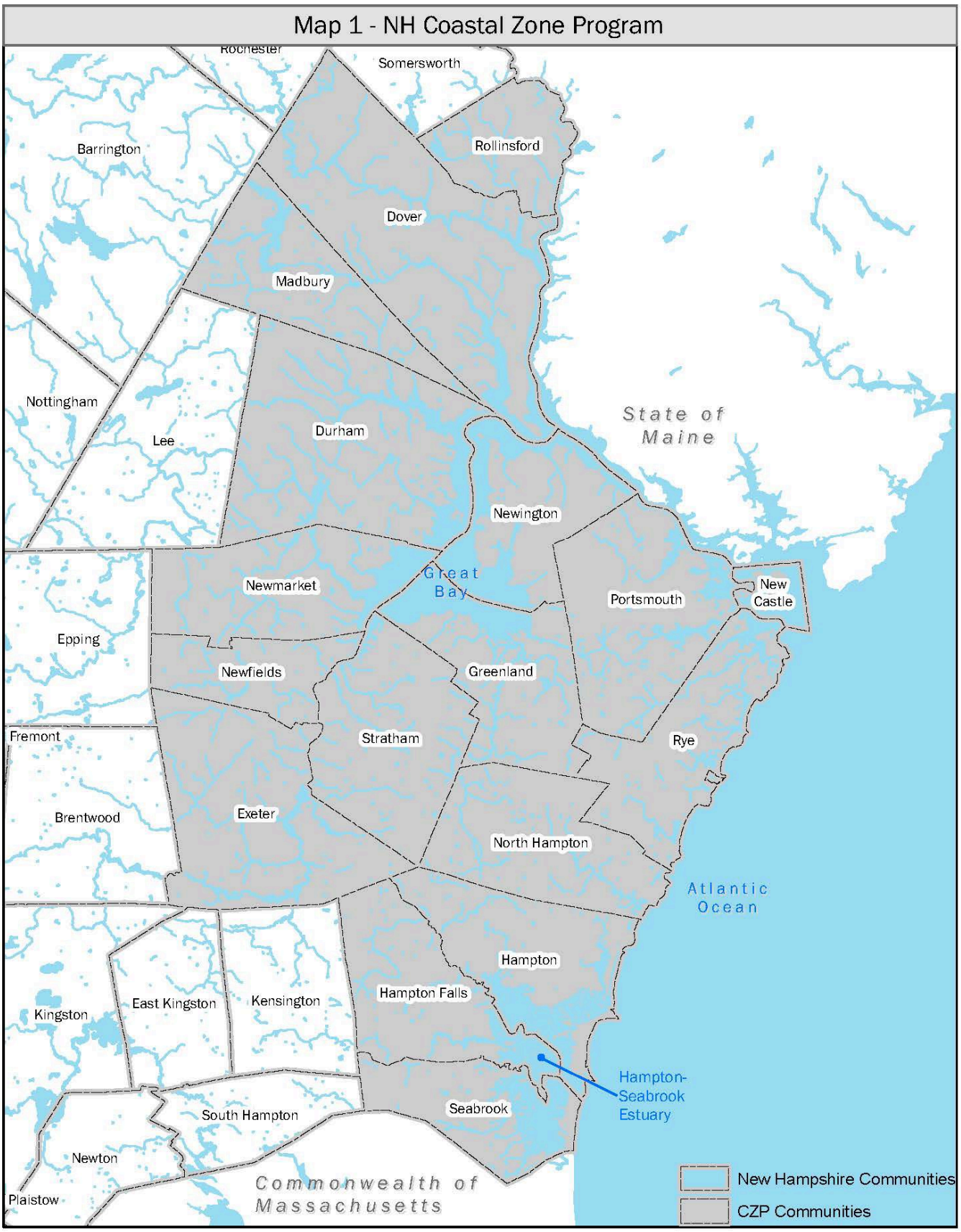
WHERE ARE YOU LOCATED: UNDERSTANDING WHERE REGULATIONS MAY APPLY

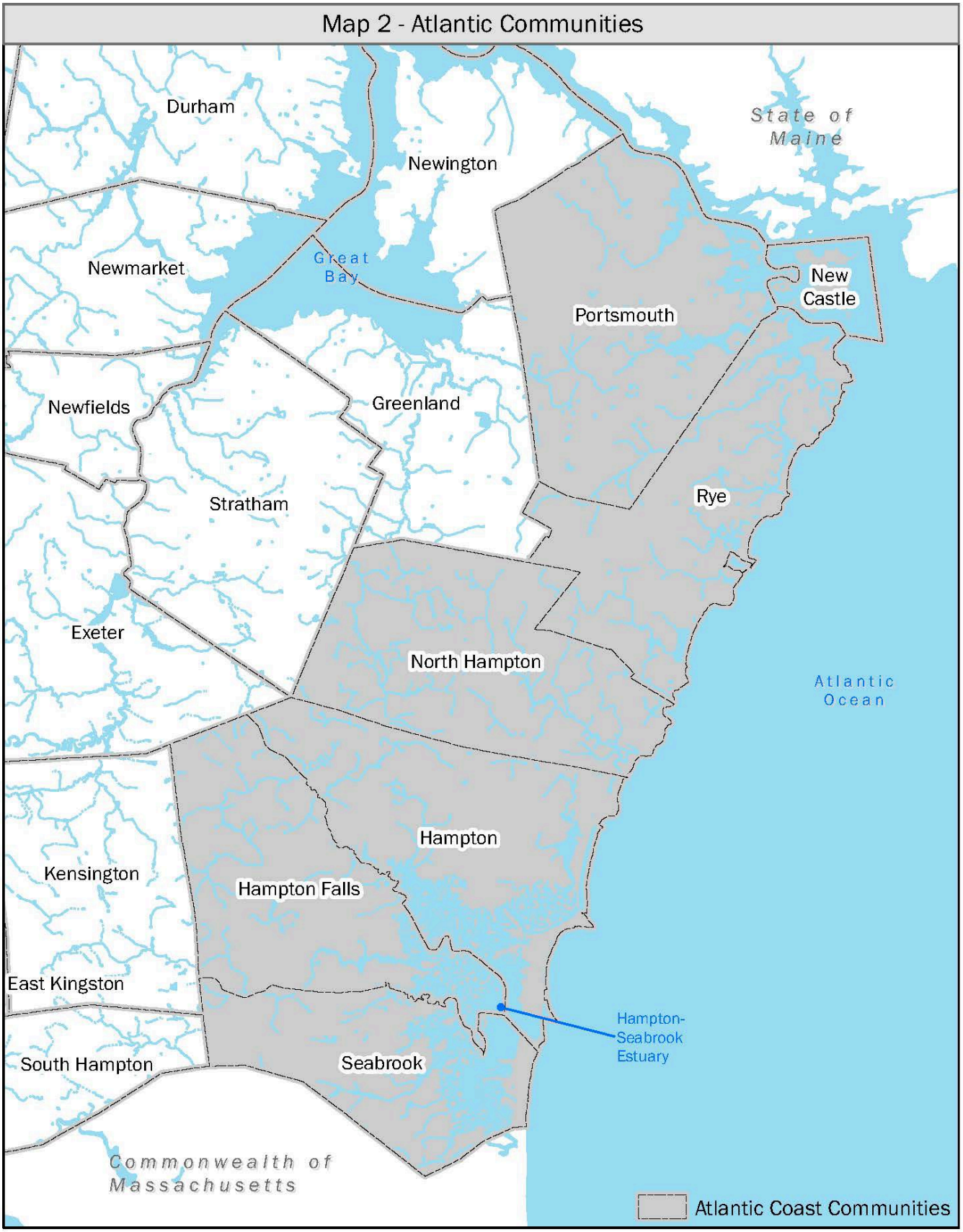
MAP 1: NH COASTAL ZONE PROGRAM

The New Hampshire Coastal Program provides staff assistance and funding to 42 coastal towns and cities as well as other local and regional groups to help protect clean water, restore coastal habitats, and help make communities more resilient to flooding and other natural hazards. The NHCP is one of 34 federally approved coastal programs authorized under the Coastal Zone Management Act and is administered by NHDES. The NH Coastal Program was established under Section 309 of the Coastal Zone Management Act (CZMA), as amended. The program encourages state coastal management programs (CMPs) to strengthen and improve their federally approved coastal management programs related to wetlands, coastal hazards, public access, marine debris, cumulative and secondary impacts, special area management plans (SAMPs), ocean/Great Lakes resources, energy and government facility siting, and aquaculture (CZP Map)


Map 1 - NH Coastal Zone Program
Rochester
Somersworth
Barrington
Rollinsford
Dover
Madbury
Nottingham
Lee
Durham
State of Maine
Newington
Great Bay
Newmarket
Portsmouth
New Castle
Epping
Newfields
Greenland
Fremont
Stratham
Rye
Brentwood
Exeter
North Hampton
Atlantic Ocean
Hampton
Hampton Falls
Kingston
East Kingston
Kensington
Hampton-Seabrook Estuary
Seabrook
South Hampton
Newton
Plaistow
Commonwealth of Massachusetts
New Hampshire Communities
CZP Communities

MAP 2: ATLANTIC COAST COMMUNITIES

New Hampshire's Atlantic Coast communities include Hampton, Hampton Falls, North Hampton, New Castle, Portsmouth, Rye, and Seabrook. These communities are in the southeastern corner of the state adjacent to the Atlantic Ocean. The Atlantic Coast is characterized by tidal and riverine systems and landforms. The southern Atlantic Coast consists of a barrier beach system including the extensive salt marshes of the Hampton-Seabrook Estuary, a broad sand beach at Hampton, and dune systems in Hampton and Seabrook. The northern Atlantic Coast is marked by