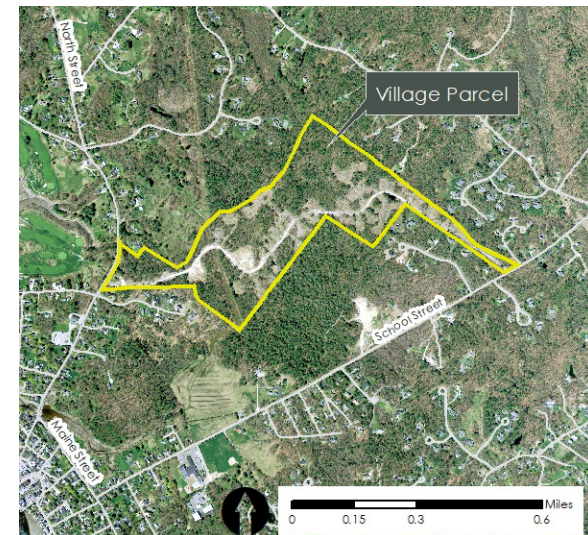
**Figure 3-11 Town owned land (Source: Data provided by CAI Technologies)**

### Village Parcel

The Town purchased an 86.67-acre parcel of land located between North Street and School Street (Figure 3-12) to prevent it from being developed as a private subdivision. The property has approximately 52 acres of upland area, approximately 16 acres of forested wetlands, stream segments, and three significant vernal pools.<sup>20</sup>

Approximately 6,200 feet of roughed in road connects North Street and School Street. The site has access to public sewer and water. The majority of the site is currently zoned Free Enterprise. A portion of the site falls within the Village Residential Zone.

Since May of 2019, the Village Parcel Master Plan Committee has been working with residents to envision the future of the parcel. Stakeholders have been asked to provide input on a variety of issues pertaining to future development of the site through visioning session and a questionnaire.



**Figure 3-12 Aerial image of the Village Parcel and surrounding land (Source: ME GIS)**

## Natural Features & Characteristics

Natural features and characteristics of land can impact the suitability of land for development. The presence of steep slopes, wet areas, and areas vulnerable to flooding, for example, constrain development opportunities. In addition, the presence of high-quality natural resources, rare habitats or wildlife, or resources that are important recreational or economic assets to the community also impact a location's suitability for development. A brief summary of natural features and characteristics follows. Refer to the Natural, Water, and Marine Resources Chapter for additional information about and maps of natural resources.

### *Steep Slopes*

Kennebunkport is relatively flat with elevations ranging sea level (0) to 200 feet in the northern side of town approximately four miles from the shore. There are 325 acres of steep slopes greater than 25%, which are primarily in the rural and forested northern end of the community.<sup>21</sup>

### *Wetlands & Poorly Drained Soils*

According to National Wetlands Inventory data, there are 2,715 acres of wetlands within Kennebunkport. Local orthophotography used to identify and map swamps in Kennebunkport likely provides a more accurate estimate of the acreage of wet areas within town. About 2,000 acres of swamps have been identified through with this data.<sup>22</sup>

Poorly drained and very poorly drained soils are prevalent in Kennebunkport. These soil drainage classes account 2,403 and 1,360 acres of town, respectively. Combined, these soils cover over one-third of the town's land area.<sup>23</sup>

### *Floodplain*

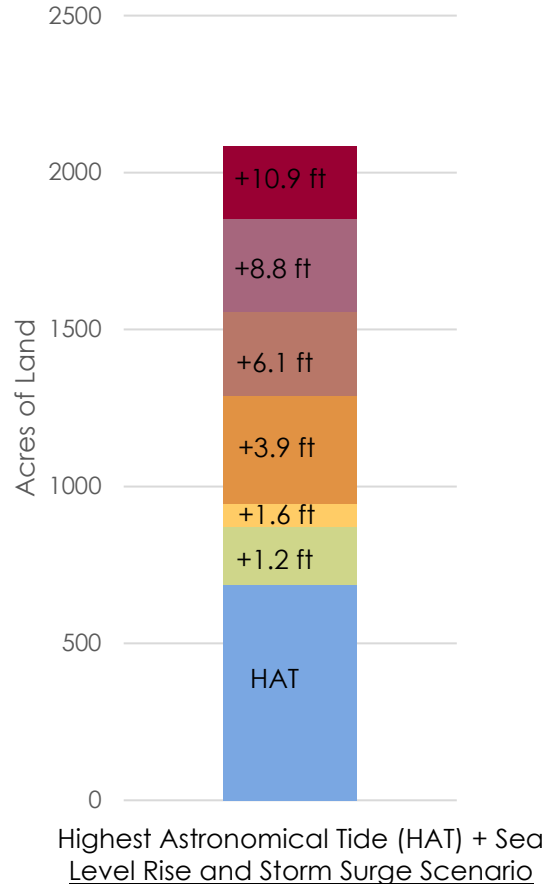
With over 31 miles of coastline as well as marshes, streams, and ponds, it comes as no surprise that Kennebunkport has extensive floodplains. Nearly 20% of the mainland (over 2,300 acres) is located within the preliminary Federal Emergency Management Agency (FEMA) 100-year floodplain, or the area that has a 1% annual chance of flooding. A total of 1,544 parcels — approximately 43% of all parcels within the town — are located partially or completely within the 100-year floodplain.<sup>24</sup> Refer to the

