PLAN YARMOUTH

Community Conversations: Environment & Natural Resources

October 2, 2023

Overview

- Introduction
- Presentation on Yarmouth’s Environment & Natural Resources
- Table Activities
- Reconvene and report out

What is Plan Yarmouth?

- Comprehensive Plan Update
- Schedule
  - Jan 2023 kickoff
  - 1st Draft Plan early 2024
- Existing conditions, Vision Statement, Future Land Use Plan, Goal/Policies/Strategies

PLAN YARMOUTH

Project Team

Town of Yarmouth

Town Staff

Comprehensive Plan Steering Committee

Town Council

Boards & Committees

Consultant Team

NORTHSTAR PLANNING

LEVINE PLANNING STRATEGIES
Tools for Building Communities

ALA LANDSCAPE ARCHITECTURE + URBAN DESIGN

camoin associates

FB environmental

You!

Town-wide Pop-ups

Surveys

Focus Group Listening Sessions

Public Workshops

Email Newsletters

Direct mail

planyarmouth.com

Yarmouth Natural Resource highlights:

- The Town of Yarmouth has a detailed mapping program to monitor **invasive plant species** and is actively managing their presence at several locations.

- All surface waters in Yarmouth are classified as **Class B,** (Need updated data to determine current status). **Groundwater water quality is generally good**.

- The Town is expecting to update **several protections** in the near future, including the Floodplain Management Ordinance after new FEMA maps are released and the addition of **Low Impact Development requirements as part of the MS4 permit.** Erosion and sedimentation controls have also recently been strengthened in several **ordinances**.

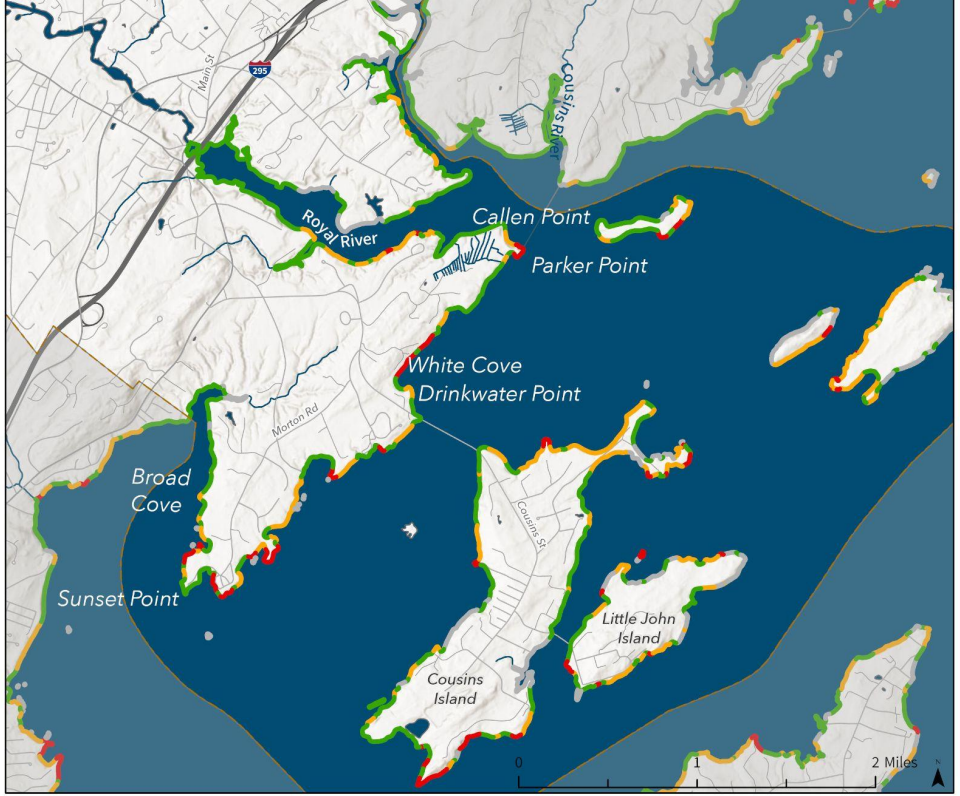
- A number of studies have been conducted in recent years to explore options to improve **fish passage on the Royal River**, efforts which are now being led by the Army Corps of Engineers in partnership with the Town of Yarmouth.

