



**SRPEDD**  
Southeastern Regional Planning  
& Economic Development District



**Southeastern  
Massachusetts**

# EVACUATION ROUTE STUDY

**Draft September 2025**

# **Regional Evacuation Route Study For the SOUTHEASTERN MASSACHUSETTS METROPOLITAN PLANNING ORGANIZATION**

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Washington, DC 20590

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# Transportation Planning Acronyms

ACS – American Community Survey (Census)  
ADA- American with Disabilities Act  
BIL – Bipartisan Infrastructure Law  
CFR - Code of Federal Regulations  
CIP – Capital Investment Plan  
CMAQ – Congestion Mitigation / Air Quality  
CMR - Code of Massachusetts Regulations  
DEP - Department of Environmental Protection  
EPA- Environmental Protection Agency  
FFY - Federal Fiscal Year  
FHWA – Federal Highway Administration  
FTA – Federal Transit Administration  
GATRA – Greater Attleboro Taunton Regional (Transit) Authority  
GIS- Geographic Information System  
JTPG - The Joint Transportation Planning Group  
LEP - Limited English Proficiency  
LOS – Level of Service  
MARPA - Massachusetts Association of Regional Planning Agencies  
MassDOT – The Massachusetts Department of Transportation  
MaPIT - MassDOT’s Project Intake Tool  
MEPA- Massachusetts Environmental Protection Act  
MOU - Memorandum of Understanding  
MPO - Metropolitan Planning Organization  
NHS - National Highway System  
NOFO - Notice of Funding Opportunity  
OTP - Office of Transportation Planning  
Pinfo – MassDOT’s Project Information Tracking System  
PPP – Public Participation Program  
PRC – Project Review Committee  
RSA – Road Safety Audit  
RTA – Regional Transit Authority  
RTP – Regional Transportation Plan  
SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users  
SGR – State of Good Repair  
SIP – State Implementation Plan  
SMMPO - The Southeastern Massachusetts Metropolitan Planning Organization  
SRPEDD – Southeastern Regional Planning and Economic Development District  
SRTA – Southeastern Regional Transit Authority  
STIP – State Transportation Improvement Program  
Title VI – Federal law that mandates that any program, project or service be provided without regard to anyone’s race, color, or national origin, as well as age, gender or disability.  
TIP – Transportation Improvement Program  
TOD – Transit Oriented Development  
UPWP - Unified Planning Work Program  
VOC - Volatile Organic Compound



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# Introduction

The Southeastern Massachusetts region is at risk from a variety of natural and man-made disasters that may result in the need for evacuation. While the individual communities in the region have done a large amount of work to be prepared for disasters, there is a significant gap in planning at the regional level. Most community level planning does not provide instruction for evacuation outside community borders, leading to conflicting routing between communities. Several community and regional level needs have been identified, but many communities lack the resources to implement improvements.

This study examines the potential triggers for evacuation, clearly defines regional evacuation routes, and provides a plan that coordinates regional resources. Recommendations for improving routing and coordination are provided, as well as a resource list of best practices.

# Hazards and Methodology

## Category 3 Hurricane

There are many hazards that can provoke an evacuation, but this study focused generally on a single major incident. A small incident such as a hazmat spill, limited to one or two municipalities will be solved with a gratuitous amount of mutual aid. A catastrophic incident such as a Category 5 Hurricane impact is so damaging that all the region can do is hold on until outside help arrives. We selected a Category 3 Hurricane impact as one that would challenge but not overwhelm regional response.

## Methodology

The overarching goal of this study was to create a network of evacuation routes that compliment existing community plans and to identify resource needs. To achieve this goal, SRPEDD developed a methodology that included clear communication with stakeholders and relied heavily on data. This methodology included:

- meeting with stakeholders from all 27 communities
- convening focus groups for public input
- conducting a needs analysis using local input and GIS resources,
- synthesizing local plans into a regional framework with new routing and mapping
- analysis of environmental and hazard considerations
- analysis of Title VI considerations
- through public health review including hospital and emergency services
- compilation and research of best practices



# Public and Municipal Engagement

When this project was started, it was important that the project team solicit responses from the whole community. First we broke the whole community into two distinct groups, municipal stakeholders and partners, and members of the public.

We held an initial meeting with each municipality, inviting an exhaustive list of personnel to cast the widest net. The invite list included: Municipal Administrator, and members of the Planning, Police, Fire, Emergency Management, Public Works, School, Council on Aging, Public Health Departments as well as any other human services workers.

During the initial meeting we provided GIS maps of the town with existing evacuation conditions, a Category 3 hurricane inundation layer, and a National US Forest Service “wildfire risk to communities” layer. We then walked through existing conditions and plans, known vulnerabilities, gaps, and strengths as well as discussion of specific hazards such as floods, dams, hazardous materials, etc.

Because the local municipal stakeholders know their historical challenges, which roads flood, where the power goes out, where they have hazardous materials stored, etc. these meetings were an excellent chance for SRPEDD to distill valuable local information.

Additionally, these meetings let us probe municipalities for best practices which we could potentially regionalize. Few of the recommendations at the end of this report were invented by SRPEDD from whole cloth, they are almost universally the result of locals already doing excellent work that SRPEDD is looking to expand upon.

Findings from each community are discussed in the Issues Identified section of this document and a full accounting of each meeting is included in Appendix A.



Figure 1: A group of municipal stakeholders looking at a map in Somerset.

## Focus Groups

We considered mass collection solutions such as surveys, but ultimately decided that small-group discussions more akin to focus groups would get us closer to the answers sought. These focus groups were convened at local libraries, and councils on aging; in the communities and with the constituents we wanted to learn from.

We asked members of the community:


- If there were a city/town-wide emergency (e.g., storm, tornado) and the police said you must leave your residence because of the dangers, would you decide to leave?
- What would be the deciding reason for you to stay or go?
- Was the decision you chose difficult to make? Why or why not?
- If you did go, how did you get out? Car? Walk? Public Transportation?
- If your residence was heavily damaged, how manageable is a \$10,000 deductible for you and your family? How would this unexpected bill affect you and your family?
- In case of a city- or town-wide emergency evacuation, do you know where any emergency shelters are located? If I lived in your neighborhood, would you be able to tell me where to find public shelter during the emergency?
- Have you signed up for the city- or town-wide emergency alerts?

Reports from each focus group are available in Appendix A.


## Come Chat with Us About Emergency Evacuations in the Community!

We want to hear your thoughts on how you would evacuate your community during a regionwide emergency for our Emergency Evacuation Study


# Regionwide Evacuation Study and Survey 2025




If there were a city/town-wide emergency (e.g., storm, tornado) and the police said you must leave your residence because of the dangers, would you decide to leave?




What would be the deciding reason for you to stay or go?




Was the decision you chose difficult to make? Why or why not?




If you did go, how did you get out? Car? Walk? Public Transportation?



If your residence was heavily damaged, how manageable is a \$10,000 deductible for you and your family? How would this unexpected bill affect you and your family?



In case of a city- or town-wide emergency evacuation, do you know where any emergency shelters are located? If I lived in your neighborhood, would you be able to tell me where to find public shelter during the emergency?



Have you signed up for the city- or town-wide emergency alerts?





Figure 1: Flyer used in focus groups sessions

# Title VI Considerations

Having an evacuation plan is critical to efficient and safe movement of people out of hazard zones, however, there are several important demographic groups that may require additional attention in the event of a large-scale evacuation. For this study, indicators included internet and broadband availability, vehicle availability, age, disability, household income, languages spoken, and housing unit types. All estimates were derived from the 2023 American Community Survey (ACS) 5-Year Estimates through the United States Census Bureau. All tables and charts can be viewed in Appendix B.

In addition, an online map has been published on the SRPEDD website to address census tract information for each of the following indicators for a more visual dimension to this data.



## Internet and Smartphone Availability

One of the primary ways of disseminating information cited by municipalities throughout the SRPEDD region was via emergency notification systems such as Code Red and Reverse 911, or through official town or city social media pages. While several municipalities also reported posting information on sign boards near public buildings, the decline of overall land line usage across the region was reported as a challenge in getting emergency notifications. Relying on internet-based messaging may miss those populations with limited or no access to the internet via a broadband or smartphone connection. Because of this, it is critical to identify areas where additional messaging efforts may be necessary.

We looked at the estimated number of households in each community that lacked a computing device of any kind, did not have an internet subscription of any kind, did not have a smartphone, or did not have a cellular data plan were pulled for further study. A full breakdown for each municipality can be found in Appendix B.

In addition to estimated counts of households, data was extracted for census tracts to identify more specific areas that may require enhanced messaging in the case of an evacuation. There were several communities that displayed larger numbers of households with no smartphones or internet connection especially in Attleboro, Mattapoisett, Seekonk, Somerset, Swansea, Taunton, and Wareham. A number of these are coastal communities so additional messaging will be especially critical in the case of pre-disaster evacuations.

### Key Findings:

**Fall River has the highest number of households with no computing device at 4,050 (approximately 9.7% of 41,787 total households), the highest total number and percentage of households without an internet subscription at 6,842 households (approximately 16.4% of 41,787 households), and the most households without a smartphone at 6,544 (approximately 15.66% of 41,787 total households)**

**Fairhaven has the highest percentage of households with no computing device at 10.1% (approximately 729 out of 7,200 total households) and the highest percentage of households without a smartphone at 18.6% (approximately 1,341 households out of 7,200 total households)**

**New Bedford has the highest total number and percentage of households without a cellular data plan at 9,966 households (approximately 23.6% out of 42,233 total households)**

Table 1: Household Internet and Cell Phone Access by Municipality

Municipality	Households	No Computing Device	Without an Internet Subscription	With a Smartphone	With a Cellular Data Plan
Acushnet	4,103	110 (2.7%)	164 (4.0%)	3,708 (90.4%)	3,574 (87.1%)
Attleboro	17,781	1,068 (6.0%)	1,965 (11.1%)	15,494 (87.1%)	14,203 (79.9%)
Berkley	2,297	36 (1.6%)	95 (4.1%)	2,147 (93.5%)	1,806 (78.6%)
Carver	4,732	189 (4.0%)	340 (7.2%)	4,039 (85.4%)	3,792 (80.1%)
Dartmouth	11,869	789 (6.6%)	986 (8.3%)	10,349 (87.2%)	9,759 (82.2%)
Dighton	2,904	91 (3.1%)	128 (4.4%)	2,629 (90.5%)	2,669 (91.9%)
Fairhaven	7,200	729 (10.1%)	880 (12.2%)	5,859 (81.4%)	5,807 (80.7%)
Fall River	41,787	4,050 (9.7%)	6,842 (16.4%)	35,243 (84.3%)	32,162 (77.0%)
Freetown	3,182	64 (2.0%)	168 (5.3%)	2,940 (92.4%)	2,881 (90.5%)
Lakeville	4,191	160 (3.8%)	223 (5.3%)	3,841 (91.6%)	3,669 (87.5%)
Mansfield	8,980	142 (1.6%)	354 (3.9%)	8,409 (93.6%)	8,049 (89.6%)
Marion	1,970	44 (2.2%)	96 (4.9%)	1,817 (92.2%)	1,666 (84.6%)
Mattapoisett	2,974	94 (3.2%)	159 (5.3%)	2,678 (90.0%)	2,662 (89.5%)
Middleborough	9,796	447 (4.6%)	625 (6.4%)	8,510 (86.9%)	8,405 (85.8%)
New Bedford	42,233	3,949 (9.4%)	6,551 (15.5%)	35,788 (84.7%)	32,267 (76.4%)
North Attleborough	12,855	389 (3.0%)	712 (5.5%)	11,809 (91.9%)	11,302 (87.9%)
Norton	6,558	257 (3.9%)	444 (6.8%)	5,789 (88.3%)	5,534 (84.4%)
Plainville	4,200	123 (2.9%)	324 (7.7%)	3,716 (88.5%)	3,480 (82.9%)
Raynham	5,899	412 (7.0%)	517 (8.8%)	5,087 (86.2%)	4,968 (84.2%)
Rehoboth	4,643	47 (1.0%)	153 (3.3%)	4,294 (92.5%)	3,945 (85.0%)
Rochester	2,125	81 (3.8%)	137 (6.4%)	1,940 (91.3%)	1,890 (88.9%)
Seekonk	5,847	223 (3.8%)	421 (7.2%)	5,212 (89.1%)	5,073 (86.8%)
Somerset	7,352	362 (4.9%)	717 (9.8%)	6,008 (81.7%)	5,907 (80.3%)
Swansea	6,741	492 (7.3%)	905 (13.4%)	5,864 (87.0%)	5,267 (78.1%)
Taunton	23,871	2,010 (8.4%)	2850 (11.9%)	20,585 (86.2%)	19,421 (81.4%)
Wareham	10,458	442 (4.2%)	1,122 (10.7%)	8,999 (86.0%)	8,043 (76.9%)
Westport	6,776	333 (4.9%)	689 (10.2%)	5,855 (86.4%)	5,387 (79.5%)

## Vehicle Availability

One of the most obvious means of evacuation is the use of a privately owned vehicle. While this may be the norm for most households in the SRPEDD region, there are many households that lack access to personal vehicles. It is expected that the two regional transit authorities (RTA) in the region, GATRA and SRTA, could help move some of the individuals from these households in the case of a wide scale evacuation but both RTAs reported limited availability of extra vehicles while maintaining regular service in areas not impacted by an event that would merit evacuation. Because of this, it is important to pay attention to areas where people may need additional assistance pre-disaster to get to shelters or out of hazardous areas.

New Bedford had the largest number and percentage of housing units without a vehicle available at 7,435 out 42,233 total occupied housing units or 17.6% of all occupied housing units. There is also a high prevalence of no vehicle households in Attleboro, Fall River, Taunton, and Wareham.



Table 2: Vehicle Availability Household Data by Municipality

Municipality	Households	No Vehicle Available	Percent of Households
Acushnet	4,103	193	4.70%
Attleboro	17,781	1,495	8.41%
Berkley	2,297	0	0.00%
Carver	4,732	141	2.98%
Dartmouth	11,869	734	6.18%
Dighton	2,904	99	3.41%
Fairhaven	7,200	528	7.33%
Fall River	41,787	6,864	16.43%
Freetown	3,182	67	2.11%
Lakeville	4,191	65	1.55%
Mansfield	8,980	426	4.74%
Marion	1,970	91	4.62%
Mattapoissett	2,974	71	2.39%
Middleborough	9,796	400	4.08%
New Bedford	42,233	7,435	17.60%
North Attleborough	12,855	497	3.87%
Norton	6,558	334	5.09%
Plainville	4,200	139	3.31%
Raynham	5,899	398	6.75%
Rehoboth	4,643	64	1.38%
Rochester	2,125	61	2.87%
Seekonk	5,847	105	1.80%
Somerset	7,352	243	3.31%
Swansea	6,741	188	2.79%
Taunton	23,871	2,224	9.32%
Wareham	10,458	574	5.49%
Westport	6,776	203	3.00%

## Age

Older adults (people over the age of 65) are more likely to need additional assistance or resources in the event of an evacuation therefore focusing efforts on areas with many older adults may help emergency management personnel in ensuring a smooth evacuation. The SRPEDD region skews older with an expected uptick in number of older adults in the years leading up to 2050 according to the UMass Donahue Population Projections. Based on the 2023 ACS 5-Year estimates, New Bedford has the most residents over the age of 65 with 15,953 (15.83%) residents out of 100,731 total residents while Mattapoisett has the highest percentage of residents over 65 with 29% (1,901) of 6,563 total residents.

Additionally, the communities of Wareham, Fairhaven, Westport, Somerset, Marion, Acushnet, Swansea, Plainville, Middleborough, and Rochester have populations composed of more than 20% older adults. Focusing outreach and messaging efforts on this population may lead to better evacuation proceedings when an emergency does occur.