prominent bedrock headlands, small cove beaches and tidal waterways that extend far inland. The primary inland riverine systems include the Taylor River and Winnicut River. These communities are often subject to both upland freshwater flooding and coastal storm flooding during storm events. Additionally, these communities face significant potential impacts to homes, critical infrastructure and road networks from increasing sea level rise and frequency of storm surges.


Map 2 - Atlantic Communities
Durham
Newington
State of Maine
Newmarket
Great Bay
New Castle
Portsmouth
Newfields
Greenland
Stratham
Rye
Exeter
North Hampton
Atlantic Ocean
Hampton
Kensington
Hampton Falls
East Kingston
Hampton-Seabrook Estuary
South Hampton
Seabrook
Commonwealth of Massachusetts
Atlantic Coast Communities

MAP 3: GREAT BAY/ PISCATAQUA RIVER BASIN COMMUNITIES

New Hampshire's Great Bay municipalities include Dover, Durham, Exeter, Greenland, Madbury, Newfields, Newington, Newmarket, Rollinsford, and Stratham. These communities are located in the southeastern corner of the state surrounding Great Bay, which is a nationally recognized Estuarine Research Reserve. Most of the Great Bay communities lie within the Piscataqua River Basin through which flow a number of coastal rivers, including the Cocheco, Lamprey, Oyster, Exeter, Winnicut, and Salmon Falls. The Salmon Falls flows south into the Piscataqua River and acts as the boundary between New Hampshire and Maine before draining into the Gulf of Maine through Portsmouth Harbor.

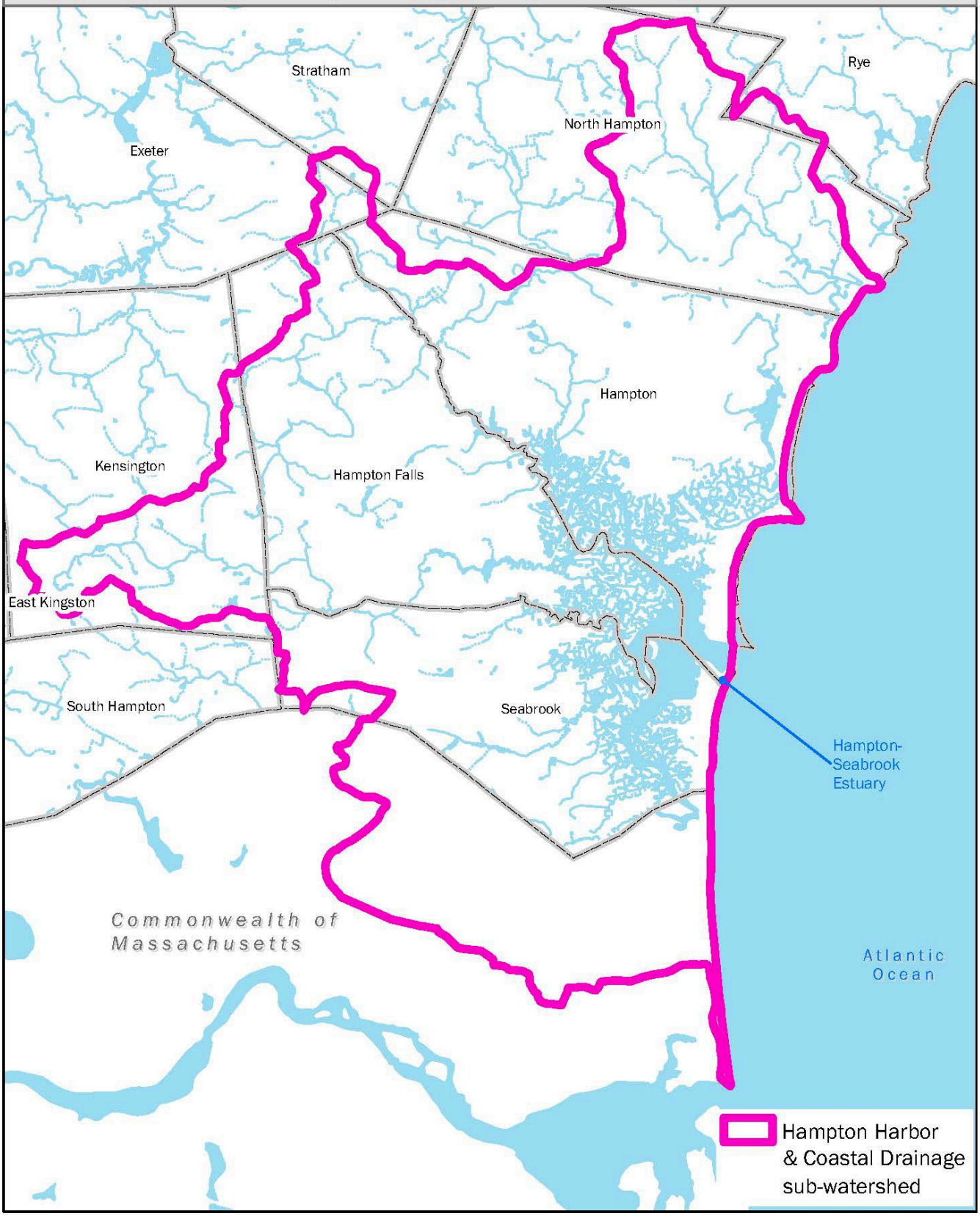
With increasing frequency of severe storm events combined with an increase in impervious surface resulting from extensive development over the past four decades, these communities have experienced substantial economic losses and damages to critical facilities from increased flooding events among both coastal and fresh water bodies. Many Great Bay communities, especially those not serviced by public water systems, will also see increasing groundwater rise from sea level rise, which can impact the quality of water in private wells and compromise private septic systems.