Coastal Bluff Stability

What, where, and why:

- 61% (16.7 miles) of the mapped bluffs in Yarmouth are classified as stable.
- 29% (7.9 miles) unstable
- 10% (2.8 miles) highly unstable

Unstable or highly unstable bluffs are vulnerable based on their slope, vegetation cover, sediment type, and erosion rate. In Yarmouth, unstable bluffs are concentrated on the northern and southern tips of Cousins Island, the eastern section of Moshier Island, western shoreline of Little Moshier Island, and some sections south of the Royal River estuary, such as White Cove



Existing Conditions: Coastal Bluff Stability

Town of Yarmouth, Maine

Map created for planning purposes for comprehensive plan development.

Data sources: Town of Yarmouth, Maine GeoLibrary.
Coordinate System: NAD 1983 State Plane Maine West FIPS 1802 (US Feet)
Map by: M. Kelly-Boyd, FB Environmental

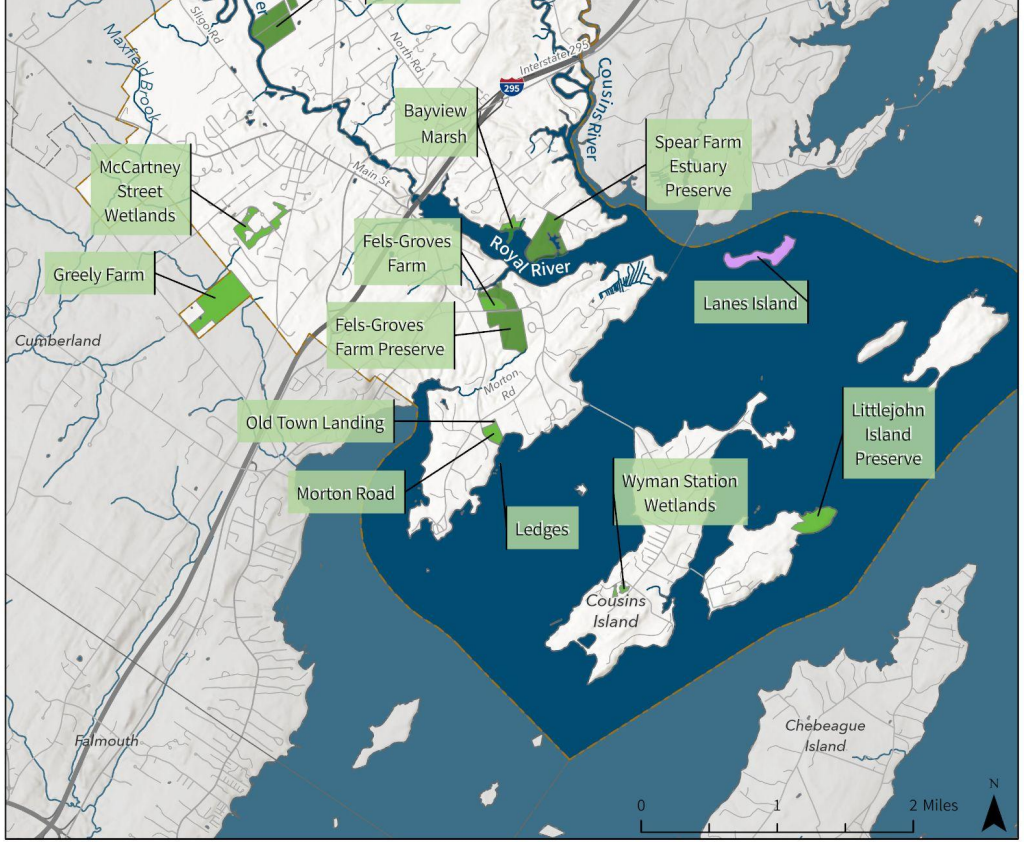
- Town of Yarmouth
- Town Boundary
- Road
- Stream
- Coastal Waters/Waterbody

Coastal Bluff, Categorized by Stability

- Highly unstable
- Unstable
- Stable
- No bluff
- Not mapped

Land Conservation in Yarmouth

- ~314 acres of land in Yarmouth permanently protected as conservation land through easements
- >700 acres of open space
- Yarmouth recognized as a local leader in land conservation.



Existing Conditions: Permanently Conserved Lands

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Permanently Conserved Land, by Holder

- Town of Yarmouth/Maine Minor Civil Division
- Royal River Conservation Trust
- Maine Coast Heritage Trust
- Maine Bureau of Parks and Lands*

*The ledges are small coastal islands and are the only Maine Bureau of Parks and Lands conserved land in Yarmouth.

