

# Multi-Faceted Winter Storm Tonight – Monday Morning

**National Weather Service**  
**Decision Support Briefing # 7**  
**Saturday, January 19, 2019 4:21 PM**

## What Has Changed?

- ✓ Continued decrease in snowfall amounts towards N&W Massachusetts.
- ✓ Slight N&W shift in forecast heaviest icing.
- ✓ Winter Storm Warning for Hartford County CT.
- ✓ Flood Watch for S-coastal CT, Southeast RI, and Southeast MA.

## Winter Weather Related Hazards





## Winter Weather Hazards



## Marine / Coastal Hazards








## Wind Related Hazards



## Flood Hazards



Hazard	Impacts	Location	Timing
<b>Heavy Wet Snow</b> <b>(also sleet)</b> 	Weight of snow contributing to scattered tree damage, power outages, road closures; hazardous travel conditions on all surfaces	All of S New England except extreme S-coast New England  6-12" N&W MA 3-6" N CT / N RI / E&SE MA 1-3" S-Coastal CT / RI / MA	10 pm tonight – 7 am Sunday Fluffy to heavy wet snow transitioning N&W throughout Snowfall rates 1-2"+ / hour
<b>Freezing Rain</b> 	Weight of ice atop snow and/or sleet contributing as well to impacts highlighted above; hazardous travel conditions on all surfaces.	From Northwest CT northeastward across MA into Northeast MA.	Developing around midnight tonight concluding into Sunday evening
<b>Strong Winds</b> 	Scattered tree damage, power outages ... especially if trees are weighted by snow and/or ice which would exacerbate impacts outlined above	Southern RI & Southeast MA Higher terrain (i.e., Berkshires, Worcester, Tolland, Litchfield Hills)  Watch N&W MA late Sunday into Monday morn; winds + fallen snow	Developing tonight continuing through Monday morning  Blustery NW winds contributing to bitter cold wind chills Sunday night
<b>Flash Freeze</b> 	Rapid freezing of wet surfaces, standing water, resulting in slick surfaces, hazardous travel; exposed vehicles having frozen closed doors	Greatest area of concern is Southeast New England  <b>Providence – Boston corridor and southeast ... especially for the Monday AM commute</b>	Early Sunday afternoon into Sunday Night  Bitter cold, single digit temperatures settling into the region
<b>Flooding</b> 	With minor coastal flooding, vulnerable shore road inundation  Along with heavy rains, poor drainage issues especially for coastal communities	Minor coastal flooding along the entire New England shoreline, especially Cape Ann northward  Freshwater flooding / poor drainage for S coastal New England	Especially during the Sunday morning high tide  Heaviest rain 1 am to 1 pm Sunday followed by very cold, Arctic air



# Summary of Greatest Impacts



**Heavy Wet Snow / Sleet:** Especially Northern & Western MA and CT

None	Limited	Elevated	Significant	Extreme
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**Freezing Rain:** Especially Interior Southern New England

None	Limited	Elevated	Significant	Extreme
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**Flash Freeze:** Especially Southeast New England

None	Limited	Elevated	Significant	Extreme
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**Strong Winds:** Especially Southern RI and Southeast MA

None	Limited	Elevated	Significant	Extreme
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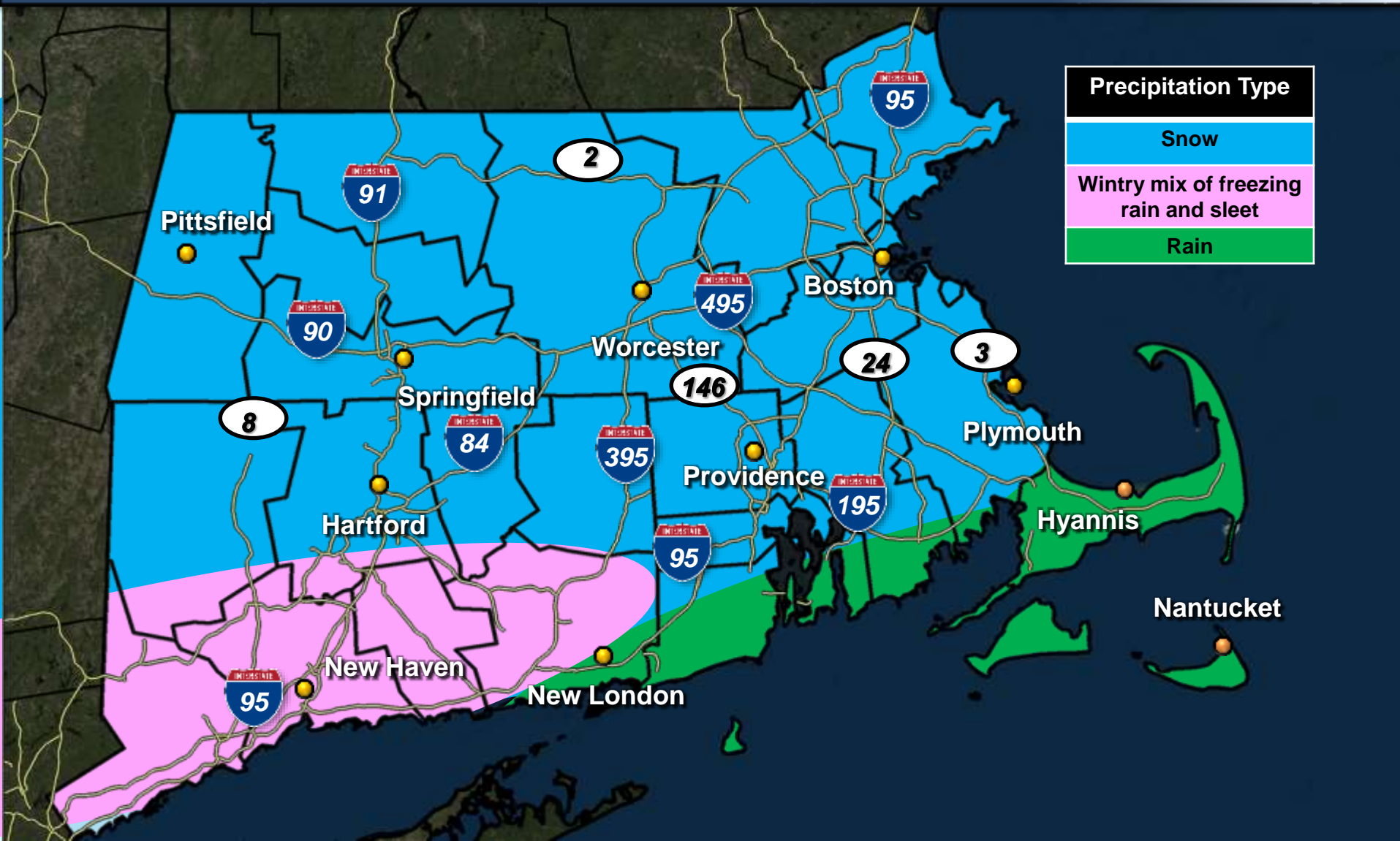