Water Resources Chapter for a map of the different flood zones in Kennebunkport and information about the effective and preliminary flood zones.

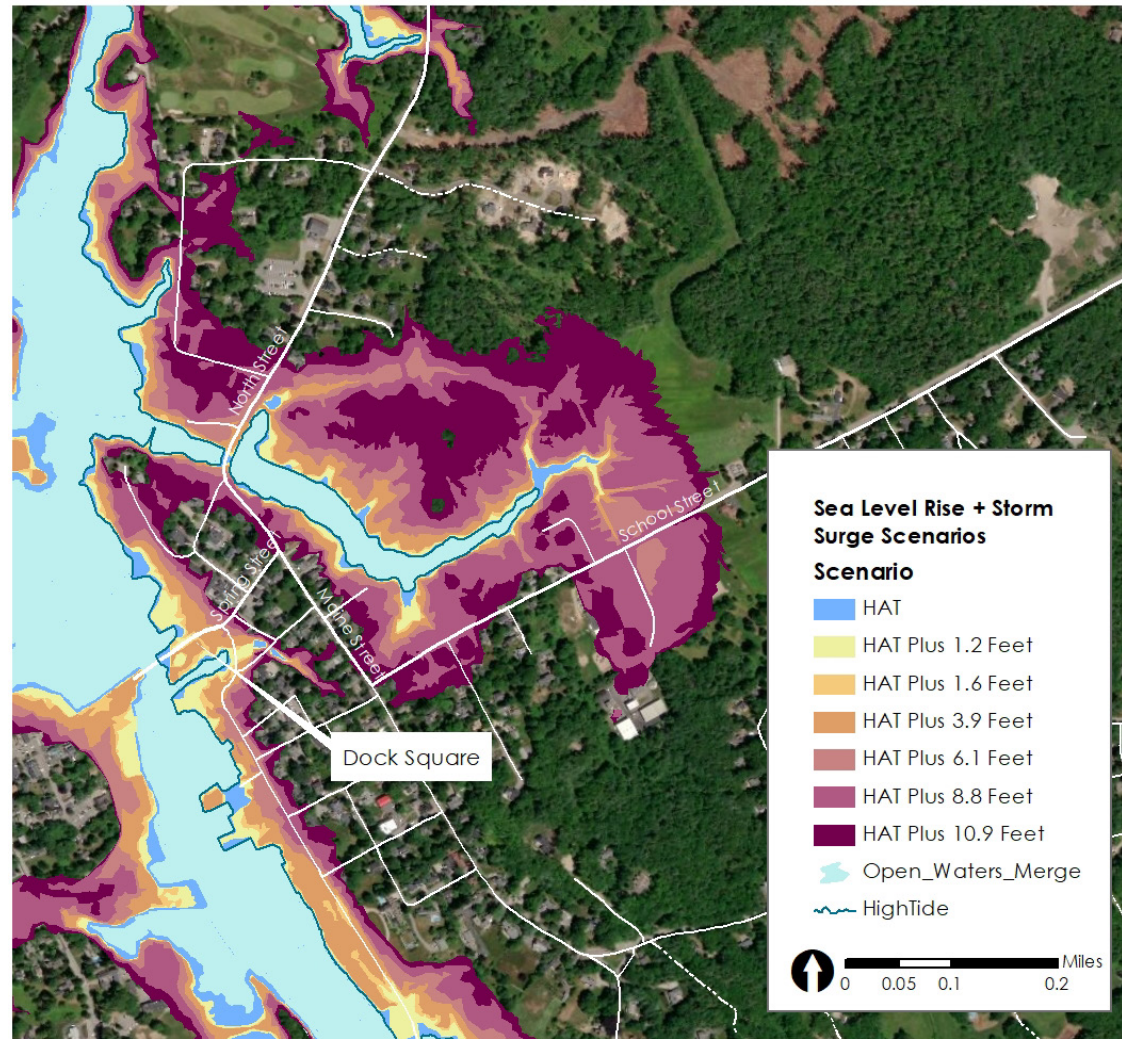
### *Land Subject to SLR*

Kennebunkport's coastal and tidal areas are vulnerable to sea level rise and storm surge. Sea level rise and storm surge scenarios developed by the Maine Geological Survey (MGS) provide insight to the magnitude and geographic extent of inundation. In 2018, MGS developed several scenarios ranging from 1.2 to 10.9 feet of sea level rise or storm surge above the Highest Astronomical Tide (HAT). The HAT is the elevation of the highest predicted astronomical tide expected to occur at a specific tide monitoring station over the National Tidal Datum Epoch, which is a 19-year cycle that serves as a reference point for tide data.