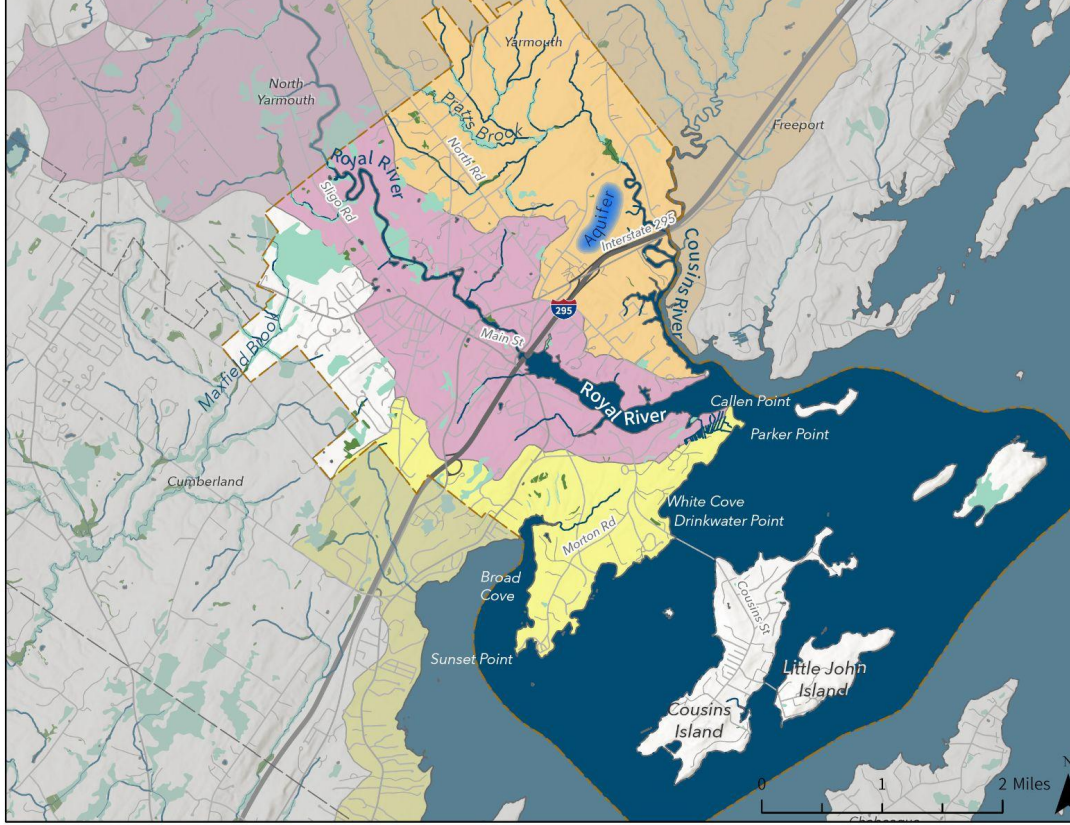
Threats to water quality

Stormwater runoff

Development

Septic Systems

Zoning



Existing Conditions: Freshwater Resources and Drainage Divides

Town of Yarmouth, Maine

Map created for planning purposes for comprehensive plan development.

Data sources: Town of Yarmouth, Maine GeoLibrary, Beginning with Habitat. Coordinate System: NAD 1983 State Plane Maine West FIPS 1802 (US Feet)
Map by: M. Kelly-Boyd, FB Environmental

- Town of Yarmouth
- Town Boundary
- Road
- Stream
- Coastal Waters/Waterbody
- Aquifer

Freshwater Wetland, by Type

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland

Major Drainage Divide

- Royal River Drainage
- Cousins River Drainage
- Coastal Drainage to Broad Cove/Casco Bay

Marine Resources highlights

• Important marine habitats within Yarmouth include eelgrass beds, tidal waterfowl and wading bird habitat, essential Habitat for the endangered Roseate Tern, and an exemplary Natural Community of salt-hay saltmarsh. Yarmouth is also part of the Maquoit and Middle Bay Focus Area of Statewide Ecological Significance due to its prime marine habitats.