**Flooding:** Coastal along all shores; Inland over Southeast New England

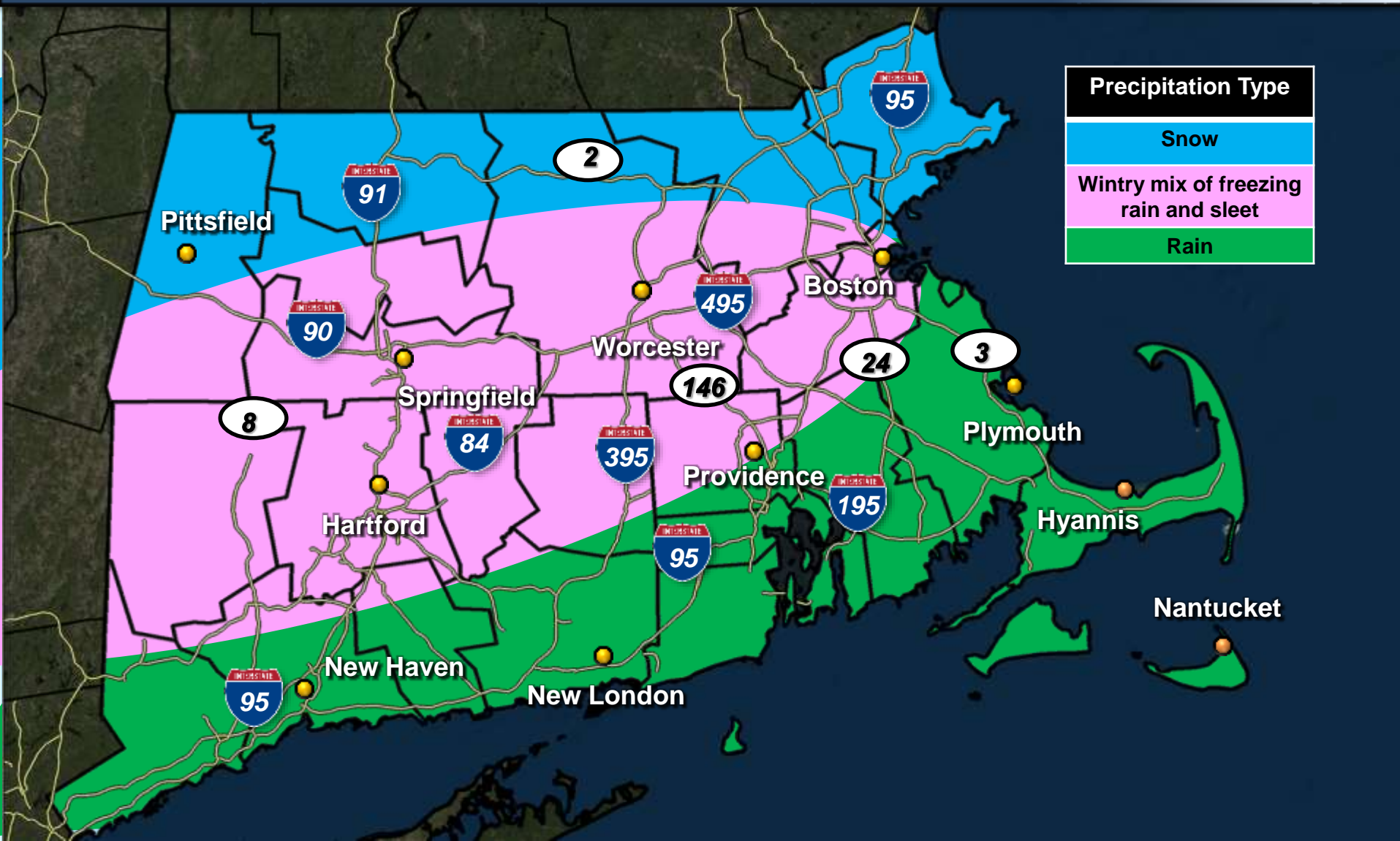
None	Limited	Elevated	Significant	Extreme
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## Precipitation Type: 1 AM Sunday



