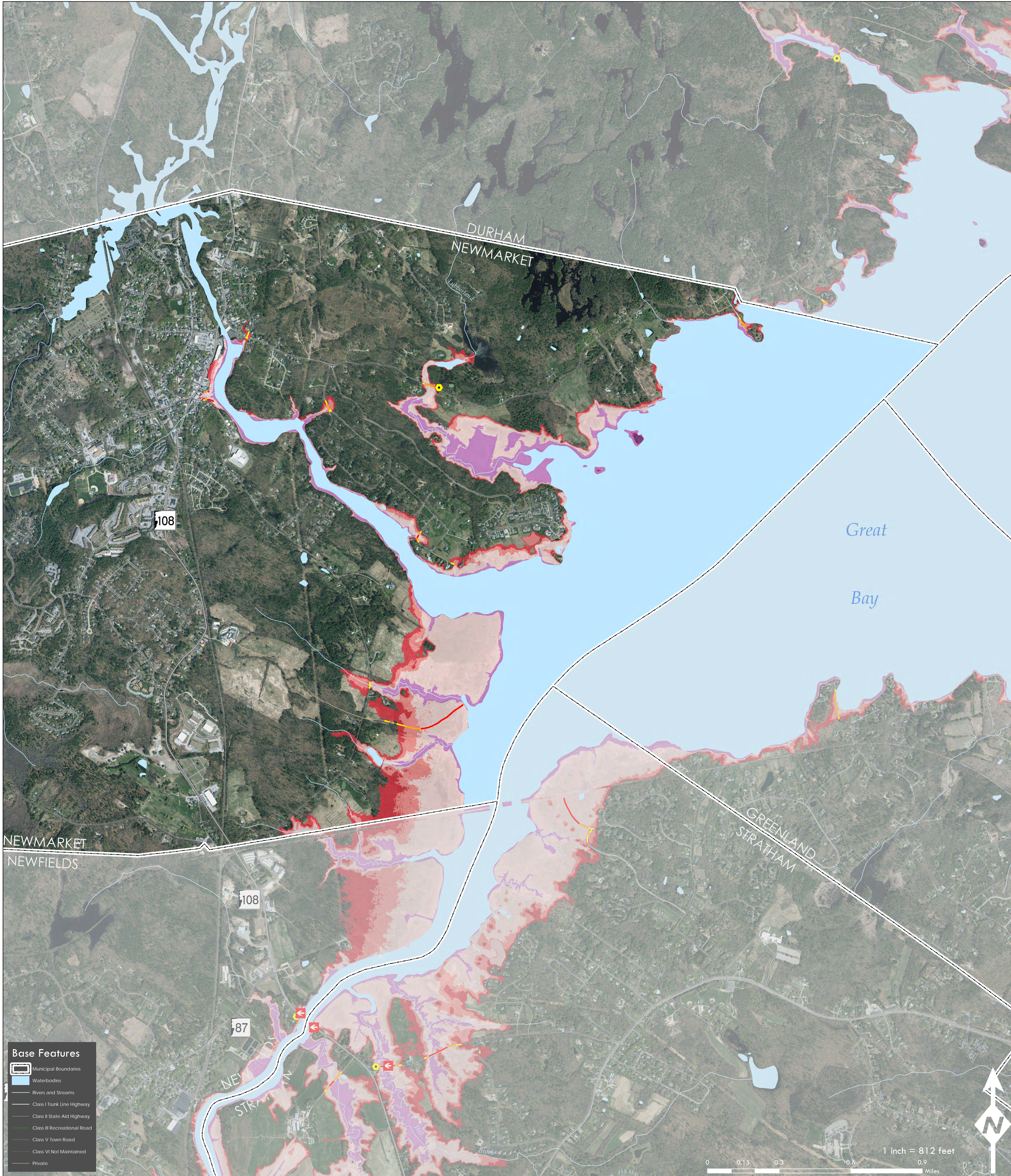




The Climate Risk in the Seacoast: Assessing Vulnerability of Municipal Assets and Resources to Climate Change (C-RiSe) project provides maps and assessments of flood impacts to infrastructure and natural resources in the coastal Great Bay region associated with projected increases in storm surge, sea level, and precipitation.

# TOWN OF NEWMARKET

## Map 6: Roads and Transportation Assets Sea-Level Rise + Storm Surge 1.7', 4.0', 6.3'



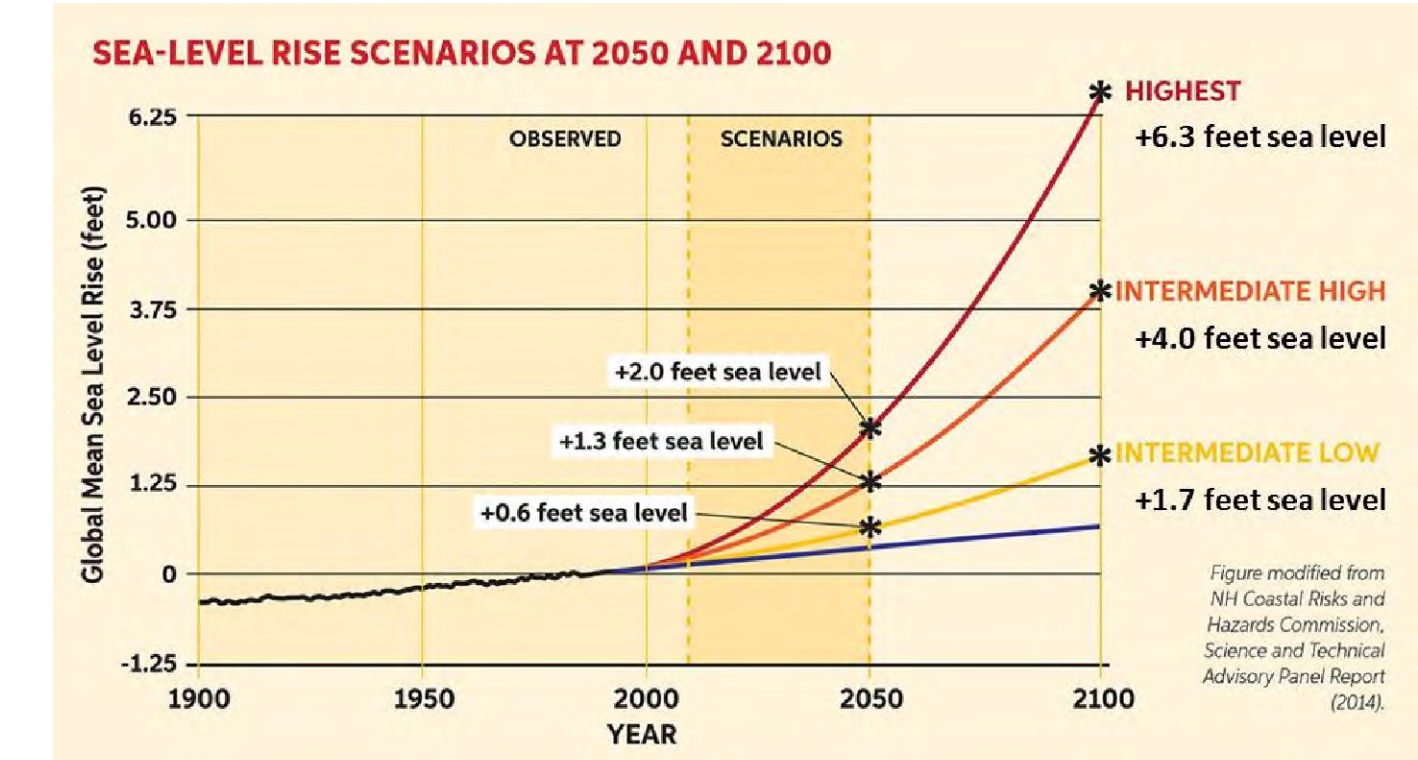
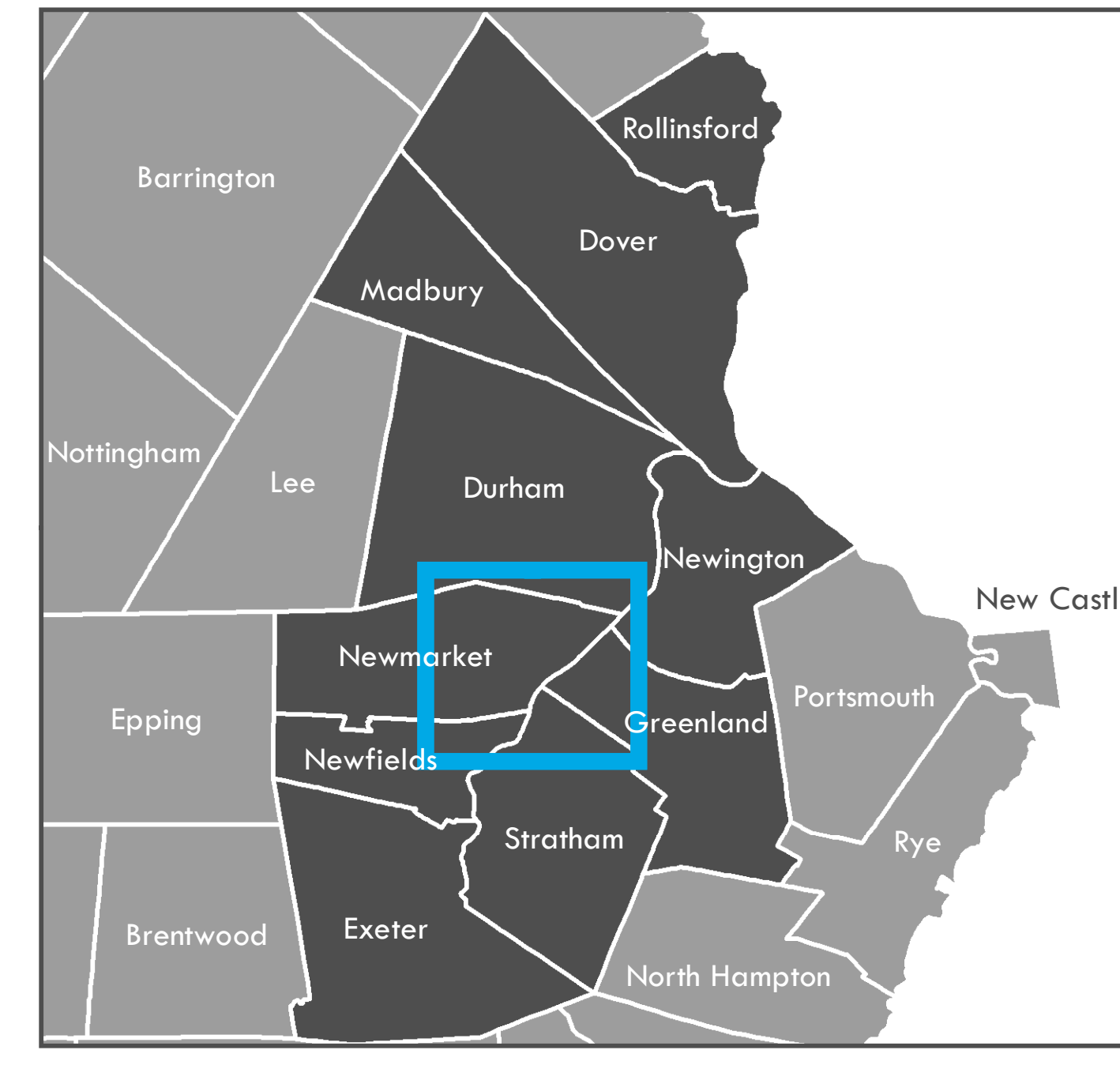
**SLR Legend**