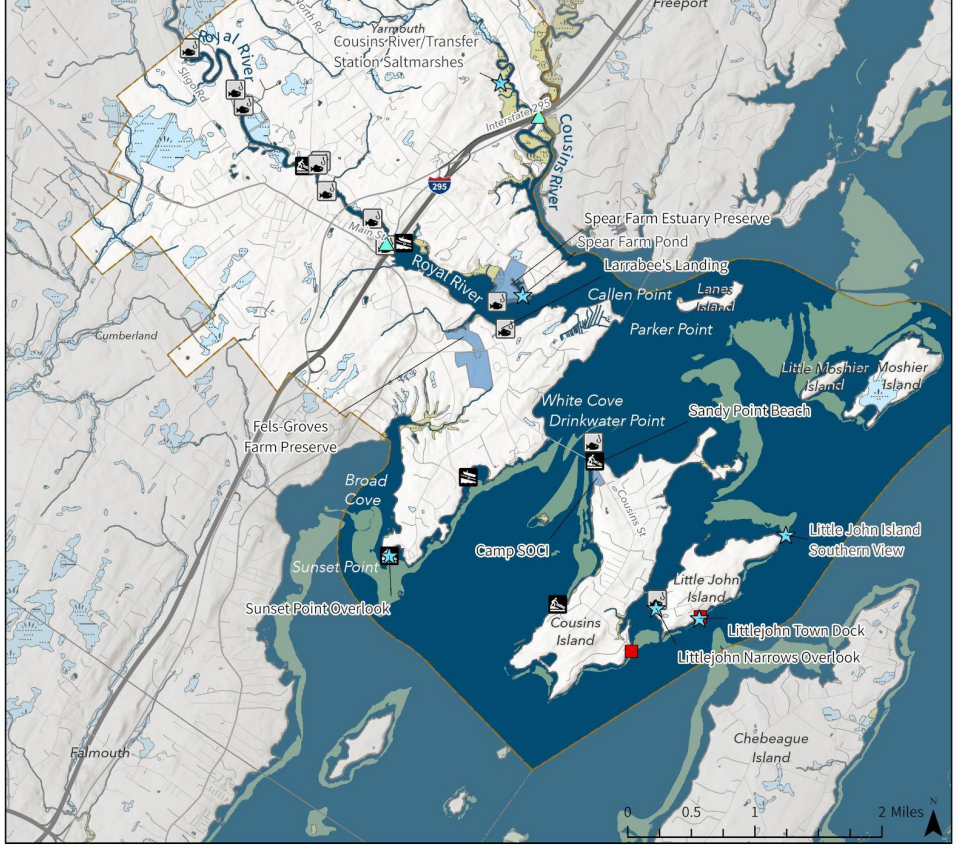
• Water quality monitoring has revealed some high levels of bacteria and nitrogen, particularly in narrow channels between islands or within river estuaries. This has resulted in closures and conditional restrictions or approvals for some of Yarmouth's shellfish beds.

• Previously highly harvested species such as softshell clams have experienced declines in landings in recent years, while other sectors such as aquaculture are on the rise.

• The Town is working on several improvements to marine water access and adjacent parks to meet the goals of past planning efforts.

Threats to Marine Water Quality

All marine waters in Yarmouth are classified by the **Maine DEP as Class SB Waters,** the second tier in a three-tier classification system for estuarine and marine waters (Class SA, SB, and SC with Class SA as most like natural conditions). Maine DEP has one biomonitoring site on the Royal River, above the head of tide.



Existing Conditions: Marine Resources

Town of Yarmouth, Maine

Map created for planning purposes for comprehensive plan development.

Data sources: Town of Yarmouth, NWI, NHD, MEDOT, Maine GeoLibrary. Coordinate System: NAD 1983 State Plane Maine West FIPS 1802 (US Feet)
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- Town of Yarmouth
- Town Boundary
- Road