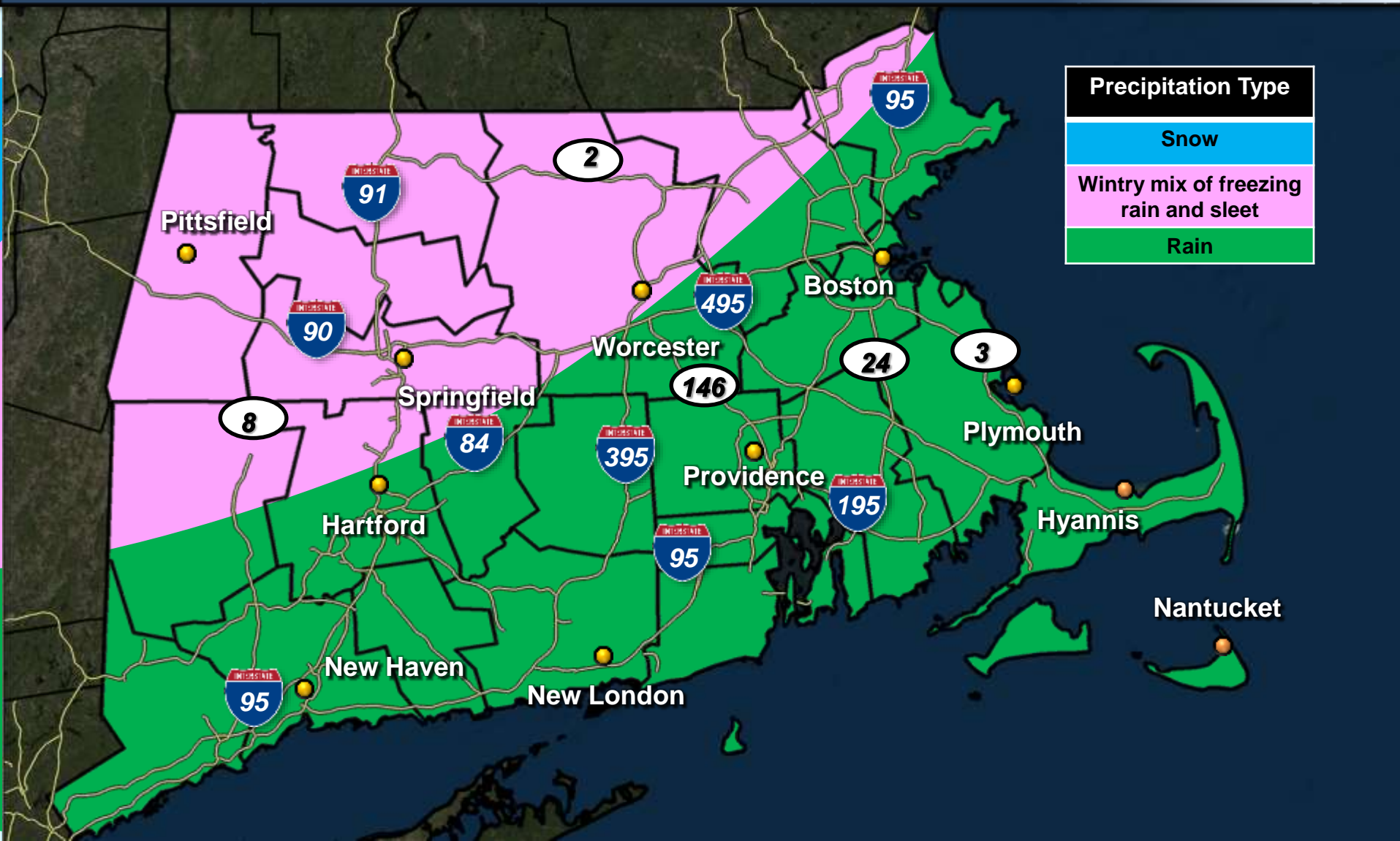
## Precipitation Type: 4 AM Sunday



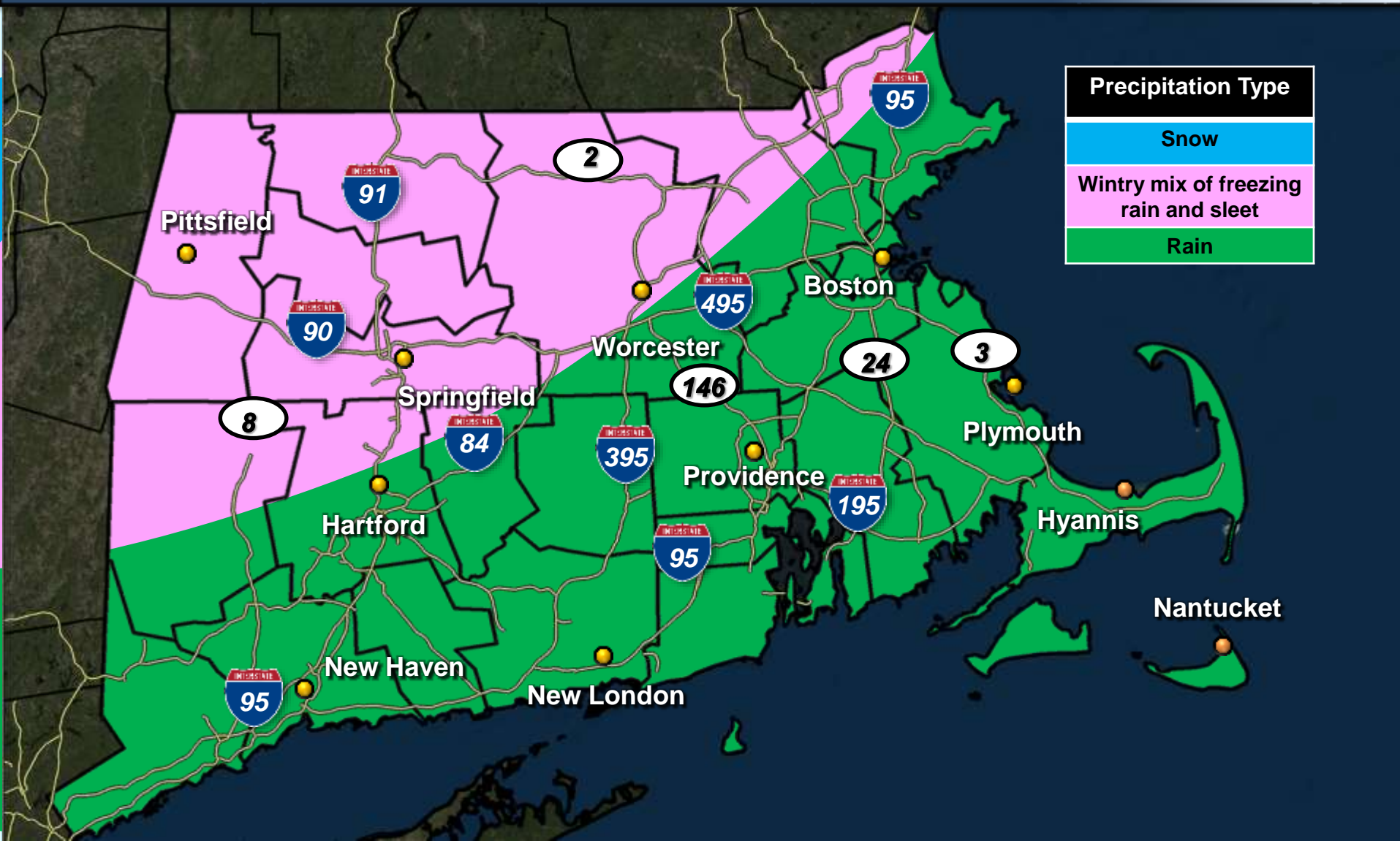




## Precipitation Type: 7 AM Sunday

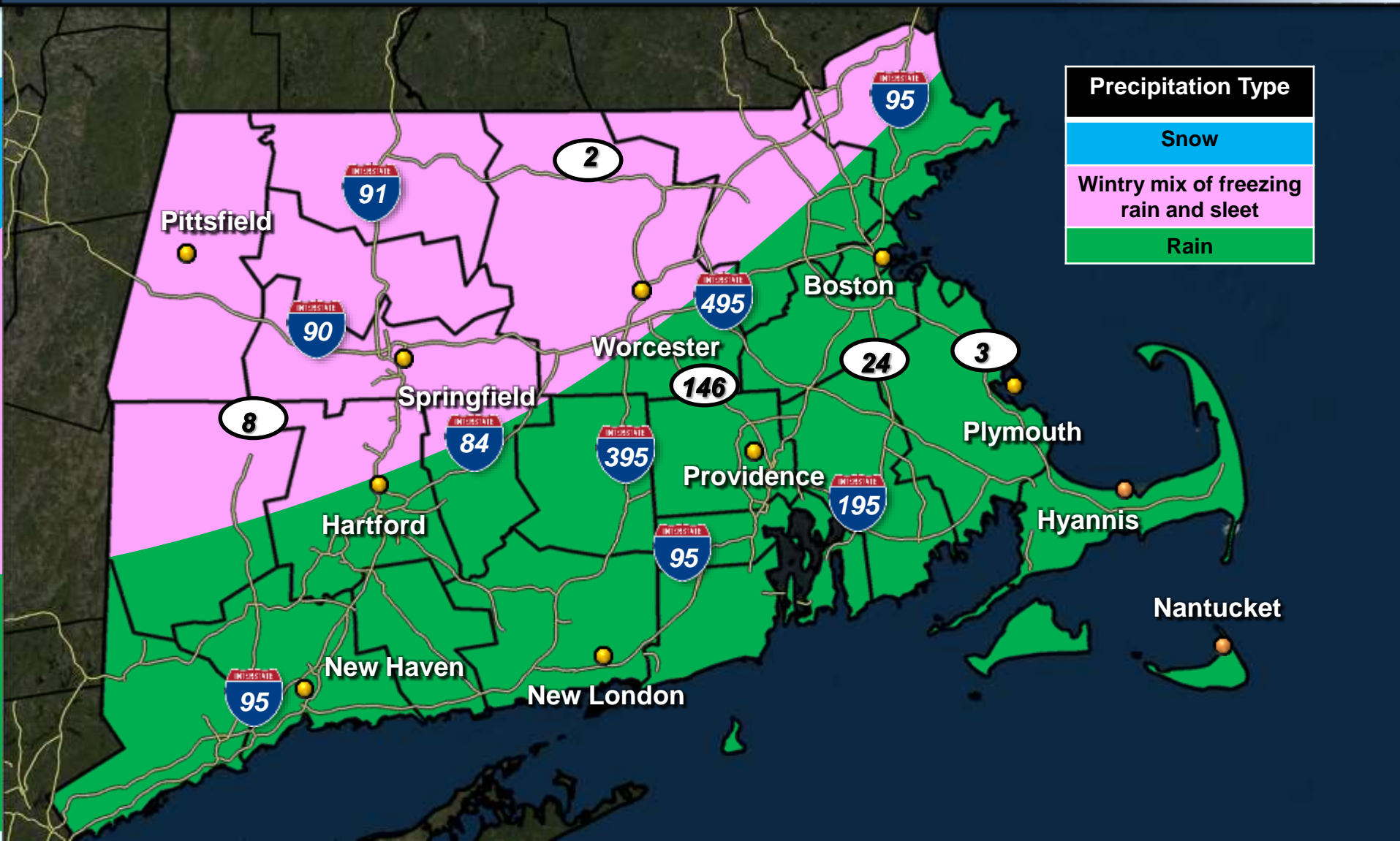


## Precipitation Type: 10 AM Sunday



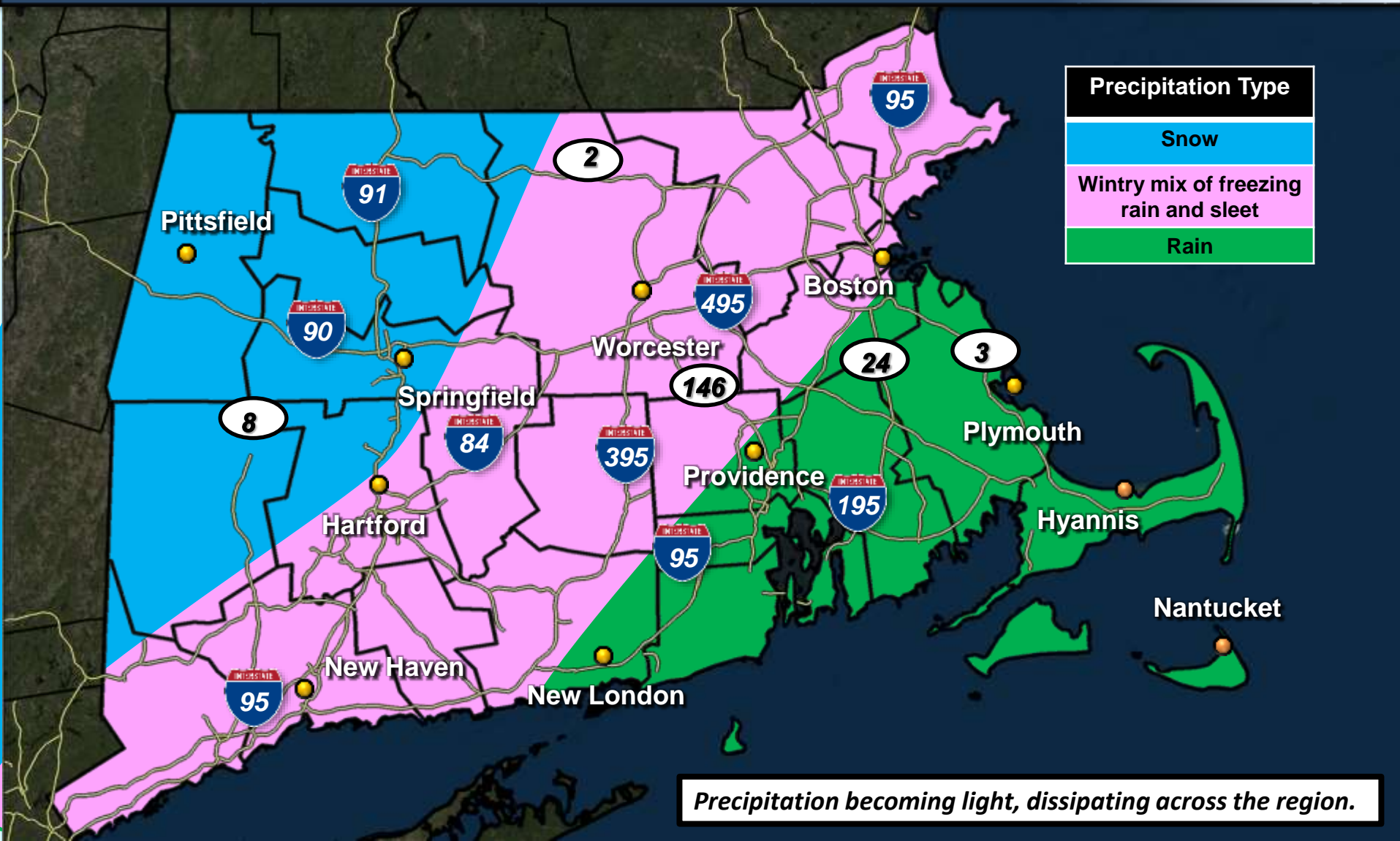


## Precipitation Type: 1 PM Sunday



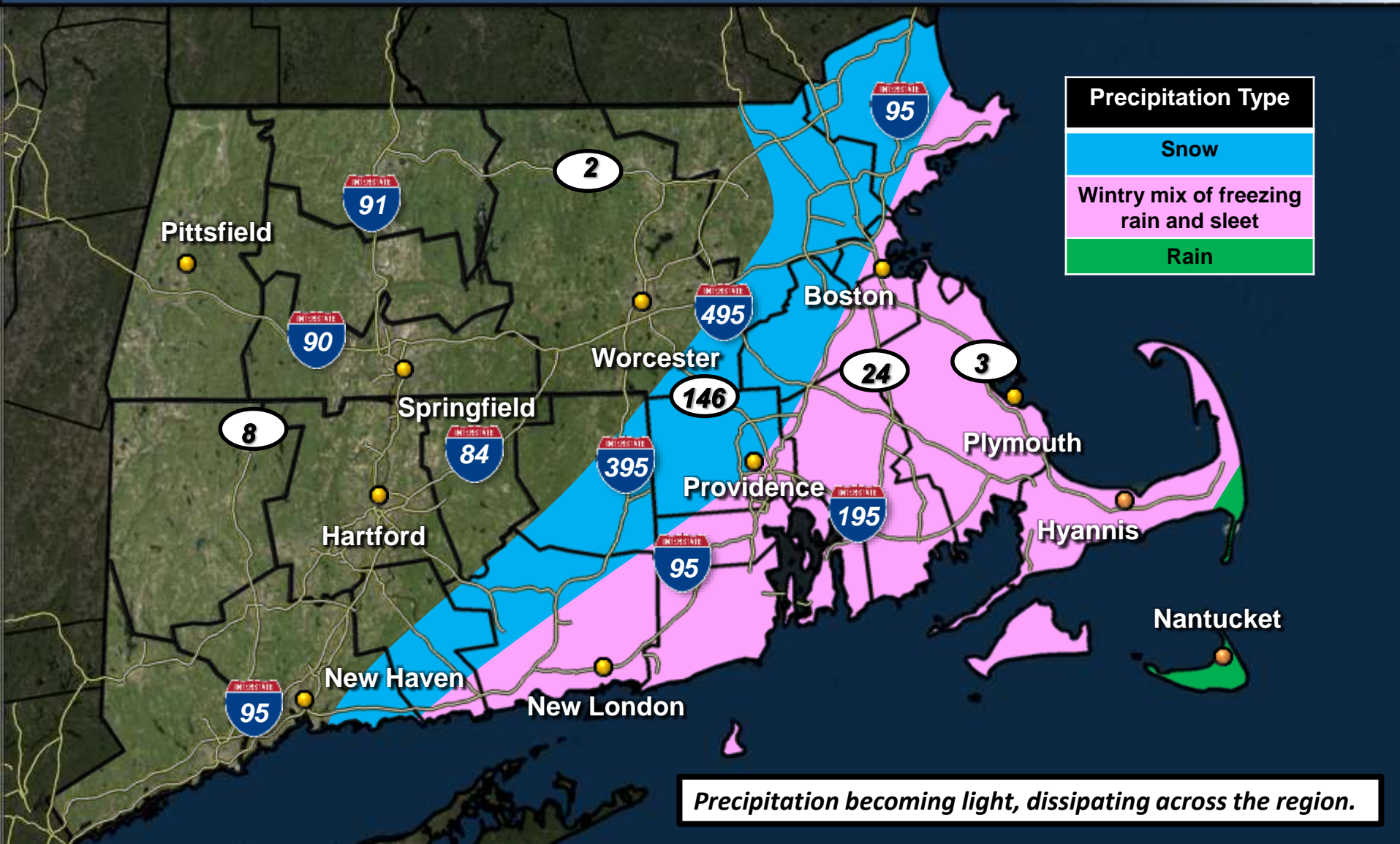


## Precipitation Type: 4 PM Sunday





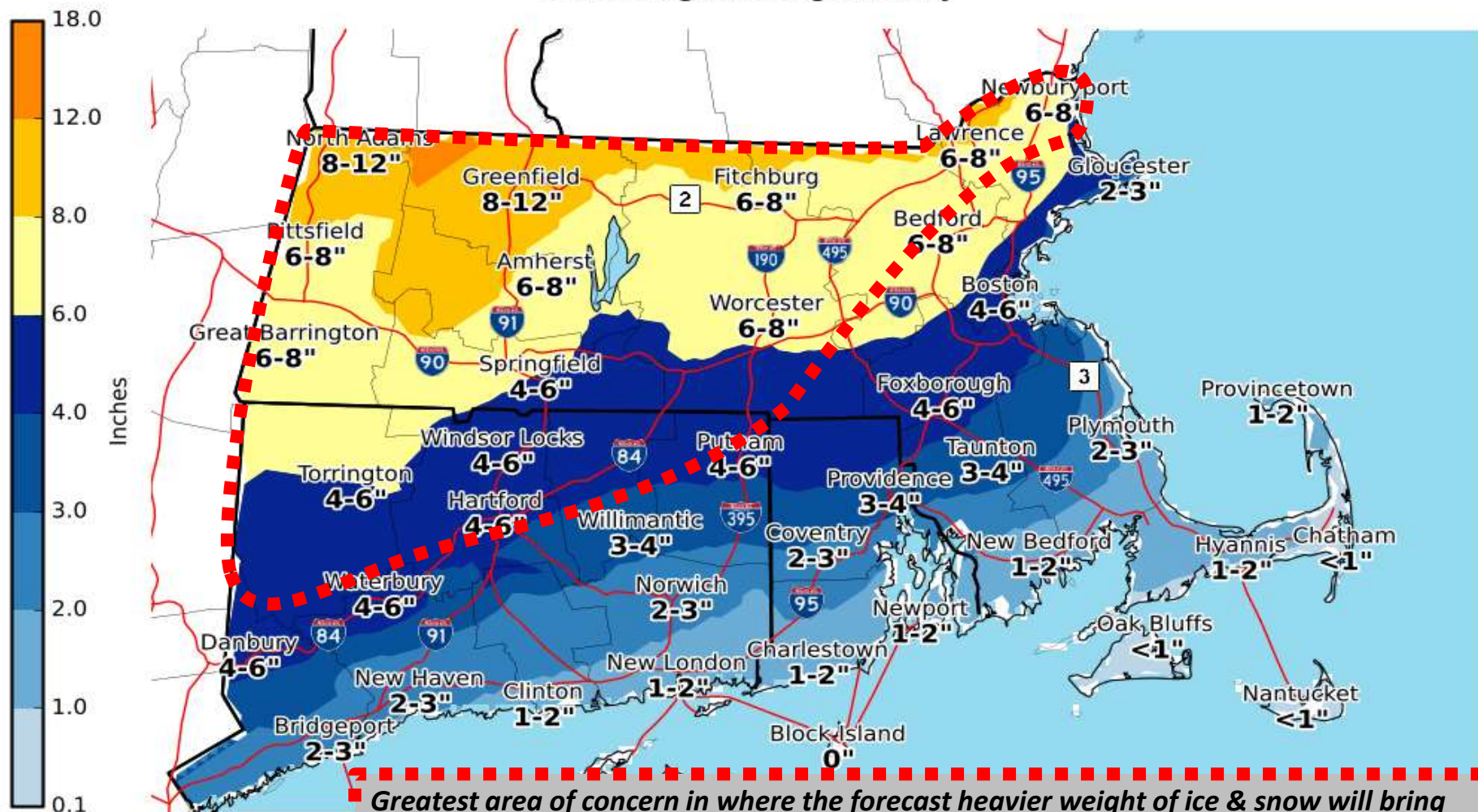