Table 3: Older Adult Populations by Municipality

Municipality	Population	Population Age 65+	Percentage of Total
Acushnet	10,653	2,373	22.28%
Attleboro	46,499	7,221	15.53%
Berkley	6,789	1,001	14.74%
Carver	11,645	2,559	21.98%
Dartmouth	32,621	6,259	19.19%
Dighton	8,122	1,339	16.49%
Fairhaven	15,878	4,065	25.60%
Fall River	93,764	14,873	15.86%
Freetown	9,222	1,616	17.52%
Lakeville	11,732	1,870	15.94%
Mansfield	23,855	3,454	14.48%
Marion	5,312	1,226	23.08%
Mattapoisett	6,563	1,901	28.97%
Middleborough	24,360	5,103	20.95%
New Bedford	100,731	15,953	15.84%
North Attleborough	30,842	5,113	16.58%
Norton	19,155	3,049	15.92%
Plainville	9,872	2,108	21.35%
Raynham	15,273	3,037	19.88%
Rehoboth	12,809	2,466	19.25%
Rochester	5,770	1,190	20.62%
Seekonk	15,573	2,707	17.38%
Somerset	18,246	4,522	24.78%
Swansea	17,231	3,773	21.90%
Taunton	59,719	8,789	14.72%
Wareham	23,226	6,398	27.55%
Westport	16,382	4,201	25.64%

## Disability

Similar to older adults, and with some overlap, households with a person with a disability may need additional assistance in the case of an evacuation. For ACS data, the Census Bureau counts any person reporting any one of the following disabilities and not in an institution: hearing difficulty, vision difficulty, cognitive difficulty, ambulatory difficulty, self-care difficulty, and independent living difficulty.

In the case of evacuation additional support will be needed to assist these populations especially where there are more people with a disability. In the SRPEDD region, Fall River has the highest percentage of a population with some kind of disability at an estimated 20.5% (19,009) or 1 in 5 people in the city. The Massachusetts state average for persons with disabilities is around 12.8% of the total population, several SRPEDD communities are above that state average including Wareham (19.6%), Plainville (17%), New Bedford (16.1%), Taunton (15.9%), and Fairhaven (15.3%), Westport (14.6%), Acushnet (13.7%), and Dartmouth (13.1%).

Given how many of these communities are on the coastline and more vulnerable in the event of disasters like a hurricane, extra support and resources may be necessary to assist persons with a disability in pre-disaster.

Table 4: Population with a Disability by Municipality

Municipality	Population	Population with a Disability	Percent of Total
Acushnet	10,653	1,443	13.55%
Attleboro	46,499	5,634	12.12%
Berkley	6,789	594	8.75%
Carver	11,645	1,699	14.59%
Dartmouth	32,621	4,182	12.82%
Dighton	8,122	878	10.81%
Fairhaven	15,878	2,391	15.06%
Fall River	93,764	19,009	20.27%
Freetown	9,222	919	9.97%
Lakeville	11,732	1,411	12.03%
Mansfield	23,855	2,319	9.72%
Marion	5,312	409	7.70%
Mattapoisett	6,563	672	10.24%
Middleborough	24,360	3,046	12.50%
New Bedford	100,731	15,994	15.88%
North Attleborough	30,842	3,282	10.64%
Norton	19,155	2,385	12.45%
Plainville	9,872	1,681	17.03%
Raynham	15,273	1,925	12.60%
Rehoboth	12,809	1,220	9.52%
Rochester	5,770	496	8.60%
Seekonk	15,573	1,990	12.78%
Somerset	18,246	2,220	12.17%
Swansea	17,231	2,025	11.75%
Taunton	59,719	9,407	15.75%
Wareham	23,226	4,503	19.39%
Westport	16,382	2,391	14.60%

## Poverty Level

A major barrier to evacuation may be the perception of available facilities or shelters when leaving a community. Because of this, people may rely on private hotels for a variety of reasons such as pets, medical needs, or a preference for a private room. Hotel rooms can be costly when there is an uncertain timeframe for the duration of an evacuation or return to homes following a disaster. Identifying areas that may need enhanced sheltering opportunities and resources available for communities will be critical in the case of evacuation.

Table 5: Poverty levels by Municipality

Municipality	Population	Population for whom Poverty Status is Determined	Percent of Total Population
Acushnet	10,653	537	5.04%
Attleboro	46,499	4,233	9.10%
Berkley	6,789	180	2.65%
Carver	11,645	763	6.55%
Dartmouth	32,621	1,715	5.26%
Dighton	8,122	225	2.77%
Fairhaven	15,878	1,171	7.37%
Fall River	93,764	19,362	20.65%
Freetown	9,222	313	3.39%
Lakeville	11,732	585	4.99%
Mansfield	23,855	1,148	4.81%
Marion	5,312	307	5.78%
Mattapoisett	6,563	213	3.25%
Middleborough	24,360	1,849	7.59%
New Bedford	100,731	19,743	19.60%
North Attleborough	30,842	1,669	5.41%
Norton	19,155	840	4.39%
Plainville	9,872	810	8.21%
Raynham	15,273	1,370	8.97%
Rehoboth	12,809	652	5.09%
Rochester	5,770	301	5.22%
Seekonk	15,573	686	4.41%
Somerset	18,246	890	4.88%
Swansea	17,231	475	2.76%
Taunton	59,719	8,125	13.61%
Wareham	23,226	1,651	7.11%
Westport	16,382	977	5.96%

## Language

As mentioned with previous demographic indicators, public information and warning is a critical part of any evacuation strategy. Not only is messaging complicated with the proliferation of cell phones that require opt-in systems, but language can also become a barrier to clear, concise, and accessible language about evacuation orders.

Massachusetts has a total of 10% of the population over 5 years old who report speaking English “less than very well”. 5% of, or over 32,400, households in the SMMPO region, are Limited English Proficient (LEP), meaning these households have no one over the age of fourteen who speaks English only or speaks English very well. These populations do not speak English as their primary language and have a limited ability to read, speak, write or understand English, speaking it less than very well, not well, or not at all. The U.S. DOT’s “Safe Harbor” provision states that the translation of vital written materials is necessary if a language group comprises 5% or 1000 individuals or more of the total population being served or affected by a program. Surpassing this threshold is an indication that language services are likely needed for those persons. The six Safe Harbor languages spoken by Limited English Proficient populations in the SRPEDD region include Portuguese or Portuguese Creole, Spanish or Spanish Creole, French (Haitian) Creole, Traditional and Modern Chinese, and Mon Khmer Cambodian.

Identifying areas where translations and interpretation of content into other languages will be necessary and providing these accommodations in an accessible manner is critical to efficient and safe evacuation of all residents of the SRPEDD region. In the region, the cities of Fall River (11.6%) and New Bedford (11%) have LEP populations above the state average. Several communities, including Taunton, Attleboro, Dartmouth, and Swansea, have LEP populations of between 250 and 1,400 people. These communities will require communications to be distributed in different languages, with visual aids, through community partnerships, and via ethnic-specific media to accommodate populations that may not receive or understand emergency notices if they are issued only in English.



Table 6: English Proficiency by Municipality

Municipality	Population	Population who Speaks English less than "Very Well"	Percent of Total Population
Acushnet	10,653	324	3.04%
Attleboro	46,499	3,322	7.14%
Berkley	6,789	98	1.44%
Carver	11,645	162	1.39%
Dartmouth	32,621	1,358	4.16%
Dighton	8,122	106	1.31%
Fairhaven	15,878	507	3.19%
Fall River	93,764	14,300	15.25%
Freetown	9,222	110	1.19%
Lakeville	11,732	204	1.74%
Mansfield	23,855	546	2.29%
Marion	5,312	176	3.31%
Mattapoisett	6,563	46	0.70%
Middleborough	24,360	621	2.55%
New Bedford	100,731	15,045	14.94%
North Attleborough	30,842	668	2.17%
Norton	19,155	253	1.32%
Plainville	9,872	463	4.69%
Raynham	15,273	590	3.86%
Rehoboth	12,809	495	3.86%
Rochester	5,770	49	0.85%
Seekonk	15,573	533	3.42%
Somerset	18,246	335	1.84%
Swansea	17,231	721	4.18%
Taunton	59,719	4,315	7.23%
Wareham	23,226	342	1.47%
Westport	16,382	702	4.29%

# Evacuation Routes and Map

Through the process of meeting with communities, an evacuation map was sketched out to most efficiently move people around and out of the SRPEDD Region. These routes are meant to be used before an event that would provoke a large-scale evacuation as several routes may experience flooding in scenarios like a category 3 hurricane. Routes are categorized by their importance and ability to move the most people in an evacuation scenario.

The Routes are categorized into three main categories, primary, secondary and tertiary as shown in the map in Figure 3 and discussed under each route description on the following pages.

Routes identified here and discussed in this section may be impacted during or after an evacuation-provoking incident. Post-impact decisions will very much be made using the post-disaster conditions by emergency management officials.

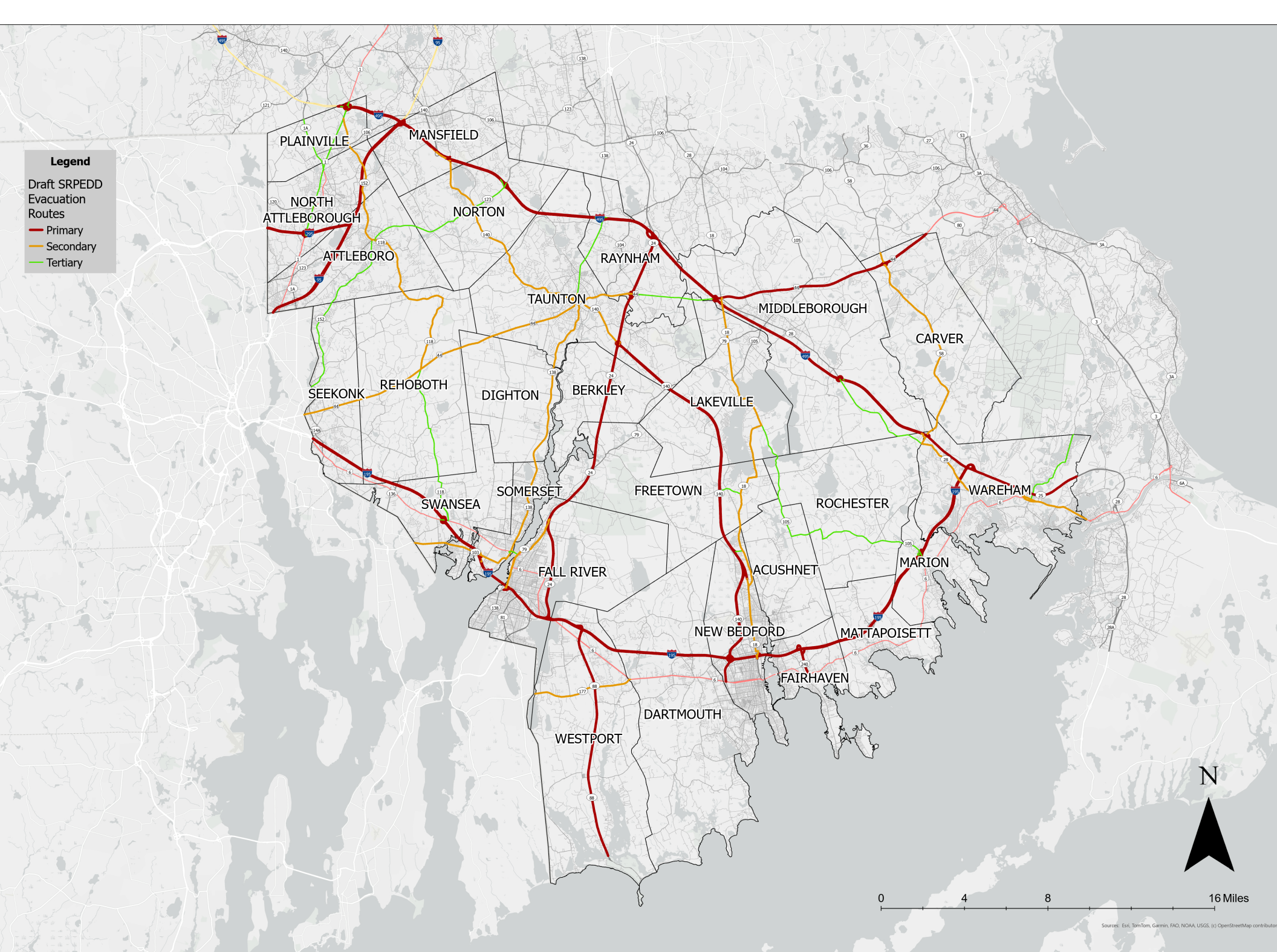


Figure 3: Draft Southeastern Massachusetts Regional Evacuation Routes

## Interstate 95 (NB/SB)

Interstate 95 connects the westernmost towns in the SRPEDD region to the greater Boston metro area in the north and greater Providence metro in the south and serves as an essential connection to other primary evacuation routes including Interstate 295 and Interstate 495 connecting the SRPEDD region to northern Rhode Island and the greater Worcester metro area.

Communities	Connections
Attleboro North Attleborough Mansfield	Interstate 495 (NB/SB) Interstate 295 (EB/WB)

## Interstate 195 (EB/WB)

Interstate 195 is a critical evacuation corridor that connects the southernmost communities of the SRPEDD region to several north/south routes leading to the greater Providence, Boston, and Worcester metro areas. Interstate 195 also connects a number of secondary and tertiary routes in coastal communities to larger primary routes.

Communities	Connections
Seekonk Rehoboth Swansea Somerset Fall River Westport Dartmouth New Bedford Fairhaven Mattapoiset Marion Wareham	State Route 118 State Route 103 State Route 138 State Route 24 State Route 88 State Route 140 State Route 18 State Route 240 State Route 105 State Route 28 Interstate 495

### Known Issues:

- Braga Bridge – In high wind events the Braga Bridge will be closed to traffic
- Poor pavement – Several Sections of Interstate 195 have pavement identified as poor condition. Poor pavement conditions can be especially hazardous in storm events.

## Interstate 295 (EB/WB)

Interstate 295 serves as a connection between the SRPEDD region, northeastern Rhode Island, and Interstate 95 leading to the Boston metro region. Depending on the scale of evacuation, this route may serve to evacuate residents of the western region to Rhode Island or assist residents of Rhode Island to connect to larger primary routes in the SRPEDD region.

Communities	Connections
Attleboro North Attleborough	State Route Interstate 95

## Interstate 495 (NB/SB)

Interstate 495 serves as a major artery for traffic in the northern portion of the SRPEDD region. It connects several secondary and tertiary routes straight through to the Worcester metro region and at the western corner of the SRPEDD region provides a connection to Interstate 95 northbound providing access to the Boston metro region.

Communities	Connections
Plainville Mansfield Norton Taunton Raynham Middleborough Rochester Wareham	State Route 1 Interstate 95 State Route 140 State Route 123 State Route 138 State Route 24 U.S. Route 44 State Route 18 State Route 28 State Route 58 Interstate 195 State Route 25

### Known Issues:

- The capacity of Interstate 495 drops by one lane south of the interchange with Route 24.



## State Route 24 (NB/SB)

State Route 24 provides connections for several communities in the center of the SRPEDD region as well as connecting the major population center of Fall River directly to the Boston metro. State Route 24 also forms a major connection to Interstate 495 which serves as a connection to the greater Worcester metro area.