Depending on the sea level rise scenario, between 687 and 2,084 acres of land within Kennebunkport are predicted to be inundated (Figure 3-13).<sup>25</sup> As evident in the map in Figure 3-14, the town's roadways are also vulnerable to sea level rise. Impacted roadways will affect access to and from coastal areas.



**Figure 3-13 Acres of inundated land under sea level rise scenarios (Source: ME Geologic Survey 2018, CAI)**



**Figure 3-14 Inundated land in Dock Square under Highest Astronomical Tide (HAT) and sea level rise scenarios (Source: ME Geologic Survey, CAI Technologies, ESRI basemap)**

*Land Subject to Groundwater Rise*

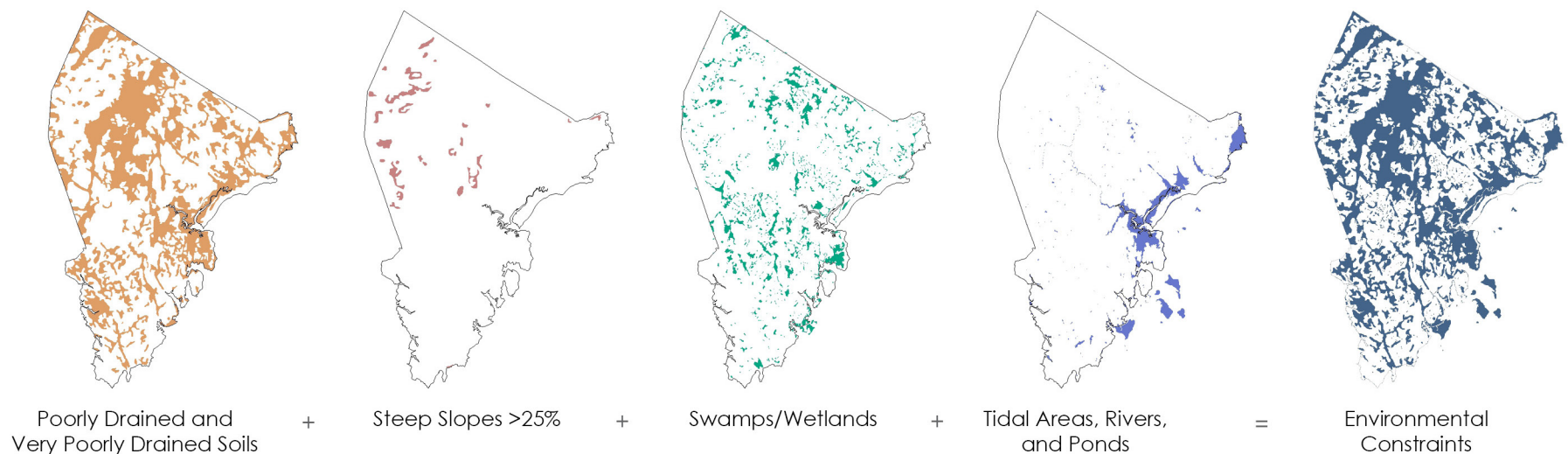
In addition to increased vulnerability of people, property, businesses, and Town facilities along the coast and tidal areas, inland regions of town may be impacted by rising groundwater levels associated with sea level rise. This will have implications on the suitability of land for septic systems and development, the viability of drinking water wells, and the integrity of infrastructure.