## Precipitation Type: 7 PM Sunday





## Forecast Storm Total Snowfall – Tonight through Sunday

### Expected Snowfall - Official NWS Forecast Valid: Tonight through Sunday



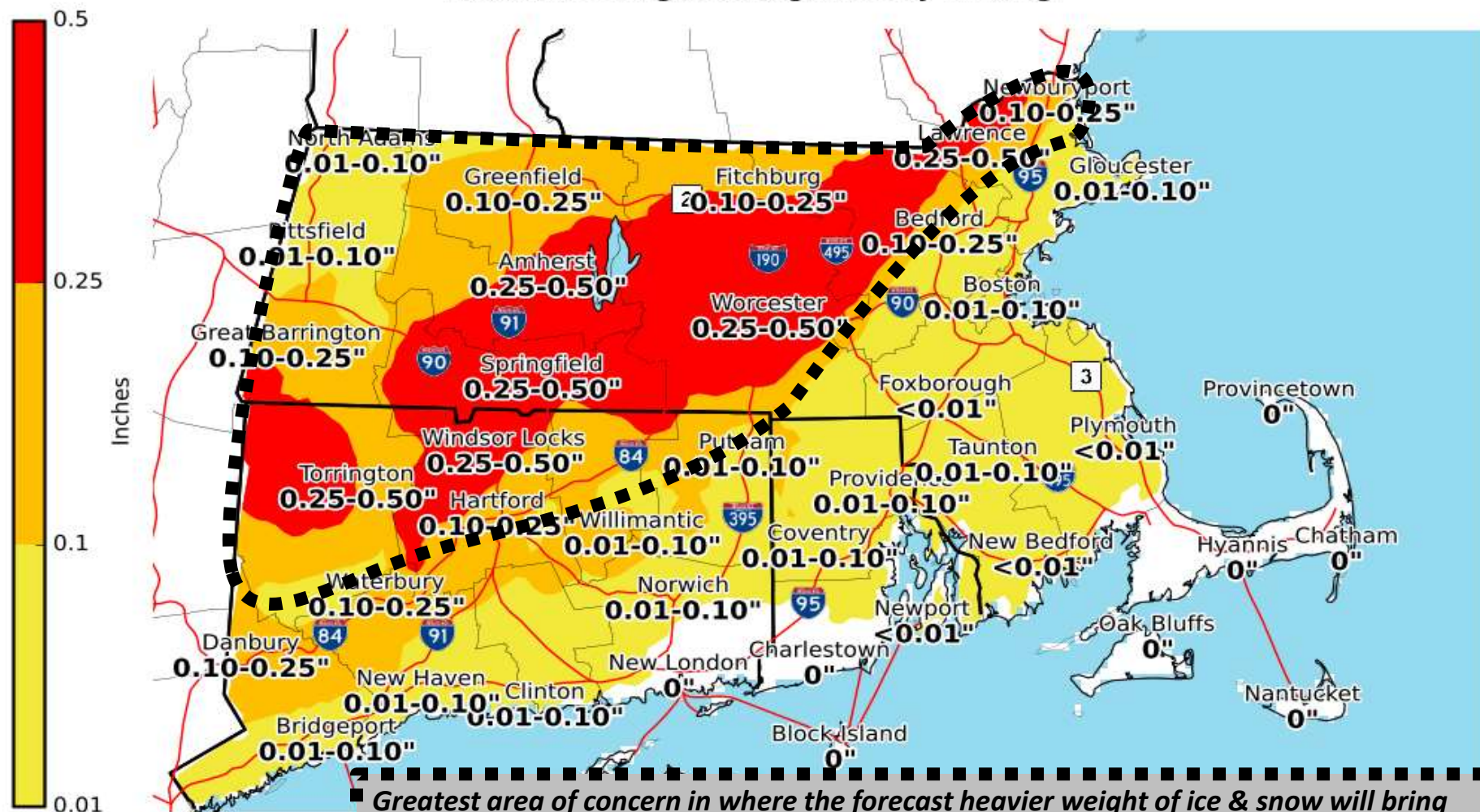
**Greatest area of concern in where the forecast heavier weight of ice & snow will bring down limbs contributing to power outages. Exacerbated impacts with any gusty winds.