



Town Profile

Kennebunkport

First incorporated in 1653, the Town of Kennebunkport has a long history as a shipbuilding and trade center and later as a summer tourist destination. The town consists of a number of small village areas, such as Dock Square, Goose Rocks Beach, and Cape Porpoise, surrounded by wetlands, forest, and sandy beaches.

According to the town's draft comprehensive plan, Kennebunkport 2030, Dock Square hosts the highest concentration of tourist-related businesses. Cape Porpoise remains the center of the town's commercial fishing industry. Bordered to the west by the Kennebunk River, east by the Little River, south by the open coast, and cleaved by the Batson River, the town is particularly vulnerable to flooding from coastal storms and rising seas.

Land Use Impacts

There are 1,249.8 acres of land in Kennebunkport vulnerable to flooding from the 1.6 ft sea level rise plus storm surge scenario. There are 1,572.8 acres (or 323 additional acres) vulnerable to the 3.0 ft sea level rise plus storm surge scenario. Table 26 shows the values for properties at risk from the 1.6 ft and 3.0 scenarios in Kennebunkport.

- ▶ \$634.5 million in assessed property value is at risk from the 1.6 ft scenario. Under this scenario, \$76.5 million in assessed value is from properties where only the land is impacted, while \$558.0 million in assessed value is from properties where both building and land are impacted.
- ▶ Total valuation at risk from the 1.6 ft scenario compared to the total assessed valuation of the town is 23.3%, the highest of the six towns.
- ▶ \$759.1 million in assessed property value is at risk from the 3.0 ft scenario. Under this scenario, \$79.5 million in assessed value are from properties where only the land is impacted, while \$679.6 million in assessed value are from properties where both building and land are impacted.
- ▶ Total valuation at risk from the 3.0 ft scenario compared to the total assessed valuation of the town is 27.9%, the highest of the six towns.
- ▶ Properties designated as residential single-family homes have the highest property values at risk from the 1.6 ft scenario (\$445.2 million) and 3.0 ft scenario (\$549.0 million).

Table 26. Kennebunkport Property Value Vulnerability Assessment, GEI

	Kennebunkport					
	1.6' SLR + SS			3.0' SLR + SS		
	Land Only	Building & Land	Total	Land Only	Building & Land	Total
Comm., Indus., Non-Gov. Institutions	\$ 2,805,365	\$ 75,336,100	\$ 78,141,465	\$ 1,560,752	\$ 82,634,200	\$ 84,194,952
Conserved Land	\$ 2,989,635	--	\$ 2,989,635	\$ 4,027,399	--	\$ 4,027,399
Government Properties	\$ 6,339,596	\$ 200	\$ 6,339,796	\$ 6,715,890	\$ 124,300	\$ 6,840,190
Health Facilities	--	--	--	--	--	--
Mobile Homes & Campgrounds	--	--	--	--	--	--
Municipal Properties	\$ 2,829,468	\$ 4,190,200	\$ 7,019,668	\$ 3,158,135	\$ 4,190,200	\$ 7,348,335
Open Space & Agriculture	\$ 2,393,247	\$ 1,455,100	\$ 3,848,347	\$ 3,427,506	\$ 1,589,900	\$ 5,017,406
Residential Multi-Family	\$ 5,440,583	\$ 82,000,100	\$ 87,440,683	\$ 6,881,070	\$ 91,608,900	\$ 98,489,970
Residential Single-Family	\$ 50,414,536	\$ 394,792,300	\$ 445,206,836	\$ 49,810,962	\$ 499,216,400	\$ 549,027,362
Undeveloped	\$ 3,263,371	\$ 232,300	\$ 3,495,671	\$ 3,952,294	\$ 232,300	\$ 4,184,594
Utilities	--	--	--	--	--	--
Total	\$ 76,475,801	\$ 558,006,300	\$ 634,482,101	\$ 79,534,008	\$ 679,596,200	\$ 759,130,208

Locally Significant Impacted Sites

The GIS-based vulnerability assessment identified several locations in Kennebunkport that are particularly vulnerable to sea level rise and storm surge. These include economic centers, tourism infrastructure and destinations, significant travel routes, as well as public infrastructure and residential areas (Table 27). These sites warrant particular attention as the municipality and region identify and prioritize adaptation and resilience actions.

Table 27. Locally significant impacted sites in the Town of Kennebunkport.

Site	Impacts
Economic Centers	
Dock Square	The roads, businesses, and parking lots in the Dock Square area are vulnerable under both the 1.6 ft and 3.0 ft scenarios.
Ocean Avenue	The road and many businesses (hotels, marinas, restaurants, etc.) along the road are vulnerable under both the 1.6 ft scenario and 3.0 ft scenarios.
Cape Porpoise	The center of Cape Porpoise as well as the roads (Rt 9 and Pier Road), businesses, and culverts are vulnerable to the 1.6 ft and 3.0 ft scenarios.
Tourism Infrastructure & Destinations	
Rachel Carson National Wildlife Refuge	Refuge lands and waterways along the Baston River are all vulnerable to flooding under both the 1.6 ft and 3.0 ft scenarios.
Goose Rocks Beach	The beach itself is flooded and inaccessible under both the 1.6 ft and 3.0 ft scenario. Local businesses, vacation rentals, and hotels along the beach are also vulnerable.
Colony Beach	The beach is flooded under both the 1.6 ft and 3.0 ft scenarios, with the Colony Beach parking inundated under the 3.0 ft scenario. Access to Colony Beach is also cut off under both scenarios.
Walker point	Walker Point is flooded, and access is cut off under both the 1.6 ft and 3.0 ft scenarios.
Cape Porpoise Pier	Pier Road and the pier itself are vulnerable to both the 1.6 ft and 3.0 ft scenarios.
Vaughn Island	This conserved island is flooded under both the 1.6 ft and 3.0 ft scenarios.
Significant Routes	
Route 9	Route 9 is vulnerable at the Kennebunk River. Flooding cuts off access to several businesses in the 1.6 ft scenario, and the bridge is entirely inundated under the 3.0 ft scenario. Route 9 will also be impacted in Cape Porpoise and at the crossing of Tyler Brook.
Dyke Road and New Biddeford Road	Access to the Goose Rocks Beach area could be entirely cut off under both the 1.6 ft and 3.0 ft scenarios due to flooding on Dyke Road and New Biddeford Road.
Public Infrastructure & Residential Areas	
North St. culvert at Gristmill Pond outlet	The culvert and road crossing are vulnerable under both 1.6 ft and 3.0 ft scenarios.
Ocean Ave.	This road is already experiencing flooding during coastal storms and high tides. It will continue to be impacted under the 1.6 ft and 3.0 ft scenarios.
Turbats Creek	Homes along Turbats Creek are vulnerable to both the 1.6 ft and 3.0 ft scenarios.
Langsford Road	Almost all homes on the peninsula are vulnerable under the 1.6 ft and 3.0 ft scenarios
Cape Porpoise	Several residential properties are vulnerable under both the 1.6 ft and 3.0 ft scenarios.
Marshall Point Road	Marshall Point Road and the neighborhood off that road are vulnerable under both the 1.6 ft and 3.0 ft scenarios.
Goose Rocks Beach	Many of the residential properties and pump stations in Goose Rocks Beach are impacted under both the 1.6 ft and 3.0 ft scenarios.

Economic Impacts

The economic analysis shows that more than 600 jobs, more than \$17 million in labor income, nearly \$30 million in area gross domestic product, and over \$45 million in revenue may be affected in some way by sea level rise and storm surge in Kennebunkport. One out of every six jobs in Kennebunkport is vulnerable under the 3.0 ft scenario, and nearly \$1 out of every \$10 generated in Kennebunkport is connected to a business that is at risk.

The impact is not spread equally among all industries in town, with the accommodation & food services and retail industries considered most at risk. Under the 3.0 feet scenario, over 60% of the sales revenue in the hotel industry and over 50% of the sales revenue from the restaurant industry are at risk. From an employment perspective, over 80% of the employment in both the restaurant and hotel industries is vulnerable.

The majority of employment in Kennebunkport is in the coastal tourism-related industries including accommodation & food services, retail, and arts entertainment & recreation. Accommodation & food services and retail are also basic industries in Kennebunkport, meaning that they bring in money from outside the municipality. Because of Kennebunkport's reliance on coastal tourism for employment and economic output as well as its elevated vulnerability to the sea level rise and storm surge scenarios, it is expected to be one of the most economically impacted towns in the region from a coastal storm such as that studied in this assessment.

Property Taxes

Kennebunkport has a 2021-2022 tax rate of 0.0096. Based on the assessed property values impacted by the inundation scenario, the town has approximately \$6.1 Million in property taxes at risk to the 1.6 ft scenario. This increases to \$7.3 million in the 3.0 ft scenario. This represents 26% and 31% of the town's total budget, respectively. In both the 1.6 ft and 3.0 ft scenario, the majority of the property taxes at risk come from the assessed value of residential single-family homes that are vulnerable.

