Falmouth Climate Change Vulnerability Assessment and Adaptation Planning

Final Report

January 2020

PREPARED FOR:
Town of Falmouth
59 Town Hall Square
Falmouth, MA 02540

PREPARED BY:
Woods Hole Group, Inc.
A CLS Company
107 Waterhouse Road
Bourne, MA 02532 USA

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1.0 INTRODUCTION

With almost 70 miles of shoreline along Buzzards Bay and Vineyard Sound and a large percentage of its land area at low elevations, the Town of Falmouth is particularly vulnerable to sea-level rise. In addition, there are a number of large salt-marsh dominated estuaries along Buzzards Bay, as well as a series of estuarine coastal ponds stretching north-south from Vineyard Sound, which are subject to tidal action and the effects of storm surge and flooding. The areas of Falmouth that are vulnerable to flooding contain public infrastructure and facilities, commercial development and residential communities that can be adversely impacted by flooding.

An analysis of insurance claims between 1978 and 2013, as presented in the Massachusetts State Hazard Mitigation Plan, indicates that there were 639 flood insurance claims in the Town of Falmouth for a total value of $9.1 million. Thirty-three of these were repetitive loss claims – the highest number in Barnstable County. Due to the low-lying nature of many densely developed areas of Falmouth, rising sea levels and increased storm frequencies and intensities associated with climate change will only increase the potential for flooding and storm damages in the Town.

Not surprisingly given the Town's geography, the recent MVP Planning Workshop held in March 2018 identified coastal flooding and sea-level rise as the top natural hazards for the Town of Falmouth. To better understand the actual risk to municipal assets from flooding today and in the future given climate change and sea-level rise impacts, the Town of Falmouth commissioned this detailed climate change flood vulnerability assessment.

This project has four primary goals:

1) Identify areas of Falmouth that are vulnerable to the combined effects of sea-level rise and storm surge during extreme storm events;
2) Assess the vulnerability of municipally-owned infrastructure and natural resources;
3) Identify adaptation strategies that will help to mitigate the long-term effects of sea-level rise and storm surge; and
4) Educate the public and town officials about the potential impacts.

1.1 PROJECT TEAM

The Town of Falmouth contracted Woods Hole Group to conduct the climate change flood vulnerability assessment and adaptation planning project. The consultant team's primary members included:

- Elise Leduc, Project Manager and Natural Resources Modeling Lead
- Kirk Bosma, Inundation Modeling Lead
- Joe Famely, Technical Support
- Brittany Hoffnagle, GIS Support

To ensure that local knowledge and asset specific details were incorporated into the study, Woods Hole Group staff worked closely with a Town Steering Committee throughout the analysis. Members of the Steering Committee are listed in Table 1-1.

Table 1-1. Steering Committee Members

Name	Title
Andrew Aston	Coastal Resiliency Action Committee Member
Thomas Bott	Town Planner
Paul Dreyer	Planning Board Member/Coastal Resiliency Action Committee Member
Gregg Fraser	Director of Marine and Environmental Services
Melissa Freitag	Coastal Resiliency Action Committee Vice Chair
Peter Johnson-Staub	Assistant Town Manager
Amy Lowell	Wastewater Superintendent
Brendan Lynch	Conservation Agent
Jamie Mathews	Conservation Commission Member/Coastal Resiliency Action Committee Member
Charles McCaffrey	Coastal Resiliency Action Committee Chair
Peter McConarty	Deputy Director of Public Works
Jennifer McKay	Conservation Administrator
Jim McLoughlin	Town Engineer
Bruce Mogardo	Beach Superintendent
Pat Murphy	Falmouth Public Schools Director of Finance and Operations
Shardell Newtown	Facilities Manager
Joe Olenick	Recreation Director
Rod Palmer	Building Commissioner and Zoning Enforcement Officer
Stephen Rafferty	Water Superintendent
Brian Reid	Police Captain
Edward Schmitt	Coastal Resiliency Action Committee Alternate
Bob Shea	GIS Coordinator
Kim Strohm	Assistant Emergency Management Director
Julian Suso	Town Manager
Jennifer Woodward	Assistant Library Director

1.2 PUBLIC OUTREACH

As noted above, one of the primary goals of the project was to raise public awareness of both the escalating flood risks posed by sea-level rise and storm surge, as well as the strategies available to the Town to adapt to these changes over time. Public outreach events were scheduled at each project milestone to keep the public and the Town officials abreast of the latest findings, gather input at crucial junctures, and facilitate active engagement over the lifetime of the project. At these events, Woods Hole Group presented information on climate change, flood modeling, the vulnerability and risk of Falmouth's municipal infrastructure and natural resources, and adaptation options and costs. The following is a list of the public outreach events organized as part of the project:

Steering Committee Meetings:

- November 1, 2018 (Phase I: Study Parameters)
- February 7, 2019 (Phase II: Vulnerability Assessment)
- June 4, 2019 (Phase II: Vulnerability Assessment)
- August 14, 2019 (Phase III: Adaptation)
- September 23, 2019 (Phase III: Adaptation)

Board of Selectmen Presentations:

- December 3, 2018 (Phase I: Study Parameters)
- July 8, 2019 (Phase II: Vulnerability Assessment)
- November 25, 2019 (Phase III: Adaptation)

Coastal Resiliency Action Committee Presentations:

- November 6, 2018 (Phase I: Study Parameters)

Other Public Meetings:

- October 29, 2019 (Public presentation and workshop)

1.3 ACKNOWLEDGEMENTS

The Town would like to thank the contribution of the Massachusetts Department of Transportation under the direction of Steven Miller, Project Manager, and the Federal Highway Administration related to the modeling associated with the Boston Harbor Flood Risk Model (BH-FRM). The methodology from the BH-FRM was utilized as the basis for the development of the Massachusetts Coastal Flood Risk Model (MC-FRM), which was used for this Study.

1.4 PROJECT NEED

The impetus for this assessment was the widespread consensus that climate change, caused by both natural and anthropogenic changes, has accelerated over the past century. Natural climate changes can result from any alteration in the balance between the solar radiation entering the Earth's atmosphere and the re-radiated heat leaving the atmosphere, as shown in the United States Department of the Interior illustration below (Figure 1-1, NPS, 2019).

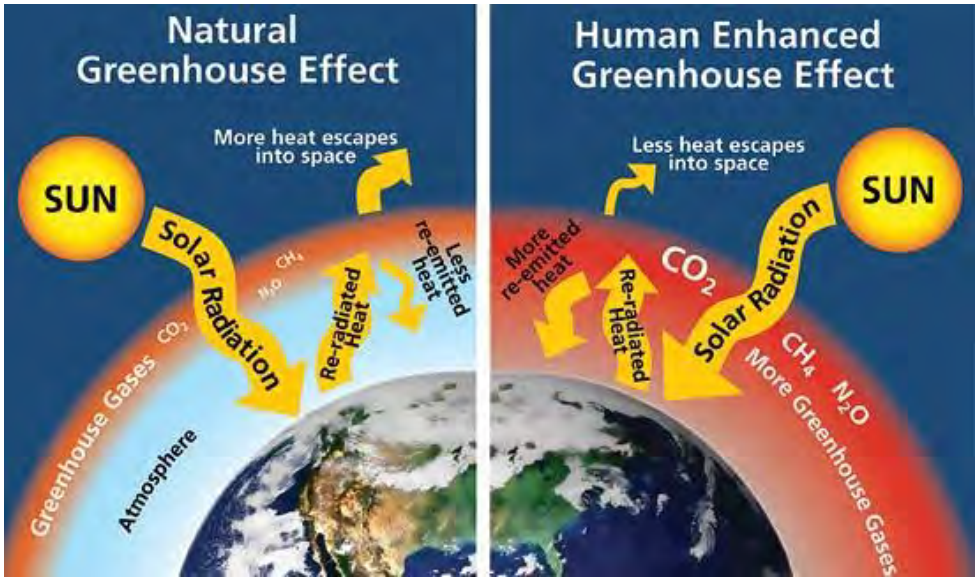


Figure 1-1. Natural versus anthropogenic climate changes (from NPS, 2019).

Historically, changes in the Earth's climate have been due to natural causes, including changes in solar energy, volcanic eruptions, and natural changes in greenhouse gas (GHG) concentrations. GHGs, which include water vapor (H2O), carbon dioxide (CO2), and methane (CH4), slow or prevent the loss of heat through the Earth's atmosphere. Therefore, GHGs essentially act like a blanket, making Earth warmer than it would otherwise be in a process commonly referred to as the "greenhouse effect."

Throughout Earth's history, the climate has experienced a number of natural shifts over time. Currently, however, there is growing scientific consensus that the recent documented increase in atmospheric GHG concentration is due to human activity. Anthropogenic climate change is caused by carbon dioxide, methane, nitrous oxide, and other greenhouse gases that are produced by automobiles, buildings, airplanes, factories, power plants, and other sources. The majority of the energy fueling these machines comes from non-renewable energy sources such as oil, natural gas, and coal, known as "fossil fuels." Due to their extremely high energy content, fossil fuels have served as one of the main driving forces behind industrialization, population growth, and economic development. Using these fossil fuels, however, results in increased GHG concentrations in our atmosphere. In fact, an exponential "spike" in GHG emissions occurred during the 1800-1900's (industrial revolution), as illustrated in Figure 1-2 (NOAA, 2019). The 1,000-year record of carbon dioxide concentrations used to produce this graph came from the analysis of carbon dioxide concentrations measured from ancient air bubbles trapped in ice

extracted from ice cores. Throughout this 1,000-year record, the concentration of carbon dioxide never exceeded 290 parts per million (ppm); in fact, although not graphed, the concentrations have not exceeded 300pm in the last 800,000 years. By 2008, the atmospheric carbon dioxide had reached an unprecedented concentration: almost 400ppm, approximately a 33% increase from the long-term maximum concentration. Monthly concentrations have been monitored from the Mauna Loa Observatory in Hawaii since 1958. The October 2019 concentration of carbon dioxide was 408.5ppm (NOAA, 2019).

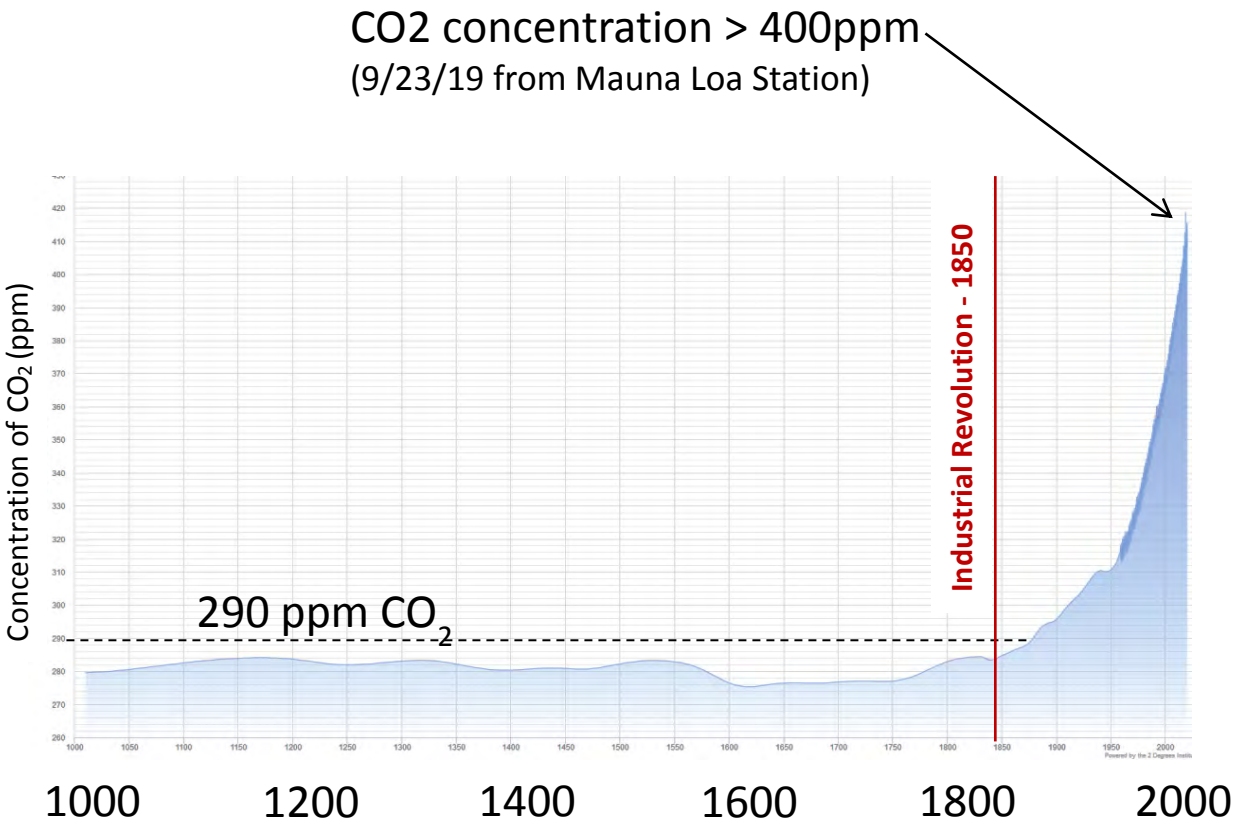


Figure 1-2. Carbon dioxide concentrations over time.

Data such as this have resulted in a general consensus within the scientific community that anthropogenic GHG emissions are causing major changes to the Earth's climate. In response, the Intergovernmental Panel on Climate Change (IPCC) has compiled their latest findings in the fifth assessment report (AR5) (IPCC, 2014). This report utilizes a new approach to climate change forecasting based on different Representative Concentration Pathways (RCPs). RCPs are based on different assumptions of about how concentrations of GHGs resulting from human activities will change in the future. RCPs also include assumption about human population growth, alternative sources of energy, and changes in land use. The four RCP scenarios are:

1) RCP 8.5 – Highest Emissions – This assumes a no policy changes in the future to reduce emissions, resulting in a continued increase of GHG emissions and high GHG concentrations in the atmosphere over time; this is essentially the worst-case scenario. The RCP 8.5 scenario includes:
   - A tripling of today's CO_2 emissions by 2100,
   - CO_2 concentrations continue to accelerate, reaching 950ppm by 2100 and continuing to increase into the following century,
   - Global population of 12 billion by 2100,
   - Use of both croplands and grasslands increases, and
   - Continued heavy reliance on fossil fuels.

2) RCP 6 – Intermediate High Emissions - Stabilization of radiative forcing shortly after year 2100, via the application of a range of energy efficiency technologies and strategies that reduce greenhouse gas emissions. The RCP 6 scenario includes:
   - CO_2 emissions almost double from today's levels, peaking in 2060, then dramatically fall, but stay above today's levels,
   - CO_2 concentrations continue to increase, albeit at a slower rate, reaching 620ppm by 2100,
   - Strong reliance on fossil fuels remains, and
   - Cropland use continues on trend, while use of grasslands is reduced.

3) RCP 4.5 – Intermediate Low Emissions - Stabilization of radiative forcing shortly after year 2100, consistent with a future with relatively ambitious emissions reductions. The RCP 4.5 scenario includes:
   - CO_2 emissions increase slightly from 2008 levels before declining in mid-century,
   - CO_2 concentrations continue to increase at current rates to approximately 520ppm in 2070, then continue to increase but more slowly,
   - Moderate population and economic growth,
   - Stringent climate policies and strong reforestation programs,
   - Nuclear power and renewable energy play a greater role, and
   - Decreasing use of croplands and grasslands.

4) RCP 2.6 – Lowest Emissions - Ambitious GHG emissions reductions would require a major turnaround in global climate policies; this is essentially a best-case scenario. The RCP 2.6 scenario includes:
   - CO_2 emissions peak by 2020, then decline through 2100,
   - CO_2 concentrations at 440ppm in the atmosphere peak by mid-century (circa 2050), then slowly decline through 2100,
   - Oil use declines,
   - Global population peaks midcentury at just over 9 billion, and
   - Croplands are more regularly used for bio-energy production.

In light of these global climate projections, in 2016 the governor of Massachusetts issued an Executive Order (No. 569) establishing an integrated climate change strategy for the Commonwealth. This Executive Order recognizes that climate change presents a serious threat to the environment and the Commonwealth's residents, communities, and economy; and that extreme weather events associated with climate change present a serious threat to public safety, and the lives and property of our residents. The order also launched the Municipal Vulnerability Preparedness (MVP) Program[1], the State Hazard Mitigation and Climate Adaptation Plan, and resilient MA, a climate change clearing house of data for the state.

[1] The Town of Falmouth completed their MVP Planning workshop on March 24, 2018, and is now an MVP Certified Community.

2.0 ASSESSMENT INPUTS AND METHODS

A series of analyses was conducted to determine the vulnerabilities of natural resources, high-risk developed areas, and municipal assets (Town-owned infrastructure and facilities). Different analyses were required to understand vulnerabilities of varying types of resources, from large salt marsh areas to site-specific properties and structures. First, coastal inundation modeling was conducted to determine which areas of the Town would likely be exposed to coastal flooding in the near- and longer-term future. A slightly different ecological assessment and modeling effort was undertaken to determine vulnerabilities and potential future changes of natural resources. Finally, a risk assessment methodology was utilized to generate risk scores for each asset and assist the Town with prioritization of capital fund projects. These targeted analyses are described within the following sections.

2.1 COASTAL INUNDATION MODELING

One of the most important inputs when considering the flood risk of a particular area or a specific facility is detailed and accurate inundation modeling. In essence, one must determine what the likelihood of flooding is at any particular location and at what depth will that flooding occur given a specific storm intensity. This section provides background on the inundation model used for this analysis, the sea-level rise projections it incorporated and what planning horizons were selected.

2.1.1 Massachusetts Coast Flood Risk Model (MC-FRM)

The hydrodynamic modeling utilized for this study simulates a full suite of processes that affect coastal water levels, including tides, waves, winds, storm surge, sea level rise, and wave set-up at a fine enough resolution to identify site-specific locations that may require adaptation alternatives. Water surface elevations were modeled using the ADvanced CIRCulation (ADCIRC) software to predict storm surge flooding coupled with the Simulated WAves Nearshore (SWAN) software, a wave generation and transformation model. This modeling was performed as part of the Massachusetts Coast Flood Risk Model (MC-FRM), which was developed for the Massachusetts Department of Transportation (MassDOT) to assess potential flooding vulnerabilities to highways and other transportation infrastructure throughout the state of Massachusetts. Since the MC-FRM domain includes the entire Massachusetts coastal area, including the Town of Falmouth, this model is ideally suited to assess the vulnerability and risk of coastal flooding to Falmouth's infrastructure and natural resources. Using this existing model is beneficial to the Town of Falmouth since much of the upfront work and cost in developing the model was already conducted as part of the MassDOT project.

The spatial resolution of the model is 10 meters or less between nodal points, and sometimes as low as 2-3 meters to capture important changes in topography and physical processes related to storm dynamics. This high-resolution model offers more accuracy than other storm surge models, such as the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model developed by the U.S. Army Corps of Engineers (USACE) and the National Oceanic and Atmospheric Administration (NOAA). The MC-FRM is also superior to a more rudimentary

"bathtub" approach, since the latter does not account for critical physical processes that occur during a storm event, including waves and winds, nor can it determine the limited volume of water that may be able to enter certain areas, particularly those with narrow entry points.

The model quantitatively incorporates climate change influences on sea level rise, tides, waves, storm track, and storm intensity for 2030, 2050, 2070, and 2100 time horizons, providing discrete risk estimates at various time horizons to assist with both near- and long-term planning. To do so, it evaluates a statistically-robust sample of storms, including hurricanes, tropical storms and nor'easters, based on the region's existing and evolving climatology. Using this storm set, the model then calculates resulting water surface elevations to estimate the probability that various flood depths will be exceeded at each nodal point within the model boundary. The resulting flood risk maps and probability curves can then be interpreted using geographic information systems (GIS) to identify the estimated annual probability, or likelihood, that any node within the model will experience flooding, and if so, up to what elevation.

The probability-based approach of MC-FRM is beneficial to the Town when assessing the vulnerability of and risk to infrastructure and when developing adaptation strategies to mitigate future flooding damage. It will also produce information that can be used to inform engineering design criteria since it provides the probability of an event occurring in this changing regime, such as the "new" 1% event flood levels (equivalent to a 100-year recurrence water level). In particular, the accurate and precise assessment of the exceedance probability of combined SLR and storm surge helps Town managers and decision makers identify areas of existing and near-term vulnerability requiring immediate action in Falmouth, as well as areas that will benefit from long-range planning for future preparedness and risk reduction.

2.1.2 Sea-level rise scenarios

It should be noted that the science of translating climate risks into design criteria is a new and evolving practice, involving uncertainty and variability in future greenhouse gas emissions pathways, as well as in the downscaling of global climate projections for local applications. The Commonwealth of Massachusetts has developed projections (temperature, precipitation, sea level rise) based on a range of medium to high greenhouse gas emissions scenarios (RCP4.5 to RCP8.5), which are inherently variable (Figure 2-1), and has made them available on the Massachusetts Climate Change Clearinghouse (resilient MA) for use by communities in the MVP program.

The projections utilized in this study are aligned with the state standards, which have adopted a probabilistic approach to local sea level rise and storm surge projections. The Commonwealth has developed probabilistic local SLR projections downscaled from global models and adjusted for local landform subsidence. While there is variability in these projections, there is a high degree of confidence in the protectiveness of each projection given the associated emissions scenarios and embedded assumptions therein. The science of climate change is an evolving field that is constantly being updated and is inherently variable in nature. As such, projections made within this report provide guidelines for investment decisions based on the current state

of the practice and knowledge to date. The flood level predictions made in this report are based on some of the most recent developments in the science of climate change but are not guaranteed predictions of future events. It is recommended that these results be updated over time as science, data and modeling techniques advance. Additionally, a full review of facility drawings, materials testing, or analyses of a structure's ability to withstand the projected hydrostatic forces due to flooding was not completed for this study. Therefore, the findings include certain assumptions based on reasonable engineering judgment as to the ability of buildings and facilities to resist the projected hydrostatic forces due to flooding. These assumptions will require additional verification and customization during the design phase of individual projects.

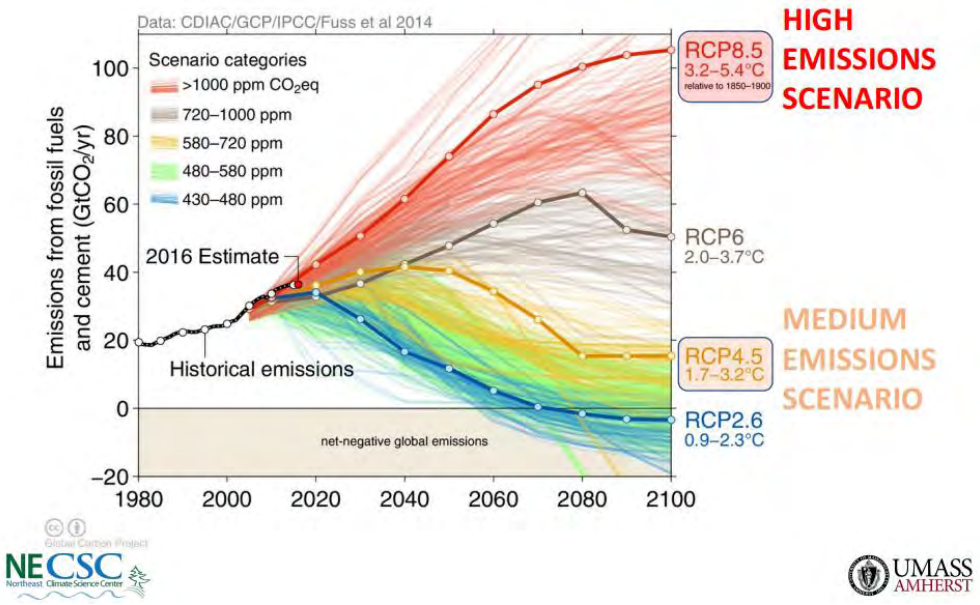


Figure 2-1. Global emissions scenarios used in resilientMA projections (from Fuss et al, 2014).

The relative sea-level rise (RSLR) projections used in the MC-FRM represent the most up-to-date RSLR projections for the Massachusetts coastline (Douglas et al., 2016), drawing on long-term water level datasets from a series of tide gages around the state. For Falmouth, RSLR was estimated using the local NOAA tidal gage at Woods Hole (station ID 8447930), which has recorded an increase in relative mean sea level of 2.86 mm (+/- 0.17 mm) annually based on monthly mean sea level data from 1932 to 2017 (Figure 2-2). This equates to approximately 9.5 inches of mean sea-level rise over the last 85 years. Over that same time period, the global rate of sea level rise was about 1.7 mm annually (approximately 5.7 inches over the last 85 years). This significant difference between the RSLR experienced locally and the global SLR trend highlights the importance of accounting for local conditions.

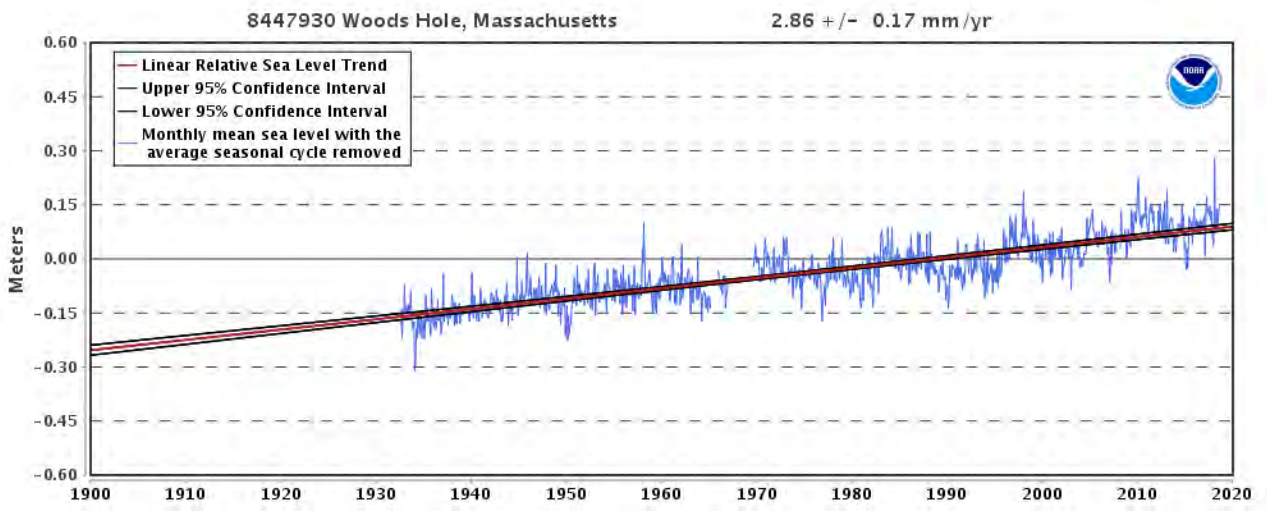


Figure 2-2. Mean sea-level rise trend at the Woods Hole tide gage (#8447930).

In order to compare future mean sea level to "present day" conditions, a starting elevation for mean sea level must be calculated. A tidal-epoch, a 19-year time period, is traditionally used to calculate tidal datums. For this study, the 19-year tidal-epoch with a mid-point year of 2000 (i.e., 1991-2009) was used to calculate a starting elevation for mean sea level. Based on this methodology, the mean sea level in Falmouth in the year 2000 was at an elevation of -0.30 feet (NAVD88). This 2000 starting elevation of -0.30 feet (NAVD88) can then be used to compare to projected relative mean sea-level elevations at 2030, 2050, 2070 and 2100 under various scenarios (Table 1). Note that the values in Table 1 are elevations of the projected mean sea level at various times relative to a vertical datum of NAVD88, not the magnitude of change in elevation. For comparison, the baseline (i.e., year 2000) mean sea level elevation, is -0.30 feet (NAVD88). Based on the projected sea level elevations presented in Table 2-1, this means there is a projected change in mean sea level rise of 1.4, 2.7. 4.5 and 8.0 feet between the year 2000 and 2030, 2050, 2070 and 2100, respectively, based on the "High" SLR scenario.

The data in Table 2-1 are recommended by Massachusetts CZM for assessing sea-level rise, and are being used by the Massachusetts Department of Transportation and other state agencies and communities for vulnerability assessments. As such, these sea-level rise projections were incorporated into the MC-FRM. The "High" SLR scenario was chosen for the MC-FRM because MassDOT and the state were interested in inundation risk probabilities that were unlikely to be exceeded (there is a 99.5% confidence level that the "High" scenario chosen will not be exceeded). In addition, selecting the "High" scenario also allows for the evaluation of inundation risk probabilities under other scenarios due to the bracketed nature of the results. For example, the "High" results in 2030 are equivalent to "Intermediate" results in 2050, and the "High" results in 2050 are the equivalent to the "Intermediate" results in 2070. In this way, the selected scenarios provide an upper bound of potential risk.

Table 2-1. Relative mean sea level (feet NAVD88) for Woods Hole, MA.

Scenario	Cross-walked probabilistic projections	2030	2050	2070	2100
High	Extremely unlikely to exceed (99.5%) under RCP8.5	1.1	2.4	4.2	7.7
	• Unlikely to exceed (83%) under RCP8.5 when accounting for possible ice sheet instabilities • Extremely unlikely to exceed (95%) under RCP4.5 when accounting for possible ice sheet instabilities				

2.1.3 Storm Events and Wave Run-up

Figure 2-3. Storms Used in MC-FRM for Present and 2030 Simulations

The storm climatology parameters in MC-FRM include wind directions and speeds, radius of maximum winds, pressure fields, and forward track. MC-FRM requires storm input data to run storm surge simulations and generate flooding results. Without input data, MC-FRM cannot determine which areas of Falmouth will likely be exposed to coastal flooding in the medium- and longer-term future, as much of the community's flood risk profile is dependent on storms.

As part of the development of MC-FRM, a large statistically robust sample of storms, including tropical (hurricanes) and extra-tropical (nor'easters) storms, was developed specifically for the coast of Massachusetts under existing and future climatologies. This storm data set includes historic storm events, as well as future storm conditions, and was used to assess coastal flooding risks in the present, 2030, and 2070. Figure 2-3 shows a representation of the storm tracks representing some of the tropical storms used in MC-FRM.

To assess coastal flooding risks in 2070, a different sample of storms reflecting a late 21st century climatology was used. This storm sample includes some very powerful hurricanes, for example, reflecting projections that tropical storms will be more intense on average in the second half of the century assuming that air and ocean temperatures are significantly higher than in the past. This set of storm input data was created by MIT professor Dr. Kerry Emmanuel based on climate projections.

Fully optimized Monte Carlo simulations were run in MC-FRM using the respective storm sets and SLR projections for present and future conditions. Importantly, these simulations included the tide cycle as a dynamic element of the model. The same storm surge can result in very different flooding outcomes depending on whether it coincides with high, mid, or low tide.

Results of the Monte Carlo simulations were used to generate cumulative probability distribution functions of the storm surge water levels at a high degree of spatial precision. In particular, they provide an accurate and precise assessment of the probability of water levels from combined SLR and storm surge exceeding the elevation of the ground at each node in the model.

2.1.4 Planning Horizons

The Town of Falmouth Climate Change Vulnerability Assessment and Adaptation Planning project focused on two of the modeled out-years for climate change, sea-level rise and storm surge flood effects: 2030 and 2070. These out-years were selected by a Steering Committee, comprised of multi-departmental working group of municipal staff and committee members, to provide the most useful data for planning (see Appendix A for a list of Steering Committee members). Flood risk probabilities for 2030 represent a near-term risk, which will be useful in driving actionable items now, while flood risk probabilities for 2070 will provide a long-range planning tool that will be particularly useful when planning large capital projects, designing and siting new infrastructure and/or buildings, and guiding municipal bylaws and zoning regulations.

2.2 COASTAL WETLANDS MODELING

Unlike built infrastructure, most natural coastal ecosystems are fairly resilient to occasional flood events. Asking whether there is a high likelihood of a salt marsh flooding during a particular storm is therefore less useful than considering what impacts new elevation tidal regimes will have on coastal wetlands. This section describes the model, sea-level rise projections and planning horizons utilized to address the likely impacts to coastal habitats given long-term changes in sea level.

2.2.1 Sea Level Affecting Marsh Model (SLAMM)

The methods utilized to evaluate the impacts on coastal wetlands differ from the coastal inundation model for developed areas. Wetland resources are unlikely to convert/change due to an episodic storm event; rather, increasing water levels over time caused by sea level rise will be the dominant influence on the future location and condition of wetland resources. The results of this ecological assessment and modeling effort are used to answer a number of important questions specific to coastal wetland systems and sea level rise (independent of storm surge). For example, results are used to assess if specific marsh systems have adequate space to migrate landward in response to the changing climate or if their migration may be hampered by topographic features or infrastructure and developed areas. The results are also used to determine the timeframe that a marsh's accretion rate can no longer be expected to keep up with the rate of sea-level rise, or over what timeframe specific resource areas within a marsh are expected to transition (e.g., high marsh to low marsh, or low marsh to tidal flats, etc.) due to sea-level rise. By identifying a likely timeframe for these changes, coastal managers can plan their monitoring and conservation efforts most effectively.

The assessment of natural resource impacts from sea-level rise in Falmouth relies on statewide modeling conducted by Woods Hole Group on behalf of the Massachusetts Office of Coastal

Zone Management (Woods Hole Group, 2016), using the Sea Level Rise Affecting Marshes Model (SLAMM). Full discussion of marsh migration modeling methodology is provided in the report "Modeling the Effects of Sea-Level Rise on Coastal Wetlands" (Woods Hole Group, 2016).

High resolution elevation data are the most important SLAMM model input requirement, since the elevation data determine where one habitat type converts to another based on the frequency of inundation based on the tidal range data and sea-level rise projections. For the statewide SLAMM modeling, the majority of the state was covered with the 2011 USGS LiDAR for the Northeast dataset, including the Falmouth area. In order to reduce processing time within the SLAMM model, the state was subsetted into regional panels, and areas of higher elevation within each regional panel that are unlikely to be affected by coastal processes and sea-level rise were excluded prior to processing; all areas above an elevation of 60 feet (NAVD88) were clipped from the input files prior to initiating model runs.

In addition to detailed elevation input data, an accurate mapping of current wetland types is also required for the SLAMM model. For the statewide SLAMM modeling, the 2011 wetland layer developed by the National Wetlands Inventory (NWI) is used as the baseline source for the wetlands input file. The NWI data had two key benefits over the 1990s MassDEP wetland layer. First, the NWI data not only provided a more recent dataset, but also temporally matched the year of the LiDAR dataset. Second, utilizing the NWI data streamlined the conversion between source wetland categories and the required SLAMM model wetland codes. Documentation provided with the SLAMM software contains a key to convert each NWI classification directly to the wetland classification system used by SLAMM.

SLAMM was intentionally run without imposing impervious surface (roads, parking lots, etc.) limitations to marsh migration. Projected changes in wetland type were driven by existing topography and projected water levels. As such, these results should be viewed with the caveat that if future wetland areas are predicted in what are developed areas today; changes would have to be made in the interim to allow that conversion to happen. For example, by 2070, the SLAMM model projects that the areas around Millfield Street in Woods Hole (Figure 2-4) will begin to shift to a transitional marsh and/or irregularly flooded marsh – an obviously unlikely scenario if the existing road surface remains paved and the houses remain in place.

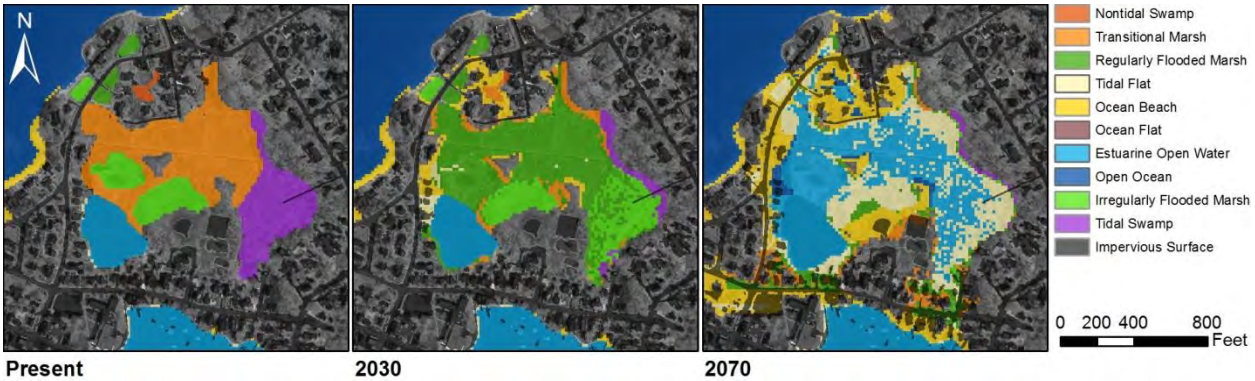


Figure 2-4. Example of impervious surface barriers to wetland migration.

2.2.2 Sea-level rise scenarios

The sea-level rise scenarios used in the SLAMM modeling are slightly different than those used in the MC-FRM, but are similar enough to produce comparable results. The 2016 statewide assessment (Woods Hole Group, 2016) relied on predictions presented by Parris et al. (2012). The highest sea-level rise scenario from Parris et al. (2012) combines thermal expansion estimates from the sea-level rise projections in the IPCC Fifth Assessment Report (AR5) with the maximum possible glacier and ice sheet loss by the end of the century. At the time, this was considered a conservative prediction to be used "in situations where there is little tolerance for risk." The global sea-level rise projection of 2.0 meters by 2100 (Parris et al. 2012) were then adjusted to relative sea-level rise conditions using a more recent study by Kopp et al. (2014); a sea-level rise projection of 2.166 meters (7.1 feet) was ultimately used for the Falmouth area of the statewide SLAMM assessment. This is just under the 7.7 feet utilized for MC-FRM.

2.2.3 Planning Horizons

To be consistent with the inundation modeling results, the results from the SLAMM modeling also focused on two of the modeled out-years: 2030 and 2070. Projections for habitat and wetland change by 2030 represent a near-term change, which will be useful in driving actionable items now, while 2070 projections are useful as a long-range planning tool.

2.3 MUNICIPAL ASSET DATA

The risk-based vulnerability assessment was focused on municipally-owned assets only. The landward extent of the MC-FRM grid is set at an elevation of 8 meters (26.2 feet) NAVD88. Because much of the northeastern part of Town is higher than this elevation, this area is excluded from the model (Figure 2-2), and any Town-owned asset within it was screened out from further analysis, since it would have no risk from coastal flooding through 2100. An elevation of 8 meters was chosen as an inland extent because this elevation is well above the projected extent of inundation even during a large storm in 2100.

Woods Hole Group worked cooperatively with the Steering Committee to compile existing GIS-based data and information about locations of Town assets. Based on discussions with the Steering Committee, the following Town-owned assets within the model extent (Figure 2-5) will be included in the vulnerability assessment:

- Buildings and structures (85)
- Parking lots (58)
- Recreational facilities (e.g., baseballs fields, tennis courts, etc.) (35)
- Boat ramps (8) and docks/piers (26)
- Coastal infrastructure (e.g., seawalls, jetties, groins, etc.) (91)
- Shining Sea Bike Path (10 sections)
- Trunk river sewer main section
- Roads/bridges (all within model grid)

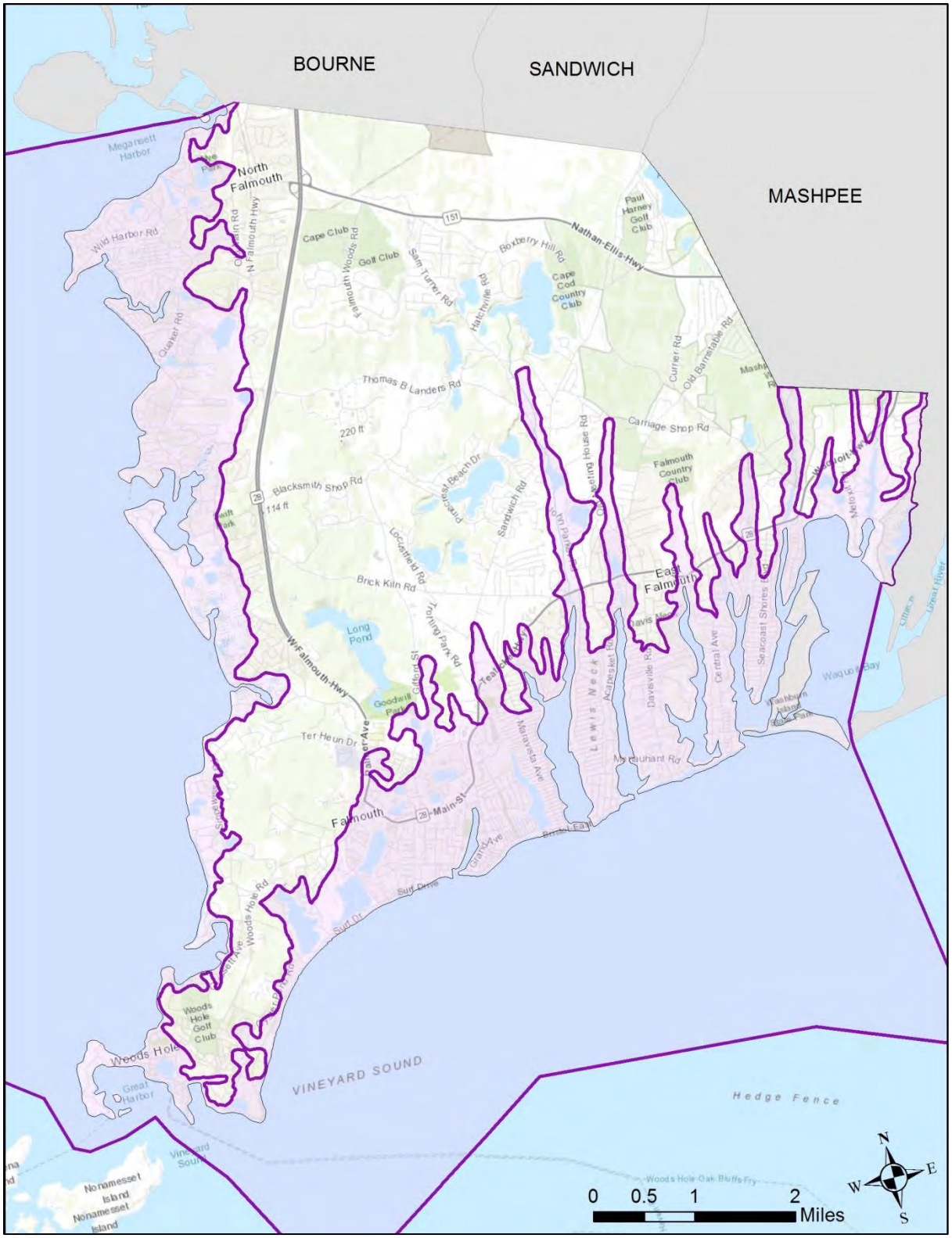


Figure 2-5. Extent of model grid in Falmouth.

3.0 VULNERABILITY ASSESSMENT

3.1 INTRODUCTION

A climate change flood vulnerability assessment was performed for municipally-owned infrastructure subject to flooding. Municipally-owned infrastructure includes buildings and structures, sewer pump stations, roads and bridges, docks, piers and boat ramps, seawalls, revetments and other coastal infrastructure, the Shining Sea Bike Path and a targeted vulnerable portion of the sewer main. With the exception of roadways, infrastructure that is not municipally owned (e.g. federal, state or privately owned) was not evaluated during this vulnerability assessment; several state-owned roadways, which are critical transportation in Falmouth, are included in the vulnerability assessment. A risk-based vulnerability assessment was performed for each of the municipally-owned assets impacted by flooding. The methods used to evaluate the risk from flooding to each asset are described in the following section.

3.2 VULNERABILITY ASSESSMENT METHODS

A vulnerability assessment was completed to determine the specific, site-level vulnerabilities of municipal assets: Town-owned properties, facilities, and infrastructure. Risk is defined as the probability of an asset flooding multiplied by the consequence of that asset failing. Put into mathematical terms:

$$Risk\ (R) = Probability\ of\ Flooding\ (P) \times Consequence\ of\ Failure\ (C)$$

$$or$$

$$R = P \times C$$

Each node in MC-FRM has unique probability of exceedance data associated with it, which provides the likelihood (0-100% probability) of exceeding water surface elevations at that node. Using risk to assess the vulnerability of infrastructure allows one to take into account both how likely a damaging flood event is, and what the consequence of that damaging flood is to the community. The resulting risk scores for all assets can then be ranked to assist municipalities with the prioritization of adaptation investments over time. The overall vulnerability assessment process, which was applied to the Town of Falmouth assets, is comprised of five main steps:

1) Determine Critical Assets Subject to Flooding
2) Determine Critical Elevations
3) Obtain Probability of Exceedance Data
4) Determine Consequence Scores
5) Calculate Risk Scores and Rankings

Details related to each step are provided in the subsections below.

3.2.1 Determine Critical Assets Subject to Flooding

Municipally owned infrastructure was mapped as an overlay in a GIS project map. The extent of the MC-FRM grid was then used to screen out municipal assets that are not anticipated to experience coastal flooding through 2100. The MC-FRM grid has a landward extent to elevation 8 meters (NAVD88) (Figure 2-5); all assets located above that elevation were excluded from further analysis.

As noted in Section 2.3 above, the municipally owned asset classes that were included in the vulnerability assessment were buildings and structures, parking lots, recreational facilities (e.g., baseballs fields, tennis courts, etc.), boat ramps and docks/piers, coastal infrastructure (e.g., seawalls, jetties, groins, etc.), the Shining Sea Bike Path, the Trunk river sewer main, and roads and bridges. (Note that boat ramps and coastal infrastructure were evaluated using different approaches, described after the standard risk assessment approach).

3.2.2 Determine Critical Elevations

Critical elevations are defined as that elevation at which flood water will cause the asset to cease to function as intended. For example, the critical elevation may be the first floor of a building. In another case, the critical elevation could be a basement window sill elevation, above which water can enter the basement and damage critical mechanical equipment located in the basement. In another case, the critical elevation could be the bottom of a critical electrical transformer or electrical panel, above which flood water would damage the equipment and shut down the facility. For other assets, such as roads, parking lots, playing fields, etc., the critical elevation is the lowest ground elevation.

Municipal assets for the Town of Falmouth fell into two main categories: land-based assets and water-based assets. Critical elevations for the land-based assets will be compared to the detailed Massachusetts Coast Flood Risk Model (MC-FRM) results to determine each asset's probability and depth of flooding. Because boat ramps and coastal infrastructure are located in intertidal areas, there is a 100% chance that these features will be inundated in present day, even during non-storm conditions. As such, the long-term viability of these assets with respect to sea-level rise will be considered in a different way. The critical elevation for boat ramps and coastal infrastructure assets is the elevation at the top of the boat ramp and the maximum elevation along the structure, respectively. These assets will be considered "ineffective" when the future MHW elevation is projected to be at or above the critical elevation. At that point the structure would be completely underwater during at least some portion of the day, and would no longer be functioning as intended. This also assumes that the boat ramp and coastal infrastructure assets will be maintained and/or are resistant to storm damage, such that they will be functional until sea-level rise makes them ineffective.

The methods for determining the critical elevation for each type of asset are described below:

Land-based assets

1. **Buildings and Structures:** For most buildings and structures the critical elevation was considered to be the lowest ground elevation extracted from the 2016 Massachusetts DEM within the footprint of the structure. Where the critical elevation was clearly above ground level for a particular asset, the Town surveyed detailed elevation information (e.g., a building with a first floor elevation 1 or 2 feet above grade; electrical panel, generator, etc. above grade). Details about the critical elevation source are provided in the asset table in Appendix B.
2. **Parking Lots**: The critical elevation was considered to be the lowest ground elevation extracted from the 2016 Massachusetts DEM within the boundary of each parking lot asset polygon.
3. **Docks and Piers**: The critical elevations for all docks and piers were surveyed by the Town, using a fixed (i.e., not floating) portion of the pier structure.
4. **Recreational Facilities**: The critical elevation was considered to be the lowest ground elevation extracted from the 2016 Massachusetts DEM within the boundary of each recreational facilities asset polygon.
5. **Shining Sea Bike Path**: The critical elevation was considered to be the lowest ground elevation extracted from the 2016 Massachusetts DEM along the centerline of each bike path segment.
6. **Trunk River Sewer Main**: The critical elevation for this asset was surveyed by the Town.
7. **Bridges:** The critical elevation used for bridges in this assessment is the low chord elevation; this is the lowest structural point along the underside of the bridge, and is the first point that flood waters will interact with. The low chord elevations of all bridges evaluated in this study were surveyed by the Town. If the low chord elevation of a bridge gets wet, it does not necessarily indicate an unpassable road, or even a guarantee of damage. Rather it is a conservative indicator of the potential for damage.
8. **Roads:** The critical elevation was considered to be the lowest ground elevation extracted from the 2016 Massachusetts DEM along the centerline of the road.

Water-based assets

1. **Boat Ramps:** The critical elevation was considered to be the elevation of the top of the boat ramp based on 2016 Massachusetts DEM data, except where updated survey data was provided by the Town.
2. **Coastal Infrastructure:** The state's coastal infrastructure inventory was consulted, but specific elevations are only consistently provided for private structures. The state's inventory contained specific elevation for only 4 of the 91 public structures identified within Falmouth for this analysis. The elevations for all others were simply listed as a range (e.g., "5 to 10 ft"). The critical elevation was, therefore, considered to be the highest elevation extracted from the 2016 Massachusetts DEM within the boundary of each coastal infrastructure asset polygon.

With the exception of roads, critical elevations for individual assets and the source of each value are provided in Appendix B. Almost 1,900 roads were evaluated as part of this study. The consequence scores and critical elevations are therefore cumbersome to present in a report format. These data are instead included as attributes in the road shapefile. However, because it is important to consider roads, as well as other Town assets, when setting priorities for municipal projects, roads that ranked in the top 50 assets based on a cumulative risk score, are integrated into the main asset table in Appendix B.

3.2.3 Obtain Probability of Exceedance Data

Probability of exceedance data for present day, 2030 and 2070 time horizons from the MC-FRM were summarized for each "land-based" municipal asset (see Section 3.2.2 above for discussion of which assets this included). Data for non-road "land-based" assets were obtained from the closet model node to the asset (maximum distance from a model node to an asset was 75 feet). Probability of exceedance data for road assets, where the critical elevation was defined as the ground surface, were extracted from the model results; the probability was extracted as the maximum value from MC-FRM along the centerline of the road.

For assets with surveyed or documented critical elevations (i.e., elevations other than the ground elevation), the critical elevations were compared to water surface elevation (WSE) distribution curves obtained for representative model nodes in the MC-FRM grid. Figure 3-1 and Table 3-1 provide examples of a WSE distribution curve and the probability of exceedance results for Falmouth Town Hall. For this asset, the critical elevation is 6.65 feet (NAVD88), the surveyed elevation of the rear door threshold at the top of the steps. The results in Figure 3-1 and Table 3-1 indicate the following:

- For the present year time frame, there is a 5% chance that water will exceed the critical elevation of 6.65 feet, and at a 1% event (100-year recurrence interval) the water level would be approximately 1.9 feet above the critical elevation.
- In the 2030 time frame, the probability of exceeding the critical elevation increased to 20%, and at a 1% event (100-year recurrence interval) the water level would be approximately 3.2 feet above the critical elevation.
- In the 2070 time frame, the probability of exceeding the critical elevation of 6.65 feet increases to 100%, while the depth of water above the critical elevation at a 1% event (100-year recurrence interval) increases to 8.2 feet.

Town wide probability and depth of inundation maps are provided in Appendix A. Probabilities of exceeding each asset's critical elevation are documented in the asset tables in Appendix B.

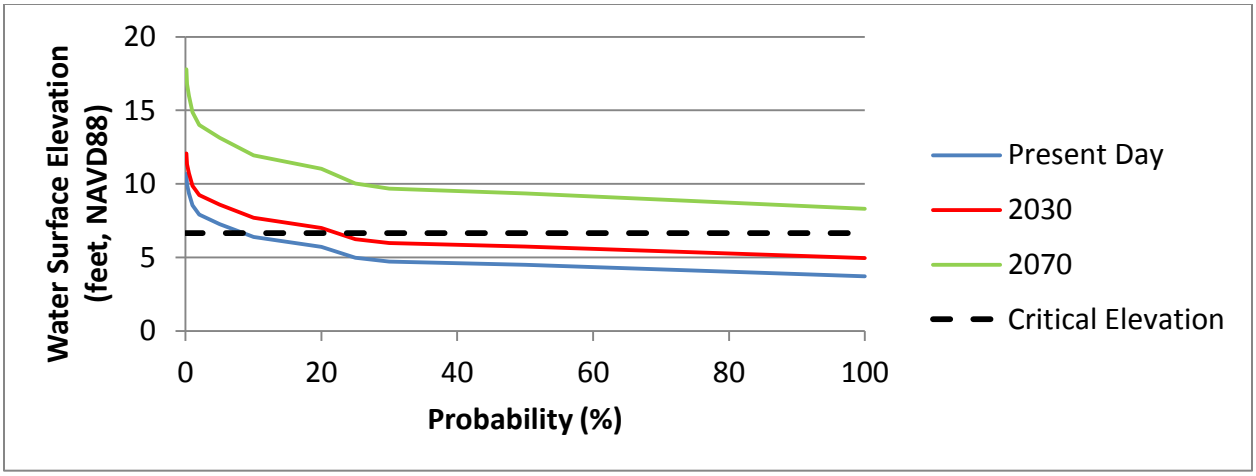


Figure 3-1. Example water surface elevation distribution curve (Town Hall).

Table 3-1. Example probability of exceedance results for Town Hall.

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.7	4.0	12.1	5.4	17.8	11.1
0.2	10.0	3.3	11.3	4.7	16.8	10.2
0.5	9.4	2.7	10.7	4.1	16.0	9.3
1	8.5	1.9	9.9	3.2	14.9	8.2
2	7.9	1.3	9.2	2.6	14.0	7.4
5	7.3	0.6	8.6	1.9	13.1	6.5
10	6.4	dry	7.7	1.0	12.0	5.3
20	5.7	dry	7.0	0.3	11.0	4.4
25	5.0	dry	6.2	dry	10.0	3.4
30	4.7	dry	6.0	dry	9.7	3.0
50	4.5	dry	5.7	dry	9.4	2.7
100	3.7	dry	5.0	dry	8.3	1.7

The probability of inundation is 100% for "water-based" assets (i.e., boat ramps and coastal infrastructure) because these assets are purposefully built in intertidal areas. As such, the probability of exceedance data were not considered a useful measure of future sea-level rise impacts. Instead, these assets are considered "ineffective" when the future MHW elevation is projected to be at or above the critical elevation. At that point the structure would be completely underwater during at least some portion of the day, and would no longer be functioning as intended. Using the sea-level rise predictions documented in Table 2-1, the MHW elevation was adjusted for future years and compared to the critical elevation for boat

ramps and coastal infrastructure, the elevation at the top of the boat ramp and the maximum elevation along the structure, respectively. The present day MHW elevation for the Buzzards Bay shoreline and the southern coastline of Falmouth are 2.0 and 0.79 feet (NAVD88), respectively[2]. The time frames at which this critical elevation will be exceeded by MHW based on this methodology is highlighted in Table A-2 in Appendix A.

3.2.4 Determine Consequence Scores

The consequence of flooding for each asset was based on six different potential impacts in accordance with the rankings presented in Table 3-2. The score for each type of impact for each asset is determined separately, and then a composite consequence of flooding score is determined by summing all six scores and normalizing to 100 using the following equation:

$$\text{Total Consequence of Flooding Score} = \frac{\Sigma \text{ all six scores}}{30} * 100$$

Consequence scores for each asset were developed by the Steering Committee. To ensure a consistent understanding of the different scoring categories within each type of potential impact, the Steering Committee first agreed to a basic set of assumptions for each type of asset.

Table 3-2. Consequence of flooding scoring guide.

Score	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impact on Public Safety & Emergency Services	Impact on Important Economic Activities	Impact on Public Health & Environment
5	Whole Town	>30 days	>$10m	Very high	Very high	Very high
4	Multiple Neighborhoods	14 - 30 days	$1m - $10m	High	High	High
3	Neighborhood	7 - 14 days	$100k - $1m	Moderate	Moderate	Moderate
2	Locality	1 - 7 days	$10k - $100k	Low	Low	Low
1	Property	< 1 day	<$10k	None	None	None

The consequence scoring methodology and results are important tools to assist the Town in determining which assets are most important for the Town to maintain in the context of flooding, and why. This method breaks down the over-arching concept of "consequence" into more easily defined scoring categories (e.g., area of service loss, cost, impact on public safety, etc.), and can be used to compare very different types of assets. The composite consequence of flooding scores for an example subset of Town of Falmouth assets are presented in Table 3-3. For the assets presented, total consequence scores ranged from 23 to 77 out of a possible 100.

[2] The 0.79 feet for the southern coastline of Falmouth was taken derived from the NOAA Woods Hole Tide Station, with the epoch adjusted to 1999-2017. However, since there is no long-term tide gage located along the Buzzards Bay coastline of Falmouth, the 2.0 feet was extracted from the MC-FRM.

The higher the score, the higher the consequence of flooding and the consequence of failure or loss of that asset are to the Town.

Table 3-3. Consequence of flooding scoring for an example subset of assets.

Asset Name	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impact on Public Safety & Emergency Services	Impact on Important Economic Activities	Impact on Public Health & Environment	Score
Town Hall - Main Building	5	3	3	4	4	4	77
Town Hall - Storage Shed	1	2	1	1	1	1	23
Main Street Public Restrooms	3	3	2	1	3	2	47
Chamber of Commerce	4	3	3	1	4	1	53
Department of Public Works - Fuel Tanks	4	2	2	4	2	4	60
Falmouth Police Department - Main Building	5	3	4	5	2	3	73
Falmouth Police Department - Shed	1	2	1	2	1	1	27
Fire Headquarters – Main Building	5	3	4	5	2	3	73
Falmouth Library Main	5	3	3	2	3	1	57
East Falmouth Public Library	3	3	3	2	2	1	47

3.2.5 Calculate Risk Scores and Rankings

The risk score for a particular asset subject to flooding for a given time horizon was calculated using the following equation:

$$R_{tn} = P_{tn} \times C_{tn}$$

Where:

R_{tn} = Risk score at a given time horizon
P_{tn} = Probability of exceedance at a given time horizon
C_{tn} = Consequence of flooding at a given time horizon
tn = Time horizon n (present day, 2030 or 2070)

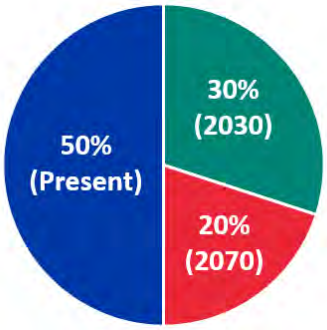
The risk score can then be used to rank overall risk to municipal assets for a given time horizon. A composite ranking can also be developed by taking into account the risk scores from all time horizons using the following equation:

$$R_{comp} = (R_{present} \times W_{present}) + (R_{2030} \times W_{2030}) + (R_{2070} \times W_{2070})$$

Where:

R_{comp} = Composite risk score for all time horizons
$R_{present}$ = Risk score for present day time horizon
R_{2030} = Risk score for 2030 time horizon
R_{2070} = Risk score for 2030 time horizon
$W_{present}$ = Weighting factor for present day time horizon
W_{2030} = Weighting factor for 2030 time horizon
W_{2070} = Weighting factor for 2030 time horizon

A weighting factor is used to give more emphasis to assets vulnerable to flooding in the nearer time horizons. For example, an asset which is susceptible to flooding today and more flooding in the future should get more priority than an asset that is only vulnerable to flooding starting in 2070. The weighting factors can be adjusted, but for the purposes of this study the following factors were selected:



3.3 RESULTS

Composite risk scores were calculated for all municipal assets subject to flooding. These data are summarized in a master table included in Appendix B. An example of the risk scoring for Town Hall is shown in Table 3-4. Note that the consequence score remains constant over the life of the asset, and that only the probabilities of flooding (i.e., the probabilities of exceedance of the critical elevation by flood waters) change over time.

Table 3-4. Composite risk scoring example matrix for Town Hall.

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score
Present	5	77	383	0.5	2185
2030	20	77	1533	0.3	
2070	100	77	7667	0.2	

In addition to the tabular ranking of assets based on their composite risk score, Town-wide map based results were also developed. The probability-based inundation maps were developed for present day, 2030 and 2070 (see Appendix A). In addition, depth of inundation maps were also developed for two probability levels. The Steering Committee selected the 1% event flood levels (equivalent to a 100-year recurrence water level) and the 5% event flood levels (equivalent to a 20-year recurrence water level) for which to develop these depth of inundation maps.

The 1% probability level was selected because this is the benchmark for the Federal Emergency Management Agency's (FEMA's) Flood Insurance Rate Maps (FIRMs). Although FEMA FIRMs are not forward-looking and do not incorporate sea-level rise into the mapping, FEMA does periodically update their modeling to account for increased sea level rise that has occurred (as well as other changes, such as changes in topography or armoring of particular areas). As such, the 2030 and 2070 1% probability of inundation extents may provide a projection for the expected future FEMA flood zones.

The second probability level chosen for development of depth of inundation maps was the 5% event flood levels. Although some municipalities are interested in the worst case scenario (e.g., the 0.2% [500-year] or the 0.1% [1000-year] water level), the Falmouth Steering Committee decided that it would be most useful for the Town to plan for the depth of flooding likely to occur during a more probable storm event.

3.3.1 Municipal Infrastructure Assets

Using this risk-based ranking methodology, the top 20 ranked assets in terms of vulnerability to flooding based on composite scores in each assets category (e.g., buildings and structures, recreational features, roads and bridges, etc.), as well as the top ranked risk scores for all assets

from individual time horizons (present day, 2030 and 2070) and composite risk scores, are shown in Tables 3-5 through 3-14. For a full list of composite risk scores for all assets, see Tables B-1a and B-1b in Appendix B. Table B-1a includes all land-based assets, including buildings and structures (including sewer infrastructure), parking lots, docks and piers, recreational facilities, and bike path assets, as well as major roads. Due to the considerable number of roads with a potential risk of inundation between now and 2070, a separate consequence score table, Table B-1b was developed to compile the data on all roads.

Table 3-5. Top 20 ranked buildings and structures assets vulnerable to flooding, ranked by composite risk score.

Rank	Asset Name	Asset Type	Consequence Score	Present Probability (%)	2030 Probability (%)	2070 Probability (%)	Composite Risk Score
1	Park Road Sewer Lift Station	Sewer	37	100	100	100	3667
2	Old Dock Road Pier Upwellers	Marine	40	50	100	100	3000
3	Woods Hole Draw Bridge Hut	Marine	57	25	50	100	2692
4	Old Dock Road Pier Shed	Marine	33	50	100	100	2500
5	Old Silver Beach (South) Pedestrian Ramp	Rec	33	50	100	100	2500
6	Town Hall - Main Building	Admin	77	5	20	100	2185
7	Mitchell Bathhouse	Rec	43	20	50	100	1950
8	Inner Harbor Upwellers	Marine	40	10	50	100	1600
9	Woods Hole Sewer Lift Station	Sewer	53	5	10	100	1360
10	Surf Drive Sewer Lift Station	Sewer	43	10	20	100	1343
11	Woods Hole Community Building	Admin	37	10	20	100	1137
12	Inner Harbor - Electrical Shed	Marine	50	1	5	100	1100
13	Inner Harbor - Charter Boat Shed	Marine	33	10	25	100	1083
14	Woods Hole Draw Bridge Hut Generator	Marine	43	5	5	100	1040
15	Town Hall - Storage Shed	Admin	23	5	20	100	665
16	Woods Hole Sewer Lift Station Wet Well	Sewer	47	1	5	50	560
17	Inner Harbor - Garage	Marine	40	0.5	2	50	434
18	Inner Harbor Sewer Lift Station	Sewer	57	0.2	1	30	363
19	Old Silver Beach (North) Bathhouse	Rec	43	1	2	25	264
20	Mullen Hall School - Main Building	School	63	0	0	20	253

Table 3-6. Top 20 ranked parking lot assets vulnerable to flooding, ranked by composite risk score.

Rank	Asset Name	Asset Type	Consequence Score	Present Probability (%)	2030 Probability (%)	2070 Probability (%)	Composite Risk Score
1	Woods Hole Boat Ramp Parking	Parking	37	100	100	100	3667
2	Old Silver Beach Parking (South)	Parking	33	100	100	100	3333
3	Oyster Pond Road Bike Path Parking	Parking	33	100	100	100	3333
4	Surf Drive Salt Pond Parking	Parking	33	100	100	100	3333
5	Surf Drive Mill Road Parking	Parking	33	100	100	100	3333
6	Falmouth Harbor Clinton Ave Parking	Parking	33	100	100	100	3333
7	Falmouth Harbor Boat Ramp Parking	Parking	33	100	100	100	3333
8	Falmouth Harbor Public Parking (north)	Parking	33	100	100	100	3333
9	Town Hall Parking	Parking	43	50	100	100	3250
10	Megansett Beach Parking	Parking	30	100	100	100	3000
11	Woodneck Parking	Parking	30	100	100	100	3000
12	Surf Drive Beach Parking	Parking	30	100	100	100	3000
13	Bristol Beach Parking (west)	Parking	30	100	100	100	3000
14	Bristol Beach Parking (east)	Parking	30	100	100	100	3000
15	Menauhant Beach West Parking	Parking	30	100	100	100	3000
16	Green Pond Boat Ramp Parking	Parking	37	50	100	100	2750
17	Quisset Harbor Boathouse Parking	Parking	27	100	100	100	2667
18	Quisset Harbor Parking (2)	Parking	27	100	100	100	2667
19	Menauhant Beach East Parking	Parking	30	50	100	100	2250
20	Quisset Harbor Parking (1)	Parking	27	50	100	100	2000

Table 3-7. Top 20 ranked docks and piers assets vulnerable to flooding, ranked by composite risk score.

Rank	Asset Name	Asset Type	Consequence Score	Present Probability (%)	2030 Probability (%)	2070 Probability (%)	Composite Risk Score
1	Falmouth Harbor Dock (6)	Docks & Piers	47	100	100	100	4667
2	Falmouth Harbor Clinton Ave Wharf	Docks & Piers	43	100	100	100	4333
3	Falmouth Harbor Dock (1)	Docks & Piers	43	100	100	100	4333
4	Falmouth Harbor Dock (2)	Docks & Piers	43	100	100	100	4333
5	Falmouth Harbor Dock (3)	Docks & Piers	43	100	100	100	4333
6	Falmouth Harbor Dock (4)	Docks & Piers	43	100	100	100	4333
7	Falmouth Harbor Dock (5)	Docks & Piers	43	100	100	100	4333
8	Old Dock Road Dock	Docks & Piers	40	100	100	100	4000
9	Quisset Harbor Boathouse Dock	Docks & Piers	37	100	100	100	3667
10	Green Pond Dock (2)	Docks & Piers	37	100	100	100	3667
11	Falmouth Harbor Dock (7)	Docks & Piers	47	50	100	100	3500
12	Falmouth Harbor Dock (8)	Docks & Piers	47	50	100	100	3500
13	Falmouth Harbor Dock (9)	Docks & Piers	47	50	100	100	3500
14	Falmouth Harbor Dock (10)	Docks & Piers	47	50	100	100	3500
15	Megansett Small Dock	Docks & Piers	33	100	100	100	3333
16	Falmouth Harbor Dock (11)	Docks & Piers	43	50	100	100	3250
17	Falmouth Harbor Dock (12)	Docks & Piers	43	50	100	100	3250
18	Megansett Main Dock	Docks & Piers	40	50	100	100	3000
19	Whites Landing Dock	Docks & Piers	40	50	100	100	3000
20	Eel Pond Dock	Docks & Piers	40	30	100	100	2600

Table 3-8. Top 13* ranked recreation assets vulnerable to flooding, ranked by composite risk score.

Rank	Asset Name	Asset Type	Consequence Score	Present Probability (%)	2030 Probability (%)	2070 Probability (%)	Composite Risk Score
1	Taft Park Field	Baseball Field	30	100	100	100	3000
2	Taft Park Tennis Courts	Tennis Court	27	100	100	100	2667
3	Taft Park Playground	Playground	27	50	100	100	2000
4	Morse Pond School Practice Field	Field	30	0	30	100	870
5	Nye Park Field	Baseball Field	30	5	10	100	765
6	Central Park Field	Baseball Field	30	1	5	100	660
7	Fuller Field	Baseball Field	30	0	0	50	300
8	Rec Center Football Field	Football Field	30	0	0	20	120
9	Central Park Basketball Court	Basketball Court	27	0	0.2	20	108
10	Teaticket School Playground (2)	Playground	27	0	0	10	53
11	Lawrence School Field (2)	Baseball Field	30	0	0	5	30
12	Teaticket School Field	Baseball Field	30	0	0	5	30
13	Teaticket School Playground (1)	Playground	27	0	0	0.5	3

*Only 13 of the identified recreational assets have any risk of inundation through 2070.

Table 3-9. Top 9* bike path assets vulnerable to flooding, ranked by composite risk score.

Rank	Asset Name	Asset Type	Consequence Score	Present Probability (%)	2030 Probability (%)	2070 Probability (%)	Composite Risk Score
1	Trunk River Sewer Main	Sewer Main	50	100	100	100	5000
2	Chapoquoit Rd to Quahog Pond Ln	Bike Path	33	50	100	100	2500
3	Quahog Pond Ln to Bumblebee Hill Rd	Bike Path	33	50	100	100	2500
4	Locust St to Elm Road	Bike Path	33	50	100	100	2500
5	Elm Road to Fay Road	Bike Path	33	50	100	100	2500
6	Woods Hole Parking Area	Bike Path	33	25	50	100	1583
7	Old Dock Rd to Chapoquoit Rd	Bike Path	33	10	20	100	1033
8	Thomas Landers to Old Dock Rd	Bike Path	33	5	10	50	517
9	N. Falmouth Rotary to Thomas Landers	Bike Path	33	0	0.2	5	35

*Only 9 of the identified bike path assets have any risk of inundation through 2070.

Table 3-10. Top 20 ranked roads assets vulnerable to flooding, ranked by composite risk score.

Rank	Asset Name	Asset Type	Consequence Score	Present Probability (%)	2030 Probability (%)	2070 Probability (%)	Composite Risk Score
1	Water St (Luscombe Ave to Drawbridge)	Paved, County	67	99	99	100	6635
2	Chapoquoit Rd (Little Neck Bars Rd to Bridge)	Paved, Town	57	95	100	100	5546
3	Clinton Ave (Swing Lane to Scranton)	Paved, Town	67	73	83	100	5464
4	Scranton Ave (Lowry Road to Clinton)	Paved, Town	67	69	83	100	5312
5	Waquoit Hwy (Waquoit Landing Rd to Childs River)	Paved, State	53	100	100	100	5300
6	Menauhant Rd (Grand to Maravista)	Paved, Town	53	100	100	100	5300
7	Surf Dr (Mill Rd to Bywater Ct)	Paved, Town	53	95	97	100	5115
8	Clinton Ave (Swing Ln to Sheridan Ave)	Paved, Town	63	68	77	100	4859
9	Surf Dr (Elm Rd to Mill Rd)	Paved, Town	57	77	87	100	4805
10	Menauhant Rd (Foster Rd to Central)	Paved, Town	57	73	91	100	4768
11	West Ave	Paved, Town	53	86	90	100	4766
12	Nashawena St (Lummis Ln to Pine Island Cir)	Paved, County	47	100	100	100	4700
13	Nashawena St (Cordwood Landing Rd to Swift St)	Paved, County	60	66	78	99	4579
14	Old Dock Rd (Bowline Rd to Chapoquoit Rd)	Paved, County	60	68	75	97	4568
15	Quissett Harbor Rd	Paved, Town	53	79	83	100	4455
16	Mill Rd (Hedge Ln to Seagull Ln)	Paved, Town	57	66	78	100	4363
17	Mill Rd (Seagull Ln to Surf Dr)	Paved, Town	57	64	75	100	4260
18	Menauhant Rd (Acapesket Rd to Green Harbor Rd)	Paved, Town	43	98	98	100	4234
19	Nashawena St (Pine Island Cir to Cordwood Landing Road)	Paved, County	60	61	73	89	4206
20	Chapoquoit Rd (Little Neck Bars Rd to Chapoquoit Rd)	Paved, Town	57	67	70	96	4189

Table 3-11. Top 20 ranked assets vulnerable to flooding, ranked by composite risk score.

Rank	Asset Name	Asset Type	Consequence Score	Present Probability (%)	2030 Probability (%)	2070 Probability (%)	Composite Risk Score
1	Water St (Luscombe Ave to Drawbridge)	Road	67	99	99	100	6635
2	Chapoquoit Rd (Little Neck Bars Rd to Bridge)	Road	57	95	100	100	5546
3	Clinton Ave (Swing Ln to Scranton Ave)	Road	67	73	83	100	5464
4	Menauhant Road (At Bristol Beach/Little Pond)	Bridge	53	100	100	100	5333
5	Scranton Ave (Lowry Rd to Clinton Ave)	Road	67	69	83	100	5312
6	Waquoit Hwy (Waquoit Landing Rd to Childs River)	Road	53	100	100	100	5300
7	Surf Dr (Mill Rd to Bywater Ct)	Road	53	95	97	100	5115
8	Trunk River Sewer Main	Sewer Main	50	100	100	100	5000
9	Clinton Ave (Swing Ln to Sheridan Ave)	Road	63	68	77	100	4859
10	Surf Dr (Elm Rd to Mill Rd)	Road	57	77	87	100	4805
11	Nashawena St (Lummis Ln to Pine Island Cir)	Road	47	100	100	100	4700
12	Falmouth Harbor Dock (6)	Docks & Piers	47	100	100	100	4667
13	Nashawena St (Cordwood Landing Rd to Swift St)	Road	60	66	78	99	4579
14	Old Dock Rd (Bowline Rd to Chapoquoit Rd)	Road	60	68	75	97	4568
15	Mill Rd (Hedge Ln to Seagull Ln)	Road	57	66	78	100	4363
16	Falmouth Harbor Clinton Ave Wharf	Docks & Piers	43	100	100	100	4333
17	Falmouth Harbor Dock (1)	Docks & Piers	43	100	100	100	4333
18	Falmouth Harbor Dock (2)	Docks & Piers	43	100	100	100	4333
19	Falmouth Harbor Dock (3)	Docks & Piers	43	100	100	100	4333
20	Falmouth Harbor Dock (4)	Docks & Piers	43	100	100	100	4333

Table 3-12. Top 20 ranked assets vulnerable to flooding, ranked by present day risk score.

Rank	Asset Name	Asset Type	Consequence Score	Present Probability (%)	Present Day Risk Score
1	Water St (Luscombe Ave to Drawbrdige)	Road	67	99	6625
2	Chapoquoit Rd (Little Neck Bars Rd to Bridge)	Road	57	95	5392
3	Menauhant Road (At Bristol Beach/Little Pond)	Bridge	53	100	5333
4	Waquoit Hwy (Waquoit Landing Rd to Childs River)	Road	53	100	5300
5	Surf Dr (Mill Rd to Bywater Ct)	Road	53	95	5022
6	Trunk River Sewer Main	Sewer Main	50	100	5000
7	Clinton Ave (Swing Ln to Scranton Ave)	Road	67	73	4906
8	Nashawena St (Lummis Ln to Pine Island Cir)	Road	47	100	4700
9	Falmouth Harbor Dock (6)	Docks & Piers	47	100	4667
10	Scranton Ave (Lowry Road to Clinton Ave)	Road	67	69	4601
11	Surf Dr (Elm Rd to Mill Rd)	Road	57	77	4361
12	Falmouth Harbor Clinton Ave Wharf	Docks & Piers	43	100	4333
13	Falmouth Harbor Dock (1)	Docks & Piers	43	100	4333
14	Falmouth Harbor Dock (2)	Docks & Piers	43	100	4333
15	Falmouth Harbor Dock (3)	Docks & Piers	43	100	4333
16	Falmouth Harbor Dock (4)	Docks & Piers	43	100	4333
17	Falmouth Harbor Dock (5)	Docks & Piers	43	100	4333
18	Clinton Ave (Swing Ln to Sheridan Ave)	Road	63	68	4304
19	Old Dock Rd (Bowline Rd to Chapoquoit Rd)	Road	60	68	4089
20	Old Dock Road Dock	Docks & Piers	40	100	4000

Table 3-13. Top 20 ranked assets vulnerable to flooding, ranked by 2030 risk score.