**



## Forecast Storm Total Ice – Late Tonight through Sunday Evening

### Expected Icing - Official NWS Forecast

Valid: Late Tonight through Sunday Evening



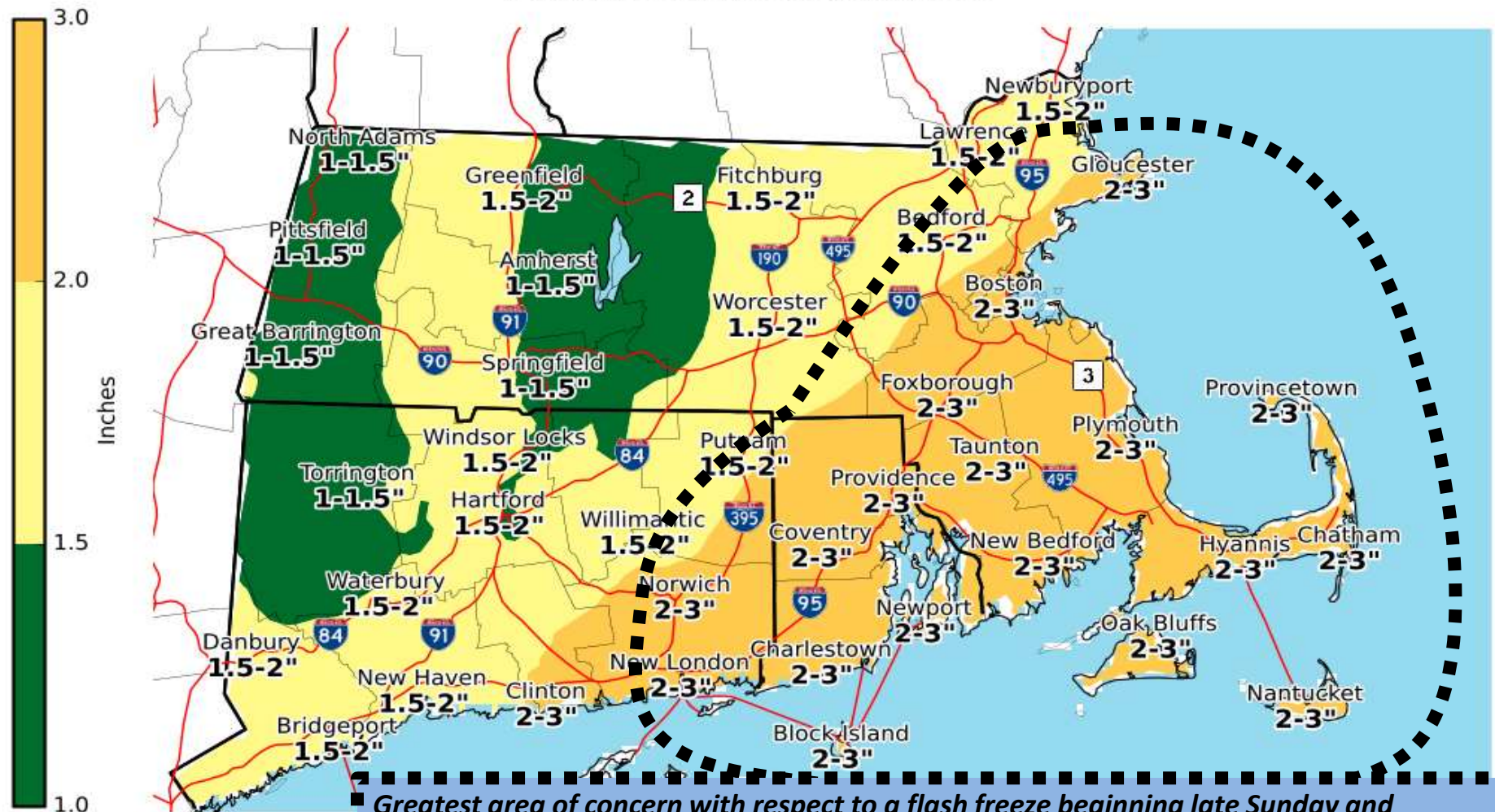
**Greatest area of concern in where the forecast heavier weight of ice & snow will bring down limbs contributing to power outages. Exacerbated impacts with any gusty winds.**