Communities	Connections
Fall River Freetown Berkley Taunton Raynham	Interstate 195 State Route 79 State Route 140 U.S. Route 44 Interstate 495

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## State Route 140 (NB/SB)

State Route 140 serves as a major north/south connection for the coastal communities in the SRPEDD region to reach other primary routes like Interstate 495 and has capacity to carry traffic to and from Interstate 195. This route, starting at its southernmost point in New Bedford, will be critical for several smaller coastal communities like Fairhaven and Acushnet as they move north into the broader SRPEDD region or west to Rhode Island in the event of an impending disaster like a hurricane.

Communities	Connections
New Bedford Freetown Lakeville Taunton	Interstate 195 State Route 18 State Route 24

## State Route 88 (NB)

State Route 88 will be a primary route specifically to evacuate populations north to connect with other routes. State Route 88 also connects directly with Interstate 195 which can move people to larger and other northbound routes.

Communities	Connections
Westport	State Route 177 Interstate 195



## State Route 240 (NB)

State Route 240 will serve as a direct connection for populations in smaller coastal towns to larger highways like Interstate 195 to connect to the broader system of evacuation routes. This is a critical connection for smooth evacuation proceedings.

Communities	Connections
Fairhaven	Interstate 195

## State Route 25 (WB)

Route 25 will be especially critical during a large-scale evacuation event as it services Wareham in the SRPEDD Region to connect directly with Interstate 495 but will also be handling much of the traffic leaving Cape Cod should an evacuation also extend to Barnstable County in the east. This connection will not only serve the SRPEDD region but the Cape Cod Commission region.

Communities	Connections
Wareham	Interstate 495 U.S. Route 6

## U.S. Route 44 (EB/WB)

U.S. Route 44 presents an opportunity for people to move through the center of the SRPEDD region and connect with major north/south connections to carry traffic to the Boston and Worcester Metro areas in the case of a large-scale evacuation. There are challenges to using this roadway as a primary route as merges exist along the stretch identified as a primary route in the region.

Communities	Connections
Middleborough Carver	Interstate 495 State Route 18 State Route 58

# Environmental Considerations

## Climate Change Projections

### Sea level rise

Coastal areas will be subject to sea level rise in the coming decades. Trends for the regions of Southeastern Massachusetts are shown below.

Table 7: Rainfall Baseline and Projections by Municipality

	Baseline	2030	2050	2070	2090
Town		90th Percentile Storm Rainfall	90st Percentile Storm Rainfall % change	90st Percentile Storm Rainfall % change	90nd Percentile Storm Rainfall & change
Attleboro	0.4	0.400	0.400	0.397	0.395
Acushnet	0.4	0.400	0.400	0.398	0.397
Berkley	0.4	0.399	0.398	0.395	0.391
Carver	0.4	0.400	0.400	0.398	0.397
Dartmouth	0.4	0.400	0.400	0.398	0.397
Dighton	0.4	0.399	0.398	0.395	0.391
Fairhaven	0.4	0.400	0.400	0.398	0.397
Fall River	0.4	0.400	0.400	0.398	0.397
Freetown	0.4	0.400	0.400	0.398	0.397
Lakeville	0.4	0.400	0.400	0.398	0.397
Mansfield	0.4	0.399	0.398	0.395	0.391
Marion	0.4	0.400	0.400	0.398	0.397
Mattapoisett	0.4	0.400	0.400	0.398	0.397
Middleborough	0.4	0.400	0.400	0.398	0.397
New Bedford	0.4	0.400	0.400	0.398	0.397
North Attleborough	0.4	0.400	0.399	0.397	0.395
Norton	0.4	0.399	0.398	0.395	0.391
Plainville	0.4	0.400	0.399	0.397	0.395
Raynham	0.4	0.399	0.398	0.395	0.391
Rehoboth	0.4	0.399	0.398	0.395	0.391
Rochester	0.4	0.400	0.400	0.398	0.397
Seekonk	0.4	0.399	0.398	0.395	0.391
Somerset	0.4	0.399	0.398	0.395	0.391
Swansea	0.4	0.399	0.398	0.395	0.391
Taunton	0.4	0.399	0.398	0.395	0.391
Wareham	0.4	0.400	0.400	0.398	0.397
Westport	0.4	0.400	0.400	0.398	0.397

Table 8: Storm Rainfall Baseline and Projects by Municipality

	Baseline	2030	2050	2070	2090
Town		99th Percentile Storm rainfall % Change	99th Percentile Storm rainfall % Change	99th Percentile Storm rainfall % Change	99th Percentile Storm rainfall % Change
Attleboro	1.2	1.2636	1.2984	1.3572	1.4064
Acushnet	1.2	1.2744	1.314	1.35	1.3872
Berkley	1.2	1.2708	1.3068	1.3668	1.4088
Carver	1.2	1.2744	1.314	1.35	1.3872
Dartmouth	1.2	1.2744	1.314	1.35	1.3872
Dighton	1.2	1.2708	1.3068	1.3668	1.4088
Fairhaven	1.2	1.2744	1.314	1.35	1.3872
Fall River	1.2	1.2744	1.314	1.35	1.3872
Freetown	1.2	1.2744	1.314	1.35	1.3872
Lakeville	1.2	1.2744	1.314	1.35	1.3872
Mansfield	1.2	1.2708	1.3068	1.3668	1.4088
Marion	1.2	1.2744	1.314	1.35	1.3872
Mattapoisett	1.2	1.2744	1.314	1.35	1.3872
Middleborough	1.2	1.2744	1.314	1.35	1.3872
New Bedford	1.2	1.2744	1.314	1.35	1.3872
North Attleboro	1.2	1.2636	1.2984	1.3572	1.4064
Norton	1.2	1.2708	1.3068	1.3668	1.4088
Plainville	1.2	1.2636	1.2984	1.3572	1.4064
Raynham	1.2	1.2708	1.3068	1.3668	1.4088
Rehoboth	1.2	1.2708	1.3068	1.3668	1.4088
Rochester	1.2	1.2744	1.314	1.35	1.3872
Seekonk	1.2	1.2708	1.3068	1.3668	1.4088
Somerset	1.2	1.2708	1.3068	1.3668	1.4088
Swansea	1.2	1.2708	1.3068	1.3668	1.4088
Taunton	1.2	1.2708	1.3068	1.3668	1.4088
Wareham	1.2	1.2744	1.314	1.35	1.3872
Westport	1.2	1.314	1.314	1.35	1.3872
Median	1.2	1.2744	1.314	1.35	1.3872
Average	1.2	1.273333	1.3096	1.357022	1.397333

Table 9: Storm Temperature Baseline and Projections by Municipality

	Baseline	2030	2050	2070	2090
Town	Average Temp Change F	Average Temp Change F	Average Temp Change F	Average Temp Change F	Average Temp Change F
Attleboro	49.00	52.60	54.40	57.10	58.90
Acushnet	50.80	54.40	56.20	58.00	59.80
Berkley	50.80	54.40	56.20	58.90	60.70
Carver	50.80	54.40	56.20	58.00	59.80
Dartmouth	50.80	54.40	56.20	58.00	59.80
Dighton	50.80	54.40	56.20	58.90	60.70
Fairhaven	50.80	54.40	56.20	58.00	59.80
Fall River	50.80	54.40	56.20	58.00	59.80
Freetown	50.80	54.40	56.20	58.00	59.80
Lakeville	50.80	54.40	56.20	58.00	59.80
Mansfield	50.80	54.40	56.20	58.90	60.70
Marion	50.80	54.40	56.20	58.00	59.80
Mattapoisett	50.80	54.40	56.20	58.00	59.80
Middleborough	50.80	54.40	56.20	58.00	59.80
New Bedford	50.80	54.40	56.20	58.00	59.80
North Attleborough	49.00	52.60	54.40	57.10	58.90
Norton	50.80	54.40	56.20	58.90	60.70
Plainville	49.00	52.60	54.40	57.10	58.90
Raynham	50.80	54.40	56.20	58.90	60.70
Rehoboth	50.80	54.40	56.20	58.90	60.70
Rochester	50.80	54.40	56.20	58.00	59.80
Seekonk	50.80	54.40	56.20	58.90	60.70
Somerset	50.80	54.40	56.20	58.90	60.70
Swansea	50.80	54.40	56.20	58.90	60.70
Taunton	50.80	54.40	56.20	58.90	60.70
Wareham	50.80	54.40	56.20	58.00	59.80
Westport	50.80	54.40	56.20	58.00	59.80
SRPEDD Median	50.80	54.40	56.20	58.00	59.80
SRPEDD Average	50.60	54.20	56.00	58.23	60.03

## **Heat and cooling centers**

Heating and cooling centers are spaces utilized during extreme hot and cold events for residents when their health or well-being is at risk due to extreme weather conditions. These centers are generally areas that have a back-up generator or external power source and can supply a bathroom and places to charge phones or store other essential items. A cooling or heating center is often a municipal building that already houses community events, like a Council on Aging or School, but may also be a fleet of buses or local landmark like a church or hospital.

Below is a map of the heating and cooling centers in the SRPEDD region that residents may utilize during an extreme hot or cold event. The emergency staff trained and allocated of the Public Safety Department or equivalent would be in charge of opening those centers in case of emergency. They are placed here for our evacuation route study as part of all emergency services.

## **Stormwater flooding areas for rainfall**

Over the course of this study several locations were identified as vulnerable to flooding during rainfall events. This list was prepared using locations identified in the regional Evacuation Route Study, Regional Transportation Plan, a GIS vulnerability analysis, and review of communities' Municipal Vulnerability Preparedness Plans. The list was released through the SMMPO for a 21 day public comment period and endorsed by the SMMPO in January of 2026. These locations were also submitted to the Statewide Resilience Plan for inclusion. A full listing of locations is available in Appendix D. These locations are considered high priority for improvements to address dangerous transportation conditions during rainfall events.

## **Stormwater infrastructure sizing/ conditions**

Several of the locations on the list were identified as having issues with undersized or failing culverts that contributed to flooding conditions.

## **Contaminants in stormwater**

Effective management of Municipal Separate Storm Sewer Systems (MS4) is critical to reducing polluted runoff and protecting environmental and public health. In southeastern Massachusetts, MS4 permits apply to urbanized areas identified by the U.S. Census, requiring them to adopt comprehensive stormwater controls under the NPDES Phase II Stormwater Program.

More frequent heavy rainfall and aging sewer infrastructure are straining these systems, contributing to flash flooding and inflow and infiltration (I&I) issues. In areas with combined sewer systems, these pressures often lead to Combined Sewer Overflows (CSOs), discharging untreated sewage into local waterways. The resulting pollution threatens ecosystems, drinking water supplies, and public safety.

To address these risks, municipalities can target critical wastewater infrastructure upgrades and embrace green infrastructure strategies—such as permeable surfaces, stormwater harvesting, and landscaping—to reduce runoff and relieve pressure on sewer networks. These nature-based solutions mimic the water cycle and manage stormwater where it falls, unlike gray infrastructure that simply channels water away.

For communities with limited capacity, regional collaboration offers a practical solution. By strengthening Intermunicipal Agreements and sharing leadership, resources, and funding strategies, municipalities can expand infrastructure access and build more resilient systems together.

## **Wetlands proximity, health, maintenance**

Wetlands serve as essential natural “green infrastructure,” absorbing and filtering floodwaters during major storms and gradually releasing them into groundwater systems. These ecosystems also provide habitat for protected species like birds, salamanders, and skinks, and are safeguarded under the Commonwealth’s Wetlands Protection Act. Despite these protections, many waterways in the region have been altered by hard infrastructure such as embankments, dams, and levees, which initially supported development by managing water flow but are now aging and often insufficient for today’s more intense and frequent storms.

Stormwater systems in many communities—especially older ones—are frequently overwhelmed during heavy rain, and their complexity makes upgrades difficult and expensive. As prolonged rainfall becomes more common, the need for stormwater infrastructure improvements becomes increasingly urgent.

Communities are encouraged to prioritize ecosystem restoration over hard infrastructure where possible. Protecting wetlands and restoring natural floodplains can improve water quality, enhance biodiversity, and reduce flooding. Municipalities may also consider regulating development beyond the 100-year floodplain, using zoning and building codes to manage risk in areas that could be affected by larger storm events.

Maintaining and adapting these systems is critical to protecting communities from climate-driven flood risks.



## Wildfires for evacuation

Wildfires are a concern in many communities, particularly those with limited water infrastructure, dense forests, and growing rural development. Climate change is increasing the risk by creating drier conditions, longer fire seasons, and more frequent extreme weather events. In areas without centralized water systems, firefighting depends on tanker trucks, forestry apparatus, and fire ponds, placing additional strain on local fire departments, many of which operate with limited staff and aging equipment.

While most wildfires in the Northeast are small and often caused by human carelessness, they can spread quickly under dry conditions. Peak wildfire season typically runs from late March to early June, with additional risk in late summer during droughts. Forests with pitch pine and scrub oak are especially flammable, though even less fire-prone forests can pose risks due to accumulated debris and storm damage.

Though large-scale wildfires are uncommon, the impact can be severe—threatening homes, lives, drinking water, and ecosystems. To prepare, communities should invest in specialized equipment, maintain mutual aid agreements, improve fuel management, and educate the public on fire prevention. Regional coordination and climate-adaptive planning are key to reducing wildfire risks and building long-term resilience.

Wildfires are a natural part of the southeastern Massachusetts ecosystem. Fires keep the forest floor clean of debris, encourage the growth of grasses that serve as wildlife feed, and ensure that trees have plenty of room to grow. Natural fires, recurring in a cyclical manner, can recycle nutrients and create a diversity of natural habitats. In these ways, wildfires that occur in isolated areas can be a positive force. Increasingly, however, development is encroaching into isolated areas and wildfires present a danger to human life and manmade facilities. Forest fires that were in remote areas are now forest fires in people's backyards. The dual issues of human suppression of forest fires and human encroachment into forest areas, has increased the risks associated with wildfire. Portions of southeastern Massachusetts are classified as "pine barrens". These are areas where the vegetation is predominately pitch pine with an understory of scrub oak and black huckleberry. Not only is this vegetation highly flammable, the ecosystem of the pine-barrens relies on periodic fire to perpetuate the barrens. Barbour, Henry et al, "Our Irreplaceable Heritage: Protecting Biodiversity in Massachusetts" 1998, p.46-7(NHESP & MA Audubon)

# Transportation Considerations

## Safety

Safety along evacuation routes is of the utmost importance to allow for safe and efficient evacuation in the event of an emergency. In addition to providing safe travel during evacuation, improving safety along the routing also reduces the risk of a crash occurring during an evacuation and potentially delaying or disrupting route. To identify locations where safety issues exist along identified routes, an analysis was performed using the region's high injury network from the Southeastern Regional Safety Action Plan and the Top 100 Most Dangerous Intersections from the SMMPO's Regional Transportation Plan to identify areas where regional safety priorities and regional routing exist. A map showing the results of the analysis is shown in Figure X. Table X lists locations identified in the analysis.

## Signage

Currently evacuation route signage is missing from the majority of the identified evacuation routing, with the exception of a small section of signage on Route 44 from the Plymouth Town Line to the interchange of Route 495 and Route 44 in Middleborough. Evacuation Route signage is necessary to provide clear communication of routes and can have the added benefit of familiarizing roadway users with evacuation routes in advance of evacuation conditions.

Many communities highlighted the need for variable message boards and portable street lighting for evacuation and other emergent conditions. Having the ability to deploy signs at different locations allows for communication of routing changes and other evacuation instructions. Portable lighting allows for improved visibility in emergency conditions where needed.

## Transit

Integrating transit into evacuation planning is integral to public health and safety. Recent natural disasters such as the 2025 Los Angeles wildfires, the 2023 Lahaina wildfires, and the 2024 Asheville floods highlight personal automobiles can lead to gridlocked evacuation routes due to abandoned cars. This also exacerbates the limited resources during emergencies, as resources are being diverted to clearing abandoned cars along essential routes to safety.

In the 50 largest U.S. cities, there have only been marginal improvements to multimodal evacuation planning (Renee & Mayorga, 2022), meaning that transit critical community members are made more vulnerable during human-initiated and natural disasters (Wambura & Wong, 2024). The SRPEDD region has above average vulnerable populations including zero vehicle households, people with disabilities, older adults, LEP community members as outlined in the Title VI considerations section. The region is also adjacent to two major metropolitan areas (Boston and Providence), as well as being a critical access point for the Cape and Islands during evacuations.

In particular, Cape Cod is a major bottleneck for evacuation planning that has a large influx of people evacuating through the SRPEDD region. Since Hurricane Bob in 1991, the SRPEDD region, Cape Cod, and Islands have an additional 170,000 people as of 2020 (1990 Census; 2020 Census). What's more, the greatest risk of a hurricane landfall will overlap with peak tourism in Southeastern Massachusetts where communities can quintuple in the year-round population. In the case of Martha's Vineyard, the summertime population balloons from 20,000 people - 94,000 people (Martha's Vineyard Commission, 2024). This significant influx in population is also strained by the impending bridge reconstruction, which will further impact traffic and gridlock during an emergency. There was an 11-mile backup on the Sagamore Bridge during Hurricane Bob's weak category 2 landfall.

# Public Health Considerations

Emergency preparedness is an integral component to supporting the public health and safety of all community members within the region. Across the region, hospitals and emergency health centers serve as the primary points-of-care for a variety of complex and urgent healthcare needs. In the case of an emergency or natural disaster, it is important to ensure that disruptions of care are limited, and that healthcare facilities and providers understand their emergency preparedness strategies to support a continuity of care. These emergencies pose a threat to facility capacity and put a strain on the ability for providers to efficiently provide care. The longer an emergency persists, the potential for more individuals to be at-risk for life-saving care increases. To avoid such outcomes, hospitals must routinely assess and revise their emergency preparedness plans to provide seamless transitions of care in these extenuating circumstances. These preparedness plans ensure that public health is a priority during both normal and emergency operations.

## State-Level Support – Massachusetts Department of Public Health

At the state level, the Massachusetts Department of Public Health's Emergency Preparedness Bureau, alongside the Harvard T.H. Chan School of Public Health's Emergency Preparedness and Response Exercise Program, worked collaboratively to develop the MDPH Evacuation Toolkit. This Emergency Toolkit serves as a resource document to provide key planning considerations to a hospital's comprehensive emergency evacuation plan. Further, these resources provide in-depth assistance and recommendations for shelter-in-place policies, staffing support and training, and execution of a proper emergency evacuation plan. Action sheets and spreadsheets are provided for hospitals to integrate into their preparedness plans to ensure a seamless evacuation process. The Commonwealth's Toolkit can help supplement the region-specific information outlined in both this section and the entire document.

## Regional Analysis

Table 10 displays 12 hospitals that were identified as important healthcare facilities both within the SRPEDD region and surrounding.

Across the region, some community members may live within close proximity to a hospital facility. Others may live further away, or they may choose a less geographically convenient hospital location based on personal preference. Identifying hospitals outside of the SRPEDD region is necessary, since certain emergencies and natural disasters may force residents to use alternative facilities. For example, if Tobey Hospital were no longer able to provide care during such a situation, Plymouth's Beth Israel Deaconess or New Bedford's St. Luke's may require additional support due to increased capacity. Further, if Cape Cod and the Islands residents were required to evacuate for safety concerns, several identified evacuation routes would direct this surplus population through the SRPEDD region.

Name	Address	Phone Number	In/Out of Region	# Emergency Dept. Visits / Year (CHIA)
Beth Israel Deaconess – Plymouth	275 Sandwich Street, Plymouth, MA 02360	508-746-2000	OUT	43,000 (2023)
Cape Cod Hospital	27 Park Street, Hyannis, MA 02601	508-771-1800	OUT	75,000 (2023)
Charlton Hospital	363 Highland Avenue, Fall River, MA 02720	508-679-3131	IN	(find)
Falmouth Hospital	100 Ter Heun Drive, Falmouth, MA 02540	508-548-5300	OUT	31,000 (2023)
Good Samaritan Medical Center	235 North Pearl Street, Brockton, MA 02301	508-427-3000	OUT	51,000 (2022)
Martha’s Vineyard Hospital	1 Hospital Road, Oak Bluffs, MA 02557	508-693-0410	OUT	16,000 (2023)
Morton Hospital	88 Washington Street, Taunton, MA 02780	508-828-7000	IN	46,000 (2022)
Nantucket Cottage Hospital	57 Prospect Street, Nantucket, MA 02554	508-825-8100	OUT	11,500 (2022)
St. Anne’s Hospital	795 Middle Street, Fall River, MA 02721	508-674-5600	IN	X (Data Unavailable)
St. Luke’s Hospital	101 Page Street, New Bedford, MA 02740	508-997-1515	IN	151,000 (2023)
Sturdy Memorial Hospital	211 Park Street, Attleboro, MA 02703	508-222-5200	IN	50,000 (2022)
Tobey Hospital	43 High Street, Wareham, MA 02571	508-295-0880	IN	40,000 (2022)

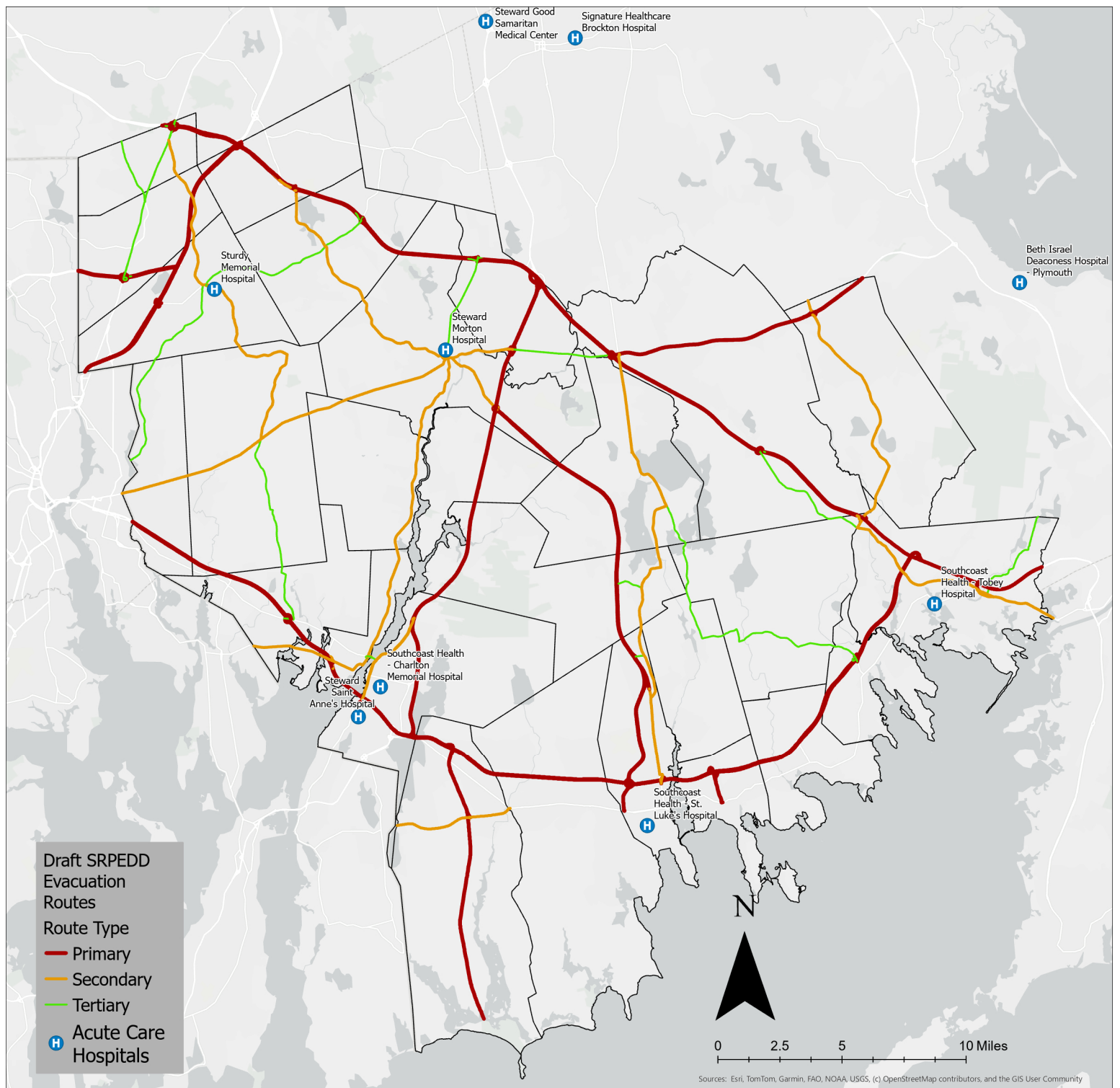


Figure 4: Draft Southeastern Massachusetts Regional Evacuation Routes and Hospital Locations

In the scenario of a Category 3 hurricane, these facilities will be limited in their capacity to continue normal operations. The above figure identifies the SRPEDD region's identified primary, secondary, and tertiary evacuation routes. Additionally, hospitals within and surrounding the region are identified.



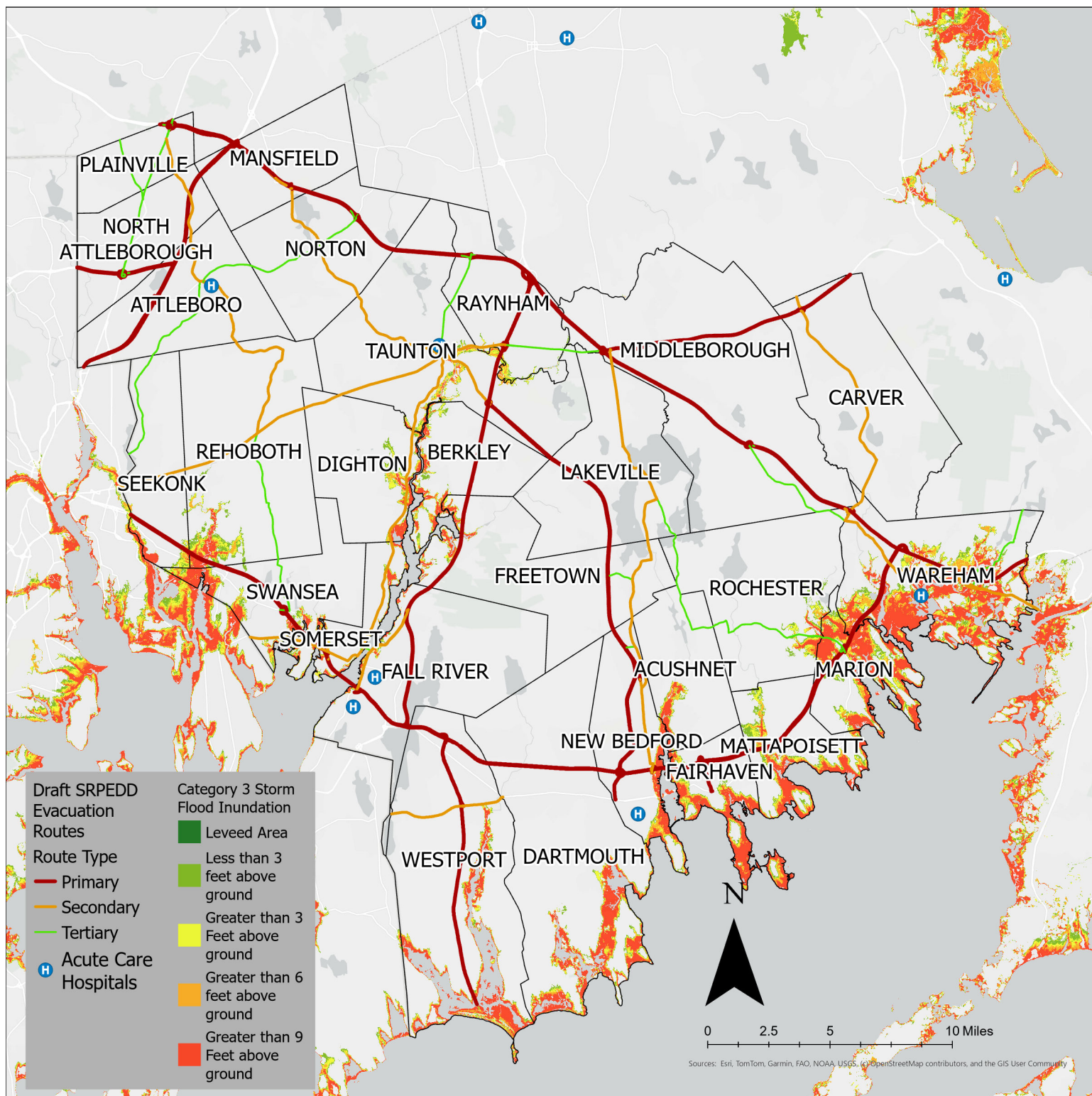


Figure 5: Draft Southeastern Massachusetts Regional Evacuation Routes and Hospital Locations

When Category 3 hurricane storm flood inundation models are applied to this graphic, it becomes evident that multiple hospital facilities could be dramatically impacted by the storm's flooding potential, with large portions of the region's coastline projected to receive greater than nine feet of storm flood inundation. The following graphic visualizes these concerns.

Of particular concern are Tobey Hospital in Wareham and St. Luke's Hospital in New Bedford. Under these conditions, both could experience disruptive levels of flood inundation that would severely constrain administrative and procedural capacities to provide potentially life-saving care during these emergencies. Similarly, under Category 3 hurricane conditions, hospital facilities on the Cape and Islands (Cape Cod Hospital, Falmouth Hospital, and Martha's Vineyard Hospital) would also experience environmental pressures. If these five hospitals were all to evacuate, critical care patients may need to be outsourced to other hospitals within the region, including to those in the western SRPEDD communities. An unpredictable and potentially unsustainable influx of patients requiring varying levels of care could disrupt the continuum of care necessary for patients to receive adequate services. Just as important, these natural disasters could cause harm to individuals, produce unpredictable dangers, and place people and communities in life-threatening situations. Beyond current, pre-disaster bed occupancy levels at these hospitals, newly injured or at-risk individuals may seek care that further strains hospital services.

# Municipal Issues Identified

Many communities face significant challenges due to outdated or nonexistent emergency plans. A common issue is authority over who can initiate an evacuation is unclear, highlighting the need for a clearly defined chain of command. Coordination with neighboring towns is inconsistent, even though regional collaboration is critical, particularly when resources like SRTA or GATRA buses are involved. Questions remain about how these transit systems would be deployed, and which towns have active agreements (e.g., SRTA with Fall River). Evacuation signage is also lacking, and even when routes exist, destinations are often undefined.

Street-level flooding is frequently caused by undersized or deteriorating culverts, which require substantial investment and repair. Municipal buildings such as town halls are often vulnerable to flooding, impacting operations during emergencies. Some towns also report dam-related issues, many of which are privately owned or located outside their jurisdiction, adding complexity to response planning. Small towns with well water and septic systems face additional risks during power outages, including the possibility of cross-contamination and inoperable pumps that render systems unusable.

Communities routinely cite poor response and communication from Eversource as a major utility challenge during disasters though it worth noting that this is improving. Downed trees and snow are primary obstacles to road access, prompting a need for additional DPW staffing or mutual aid for road clearing. Similarly, small police and fire departments often lack the surge capacity needed for large-scale evacuations. School buses are often contracted, raising concerns about the availability of drivers during emergencies. Some towns are actively pursuing workforce sharing agreements, but most rely on informal or outdated arrangements.