## Development Constraints

A development constraints map can be used to identify where development can and can-not occur in the future. Wetlands, swamps, ponds, rivers, poorly drained and very poorly drained soils, and steep slopes are typical constraints to new development (Figure 3-15). The development constraints map (Figure 3-16) depicts these environmental constraints in dark blue. This land accounts for approximately 5,729 acres, or 44% of the area of the town. Overlaid on top of this information are conservation land and land that is identified as highly developed — primarily roads and areas around Dock Square, Cape Arundel, and Goose Rocks Beach— which accounts for roughly 863 acres. The remaining 'other land' is land that is potentially developable comprises approximately 40% (5,277 acres) of Kennebunkport.

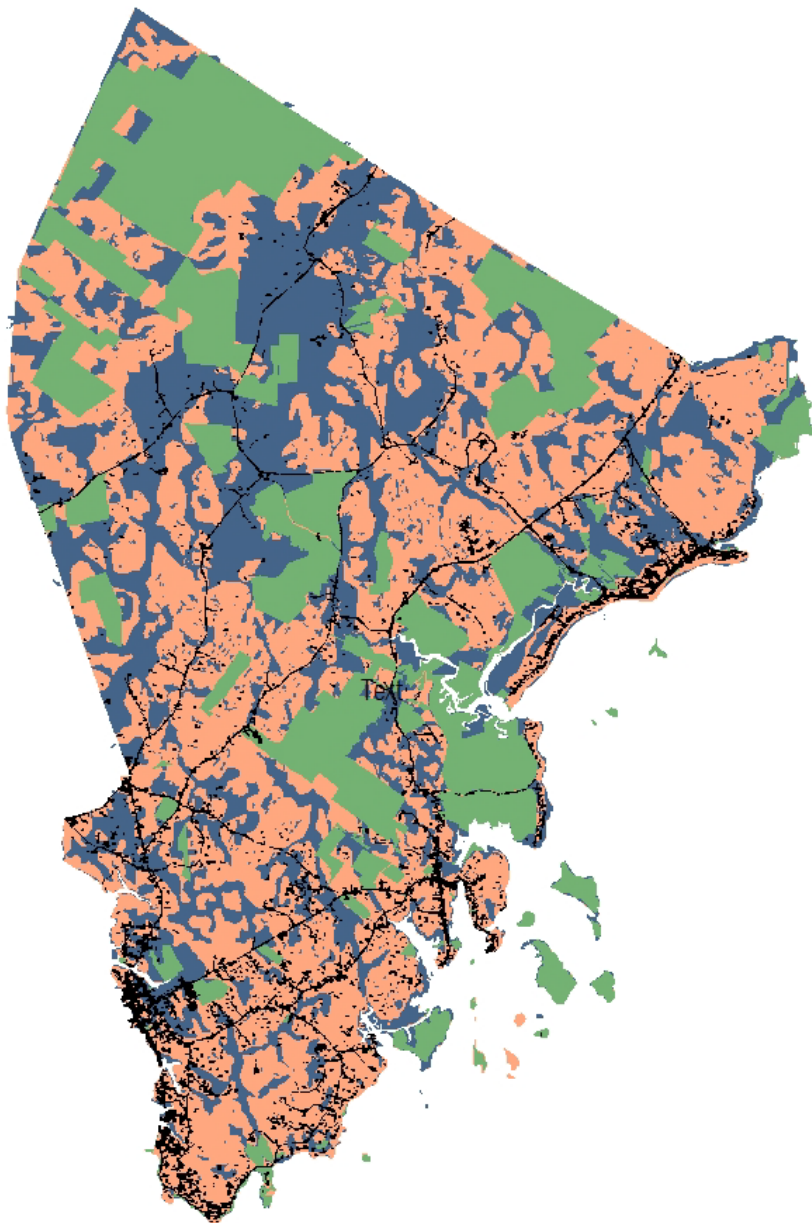
This estimate does not include land that is not developable due to local environmental regulations, state-mandated shoreland zoning, impervious surface thresholds, and dimensional requirements, and existing buildout on lots, that further constrain development potential.

Furthermore, this analysis does not incorporate data on floodplains and sea level rise, both of which affect the suitability of land for development. Refer to the Future Land Use chapter for build-out analyses that incorporate this and other pertinent information for future land use planning.



**Figure 3-15 Data included in the environmental constraints layer (Sources: NRCS, CAI Technologies)**

## Development Constraints



- Developed Land, High Intensity
- Conservation Land
- Environmental Constraints
- Other Land



Environmental constraints include: poorly drained soils, very poorly drained soils, and steep slopes >25% (Source: NRCS); and swamps, ponds, tidal land (Source: Bradstreet 2006 orthophotography),

Regulatory constraints, such as wetland setbacks, are not shown.