## Forecast Storm Total Precipitation

### Expected Rainfall - Official NWS Forecast

Valid: Late Tonight through Sunday

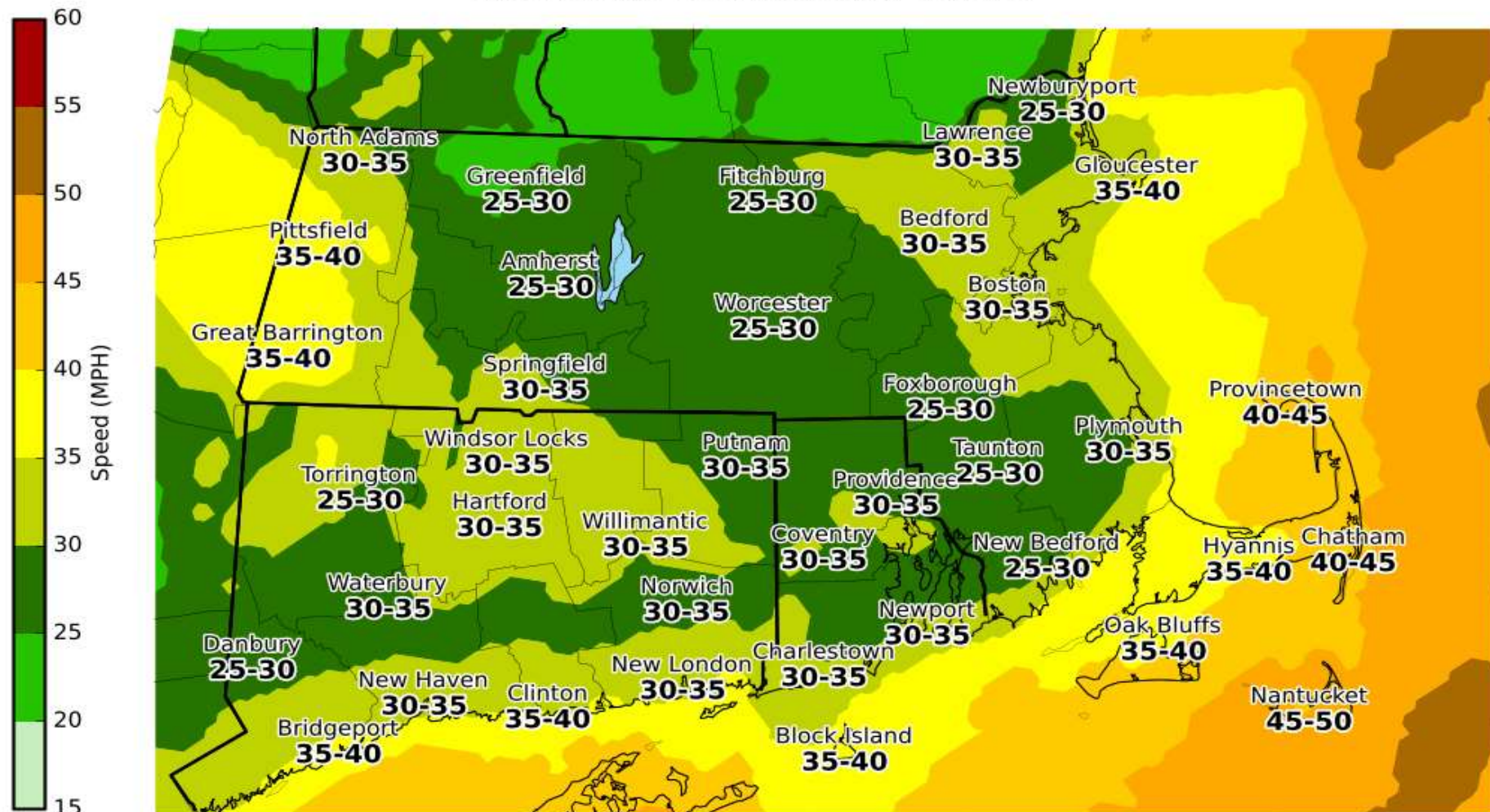


**Greatest area of concern with respect to a flash freeze beginning late Sunday and continuing through Sunday night as temperatures drop into the single digits.**



## Forecast Maximum Wind Gusts – Sunday through Monday Morning

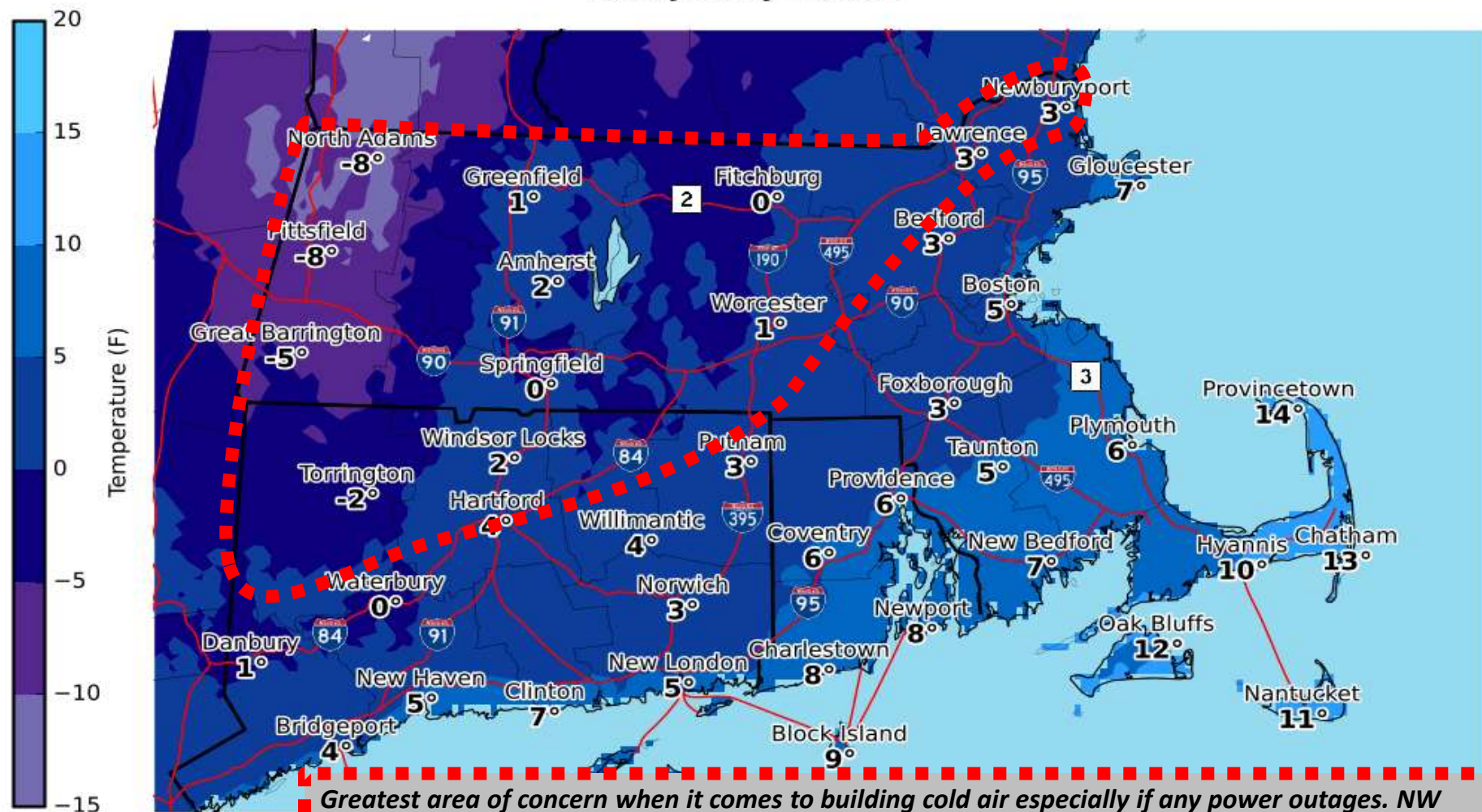
### Max Wind Gusts (MPH) Valid: Sunday through Monday Morning