Low participation in opt-in emergency alert systems continues to be a barrier to effective communication. Several towns request help improving public outreach and standardized templates for alerts. Training in areas such as active shooter response and wildfire preparation is uneven across communities. The presence of railways introduces further complications, including emergency access issues, hazardous materials risk, and increased fire vulnerability. Many towns also need help updating their Comprehensive Emergency Management Plans (CEMP) to reflect evolving threats and conditions.

## **Acushnet**

Acushnet's evacuation planning reflects a strong foundation of community resilience and interdepartmental cooperation, though several logistical and infrastructure challenges remain. The town maintains a small core of 10 permanent and 20 contracted staff for road clearing, with additional volunteer support accessible through contractor relationships. Vulnerable residents, particularly those reliant on local bus transit, are tracked through the Council on Aging, which can generate reports to identify Acushnet users. Power outages—most frequent around Mattapoissett Road—are a key concern, as both public and private water and sewer systems depend on electricity. The Eversource substation under Wing Lane is critical infrastructure during outages.

Flooding poses significant risk, especially around the library and Lake Street, exacerbated by the area's low elevation and poor drainage. Traffic congestion is influenced by New Bedford's activity, and while coordination exists, Acushnet is seeking to improve public awareness by posting evacuation maps online. Concerns over bridge closures persist year-round, and a high-hazard dam owned by New Bedford presents potential downstream risk, which officials suggest should be addressed with care.

Sheltering plans remain undecided between using the schools or the Council on Aging, though schools are already stocked with food and water. Bus transportation is contracted, but driver availability during emergencies is not yet assured. While cooling and warming centers exist, usage is typically low and limited to senior populations. Emergency communications rely on Code Red and social media, but outreach and engagement efforts could be strengthened to ensure more consistent preparedness across the community.

## **Attleboro**

Attleboro's evacuation readiness is grounded in a clearly defined chain of command, with the Fire Chief holding authority to initiate evacuations and the town regularly using the ICS system to coordinate large-scale events. While Attleboro has conducted moderate evacuations in the past, officials note that residents are often hesitant to leave without full information, and there is an identified need for more robust emergency preparedness training for elected officials. Regional training gaps remain, particularly around active shooter scenarios. Staffing remains a challenge, especially for snow clearance, and although a CERT exists, it has not been activated recently.

The town gathers information on vulnerable residents through local organizations like Bristol Elders, helping target support during emergencies. Power outages are often complicated by slow Eversource responses. Though the Ten Mile River is a known flood risk, it has not experienced recent severe flooding; however, localized flooding frequently occurs in several areas, including County Square and Pleasant Street. Traffic management is a local strength, with successful coordination during high-attendance events like those at La Salette.

Aging dams present risk despite regular inspections, and the town faces significant hazardous materials threats due to rail traffic and facilities like the Apex Chemical Plant, which has prompted evacuations in the past. Sheltering options include the high school and La Salette, though not all schools have generators, and driver coordination for contracted bus services remains critical. Emergency communication relies on Civic Alert and school-based systems, but further community engagement may improve preparedness outcomes.

## **Berkley**

Berkley's emergency evacuation planning is in transition, with the Fire Chief acting as de facto lead despite no formal bylaw assigning authority. An older evacuation plan exists but has not been practiced. The town is revising its Comprehensive Emergency Management Plan (CEMP) and is working to strengthen preparedness among schools and seniors. South Berkley presents a unique concern due to limited access and the potential for isolation during major storm events, making re-entry planning an important focus.

Emergency staffing is limited. The Fire Department can deploy three shifts of ten personnel and has a small 13-member CERT, but the Police Department may not have the capacity for large-scale response. Community coordination and volunteerism enhance resilience, and the town is pursuing funding for regional sheltering and piloting programs that expand emergency staff roles. Sheltering options include local trailers (capacity: ~100 people) and regional agreements with Attleboro, La Salette Shrine, and the Bristol Co. Agricultural High School. Schools are partially supported by town-employed kitchen staff and are stocked with supplies.

Vulnerable populations are monitored through voluntary registration with the Council on Aging and Fire Department, focusing on homebound individuals. However, public awareness of emergency tools remains low. Although the Code Red alert system is available, many residents and even staff are unfamiliar with it. Schools use a separate communication system. Frequent power outages from storms disrupt access to water and septic systems due to reliance on private wells, though growing generator use, and independent heating/cooling sources have increased resilience.

Flooding affects key areas such as Seymour Street, the elementary school, and locations near the library. The Otis Street Dam remains a flood risk, as does Berkley's nine miles of private riverfront. Traffic management during evacuations is a challenge, with choke points at the bridge to Town Hall, South Main Street, and County Street. Daily traffic volumes can exceed 10,000 vehicles, and the long-sought additional Route 24 exit remains unfunded. While wildfire risk is low, no formal evacuation plan addresses it. Although Berkley has no train lines, it has been affected by hazmat incidents from nearby Taunton rail corridors, and emergency access to tracks is currently restricted by MBTA policy.



## **Carver**

Carver's evacuation planning remains shaped by its legacy as a former Pilgrim Nuclear Power Plant host community, with previously practiced evacuation routes and well-regulated emergency protocols for nuclear events still in place, despite decommissioned sirens. The town is actively updating its Continuity of Operations Plan (COOP) and maintains a coordinated notification system that includes 911 rerouting to Kingston as a backup dispatch. Schools operate with independent evacuation protocols, including defined active shooter plans, buses, and staging areas. Tabletop exercises have covered scenarios such as hazmat and gas leaks.

While the town lacks a CERT, it relies on volunteer responders, and limited fire and EMS staffing remains a challenge. Carver has a significant vulnerable population concentrated in mobile home communities—particularly one senior village accounting for 20% of EMS calls. The Council on Aging is working to update a list of at-risk residents, though participation is limited by privacy concerns. GATRA buses are available for emergency transport and warming/cooling centers are established but seldom used.

Power outages, mostly due to downed trees, are frequent, with Eversource providing slow responses despite good coordination. Many residents depend on private wells and septic systems, heightening outage impacts. Flooding is a recurring issue on France Street and at Pope's Point. Traffic bottlenecks are common on major routes including Routes 44, 58, and Tremont Street, particularly during large events. Though traffic control points have been identified, staffing shortfalls limit the town's ability to manage them without mutual aid. No evacuation signage currently exists, but town-owned school buses can be deployed in broader emergencies.

Carver's dams are in generally good condition, with the Tremont Street Dam recently inspected. While there are no local hazardous material producers, the town faces a significant wildfire threat due to Myles Standish State Forest. Annual wildfire drills are conducted, but Carver lacks sufficient fire apparatuses to handle large-scale events. The primary shelter at Carver High School is pet-friendly, volunteer-staffed, and can operate for approximately three days. Public alerts are issued through Code Red, though subscription rates are unknown, and the school system maintains a separate internal notification system.

## **Dartmouth**

Dartmouth's evacuation planning is in transition, with updates underway to incorporate a formal evacuation plan into the town's Comprehensive Emergency Management Plan (CEMP), which will also define continuity of operations and role assignments. The Select Board holds evacuation authority, and authorization for action must occur through a formal meeting. Though the town did not issue formal evacuation orders during Hurricane Irene (August, 2011), it did deploy emergency alerts. Dartmouth is working to strengthen coordination with UMass Dartmouth and New Bedford to improve large-scale response strategies.

Roughly 30% of Dartmouth's population are older adults. While the Council on Aging (COA) can transport up to 50 individuals, service is limited during adverse weather, and contracted school buses are not readily deployable. There is no official town-wide registry for vulnerable residents, so evacuation plans rely on COA coordination and door-to-door outreach.

Flooding challenges exist at key locations such as Chase Road (due to culvert issues), Old Westport Road near Route 6 (critical during UMass evacuations), and other sites constrained by undersized culverts that fall just outside state responsibility. North-south evacuation capacity is limited, with Chase and Slocum Roads serving as primary routes. Counterflow traffic is not viable, and unexpected obstacles, including debris or boats on roadways, are a concern.

Dartmouth High School is available for short-term sheltering, and schools may assist with food provision. UMass Dartmouth has been discussed as a regional shelter option, but no memorandum of understanding (MOU) is currently in place. Some collaboration exists with Fall River and New Bedford, though it remains limited. A pilot cooling center program was tested but saw minimal participation.

Emergency notifications are issued through Reverse 911, with consideration underway for a dedicated Dartmouth alert system. The COA, public schools, and UMass Dartmouth also operate separate mass notification systems. Officials emphasize the importance of early alerts, especially in South Dartmouth, which often faces heightened storm exposure.

## **Dighton**

Dighton's evacuation planning relies on limited authority within its police and fire departments to recommend evacuations or declare emergencies. Although evacuations have been suggested during past storms, many residents opt to remain at home. The town recently transitioned its dispatch operations from Swansea, a move that went smoothly. Interdepartmental collaboration includes regular coordination among the COA, Planning, Building, Fire, Police, and Highway departments. Town officials are interested in working with MEMA and tech companies to display real-time emergency information and road closures on platforms like Google and Apple Maps.

The town's primary vulnerable population center is Lincoln Village, an elderly housing complex. The Council on Aging (COA), in partnership with Bristol Elder Services, assists with transportation and sheltering during emergencies. Flooding is a major concern in Dighton, particularly at Route 138 near Muddy Cove—an essential evacuation corridor that frequently floods. Alternative routes such as Pleasant Street and Elm Street are also flood-prone, limiting evacuation reliability. Additional problem areas include Center Street, Lincoln Avenue, Brook Street, and areas west of Williams Street. The railroad trestle near Taunton may contribute to flood severity due to debris accumulation and could be a target for improvement.

The town's signed evacuation route leads to the middle school, though shelter capacity is limited to 1–3 days, and staffing shortages further restrict extended operations. The COA serves as the community's designated warming and cooling center. School buses, contracted through Bloom, may not be immediately available in emergencies.

Concerns were raised about underreported wildfire risks in Dighton. Officials would like updated assessments and improved wildfire planning. The town uses Code Red for emergency notifications but noted low resident enrollment and a need for broader outreach.



## Fairhaven

Fairhaven's evacuation planning focuses on directing traffic north and east via Route 240 to I-195, with western Fairhaven presenting the highest evacuation concern due to population density. The town has identified the need for GIS mapping to better understand demographics in flood-prone areas and allocate resources effectively. Coordination with New Bedford is vital, especially near Coggeshall Bridge, but remains limited. Certain neighborhoods become isolated during storm events and are prioritized for early evacuation, though Route 6 lacks capacity for counterflow scenarios.

The town utilizes a re-entry pass system for flood-prone neighborhoods and is exploring models from other communities to refine this process. Fairhaven's Fourth of July planning serves as a strong example of emergency coordination. While rescue boats are available, they are not usable during active storm events. Three local nursing homes conduct annual evacuation drills, and Fairhaven schools have established lockdown and evacuation procedures.

The Middle School serves as the primary shelter (1,200-person capacity for 48–72 hours), with Wood School as a backup and the Senior Center as a 200-person warming/cooling center. A prior agreement with DATCO for vulnerable population transport has expired, and no current formalized bus agreements exist. Local buses may be shared with other towns, complicating availability. In past events, Fairhaven shelters have hosted residents from New Bedford.

There are minor concerns about hazardous materials; no significant incidents have occurred. Residents tend to shelter in place during storms, making early communication critical. The town proactively informs the public when services will become unavailable due to storm conditions.

## Fall River

Fall River maintains an Emergency Comprehensive Evacuation Management Plan (ECEMP), which is regularly updated and includes provisions for 252 institutions. However, the plan has not been tested in recent years, and officials stress the need for robust backup systems to account for real-world variability. The mayor holds the authority to issue evacuation orders, with input from fire and police chiefs, though there is no formal chain of command if the mayor is unavailable. Re-entry decisions are currently made on an ad hoc basis. Staffing is sufficient for short-term events lasting two to three days, but extended emergencies would require assistance from the state. The fire department is relatively young and relies heavily on forced overtime to maintain capacity.

Vulnerable populations—such as the elderly, disabled, unhoused, and carless residents—present a major challenge. While the city conducts a multilingual annual survey to identify needs, outreach to these groups remains difficult. Language diversity adds another layer of complexity to emergency communication. The city supports unhoused residents through warming centers and partnerships with community police, although decisions to evacuate can be unpredictable. Deep freeze events show high shelter usage, but managing behavioral health in communal spaces is an ongoing concern.

Transportation concerns focus on limited highway access, Route 79 rotaries, and potential closures of the Braga Bridge (I-195) during storm events. While counterflow traffic is technically possible, it is not pre-planned and would be executed reactively. The greatest transportation threat is from road flooding, not bridge failure. Permanent evacuation signage is lacking, though mobile signs can be deployed. Emergency access to the Southcoast Rail remains a concern, as fenced tracks would require breaching for entry during a crisis. Hazardous material risks are addressed through a chemical plume model and close monitoring of freight rail from Rhode Island. The city's shelter network includes seven ADA-compliant, Red Cross-approved locations, with Durfee High School serving as the main shelter when school is not in session. The Southeastern Regional Transit Authority (SRTA) offers designated pick-up points, though logistical issues such as unclear destinations and limited bus availability persist. Regional sheltering agreements have lapsed due to prior negative financial experiences, underscoring the need for updated MOUs. Public buildings, churches, and senior centers serve as warming/cooling sites, though cooling centers are underutilized. Emergency communication relies on MEMA alerts and social media, with limited use of Reverse 911, and challenges remain around inconsistent signage and GPS misdirection.

## **Freetown**

Freetown does not currently have a formal evacuation route, though past evacuations—such as those in the Bay Shores area during the 2010 floods—have been localized and small in scale. The authority to order evacuations likely resides with the Board of Selectmen, though the Fire Chief may act independently in urgent cases. While the town lacks a Community Emergency Response Team (CERT), the Fire Department has shown interest in establishing one. Public safety departments collaborate effectively and have completed active shooter training in the past five years. There are concerns about losing local staff to MEMA-managed regional shelters during large-scale emergencies.

The town's capacity for sustained emergency response remains limited, particularly for long-duration events. Vulnerable populations are tracked through voluntary self-reporting and relationships maintained by the Council on Aging (COA), which operates a transport van with another on the way. The COA building serves as a warming and cooling center but cannot function as a shelter. Freetown Elementary School can host short-term sheltering without disrupting classes, while a shared shelter with Lakeville exists for more severe scenarios. A local hotel in Fall River is a potential alternative but presents logistical challenges.

Infrastructure vulnerabilities include reliance on private wells and septic systems, with widespread power outages disrupting essential services. Some households have backup power, but coverage is limited. The town pre-distributes municipal water ahead of major storms when possible. Frequent flooding affects key areas such as Richmond Road, Beech Bluff Road, Morton Road, Route 18, and the area surrounding Town Hall. The Town Hall basement is particularly vulnerable and lacks a formal plan to protect vital records. Drainage issues also impact Route 140 and Chace Road, and the Fire Station has a minor flood risk. Traffic congestion—especially at the Four Corners intersection—is a significant concern for evacuation planning. There is no formal evacuation signage in town, and counterflow strategies have only been tested in small events. The aging South Main Street Bridge is structurally vulnerable and, if compromised, would severely limit mobility. Rail transport

of hazardous materials poses additional risks, with limited emergency access across tracks due to a shortage of utility terrain vehicles (UTVs). While wildfire risk is relatively low, it is accounted for in the town's master plan. Emergency communications use multiple platforms, including Freetown Flash, Code Red, Reverse 911, and social media, although school alert systems cannot currently differentiate between Freetown and Lakeville households.