Map 3 - Great Bay and Piscataqua River Basin Communities

MAP 4: HAMPTON – SEABROOK ESTUARY

The Hampton-Seabrook Estuary is a shallow, tidally dominated, barrier beach system, The watershed encompasses 47 square miles, and includes the towns of Hampton, Hampton Falls, North Hampton, Stratham, Seabrook, Exeter, and Kensington, NH, and Salisbury, MA. The Estuary receives freshwater inputs from Tide Mill Creek to the north, the Taylor and Hampton Falls Rivers from the northwest, Brown's River and Cain's Brook from the west, and the Blackwater and Little Rivers from the south. Unlike the Great Bay Estuary, the Hampton Seabrook Estuary contains over 4,000 acres of tidal marsh. In addition, the Estuary supports many other important coastal habitats. The estuary provides a natural filtration system for water as it flows in to the ocean and provides a natural buffer that protects uplan areas from storm surge and erosion. The Estuary is increasingly vulnerable to increased flooding and storm surge events. These events cause increased shoreline erosion, damaging one of the primary defense mechanisms for coastal flooding. Coastal habitats and ecosystems are also vulnerable to changing weather patterns, which are vital to the health of the Estuary.

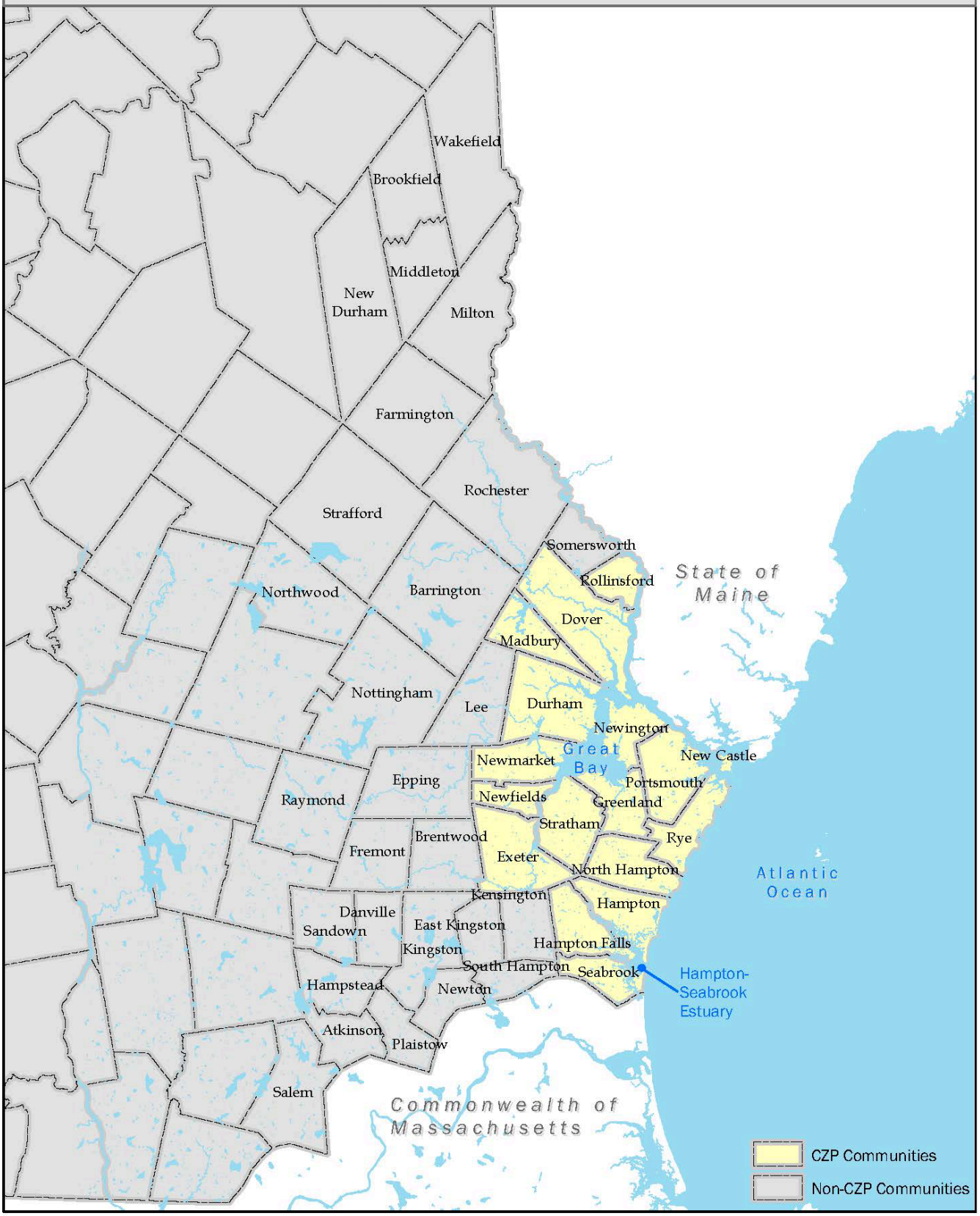
Map 4 - Hampton-Seabrook Estuary



MAP 5: INLAND COMMUNITIES

New Hampshire's inland communities are also affected by climate change. Rising temperatures and changing rainfall patterns will increase the likelihood and frequency of flooding and droughts, which will have a range of detrimental effects on municipal infrastructure, resoruces and public health. Climate change will also pose significant challenges to agriculture as well as winter recreation industries, which are major economic drivers in many of New Hampshire's inland communiites. Additionally, groundwater rise is expected to increase among inland communities, causing damage to infrastructure such as private wells and septic systems as well as increased flooding.