Marine Natural Features

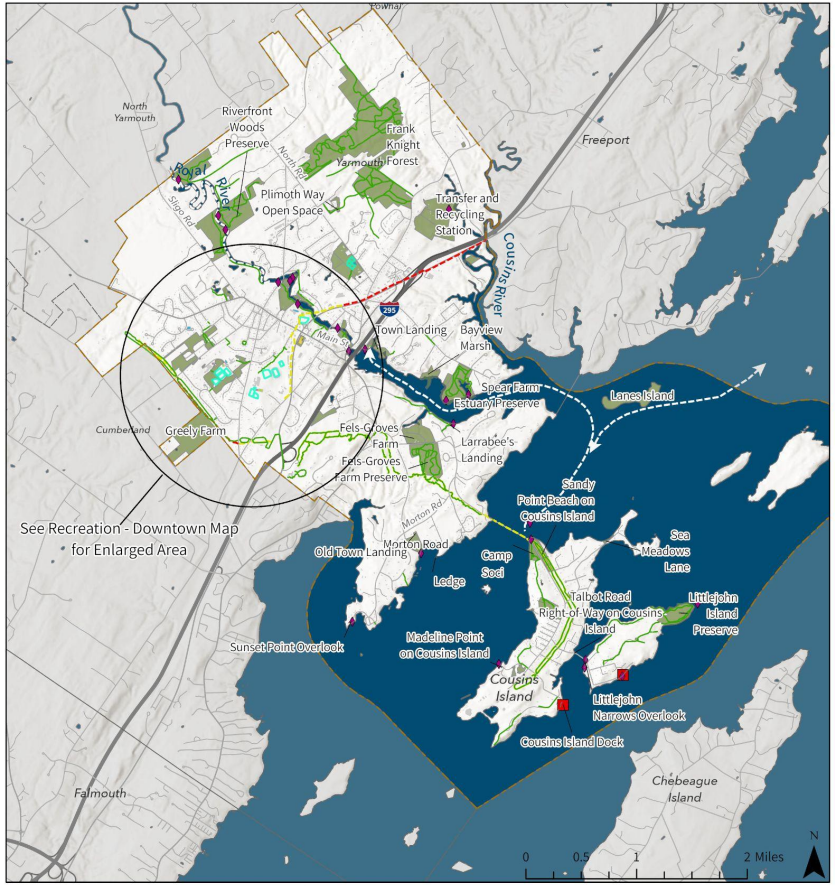
- Coastal Waters/Waterbody
- Stream
- Head of Tide
- Mapped Eelgrass Bed (2018)
- Tidal Wetland
- Inland Wetland

Coastal Access Points

- Scenic Vista
- Boat Launch
- Boat Launch - Hand Carry
- Fishing Access
- Town Dock
- Coastal Open Space Parcel

Recreation

- Six (6) parks
- 677 acres of open space maintained by Town's Parks crew.
- 27.58 miles of urban, rural, and riverside trails
- Seven (7) baseball/softball fields
- Five (5) soccer/field hockey/lacrosse fields
- Eight (8) tennis courts
- Two (2) outdoor basketball courts
- Five (5) playgrounds
- Two (2) sand volleyball courts
- A track facility
- A hand-carry boat launch
- A pond and warming hut for ice skating
- A public Sandy Point Beach



Existing Conditions: Recreation

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Town of Yarmouth
Town Boundary
Building Footprint
Road
Coastal Waters/Waterbody
Conserved Land
Trails

Regional Trails
Water trail
Future Multi-use
Multi-use
Other
Recreational Access to Water (boat launch, fishing, via conserved land or town land, etc.)
Town Dock

Recreational Facilities
Ball Field
Playground
Tennis Court
Basketball Court
Disc Golf Course
Skating Pond
Track

Climate Change impacts on Recreation:

- **Parks and trails along the lower Royal River, Cousins River, and the coast may be threatened from sea level rise.** (These include the Little John Island preserve, Sandy Point Beach, Spear Farm Estuary Preserve, Royal River Park, Grist Mill Park, and the Town Landing)

- Increasing temperatures may impact recreational activities offered by the Town. Warming summer temperatures, particularly for days over 90 degrees, may necessitate a reduction in outdoor time or activity level, particularly for older populations and those with respiratory challenges. Warming winter temperatures may limit the available winter recreational opportunities such as skiing, skating, and snowshoeing as snowpack decreases and ice-out dates shift.
    - Cumberland County is expected to see a 143% increase in local hot day temperatures (>89.3 degrees) by 2053, resulting in 17 days exceeding this temperature (First Street Foundation, 2022).

- Public water access points may be threatened by sea level rise.

Agriculture & Forestry: Climate change impacts

- **Increasing temperatures and shifting precipitation patterns are going to continue to pose challenges to the farming industry including shifts in the growing season**, periods of drought, and potential shifts in plant hardiness zones (Maine Climate and Ag Network, 2017).

- Prime farmland areas adjacent to the Royal River, Cousins River, or the coast may be threatened by sea level rise.

- Forests will continue to see **increased pressure from non-native and invasive pests** as climates warm such as the emerald ash borer, Asian long-horned beetle, oak wilt disease, browntail moth, winter moth, hemlock woolly adelgid, and others (Maine Forest Service, 2023).