- Extent of Sea-Level Rise of 1.7' with Storm Surge
- Extent of Sea-Level Rise of 4.0' with Storm Surge
- Extent of Sea-Level Rise of 6.3' with Storm Surge
- Approximate Mean High High Water Level

**Impact Legend**

- DOT Projects
- Evacuation Routes
- Roads Impacted by SLR of 1.7 Feet w/ Storm Surge
- Roads Impacted by SLR of 4.0 Feet w/ Storm Surge
- Roads Impacted by SLR of 6.3 Feet w/ Storm Surge

**Disclaimer:**  
NHDOT projects were derived from various sources within the New Hampshire Department of Transportation and may have been updated at different times and with varying levels of accuracy. Given redundancies and the need to provide meaningful maps for planning purposes, SRPC generalized projects according to vulnerable areas. A more comprehensive list of impacted projects can be viewed within the community's vulnerability assessment chapter.



**Sea-Level Rise Scenarios**  
Please note that the sea-level rise scenarios used in this assessment were derived from the Wake, 2011 report (refer to table of values below from this report). These scenarios were selected prior to the release of the Science and Technical Advisory Panel Report to the N.H. Coastal Risks & Hazards Commission, in August, 2014 [1]. While slightly different than the scenarios cited in that report, they yield coverage estimates that are within the mapping margin of error.

[1] Wake CP, Kintner P, Huber M, Knott K, and Stomporo M (2014) Sea-level Rise, Storm Surges, and Extreme Precipitation in Coastal New Hampshire: Analysis of Past and Projected Future Trends, prepared by the Science and Technical Advisory Panel (STAP) for the New Hampshire Coastal Risks and Hazards Commission.

**Base Features**

- Municipal Boundaries
- Waterbodies
- Rivers and Streams
- Class I Trunk Line Highway
- Class II State Aid Highway
- Class III Recreational Road
- Class V Town Road
- Class VI Not Maintained
- Private

**Road Asset Impacts: Town of Newmarket**

Road Name	Road Class	Miles Impacted	Road Name	Road Class	Miles Impacted
Boy Road	Local	0.07			
Boyville Road	Private	0.04			
Lamprey Street	Local	0.03			
Moody Point Drive	Local	0.05			
New Road	Local	0.02			
No Name	Private	0.33			
Smith Garrison Road	Local	0.05			
Stevens Drive	Local	0.01			
Treatment Plant Road	Local	0.04			
Water Street	Local	0.01			

**State & Municipal Roadways (miles)**

Roadway Type	Sea Level + Storm Surge Scenarios		
	1.7 Feet	4.0 Feet	6.3 Feet
State	0.00	0.00	0.00
Local	0.04	0.14	0.28
Private	0.20	0.30	0.38
Not Maintained	0.00	0.00	0.00
Total Road Miles	0.24	0.44	0.66

**Other Transportation Asset Impacts: Town of Newmarket**

Impacted Asset	Metric	Metric Impact	General Location and Name
Urban Compact Areas	Acres	0	N/A
Evacuation Routes	#	0	N/A
Bridges	#	0	N/A
Airports	#	0	N/A
NHDOT Projects	#	1	Boy Road repair
Climate Ready Culverts	#	1	Boy Road over Luberland Creek

**Table 43. Estimate (in feet) of future 100-year flood stillwater elevations at Fort Point under lower and higher emission scenarios (relative to NAVD83) based on the statistical analysis presented in this report.**

	2050		2100	
	Lower	Higher	Lower	Higher
Current Elevation of MHHW <sup>a,b</sup>	4.4	4.4	4.4	4.4
100-Year Flood Height	6.8	6.8	6.8	6.8
Subsidence	0.0	0.0	0.0	0.0
Elastic SLR	1.0	1.7	2.5	6.3
Total Stillwater Elevation <sup>c,c</sup>	12.2	12.9	13.7	17.5

a - NAVD: North American Vertical Datum of 1988  
b - MHHW: Mean Higher High Water at Fort Point, NH  
c - Total Stillwater Elevation may not equal total of components due to rounding

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Path: M:\Region\Project\_Special\_Merit\Mapping\Final\_Maps\_By\_Community\Newmarket\Newmarket\_Transportation\_4\_6.mxd

Data Sources:  
Data sets were retrieved from the NH GRANIT database, December, 2015. Digital data in NH GRANIT represent the efforts of the contributing agencies to record information from the cited source materials. Earth Systems Research Center (ESRC), under contract to the Office of Energy & Planning (OEP), and in consultation with cooperating agencies, maintains a continuing program to identify and correct errors in these data. Neither OEP nor ESRC make any claim as to the validity or reliability or to any

The C-RiSe project is funded by the National Oceanic and Atmospheric Administration under the Coastal Zone Management Act (CZMA) Enhancement Program. Project of Special Merit for FY 2015, authorized under Section 309 of the CZMA (16 U.S.C. § 1456b).

Note: Total miles impacted per road were calculated using the greatest sea-level scenario (6.3') extent + storm surge.

Note: Total number of impacted assets were calculated using the greatest sea-level scenario (6.3') extent + storm surge.