Map 5 Inland Communities



MAP 6: 1.7 FEET OF SEA LEVEL RISE + STORM SURGE

MAP 7: 4.0 FEET OF SEA LEVEL RISE+ STORM SURGE 4

MAP 8: 6.3 FEET OF SEA LEVEL RISE + STORM SURGE

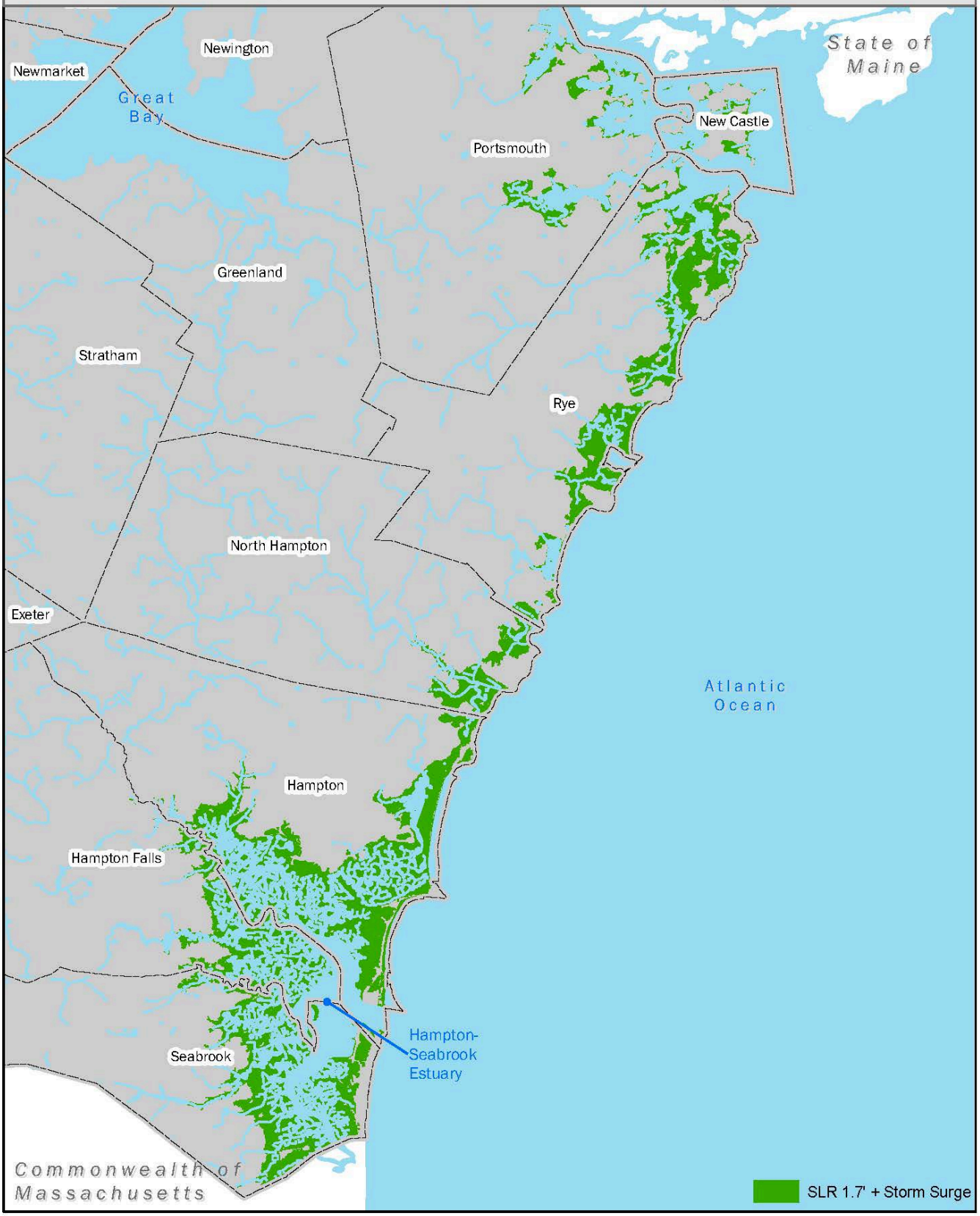
MAP 9: ALL SEA LEVEL RISE + STORM SURGE SCENARIOS:

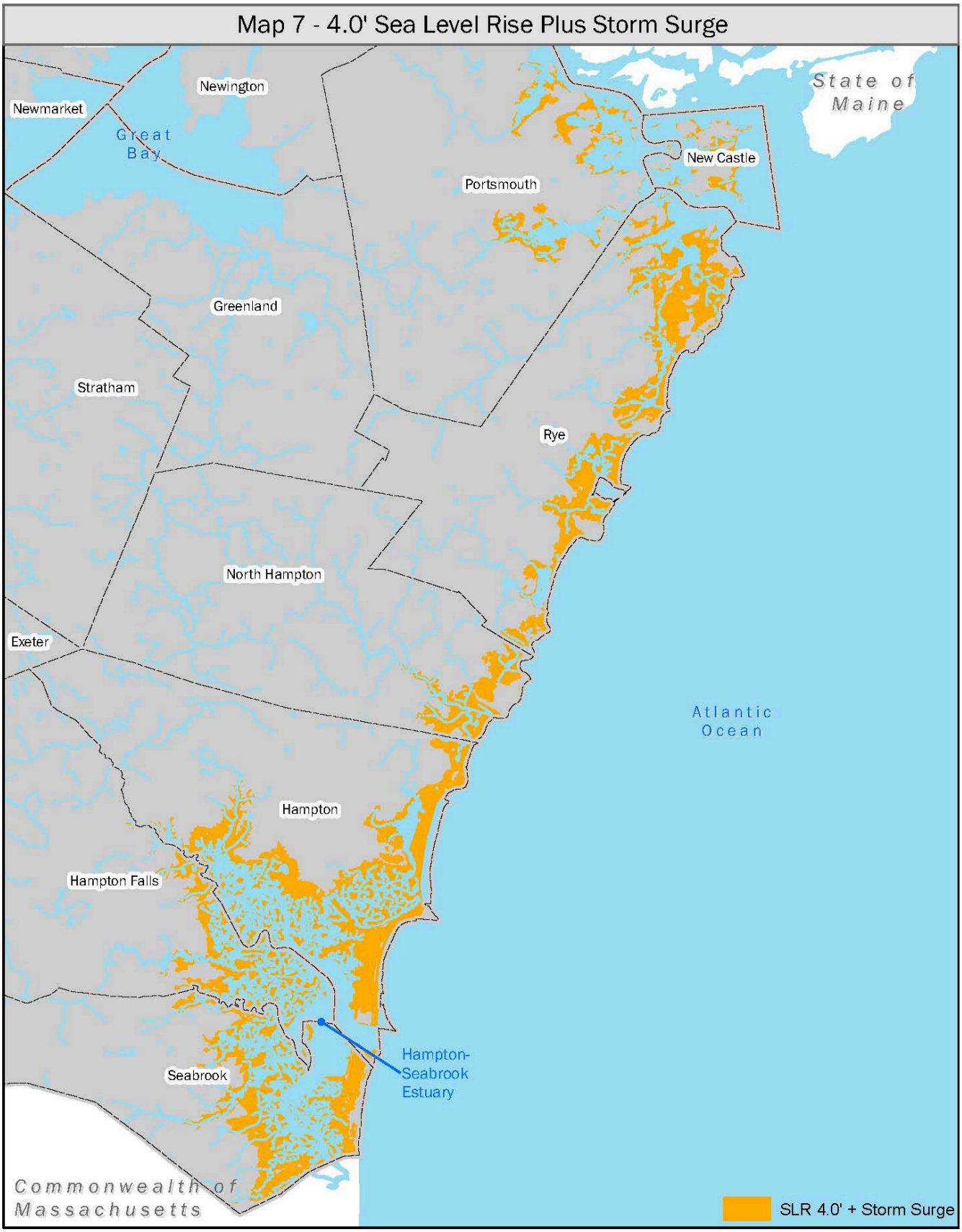
The New Hampshire Coastal Flood Risk Summary – Part 1: Science, provides a synthesis of the state of the science relevant to coastal flood risks in New Hampshire. Key findings indicate that relative sea level rise in coastal New Hampshire is rising and will continue to rise over time. The sea level rise projection for coastal New Hampshire in this study were based on four global greenhouse gas concentration scenarios, called Representative Concentration Pathways (RCPs). In summary, if greenhouse gas concentrations stabilize by 2100, relative sea level in coastal New Hampshire is likely to rise by:

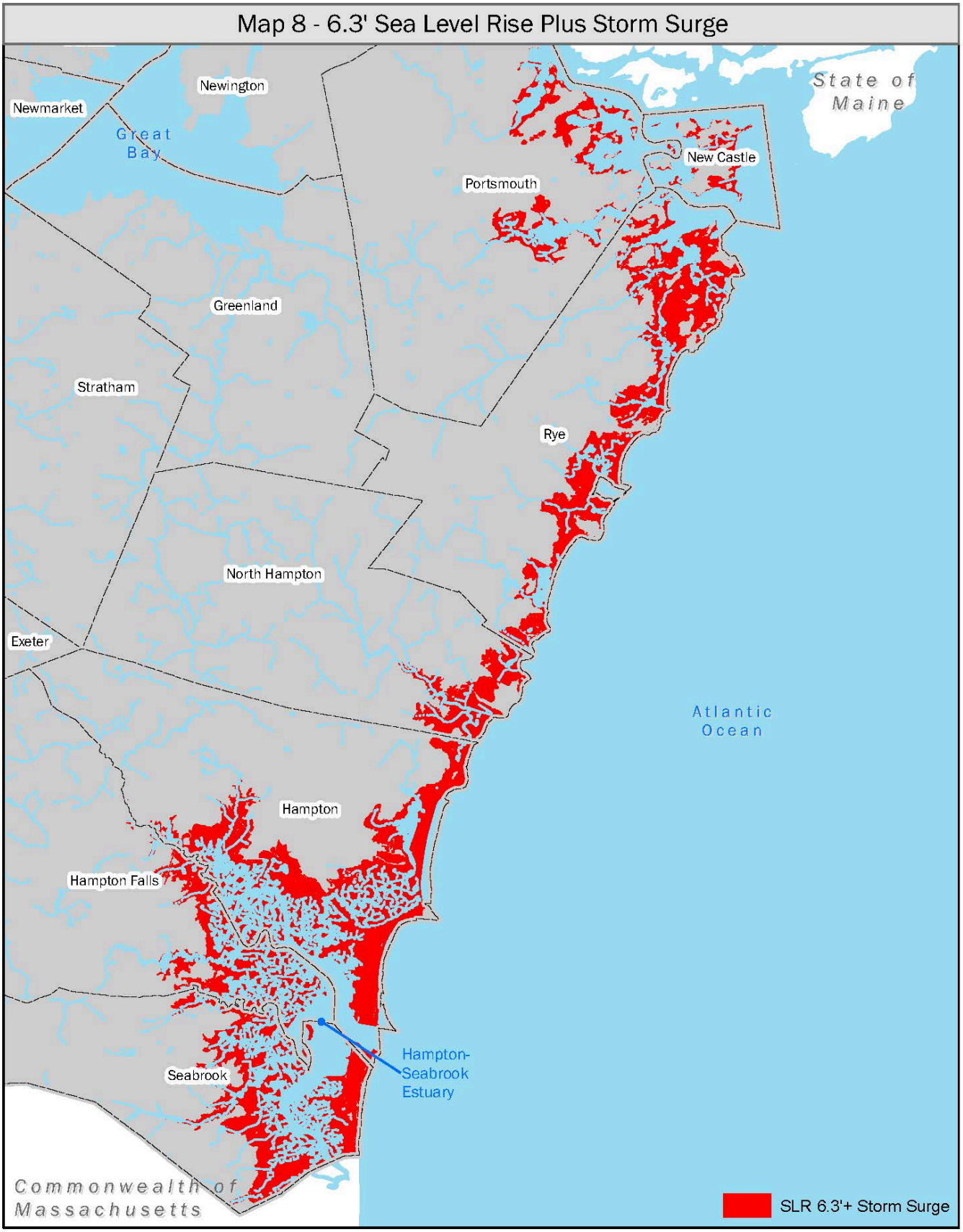
- 0.5 – 1.3 feet by 2050 (but could exceed 2.9 feet)
- 1.0 – 2.9 feet by 2100 (but could exceed 8.7 feet)
- 1.2 – 4.6 feet by 2150 (but could exceed 18.1 feet).

