



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

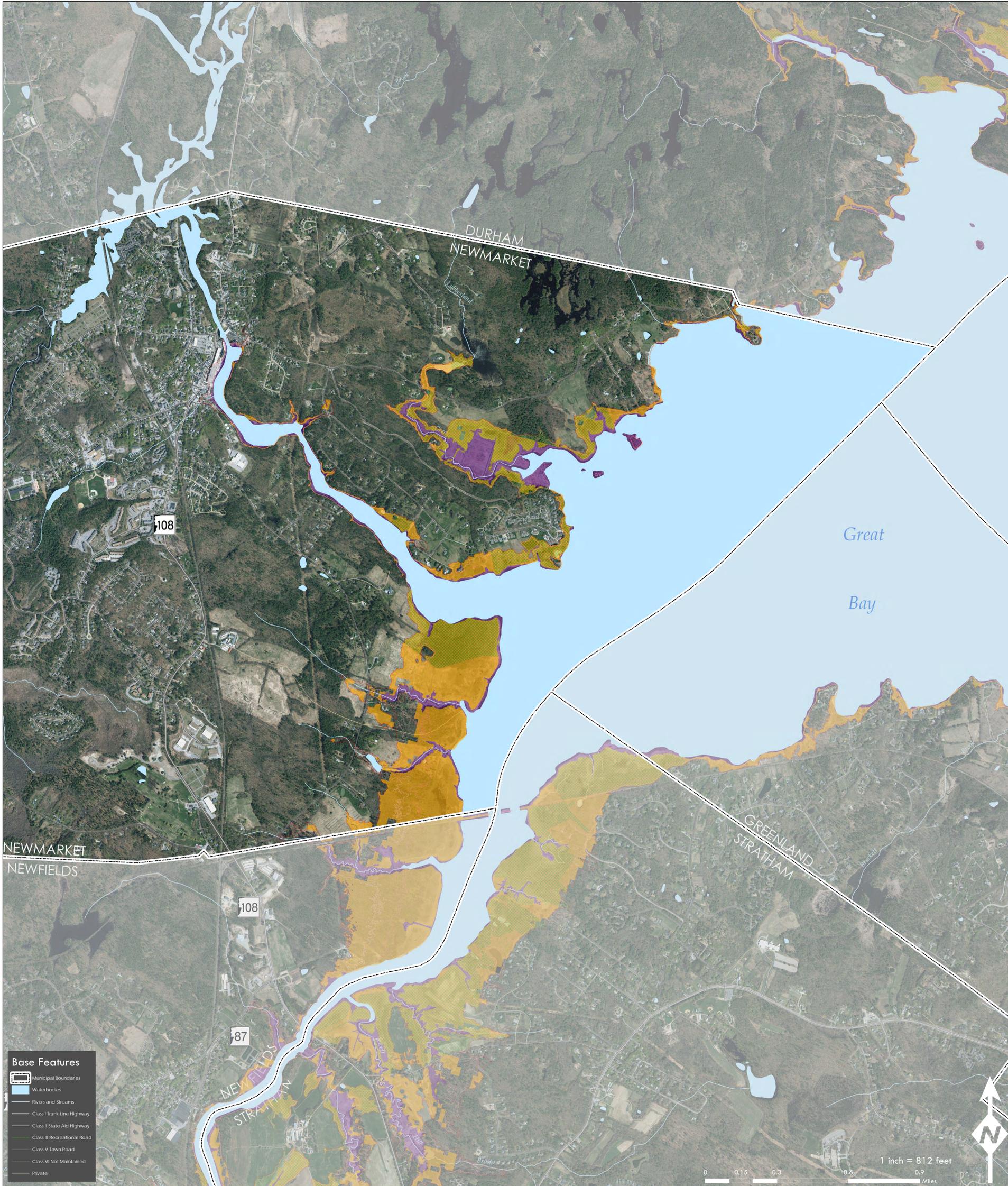
Map 8: Land Resources
Sea-Level Rise + Storm Surge 1.7', 4.0', 6.3'

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

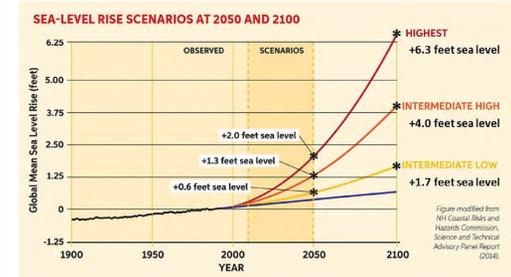
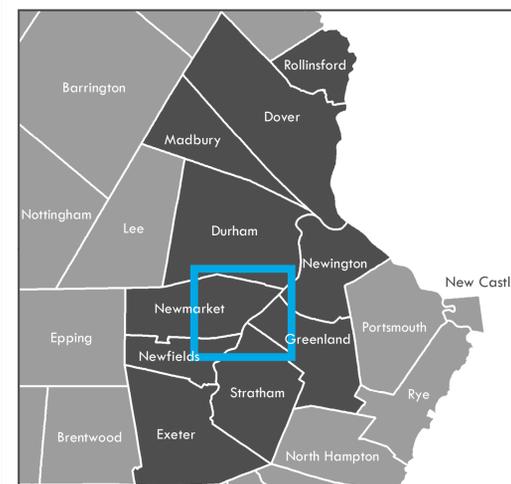
Impact Legend

- Conservation Lands (2015)
- Wildlife Action Plan Tiers 1,2,3 (2015)



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



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.

	2050		2100	
	Lower	Higher	Lower	Higher
Current Elevation of MHHW ^{a,b}	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^{c,c}	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

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.

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Date: 12/15/2016 Author: MS/PP/JL/KP
Path: M:\Region\Project_Special_Merit\Mapping\Final_Maps_By_Community\Newmarket\Newmarket_LandRes_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), in 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 implied uses of these data.

Land Resource Impacts: Town of Newmarket (acres)

Resource Type	Name	Sea Level + Storm Surge Scenarios			Resource Type	Name	Sea Level + Storm Surge Scenarios		
		1.7 feet	4.0 feet	6.3 feet			1.7 feet	4.0 feet	6.3 feet
Conservation Lands	Billeter	1.69	1.86	2.00	Conservation Lands	Pitman	0.24	0.57	0.87
	Common Open Space	0.00	0.86	1.72		Popov Waterfront	0.24	0.52	0.98
	Continental Advisors	0.02	0.16	0.31		Sandy Point	0.00	0.09	0.27
	Crommet & Lubberland Creek	18.93	22.62	26.00		TNC/Atherton	0.01	0.07	0.22
	Heron Point Open Space	0.26	0.50	0.97	Wildlife Action Plan	Tier 1	168.10	199.76	226.55
	Lamprey River Shorebank Access	0.04	0.08	0.11		Tier 2	3.60	9.54	17.56
	Levy Easement/Fee	32.40	35.94	38.88		Tier 3	2.39	11.22	21.89
	Moody Point Open Space	20.94	27.18	31.72					
	Palmisciano-Ahlgren	1.20	2.04	2.45					
	Pearson Easement	6.93	8.18	9.42					

Land Resource Totals (acres)

Resource Type	Sea Level + Storm Surge Scenarios		
	1.7 feet	4.0 feet	6.3 feet
Conservation Lands	82.90	100.67	115.92
Wildlife Action Plan	174.09	220.52	266.00
Total(s) Combined	256.99	321.19	381.92