
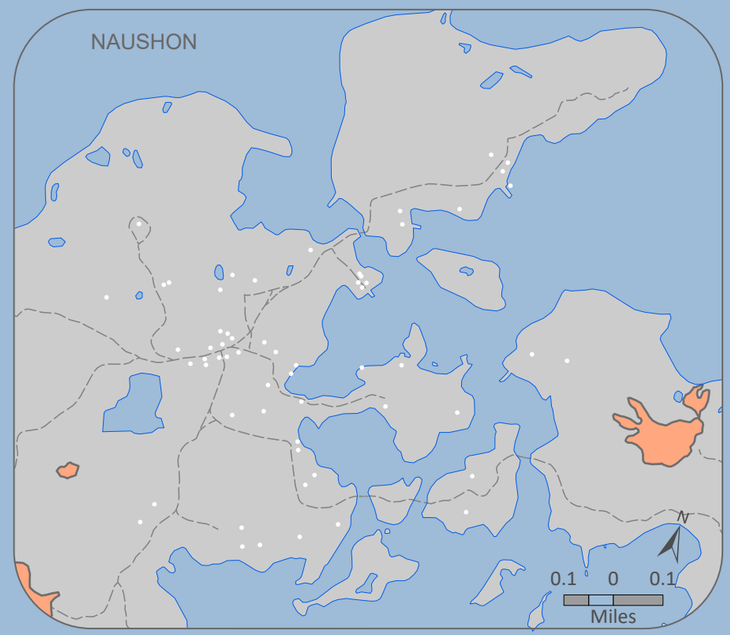


Buzzards Bay

Town of Gosnold

Elizabeth Islands

PENIKESE

CUTTYHUNK

NASHAWEANA

PASQUE

NAUSHON

Vineyard Sound

Martha's Vineyard

# Wildland Urban Interface

## Gosnold, MA

### Hazard Mitigation Plan

No Critical Facilities or Critical Infrastructure is within the Wildland Urban Interface on Gosnold.

Unaffected Structures

Wildland Urban Interface

**Roads**

Primary Road

Secondary Road

Neighborhood Road

Local Road

Notes: Wildland Urban Interface (WUI) was delineated by the MVC from The Nature Conservancy's vegetation data (2002) and MassGIS land cover data (2016). Pitch pine and scrub/shrub oak habitats (TNC) were extracted along with subsets of evergreen and deciduous land cover from MassGIS. Any structures within the a) pitch pine/scrub oak habitat; OR b) contiguous woodland (50acre or greater patch); OR c) within 1,000ft of contiguous woodland are considered within the WUI.

Disclaimer: Data provided are for planning purposes only. These data are not adequate for regulatory interpretation. The MVC is not responsible for the end-user's interpretation of the data.

Compiled by: MVC, CL Seidel, www.mvcommission.org; 508-693-3453
Data: Structures - MassGIS 2019; Roads 2017; Town Line - MassGIS 2003/MVC 2020; Wildfire Urban Interface - MVC 2020
Coordinate Reference: Stateplane MassMainland NAD83 meters

Folder: Hazard Mitigation Plan
Project: HMPseries_Fire.aprx;
Export: 1/21/2021 HMPseries_Fire_*.pdf

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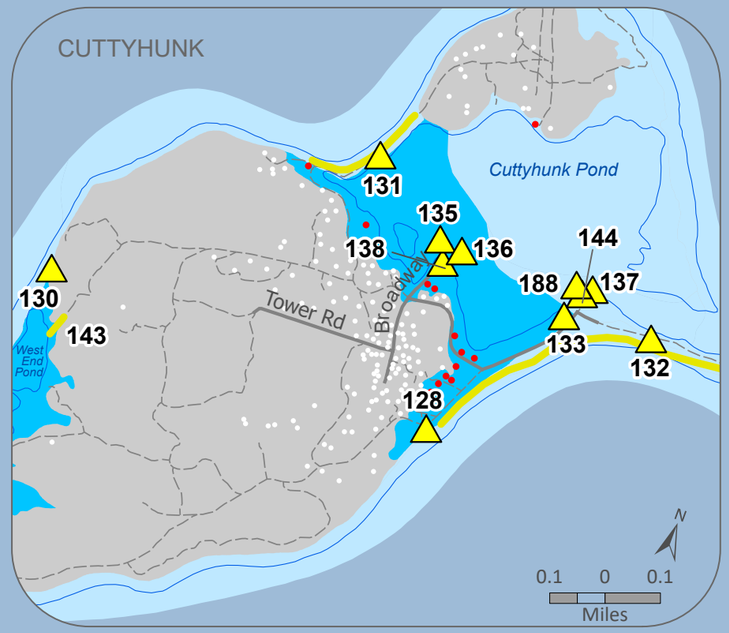


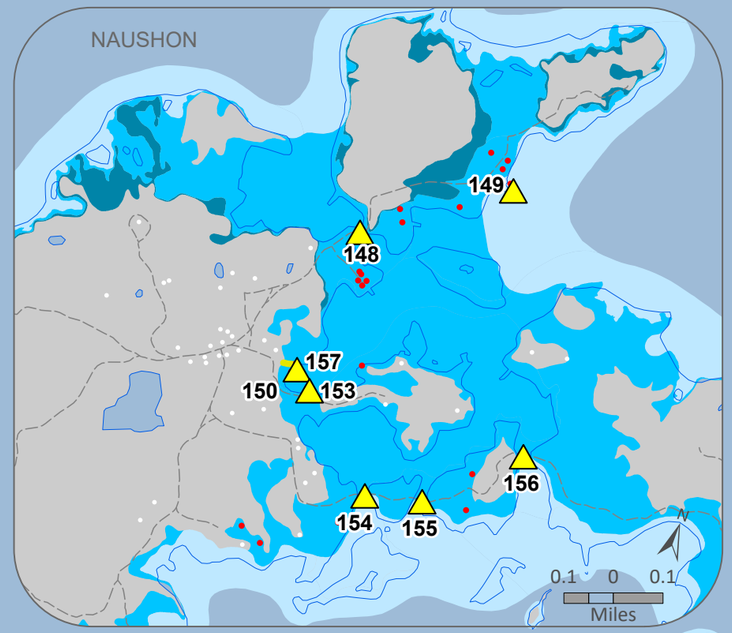


Buzzards Bay

Town of Gosnold

Elizabeth Islands

PENIKESE

CUTTYHUNK

NASHAWEANA

PASQUE

NAUSHON

Vineyard Sound

**Affected Critical Facilities & Infrastructure**

| MVCid | Site Name | Emergency Use | Feet Affected | Flood Zone Category |
|---|---|---|---|---|
| 131 | Church's Beach | Barrier Beach | 1187 | VE |
| 132 | Barges Beach | Barrier Beach | 4618 | VE |
| 143 | Road to Public Well | Road | 211 | AE |
| 150 | Road to Upper Wharf | Road | 94 | AE |

| MVCid | Site Name | Emergency Use | Flood Zone Category |
|---|---|---|---|
| 128 | Heliport | Heliport | 100-year flood zone, AE |
| 130 | Seawall | Infrastructure | 100-year flood zone, VE |
| 131 | Church's Beach | Infrastructure | 100-year flood zone, VE |
| 132 | Barges Beach | Infrastructure | 100-year flood zone, VE |
| 133 | Storage Lot | Fuel Storage | 100-year flood zone, AE |
| 133 | Storage Lot | Waste Storage | 100-year flood zone, AE |
| 135 | Fish Dock | Commercial Fishing Sales | 100-year flood zone, AE |
| 136 | Marina | Marina | 100-year flood zone, AE |
| 137 | Fuel Dock | Fuel Storage | 100-year flood zone, VE |
| 138 | Public Restroom | Sanitary Facilities | 100-year flood zone, AE |
| 144 | Barge Ramp | Infrastructure | 100-year flood zone, VE |
| 148 | Uncatena Bridge | Infrastructure | 100-year flood zone, AE |
| 149 | Uncatena Dock | Ferry Terminal | 100-year flood zone, VE |
| 153 | Barge/Truck Dock | Infrastructure | 100-year flood zone, AE |
| 154 | 1st Bridge | Infrastructure | 100-year flood zone, AE |
| 155 | 2nd Bridge | Infrastructure | 100-year flood zone, AE |
| 156 | 3rd Bridge | Infrastructure | 100-year flood zone, AE |
| 157 | Upper Wharf | Infrastructure | 100-year flood zone, AE |
| 188 | Cuttyhunk Public Ferry Dock | Ferry Terminal | 100-year flood zone, VE |

# FEMA Flood Zones

## Gosnold, MA

### Hazard Mitigation Plan

- Affected Critical Facilities
- Affected Critical Infrastructure
- Affected Structures
- Unaffected Structures

**FEMA Flood Zone**

- 100-year flood zone, VE
- 100-year flood zone, AE
- 500-year flood zone

Notes: Effective 2016, the 100 and 500-year flood zones represent a subset of the data presented on FEMA's Flood Insurance Rate Maps (FIRM). These data were developed by FEMA to support planning activities but do not replace the effective FIRM maps. These data are not suitable for engineering activities or site work nor can the data be used to determine the absolute delineation of flood boundaries. Instead the data should be used to portray zones of uncertainty and possible risks associated with flooding.

Disclaimer: Data provided are for planning purposes only. These data are not adequate for regulatory interpretation. The MVC is not responsible for the end-user's interpretation of the data.

Compiled by: MVC, CL Seidel, www.mvcommission.org; 508-693-3453
Data: Structures - MassGIS 2019; Roads 2017; Town Line - MassGIS 2003/MVC 2020; FEMA Flood Zone - FEMA 2016
Coordinate Reference: Stateplane MassMainland NAD83 meters

Folder: Hazard Mitigation Plan
Project: HMPseries_FEMA.aprx;
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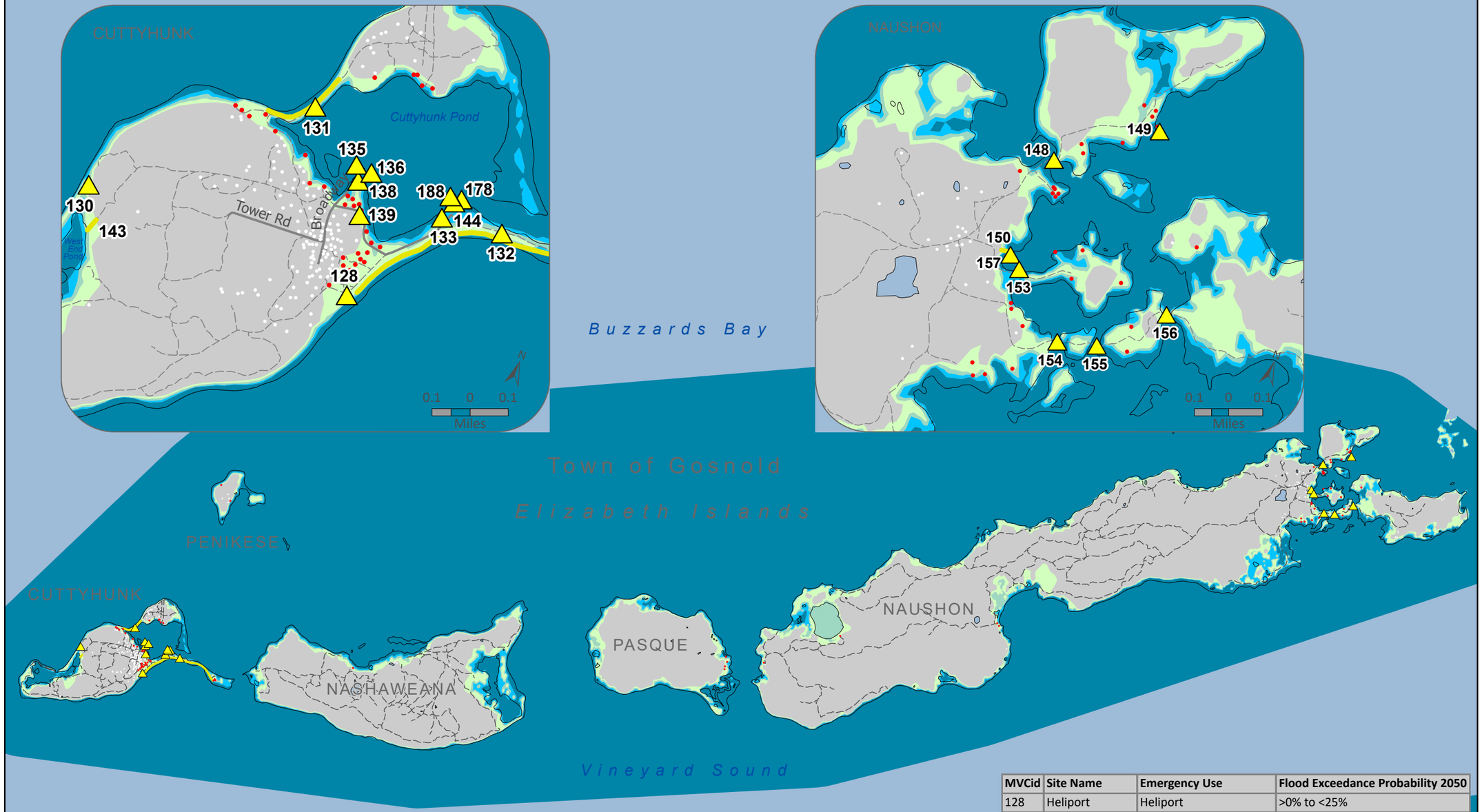
# Annual Coastal Flood Exceedance Probability

*2050 Scenario: 2.57ft Sea Level Rise relative to year 2008*

## Gosnold, MA
## Hazard Mitigation Plan




- Affected Critical Facilities
- Affected Critical Infrastructure
- Affected Structures
- Unaffected Structures

**Coastal Flood Exceedance Probability**

- >=75%
- >=50% to <75%
- >=25% to <50%
- >0% to <25%

Notes: These data are derived from output of the MA Coast Flood Risk Model (MC-FRM) for several time horizons, sea level rise and coastal storm simulations as described in the report "Assessing the vulnerability of MassDOT's coastal transportation systems to future sea level rise and coastal storms, and developing conceptual adaptation strategies" (2020). Sea level rise values utilized in the model are those adopted by ResilientMA.org and MassCZM. The probabilities is the percent chance that a location would be inundated under a given climate condition. For example, an area of 2% Probability has a 2% chance of flooding in a given year.

Disclaimer: Data provided are for planning purposes only. These data are not adequate for regulatory interpretation. The MVC is not responsible for the end-user's interpretation of the data.


Compiled by: MVC, CL Seidel, www.mvcommission.org; 508-693-3453
Data: Structures - MassGIS 2019; Roads 2017; Town Line - MassGIS 2003/MVC 2020; ACFEP - MassDOT Highway Div. 2020
Coordinate Reference: Stateplane MassMainland NAD83 meters
Folder: Hazard Mitigation Plan
Project: HMPseries_FRMprob2050.aprx;
Export: 2/2/2021 HMPseries_FRMprob2050_*.pdf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| MVCid | Site Name | Emergency Use | Total Feet Affected | Flood Exceedance Probability 2050 |
|---|---|---|---|---|
| 131 | Church's Beach | Barrier Beach | 926 | >0% to <25% |
| 131 | Church's Beach | Barrier Beach | 261 | >=25% to <50% |
| 132 | Barges Beach | Barrier Beach | 955 | >0% to <25% |
| 132 | Barges Beach | Barrier Beach | 1,416 | >=25% to <50% |
| 132 | Barges Beach | Barrier Beach | 887 | >=50% to <75% |
| 132 | Barges Beach | Barrier Beach | 1,418 | >=75% |
| 143 | Road to Public Well | Road | 177 | >0% to <25% |
| 143 | Road to Public Well | Road | 10 | >=25% to <50% |
| 150 | Road to Upper Wharf | Road | 32 | >0% to <25% |
| 150 | Road to Upper Wharf | Road | 32 | >=25% to <50% |
| 150 | Road to Upper Wharf | Road | 27 | >=50% to <75% |

**Affected Critical Facilities & Infrastructure**

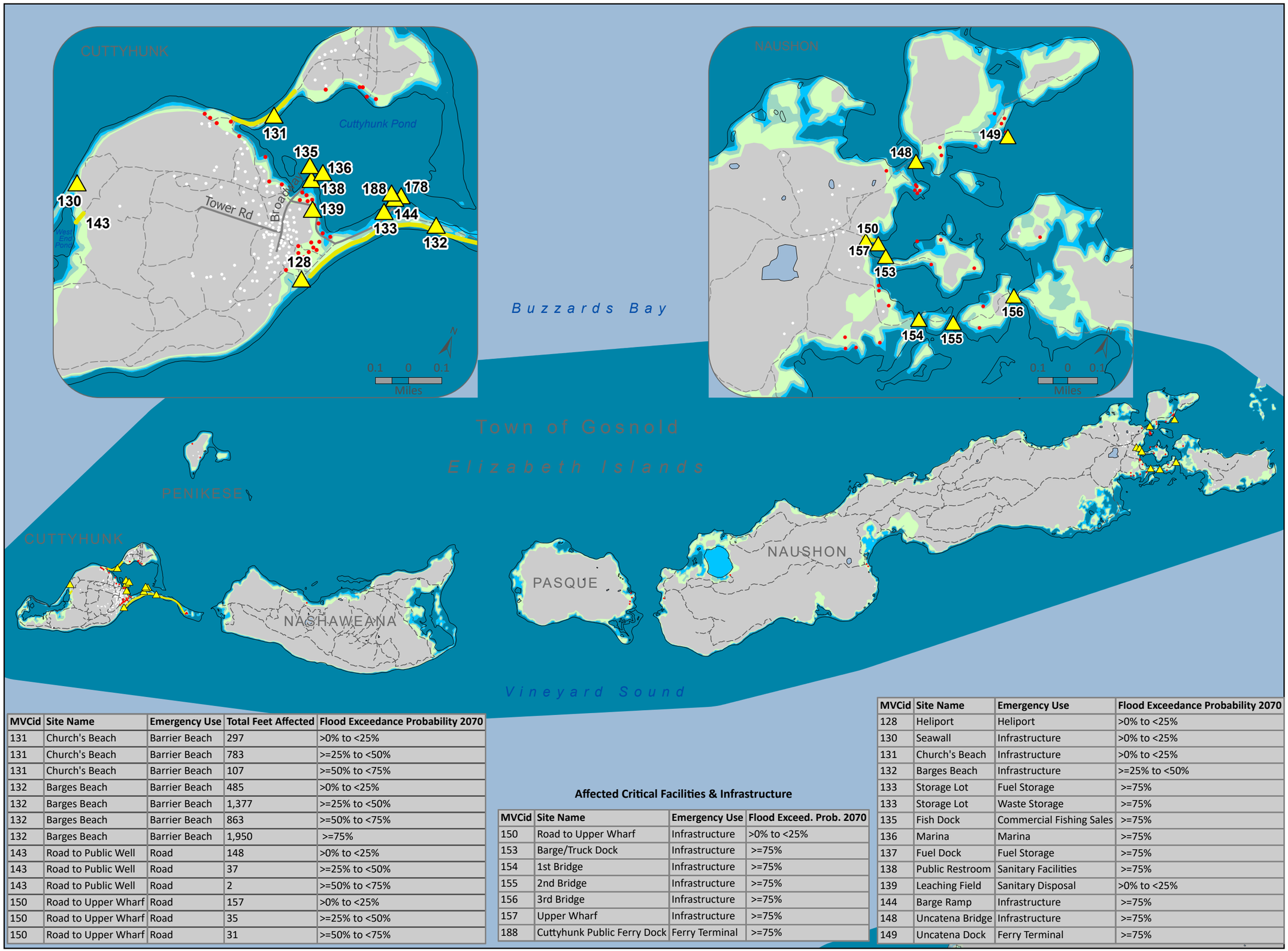
| MVCid | Site Name | Emergency Use | Flood Risk Probability 2050 |
|---|---|---|---|
| 153 | Barge/Truck Dock | Infrastructure | >=75% |
| 154 | 1st Bridge | Infrastructure | >=75% |
| 155 | 2nd Bridge | Infrastructure | >=75% |
| 156 | 3rd Bridge | Infrastructure | >=75% |
| 157 | Upper Wharf | Infrastructure | >=75% |
| 188 | Cuttyhunk Public Ferry Dock | Ferry Terminal | >=75% |

| MVCid | Site Name | Emergency Use | Flood Exceedance Probability 2050 |
|---|---|---|---|
| 128 | Heliport | Heliport | >0% to <25% |
| 130 | Seawall | Infrastructure | >0% to <25% |
| 131 | Church's Beach | Infrastructure | >0% to <25% |
| 132 | Barges Beach | Infrastructure | >0% to <25% |
| 133 | Storage Lot | Fuel Storage | >=50% to <75% |
| 133 | Storage Lot | Waste Storage | >=50% to <75% |
| 135 | Fish Dock | Commercial Fishing Sales | >=75% |
| 136 | Marina | Marina | >=75% |
| 137 | Fuel Dock | Fuel Storage | >=75% |
| 138 | Public Restroom | Sanitary Facilities | >=50% to <75% |
| 139 | Leaching Field | Sanitary Disposal | >0% to <25% |
| 144 | Barge Ramp | Infrastructure | >=75% |
| 148 | Uncatena Bridge | Infrastructure | >=75% |
| 149 | Uncatena Dock | Ferry Terminal | >=75% |

# Annual Coastal Flood Exceedance Probability

*Year 2070 Scenario: 4.37ft Sea Level Rise relative to year 2008*

## Gosnold, MA Hazard Mitigation Plan




- Affected Critical Facilities
- Affected Critical Infrastructure
- Affected Structures
- Unaffected Structures

**Coastal Flood Exceedance Probability**

- >=75%
- >=50% to <75%
- >=25% to <50%
- >0% to <25%

Notes: These data are derived from output of the MA Coast Flood Risk Model (MC-FRM) for several time horizons, sea level rise and coastal storm simulations as described in the report "Assessing the vulnerability of MassDOT's coastal transportation systems to future sea level rise and coastal storms, and developing conceptual adaptation strategies" (2020). Sea level rise values utilized in the model are those adopted by ResilientMA.org and MassCZM. The probabilities is the percent chance that a location would be inundated under a given climate condition. For example, an area of 2% Probability has a 2% chance of flooding in a given year.

Disclaimer: Data provided are for planning purposes only. These data are not adequate for regulatory interpretation. The MVC is not responsible for the end-user's interpretation of the data.


Compiled by: MVC, CL Seidel, www.mvcommission.org; 508-693-3453
Data: Structures - MassGIS 2019; Roads 2017; Town Line - MassGIS 2003/MVC 2020; ACFEP - MassDOT Highway Div. 2020
Coordinate Reference: Stateplane MassMainland NAD83 meters
Folder: Hazard Mitigation Plan
Project: HMPseries_FRMprob2070.aprx;
Export: 2/10/2021 HMPseries_FRMprob2070_*.pdf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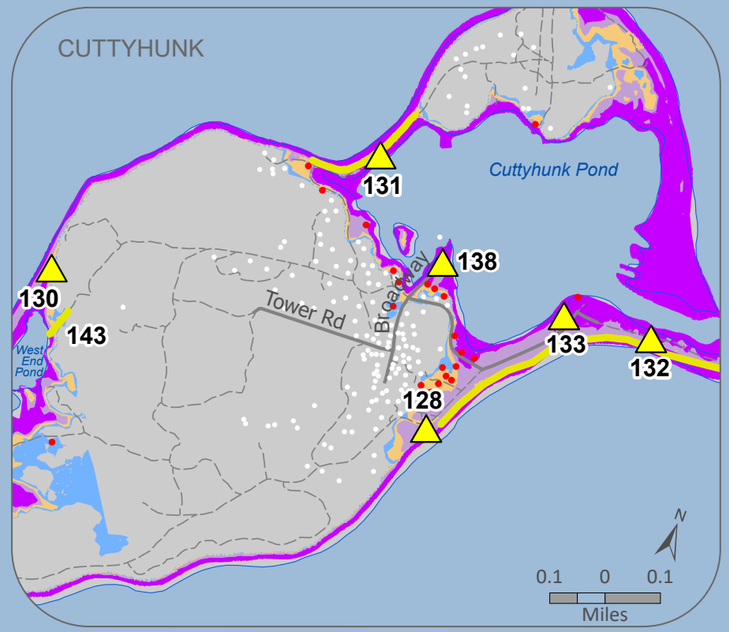
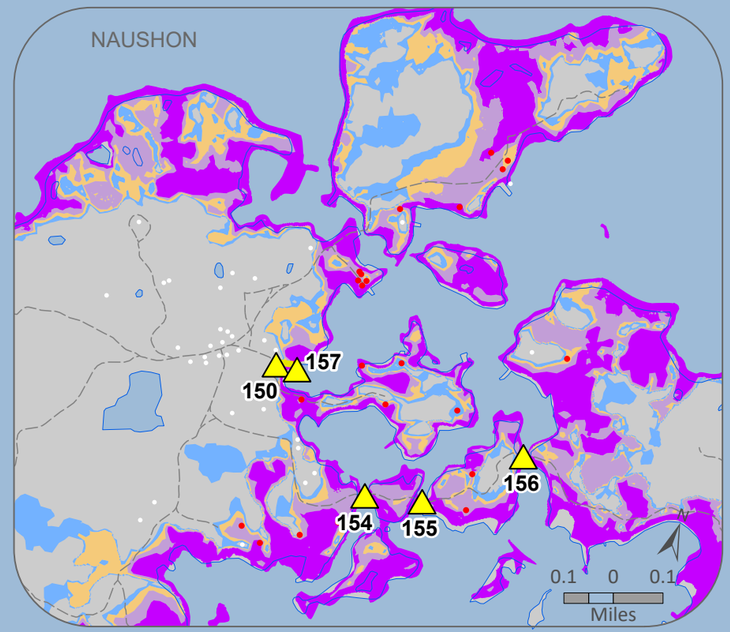
| MVCid | Site Name | Emergency Use | Total Feet Affected | Flood Exceedance Probability 2070 |
|---|---|---|---|---|
| 131 | Church's Beach | Barrier Beach | 297 | >0% to <25% |
| 131 | Church's Beach | Barrier Beach | 783 | >=25% to <50% |
| 131 | Church's Beach | Barrier Beach | 107 | >=50% to <75% |
| 132 | Barges Beach | Barrier Beach | 485 | >0% to <25% |
| 132 | Barges Beach | Barrier Beach | 1,377 | >=25% to <50% |
| 132 | Barges Beach | Barrier Beach | 863 | >=50% to <75% |
| 132 | Barges Beach | Barrier Beach | 1,950 | >=75% |
| 143 | Road to Public Well | Road | 148 | >0% to <25% |
| 143 | Road to Public Well | Road | 37 | >=25% to <50% |
| 143 | Road to Public Well | Road | 2 | >=50% to <75% |
| 150 | Road to Upper Wharf | Road | 157 | >0% to <25% |
| 150 | Road to Upper Wharf | Road | 35 | >=25% to <50% |
| 150 | Road to Upper Wharf | Road | 31 | >=50% to <75% |

**Affected Critical Facilities & Infrastructure**

| MVCid | Site Name | Emergency Use | Flood Exceed. Prob. 2070 |
|---|---|---|---|
| 150 | Road to Upper Wharf | Infrastructure | >0% to <25% |
| 153 | Barge/Truck Dock | Infrastructure | >=75% |
| 154 | 1st Bridge | Infrastructure | >=75% |
| 155 | 2nd Bridge | Infrastructure | >=75% |
| 156 | 3rd Bridge | Infrastructure | >=75% |
| 157 | Upper Wharf | Infrastructure | >=75% |
| 188 | Cuttyhunk Public Ferry Dock | Ferry Terminal | >=75% |

| MVCid | Site Name | Emergency Use | Flood Exceedance Probability 2070 |
|---|---|---|---|
| 128 | Heliport | Heliport | >0% to <25% |
| 130 | Seawall | Infrastructure | >0% to <25% |
| 131 | Church's Beach | Infrastructure | >0% to <25% |
| 132 | Barges Beach | Infrastructure | >=25% to <50% |
| 133 | Storage Lot | Fuel Storage | >=75% |
| 133 | Storage Lot | Waste Storage | >=75% |
| 135 | Fish Dock | Commercial Fishing Sales | >=75% |
| 136 | Marina | Marina | >=75% |
| 137 | Fuel Dock | Fuel Storage | >=75% |
| 138 | Public Restroom | Sanitary Facilities | >=75% |
| 139 | Leaching Field | Sanitary Disposal | >0% to <25% |
| 144 | Barge Ramp | Infrastructure | >=75% |
| 148 | Uncatena Bridge | Infrastructure | >=75% |
| 149 | Uncatena Dock | Ferry Terminal | >=75% |



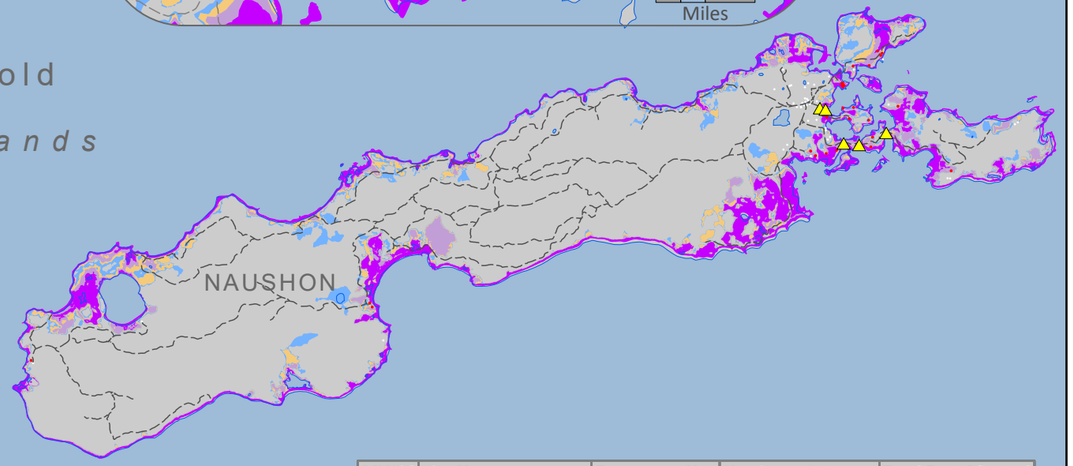




Buzzards Bay

Town of Gosnold

Elizabeth Islands




Vineyard Sound

**Affected Critical Facilities & Infrastructure**

| MVCid | Site Name | Emergency Use | Hurricane Category |
|---|---|---|---|
| 128 | Heliport | Heliport | 2 |
| 130 | Seawall | Infrastructure | 3 |
| 131 | Church's Beach | Infrastructure | 3 |
| 132 | Barges Beach | Infrastructure | 1 |
| 133 | Storage Lot | Fuel Storage | 1 |
| 133 | Storage Lot | Waste Storage | 1 |
| 138 | Public Restroom | Sanitary Facilities | 1 |
| 150 | Road to Upper Wharf | Infrastructure | 4 |
| 154 | 1st Bridge | Infrastructure | 1 |
| 155 | 2nd Bridge | Infrastructure | 1 |
| 156 | 3rd Bridge | Infrastructure | 1 |
| 157 | Upper Wharf | Infrastructure | 1 |

| MVCid | Site Name | Emergency Use | Hurricane Category | Total Feet Affected |
|---|---|---|---|---|
| 131 | Church's Beach | Barrier Beach | 1 | 443 |
| 131 | Church's Beach | Barrier Beach | 2 | 717 |
| 131 | Church's Beach | Barrier Beach | 3 | 27 |
| 132 | Barges Beach | Barrier Beach | 1 | 2,677 |
| 132 | Barges Beach | Barrier Beach | 2 | 1,807 |
| 132 | Barges Beach | Barrier Beach | 3 | 154 |
| 143 | Road to Public Well | Road | 1 | 9 |
| 143 | Road to Public Well | Road | 2 | 79 |
| 143 | Road to Public Well | Road | 3 | 143 |
| 143 | Road to Public Well | Road | 4 | 35 |
| 150 | Road to Upper Wharf | Road | 1 | 50 |
| 150 | Road to Upper Wharf | Road | 2 | 32 |
| 150 | Road to Upper Wharf | Road | 3 | 32 |
| 150 | Road to Upper Wharf | Road | 4 | 62 |

# Hurricane Surge Inundation

## Gosnold, MA

### Hazard Mitigation Plan

- Affected Critical Facilities
- Affected Critical Infrastructure
- Affected Structures
- Unaffected Structures

**Hurricane Surge Inundation**

*Worst Case Scenario*

- Category 1
- Category 2
- Category 3
- Category 4

Notes: Per USACE: "Hurricane surge elevations were determined by the National Hurricane Center using the PV2 SLOSH model basin, and assumed peak hurricane surge arriving at mean high water. The hurricane surge inundation areas shown on this map depict the inundation that can be expected to result from a worst case combination of hurricane landfall location, forward speed, and direction for each hurricane category." ACCURACY: SLOSH Model Elevation Data: +/-20 percent LiDAR Elevation Data: +/- 0.5ft vertical; +/-1ft horizontal; Shoreline Data: Less accurate than LiDAR; Hence, discrepancies will be visibly noticeable when displayed together.

Disclaimer: Data provided are for planning purposes only. These data are not adequate for regulatory interpretation. The MVC is not responsible for the end-user's interpretation of the data.

Compiled by: MVC, CL Seidel, www.mvcommission.org; 508-693-3453
Data: Structures - MassGIS 2019; Roads 2017; Town Line - MassGIS 2003/MVC 2020; Hurricane Inundation - USACE 2013
Coordinate Reference: Stateplane MassMainland NAD83 meters
Folder: Hazard Mitigation Plan
Project: HMPseries_SLOSH.aprx;
Export: 1/24/2021 HMPseries_SLOSH_*.pdf

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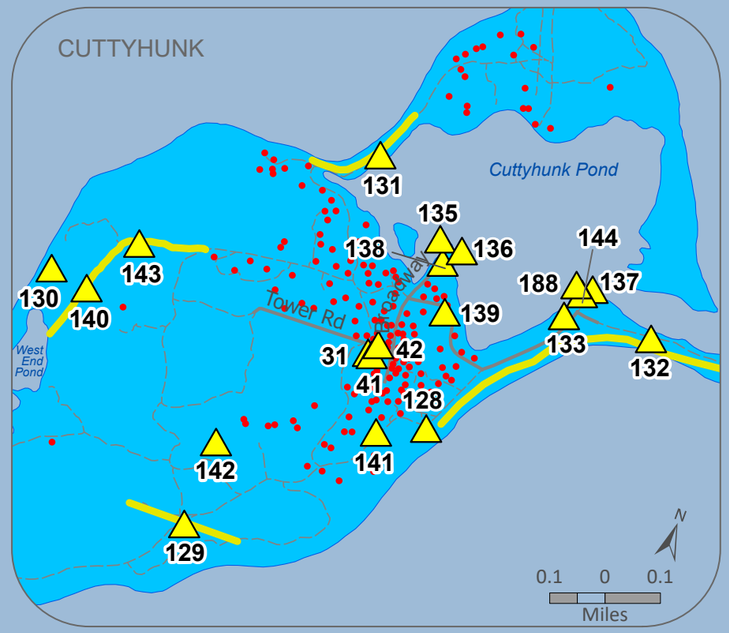
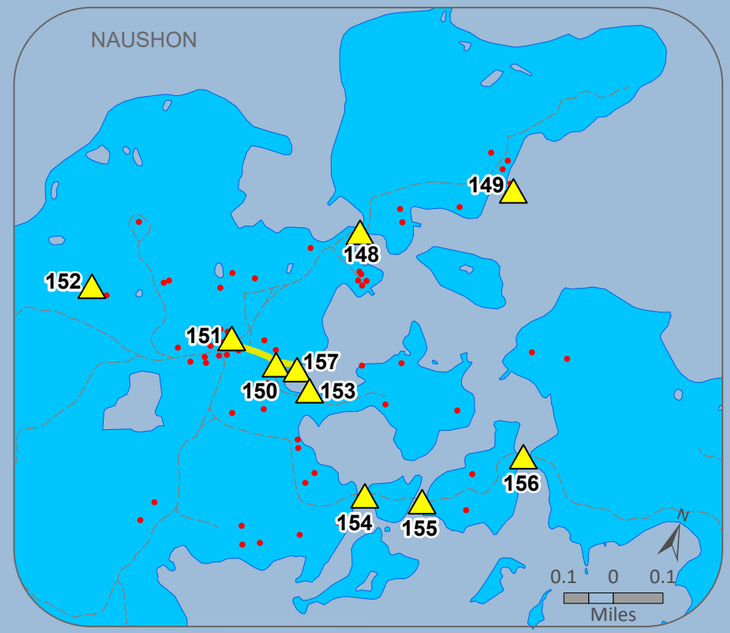
# Tsunami Hazard Zone

## Gosnold, MA

### Hazard Mitigation Plan




Buzzards Bay

Town of Gosnold

Elizabeth Islands





Vineyard Sound

| MVCid | Site Name | Emergency Use |
|---|---|---|
| 31 | Cuttyhunk Elementary | Mass Care Center |
| 31 | Cuttyhunk Elementary | School |
| 37 | Penikese Island School | School |
| 41 | Gosnold Town Hall | Mass Care Center |
| 41 | Gosnold Town Hall | Primary Emergency Operations Center |
| 41 | Gosnold Town Hall | Town Hall |
| 42 | Cuttyhunk Church | Mass Care Center |
| 128 | Heliport | Heliport |
| 129 | Airstrip | Airstrip |
| 130 | Seawall | Infrastructure |
| 131 | Church's Beach | Infrastructure |
| 132 | Barges Beach | Infrastructure |
| 133 | Storage Lot | Fuel Storage |
| 133 | Storage Lot | Waste Storage |

**Affected Critical Facilities & Infrastructure**

| MVCid | Site Name | Emergency Use | Feet Affected |
|---|---|---|---|
| 129 | Cuttyhunk Airstrip | Airstrip | 1096 |
| 131 | Church's Beach | Barrier Beach | 1187 |
| 132 | Barges Beach | Barrier Beach | 4675 |
| 143 | Road to Public Well | Road | 2015 |
| 150 | Road to Upper Wharf | Road | 696 |

| MVCid | Site Name | Emergency Use |
|---|---|---|
| 135 | Fish Dock | Commercial Fishing Sales |
| 136 | Marina | Marina |
| 137 | Fuel Dock | Fuel Storage |
| 138 | Public Restroom | Sanitary Facilities |
| 139 | Leaching Field | Sanitary Disposal |
| 140 | Public Well | Public Well |
| 141 | Power House | Power Generation |
| 142 | Solar Array Site | Power Generation |
| 143 | Public Well Access Road | Infrastructure |
| 144 | Barge Ramp | Infrastructure |
| 148 | Uncatena Bridge | Infrastructure |
| 149 | Uncatena Dock | Ferry Terminal |
| 150 | Road to Upper Wharf | Infrastructure |
| 151 | Generator | Power Generation |
| 152 | Solar Farm | Power Generation |
| 153 | Barge/Truck Dock | Infrastructure |
| 154 | 1st Bridge | Infrastructure |
| 155 | 2nd Bridge | Infrastructure |
| 156 | 3rd Bridge | Infrastructure |
| 157 | Upper Wharf | Infrastructure |
| 188 | Cuttyhunk Public Ferry Dock | Ferry Terminal |

- Affected Critical Facilities
- Affected Critical Infrastructure
- Affected Structures
- Potential Tsunami Hazard Zone

**Roads**

- Primary Road
- Secondary Road
- Neighborhood Road
- Local Road

Notes: The potential tsunami hazard zone is any land or water area within 1 mile of the coastline. The 1 mile buffer was not applied to the shoreline of coastal ponds.

Disclaimer: Data provided are for planning purposes only. These data are not adequate for regulatory interpretation. The MVC is not responsible for the end-user's interpretation of the data.


Compiled by: MVC, CL Seidel, www.mvcommission.org; 508-693-3453
Data: Structures - MassGIS 2019; Roads 2017; Town Line - MassGIS 2003/MVC 2020; Tsunami Hazard Zone - MVC 2020
Coordinate Reference: Stateplane MassMainland NAD83 meters

Folder: Hazard Mitigation Plan
Project: HMPseries_Tsunami.aprx;
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