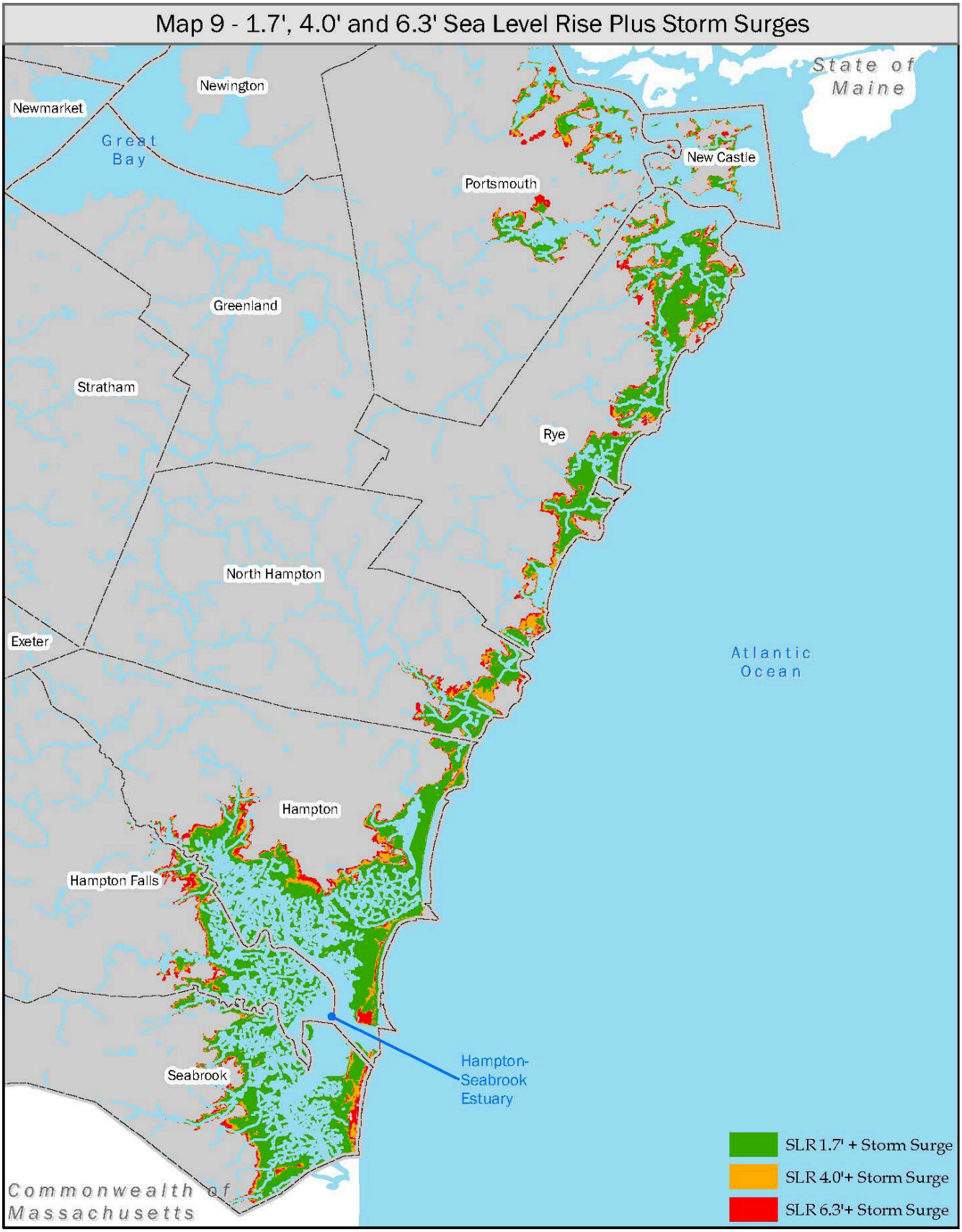
These estimates will be much higher if global greenhouse gas emissions do not stabilize and continue to grow through 2100 and the rate of ice mass loss for Antarctica accelerates. The extent of the sea level rise scenarios can be viewed with the New Hampshire Sea-Level Rise, Storm Surge, and Groundwater Rise Mapper. -

Map 6 - 1.7' Sea Level Rise Plus Storm Surge




Map 7 - 4.0' Sea Level Rise Plus Storm Surge
Newington
Newmarket
Great Bay
State of Maine
New Castle
Portsmouth
Greenland
Stratham
Rye
North Hampton
Exeter
Atlantic Ocean
Hampton
Hampton Falls
Hampton-Seabrook Estuary
Seabrook
Commonwealth of Massachusetts
SLR 4.0' + Storm Surge

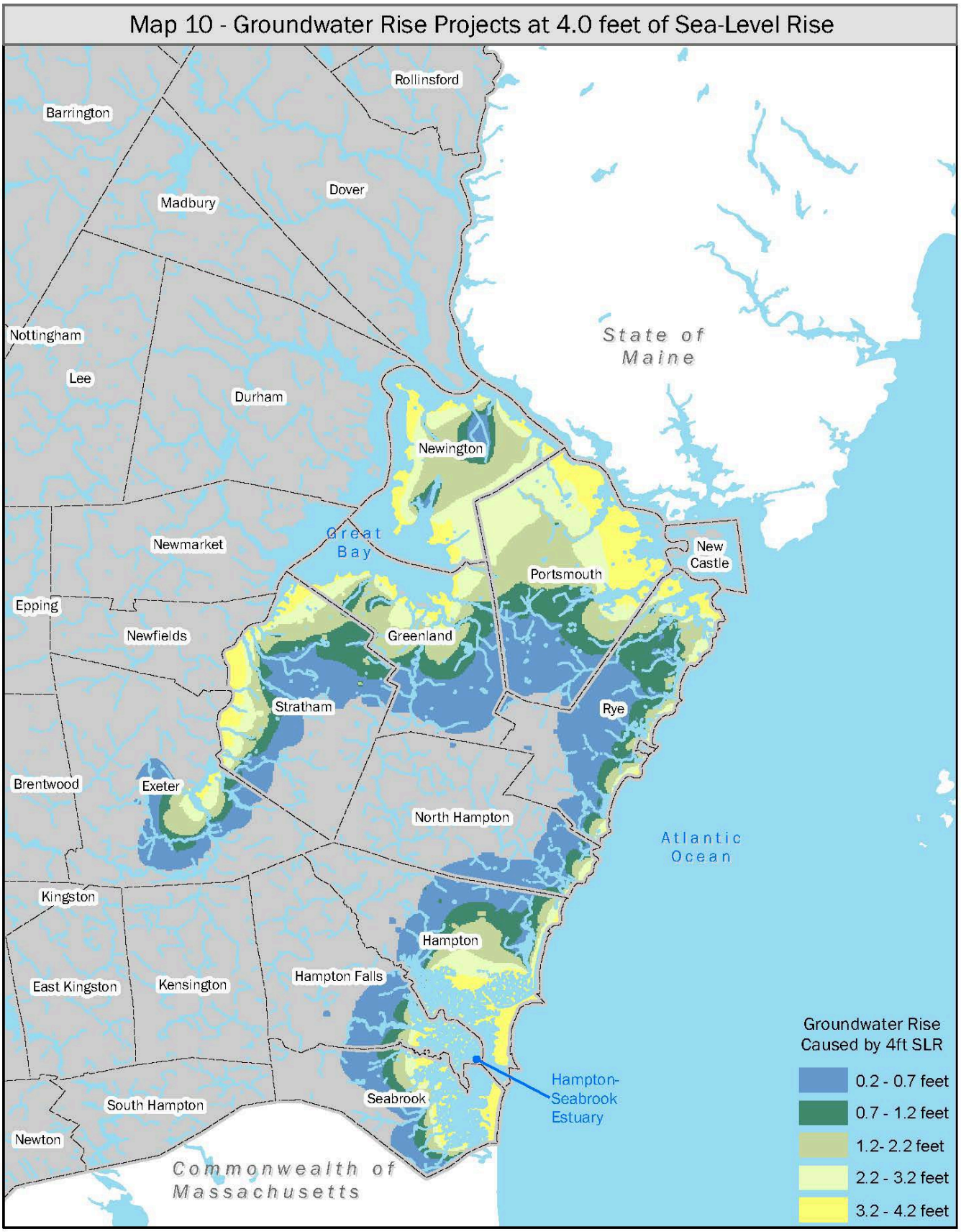

Map 8 - 6.3' Sea Level Rise Plus Storm Surge
Newington
Newmarket
Great Bay
State of Maine
New Castle
Portsmouth
Greenland
Stratham
Rye
North Hampton
Exeter
Atlantic Ocean
Hampton
Hampton Falls
Hampton-Seabrook Estuary
Seabrook
Commonwealth of Massachusetts
SLR 6.3'+ Storm Surge