## **Lakeville**

Historical evacuations have been limited, including the 2010 floods that necessitated a temporary fire station and evacuations along Staples Shore and Shore Ave. Most recently, homes flooded in April 2025. While the Police and Fire Departments have completed active shooter training, more intensive joint exercises are in planning stages. Emergency response is constrained by limited staffing, especially in the Fire Department, which can sustain full operations for only about three days. Funding shortfalls also prevent staffing fire towers, delaying wildfire detection and response.

Vulnerable populations are not fully identified, though some were documented during COVID outreach. Plans to include a census insert aim to improve this. The Council on Aging (COA) provides transportation with support from GATRA if needed and serves as a heating/cooling center. Flood-prone areas include lakefront neighborhoods, Freetown Street, County Street, Bedford Street, Parkhurst Drive, and Staples Shore. The Town Hall basement, which stores historic files, is also at risk. Traffic congestion at Bedford and Main Streets is a known evacuation obstacle, though bridge vulnerabilities are minimal.

Lakeville faces structural and jurisdictional challenges with several dams—most notably, the high-risk, privately owned dam at Pierce Avenue Pond and others controlled by New Bedford and Taunton. Hazmat risks include cold storage facilities using ammonia and potential incidents linked to the industrial park and Southcoast Rail. Wildfire threats are pronounced in the southern part of town due to limited water infrastructure, downed trees during wind events, and underfunded fire towers. The Fire Department has expressed the need for enhanced water access or infrastructure upgrades to support fire suppression.

Shelter planning designates the high school as the primary shelter, with the middle school under consideration as a better long-term site. Shelters have not been activated in recent memory, leaving implementation untested. The town is exploring a regional MOU for sheltering responsibilities. Emergency notifications are distributed via opt-in systems like Reverse 911 and Code Red, though school alerts lack precision due to shared systems with Freetown.

## **Mansfield**

Mansfield has not experienced full-scale evacuations but has managed smaller incidents due to gas leaks, fires, and storm-related power outages. The Xfinity Center provides emergency personnel with regular exposure to large-scale traffic management. A grid outage exercise with Mass Maritime is in development. The town is part of METROLEC and can access Bristol County Tech Rescue resources. Emergency Management maintains two brush trucks capable of clearing paths for vehicle passage. Mansfield's strong EMA infrastructure has sparked discussion about serving as a regional evacuation hub, though

further planning is needed. The town's IP-based phone system ensures continuity wherever power is available.

Vulnerable residents are concentrated in four public housing locations, and the Council on Aging serves as a heating and cooling center. Mansfield's Haitian and Arabic populations indicate a need for improved multilingual emergency messaging. Recurrent flooding is reported at the School Street culvert, Otis Street near the dam, and the flood-prone Kingman Pond area.

Traffic congestion remains a challenge, particularly on Route 140 to I-495 and Route 106. Evacuation strategies under discussion include designating Route 140 as all-southbound and dividing the town into zones with routes to I-95. All town dams, including the Otis Street dam, are municipally owned and maintained, with the Otis Street dam recently improved. Rail-related hazardous material events are a noted evacuation concern.

Jordan Jackson School serves as the primary shelter, with Mansfield High School as backup. Municipal employees support shelter operations, but capacity confirmation is needed. The town contracts school buses and has nine mini-buses for evacuations. Civic Ready serves as the opt-in alert system, supplemented by Facebook, WEA/SEMRECC, and Ring cameras. All town buildings are equipped with backup generators. A local airport is noted, though no evacuation-specific details were provided.

## **Marion**

Marion is in the process of updating its Comprehensive Emergency Management Plan (CEMP). The town has a 12-member CERT, approximately two years old, whose primary mission is sheltering but can also assist with traffic control. A Mutual Aid Compact is in place to address personnel shortages, and the town has resources such as an Emergency Management Trailer and transport carts that hold 2–6 people. Evacuation operations are split between the Police Department (evacuation management) and Fire Department (fire suppression). While emergency communication systems are generally strong, frequency compatibility with vendors and other towns is a challenge. UTAC channels are available for coordination if properly configured, and Tabor Academy IT staff have provided technical assistance in the past. All major decisions are made from the Police Station EOC, with an emphasis on assembling key stakeholders. Marion has dual-agency terrorism and emergency protocols in place.

Flooding concerns are under review, particularly as they relate to the wastewater treatment plants. Flooding on Route 6 is a specific concern and may impede evacuation during storm events. Only one required evacuation route has been identified. SRPEDD has proposed the use of consistent primary and secondary route signage regionally, potentially funded through grants. Electronic signage was also suggested to support traffic flow.

Nearby hazardous materials risks include the trash plant in Rochester, natural gas transmission lines, and the Mattapoiet Industrial Park. Hazardous material incidents must be reported, and although the Lockheed Martin facility has closed and no longer contains hazardous materials, the Plymouth power plant was raised as a possible (though uncertain) hazard to Marion. For sheltering, Marion is in discussions with MEMA to coordinate with Mattapoiet. School buildings are discouraged as shelters due to disruption of classes. There is no dedicated shelter signage, and shelter coordination with neighboring towns

has been difficult in the past. Warming and cooling centers are the town's preferred short-term option. Long-term care facilities are able to shelter patients and caregivers. Marion's emergency notification systems include Code Red, Reverse 911, town email lists, social media, sign boards, and wireless alerts. WebEOC is used to coordinate mutual aid, and a new alerting tool was recently implemented. However, the town lacks a regional 911 system—emergency calls are routed to Mattapoisett's dispatch, which could pose coordination challenges in a widespread event.

## **Mattapoisett**

Mattapoisett's evacuation planning efforts include interest in preplanning the use of the Bay Area Police Emergency Radio Network (BAPERN) to enhance coordination during emergencies. The town experiences frequent flooding in key areas, particularly along Pine Island Road and Pico Beach. For emergency notifications, Mattapoisett uses the CivicReady app to alert the public, rather than the RAVE system.

## **Middleborough**

Middleborough has experienced localized evacuations during wind events, using the Middle School as a shelter. The Town Administrator initiates evacuations, though the chain of delegation remains unclear. Interdepartmental coordination is strong, supported by shelter tabletop exercises, monthly public safety meetings, and regular multi-agency school training. The Fire Department leads incident command but is facing staffing challenges due to the loss of two on-call staff. Mutual aid networks remain robust, and a volunteer list is in place to supplement capacity. The Fire Department has requested ballistic gear, which is also lacking for the town's private EMS provider, Coastal Medical. Communication among departments is reliable, but long-term emergency staffing remains a concern.

Three major residential communities—Riverview, Nemasket, and Oak Point—contain vulnerable populations and lack generators. Winter storms frequently result in power and gas outages. Flooding is a major concern, with known trouble spots including North Main under I-495, Plymouth Street, Route 105 train overpass, and Woloski Park culvert. The Town Hall basement, which stores IT equipment, is also prone to flooding. Most homes rely on private wells and septic systems, which are disrupted during these events. The Engineering Department is working to better map stormwater and culvert issues to prepare for future flooding.

Traffic congestion is concentrated at Route 28 and Route 44, the rotary, and around schools. Exit 12 off I-495 is expected to worsen due to the new train station. The town owns a fleet of school and COA buses, though driver shortages are an issue. Bridges are small but well-maintained, and the Pratt Farm dam is currently under repair. Rail infrastructure poses challenges due to raised embankments and low crossings. The Fire Department is prepared to handle hazardous materials incidents such as ammonia releases at Ocean Spray, with support from the state hazmat team. Wildfires are rare but managed with a forestry task force; however, the department's utility terrain vehicle (UTV) needs replacement.

The Middle School is the primary shelter site, offering over 400-person capacity with access to both gym and auditorium spaces. The High School serves as a distribution site but may be unavailable when school is in session. Shelter staffing is difficult, particularly



during school hours. The Council on Aging (COA) serves as a warming and cooling center for 20–30 people but lacks showers. COVID-19 operations were previously conducted at the police department, Middle School, and High School. For public alerts, Middleborough currently uses Code Red but is transitioning to CivicPlus. Police and Fire departments can initiate emergency alerts, while the school system operates its own contact program.

## **New Bedford**

New Bedford's Mayor is the only official with the authority to order a storm-related evacuation, while emergency services can act independently during immediate threats such as active shooters. Personnel receive basic active shooter training, and a full-scale emergency drill is being planned. The city maintains a CERT under a regional verbal agreement and has a formal agreement with SRTA to provide bus-based evacuation support. Emergency plans, maps, and information are publicly available on the city's website. There is currently no formal re-entry permit system; controlled re-entry has been carried out using driver's license addresses. City officials consider storms less concerning due to advance warning, whereas sudden events like hazmat incidents, rail emergencies, or terrorism are seen as higher risks.

Efforts to identify and support vulnerable populations are ongoing, with a special needs registry in development. Currently, much of this knowledge resides within the Fire and Police Departments. The homeless population near the airport is known and monitored, and the Council on Aging has promoted emergency alert sign-ups. Door-to-door evacuations are planned for Zone A residents during major storms. Power outages are most common in the Sassaquin and peninsula areas, though infrastructure upgrades are in progress. Flood risks are highest in the harbor and South End (peninsula), where up to 7,000 residents could be affected by a Category 3 hurricane. Flooding is frequently reported on Purchase and Coggeshall Streets. The city has one highwater rescue vehicle and is seeking more to improve storm response.

Traffic chokepoints exist at Route 18, I-195, Cove Road, and Rockdale Avenue. Traffic lights may create additional backups; deploying officers to direct traffic is one proposed solution. Multiple evacuation routes exist off the peninsula, and counterflow is possible on Route 18, though formal evacuation signage is not yet in place. Bridges, dams, culverts, and drainage systems are under review, with the Route 6 bridge—controlled by MassDOT—subject to closure in major storms. Hazardous materials pose a serious risk due to over 52 ammonia-based refrigeration businesses near the port. Regional hazmat technicians and equipment are available. Limited rail access during emergencies remains a key concern.

New Bedford's primary shelter is Keith Middle School, which can accommodate more than 750 people overnight. Normandin Middle School serves as a secondary shelter, and the Andrea McCoy Recreation Center may also be used, with capacity for around 100. Libraries may act as extended hour warming and cooling centers, though they are not widely promoted or utilized as shelters. Public alert systems include NBAlert (Code Red), social media, sign boards, and town emails, but only about 10% of residents are currently enrolled in NBAlert. WEA notifications through MEMA take about 5–10 minutes to process. The city is also exploring pre-planning the use of the BAPERN radio network to strengthen inter-agency communication during emergencies.

## **North Attleborough**

North Attleborough's Town Manager holds the authority to order evacuations, though Police and Fire Departments can independently initiate localized evacuations. While no large-scale evacuations have occurred, both departments have practiced Active Shooter Hostile Event (ASHE) response. A major challenge exists in coordinating with Rhode Island due to incompatible radio frequencies and a lack of interoperability, which complicates cross-border emergency responses.

Flooding poses a recurring challenge, particularly at the Police Station and Town Hall basements, as well as in the town's southwest corner, which experiences frequent and severe storm-related flooding. The Ten Mile River and Scotts Brook are the primary water bodies contributing to flood risk. The Ten Mile River watershed contains approximately 40% impervious surfaces, increasing flood risk. Ongoing stormwater management in this area remains critical.

Traffic congestion is common on Route 152 and is expected to worsen near the large industrial park adjacent to the middle and high schools. Several bridges are in poor condition, including the Cushman, Mendon Road, Old Post Road, and Plain Street bridges, though the town's dams are currently considered to be in good condition.

The middle school serves as the town's primary emergency shelter. The Council on Aging (COA) building could potentially function as a cooling or warming center, though this depends on available staffing. While the COA has a bus that could aid in evacuations, the lack of a driver limits its usefulness. The town uses the Code Red alert system, but reports indicate a roughly 15% failure rate. Alerts are issued by the IT Director, and EMS maintains a detailed registry of vulnerable residents.

## **Norton**

Norton's Fire Chief has the authority to initiate evacuations, though no large-scale evacuation drills have been conducted. The town has managed small-scale hazardous material incidents and maintains a strong Emergency Management Team, which includes the Council on Aging, Police, Fire, and the Superintendent of Schools. A CERT of 25 trained members also supports emergency preparedness and response.

Town officials report having good knowledge of the locations of vulnerable populations. Most residents are on public water, though about 70% use septic systems. While the town's pumping station has a backup generator, response times from National Grid during power outages have been slow. Flooding is frequent in several areas, including Barrows Court, Cross Street, Walker Street, Route 123/West Main, and Edgewater. Chronic culvert issues contribute to flood risks, particularly near water bodies, and require ongoing maintenance.

Reservoir Street and Route 140 are major traffic bottlenecks, with Route 140 and Route 123 identified as primary evacuation routes, and Washington and Worcester Streets are suggested secondary options. Overall road capacity is low for managing large-scale evacuations, and existing signage ends in Norton, highlighting the need for regional coordination. Several dams; Chartley, Barrowsville, Reservoir, and Cobb Street are in poor condition and considered high-risk during extreme weather events. The town has limited experience with full-scale hazardous material responses and lacks adequate training and equipment for wildfire scenarios.



The middle school is designated as the primary shelter, though roof issues pose a vulnerability. The town can accommodate up to 100 people in sheltering operations and has COA and school vans/minibuses available for evacuations. Norton recently opened a new EMS/Dispatch center located on high ground, with built-in redundancies. The town uses the RAVE alert system, although officials noted its overuse has reduced its effectiveness. Digital signage is deployed across town to aid in emergency communication.

## **Plainville**

Plainville has not conducted recent testing of evacuation routes or capacities. While there is interest in supporting private industry with active shooter preparedness, the town lacks a formal coordination structure for such planning. Emergency staffing, especially within the Department of Public Works (DPW), is a major concern. The DPW is significantly understaffed, limiting its ability to perform essential tasks such as plowing, culvert clearing, and post-storm route clearance. Additionally, there is no regional DPW support mechanism, complicating mutual aid during large-scale emergencies.

The Fire Department and Council on Aging jointly maintain a list of vulnerable residents. The town's west side, where residents rely on wells and septic systems, may be more resilient during outages, while the east side has less endurance, possibly due to denser infrastructure or limited backup systems. Recent residential development has increased the number of residents potentially at-risk during disasters. Flooding is a recurring issue throughout the town. Problem areas include the Shepherdsville Turnpike Lake causeway, East Bacon Street, and the town center. Notably, the Whiting Street Bridge has been out of service for years due to persistent flooding, and new development along Route 1A raises concerns about untested infrastructure and stormwater management.

Sheltering and evacuation plans in Plainville are untested. Historically, the town has utilized warming and cooling centers during emergencies. A Council on Aging bus is available to assist with evacuations, but broader plans and capacity evaluations for sheltering have not been fully developed or implemented. Plainville currently lacks a townwide or regional public alert system.

## **Raynham**

Raynham's Fire Chief has the authority to call for an evacuation. Authority then follows a chain of command if unavailable. A CERT is available to support emergency operations, and the Police Department conducts annual active shooter training in Taunton, with junior officers prepared to act before senior staff arrive. Emergency staffing faces challenges; State procurement laws have delayed salt truck replacements, manpower for snow removal is consistently limited, and the Police Department averages 64 calls per day, high for a town of its size, further stretching resources.

Vulnerable residents are primarily located in assisted living and mobile home communities. The town maintains an opt-in frail elderly list, which staff can proactively update. While improvements from TMLP have largely resolved power issues, flooding remains a concern. Route 138 has four flood-prone spots currently undergoing drainage upgrades, and Route 44 experiences gridlock during emergencies. The town is wet and increasingly impacted by stormwater runoff due to development, but very few homes qualify for flood insurance—a gap in recovery capacity. The Police Station has a flooding contingency plan that remains untested.