Conservation land includes conservation land that is permanently protected, unprotected but maintained in a natural state, or municipal but developed (Source: MEGIS).

Developed land, high intensity is derived from NOAA 2015 30 meter land use data.

**Figure 3-16. Map of development constraints and potentially developable land**



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- <sup>1</sup> Office of Information Technology. Maine Office of GIS Data Catalog. Town Boundaries shapefile. Available at: <https://www.maine.gov/megis/catalog/>.
- <sup>2</sup> National Oceanic and Atmospheric Administration. Office for Coastal Management Digital Coast. Coastal Change Analysis Program (CCAP) Regional Land Cover Data. Available at: <https://coast.noaa.gov/ccapftp/#/>.
- <sup>3</sup> Office of Information Technology. Maine Office of GIS Data Catalog. National Hydrography Dataset (NHD) shapefile. Available at: <https://www.maine.gov/megis/catalog/>.
- <sup>4</sup> Data provided to the Town of Kennebunkport by CAI Technologies on December 6, 2019. Parcel data current as of 4.1.2019. Parcel ownership information are Sales of 7.31.19.
- <sup>5</sup> Office of Information Technology. Maine Office of GIS Data Catalog. Conserved Lands shapefile. Last updated July 8, 2019. Available at: <https://www.maine.gov/megis/catalog/>.
- <sup>6</sup> Office of Information Technology. Maine Office of GIS Data Catalog. Conserved Lands shapefile. Last updated July 8, 2019. Available at: <https://www.maine.gov/megis/catalog/>.
- <sup>7</sup> Office of Information Technology. Maine Office of GIS Data Catalog. Conserved Lands shapefile. Last updated July 8, 2019. Available at: <https://www.maine.gov/megis/catalog/>.
- <sup>8</sup> Town of Kennebunkport 2012 Comprehensive Plan
- <sup>9</sup> Office of Information Technology. Maine Office of GIS Data Catalog. Conserved Lands shapefile. Last updated July 8, 2019. Available at: <https://www.maine.gov/megis/catalog/>.
- <sup>10</sup> Department of Administrative and Financial Services. Maine Revenue Services. (2017) ME Municipal Valuation Return Statistical Summary. Available at: <https://www.maine.gov/revenue/propertytax/municipalservices/statisticalsummary.htm>
- <sup>11</sup> Department of Administrative and Financial Services. Maine Revenue Services. (2017) ME Municipal Valuation Return Statistical Summary. Available at: <https://www.maine.gov/revenue/propertytax/municipalservices/statisticalsummary.htm>
- <sup>12</sup> Data provided to the Town of Kennebunkport by CAI Technologies on December 6, 2019.
- <sup>13</sup> Town of Kennebunkport Land Use Ordinance (LUO). November 6, 2018 Revision.
- <sup>14</sup> Town of Kennebunkport Land Use Ordinance (LUO). November 6, 2018 Revision.
- <sup>15</sup> Town of Kennebunkport Land Use Ordinance (LUO). November 6, 2018 Revision.
- <sup>16</sup> Town of Kennebunkport Land Use Ordinance (LUO). November 6, 2018 Revision.
- <sup>17</sup> Town of Kennebunkport Code Enforcement/Planning Department.
- <sup>18</sup> Town of Kennebunkport Assessing Department.
- <sup>19</sup> Data provided to the Town of Kennebunkport by CAI Technologies on December 6, 2019. Parcel data current as of 4.1.2019. Parcel ownership information are Sales of 7.31.19.
- <sup>20</sup> Village Parcel Draft Master Plan. December 2019. Available at: <https://www.kennebunkportme.gov/village-parcel-master-plan-committee/pages/draft-master-plan-documents>
- <sup>21</sup> United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Web Survey. <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- <sup>22</sup> Data provided to the Town of Kennebunkport by CAI Technologies on December 6, 2019.
- <sup>23</sup> United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Web Survey. <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- <sup>24</sup> Data provided to the Town of Kennebunkport by CAI Technologies on December 6, 2019.

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<sup>25</sup> Maine Department of Agriculture, Conservation, and Forestry (DACF). Maine Geological Survey (MSG) Sea Level Rise/Storm Surge Scenarios 2018. Available at: <https://mgs-maine.opendata.arcgis.com/datasets/maine-sea-level-rise-storm-surge-scenarios-2018>