Map 9 - 1.7', 4.0' and 6.3' Sea Level Rise Plus Storm Surges
State of Maine
Newington
Newmarket
Great Bay
New Castle
Portsmouth
Greenland
Stratham
Rye
North Hampton
Exeter
Atlantic Ocean
Hampton
Hampton Falls
Hampton-Seabrook Estuary
Seabrook
Commonwealth of Massachusetts
SLR 1.7' + Storm Surge
SLR 4.0'+ Storm Surge
SLR 6.3'+ Storm Surge

MAP 10: GROUNDWATER RISE PROJECTS AT 4.0 FEET OF SEA-LEVEL RISE

According to the 2019 New Hampshire Coastal Flood Risk Summary, Part I: Science, coastal groundwater will also rise with sea level rise, which will result in water-quality degradation, saltwater intrusion, streamflow increases, wetlands expansion, and degradation of infrastructure such as septic systems and roadways. Groundwater rise is projected to be highest at the coast with the largest magnitude and inland extent being seen in the northernmost communities in the Seacoast region. Groundwater rise then decreases with distance inland as depicted in Figure 1. Furthermore, Groundwater rise is projected to be 66% of RSLR between 0-0.6 miles from the coast, 34% between 0.6- 1.2 miles from the coast, 18% between 1.2-1.9 miles from the coast, 7% between 1.9-2.5 miles from the coast, and 3% between 2.5-3.1 miles of the coast. Use the New Hampshire Sea-Level Rise, Storm Surge, and Groundwater Rise Mapper to further visualize the extent of sea-level induced groundwater rise.

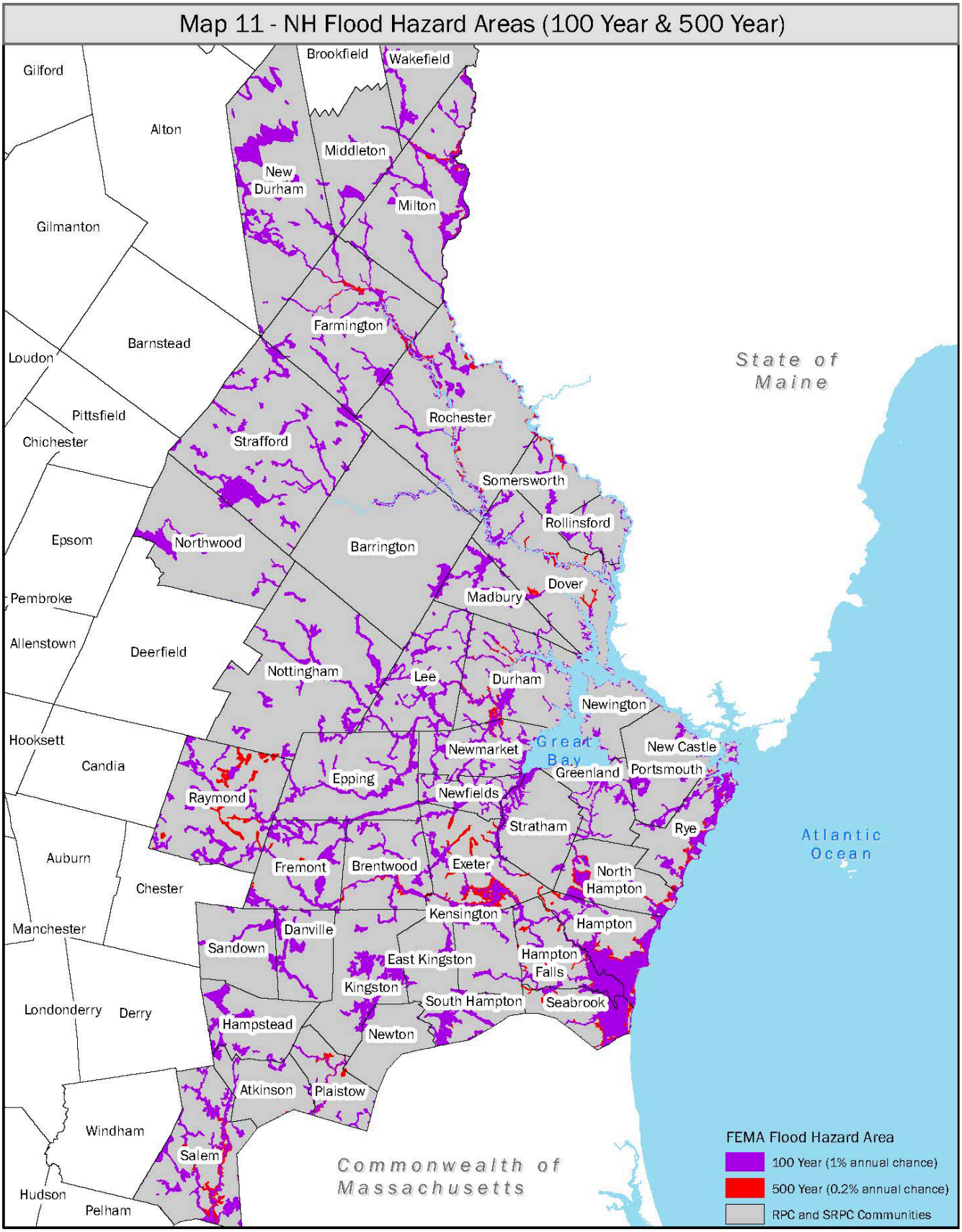
The reference map includes the projected groundwater rise caused by 4.0 feet of sea-level rise.


Map 10 - Groundwater Rise Projects at 4.0 feet of Sea-Level Rise
Rollinsford
Barrington
Dover
Madbury
Nottingham
Lee
Durham
State of Maine
Newington
Great Bay
Newmarket
New Castle
Portsmouth
Epping
Newfields
Greenland
Stratham
Rye
Brentwood
Exeter
North Hampton
Atlantic Ocean
Kingston
Hampton
East Kingston
Kensington
Hampton Falls
Hampton-Seabrook Estuary
Seabrook
South Hampton
Newton
Commonwealth of Massachusetts
Groundwater Rise Caused by 4ft SLR
0.2 - 0.7 feet
0.7 - 1.2 feet
1.2- 2.2 feet
2.2 - 3.2 feet
3.2 - 4.2 feet

MAP 11: NH FLOOD ZONES

FEMA flood zones are designated geographic areas according to varying levels of flood risk for the purposes of administering the National Flood Insurance Program and managing floodplain development. FEMA's flood zones are classified as either 100-year or 500-year floodplains. A 100-year flood, or base flood, describes a flooding event that has a 1% chance of occurring in any given year. The area that would be inundated by the base flood is called the Special Flood Hazard Area and is any zone that starts with 'A' or 'V' on the FEMA Flood Insurance Rate Maps (FIRM). These are high-risk flood zones. A 500-year flood event has a 0.2% chance of occurring in any given year and is labeled Zone C or X (unshaded) on the FIRM. The areas between the 100- and 500-year floodplain are moderate flood hazard areas, labeled Zone B or X (shaded) on FEMA's FIRMS. Any area above the 500-year flood level is defined as a minimal flood hazard area and labeled Zone C. The following map shows 100- and 500-year flood zones in coastal New Hampshire.