Raynham's daytime traffic doubles or triples the population, significantly increasing evacuation and sheltering demands. Route 44 and Route 138 are heavily used and prone to congestion. One bridge is currently out of service, and the South Street East bridge is slated for closure. Dam vulnerabilities include the Hewitt Pond Dam, Gardener Street Dam, and a private dam on White Street entangled in legal issues. The town has successfully managed previous rail-related evacuations with state assistance.

While the risk of wildfire is minimal, hazardous material incidents are handled locally and escalated to the state when necessary. The middle school serves as the primary shelter, and a local temple with ample parking could become a regional shelter partner, though no formal agreement exists. The CERT staffs shelters, but the town lacks operating heating/cooling centers, and there are no COA buses. School buses are privately rented, but their vulnerability to flood conditions is unclear. Raynham currently relies on the Sheriff's Department, Virtual Town Hall email alerts, and school-specific systems for public notifications, but lacks a townwide platform like CodeRed or CivicReady—a potential area for improvement.

## **Rehoboth**

Rehoboth's Fire Chief has the authority to call for evacuations, while the Select Board must formally declare a State of Emergency. However, the town has not conducted any formal evacuation operations to date. The Fire Department is equipped with two high-water rescue vehicles, brush trucks, drones, and UTVs, allowing it to respond to a range of hazards, including wildfires and remote rescues. While the department frequently provides mutual aid and has not required significant external assistance, it cannot independently staff a shelter, which poses a critical gap. The Central Fire Station serves as an aid distribution point, but limited full-time staffing may constrain response capacity during large or prolonged events. The Fire Department also backs up the DPW for snow clearance, offering some operational redundancies. The Departments all-on-call staffing structure limits sustained emergency operations.

Rehoboth includes several group homes, which maintain their own emergency plans. There is no townwide registry or plan for frail or elderly residents outside of these facilities. Broader evacuation efforts would require GATRA support or regional transportation coordination. The community demonstrates strong individual preparedness, with most households owning private generators. The entire town relies on private wells and septic systems, creating risks during extended outages or flooding events, such as water contamination or septic failure. Power outages are common in the Summer Street and Route 44 area, though the construction of a new substation aims to address this issue. Eversource has shown recent improvements in outage response times.

The town experiences minimal flooding, mostly limited to basements, and municipal buildings are not known to flood. Widespread reliance on private infrastructure increases the town's vulnerability. Traffic congestion is frequent along Route 44 and Route 118, while Route 6 remains relatively uncongested and could be managed by 3–6 officers during evacuations. The town lacks mass transportation options and would depend on regional partners like GATRA to assist in a large-scale evacuation. Several bridges in town limit the potential for counterflow operations and could present bottlenecks if not accounted for in pre-planning. Additional assessment is needed to determine their feasibility during evacuation scenarios.

Recent wildfires have been well-contained, and the town has appropriate equipment for remote access and fire response. Emergency communications currently rely on the CodeRed system, which is used only for high-level emergencies. Roadside signboards are available and used for visual messaging. While public outreach is considered effective, there is room for improvement through additional training and broader use of cross-platform communication tools. Enhancing public messaging capabilities would strengthen overall preparedness and community resilience during emergencies.

## **Rochester**

Rochester's Fire Chief and Police Chief, under the direction of the Town Administrator, holds evacuation authority. While formal community-wide drills have not been conducted, ad hoc evacuations have occurred, most notably campgrounds during tropical storms. The town's small, tight-knit community contributes to a generally effective informal response. Many residents are well-prepared to shelter in place for up to a week, often with generators. For vulnerable populations, the Council on Aging (COA) and police outreach officers maintain strong registries of older adults and residents with mobility needs, ensuring targeted assistance during emergencies.

Rochester faces regular flooding in key locations, including Turnpike Lake, the town center, Sippican River, and major roads like Route 105 and Marion Road. The Sippican School, used as a warming center, lies in a flood zone, raising concern about its reliability during extreme events. Culverts on Route 1, Route 105, and East Bacon Street also present challenges. Route 105 and County Road are critical evacuation routes but become impassable during severe weather, especially if nearby towns like Lakeville are similarly impacted. GPS routing through blocked roads presents an additional risk. The town has multiple dams, many privately owned, and the Robinson/Cushman Dam is classified as high-risk. Town officials recommend further consultation with the State Dam Safety Office.

Wildfire is a high concern for Rochester due to its extensive forested landscape, accumulation of dead wood, and lack of a forestry management plan. Old Colony Regional Vocational Technical High School (OCRVTSH) is especially vulnerable, surrounded by fire-prone areas with minimal fire protection infrastructure or water access. Sheltering resources include the ORR School, which serves as a temporary shelter and has a contract with a bus company, and the COA, which functions as a warming center with a capacity of 20–50 and is widely used for electronics charging. The COA has strong volunteer engagement and multiple buses used during past emergencies. Additional resources include a trailer with cots, DPW trucks, and police cruisers for transport. Bus use under school contracts requires payment but includes evacuation language.

Rochester relies solely on Reverse 911 for emergency alerts and lacks an opt-in public notification system such as RAVE or CivicReady. Messaging is hindered by poor cell service near OCRVTSH and in other dead zones. The town avoids static signs, favoring mobile or electronic signage. Coordination with Eversource has recently improved, but there are concerns about long-term consistency if staffing changes. An institutionalized communications protocol is needed. While ORR has radio repeaters in place, it is not fully integrated into emergency communications. OCRVTSH lacks a reliable communications infrastructure entirely and would benefit from added radio or cellular repeaters.

## Seekonk

Seekonk's Town Administrator holds the authority to call for evacuations, with responsibilities delegated to the Police and Fire Departments. An Emergency Management Plan is in place; officials noted it could be expanded, particularly to address unique risks such as plane crashes. Challenges with external coordination are significant. The town experiences minimal communication from Rhode Island Emergency Management Agency (RIEMA), and poor coordination with National Grid has led to power restoration delays. Additionally, interoperability issues with Rhode Island agencies—particularly during joint responses—result in “radio silence,” and there is a noted need for better coordination with private ambulance providers.

Seekonk Commons has been identified as a well-equipped facility suitable for housing vulnerable populations during emergencies. Major traffic bottlenecks pose serious evacuation challenges. Key problem areas include Route 152 at Pond, Reed, and Baker's Corner; Fall River Avenue into Highland Avenue often becomes gridlocked; and Route 195 is both a bottleneck and difficult to coordinate across state lines. The town could unintentionally become a regional evacuation destination. While official routes include Pond Street, Route 152, and Route 118, the town lacks sufficient resources to manage traffic flow in large-scale events, and areas like Arcade and Prospect Streets are frequently blocked by fallen trees.

Flooding is a recurring hazard in Seekonk, with severe water accumulation at Central Avenue and Route 152, which can disable vehicles, and at the rear lot of Hurley School. The Public Safety Complex's driveway and the Mink Street Power Station are also prone to flooding, posing risks to operations and the power grid. The Senior Center is the primary sheltering facility, with the High School as a backup, though generator issues may limit its use. Seekonk Commons stands out as a potential shelter or warming site for vulnerable populations. Agreements with Barrington, RI for use of Martin Elementary are unclear, and shelter-in-place is likely to be the preferred approach in many emergency scenarios. Hotels may also serve as informal sheltering sites. The Code Red system is used for emergency public alerts and Parent Square for school-specific communications.

## Somerset

Somerset's Emergency Management Director is the Fire Chief, and the town maintains a current Comprehensive Emergency Management Plan (CEMP). Although the community has not experienced a large-scale evacuation in over two decades—only smaller incidents like gas leaks—officials emphasize the importance of early public messaging and would require significant lead time to mobilize due to flood-prone roads. Regional coordination, along with shared resources such as a regional command post, staffing pool, and communication systems, would improve preparedness. The town maintains useful mobile assets including a command center, lighting towers, boats, and high-water rescue vehicles. However, the Department of Public Works is understaffed, especially for plowing during severe winters, and this remains a vulnerability despite recent mild seasons.

The town has recognized vulnerable populations in specific areas, including the Housing Authority and the South End, but lacks a formal registry of at-risk residents. Officials acknowledge that developing such a list, like other nearby communities, would strengthen response efforts. Flooding is a major concern, particularly along Route 6, Route 138, County

Street, Buffington at Route 138, and Riverside near St. Patrick's Church. Buffington Brook contributes to persistent flooding in low-lying areas, and the publicly owned reservoir is considered a possible emergency concern.

Evacuation routes include Route 6, Route 138, and County Street, all of which are vulnerable to flooding. Route 6 may support counterflow traffic but would require careful planning. Bottlenecks at key bridges and intersections (e.g., Buffington at Route 138) could complicate evacuations, particularly during regional events. The high school is designated as the town's primary shelter with a short-term capacity of 800 and a reduced long-term capacity of 460. Other municipal buildings such as the library, Council on Aging, and police/fire stations serve as heating and cooling centers. Despite mapped plans, shelters have not been activated in two decades, and Somerset lacks a long-term sheltering strategy. Volunteer or regional support would likely be needed for any major sheltering operation.

Somerset uses a Reverse 911 system with geofencing capabilities but lacks a public opt-in alert platform. The REAR emergency alert system has proven unreliable, with delays of 30 to 40 minutes during tests or actual events. This creates significant challenges for rapid public communication in emergencies.

## **Swansea**

Swansea's evacuation signage is coordinated with Warren, RI, but the town has never exercised its evacuation plan due to limited resources. Mandatory evacuations are considered nearly unenforceable, and there is concern about the town's ability to maintain public safety and emergency operations during extended emergencies. Vulnerable populations are tracked using special needs assessment forms from Bristol County Elder Services, though no town-specific registry is maintained.

The town has faced prolonged power outages during several major storms, with the Town Hall, an older structure, already having shut down in past events. To address this vulnerability, a remote work plan is in place for town employees. Frequent flooding occurs in several areas, including the Grove, near the Rhode Island border, and along Myles and Bungtown Bridges. Tidal flooding near Dicky's Clam Shack is a well-known issue.

Swansea's primary evacuation routes are Route 6 and I-195, though Route 6 floods on both ends severely impacting evacuation efforts. Route 118 is also available but is wooded and susceptible to wind damage. No viable counterflow options have been identified. The town has requested more Intelligent Transportation System (ITS) signage along Route 6 to help manage traffic during emergencies.

Case High School serves as the town's primary shelter, with backup shelters available in Fall River and the COA as an alternate site, though the COA's location in a flood zone limits its dependability. Staffing for shelters is expected to be minimal during a major event such as a Category 3 storm. Swansea uses the RAVE system for alerts and is working on licensing for an improved reverse 911 system. Officials have also requested a standardized evacuation material template to support community outreach and preparedness.



## **Taunton**

Taunton's Mayor holds the authority to declare evacuations, which has occurred in the past due to dam safety concerns. However, there is currently no shelter with the capacity to accommodate the full population. Vulnerable populations are tracked using Bristol Elder Services, though outdated records can hinder responses. The city makes good use of warming and cooling centers, especially during severe weather.

Flooding is a major concern, especially in areas such as Route 44 (West Water Street), Coby Brook, Dean Street, and Arlington Street. The Hockomock Swamp area complicates rescue access, and there's a recognized need for updated rainfall models to support planning. School buses, stored off Route 140, could be impacted by flooding, and the police station is known to flood at the basement and first-floor levels.

Traffic bottlenecks are common at Route 44, Route 140, and Taunton Green, and the city currently lacks evacuation signage. Potential transportation resources include the MBTA for evacuating residents and the local airport for bringing in supplies. While dams are well-maintained and bridges are not seen as a major issue, the city does host some hazardous materials sites that have historically been well-managed during emergencies.

There is no single facility large enough to serve as a full-population shelter, and the use of hotels for migrant housing has added complexity to emergency response planning. The city uses CivicPlus for emergency notifications, though public sign-up rates are low. There is also an identified need for a staffed helpline during emergencies, with department heads potentially filling that role if resources allow.

## **Wareham**

Wareham's evacuation planning is currently informal, with a pre-COVID plan no longer in use. The default approach is to shelter in place unless major flooding or power outages occur. Authority to call for evacuation likely resides with the Town Administrator, though no re-entry plan or regional coordination strategy is currently in place. The town utilizes Decas School and the West Wareham Police Department for training and operations, and there is interest in installing variable message boards on I-195 and I-495. Active shooter preparation includes the use of the Navigate360 app. Emergency staffing depends on who is physically able to reach town facilities during an event, though space-sharing and in-state mutual aid are considered effective.

Wareham uses Smart911 to allow residents with special needs to opt in for assistance, and although no major population gaps were identified, continued outreach is encouraged. The town is concerned about storm surge and sea level rise but lacks detailed data on flood-prone evacuation routes. No specific flood-prone roads were named, but the town recognizes the need for improved modeling and data collection to support future emergency evacuations.

The wildfire risk is low, with no major fires reported in the last five years. Wareham does not maintain a long-term shelter but uses existing facilities such as Decas School and community cooling/warming centers during power outages. Outages lasting more than 2–3 days typically trigger shelter operations. Town-owned school buses are available for evacuation use, but formal agreements with GATRA for emergency bus deployment still need to be established.

Wareham uses the RAVE emergency notification system, which includes all landline numbers from Verizon and Comcast and allows residents to receive alerts via email, voice, text, and images. Approximately 1,200 residents have opted into Smart911. Public outreach for the system is done through the town website, signage, and utility bills, making it accessible even to seasonal residents.

## **Westport**

Westport's evacuation authority likely lies with either the Fire or Police Chief, but this remains unclear. The town has not had major evacuations since past hurricanes, which allowed ample warning time. There is currently no emergency management planning or continuity of operations strategy in place, although remote work options are available for some staff. The town's Hazard Mitigation Plan is outdated (from 2004), though funding has been awarded for an update. Coordination with Rhode Island agencies like RIEMA is essential due to the town's geographic ties and cross-border evacuation routes through Tiverton and Little Compton. Limited staffing in departments such as DPW makes mutual aid critical for tasks like debris clearance.

Westport faces high flood risk from both inland and coastal sources, particularly from Category 3 or higher storms. The lack of municipal water and sewer systems also limits the town's ability to manage flooding during power outages, as no pumps are available. Reservoirs, bridges, and culverts are in need of assessment. Common trouble spots include East Beach Road, which washes out annually, and intersections like Route 6 at Johnson Road and Sanford Road at Rod & Gun Club, which flood regularly.

Route 88 is the town's primary evacuation route, an elevated but residentially bounded artery. East-west travel is more vulnerable due to bridges and flooding risks, with Old County Road noted as a particular concern. While normal congestion is low, fallen trees and flooding often block key routes during emergencies. There is currently no official shelter or warming/cooling center, though the Council on Aging has a bus and access to volunteers. Westport has strong community mutual support, and some facilities could potentially be evaluated for shelter use if needed.

The town relies on the Code Red system for emergency alerts but reports poor usage and training. There is no townwide opt-in system outside of schools, and notification capacity in departments like sewer is very limited. Westport lacks automated alerts beyond school-related communications and would benefit from regional planning and procurement. The town also expressed a desire for template outreach materials to help educate residents on evacuation procedures.



# Solutions and Strategies

## Transportation

### Evacuation Route Improvements

Prioritize and implement safety improvements on identified Evacuation Routes: Municipalities, MassDOT, and the SMMPO/SRPEDD when feasible, should seek improvements related to safety, specifically to places where regional safety priorities identified in the Southeastern Massachusetts Regional Safety Action Plan and Evacuation Route Priorities overlap. As the majority of primary routing is along road's under MassDOT jurisdiction, the SMMPO/SRPEDD should work with MassDOT to ensure that the evacuation routes and associated priority improvements are well communicated and understood.

