

TOWN OF RYE

CLIMATE CHANGE

ADAPTATION AND RESILIENCE

Rye is one of the most vulnerable New Hampshire communities when considering the impacts of flooding and climate change. To protect Rye's resources and community character, coastal resiliency will be a key component of Rye's Master Plan and vision for the future.

Coastal resiliency refers to the ability of a community to withstand and recover from hazardous events. **Climate change adaptation** – adapting to life in a changing climate – involves adjusting to actual or expected future climate.



~8 miles of shoreline are located in Rye which is ~52% of New Hampshire's coastline.



1,039 acres (12%) of Rye are projected to be affected by a 1 ft. rise in sea level.



275 of acres of tidal saltmarsh have been restored in Rye.



10 roadways are highly vulnerable to flooding.



The NH Coastal Flood Risk Summary predicts 0.5-1.3 ft. of sea level rise by **2050**.



~300 buildings in Rye are projected to be affected by either a 1 foot rise in sea level or a 100-year storm.

COASTAL RESOURCES

FIVE TOWN BEACHES including Wallis (Pirate's Cove), Foss, Cable, Sawyers, and Bass Beach.

TWO STATE BEACHES AND TWO STATE PARKS in Rye are overseen by NH State Parks. These include: Odiorne, Wallis Sands, Jenness, and Rye Harbor State Park.

THE RYE HARBOR STATE PARK is also home to Rye's active recreational and commercial fishing harbor. The New Hampshire fishing industry is an important part of our state's food system, commercial activity, and heritage.

TOWN OF RYE

CLIMATE CHANGE

ADAPTATION AND RESILIENCE

The impacts of climate change are increasing and are projected to continue to increase in frequency and severity. This includes:

- * Sea Level Rise
- * Drought
- * Risk of Groundwater Rise Causing Saltwater Intrusion
- * Marsh Migration
- * Storm Surge and Flood Inundation, and
- * Coastal Erosion

These impacts have the potential to affect town resources and public infrastructure, such as roadways and utility systems, buildings, emergency response systems and departments, and natural resources.

Flooding is a common hazard for the Town of Rye.

Areas of recurring flooding or high potential for future flooding include:

Wallis Road between Appledore and Ocean Boulevard
Ocean Boulevard at Church Street
Ocean Boulevard at corner of Washington Road
Old Beach Road
The Breakers
Jenness Road
Atlantic Avenue
Kenphill Avenue
Harbor Road at Ocean Boulevard
Locke Road at Harbor Road
Long John Road
Sagamore Road

Rye has taken numerous steps to increase its coastal resilience, including:

- Studying the ***impacts of future high-water levels*** (ongoing)
- Updating the Town's ***Land Development Regulations, Floodplain Development and Building Ordinance*** to ensure development and redevelopment is more resilient to coastal hazards (2021)
- Updating the Town's ***Hazard Mitigation Plan*** to enhance emergency response protocols and plan for upgrading infrastructure to be more resilient to coastal hazards (2022)
- Completing a ***Natural Resource Inventory*** (2021), in part, to better understand the quality and quantity of coastal resources.
- Participating in the 2015 ***Tides to Storms regional vulnerability assessment*** to identify areas most vulnerable to coastal hazards and climate change impacts
- Restoring tidal flow to ***275 acres of saltmarsh*** to protect flood storage capacity