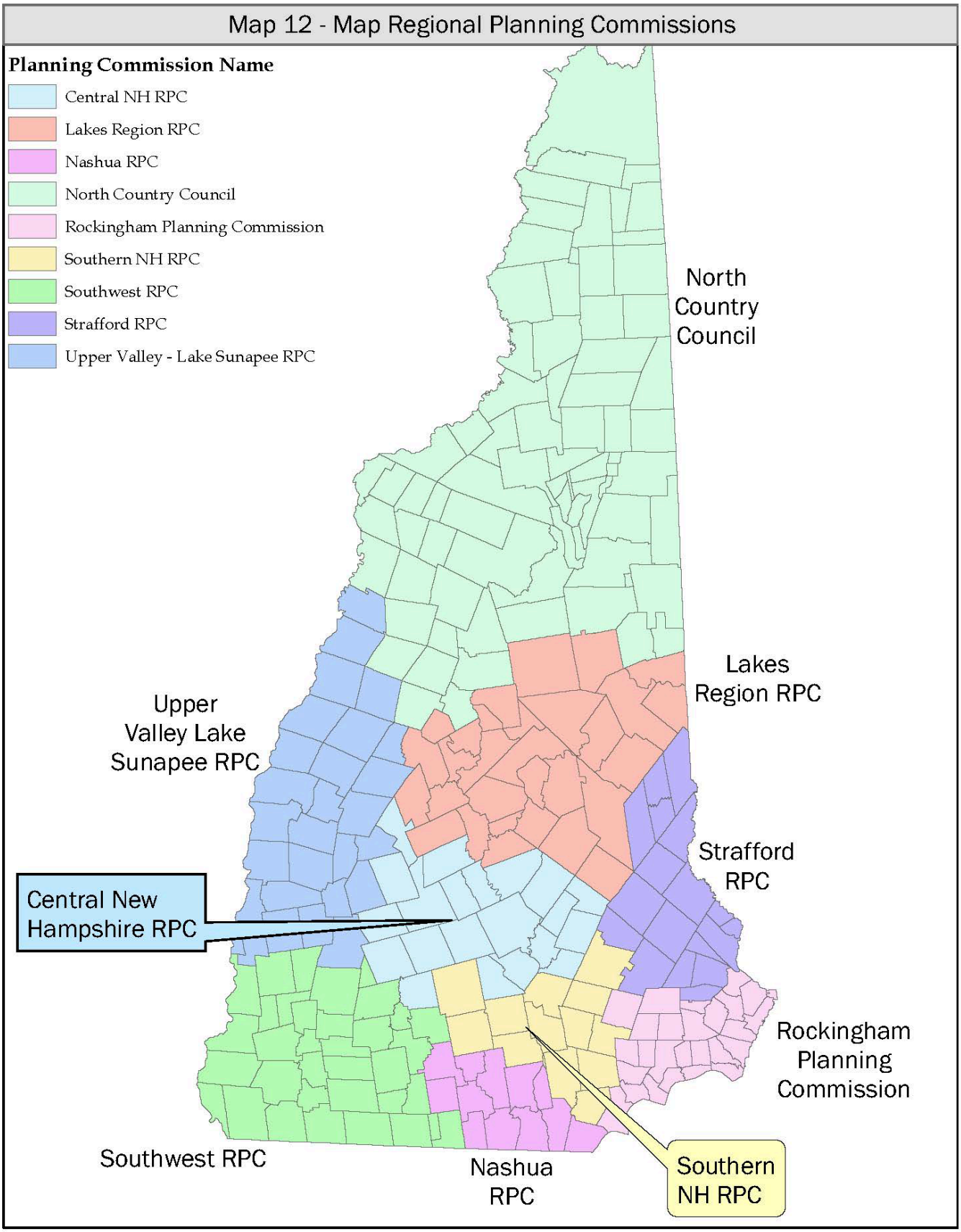
The FEMA Map Service Center can be used to find current, historic, preliminary (draft), and pending (future) FEMA Flood Insurance Rate Maps (FIRM) as well as the current Flood Insurance Studies (FIS), which can be viewed, downloaded, or printed. Additionally, floodplain mapping for all NH communities can be viewed using the NH Flood Hazards Viewer, developed by the NH Office of Planning & Economic Development.


Map 11 - NH Flood Hazard Areas (100 Year & 500 Year)
Gilford
Brookfield
Wakefield
Alton
Middleton
New Durham
Milton
Gilmanton
Farmington
Barnstead
Loudon
Pittsfield
Chichester
Strafford
Rochester
State of Maine
Somersworth
Rollinsford
Epsom
Northwood
Barrington
Dover
Pembroke
Madbury
Allenstown
Deerfield
Nottingham
Lee
Durham
Newington
Hooksett
Candia
Newmarket
Great Bay
New Castle
Greenland
Portsmouth
Epping
Raymond
Newfields
Stratham
Rye
Auburn
Fremont
Brentwood
Exeter
North Hampton
Chester
Kensington
Hampton
Manchester
Danville
Sandown
East Kingston
Hampton Falls
Kingston
South Hampton
Seabrook
Londonderry
Derry
Hampstead
Newton
Atkinson
Plaistow
Windham
Salem
Commonwealth of Massachusetts
Hudson
Pelham
Atlantic Ocean
FEMA Flood Hazard Area
100 Year (1% annual chance)
500 Year (0.2% annual chance)
RPC and SRPC Communities

MAP 12: NH REGIONAL PLANNING COMMISSIONS

New Hampshire's Regional Planning Commissions were formally established by the NH Legislature state enabling law in 1969 though the enactment of RSA 36. The statute specifies that regional planning commissions are advisory bodies voluntarily formed by the member communities in their planning regions. The primary role of a Regional Planning Commission is to provide support and technical assistance to its member communities in the areas of planning and community development. This includes but is not limited to assistance in developing local land use ordinances and providing support to municipal boards, assisting with the preparation of local master plans and hazard mitigation plans, and helping to secure funding for transportation and other infrastructure projects.

Map 12 - Map Regional Planning Commissions



MAP 13: ROCKINGHAM PLANNING COMMISSION REGION

The Rockingham Planning Commission (RPC) region was established in 1981 after the merging of two smaller regional planning commissions that had each been formed in the mid-1970s. The RPC provides technical planning assistance to twenty-six municipalities in the Southeast, twelve of which are in New Hampshire's designated coastal zone. The RPC is also the federally designated Metropolitan Transportation Planning Agency for the region, responsible for implementing federal and state transportation planning processes among its twenty-seven communities.

MAP 14: STRAFFORD REGIONAL PLANNING COMMISSION

The Strafford Regional Planning Commission provides technical planning assistance to 18 municipalities in Strafford, Carroll, and Rockingham Counties and is the federally designated Metropolitan Planning Organization for the region. Five of the Commission's communities fall within New Hampshire's coastal zone.

Map 13 – Rockingham Planning Commission Region

Map 14 – Strafford Regional Planning Commission Region