SRPEDD's Evaluation Criteria Process, the process used to prioritize federal funding for transportation projects using regional target funds, should be updated to include new routing in the procedures and consideration should be given to adjusting the criteria to increase the priority given to projects that improve safety and flow along evacuation routes.

### Installation of Evacuation Route Signage on Identified Routes:

Permanent signage along evacuation routes is necessary to clearly communicate routing as well as familiarize roadway users with the routes in advance of emergent situations. Mobile signage and light towers should be procured and deployed in strategic locations to allow for flexibility in routing and updated communications in emergent situations.

### Transit Recommendations

Rail Transit: Utilize South Coast Rail and the Cape Flyer as a means of evacuating community members in a way that also mitigates severe traffic congestion during an emergency. This will require coordination between MBTA, GATRA, CCRTA, and SRTA. It will be important to also make this evacuation transit free so evacuation will not be cost prohibitive, which is an issue with transit critical populations (Wambura & Wong, 2024). The MBTA stations within the SRPEDD region have large surface parking areas that could be used as staging areas to handle the large influx of community members in transit to evacuate. The MBTA has their own inclement weather policies that determine when a service has to be suspended. These thresholds can be utilized to determine an estimated evacuation window that will be available for rail transit.

**Ferry Transit:** To mitigate congestion and gridlock, while providing transit from the Islands to the mainland, ferry service can connect community members to rail and bus transit. For example, the New Bedford MBTA station is roughly a mile from the state pier where passenger ferry exists. Ferry service could also alleviate Cape Cod congestion into the SRPEDD region. SeaStreak ferry service takes about 50 minutes to get to Martha's Vineyard from New Bedford, and would only take 35 minutes from Woods Hole to New Bedford, which is faster than driving from both destinations in the "off" season (~55 minutes vs 35 minutes). Being able to utilize multimodal transit and partner with ferry operators will provide critical connections between Martha's Vineyard, Nantucket, Cape Cod, and the South Coast.

**Bus Transit:** Creating a memorandum of understanding between Massachusetts RTAs to provide staffing to the region during a natural disaster will be crucial in efficiently evacuating community members from the South Coast. Preliminary conversations between GATRA and SRTA highlight the ability for bus drivers outside the SRPEDD region to drive for evacuation purposes.

- It will be imperative for SRTA to ensure their bus fleet is not in a floodplain prior to a hurricane landfall. Some of SRTA's buses are kept in front of the New Bedford Hurricane barrier wall. Hundreds of buses were unusable in Hurricane Katrina due to the buses being stored in areas with high risk of coastal/aerial flooding (Renne & Mayorga, 2022). Additionally, it will be important for bus drivers to get to a place of safety before landfall, and this will require coordination between RTAs and the MBTA to determine when service will be suspended, to ensure people are not being stranded while in transit to evacuation centers.
- Both RTAs have access to dial-a-ride logs, which will help identify individuals who require door-to-evacuation center transit, along with medical equipment for community members experiencing complex health conditions. Similarly, COAs in the region partner with GATRA/SRTA for shuttle services, as well as organizations like South Shore Community Action Council (SSCAC), who provide wheelchair-accessible transit to older adults.
- **Private Transit:** Partnering with private transit agencies like Peter Pan, Plymouth & Brockton, SeaStreak, Steamship Authority, Hy-Line, Dattco, Blue Apple Bus, and Bloom amongst others will be critical, especially for the extra cargo coach buses and ferries can carry. This will allow for provisions, medical equipment, and personal belongings to be transported during evacuation. Each service has its own ticketing system, and bag tagging system, that has the potential to track and document personal belongings reach their intended destinations.

## **Hospital Preparedness Strategies**

Hospital preparedness remains a key public health focus in ensuring both adaptability and continuity of care when unexpected and potentially dangerous situations arise. When hospitals and other primary points-of-care facilities are readily equipped to respond to threatening conditions, particularly during natural disasters, strong public health outcomes for the entire region are ensured. The routine assessment of emergency response procedures will bolster regional resilience, and the value of this preparedness cannot be understated. As the threat of natural disasters becomes more common, these considerations will play a central role in ensuring the health, safety, and prosperity of all community members. Evacuation preparedness can take many forms. Oftentimes, the need to evacuate can be sudden and unpredictable. To properly execute a well-established evacuation strategy, all staff must be routinely trained and informed on institutional best practices regarding when, how, and why to evacuate. No two hospital settings are the same, and a hospital's evacuation strategy must be informed by location-specific assessments on how to best evacuate necessary personnel in a safe and timely manner. As hospitals continue to serve as foundational components to strong community public health and safety outcomes, their coordination and preparedness in an emergency is both expected and necessary. The following emergency preparedness considerations should be accounted for when establishing a meaningful hospital evacuation plan. These considerations highlight several obstacles to achieving an effective strategy.

### **Facility Annual Budgeting and Risk Perception**

It is important to ensure that emergency preparedness remains a critical budgetary priority. Oftentimes, preparing for hypotheticals can seem overly costly and unnecessary, but the financial and safety payoffs in the event of an emergency or evacuation cannot be understated. When the risk of an emergency is undervalued in the budgeting process, lives can be harmed, and the safety of patients can be compromised. Emergency preparedness is multifaceted and helps prepare for a spectrum of potential situations – from natural disasters to active shooter training, a strong emergency preparedness plan can ensure that all hospital staff and patients are accounted for, know their specific roles, and decrease the opportunity for negative outcomes.

### **Emergency Response Assumptions**

Emergency situations are not uniform, and oftentimes, the impacts of these situations may unfold at random. Similarly, assumptions should not be made that local emergency response professionals will be immediately accessible in the case of an emergency. For example, widespread natural disasters and impacts such as flooding and power outages can limit the ability for other emergency medical services, fire departments, and law enforcement to efficiently respond to distress. External support may be critically constrained in such events, and hospitals must be adequately prepared to self-sustain in the chance that limited services can be provided by other emergency responders. Further, beyond the critically injured, others may use hospital settings as a trusted location to seek refuge. This increased volume of both injured and healthy individuals can overwhelm medical staff, support services, and building capacity, potentially worsening the emergency preparedness of the hospital.

## **Autonomy**

In contrast to the point above, an overemphasis on autonomy and independence in an emergency can be just as dangerous. While some level of self-sufficiency is necessary during emergencies, it is important to remember that hospital facilities can both impact and be impacted by external pressures. To further emphasize a previous point, the SRPEDD region and, in this case, its hospitals, must be prepared and capable of responding to pressures external to what occurs within its borders. Natural disasters, such as hurricanes, can dramatically impact all of Southeastern Massachusetts, including Cape Cod and the Islands. Their regional hospital facilities may face similar or more immediate operational burdens in the case of an emergency and can cause spill-over impacts into the SRPEDD region. Interregional planning can dramatically improve response capabilities during these circumstances. If each facility were to act entirely independent of one another, effective emergency response would be fragmented and unable to efficiently meet the needs of an emergency situation. Regional collaboration can help support public health and safety priorities and should be considered beyond evacuation and emergency preparedness.

## **Best Practices**

### **Re-entry permitting**

Almost as important as safely evacuating an area is re-opening the area and controlling the flow of people back in. After a storm or event, it's more than just the residents who want to enter a previously evacuated area. Curious members of the public often want to see the damage, and in rare cases, people have more nefarious intent, looking to take advantage of empty housing. Adding to the mix you have damage assessors (public and private), and contractors.

When there are obvious chokepoints for the flow of that traffic, the duty to determine who to let past often falls to a single police officer. The Town of Fairhaven has a solution which other communities can replicate.

Fairhaven has pre-designated areas for evacuation (Sconticut Neck, West Island, etc.). After an evacuation individuals wishing to re-enter, those areas must visit a town office or designated place away from the evacuated area and show proof of residency to obtain a pass. This helps in a few ways. Firstly, it takes the "can this person pass my checkpoint" decision off the shoulders of a single police officer. Not that the officer isn't qualified to make those decisions, but that if they must litigate every vehicle driving past it would slow things down considerably. Second, it pushes the logjam of traffic to a larger parking lot more able to handle parked vehicles in the short term. Third, it lets the incident commander re-open small sections at a time as safety allows by issuing re-entry permits by location and need.

In areas where there are not obvious single checkpoints to control entry, a modified system can be used. Temporary stickers or hangars displayed in vehicles which patrolling officers can spot check as they move through an area to rapidly know who is allowed to be there and where.

## **Clear chain of command / authority**

In a few cases we found that authority to order an evacuation was vested in a municipal body, or elected official. The concern there is convening a body quickly in an emergency, as well as whether that elected official is available 24/7.

There should be a designated, single person who can make the call for any evacuation. Ideally that person is also the Emergency Management Director. The call should be made, if possible, in consultation with town elected leadership, but under exigent circumstances waiting for a body to convene to approve an evacuation will cost lives. When the EMD is not available the authority should be automatically delegated down a defined and approved chain. A letter delegating that authority is good to have but it should be delegated automatically regardless of a letter or not.

## **Regional CERT**

Post-covid we have seen a marked decrease in the number of active Community Emergency Response Teams (CERT). Communities like Norton and Mansfield maintain strong teams through dedicated funding and excellent leadership, but many other communities have seen their teams atrophy. Finding and retaining volunteers is a challenge faced by every organization that uses them. Providing dedicated funding from municipal budgets for support equipment and resources is a challenge as budgets across the commonwealth shrink. Federal funding is more limited now than ever.

One solution is regionalization. While a municipality with one or two dedicated CERT volunteers is extremely limited in what it can accomplish, if five municipalities have one or two each then together, they have a team that can be dedicated to the mission. Regionalization also lets municipalities pool their budgets and share assets. In some cases, regionalization can open grant opportunities not available to single municipalities. Response times within the region would also be improved compared to seeking mutual aid from other municipalities

This is a concept that has proven to work in Southeast Massachusetts already. The towns of Brewster, Orleans, Chatham, and Harwich formed BOCH CERT as a regional CERT and “In 2021 the team performed 2105 hours of service and in 2022 1564 hours to date. The team worked 68 events in 2021 and 58 events in 2022 so far. This is in addition [to the] hundreds of hours of training the team has done.”

## **Regional Public Info and Warning**

It’s been said that for a message to get across to the public they need to see it three times. Spot it on the municipal Facebook page, see it written on a variable message board as they drive by main street, and receiving a text from their local alert system, for example. Building a robust, useful database of people opted into receive emergency alerts will pay huge dividends when it comes to getting word out in an emergency. As this is strictly opt-in, there needs to be wide-scale, unified messaging on municipal websites, from municipal leaders, from community groups, that this is the system you need to opt into.

When citizens opt into a system like this, they are placing their trust in those who run it not to abuse the system. Messages should be strictly limited to necessary communication related to emergencies.

A capabilities study conducted by a consultant on behalf of the Southeastern Regional Homeland Security Advisory Council found that:

### **Regional Sheltering**

Gone are the days where every single municipality opens an evacuation or emergency shelter for residents in the face of an incident. Resourcing, staffing, and operating a shelter for 72 hours before help arrives is a tall order. Areas which are heavily impacted may have impacts to their primary shelter locations, and their personnel will be stretched to the limit with response. Areas which are lightly impacted might open shelters in local schools which quickly want to re-open for normal business.

By regionalizing shelters, the burden of resourcing and operating is spread across the regional partners. It is easier to send one or two personnel every other shift than fully staff a shelter with just one municipality's resources. Centralizing clients in one shelter also makes it easier to provide wraparound services (mental health, health services, spiritual care, etc.)

There are two primary challenges with regional sheltering. First, transportation to and from the shelter needs to be the responsibility of all municipalities using the shelter. The Regional Transit Authorities may be able to provide coverage, but as discussed in the transit section, that needs to be set up and planned for in advance.

Second, operating shelters costs money, and when the shelter is regional, the regional partners should agree before the shelter opens on cost sharing. Which municipality is going to be responsible for upfront costs and which are providing reimbursements? How are bills like food split? Etc.

### **Promulgate MOUs**

Many of the things recommended by this study involve multi-municipality coordination. In some limited cases agreements already exist to facilitate this (police and fire mutual aid, for instance). However, to accomplish some of the things recommended by this study new memorandums of understanding (MOU) are likely needed. While municipalities can draft their own MOUs, SRPEDD, especially through the Municipal Assistance program is in a prime position to assist. By building up a stable of ready-to-deploy MOUs for things like regional sheltering, regional CERT, etc. we can be more ready to respond to the next incident.



## **Future projects**

### **Regional CEMP/CERT**

Much like this study bridged the gap between local, municipal efforts, and statewide efforts, municipalities have Comprehensive Emergency Management Plans (CEMP), and there is a statewide plan. This leaves a regional gap which could be filled with a regional CEMP. In many places in this document, regionalization is recommended, and a regional CEMP could codify many of those efforts. It would build on municipal efforts allow for a smaller group of volunteers to service a wider area. A major problem facing CERT is engagement, and by regionalizing the chances for engagement goes up. Having a regional pool of responders and assets also softens the budgetary impact to any one community.

### **Fully adopt and sign people up for CodeRED**

As discussed in other parts of this document, it's critically important for members of the community to be notified of emergencies. Much of the region runs on CodeRED so the first step would be clearing any hurdles for municipalities not on CodeRED to get onboard. Then, it will take a combined push of grassroots organizing and tabling at local events, social media and media pushes from the municipality, and communications sent out in tax bills and even through the school system to get as many people as possible signed up to receive these notifications.

## **Funding Opportunities**

### **Funding Opportunities for Transportation Related Solutions and Strategies:**

- Transportation Improvement Program – for improvements to roadways, signage, portable light signs and transit improvements
- PROTECT Grants

### **Key Funding Opportunities for Flood Mitigation, Ecosystem Restoration, and Infrastructure Resilience:**

Federal and State Environmental Programs:

- Land and Water Conservation Fund (LWCF)
- Wetlands Reserve Program (WRP)
- EPA Wetland Program Development Grants
- Clean Water State Revolving Fund (SRF)
- National Estuary Program
- Municipal Vulnerability Preparedness (MVP) Program (MassDEP/Massachusetts CZM)

FEMA & Hazard Mitigation Grants:

- Hazard Mitigation Grant Program (HMGP)
- Pre-Disaster Mitigation (PDM) Program
- Flood Mitigation Assistance (FMA) Program
- Community Development Block Grant – Disaster Recovery (CDBG-DR)
- Infrastructure & Coastal Resilience:
- Army Corps of Engineers Rehabilitation and Inspection Program
- Infrastructure Investment and Jobs Act (IIJA)
- Coastal Zone Mitigation programs through MA Office of Coastal Zone Management (CZM)



# Next Steps/Implementation

The SMMPO and SRPEDD will work to implement the Regional Evacuation Route Plan through future Unified Planning Work Plan and other efforts starting in Federal Fiscal Year 2026. The following steps have been identified for FFY2026:

Support and Implementation of the Regional Evacuation Route Study:

- Assist communities and the region with seeking funding for, and implementing, recommendations proposed in the Regional Evacuation Route Study.
- Development and distribution of materials designed to provide information to the public about evacuation efforts, specifically updated routing information and how community members can sign up for alerts.
- Validate existing regional evacuation and comprehensive emergency management plans via tabletop exercise. The scope of work includes design and delivery of 3 tabletop exercises focusing on Operational Coordination, Critical Transportation, and Infrastructure Systems. Individual After Action Report/Improvement Plans will be developed after each exercise. These tabletops will be delivered to clusters of communities throughout the region through this and future work programs.
- Distribution of best practices to stakeholders and the public to encourage implementation at the municipal and regional levels.
- Pursue projects that improve identified routing through coordination with municipalities and MassDOT.
- Seek update of the SMMPO's Evaluation Criteria Process to reflect the outcomes of the Regional Evacuation Route Study.