## Forecast Low Temperatures

### Monday Morning Lows

Valid: January 21, 2019

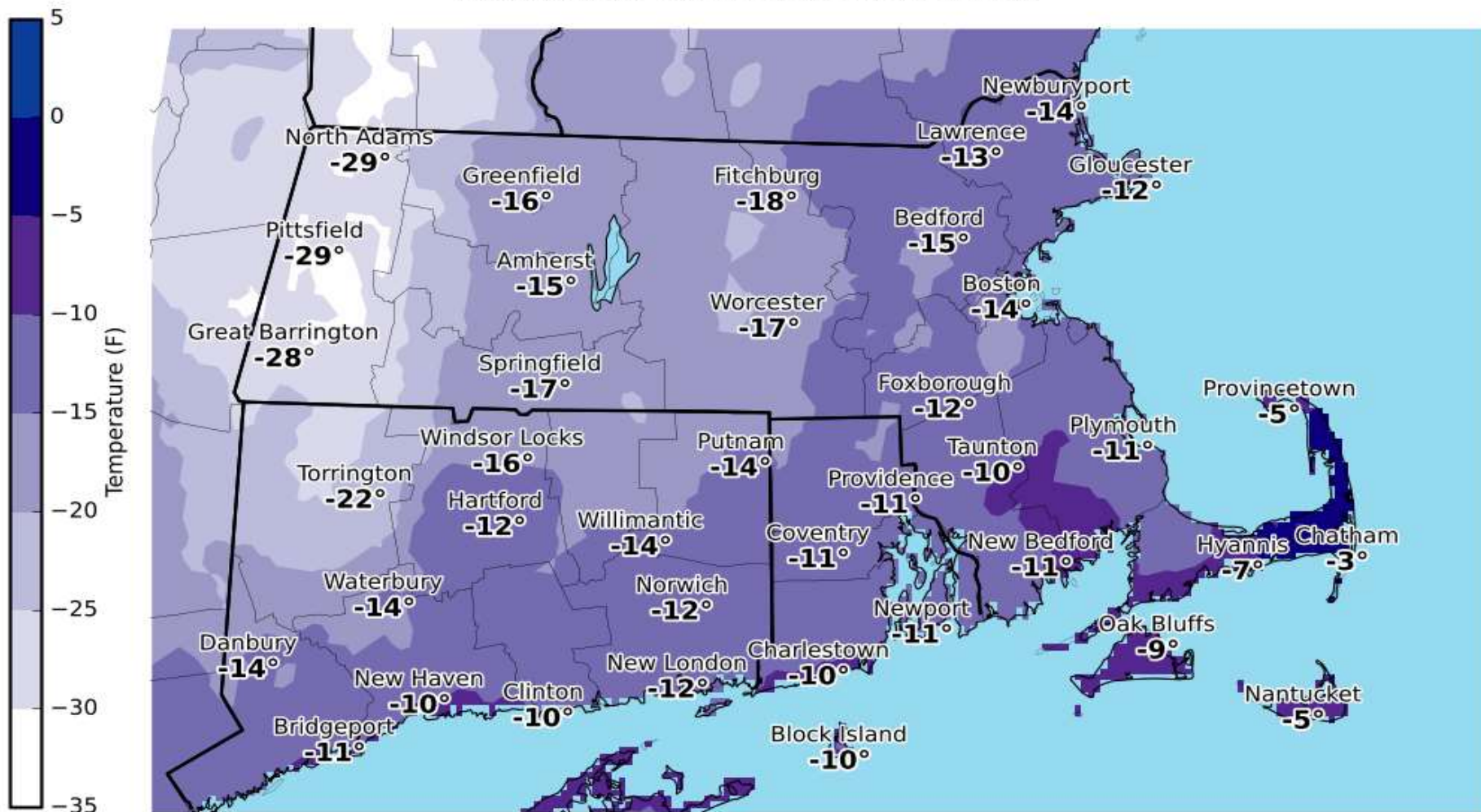


**Greatest area of concern when it comes to building cold air especially if any power outages. NW winds will be gusty behind the storm which could bring down additional snow / ice weighted limbs.**



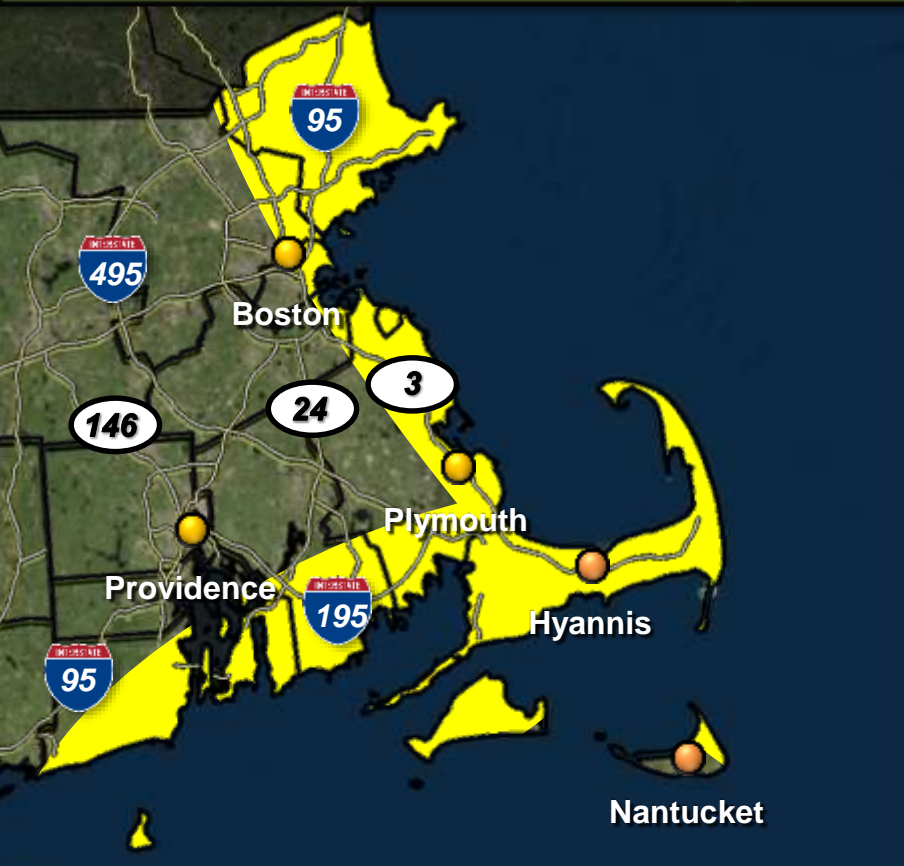
## Forecast Minimum Wind Chills – Sunday Night into Monday Morning

### Min Apparent Temperature Valid: Sunday Night into Monday Morning





## Coastal Flooding – Surge / Inundation – Sunday Morning High Tide



### Minor Coastal Flooding

- Inundation of vulnerable shoreline roads.
- Greatest area of concern from Cape Ann northward.

### Timing

- Sunday morning high tide (around 7 AM in Providence and around 10 AM in Boston).

### In addition

- With heavy rain forecast over S-coastal New England, concern for freshwater flooding as there will be poor drainage during the Sunday morning high tide cycle.