Rank	Asset Name	Asset Type	Consequence Score	2030 Probability (%)	2030 Risk Score
1	Woods Hole Drawbridge	Bridge	67	100	6667
2	Water St (Luscombe Ave to Drawbridge)	Road	67	99	6628
3	Chapoquoit Rd (Little Neck Bars Rd to Bridge)	Road	57	100	5700
4	Menauhant Road (At Menauhant Beach/Bournes Pond)	Bridge	57	100	5667
5	Scranton Ave (Lowry Rd to Clinton Ave)	Road	67	83	5571
6	Clinton Ave (Swing Ln to Scranton Ave)	Road	67	83	5569
7	Menauhant Road (At Bristol Beach/Little Pond)	Bridge	53	100	5333
8	Waquoit Hwy (Waquoit Landing Rd to Childs River)	Road	53	100	5300
9	Surf Dr (Mill Rd to Bywater Ct)	Road	53	97	5147
10	Trunk River Sewer Main	Sewer Main	50	100	5000
11	Surf Dr (Elm Rd to Mill Rd)	Road	57	87	4949
12	Clinton Ave (Swing Ave to Sheridan Ave)	Road	63	77	4824
13	Nashawena St (Cordwood Landing Rd to Swift St)	Road	60	78	4703
14	Nashawena St (Lummis Ln to Pine Island Cir)	Road	47	100	4700
15	Falmouth Harbor Dock (6)	Docks & Piers	47	100	4667
16	Falmouth Harbor Dock (7)	Docks & Piers	47	100	4667
17	Falmouth Harbor Dock (8)	Docks & Piers	47	100	4667
18	Falmouth Harbor Dock (9)	Docks & Piers	47	100	4667
19	Falmouth Harbor Dock (10)	Docks & Piers	47	100	4667
20	Nashawena Street In West Falmouth	Bridge	47	100	4667

Table 3-14. Top 20 ranked assets vulnerable to flooding, ranked by 2070 risk score.

Rank	Asset Name	Asset Type	Consequence Score	2070 Probability (%)	2070 Risk Score
1	Town Hall - Main Building	Buildings & Structures	77	100	7667
2	Scranton Ave (Lowry Rd to Clinton Ave)	Road	67	100	6700
3	Clinton Ave (Swing Lane to Scranton Ave)	Road	67	100	6700
4	Water St (Luscombe Ave to Drawbridge)	Road	67	100	6671
5	Woods Hole Drawbridge	Bridge	67	100	6667
6	Clinton Ave (Swing Land to Sheridan Ave)	Road	63	100	6299
7	Quaker Road (Over The Inlet At Old Silver Beach)	Bridge	60	100	6000
8	Nashawena St (Cordwood Landing Rd to Swift St)	Road	60	99	5910
9	Old Dock Rd (Bowline Rd to Chapoquoit Rd)	Road	60	97	5835
10	Waquoit Hwy (Martin Rd to Martin Rd)	Road	60	97	5823
11	Chapoquoit Rd (Little Neck Bars Rd to Bridge)	Road	57	100	5700
12	Surf Dr (Elm Rd to Mill Rd)	Road	57	100	5700
13	Mill Rd (Hedge Ln to Seagull Ln)	Road	57	100	5700
14	Mill Rd (Hedge Ln to Herring Brook Ln)	Road	57	100	5700
15	Mill Rd (Seagull Ln to Surf Dr)	Road	57	100	5700
16	Walker St (Surf Dr to Beebe Acres Rd)	Road	57	100	5700
17	Menauhant Road (At Menauhant Beach/Bournes Pond)	Bridge	57	100	5667
18	Woods Hole Draw Bridge Hut	Buildings & Structures	57	100	5667
19	Rt 28/East Falmouth Highway (At Head Of Great Pond, East Of Ox Bow Road))	Bridge	57	100	5667
20	Chapoquoit Road	Bridge	57	100	5667

3.3.2 Natural Resources

In addition to the built assets evaluated above, impacts to natural resources including beaches, salt ponds and salt marshes, were assessed on a semi-quantitative basis. Woods Hole Group utilized the SLAMM results developed for the Massachusetts Office of Coastal Zone Management (CZM) to model the effects of sea-level rise on coastal wetlands and natural resources. Final model results for the 2030 and 2070 out years for the "High" SLR projection for the Town of Falmouth are described below.

Natural Resources provide numerous valuable ecosystem services, from fisheries habitat, to carbon sequestration and storm damage protection. They are also an important component of the identity of the Town of Falmouth and a significant driver for the local tourism industry. However, they are also vulnerable to climate change impacts like sea level rise.

3.3.2.1 *Town-wide summary*

SLAMM results were produced for the entire Town. Maps of the town-wide SLAMM wetland categories for present day, as well as the 2030 and 2070 projected wetland areas are provided in Appendix D. Town-wide areas of each type of wetland classification are summarized in Table 3-15.

One of the major habitat changes that is projected to occur between present day and 2070 is an overall loss of salt marsh. Figure 3-2 shows the combined areas of both irregularly flooded salt marsh (i.e., high marsh) and regularly flooded salt marsh (i.e., low marsh) in present day, 2030 and 2070. In present day, the combined total area for high and low salt marsh areas is 466 acres. By 2030, although the overall salt marsh acreage has only decreased by 14 acres, there is a significant shift in the percentage of high and low marsh; this is due to high marsh converting to low marsh as sea-level rises. By 2070, a significant overall loss of salt marsh area is expected, with the combined area of both high and low salt marsh predicted to cover only 155 acres.

Another major trend to note is the change in total area of combined open water habitats and combined wetland habitats (Figure 3-3), as well as the associated change that this infers on the total upland area. Between present day and 2070 the combined open water areas in the Town of Falmouth are expected to increase from 6,041 to 7,023 acres. This increase of 982 acres of open water is balanced by a decrease in 427 acres of wetland and 555 acres of upland by 2070.

Table 3-15. Summary SLAMM results for wetland areas town-wide.

	Area (acres)		
	Present Day	2030	2070
Upland	16,689.6	16,640.3	16,134.5
Nontidal Swamp	327.4	326.5	302.7
Inland Fresh Marsh	209.1	206.6	192.2
Tidal Fresh Marsh	23.0	17.4	6.1
Transitional Marsh/Scrub-Shrub	17.7	20.6	80.5
Regularly Flooded Marsh	102.6	184.5	115.7
Estuarine Beach/Tidal Flat	273.8	226.5	336.5
Ocean Beach	274.7	228.4	368.0
Ocean Flat	206.1	30.6	0.9
Inland Open Water	952.5	948.9	895.9
Estuarine Open Water	2,099.2	2,225.1	2,737.9
Open Ocean	2,989.1	3,227.5	3,389.3
Irregularly Flooded Marsh	363.6	267.8	38.8
Tidal Swamp	89.2	67.1	18.8

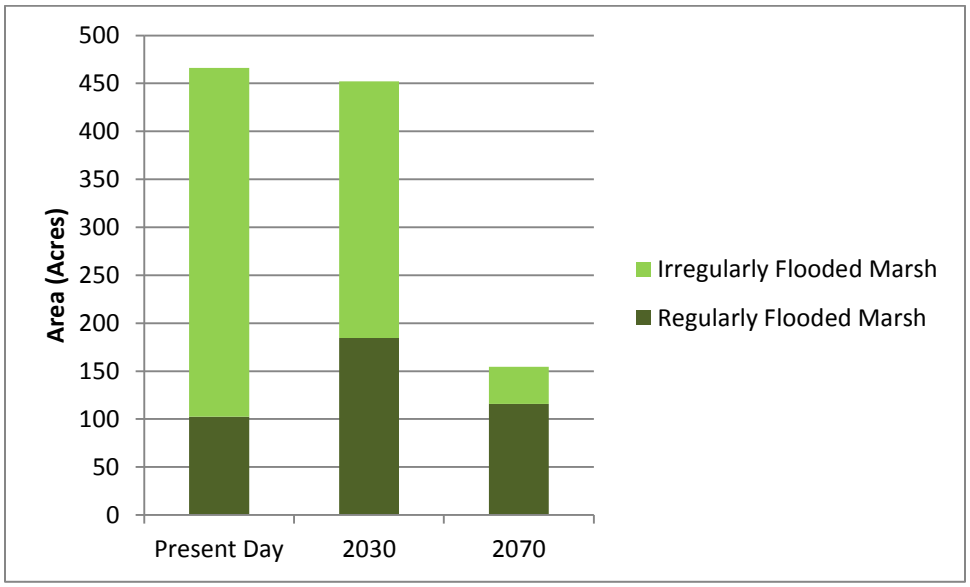


Figure 3-2. Summary of town-wide salt marsh area changes over time.

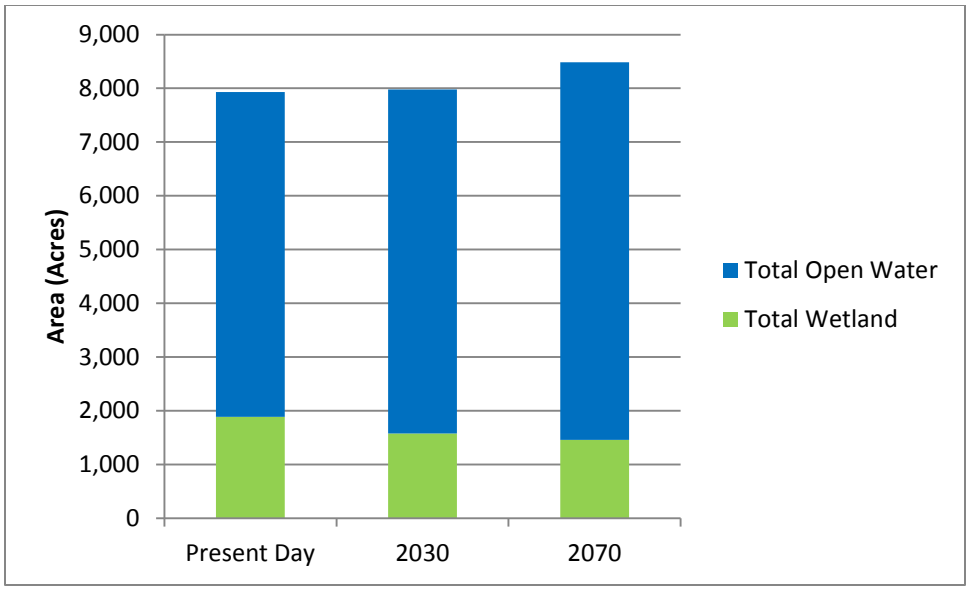


Figure 3-3. Summary town-wide open water and wetland area changes over time.

These trends indicate a lack of long-term resilience in Falmouth's salt marsh systems and an inability to keep pace with sea level rise, as is the case for many communities throughout Massachusetts (where trends are a general conversion to low marsh by 2030 and tidal flat or open water by 2070). Additionally, the topography in Falmouth is such that there is very little low-lying land around the periphery of existing salt marshes, affecting their ability to migrate inland with the rising tide. Salt marshes provide a natural sponge to buffer inland areas from storm surge, and act as a natural break, absorbing wave energy. Conversion of low marsh areas to tidal flats and open water would result not only in a reduced capacity for Falmouth's salt marsh systems to protect inland areas, but also in an overall loss of salt marsh habitat for the Town.

Therefore, it will be important for the Town to support salt marsh migration where possible by removing barriers and limiting development in potential sending areas. Additionally, any actions to further increase salt marsh resilience and stem the conversion from high marsh to low marsh (and, eventually, to tidal flat or open water) will preserve important marsh ecosystem services, such as coastal flood protection, into the future. On the other hand, it is notable that a Town-wide loss of 555 acres of upland may also have significant environmental, social, and/or economic impacts depending on the nature and disposition of the upland converted to wetland area.

3.3.2.2 Area-specific results

Although it is useful to look at town-wide projected changes, in order to better observe the finer details in wetland area changes and be able to quantify those changes in areas of specific concern, results were also evaluated within 14 different areas of interest throughout Town. These areas included all public beaches (except for Grew's Pond):

- Bristol Beach
- Chapoquoit Beach
- Falmouth Heights Beach
- Megansett Beach
- Menauhant Beach
- Old Silver Beach
- Stoney Beach
- Surf Drive Beach
- Wood Neck Beach

Major estuaries, great ponds and large areas of salt marsh were also identified as areas likely to experience significant changes. The additional areas that were considered as part of this study include:

- The marsh system behind Old Silver Beach;
- Great Sippewissett Marsh
- Little Sippewissett Marsh
- Little Pond
- Great Pond
- Green Pond
- Bournes Pond
- Eel Pond
- Waquoit Bay

In many cases, a public beach and coastal pond or salt marsh area were collocated are considered within the same evaluation area. In this way, the 18 natural resource areas listed above were combined into 14 evaluation areas (Figure 3-4). Map-based results, as well as area summary tables, are presented for each evaluation area in Appendix D.

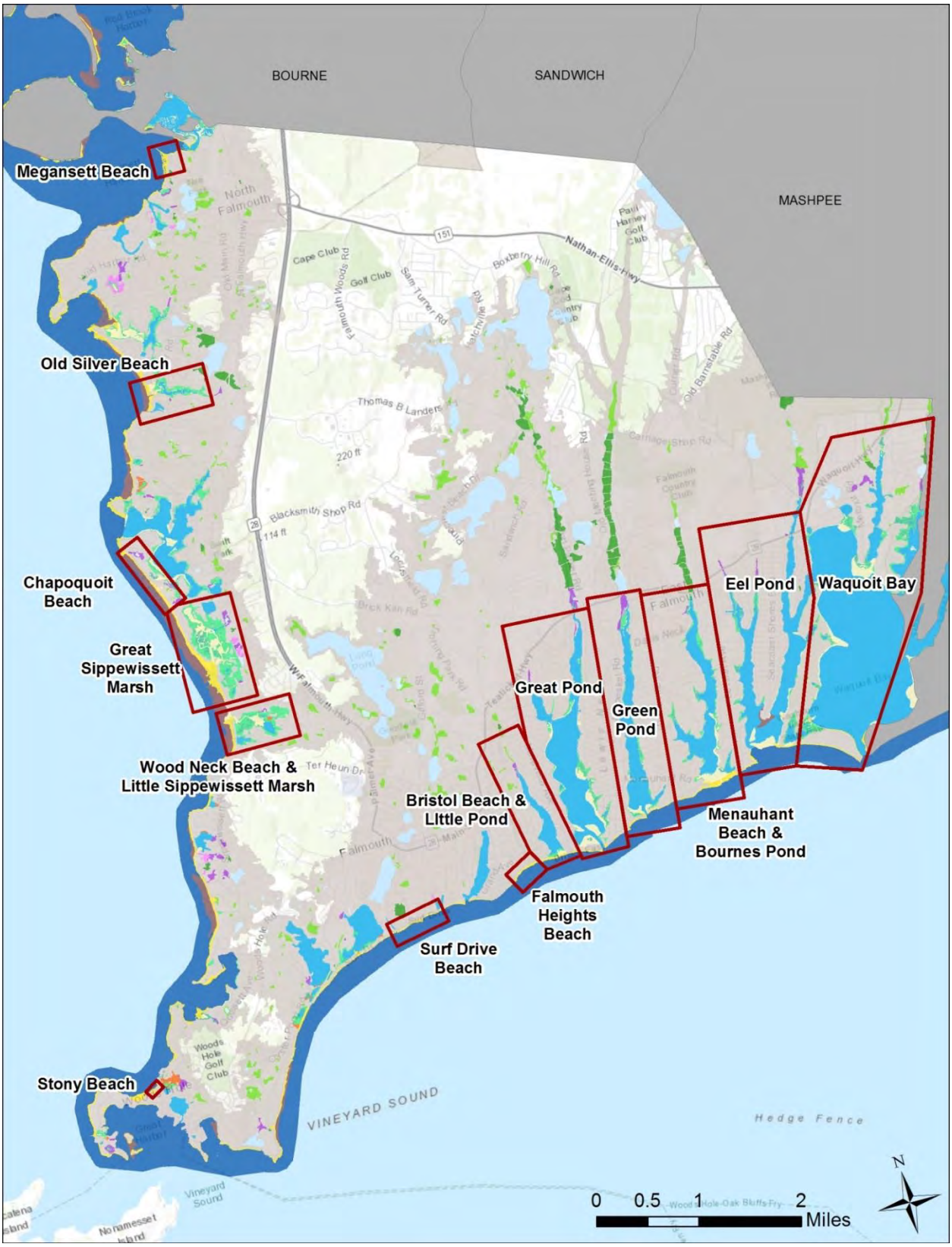


Figure 3-4. Area-specific natural resources evaluation areas.

4.0 ADAPTATION STRATEGIES

4.1 INTRODUCTION

There are generally four types of adaptation strategies that may be applicable to adapt to the risks of flooding from sea level rise and storm surge. While in some cases they can be used alone, in other situations a combination of approaches may be most appropriate. The four adaptation strategies are:

- Avoid Risk,
- Accommodate,
- Protect, and
- Retreat.

These types of strategies are conceptually illustrated and described in Figure 4-1, from CoastAdapt (NCCCARF, 2019).

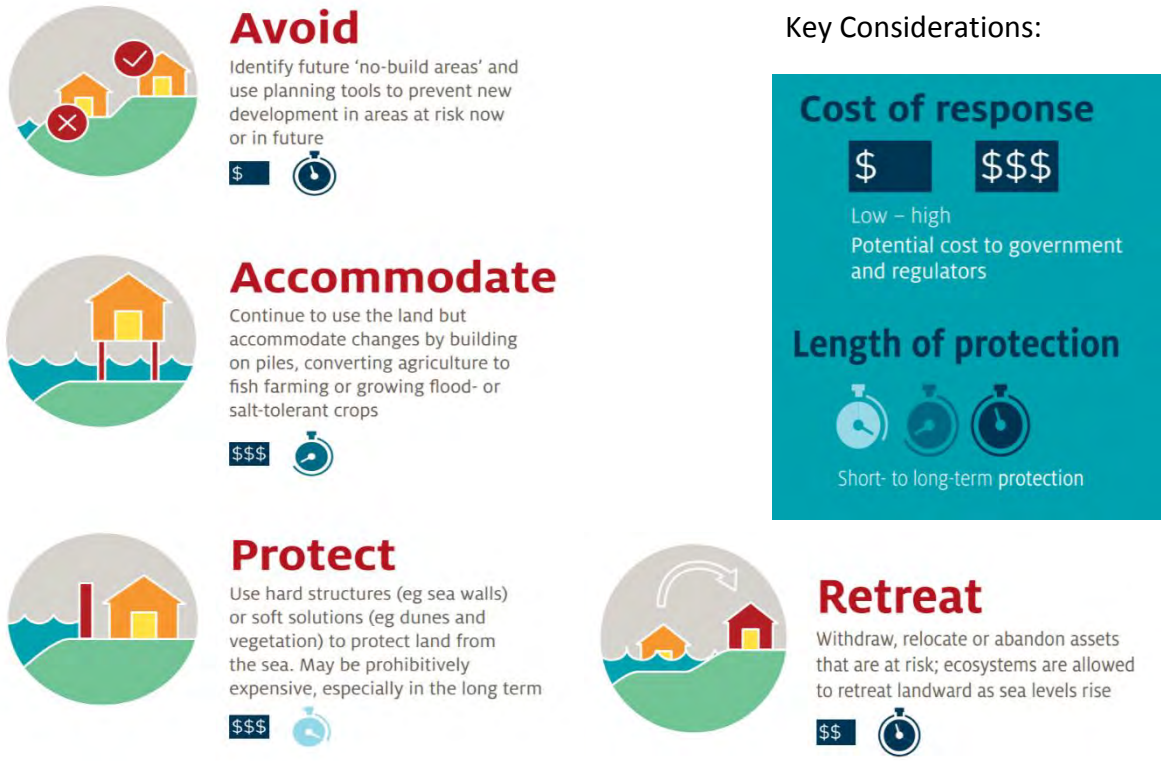


Figure 4-1. Conceptual illustrations of adaptation options (from NCCCARF, 2019).

Avoid Risk: Avoidance strategies typically involve planning level activities to prohibit future development in areas subject to coastal hazards, such as sea level rise and storm surge impacts, or in areas where the current level of risk is low but with increase over time. This may involve

identifying "no-build" areas and the adoption of bylaws or policies to limit development in these areas. Zoning is one possibility for accomplishing this goal. Locally, Chatham recently adopted zoning bylaw designating "conservancy districts," which encompass all land within the 100-year floodplain. Within these conservancy districts, uses are divided into three categories: permitted uses, special permit uses, and prohibited uses, as seen in Figure 4-2. The goal of establishing this bylaw was to protect people, property, and resources from flood risks, but restricting or limiting certain uses in flood-prone areas.

Figure 4-2. Chatham conservancy district uses.

Accommodate: Accommodate or adaptation strategies allow continued use of the land or assets within a higher risk area by implementing changes to human activities and/or the buildings and infrastructure to improve resiliency to occasional flooding. This strategy does not stop flood waters from reaching essential infrastructure, but takes action to minimize and control the damage that would be caused during such an event. Accommodation strategies may include physical, operational, or regulatory actions. Physical measures may include construction of artificial floodways to convey flood water away from roads or homes, raising new and existing structures above flood elevation, and retrofitting structures with floodproofing measures. Operational measures may include improved evacuation or emergency planning, additional training for first responders, or providing education and resources to residents and business owners in high risk areas. Finally, regulatory measures may include updates to the building code or zoning bylaws, or increasing setbacks.

Protect: Protect strategies utilize hard (e.g., revetments, seawalls, flood barriers) or soft (e.g., dune enhancement, living shorelines) solutions to protect upland infrastructure from damage due to flood impacts. In many cases, existing infrastructure will likely need to be raised incrementally to continue providing adequate protection in the future, given projected sea level rise and increased storm intensity.

Retreat: Retreat strategies involve withdrawing, relocating or abandoning assets that are at risk. These strategies acknowledge that some areas by be too costly or technically infeasible to protect against sea level rise, flood impacts and storm surge. As hard infrastructure is relocated, previously developed areas along the coast can be restored to healthy ecosystems, which can provide valuable ecosystem services. Retreat strategies could also allow ecosystems, such as salt marshes, to migrate landward as sea level rises. Municipalities can implement retreat adaptation strategies through property buyouts, relocation of roads, utilities and other infrastructure, and implementation of new zoning or other regulations limiting new development or reconstruction.

4.2 RECOMMENDATIONS FOR MUNICIPAL ASSETS

For specific critical municipal infrastructure assets and buildings, it may be necessary or preferable to implement resilience strategies at the asset level to reduce the risk from flooding. Asset level strategies are especially needed for critical assets located in high flood risk areas that are either outside the scope of regional flood protection strategies or that have not been selected for regional flood protection strategies for technical, political, or financial reasons. Asset level adaptations are also preferable for very critical assets that cannot afford to wait until regional solutions are implemented.

The highest risk municipal assets, according to Composite Risk ranking, are shown in Table 3-11. They are predominantly roads and bridges, located in low-lying areas. However, there also a significant number of other low-lying critical facilities, such as buildings and structures, parking lots, docks and piers, and recreational facilities with high composite risks scores (Tables 3-5 to 3-10). One characteristic that many of these assets share is that they are projected to flood annually by the 2070 timeframe, if climate change continues as projected. In the following sections, adaptation options are recommended for assets in each asset category area, with additional guidance for decision makers and designers. Order-of-magnitude cost estimates, in 2019 dollars are provided, where possible, for long-term planning purposes. These costs are in no way meant to represent actual estimates of total project costs as no surveying, subsurface exploration, engineering design, permitting and escalation of costs was performed as part of this project, all of which are necessary to establish true project costs required to design and construct a project.

While the strategies presented below are not an exhaustive list of resiliency strategies that the Town should consider, the hope is that the adaptation strategies presented below can be used as templates for developing solutions for similar assets throughout Town.

4.2.1 Buildings and Structures

There is a general suite of options for adaptations specific to buildings and structures. These strategies may be applied as needed to vulnerable facilities in the Town of Falmouth, following further site-specific investigations and suitability analyses. These asset-specific strategies are intended to reduce damages caused by flooding. These strategies range from major building modifications, such as elevating the structure, to interior modifications, such as moving internal equipment to a higher location in the building, that strive to protect individual, critical elements inside the asset from flood damages. These general building adaptation strategies include:

1. **Full Building Elevation**: If a building or structure has a high probability of flood inundation, consideration should be given to elevating the entire structure above the base flood elevation (BFE) to avoid critical damages from sea level rise, storm surge, and increased precipitation. Depending on the construction type and architectural style of the structure, it could be elevated on to stilts or pilings, which allow water to pass under the structure without causing structural damage to the building, or the structure, can be elevated onto a solid concrete foundation. Any elevation project will require the installation of additional stairs or a ramp to access the new elevated entryway.

2. **Interior Elevation:** If a building or structure has a high probability of flood inundation, but full building elevation is not possible, consideration could instead be given to elevating just the first floor from the interior. This strategy is most appropriate for buildings constructed of a non-porous, flood-resistant material (e.g., masonry), where the most significant risk comes from flood water entering the structure through openings in the building (e.g., doorways, windows, etc.). This is a particularly attractive option when there is a strong desire to maintain the existing aesthetic of the building's exterior, such as with historic preservation sites. However, interior elevation only works if there is an adequate floor to floor height to accommodate the floor elevation.

3. **Dry Floodproofing**: Dry floodproofing involves using multiple strategies to ensure that no floodwater enters through the exterior of the building, the basement, or any of the buildings openings. This might involve installing deployable flood shields at any doors or windows below the BFE. Traditional flood shields require permanent hardware to be installed on the frame of the opening so that barriers can be easily deployed prior to a flood event. However, there are some 'light-footprint' site strategies, such as sandbags or Tiger Dam systems that can be deployed. While these systems cannot necessarily ensure that the structure itself is completely sealed from flooding, they can lessen the damages. Dry floodproofing can also involve sealing the existing exterior face of the building with an impervious coating that stops floodwaters from penetrating pre-existing porous materials.

4. **Wet Floodproofing**: Unlike dry floodproofing, wet floodproofing does not aim to stop water from entering a building or structure. Instead, it aims to reduce flood damages by allowing flood water to pass through the structure so that the forces of the water on the

building's exterior do not cause significant damage to the structure itself. Because of this, wet floodproofing requires retrofitting the building's interior with 'floodable' materials and protecting mechanical and utility equipment so that these components will not suffer permanent damage when water passes through.

5. **Mechanical Systems**: Whenever possible, mechanical systems should be elevated above the base flood elevation (BFE). For low flood inundation probabilities, or if it is not feasible to relocate the mechanical system outside of the lower level, systems should be elevated on a platform to protect from subgrade flooding. Systems should always be anchored so as not to shift during a flood event, damaging other areas.

Site-Specific Building & Structure Adaptation Recommendations:

MC-FRM results indicate that the Park Road Sewer Lift Station is the most vulnerable municipal structure in the Town of Falmouth. It is also the only municipal facility that has an annual exceedance probability of 100% in present day climate conditions. For these reasons, this sewer lift station was selected for conceptual-level site adaptation planning. Other high-ranking building and structure assets, based on the composite risk score, include the Old Dock Road Pier facilities (upwellers - #2, shed - #4), the Woods Hole Drawbridge Hut (#3), and Town Hall (#6). Conceptual-level site adaptation recommendations are also provided for these locations.

Park Road Sewer Lift Station:

The sewer lift station located at the terminus of Park Road in Woods Hole, is situated at the edge of an existing salt marsh (Figure 4-3). The station consists of a ground-level hatch (at an elevation of approximately 3 feet NAVD88) covering a "wet well" (an underground container in which wastewater collects; there is no mechanical equipment below this hatch), an elevated hatch (at elevation 4.6 feet NAVD88, which houses the mechanical pump equipment), a post supporting an electrical meter and the disconnect (the main power switch, with major electrical components at an elevation of approximately 6.6 feet NAVD88), and a series of mechanical components, including the main disconnect, the main transfer station, the main panel board and the pump control panel in an array behind the elevated hatch. The lowest elevation of these rear components is approximately 4.5 feet NAVD88. This lift station services a small neighborhood area consisting of 27 single-family households. Both hatches were designed to be flood proof, but because the lift station was constructed more than 35 years ago, this study conservatively assumed that if water was above the upper hatch (i.e., higher than 4.6 feet NAVD88), the equipment below would be flooded and damaged.

Figure 4-3. Park Road Sewer Lift Station.

The flood risk to this site can be considered in two different ways: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. Both types of flood risk are presented in Figure 4-4. With regards to the potential for daily tidal flooding, the Park Road Sewer Lift Station site will be at risk from daily high tide flooding by 2050. However, because the critical components of this asset are elevated above the ground level, daily tides won't impact the functioning of this asset until sometime between 2050 and 2070 (access will, however, become more difficult since the ground around the station will be inundated at high tides). Based on the results below, however, the Park Road Sewer Lift Station has a 100% probability of flooding during a storm event, even in present day.

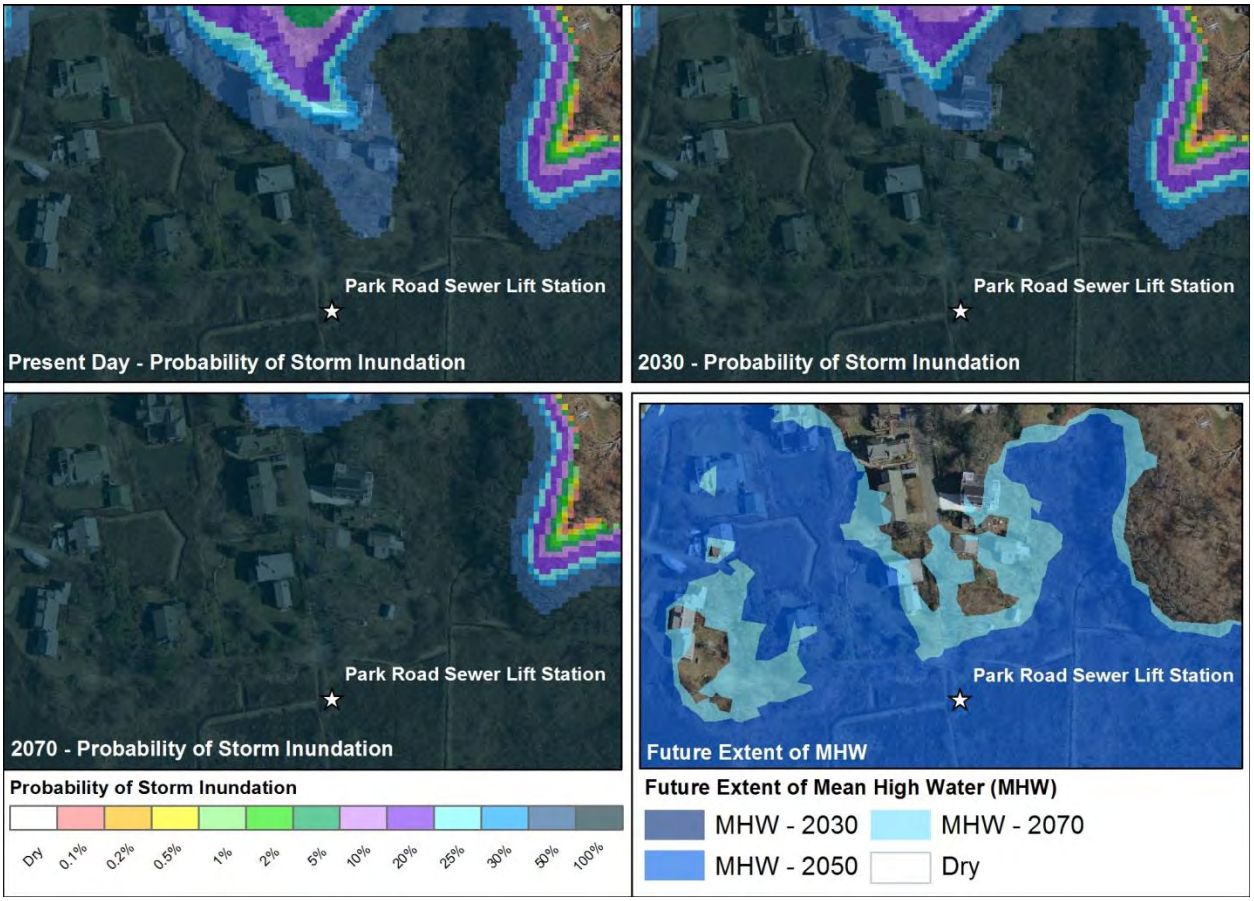


Figure 4-4. Present and future flood risk from storm inundation and daily tides for the Park Road Sewer Lift Station.

Recommendations:

- (Present) Install riser and floodproof hatch on wet well. Reinstall mounted electrical controls in floodproof electrical boxes. Relocate electrical disconnect and generator receptacle. Replace pumps with dry-pit submersible pumps or, if with non-submersible pump, purchase spare motors. [3]
- (2030/2070) In the mid- to long-term this site is not likely a sustainable location for a sewer lift station. Additionally, the need for sewer infrastructure at this location may change as sea-level rise impacts residential homes in the area and/or municipal action and/or regulatory changes result in fewer residences. An alternative to a sewer lift station for the remaining residences could also include switching this area to grinder pumps.

(See the regional adaptation discussion for the Woods Hole area in Section 4.4.2 below.)

[3] The Town is planning to implement this action in the near term.

Old Dock Road Pier Upwellers and Shed:

The Old Dock Road Pier (Figure 4-5) was recently rebuilt with great efforts to preserve its historic character; West Falmouth granite was acquired for the construction. The site contains a privately-owned shed, which is used for the storage of boat club supplies, but also houses the water backflow preventer for the municipal dock. The ground floor of the shed is located at an elevation of 5.95 feet (NAVD88). This backflow preventer is located on the floor and is connected to the docks by a line that comes up into the shed through the floor. There are no consequences resulting from the backflow preventer getting wet. There are also two upwellers located on the pier. The bases of the tanks are at an elevation of 5.34 feet (NAVD88). The upwellers are only operated seasonally, but they remain in place year-round. Although there are no consequences resulting from the upwellers simply getting wet, because they are not permanently attached, if flood water rose to a height above the bottom of the upweller tanks, they could float free during a storm.

Figure 4-5. Old Dock Road Pier assets.

The flood risk to this site can be considered in two different ways: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. Both types of flood risk are presented in Figure 4-6. With regards to the potential for daily tidal flooding, the Old Dock Road marine related assets will be at risk from daily high tide flooding in 2050. This tidal inundation will also impact Old Dock Road by 2050, affecting transportation and access to this site. Based on the results below, however, the Old Dock Road marine assets have a 50-100% probability of flooding during a storm event, even in present day, making this site very vulnerable to flooding.

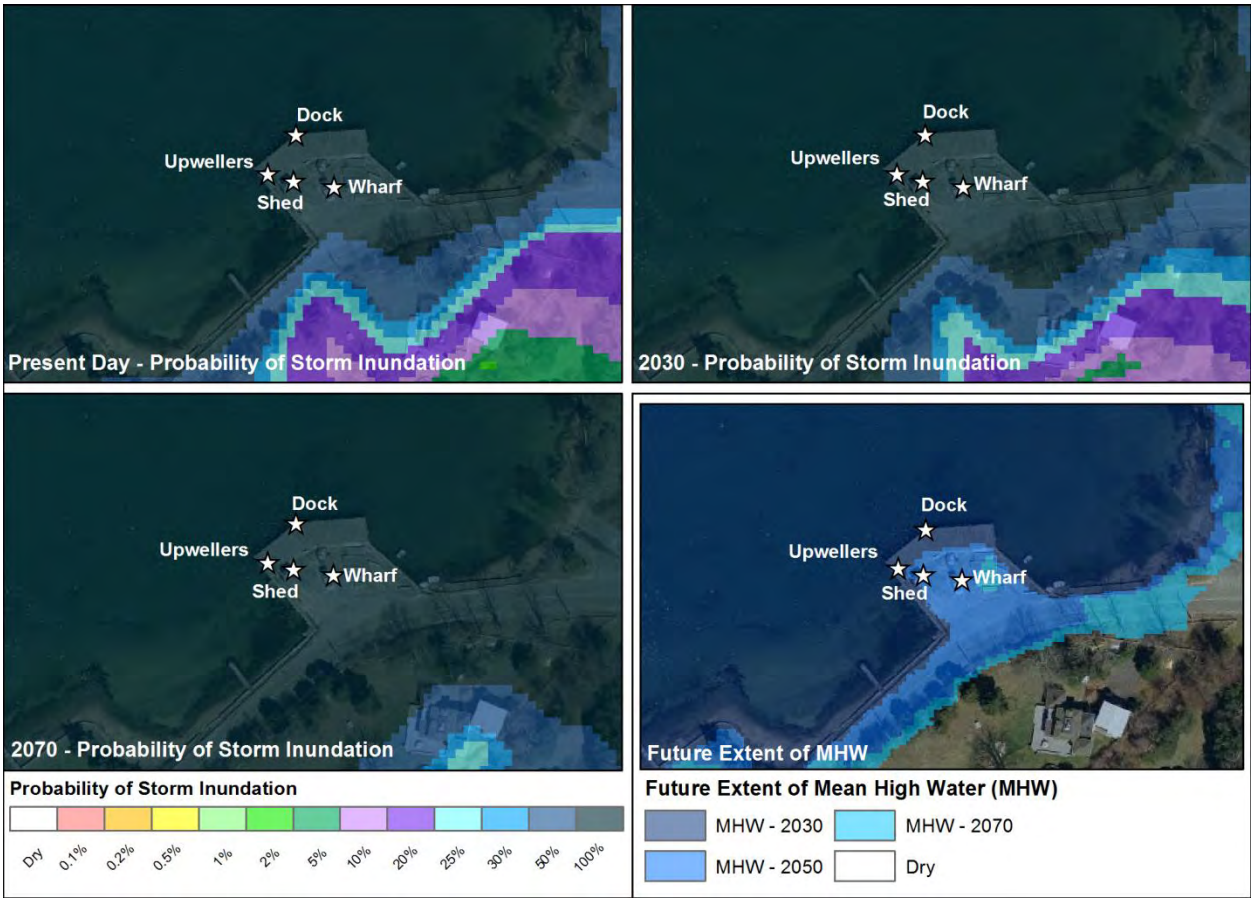


Figure 4-6. Present and future flood risk from storm inundation and daily tides for the Old Dock Road Pier site.

Recommendations:

- (Present) Properly wet floodproof the shed; this would not prevent water from entering the structure, but would ensure that nothing inside was damaged during a flood event. (Approximate cost = $3,000)
- (Present) Properly secure upwellers to the pier so they cannot be dislodged during a storm event. (Approximate cost = $3,000 - $5,000)
- (Present) Assess the pier to ensure it is structurally robust enough to withstand storm conditions. (Approximate cost = $35,000 for engineering study)
- (2050/2070) By 2050, daily MHW will exceed the elevation of the pier, as well as impact this section of Old Dock Road. In the long-term, this area will have to be redesigned and the Old Dock Road Pier and its various assets relocated or raised; raising the structure in its current location would also require raising Old Dock Road and the co-located water main as well. Alternatively, a segment of Old Dock Road could be abandoned, resulting in a dead end road that terminates at the relocated Old Dock Road Pier and associated boat ramp.

Woods Hole Drawbridge Hut:

The Woods Hole Drawbridge Hut (Figure 4-7) is located on the southwestern side of the Eel Pond inlet in Woods Hole. The main mechanical components of the drawbridge are located in the lower level of the hut, accessed through the metal bulkhead (the 4.78 feet (NAVD88) critical elevation was surveyed at the lip of the bulkhead); the bulkhead is not currently waterproof. An external generator is located outside the bulkhead on a raised platform (the base of the generator is at 7.68 feet, NAVD88). There is also an external submersible pump housed on a concrete pad to the right of the bulkhead; this component was necessary prior to the recently installed bulkhead to pump water from the open stairwell.

The flood risk to this site can be considered in two different ways: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. Both types of flood risk are presented in Figure 4-8. With regards to the potential for daily tidal flooding, the ground around the Woods Hole Drawbridge Hut will be at risk from daily high tide flooding by 2070. Based on the results below, however, the ground around Woods Hole Drawbridge Hut has a 50-100% probability of flooding during a storm event, even in present day, making this site very vulnerable to flooding. Because the critical elevation for the Woods Hole Drawbridge Hut is slightly raised, the probability of inundation reaching the lip of the bulkhead (the critical elevation) is slightly reduced, with a 25% probability in present day and a 50% probability in 2030, but there is still a 100% probability of inundation at 2070.

Figure 4-7. Woods Hole Drawbridge Hut.

Recommendations:

- (Present) Dry floodproof the bulkhead to protect the interior mechanics of the drawbridge hut. (Approximate cost = $1,000)
- (Present) Determine whether the submersible pump in the metal box to the right of the bulkhead is still necessary. If so, raise this component.
- (2030) Raise external generator, potentially on top of the hut. (Approximate cost = $12,000)
- (2030) Dry floodproof the upper room of the drawbridge hut to protect the vital electrical equipment that's inside. (Approximate cost = $4,000)
- (2030/2050) Evaluate the viability and necessity of the Woods Hole Drawbridge and Drawbridge Hut in the long-term. See the regional adaptation discussion for the Woods Hole area in Section 4.4.2 below. May not even need drawbridge (or hut) in 2070.

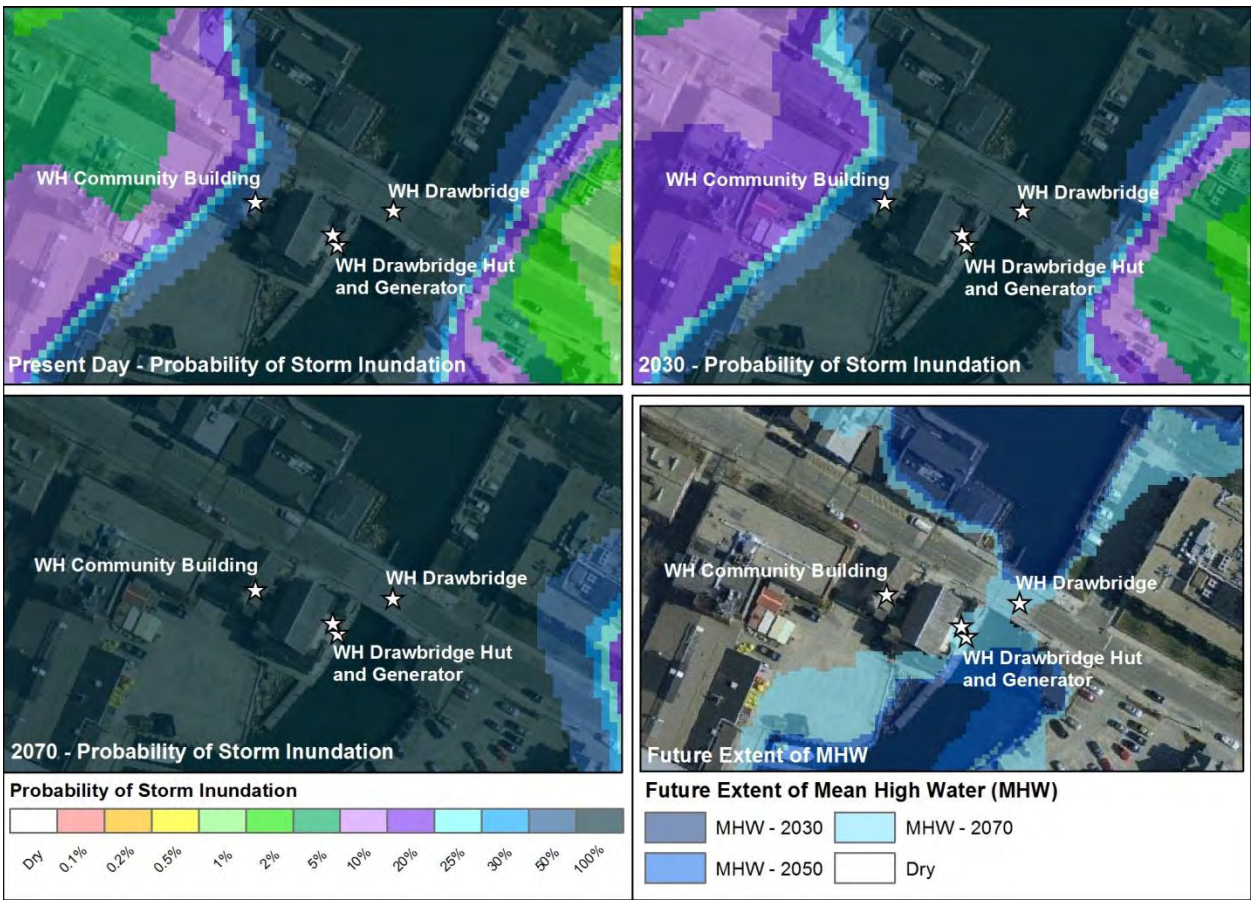


Figure 4-8. Present and future flood risk from storm inundation and daily tides for the Woods Hole Drawbridge Hut site.

Town Hall:
Situated at the northern edge of Siders Pond up a slight rise in topography, there is no risk of flooding from daily tidal inundation to the Town Hall building itself. There is, however, a risk of daily tidal inundation to the rear parking area by 2070 (Figure 4-9). With regards to flood risk from storm events, the Town Hall building has a 5% probability of inundation in present day, a 20% probability of inundation in 2030, and a 100% probability of inundation at least once per year in 2070. Because the next few decades will have a relatively low probability of inundation, and there is still ample service life left in the building, it is worth retrofitting the Town Hall building in the short term to protect it from flooding. In the long term, however, the Town should weigh the remaining service life (i.e., if the Town Hall building requires a major renovation or rebuild) versus seeking relocation to a higher elevation in Town.

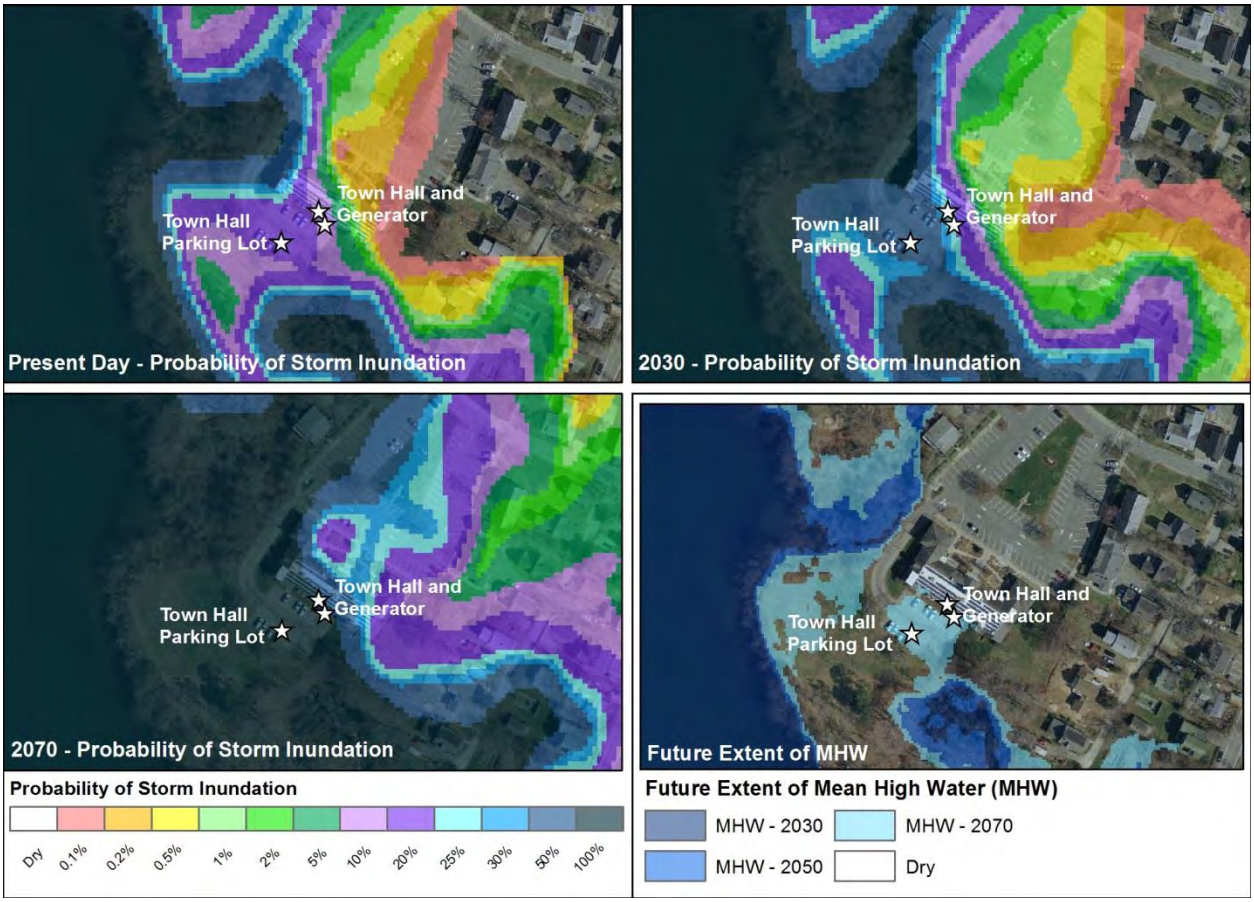


Figure 4-9. Present and future flood risk from storm inundation and daily tides for the Town Hall site.

Recommendations:

- (Present) Dry floodproof the lower floor of Town Hall to protect the interior spaces; this will also allow shallow water to flow up against the building without leaking into the structure. (Approximate cost = $25,000)
- (Present/2030) As a broader solution, a berm-like landscaping feature (Figure 4-10) could be constructed to reduce the likelihood of flooding at Town Hall and the surrounding areas, including a number of local businesses. The recommendation in Figure 4-10 involves an earthen berm (or similar structure) approximately 1,000 feet long that would extend from the higher elevation behind St. Barnabas Church, around the Ryan Family Amusement building, Town Hall and the read Town Hall parking lot, to a higher elevation point at the southeast corner of the main Town Hall parking lot. (Approximate cost = $680,000)
- (2070) Consider relocating the Town Hall to a new location. This could involve purchasing land or utilizing a vacant lot already owned by the Town and constructing a new building. Alternatively, a suitable existing building elsewhere in Town could be acquired (or repurposed if already owned by the Town). The cost associated with this recommendation will obviously vary depending on whether the Town already owns the land and/or structure, or if property will need to be purchased and/or a new building constructed. Alternatively, if the berm feature is developed, the use of the current building for Town Hall functions could potentially last up to or beyond 2070; at that point the Town could monitor sea-level rise and evaluate how the climate has been evolving before making a decision.

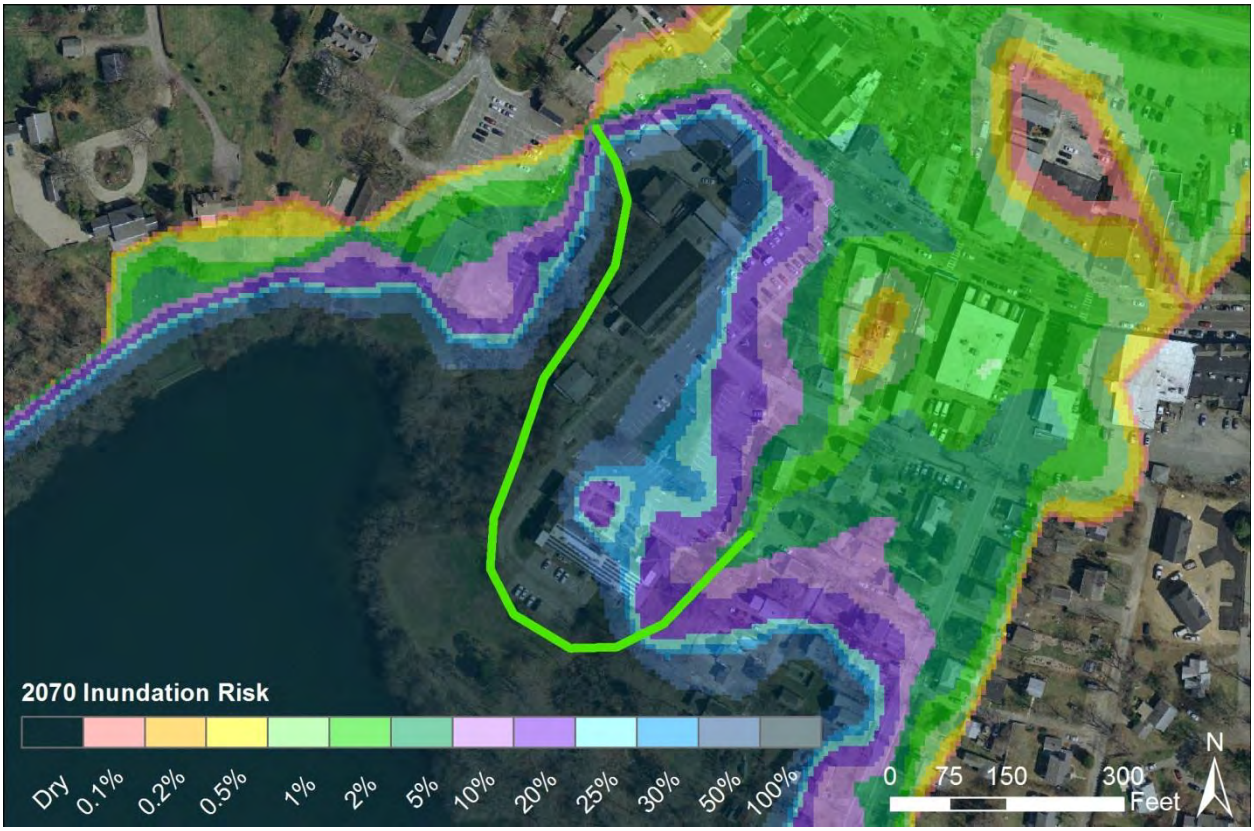


Figure 4-10. Proposed berm to reduce the flood risk to the Falmouth Town Hall and surrounding areas.

4.2.2 Parking Lots

Most of the extremely vulnerable Town parking lots are those associated with public beaches. Although these are important assets to the Town for recreation and tourism, these lots are not used during a storm event, and there is very little damage expected to occur to the parking lot itself from flooding (although there are potential impacts from wave induced erosion, those impacts are outside the scope of this project). Therefore, in general, the risk is to other assets in and around the parking lots, rather than the parking lots themselves. The risk is slightly different for parking lots that are close enough to the coast to receive impacts from waves, potentially resulting scour and erosion, and therefore higher maintenance and repair costs. Town parking lots that have the highest potential for significant wave impacts include:

- Megansett Beach Parking
- Old Silver Beach Parking Lots (north and south)
- Chapoquoit Beach Parking
- Woodneck Beach Parking
- Woods Hole Boat Ramp Parking
- Parking lots along Surf Drive (Oyster Pond Road, Salt Pond, Mill Road, and Surf Drive Beach)

- Falmouth Harbor parking lots
- Falmouth Heights Beach Parking
- Bristol Beach Parking Lots (west and east)
- Menauhant Beach Parking Lots (west and east)

The MC-FRM results indicate that the southern Old Silver Beach parking lot is one of the most vulnerable municipal parking lots in the Town of Falmouth. It is one of the eight public parking lots that has a 100% risk of inundation under present day conditions. Both Old Silver Beach parking lots also have a septic system underneath them, as well as a bathhouse and concession stand adjacent to the parking lot level (i.e., other assets that have a higher consequence of flooding than the parking lots themselves). For these reasons, combined with the fact that Old Silver Beach is a large income generator for the Town, this parking lot was selected for conceptual-level site adaptation planning. Other high-ranking parking lot assets, based on the composite risk score, include the Woods Hole Boat Ramp Parking Lot, the Surf Drive Salt Pond and Mill Road Parking Lots, and the parking areas around the Falmouth Inner Harbor. Conceptual-level site adaptation recommendations are not provided for these additional locations, but it is assumed that most of the recommendations will be transferrable to other locations around Town.

Old Silver Beach Parking Lots:
Old Silver Beach consists of two separate parking lots: the northern parking lot is a resident's only lot, while the southern lot is the visitor's lot where a daily parking fee is charged during the summer. The southern lot has a long extension, referred to by the Beach Department staff as "the chute", which grades down to a relatively low elevation (4.3 feet, NAVD88) (Figure 4-11). Both parking lots contain a septic system under the lot, as well as a bathhouse that contains restrooms, showers, storage and concessions.

Figure 4-11. The southern Old Silver Beach parking lot extension (aka "the chute").

The flood risk to this site can be considered in two different ways: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. Both types of flood risk are presented in Figure 4-12. With respect to daily tidal inundation, by 2050 the lower 75 feet of the chute will start to experience daily tidal inundation (medium blue), and by 2070, a significant portion of the chute will be tidal (light blue) (Figure 4-12). With the exception of the chute, however, the main parking lots are much higher in elevation, are armored by stone revetments on their seaward sides, and will remain useable well into the future on a regular basis, with flooding likely only during major storms. As long as the septic system caps are appropriately floodproofed, there is very little consequence if the parking lots themselves gets inundated. There is, however, a much higher consequence if the bathhouse at either parking lot floods. If water entered either building, particularly in the area of the showers, it would result in flooding of the septic system, not to mention any water and/or wave damage down to the building itself. Although presently there is a very low risk of inundation at the bathhouses, 0.2% and 1%, for the south and north bathhouses respectively, these risks increase to 0.5% and 2% in 2030 and 10% and 25% in 2070. As such, recommendations for this site focus more on the protection of the building assets rather than the parking lot itself.

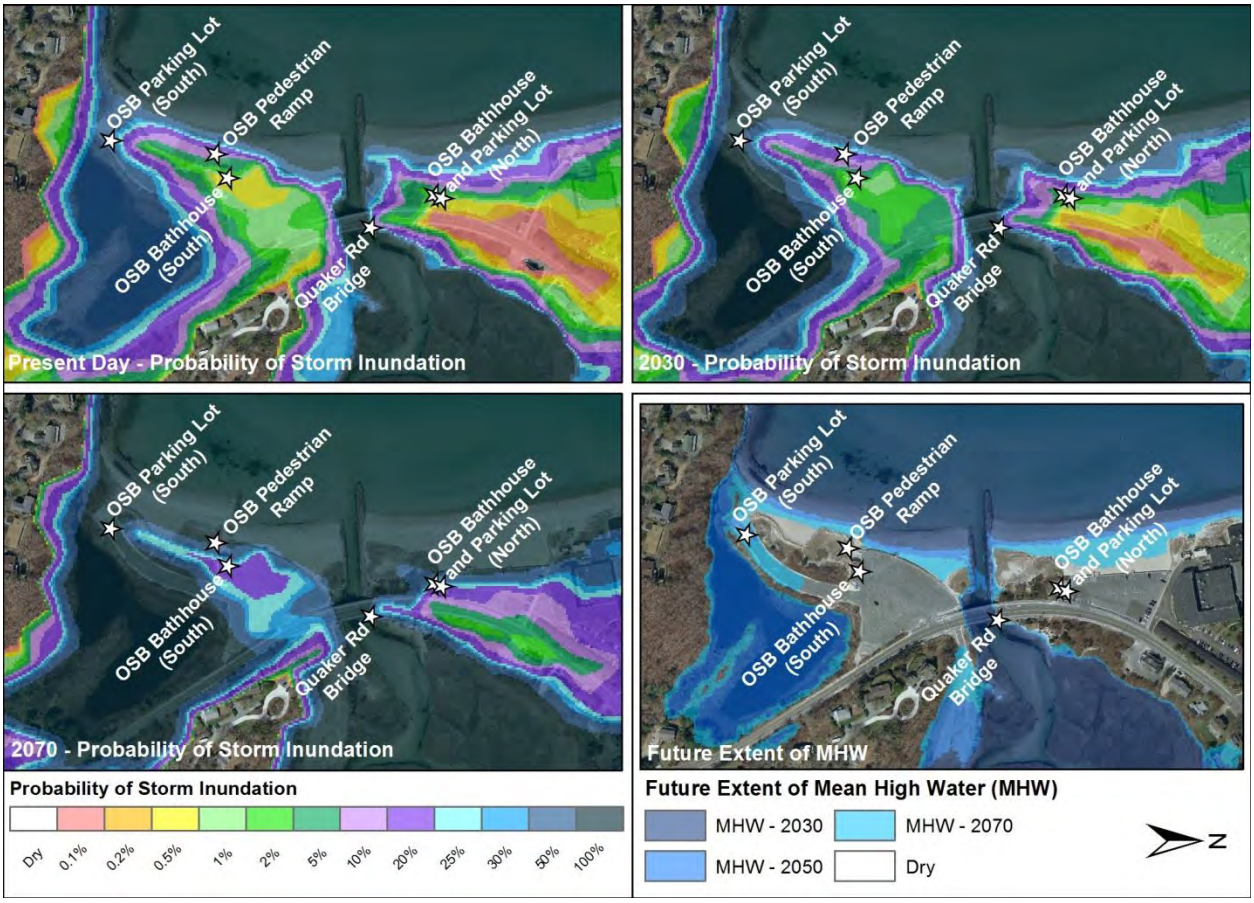


Figure 4-12. Present and future flood risk from storm inundation and daily tides for the Old Silver Beach site.

Recommendations:

- (Present) Add waterproof seals to the septic caps in both parking lots. (Approximate cost = $7,000)
- (2030) Begin planning for flood protection measures for the bathhouses. This could entail a perimeter landscape wall a couple feet high installed around the bathhouses with access points that could be closed with flood barriers prior to a storm. (Approximate cost = $600,000 - $800,000 depending on height; 3-4 foot wall vs. 5-6 foot wall)
- (2030/2050) The elevation and width of the beach should be monitored regularly. If significant erosion has occurred, beach nourishment should be considered. A wide, healthy beach is important not only for its recreational and ecological values, but also as a buffer for the parking lots and infrastructure behind it.
- (2050) Begin phasing out the use of the chute for parking.
- (2050) If buildings are damaged or are in need of major repairs, switch to portable facilities. (Approximate cost = $225,000 - $300,000 per summer for rental facilities)

4.2.3 Recreational Features

The Town of Falmouth has a proud tradition of providing open space and recreational opportunities. From the large tracts of preserved open space to the Shining Sea Bike Path to playing fields and playgrounds, the availability of high-quality recreation and open spaces are important to the people of Falmouth. While many of these assets are located in higher elevations throughout Town, and are not vulnerable to coastal flooding, a number of the Town's recreational assets are located in low lying coastal areas; the longevity and recurring maintenance costs for these assets will need to be considered with regards to probability of flooding due to sea-level rise and storm impacts. Taft Park, and its various recreational assets, was the highest ranked recreational asset in Town in terms of its composite risk score.

Taft Park

The Eel Pond area of Woods Hole is densely developed with academic and government buildings, as well as a commercial strip of restaurants and shops. The remaining area is sprinkled with private residential buildings surrounding Taft Park (Figure 4-13), a recreational park that includes a baseball field, tennis courts, a playground, and a sand volleyball court. This is the only feature of its kind in this part of Town, and provides a valuable recreational resource for the residents and visitors of Woods Hole village.

Figure 4-13. Taft Park baseball field (foreground) and tennis courts (background).

The flood risk to this site can be considered in two different ways: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. Both types of flood risk

are presented in Figure 4-14. With a recreational park such as this, the although the probability of inundation due to storm may be high (30 to 50% even in present day), the actual consequence inundation is fairly low. However, at the point where the park begins to experience daily tidal inundation due to sea-level rise, use of the park will certainly be impacted. The playground, tennis courts and sand volleyball court will not experience daily tidal inundation until 2070, but the outer portion of the baseball field will start to experience high tide flooding as soon as 2050 (Figure 4-14). The parking lot would not be impacted by daily tides through 2070.

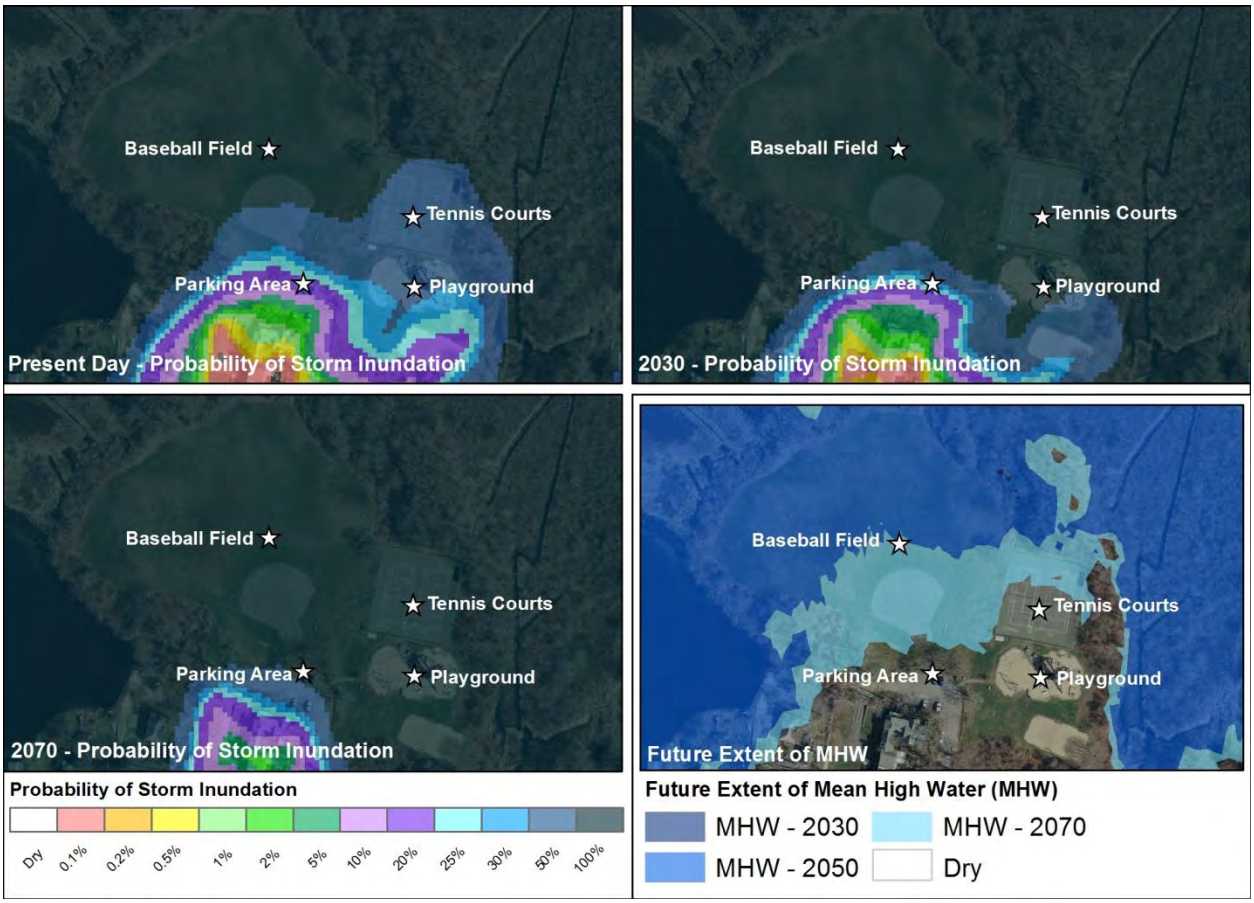


Figure 4-14. Present and future flood risk from storm inundation and daily tides for the Taft Park site in Woods Hole.

Recommendations:

- (Present) No action. Although costly improvements should not be made to the baseball field.
- (2050/2070) Consider looking for alternate locations to relocate these recreational assets. The Eel Pond area of Woods Hole is fairly well developed already, but Town owned properties nearby, such as the Woods Hole Fire Station lot, could be considered.

- (2050-2070) Consider transitioning Taft Park into a natural wetland area. Walking trails and/or boardwalks could be added to maintain the open space and recreational use (albeit a different type of recreational use) of this property.

Shining Sea Bike Path

The Shining Sea Bike Path stretches 10.7 miles from Route 151 in North Falmouth to Water Street in Woods Hole, and is one of the most iconic features of Falmouth. The most at risk section of the bike path is near Surf Drive along the Town's southern coast, but this area will be addressed in more detail in the follow-up Surf Drive Resiliency Study. This report will focus on another vulnerable low-lying section of the bike path from Chapoquoit Road to just before Saconesset Road in West Falmouth.

The 2,400-foot section of the bike path from Chapoquoit Road to just before Saconesset Road in West Falmouth has a 50% probability of being inundated in any given year in the present. That risk increases to 100% probability in 2030 and 2070. However, as with the parking lots, storm flooding of the bike path is not a high consequence event. For the most part, the water will recede after the storm, and the paved bikeway will be useable again as long as it is not damaged by higher energy wave of current conditions. A more significant problem occurs when high daily tides resulting from sea-level rise start to inundate the bike path. This will start to occur in 2070 in the area bracketed by the red lines in the Figure 4-15. Before that occurs, it would be beneficial to elevate this portion of the bike path, potentially as a pile-supported structure that could also benefit salt marsh expansion and establishment on the eastern side of the path.

Recommendations:

- (Present) No action.
- (2070) Elevate the low-lying section of bike path, ideally using a pile-supported structure that could also benefit salt marsh expansion where the pathway crosses wetlands – two separate sections stretching approximately 400 and 500 feet. (See discussion of Great Sippewissett Marsh in Section 4.3.2.) The rest of the 2,400-foot section could be elevated on solid fill. (Approximate cost = $2,000,000)

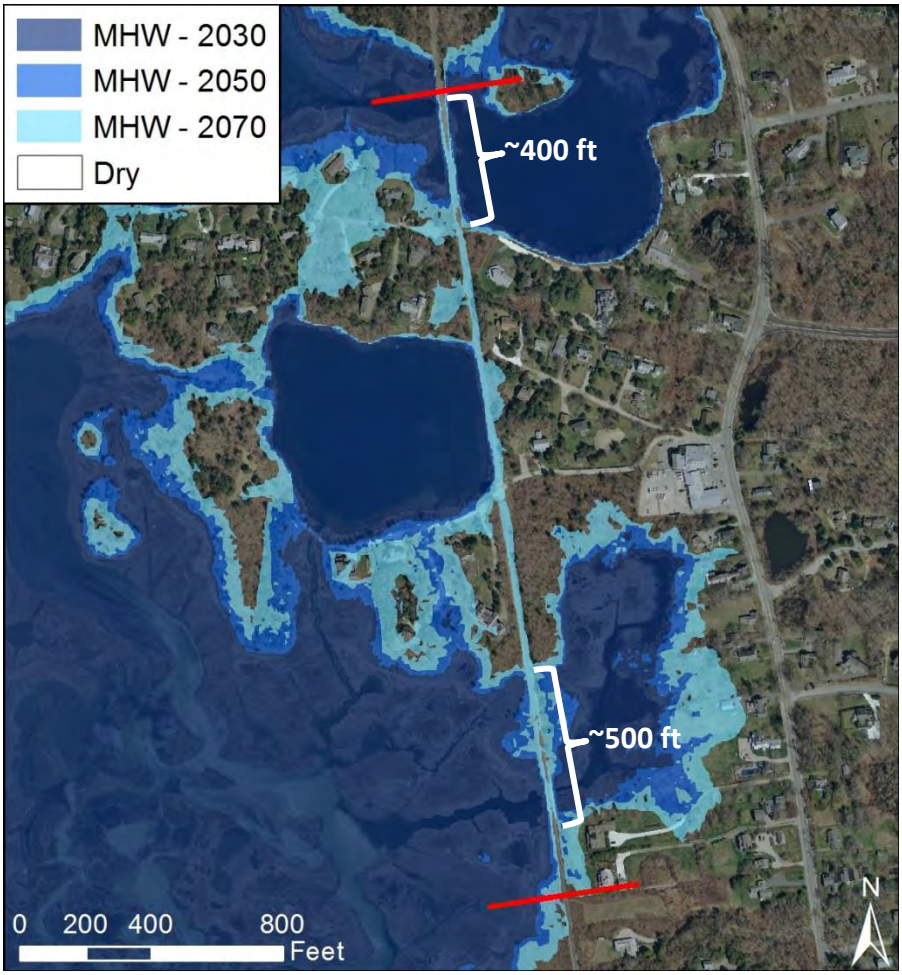


Figure 4-15. West Falmouth Shining Sea Bike path areas at risk of daily tidal inundation in the future.

4.2.4 Docks and Piers

The Town marinas at Falmouth Inner Harbor and Green Pond contain various asset types, ranging from electrical and pump connections, to upweller systems, to the docks and piers themselves. As water-dependent assets, these features are vulnerable to flooding in present day conditions. By 2030 and 2070, flooding frequency and depth will increase, making these assets susceptible to leakage and failure. Of the docks and piers evaluated through this vulnerability assessment, the Falmouth Harbor and Green Pond Docks ranked the highest in terms of composite risk score.

Falmouth Harbor Docks

The Falmouth Inner Harbor contains 12 Town-owned floating docks, seven (7) of which are part of the main marina facility. The floating docks are all connected to a fixed pier that extends along the perimeter of the harbor area (Figure 4-16); the elevation of this fixed pier ranges from 3.6 to 4.3 feet (NAVD88). All seven of the main marina docks have slip power pedestals and

water lines. Breaker boxes controlling the power supply to the dock pedestals are located on posts at the head of each finger float, approximately 2.2 feet above the fixed pier.

Figure 4-16. Falmouth Inner Harbor docks.

The flood risk to this site can be considered in two different ways: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. With regards to periodic inundation due to storms, there is a 100% probability that flooding will occur at the fixed pier during a storm event at least once per year, even in present day. There is a 20% chance today, a 20% chance in 2030, and a 50% chance in 2070 that this electrical box is impacted by floodwater during a storm event. The risk from storm flooding can be mitigated by floodproofing sensitive equipment and ensuring that the docks themselves are structurally sound. Daily inundation due to high tides over the fixed pier would be more problematic. By 2050, the MHW elevation will be 3.5 feet (NAVD88), only a few inches below the fixed pier elevation. By 2070, MHW will be 5.3 feet (NAVD88), considerably higher than the fixed pier elevation, rendering the marina facilities unusable in at high tide.

Recommendations:

- (Present) Ensure that the docks and piers are structurally sound to withstand impacts of storm waves and winds. The docks should also be assessed to confirm that any floating elements have sufficient vertical room to migrate (during large storm events), without becoming unanchored. (Approximate cost = $40,000 for engineering study)

- (Present) Dry floodproof or shift breaker boxes higher on posts to ensure these components are not flooded during a storm event. (Approximate cost = $5,000)
- (2050) Raise the bulkhead height of the main marina facilities to account for higher daily tidal ranges and add fill behind (Approximate cost = $5.3 million to raise bulkhead by 3 feet and add fill behind it), or include a flood control feature (e.g., wall) (Approximate cost = $2.5 million to build 3 foot wall).

Green Pond Docks

The Town marina at Green Pond has a combination of fixed wooden docks and floating dinghy and launch docks. The fixed dock (closest to the road) houses the power and water supplies for all four of the Town slips, as well as the shellfish propagation upwellers. The fixed dock elevation is 4.99 feet (NAVD88) (Figure 4-17). The breaker box controlling the power supply is located on a post at the head of the pier, 2.8 feet above the fixed pier. The upwellers are located at the seaward end of the fixed pier, with the base of the upwellers located 3 inches above the fixed pier elevation.

Figure 4-17. Green Pond Dock (1) with electrical equipment mounted on a panel in the front and the upwellers at the far end of the dock.

The flood risk to this site can be considered in two different ways: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. With regards to periodic inundation due to storms, there is a 25% probability that flooding will occur at the fixed pier of Green Pond Dock (1) during a storm event at least once per year, in present day, and a 50% and 100% probability in 2030 and 2070, respectively. There is a 1% chance today, a 1% chance in 2030, and a 20% chance in 2070 that this electrical box is impacted by floodwater during a storm event. As with the Falmouth Harbor Docks, the risk from storm flooding can be mitigated by floodproofing sensitive equipment and ensuring that the docks themselves are

structurally able to withstand the waves and currents produced by a storm. Daily inundation due to high tides over the fixed pier would be more problematic. By 2070, MHW will be 5.3 feet (NAVD88), resulting in 0.3 feet of water over the fixed pier a twice daily basis due to daily tides, rendering the dock assets at Green Pond unusable at high tide.

Recommendations:

- (Present) Ensure that the docks and piers are structurally sound to withstand impacts of storm waves and winds. The docks should also be assessed to confirm that any floating elements have sufficient vertical room to migrate (during large storm events), without becoming unanchored. (Approximate cost = $40,000 for engineering study)
- (Present) Properly secure upwellers to the pier so they can't be dislodged during a storm event. (Approximate cost = $5,000)
- (Present) Dry floodproof or shift electrical breaker boxes higher on posts to ensure these components are not flooded during a storm event. (Approximate cost = $2,000)
- (2050/2070) Raise the fixed pier portion of the Green Pond marina facilities to account for higher daily tidal ranges. (Approximate cost = $15,000 - $20,000)

4.2.5 Coastal Infrastructure and Boat Ramps

Coastal infrastructure, including jetties, groins and boat ramps are located right at the water's edge and have higher probabilities of flooding than most roadways and facilities, which are generally located further inland and upland. As such, the traditional vulnerability assessment methods were not utilized on these features.

Based on the highest elevations at each of the coastal infrastructure locations and boat ramps that were assessed, the following features will become completely inundated (i.e., MHW will be higher than the highest elevation of the structure) in the near term:

Present day:

- Grand Ave Groin (6)
- Bournes Pond Groin (west)
- All three Old Washburn Island Groins

2030:

- Megansett Main Jetty
- Megansett Groin
- West Ave Revetment
- Moses Road Jetty
- Sippewissett Revetment
- Little Pond Inner Revetment (east)

- Menauhant Road Groin (1)
- Menauhant Beach Groin (1)
- Bournes Pond Revetment (west)
- Bournes Pond Revetment (east)
- Washburn Road Groin (2)
- Great Pond Harrington Street Boat Ramp

The necessity of the coastal infrastructure features listed above should be assessed. Features that are unnecessary and no longer serve a purpose could be slated for abandonment and/or removal. Features that still have an important role to play should be evaluated, redesigned, and likely raised in elevation, to continue functioning as intended.

4.2.6 Roads and Bridges

Roadways are by far the most vulnerable infrastructure features in the Town of Falmouth (Figure 4-18). Segments of major roads and evacuation routes in low-lying areas received the highest risk scores in this assessment. In general, there are a variety of options for adapting roadways to sea-level rise and storm surge impacts. These adaptation measures range in intensity based on the criticality of the road, as well as the type of inundation that needs to be addressed (e.g. non-essential roads may be allowed to overwash in storms if emergency access is not necessary, but should be designed to be resilient to storm surge impacts and resistant to future daily tidal flooding). MassDOT is currently developing a roadway adaptation handbook, which can be consulted for a variety of adaptation strategies. Strategies can include simple raising of the roadbed, resilient side slope green infrastructure treatments to reduce undermining, causeway installation, or bridge construction. Specifics of the site and environmental conditions will inform the selection of appropriate interventions.

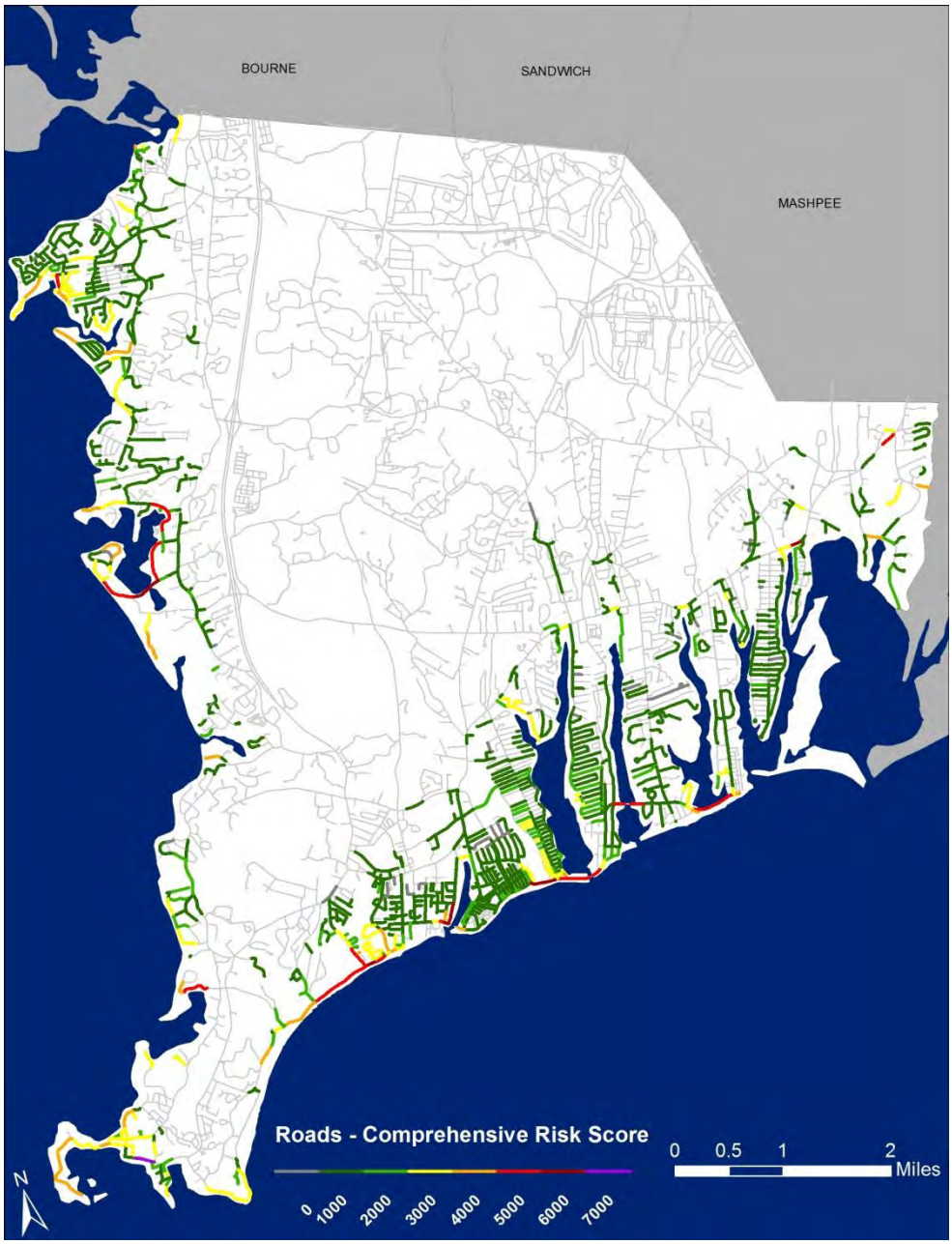


Figure 4-18. Comprehensive risk score for all roads.

A low portion of Chapoquoit Road, the intersection of Clinton Avenue and Scranton Avenue, the Route 28/East Falmouth Highway bridge that crosses the Childs River, and the Menauhant Road Bridge at Bristol Beach/Little Pond were identified as a high-risk roadways and bridges through this assessment, and were advanced for conceptual-level adaptations. Chapoquoit Road is the sole egress of the neighborhood at the end of the road; Clinton and Scranton Avenues are economically important roadways, connecting downtown Falmouth to the Falmouth Inner Harbor and the southern coast beaches; Route 28 is not only a major road, but also part of the Town's evacuation route; and Menauhant Road serves as a crucial transportation corridor along

the southern coast of East Falmouth, connecting a series of peninsular neighborhoods. All four are critical roadways for emergency services. It is hoped that the solutions developed for this suite of roadway and bridge examples may also be leveraged at other similar sites in Falmouth.

Chapoquoit Road

Chapoquoit Road extends from Route 28A/West Falmouth Highway, over a bridge and a culvert that connects tidal water bodies to West Falmouth Harbor, and along a barrier beach to a residential neighborhood at the northern end of Chapoquoit point. Approximately 1,700 linear feet of the road, from the public beach parking lot to the neighborhood in the north, is fronted by a concrete seawall and revetment (Figure 4-19).

Figure 4-19. Chapoquoit road along the barrier beach, fronted by a concrete seawall and stone revetment.

As with other assets, the flood risk to Chapoquoit Road can be considered in two different ways: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. With respect to periodic inundation during storms, the entire road is vulnerable to flooding during a storm event today, with the lowest portion of the road (just east of the intersection with Little Neck Bars Road) having a 95% probability of inundation each year (Figure 4-20). The depth and likelihood of inundation during a storm event increases in the future, with almost the entire road having a 50-100% probability of flooding in a given year by 2070. Additionally, due to the low elevation of the roadway, portions of the road will also begin to experience daily tidal inundation by 2070 (Figure 4-20).

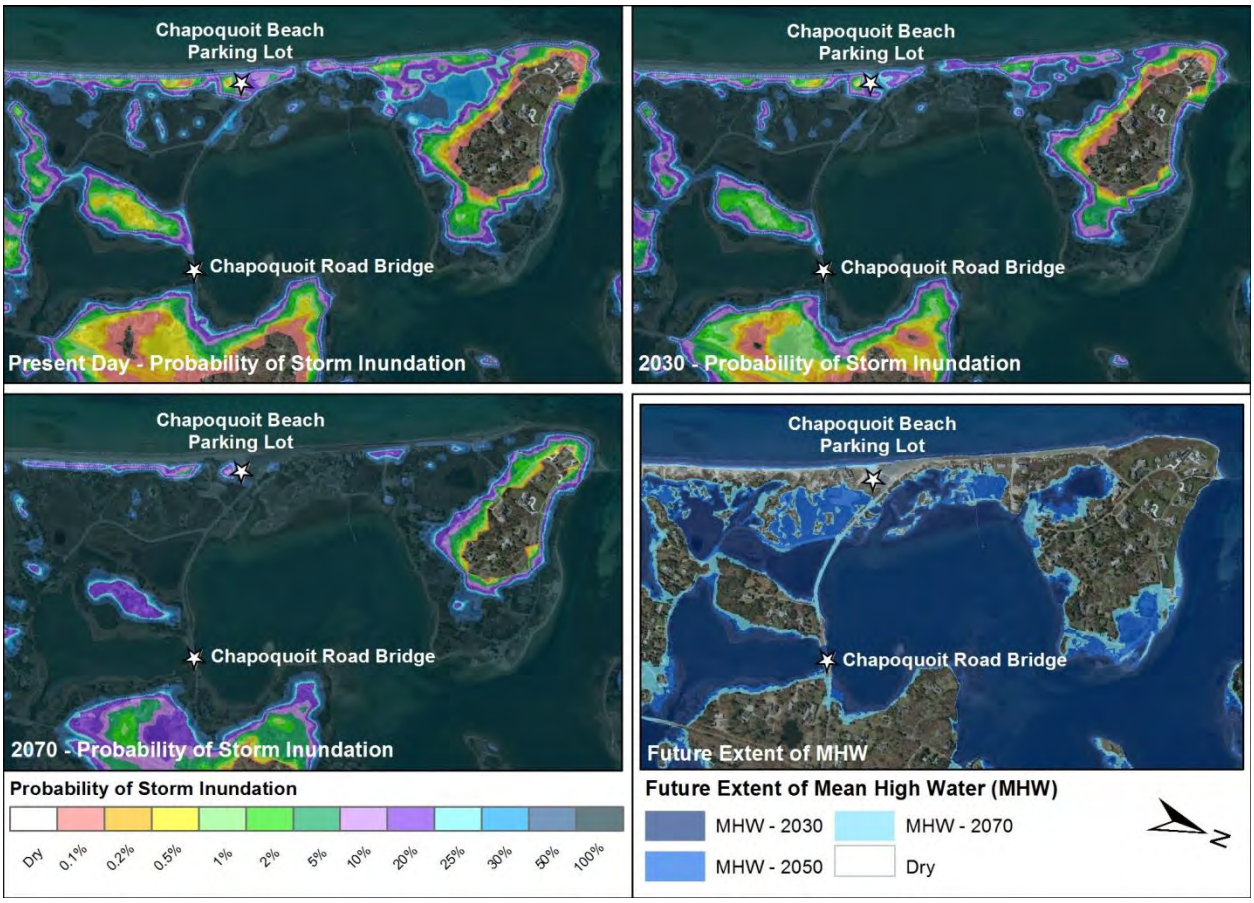


Figure 4-20. Present and future flood risk from storm inundation and daily tides for the Chapoquoit Road area.

Recommendations:

- (Present) Due to the likelihood of roadway inundation during storms, and the disruption in transportation and emergency access this would cause, mandatory evacuations should be considered for the Chapoquoit neighborhood prior to a major storm.
- (2070) Daily tidal inundation of the road by 2070 will require some kind of intervention to maintain regular transportation and access to the Chapoquoit neighborhood in the future. It is possible to raise the elevation of the road, but this would require elevating the roadway from Old Dock Road to the Chapoquoit Beach parking lot, an approximately 2,000–foot length of road. (Approximate cost = $4.7 million) If elevation of the road is pursued, the Town may want to consider cost-sharing options with the residents at the end of Chapoquoit Road. Alternatively, a plan for managed retreat from Chapoquoit Point by 2070 may warrant consideration.

Clinton and Scranton Avenues

The corner of Clinton and Scranton Avenues forms the southwestern corner of Falmouth Inner Harbor (Figure 4-21); these roads serve as one of the main pathways from Main Street to Surf Drive. Although the road itself is Town owned, due to the fact that all the property surrounding this portion of the roadway is privately owned, it would take a public-private partnership of the Town of Falmouth working cooperatively with private waterfront property owners, to build a resilient feature to reduce the flood risk to this transportation corridor.

Figure 4-21. The corner of Clinton Avenue and Scranton Avenue, with Falmouth Inner Harbor in the background.

As with other assets, the flood risk to the corner of Clinton and Scranton Avenues can be considered in two different ways: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. While significant segments of both roads are vulnerable to flooding during a storm event today, the corner where they meet is the lowest in elevation and has a 73% probability of flooding each year today (Figure 4-22). The depth and likelihood of inundation due to storms increases in the future, with more than a 2,800-foot length of these roadways having a 50-100% probability of flooding in a given year by 2070. With respect to daily tidal inundation, this corner will begin to experience daily tidal inundation by 2050 (Figure 4-22). Without coordinated action in this location, the roadway at this corner may need to be abandoned in the long-term, rerouting the main traffic corridor through the nearby neighborhoods.

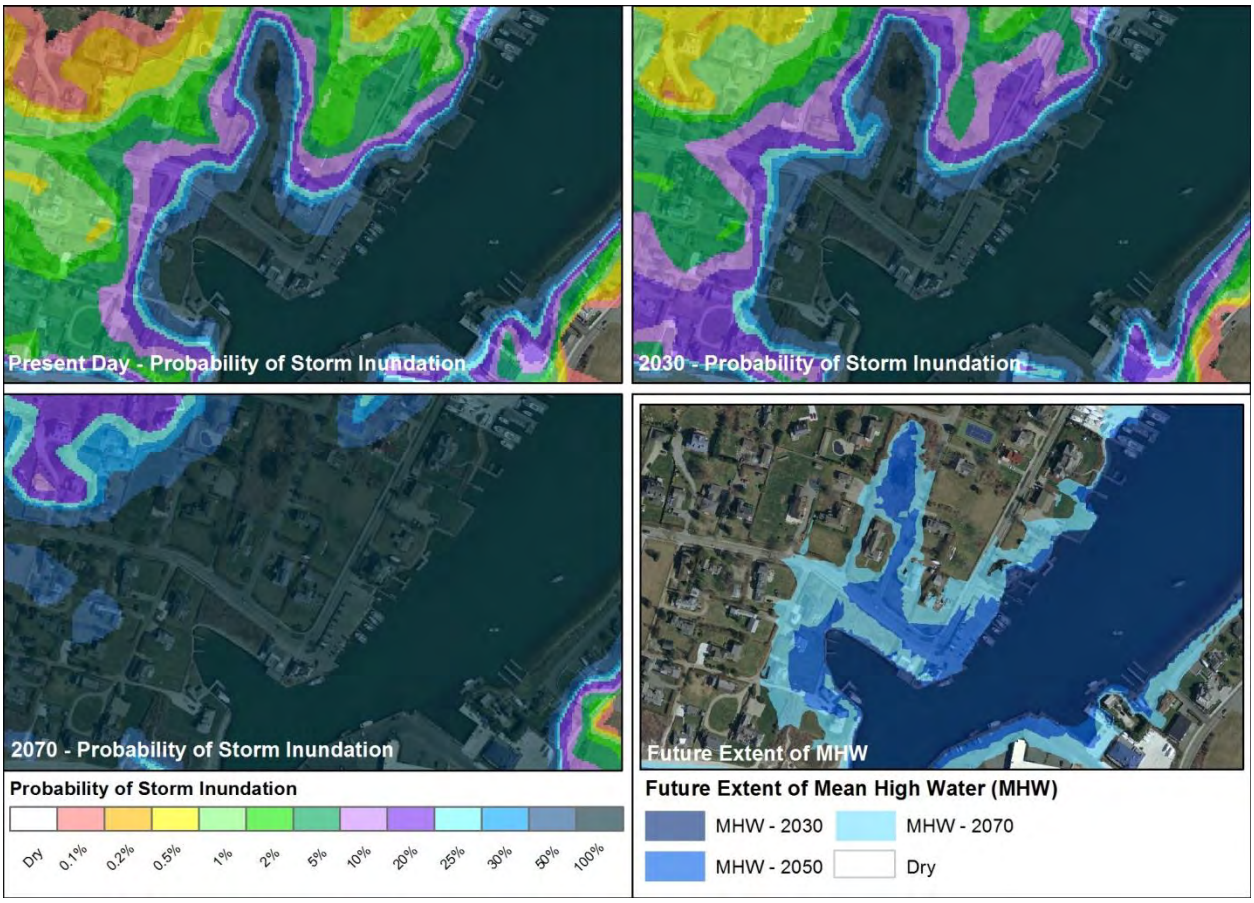


Figure 4-22. Present and future flood risk from storm inundation and daily tides for the area around the corner of Clinton and Scranton Avenues.

Recommendations:

- (Present/2030) Install bulkhead along shoreline to reduce the risk of flooding from minor storm events. (Approximate cost = $10 million; assumes 1,000 linear feet of wall/bulkhead)
- (2050) Install a multi-property resiliency feature to address minor flooding and more commonly occurring storms.
- (2070) Rethink the use of this corner in the long-term. This may include a waterfront park and/or natural wetland feature, an elevated resiliency feature, an elevated or rerouted roadway, or some combination of all these adaptations.

Route 28/East Falmouth Highway Bridge over the Childs River

The Route 28/East Falmouth Highway Bridge was also identified as a high-risk asset in this assessment, and was advanced for conceptual-level adaptation since – although it is a State-owned roadway – it is a major transportation corridor and critical component of the Town's evacuation route.

The Route 28/East Falmouth Highway Bridge over the Childs River has a low chord elevation of 5.6 feet (NAVD88). This vulnerability assessment used this as the critical elevation, as this is the first elevation at which flood water will interact with the side of the bridge structure, potentially causing damage to the bridge itself. This low chord elevation has a 20% probability of being impacted by flood water today, a 50% probability in 2030 and a 100% probability in 2070. The surface of the roadway on the bridge is, however, more than 3 feet higher (at an elevation of 8.8 feet NAVD88) than the low chord elevation. Although the probabilities of inundation are lower for the surface of the roadway, there is still a 1%, 5%, and 50% probability of water overtopping this bridge and affecting vehicular access in the present day, 2030 and 2070, respectively. Also, unlike many of the other assets discussed in this Section, there is no risk of flooding from daily tidal inundation to the Route 28/East Falmouth Highway Bridge over the Childs River (Figure 4-23). Because the topography slopes down to the Childs River relatively steeply from both sides, the road on either side of the existing bridge is significantly higher in elevation, providing a suitable site for a bridge elevation project. Note that consideration would need to be given to the driveway access for the marina on the southwest side of the bridge as part of an elevated bridge design.

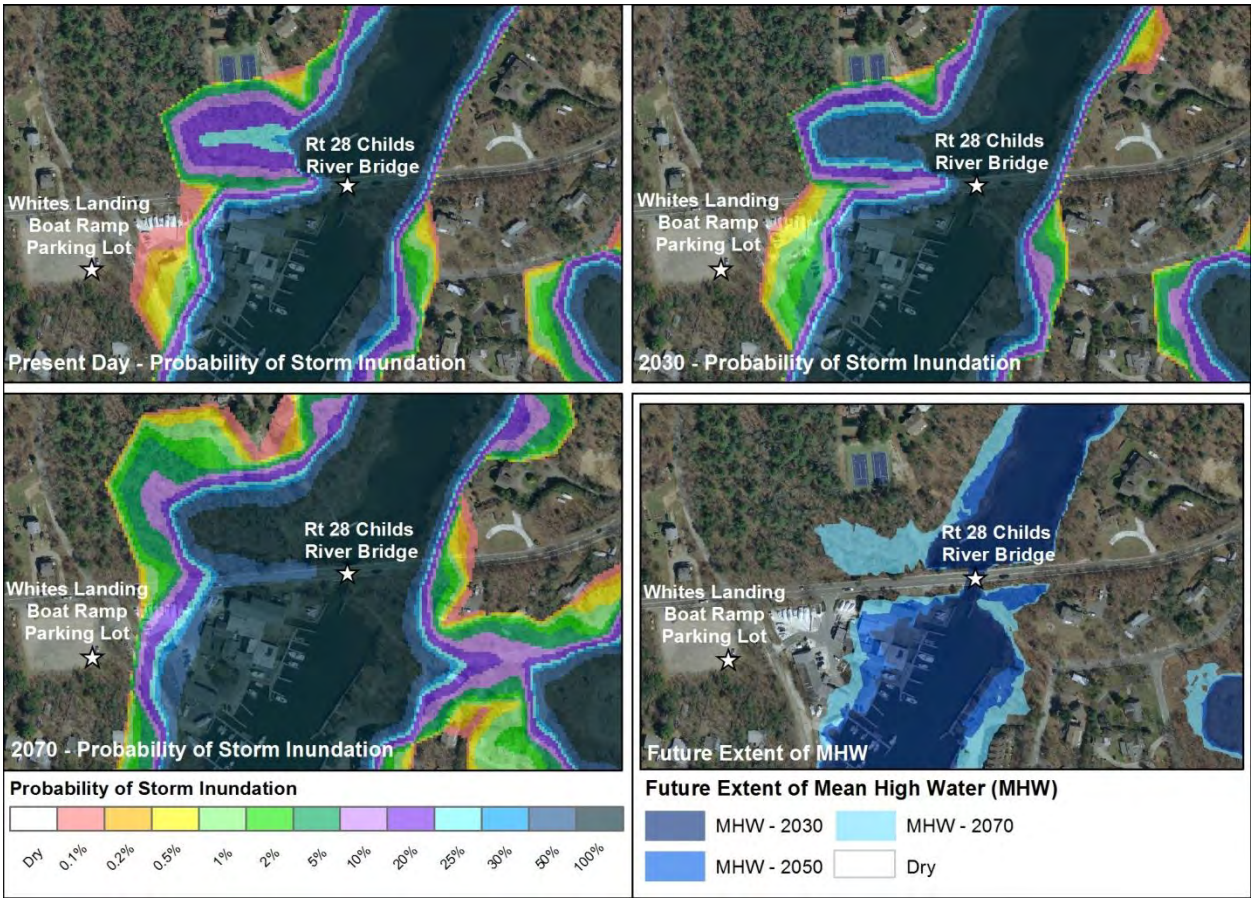


Figure 4-23. Present and future flood risk from storm inundation and daily tides for the area around the Route 28/East Falmouth Highway bridge over the Childs River.

Recommendations:

- (Present) Inspect bridge to ensure it is structurally sound and able to withstand floodwaters; make repairs as necessary.
- (2030 or when major repairs are necessary) Elevate the bridge across the Childs River by ~7 feet (to 16.6 feet NAVD88), as well as the approach roadways. This would provide protection for emergency access up to and including the 2070 1% chance event (i.e. the 100-year return period event). Since this is a State-owned roadway, cost sharing would need to be coordinated. (Approximate cost = $1.9 million)

Menauhant Road Bridge at Bristol Beach/Little Pond

Menauhant Road stretches almost 2.5 miles, and crosses four of the Town's coastal ponds. While much of the roadway is vulnerable to flooding, one of the highest ranking sections of this road with regards to its comprehensive risk score is the Menauhant Road Bridge at the mouth of Little Pond (at Bristol Beach). As with the Route 28 Bridge described above, the low chord elevation of the Menauhant Road Bridge was used in this vulnerability assessment as the critical elevation; the low chord elevation at this location is 0.7 feet (NAVD88), well below today's MHW level (Figure 4-24). This means that not only do storm events cause water to interact with the bridge structure, but tidal currents are acting upon the structure on a daily basis.

Figure 4-24. Menauhant Road Bridge culvert obscured by high tide.

The roadway surface elevation at the bridge is approximately 4.2 feet (NAVD88). The road directly above the bridge is actually the highest elevation portion of the roadway fronting Little Pond; the roadway drops to approximately 2 or 3 feet (NAVD88) on either side of the bridge. These low elevations not only result in high probabilities that the bridge and roadway will be inundated during a storm event (a 100% annual chance even in present day), but it also means this section of roadway is vulnerable to daily tidal inundation in the future (Figure 4-25).

Given the extremely low elevations of this stretch of roadway, there are no higher elevation tie-ins to use to raise the elevation of the Menauhant Road Bridge. A long-term solution for this area, like the Chapoquoit Road area, would either require raising a substantial length of roadway (approximately 0.5 miles from Grand Avenue to the Great Pond Bridge) or abandoning this segment of coastal road.

Recommendations:

- (Present) Inspect bridge to ensure it is structurally sound and able to withstand floodwaters and daily tidal impacts; make repairs as necessary.
- (2030) Construct a temporary berm on the Little Pond side of Menauhant Road, west of the bridge, to protect the roadway from daily tidal inundation and maintain access and transportation during non-storm conditions (this could be designed to function through 2050 conditions). (Approximate cost = $250,000)
- (2070) Elevate 0.5 miles of road, replacing this existing undersized bridge with a wider crossing, to ensure continued use of this transportation corridor. (Approximate cost = $5.4 million) OR Develop a long-term plan for abandonment of this roadway and bridge.

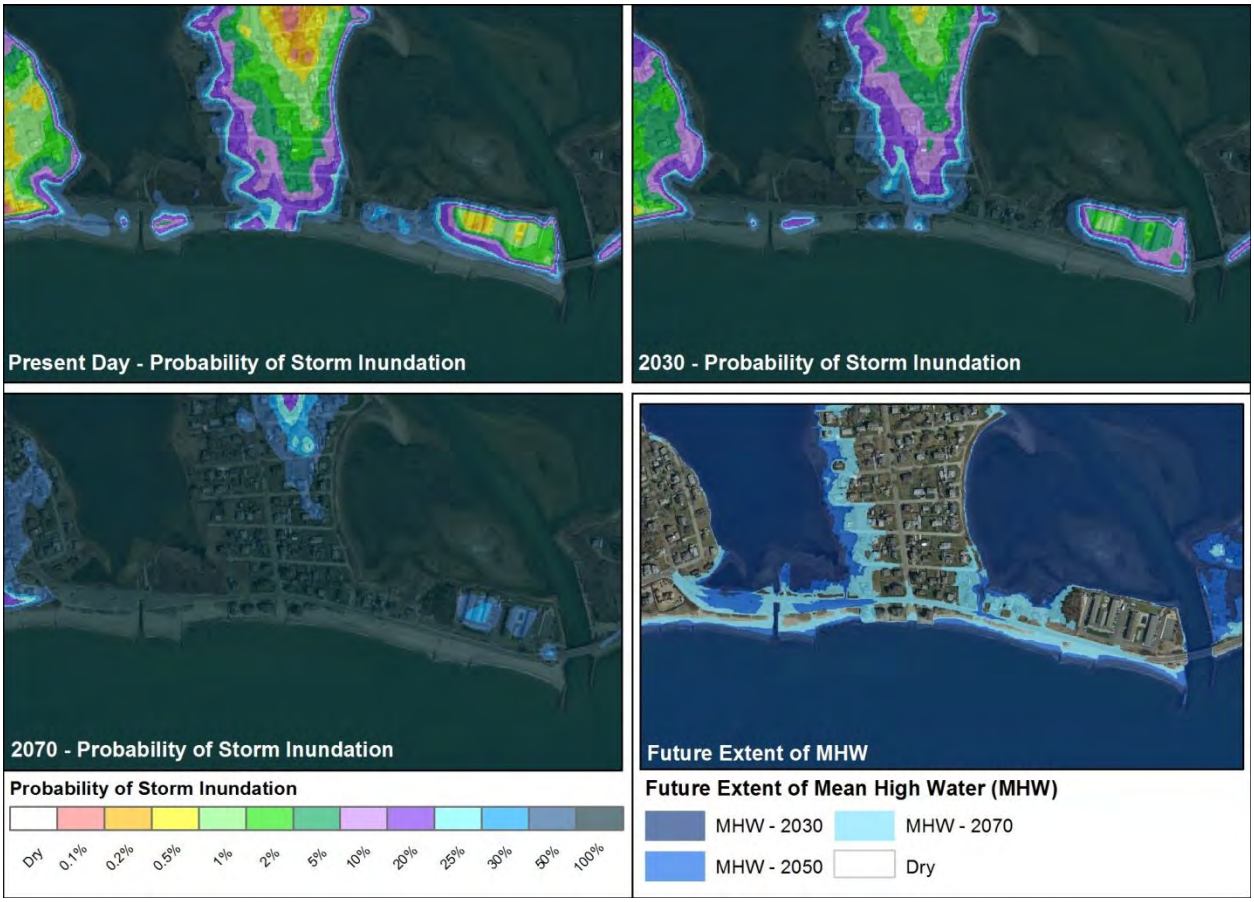


Figure 4-25. Present and future flood risk from storm inundation and daily tides for the area around the Menauhant Road bridge at Little Pond.

4.3 RECOMMENDATIONS FOR NATURAL RESOURCES

Strategies to adapt and protect the Town of Falmouth's natural resources in the face of rising tides and increasing storm intensity should be multi-layered, and will focus on maintaining the enabling conditions that allow coastal resource areas to thrive, restoring degraded systems to enhance existing coastal resource areas, implementing green infrastructure and living shoreline solutions to fortify existing natural resource features, and accommodating the migration of natural resources over time, both vertically and horizontally. It should be noted that while wetlands are projected to migrate and convert over the time horizons of this study (to 2070) without significant anthropogenic barriers, longer term migration may be impeded by the natural topography of the region. The glacial moraine rises steeply in many parts of Falmouth, and will eventually prevent the lateral migration of wetlands.

Based on the town-wide SLAMM results presented in Section 3.3.2, the Falmouth Steering Committee selected three coastal areas for which to develop conceptual level adaptation plans for. Those areas are:

1. Washburn Island,
2. Great Sippewissett Marsh, and
3. Chapoquoit Road wetlands.

Each of these areas is addressed in detail below.

4.3.1 Washburn Island

Washburn Island forms the barrier between Vineyard Sound and Waquoit Bay, a designated Area of Critical Environmental Concern (ACEC). It is comprised of a barrier beach with coastal beach and coastal dune resource areas, salt marshes, coastal salt ponds, and upland areas dominated by a pine and oak forest. Washburn Island is a state-owned preserve, and in 1988 Waquoit Bay was designated as one of 25 reserves in the National Estuarine Research Reserve System. Although recent trends reveal declining water quality, the bay supports several commercially important finfish and shellfish species including winter flounder, migratory trout, alewives, and blueback herring. The barrier beaches, bay and marshes support many species of upland, shore and aquatic birds. The preservation of the Waquoit Bay system, and all the ecosystem services it affords, relies on the existence of Washburn Island.

Patterns of habitat change predicted for Washburn Island mirror those seen elsewhere in Town; there is projected to be a conversion of high marsh to low marsh by 2030, and then continued inundation results in substantial loss of all forms of salt marsh by 2050 (Figure 4-26). In addition to changes happening in the salt marsh in the tidal lagoon, a combination of coastal erosion and sea-level rise results in a narrowing of the barrier beach. The thin sliver of beach left dividing Vineyard Sound and the tidal lagoon could potentially breach in a storm, resulting in a third tidal inlet. The formation of an additional inlet would dramatically change the hydrodynamics of the system, likely impacting tides, currents and shoaling at the existing two inlets.

Recommendations for this area, with regards to natural resources management, revolve around reinforcing and increasing the coastal resiliency of the barrier beach, thus ensuring a stable Waquoit Bay system. In the short term, there is a recommendation for the Town to engage in a conversation with the state, WBNERR, the Town of Mashpee, the Menauhant Yacht Club, Waquoit Bay Yacht Club, and other relevant stakeholders about this issue, with the hopes of coming to consensus on a long-term plan to manage Waquoit Bay and Washburn Island. In the long term, actions to improve the coastal resiliency of the barrier beach would likely entail a regular dune and/or beach nourishment program on the south facing shoreline of Washburn Island. Although true cost estimates would require a nourishment design, a rough estimate can be calculated by assuming 50 cubic yards of sand per linear foot of beach at $25/cubic yard for 2,500 linear feet: $3.1 million.

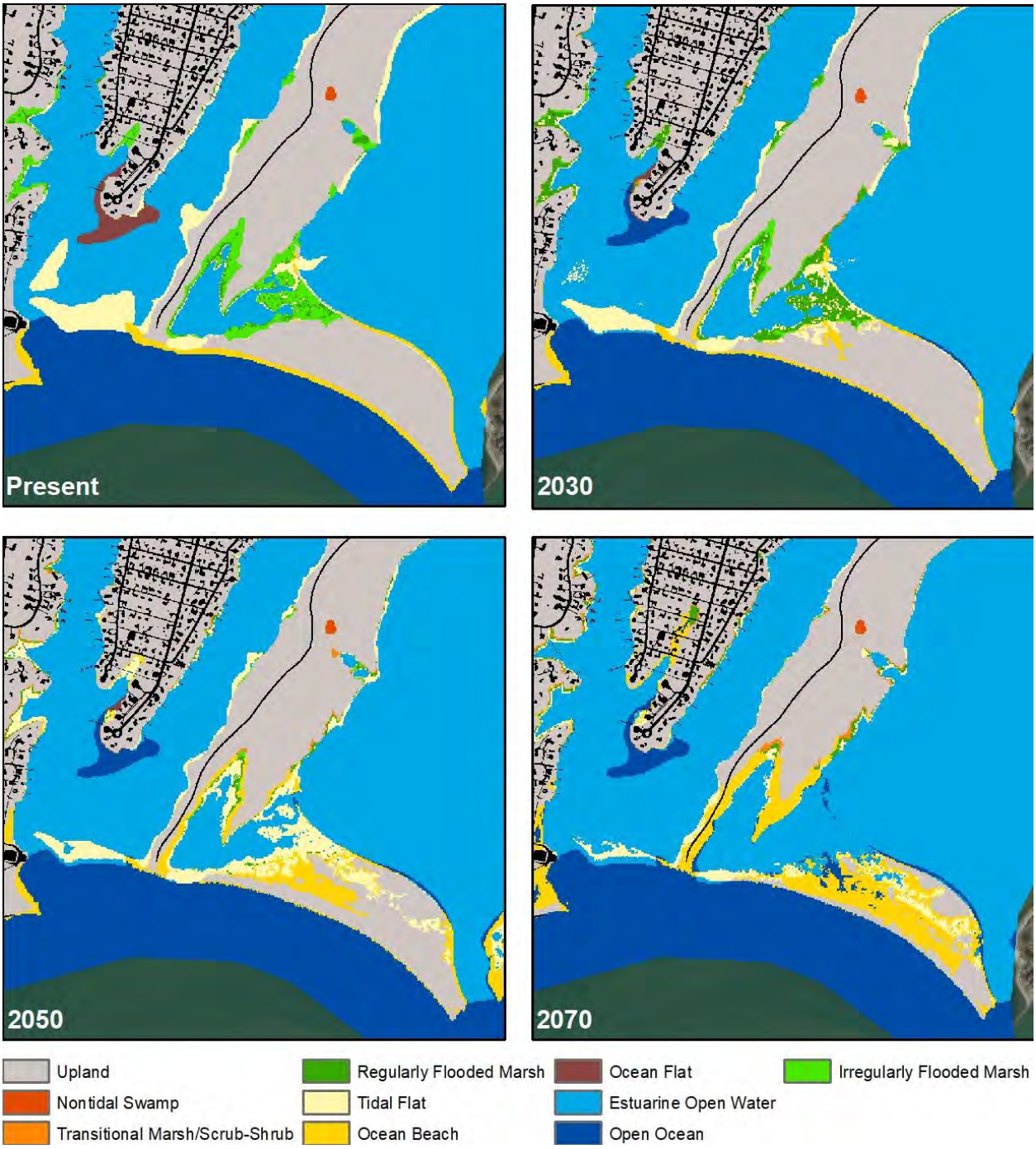


Figure 4-26. SLAMM results for the Washburn Island area.

4.3.2 Great Sippewissett Marsh

The Great Sippewissett Marsh is a primarily privately owned salt marsh and barrier beach system on Buzzards Bay in West Falmouth. Ownership is largely split between the Town, Salt Pond Areas Bird Sanctuaries (SPABS), and the Massachusetts Audubon Society (MassAudubon). Like Waquoit Bay, it represents an important habitat for shellfish and finfish, as well as abundant populations of shore and aquatic birds.

Patterns of habitat change predicted for Sippewissett Marsh mirror those seen elsewhere in Town; there is projected to be a conversion of high marsh to low marsh and tidal flat by 2030, and then continued inundation by sea-level rise results in substantial conversion of salt marsh in 2050 and 2070 to tidal flat and open water (Figure 4-27). In addition to changes happening in the main salt marsh system, a combination of coastal erosion and sea-level rise results in a narrowing of the barrier beach fronting the marsh. The results also indicate some opportunities for salt marsh expansion in this area, particularly to the east of the Shining Sea Bikeway. Multiple lobes of what are currently freshwater wetlands will have the potential to convert to salt marsh as the MHW level rises.

Recommendations for this area, with regards to natural resources management, are twofold: 1. enhance and increase the coastal resilience of the main salt marsh area; and 2. promote the expansion of salt marsh into areas east of the Shining Sea Bikeway. To address the former, it is important to understand the reason behind the predicted loss of salt marsh in the first place. In this case, the annual vertical accretion rate of the salt marsh cannot keep pace with sea-level rise, and eventually the salt marsh platform becomes too low in the tidal range to support salt marsh vegetation. To combat this, elevation enhancement (e.g., thin layer deposition) is recommended for the Great Sippewissett Marsh. The logistics (e.g., where would the material come from, how would it be transported and spread across the site, etc.) and the existing regulatory constraints (e.g., marsh elevation enhancement projects are currently difficult to permit in Massachusetts) mean that this is not likely a feasible approach in the short term. However, this alternative should be considered a long-term goal for the Great Sippewissett Marsh system. Changes in the regulatory climate and/or a nearby dredge project with ample material that could be beneficially reused could improve the feasibility of this alternative. Although the true cost of an elevation enhancement project would include a planning study, plan development, and permitting, a rough construction estimate can be calculated if you assume 6 inches of material is placed across 80 acres (~64,500 cy) at a cost of $25/cubic yard: $1.6 million.

With regards to the expansion of salt marsh east of the bike path, it is recommended (as described in the Shining Sea Bike Path discussion in Section 4.2.3) that prior to 2070 the lower elevation stretch of the Shining Sea Bike Path is replaced with an elevated pile-supported path, similar to the boardwalk across the marsh at Coast Guard Beach in Eastham (Figure 4-28) (Approximate cost = $2,000,000). This would not only reduce the probability of inundation to the bikeway, but would also enhance tidal exchange to the salt marsh expansion areas to the east.

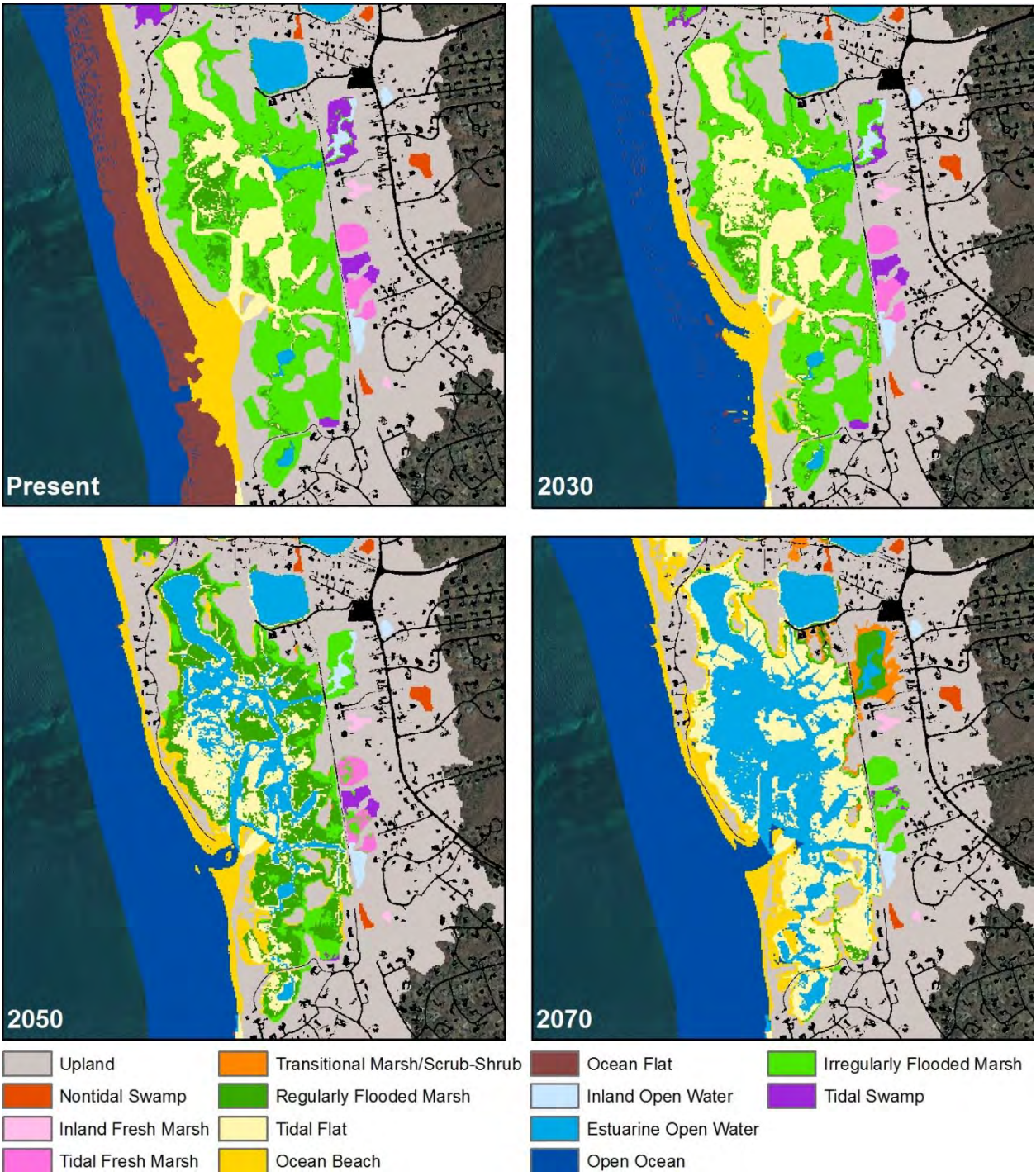


Figure 4-27. SLAMM results for the Great Sippewissett Marsh area.

Figure 4-28. Boardwalk/Bike Path at Coast Guard Beach in Eastham.

4.3.3 Chapoquoit Road Wetlands

The Chapoquoit barrier beach system contains a single main roadway (Chapoquoit Road), a public beach (Chapoquoit Beach), and a neighborhood of private residences at the northern end. The Chapoquoit Beach parking lot and approximately 1,500 feet of the roadway are revetted on the Buzzards Bay side. While most people are familiar with Chapoquoit Beach itself on the Buzzards Bay side of the barrier beach, the Chapoquoit barrier system also contains a significant amount of salt marsh habitat on the West Falmouth Harbor side, interspersed with coastal dunes and small tidal creeks (Figure 4-29).

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Figure 4-29. Existing wetlands on the West Falmouth side of the Chapoquoit barrier.

The SLAMM results indicate a narrowing beach on the Buzzards Bay shoreline of the Chapoquoit barrier due to a combination of continued erosion and sea-level rise. On the harbor side, high marsh is expected to convert to low marsh by 2030, with significant losses of salt marsh by 2050, and conversion to open water by 2070 (Figure 4-30). The combined effect is a narrowing of the barrier, reducing its resiliency to storm impacts. There is one area of the

barrier system where salt marsh is expected to expand, and that is in the existing fresh water wetland (categorized as Tidal Swamp in Figure 4-30 below) at the southwestern portion of the residential neighborhood. This area is expected to convert to high marsh by 2050 and to low marsh by 2070.

Recommendations for this area, with regards to natural resources management, include reinforcement and enhanced coastal resiliency for the barrier beach system and salt marsh enhancement. To address the coastal resiliency improvements of the barrier beach system, actions should consider the barrier beach system holistically – while beach nourishment on the Buzzards Bay side is vital to protecting the revetment and the roadway and providing continued recreational resources, and should be pursued if possible, it is also important to address salt marsh loss and erosion on the West Falmouth Harbor side. This could entail various living shoreline designs, ranging from salt marsh restoration and/or enhancement to establishment of oyster beds. As with the Great Sippewissett Marsh, the eventual loss of salt marsh is due to the fact that the annual vertical accretion rate of the salt marsh cannot keep pace with sea-level rise, and eventually the salt marsh platform becomes too low relative to MHW to support salt marsh vegetation. To combat this, elevation enhancement is recommended for the marshes on the West Falmouth Harbor side of the Chapoquoit barrier. The logistics (e.g., where would the material come from, how would it be transported and spread across the site, etc.) and the existing regulatory constraints (e.g., marsh elevation enhancement projects are currently difficult to permit in Massachusetts) mean that this is not likely a feasible approach in the short term. However, this alternative should be considered a long-term goal for the Chapoquoit wetland system. Changes in the regulatory climate and/or a nearby dredge project with ample material that could be beneficially reused could improve the feasibility of this alternative. Although the true cost of an elevation enhancement project would include a planning study, plan development, and permitting, a rough construction estimate can be calculated if you assume 6 inches of material is placed across 4 acres (~3,225 cy) at a cost of $25/cubic yard: $80,000.

With regards to the expansion of salt marsh into the existing tidal swamp, it is recommended that prior to 2050 the tidal creek flowing into this location is evaluated and any existing culverts repaired and/or replaced as necessary to ensure that daily tides can enter this area. An estimated cost for a culvert replacement with the required study is approximately $1.25 million.

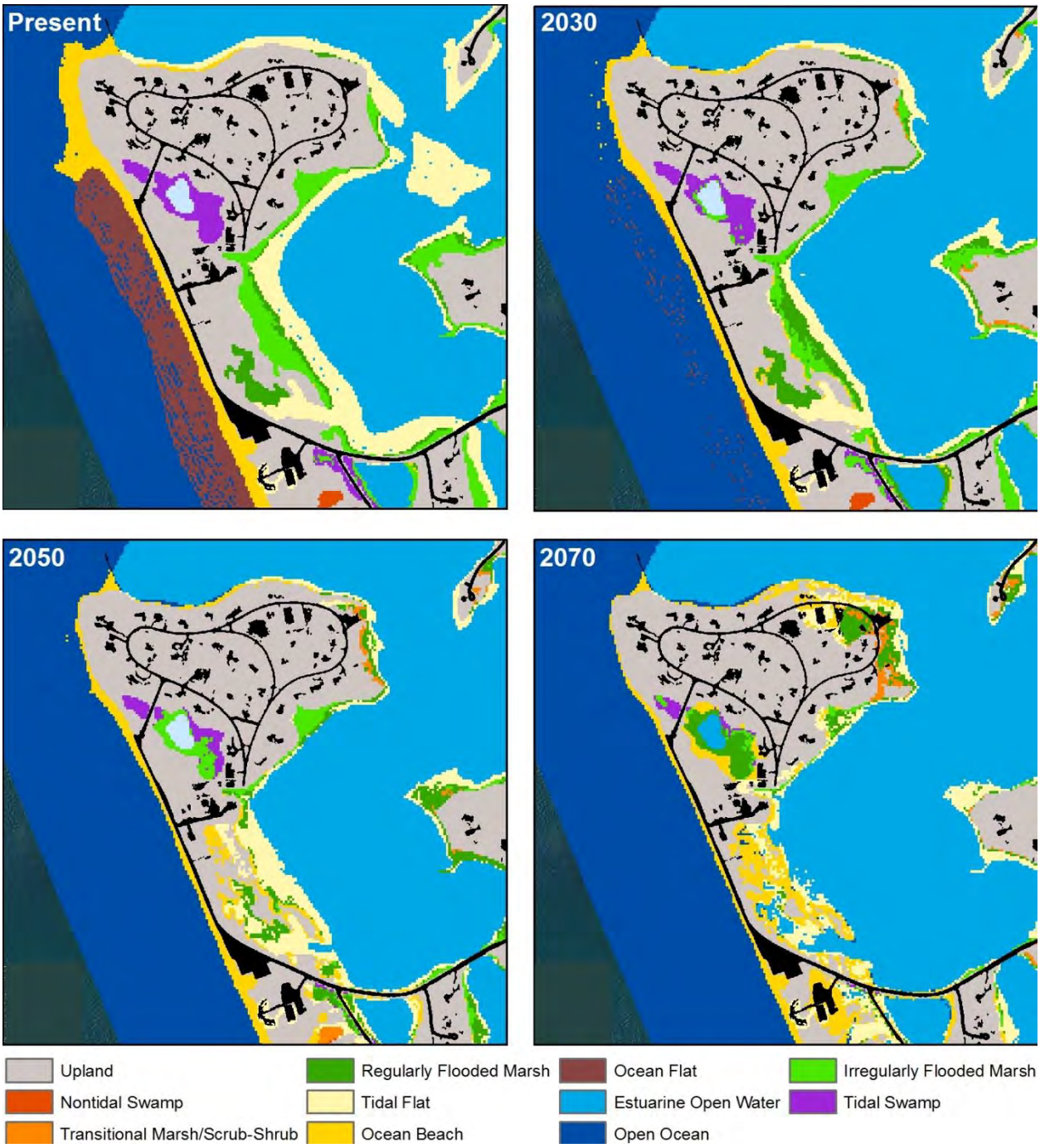


Figure 4-30. SLAMM results for the Chapoquoit Road area.

4.4 REGIONAL ADAPTATION STRATEGIES

Regional or coast-wide adaptation strategies aim to reduce flood risks across a geographical area that may contain multiple critical municipally owned assets as well as privately-owned assets including buildings, roadways, and other infrastructure. Some of the large areas at risk of coastal flooding in Falmouth are at risk because of "flood pathways", which are low-lying strips of land that permit coastal flood waters to flow further inland into other (often much larger) low-lying areas where there is existing development (areas that are usually dry). Solutions to close these flood pathways, or otherwise address them, are referred to in this report as regional strategies. In other cases, regional strategies may be related to improving the protective value of existing natural protections (e.g., dunes, beach) or man-made coastal structures along an entire stretch of coastline.

Although regional strategies can be expensive to implement, they can be more cost-effective and straightforward to implement by providing significant reduction in flood risk for a large number of beneficiaries through a single project, as compared to the cost of a site-by-site approach of many independent projects. Implementation of regional strategies to address flood risks in the 2070-time horizon, when most of the Town will face significant risks, may face higher technical, political, and financial challenges than the less extensive near-term regional solutions or site-specific adaptations.

The three areas selected by the Falmouth Steering Committee for development of regional adaptation strategies include:

1. Falmouth Harbor to Main Street,
2. Woods Hole, and
3. Little Pond to Teaticket Park.

The adaptation strategies presented for these areas can be used as templates for developing solutions for other areas of Town.

4.4.1 Falmouth Harbor to Main Street

Throughout Section 4, two types of flood risk have been addressed: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. Due to the topography of the area north of Falmouth Harbor, there is little risk of daily tidal flooding affecting surrounding properties, now or in the future. There is, however, a discrete storm flood pathway affecting an approximately 110-acre area north of Falmouth Harbor, which includes municipal assets such as Morse Pond Middle School, the Gus Canty Community Center, Fuller Field, and the Inner Harbor Sewer Lift Station, and major roads such as Main Street, Dillingham Avenue, and Davis Straits, as well as numerous privately owned businesses and residences. This discrete flood pathway is constrained to an opening approximately 500 feet wide at the head of Falmouth Harbor. If an appropriate adaptation action were implemented in this location, the flood risk could be reduced for this entire region that would otherwise be at risk of flooding between 2030 and 2070 (Figure 4-31).

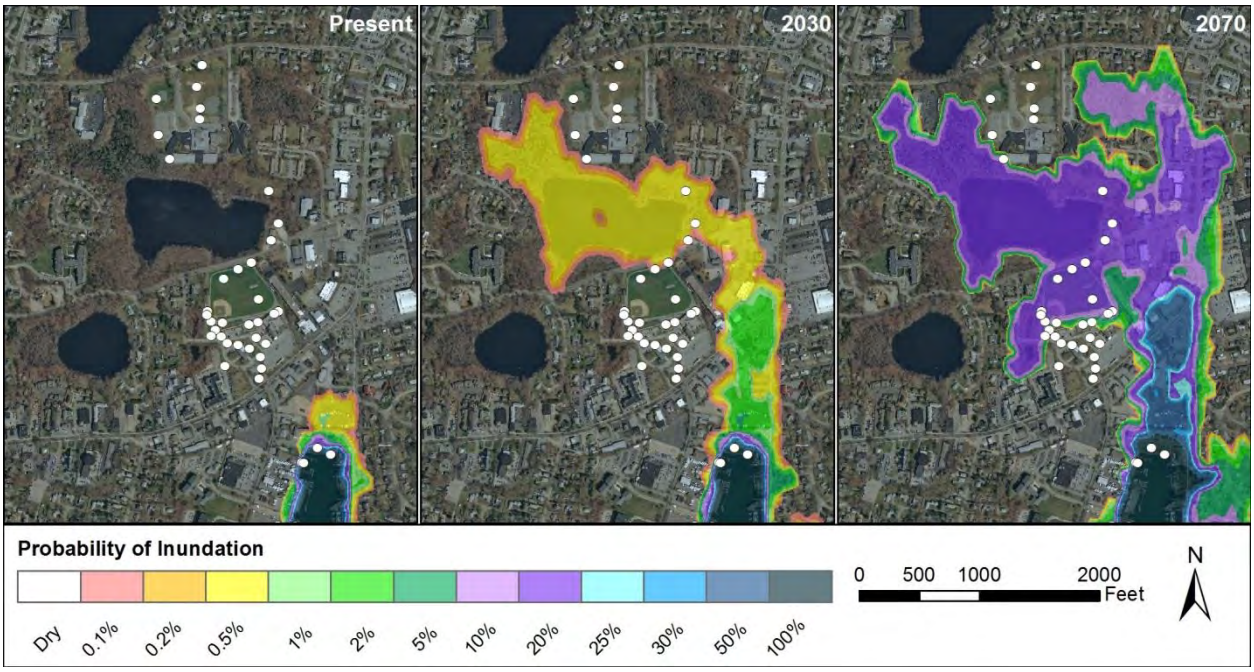


Figure 4-31. Probability of inundation for the Falmouth Harbor to Main Street area. (White dots indicate municipally-owned assets that were evaluated as part of this study.)

A recent study completed by the Cape Cod Commission (CCC), titled Davis Straits Reset Study, proposed a new greenway area that would reconnect Morse Pond with Falmouth Inner Harbor and daylight the underground stream (Figure 4-32). The new greenway also consists of a series of walking or multi-use paths that could link Fuller Field, the Gus Canty Community Center, and potentially even the Morse Pond School with the Falmouth Inner Harbor Park to the south. This vision would require the Town of Falmouth to acquire properties, particularly those in low-lying

areas vulnerable to flooding, overtime to undevelop and create opportunities for opening vistas along the greenway. The CCC report further suggests that the Town could encourage redevelopment and infill development on higher ground in the area between the Gus Canty Community Center and Dillingham Avenue.

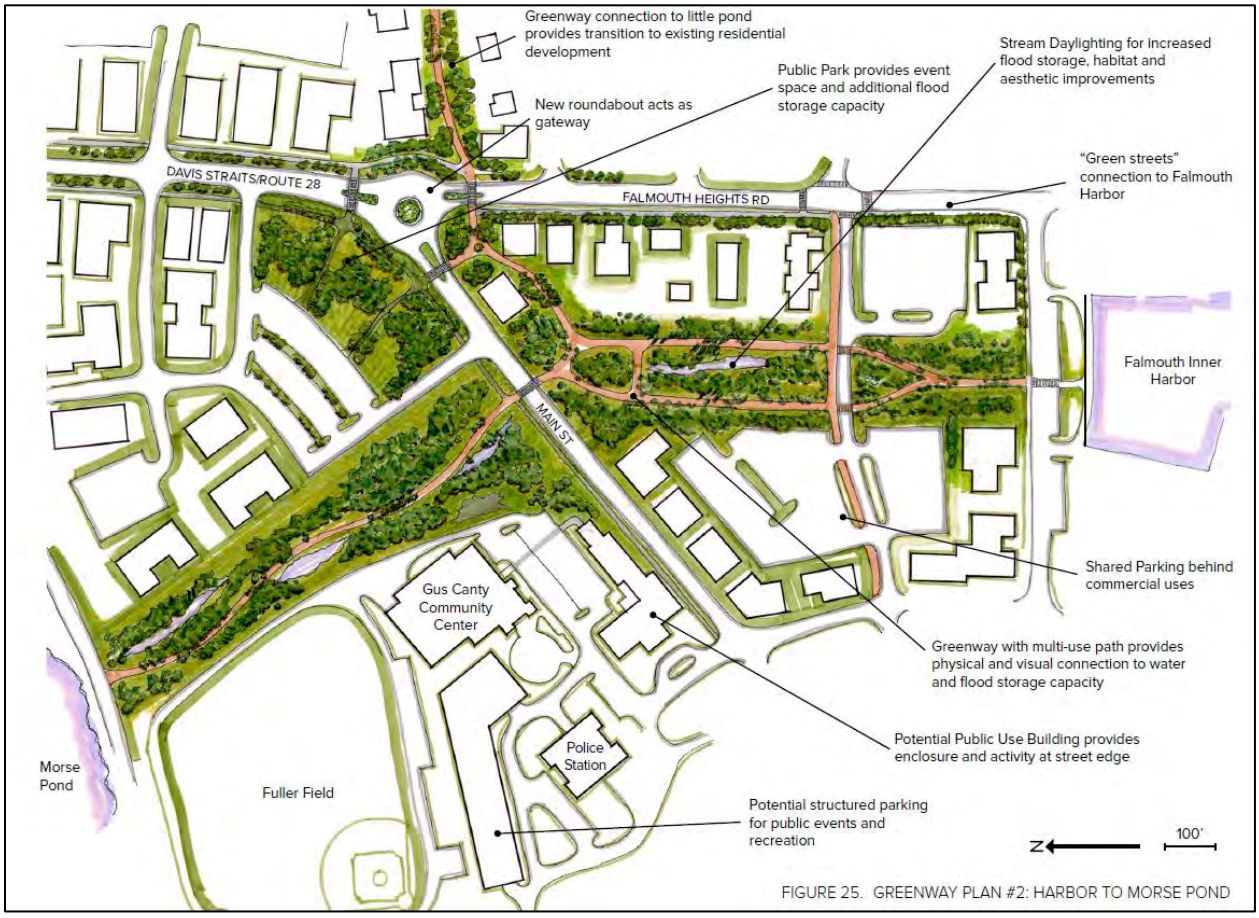


Figure 4-32. Cape Cod Commission greenway proposal for the Falmouth Inner Harbor area. (Source: Cape Cod Commission, 2017)

A regional solution for the Falmouth Harbor to reduce the flood vulnerability of the areas to the north could actually build off of and complement the CCC proposal (Figure 4-32). A daylighted river or wetland area could still be incorporated, but an open uncontrolled stream from Falmouth Inner Harbor to Morse Pond would actually increase the flood vulnerability of the surrounding area, as it would provide an unimpeded flood pathway. To incorporate a waterway, while at the same time reducing the flood vulnerability, various options are possible, including installation of a tide gate, which could be manually closed prior to a storm event to prevent storm surge from travelling up the water way, or another controllable system to allow water in during normal tides, but not during storms. It would also be important to evaluate how this project would affect Morse Pond.

In addition to a tide control on the waterway, additional components could be added to the CCC proposal to enhance the flood protection benefits. In the short term, the waterfront parcel currently owned by the Town could be elevated, using a berm or terraced design (Figure 4-33); this would provide co-benefits of flood protection, living shoreline habitat, and recreational space. The access hatches to the Inner Harbor Sewer Lift Station would have to be raised to maintain access to this key piece of infrastructure once the elevation of the land around it was raised to create a berm-like feature, but this lift station, which provides service to a large number of properties, including the Little Pond Sewer area and Falmouth Heights, would likely be able to remain in place. In fact, by implementing this recommendation, the flood risk to this important sewer infrastructure will be greatly reduced.

In mid-term, the Town could work with adjacent waterfront landowners to extend this elevated feature around the head of Falmouth Inner Harbor to fully protect the flood pathway. Long-term, through property acquisition and undevelopment, Robbins Road could actually be eliminated, allowing additional recreation and habitat area for a waterfront park, as well as additional area to expand the flood protection aspect of the project to meet the rising sea-levels and storm surge elevations of future years. Traffic could either be rerouted between Scranton Avenue and Falmouth Heights Road via Main Street, or a new connector road could be created similar to the one shown in the CCC plan.

It is important to note, however, that the CCC plan for a greenway is optional. Coastal resiliency and flood protection can be achieved through the waterfront berm alone as a protective feature. The overall vision presented here to show how the CCC plan could still be implemented, with minor changes, to achieve greater flood protection.

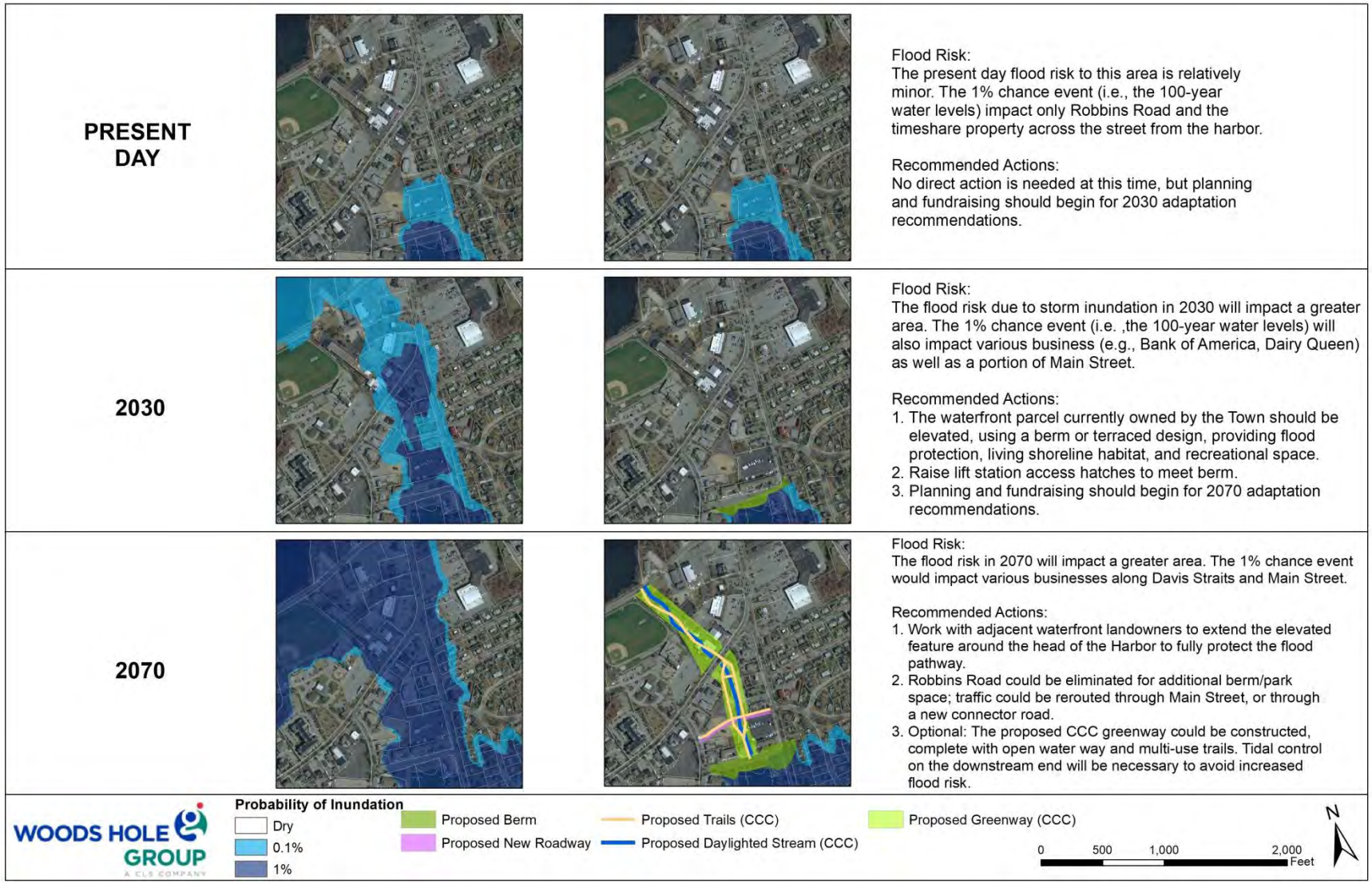


Figure 4-33. Phased adaptation approach for the Falmouth Harbor to Main Street area.

4.4.2 Woods Hole

The village of Woods Hole is an economically and culturally important area of Town that is extremely vulnerable to sea-level rise and coastal flooding. However, there is no discrete flood pathway that could be addressed to reduce the vulnerability to this region. As seen in Figure 4-34, large portions of Woods Hole have a high probability of inundation even in present day; that probability of inundation only increases in 2030 and 2070. Because water will enter Woods Hole from more than one location (i.e., from Eel Pond, from Mill Pond and Woods Hole Park, and from overtopping of many of the coastal roads), there is no single discrete flood protection project that could be implemented to reduce the inundation risk to this area.

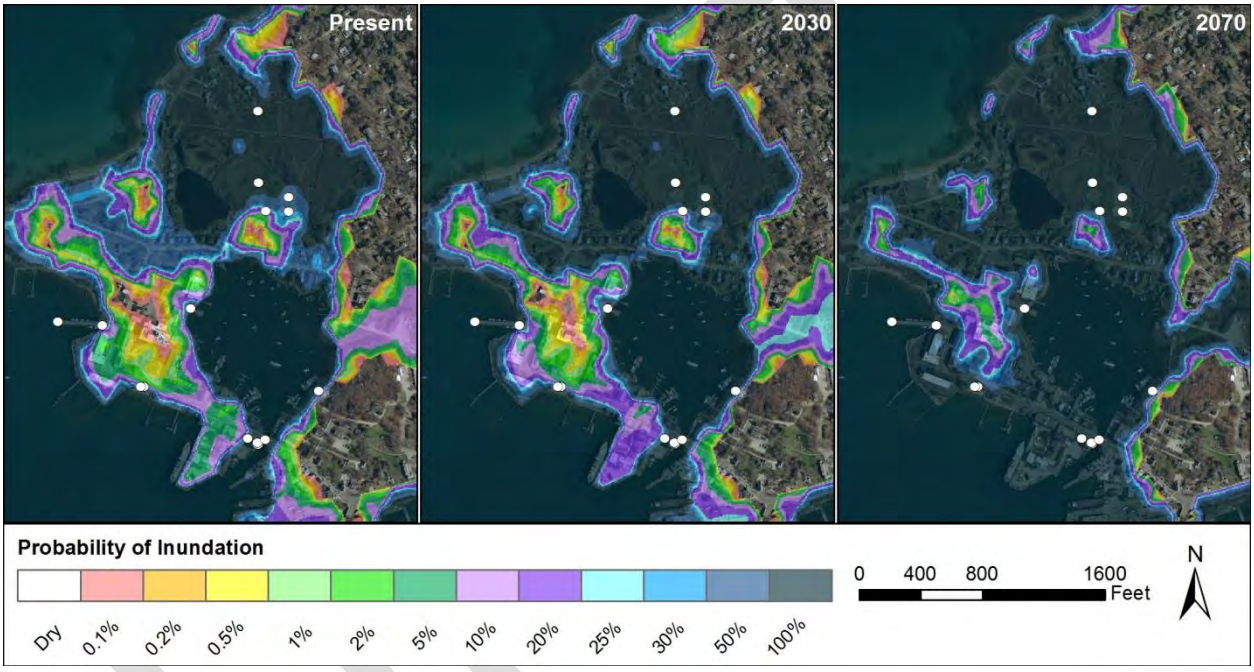


Figure 4-34. Probability of inundation for the Woods Hole area. (White dots indicate municipally-owned assets that were evaluated as part of this study.)

To make matters more complicated, significant areas of developed land will actually be inundated by regular daily tides. Figure 4-35 shows the projected extent of mean high water (MHW) in 2030, 2050, and 2070. This figure shows that by 2070 the tidal marsh behind Taft Park will actually be hydrologically connected to Eel Pond, resulting in a contiguous wetland area.

In the short term, residences and businesses in these low-lying areas should wet floodproof their structures. This will provide protection for minor flooding in the near term. However, there will come a point where roads and properties in these areas are inundated so frequently, that maintaining them will become unsustainable. In the long term, a regional solution for this area would likely include abandonment of the areas impacted by daily tidal action (blue shaded

areas in Figure 4-35). A long-range plan would need to be developed for Woods Hole that could include buy-outs, retreat and other related actions. Properties at risk of daily tidal inundation in the future should be prioritized for acquisition and undevelopment. In addition, location regulations could be enacted to limit rebuilding and/or major repairs in certain high-risk flood areas once a structure is damaged. The Town may also want to consider setting up special taxing districts for areas with a high risk of inundation. This would allow major improvements necessary for a particular area of Town to be paid for largely by residents in that area. As part of the long-term planning for Woods Hole, the uses of some of these areas could be reimagined and repurposed. For instance, areas that will be inundated daily could be used to create a larger harbor, while areas that will be inundated frequently by storm, but not by daily tides could be converted to a waterfront park or wetland habitat. A re-envisioned future Woods Hole would be focused around water: expanded parks and marinas, increased boating and kayaking opportunities, marine and ocean research, etc. (Figure 4-36).

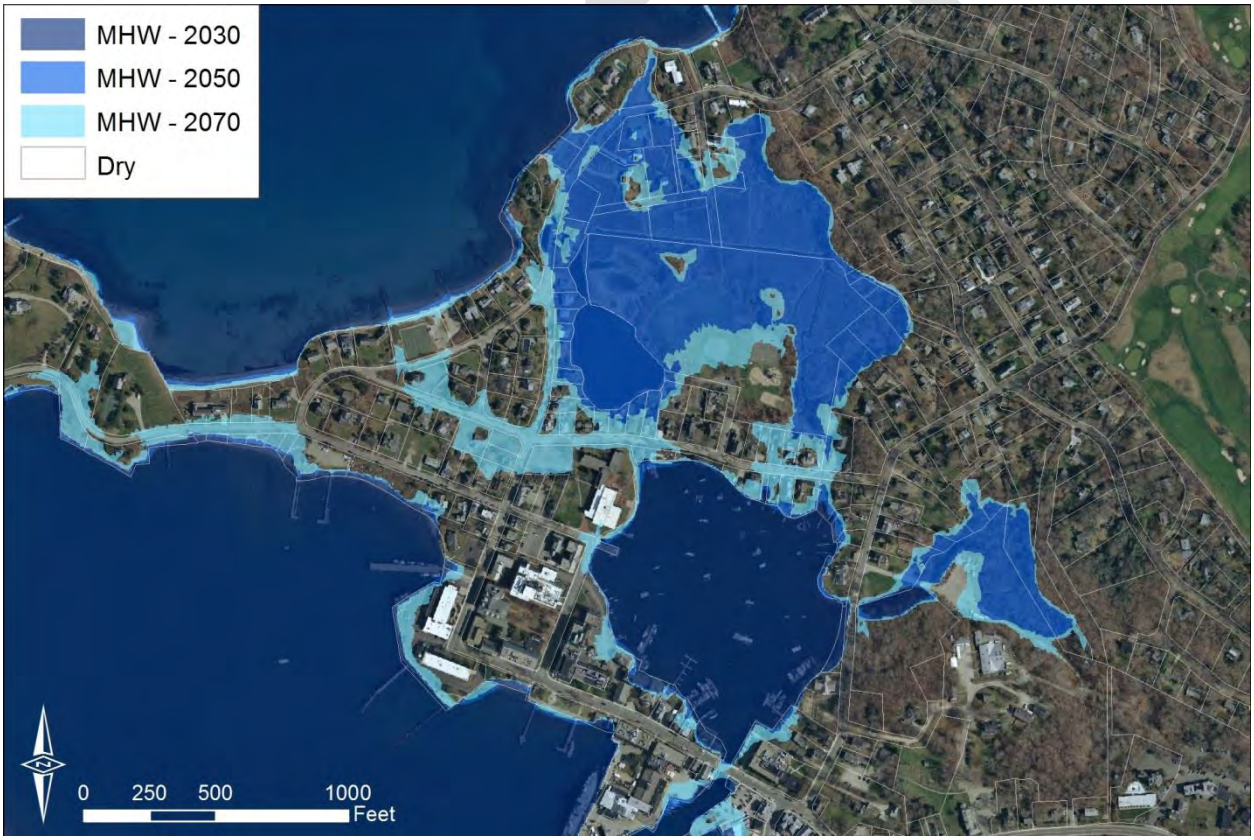


Figure 4-35. Woods Hole areas at risk of daily tidal inundation in the future.

For the part of Woods Hole along Water Street and around the academic buildings and government offices, the topography is high enough that these properties will not be impacted by daily tidal inundation through 2070. A look back at Figure 4-34, however, makes it clear that these areas are still extremely vulnerable to inundation during storms. In the short term,

buildings and structures in these high-risk areas should be wet floodproofed (Figure 4-36). Given the high probability of inundation for many of the roads throughout this area of Woods Hole, the Town may want to consider mandatory evacuations of this area prior to a large storm event. In the long term, an elevational plan for Water Street and the adjacent buildings could be developed. Such a plan would require consideration of how to raise both the roadways and the store fronts so access is not disrupted, while also considering the desire to maintain a particular aesthetic to the area. It will also be important to continue real time water level monitoring, such as already occurs through the NOAA tide station (Station ID: 8447930) in Woods Hole. Although the best available science has gone into the projections presented in the report, there is considerable uncertainty on the magnitude of sea-level rise that will occur by 2070; it will be crucial to have thresholds for when particular actions will be necessary.

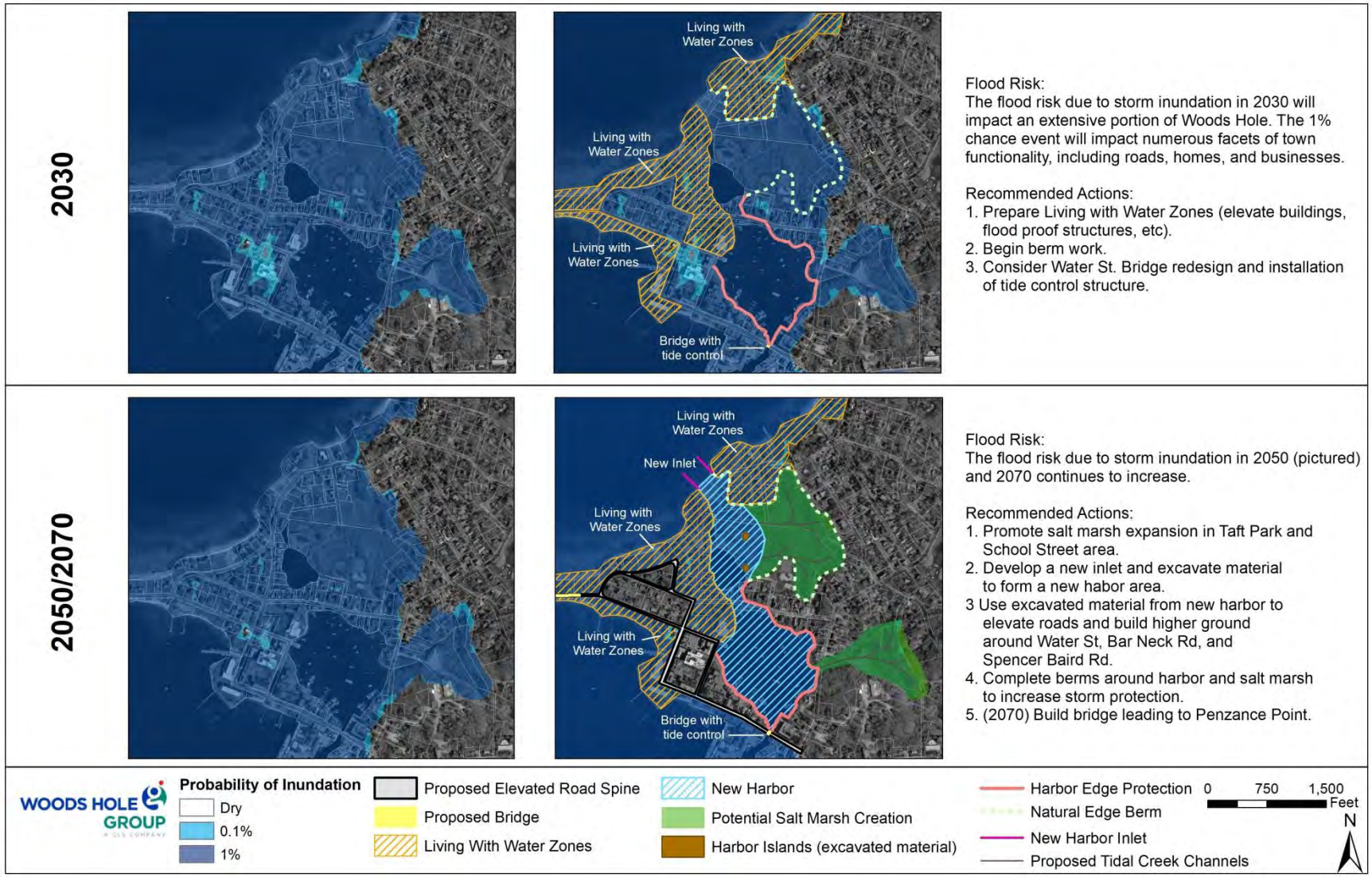


Figure 4-36. Phased adaptation approach for the Woods Hole area.

4.4.3 Little Pond to Teaticket Park

There are two types of flood risk to consider in this area: 1) the potential for daily tidal inundation, and 2) the probability of periodic inundation during storms. In the case of the area between Little Pond and Teaticket Park, there is some risk of daily tidal flooding affecting surrounding properties in the future (Figure 4-37). Specifically, there are likely daily tidal flood impacts to the bowling alley structure by 2070. Additionally, it is worth noting that there are three consecutive low areas to the west of Little Pond (shown in light green in Figure 4-37) that would not be inundated by daily tides if no action is taken, due to strips of higher elevation terrain separating these areas from the main waterbody of Little Pond. However, these higher elevation areas are narrow, and with minor regrading, these areas are at a suitable elevation to support salt marsh habitat in 2070.

Although there are very few developed properties likely to be impacted by flooding due to daily tidal inundation through 2070, there is a discrete storm flood pathway affecting an approximately 100-acre area by 2070 (Figure 4-38). The area affected includes municipal assets such as Spring Bars Road and the sewer lift station, as well as numerous privately owned businesses and residences. This flood pathway is also centered around a historic waterway that used to connect Little Pond to the wetland in the lower portion of Teaticket Park.

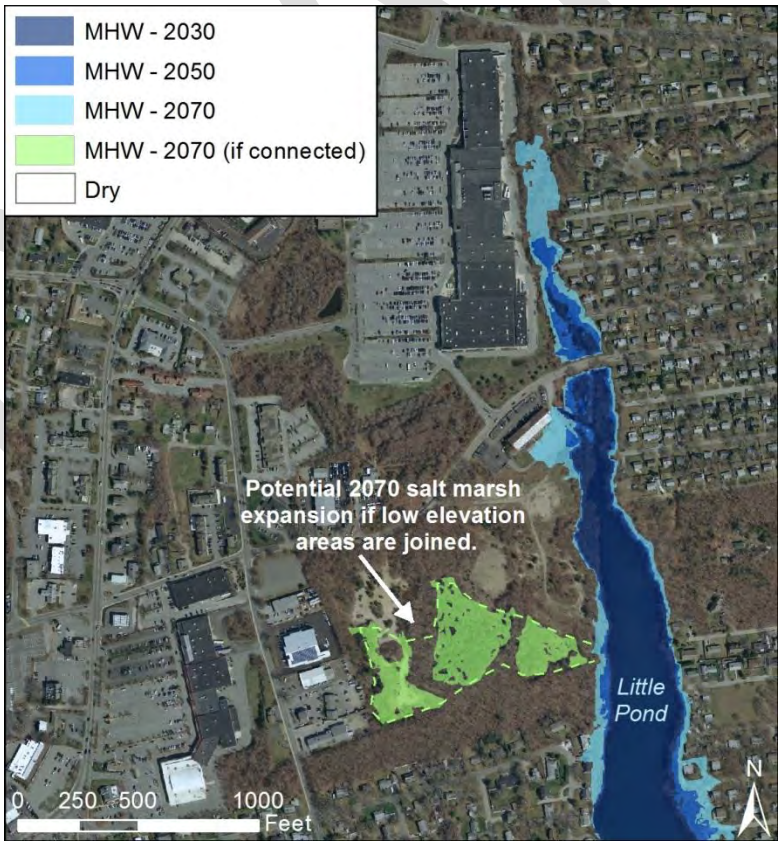


Figure 4-37. Spring Bars Road areas at risk of daily tidal inundation in the future.

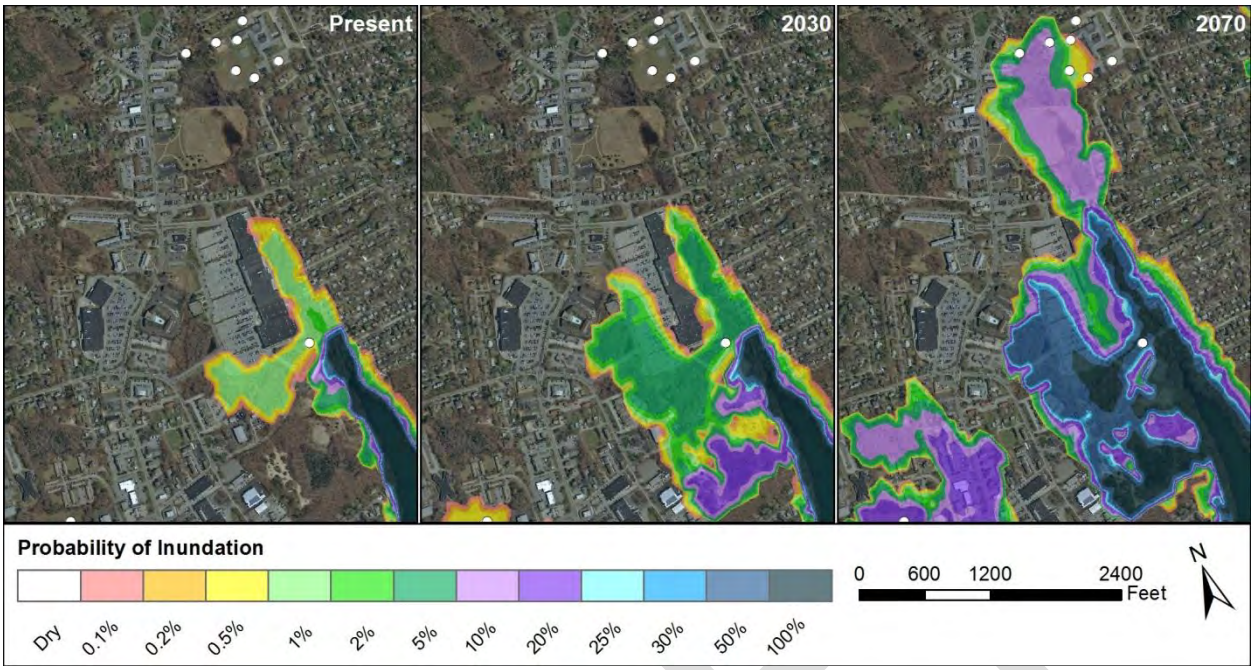


Figure 4-38. Probability of inundation for the Little Pond to Teaticket Park area. (White dots indicate municipally-owned assets that were evaluated as part of this study.)

A recent study completed by the Cape Cod Commission (CCC), titled Davis Straits Reset Study, proposed new wetland and grassland habitat areas in the location of what is now the Falmouth Mall parking lot and shopping centers, as well as a Little Pond extension that would hydrologically reconnect Teaticket Park to Little Pond (Figure 4-39). This restored habitat would provide valuable flood storage capacity within the floodplain, and remove vulnerable buildings and business from a high-risk flood area, while at the same time providing opportunities for passive recreation through a series of walking or multi-use paths. The CCC plan also proposed a series of multifamily residential housing units on the perimeter of the restored habitat area. This vision would require the Town of Falmouth to acquire properties overtime to undevelop and redevelop, particularly the parcels containing the large box-stores and parking lots in the Falmouth mall.

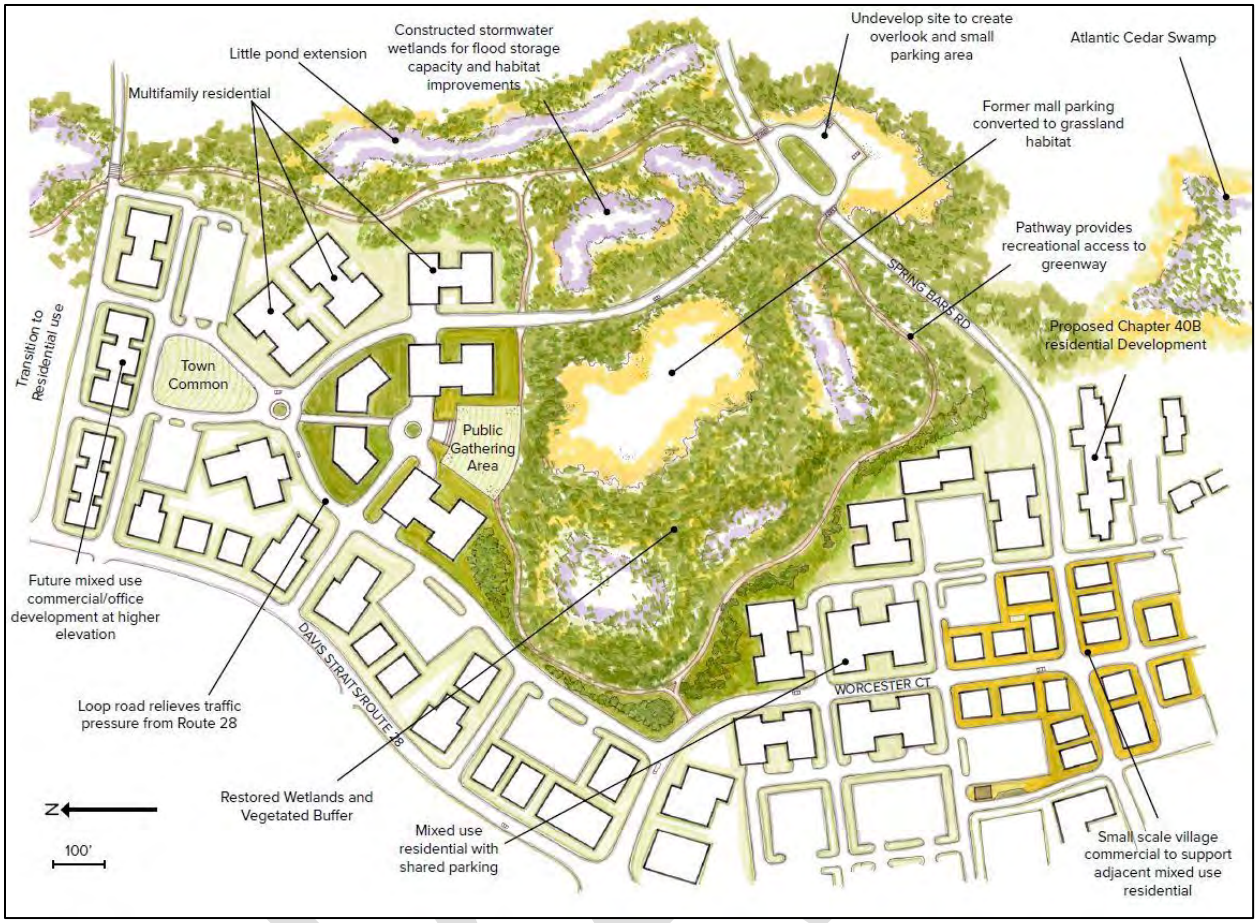


Figure 4-39. Cape Cod Commission greenway proposal for the Spring Bars Road area. (Source: Cape Cod Commission, 2017)

A regional solution for the Little Pond area to reduce the flood vulnerability of the areas to the north could actually build off of and complement the CCC proposal. An expansion of the river at the head of Little Pond, a creation of a large natural habitat or wetland area, and the ultimate removal of the large commercial buildings would in fact reduce the vulnerability to flooding in this area. Some consideration should be given to the existing sewer pump station on Spring Bars Road, as it is currently located at one of the lowest elevations along the street. As this is an important station, serving a large number of residences, its functionality would need to be maintained. This could occur through raising the outer components of the station to protect the pump inside, or the pump station could be relocated outside the floodplain in the long-term. The construction of a 40B residential housing development is currently underway on the vacant lot south of Spring Bars Road. Almost this entire lot has a high probability of inundation in the medium- (2030) and long-term (2070). In fact, by 2070, the southeastern portion of that lot could begin to experience daily tidal inundation. Through this regional adaptation, steps could be taken to reduce the flood risk to this new development.

Figure 4-40 below provides a recommended phased approach for the Little Pond to Teaticket Park area. The overall recommendation, similar to that proposed by CCC, is to undevelop the

central portion of this area to create a large restored natural habitat and to reconnect the waterway between Little Pond and Teaticket Park. At the same time, an earthen berm could be installed around the outer edge of this area to protect the new 40B housing units (2030), and ultimately many of the remaining businesses and other structures around the perimeter of this area (2070). Trails could be added throughout the property to promote recreation and public access of the newly created open space. Finally, to fully restore connectivity between Little Pond and Teaticket Park, a larger culvert or bridge at Maravista Avenue would be required. Overall, this solution provides for a combination of both habitat restoration, as well as flood protection for surrounding municipal assets and private businesses and residences.

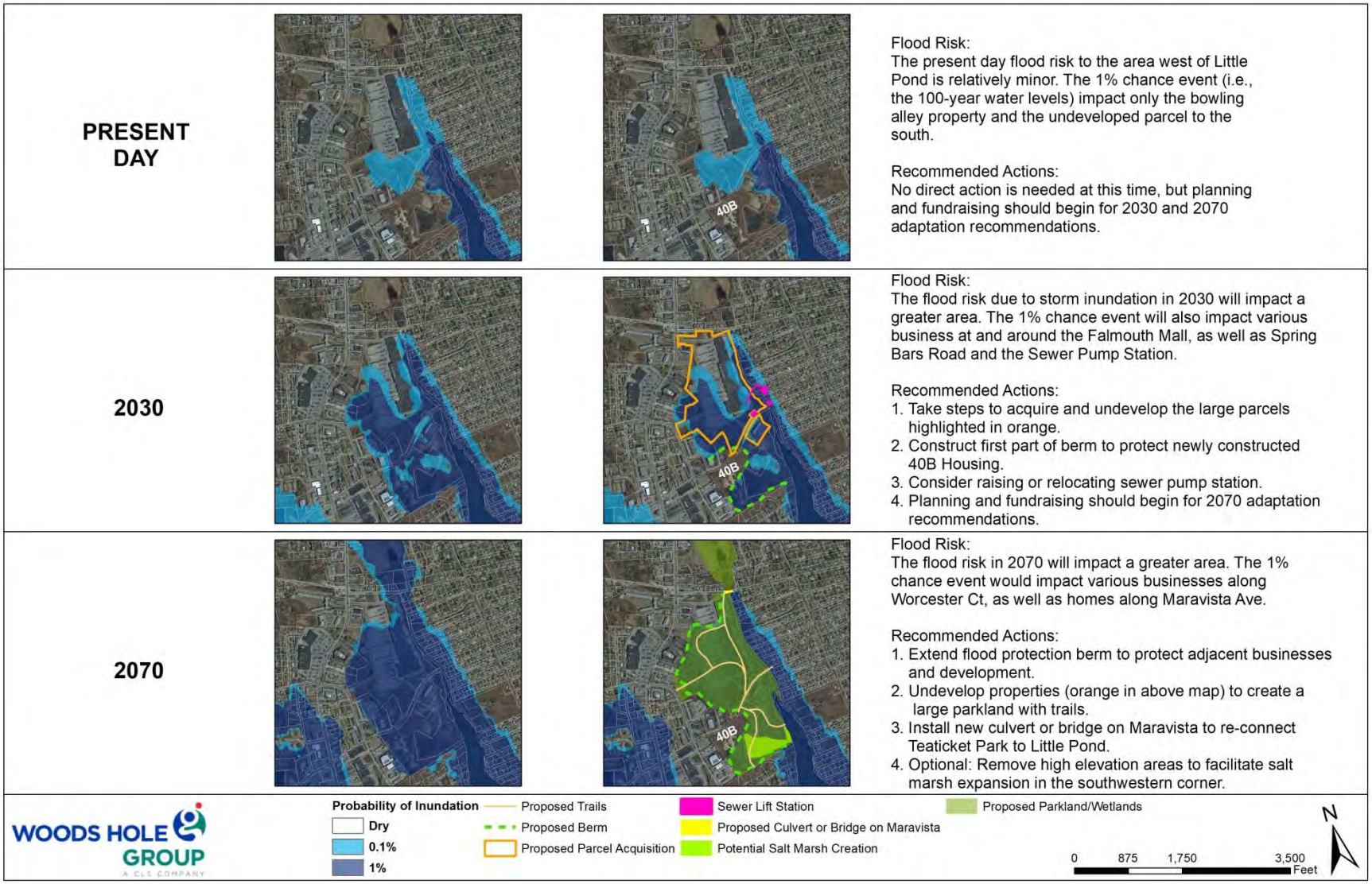


Figure 4-40. Phased adaptation approach for the Little Pond to Teaticket Park area.

4.5 RECOMMENDATIONS FOR POLICY AND REGULATIONS CHANGES

While many of the recommendations provided in this report can be implemented within the current regulatory environment, other sea level rise planning actions, such as restrictions on new construction or major repairs to buildings within high flood risk areas, will likely require updated municipal policies or regulations. Recommendations for changes to municipal policies and regulations are listed below:

1. **Targeted municipal planning**: In many cases, planning for future risks and implementing appropriate adaptation strategies requires coordination between and leadership from all of the municipal departments and committees, from the Board of Selectmen and the Finance Committee to the Conservation and Planning Departments to emergency responders. Falmouth already has a local committee dedicated to thinking about and providing recommendations to the Board of Selectmen regarding risks from coastal flooding, erosion and sea level rise: the Coastal Resiliency Action Committee (CRAC). Because it will be important for all municipal departments to keep climate change, sea level rise and flood risks at the forefront of their planning, one recommendation would be for CRAC to meet regularly (e.g., quarterly) with department heads and the municipal administration to further discuss the findings presented in this report, and develop targeted actions and plans for implementing the adaptation recommendations.

2. **Incentives for municipal projects that incorporate sea level rise or climate change planning**: In order to promote local projects that adequately plan for the impacts of climate change and sea level rise, the Town could either require or give preference to Town-funded projects that clearly demonstrate how they have taken the predicted impacts of long-term sea level rise into account.

3. **Land acquisition for coastal resources migration:** The results of this study showed the likelihood of large reductions in salt marsh habitat by 2070. This is largely the result of vertical marsh accretion not being able to keep pace with sea level rise, so the marsh cannot maintain itself in place, and the fact that many salt marshes today abut steeper topography or impervious surfaces on their upland edge, prohibiting landward migration as sea level rises. Coastal dune and coastal beach resources will also need space to overtop and migrate landward in order to be able to naturally maintain themselves during storms (in the short term) and sea level rise (in the long term). The Town should continue acquiring (or work with local land trusts to acquire) land adjacent to coastal resource areas to accommodate the changing conditions of these resource areas. The Town should consider the natural resources information provided in this report to identify priority areas for acquisition. Any areas or properties identified as a priority for acquisition should be included in the next update to Falmouth's Open Space and Recreation Plan.

4. **Update Multi-Hazard Mitigation Plan:** The Town of Falmouth currently has a Multi-Hazard Mitigation Plan that is approved by FEMA. The most recent plan, adopted by the

Board of Selectmen in April 2017, will need to be updated and resubmitted to MEMA and FEMA by 2022 to remain up-to-date. When the update for this plan begins in 2021, the hazard information on flooding and sea-level rise should be updated based on this report.

5. **Adopt special zoning for high risk areas:** As discussed in Section 4.1, one way to avoid damage from flooding and storms is to designate areas of Town that would have specific bylaws or policies, such as "no-build" restrictions, or limitations on how many times a structure can be repaired if damaged during a storm. Zoning is one possibility for accomplishing this goal. Within these areas, the Town could also either mandate or incentivize resiliency improving retrofits and infrastructure adaptations, depending on the property's repetitive loss history and location within the projected flood area.

6. **Long range planning and retreat for low lying neighborhoods:** The results of this study clearly identified some areas of Town that are not only at extremely high risk of inundation during a storm event today, and increasingly so into the future, but that are also likely to experience daily tidal inundation due to sea level rise by the 2050 to 2070 timeframe. In these areas, protecting and maintaining most types of infrastructure may not be feasible. In addition to eliminating ongoing costly repair and maintenance on repeatedly damaged infrastructure, managed retreat also permits valuable ecosystems to migrate landward as sea level rises. Practically, however, retreat is often the most controversial adaptation strategy because it asks so much of the people. There are, however, a number of methods a Town can pursue to encourage managed retreat:

    a. **Buy outs and incentives for relocation**: Buy outs are one mechanism for encouraging retreat. Buy out programs are most effective when initiated immediately after a natural disaster (Siders 2013). It is also helpful to incentive homeowners to relocate elsewhere within Falmouth; this not only assists in maintaining a tax base, but also retains a greater sense of community. This can be done by offering bonus payments for homeowners to relocate nearby or by developing new housing areas (Siders 2013). The Town could also consider regulations on lot sizes. There are currently areas of Falmouth with little to no risk of flooding through 2070 that have minimum lot requirements of 1 acre or a ½ acre. Many of the most-at risk parcels are much smaller than this. The Town could incentivize homeowners to relocate to these less-risky areas by allowing a transfer of development rights (i.e., a smaller lot size) to the new area. In other words, a lot currently zoned as a 1 acre minimum would be allowed to be split into 4 lots if homeowners with at-risk ¼ acre lots wanted to relocate there.

    b. **Withholding of services and disinvestment from infrastructure:** In addition to direct buy-outs, another mechanism for encouraging retreat from high-risk areas is the withholding of services and disinvestment from infrastructure (Scarano, 2017). The withdrawal of services ranging from public amenities like road maintenance and sewer service can be an efficient way to facilitate coastal

retreat from some areas. The primary obstacle to doing so, however, is a takings liability. But with a clear strategy and under appropriate circumstances, municipalities should be able to withdraw some services in order to facilitate coastal retreat without resulting in a taking. A Town could decide not to invest its limited resources in repairing repeatedly damaged coastal infrastructure, such as roadways or sewer lines. Residents who wish to remain could (at least in theory) privately repair and maintain this infrastructure. The added cost of doing so, would make relocation more appealing. In addition, the Town could pair phased divestment from infrastructure with relocation assistance and buyouts for residents.

5.0 SUMMARY

The adaptation recommendations in this report present a varied suite of strategies, some general and some specific, that the Town of Falmouth may consider for future coastal resiliency building to reduce risks from future sea level rise and storm surge hazards. In many cases, these strategies are preliminary in nature and would need further refinement in the design phase. Monitoring for implementation thresholds, as well as adjusting risk and vulnerability assessments over time given evolving projections will be important elements in the Town's coastal resilience program. Additionally, these coastal resilience initiatives would benefit from a cross-departmental discussion of risk tolerance and cumulative risk. This vulnerability assessment and adaptation plan defaults to the 1% chance inundation events (i.e. the 100-year return period events), but certain assets may be better designed to higher or lower risk thresholds.

The analyses conducted for this project and described in this document are also a resource for conducting Town-wide vulnerability assessments for non-municipal assets, residential impacts, and other planning efforts. The supporting MC-FRM, SLAMM, and asset data accompany this report as digital files.

6.0 REFERENCES

Cape Cod Commission. 2017. *Davis Straits Reset Study* DRAFT. March 1, 2017.

Douglas et al. 2016. Climate Change and Sea Level Rise Projections for Boston.

Fuss, S., J.G. Canadell, G.P. Peters, M. Tavoni, R.M. Andrew, P. Ciais, R. B. Jackson, C.D. Jones, F. Kraxner, N. Nakicenovic, C. LeQuere, M.R. Raupach, A. Sharifi, P. Smith and Y. Yamagata. 2014. Betting on Negative Emmissions. Nature Climate Change. Vol. 4. October 2014.

IPCC. 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

Kopp, R.E., Horton, R.M., Little, C.M., Mitrovica, J.X., Oppenheimer, M., Rasmussen, D., Tebaldi, C. 2014. Probabilistic 21st and 22nd century sea-level rise projections at a global network of tide-gauge sites. Earth's Future, 2(8), 383-406.

Luthi, D., M. et al. 2008. High-resolution carbon dioxide concentration record 650,000-800,000 years before present. Nature, 453(7193), 379-382.

MassDOT. 2019. Massachusetts Coast Flood Risk Model.

National Coastal Climate Change Adaptation Research Facility (NCCCARF). 2019. Coastal Adapt Program Infographics. Australian Department of the Environment and Energy. [https://coastadapt.com.au].

NOAA, 2019. Monthly Average Mauna Loa CO2. https://www.esrl.noaa.gov/gmd/ccgg/trends/.

NPS. 2019. What is Climate Change? United States Department of the Interior, National Park Service. Will Elder. [https://www.nps.gov/goga/learn/nature/climate-change-causes.htm]. Site accessed on September 20, 2019.

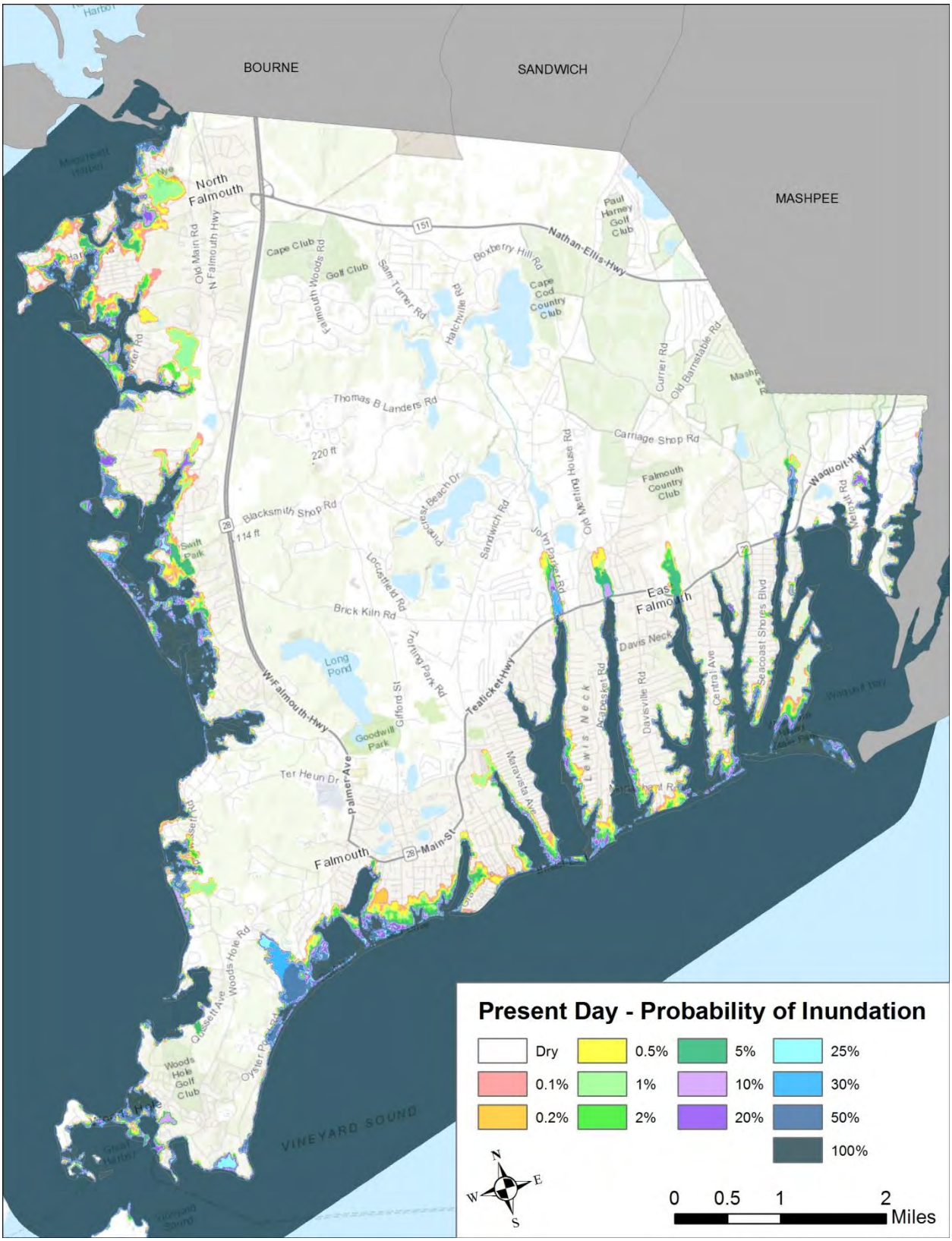
Parris, A., P. Bromirski, V. Burkett, D. Cayan, M. Culver, J. Hall, R. Horton, K. Knuuti, R. Moss, J. Obeysekera, A. Sallenger, and J. Weiss. 2012. Global Sea Level Rise Scenarios for the US National Climate Assessment. NOAA Tech Memo OAR CPO-1. 37 pp. Available online December 2012: [http://cpo.noaa.gov/sites/cpo/Reports/2012/NOAA_SLR_r3.pdf].

Scarano, M. 2017. Withholding Municipal Services to Facilitate Coastal Retreat: Legal Risks and Possibilities. Columbia Law School.

Siders, A. 2013. Managed Coastal Retreat: A Legal Handbook on Shifting Development Away from Vulnerable Areas. Columbia Law School Center for Climate Change Law. October 2013.

Woods Hole Group. 2016. Modeling the Effects of Sea-Level Rise on Coastal Wetlands. Prepared for Massachusetts Office of Coastal Zone Management. November 2016. ENV 14 CZM 08. [https://www.mass.gov/files/documents/2018/12/07/czm-slamm-report-nov2016.pdf].

APPENDIX A. INUNDATION MAPS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SANDWICH
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Present Day - Probability of Inundation
Dry
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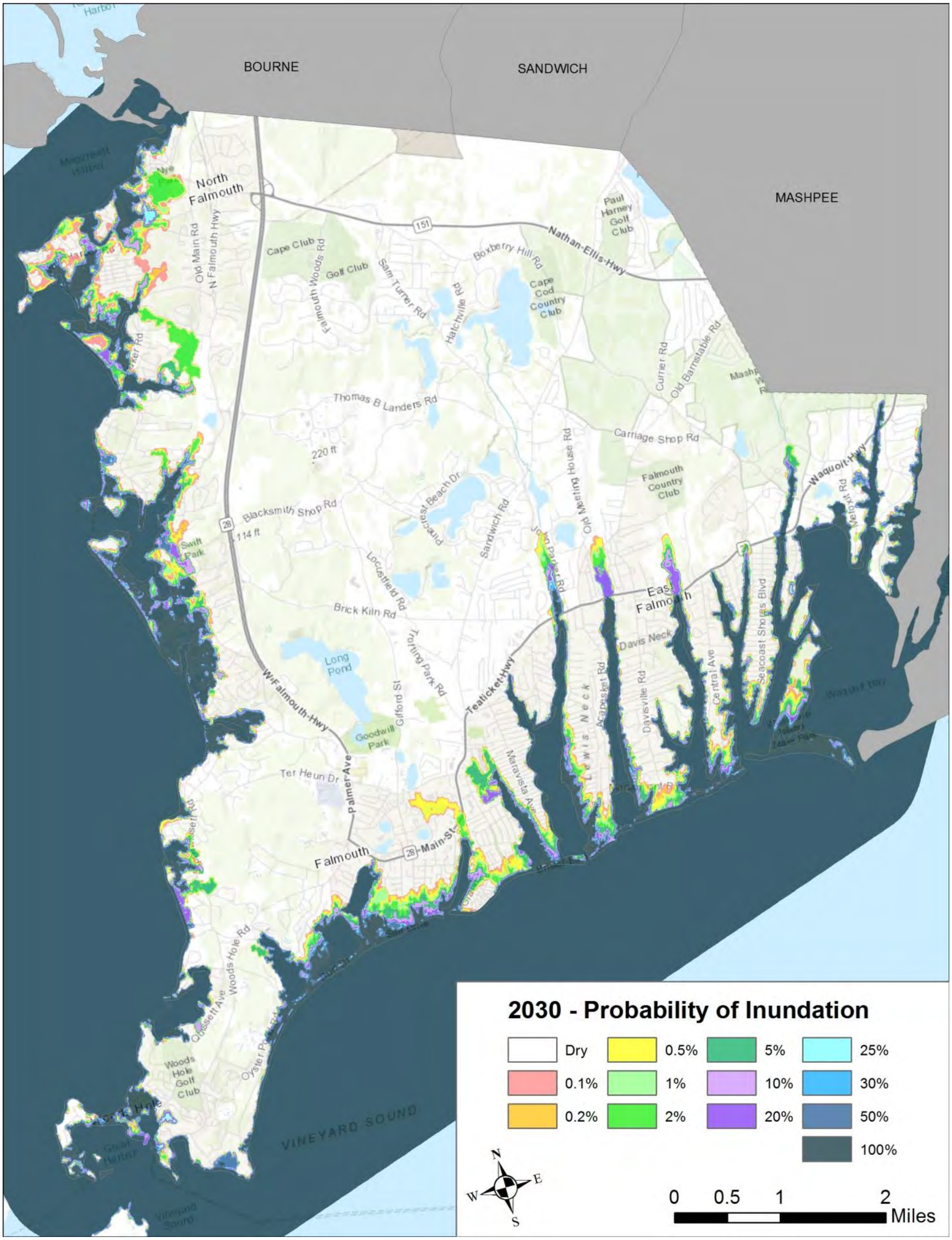
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SANDWICH
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North Falmouth
Old Main Rd
N Falmouth Hwy
Cape Club
Golf Club
Falmouth Woods Rd
Sam Turner Rd
Boxberry Hill Rd
Nathan-Ellis-Hwy
151
Paul Harney Golf Club
Cape Cod Country Club
Hatchville Rd
Currier Rd
Old Barnstable Rd
Thomas B Landers Rd
220 ft
Carriage Shop Rd
Falmouth Country Club
Waquoit Hwy
Blacksmith Shop Rd
28
114 ft
Swift Park
Pinecrest Beach Dr
Sandwich Rd
John Parker Rd
Old Meeting House Rd
Locustfield Rd
Brick Kiln Rd
East Falmouth
Davis Neck
Long Pond
Turning Park Rd
W Falmouth Hwy
Teaticket Hwy
Lewis Neck
Acapesket Rd
Davisville Rd
Central Ave
Seacoast Shores Blvd
Goodwill Park
Gifford St
Maravista Ave
Ter Heun Dr
Palmer Ave
Falmouth
Main St
Woods Hole Rd
Gosnold Ave
Woods Hole Golf Club
Oyster Pond Rd
VINEYARD SOUND
2030 - Probability of Inundation
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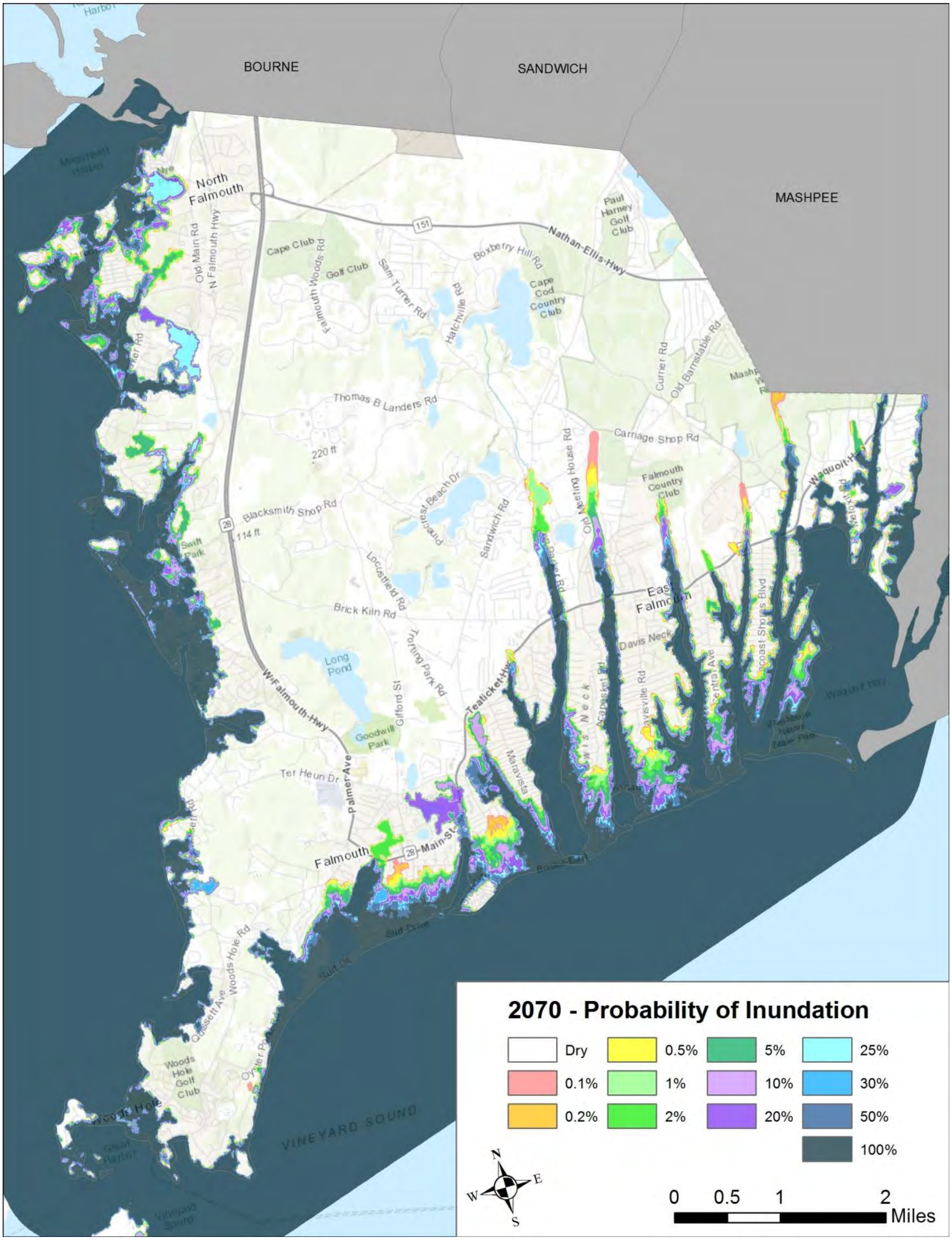
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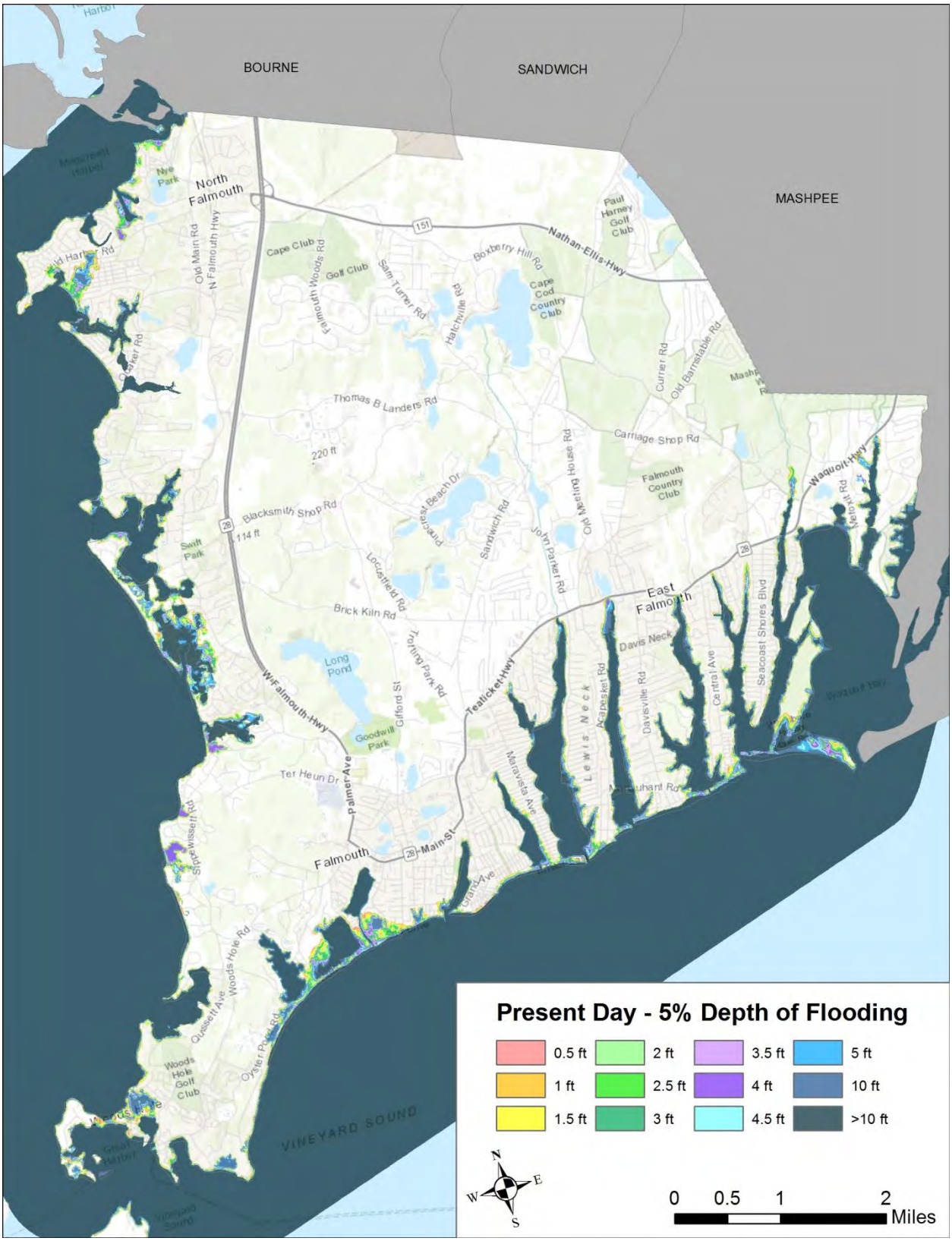
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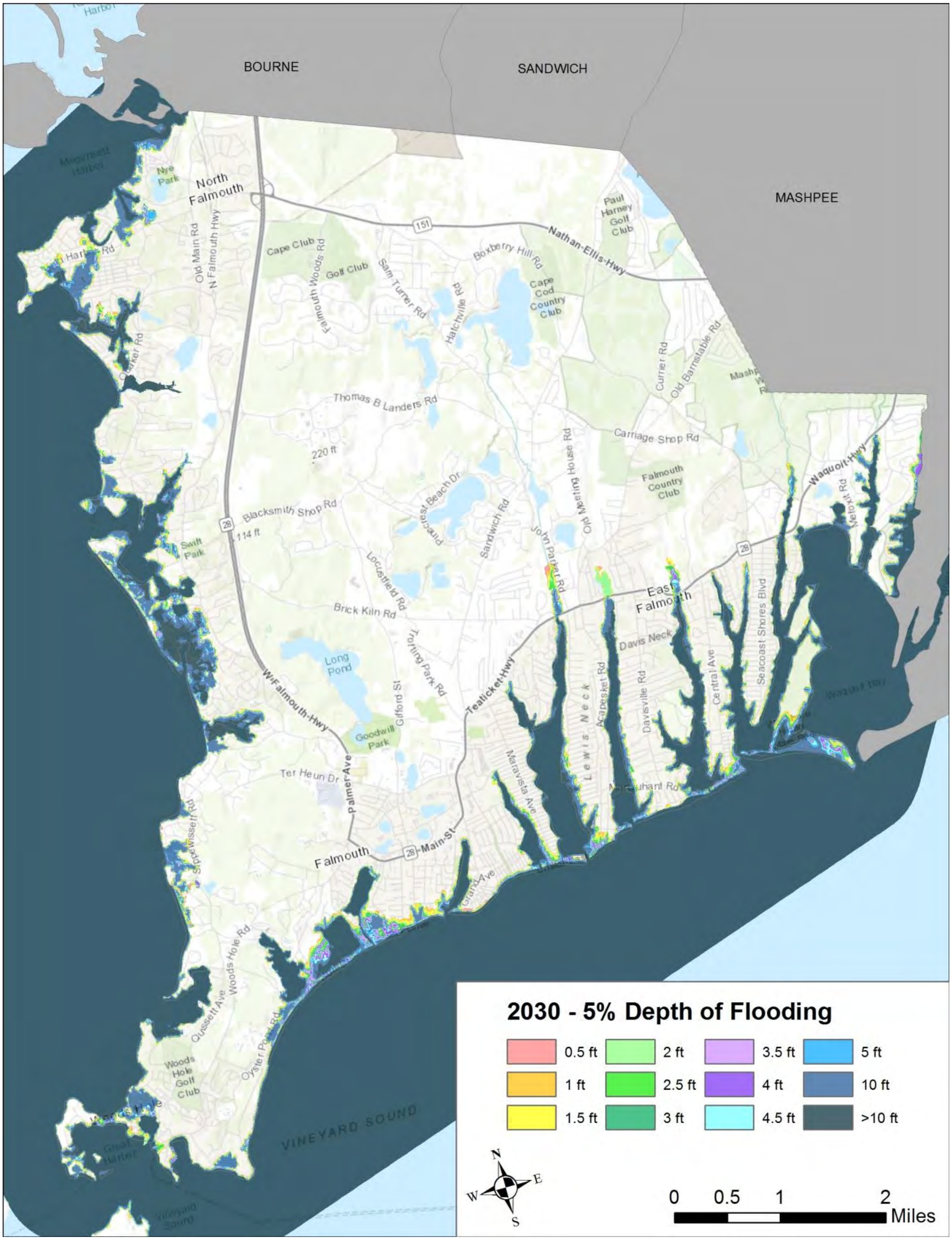
2030 - 5% Depth of Flooding
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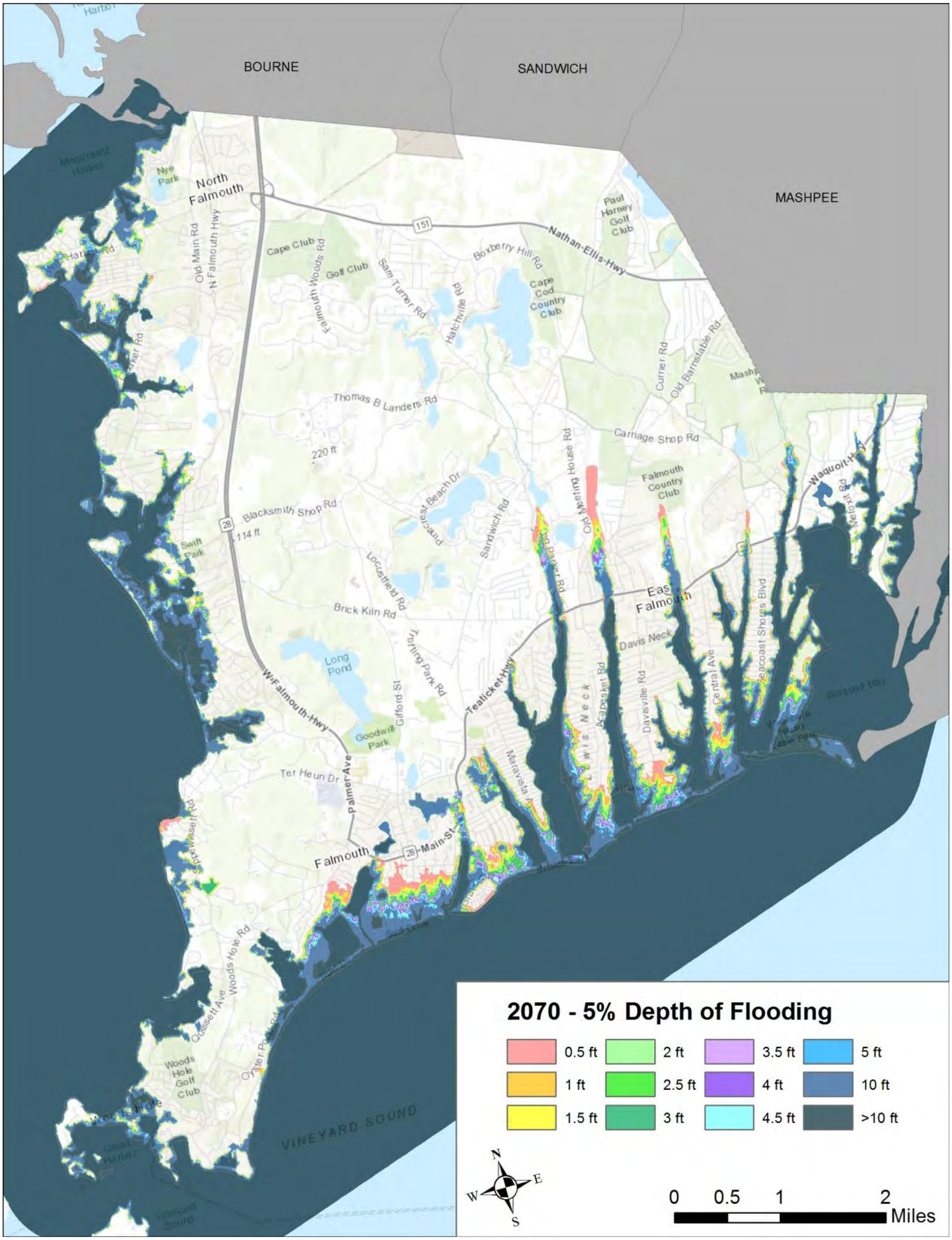
Goodwill Park
Falmouth Country Club
Cape Cod Country Club
Davis Neck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VINEYARD SOUND
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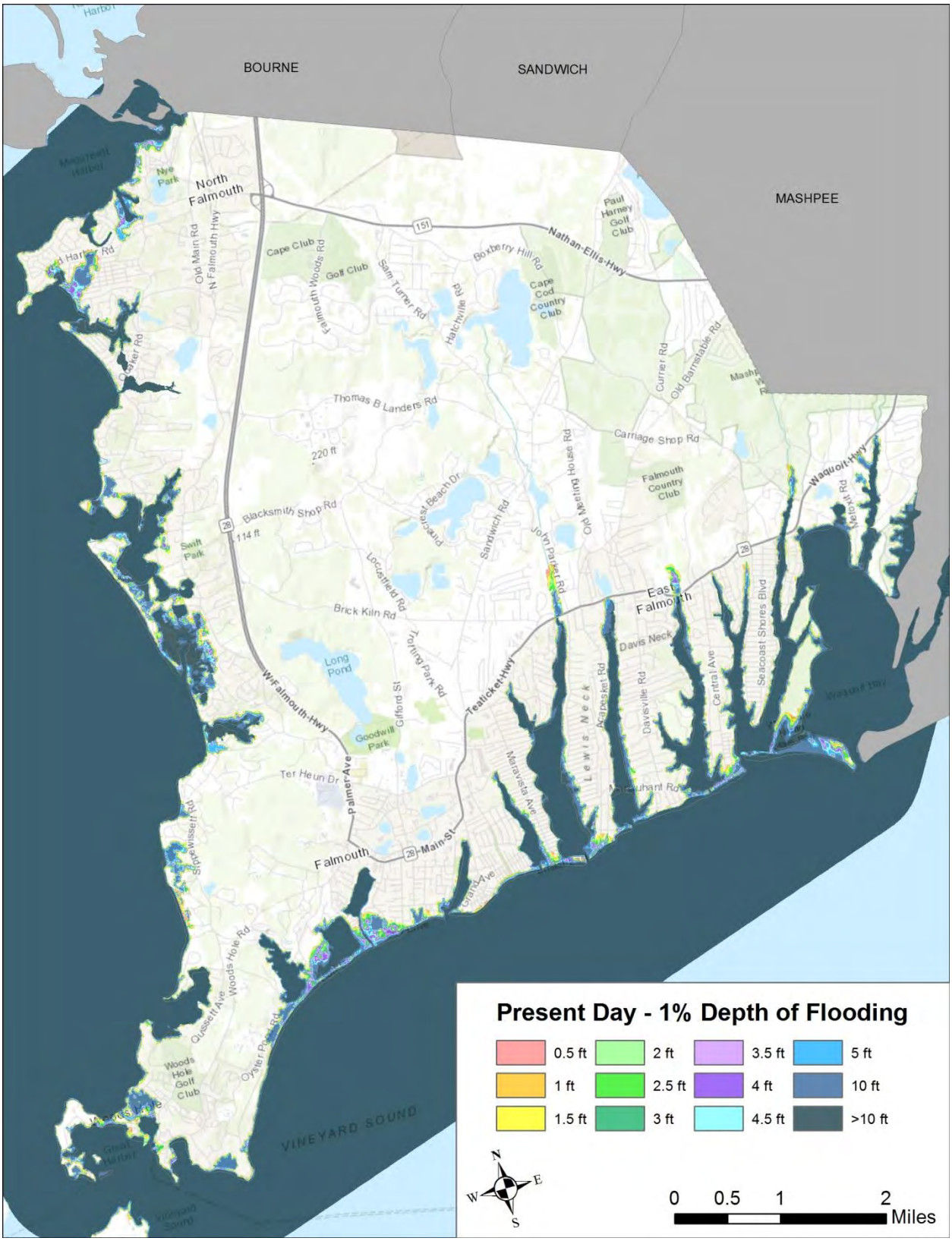
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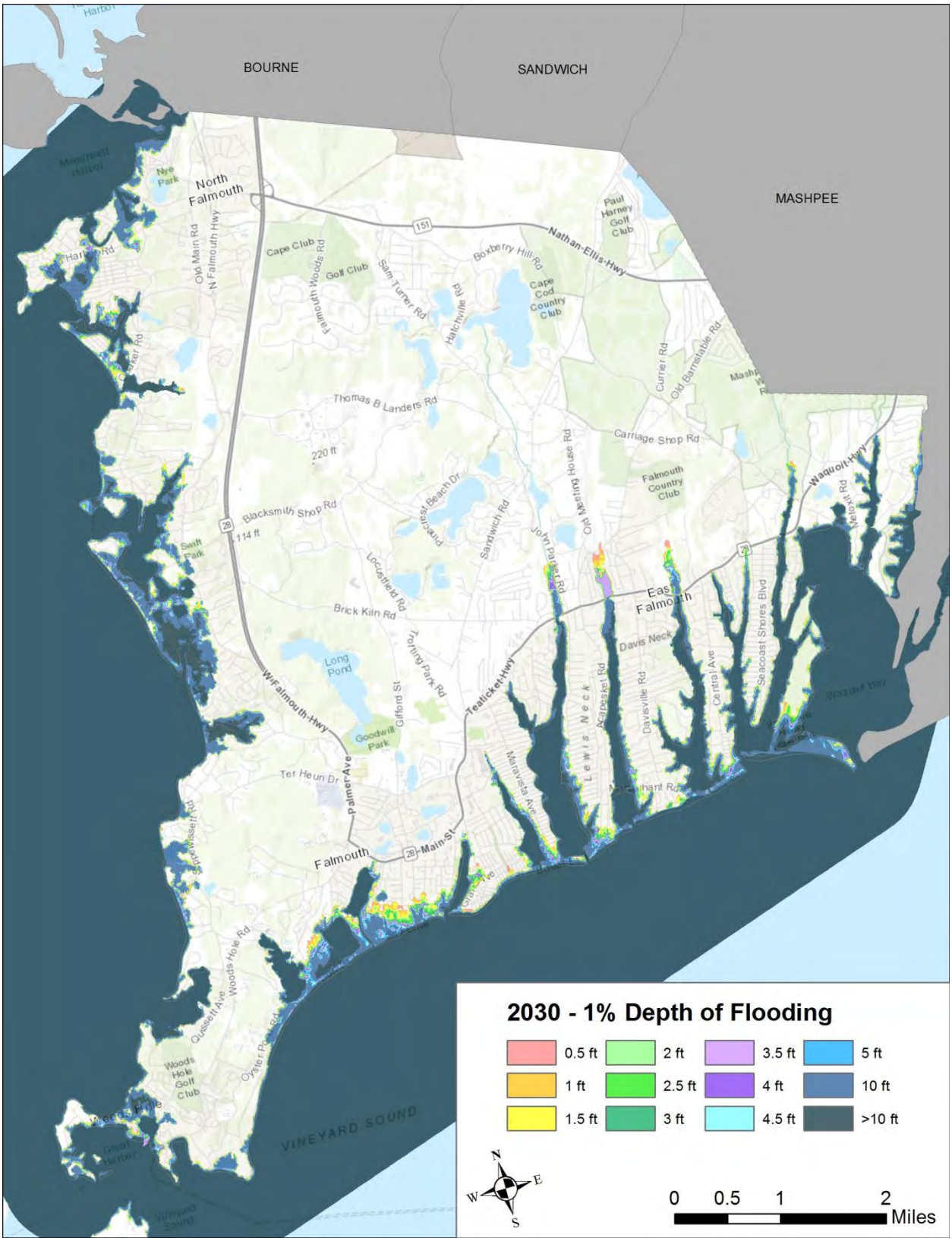
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Woods Hole Golf Club
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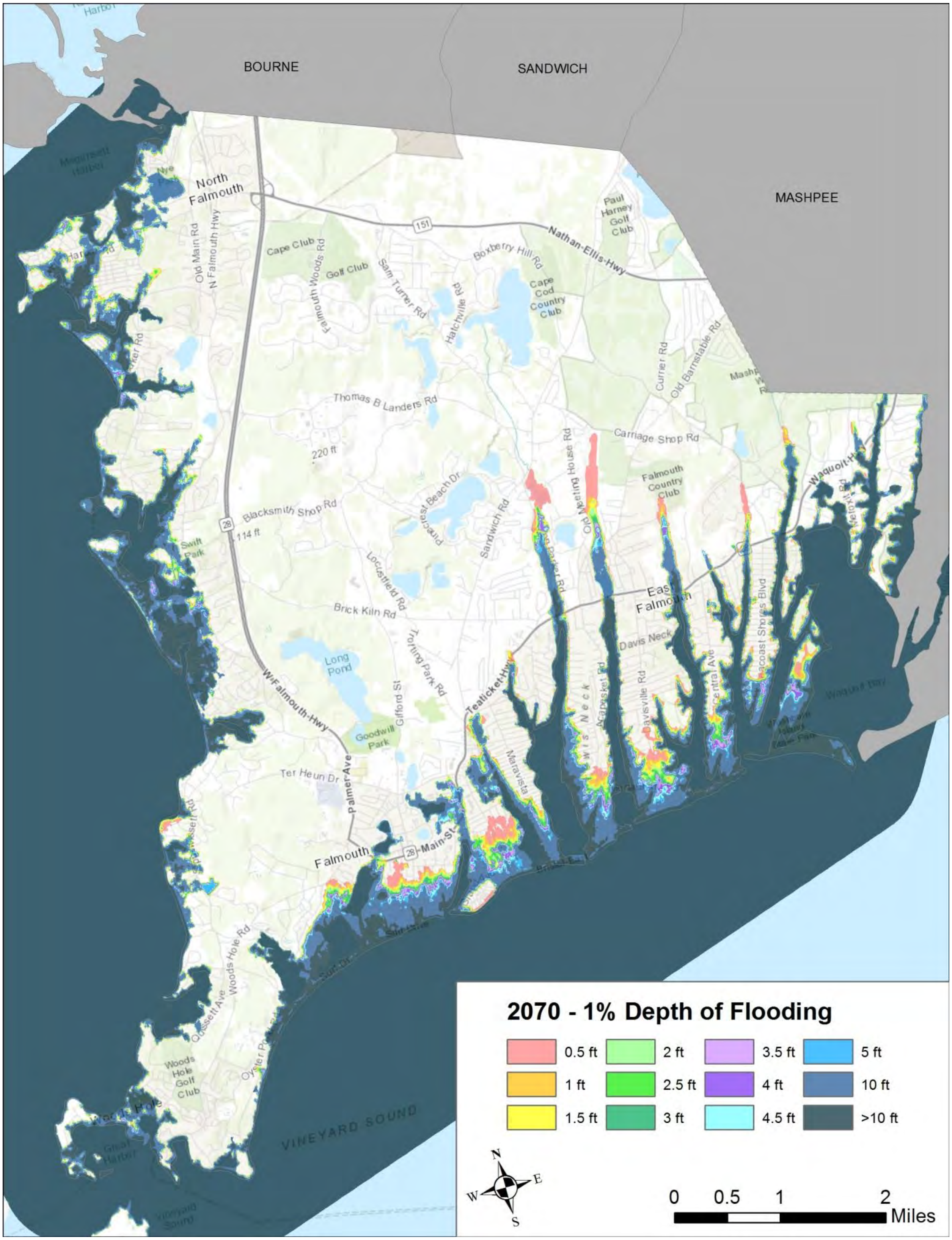
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APPENDIX B. ASSET CONSEQUENCE SCORES, CRITICAL ELEVATIONS & RISK SCORES

Table B-1a. Consequence scores, probability of inundation, and total risk scores for all land-based assets and major roads.

Asset Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
1	479	WATER ST	Road	PAVED, COUNTY	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	67	5.39	Mass 2016 DEM	99	6625	99	6628	100	6671	6635
2	672	CHAPOQUOIT RD	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	4.91	Mass 2016 DEM Adj	95	5392	100	5700	100	5700	5546
3	3236	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	67	2.26	Mass 2016 DEM	73	4906	83	5569	100	6700	5464
4	212	Menauhant Road (at Bristol Beach/Little Pond)	Bridge		3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	0.70	Surveyed Low Chord (culvert)	100	5333	100	5333	100	5333	5333
5	2346	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	67	2.32	Mass 2016 DEM	69	4601	83	5571	100	6700	5312
6	1315	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	6.87	Mass 2016 DEM	100	5300	100	5300	100	5300	5300
7	2336	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.02	Mass 2016 DEM	95	5022	97	5147	100	5300	5115
8	207	Trunk River Sewer Main	Sewer Main		3	Neighborhood	2	1 - 7 days	3	$100k - $1m	1	None	2	Low	4	High	50	3.12	Surveyed Bottom of Pipe	100	5000	100	5000	100	5000	5000
9	2307	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	4	High	1	None	63	2.62	Mass 2016 DEM	68	4304	77	4824	100	6299	4859
10	59	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	57	2.96	Mass 2016 DEM	77	4361	87	4949	100	5700	4805
11	3569	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.45	Mass 2016 DEM	100	4700	100	4700	100	4700	4700
12	151	Falmouth Harbor Dock (6)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	3	Moderate	3	Moderate	1	None	47	3.57	Surveyed Stationary Platform	100	4667	100	4667	100	4667	4667
13	4001	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	3	Moderate	1	None	60	4.61	Mass 2016 DEM	66	3973	78	4703	99	5910	4579
14	1030	OLD DOCK RD	Road	PAVED, COUNTY	4	Multiple Neighbo	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	60	3.91	Mass 2016 DEM	68	4089	75	4522	97	5835	4568
15	2324	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	2.91	Mass 2016 DEM	66	3789	78	4429	100	5700	4363
16	145	Falmouth Harbor Clinton Ave Wharf	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	43	3.50	Surveyed Stationary Platform	100	4333	100	4333	100	4333	4333
17	146	Falmouth Harbor Dock (1)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	43	3.69	Surveyed Stationary Platform	100	4333	100	4333	100	4333	4333
18	147	Falmouth Harbor Dock (2)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	43	3.64	Surveyed Stationary Platform	100	4333	100	4333	100	4333	4333
19	148	Falmouth Harbor Dock (3)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	43	3.65	Surveyed Stationary Platform	100	4333	100	4333	100	4333	4333
20	149	Falmouth Harbor Dock (4)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	43	3.66	Surveyed Stationary Platform	100	4333	100	4333	100	4333	4333
21	150	Falmouth Harbor Dock (5)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	43	3.68	Surveyed Stationary Platform	100	4333	100	4333	100	4333	4333
22	211	Woods Hole Drawbridge	Bridge		4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	67	4.63	Surveyed Low Chord	30	2000	100	6667	100	6667	4333
23	2337	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	2.88	Mass 2016 DEM	64	3674	75	4277	100	5700	4260
24	215	Menauhant Road (at Menauhant Beach/Bournes Pond)	Bridge		3	Neighborhood	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	57	4.23	Surveyed Low Chord	50	2833	100	5667	100	5667	4250
25	905	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	3	Moderate	1	None	60	4.29	Mass 2016 DEM	61	3663	73	4366	89	5322	4206
26	3555	CHAPOQUOIT RD	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	5.60	Mass 2016 DEM	67	3799	70	3984	96	5473	4189
27	2386	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	3.10	Mass 2016 DEM	61	3476	76	4346	100	5700	4182
28	2334	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	2.61	Mass 2016 DEM	70	3690	75	3995	100	5300	4103
29	3279	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	11.36	Mass 2016 DEM	55	3308	70	4182	97	5823	4073
30	141	Old Dock Road Dock	Docks & Piers		1	Property	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	40	5.04	Surveyed Edge of Pier	100	4000	100	4000	100	4000	4000
31	231	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	60	5.02	Mass 2016 DEM	52	3122	74	4425	85	5116	3912
32	77	Park Road Sewer Lift Station	Buildings & Structures	Sewer	2	Locality	2	1 - 7 days	2	$10k - $100k	1	None	1	None	3	Moderate	37	4.62	Surveyed Top of Raised Tank	100	3667	100	3667	100	3667	3667
33	93	Woods Hole Boat Ramp Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	3.28	Mass 2016 DEM Lowest Point on Parking Lot (adj)	100	3667	100	3667	100	3667	3667
34	142	Quisset Harbor Boathouse Dock	Docks & Piers		1	Property	3	7 - 14 days	2	$10k - $100k	1	None	3	Moderate	1	None	37	3.94	Mass 2016 DEM Landward End of Dock	100	3667	100	3667	100	3667	3667
35	159	Green Pond Dock (2)	Docks & Piers		1	Property	3	7 - 14 days	1	<$10k	2	Low	3	Moderate	1	None	37	2.90	Surveyed Stationary Platform	100	3667	100	3667	100	3667	3667
36	986	MEADOW NECK RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.55	Mass 2016 DEM Adj	68	3208	74	3496	100	4690	3591
37	152	Falmouth Harbor Dock (7)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	3	Moderate	3	Moderate	1	None	47	4.27	Surveyed Stationary Platform	50	2333	100	4667	100	4667	3500
38	153	Falmouth Harbor Dock (8)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	3	Moderate	3	Moderate	1	None	47	3.77	Surveyed Stationary Platform	50	2333	100	4667	100	4667	3500
39	154	Falmouth Harbor Dock (9)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	3	Moderate	3	Moderate	1	None	47	3.77	Surveyed Stationary Platform	50	2333	100	4667	100	4667	3500
40	155	Falmouth Harbor Dock (10)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	3	Moderate	3	Moderate	1	None	47	4.28	Surveyed Stationary Platform	50	2333	100	4667	100	4667	3500
41	209	Nashawena Street in West Falmouth	Bridge		4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.72	Surveyed Low Chord SW Corner	50	2333	100	4667	100	4667	3500
42	2320	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	1.63	Mass 2016 DEM	40	2291	68	3874	100	5700	3448
43	517	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	5.02	Mass 2016 DEM	48	2743	63	3597	87	4983	3447
44	3452	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	4	High	1	None	63	4.48	Mass 2016 DEM Adj	41	2579	53	3362	86	5393	3377
45	63	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.94	Mass 2016 DEM	46	2417	69	3681	100	5300	3373
46	83	Old Silver Beach Parking (South)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	4	High	1	None	33	4.30	Mass 2016 DEM Lowest Point on Parking Lot	100	3333	100	3333	100	3333	3333
47	94	Oyster Pond Road Bike Path Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	2.76	Mass 2016 DEM Lowest Point on Parking Lot	100	3333	100	3333	100	3333	3333
48	95	Surf Drive Salt Pond Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	3.31	Mass 2016 DEM Lowest Point on Parking Lot	100	3333	100	3333	100	3333	3333
49	96	Surf Drive Mill Road Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	1.80	Mass 2016 DEM Lowest Point on Parking Lot (adj)	100	3333	100	3333	100	3333	3333
50	118	Falmouth Harbor Clinton Ave Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	1.97	Mass 2016 DEM Lowest Point on Parking Lot	100	3333	100	3333	100	3333	3333
51	120	Falmouth Harbor Boat Ramp Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	3.28	Mass 2016 DEM Lowest Point on Parking Lot (adj)	100	3333	100	3333	100	3333	3333
52	121	Falmouth Harbor Public Parking (north)	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	2.79	Mass 2016 DEM Lowest Point on Parking Lot (adj)	100	3333	100	3333	100	3333	3333
53	139	Megansett Small Dock	Docks & Piers		1	Property	3	7 - 14 days	2	$10k - $100k	1	None	2	Low	1	None	33	3.93	Mass 2016 DEM Landward End of Pier	100	3333	100	3333	100	3333	3333
54	99	Town Hall Parking	Parking Lot		3	Neighborhood	2	1 - 7 days	1	<$10k	1	None	5	Very high	1	None	43	4.10	Mass 2016 DEM Lowest Point on Parking Lot (adj)	50	2167	100	4333	100	4333	3250
55	156	Falmouth Harbor Dock (11)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	43	4.46	Surveyed Stationary Platform	50	2167	100	4333	100	4333	3250
56	157	Falmouth Harbor Dock (12)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	43	4.09	Surveyed Stationary Platform	50	2167	100	4333	100	4333	3250
57	1283	RED BROOK RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.16	Mass 2016 DEM	54	2529	72	3363	98	4612	3196
58	2319	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.37	Mass 2016 DEM	39	2048	67	3557	99	5258	3143
60	80	Megansett Beach Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	4.92	Mass 2016 DEM Lowest Point of Parking Area	100	3000	100	3000	100	3000	3000
61	88	Woodneck Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	2.30	Mass 2016 DEM Lowest Point on Parking Lot (adj)	100	3000	100	3000	100	3000	3000
62	97	Surf Drive Beach Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	3.71	Mass 2016 DEM Lowest Point on Parking Lot	100	3000	100	3000	100	3000	3000
63	127	Bristol Beach Parking (west)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	2.54	Mass 2016 DEM Lowest Point on Parking Lot	100	3000	100	3000	100	3000	3000
64	128	Bristol Beach Parking (east)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	2.79	Mass 2016 DEM Lowest Point on Parking Lot (adj)	100	3000	100	3000	100	3000	3000
65	134	Menauhant Beach West Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	3.47	Mass 2016 DEM Lowest Point on Parking Lot	100	3000	100	3000	100	3000	3000
68	167	Taft Park Field	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	2.01	Mass 2016 DEM Lowest Point on Field	100	3000	100	3000	100	3000	3000
59	28	Old Dock Road Pier Upwellers	Buildings & Structures	Marine	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	3	Moderate	2	Low	40	5.34	Surveyed Base of Upweller Tanks	50	2000	100	4000	100	4000	3000
66	138	Megansett Main Dock	Docks & Piers		1	Property	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	40	5.78	Surveyed NW Corner of Pier	50	2000	100	4000	100	4000	3000
67	161	Whites Landing Dock	Docks & Piers		1	Property	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	40	4.23	Surveyed Stationary Structure	50	2000	100	4000	100	4000	3000
69	4056	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	10.94	Mass 2016 DEM	36	2162	48	2864	87	5219	2984
70	36	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.31	Mass 2016 DEM	54	2531	71	3353	76	3549	2981
71	208	Quaker Road (over the inlet at Old Silver Beach)	Bridge		4	Multiple Neighbo	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	60	6.88	Surveyed Low Chord NE Corner	25	1500	50	3000	100	6000	2850
72	2673	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	8.42	Mass 2016 DEM	51	2555	52	2586	70	3492	2752
73	131	Green Pond Boat Ramp Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	3.93	Mass 2016 DEM Lowest Point on Parking Lot (adj)	50	1833	100	3667	100	3667	2750
74	2440	SCHOOL ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	5.46	Mass 2016 DEM	34	1948	48	2709	84	4793	2745
75	1350	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	4	High	1	None	57	7.13	Mass 2016 DEM	31	1755	58	3311	76	4304	2732
76	3498	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.12	Mass 2016 DEM	46	2168	66	3107	75	3548	2726
77	4474	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	4.09	Mass 2016 DEM	34	1778	58	3079	83	4409	2694
78	29	Woods Hole Draw Bridge Hut	Buildings & Structures	Marine	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	3	Moderate	4	High	1	None	57	4.78	Surveyed Rear Bulkhead	25	1417	50	2833	100	5667	2692
79	216	Rt 28/East Falmouth Highway (at head of Great Pond, east c	Bridge		4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	4	High	1	None	57	5.05	Surveyed Low Chord	25	1417	50	2833	100	5667	2692

Table B-1a. Consequence scores, probability of inundation, and total risk scores for all land-based assets and major roads.

Asset Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
80	89	Quisset Harbor Boathouse Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	4.01	Mass 2016 DEM Lowest Point on Parking Lot	100	2667	100	2667	100	2667	2667
81	91	Quisset Harbor Parking (2)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	3.48	Mass 2016 DEM Lowest Point on Parking Lot	100	2667	100	2667	100	2667	2667
82	168	Taft Park Tennis Courts	Recreation	Tennis Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	4.67	Mass 2016 DEM Lowest Point on Courts	100	2667	100	2667	100	2667	2667
83	3158	CHAPOQUOIT RD	Road	PAVED, PRIVATE	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	6.40	Mass 2016 DEM	37	2103	43	2455	74	4210	2630
84	2737	CHAPOQUOIT RD	Road	PAVED, PRIVATE	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	6.53	Mass 2016 DEM	31	1772	49	2802	78	4458	2618
85	144	Eel Pond Dock	Docks & Piers		1	Property	3	7 - 14 days	2	$10k - $100k	2	Low	3	Moderate	1	None	40	4.51	Mass 2016 DEM Landward End of Dock	30	1200	100	4000	100	4000	2600
86	210	Chapoquoit Road	Bridge		4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	7.25	Surveyed Low Chord NE Corner	20	1133	50	2833	100	5667	2550
87	2342	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	4.76	Mass 2016 DEM	30	1582	55	2925	79	4213	2511
88	27	Old Dock Road Pier Shed	Buildings & Structures	Marine	1	Property	2	1 - 7 days	1	<$10k	2	Low	2	Low	2	Low	33	5.95	Surveyed Door Threshold	50	1667	100	3333	100	3333	2500
89	32	Old Silver Beach (South) Pedestrian Ramp	Buildings & Structures	Recreation	1	Property	2	1 - 7 days	2	$10k - $100k	1	None	3	Moderate	1	None	33	5.59	Mass 2016 DEM	50	1667	100	3333	100	3333	2500
90	140	Old Dock Road Wharf	Docks & Piers		1	Property	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	33	5.94	Mass 2016 DEM Lowest Elevation	50	1667	100	3333	100	3333	2500
91	200	Chapoquoit Rd to Quahog Pond Ln	Bike Path	2,530	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	5.29	Mass 2016 DEM Lowest Point on Path	50	1667	100	3333	100	3333	2500
92	201	Quahog Pond Ln to Bumblebee Hill Rd	Bike Path	4,259	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	5.72	Mass 2016 DEM Lowest Point on Path	50	1667	100	3333	100	3333	2500
93	203	Locust St to Elm Road	Bike Path	5,515	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	4.42	Mass 2016 DEM Lowest Point on Path	50	1667	100	3333	100	3333	2500
94	204	Elm Road to Fay Road	Bike Path	7,117	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	4.28	Mass 2016 DEM Lowest Point on Path	50	1667	100	3333	100	3333	2500
95	2329	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.44	Mass 2016 DEM	26	1358	56	2969	81	4284	2427
96	217	Rt 28/Waquoit Highway (just east of Whites Landing)	Bridge		5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	5.63	Surveyed Low Chord	20	1067	50	2667	100	5333	2400
97	3595	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	6.79	Mass 2016 DEM	27	1606	33	1957	78	4696	2329
98	2294	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.57	Mass 2016 DEM	33	1529	56	2620	80	3770	2305
99	782	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	60	6.95	Mass 2016 DEM Adj	22	1307	42	2501	74	4445	2293
100	427	BARROWS RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.77	Mass 2016 DEM	31	1478	58	2731	75	3548	2268
101	135	Menauhant Beach East Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	4.19	Mass 2016 DEM Lowest Point on Parking Lot	50	1500	100	3000	100	3000	2250
102	143	Woods Hole Boat Ramp Pier	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	3	Moderate	3	Moderate	1	None	47	4.95	Surveyed End of Pier	25	1167	50	2333	100	4667	2217
103	158	Green Pond Dock (1)	Docks & Piers		2	Locality	3	7 - 14 days	2	$10k - $100k	3	Moderate	3	Moderate	1	None	47	4.99	Surveyed Stationary Platform	25	1167	50	2333	100	4667	2217
104	4188	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	4.67	Mass 2016 DEM	22	1163	51	2707	75	3999	2193
105	2	Town Hall - Main Building	Buildings & Structures	Admin	5	Whole Town	3	7 - 14 days	3	$100k - $1m	4	High	4	High	4	High	77	6.65	Surveyed Rear Door Top of Steps	5	383	20	1533	100	7667	2185
106	1731	ROBBINS RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	4.86	Mass 2016 DEM	18	1006	45	2548	74	4215	2110
107	2281	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.18	Mass 2016 DEM	28	1307	48	2267	80	3739	2081
108	2295	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	3	Moderate	1	None	60	4.98	Mass 2016 DEM	15	871	40	2387	76	4544	2060
109	2239	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.62	Mass 2016 DEM	25	1173	52	2426	78	3646	2044
110	90	Quisset Harbor Parking (1)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	5.85	Mass 2016 DEM Lowest Point on Parking Lot	50	1333	100	2667	100	2667	2000
111	169	Taft Park Playground	Recreation	Playground	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	5.15	Mass 2016 DEM Lowest Point on Playground	50	1333	100	2667	100	2667	2000
112	56	Mitchell Bathhouse	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	4	High	2	Low	43	5.60	Surveyed Rear Door Threshold	20	867	50	2167	100	4333	1950
113	2364	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	4.21	Mass 2016 DEM	13	722	37	2094	75	4300	1849
114	1825	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	3.96	Mass 2016 DEM	17	784	42	1988	75	3547	1698
115	4141	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.18	Mass 2016 DEM	16	760	41	1936	75	3541	1669
116	129	Great Pond Boat Ramp Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	5.74	Mass 2016 DEM Lowest Point on Parking Lot (adj)	20	733	50	1833	100	3667	1650
117	160	Green Pond Dock (3)	Docks & Piers		1	Property	3	7 - 14 days	1	<$10k	2	Low	3	Moderate	1	None	37	5.01	Surveyed Stationary Platform	20	733	50	1833	100	3667	1650
118	3425	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	5.30	Mass 2016 DEM	15	734	30	1522	78	3885	1600
119	26	Inner Harbor - Upwellers	Buildings & Structures	Marine	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	3	Moderate	2	Low	40	5.75	Surveyed Base of Upweller Tanks	10	400	50	2000	100	4000	1600
120	206	Woods Hole Parking Area	Bike Path	2,750	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	4.91	Mass 2016 DEM Lowest Point on Path	25	833	50	1667	100	3333	1583
121	87	Chapoquoit Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	6.73	Mass 2016 DEM Lowest Point on Parking Lot (adj)	25	750	50	1500	100	3000	1425
122	1072	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	11.15	Mass 2016 DEM	23	1200	30	1594	31	1650	1408
123	32	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	6.87	Mass 2016 DEM	13	601	30	1391	71	3319	1382
124	1846	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.49	Mass 2016 DEM	11	499	30	1418	74	3497	1374
125	2209	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.63	Mass 2016 DEM	10	470	30	1419	75	3519	1365
126	73	Woods Hole Sewer Lift Station	Buildings & Structures	Sewer	3	Neighborhood	2	1 - 7 days	3	$100k - $1m	1	None	3	Moderate	4	High	53	7.29	Mass 2016 DEM Lowest Elevation at Structure	5	267	10	533	100	5333	1360
127	1871	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.65	Mass 2016 DEM	10	487	29	1373	74	3463	1348
128	72	Surf Drive Sewer Lift Station	Buildings & Structures	Sewer	3	Neighborhood	2	1 - 7 days	2	$10k - $100k	1	None	2	Low	3	Moderate	43	6.29	Surveyed Top of East Tank	10	433	20	867	100	4333	1343
129	3400	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	5	Very high	2	Low	1	None	60	7.92	Mass 2016 DEM	9	541	18	1059	63	3753	1339
130	933	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	9.03	Mass 2016 DEM	12	683	19	1103	57	3248	1322
131	1151	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	9.32	Mass 2016 DEM	8	522	19	1167	56	3498	1311
132	713	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.97	Mass 2016 DEM	21	964	30	1409	40	1893	1283
133	3384	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	8.03	Mass 2016 DEM	9	474	23	1138	70	3489	1276
134	2445	WOODS HOLE RD	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	19.06	Mass 2016 DEM	16	998	18	1106	35	2216	1274
135	82	Old Silver Beach Parking (North)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	4	High	1	None	33	7.89	Mass 2016 DEM Lowest Point on Parking Lot	20	667	25	833	100	3333	1250
136	1831	SPRING BARS RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	6.97	Mass 2016 DEM	11	607	13	768	62	3519	1238
137	214	Menauhant Road (at Green Pond)	Bridge		3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	6.50	Surveyed Low Chord	5	217	20	867	100	4333	1235
138	1598	MEADOW NECK RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.97	Mass 2016 DEM	18	864	20	962	48	2277	1176
139	3350	OLD DOCK RD	Road	PAVED, COUNTY	4	Multiple Neighbo	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	8.44	Mass 2016 DEM	8	421	18	948	63	3336	1162
140	7	Woods Hole Community Building	Buildings & Structures	Admin	1	Property	3	7 - 14 days	3	$100k - $1m	1	None	2	Low	1	None	37	6.49	Mass 2016 DEM Lowest Elevation at Structure	10	367	20	733	100	3667	1137
141	4072	MEADOW NECK RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.41	Mass 2016 DEM	18	855	19	890	45	2098	1114
142	24	Inner Harbor - Electrical Shed	Buildings & Structures	Marine	2	Locality	3	7 - 14 days	2	$10k - $100k	3	Moderate	3	Moderate	2	Low	50	8.02	Surveyed Door Threshold	1	50	5	250	100	5000	1100
143	21	Inner Harbor - Charter Boat Shed	Buildings & Structures	Marine	1	Property	2	1 - 7 days	1	<$10k	2	Low	2	Low	2	Low	33	6.12	Surveyed Door Threshold	10	333	25	833	100	3333	1083
144	1785	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.79	Mass 2016 DEM	6	282	19	871	71	3340	1070
145	1767	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	6.03	Mass 2016 DEM	6	292	19	895	68	3201	1055
146	168	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	6.38	Mass 2016 DEM	5	227	17	795	73	3446	1041
147	30	Woods Hole Draw Bridge Hut Generator	Buildings & Structures	Marine	2	Locality	2	1 - 7 days	1	<$10k	3	Moderate	4	High	1	None	43	7.68	Surveyed Base of Generator	5	217	5	217	100	4333	1040
148	199	Old Dock Rd to Chapoquoit Rd	Bike Path	1,699	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	8.30	Mass 2016 DEM Lowest Point on Path	10	333	20	667	100	3333	1033
149	1029	CHAPOQUOIT RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	50	8.12	Mass 2016 DEM	8	416	18	881	53	2652	1003
150	1526	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	11.30	Mass 2016 DEM	14	703	19	928	36	1815	993
151	664	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	4	High	1	None	60	8.13	Mass 2016 DEM	4	259	10	627	55	3321	982
152	123	Falmouth Heights Beach Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	6.93	Mass 2016 DEM Lowest Point on Parking Lot	5	167	20	667	100	3333	950
153	178	Morse Pond School Practice Field	Recreation	Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	5.99	Mass 2016 DEM Lowest Elevation on Field	0	0	30	900	100	3000	870
154	100	Chamber of Commerce Parking	Parking Lot		3	Neighborhood	2	1 - 7 days	1	<$10k	1	None	5	Very high	1	None	43	5.70	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	100	4333	867
155	1028	CHAPOQUOIT RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	8.55	Mass 2016 DEM	4	229	10	553	55	2906	861
156	2021	DAVISVILLE RD	Road	UNPAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	6.56	Mass 2016 DEM	2	99	7	381	66	3480	860
157	150	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	6.90	Mass 2016 DEM	3	132	10	467	68	3207	847
158	92	Woods Hole Playground Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	7.83	Mass 2016 DEM Lowest Point on Parking Lot	10	267	20	533	100	2667	827

Table B-1a. Consequence scores, probability of inundation, and total risk scores for all land-based assets and major roads.

Asset Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
159	4133	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.19	Mass 2016 DEM	2	117	9	419	66	3117	807
160	2284	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.78	Mass 2016 DEM	2	101	8	391	67	3161	800
161	4464	RANDOLPH ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.29	Mass 2016 DEM	9	503	10	551	33	1907	798
162	4192	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.39	Mass 2016 DEM	2	98	8	380	67	3145	792
163	4467	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.68	Mass 2016 DEM	6	263	12	559	52	2463	792
164	1052	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	11.54	Mass 2016 DEM	13	715	14	723	20	1083	791
165	2287	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.88	Mass 2016 DEM	2	94	8	365	66	3123	781
166	162	Nye Park Field	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	9.34	Mass 2016 DEM Lowest Point of Field	5	150	10	300	100	3000	765
167	3274	EAST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	11.79	Mass 2016 DEM	1	48	6	327	56	3214	765
168	170	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.92	Mass 2016 DEM	2	86	7	322	66	3094	758
169	114	Old Senior Center Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	6.88	Mass 2016 DEM Lowest Point on Parking Lot	0	0	20	533	100	2667	693
170	3686	OLD DOCK RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	10.00	Mass 2016 DEM	3	188	8	442	39	2219	671
171	3	Town Hall - Storage Shed	Buildings & Structures	Admin	1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	6.60	Surveyed Door Threshold	5	117	20	467	100	2333	665
172	187	Central Park Field	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	8.19	Mass 2016 DEM Lowest Point on Field	1	30	5	150	100	3000	660
173	1355	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	8.77	Mass 2016 DEM	2	106	7	348	49	2462	650
174	4164	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.86	Mass 2016 DEM	1	61	5	230	59	2750	649
175	238	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	9.29	Mass 2016 DEM	3	147	7	367	45	2258	635
176	2277	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.03	Mass 2016 DEM	1	65	5	220	57	2669	632
177	1857	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.43	Mass 2016 DEM	2	108	7	344	50	2356	628
178	2288	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.61	Mass 2016 DEM	1	51	4	206	57	2672	622
179	1841	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.02	Mass 2016 DEM	1	70	5	251	52	2436	598
180	3885	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.88	Mass 2016 DEM	1	53	4	201	53	2478	583
181	2344	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.34	Mass 2016 DEM	1	40	3	163	54	2543	578
182	2268	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.47	Mass 2016 DEM	1	41	4	165	52	2451	560
183	74	Woods Hole Sewer Lift Station Wet Well	Buildings & Structures	Sewer	3	Neighborhood	2	1 - 7 days	2	$10k - $100k	1	None	2	Low	4	High	47	8.33	Surveyed Top of Tank	1	47	5	233	50	2333	560
184	218	Meadow Neck Road (just west of Ostrom Road at the top of	Bridge		4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.55	Surveyed Low Chord SE Corner	1	47	5	233	50	2333	560
185	4439	MAIN ST	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	5.74	Mass 2016 DEM	0	0	2	108	44	2612	555
186	2055	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.93	Mass 2016 DEM	1	40	3	153	52	2423	550
187	4440	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	5.88	Mass 2016 DEM	0	0	2	105	43	2587	549
188	4441	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	5.79	Mass 2016 DEM	0	0	2	105	43	2586	549
189	2243	WORCESTER AVE	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	8.14	Mass 2016 DEM	1	56	2	137	42	2390	547
190	3499	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.73	Mass 2016 DEM	2	107	6	277	43	2040	544
191	2217	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.56	Mass 2016 DEM	1	29	2	117	43	2463	542
192	2244	WORCESTER AVE	Road	PAVED, TOWN	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	6.65	Mass 2016 DEM	0	25	2	108	43	2470	539
193	3288	DAVIS STRAITS	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	7.35	Mass 2016 DEM	0	0	2	99	42	2525	535
194	198	Thomas Landers to Old Dock Rd	Bike Path	6,118	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	9.42	Mass 2016 DEM Lowest Point on Path	5	167	10	333	50	1667	517
195	2262	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.66	Mass 2016 DEM	1	30	3	118	49	2322	515
196	2229	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.66	Mass 2016 DEM	1	30	3	118	49	2322	515
197	4473	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.20	Mass 2016 DEM	9	405	9	416	19	893	506
198	2033	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.43	Mass 2016 DEM	1	29	2	112	46	2170	482
199	4466	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.01	Mass 2016 DEM	2	95	6	259	38	1774	480
200	4017	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	9.23	Mass 2016 DEM	1	70	3	179	31	1923	474
201	3469	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.90	Mass 2016 DEM	2	88	5	241	37	1742	465
202	674	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	9.79	Mass 2016 DEM	2	80	4	202	33	1764	454
203	3829	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.39	Mass 2016 DEM	1	28	2	117	41	1931	435
204	25	Inner Harbor - Garage	Buildings & Structures	Marine	1	Property	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	2	Low	40	9.24	Surveyed Garage Door Threshold	0.5	20	2	80	50	2000	434
205	4181	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.80	Mass 2016 DEM	0	21	2	82	41	1915	418
206	325	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.35	Mass 2016 DEM	0	19	2	76	40	1887	409
207	1168	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	10.46	Mass 2016 DEM	1	60	3	153	29	1647	405
208	2200	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.04	Mass 2016 DEM	0	19	2	75	39	1847	402
209	122	Falmouth Heights Baseball Field Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	8.33	Mass 2016 DEM Lowest Point on Parking Lot	1	33	5	167	50	1667	400
210	3955	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.77	Mass 2016 DEM	1	69	4	178	33	1556	399
211	4388	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	12.99	Mass 2016 DEM	3	178	7	412	16	913	395
212	4194	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.71	Mass 2016 DEM	0	16	1	68	38	1793	387
213	119	Falmouth Harbor Public Parking (Main)	Parking Lot		3	Neighborhood	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	37	9.44	Mass 2016 DEM Lowest Point on Parking Lot	0	0	1	37	50	1833	378
214	76	Inner Harbor Sewer Lift Station	Buildings & Structures	Sewer	4	Multiple Neighbo	2	1 - 7 days	3	$100k - $1m	1	None	3	Moderate	4	High	57	9.82	Surveyed Top of Tank	0.2	11	1	57	30	1700	363
215	470	DAVIS STRAITS	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	9.07	Mass 2016 DEM	0	0	1	48	28	1706	356
216	340	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	10.85	Mass 2016 DEM	1	63	3	160	28	1380	355
217	453	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.64	Mass 2016 DEM	0	13	1	58	35	1647	353
218	157	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.18	Mass 2016 DEM	0	11	1	45	29	1645	348
219	31	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.85	Mass 2016 DEM	1	58	3	160	28	1319	341
220	2188	WORCESTER AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.56	Mass 2016 DEM	0	10	1	46	31	1474	314
221	1957	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	10.63	Mass 2016 DEM	1	41	2	107	26	1302	313
222	2419	SCHOOL ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.94	Mass 2016 DEM	1	43	2	117	22	1238	304
223	3589	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	10.18	Mass 2016 DEM	0	10	1	43	24	1430	304
224	113	Recreation Center Front Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	30	9.34	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	50	1500	300
225	176	Fuller Field	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	9.37	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	50	1500	300
226	2117	DAVISVILLE RD	Road	UNPAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.45	Mass 2016 DEM	0	9	1	39	29	1386	293
227	2263	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.86	Mass 2016 DEM	0	6	1	38	29	1353	285
228	3591	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	11.70	Mass 2016 DEM	0	6	1	37	21	1269	268
229	54	Old Silver Beach (North) Bathhouse	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	4	High	2	Low	43	11.44	Surveyed Kitchen Entrance Threshold	1	43	2	87	25	1083	264
230	2142	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.75	Mass 2016 DEM	0	5	1	37	27	1253	264
231	58	Mullen Hall School - Main Building	Buildings & Structures	School	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	3	Moderate	63	10.23	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	20	1267	253
232	3481	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.76	Mass 2016 DEM	1	34	2	93	22	1024	250
233	4143	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.87	Mass 2016 DEM	0	11	1	46	24	1149	249
234	3887	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.28	Mass 2016 DEM	1	37	3	145	20	932	248
235	46	Fuller Baseball Field Shed (north)	Buildings & Structures	Recreation	1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	9.12	Mass 2016 DEM Lowest Elevation at Structure	0	0	2	47	50	1167	247
236	47	Fuller Baseball Field Shed (northwest)	Buildings & Structures	Recreation	1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	9.04	Mass 2016 DEM Lowest Elevation at Structure	0	0	2	47	50	1167	247
237	1597	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.48	Mass 2016 DEM	0	0	0	0	26	1218	244

Table B-1a. Consequence scores, probability of inundation, and total risk scores for all land-based assets and major roads.

Asset Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
238	2654	FRESH POND RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	9.82	Mass 2016 DEM	0	0	1	29	21	1129	234
239	43	Fuller Baseball Field Dugout (south)	Buildings & Structures	Recreation	1	Property	1	< 1 day	1	<$10k	1	None	2	Low	1	None	23	9.37	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	50	1167	233
240	61	Mullen Hall School - Garden Shed	Buildings & Structures	School	1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	9.35	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	50	1167	233
241	3381	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.92	Mass 2016 DEM	0	0	1	25	24	1116	231
242	1692	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.07	Mass 2016 DEM	0	0	1	25	24	1116	231
243	4063	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	12.28	Mass 2016 DEM	0	0	2	106	16	971	226
244	3515	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	16.14	Mass 2016 DEM	3	143	5	248	8	400	226
245	213	Menauhant Road (at Great Pond)	Bridge		3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	10.39	Surveyed Low Chord SE Corner	0.1	5	0.5	27	20	1067	224
246	1773	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.20	Mass 2016 DEM	1	32	3	121	18	848	221
247	3812	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.79	Mass 2016 DEM	1	27	2	75	19	906	217
248	1900	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.35	Mass 2016 DEM	0	0	0	19	18	1048	215
249	52	Falmouth Recreation Center (Gus Canty)	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	4	$1m - $10m	5	Very high	2	Low	1	None	53	11.24	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	20	1067	213
250	1850	DAVIS STRAITS	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	8.62	Mass 2016 DEM	0	0	0	0	18	1066	213
251	3285	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.25	Mass 2016 DEM	0	0	0	17	18	1032	212
252	2193	WORCESTER AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.33	Mass 2016 DEM	0	4	1	26	21	1006	211
253	3286	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.57	Mass 2016 DEM	0	0	0	0	18	1032	206
254	3287	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.56	Mass 2016 DEM	0	0	0	0	18	1030	206
255	141	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.70	Mass 2016 DEM	0	0	0	22	21	971	201
256	4411	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.98	Mass 2016 DEM	0	0	0	0	19	885	177
257	3475	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.72	Mass 2016 DEM	0	18	1	54	16	753	176
258	3813	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.14	Mass 2016 DEM	0	22	1	62	15	715	173
259	2112	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.51	Mass 2016 DEM	0	0	0	17	17	812	168
260	2154	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	10.33	Mass 2016 DEM	0	0	0	26	14	787	165
261	176	FRESH POND RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.44	Mass 2016 DEM	0	0	0	0	17	802	160
262	2199	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.02	Mass 2016 DEM	0	0	0	6	17	792	160
263	1849	SPRING BARS RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.01	Mass 2016 DEM	0	0	0	0	14	798	160
264	549	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.02	Mass 2016 DEM	1	27	2	72	13	607	156
265	3468	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	12.12	Mass 2016 DEM	0	14	1	43	12	680	156
266	1711	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.64	Mass 2016 DEM	0	0	0	13	16	757	155
267	147	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.76	Mass 2016 DEM	0	0	0	14	16	734	151
268	5	Old Falmouth Senior Center	Buildings & Structures	Admin	1	Property	3	7 - 14 days	3	$100k - $1m	1	None	2	Low	1	None	37	10.90	Surveyed Front Door Threshold	0	0	0.2	7	20	733	149
269	1968	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.29	Mass 2016 DEM	0	0	0	13	15	682	140
270	60	Mullen Hall School - Storage Trailer	Buildings & Structures	School	1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	9.51	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	30	700	140
271	45	Fuller Baseball Field Press Box	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	2	Low	1	None	33	10.40	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	20	667	133
272	51	Fuller Baseball Field Electrical Panel	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	2	Low	1	None	33	11.13	Surveyed Base of Electrical Box	0	0	0	0	20	667	133
273	346	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.19	Mass 2016 DEM	0	0	0	0	14	637	127
274	75	Shivericks Sewer Lift Station	Buildings & Structures	Sewer	4	Multiple Neighbo	2	1 - 7 days	3	$100k - $1m	1	None	4	High	5	Very high	63	11.62	Surveyed threshold of door near K. L. Bates Rd	0	0	0	0	10	633	127
275	3815	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.32	Mass 2016 DEM	0	11	1	34	12	545	125
276	1800	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.11	Mass 2016 DEM	0	3	0	12	12	584	122
277	177	Rec Center Football Field	Recreation	Football Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	10.36	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	20	600	120
278	1576	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.25	Mass 2016 DEM	0	0	0	8	12	581	119
279	1202	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	12.76	Mass 2016 DEM	0	16	1	40	9	486	117
280	44	Fuller Baseball Field Dugout (west)	Buildings & Structures	Recreation	1	Property	1	< 1 day	1	<$10k	1	None	2	Low	1	None	23	10.14	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	25	583	117
281	1377	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	11.09	Mass 2016 DEM	0	0	0	9	11	567	116
282	3632	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.99	Mass 2016 DEM	0	0	0	10	12	556	114
283	188	Central Park Basketball Court	Recreation	Basketball Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	10.82	Mass 2016 DEM Lowest Point on Court	0	0	0.2	5	20	533	108
284	333	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.23	Mass 2016 DEM	0	1	0	7	11	523	107
285	1744	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.25	Mass 2016 DEM	0	0	0	8	11	523	107
286	111	Fuller Field Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	10.23	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	20	533	107
287	70	New Silver Beach Sewer Lift Station	Buildings & Structures	Sewer	3	Neighborhood	2	1 - 7 days	3	$100k - $1m	1	None	2	Low	4	High	50	14.26	Surveyed Floor Elevation	0.1	5	0.2	10	10	500	106
288	607	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.49	Mass 2016 DEM	0	9	1	26	10	453	103
289	2018	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.43	Mass 2016 DEM	0	0	0	7	10	482	99
290	55	Old Silver Beach (South) Bathhouse	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	4	High	2	Low	43	13.73	Surveyed Bathhouse Entrance Threshold	0.2	9	0.5	22	10	433	98
291	53	Falmouth Heights Baseball Field - Storage Shed	Buildings & Structures	Recreation	1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	10.08	Mass 2016 DEM Lowest Elevation at Structure	0	0	0.5	12	20	467	97
292	3709	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.34	Mass 2016 DEM	0	0	0	0	8	464	93
293	3717	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.55	Mass 2016 DEM	0	0	0	6	9	446	91
294	2637	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	12.48	Mass 2016 DEM	0	10	1	37	6	374	91
295	4011	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	15.13	Mass 2016 DEM	0	8	0	27	6	387	90
296	580	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.31	Mass 2016 DEM	0	6	0	16	8	369	81
297	2052	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.91	Mass 2016 DEM	0	0	0	0	9	403	81
298	4386	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	13.30	Mass 2016 DEM	0	6	0	17	6	354	79
299	3278	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	13.58	Mass 2016 DEM	0	0	0	10	6	377	78
300	3273	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	4	High	1	None	57	13.94	Mass 2016 DEM	0	0	0	0	7	389	78
301	3622	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.14	Mass 2016 DEM	0	0	0	0	8	369	74
302	31	Harbor Master's Building	Buildings & Structures	Marine	5	Whole Town	3	7 - 14 days	3	$100k - $1m	4	High	3	Moderate	4	High	73	13.24	Surveyed First Floor Threshold (Main Entrance)	0	0	0	0	5	367	73
303	1999	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.59	Mass 2016 DEM	0	0	0	0	7	350	70
304	1180	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.61	Mass 2016 DEM	0	0	0	6	7	329	67
305	3716	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.13	Mass 2016 DEM	0	0	0	0	7	330	66
306	3333	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	19.22	Mass 2016 DEM	0	0	0	5	7	317	65
307	990	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	11.41	Mass 2016 DEM	0	0	0	12	5	297	63
308	937	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	11.29	Mass 2016 DEM	0	0	0	12	5	297	63
309	1937	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.80	Mass 2016 DEM	0	0	0	0	7	314	63
310	2060	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.30	Mass 2016 DEM	0	0	0	0	7	311	62
311	3612	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	14.73	Mass 2016 DEM	0	7	0	19	5	264	62
312	3890	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.99	Mass 2016 DEM	0	0	0	0	6	291	58
313	362	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.12	Mass 2016 DEM	0	0	0	0	6	281	56
314	1977	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.89	Mass 2016 DEM	0	0	0	0	6	278	56
315	2083	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	12.95	Mass 2016 DEM	0	0	0	0	5	267	53
316	79	Spring Bars Sewer Lift Station	Buildings & Structures	Sewer	4	Multiple Neighbo	2	1 - 7 days	3	$100k - $1m	1	None	2	Low	4	High	53	13.08	Surveyed Lower of the two Vaults	0	0	0	0	5	267	53

Table B-1a. Consequence scores, probability of inundation, and total risk scores for all land-based assets and major roads.

Asset Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
317	191	Teaticket School Playground (2)	Recreation	Playground	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	12.04	Mass 2016 DEM Lowest Point on Playground	0	0	0	0	10	267	53
318	203	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	18.63	Mass 2016 DEM	0	8	1	27	4	205	53
319	2174	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.57	Mass 2016 DEM	0	0	0	0	6	261	52
320	3380	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.24	Mass 2016 DEM	0	5	0	14	5	228	52
321	3227	CARRIAGE SHOP RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.84	Mass 2016 DEM	0	0	0	6	5	248	51
322	356	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.15	Mass 2016 DEM	0	0	0	0	5	239	48
323	1884	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.85	Mass 2016 DEM	0	0	0	0	5	228	46
324	920	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	10.73	Mass 2016 DEM	0	0	0	0	4	227	45
325	69	Woods Hole School	Buildings & Structures	School	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	1	None	2	Low	1	None	43	12.24	Mass 2016 DEM Lowest Elevation at Structure	0	0	0.1	4	5	217	45
326	927	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	10.35	Mass 2016 DEM	0	0	0	5	3	209	43
327	2089	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	11.63	Mass 2016 DEM	0	0	0	0	4	214	43
328	1210	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	19.03	Mass 2016 DEM	0	0	0	4	4	208	43
329	4000	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	10.34	Mass 2016 DEM	0	0	0	0	4	207	41
330	3738	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	17.38	Mass 2016 DEM	0	3	0	8	3	177	39
331	3730	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.98	Mass 2016 DEM	0	0	0	0	4	196	39
332	1722	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.69	Mass 2016 DEM	0	0	0	0	4	182	36
333	482	WATER ST	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	10.26	Mass 2016 DEM	0	0	0	0	3	181	36
334	197	N. Falmouth Rotary to Thomas Landers	Bike Path	5,226	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	14.79	Mass 2016 DEM Lowest Point on Path	0	0	0.2	7	5	167	35
335	3710	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	13.84	Mass 2016 DEM	0	0	0	0	3	175	35
336	1789	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.52	Mass 2016 DEM	0	0	0	1	4	170	34
337	49	Fuller Baseball Field Snack Shack	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	2	Low	1	None	33	12.62	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	5	167	33
338	57	Band Shell	Buildings & Structures	Recreation	1	Property	2	1 - 7 days	2	$10k - $100k	1	None	3	Moderate	1	None	33	12.22	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	5	167	33
339	171	Lawrence School Field (2)	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	11.96	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	5	150	30
340	189	Teaticket School Field	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	12.62	Mass 2016 DEM Lowest Point on Field	0	0	0	0	5	150	30
341	4463	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.91	Mass 2016 DEM	0	2	0	5	3	132	29
342	520	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.82	Mass 2016 DEM	0	1	0	5	3	130	28
343	816	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.02	Mass 2016 DEM	0	0	0	0	3	133	27
344	2063	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.62	Mass 2016 DEM	0	0	0	0	3	124	25
345	1918	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.75	Mass 2016 DEM	0	0	0	0	3	121	24
346	1717	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	13.63	Mass 2016 DEM	0	0	0	1	2	119	24
347	4050	METOXIT RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	14.19	Mass 2016 DEM	0	0	0	0	2	119	24
348	1346	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	16.14	Mass 2016 DEM	0	0	0	0	2	115	23
349	3624	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	12.96	Mass 2016 DEM	0	0	0	0	2	113	23
350	1601	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.14	Mass 2016 DEM	0	0	0	0	2	110	22
351	1432	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	16.06	Mass 2016 DEM	0	0	0	0	2	108	22
352	2129	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.61	Mass 2016 DEM	0	0	0	0	2	107	21
353	59	Mullen Hall School - Cupola	Buildings & Structures	School	1	Property	1	< 1 day	1	<$10k	1	None	1	None	1	None	20	12.72	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	5	100	20
354	1554	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.08	Mass 2016 DEM	0	0	0	0	2	96	19
355	4166	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	12.69	Mass 2016 DEM	0	0	0	0	2	95	19
356	2034	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	13.01	Mass 2016 DEM	0	0	0	0	2	95	19
357	78	Alphonse Street Sewer Lift Station	Buildings & Structures	Sewer	3	Neighborhood	2	1 - 7 days	3	$100k - $1m	1	None	2	Low	3	Moderate	47	14.39	Surveyed Lower of the two Vault Doors	0	0	0	0	2	93	19
358	1233	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	18.44	Mass 2016 DEM	0	0	0	0	2	93	19
359	961	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	15.87	Mass 2016 DEM	0	0	0	0	1	90	18
360	460	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.90	Mass 2016 DEM	0	0	0	1	2	85	17
361	1736	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	13.39	Mass 2016 DEM	0	0	0	0	1	85	17
362	4436	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.37	Mass 2016 DEM	0	0	0	0	2	79	16
363	538	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	19.33	Mass 2016 DEM	0	0	0	3	2	74	16
364	1565	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.22	Mass 2016 DEM	0	0	0	0	2	74	15
365	22	Inner Harbor - Storage Shed (south)	Buildings & Structures	Marine	1	Property	2	1 - 7 days	1	<$10k	2	Low	2	Low	2	Low	33	13.60	Surveyed Shed Floor Elevation	0	0	0	0	2	67	13
366	23	Inner Harbor - Storage Shed (north)	Buildings & Structures	Marine	1	Property	2	1 - 7 days	1	<$10k	2	Low	2	Low	2	Low	33	13.60	Surveyed Shed Floor Elevation	0	0	0	0	2	67	13
367	84	Old Dock Road Bike Path Parking (1)	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	16.04	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	2	67	13
368	85	Old Dock Road Bike Path Parking (2)	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	15.85	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	2	67	13
369	3226	CARRIAGE SHOP RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	16.30	Mass 2016 DEM	0	0	0	0	1	63	13
370	585	CURLEY BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	25.82	Mass 2016 DEM	0	1	0	2	1	57	13
371	3777	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	17.13	Mass 2016 DEM	0	0	0	2	1	59	12
372	2126	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.43	Mass 2016 DEM	0	0	0	0	1	61	12
373	103	Falmouth Library Katherine Lee Bates Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	13.56	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	2	60	12
374	1942	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.92	Mass 2016 DEM	0	0	0	0	1	59	12
375	1251	OLD MEETING HOUSE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.79	Mass 2016 DEM	0	0	0	0	1	57	11
376	19	Falmouth Library Main	Buildings & Structures	Library	5	Whole Town	3	7 - 14 days	3	$100k - $1m	2	Low	3	Moderate	1	None	57	14.59	Surveyed NW First Floor Side Entrance Threshold	0	0	0	0	1	57	11
377	2155	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	13.80	Mass 2016 DEM	0	0	0	0	1	55	11
378	1516	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.13	Mass 2016 DEM	0	0	0	0	1	53	11
379	4030	FRESH POND RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	50	14.98	Mass 2016 DEM	0	0	0	0	1	51	10
380	71	New Silver Wastewater Treatment Plant	Buildings & Structures	Sewer	3	Neighborhood	2	1 - 7 days	3	$100k - $1m	1	None	2	Low	4	High	50	17.64	Site Plan Floor Elevation	0	0	0	0	1	50	10
381	1910	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.22	Mass 2016 DEM	0	0	0	0	1	49	10
382	464	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.12	Mass 2016 DEM	0	0	0	0	1	49	10
383	4404	CARRIAGE SHOP RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.83	Mass 2016 DEM	0	0	0	0	1	48	10
384	1923	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.28	Mass 2016 DEM	0	0	0	0	1	47	9
385	1259	BARROWS RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.04	Mass 2016 DEM	0	0	0	0	1	47	9
386	4459	OLD BARNSTABLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.29	Mass 2016 DEM	0	0	0	0	1	42	8
387	3811	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.69	Mass 2016 DEM	0	0	0	0	1	40	8
388	3276	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	21.97	Mass 2016 DEM	0	0	0	0	1	40	8
389	1908	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.67	Mass 2016 DEM	0	0	0	0	1	39	8
390	244	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	22.47	Mass 2016 DEM	0	0	0	1	1	36	8
391	1551	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.00	Mass 2016 DEM	0	0	0	0	1	38	8
392	98	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.48	Mass 2016 DEM	0	0	0	0	1	38	8
393	983	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	20.52	Mass 2016 DEM	0	0	0	0	1	38	8
394	1529	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	13.34	Mass 2016 DEM	0	0	0	0	1	37	7
395	332	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.25	Mass 2016 DEM	0	0	0	0	1	34	7

Table B-1a. Consequence scores, probability of inundation, and total risk scores for all land-based assets and major roads.

Asset Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
396	62	Lawrence Middle School - Main Building	Buildings & Structures	School	5	Whole Town	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	3	Moderate	67	15.79	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0.5	33	7
397	1301	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	23.32	Mass 2016 DEM	0	0	0	0	1	33	7
398	1155	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	17.03	Mass 2016 DEM	0	0	0	0	1	33	7
399	1437	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	13.38	Mass 2016 DEM	0	0	0	0	1	32	6
400	4485	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	18.01	Mass 2016 DEM	0	0	0	0	1	28	6
401	1975	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	14.90	Mass 2016 DEM	0	0	0	0	0	28	6
402	3845	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	22.94	Mass 2016 DEM	0	0	0	1	1	26	6
403	1017	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	18.35	Mass 2016 DEM	0	0	0	1	0	26	5
404	2095	MILL RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	14.81	Mass 2016 DEM	0	0	0	0	0	27	5
405	1890	ALCOTT RD	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.04	Mass 2016 DEM	0	0	0	0	1	27	5
406	706	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	20.36	Mass 2016 DEM	0	1	0	1	0	20	5
407	443	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.57	Mass 2016 DEM	0	0	0	0	0	22	4
408	4396	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.71	Mass 2016 DEM	0	0	0	0	0	21	4
409	1843	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.73	Mass 2016 DEM	0	0	0	0	0	20	4
410	4134	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.44	Mass 2016 DEM	0	0	0	0	0	20	4
411	1882	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.77	Mass 2016 DEM	0	0	0	0	0	18	4
412	1864	ALCOTT RD	Road	PAVED, PRIVATE	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.83	Mass 2016 DEM	0	0	0	0	0	15	3
413	128	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	17.43	Mass 2016 DEM	0	0	0	0	0	14	3
414	190	Teaticket School Playground (1)	Recreation	Playground	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	16.15	Mass 2016 DEM Lowest Point on Playground	0	0	0	0	0.5	13	3
415	68	Morse Pond Middle School	Buildings & Structures	School	5	Whole Town	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	3	Moderate	67	17.01	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0.2	13	3
416	1860	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.35	Mass 2016 DEM	0	0	0	0	0	13	3
417	113	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.47	Mass 2016 DEM	0	0	0	0	0	12	2
418	8	Chamber of Commerce	Buildings & Structures	Admin	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	1	None	4	High	1	None	53	16.59	Surveyed west side basement steps	0	0	0	0	0.2	11	2
419	3546	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	17.36	Mass 2016 DEM	0	0	0	0	0	9	2
420	3973	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	17.26	Mass 2016 DEM	0	0	0	0	0	8	2
421	1229	BARROWS RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	18.92	Mass 2016 DEM	0	0	0	0	0	8	2
422	1972	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.97	Mass 2016 DEM	0	0	0	0	0	8	2
423	1074	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	20.22	Mass 2016 DEM	0	0	0	0	0	7	1
424	3588	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	20.17	Mass 2016 DEM	0	0	0	0	0	6	1
425	1697	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighbo	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.99	Mass 2016 DEM	0	0	0	0	0	5	1
426	2093	WOODS HOLE RD	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	57	18.30	Mass 2016 DEM	0	0	0	0	0	4	1
427	3629	LOCUST ST	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	17.35	Mass 2016 DEM	0	0	0	0	0	4	1
428	50	Fuller Baseball Field Ticket Booth	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	2	Low	1	None	33	17.35	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0.1	3	1
429	3522	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	27.94	Mass 2016 DEM	0	0	0	0	0	3	1
430	3329	WOODS HOLE RD	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	18.00	Mass 2016 DEM	0	0	0	0	0	3	1
431	1742	LOCUST ST	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	16.55	Mass 2016 DEM	0	0	0	0	0	2	0
432	1	Marks Building	Buildings & Structures	Admin	1	Property	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	40	18.81	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
433	4	Main Street Public Restrooms	Buildings & Structures	Admin	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	1	None	3	Moderate	2	Low	47	17.84	Surveyed door threshold	0	0	0	0	0	0	0
434	6	New Falmouth Senior Center	Buildings & Structures	Admin	5	Whole Town	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	2	Low	57	21.50	First Floor Elevation From Plans	0	0	0	0	0	0	0
435	9	Department of Public Works - Fuel Tanks	Buildings & Structures	DPW	4	Multiple Neighbo	2	1 - 7 days	2	$10k - $100k	4	High	2	Low	4	High	60	14.36	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
436	10	Department of Public Works - Beach Main. Shed	Buildings & Structures	DPW	4	Multiple Neighbo	3	7 - 14 days	2	$10k - $100k	3	Moderate	4	High	3	Moderate	63	16.34	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
437	11	Department of Public Works - Main Building	Buildings & Structures	DPW	5	Whole Town	3	7 - 14 days	3	$100k - $1m	4	High	3	Moderate	4	High	73	15.56	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
438	12	Department of Public Works - Salt Bin	Buildings & Structures	DPW	5	Whole Town	2	1 - 7 days	2	$10k - $100k	4	High	3	Moderate	4	High	67	16.64	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
439	13	Falmouth Police Department - Main Building	Buildings & Structures	Emergency	5	Whole Town	3	7 - 14 days	4	$1m - $10m	5	Very high	2	Low	3	Moderate	73	15.77	Surveyed East Sallyport Garage Threshold	0	0	0	0	0	0	0
440	14	Falmouth Police Department - Shed	Buildings & Structures	Emergency	1	Property	2	1 - 7 days	1	<$10k	2	Low	1	None	1	None	27	21.37	Surveyed Shed Door Threshold	0	0	0	0	0	0	0
441	15	Fire Headquarters - Main Building	Buildings & Structures	Emergency	5	Whole Town	3	7 - 14 days	4	$1m - $10m	5	Very high	2	Low	3	Moderate	73	20.58	Surveyed Garage Door Threshold	0	0	0	0	0	0	0
442	16	Fire Headquarters - Radio Tower	Buildings & Structures	Emergency	5	Whole Town	3	7 - 14 days	2	$10k - $100k	5	Very high	2	Low	2	Low	63	21.85	Surveyed Base of Radio Tower	0	0	0	0	0	0	0
443	17	Fire Headquarters - Generator	Buildings & Structures	Emergency	2	Locality	2	1 - 7 days	1	<$10k	5	Very high	1	None	2	Low	43	25.88	Surveyed Base of Generator (Top of Concrete Base)	0	0	0	0	0	0	0
444	18	West Falmouth Fire Station	Buildings & Structures	Emergency	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	5	Very high	2	Low	3	Moderate	67	20.28	Surveyed Garage Door Elevation	0	0	0	0	0	0	0
445	20	East Falmouth Public Library	Buildings & Structures	Library	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	47	26.48	Surveyed Rear Patio Level	0	0	0	0	0	0	0
446	33	Teaticket Baseball Field (1) Dugout	Buildings & Structures	Recreation	1	Property	1	< 1 day	1	<$10k	1	None	2	Low	1	None	23	22.38	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
447	34	Teaticket Baseball Field (1) Dugout	Buildings & Structures	Recreation	1	Property	1	< 1 day	1	<$10k	1	None	2	Low	1	None	23	19.93	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
448	35	Teaticket Baseball Field (2) Dugout	Buildings & Structures	Recreation	1	Property	1	< 1 day	1	<$10k	1	None	2	Low	1	None	23	19.18	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
449	36	Teaticket Baseball Field (2) Dugout	Buildings & Structures	Recreation	1	Property	1	< 1 day	1	<$10k	1	None	2	Low	1	None	23	17.72	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
450	37	Teaticket Baseball Field Press Box (1)	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	2	Low	1	None	33	21.42	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
451	38	Teaticket Baseball Field Press Box (2)	Buildings & Structures	Recreation	1	Property	3	7 - 14 days	2	$10k - $100k	1	None	2	Low	1	None	33	17.91	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
452	39	Teaticket Baseball Field Storage Shed (field)	Buildings & Structures	Recreation	1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	15.73	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
453	40	Teaticket Baseball Field Storage Shed (front)	Buildings & Structures	Recreation	1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	30.12	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
454	48	Fuller Baseball Field Shed (parking)	Buildings & Structures	Recreation	1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	13.86	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
455	63	Lawrence Middle School - Dugout	Buildings & Structures	School	1	Property	1	< 1 day	1	<$10k	1	None	2	Low	1	None	23	19.15	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
456	64	Lawrence Middle School - Dugout	Buildings & Structures	School	1	Property	1	< 1 day	1	<$10k	1	None	2	Low	1	None	23	19.85	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
457	65	Falmouth School Administration	Buildings & Structures	School	5	Whole Town	2	1 - 7 days	2	$10k - $100k	2	Low	4	High	3	Moderate	60	27.80	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
458	66	East Falmouth Elementary School	Buildings & Structures	School	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	3	Moderate	63	21.72	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
459	67	Teaticket Elementary School	Buildings & Structures	School	4	Multiple Neighbo	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	3	Moderate	63	22.42	Mass 2016 DEM Lowest Elevation at Structure	0	0	0	0	0	0	0
460	81	North Falmouth Elementary Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	20.33	Mass 2016 DEM Lowest Point on Driveway	0	0	0	0	0	0	0
461	86	West Falmouth Library Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	1	None	1	None	23	20.42	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
462	98	Woods Hole Road Bike Path Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	17.42	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
463	101	Lawrence Middle School Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	21.05	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
464	102	Mullen Hall School Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	18.19	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
465	104	Falmouth Library Shore Street Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	20.01	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
466	105	Fire Headquarters King Street Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	4	High	2	Low	2	Low	40	17.62	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
467	106	Fire Headquarters Main Street Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	4	High	2	Low	2	Low	40	18.89	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
468	107	Retirement Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	17.19	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
469	108	Police Department Front Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	4	High	2	Low	2	Low	40	19.35	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
470	109	Police Department Back Parking (1)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	4	High	2	Low	2	Low	40	16.51	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
471	110	Police Department Back Parking (2)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	4	High	2	Low	2	Low	40	13.93	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
472	112	Recreation Center Back Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	17.15	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
473	115	Morse Pond Middle School Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	18.43	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
474	116	DPW Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	3	Moderate	2	Low	3	Moderate	43	13.17	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0

Table B-1a. Consequence scores, probability of inundation, and total risk scores for all land-based assets and major roads.

Asset Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
475	117	Teaticket Baseball Field Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	17.72	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
476	124	Teaticket Elementary School Parking (Main)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	18.45	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
477	125	Teaticket Elementary School Parking (Back)	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	23.71	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
478	126	Falmouth School Administration Bldg Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	30	24.62	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
479	130	Daniel and Carmela Bartolomei Trails Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	27.38	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
480	132	Sea Farms Conservation Area Gayle Ave Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	19.54	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
481	133	Sea Farms Conservation Area Pacheco Path Parking	Parking Lot		1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	20.02	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
482	136	Whites Landing Boat Ramp Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	23.09	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
483	137	King Street Parking	Parking Lot		2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	17.84	Mass 2016 DEM Lowest Point on Parking Lot	0	0	0	0	0	0	0
484	163	North Falmouth Elementary School Field	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	20.18	Mass 2016 DEM Lowest Point of Field	0	0	0	0	0	0	0
485	164	North Falmouth Elementary School Basketball Court	Recreation	Basketball Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	19.07	Mass 2016 DEM Lowest Point on Court	0	0	0	0	0	0	0
486	165	North Falmouth Elementary School Playground (1)	Recreation	Playground	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	18.96	Mass 2016 DEM Lowest Point on Playground	0	0	0	0	0	0	0
487	166	North Falmouth Elementary School Playground (2)	Recreation	Playground	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	22.65	Mass 2016 DEM Lowest Point on Playground	0	0	0	0	0	0	0
488	170	Lawrence School Field (1)	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	18.24	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	0	0	0
489	172	Lawrence School Tennis Courts	Recreation	Tennis Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	20.41	Mass 2016 DEM Lowest Elevation on Courts	0	0	0	0	0	0	0
490	173	Lawrence School Basketball Court	Recreation	Basketball Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	21.18	Mass 2016 DEM Lowest Elevation on Courts	0	0	0	0	0	0	0
491	174	Mullen Hall School Playground	Recreation	Playground	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	18.60	Mass 2016 DEM Lowest Point on Playground	0	0	0	0	0	0	0
492	175	Rec Center Basketball Court	Recreation	Basketball Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	18.06	Mass 2016 DEM Lowest Elevation on Court	0	0	0	0	0	0	0
493	179	Morse Pond School Baseball Field (1)	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	21.42	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	0	0	0
494	180	Morse Pond School Baseball Field (2)	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	28.26	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	0	0	0
495	181	Morse Pond School Field	Recreation	Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	28.47	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	0	0	0
496	182	Morse Pond School Basketball Court	Recreation	Basketball Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	28.11	Mass 2016 DEM Lowest Elevation on Court	0	0	0	0	0	0	0
497	183	Morse Pond School Playground	Recreation	Playground	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	30.46	Mass 2016 DEM Lowest Elevation on Playground	0	0	0	0	0	0	0
498	184	Little League Field (1)	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	18.01	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	0	0	0
499	185	Little League Field (2)	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	16.07	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	0	0	0
500	186	Little League Field (3)	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	15.38	Mass 2016 DEM Lowest Elevation on Field	0	0	0	0	0	0	0
501	192	School Administration Building Field	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	27.33	Mass 2016 DEM Lowest Point on Field	0	0	0	0	0	0	0
502	193	East Falmouth School Field	Recreation	Baseball Field	1	Property	3	7 - 14 days	1	<$10k	1	None	2	Low	1	None	30	31.09	Mass 2016 DEM Lowest Point on Field	0	0	0	0	0	0	0
503	194	East Falmouth School Tennis Court	Recreation	Tennis Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	32.92	Mass 2016 DEM Lowest Point on Court	0	0	0	0	0	0	0
504	195	East Falmouth School Basketball Court (1)	Recreation	Basketball Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	33.44	Mass 2016 DEM Lowest Point on Court	0	0	0	0	0	0	0
505	196	East Falmouth School Basketball Court (2)	Recreation	Basketball Court	1	Property	2	1 - 7 days	1	<$10k	1	None	2	Low	1	None	27	33.31	Mass 2016 DEM Lowest Point on Court	0	0	0	0	0	0	0
506	202	McDermott St Area	Bike Path	717	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	26.89	Mass 2016 DEM Lowest Point on Path	0	0	0	0	0	0	0
507	205	Nobska Road Area	Bike Path	658	2	Locality	2	1 - 7 days	1	<$10k	1	None	3	Moderate	1	None	33	14.16	Mass 2016 DEM Lowest Point on Path	0	0	0	0	0	0	0

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
1	479	WATER ST	Road	PAVED, COUNTY	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	67	5.392	Mass 2016 DEM	99	6625	99	6628	100	6671	6635
2	672	CHAPOQUOIT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	4.908	Mass 2016 DEM Adj	95	5392	100	5700	100	5700	5546
3	3236	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	67	2.259	Mass 2016 DEM	73	4906	83	5569	100	6700	5464
4	2346	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	67	2.324	Mass 2016 DEM	69	4601	83	5571	100	6700	5312
5	1315	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	6.869	Mass 2016 DEM	100	5300	100	5300	100	5300	5300
6	2234	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	1.852	Mass 2016 DEM	100	5300	100	5300	100	5300	5300
7	2336	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.019	Mass 2016 DEM	95	5022	97	5147	100	5300	5115
8	2307	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	4	High	1	None	63	2.618	Mass 2016 DEM	68	4304	77	4824	100	6299	4859
9	59	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	57	2.958	Mass 2016 DEM	77	4361	87	4949	100	5700	4805
10	2153	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	57	3.141	Mass 2016 DEM	73	4149	91	5178	100	5700	4768
11	497	WEST AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	5	Very high	1	None	53	3.451	Mass 2016 DEM	86	4547	90	4775	100	5300	4766
12	3569	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.446	Mass 2016 DEM	100	4700	100	4700	100	4700	4700
13	4001	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	3	Moderate	1	None	60	4.612	Mass 2016 DEM	66	3973	78	4703	99	5910	4579
14	1030	OLD DOCK RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	60	3.906	Mass 2016 DEM	68	4089	75	4522	97	5835	4568
15	2369	QUISSETT HARBOR RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	5	Very high	1	None	53	3.502	Mass 2016 DEM	79	4168	83	4379	100	5286	4455
16	2324	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	2.906	Mass 2016 DEM	66	3789	78	4429	100	5700	4363
17	2337	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	2.881	Mass 2016 DEM	64	3674	75	4277	100	5700	4260
18	4150	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	4.371	Mass 2016 DEM Adj	98	4218	98	4218	100	4300	4234
19	905	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	3	Moderate	1	None	60	4.293	Mass 2016 DEM	61	3663	73	4366	89	5322	4206
20	3555	CHAPOQUOIT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	5.603	Mass 2016 DEM	67	3799	70	3984	96	5473	4189
21	2386	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	3.099	Mass 2016 DEM	61	3476	76	4346	100	5700	4182
22	2282	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.018	Mass 2016 DEM Adj	68	3589	82	4326	100	5300	4152
23	2334	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	2.611	Mass 2016 DEM	70	3690	75	3995	100	5300	4103
24	2248	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.209	Mass 2016 DEM	66	3501	81	4300	100	5300	4100
25	3279	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	11.364	Mass 2016 DEM	55	3308	70	4182	97	5823	4073
26	2732	LITTLE ISLAND RD	Road	UNPAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.078	Mass 2016 DEM	85	3656	100	4286	100	4300	3974
27	2306	SWING LN	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	1	None	50	1.948	Mass 2016 DEM	70	3524	78	3882	100	5000	3927
28	231	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	60	5.015	Mass 2016 DEM	52	3122	74	4425	85	5116	3912
29	2448	PENZANCE RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	4	$1m - $10m	2	Low	2	Low	1	None	47	2.599	Mass 2016 DEM	70	3286	84	3929	100	4700	3762
30	3156	BAR NECK RD	Road	PAVED, COUNTY	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	1	None	50	3.779	Mass 2016 DEM	61	3053	74	3693	99	4960	3626
31	3688	ASSOCIATES RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	4	$1m - $10m	2	Low	2	Low	1	None	47	3.381	Mass 2016 DEM	69	3227	75	3527	100	4700	3612
32	986	MEADOW NECK RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.548	Mass 2016 DEM Adj	68	3208	74	3496	100	4690	3591
33	2247	GREAT BAY ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	1.265	Mass 2016 DEM	74	3179	80	3423	100	4300	3477
34	2320	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	1.627	Mass 2016 DEM	40	2291	68	3874	100	5700	3448
35	517	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	5.019	Mass 2016 DEM	48	2743	63	3597	87	4983	3447
36	221	GARDINER RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	2.079	Mass 2016 DEM	75	3228	75	3242	100	4300	3446
37	4167	OLD MENAUHANT BRIDGE	Road	UNPAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.811	Mass 2016 DEM	74	3183	75	3243	100	4300	3424
38	3452	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	4	High	1	None	63	4.483	Mass 2016 DEM Adj	41	2579	53	3362	86	5393	3377
39	63	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.938	Mass 2016 DEM	46	2417	69	3681	100	5300	3373
40	593	BAY SHORE DR	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.433	Mass 2016 DEM	71	3059	75	3234	100	4300	3360
41	631	BAY SHORE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.496	Mass 2016 DEM	100	3300	100	3300	100	3300	3300
42	525	OCEAN VIEW AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	5	Very high	1	None	53	4.563	Mass 2016 DEM	52	2734	70	3706	77	4090	3297
43	2110	WASHBURN RD	Road	UNPAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.533	Mass 2016 DEM	62	2681	84	3591	100	4300	3278
44	531	MOSES RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	1	None	50	3.999	Mass 2016 DEM	56	2806	72	3584	78	3889	3256
45	2666	DRIFT RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.524	Mass 2016 DEM	66	2854	75	3211	100	4300	3250
46	1475	WOOD NECK RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.443	Mass 2016 DEM	67	2889	75	3211	98	4206	3249
47	3839	OYSTER POND RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	63	4.403	Mass 2016 DEM	29	1838	58	3637	96	6043	3218
48	1283	RED BROOK RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.158	Mass 2016 DEM	54	2529	72	3363	98	4612	3196
49	2319	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.374	Mass 2016 DEM	39	2048	67	3557	99	5258	3143
50	548	ROCK ST	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	3	Moderate	1	None	47	4.115	Mass 2016 DEM	58	2724	72	3382	79	3697	3116
51	2385	HEDGE LN	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.305	Mass 2016 DEM	58	2505	75	3207	100	4281	3071
52	3348	SILVER BEACH AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	4	High	1	None	47	4.106	Mass 2016 DEM	56	2653	72	3369	77	3610	3059
53	2305	CAREY LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	4.157	Mass 2016 DEM	63	2717	75	3236	79	3385	3006
54	2312	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.742	Mass 2016 DEM	41	2177	60	3194	89	4729	2993
55	4056	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	10.938	Mass 2016 DEM	36	2162	48	2864	87	5219	2984
56	36	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.305	Mass 2016 DEM	54	2531	71	3353	76	3549	2981
57	1582	TEATICKET PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	2.185	Mass 2016 DEM	70	2607	81	3000	100	3700	2944

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
58	2061	BROCKTON ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.177	Mass 2016 DEM	53	2266	72	3110	100	4292	2925
59	2335	BYWATER CT	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	2.849	Mass 2016 DEM	62	2464	74	2970	100	4000	2923
60	2326	BYWATER CT	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	2.52	Mass 2016 DEM	52	2245	73	3130	100	4300	2921
61	1745	LAWRENCE ST	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	2.943	Mass 2016 DEM	52	2242	73	3159	97	4188	2906
62	232	GARNET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.088	Mass 2016 DEM	77	2546	97	3210	100	3300	2896
63	2451	HINCKLEY RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	5	Very high	1	None	53	4.023	Mass 2016 DEM	48	2525	50	2648	79	4172	2891
64	1894	COOPER RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.621	Mass 2016 DEM	56	2422	66	2843	96	4129	2890
65	2315	BYWATER CT	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	2.889	Mass 2016 DEM	50	2135	72	3077	100	4295	2850
66	526	MOSES RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	1	None	50	4.16	Mass 2016 DEM	44	2212	63	3150	78	3911	2833
67	2053	JERICHO PATH	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.221	Mass 2016 DEM	49	2120	70	3028	98	4200	2809
68	2327	BYWATER CT	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.218	Mass 2016 DEM	47	2030	71	3066	100	4300	2795
69	4425	BLACK BEACH HILLS RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.51	Mass 2016 DEM	55	2356	69	2975	84	3615	2794
70	530	CRYSTAL SPRING AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	3.879	Mass 2016 DEM	57	2433	72	3080	76	3247	2790
71	169	SYCAMORE ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.443	Mass 2016 DEM	52	2241	67	2897	93	3992	2788
72	3694	ASSOCIATES RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	5.348	Mass 2016 DEM	56	2411	71	3038	76	3288	2774
73	154	FENTON ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.543	Mass 2016 DEM	48	2081	69	2969	96	4139	2759
74	2085	ARDMORE ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.372	Mass 2016 DEM	47	2026	70	3009	98	4208	2757
75	2673	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	8.417	Mass 2016 DEM	51	2555	52	2586	70	3492	2752
76	459	IRVING RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.946	Mass 2016 DEM	48	2048	68	2940	98	4211	2748
77	2440	SCHOOL ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	5.459	Mass 2016 DEM	34	1948	48	2709	84	4793	2745
78	1350	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	4	High	1	None	57	7.134	Mass 2016 DEM	31	1755	58	3311	76	4304	2732
79	553	ROCK ST	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	4.207	Mass 2016 DEM	61	2434	73	2929	79	3174	2730
80	3498	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.117	Mass 2016 DEM	46	2168	66	3107	75	3548	2726
81	352	PALM ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.521	Mass 2016 DEM	75	2475	83	2729	100	3300	2716
82	4229	CHURCH ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	5	Very high	1	None	53	8.932	Mass 2016 DEM	50	2647	50	2654	54	2876	2695
83	4474	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	4.094	Mass 2016 DEM	34	1778	58	3079	83	4409	2694
84	551	POINT RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	5.149	Mass 2016 DEM	49	2128	63	2725	90	3874	2656
85	1581	SEABROOK DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	2.775	Mass 2016 DEM	50	2019	70	2815	100	4000	2654
86	3158	CHAPOQUOIT RD	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	6.399	Mass 2016 DEM	37	2103	43	2455	74	4210	2630
87	208	PARK RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	1.061	Mass 2016 DEM	74	2447	75	2484	100	3300	2629
88	2453	NOBSKA RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	3	Moderate	1	None	47	5.172	Mass 2016 DEM	34	1588	63	2968	100	4699	2624
89	2040	BOSTON ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.587	Mass 2016 DEM	43	1858	65	2816	99	4241	2622
90	2254	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	4.38	Mass 2016 DEM	33	1744	54	2872	84	4439	2622
91	3776	CRYSTAL SPRING AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	4.154	Mass 2016 DEM	58	2301	72	2884	76	3020	2620
92	2737	CHAPOQUOIT RD	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	6.53	Mass 2016 DEM	31	1772	49	2802	78	4458	2618
93	872	LITTLE ISLAND RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.499	Mass 2016 DEM	51	2187	68	2905	75	3245	2614
94	532	ANDREA RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	3.642	Mass 2016 DEM	57	2283	72	2874	76	3020	2608
95	515	RAVENWOOD RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	4.225	Mass 2016 DEM	56	2260	72	2867	76	3020	2594
96	3774	ANDREA RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	4.238	Mass 2016 DEM	56	2253	72	2862	76	3020	2589
97	235	RIVERWAY	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.777	Mass 2016 DEM	49	2092	67	2861	75	3245	2553
98	533	SILVER BEACH AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	3.85	Mass 2016 DEM	55	2189	71	2839	76	3020	2551
99	285	BRAINERD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.4	Mass 2016 DEM	68	2251	75	2473	100	3300	2528
100	2342	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	4.763	Mass 2016 DEM	30	1582	55	2925	79	4213	2511
101	2145	HARMONY ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.282	Mass 2016 DEM	44	1908	64	2756	85	3650	2510
102	3795	ALDER LN	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	4	$1m - $10m	2	Low	2	Low	1	None	47	5.657	Mass 2016 DEM	42	1988	58	2749	73	3413	2501
103	2396	PENZANCE RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.233	Mass 2016 DEM	45	1934	62	2645	86	3697	2500
104	2210	CATAUMET ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.47	Mass 2016 DEM	37	1610	65	2790	99	4274	2497
105	4162	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	4.567	Mass 2016 DEM	37	1974	40	2139	79	4174	2464
106	3355	NORRIS PATH	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	2.691	Mass 2016 DEM	39	1688	63	2691	94	4050	2462
107	535	SILVER BEACH AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	3.168	Mass 2016 DEM	58	2157	72	2679	76	2794	2441
108	2404	GARDINER RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	3.866	Mass 2016 DEM	57	2105	70	2605	82	3027	2439
109	1121	MURIEL LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.755	Mass 2016 DEM	64	2101	74	2426	100	3300	2438
110	396	GROVE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.033	Mass 2016 DEM	62	2059	75	2491	100	3300	2437
111	513	EAST AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	4.715	Mass 2016 DEM	44	1904	65	2778	75	3224	2430
112	2329	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	3.436	Mass 2016 DEM	26	1358	56	2969	81	4284	2427
113	2676	RAVENWOOD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	2.804	Mass 2016 DEM	57	2117	72	2664	76	2794	2416
114	3408	RAVENWOOD RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	3.831	Mass 2016 DEM	57	2106	72	2659	76	2794	2410

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
115	2414	ALBATROSS ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	2.892	Mass 2016 DEM	49	1975	67	2690	76	3020	2399
116	1627	TEATICKET PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	2.798	Mass 2016 DEM	47	1746	70	2580	100	3699	2387
117	2411	MILLFIELD ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	3.672	Mass 2016 DEM	49	1802	69	2551	97	3600	2386
118	2376	FRESH RIVER LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.851	Mass 2016 DEM	60	1967	74	2457	100	3300	2381
119	1945	NARRAGANSETT ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.22	Mass 2016 DEM	60	1966	75	2462	99	3268	2375
120	2101	MOONPENNY LN	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.069	Mass 2016 DEM	38	1641	67	2861	81	3481	2375
121	2454	CHURCH ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	3	Moderate	1	None	47	4.548	Mass 2016 DEM	35	1636	55	2577	79	3698	2331
122	3595	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	6.787	Mass 2016 DEM	27	1606	33	1957	78	4696	2329
123	2415	BAR NECK RD	Road	PAVED, COUNTY	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	5	Very high	1	None	53	5.678	Mass 2016 DEM	30	1610	45	2364	76	4046	2324
124	2131	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	4.615	Mass 2016 DEM	25	1349	47	2503	84	4432	2312
125	2294	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.57	Mass 2016 DEM	33	1529	56	2620	80	3770	2305
126	1589	ANTLERS SHORE DR	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	4.99	Mass 2016 DEM	45	1804	59	2354	87	3474	2303
127	782	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	60	6.95	Mass 2016 DEM Adj	22	1307	42	2501	74	4445	2293
128	782	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	3	7 - 14 days	4	$1m - $10m	4	High	2	Low	1	None	60	6.95	Mass 2016 DEM Adj	22	1307	42	2501	74	4445	2293
129	2408	MILLFIELD ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	2.881	Mass 2016 DEM	49	1807	67	2466	86	3184	2280
130	2390	FRESH RIVER LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.672	Mass 2016 DEM	54	1780	73	2424	100	3300	2277
131	1680	KEECHIPAM WAY	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	6.431	Mass 2016 DEM	45	1950	55	2364	69	2950	2275
132	3766	OCEAN VIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	4.909	Mass 2016 DEM	40	1728	60	2570	74	3191	2273
133	647	SANTUIT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.108	Mass 2016 DEM Adj	60	1975	72	2385	86	2839	2271
134	647	SANTUIT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.108	Mass 2016 DEM Adj	60	1975	72	2385	86	2839	2271
135	427	BARROWS RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.772	Mass 2016 DEM	31	1478	58	2731	75	3548	2268
136	1579	TEATICKET PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.812	Mass 2016 DEM	51	1693	77	2536	100	3292	2266
137	2374	FRESH RIVER LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.531	Mass 2016 DEM	53	1745	73	2412	100	3300	2256
138	379	RIDGE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.771	Mass 2016 DEM	56	1858	71	2327	93	3061	2239
139	4197	FRESH RIVER LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.417	Mass 2016 DEM	52	1703	73	2402	100	3300	2232
140	1333	WHITES LANDING RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.157	Mass 2016 DEM	62	2032	63	2069	89	2922	2221
141	4145	RACING BEACH AVE	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	7.192	Mass 2016 DEM	39	1695	50	2134	85	3662	2220
142	2311	THOMAS LN	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.646	Mass 2016 DEM	31	1323	59	2543	92	3951	2215
143	2455	NOBSKA RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	5	Very high	1	None	53	6.065	Mass 2016 DEM	32	1695	38	2036	71	3763	2211
144	2405	SPENCER BAIRD RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	2.891	Mass 2016 DEM	49	1802	67	2474	76	2794	2202
145	2402	SPENCER BAIRD RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	2.631	Mass 2016 DEM	49	1801	67	2473	76	2794	2201
146	2401	BIGELOW ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	3.576	Mass 2016 DEM	49	1797	67	2471	76	2794	2199
147	4188	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	4.673	Mass 2016 DEM	22	1163	51	2707	75	3999	2193
148	2375	STRATFORD RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.671	Mass 2016 DEM	50	1637	71	2357	100	3300	2185
149	2285	BEEBE ACRES RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.848	Mass 2016 DEM	49	1624	71	2354	99	3279	2174
150	4170	RACING BEACH AVE	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	7.876	Mass 2016 DEM	42	1795	45	1938	81	3467	2172
151	4426	SHOREVIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.69	Mass 2016 DEM	50	1648	70	2301	100	3291	2172
152	876	LITTLE ISLAND RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.061	Mass 2016 DEM	35	1521	58	2479	75	3244	2153
153	72	GANSETT RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	4	$1m - $10m	2	Low	2	Low	1	None	47	5.63	Mass 2016 DEM	31	1457	46	2184	81	3830	2150
154	2659	OSPREY MARSH WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.197	Mass 2016 DEM	47	1563	73	2411	97	3208	2147
155	3356	TEATICKET PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	2.788	Mass 2016 DEM	38	1421	63	2313	96	3565	2117
156	3634	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	4.781	Mass 2016 DEM	21	1123	47	2475	77	4061	2116
157	189	QUASHNET WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.681	Mass 2016 DEM	47	1554	68	2245	100	3300	2111
158	1731	ROBBINS RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	4.863	Mass 2016 DEM	18	1006	45	2548	74	4215	2110
159	3433	POCASSET ST	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.196	Mass 2016 DEM	29	1239	53	2294	93	3983	2104
160	65	OYSTER POND RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	3	Moderate	1	None	57	5.207	Mass 2016 DEM	19	1081	38	2180	79	4495	2093
161	3342	FOSTER RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	4.373	Mass 2016 DEM	35	1418	56	2226	89	3578	2093
162	1092	MARTIN RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	15.406	Mass 2016 DEM	24	979	70	2781	95	3806	2085
163	2281	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.18	Mass 2016 DEM	28	1307	48	2267	80	3739	2081
164	1944	SHOREVIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.332	Mass 2016 DEM	52	1720	62	2043	92	3031	2079
165	226	GOSNOLD RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.321	Mass 2016 DEM	53	1747	68	2248	80	2655	2079
166	3669	GROVE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.428	Mass 2016 DEM	53	1759	70	2311	75	2491	2071
167	2213	CATAUMET ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.702	Mass 2016 DEM	46	1515	68	2253	95	3151	2064
168	3773	EAST AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	4.12	Mass 2016 DEM	41	1652	54	2164	73	2927	2061
169	2295	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	3	Moderate	1	None	60	4.983	Mass 2016 DEM	15	871	40	2387	76	4544	2060
170	3336	NORTH ST	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	4.372	Mass 2016 DEM	40	1593	49	1972	83	3304	2049
171	2403	GOSNOLD RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	4	High	1	None	50	5.52	Mass 2016 DEM	27	1327	42	2120	75	3746	2049

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
172	2212	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.659	Mass 2016 DEM	45	1484	68	2244	95	3148	2045
173	2239	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.624	Mass 2016 DEM	25	1173	52	2426	78	3646	2044
174	2214	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	5.515	Mass 2016 DEM	29	1547	30	1613	74	3923	2042
175	2434	MBL ST	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	3.947	Mass 2016 DEM	41	1622	48	1939	81	3231	2039
176	2449	LITTLE HARBOR RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	2.61	Mass 2016 DEM	31	1317	53	2277	79	3401	2022
177	3893	BAYBERRY RD	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.684	Mass 2016 DEM	42	1388	68	2239	99	3259	2017
178	2596	LINCOLN LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.143	Mass 2016 DEM	41	1367	67	2222	99	3260	2002
179	904	CORDWOOD LANDING RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	3	Moderate	1	None	47	6.438	Mass 2016 DEM	28	1317	43	2033	75	3535	1976
180	1933	MAYFLOWER ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.692	Mass 2016 DEM	45	1482	62	2048	93	3076	1971
181	4206	LITTLE HARBOR RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	4.898	Mass 2016 DEM	40	1708	41	1773	67	2893	1964
182	3895	SHOREVIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.632	Mass 2016 DEM	42	1389	64	2101	97	3186	1962
183	1928	SHOREVIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.728	Mass 2016 DEM	46	1531	59	1941	92	3047	1957
184	234	PINE BANK RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.849	Mass 2016 DEM	46	1510	64	2127	83	2725	1938
185	1840	RACING BEACH AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.631	Mass 2016 DEM	47	1538	66	2178	76	2511	1924
186	2341	HERRING BROOK LN	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.786	Mass 2016 DEM	26	1110	53	2263	80	3437	1921
187	3894	LONGFELLOW RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.969	Mass 2016 DEM	39	1300	63	2079	97	3186	1911
188	2394	GOSNOLD RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	4.541	Mass 2016 DEM	39	1425	57	2112	75	2792	1904
189	60	ELM RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.565	Mass 2016 DEM	25	1059	55	2345	76	3248	1883
190	2005	PROVIDENCE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.195	Mass 2016 DEM	43	1405	64	2127	81	2666	1874
191	3512	ELM RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.466	Mass 2016 DEM	24	1037	54	2332	76	3247	1868
192	2299	DEACONS AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	5.011	Mass 2016 DEM	29	1257	42	1800	81	3476	1864
193	2195	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	4.356	Mass 2016 DEM	24	1039	53	2267	77	3303	1860
194	3513	SAKONET RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.102	Mass 2016 DEM	24	1019	54	2301	76	3247	1849
195	2364	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	4.206	Mass 2016 DEM	13	722	37	2094	75	4300	1849
196	893	PINE ISLAND CIR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.951	Mass 2016 DEM	43	1425	56	1859	87	2885	1847
197	64	OYSTER POND RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	4	High	1	None	60	4.681	Mass 2016 DEM	14	841	28	1680	76	4573	1839
198	3157	HINCKLEY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	3.37	Mass 2016 DEM	24	1044	51	2210	76	3247	1835
199	2330	BYWATER CT	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	3.394	Mass 2016 DEM	25	1018	54	2145	84	3363	1825
200	1892	VALLEY RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.375	Mass 2016 DEM	43	1417	62	2054	75	2472	1819
201	1927	WHITTIER RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.927	Mass 2016 DEM	42	1389	53	1765	89	2953	1814
202	4438	GREEN POND RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	7.788	Mass 2016 DEM	28	1188	45	1939	71	3044	1784
203	55	ELM RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	4.48	Mass 2016 DEM	24	963	54	2165	76	3020	1735
204	2612	PINE BANK RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.971	Mass 2016 DEM	38	1266	60	1983	75	2487	1725
205	1406	SACONESSET RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	5.927	Mass 2016 DEM	26	1114	41	1751	75	3210	1724
206	2194	OCEAN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.19	Mass 2016 DEM	30	978	59	1961	96	3182	1714
207	2452	NOBSKA RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.274	Mass 2016 DEM	31	1014	58	1924	95	3123	1709
208	1825	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	3.958	Mass 2016 DEM	17	784	42	1988	75	3547	1698
209	3849	TEELE ST	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	5.603	Mass 2016 DEM	24	1044	42	1813	72	3105	1687
210	3239	TONSET RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	9.025	Mass 2016 DEM	32	1376	34	1468	64	2748	1678
211	2279	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	5	Very high	1	None	60	8.121	Mass 2016 DEM	17	1041	23	1365	62	3727	1675
212	556	HUNT ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.274	Mass 2016 DEM	36	1199	58	1922	75	2487	1673
213	4141	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.184	Mass 2016 DEM	16	760	41	1936	75	3541	1669
214	3454	BOYER RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	3.616	Mass 2016 DEM	19	821	47	2032	76	3247	1669
215	3377	PONDLET PL	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	5.098	Mass 2016 DEM	25	1008	41	1659	81	3256	1653
216	239	RIVERWAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.653	Mass 2016 DEM	35	1158	57	1889	75	2484	1642
217	105	TEATICKET PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	3.453	Mass 2016 DEM	21	840	37	1496	95	3792	1627
218	2272	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	5	Very high	1	None	60	8.01	Mass 2016 DEM	16	934	22	1336	63	3773	1623
219	393	LOREN RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.091	Mass 2016 DEM	34	1132	57	1869	72	2390	1604
220	3425	SURF DR	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	5.296	Mass 2016 DEM	15	734	30	1522	78	3885	1600
221	2106	GLENWOOD AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	5.517	Mass 2016 DEM	20	840	45	1919	69	2978	1592
222	707	NAUSET AVE WEST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.369	Mass 2016 DEM	33	1098	56	1835	74	2450	1589
223	3674	GLEN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.147	Mass 2016 DEM	34	1111	54	1772	75	2474	1582
224	368	SWEET RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.395	Mass 2016 DEM	36	1179	49	1608	74	2449	1561
225	3718	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.039	Mass 2016 DEM	30	987	50	1640	85	2790	1543
226	422	CHARLES LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.564	Mass 2016 DEM	35	1169	50	1656	69	2263	1534
227	2378	DEACONS AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.828	Mass 2016 DEM	33	1105	43	1422	82	2701	1519
228	3762	RYDER RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.732	Mass 2016 DEM	31	1014	48	1579	74	2444	1470

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
229	1903	TOLEDO ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.603	Mass 2016 DEM	24	781	49	1610	87	2871	1448
230	68	OYSTER POND RD	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	63	6.951	Mass 2016 DEM	7	420	17	1050	73	4591	1443
231	2446	COWDRY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	4.834	Mass 2016 DEM	22	940	32	1360	63	2724	1423
232	1072	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	11.153	Mass 2016 DEM	23	1200	30	1594	31	1650	1408
233	1955	MAPLE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.718	Mass 2016 DEM	23	745	52	1728	76	2492	1389
234	32	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	6.865	Mass 2016 DEM	13	601	30	1391	71	3319	1382
235	2273	MASSACHUSETTS AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	5	Very high	1	None	53	7.983	Mass 2016 DEM	15	769	21	1119	62	3274	1375
236	1846	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.485	Mass 2016 DEM	11	499	30	1418	74	3497	1374
237	2209	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.628	Mass 2016 DEM	10	470	30	1419	75	3519	1365
238	2238	FOWLERS LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.43	Mass 2016 DEM	24	795	44	1454	78	2588	1351
239	1871	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.648	Mass 2016 DEM	10	487	29	1373	74	3463	1348
240	562	BIRCH LN	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	5.562	Mass 2016 DEM	25	1017	33	1320	55	2209	1346
241	2407	BELL TOWER LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.21	Mass 2016 DEM	33	1074	38	1252	66	2164	1346
242	2203	PEARCE PL	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	5.882	Mass 2016 DEM	14	605	29	1234	78	3347	1342
243	3400	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	5	Very high	2	Low	1	None	60	7.921	Mass 2016 DEM	9	541	18	1059	63	3753	1339
244	933	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	9.032	Mass 2016 DEM	12	683	19	1103	57	3248	1322
245	2225	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	5.52	Mass 2016 DEM	9	472	24	1190	73	3638	1321
246	4508	RACING BEACH AVE	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	7.534	Mass 2016 DEM	18	789	27	1154	67	2888	1318
247	1991	DUSTY MILLER RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	8.238	Mass 2016 DEM	18	760	28	1195	67	2872	1313
248	1151	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	9.319	Mass 2016 DEM	8	522	19	1167	56	3498	1311
249	1351	OX BOW RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	47	7.067	Mass 2016 DEM	12	584	25	1188	69	3252	1299
250	4455	GREAT BAY ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	20.377	Mass 2016 DEM	37	1207	37	1214	49	1611	1290
251	2102	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	5.625	Mass 2016 DEM	12	495	32	1364	74	3166	1290
252	713	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.971	Mass 2016 DEM	21	964	30	1409	40	1893	1283
253	2293	SALT POND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.092	Mass 2016 DEM	21	688	43	1422	77	2547	1280
254	3384	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	8.034	Mass 2016 DEM	9	474	23	1138	70	3489	1276
255	2445	WOODS HOLE RD	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	19.059	Mass 2016 DEM	16	998	18	1106	35	2216	1274
256	1729	OAK GROVE AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.271	Mass 2016 DEM	22	726	38	1270	80	2639	1272
257	1883	IROQUOIS ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.548	Mass 2016 DEM	22	734	39	1300	78	2570	1271
258	4152	HIAWATHA ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.918	Mass 2016 DEM	21	685	37	1228	82	2697	1251
259	3761	CHESTER ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.697	Mass 2016 DEM	22	720	41	1369	72	2385	1248
260	2115	MASSASOIT ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.94	Mass 2016 DEM	20	665	42	1395	75	2463	1244
261	1880	MISTY HARBOR WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.185	Mass 2016 DEM	20	649	43	1408	74	2456	1238
262	1831	SPRING BARS RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	6.97	Mass 2016 DEM	11	607	13	768	62	3519	1238
263	298	JETTY LN	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	6.198	Mass 2016 DEM	13	562	28	1209	69	2964	1237
264	1546	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.878	Mass 2016 DEM	20	661	42	1386	72	2374	1221
265	2166	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.628	Mass 2016 DEM	30	990	31	1032	63	2070	1219
266	275	BRENTON RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.393	Mass 2016 DEM	26	857	39	1289	60	1983	1212
267	1746	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	6.271	Mass 2016 DEM	7	345	20	1014	73	3641	1205
268	2182	BRIDGE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.406	Mass 2016 DEM	17	552	43	1425	75	2490	1202
269	1698	FAIRFIELD DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.743	Mass 2016 DEM	19	615	41	1364	73	2393	1195
270	4142	CUTTYSARK RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.222	Mass 2016 DEM	16	538	41	1368	75	2484	1176
271	1598	MEADOW NECK RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.972	Mass 2016 DEM	18	864	20	962	48	2277	1176
272	3763	FIDDLERS COVE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.802	Mass 2016 DEM	19	623	39	1280	72	2390	1174
273	1513	MADELINE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	3.819	Mass 2016 DEM	17	553	40	1331	75	2483	1172
274	3350	OLD DOCK RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	8.438	Mass 2016 DEM	8	421	18	948	63	3336	1162
275	171	VINEYARD ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.87	Mass 2016 DEM	26	845	28	927	70	2296	1160
276	268	BRENTON RD WEST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.691	Mass 2016 DEM	22	711	39	1271	63	2079	1153
277	4200	VERNON AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.495	Mass 2016 DEM	17	574	35	1157	77	2539	1142
278	2361	WATERSIDE AVE	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	6.323	Mass 2016 DEM	14	619	20	857	67	2876	1142
279	341	GUNNING POINT AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	8.543	Mass 2016 DEM	11	462	24	1027	70	2993	1138
280	100	PAOLA DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.198	Mass 2016 DEM	16	513	39	1272	75	2477	1133
281	4069	CHILDS RIVER RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.141	Mass 2016 DEM	30	1002	32	1063	45	1488	1118
282	1786	GREAT BAY ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.487	Mass 2016 DEM	30	998	36	1172	40	1328	1116
283	4072	MEADOW NECK RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.407	Mass 2016 DEM	18	855	19	890	45	2098	1114
284	1803	MONTAUK ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	6.746	Mass 2016 DEM	14	550	25	994	67	2697	1113
285	3376	PONDLET PL	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	5.094	Mass 2016 DEM	9	349	27	1081	75	3005	1100

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
286	3636	HAMILTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.561	Mass 2016 DEM	15	499	35	1167	76	2497	1099
287	1995	BOURNES POND RD	Road	UNPAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	5.904	Mass 2016 DEM	8	342	22	966	74	3186	1098
288	1422	FALMOUTHPORT DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	2.977	Mass 2016 DEM	20	662	37	1217	60	1975	1091
289	3504	COVE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.409	Mass 2016 DEM	16	538	35	1163	71	2346	1087
290	4456	OCEAN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.768	Mass 2016 DEM	14	469	36	1193	75	2462	1085
291	1785	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.792	Mass 2016 DEM	6	282	19	871	71	3340	1070
292	2240	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	9.763	Mass 2016 DEM	17	871	18	908	36	1794	1067
293	2215	ELYSIAN AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	5.759	Mass 2016 DEM	8	331	21	899	73	3125	1060
294	1767	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	6.028	Mass 2016 DEM	6	292	19	895	68	3201	1055
295	1775	RANDOLPH ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.253	Mass 2016 DEM	29	948	32	1069	38	1262	1047
296	2067	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	6.596	Mass 2016 DEM	5	233	15	771	69	3475	1043
297	168	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	6.384	Mass 2016 DEM	5	227	17	795	73	3446	1041
298	4159	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	6.499	Mass 2016 DEM	3	178	12	656	71	3777	1041
299	3379	PONDLET PL	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.858	Mass 2016 DEM	6	267	21	882	74	3190	1036
300	2246	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	8.106	Mass 2016 DEM	16	784	18	911	37	1846	1034
301	950	BOWLINE RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	7.514	Mass 2016 DEM	9	395	20	880	66	2857	1033
302	4203	RAILROAD AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	5.764	Mass 2016 DEM	8	337	18	757	74	3179	1031
303	49	NEMASKET RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	6.907	Mass 2016 DEM	10	407	23	923	68	2731	1027
304	2167	ELYSIAN AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	4.95	Mass 2016 DEM	6	258	20	845	74	3180	1018
305	1946	KILMER RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.477	Mass 2016 DEM	13	417	31	1018	76	2507	1015
306	3334	LUSCOMBE AVE	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.011	Mass 2016 DEM	8	324	17	728	73	3159	1012
307	2264	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	3	Moderate	1	None	53	8.358	Mass 2016 DEM	14	718	14	755	40	2113	1008
308	1029	CHAPOQUOIT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	50	8.117	Mass 2016 DEM	8	416	18	881	53	2652	1003
309	276	BRYANT POINT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.412	Mass 2016 DEM	23	749	34	1117	44	1443	998
310	1526	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	11.3	Mass 2016 DEM	14	703	19	928	36	1815	993
311	664	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	4	High	1	None	60	8.128	Mass 2016 DEM	4	259	10	627	55	3321	982
312	458	SHOREVIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.345	Mass 2016 DEM	14	457	26	852	75	2477	979
313	3378	PONDLET PL	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	4.858	Mass 2016 DEM	7	267	22	867	73	2925	978
314	173	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.244	Mass 2016 DEM	11	379	30	983	75	2467	978
315	148	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.292	Mass 2016 DEM	16	539	22	722	74	2442	975
316	4421	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	4.87	Mass 2016 DEM	3	143	10	535	70	3706	973
317	2232	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	5.485	Mass 2016 DEM	3	141	10	530	70	3701	970
318	2297	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	5	Very high	1	None	63	8.552	Mass 2016 DEM	4	222	11	718	50	3133	953
319	2073	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.772	Mass 2016 DEM	17	568	21	686	69	2271	944
320	2317	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	53	7.842	Mass 2016 DEM	15	769	15	771	31	1629	942
321	1734	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	8.44	Mass 2016 DEM	16	709	17	736	42	1813	938
322	1845	PORTSIDE CIR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.678	Mass 2016 DEM	10	326	28	937	75	2469	938
323	1939	WHITTEMORE AVE	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	7.363	Mass 2016 DEM	7	317	16	692	64	2772	920
324	4420	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	50	5.468	Mass 2016 DEM	3	133	10	501	70	3492	915
325	3502	DOWNER RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.568	Mass 2016 DEM	11	367	27	879	69	2280	903
326	493	GROVE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.096	Mass 2016 DEM	15	485	29	955	56	1852	899
327	2667	ABBIES LN	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	8.335	Mass 2016 DEM	7	319	17	733	60	2601	899
328	174	SYCAMORE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.503	Mass 2016 DEM	9	292	26	870	75	2459	899
329	651	SANTUIT RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	6.103	Mass 2016 DEM	7	321	15	645	62	2676	889
330	1852	PARTRIDGE LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.176	Mass 2016 DEM	11	356	26	843	69	2291	889
331	2242	PONDLET PL	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.894	Mass 2016 DEM	8	278	26	849	75	2460	886
332	3171	WATER ST	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.098	Mass 2016 DEM	7	282	11	489	69	2986	885
333	1613	SHARON ANN LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.683	Mass 2016 DEM	11	356	26	867	67	2200	878
334	2026	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	7.895	Mass 2016 DEM	12	497	13	547	53	2294	871
335	3503	LOREN RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.76	Mass 2016 DEM	11	353	26	845	67	2205	871
336	1704	NICKERSON ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	9.003	Mass 2016 DEM	15	646	17	720	38	1646	868
337	1028	CHAPOQUOIT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	8.549	Mass 2016 DEM	4	229	10	553	55	2906	861
338	2021	DAVISVILLE RD	Road	UNPAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	53	6.563	Mass 2016 DEM	2	99	7	381	66	3480	860
339	1893	COOPER RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.617	Mass 2016 DEM	10	341	21	707	72	2368	857
340	691	COATUIT RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	7.666	Mass 2016 DEM	7	296	14	603	61	2618	853
341	150	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	6.9	Mass 2016 DEM	3	132	10	467	68	3207	847
342	4208	BUTLER ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.654	Mass 2016 DEM	4	188	13	541	68	2935	843

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
343	2261	RICHARDS RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	6.563	Mass 2016 DEM	8	300	15	561	70	2597	838
344	2714	BRENTON RD NORTH	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.225	Mass 2016 DEM	11	375	24	803	62	2037	836
345	92	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.92	Mass 2016 DEM	8	270	23	752	72	2368	834
346	985	OSTROM RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.724	Mass 2016 DEM	16	543	19	617	56	1862	829
347	3461	RYDER RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.992	Mass 2016 DEM	12	401	25	837	57	1885	829
348	2366	RANSOM RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.496	Mass 2016 DEM	11	351	23	762	62	2062	816
349	4133	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.188	Mass 2016 DEM	2	117	9	419	66	3117	807
350	2284	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	4.781	Mass 2016 DEM	2	101	8	391	67	3161	800
351	4464	RANDOLPH ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.287	Mass 2016 DEM	9	503	10	551	33	1907	798
352	4192	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.39	Mass 2016 DEM	2	98	8	380	67	3145	792
353	4467	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.676	Mass 2016 DEM	6	263	12	559	52	2463	792
354	1052	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	11.538	Mass 2016 DEM	13	715	14	723	20	1083	791
355	2432	ALBATROSS ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.07	Mass 2016 DEM	4	166	9	392	69	2951	791
356	1687	ENGLISH ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.744	Mass 2016 DEM	19	613	25	818	36	1190	790
357	2029	LAKEWAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.022	Mass 2016 DEM	9	311	20	656	66	2181	789
358	2287	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.882	Mass 2016 DEM	2	94	8	365	66	3123	781
359	463	COMMODORE LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.979	Mass 2016 DEM	7	245	21	680	69	2261	779
360	712	SHAUME RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.115	Mass 2016 DEM	17	562	25	831	37	1237	777
361	2252	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	3	Moderate	1	None	53	8.455	Mass 2016 DEM	8	400	8	436	41	2177	766
362	3274	EAST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	11.79	Mass 2016 DEM	1	48	6	327	56	3214	765
363	3626	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	6.975	Mass 2016 DEM	3	132	10	429	66	2841	763
364	4428	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	6.386	Mass 2016 DEM	1	77	6	295	60	3173	762
365	149	FENTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.384	Mass 2016 DEM	7	237	17	555	72	2382	761
366	3596	FALMOUTHPORT DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.943	Mass 2016 DEM	9	301	24	779	57	1885	761
367	170	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.919	Mass 2016 DEM	2	86	7	322	66	3094	758
368	3868	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	8.786	Mass 2016 DEM	6	239	12	528	55	2365	751
369	4427	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	6.821	Mass 2016 DEM	1	65	5	255	60	3156	740
370	490	DOWNER RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.813	Mass 2016 DEM	9	290	21	695	58	1904	734
371	3914	SANTUIT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.845	Mass 2016 DEM	13	444	23	770	42	1395	732
372	4510	EMERSON RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.515	Mass 2016 DEM	7	218	15	502	71	2340	728
373	2079	VINEYARD ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.507	Mass 2016 DEM	8	275	15	493	67	2209	727
374	2265	PENNSYLVANIA AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	3	Moderate	1	None	47	8.844	Mass 2016 DEM	10	467	11	499	37	1718	727
375	489	GROVE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.266	Mass 2016 DEM	8	264	19	631	61	2021	725
376	3482	BIRCH LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.465	Mass 2016 DEM	10	320	19	639	54	1796	711
377	1543	BERKELEY DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.94	Mass 2016 DEM	5	175	17	546	69	2269	705
378	1768	JOYCE ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.014	Mass 2016 DEM	6	183	17	565	67	2205	702
379	2260	SWING LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	6.778	Mass 2016 DEM	3	116	12	428	70	2572	701
380	3807	RYDER RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.277	Mass 2016 DEM	8	265	19	628	56	1845	690
381	455	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.144	Mass 2016 DEM	4	143	15	490	71	2351	689
382	4186	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	9.011	Mass 2016 DEM	8	377	8	420	37	1870	688
383	1709	FAIRFIELD DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.617	Mass 2016 DEM	4	143	15	488	71	2349	688
384	3458	CEMETERY LN	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	11.153	Mass 2016 DEM	14	562	19	746	23	909	686
385	1708	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.573	Mass 2016 DEM	4	136	14	469	71	2335	676
386	2274	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	6.594	Mass 2016 DEM	1	48	4	192	56	2963	674
387	3686	OLD DOCK RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	10.001	Mass 2016 DEM	3	188	8	442	39	2219	671
388	1986	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	7.319	Mass 2016 DEM	2	76	7	288	62	2674	660
389	626	BAY SHORE DR	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	7.488	Mass 2016 DEM	4	188	11	470	49	2114	658
390	524	WICKERTREE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.324	Mass 2016 DEM	10	336	21	687	43	1417	658
391	2256	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	7.036	Mass 2016 DEM	1	45	3	180	55	2901	657
392	1574	WOODSIDE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.04	Mass 2016 DEM	4	143	13	443	68	2245	653
393	2054	BROCKTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.689	Mass 2016 DEM	5	169	12	406	68	2232	653
394	2170	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	50	7.285	Mass 2016 DEM	1	50	4	199	57	2837	652
395	1355	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	8.774	Mass 2016 DEM	2	106	7	348	49	2462	650
396	4164	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.86	Mass 2016 DEM	1	61	5	230	59	2750	649
397	1801	FENWICK RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.051	Mass 2016 DEM	12	409	18	582	40	1330	645
398	1936	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.519	Mass 2016 DEM	17	554	22	735	22	735	645
399	1296	WHISTLERS WAY	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	5.429	Mass 2016 DEM	2	92	8	356	57	2451	643

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
400	238	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	9.292	Mass 2016 DEM	3	147	7	367	45	2258	635
401	2277	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.033	Mass 2016 DEM	1	65	5	220	57	2669	632
402	1857	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.434	Mass 2016 DEM	2	108	7	344	50	2356	628
403	142	HARBOR AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	6.87	Mass 2016 DEM	2	67	6	259	64	2576	627
404	2108	GREEN HARBOR RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.115	Mass 2016 DEM	3	109	11	373	69	2288	624
405	2288	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.614	Mass 2016 DEM	1	51	4	206	57	2672	622
406	4397	CAPTAINS LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.887	Mass 2016 DEM	10	323	20	675	39	1285	621
407	3656	GREAT BAY ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.098	Mass 2016 DEM	0	0	17	570	68	2245	620
408	3754	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.409	Mass 2016 DEM	11	376	15	505	42	1378	615
409	1830	NORTH BOURNES POND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.113	Mass 2016 DEM	5	177	15	480	58	1911	614
410	4193	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	7.049	Mass 2016 DEM	1	46	4	186	50	2657	610
411	1506	TASHMOO DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.097	Mass 2016 DEM	4	130	12	399	64	2100	605
412	2237	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	7.353	Mass 2016 DEM	1	37	3	148	51	2689	601
413	2858	TOWN HALL SQUARE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.865	Mass 2016 DEM	3	118	6	256	54	2323	600
414	1841	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.018	Mass 2016 DEM	1	70	5	251	52	2436	598
415	2241	MONTGOMERY AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	9.167	Mass 2016 DEM	10	429	11	466	28	1214	597
416	4130	EDGEWATER DR WEST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.071	Mass 2016 DEM	4	145	13	435	59	1934	590
417	3885	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.877	Mass 2016 DEM	1	53	4	201	53	2478	583
418	1760	EEL RIVER RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.962	Mass 2016 DEM	4	122	11	350	63	2079	582
419	2344	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.343	Mass 2016 DEM	1	40	3	163	54	2543	578
420	4132	SANDDOLLAR CIR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.12	Mass 2016 DEM	3	85	9	302	67	2198	572
421	2731	SNUG HARBOR LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.91	Mass 2016 DEM	16	533	16	534	22	715	570
422	79	GARDINER RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.097	Mass 2016 DEM	16	527	16	530	22	710	565
423	2144	MIAMI AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.307	Mass 2016 DEM	3	90	10	319	64	2115	564
424	2283	ALLEN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.247	Mass 2016 DEM	2	70	8	271	67	2226	561
425	2268	CLINTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.473	Mass 2016 DEM	1	41	4	165	52	2451	560
426	1870	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.684	Mass 2016 DEM	16	537	16	537	19	626	555
427	4439	MAIN ST	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	5.738	Mass 2016 DEM	0	0	2	108	44	2612	555
428	1756	OAK ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	20.37	Mass 2016 DEM	15	495	16	537	22	712	551
429	2055	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.934	Mass 2016 DEM	1	40	3	153	52	2423	550
430	4440	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	5.884	Mass 2016 DEM	0	0	2	105	43	2587	549
431	4441	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	5.786	Mass 2016 DEM	0	0	2	105	43	2586	549
432	2080	BAY VIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.866	Mass 2016 DEM	2	70	8	269	65	2160	548
433	2243	WORCESTER AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	8.142	Mass 2016 DEM	1	56	2	137	42	2390	547
434	3499	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.726	Mass 2016 DEM	2	107	6	277	43	2040	544
435	3725	BAY VIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.955	Mass 2016 DEM	2	69	8	265	65	2150	544
436	343	PRISCILLA ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.989	Mass 2016 DEM	1	43	4	166	55	2361	543
437	2217	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.559	Mass 2016 DEM	1	29	2	117	43	2463	542
438	3543	INKBERRY LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.181	Mass 2016 DEM	4	136	11	348	56	1845	541
439	3786	ALDER LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.615	Mass 2016 DEM	4	136	11	348	56	1844	541
440	381	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.549	Mass 2016 DEM	4	137	10	344	56	1841	540
441	3724	BRIDGE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.915	Mass 2016 DEM	2	67	8	259	65	2142	539
442	2292	CHAPEL PARK AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.775	Mass 2016 DEM	1	38	3	150	55	2376	539
443	2244	WORCESTER AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	3	7 - 14 days	3	$100k - $1m	4	High	2	Low	1	None	57	6.654	Mass 2016 DEM	0	25	2	108	43	2470	539
444	2576		Road	PAVED,	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.863	Mass 2016 DEM	3	106	10	340	58	1916	538
445	3288	DAVIS STRAITS	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	7.35	Mass 2016 DEM	0	0	2	99	42	2525	535
446	4163	ARDMORE ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.142	Mass 2016 DEM	4	116	7	247	61	2011	535
447	2300	QUINSIGAMOND AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.859	Mass 2016 DEM	1	38	3	150	54	2337	531
448	2257	CRESCENT AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	7.421	Mass 2016 DEM	1	44	4	171	53	2277	528
449	1772	OAK ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	5.669	Mass 2016 DEM	1	40	4	157	53	2292	525
450	1930	WIDGEON RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.877	Mass 2016 DEM	7	217	14	446	42	1397	522
451	2262	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.656	Mass 2016 DEM	1	30	3	118	49	2322	515
452	2229	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.659	Mass 2016 DEM	1	30	3	118	49	2322	515
453	2302	THOMAS CIR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.802	Mass 2016 DEM	2	54	6	203	64	2126	513
454	2861	KEEL DE SAC	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	7.093	Mass 2016 DEM	1	38	4	151	56	2235	511
455	4473	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.203	Mass 2016 DEM	9	405	9	416	19	893	506
456	242	HOMER AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	6.574	Mass 2016 DEM	3	127	9	317	47	1733	505

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
457	2253	INDIANA AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	3	Moderate	1	None	47	9.072	Mass 2016 DEM	6	301	7	327	27	1283	505
458	583	SASSAFRAS LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.611	Mass 2016 DEM	4	118	9	306	53	1763	503
459	2245	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	7.796	Mass 2016 DEM	1	65	2	124	43	2156	501
460	3188	BAY SHORE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.651	Mass 2016 DEM	5	181	11	365	46	1502	500
461	1150	VIEW CREST DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	9.824	Mass 2016 DEM	3	111	8	279	49	1805	500
462	2048	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	7.912	Mass 2016 DEM	1	34	3	137	51	2192	496
463	442	INDIAN RIDGE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.633	Mass 2016 DEM	1	39	11	370	55	1810	492
464	1993	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	8.212	Mass 2016 DEM	1	49	4	167	48	2084	492
465	2275	VESPER AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	7.569	Mass 2016 DEM	1	29	3	118	51	2188	487
466	563	BIRCH LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.477	Mass 2016 DEM	3	112	9	289	52	1718	486
467	2231	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	50	8.522	Mass 2016 DEM	1	25	2	102	44	2213	486
468	1720	BACON FARM RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.952	Mass 2016 DEM	3	103	10	338	50	1658	485
469	270	BRENTON RD WEST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.202	Mass 2016 DEM	5	172	12	385	43	1409	484
470	2033	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.433	Mass 2016 DEM	1	29	2	112	46	2170	482
471	4466	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.008	Mass 2016 DEM	2	95	6	259	38	1774	480
472	2690	RIVERBAY WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.38	Mass 2016 DEM	2	62	7	216	58	1901	476
473	1826	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.992	Mass 2016 DEM	7	226	14	463	34	1119	475
474	4424		Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	7.117	Mass 2016 DEM	0	0	2	89	42	2240	475
475	4017	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	9.229	Mass 2016 DEM	1	70	3	179	31	1923	474
476	2208	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	47	8.6	Mass 2016 DEM	1	24	2	98	45	2128	467
477	3469	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.905	Mass 2016 DEM	2	88	5	241	37	1742	465
478	452	SWALLOW ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.65	Mass 2016 DEM	1	31	3	122	48	2063	465
479	2570		Road	PAVED,	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.039	Mass 2016 DEM	0	0	8	277	58	1900	463
480	1793	HARRINGTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	9.088	Mass 2016 DEM	1	44	4	167	48	1936	459
481	2447	COWDRY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	8.598	Mass 2016 DEM	2	97	5	224	40	1712	458
482	2233	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	3	7 - 14 days	2	$10k - $100k	4	High	2	Low	1	None	50	7.812	Mass 2016 DEM	2	86	6	296	33	1633	458
483	2286	MARINERS LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.721	Mass 2016 DEM	1	39	4	148	60	1968	457
484	1484	SEAPIT RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	7.024	Mass 2016 DEM	2	94	8	308	40	1587	457
485	1695	RENEE LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.719	Mass 2016 DEM	4	128	12	397	41	1368	457
486	34	DOWNER RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.027	Mass 2016 DEM	3	100	8	269	49	1620	455
487	674	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	9.792	Mass 2016 DEM	2	80	4	202	33	1764	454
488	612	RIVER DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.612	Mass 2016 DEM	4	139	10	321	43	1426	451
489	594	RIVER DR	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	10.284	Mass 2016 DEM	4	154	8	344	31	1337	448
490	35	OVERHILL RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.077	Mass 2016 DEM	3	94	8	256	49	1608	446
491	2693	RIVERBAY WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.671	Mass 2016 DEM	1	48	5	171	55	1826	440
492	2069	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	8.516	Mass 2016 DEM	1	27	2	104	46	1973	439
493	143	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.616	Mass 2016 DEM	1	39	4	147	57	1877	439
494	2266	CLEARVIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.43	Mass 2016 DEM	1	35	4	134	58	1899	438
495	3829	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.387	Mass 2016 DEM	1	28	2	117	41	1931	435
496	4187	HAWTHORNE AVE	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	9.387	Mass 2016 DEM	7	285	6	276	24	1048	435
497	3606	ENNSBROOK DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	8.034	Mass 2016 DEM	1	41	3	145	43	1841	432
498	1676	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.538	Mass 2016 DEM	1	37	5	149	55	1818	426
499	4478	TOWN LANDING RD	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	2	$10k - $100k	2	Low	2	Low	1	None	40	6.211	Mass 2016 DEM	1	42	4	175	44	1763	426
500	2280	CENTRAL PARK AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	5	Very high	1	None	53	8.332	Mass 2016 DEM	0	16	1	73	37	1976	425
501	957	ASSOCIATES RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.758	Mass 2016 DEM	3	108	8	261	44	1462	425
502	3291		Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	7.955	Mass 2016 DEM	0	0	1	76	37	1982	419
503	2276	KING ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.008	Mass 2016 DEM	1	33	4	132	55	1814	419
504	4181	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.804	Mass 2016 DEM	0	21	2	82	41	1915	418
505	1797	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.187	Mass 2016 DEM	1	57	5	209	38	1620	415
506	2032	BOSTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.224	Mass 2016 DEM	1	48	5	175	51	1690	415
507	781	CEA RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.89	Mass 2016 DEM	3	101	7	243	43	1435	410
508	325	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.351	Mass 2016 DEM	0	19	2	76	40	1887	409
509	2694	RIVERBAY WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	4.512	Mass 2016 DEM	1	46	5	164	51	1685	409
510	1168	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	10.455	Mass 2016 DEM	1	60	3	153	29	1647	405
511	1987	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	9.675	Mass 2016 DEM	5	194	5	213	28	1214	404
512	956	ASSOCIATES RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.538	Mass 2016 DEM	3	90	7	224	44	1456	404
513	2200	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.043	Mass 2016 DEM	0	19	2	75	39	1847	402

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
514	2863	KEEL DE SAC	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	7.275	Mass 2016 DEM	1	26	3	103	44	1779	400
515	3955	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.766	Mass 2016 DEM	1	69	4	178	33	1556	399
516	387	CHESTER ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.133	Mass 2016 DEM	3	91	7	243	42	1401	398
517	3814	MAIN ENTRY RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.185	Mass 2016 DEM	2	74	6	204	45	1487	396
518	4388	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	12.995	Mass 2016 DEM	3	178	7	412	16	913	395
519	364	BENHAM RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	7.488	Mass 2016 DEM	0	0	2	78	43	1851	394
520	3810	FIVE GATE LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.775	Mass 2016 DEM	3	105	8	270	39	1298	393
521	3764	DARYLANE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.053	Mass 2016 DEM	3	90	7	241	42	1379	393
522	394	ARLINGTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.565	Mass 2016 DEM	2	78	6	203	44	1464	393
523	4423		Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	7.423	Mass 2016 DEM	0	0	2	75	43	1844	391
524	2226	AMHERST AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	7.744	Mass 2016 DEM	0	20	2	79	42	1787	391
525	3495	MAIN ENTRY RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.029	Mass 2016 DEM	2	73	6	199	45	1474	391
526	26	DOWNER RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.145	Mass 2016 DEM	2	72	6	197	44	1464	388
527	4194	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.712	Mass 2016 DEM	0	16	1	68	38	1793	387
528	1654	BAYSIDE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.699	Mass 2016 DEM	1	33	4	137	50	1643	386
529	4180	POCASSET ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	8.046	Mass 2016 DEM	0	19	2	76	41	1766	386
530	1866	CEDAR ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.855	Mass 2016 DEM	1	30	4	117	51	1674	385
531	344	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	8.316	Mass 2016 DEM	1	39	3	116	38	1654	385
532	3884	SANDPIPER CIR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.881	Mass 2016 DEM	1	35	4	134	49	1627	383
533	1280	MOONAKIS RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	15.703	Mass 2016 DEM	0	0	0	0	48	1902	380
534	1943	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	8.484	Mass 2016 DEM	1	27	2	91	38	1643	369
535	1457	SEAPIT RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.596	Mass 2016 DEM	2	61	6	203	42	1378	367
536	348	LUCERNE AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.381	Mass 2016 DEM	1	30	4	128	47	1559	365
537	144	AMHERST AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.705	Mass 2016 DEM	1	26	3	100	48	1591	361
538	2333	QUONSET RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.951	Mass 2016 DEM	1	42	4	147	45	1477	361
539	2202	PONDLET PL	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.7	Mass 2016 DEM	1	27	3	107	48	1572	360
540	1730	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	9.315	Mass 2016 DEM	0	7	1	53	32	1699	359
541	470	DAVIS STRAITS	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	9.069	Mass 2016 DEM	0	0	1	48	28	1706	356
542	1847	GREAT BAY ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.977	Mass 2016 DEM	5	173	13	424	21	709	356
543	340	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	10.854	Mass 2016 DEM	1	63	3	160	28	1380	355
544	2621	BAY CREST LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.676	Mass 2016 DEM	2	82	6	212	38	1244	353
545	453	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.636	Mass 2016 DEM	0	13	1	58	35	1647	353
546	4182	DARTMOUTH AVE	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	8.891	Mass 2016 DEM	1	60	5	213	30	1289	352
547	4422	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	9.073	Mass 2016 DEM	0	0	1	61	31	1669	352
548	3289	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	8.456	Mass 2016 DEM	0	0	1	57	31	1668	351
549	564	BIRCH LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.004	Mass 2016 DEM	2	62	5	165	41	1351	350
550	3623	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	8.075	Mass 2016 DEM	0	15	1	64	37	1611	349
551	157	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.176	Mass 2016 DEM	0	11	1	45	29	1645	348
552	4189	ECHO AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	8.444	Mass 2016 DEM	0	17	2	69	43	1590	347
553	1916	IRVING RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.476	Mass 2016 DEM	1	24	3	95	46	1524	346
554	1865	RACING BEACH AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.522	Mass 2016 DEM	2	79	6	196	37	1225	344
555	51	NEMASKET RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.2	Mass 2016 DEM	4	142	9	303	27	901	342
556	2002	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	7.917	Mass 2016 DEM	0	14	1	61	37	1582	342
557	31	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.854	Mass 2016 DEM	1	58	3	160	28	1319	341
558	4151	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	8.984	Mass 2016 DEM	1	22	2	75	35	1523	338
559	2218	LOWRY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	8.534	Mass 2016 DEM	0	17	2	69	41	1535	336
560	3290	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	8.457	Mass 2016 DEM	0	0	1	54	30	1577	332
561	2864	KEEL DE SAC	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	7.526	Mass 2016 DEM	0	17	2	69	38	1511	331
562	2091	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.028	Mass 2016 DEM	5	156	5	175	30	1002	331
563	4405	QUAKER RD	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.94	Mass 2016 DEM	2	78	6	189	36	1176	331
564	450	STOWERS ST	Road	PAVED, TOWN	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	10.76	Mass 2016 DEM	4	171	5	219	21	884	328
565	2356	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	28.036	Mass 2016 DEM	6	279	7	297	11	485	326
566	2222	FIELD ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.848	Mass 2016 DEM	0	16	2	64	44	1452	317
567	963	WAQUOIT LANDING RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.926	Mass 2016 DEM	1	41	5	163	37	1230	315
568	4183	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	8.767	Mass 2016 DEM	0	12	1	53	37	1464	315
569	4184	CENTRAL PARK AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	8.849	Mass 2016 DEM	0	12	1	53	37	1462	314
570	2188	WORCESTER AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.557	Mass 2016 DEM	0	10	1	46	31	1474	314

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
571	3525	BEACH RD	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	13.631	Mass 2016 DEM	2	70	4	175	26	1129	313
572	1957	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	10.634	Mass 2016 DEM	1	41	2	107	26	1302	313
573	3282	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.455	Mass 2016 DEM	1	36	3	116	30	1291	311
574	621	BAY SHORE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.684	Mass 2016 DEM	2	77	6	194	33	1073	311
575	2450	NOBSKA RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.492	Mass 2016 DEM	1	23	3	85	41	1367	310
576	2419	SCHOOL ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.939	Mass 2016 DEM	1	43	2	117	22	1238	304
577	3589	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	10.176	Mass 2016 DEM	0	10	1	43	24	1430	304
578	3453	SETTLERS PATH	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.461	Mass 2016 DEM	0	14	2	58	42	1384	301
579	3154	LUDLAM ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.212	Mass 2016 DEM	1	18	2	73	41	1341	299
580	796	OLD SHORE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.786	Mass 2016 DEM	2	52	4	133	35	1164	299
581	467	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.178	Mass 2016 DEM	7	217	9	289	15	509	297
582	1253	OLD BARNSTABLE RD	Road	PAVED, COUNTY	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	11.961	Mass 2016 DEM	0	11	1	48	32	1380	296
583	351	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	9.818	Mass 2016 DEM	0	0	1	49	26	1398	294
584	2117	DAVISVILLE RD	Road	UNPAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.449	Mass 2016 DEM	0	9	1	39	29	1386	293
585	2251	MANCHESTER AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	8.919	Mass 2016 DEM	0	11	1	43	34	1362	291
586	2236	TRIUMPH ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.241	Mass 2016 DEM	0	13	2	55	41	1337	290
587	1723	KNOLLWOOD DR	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.303	Mass 2016 DEM	1	46	4	143	34	1109	288
588	2235	KING ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.501	Mass 2016 DEM	0	13	2	54	40	1319	286
589	2263	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.861	Mass 2016 DEM	0	6	1	38	29	1353	285
590	1813	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.604	Mass 2016 DEM	2	69	3	95	33	1104	284
591	2179	HARBOR AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	8.344	Mass 2016 DEM	0	11	1	44	36	1324	283
592	622	JUNIPER DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.658	Mass 2016 DEM	2	67	5	169	30	974	279
593	4496	MILFORD ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.954	Mass 2016 DEM	2	63	5	160	30	998	279
594	114	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.879	Mass 2016 DEM	0	14	2	65	38	1261	278
595	1750	DAVIS NECK RD	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.011	Mass 2016 DEM	0	12	2	52	39	1275	276
596	2862	GANG WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	8.022	Mass 2016 DEM	0	10	1	41	32	1292	276
597	103	ANTLERS SHORE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.575	Mass 2016 DEM	1	37	4	135	33	1078	275
598	2296	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	50	9.263	Mass 2016 DEM	0	12	1	52	25	1265	274
599	3657	GREAT BAY ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.532	Mass 2016 DEM	3	96	7	235	23	760	270
600	2180	ELDONA AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	8.275	Mass 2016 DEM	0	10	1	40	34	1264	270
601	1951	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.304	Mass 2016 DEM	7	231	9	307	9	307	269
602	454	SALLY LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.56	Mass 2016 DEM	0	11	1	46	38	1248	269
603	3591	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	11.698	Mass 2016 DEM	0	6	1	37	21	1269	268
604	3779	CRYSTAL SPRING AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.036	Mass 2016 DEM	2	61	5	154	29	951	267
605	2135	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.345	Mass 2016 DEM	0	11	1	46	29	1233	266
606	4209	JUNIPER POINT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	12.826	Mass 2016 DEM	1	53	3	119	24	1018	266
607	2142	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.746	Mass 2016 DEM	0	5	1	37	27	1253	264
608	1086	BRICK KILN RD	Road	PAVED, STATE	3	Neighborhood	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	50	13.292	Mass 2016 DEM	1	36	2	92	22	1077	261
609	3664	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.901	Mass 2016 DEM	1	40	3	109	31	1039	260
610	880	DEELY LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	10.352	Mass 2016 DEM	1	38	3	98	29	1056	260
611	2019	LITTLE ROCK AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	8.663	Mass 2016 DEM	0	9	1	37	33	1219	259
612	2865	KEEL DE SAC	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	8.04	Mass 2016 DEM	0	11	1	45	30	1202	259
613	1653	BAYSIDE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.13	Mass 2016 DEM	0	12	2	57	35	1163	255
614	4221	WIGWAM RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.862	Mass 2016 DEM	1	42	3	108	31	1010	255
615	1504	VILLAGE COMMON DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	9.215	Mass 2016 DEM	0	0	0	0	30	1276	255
616	3307	JUNIPER POINT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	10.057	Mass 2016 DEM	0	0	1	47	32	1201	254
617	507	ARLINGTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.053	Mass 2016 DEM	3	83	6	199	23	764	254
618	3471	ANCHORAGE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.77	Mass 2016 DEM	2	54	4	138	28	925	253
619	1904	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.124	Mass 2016 DEM	8	249	8	249	8	269	253
620	3481	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.76	Mass 2016 DEM	1	34	2	93	22	1024	250
621	4143	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.87	Mass 2016 DEM	0	11	1	46	24	1149	249
622	3887	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.278	Mass 2016 DEM	1	37	3	145	20	932	248
623	48	NEMASKET RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.031	Mass 2016 DEM	1	46	4	118	29	943	247
624	1743	LAWRENCE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.953	Mass 2016 DEM	2	59	2	78	29	954	244
625	1597	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.478	Mass 2016 DEM	0	0	0	0	26	1218	244
626	3505	WESTON RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.908	Mass 2016 DEM	1	39	3	104	28	929	237
627	1374	MURIEL LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	12.533	Mass 2016 DEM	1	26	2	95	23	974	237

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
628	363	FALMOUTH HEIGHTS RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	9.753	Mass 2016 DEM	0	0	0	23	22	1147	236
629	1790	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.662	Mass 2016 DEM	0	16	2	65	32	1044	236
630	2654	FRESH POND RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	9.823	Mass 2016 DEM	0	0	1	29	21	1129	234
631	2107	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.091	Mass 2016 DEM	2	82	3	95	25	819	233
632	2679	5TH SHOREWAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.563	Mass 2016 DEM	2	60	5	150	24	779	231
633	3381	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	7.923	Mass 2016 DEM	0	0	1	25	24	1116	231
634	1692	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	8.07	Mass 2016 DEM	0	0	1	25	24	1116	231
635	1568	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.254	Mass 2016 DEM	7	217	7	217	8	279	230
636	2192	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.5	Mass 2016 DEM	0	7	1	34	33	1074	229
637	1096	NORTH OCKWAY RD	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.814	Mass 2016 DEM	0	0	0	0	35	1139	228
638	158	FRANCES AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	9.189	Mass 2016 DEM	0	6	1	27	25	1081	227
639	4063	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	12.283	Mass 2016 DEM	0	0	2	106	16	971	226
640	3515	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	16.143	Mass 2016 DEM	3	143	5	248	8	400	226
641	1138	JUDY ANN DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	9.876	Mass 2016 DEM	0	12	1	57	24	1013	226
642	2678	6TH SHOREWAY	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	10.718	Mass 2016 DEM	1	47	3	118	19	829	225
643	2230	CRESCENT AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	8.919	Mass 2016 DEM	0	7	1	31	29	1057	224
644	3879	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.773	Mass 2016 DEM	0	7	1	40	31	1039	223
645	1393	ARNOLD GIFFORD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.934	Mass 2016 DEM	2	78	5	180	20	647	223
646	1773	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.201	Mass 2016 DEM	1	32	3	121	18	848	221
647	104	MADELINE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.125	Mass 2016 DEM	0	4	1	40	31	1020	218
648	2221	CENTRAL PARK AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	9.27	Mass 2016 DEM	0	6	1	29	28	1029	218
649	3812	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.79	Mass 2016 DEM	1	27	2	75	19	906	217
650	595	RIVER DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.722	Mass 2016 DEM	1	48	4	122	24	777	216
651	613	DESHON DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.459	Mass 2016 DEM	2	73	3	110	22	733	216
652	4387	BRICK KILN RD	Road	PAVED, STATE	3	Neighborhood	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	50	13.72	Mass 2016 DEM	1	30	2	75	18	894	216
653	1900	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.347	Mass 2016 DEM	0	0	0	19	18	1048	215
654	310	COLONIAL WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.773	Mass 2016 DEM	1	37	3	93	26	842	215
655	323	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.4	Mass 2016 DEM	0	9	1	44	30	984	215
656	967	WIGWAM RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.93	Mass 2016 DEM	1	30	2	77	27	877	213
657	1850	DAVIS STRAITS	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	8.624	Mass 2016 DEM	0	0	0	0	18	1066	213
658	4198	WACHUSETT AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	9.199	Mass 2016 DEM	0	10	1	44	24	971	212
659	1512	MADELINE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.092	Mass 2016 DEM	0	4	1	39	30	992	212
660	2409	CRICKET LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	10.952	Mass 2016 DEM	1	26	2	70	24	889	212
661	3285	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.253	Mass 2016 DEM	0	0	0	17	18	1032	212
662	2081	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.263	Mass 2016 DEM	0	0	1	27	24	1016	211
663	2193	WORCESTER AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.329	Mass 2016 DEM	0	4	1	26	21	1006	211
664	2187	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.407	Mass 2016 DEM	0	6	1	30	30	979	208
665	1051	FRAZAR RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.929	Mass 2016 DEM	4	116	4	136	16	542	207
666	3286	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.57	Mass 2016 DEM	0	0	0	0	18	1032	206
667	3287	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.556	Mass 2016 DEM	0	0	0	0	18	1030	206
668	4165	DAVIS NECK RD	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.893	Mass 2016 DEM	0	6	1	33	29	961	205
669	3480	REDBUD LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.946	Mass 2016 DEM	1	25	2	68	26	854	204
670	579	ALDER LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.28	Mass 2016 DEM	1	25	2	67	26	850	203
671	307	COLONIAL WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.651	Mass 2016 DEM	1	27	2	70	25	837	202
672	141	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.695	Mass 2016 DEM	0	0	0	22	21	971	201
673	146	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.557	Mass 2016 DEM	0	0	1	23	23	969	201
674	2030	DAVIS NECK RD	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.255	Mass 2016 DEM	1	29	1	47	26	854	200
675	2322	ONAWA LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.11	Mass 2016 DEM	2	72	5	149	18	589	198
676	3234	GOVERNOR BRADFORD LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.469	Mass 2016 DEM	1	26	2	68	25	815	196
677	3876	PILGRIM PATH	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.544	Mass 2016 DEM	1	25	2	66	25	816	196
678	2141	HARMONY ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.608	Mass 2016 DEM	0	7	1	27	28	909	193
679	2227	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	9.281	Mass 2016 DEM	0	2	1	23	23	925	193
680	3703	METOXIT RD	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.002	Mass 2016 DEM	0	0	1	26	28	926	193
681	152	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	7.882	Mass 2016 DEM	0	5	1	28	27	905	192
682	2228	MASSACHUSETTS AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	9.376	Mass 2016 DEM	0	2	1	23	23	921	192
683	1979	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	9.931	Mass 2016 DEM	0	2	0	20	21	914	190
684	1998	PROVIDENCE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.474	Mass 2016 DEM	1	20	1	37	25	834	188

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
685	3655	HARRINGTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.316	Mass 2016 DEM	0	0	2	58	26	846	187
686	1557	OVINGTON DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.92	Mass 2016 DEM	0	7	1	35	26	864	187
687	153	DARTMOUTH AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.206	Mass 2016 DEM	0	0	1	26	27	890	186
688	1472	LOOP RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.076	Mass 2016 DEM	1	25	2	62	23	773	186
689	3283	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.705	Mass 2016 DEM	0	0	0	21	21	885	183
690	2181	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.927	Mass 2016 DEM	0	0	0	20	20	879	182
691	3865	CHESTER ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.605	Mass 2016 DEM	1	22	2	62	23	759	182
692	3153	LUDLAM ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.902	Mass 2016 DEM	0	5	1	22	26	858	181
693	2197	LOWRY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.632	Mass 2016 DEM	0	5	1	23	26	849	179
694	2185	ROBINSON RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.971	Mass 2016 DEM	0	5	1	23	26	846	179
695	1958	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.912	Mass 2016 DEM	0	0	0	20	20	856	177
696	4411	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.981	Mass 2016 DEM	0	0	0	0	19	885	177
697	4161	PROSPECT ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.233	Mass 2016 DEM	0	5	1	21	25	839	177
698	1320	TUPELO RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.133	Mass 2016 DEM	0	0	0	0	27	882	176
699	2070	DARTMOUTH CT	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.192	Mass 2016 DEM	0	0	1	24	26	845	176
700	3475	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.717	Mass 2016 DEM	0	18	1	54	16	753	176
701	3175	ALMA RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	10.434	Mass 2016 DEM	0	0	1	34	22	825	175
702	3303	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.378	Mass 2016 DEM	0	9	1	42	24	788	175
703	2186	LOWRY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.161	Mass 2016 DEM	0	5	1	22	25	823	174
704	1460	PENNY ROYAL LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	6.938	Mass 2016 DEM	0	0	0	0	26	865	173
705	3304	LUCERNE AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.356	Mass 2016 DEM	0	10	1	43	23	774	173
706	3813	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.138	Mass 2016 DEM	0	22	1	62	15	715	173
707	3735	SEATUCKET RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.781	Mass 2016 DEM	0	0	0	0	26	856	171
708	2112	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.505	Mass 2016 DEM	0	0	0	17	17	812	168
709	3603	FERRY RD	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.818	Mass 2016 DEM	0	8	1	37	23	758	167
710	3401	WIDGEON RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.77	Mass 2016 DEM	1	20	2	53	21	699	166
711	2154	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	10.333	Mass 2016 DEM	0	0	0	26	14	787	165
712	2072	GULL RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.086	Mass 2016 DEM	0	0	1	19	24	795	165
713	2132	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.716	Mass 2016 DEM	0	0	2	67	22	718	164
714	2219	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	9.388	Mass 2016 DEM	0	0	0	18	21	789	163
715	1671	STARBOARD DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	5.676	Mass 2016 DEM	0	0	1	17	24	783	162
716	2211	CLIPPER LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.799	Mass 2016 DEM	0	4	1	19	23	767	161
717	176	FRESH POND RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.437	Mass 2016 DEM	0	0	0	0	17	802	160
718	4191	NONQUIT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.153	Mass 2016 DEM	0	2	1	20	23	765	160
719	2199	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.024	Mass 2016 DEM	0	0	0	6	17	792	160
720	3497	WESTWOOD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.552	Mass 2016 DEM	1	17	1	47	21	686	160
721	1849	SPRING BARS RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	9.014	Mass 2016 DEM	0	0	0	0	14	798	160
722	3479	BUCKTHORN LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.822	Mass 2016 DEM	1	20	2	55	20	661	159
723	155	OLD COLONY PL	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.544	Mass 2016 DEM	0	5	1	22	22	741	157
724	3665	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.997	Mass 2016 DEM	1	19	2	53	20	658	157
725	549	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.017	Mass 2016 DEM	1	27	2	72	13	607	156
726	3468	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	12.123	Mass 2016 DEM	0	14	1	43	12	680	156
727	1711	SHOREWOOD DR	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.635	Mass 2016 DEM	0	0	0	13	16	757	155
728	2204	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.459	Mass 2016 DEM	0	2	1	17	22	730	152
729	147	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	9.76	Mass 2016 DEM	0	0	0	14	16	734	151
730	2020	LITTLE ROCK AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.346	Mass 2016 DEM	0	0	0	15	22	729	150
731	3436	DAVIS NECK RD	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.156	Mass 2016 DEM	0	0	0	16	22	726	150
732	335	CHESTNUT ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	11.708	Mass 2016 DEM	0	5	1	22	17	697	149
733	3602	SEAPIT RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.632	Mass 2016 DEM	0	8	1	35	20	669	148
734	1693	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.199	Mass 2016 DEM	0	7	1	30	21	678	148
735	3631	HAMILTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.646	Mass 2016 DEM	0	1	1	17	21	706	147
736	1285	WHISTLERS WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.448	Mass 2016 DEM	0	0	0	0	22	736	147
737	2205	INDIANA AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.716	Mass 2016 DEM	0	0	0	16	21	709	147
738	1806	ROSE MORIN LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	9.601	Mass 2016 DEM	0	0	0	11	17	716	147
739	145	POND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.231	Mass 2016 DEM	0	5	1	21	21	683	145
740	1497	HAMPDEN RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.502	Mass 2016 DEM	0	6	1	36	20	653	144
741	3510	NEMASKET RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.354	Mass 2016 DEM	1	41	3	99	14	467	144

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
742	2047	SOUTH RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.283	Mass 2016 DEM	0	0	0	15	21	691	143
743	4057	MILL POND WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	11.467	Mass 2016 DEM	0	5	2	91	14	560	142
744	1968	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.294	Mass 2016 DEM	0	0	0	13	15	682	140
745	3902	BAY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.109	Mass 2016 DEM	0	16	1	44	18	596	140
746	581	SASSAFRAS LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.9	Mass 2016 DEM	0	14	1	38	18	599	138
747	3484	SASSAFRAS LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.887	Mass 2016 DEM	0	14	1	38	18	599	138
748	4504	EMERSON RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.781	Mass 2016 DEM	0	0	0	15	20	667	138
749	1677	WOODSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.209	Mass 2016 DEM	0	6	1	27	19	633	138
750	4139	CYPRESS ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.574	Mass 2016 DEM	0	2	1	20	20	652	138
751	1749	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.803	Mass 2016 DEM	0	0	0	14	15	662	136
752	165	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.272	Mass 2016 DEM	0	0	0	14	20	650	134
753	50	NEMASKET RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.355	Mass 2016 DEM	1	37	3	91	13	441	134
754	2198	PACKET LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.382	Mass 2016 DEM	0	0	0	14	20	647	134
755	166	MONTGOMERY AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.241	Mass 2016 DEM	0	0	0	14	20	646	133
756	3830	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.798	Mass 2016 DEM	0	0	0	12	15	639	131
757	3835	HAWTHORNE AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.675	Mass 2016 DEM	0	0	0	13	19	632	130
758	4205	COWDRY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	18.182	Mass 2016 DEM	1	36	2	81	10	436	130
759	4157	CENTRAL PARK CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	10.134	Mass 2016 DEM	0	0	0	11	17	631	130
760	346	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.189	Mass 2016 DEM	0	0	0	0	14	637	127
761	4495	DUCK BLIND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.049	Mass 2016 DEM	0	4	1	22	18	595	127
762	3834	NANTUCKET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.663	Mass 2016 DEM	0	0	0	13	19	612	126
763	1555	MILTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.188	Mass 2016 DEM	0	5	1	22	18	584	126
764	1435	SHEILA WAY	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.723	Mass 2016 DEM	0	0	0	0	19	630	126
765	3815	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.32	Mass 2016 DEM	0	11	1	34	12	545	125
766	1929	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	11.187	Mass 2016 DEM	0	4	0	16	14	587	124
767	3195	BENJAMIN NYES LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.353	Mass 2016 DEM	0	13	1	38	16	528	124
768	2190	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	47	9.77	Mass 2016 DEM	0	0	0	9	13	597	122
769	1800	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.105	Mass 2016 DEM	0	3	0	12	12	584	122
770	1941	ALMA RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	10.583	Mass 2016 DEM	0	0	0	14	13	578	120
771	3734	EDGEWATER DR WEST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.528	Mass 2016 DEM	3	97	3	97	6	212	120
772	1576	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.253	Mass 2016 DEM	0	0	0	8	12	581	119
773	24	WESTWOOD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.242	Mass 2016 DEM	0	11	1	30	16	521	119
774	11	CORN HILL RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.01	Mass 2016 DEM	0	0	0	0	18	593	119
775	3248	FRESH POND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.16	Mass 2016 DEM	0	0	0	0	18	592	118
776	2653	FRESH POND FARM RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.987	Mass 2016 DEM	0	0	0	0	18	591	118
777	3723	SOUTH RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.92	Mass 2016 DEM	0	0	0	11	17	573	118
778	374	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.804	Mass 2016 DEM	1	18	1	46	14	474	117
779	3476	RIDGE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.581	Mass 2016 DEM	0	12	1	36	15	503	117
780	2201	CLIPPER LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.923	Mass 2016 DEM	0	0	0	6	18	578	117
781	1202	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	12.759	Mass 2016 DEM	0	16	1	40	9	486	117
782	1377	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	11.09	Mass 2016 DEM	0	0	0	9	11	567	116
783	4149	GREEN MEADOW LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.829	Mass 2016 DEM	0	3	0	15	17	549	116
784	3809	LOREN RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.179	Mass 2016 DEM	0	10	1	29	15	509	116
785	2088	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	9.848	Mass 2016 DEM	0	0	0	9	13	563	115
786	2111	MASSASOIT ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.812	Mass 2016 DEM	0	0	0	12	17	558	115
787	350	RUSSELL RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	9.818	Mass 2016 DEM	0	0	0	10	13	558	115
788	2149	BRIDGE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.208	Mass 2016 DEM	0	0	0	11	17	555	114
789	3632	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.993	Mass 2016 DEM	0	0	0	10	12	556	114
790	3861	BRENTON RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.756	Mass 2016 DEM	1	19	1	47	14	451	114
791	1436	PENNY ROYAL LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.88	Mass 2016 DEM	0	0	0	0	17	561	112
792	1245	OLD BARNSTABLE RD	Road	PAVED, COUNTY	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	47	13.004	Mass 2016 DEM	0	3	0	14	11	527	111
793	1288	WHISTLERS WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.434	Mass 2016 DEM	0	0	0	0	17	553	111
794	1895	CAPTAIN DAVIS LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.447	Mass 2016 DEM	0	0	0	0	17	553	111
795	798	UNCATENA NORTH	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	40.285	Mass 2016 DEM	3	95	3	110	4	148	110
796	1710	STRIPER LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.619	Mass 2016 DEM	0	0	0	9	16	532	109
797	1949	MORSE POND RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	9.129	Mass 2016 DEM	0	0	0	0	14	545	109
798	2206	CREIGHTON PARK	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.834	Mass 2016 DEM	0	0	0	7	16	528	108

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
799	333	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.228	Mass 2016 DEM	0	1	0	7	11	523	107
800	1891	WIDGEON RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.42	Mass 2016 DEM	0	11	1	28	14	467	107
801	1744	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.253	Mass 2016 DEM	0	0	0	8	11	523	107
802	2339	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	47	20.93	Mass 2016 DEM	0	8	1	34	10	461	107
803	444	AMPHIBIAN RD	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.727	Mass 2016 DEM	0	0	0	11	15	508	105
804	607	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.493	Mass 2016 DEM	0	9	1	26	10	453	103
805	4185	BELVIDERE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.295	Mass 2016 DEM	0	1	0	10	15	498	103
806	1373	PAMELA LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.521	Mass 2016 DEM	0	13	1	43	13	415	102
807	1360	LORRAINE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	14.463	Mass 2016 DEM	0	0	1	52	10	432	102
808	541	SILVER BEACH AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.178	Mass 2016 DEM	0	9	1	24	14	449	101
809	4131	MORIN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	10.036	Mass 2016 DEM	0	0	0	0	12	500	100
810	2018	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.429	Mass 2016 DEM	0	0	0	7	10	482	99
811	2310	QUONSET RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.527	Mass 2016 DEM	0	3	0	13	14	465	99
812	2220	PENNSYLVANIA AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	9.561	Mass 2016 DEM	0	0	0	8	13	479	98
813	1648	EDGEWATER DR WEST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.165	Mass 2016 DEM	1	47	2	82	7	247	98
814	2178	CENTRAL PARK CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.058	Mass 2016 DEM	0	0	0	8	14	475	97
815	305	COLONIAL WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.769	Mass 2016 DEM	0	10	1	26	13	421	97
816	2046	GULL RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.391	Mass 2016 DEM	0	0	0	8	14	472	97
817	2249	BELVIDERE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.051	Mass 2016 DEM	0	0	0	8	14	467	96
818	2724	SHORE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.804	Mass 2016 DEM	1	49	2	66	8	254	95
819	4494	DUCK BLIND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.665	Mass 2016 DEM	0	2	0	14	13	442	94
820	1816	SEASHELL LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.824	Mass 2016 DEM	0	3	0	12	13	441	93
821	3709	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	8.339	Mass 2016 DEM	0	0	0	0	8	464	93
822	875	WRIGHT ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.366	Mass 2016 DEM	1	23	1	35	11	352	92
823	4158	LITTLE ROCK AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.172	Mass 2016 DEM	0	0	0	7	14	448	92
824	2866	KEEL DE SAC	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	10.084	Mass 2016 DEM	0	10	1	36	9	378	91
825	3717	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	10.546	Mass 2016 DEM	0	0	0	6	9	446	91
826	2637	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	12.482	Mass 2016 DEM	0	10	1	37	6	374	91
827	3324	LITTLE ISLAND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.445	Mass 2016 DEM	1	28	1	43	10	316	90
828	4011	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	15.134	Mass 2016 DEM	0	8	0	27	6	387	90
829	3470	SUNSET POINT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.363	Mass 2016 DEM	1	34	2	77	7	244	89
830	2191	CENTRAL PARK CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	9.982	Mass 2016 DEM	0	0	0	5	12	431	88
831	1985	HARBOR FARMS RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.986	Mass 2016 DEM	0	0	0	8	13	426	88
832	27	ALDEN DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.566	Mass 2016 DEM	0	8	1	22	11	379	87
833	3905	HIGHCREST RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.608	Mass 2016 DEM	0	7	1	20	12	383	86
834	3959	NAUSHON CIR	Road	PAVED, PRIVATE	2	Locality	3	7 - 14 days	3	$100k - $1m	2	Low	2	Low	1	None	43	14.197	Mass 2016 DEM	0	8	1	22	9	375	86
835	3908	FIDDLERS COVE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.85	Mass 2016 DEM	0	12	1	33	11	348	86
836	4204	CRANE ST	Road	PAVED, STATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	5.385	Mass 2016 DEM	1	24	1	53	7	285	85
837	2250	CRESCENT AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	11.129	Mass 2016 DEM	0	0	0	7	11	407	83
838	1592	BECCLES RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.4	Mass 2016 DEM	0	11	1	27	11	347	83
839	580	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.307	Mass 2016 DEM	0	6	0	16	8	369	81
840	2638	CHANCERY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	10.543	Mass 2016 DEM	0	0	0	3	9	400	81
841	4135	MONTAUK ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.87	Mass 2016 DEM	0	0	0	7	12	393	81
842	2052	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	5.914	Mass 2016 DEM	0	0	0	0	9	403	81
843	2169	SOUTH RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.014	Mass 2016 DEM	0	0	0	6	12	390	80
844	4386	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	13.296	Mass 2016 DEM	0	6	0	17	6	354	79
845	1608	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.943	Mass 2016 DEM	0	0	0	0	12	393	79
846	1740	MENAUHANT RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	11.109	Mass 2016 DEM	0	0	0	5	9	385	79
847	3278	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	13.577	Mass 2016 DEM	0	0	0	10	6	377	78
848	1268	MEETING HOUSE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.873	Mass 2016 DEM	0	2	0	10	11	369	78
849	3273	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	4	High	1	None	57	13.938	Mass 2016 DEM	0	0	0	0	7	389	78
850	1169	HAWKS WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.201	Mass 2016 DEM	0	10	1	26	10	321	77
851	3663	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.085	Mass 2016 DEM	0	8	1	22	10	333	77
852	1284	CROSBY LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.88	Mass 2016 DEM	0	8	1	35	9	313	77
853	3833	BROWN CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.211	Mass 2016 DEM	0	0	0	6	11	371	76
854	1133	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.842	Mass 2016 DEM	0	0	0	0	11	378	76
855	1960	HARBOR FARMS RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.085	Mass 2016 DEM	0	0	0	0	11	376	75

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
856	160	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	10.022	Mass 2016 DEM	0	0	0	3	9	369	75
857	138	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.408	Mass 2016 DEM	0	0	0	0	11	372	74
858	2269	FOREST AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	11.332	Mass 2016 DEM	0	0	0	6	10	363	74
859	3673	ARLINGTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.81	Mass 2016 DEM	0	6	0	16	10	333	74
860	643	OLD FORGE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.483	Mass 2016 DEM	0	0	1	22	10	338	74
861	3622	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.142	Mass 2016 DEM	0	0	0	0	8	369	74
862	1511	SACHEM DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.214	Mass 2016 DEM	0	3	0	11	10	344	74
863	3808	ARCH RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.381	Mass 2016 DEM	0	6	0	16	10	330	74
864	1417	MADELINE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.505	Mass 2016 DEM	0	7	1	24	10	315	73
865	284	BAY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.324	Mass 2016 DEM	0	8	1	22	10	314	73
866	2189	KING ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.742	Mass 2016 DEM	0	0	0	6	11	353	72
867	2325	ELM RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.713	Mass 2016 DEM	0	0	0	0	11	358	72
868	1584	INGLESIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.114	Mass 2016 DEM	0	0	0	0	11	356	71
869	1999	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.591	Mass 2016 DEM	0	0	0	0	7	350	70
870	3920	WING RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.873	Mass 2016 DEM	0	0	1	20	10	319	70
871	3759	SEASCAPE LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.774	Mass 2016 DEM	0	5	0	15	9	309	69
872	175	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	10.314	Mass 2016 DEM	0	0	0	4	8	337	68
873	1449	MADELINE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.289	Mass 2016 DEM	0	0	0	5	10	330	68
874	1180	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.606	Mass 2016 DEM	0	0	0	6	7	329	67
875	1583	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.063	Mass 2016 DEM	0	0	0	0	10	334	67
876	3438	OLD MENAUHANT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	11.634	Mass 2016 DEM	0	0	0	0	8	333	67
877	3708	KIMBERLY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	6.551	Mass 2016 DEM	0	0	0	0	8	332	66
878	1959	WOODLAND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.274	Mass 2016 DEM	0	0	0	4	10	325	66
879	831	CLIFFWOOD LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.928	Mass 2016 DEM	0	6	0	15	9	294	66
880	3753	HIGHCREST RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.734	Mass 2016 DEM	0	5	0	14	9	297	66
881	3716	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.131	Mass 2016 DEM	0	0	0	0	7	330	66
882	3333	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	19.221	Mass 2016 DEM	0	0	0	5	7	317	65
883	167	BELVIDERE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.062	Mass 2016 DEM	0	0	0	3	10	316	64
884	2669	LOWRY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.479	Mass 2016 DEM	0	0	0	3	10	315	64
885	3860	CHESTER ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.485	Mass 2016 DEM	0	10	1	26	8	253	63
886	990	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	11.414	Mass 2016 DEM	0	0	0	12	5	297	63
887	937	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	11.292	Mass 2016 DEM	0	0	0	12	5	297	63
888	1937	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.796	Mass 2016 DEM	0	0	0	0	7	314	63
889	1655	ALPHONSE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	11.222	Mass 2016 DEM	0	0	0	0	7	313	63
890	2060	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.3	Mass 2016 DEM	0	0	0	0	7	311	62
891	3612	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	14.733	Mass 2016 DEM	0	7	0	19	5	264	62
892	2082	HAWTHORNE CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.555	Mass 2016 DEM	0	0	0	4	9	299	61
893	3970	STONEHEDGE LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.148	Mass 2016 DEM	0	5	0	15	8	266	60
894	2164	MONTGOMERY CT	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.399	Mass 2016 DEM	0	0	0	4	9	294	60
895	139	ELLSWORTH DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.964	Mass 2016 DEM	0	0	0	0	9	293	59
896	3890	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.993	Mass 2016 DEM	0	0	0	0	6	291	58
897	1881	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	12.517	Mass 2016 DEM	0	0	0	3	7	284	58
898	909	CORDWOOD LANDING RD	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	14.3	Mass 2016 DEM	0	5	0	15	6	251	57
899	91	EDGEWATER DR WEST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.925	Mass 2016 DEM	0	0	0	0	9	282	56
900	362	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.12	Mass 2016 DEM	0	0	0	0	6	281	56
901	1727	UPALONG RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.473	Mass 2016 DEM	0	0	0	5	8	273	56
902	2084	SALT SEA LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	12.215	Mass 2016 DEM	0	0	0	0	6	279	56
903	1977	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.886	Mass 2016 DEM	0	0	0	0	6	278	56
904	3275	WAQUOIT LANDING RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.163	Mass 2016 DEM	0	0	0	0	8	277	55
905	3568	LUMMIS LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.849	Mass 2016 DEM	1	17	1	39	5	175	55
906	3758	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.809	Mass 2016 DEM	0	4	0	11	8	248	55
907	1863	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	12.918	Mass 2016 DEM	0	0	0	3	6	268	55
908	3539	ASPEN LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.839	Mass 2016 DEM	0	7	1	20	7	225	55
909	523	ARLINGTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.637	Mass 2016 DEM	0	4	0	12	7	241	54
910	2674	GERLOFF RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	9.651	Mass 2016 DEM	0	0	0	0	8	271	54
911	289	CHESTER ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.283	Mass 2016 DEM	0	5	2	51	6	182	54
912	2083	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	12.952	Mass 2016 DEM	0	0	0	0	5	267	53

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
913	203	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	18.629	Mass 2016 DEM	0	8	1	27	4	205	53
914	2059	WORCESTER CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.083	Mass 2016 DEM	0	0	0	0	8	263	53
915	2183	MASSACHUSETTS CT	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.511	Mass 2016 DEM	0	0	0	3	8	258	52
916	2174	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	11.573	Mass 2016 DEM	0	0	0	0	6	261	52
917	3380	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.245	Mass 2016 DEM	0	5	0	14	5	228	52
918	3227	CARRIAGE SHOP RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.837	Mass 2016 DEM	0	0	0	6	5	248	51
919	510	HILLSIDE AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.419	Mass 2016 DEM	0	4	0	12	7	225	51
920	2163	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.816	Mass 2016 DEM	0	0	0	4	7	241	49
921	462	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	12.294	Mass 2016 DEM	0	0	0	0	6	245	49
922	42	NAUSHON CIR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.163	Mass 2016 DEM	0	3	0	11	7	218	48
923	356	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.152	Mass 2016 DEM	0	0	0	0	5	239	48
924	1633	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.006	Mass 2016 DEM	0	0	0	0	7	239	48
925	3760	WESTWOOD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.222	Mass 2016 DEM	0	5	0	14	6	201	47
926	1569	OVINGTON DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.173	Mass 2016 DEM	0	1	0	4	7	220	46
927	1884	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.852	Mass 2016 DEM	0	0	0	0	5	228	46
928	920	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	10.73	Mass 2016 DEM	0	0	0	0	4	227	45
929	3213	BRIAN LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.584	Mass 2016 DEM	0	0	0	1	7	219	44
930	550	WILLIAM RD	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.579	Mass 2016 DEM	0	3	0	8	6	202	44
931	1901	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	12.599	Mass 2016 DEM	0	0	0	1	5	217	44
932	1911	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	12.524	Mass 2016 DEM	0	0	0	0	5	217	43
933	927	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	10.35	Mass 2016 DEM	0	0	0	5	3	209	43
934	376	WESTWOOD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.543	Mass 2016 DEM	0	1	0	8	6	202	43
935	2139	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.831	Mass 2016 DEM	0	0	0	0	7	215	43
936	2089	WALKER ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	11.627	Mass 2016 DEM	0	0	0	0	4	214	43
937	1210	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	19.032	Mass 2016 DEM	0	0	0	4	4	208	43
938	569	BIRCH LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.093	Mass 2016 DEM	0	3	0	8	6	192	42
939	3373	PIN OAK WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.741	Mass 2016 DEM	0	15	0	16	5	150	42
940	3467	DEER RUN LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.766	Mass 2016 DEM	0	3	0	10	6	185	42
941	4000	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	57	10.34	Mass 2016 DEM	0	0	0	0	4	207	41
942	642	QUAIL HOLLOW RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.02	Mass 2016 DEM	0	0	0	12	6	189	41
943	3331	LUCIANO BOTELHO WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	19.398	Mass 2016 DEM	0	0	0	3	6	199	41
944	1507	WOOD NECK RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.88	Mass 2016 DEM	0	1	0	8	6	186	40
945	1976	HIAWATHA ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.737	Mass 2016 DEM	0	0	0	0	6	198	40
946	1515	SEAPIT RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	13.196	Mass 2016 DEM	0	0	0	4	5	192	40
947	3738	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	17.38	Mass 2016 DEM	0	3	0	8	3	177	39
948	3730	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.976	Mass 2016 DEM	0	0	0	0	4	196	39
949	1938	NARRAGANSETT ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.02	Mass 2016 DEM	0	0	0	2	6	192	39
950	2165	HARBOR AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.121	Mass 2016 DEM	0	0	0	0	6	193	39
951	2168	POND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.376	Mass 2016 DEM	0	0	0	0	6	192	38
952	361	MAPLE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.018	Mass 2016 DEM	0	0	0	0	6	189	38
953	1980	WIDGEON RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.707	Mass 2016 DEM	0	3	0	9	5	166	38
954	2177	HARBOR AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.441	Mass 2016 DEM	0	0	0	0	6	183	37
955	1963	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.726	Mass 2016 DEM	0	0	0	0	6	182	36
956	1722	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.686	Mass 2016 DEM	0	0	0	0	4	182	36
957	3702	DUCK BLIND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.075	Mass 2016 DEM	0	1	0	4	5	173	36
958	1575	MORRIS ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.031	Mass 2016 DEM	0	0	0	2	5	178	36
959	2176	MEADOW LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.453	Mass 2016 DEM	0	0	0	0	5	181	36
960	482	WATER ST	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	10.263	Mass 2016 DEM	0	0	0	0	3	181	36
961	3169	WESTWOOD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.131	Mass 2016 DEM	0	7	1	17	4	136	36
962	1559	EDGEWATER DR WEST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.073	Mass 2016 DEM	0	0	0	0	5	177	35
963	1838	RACING BEACH AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.68	Mass 2016 DEM	0	4	0	11	5	149	35
964	3710	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	13.84	Mass 2016 DEM	0	0	0	0	3	175	35
965	934	ASSOCIATES RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.497	Mass 2016 DEM	0	3	0	8	5	153	35
966	1789	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.517	Mass 2016 DEM	0	0	0	1	4	170	34
967	3971	CHASE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.884	Mass 2016 DEM	0	3	0	7	5	152	34
968	222	FAY RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	10.672	Mass 2016 DEM	0	0	0	0	5	170	34
969	164	GERLOFF RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.938	Mass 2016 DEM	0	0	0	0	5	167	33

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
970	4199	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	47	14.076	Mass 2016 DEM	0	0	0	0	3	164	33
971	545	WILLIAM RD	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.806	Mass 2016 DEM	0	2	0	5	5	151	33
972	565	BARBARA LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.093	Mass 2016 DEM	0	2	0	5	5	151	33
973	2090	CHANCERY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	11.574	Mass 2016 DEM	0	0	0	0	4	162	32
974	205	WHISTLERS WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.976	Mass 2016 DEM	0	0	0	0	5	162	32
975	1254	OVERLOOK CIR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.891	Mass 2016 DEM	1	19	1	36	2	57	32
976	3889	PALM ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.502	Mass 2016 DEM	0	0	0	0	5	159	32
977	730	NAUSET AVE EAST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.935	Mass 2016 DEM	0	1	0	2	5	151	31
978	2158	PROSPECT ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.663	Mass 2016 DEM	0	0	0	0	5	156	31
979	1844	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	12.917	Mass 2016 DEM	0	0	0	0	4	155	31
980	3653	BOURNES COVE LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.961	Mass 2016 DEM	0	0	0	0	5	154	31
981	4177	EMMONS RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.624	Mass 2016 DEM	0	0	0	0	4	147	29
982	3500	WEST END CT	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.357	Mass 2016 DEM	0	1	0	4	4	135	29
983	2109	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	11.792	Mass 2016 DEM	0	0	0	0	4	144	29
984	2121	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	11.828	Mass 2016 DEM	0	0	0	0	4	144	29
985	4463	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.91	Mass 2016 DEM	0	2	0	5	3	132	29
986	1651	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.754	Mass 2016 DEM	0	0	0	0	4	142	28
987	520	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.823	Mass 2016 DEM	0	1	0	5	3	130	28
988	3997	WESTMORELAND DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	9.604	Mass 2016 DEM	0	0	0	0	4	133	27
989	816	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.015	Mass 2016 DEM	0	0	0	0	3	133	27
990	499	ARLINGTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.451	Mass 2016 DEM	0	1	0	4	4	123	27
991	3614	GARRY AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.648	Mass 2016 DEM	0	0	0	0	4	131	26
992	3875	ERIC CLAUSON LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.77	Mass 2016 DEM	0	1	0	5	4	119	26
993	4176	LITTLE ROCK AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.604	Mass 2016 DEM	0	0	0	0	4	129	26
994	1634	PLYMOUTH DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.863	Mass 2016 DEM	0	0	0	0	4	127	25
995	2270	MANCHESTER AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	12.676	Mass 2016 DEM	0	0	0	0	3	126	25
996	2171	HARBOR AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.446	Mass 2016 DEM	0	0	0	0	4	125	25
997	2063	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.615	Mass 2016 DEM	0	0	0	0	3	124	25
998	1822	SHAKER LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.981	Mass 2016 DEM	0	0	0	0	4	124	25
999	2011	GLENWOOD AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	12.548	Mass 2016 DEM	0	0	0	0	3	123	25
1000	1637	EDGEWATER DR WEST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.432	Mass 2016 DEM	0	0	0	0	4	123	25
1001	2062	EMMONS RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.288	Mass 2016 DEM	0	0	0	0	4	122	24
1002	1476	SQUIBNOCKETT DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.995	Mass 2016 DEM	0	0	0	0	4	122	24
1003	1918	MARAVISTA AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.751	Mass 2016 DEM	0	0	0	0	3	121	24
1004	3832	MEADOW LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.66	Mass 2016 DEM	0	0	0	0	4	121	24
1005	1717	SIPPEWISSETT RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	50	13.629	Mass 2016 DEM	0	0	0	1	2	119	24
1006	4050	METOXIT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	14.194	Mass 2016 DEM	0	0	0	0	2	119	24
1007	2172	MASSACHUSETTS CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.903	Mass 2016 DEM	0	0	0	0	4	118	24
1008	3341	MELROSE AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	14.099	Mass 2016 DEM	0	0	0	0	3	117	23
1009	3907	DEER RUN LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.917	Mass 2016 DEM	0	3	0	7	3	98	23
1010	2148	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.9	Mass 2016 DEM	0	0	0	0	3	115	23
1011	1346	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	16.136	Mass 2016 DEM	0	0	0	0	2	115	23
1012	1603	EDGEWATER DR WEST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.612	Mass 2016 DEM	0	0	0	0	3	114	23
1013	3624	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	12.963	Mass 2016 DEM	0	0	0	0	2	113	23
1014	1630	NEWTON RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.479	Mass 2016 DEM	0	0	0	0	3	113	23
1015	491	GLEN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.068	Mass 2016 DEM	0	1	0	5	3	102	22
1016	2036	ALPHA ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.348	Mass 2016 DEM	0	0	0	0	3	111	22
1017	1402	TOWN LANDING RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.071	Mass 2016 DEM	0	0	0	0	3	111	22
1018	1601	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.138	Mass 2016 DEM	0	0	0	0	2	110	22
1019	3767	HIGHLAND AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.367	Mass 2016 DEM	0	1	0	4	3	100	22
1020	1432	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	16.055	Mass 2016 DEM	0	0	0	0	2	108	22
1021	3666	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.098	Mass 2016 DEM	0	1	0	4	3	99	22
1022	391	BEACH ROSE LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.003	Mass 2016 DEM	0	2	0	4	3	97	22
1023	2129	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	12.612	Mass 2016 DEM	0	0	0	0	2	107	21
1024	3721	GRAY LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	23.422	Mass 2016 DEM	0	0	0	0	4	3	100	21
1025	2071	FAIRVIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.998	Mass 2016 DEM	0	0	0	0	3	106	21
1026	3382	CANAPITSIT DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.047	Mass 2016 DEM	0	0	0	0	3	105	21

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
1027	3232	CLIFFWOOD LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	8.058	Mass 2016 DEM	0	0	0	0	3	103	21
1028	3233	CLIFFWOOD LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.558	Mass 2016 DEM	0	0	0	0	3	102	20
1029	829	YANKEE LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.947	Mass 2016 DEM	0	0	0	0	3	102	20
1030	1397	HARTWELL DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.308	Mass 2016 DEM	0	0	0	0	3	102	20
1031	3506	WESTWOOD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.555	Mass 2016 DEM	0	1	0	3	3	96	20
1032	3563	ERIC CLAUSON LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.802	Mass 2016 DEM	0	1	0	3	3	93	20
1033	151	KING ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.492	Mass 2016 DEM	0	0	0	0	3	100	20
1034	2050	GINWAL ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.129	Mass 2016 DEM	0	0	0	0	3	100	20
1035	1554	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.081	Mass 2016 DEM	0	0	0	0	2	96	19
1036	2138	RAYMOND ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.82	Mass 2016 DEM	0	0	0	0	3	95	19
1037	4166	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	53	12.691	Mass 2016 DEM	0	0	0	0	2	95	19
1038	2034	SCRANTON AVE	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	13.013	Mass 2016 DEM	0	0	0	0	2	95	19
1039	1431	MADELINE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.567	Mass 2016 DEM	0	0	0	0	3	93	19
1040	2340	QUINAPOXET AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	27.972	Mass 2016 DEM	0	1	0	3	2	86	19
1041	1233	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	18.437	Mass 2016 DEM	0	0	0	0	2	93	19
1042	3675	GLEN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.258	Mass 2016 DEM	0	1	0	3	3	85	18
1043	2147	HUDSON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.867	Mass 2016 DEM	0	0	0	0	3	91	18
1044	503	HIGHLAND AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.393	Mass 2016 DEM	0	1	0	3	3	84	18
1045	4410	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	15.161	Mass 2016 DEM	0	0	0	1	2	88	18
1046	961	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	15.867	Mass 2016 DEM	0	0	0	0	1	90	18
1047	3727	HATCH RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.687	Mass 2016 DEM	0	0	0	0	3	89	18
1048	2367	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	16.581	Mass 2016 DEM	0	1	0	3	2	81	18
1049	2683	ACADEMY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	12.612	Mass 2016 DEM	0	0	0	0	2	88	18
1050	460	DILLINGHAM AVE	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.903	Mass 2016 DEM	0	0	0	1	2	85	17
1051	492	WESTON RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.398	Mass 2016 DEM	0	1	0	2	2	80	17
1052	1736	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	13.392	Mass 2016 DEM	0	0	0	0	1	85	17
1053	3726	ROBINSON RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.801	Mass 2016 DEM	0	0	0	0	3	84	17
1054	1467	MUSKEGAT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.432	Mass 2016 DEM	0	0	0	0	2	82	16
1055	2173	MEADOW LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.449	Mass 2016 DEM	0	0	0	0	2	82	16
1056	66	BELLEVUE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	12.355	Mass 2016 DEM	0	0	0	0	2	81	16
1057	1161	CARL LANDI CIR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	25.412	Mass 2016 DEM	0	0	0	0	2	81	16
1058	2051	PENNSYLVANIA CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	11.688	Mass 2016 DEM	0	0	0	0	2	80	16
1059	4436	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.373	Mass 2016 DEM	0	0	0	0	2	79	16
1060	369	FIDDLERS COVE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.465	Mass 2016 DEM	0	0	0	0	2	74	16
1061	1694	PINE ROCK RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.233	Mass 2016 DEM	0	0	0	0	2	78	16
1062	2064	COUNTING HOUSE WAY	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.443	Mass 2016 DEM	0	0	0	0	2	78	16
1063	777	JAE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.035	Mass 2016 DEM	0	1	0	4	2	69	16
1064	538	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	19.33	Mass 2016 DEM	0	0	0	3	2	74	16
1065	3501	OCEAN VIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.817	Mass 2016 DEM	0	1	0	2	2	72	15
1066	4509	KATHARINE LEE BATES ROAD	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	5.793	Mass 2016 DEM	0	0	0	0	2	75	15
1067	1974	POST OFFICE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	6.021	Mass 2016 DEM	0	0	0	0	2	75	15
1068	360	KATHARINE LEE BATES ROAD	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	5.829	Mass 2016 DEM	0	0	0	0	2	75	15
1069	539	CRYSTAL SPRING AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.751	Mass 2016 DEM	0	3	0	7	2	56	15
1070	1565	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.224	Mass 2016 DEM	0	0	0	0	2	74	15
1071	3435	MASSACHUSETTS CT	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.102	Mass 2016 DEM	0	0	0	0	2	73	15
1072	1544	SAILFISH DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.16	Mass 2016 DEM	0	0	0	0	2	72	14
1073	3434	LITTLE ROCK AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.212	Mass 2016 DEM	0	0	0	0	2	72	14
1074	3477	ANCHORAGE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.184	Mass 2016 DEM	0	0	0	2	2	68	14
1075	365	DEER RUN LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.634	Mass 2016 DEM	0	0	0	0	2	70	14
1076	1737	LIBRARY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	10.821	Mass 2016 DEM	0	0	0	0	2	69	14
1077	1973	KATHARINE LEE BATES ROAD	Road	PAVED, COUNTY	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	10.952	Mass 2016 DEM	0	0	0	0	2	67	13
1078	2377	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	16.423	Mass 2016 DEM	0	0	0	1	2	65	13
1079	1758	SANDCASTLE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.615	Mass 2016 DEM	0	0	0	0	2	66	13
1080	1586	EDGEWATER DR WEST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.805	Mass 2016 DEM	0	0	0	0	2	65	13
1081	2065	ALLEN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.962	Mass 2016 DEM	0	0	0	0	2	64	13
1082	21	HAMLIN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	9.32	Mass 2016 DEM	0	0	0	0	1	64	13
1083	3226	CARRIAGE SHOP RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	16.3	Mass 2016 DEM	0	0	0	0	1	63	13

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
1084	585	CURLEY BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	25.824	Mass 2016 DEM	0	1	0	2	1	57	13
1085	1652	BAYSIDE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.538	Mass 2016 DEM	0	0	0	0	2	63	13
1086	1560	EDGEWOOD DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.989	Mass 2016 DEM	0	0	0	0	2	63	13
1087	2130	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.819	Mass 2016 DEM	0	0	0	0	2	62	12
1088	3777	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	17.127	Mass 2016 DEM	0	0	0	2	1	59	12
1089	2126	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.432	Mass 2016 DEM	0	0	0	0	1	61	12
1090	1455	EDGEWATER DR EAST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.687	Mass 2016 DEM	0	0	0	0	2	61	12
1091	488	OCEAN VIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.152	Mass 2016 DEM	0	0	0	1	2	58	12
1092	4506	HADDON AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	8.648	Mass 2016 DEM	0	0	0	0	1	59	12
1093	2075	FAIRVIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.762	Mass 2016 DEM	0	0	0	0	2	59	12
1094	1942	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	13.924	Mass 2016 DEM	0	0	0	0	1	59	12
1095	2066	FAIRVIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.958	Mass 2016 DEM	0	0	0	0	2	57	11
1096	1251	OLD MEETING HOUSE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.788	Mass 2016 DEM	0	0	0	0	1	57	11
1097	1404	EDGEWATER DR EAST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.687	Mass 2016 DEM	0	0	0	0	2	56	11
1098	2120	HOLLAND ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.233	Mass 2016 DEM	0	0	0	0	2	55	11
1099	2155	SHORE ST	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	13.795	Mass 2016 DEM	0	0	0	0	1	55	11
1100	3778	ARLINGTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.434	Mass 2016 DEM	0	0	0	1	2	54	11
1101	1516	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.13	Mass 2016 DEM	0	0	0	0	1	53	11
1102	2278	VESPER AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	12.924	Mass 2016 DEM	0	0	0	0	1	53	11
1103	4093	SALT HAY RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.037	Mass 2016 DEM	0	0	0	0	2	52	10
1104	828	ACORN DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.608	Mass 2016 DEM	0	0	0	0	2	52	10
1105	1508	ANTLERS SHORE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.981	Mass 2016 DEM	0	0	0	0	2	51	10
1106	2833	CLAMBAKE PATH	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.537	Mass 2016 DEM	0	0	0	0	2	51	10
1107	528	WICKERTREE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.826	Mass 2016 DEM	0	0	0	1	2	50	10
1108	4030	FRESH POND RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	50	14.984	Mass 2016 DEM	0	0	0	0	1	51	10
1109	126	ELLSWORTH DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.09	Mass 2016 DEM	0	0	0	0	2	50	10
1110	4417	WAQUOIT LANDING RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.5	Mass 2016 DEM	0	0	0	0	2	50	10
1111	2175	MEADOW LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.4	Mass 2016 DEM	0	0	0	0	2	50	10
1112	3784	CRYSTAL SPRING AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.449	Mass 2016 DEM	0	0	0	0	1	49	10
1113	1910	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.219	Mass 2016 DEM	0	0	0	0	1	49	10
1114	464	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.122	Mass 2016 DEM	0	0	0	0	1	49	10
1115	4404	CARRIAGE SHOP RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.831	Mass 2016 DEM	0	0	0	0	1	48	10
1116	2137	LUCERNE AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.616	Mass 2016 DEM	0	0	0	0	1	47	9
1117	1923	ALCOTT RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.278	Mass 2016 DEM	0	0	0	0	1	47	9
1118	124	EDGEWATER DR WEST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.914	Mass 2016 DEM	0	0	0	0	1	47	9
1119	1259	BARROWS RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.042	Mass 2016 DEM	0	0	0	0	1	47	9
1120	1784	JONES RD	Road	PAVED, COUNTY	3	Neighborhood	2	1 - 7 days	1	<$10k	5	Very high	3	Moderate	1	None	50	16.639	Mass 2016 DEM	0	0	0	0	1	47	9
1121	501	HIGHLAND AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.008	Mass 2016 DEM	0	0	0	0	1	46	9
1122	2087	PLEASANT VIEW AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.332	Mass 2016 DEM	0	0	0	0	1	46	9
1123	4101	MUSKEGAT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.917	Mass 2016 DEM	0	0	0	0	1	45	9
1124	2035	QUEEN ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	13.135	Mass 2016 DEM	0	0	0	0	1	45	9
1125	2125	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.63	Mass 2016 DEM	0	0	0	0	1	45	9
1126	780	DALE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.306	Mass 2016 DEM	0	1	0	2	1	40	9
1127	2291	SYLVAN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	12.956	Mass 2016 DEM	0	0	0	0	1	45	9
1128	1754	EEL RIVER RD WEST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.177	Mass 2016 DEM	0	0	0	0	1	43	9
1129	540	ARLINGTON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.439	Mass 2016 DEM	0	0	0	0	1	42	9
1130	4459	OLD BARNSTABLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.285	Mass 2016 DEM	0	0	0	0	1	42	8
1131	3705	ENNSBROOK DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	14.714	Mass 2016 DEM	0	0	0	0	1	42	8
1132	3375	PIN OAK WAY	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	13.754	Mass 2016 DEM	0	0	0	0	1	41	8
1133	3841	OYSTER POND RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	3	Moderate	1	None	47	18.838	Mass 2016 DEM	0	0	0	0	1	40	8
1134	521	HILLSIDE AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.897	Mass 2016 DEM	0	0	0	1	1	38	8
1135	3811	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.693	Mass 2016 DEM	0	0	0	0	1	40	8
1136	3276	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	21.969	Mass 2016 DEM	0	0	0	0	1	40	8
1137	1700	BACON FARM RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.137	Mass 2016 DEM	0	0	0	0	1	40	8
1138	1908	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.67	Mass 2016 DEM	0	0	0	0	1	39	8
1139	244	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	22.474	Mass 2016 DEM	0	0	0	0	1	36	8
1140	3179	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.962	Mass 2016 DEM	0	0	0	0	1	39	8

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
1141	1551	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.002	Mass 2016 DEM	0	0	0	0	1	38	8
1142	98	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.48	Mass 2016 DEM	0	0	0	0	1	38	8
1143	983	EAST FALMOUTH HWY	Road	PAVED, STATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	60	20.525	Mass 2016 DEM	0	0	0	0	1	38	8
1144	1529	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	13.335	Mass 2016 DEM	0	0	0	0	1	37	7
1145	2124	JERICHO PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.405	Mass 2016 DEM	0	0	0	0	1	36	7
1146	1580	OAK RIDGE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.746	Mass 2016 DEM	0	0	0	0	1	35	7
1147	1628	PEARL LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	12.24	Mass 2016 DEM	0	0	0	0	1	35	7
1148	1260	AIRPARK DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.99	Mass 2016 DEM	0	0	0	0	1	35	7
1149	2074	KING ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.827	Mass 2016 DEM	0	0	0	0	1	35	7
1150	1609	CONCORD DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.956	Mass 2016 DEM	0	0	0	0	1	35	7
1151	3599	EDGEWATER DR EAST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.074	Mass 2016 DEM	0	0	0	0	1	35	7
1152	332	ACAPESKET RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.25	Mass 2016 DEM	0	0	0	0	1	34	7
1153	4408	CENTRAL AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	15.601	Mass 2016 DEM	0	0	0	0	1	34	7
1154	1301	WAQUOIT HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	2	Low	1	None	53	23.319	Mass 2016 DEM	0	0	0	0	1	33	7
1155	3194	HATCH RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.118	Mass 2016 DEM	0	0	0	0	1	33	7
1156	1155	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	17.028	Mass 2016 DEM	0	0	0	0	1	33	7
1157	3311	OAK RIDGE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.083	Mass 2016 DEM	0	0	0	0	1	33	7
1158	1753	JONES RD	Road	PAVED, COUNTY	3	Neighborhood	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	57	15.727	Mass 2016 DEM	0	0	0	0	1	33	7
1159	4156	LINDEN RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.7	Mass 2016 DEM	0	0	0	0	1	32	6
1160	1437	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	13.377	Mass 2016 DEM	0	0	0	0	1	32	6
1161	3828	HANSON CIR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.185	Mass 2016 DEM	0	0	0	0	1	31	6
1162	342	NORTH BOURNES POND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.442	Mass 2016 DEM	0	0	0	0	1	31	6
1163	2023	ALLEN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.861	Mass 2016 DEM	0	0	0	0	1	31	6
1164	3374	PIN OAK WAY	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.927	Mass 2016 DEM	0	0	0	0	1	31	6
1165	4104	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.223	Mass 2016 DEM	0	0	0	0	1	31	6
1166	4490	GAYLE AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.137	Mass 2016 DEM	0	0	0	0	1	30	6
1167	4005	PEACE PIPE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	12.093	Mass 2016 DEM	0	0	0	0	1	30	6
1168	842	CLIFFWOOD LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.382	Mass 2016 DEM	0	0	0	0	1	27	6
1169	1130	CAROLYN LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.136	Mass 2016 DEM	0	0	0	0	1	29	6
1170	3840	OYSTER POND RD	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	53	23.288	Mass 2016 DEM	0	0	0	0	1	29	6
1171	2318	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	22.1	Mass 2016 DEM	0	0	0	0	1	28	6
1172	4485	WILD HARBOR RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	18.008	Mass 2016 DEM	0	0	0	0	1	28	6
1173	1975	MAIN ST	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	14.9	Mass 2016 DEM	0	0	0	0	0	28	6
1174	3845	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	22.941	Mass 2016 DEM	0	0	0	0	1	26	6
1175	1017	WEST FALMOUTH HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	63	18.353	Mass 2016 DEM	0	0	0	0	1	26	5
1176	3339	MOONAKIS RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.437	Mass 2016 DEM	0	0	0	0	1	27	5
1177	2095	MILL RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	57	14.808	Mass 2016 DEM	0	0	0	0	0	27	5
1178	192	MOONAKIS RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.545	Mass 2016 DEM	0	0	0	0	1	27	5
1179	3187	CHESTER ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	19.253	Mass 2016 DEM	0	0	0	0	1	25	5
1180	1890	ALCOTT RD	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.042	Mass 2016 DEM	0	0	0	0	1	27	5
1181	2313	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	36.5	Mass 2016 DEM	0	1	0	5	0	17	5
1182	28	TRICIA RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.906	Mass 2016 DEM	0	0	0	0	1	26	5
1183	1238	RIVERS EDGE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.159	Mass 2016 DEM	0	0	0	0	1	26	5
1184	3174	ACAPESKET RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.472	Mass 2016 DEM	0	0	0	0	1	25	5
1185	3178	ARNOLD GIFFORD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.519	Mass 2016 DEM	0	0	0	0	1	25	5
1186	3518	ABBIES LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	22.142	Mass 2016 DEM	0	0	0	0	1	23	5
1187	4087	MENEMSHA WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.788	Mass 2016 DEM	0	0	0	0	1	24	5
1188	347	LAKE LEAMAN RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.067	Mass 2016 DEM	0	0	0	0	1	24	5
1189	3719	HANDY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.298	Mass 2016 DEM	0	0	0	0	1	24	5
1190	14	HARRIS HILL RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.931	Mass 2016 DEM	0	0	0	0	1	23	5
1191	706	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	20.361	Mass 2016 DEM	0	1	0	1	0	20	5
1192	4398	CAPTAINS LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.663	Mass 2016 DEM	0	0	0	0	1	23	5
1193	859	CHASE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.859	Mass 2016 DEM	0	0	0	0	1	23	5
1194	2123	JOHNSON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	13.931	Mass 2016 DEM	0	0	0	0	1	22	4
1195	443	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.573	Mass 2016 DEM	0	0	0	0	0	22	4
1196	4396	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.714	Mass 2016 DEM	0	0	0	0	0	21	4
1197	3961	NAUSHON CIR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.921	Mass 2016 DEM	0	0	0	0	1	21	4

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
1198	2096	MILL RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	14.722	Mass 2016 DEM	0	0	0	0	0	21	4
1199	966	ASHLEY DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.122	Mass 2016 DEM	0	0	0	0	1	21	4
1200	555	BEATRICE ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.648	Mass 2016 DEM	0	0	0	0	1	20	4
1201	4081	MUSKEGAT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.695	Mass 2016 DEM	0	0	0	0	1	20	4
1202	1795	JENKINS ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.497	Mass 2016 DEM	0	0	0	0	1	20	4
1203	1843	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.728	Mass 2016 DEM	0	0	0	0	0	20	4
1204	4134	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	14.439	Mass 2016 DEM	0	0	0	0	0	20	4
1205	2391	GRAND AVE	Road	PAVED, TOWN	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	34.146	Mass 2016 DEM	0	0	0	3	0	14	4
1206	1134	ATWATER DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.068	Mass 2016 DEM	0	0	0	0	1	19	4
1207	3848	ABBIES LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	21.736	Mass 2016 DEM	0	0	0	0	1	19	4
1208	1763	JONES RD	Road	PAVED, COUNTY	3	Neighborhood	2	1 - 7 days	1	<$10k	5	Very high	5	Very high	1	None	57	15.867	Mass 2016 DEM	0	0	0	0	0	19	4
1209	4484	WATERSIDE DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.895	Mass 2016 DEM	0	0	0	0	1	19	4
1210	1186	DODSON WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	25.519	Mass 2016 DEM	0	0	0	1	1	17	4
1211	1425	EDGEWATER DR EAST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.465	Mass 2016 DEM	0	0	0	0	1	18	4
1212	1477	EDGEWATER DR EAST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.963	Mass 2016 DEM	0	0	0	0	1	18	4
1213	1882	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.769	Mass 2016 DEM	0	0	0	0	0	18	4
1214	3608	TEATICKET PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.592	Mass 2016 DEM	0	0	0	0	1	18	4
1215	1478	COLUMBUS DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.963	Mass 2016 DEM	0	0	0	0	1	17	3
1216	1623	RIVERS END RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.435	Mass 2016 DEM	0	0	0	0	1	17	3
1217	1523	SACHEM DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.083	Mass 2016 DEM	0	0	0	0	1	17	3
1218	1505	AVALON DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.565	Mass 2016 DEM	0	0	0	0	1	17	3
1219	445	GUNNING POINT AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.02	Mass 2016 DEM	0	0	0	0	1	17	3
1220	2056	COUNTING HOUSE WAY	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.534	Mass 2016 DEM	0	0	0	0	0	16	3
1221	3820	FOX LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.184	Mass 2016 DEM	0	0	0	0	0	16	3
1222	4054	NATAL AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	16.884	Mass 2016 DEM	0	0	0	0	0	16	3
1223	2314	MELROSE AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	32.688	Mass 2016 DEM	0	0	0	3	0	9	3
1224	1812	SEASHELL LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.518	Mass 2016 DEM	0	0	0	0	0	15	3
1225	1864	ALCOTT RD	Road	PAVED, PRIVATE	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.828	Mass 2016 DEM	0	0	0	0	0	15	3
1226	2588		Road	PAVED,	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.807	Mass 2016 DEM	0	0	0	0	0	15	3
1227	128	TEATICKET HWY	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	17.435	Mass 2016 DEM	0	0	0	0	0	14	3
1228	544	SILVER BEACH AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.404	Mass 2016 DEM	0	0	0	0	0	14	3
1229	4085	OLD MENAUHANT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	14.503	Mass 2016 DEM	0	0	0	0	0	14	3
1230	2298	WALDEN AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	20.768	Mass 2016 DEM	0	0	0	0	0	13	3
1231	1860	DAVISVILLE RD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.354	Mass 2016 DEM	0	0	0	0	0	13	3
1232	1593	SHORECREST DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.025	Mass 2016 DEM	0	0	0	0	0	13	3
1233	113	SHOREWOOD DR	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.469	Mass 2016 DEM	0	0	0	0	0	12	2
1234	2146	SIDERS POND RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.635	Mass 2016 DEM	0	0	0	0	0	12	2
1235	4102	TASHMOO DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.783	Mass 2016 DEM	0	0	0	0	0	12	2
1236	4129	BAYSIDE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.529	Mass 2016 DEM	0	0	0	0	0	12	2
1237	1461	ROSEMARY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	21.072	Mass 2016 DEM	0	0	0	0	0	11	2
1238	3332	LUCIANO BOTELHO WAY	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	19.127	Mass 2016 DEM	0	0	0	0	0	11	2
1239	1239	JOSHUA LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	14.867	Mass 2016 DEM	0	0	0	0	0	11	2
1240	339	MARSH VIEW RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.246	Mass 2016 DEM	0	0	0	0	0	11	2
1241	85	SEASPRAY DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.936	Mass 2016 DEM	0	0	0	0	0	10	2
1242	1258	RIVERS EDGE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.214	Mass 2016 DEM	0	0	0	0	0	10	2
1243	3610	CROYDEN DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.093	Mass 2016 DEM	0	0	0	0	0	10	2
1244	3789	ARTHUR ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.626	Mass 2016 DEM	0	0	0	1	0	9	2
1245	4071	HAMBLIN POINT RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.195	Mass 2016 DEM	0	0	0	0	0	10	2
1246	2695	FAMILY LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.657	Mass 2016 DEM	0	0	0	0	0	10	2
1247	3546	QUAKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	17.357	Mass 2016 DEM	0	0	0	0	0	9	2
1248	1522	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.425	Mass 2016 DEM	0	0	0	0	0	9	2
1249	3973	NASHAWENA ST	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	17.264	Mass 2016 DEM	0	0	0	0	0	8	2
1250	2389	GREAT HILL AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	34.02	Mass 2016 DEM	0	0	0	0	0	8	2
1251	123	MATTAPAN ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	20.249	Mass 2016 DEM	0	0	0	0	0	8	2
1252	1229	BARROWS RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	18.923	Mass 2016 DEM	0	0	0	0	0	8	2
1253	1972	WORCESTER CT	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	15.97	Mass 2016 DEM	0	0	0	0	0	8	2
1254	3689	ASSOCIATES RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	20.502	Mass 2016 DEM	0	0	0	0	0	7	1

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
1255	132	GAGE DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.344	Mass 2016 DEM	0	0	0	0	0	7	1
1256	1954	RAYMOND ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	15.639	Mass 2016 DEM	0	0	0	0	0	7	1
1257	3372	PHILADELPHIA ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.78	Mass 2016 DEM	0	0	0	0	0	7	1
1258	1074	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	20.217	Mass 2016 DEM	0	0	0	0	0	7	1
1259	3588	JOHN PARKER RD	Road	PAVED, COUNTY	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	20.174	Mass 2016 DEM	0	0	0	0	0	6	1
1260	2711	OLIVER ST	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	23.38	Mass 2016 DEM	0	0	0	0	0	6	1
1261	1953	LAKE LEAMAN RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.271	Mass 2016 DEM	0	0	0	0	0	6	1
1262	2595	BAPTISTE LN	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.506	Mass 2016 DEM	0	0	0	0	0	6	1
1263	3899	HUDSON ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	14.7	Mass 2016 DEM	0	0	0	0	0	6	1
1264	1978	LAKE LEAMAN RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.016	Mass 2016 DEM	0	0	0	0	0	6	1
1265	4175	CURTIS ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	14.697	Mass 2016 DEM	0	0	0	0	0	6	1
1266	1490	ROSEMARY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	21.578	Mass 2016 DEM	0	0	0	0	0	6	1
1267	3898	LAKE LEAMAN RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.121	Mass 2016 DEM	0	0	0	0	0	6	1
1268	4155	LAKE LEAMAN RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.813	Mass 2016 DEM	0	0	0	0	0	6	1
1269	3186	CHESTER ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	20.092	Mass 2016 DEM	0	0	0	0	0	5	1
1270	90	SEASPRAY DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.396	Mass 2016 DEM	0	0	0	0	0	5	1
1271	1971	LAKE LEAMAN RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.026	Mass 2016 DEM	0	0	0	0	0	5	1
1272	1690	GUNNING POINT AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.7	Mass 2016 DEM	0	0	0	0	0	5	1
1273	3661	HICKORY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	18.796	Mass 2016 DEM	0	0	0	0	0	5	1
1274	358	GREAT BAY ST	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.097	Mass 2016 DEM	0	0	0	0	0	5	1
1275	1962	LUCERNE AVE	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.119	Mass 2016 DEM	0	0	0	0	0	5	1
1276	1537	SUNCREST DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.291	Mass 2016 DEM	0	0	0	0	0	5	1
1277	1697	SEACOAST SHORES BLVD	Road	PAVED, TOWN	4	Multiple Neighborhoods	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	47	16.987	Mass 2016 DEM	0	0	0	0	0	5	1
1278	1493	OLD MENAUHANT RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	21.795	Mass 2016 DEM	0	0	0	0	0	5	1
1279	2015	TAYLOR CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	16.218	Mass 2016 DEM	0	0	0	0	0	5	1
1280	1382	WINCHESTER DR	Road	UNPAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	23.816	Mass 2016 DEM	0	0	0	0	0	4	1
1281	10	LUKE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	17.765	Mass 2016 DEM	0	0	0	0	0	4	1
1282	1631	TEATICKET PATH	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.72	Mass 2016 DEM	0	0	0	0	0	4	1
1283	3402	WIGWAM RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	10.096	Mass 2016 DEM	0	0	0	0	0	4	1
1284	2093	WOODS HOLE RD	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	4	High	1	None	57	18.303	Mass 2016 DEM	0	0	0	0	0	4	1
1285	2038	PELICAN LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	13.909	Mass 2016 DEM	0	0	0	0	0	4	1
1286	2100	CAHOON CT	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	5	Very high	1	None	43	14.905	Mass 2016 DEM	0	0	0	0	0	4	1
1287	498	HIGHLAND AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	19.973	Mass 2016 DEM	0	0	0	0	0	4	1
1288	3629	LOCUST ST	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	17.351	Mass 2016 DEM	0	0	0	0	0	4	1
1289	3522	COUNTY RD	Road	PAVED, COUNTY	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	50	27.938	Mass 2016 DEM	0	0	0	0	0	3	1
1290	857	CHASE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.44	Mass 2016 DEM	0	0	0	0	0	3	1
1291	566	REDBUD LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	15.975	Mass 2016 DEM	0	0	0	0	0	3	1
1292	3330	VACATION LN	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	20.371	Mass 2016 DEM	0	0	0	0	0	3	1
1293	3329	WOODS HOLE RD	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	18.002	Mass 2016 DEM	0	0	0	0	0	3	1
1294	179	RIVERS EDGE RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	22.523	Mass 2016 DEM	0	0	0	0	0	3	1
1295	505	NORMA RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.729	Mass 2016 DEM	0	0	0	0	0	2	0
1296	383	WESTWOOD RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.354	Mass 2016 DEM	0	0	0	0	0	2	0
1297	288	RYDER RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	24.754	Mass 2016 DEM	0	0	0	0	0	2	0
1298	1201	BLAIR LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.834	Mass 2016 DEM	0	0	0	0	0	2	0
1299	4399	CAPTAINS LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	22.476	Mass 2016 DEM	0	0	0	0	0	2	0
1300	8	MELYSSA ANNE RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	20.478	Mass 2016 DEM	0	0	0	0	0	2	0
1301	1742	LOCUST ST	Road	PAVED, STATE	5	Whole Town	2	1 - 7 days	1	<$10k	4	High	5	Very high	1	None	60	16.545	Mass 2016 DEM	0	0	0	0	0	2	0
1302	1675	KIMBERLY LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.532	Mass 2016 DEM	0	0	0	0	0	2	0
1303	977	MEADOWOOD LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	4	High	1	None	40	29.913	Mass 2016 DEM	0	0	0	0	0	1	0
1304	1357	EDGEWATER DR EAST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.875	Mass 2016 DEM	0	0	0	0	0	1	0
1305	1120	ATWATER DR	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	21.168	Mass 2016 DEM	0	0	0	0	0	1	0
1306	4024	HARVEST DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	19.013	Mass 2016 DEM	0	0	0	0	0	1	0
1307	1269	OLD BARNSTABLE RD	Road	PAVED, COUNTY	3	Neighborhood	2	1 - 7 days	1	<$10k	4	High	2	Low	1	None	43	18.859	Mass 2016 DEM	0	0	0	0	0	1	0
1308	115	WINTHROP DR	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.691	Mass 2016 DEM	0	0	0	0	0	1	0
1309	1129	BRIAN LN	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	18.511	Mass 2016 DEM	0	0	0	0	0	1	0
1310	2652	FRESH POND FARM RD	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	20.859	Mass 2016 DEM	0	0	0	0	0	1	0
1311	4173	QUEEN ST	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	15.94	Mass 2016 DEM	0	0	0	0	0	0	0

Table B-1b. Consequence Scores, probability of inundation, and total risk scores for all roads.

Road Rank	Id	Name	Asset Type	Asset Detail		Area of Service Loss		Duration of Service Loss		Cost of Damage		Impact on Public Safety & Emergency Services		Impact on Important Economic Activities		Impact on Public Health & Environment	Total Consequence Score	Critical Elevation (ft, NAVD88)	Critical Elevation Source	Present Prob (%)	Present Risk Score	2030 Prob (%)	2030 Risk Score	2070 Prob (%)	2070 Risk Score	Weighted Composite Risk Score
1312	1981	YOUNG RD	Road	PAVED, TOWN	2	Locality	2	1 - 7 days	1	<$10k	2	Low	3	Moderate	1	None	37	14.704	Mass 2016 DEM	0	0	0	0	0	0	0
1313	121	TERRY LOU AVE	Road	PAVED, PRIVATE	2	Locality	2	1 - 7 days	1	<$10k	2	Low	2	Low	1	None	33	16.999	Mass 2016 DEM	0	0	0	0	0	0	0

Table B-2. Exceedance of critical elevations in water-based assets.

ID#	Name	Asset Type	Total Consequence Score	Critical Elevation (ft, NAVD88)	Present Day MHW (NAVD88, ft)	2030 MHW (NAVD88, ft)	2050 MHW (NAVD88, ft)	2070 MHW (NAVD88, ft)
219	Megansett Seawall (east)	Coastal Infrastructure	23	3.62	2.0	3.4	4.7	6.5
220	Megansett Seawall (west)	Coastal Infrastructure	23	5.63	2.0	3.4	4.7	6.5
221	Megansett Main Jetty	Coastal Infrastructure	33	2.35	2.0	3.4	4.7	6.5
222	Megansett Groin	Coastal Infrastructure	20	2.27	2.0	3.4	4.7	6.5
223	West Ave Revetment	Coastal Infrastructure	27	2.21	2.0	3.4	4.7	6.5
224	Moses Road Revetment	Coastal Infrastructure	27	4.53	2.0	3.4	4.7	6.5
225	Moses Road Jetty	Coastal Infrastructure	27	3.19	2.0	3.4	4.7	6.5
226	Old Silver Beach Jetty (north)	Coastal Infrastructure	27	3.54	2.0	3.4	4.7	6.5
227	Old Silver Beach Revetment (north)	Coastal Infrastructure	37	12.12	2.0	3.4	4.7	6.5
228	Old Silver Beach Revetment (south)	Coastal Infrastructure	37	8.22	2.0	3.4	4.7	6.5
229	Old Silver Beach (South) Groin	Coastal Infrastructure	20	4.44	2.0	3.4	4.7	6.5
230	Old Dock Road Pier Seawall	Coastal Infrastructure	27	4.12	2.0	3.4	4.7	6.5
231	Chapaquoit Revetment (2)	Coastal Infrastructure	40	10.33	2.0	3.4	4.7	6.5
232	Chapaquoit Revetment (1)	Coastal Infrastructure	27	9.17	2.0	3.4	4.7	6.5
233	Chapaquoit Revetment (3)	Coastal Infrastructure	37	10.62	2.0	3.4	4.7	6.5
234	Sippewissett Revetment	Coastal Infrastructure	20	2.17	2.0	3.4	4.7	6.5
235	Woods Hole Boat Ramp Revetment	Coastal Infrastructure	37	8.55	0.8	2.2	3.5	5.3
236	Woods Hole Water Street Seawall	Coastal Infrastructure	33	7.05	0.8	2.2	3.5	5.3
237	Trunk River Revetment (west)	Coastal Infrastructure	27	8.13	0.8	2.2	3.5	5.3
238	Trunk River Revetment (east)	Coastal Infrastructure	27	8.51	0.8	2.2	3.5	5.3
239	Trunk River Jetty (west)	Coastal Infrastructure	43	6.11	0.8	2.2	3.5	5.3
240	Trunk River Jetty (east)	Coastal Infrastructure	43	5.96	0.8	2.2	3.5	5.3
241	Surf Drive Revetment (1)	Coastal Infrastructure	33	7.92	0.8	2.2	3.5	5.3
242	Surf Drive Revetment (2)	Coastal Infrastructure	33	7.99	0.8	2.2	3.5	5.3
243	Surf Drive Groin (1)	Coastal Infrastructure	20	5.01	0.8	2.2	3.5	5.3
244	Surf Drive Groin (2)	Coastal Infrastructure	20	5.35	0.8	2.2	3.5	5.3
245	Surf Drive Groin (3)	Coastal Infrastructure	20	4.90	0.8	2.2	3.5	5.3
246	Surf Drive Groin (4)	Coastal Infrastructure	20	5.21	0.8	2.2	3.5	5.3
247	Surf Drive Revetment (3)	Coastal Infrastructure	30	6.00	0.8	2.2	3.5	5.3
248	Surf Drive Groin (5)	Coastal Infrastructure	20	4.46	0.8	2.2	3.5	5.3
249	Surf Drive Groin (6)	Coastal Infrastructure	20	4.63	0.8	2.2	3.5	5.3
250	Surf Drive Salt Pond Jetty (west)	Coastal Infrastructure	33	5.04	0.8	2.2	3.5	5.3
251	Surf Drive Salt Pond Jetty (east)	Coastal Infrastructure	33	6.02	0.8	2.2	3.5	5.3
252	Surf Drive Groin (7)	Coastal Infrastructure	20	3.43	0.8	2.2	3.5	5.3
253	Surf Drive Siders Pond Jetties	Coastal Infrastructure	33	4.84	0.8	2.2	3.5	5.3
254	Surf Drive Main Beach Groin (west)	Coastal Infrastructure	27	2.28	0.8	2.2	3.5	5.3
255	Surf Drive Main Beach Groin (east)	Coastal Infrastructure	27	2.53	0.8	2.2	3.5	5.3
256	Falmouth Harbor Clinton Ave Seawall	Coastal Infrastructure	23	3.25	0.8	2.2	3.5	5.3
257	Falmouth Harbor Jetty (east)	Coastal Infrastructure	43	5.11	0.8	2.2	3.5	5.3
258	Falmouth Harbor Jetty (west)	Coastal Infrastructure	43	4.69	0.8	2.2	3.5	5.3
259	Grand Ave Revetment (1)	Coastal Infrastructure	33	9.05	0.8	2.2	3.5	5.3
260	Grand Ave Revetment (2)	Coastal Infrastructure	33	12.34	0.8	2.2	3.5	5.3
261	Grand Ave Groin (1)	Coastal Infrastructure	20	7.03	0.8	2.2	3.5	5.3
262	Grand Ave Revetment (3)	Coastal Infrastructure	33	24.33	0.8	2.2	3.5	5.3
263	Grand Ave Revetment (4)	Coastal Infrastructure	33	22.31	0.8	2.2	3.5	5.3
264	Grand Ave Groin (2)	Coastal Infrastructure	20	3.44	0.8	2.2	3.5	5.3
265	Grand Ave Groin (3)	Coastal Infrastructure	20	2.26	0.8	2.2	3.5	5.3
266	Grand Ave Groin (4)	Coastal Infrastructure	20	2.25	0.8	2.2	3.5	5.3
267	Grand Ave Groin (5)	Coastal Infrastructure	20	2.84	0.8	2.2	3.5	5.3
268	Grand Ave Groin (6)	Coastal Infrastructure	20	0.38	0.8	2.2	3.5	5.3
269	Bristol Beach Groin (1)	Coastal Infrastructure	20	5.55	0.8	2.2	3.5	5.3
270	Bristol Beach Jetties	Coastal Infrastructure	40	4.98	0.8	2.2	3.5	5.3
271	Bristol Beach Groin (2)	Coastal Infrastructure	20	4.52	0.8	2.2	3.5	5.3
272	Little Pond Inner Revetment (east)	Coastal Infrastructure	40	1.90	0.8	2.2	3.5	5.3
273	Little Pond Inner Revetment (west)	Coastal Infrastructure	40	4.30	0.8	2.2	3.5	5.3
274	Bristol Beach East Stone Revetment	Coastal Infrastructure	27	6.20	0.8	2.2	3.5	5.3
275	Bristol Beach Groin (3)	Coastal Infrastructure	20	2.52	0.8	2.2	3.5	5.3
276	Great Bay Street Seawall	Coastal Infrastructure	27	9.96	0.8	2.2	3.5	5.3
277	Green Pond Menauhant Rd Revetment SW	Coastal Infrastructure	33	8.08	0.8	2.2	3.5	5.3
278	Green Pond Menauhant Rd Revetment NW	Coastal Infrastructure	33	4.31	0.8	2.2	3.5	5.3
279	Green Pond Menauhant Rd Revetment NE	Coastal Infrastructure	33	2.83	0.8	2.2	3.5	5.3
280	Green Pond Menauhant Rd Revetment SE	Coastal Infrastructure	33	6.40	0.8	2.2	3.5	5.3
281	Green Pond Jetty (west)	Coastal Infrastructure	43	4.12	0.8	2.2	3.5	5.3
282	Green Pond Jetty (east)	Coastal Infrastructure	43	4.06	0.8	2.2	3.5	5.3
283	Great Pond Jetty (west)	Coastal Infrastructure	43	9.81	0.8	2.2	3.5	5.3
284	Great Pond Jetty (east)	Coastal Infrastructure	43	3.88	0.8	2.2	3.5	5.3
285	Menauhant Rd Revetment	Coastal Infrastructure	33	12.10	0.8	2.2	3.5	5.3
286	Menauhant Rd Groin (1)	Coastal Infrastructure	20	1.07	0.8	2.2	3.5	5.3
287	Menauhant Rd Groin (2)	Coastal Infrastructure	20	4.67	0.8	2.2	3.5	5.3
288	Menauhant Beach West Revetment	Coastal Infrastructure	23	2.41	0.8	2.2	3.5	5.3

Table B-2. Exceedance of critical elevations in water-based assets.

ID#	Name	Asset Type	Total Consequence Score	Critical Elevation (ft, NAVD88)	Present Day MHW (NAVD88, ft)	2030 MHW (NAVD88, ft)	2050 MHW (NAVD88, ft)	2070 MHW (NAVD88, ft)
289	Menauhant Beach Groin (1)	Coastal Infrastructure	20	0.85	0.8	2.2	3.5	5.3
290	Bournes Pond Revetment (west)	Coastal Infrastructure	20	0.98	0.8	2.2	3.5	5.3
291	Bournes Pond Groin (west)	Coastal Infrastructure	20	0.06	0.8	2.2	3.5	5.3
292	Bournes Pond Jetty (west)	Coastal Infrastructure	43	6.22	0.8	2.2	3.5	5.3
293	Bournes Pond Jetty (east)	Coastal Infrastructure	43	4.92	0.8	2.2	3.5	5.3
294	Menauhant Beach East Revetment (1)	Coastal Infrastructure	23	6.06	0.8	2.2	3.5	5.3
295	Menauhant Beach East Revetment (2)	Coastal Infrastructure	23	4.95	0.8	2.2	3.5	5.3
296	Menauhant Beach East Revetment (3)	Coastal Infrastructure	23	6.39	0.8	2.2	3.5	5.3
297	Menauhant Beach Groin (2)	Coastal Infrastructure	20	2.78	0.8	2.2	3.5	5.3
298	Menauhant Beach Groin (3)	Coastal Infrastructure	20	3.37	0.8	2.2	3.5	5.3
299	Bournes Pond Revetment (east)	Coastal Infrastructure	20	1.76	0.8	2.2	3.5	5.3
300	Washburn Road Revetment	Coastal Infrastructure	27	5.61	0.8	2.2	3.5	5.3
301	Washburn Road Groin (1)	Coastal Infrastructure	20	2.43	0.8	2.2	3.5	5.3
302	Washburn Road Groin (2)	Coastal Infrastructure	20	2.02	0.8	2.2	3.5	5.3
303	Eel Pond Entrance Jetty	Coastal Infrastructure	40	2.65	0.8	2.2	3.5	5.3
304	Washburn Road Groin (3)	Coastal Infrastructure	20	2.70	0.8	2.2	3.5	5.3
305	Old Washburn Island Groin (1)	Coastal Infrastructure	20	0.00	0.8	2.2	3.5	5.3
306	Old Washburn Island Groin (2)	Coastal Infrastructure	20	0.00	0.8	2.2	3.5	5.3
307	Old Washburn Island Groin (3)	Coastal Infrastructure	20	0.00	0.8	2.2	3.5	5.3
308	Waquoit Bay Entrance Jetty (west)	Coastal Infrastructure	43	5.72	0.8	2.2	3.5	5.3
309	Waquoit Bay Entrance Jetty (east)	Coastal Infrastructure	43	4.04	0.8	2.2	3.5	5.3
310	Megansett Ramp	Boat Ramp	43	5.90	0.8	2.2	3.5	5.3
311	Old Dock Road Ramp	Boat Ramp	43	3.00	0.8	2.2	3.5	5.3
312	Woods Hole Ramp	Boat Ramp	43	5.58	0.8	2.2	3.5	5.3
313	Town Marina Ramp	Boat Ramp	43	9.67	0.8	2.2	3.5	5.3
314	Great Pond Harrington St Ramp	Boat Ramp	43	1.81	0.8	2.2	3.5	5.3
315	Green Pond Ramp	Boat Ramp	43	4.07	0.8	2.2	3.5	5.3
316	Whites Landing Ramp	Boat Ramp	43	2.24	0.8	2.2	3.5	5.3
317	Seapit Ramp	Boat Ramp	43	5.07	0.8	2.2	3.5	5.3

APPENDIX C. ASSET SUMMARY SHEETS

Woods Hole Drawbridge Hut

Critical Elevation: 4.8 ft NAVD88

Threshold Description:

Rear bulkhead; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	11.5	6.8	12.2	7.4	17.1	12.3
0.2	10.7	5.9	11.4	6.6	16.2	11.4
0.5	10.0	5.3	10.8	6.0	15.4	10.6
1	9.1	4.3	9.9	5.1	14.3	9.6
2	8.4	3.6	9.2	4.5	13.5	8.7
5	7.7	2.9	8.6	3.8	12.7	7.9
10	6.7	1.9	7.6	2.9	11.6	6.8
20	5.8	1.1	6.9	2.1	10.7	5.9
25	5.0	0.2	6.1	1.3	9.7	5.0
30	4.7	dry	5.8	1.0	9.4	4.6
50	4.5	dry	5.6	0.8	9.1	4.3
100	3.6	dry	4.8	dry	8.1	3.3

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	3	3	3	3	4	1	57

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	25	57	1417	0.5	2692	78; 45 (w/o roads)
2030	50	57	2833	0.3		
2070	100	57	5667	0.2		

Woods Hole Sewer Lift Station Wet Well

Critical Elevation: 8.3 ft NAVD88

Threshold Description:

Top of tank; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	11.5	3.1	11.9	3.6	17.0	8.7
0.2	10.7	2.3	11.2	2.9	16.1	7.7
0.5	10.0	1.6	10.6	2.3	15.3	7.0
1	9.0	0.7	9.7	1.4	14.3	5.9
2	8.3	dry	9.1	0.8	13.4	5.1
5	7.6	dry	8.4	0.1	12.6	4.3
10	6.6	dry	7.5	dry	11.5	3.2
20	5.8	dry	6.8	dry	10.6	2.3
25	5.0	dry	6.1	dry	9.7	1.4
30	4.7	dry	5.8	dry	9.4	1.0
50	4.5	dry	5.6	dry	9.1	0.7
100	3.6	dry	4.8	dry	8.1	dry

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	3	2	2	1	2	4	47

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	1	47	47	0.5	560	126; 89 (w/o roads)
2030	5	47	233	0.3		
2070	50	47	2333	0.2		

Inner Harbor Sewer Lift Station

Critical Elevation: 9.8 ft NAVD88

Threshold Description:

Top of raised tank; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.8	1.0	12.1	2.3	18.4	8.5
0.2	10.1	0.2	11.4	1.56	17.3	7.5
0.5	9.5	dry	10.8	0.95	16.5	6.6
1	8.6	dry	9.9	0.11	15.3	5.5
2	8.0	dry	9.3	dry	14.4	4.6
5	7.3	dry	8.6	dry	13.5	3.64
10	6.4	dry	7.8	dry	12.2	2.4
20	5.8	dry	7.1	dry	11.3	1.4
25	5.0	dry	6.3	dry	10.2	0.4
30	4.7	dry	6.0	dry	9.8	0.01
50	4.5	dry	5.8	dry	9.5	dry
100	3.7	dry	5.0	dry	8.4	dry

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	4	2	3	1	3	4	57

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	0.2	57	11	0.5	363	214; 95 (w/o roads)
2030	1	57	57	0.3		
2070	30	57	1700	0.2		

Park Road Sewer Lift Station

Critical Elevation: 4.6 ft NAVD88

Threshold Description:

Top of raised tank; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	14.1	9.5	15.4	10.7	20.4	15.8
0.2	13.1	8.5	14.4	9.8	19.2	14.6
0.5	12.4	7.7	13.6	9.0	18.3	13.7
1	11.3	6.7	12.5	7.9	16.9	12.3
2	10.5	5.8	11.7	7.0	15.9	11.3
5	9.6	5.0	10.8	6.2	14.9	10.2
10	8.5	3.9	9.7	5.0	13.5	8.8
20	7.6	3.0	8.8	4.1	12.4	7.7
25	6.6	2.0	7.8	3.2	11.2	6.5
30	6.3	1.7	7.4	2.8	10.7	6.1
50	6.0	1.4	7.1	2.5	10.4	5.7
100	4.9	0.3	6.1	1.4	9.1	4.5

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	2	2	2	1	1	3	37

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	100	37	3667	0.5	3667	32; 13 (w/o roads)
2030	100	37	3667	0.3		
2070	100	37	3667	0.2		

Town Hall – Main Building

Critical Elevation: 6.65 ft NAVD88

Threshold Description:

Rear door threshold at the top of steps; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.7	4.0	12.1	5.4	17.8	11.1
0.2	10.0	3.3	11.3	4.7	16.8	10.2
0.5	9.4	2.7	10.7	4.1	16.0	9.3
1	8.5	1.9	9.9	3.2	14.9	8.2
2	7.9	1.3	9.2	2.6	14.0	7.4
5	7.3	0.6	8.6	1.9	13.1	6.5
10	6.4	dry	7.7	1.0	12.0	5.3
20	5.7	dry	7.0	0.3	11.0	4.4
25	5.0	dry	6.2	dry	10.0	3.4
30	4.7	dry	6.0	dry	9.7	3.0
50	4.5	dry	5.7	dry	9.4	2.7
100	3.7	dry	5.0	dry	8.3	1.7

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	5	3	3	4	4	4	77

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	5	77	383	0.5	2185	105; 63 (w/o roads)
2030	20	77	1533	0.3		
2070	100	77	7667	0.2		

Menauhant Rd

Little Pond Bridge

Critical Elevation: 0.7 ft NAVD88

Threshold Description:

Low chord elevation of the culvert below the road; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.8	10.1	12.2	11.5	18.2	17.5
0.2	10.0	9.3	11.5	10.8	17.2	16.5
0.5	9.4	8.7	10.8	10.1	16.3	15.6
1	8.6	7.9	10.0	9.3	15.2	14.5
2	7.9	7.2	9.3	8.6	14.3	13.6
5	7.3	6.6	8.6	7.9	13.3	12.6
10	6.4	5.7	7.7	7.0	12.1	11.4
20	5.7	5.0	7.0	6.3	11.1	10.4
25	5.0	4.3	6.2	5.5	10.1	9.4
30	4.7	4.0	6.0	5.3	9.7	9.0
50	4.5	3.8	5.7	5.0	9.4	8.7
100	3.7	3.0	4.9	4.2	8.3	7.6

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	3	3	3	4	2	1	53

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	100	53	5333	0.5	5333	4; 1 (w/o roads)
2030	100	53	5333	0.3		
2070	100	53	5333	0.2		

Surf Drive Sewer Lift Station

Critical Elevation: 6.3 ft NAVD88

Threshold Description:

Top of east tank; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.7	4.4	12.1	5.8	17.8	11.5
0.2	10.0	3.7	11.3	5.0	16.8	10.5
0.5	9.4	3.1	10.7	4.4	16.0	9.7
1	8.5	2.3	9.9	3.6	14.9	8.6
2	7.9	1.6	9.2	3.0	14.0	7.7
5	7.3	1.0	8.6	2.3	13.1	6.8
10	6.4	0.1	7.7	1.4	12.0	5.7
20	5.7	dry	7.0	0.7	11.0	4.7
25	5.0	dry	6.3	dry	10.0	3.7
30	4.7	dry	6.0	dry	9.7	3.4
50	4.5	dry	5.8	dry	9.4	3.1
100	3.7	dry	5.0	dry	8.3	2.0

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	3	2	2	1	2	3	43

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	10	53	433	0.5	1343	128; 73 (w/o roads)
2030	20	53	867	0.3		
2070	100	53	4333	0.2		

Woods Hole Drawbridge

Critical Elevation: 4.6 ft NAVD88

Threshold Description:

Low chord elevation of the bridge; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	11.5	6.9	12.2	7.6	17.1	12.5
0.2	10.7	6.1	11.4	6.8	16.2	11.5
0.5	10.0	5.4	10.8	6.1	15.4	10.8
1	9.1	4.5	9.9	5.3	14.3	9.7
2	8.4	3.8	9.2	4.6	13.5	8.9
5	7.7	3.1	8.6	3.9	12.7	8.1
10	6.7	2.1	7.6	3.0	11.6	6.9
20	5.8	1.2	6.9	2.3	10.7	6.1
25	5.0	0.4	6.1	1.4	9.7	5.1
30	4.7	0.1	5.8	1.2	9.4	4.8
50	4.5	dry	5.6	0.9	9.1	4.5
100	3.6	dry	4.8	0.1	8.1	3.5

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	4	3	3	4	5	1	67

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	30	67	2000	0.5	4333	22; 10 (w/o roads)
2030	100	67	6667	0.3		
2070	100	67	6667	0.2		

Old Dock Road Wharf

Critical Elevation: 5.9 ft NAVD88

Threshold Description:

Lowest elevation of wharf; the critical elevation was obtained through from the Massachusetts 2016 DEM.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	14.7	8.8	16.0	10.0	21.7	15.7
0.2	13.7	7.8	15.0	9.0	20.4	14.4
0.5	12.9	6.9	14.1	8.2	19.3	13.4
1	11.8	5.8	13.0	7.0	17.9	11.9
2	10.9	5.0	12.1	6.2	16.8	10.8
5	10.0	4.1	11.2	5.3	15.6	9.7
10	8.8	2.9	10.0	4.1	14.1	8.2
20	7.9	1.9	9.1	3.1	12.9	7.0
25	6.9	0.9	8.1	2.1	11.6	5.7
30	6.5	0.6	7.7	1.8	11.2	5.2
50	6.2	0.3	7.4	1.4	10.8	4.8
100	5.1	dry	6.3	0.4	9.4	3.4

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	1	2	1	2	3	1	33

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	50	33	1667	0.5	2500	90; 54 (w/o roads)
2030	100	33	3333	0.3		
2070	100	33	3333	0.2		

Old Dock Road Upwellers

Critical Elevation: 5.3 ft NAVD88

Threshold Description:

Base of upweller tanks; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	14.7	9.4	16.0	10.6	21.7	16.3
0.2	13.7	8.4	15.0	9.6	20.4	15.0
0.5	12.9	7.5	14.1	8.8	19.3	14.0
1	11.8	6.4	13.0	7.6	17.9	12.5
2	10.9	5.6	12.1	6.8	16.8	11.4
5	10.0	4.7	11.2	5.9	15.6	10.3
10	8.8	3.5	10.0	4.7	14.1	8.8
20	7.9	2.5	9.1	3.7	12.9	7.6
25	6.9	1.5	8.1	2.7	11.6	6.3
30	6.5	1.2	7.7	2.4	11.2	5.8
50	6.2	0.9	7.4	2.0	10.8	5.4
100	5.1	dry	6.3	1.0	9.4	4.0

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	1	3	2	1	3	2	40

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	50	40	2000	0.5	3000	59; 33 (w/o roads)
2030	100	40	4000	0.3		
2070	100	40	4000	0.2		

Falmouth Inner Harbor Dock (6)

Critical Elevation: 3.6 ft NAVD88

Threshold Description:

Top of stationary platform; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.8	7.2	12.1	8.6	18.3	14.7
0.2	10.1	6.5	11.4	7.8	17.2	13.7
0.5	9.5	5.9	10.8	7.2	16.4	12.8
1	8.6	5.1	9.9	6.4	15.2	11.7
2	8.0	4.4	9.3	5.7	14.3	10.8
5	7.3	3.8	8.6	5.1	13.4	9.9
10	6.4	2.9	7.7	4.2	12.2	8.6
20	5.8	2.2	7.1	3.5	11.2	7.7
25	5.0	1.4	6.3	2.7	10.2	6.6
30	4.7	1.2	6.0	2.5	9.8	6.2
50	4.5	0.9	5.8	2.2	9.5	5.9
100	3.7	0.2	5.0	1.4	8.4	4.8

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	2	3	2	3	3	1	47

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	100	47	4667	0.5	4667	12; 3 (w/o roads)
2030	100	47	4667	0.3		
2070	100	47	4667	0.2		

Surf Drive

Critical Elevation: 3.3 ft NAVD88

Threshold Description:

Lowest point on road; the critical elevation was obtained through from the Massachusetts 2016 DEM.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.7	7.5	12.1	8.8	17.8	14.6
0.2	10.0	6.7	11.3	8.1	16.9	13.6
0.5	9.4	6.1	10.7	7.5	16.0	12.8
1	8.6	5.3	9.9	6.6	14.9	11.6
2	7.9	4.7	9.2	6.0	14.1	10.8
5	7.3	4.0	8.6	5.3	13.2	9.9
10	6.4	3.1	7.7	4.4	12.0	8.7
20	5.7	2.5	7.0	3.7	11.1	7.8
25	5.0	1.7	6.2	3.0	10.1	6.8
30	4.7	1.5	6.0	2.7	9.7	6.4
50	4.5	1.2	5.8	2.5	9.4	6.1
100	3.7	0.4	5.0	1.7	8.3	5.1

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	3	3	4	4	2	1	57

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	100	57	5700	0.5	5700	7
2030	100	57	5700	0.3		
2070	100	57	5700	0.2		

Menauhant Road

Bournes Pond Bridge

Critical Elevation: 4.2 ft NAVD88

Threshold Description:

Low chord elevation of the bridge; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.7	6.5	12.1	7.9	18.2	13.9
0.2	10.0	5.7	11.4	7.1	17.1	12.9
0.5	9.4	5.1	10.8	6.5	16.3	12.0
1	8.5	4.3	9.9	5.7	15.1	10.9
2	7.9	3.7	9.2	5.0	14.2	10.0
5	7.3	3.0	8.6	4.3	13.3	9.1
10	6.4	2.1	7.7	3.4	12.1	7.8
20	5.7	1.5	6.9	2.7	11.1	6.9
25	5.0	0.7	6.2	2.0	10.0	5.8
30	4.7	0.5	5.9	1.7	9.7	5.4
50	4.5	0.3	5.7	1.4	9.3	5.1
100	3.7	dry	5.0	0.7	8.2	4.0

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	3	3	4	4	2	1	57

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	50	57	2833	0.5	4250	24; 11 (w/o roads)
2030	100	57	5667	0.3		
2070	100	57	5667	0.2		

Green Pond Bridge

Critical Elevation: 6.5 ft NAVD88

Threshold Description:

Low chord elevation of the bridge; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.8	4.3	12.4	5.9	18.7	12.2
0.2	10.1	3.6	11.6	5.1	17.6	11.1
0.5	9.5	3.0	11.0	4.5	16.7	10.2
1	8.6	2.1	10.1	3.6	15.5	9.0
2	8.0	1.5	9.4	2.9	14.5	8.0
5	7.3	0.8	8.7	2.2	13.6	7.1
10	6.5	dry	7.8	1.3	12.3	5.8
20	5.8	dry	7.0	0.5	11.3	4.8
25	5.0	dry	6.3	dry	10.2	3.7
30	4.7	dry	6.0	dry	9.8	3.3
50	4.5	dry	5.7	dry	9.5	3.0
100	3.7	dry	5.0	dry	8.3	1.8

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	3	2	1	4	2	1	43

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	5	43	217	0.5	1235	137; 75 (w/o roads)
2030	20	43	867	0.3		
2070	100	43	4333	0.2		

Trunk River Sewer Main

Critical Elevation: 3.1 ft NAVD88

Threshold Description:

Bottom of pipe; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.9	7.8	12.2	9.1	17.8	14.7
0.2	10.2	7.0	11.4	8.3	16.8	13.7
0.5	9.5	6.4	10.8	7.7	16.0	12.9
1	8.7	5.6	9.9	6.8	14.9	11.8
2	8.0	4.9	9.3	6.2	14.0	10.9
5	7.4	4.3	8.6	5.5	13.2	10.0
10	6.5	3.4	7.7	4.6	12.0	8.8
20	5.8	2.7	7.0	3.9	11.0	7.9
25	5.0	1.9	6.2	3.1	10.0	6.9
30	4.7	1.6	6.0	2.8	9.7	6.6
50	4.5	1.4	5.7	2.6	9.4	6.2
100	3.7	0.6	4.9	1.8	8.3	5.2

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	3	2	3	1	2	4	50

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	100	50	5000	0.5	5000	8; 2 (w/o roads)
2030	100	50	5000	0.3		
2070	100	50	5000	0.2		

Water Street

Critical Elevation: 5.5 ft NAVD88

Threshold Description:

Lowest point on road; the critical elevation was obtained through from the Massachusetts 2016 DEM.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	11.4	5.9	12.0	6.5	17.0	11.5
0.2	10.6	5.1	11.2	5.7	16.1	10.6
0.5	9.9	4.4	10.6	5.1	15.3	9.8
1	9.0	3.5	9.8	4.3	14.3	8.8
2	8.3	2.8	9.1	3.6	13.4	7.9
5	7.6	2.1	8.4	2.9	12.6	7.1
10	6.6	1.1	7.5	2.0	11.5	6.0
20	5.8	0.3	6.8	1.3	10.6	5.1
25	5.0	dry	6.1	0.6	9.7	4.2
30	4.7	dry	5.8	0.3	9.4	3.9
50	4.5	dry	5.6	0.1	9.1	3.6
100	3.6	dry	4.8	dry	8.1	2.6

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	4	3	3	4	5	1	67

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	20	67	1340	0.5	3015	1*
2030	50	67	3350	0.3		
2070	100	67	6700	0.2		

**Risk scores vary in summary table due to a different point on the road being selected.*

Chapoquoit Road

Critical Elevation: 5.2 ft NAVD88

Threshold Description:

Lowest point on road; the critical elevation was obtained through from the Massachusetts 2016 DEM.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	14.7	9.1	15.9	10.3	21.5	15.9
0.2	13.7	8.1	14.9	9.3	20.3	14.7
0.5	12.9	7.3	14.1	8.5	19.2	13.6
1	11.8	6.1	13.0	7.4	17.8	12.2
2	10.9	5.3	12.1	6.5	16.7	11.1
5	10.0	4.4	11.2	5.6	15.5	9.9
10	8.8	3.2	10.0	4.4	14.0	8.4
20	7.9	2.3	9.1	3.5	12.8	7.2
25	6.9	1.3	8.1	2.5	11.6	5.9
30	6.6	0.9	7.7	2.1	11.1	5.5
50	6.3	0.6	7.4	1.8	10.7	5.1
100	5.2	0.0	6.3	0.7	9.3	3.7

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	4	3	3	4	2	1	57

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	95	57	5392	0.5	5546	2
2030	100	57	5700	0.3		
2070	100	57	5700	0.2		

Old Dock Road

Critical Elevation: 4.3 ft NAVD88

Threshold Description:

Lowest point on road; the critical elevation was obtained through from the Massachusetts 2016 DEM.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	14.7	10.4	16.0	11.7	21.6	17.4
0.2	13.7	9.4	14.9	10.7	20.4	16.1
0.5	12.9	8.6	14.1	9.9	19.3	15.0
1	11.8	7.5	13.0	8.7	17.9	13.6
2	10.9	6.6	12.1	7.8	16.8	12.5
5	10.0	5.7	11.2	6.9	15.6	11.4
10	8.8	4.5	10.0	5.7	14.1	9.8
20	7.9	3.6	9.1	4.8	12.9	8.6
25	6.9	2.6	8.1	3.8	11.6	7.3
30	6.5	2.2	7.7	3.4	11.1	6.9
50	6.2	1.9	7.4	3.1	10.8	6.5
100	5.1	0.9	6.3	2.0	9.4	5.1

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	4	3	4	4	2	1	60

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	100	60	6000	0.5	6000	14*
2030	100	60	6000	0.3		
2070	100	60	6000	0.2		

**Risk scores vary in summary table due to a different point on the road being selected.*

Taft Park Field

Critical Elevation: 2.0 ft NAVD88

Threshold Description:

Lowest point on field; the critical elevation was obtained through from the Massachusetts 2016 DEM.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	14.1	12.1	15.4	13.4	20.4	18.4
0.2	13.1	11.1	14.4	12.4	19.2	17.2
0.5	12.4	10.4	13.6	11.6	18.3	16.3
1	11.3	9.3	12.5	10.5	16.9	14.9
2	10.5	8.5	11.7	9.7	15.9	13.9
5	9.6	7.6	10.8	8.8	14.9	12.9
10	8.5	6.5	9.7	7.7	13.5	11.5
20	7.6	5.6	8.8	6.7	12.4	10.3
25	6.6	4.6	7.8	5.8	11.2	9.2
30	6.3	4.3	7.4	5.4	10.7	8.7
50	6.0	4.0	7.1	5.1	10.4	8.4
100	4.9	2.9	6.1	4.0	9.1	7.1

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	1	3	1	1	2	1	30

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	100	30	3000	0.5	3000	68; 42 (w/o roads)
2030	100	30	3000	0.3		
2070	100	30	3000	0.2		

Inner Harbor – Electrical Shed

Critical Elevation: 8.0 ft NAVD88

Threshold Description:

Door threshold; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.8	2.8	12.1	4.1	18.3	10.3
0.2	10.1	2.0	11.4	3.4	17.2	9.2
0.5	9.5	1.4	10.8	2.8	16.4	8.4
1	8.6	0.6	9.9	1.9	15.2	7.2
2	8.0	dry	9.3	1.3	14.3	6.3
5	7.3	dry	8.6	0.6	13.4	5.4
10	6.4	dry	7.7	dry	12.2	4.2
20	5.8	dry	7.1	dry	11.2	3.2
25	5.0	dry	6.3	dry	10.2	2.2
30	4.7	dry	6.0	dry	9.8	1.8
50	4.5	dry	5.8	dry	9.5	1.5
100	3.7	dry	5.0	dry	8.4	0.4

Consequence of Exceedance

	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	2	3	2	3	3	2	50

Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	1	50	50	0.5	1100	142; 77 (w/o roads)
2030	5	50	250	0.3		
2070	100	50	5000	0.2		

Mitchell Bathhouse

Critical Elevation: 5.6 ft NAVD88

Threshold Description:

Rear door threshold; the critical elevation was obtained through a field-survey conducted by the Town.

Probability of Exceedance Summary Table

% Probability	Present		2030		2070	
	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.	Flood Elevation	Depth Above Critical Elev.
0.1	10.7	5.1	12.1	6.5	17.8	12.2
0.2	10.0	4.4	11.3	5.7	16.8	11.2
0.5	9.4	3.8	10.7	5.1	16.0	10.4
1	8.5	2.9	9.9	4.3	14.9	9.3
2	7.9	2.3	9.2	3.6	14.0	8.4
5	7.3	1.7	8.6	3.0	13.1	7.5
10	6.4	0.8	7.7	2.1	12.0	6.4
20	5.7	0.1	7.0	1.4	11.0	5.4
25	5.0	dry	6.3	0.7	10.0	4.4
30	4.7	dry	6.0	0.4	9.7	4.1
50	4.5	dry	5.8	0.2	9.4	3.8
100	3.7	dry	5.0	dry	8.3	2.7

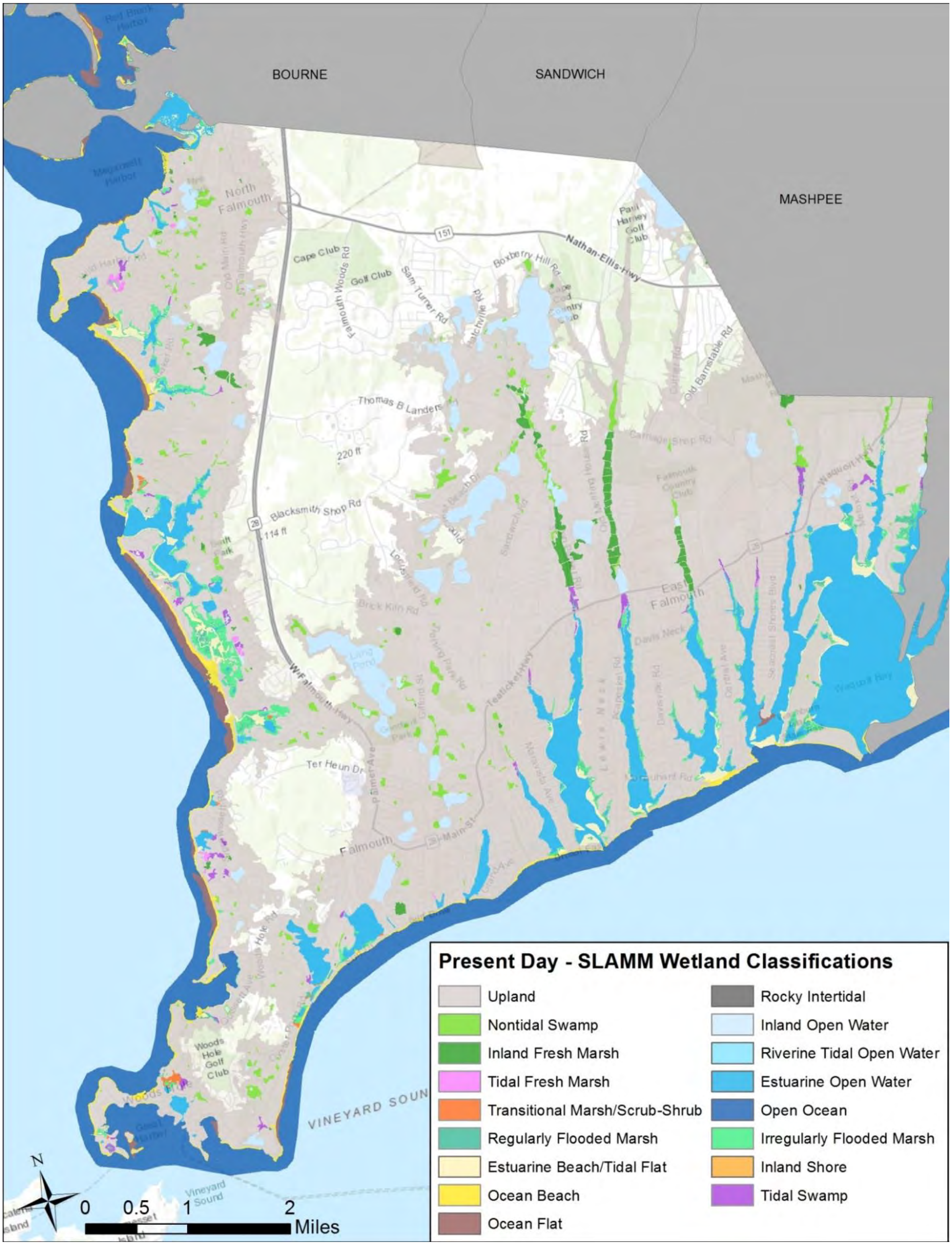
Consequence of Exceedance

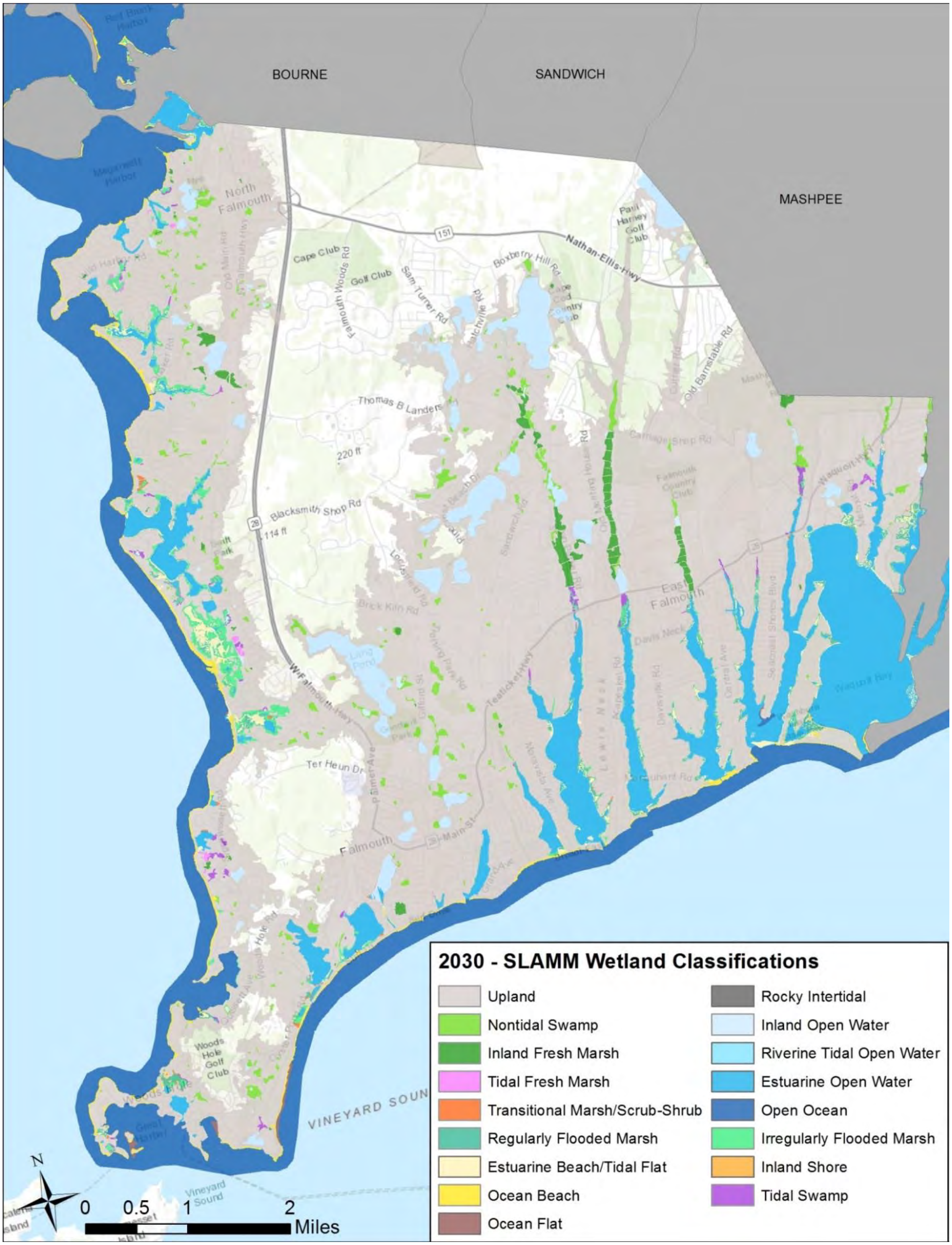
	Area of Service Loss	Duration of Service Loss	Cost of Damage	Impacts to Public Safety	Impacts to Economic Activities	Impacts to Public Health & Environ.	Consequence Score
Scores	1	3	2	1	4	2	43

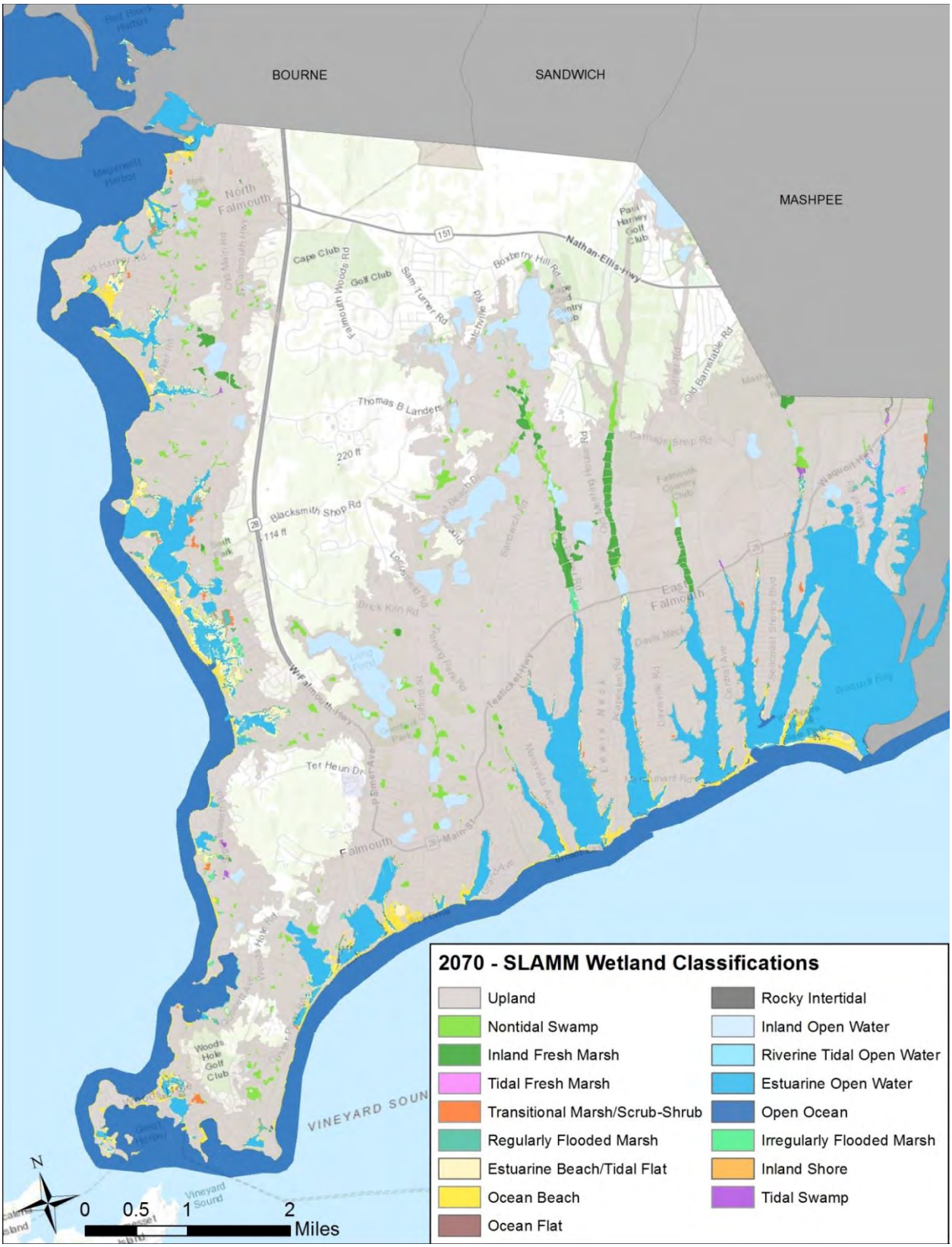
Risk of Exceedance

Time horizon	Probability of Exceedance	Consequence Score	Risk Score	Weight	Composite Risk Score	Composite Risk Rank
Present	20	43	867	0.5	1950	112; 66 (w/o roads)
2030	50	43	2167	0.3		
2070	100	43	4333	0.2		

APPENDIX D. AREA-SPECIFIC NATURAL RESOURCES CHANGES


BOURNE
SANDWICH
MASHPEE
North Falmouth
East Falmouth
Falmouth
VINEYARD SOUND
Present Day - SLAMM Wetland Classifications
Upland
Nontidal Swamp
Inland Fresh Marsh
Tidal Fresh Marsh
Transitional Marsh/Scrub-Shrub
Regularly Flooded Marsh
Estuarine Beach/Tidal Flat
Ocean Beach
Ocean Flat
Rocky Intertidal
Inland Open Water
Riverine Tidal Open Water
Estuarine Open Water
Open Ocean
Irregularly Flooded Marsh
Inland Shore
Tidal Swamp
N
0 0.5 1 2
Miles


BOURNE
SANDWICH
MASHPEE
North Falmouth
East Falmouth
Falmouth
VINEYARD SOUND
2030 - SLAMM Wetland Classifications
Upland
Nontidal Swamp
Inland Fresh Marsh
Tidal Fresh Marsh
Transitional Marsh/Scrub-Shrub
Regularly Flooded Marsh
Estuarine Beach/Tidal Flat
Ocean Beach
Ocean Flat
Rocky Intertidal
Inland Open Water
Riverine Tidal Open Water
Estuarine Open Water
Open Ocean
Irregularly Flooded Marsh
Inland Shore
Tidal Swamp
N
0 0.5 1 2
Miles


BOURNE
SANDWICH
MASHPEE
North Falmouth
Cape Club
Golf Club
Sam Turner Rd
Nathan-Ellis-Hwy
Boxberry Hill Rd
Thomas B Landers
220 ft
Blacksmith Shop Rd
114 ft
W Falmouth Hwy
Ter Heun Dr
Falmouth
Main St
East Falmouth
Teaticket Hwy
Woods Hole Golf Club
VINEYARD SOUN
Vineyard Sound
N
0 0.5 1 2
Miles
2070 - SLAMM Wetland Classifications
Upland
Nontidal Swamp
Inland Fresh Marsh
Tidal Fresh Marsh
Transitional Marsh/Scrub-Shrub
Regularly Flooded Marsh
Estuarine Beach/Tidal Flat
Ocean Beach
Ocean Flat
Rocky Intertidal
Inland Open Water
Riverine Tidal Open Water
Estuarine Open Water
Open Ocean
Irregularly Flooded Marsh
Inland Shore
Tidal Swamp

Megansett Beach Area

SLAMM Wetland Categories

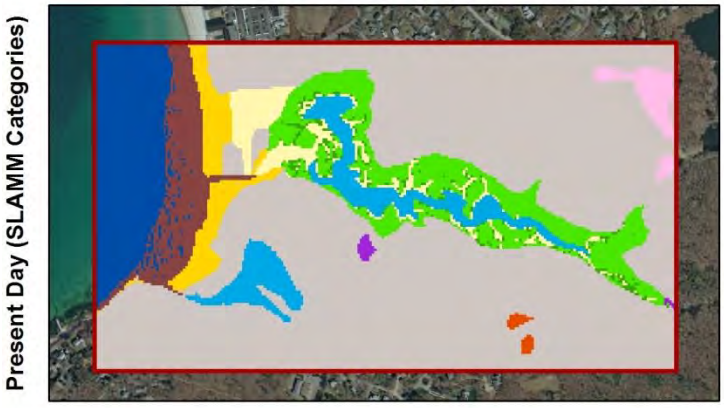
- Upland
- Inland Fresh Marsh
- Transitional Marsh/Scrub-Shrub
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Open Ocean

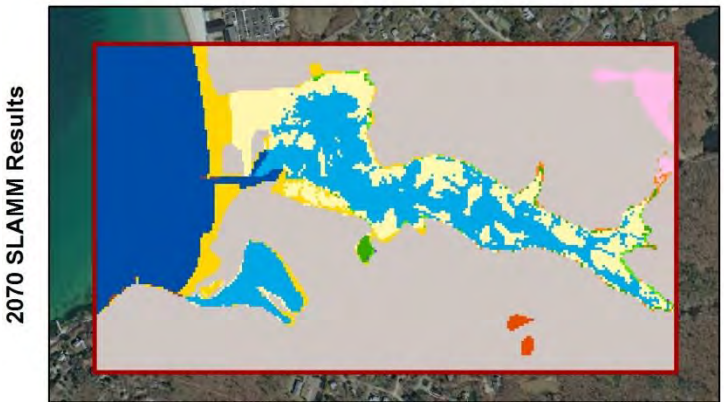
0 400 800 1600 Feet

N

	Area (acres)		
	2011	2030	2070
Upland	17.5	17.5	14.5
Inland Fresh Marsh	0.8	0.8	0.0
Transitional Marsh/Scrub-Shrub	0.0	0.0	0.8
Estuarine Beach/Tidal Flat	0.0	0.0	0.2
Ocean Beach	7.4	3.5	4.7
Open Ocean	30.6	34.5	36.1

Old Silver Beach Area





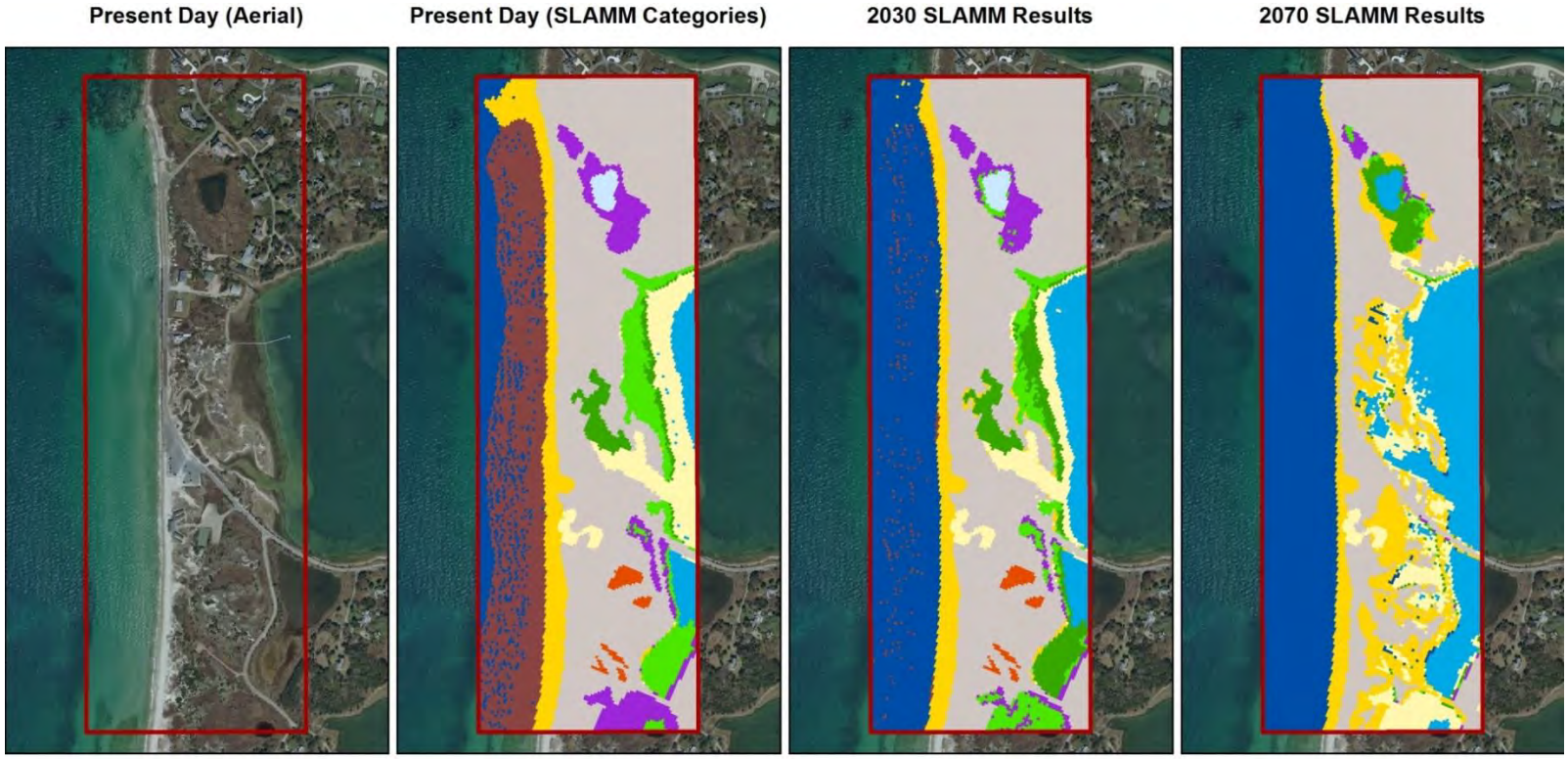
SLAMM Wetland Categories

- Upland
- Nontidal Swamp
- Inland Fresh Marsh
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Ocean Flat
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

N

0 600 1200 2400 Feet

	Area (acres)		
	2011	2030	2070
Upland	126.0	125.6	121.0
Nontidal Swamp	0.5	0.5	0.5
Inland Fresh Marsh	2.6	2.6	2.5
Transitional Marsh/Scrub-Shrub	0.0	0.0	0.4
Regularly Flooded Marsh	1.9	2.8	0.8
Estuarine Beach/Tidal Flat	6.5	7.5	15.0
Ocean Beach	6.2	5.6	6.5
Ocean Flat	9.1	0.8	0.1
Estuarine Open Water	10.0	10.4	20.4
Open Ocean	17.4	26.3	28.5
Irregularly Flooded Marsh	15.7	13.6	0.5
Tidal Swamp	0.4	0.4	0.0



Chapoquoit Beach

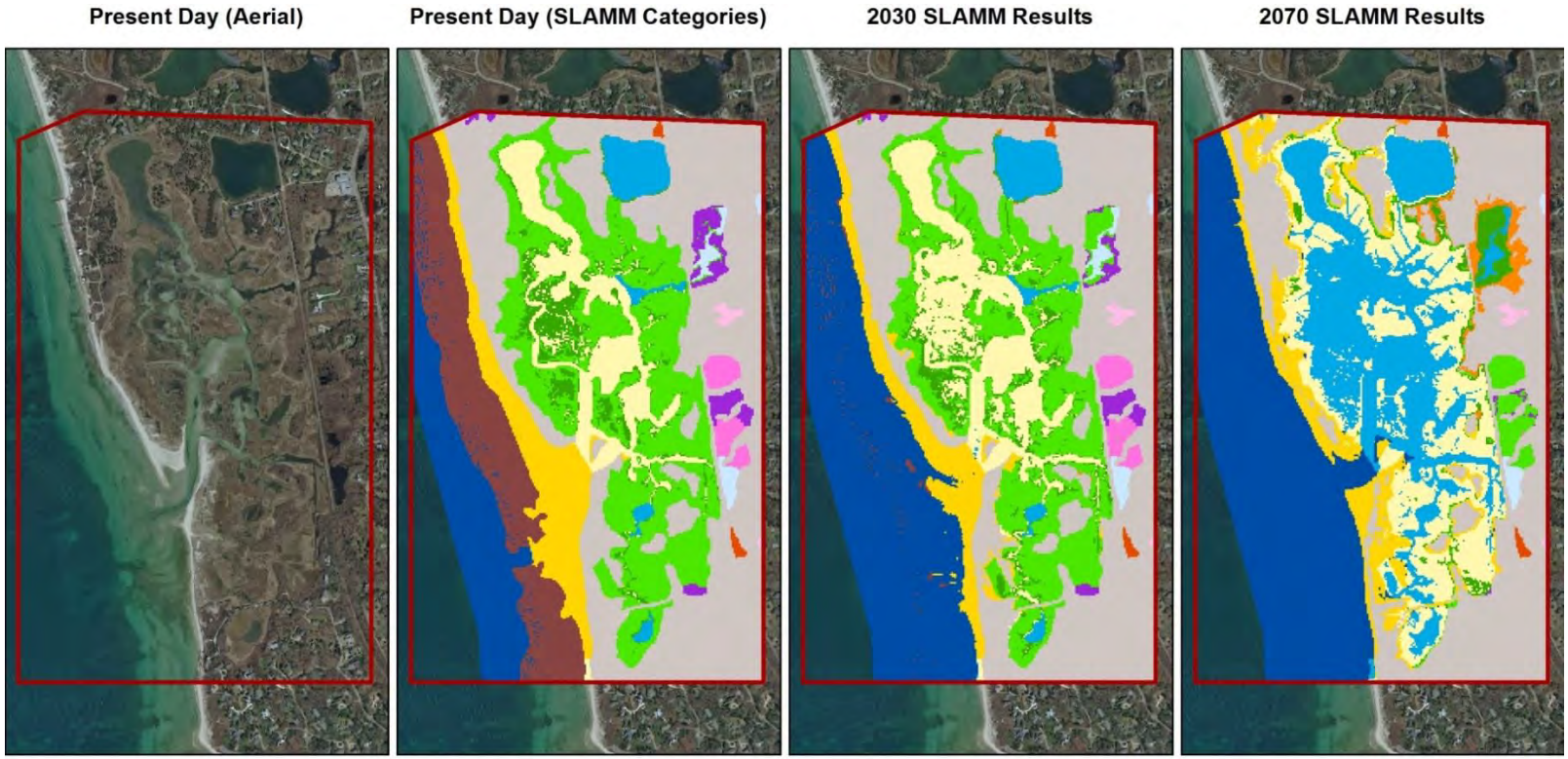
SLAMM Wetland Categories

- Upland
- Nontidal Swamp
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Ocean Flat
- Inland Open Water
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

0 500 1000 2000 Feet

N

	Area (acres)		
	2011	2030	2070
Upland	50.6	49.7	34.8
Nontidal Swamp	0.9	0.9	0.0
Transitional Marsh/Scrub-Shrub	0.0	0.0	0.0
Regularly Flooded Marsh	2.5	5.7	2.4
Estuarine Beach/Tidal Flat	7.9	5.0	9.1
Ocean Beach	9.2	7.9	17.3
Ocean Flat	23.5	1.4	0.0
Inland Open Water	0.7	0.7	0.0
Estuarine Open Water	3.7	7.6	17.9
Open Ocean	12.0	36.0	40.9
Irregularly Flooded Marsh	6.4	4.9	0.6
Tidal Swamp	6.2	3.8	0.7



Great Sippewissett Marsh

SLAMM Wetland Categories

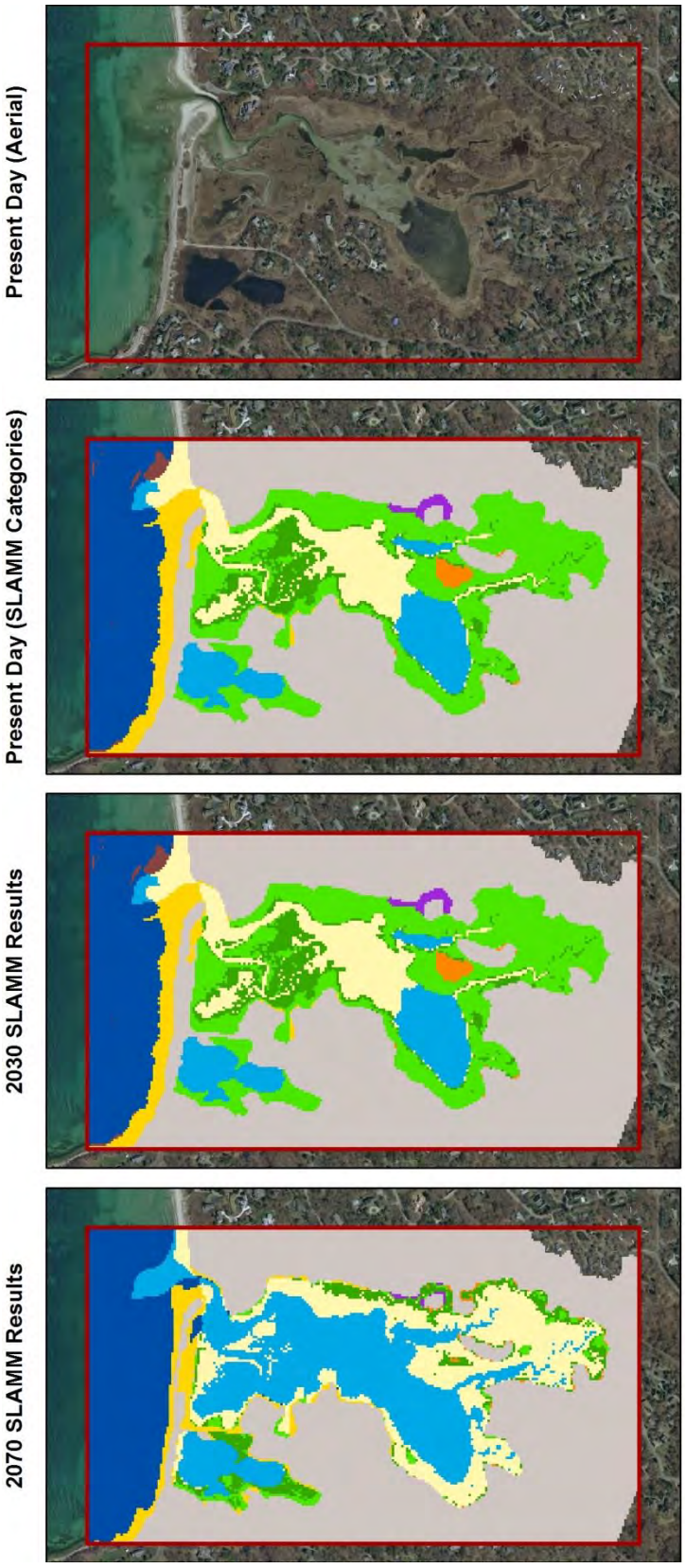
- Upland
- Nontidal Swamp
- Inland Fresh Marsh
- Tidal Fresh Marsh
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Ocean Flat
- Inland Open Water
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

0 1000 2000 4000 Feet

N

	Area (acres)		
	2011	2030	2070
Upland	142.4	139.3	111.8
Nontidal Swamp	0.8	0.8	0.8
Inland Fresh Marsh	0.9	0.9	0.9
Tidal Fresh Marsh	4.6	4.6	0.0
Transitional Marsh/Scrub-Shrub	0.0	0.1	5.9
Regularly Flooded Marsh	14.9	14.5	9.5
Estuarine Beach/Tidal Flat	31.4	43.6	62.6
Ocean Beach	28.3	22.4	29.1
Ocean Flat	49.0	2.0	0.0
Inland Open Water	3.1	3.1	1.6
Estuarine Open Water	10.2	10.3	73.4
Open Ocean	37.2	92.8	106.1
Irregularly Flooded Marsh	80.9	71.6	7.8
Tidal Swamp	6.2	4.0	0.4

Wood Neck Beach & Little Sippewissett Marsh



SLAMM Wetland Categories

- Upland
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Ocean Flat
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

0 600 1200 2400 Feet

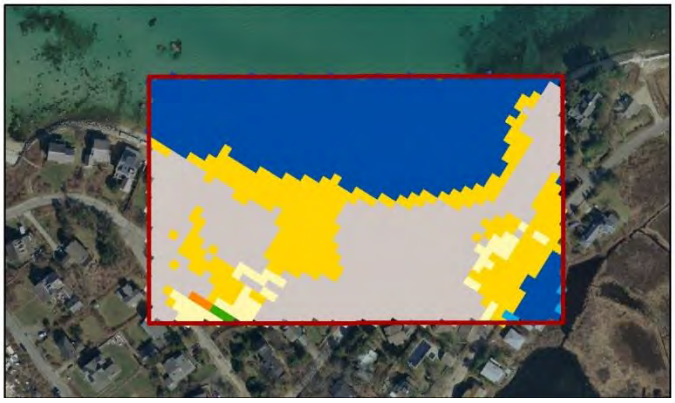
N

	Area (acres)		
	2011	2030	2070
Upland	98.7	98.0	92.8
Transitional Marsh/Scrub-Shrub	0.9	0.9	0.5
Regularly Flooded Marsh	4.5	8.0	6.2
Estuarine Beach/Tidal Flat	11.5	14.1	25.1
Ocean Beach	7.1	6.1	5.4
Ocean Flat	17.6	0.7	0.0
Estuarine Open Water	10.7	11.2	34.3
Open Ocean	4.3	22.7	26.8
Irregularly Flooded Marsh	38.0	31.5	2.7
Tidal Swamp	0.8	0.8	0.2

Present Day (Aerial)

Present Day (SLAMM Categories)

2030 SLAMM Results



2070 SLAMM Results

Stony Beach

SLAMM Wetland Categories

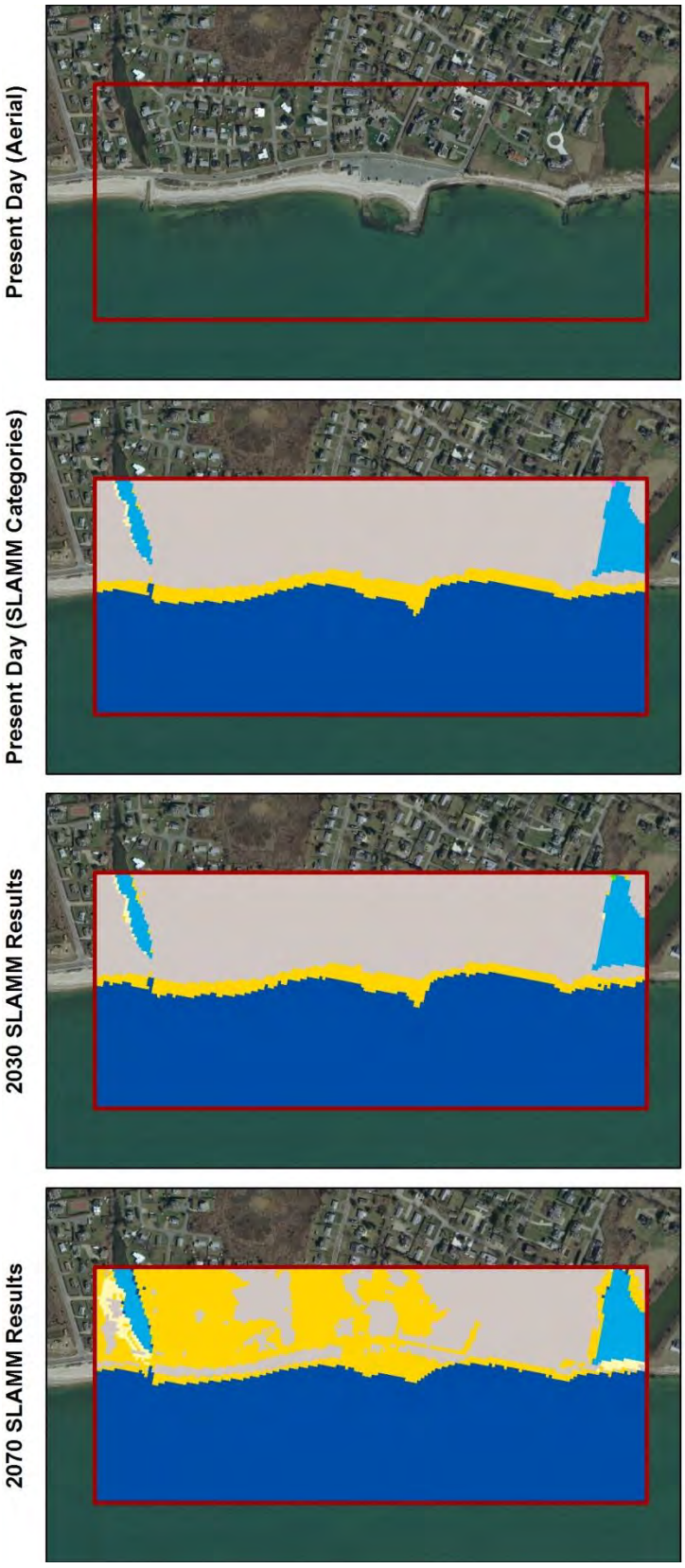
- Upland
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Estuarine Open Water
- Open Ocean

0 175 350 700 Feet

N

	Area (acres)		
	2011	2030	2070
Upland	4.7	4.4	3.3
Transitional Marsh/Scrub-Shrub	0.0	0.0	0.0
Regularly Flooded Marsh	0.0	0.0	0.0
Estuarine Beach/Tidal Flat	0.0	0.0	0.3
Ocean Beach	1.7	1.8	1.9
Estuarine Open Water	0.0	0.0	0.0
Open Ocean	2.7	2.8	3.4

Surf Drive Beach



SLAMM Wetland Categories

- Upland
- Tidal Fresh Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh

0 450 900 1800 Feet

N

	Area (acres)		
	2011	2030	2070
Upland	33.9	33.8	16.8
Tidal Fresh Marsh	0.0	0.0	0.0
Estuarine Beach/Tidal Flat	0.1	0.2	1.0
Ocean Beach	4.8	4.4	17.6
Estuarine Open Water	2.9	2.9	3.1
Open Ocean	44.3	44.8	47.5
Irregularly Flood Marsh	0.0	0.0	0.0

Present Day (Aerial)

Present Day (SLAMM Categories)

2030 SLAMM Results

2070 SLAMM Results

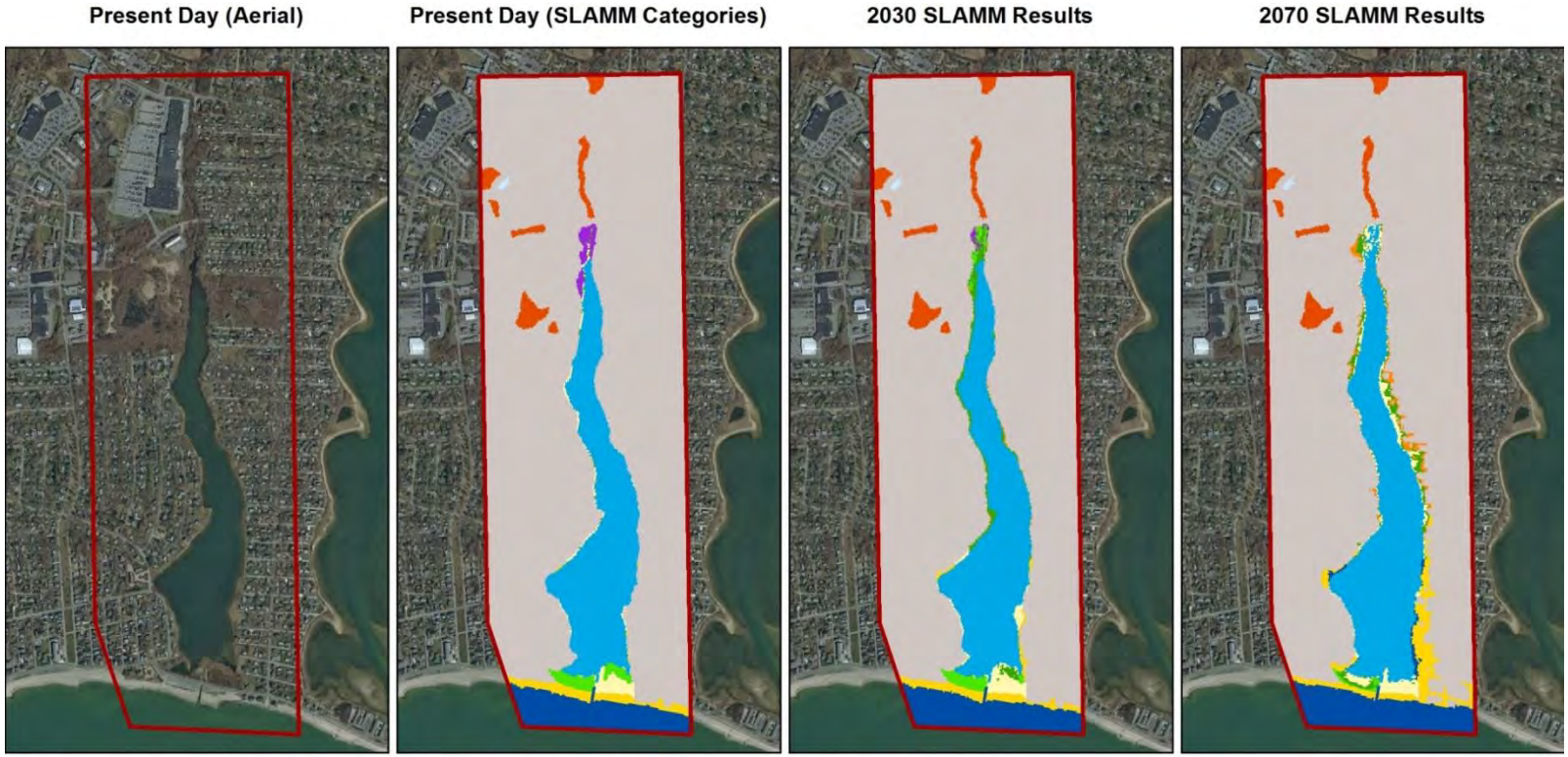
Falmouth Heights Beach

SLAMM Wetland Categories

- Upland
- Ocean Beach
- Open Ocean

0 400 800 1600 Feet

	Area (acres)		
	2011	2030	2070
Upland	19.0	19.0	18.8
Ocean Beach	3.8	3.6	2.5
Open Ocean	27.8	27.9	29.2



Bristol Beach & Little Pond

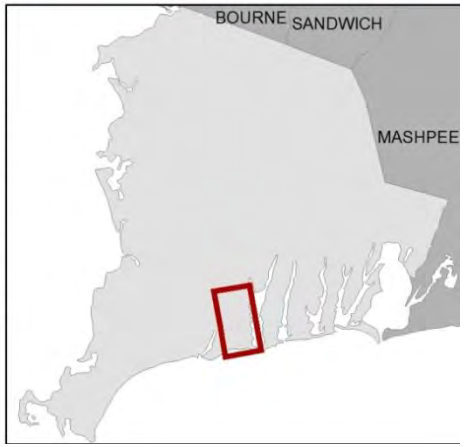
SLAMM Wetland Categories

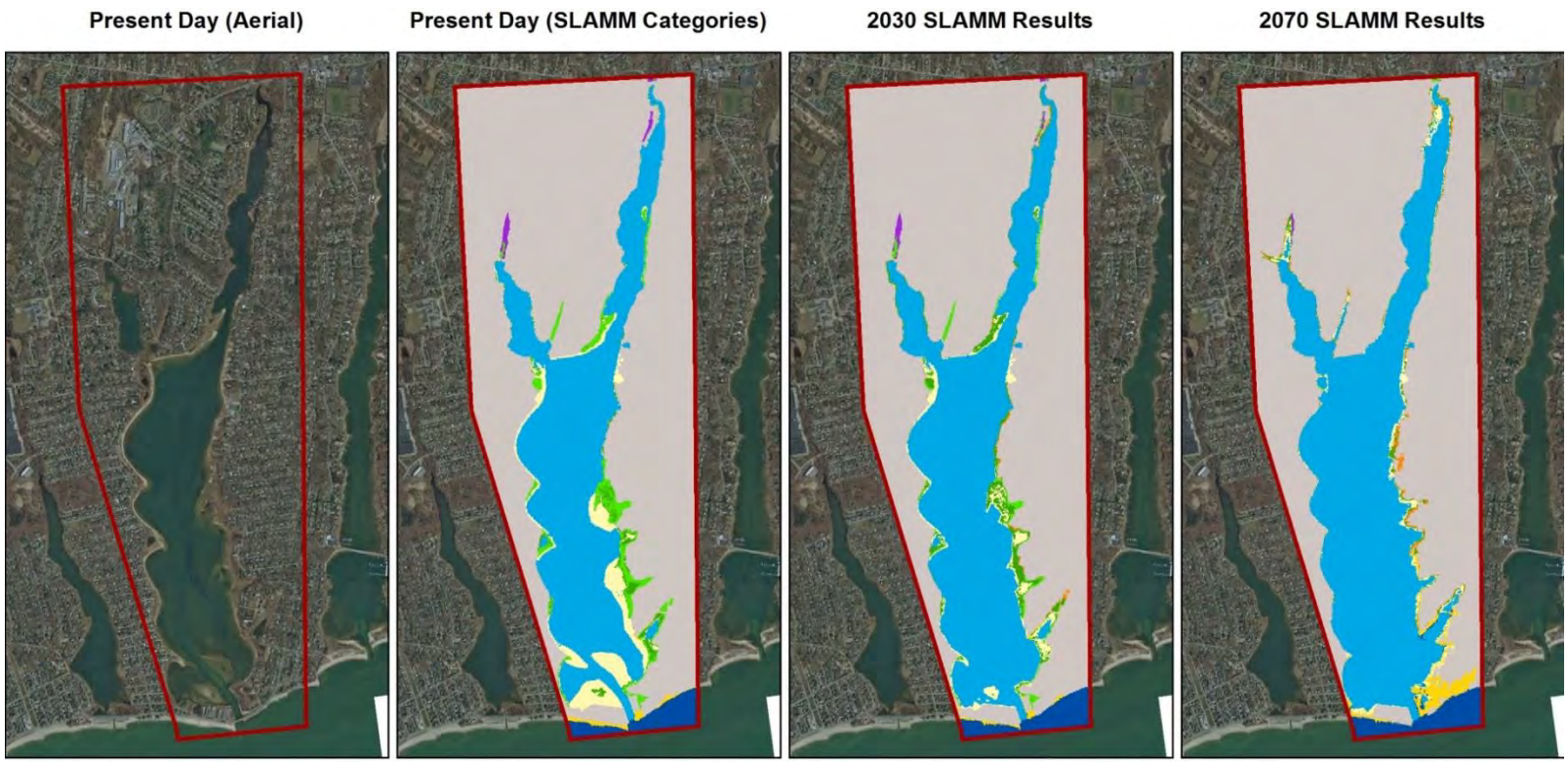
- Upland
- Nontidal Swamp
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Inland Open Water
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

0 1000 2000 4000 Feet

N

	Area (acres)		
	2011	2030	2070
Upland	301.7	299.1	284.1
Nontidal Swamp	6.3	6.3	6.3
Transitional Marsh/Scrub-Shrub	0.0	0.3	2.6
Regularly Flooded Marsh	0.2	3.3	3.2
Estuarine Beach/Tidal Flat	3.2	3.1	5.6
Ocean Beach	4.3	4.6	9.2
Inland Open Water	0.2	0.2	0.2
Estuarine Open Water	47.5	47.5	53.3
Open Ocean	15.4	15.8	18.1
Irregularly Flooded Marsh	2.5	2.5	0.5
Tidal Swamp	1.7	0.4	0.0





Great Pond

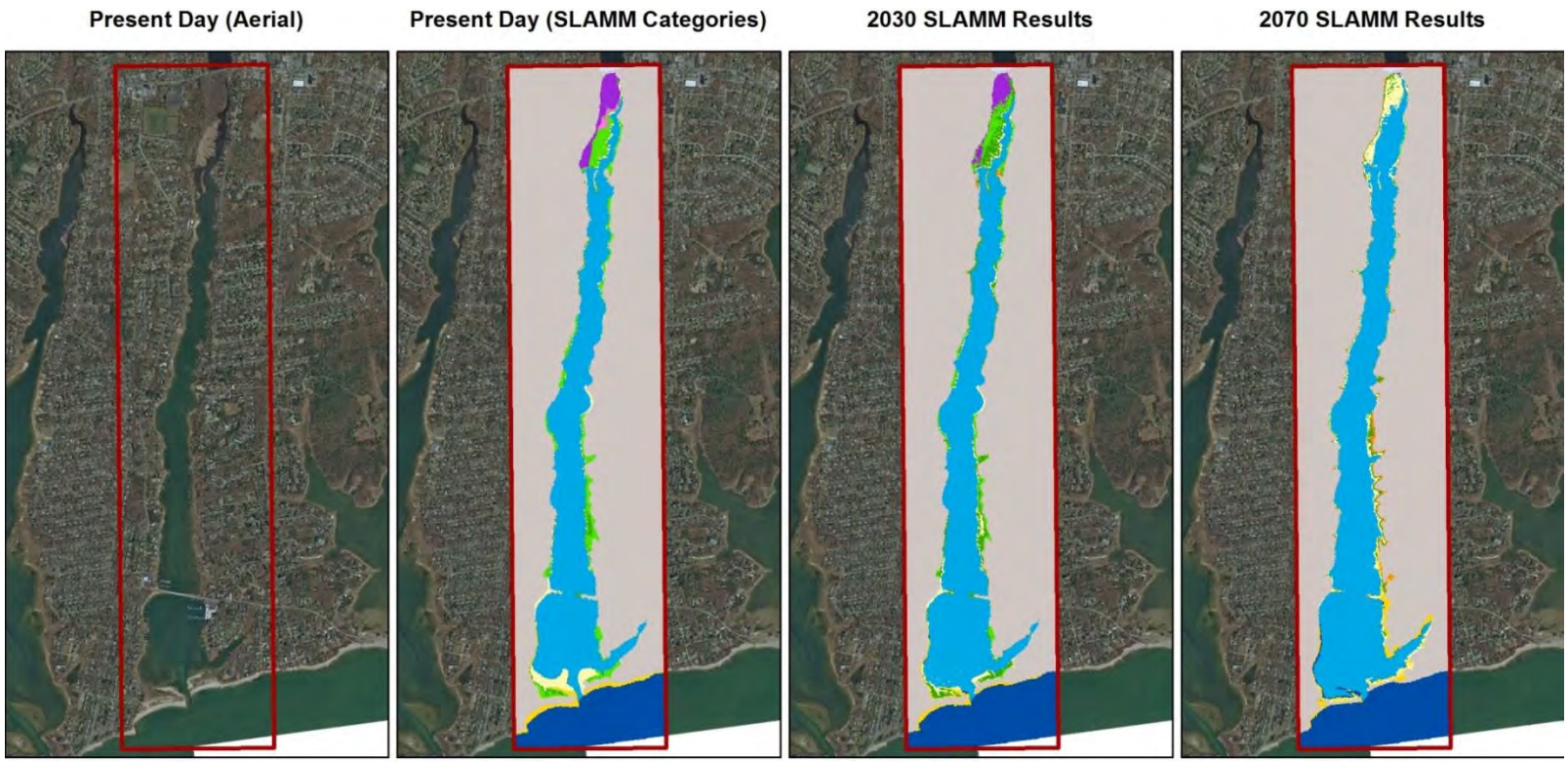
SLAMM Wetland Categories

- Upland
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

	Area (acres)		
	2011	2030	2070
Upland	758.5	753.7	715.0
Transitional Marsh/Scrub-Shrub	0.0	2.0	6.4
Regularly Flooded Marsh	9.6	18.1	6.1
Estuarine Beach/Tidal Flat	40.1	20.2	16.7
Ocean Beach	3.4	2.4	13.4
Estuarine Open Water	261.9	289.4	334.2
Open Ocean	20.9	22.4	25.4
Irregularly Flooded Marsh	21.5	8.4	1.0
Tidal Swamp	2.7	2.2	0.4

0 1500 3000 6000 Feet

N



Green Pond

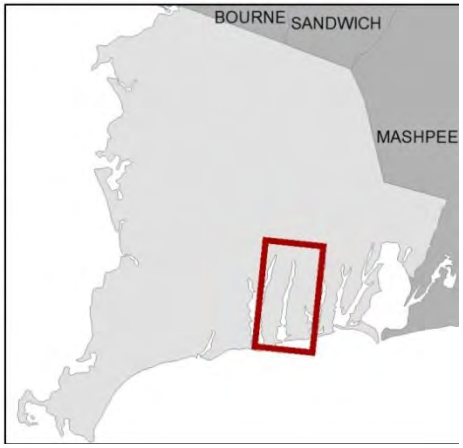
SLAMM Wetland Categories

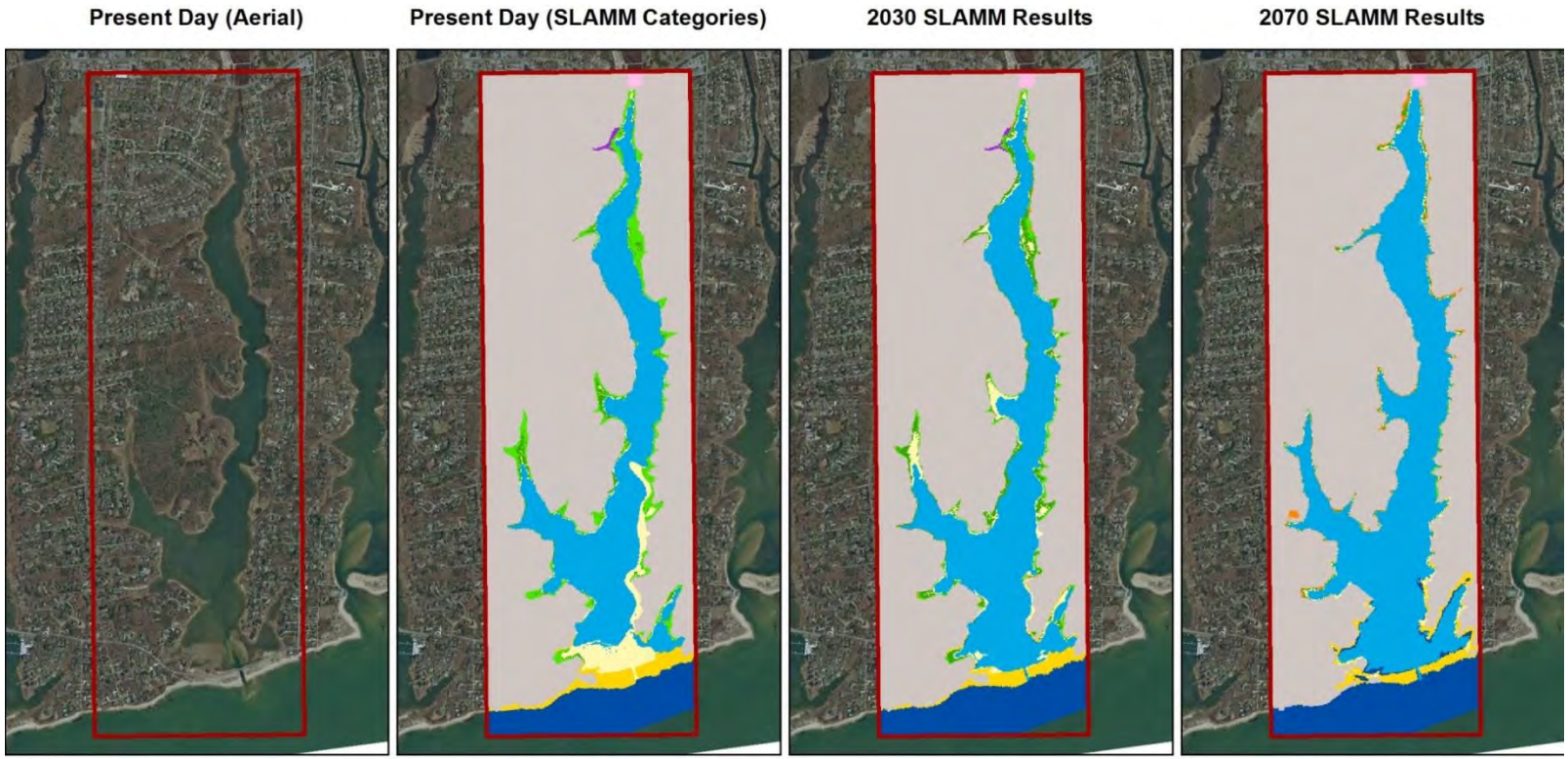
- Upland
- Tidal Fresh Marsh
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Inland Open Water
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

0 1500 3000 6000 Feet

N

	Area (acres)		
	2011	2030	2070
Upland	555.3	552.9	532.0
Tidal Fresh Marsh	1.0	0.0	0.0
Transitional Marsh/Scrub-Shrub	0.0	0.7	3.9
Regularly Flooded Marsh	4.1	12.7	4.8
Estuarine Beach/Tidal Flat	9.5	7.1	15.1
Ocean Beach	5.5	4.0	6.6
Inland Open Water	0.8	0.8	0.8
Estuarine Open Water	135.8	140.2	165.5
Open Ocean	54.8	57.0	60.6
Irregularly Flooded Marsh	16.0	9.7	0.7
Tidal Swamp	7.2	4.9	0.1





Menauhant Beach & Bournes Pond

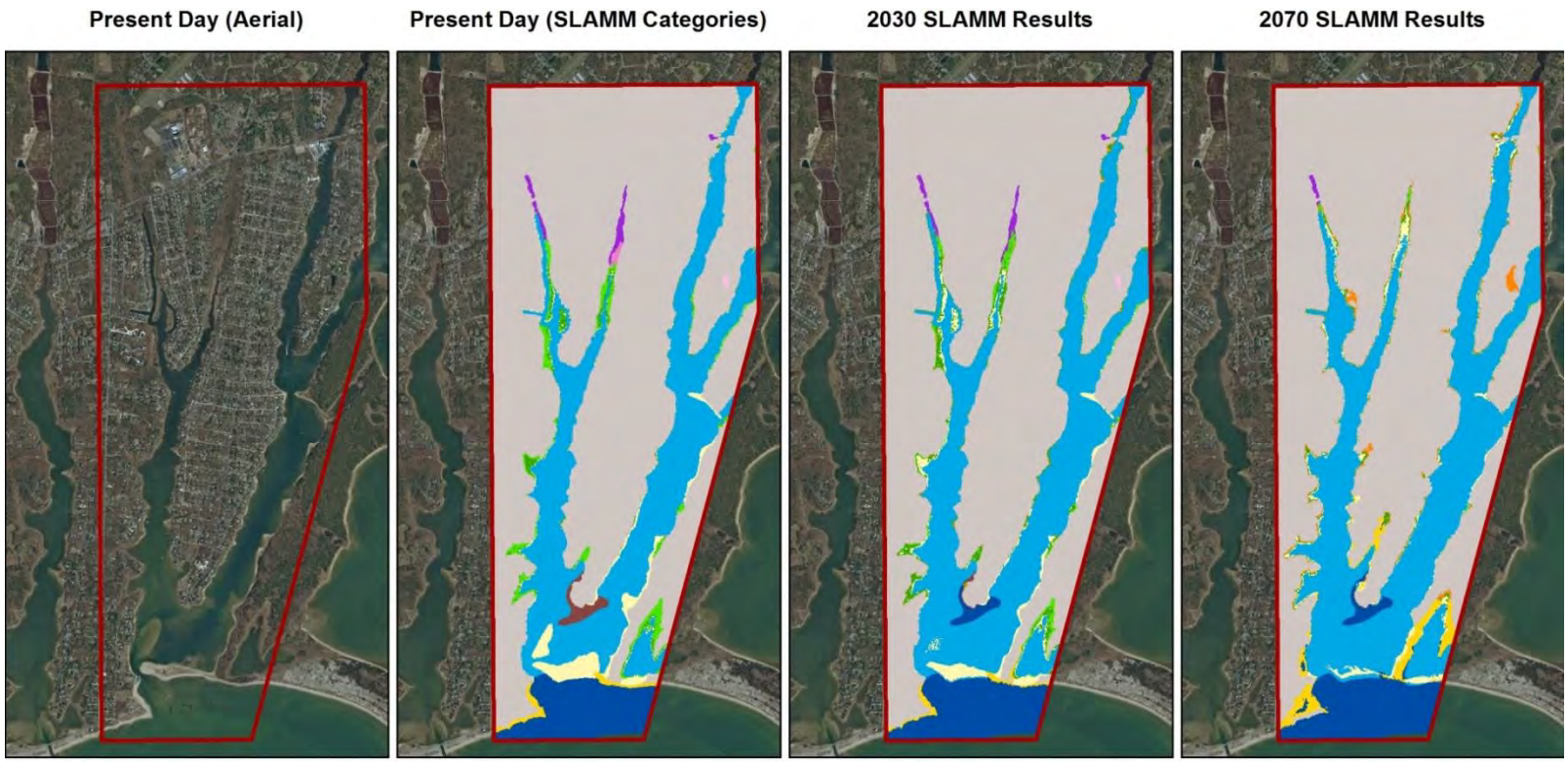
SLAMM Wetland Categories

- Upland
- Inland Fresh Marsh
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

	Area (acres)		
	2011	2030	2070
Upland	627.7	624.6	597.8
Inland Fresh Marsh	1.4	1.4	1.4
Transitional Marsh/Scrub-Shrub	0.0	0.8	5.0
Regularly Flooded Marsh	7.0	16.0	5.0
Estuarine Beach/Tidal Flat	24.7	15.6	7.6
Ocean Beach	14.0	11.9	13.2
Estuarine Open Water	142.6	159.8	200.3
Open Ocean	55.2	58.1	65.8
Irregularly Flooded Marsh	23.6	8.5	1.1
Tidal Swamp	0.8	0.7	0.0

0 1500 3000 6000 Feet

N



Eel Pond

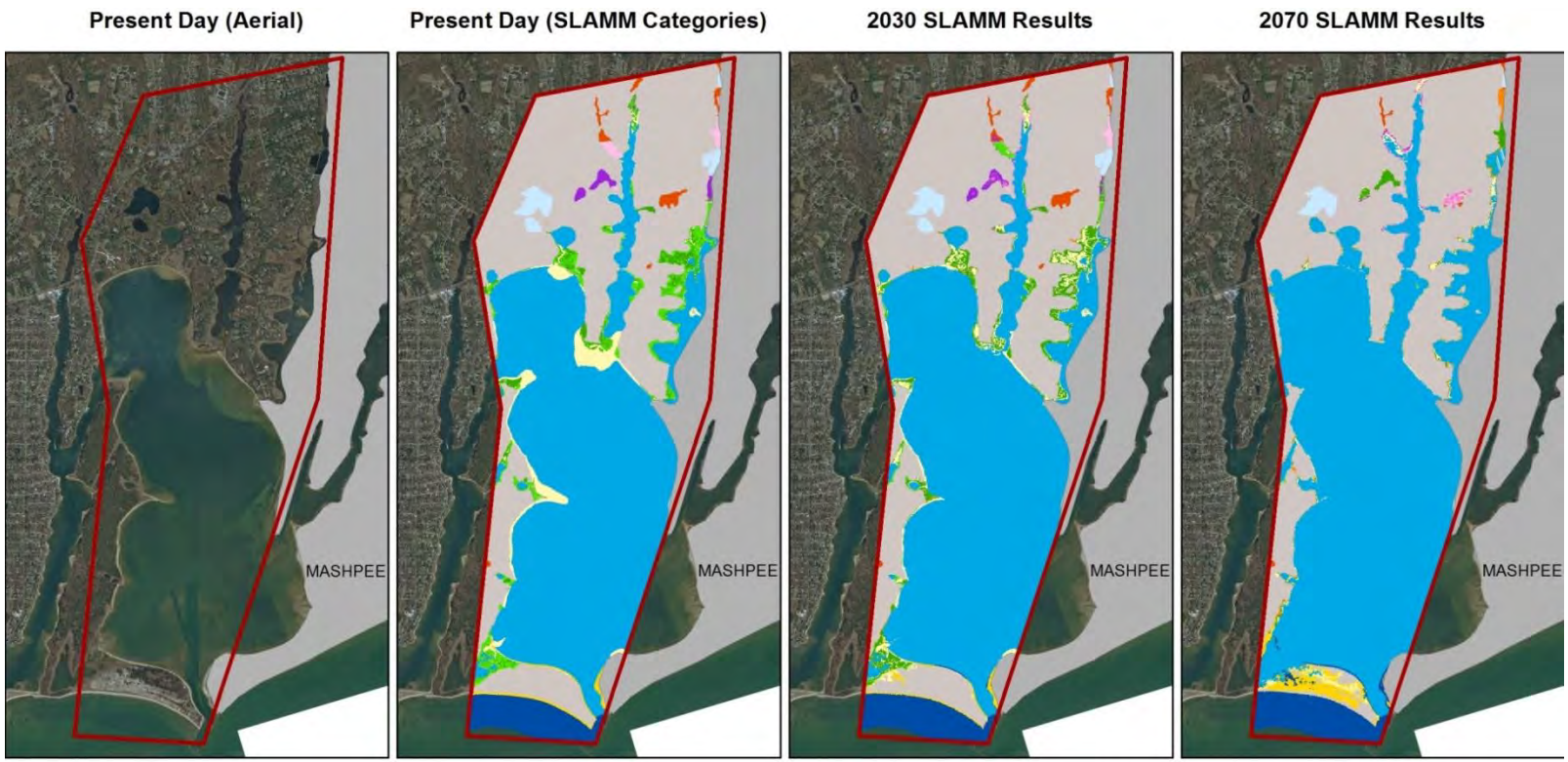
SLAMM Wetland Categories

- Upland
- Inland Fresh Marsh
- Tidal Fresh Marsh
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Ocean Flat
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

0 1750 3500 7000 Feet

N

	Area (acres)		
	2011	2030	2070
Upland	920.8	916.0	863.0
Inland Fresh Marsh	0.5	0.5	0.0
Tidal Fresh Marsh	1.0	0.1	0.0
Transitional Marsh/Scrub-Shrub	0.0	1.4	11.6
Regularly Flooded Marsh	10.0	18.8	9.8
Estuarine Beach/Tidal Flat	29.1	24.7	21.5
Ocean Beach	5.7	4.6	20.6
Ocean Flat	6.2	0.7	0.2
Estuarine Open Water	275.2	285.3	330.3
Open Ocean	62.6	69.9	75.7
Irregularly Flooded Marsh	18.7	8.6	1.3
Tidal Swamp	5.3	4.5	1.1



Waquoit Bay

SLAMM Wetland Categories

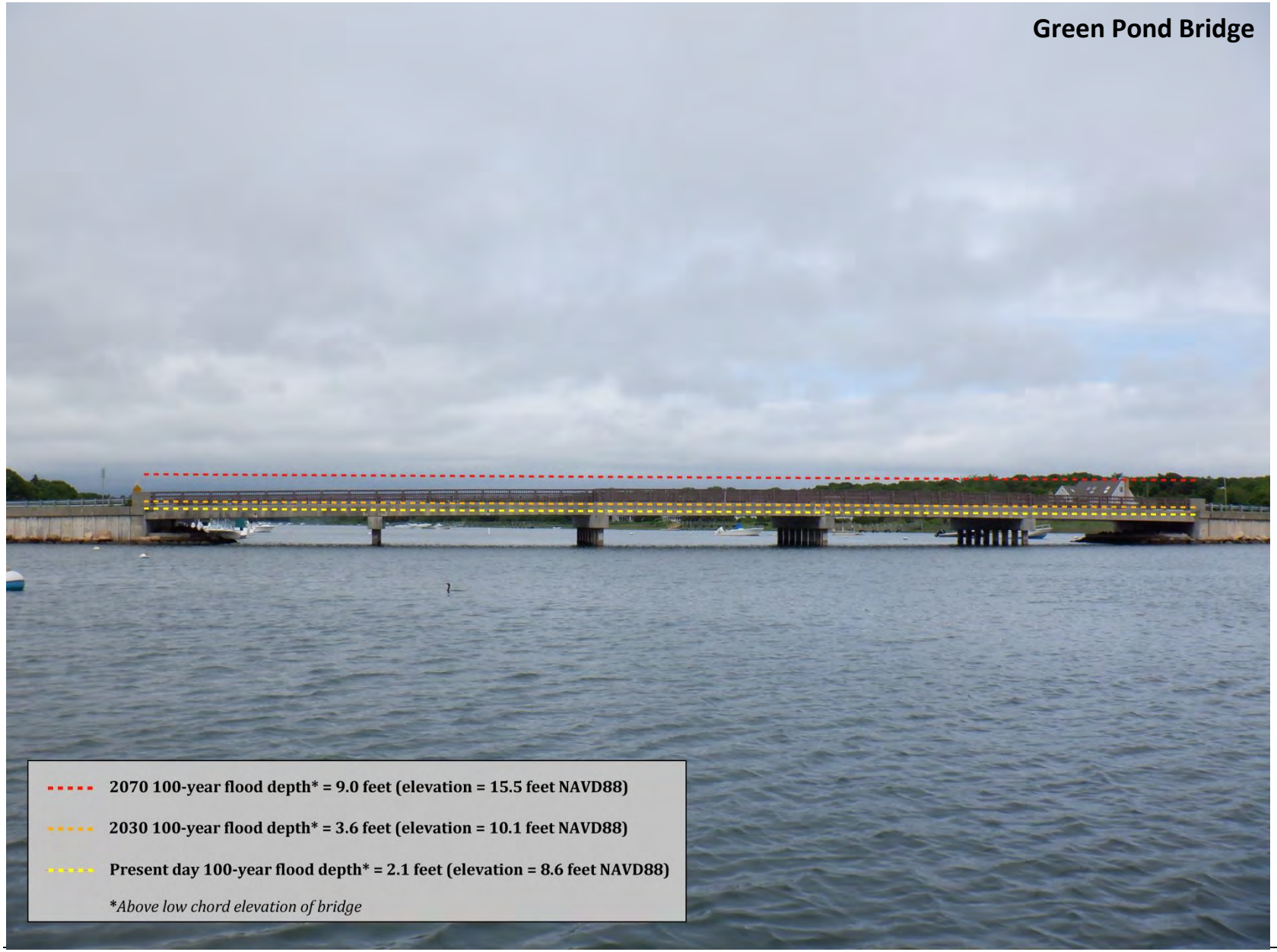
- Upland
- Nontidal Swamp
- Inland Fresh Marsh
- Tidal Fresh Marsh
- Transitional Marsh/Scrub-Shrub
- Regularly Flooded Marsh
- Estuarine Beach/Tidal Flat
- Ocean Beach
- Inland Open Water
- Estuarine Open Water
- Open Ocean
- Irregularly Flooded Marsh
- Tidal Swamp

0 2250 4500 9000 Feet

N

	Area (acres)		
	2011	2030	2070
Upland	857.1	846.0	775.8
Nontidal Swamp	12.6	12.2	3.7
Inland Fresh Marsh	8.6	6.1	0.2
Tidal Fresh Marsh	0.0	3.6	4.7
Transitional Marsh/Scrub-Shrub	0.0	2.2	12.9
Regularly Flooded Marsh	33.2	56.1	16.2
Estuarine Beach/Tidal Flat	57.7	53.4	32.0
Ocean Beach	10.1	9.8	29.5
Inland Open Water	24.0	24.0	14.8
Estuarine Open Water	945.2	976.1	1105.1
Open Ocean	66.7	69.5	80.2
Irregularly Flooded Marsh	54.8	12.8	1.1
Tidal Swamp	8.2	6.4	2.1

APPENDIX E. FLOOD RISK VISUALIZATIONS


Green Pond Bridge
2070 100-year flood depth* = 9.0 feet (elevation = 15.5 feet NAVD88)
2030 100-year flood depth* = 3.6 feet (elevation = 10.1 feet NAVD88)
Present day 100-year flood depth* = 2.1 feet (elevation = 8.6 feet NAVD88)
*Above low chord elevation of bridge

Green Pond Bridge
Present Day 100-yr Water Levels

Green Pond Bridge
2030 100-yr Water Levels

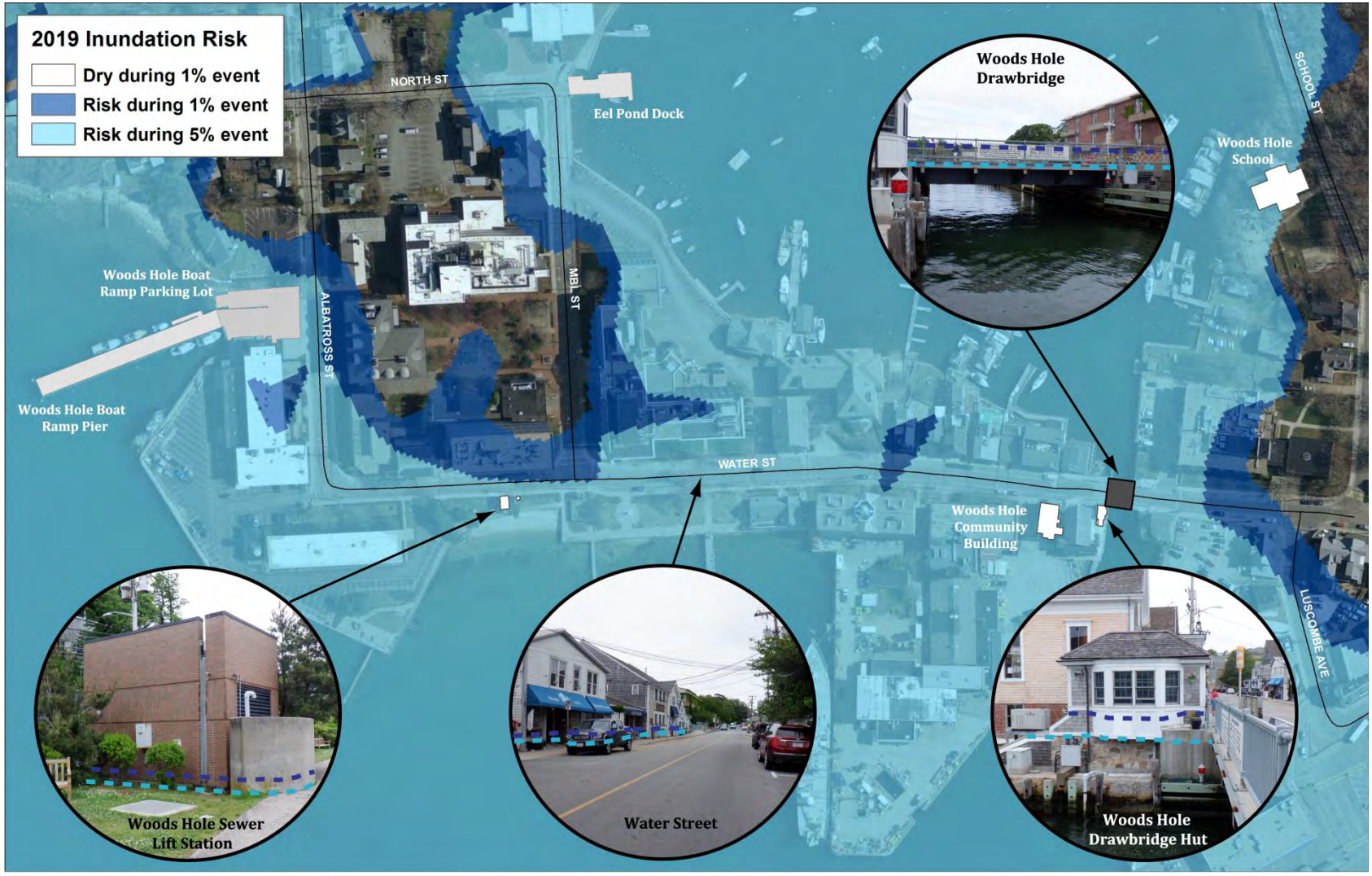

Green Pond Bridge
2070 100-yr Water Levels

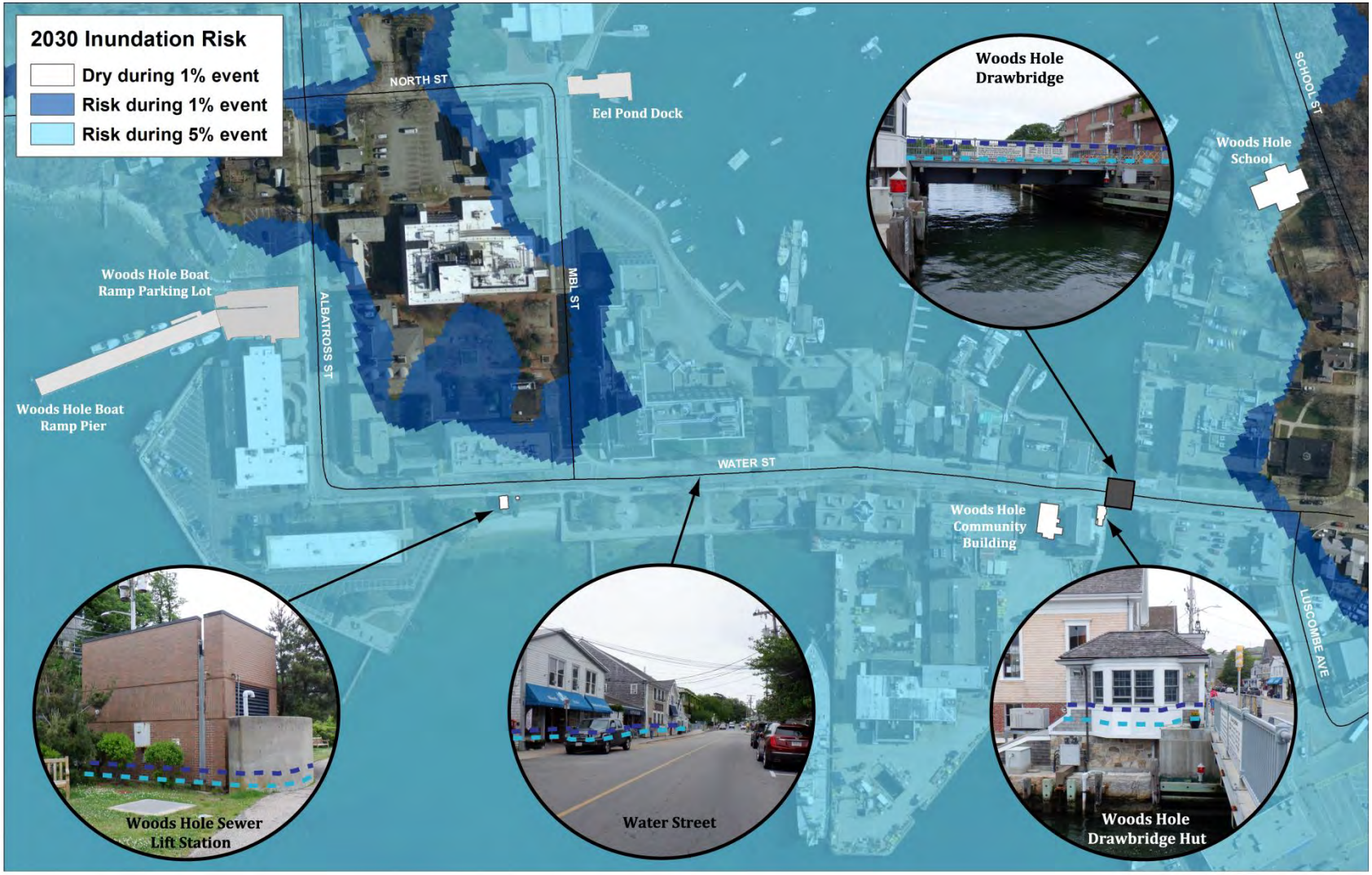

Mitchell Bathhouse
2070 100-year flood depth = 9.3 feet (elevation = 14.9 feet NAVD88)
2030 100-year flood depth = 4.3 feet (elevation = 9.9 feet NAVD88)
Present day 100-year flood depth = 2.9 feet (elevation = 8.5 feet NAVD88)

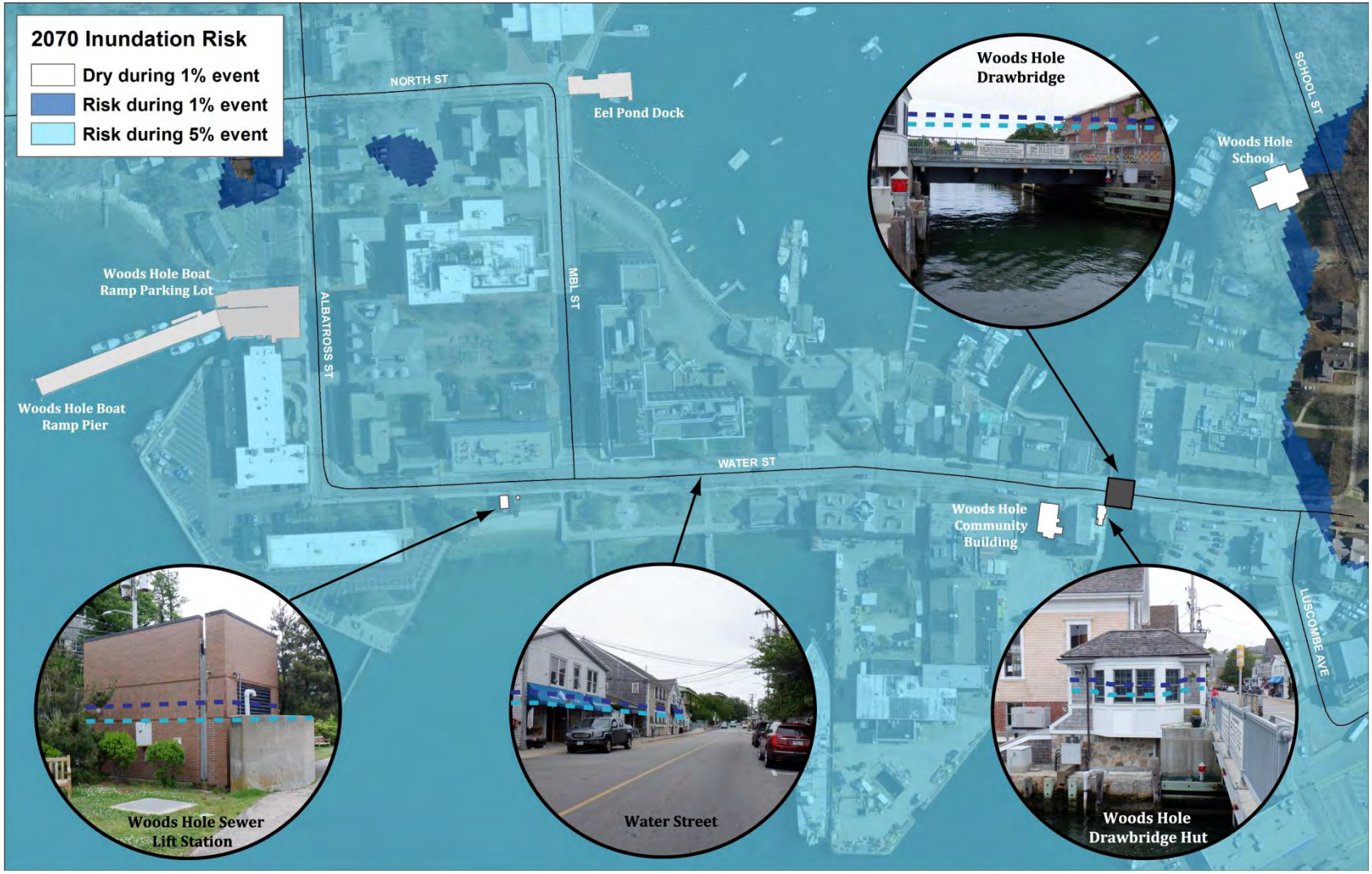

Mitchell Bathhouse
Present Day 100-yr Water Levels


Mitchell Bathhouse
2030 100-yr Water Levels


Mitchell Bathhouse
2070 100-yr Water Levels


2019 Inundation Risk
Dry during 1% event
Risk during 1% event
Risk during 5% event
NORTH ST
Eel Pond Dock
Woods Hole Drawbridge
SCHOOL ST
Woods Hole School
Woods Hole Boat Ramp Parking Lot
ALBATROSS ST
MBL ST
Woods Hole Boat Ramp Pier
WATER ST
Woods Hole Community Building
LUSCOMBE AVE
Woods Hole Sewer Lift Station
Water Street
Woods Hole Drawbridge Hut


2030 Inundation Risk
Dry during 1% event
Risk during 1% event
Risk during 5% event
NORTH ST
Eel Pond Dock
Woods Hole Drawbridge
SCHOOL ST
Woods Hole School
Woods Hole Boat Ramp Parking Lot
ALBATROSS ST
MBL ST
Woods Hole Boat Ramp Pier
WATER ST
Woods Hole Community Building
LUSCOMBE AVE
Woods Hole Sewer Lift Station
Water Street
Woods Hole Drawbridge Hut


2070 Inundation Risk
Dry during 1% event
Risk during 1% event
Risk during 5% event
NORTH ST
Eel Pond Dock
Woods Hole Drawbridge
SCHOOL ST
Woods Hole School
Woods Hole Boat Ramp Parking Lot
ALBATROSS ST
MBL ST
Woods Hole Boat Ramp Pier
WATER ST
Woods Hole Community Building
LUSCOMBE AVE
Woods Hole Sewer Lift Station
Water Street
Woods Hole Drawbridge Hut