Infrastructure & Facilities

Roads & Culverts

Kennebunkport has a total of 9.92 miles of road at risk to the 1.6 ft scenario, which increases to 12.28 miles at risk in the 3.0 ft scenario (Table 28). The miles of impacted roads is the second highest in the region, with only Wells having more miles of impacted roads. Under both scenarios, slightly more miles of local roads than private roads are at risk.

In addition to the roads themselves, there are 45 roadway crossings over waterbodies in Kennebunkport, 9 of which are vulnerable to the 1.6 ft inundation scenario and 2 additional crossings are vulnerable to the 3.0 ft scenario. There are 2 Maine DOT large culverts vulnerable to both the 1.6 ft and 3.0 ft scenarios.

Table 28. Miles of Vulnerable Roads in Kennebunkport

Road Class	Miles Vulnerable to SS + 1.6ft SLR Scenario	Miles Vulnerable to SS + 3.0ft SLR Scenario
Local	5.56	6.65
Paper Street	0.18	0.18
Private	4.02	5.09
Secondary	0.18	0.36
Total	9.92	12.28

Public Infrastructure

Table 29 shows the infrastructure, asset, and zoning data and records provided by Kennebunkport. There are four cemeteries at risk from the 1.6 ft scenario, and two additional cemeteries at risk from the 3.0 ft scenario. Of the 1,392 sewer users in Kennebunkport, 763 (or 55%) of them have properties in areas at risk from the 1.6 ft scenario and an additional 44 are in areas at risk from the 3.0 ft scenario. For sidewalks, paved shoulders, and crosswalks, 15,053 ft (12%) and 20,905 ft (17%) are at risk from the 1.6 ft and 3.0 ft scenarios, respectively. There are no critical facilities at risk from either 1.6 ft or 3.0 ft scenarios. There are 594.2 acres of growth area zones at risk from the 1.6 ft scenario. There are 748.5 acres (or 154.3 additional acres) at risk from the 3.0 ft scenario. There are 11,543.7 acres of growth area zones that are not vulnerable to either scenario.

Table 29. Infrastructure, Assets, and Zoning Vulnerability Assessment for Kennebunkport

Infrastructure Type	Vulnerable to SS + 1.6 ft SLR Scenario	Vulnerable to SS + 3.0 ft SLR Scenario	Not vulnerable to 1.6 ft or 3.0 ft Scenarios
Cemeteries	4	6	57
Sewer Users	763	807	585
Drainage Lines	76,086 ft	86,419 ft	818,375 ft
Sand Dunes	9,388 ft	18,244 ft	4,269 ft
Sidewalks, Paved Shoulders & Crosswalks	15,053 ft	20,905 ft	102,607 ft
Growth Area Zones	594.2 ac	748.5 ac	11,543.7 ac

Social Vulnerability

Of the 3,596 year-round residents of Kennebunkport (US Census Bureau, 2019), approximately 7% are vulnerable to flooding impacts under the 1.6 ft scenario and 9% are vulnerable under the 3.0 ft scenario. Individuals who already have increased social vulnerability will be disproportionately affected by sea level rise and climate change as they have less capacity to prepare for, respond to, and recover from coastal hazard events. The following sections describe the residents at risk under both flooding scenarios, broken down by age, race, and household income.

Age

- ▶ Over one-third of people at risk under both scenarios are aged 65 or older, a group particularly vulnerable to coastal hazards.
- ▶ Block Group Kennebunkport_01 has the greatest number of people who are 65 or older at risk under both scenarios.
- ▶ People aged 50 to 64 make up the second largest age group at risk (30%) under both scenarios.



Block Group

- Kennebunkport_01
- Kennebunkport_02
- Kennebunkport_03

Race

- ▶ Kennebunkport has very few people at risk (<1%) from either the 1.6 ft or 3.0 ft scenarios that identify as a race other than white.

Household Income

- ▶ Under both scenarios, 43% of vulnerable households make less than \$50,000 per year, lower than the EPA (2021) climate change and social vulnerability threshold for low-income households (\$51,500). The majority of those households are located in block group Kennebunkport_01.
- ▶ The number of vulnerable households making less than \$50,000 per year increases by 14 households under the 3.0 ft scenario.

More information about the vulnerability assessment methodology and analysis can be found in the Coastal Vulnerability Assessment – Vulnerability Assessment Results section of the full report.

