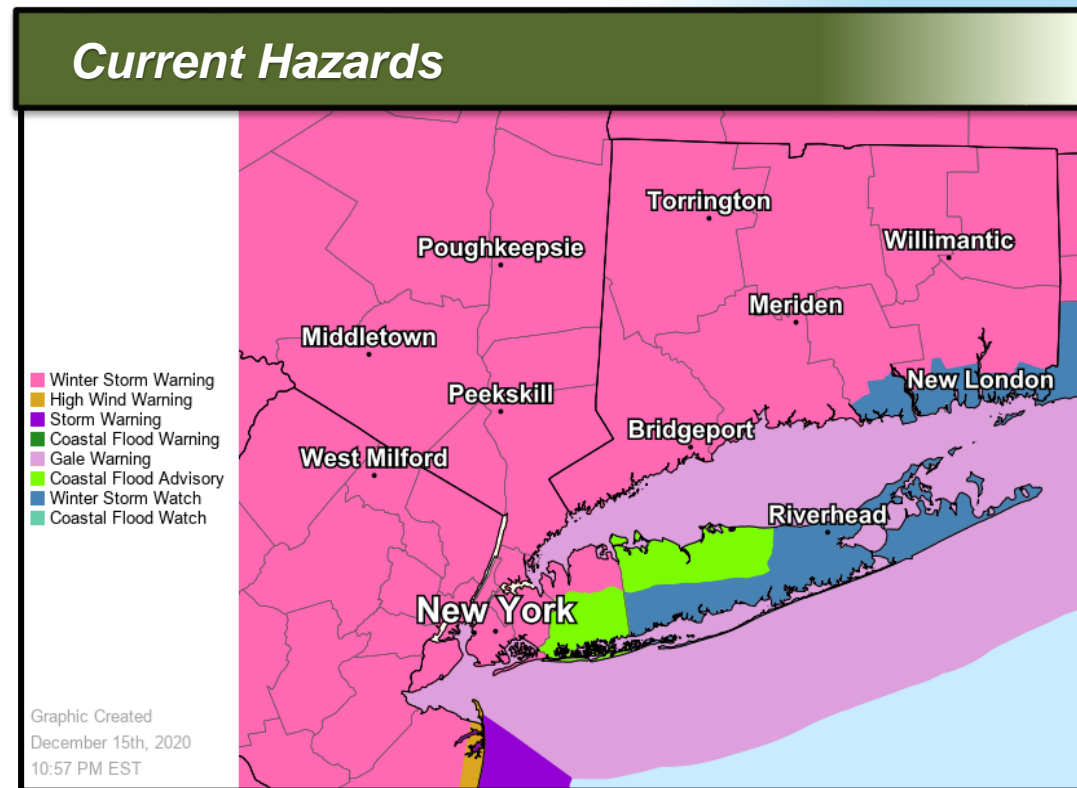


# Major Winter Storm Wed PM-Thu AM






Decision Support Briefing #3  
As of: 600 PM Dec 15<sup>th</sup>, 2020

## What Has Changed?

- ✓ Winter Storm Warning now in effect for most of the region for Wed PM into Thu AM
- ✓ Coastal Flood Advisories and Watches in effect for Wed PM and Thu AM high tides
- ✓ Gale Warning in effect for all waters Wed PM into Thu AM



# Main Points

Hazard	Impacts	Location	Timing
<b>Heavy Snow</b> 8-12" 	<ul style="list-style-type: none"> <li>• Snowfall rates of 1-3"/hr likely.</li> <li>• Blizzard conditions possible along coast.</li> <li>• Difficult travel.</li> </ul>	<p>Much of Tri-State Region</p> <p>12 -18" likely N&amp;W of NYC</p>	<ul style="list-style-type: none"> <li>• Snow develops Wed PM</li> <li>• Heavy snow Wed Night</li> <li>• Snow tapers off Thu AM</li> </ul>
<b>Snow/Sleet</b> 3-10" 	<ul style="list-style-type: none"> <li>• Snowfall rates of 1-2"/hr possible</li> <li>• Sleet will likely mix with the snow, potentially mixing with rain briefly.</li> <li>• Difficult Travel.</li> </ul>	<p>Southern and Eastern Long Island and extreme SE CT</p>	<ul style="list-style-type: none"> <li>• Snow develops Wed PM</li> <li>• Snow/Sleet Wed Night</li> <li>• Snow tapers off Thu AM</li> </ul>
<b>Strong Winds</b> 20-35G50mph 	<ul style="list-style-type: none"> <li>• Scattered to numerous downed tree limbs and power lines along coast.</li> <li>• Blowing and drifting of snow across Interior.</li> </ul>	<p>NYC/NJ metro and Coast.</p> <p>Lighter winds Interior – 15-20g30mph</p>	<ul style="list-style-type: none"> <li>• Wed Eve into Thu AM</li> </ul>
<b>Coastal Impacts</b> 	<ul style="list-style-type: none"> <li>• Minor to Moderate coastal flooding likely.</li> <li>• Inundation of 1 to 3 ft above ground in most vulnerable areas.</li> <li>• Scattered Dune Erosion/Isolated overwashes</li> </ul>	<p>-Locally moderate for W LIS Wed PM</p> <p>-Highest threat of moderate for South Shore Bays of LI and Queens on Thu AM</p>	<ul style="list-style-type: none"> <li>• Wed Eve – Minor to locally Moderate</li> <li>• Thu AM- Minor to Moderate</li> </ul>
<b>Marine</b> 30-40G45kt 12-16ft seas 	<ul style="list-style-type: none"> <li>• Gales conditions expected, Storm Force gusts possible</li> <li>• Ocean - 12-16 ft seas</li> <li>• LI Sound - 4-7 ft seas</li> </ul>	<p>All Coastal Waters</p>	<ul style="list-style-type: none"> <li>• Wed PM into Thu AM</li> </ul>

# Summary of Greatest Impacts



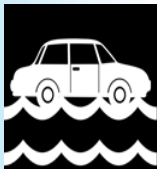
## Heavy Snow: Most of the Tri-State Region



## Mixed Precip: Southern shore of LI and Eastern LI



## Strong Winds: NJ/NYC Metro and Coast



## Coastal Impacts: Vulnerable locales along NY/NJ Harbor, Jamaica Bay, S and E Bays of LI, and W/E LI Sound



## Marine: Nearshore Waters



# Heavy Snow

## Hazards: **Winter Storm Warning in Effect for Much of Region**

- ✓ **N&W of NYC** –12-18” of snowfall likely.
  - ✓ Snowfall rates: 2-3”/hr Wed Eve/Night
  - ✓ Visibility: ