



US Army Corps of Engineers
BUILDING STRONG®

Hurricane Henri Advisory #18

For Planning Purposes Only!

WASHINGTON, DC
09:02:47
20 Aug 2021

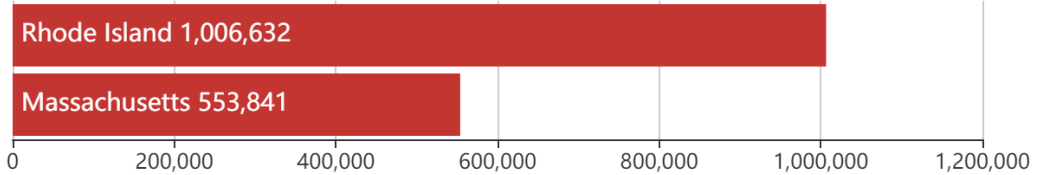
CHICAGO
08:02:47
20 Aug 2021

LOS ANGELES
06:02:47
20 Aug 2021

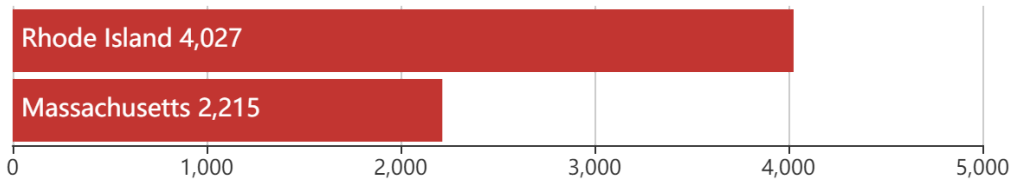
<https://go.usa.gov/xFAC9>

Updated as of 20 Aug 2021 (8:02 AM Central Daylight Time)

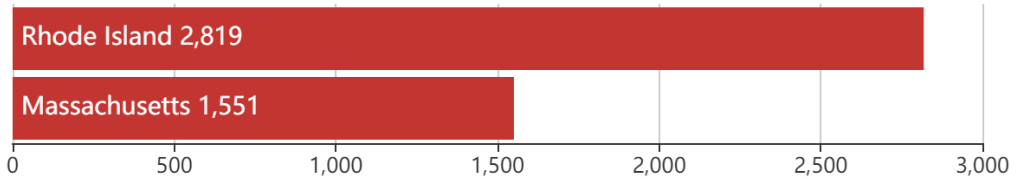
Debris



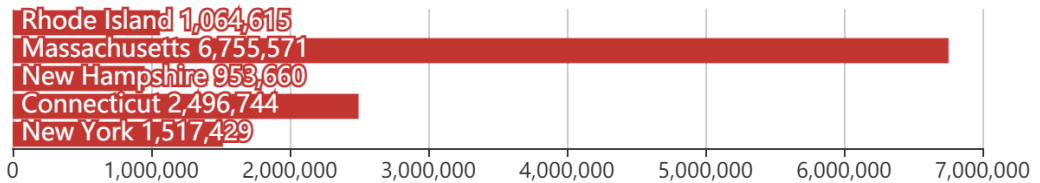
Est. Temp. Roofing



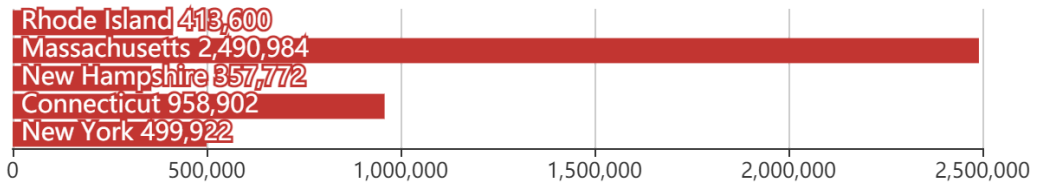
Act. Temp. Roofing



Population



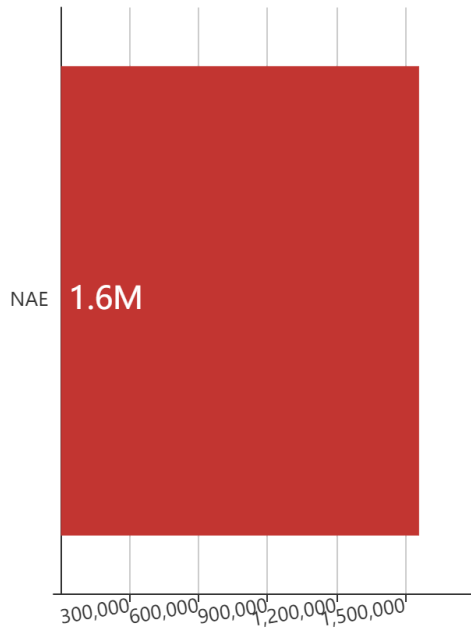
Households



Mission Model Summary

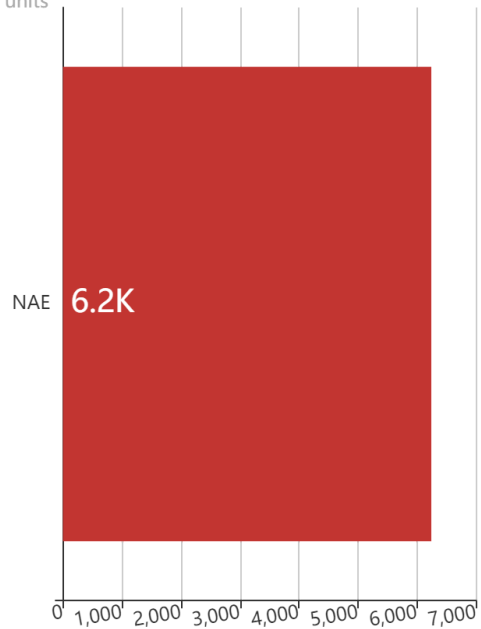
Debris By USACE District

cu. yd.

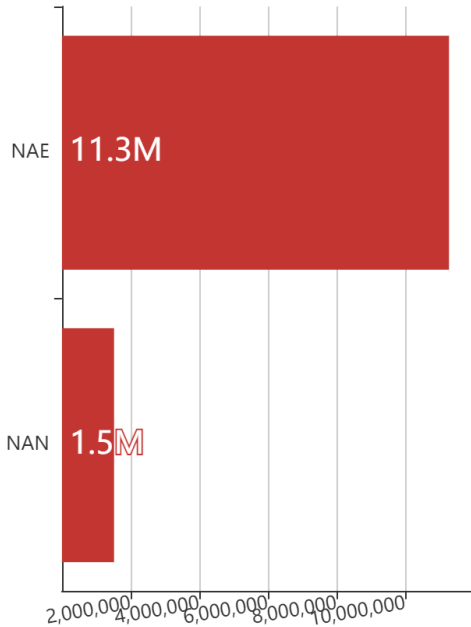


Est. Temp. Roofing By USACE District

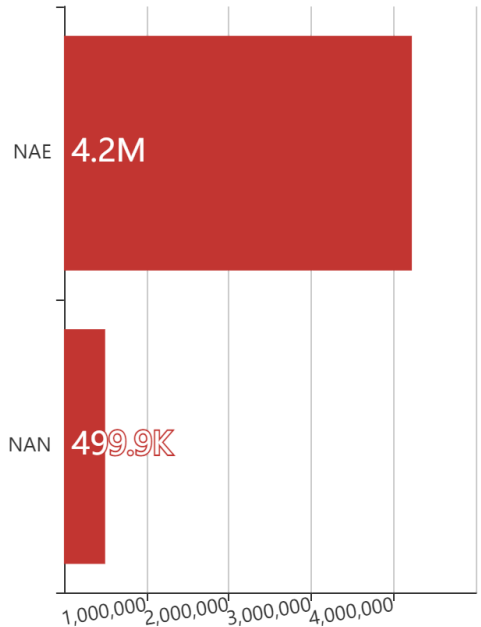
units



Population By USACE District



Households By USACE District



Critical Infrastructure Summary

Total

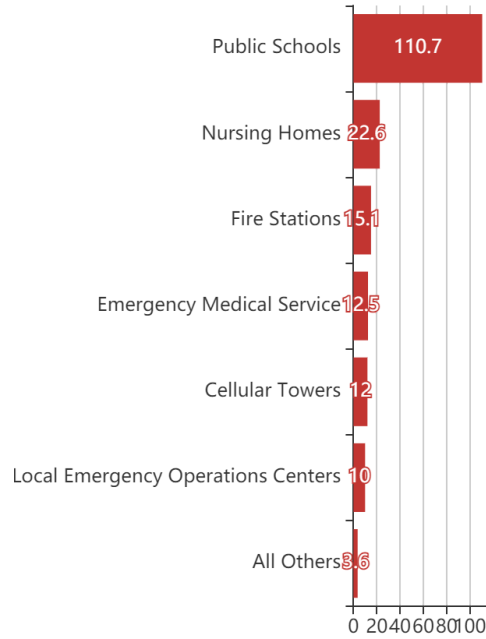


Power Requirements



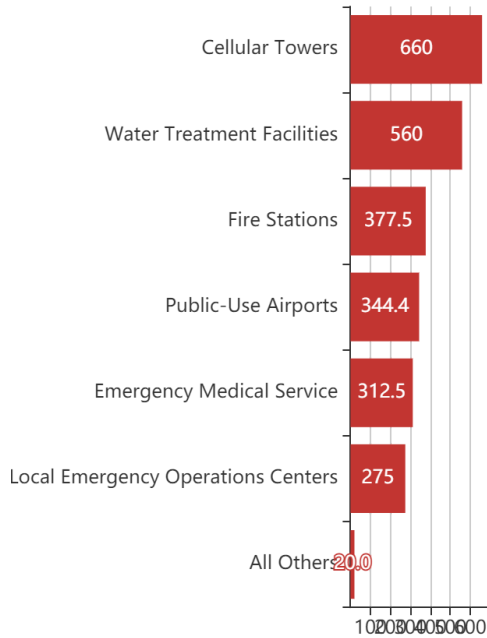
Generators

By Generator Count



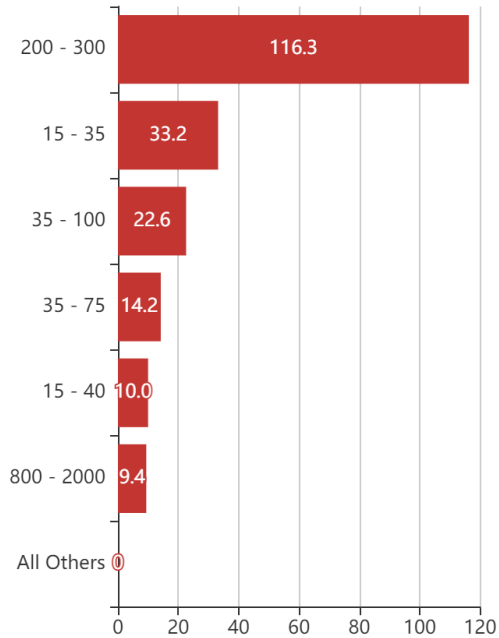
Generators

By Power Requirement



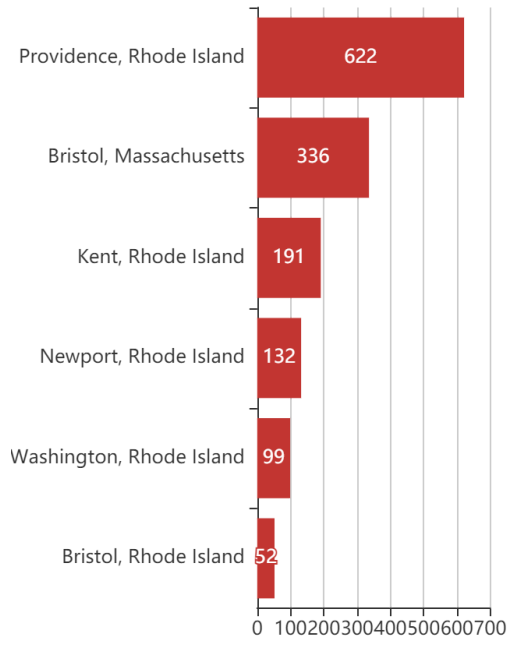
Generators

By Range



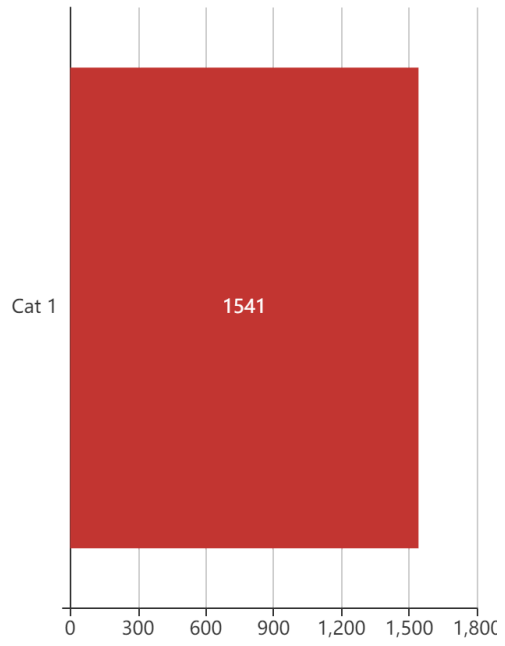
Structures

By County



Structures

By Intensity





Key Messages for Tropical Storm Henri

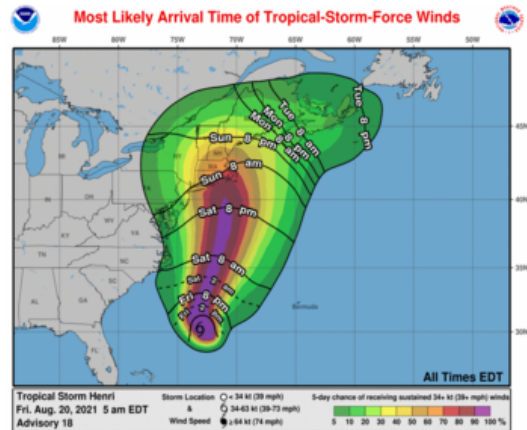
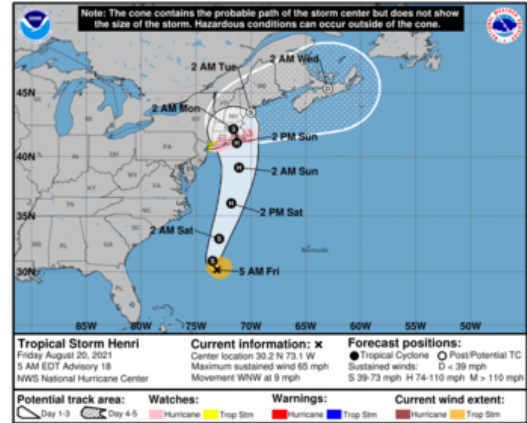
Advisory 18: 5:00 AM EDT Fri Aug 20, 2021



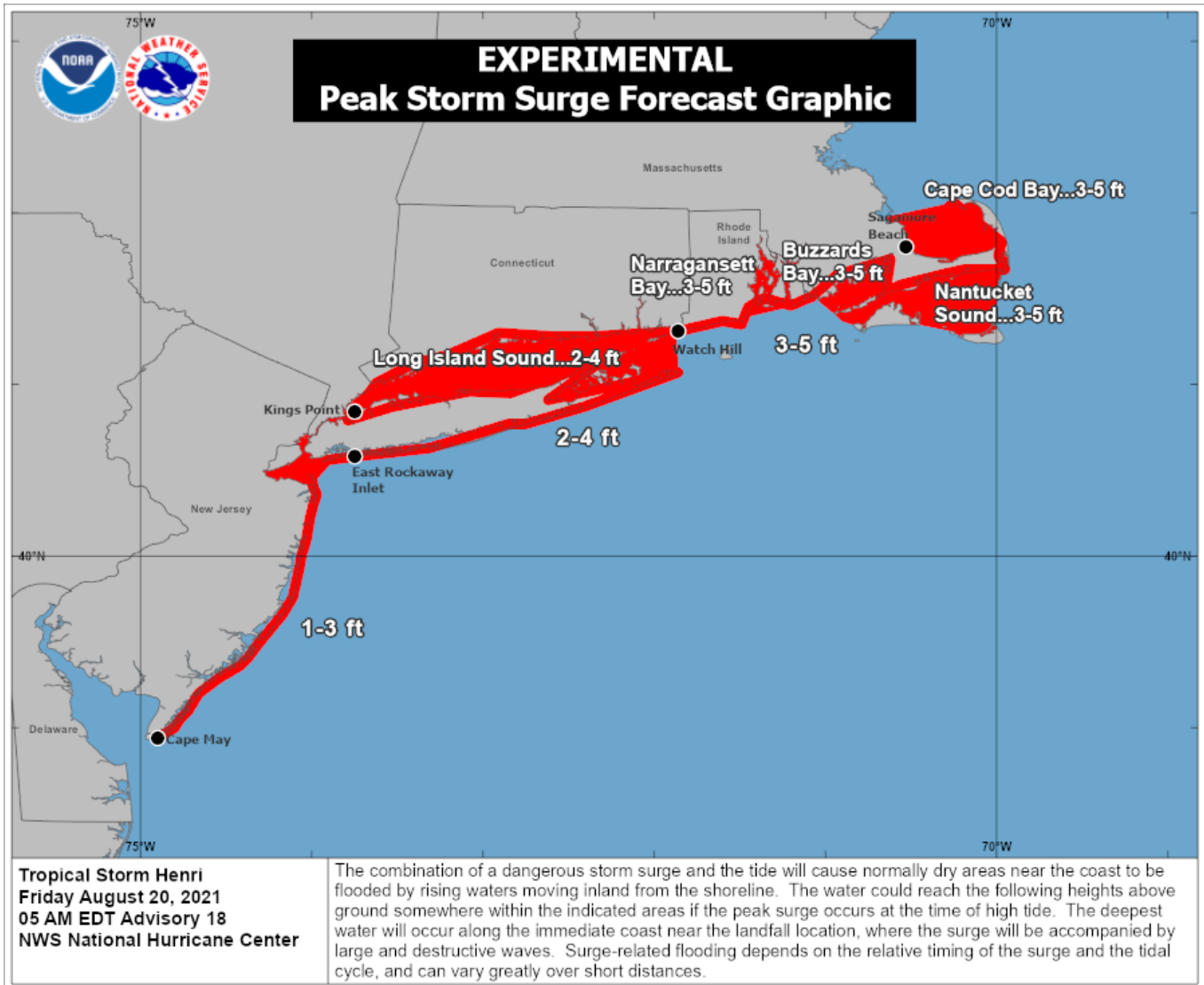
1. Henri is forecast to be near the northeast coast of the U.S. on Sunday and Monday, and the risks of storm surge, wind, and rain impacts in portions of southern New England and eastern Long Island are increasing. Hurricane and storm surge watches are now in effect for portions of Long Island, Connecticut, Rhode Island, and southeastern Massachusetts. Additional watches or warnings may be required later today.

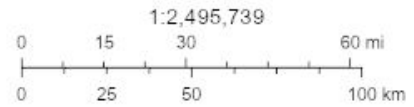
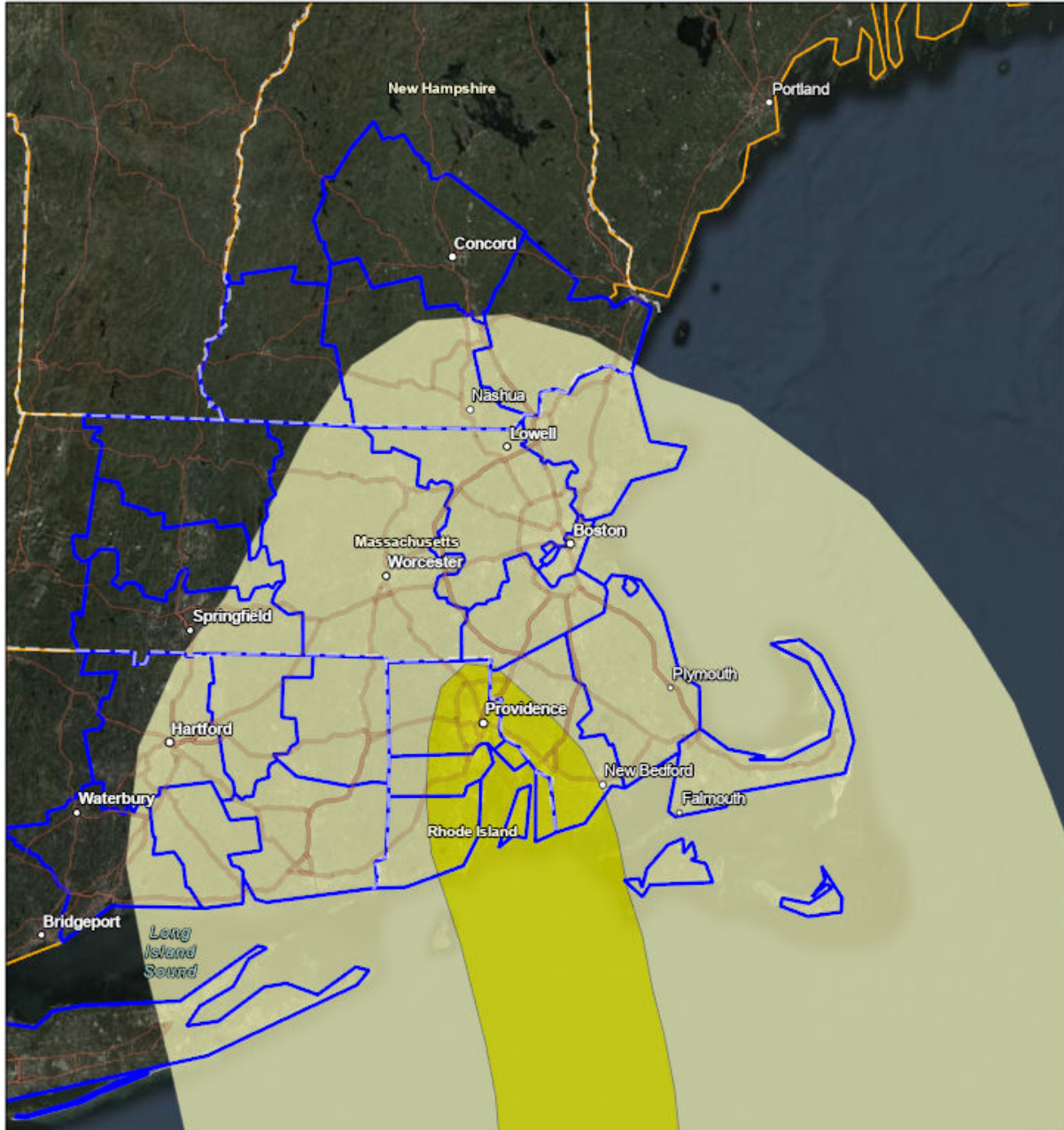
2. Swells from Henri will begin to reach much of the east coast of the U.S. and Atlantic Canada by the end of the week and continue through the weekend. These swells could cause life-threatening surf and rip currents.

3. Heavy rainfall may lead to flash, urban, and small stream flooding over portions of southern New England Sunday into Monday.



For more information go to hurricanes.gov

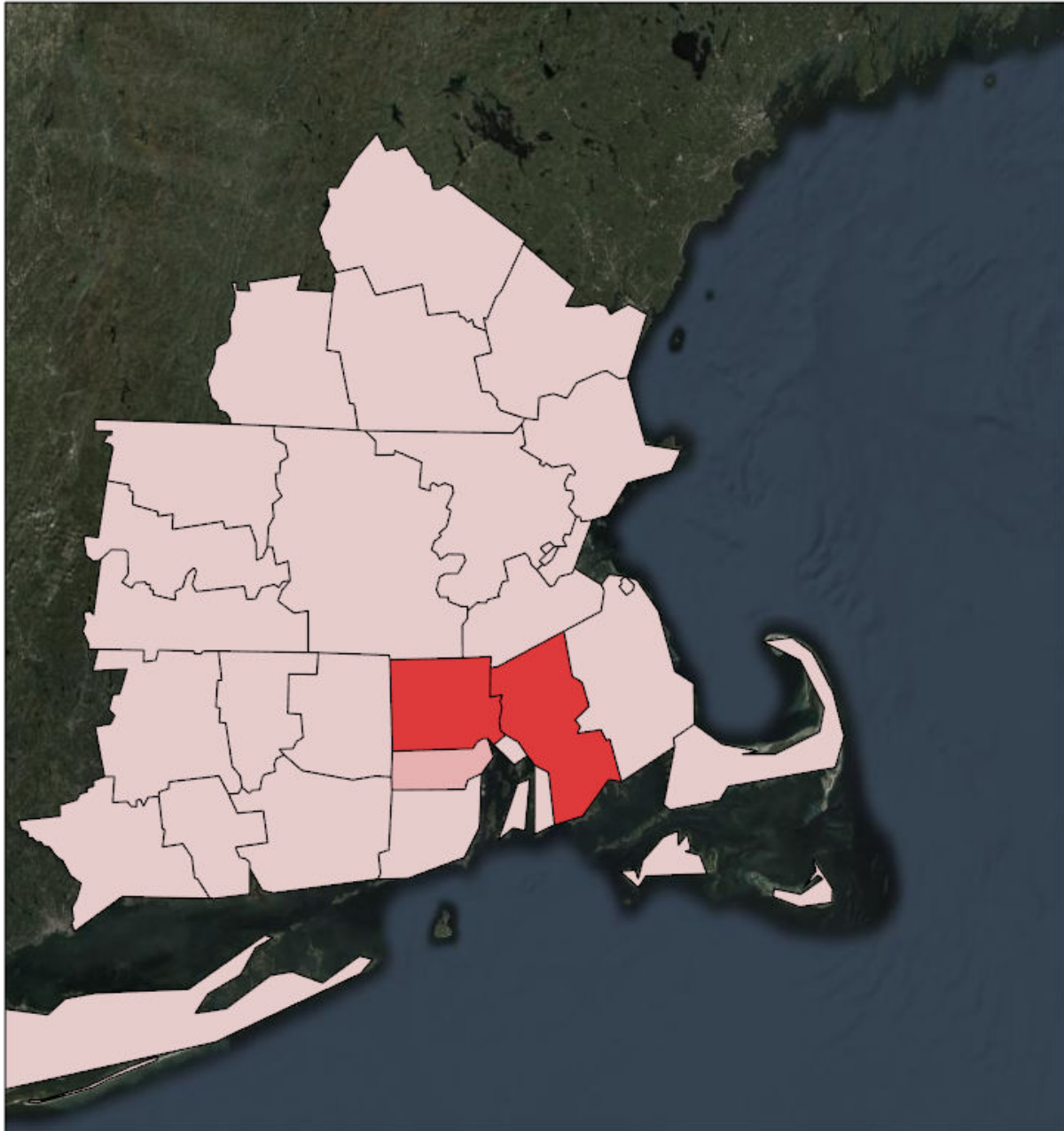







Source: NOAA, Esri, NOAA/NOS/OCS nowCOAST, NOAA/NWS/NHC, NOAA/NWS/CPHC, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Town of Dedham, Esri Canada, Esri, HERE, Garmin,

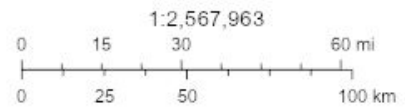
Created by SimSuite

Debris



Debris

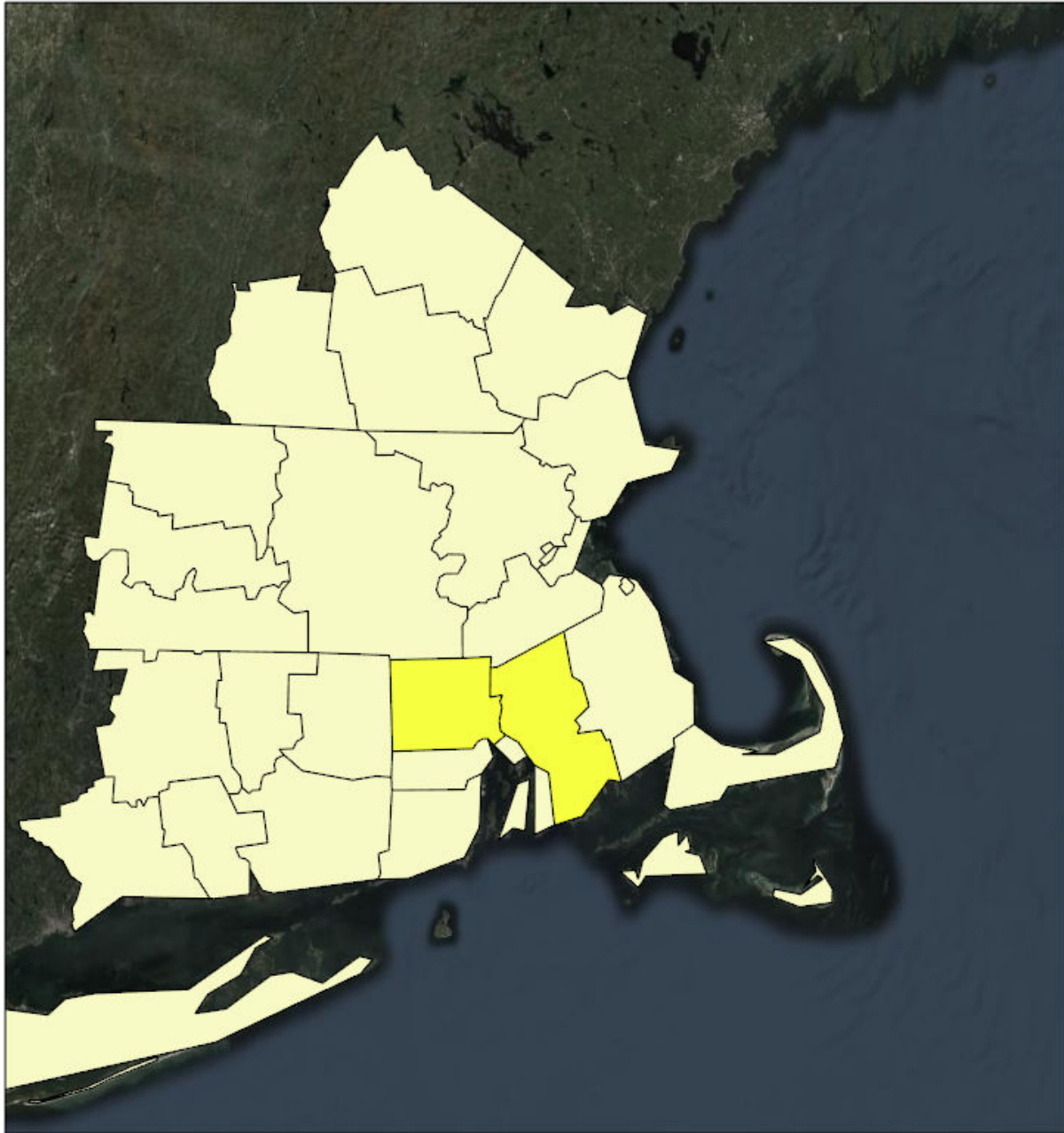
-  < 100,000 cubic yards
-  100,000 - 249,000 cubic yards
-  500,000 - 999,999 cubic yards



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Created by SimSuite

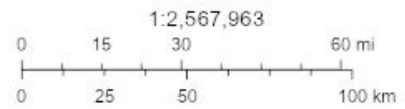
Est. Temp. Roofing



Est. Temp. Roofing

< 2,000 units

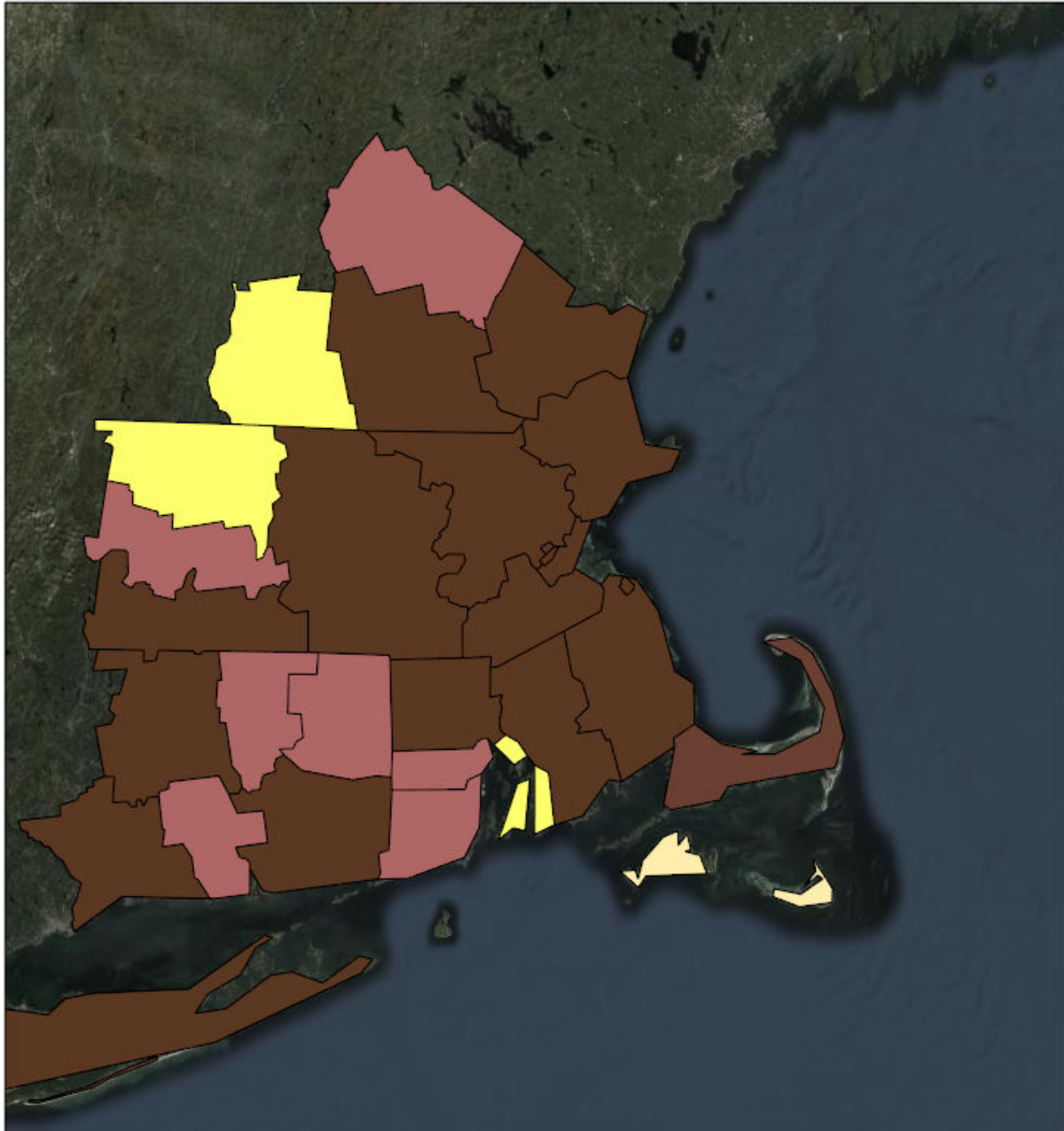
2,000 - 3,999 units




Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

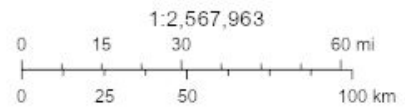
Created by SimSuite

Population



Population

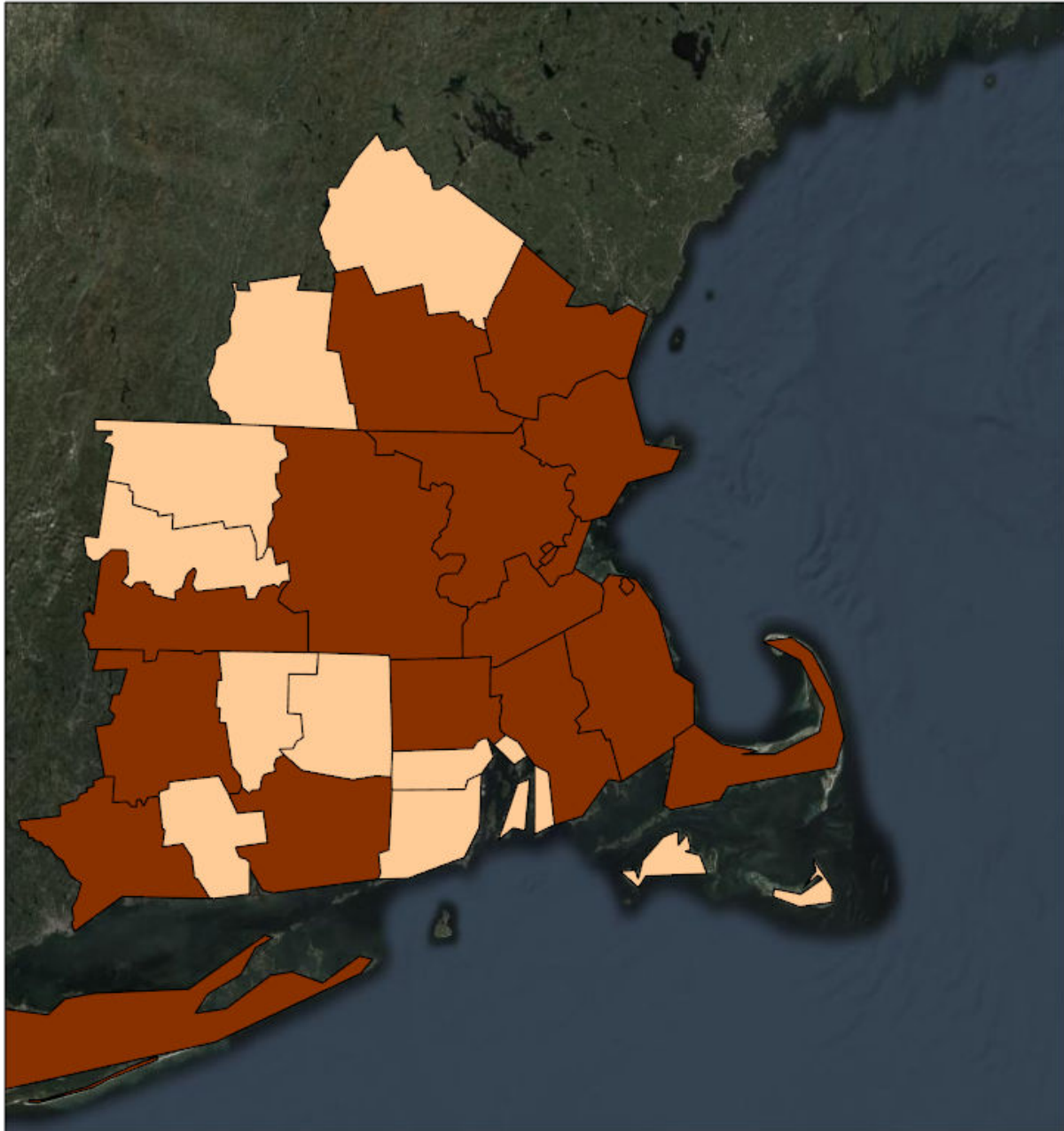
-  < 25,000 persons
-  25,000 - 99,000 persons
-  100,000 - 174,999 persons
-  175,000 - 249,000 persons



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

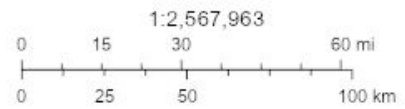
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Households



Households

- < 7,500 Households
- 15,000 - 24,999 Households
- 25,000 - 49,999 Households



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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COVID-19

| # | County | Cases |
|----|--------------|---------|
| 1 | Suffolk | 209,612 |
| 2 | Middlesex | 140,492 |
| 3 | Providence | 101,727 |
| 4 | Essex | 100,570 |
| 5 | Suffolk | 96,710 |
| 6 | New Haven | 96,149 |
| 7 | Hartford | 88,426 |
| 8 | Worcester | 80,012 |
| 9 | Bristol | 69,793 |
| 10 | Norfolk | 57,069 |
| 11 | Hampden | 54,738 |
| 12 | Plymouth | 51,269 |
| 13 | Hillsborough | 37,570 |
| 14 | Rockingham | 25,290 |
| 15 | New London | 23,715 |
| 16 | Kent | 19,343 |
| 17 | Barnstable | 14,975 |