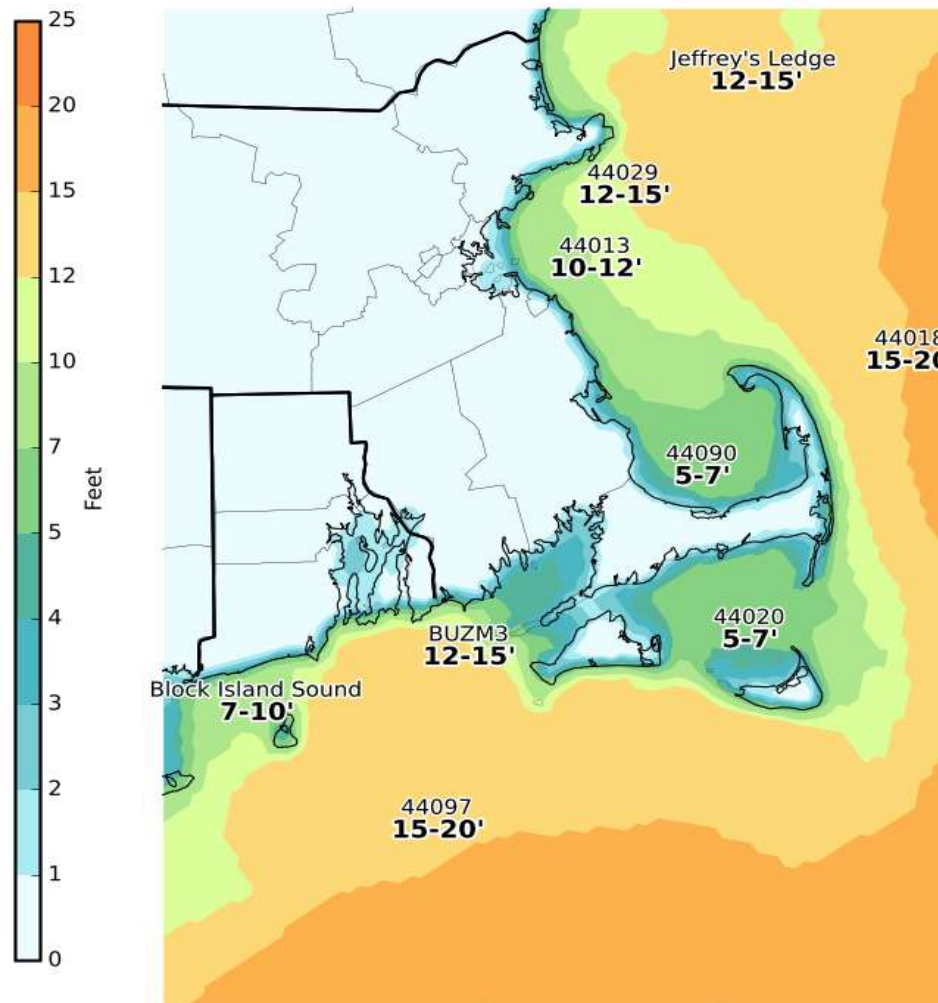
None
Minor
Moderate
Major
Extreme

	Storm Surge Threat	Potential Impacts from Storm Surge
Little to None	0 to 1 feet above ground	No immediate preparations needed. Little to no potential storm surge flooding impacts
Elevated	1 to 3 feet above ground	To be safe, prepare for the potential of limited storm surge flooding impacts
Moderate	3 to 6 feet above ground	To be safe, earnestly prepare for the potential of significant storm surge flooding impacts
High	6 to 9 feet above ground	To be safe, aggressively prepare for the potential of significant storm surge flooding impacts
Extreme	> 9 feet above ground	To be safe, aggressively prepare for the potential of devastating to catastrophic storm surge flooding impacts

## Forecast Maximum Wave Heights and Wind Gusts (in kts)

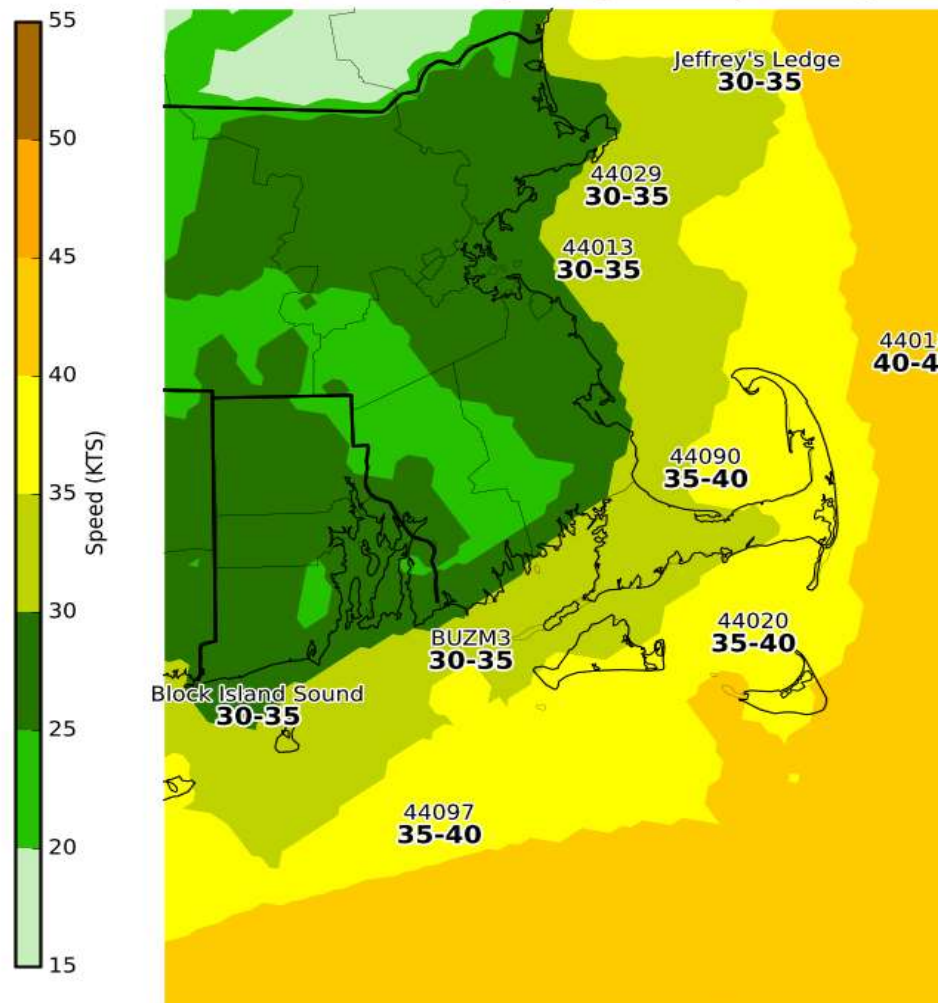
### Maximum Wave Height

Valid: Around Monday Morning



### Max Wind Gusts (KTS)

Valid: Sunday through Monday Morning



## Threat Event Summary

✓ **Confidence:** High confidence for a moderate-high impact event. Moderate confidence on exact details / timing.

✓ **What:**



### **Heavy wet snow and/or sleet.**

- Weighing down tree limbs + gusty winds, contributing to scattered tree damage, power outages, and road closures ... especially N&W MA.
- Amounts up around a foot in N&W MA. Snowfall rates of 1-2"+ / hour forecast.
- Tonight into early Sunday.



### **Strong winds.**

- Contributing to scattered down limbs, power outages, especially if weighted by snow, sleet and/or ice.
- Developing tonight, continuing through Monday morning.
- Generated dangerous wind chills Sunday night through Monday morning



### **Freezing rain.**

- Any icing contributing to the weight on trees, exacerbating impacts outlined above.
- As much as half an inch of ice accretion forecast roughly W to E over central portions of S New England.
- Late tonight through Sunday.



### **Follow-up bitter cold.**

- Flash freeze icing up any residual water, encasing surfaces in ice.
- Blustery NW winds and temperatures falling into the single digits contributing to wind chills 15 to 25 degrees below zero.
- Late Sunday into Monday morning.



### **Flooding.**

- Minor coastal flooding with Sunday morning high tide, especially Cape Ann and northward.
- Inundation of vulnerable shoreline roadways.
- Poor drainage issues for S-coastal New England during high tides with heavy rain.



### **Marine.**

- Gale Warnings on all waters through Monday morning (may need to be extended as late as Tuesday morning).
- Also the threat for moderate to heavy freezing spray beginning Sunday night going as late as Tuesday morning.

✓ **Where:** All of Southern New England.

✓ **When:** Winter impacts developing tonight, concluding into Sunday evening. Flooding issues especially around the Sunday morning high tide. Bitter cold ushers in Sunday evening into Monday morning.



# Contact and Next Briefing Information

## Next Briefing ... UPDATE

**When:** 4 pm today (at the latest)

**Method:** via email



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