| 18 | Middlesex | 13,468 |
| 19 | Windham | 11,315 |
| 20 | Washington | 10,554 |
| 21 | Tolland | 10,062 |
| 22 | Merrimack | 10,057 |
| 23 | Hampshire | 9,471 |
| 24 | Newport | 7,309 |
| 25 | Bristol | 5,318 |
| 26 | Cheshire | 4,109 |
| 27 | Franklin | 2,704 |
| 28 | Dukes | 0 |
| 29 | Nantucket | 0 |

Mission Summary



The mission models account for storm surge and wind damage only, but do not account for other related storm hazards that may affect the mission estimates.

| Mission Summary | |
|----------------------------|------------|
| Total Counties | 29 |
| Debris (cu. yd.) | 1,560,473 |
| Est. Temp. Roofing (units) | 6,242 |
| Act. Temp. Roofing (units) | 4,369 |
| Population | 12,788,019 |
| Households | 4,721,180 |

| Population Distribution | |
|-------------------------|-----------|
| Tropical Storm | 8,896,987 |
| Category 1 | 1,561,432 |

| CONNECTICUT | Yds of Debris (0) | Est. Roof Units (0) | Act. Roof Units (0) | Population (2,496,744) | Households (958,902) |
|-------------|-------------------|---------------------|---------------------|------------------------|----------------------|
| Hartford | 0 | 0 | 0 | 906,357 | 350,854 |
| Middlesex | 0 | 0 | 0 | 166,528 | 67,202 |
| New Haven | 0 | 0 | 0 | 873,829 | 334,502 |
| New London | 0 | 0 | 0 | 276,496 | 107,057 |
| Tolland | 0 | 0 | 0 | 154,772 | 54,477 |
| Windham | 0 | 0 | 0 | 118,762 | 44,810 |

| MASSACHUSETTS | Yds of Debris (553,841) | Est. Roof Units (2,215) | Act. Roof Units (1,551) | Population (6,755,571) | Households (2,490,984) |
|---------------|-------------------------|-------------------------|-------------------------|------------------------|------------------------|
| Barnstable | 0 | 0 | 0 | 223,733 | 95,755 |
| Bristol | 553,826 | 2,215 | 1,551 | 564,846 | 213,010 |
| Dukes | 15 | 0 | 0 | 17,359 | 7,368 |
| Essex | 0 | 0 | 0 | 787,418 | 285,956 |
| Franklin | 0 | 0 | 0 | 70,837 | 30,462 |
| Hampden | 0 | 0 | 0 | 476,058 | 179,927 |
| Hampshire | 0 | 0 | 0 | 164,464 | 58,702 |
| Middlesex | 0 | 0 | 0 | 1,602,184 | 580,688 |
| Nantucket | 0 | 0 | 0 | 10,720 | 4,229 |
| Norfolk | 0 | 0 | 0 | 702,913 | 257,914 |
| Plymouth | 0 | 0 | 0 | 523,823 | 181,126 |
| Suffolk | 0 | 0 | 0 | 774,572 | 292,767 |
| Worcester | 0 | 0 | 0 | 836,644 | 303,080 |

| NEW HAMPSHIRE | Yds of Debris (0) | Est. Roof Units (0) | Act. Roof Units (0) | Population (953,660) | Households (357,772) |
|----------------------|--------------------------|----------------------------|----------------------------|-------------------------------|-----------------------------|
| Cheshire | 0 | 0 | 0 | 76,576 | 30,204 |
| Hillsborough | 0 | 0 | 0 | 416,672 | 155,466 |
| Merrimack | 0 | 0 | 0 | 151,549 | 57,069 |
| Rockingham | 0 | 0 | 0 | 308,863 | 115,033 |
| NEW YORK | Yds of Debris (0) | Est. Roof Units (0) | Act. Roof Units (0) | Population (1,517,429) | Households (499,922) |
| Suffolk | 0 | 0 | 0 | 1,517,429 | 499,922 |

| RHODE ISLAND | Yds of Debris (1,006,632) | Est. Roof Units (4,027) | Act. Roof Units (2,819) | Population (1,064,615) | Households (413,600) |
|---------------------|--------------------------------------|------------------------------------|------------------------------------|-----------------------------------|---------------------------------|
| Bristol | 49,790 | 199 | 139 | 49,181 | 19,150 |
| Kent | 178,477 | 714 | 500 | 166,449 | 68,645 |
| Newport | 90,769 | 363 | 254 | 83,346 | 34,911 |
| Providence | 628,464 | 2,514 | 1,760 | 639,055 | 241,717 |
| Washington | 59,132 | 237 | 166 | 126,584 | 49,177 |

Critical Infrastructure

| Summary | | | |
|--|---------------|------------|----------|
| Total Critical Facilities | | 1,541 | |
| Power Requirements (kW) | | 47,669.3 | |
| Range (kW) | | | |
| Communications | # FED Gen Req | Range (kW) | Req kW |
| AM Antennas (16) | 0.8 | 35 - 75 | 44.0 |
| Cellular Towers (20) | 12.0 | 35 - 75 | 660.0 |
| FM Antennas (28) | 1.4 | 35 - 75 | 77.0 |
| Education | # FED Gen Req | Range (kW) | Req kW |
| Private Schools (184) | 0.0 | 200 - 300 | 0.0 |
| Public Schools (369) | 110.7 | 200 - 300 | 27,675.0 |
| Colleges and Universities (29) | 0.6 | 200 - 300 | 145.0 |
| Emergency Services | # FED Gen Req | Range (kW) | Req kW |
| 911 Call Centers (0) | 0.0 | 15 - 35 | 0.0 |
| Emergency Medical Service (125) | 12.5 | 15 - 35 | 312.5 |
| Fire Stations (151) | 15.1 | 15 - 35 | 377.5 |
| Service Providers (0) | 0.0 | 0 - 0 | 0.0 |
| Healthcare | # FED Gen Req | Range (kW) | Req kW |
| Nursing Homes (151) | 22.6 | 35 - 100 | 1,528.9 |
| Hospitals (22) | 6.6 | 800 - 2000 | 9,240.0 |
| Urgent Care Facilities (25) | 5.0 | 200 - 300 | 1,250.0 |
| Military | # FED Gen Req | Range (kW) | Req kW |
| Air National Guard (ANG) Sites (2) | 0.0 | 15 - 35 | 0.0 |
| Army National Guard (ARNG) Sites (21) | 0.0 | 15 - 35 | 0.0 |
| National Security Government Military Facilities (136) | 0.0 | 15 - 35 | 0.0 |
| Law Enforcement | # FED Gen Req | Range (kW) | Req kW |
| Prison Points (15) | 3.0 | 400 - 600 | 1,500.0 |
| Local Police (50) | 5.0 | 15 - 35 | 125.0 |
| State Police (8) | 0.4 | 15 - 35 | 10.0 |
| Correctional Facilities (0) | 0.0 | 400 - 600 | 0.0 |
| State and Local EOC | # FED Gen Req | Range (kW) | Req kW |
| Local Emergency Operations Centers (50) | 10.0 | 15 - 40 | 275.0 |
| State Emergency Operation Centers (EOCs) (1) | 0.2 | 15 - 35 | 5.0 |

| State Facilities | # FED Gen Req | Range (kW) | Req kW |
|--------------------------------------|---------------|------------|--------|
| Governors Mansion (0) | 0.0 | 100 - 200 | 0.0 |
| Major State Government Building (12) | 1.2 | 100 - 200 | 180.0 |

| Transportation | # FED Gen Req | Range (kW) | Req kW |
|------------------------------------|---------------|------------|--------|
| Ports (33) | 0.0 | 600 - 1200 | 0.0 |
| Amtrak Stations (2) | 0.0 | 100 - 300 | 0.0 |
| Bus Stations (34) | 0.0 | 100 - 300 | 0.0 |
| Intermodal Terminal Facilities (5) | 0.0 | 100 - 300 | 0.0 |
| Railroad Stations (4) | 0.0 | 100 - 300 | 0.0 |
| Public-Use Airports (41) | 4.9 | 40 - 100 | 344.4 |

| Water | # FED Gen Req | Range (kW) | Req kW |
|---------------------------------|---------------|------------|---------|
| Water Treatment Facilities (1) | 0.4 | 800 - 2000 | 560.0 |
| Wastewater Treatment Plants (6) | 2.4 | 800 - 2000 | 3,360.0 |

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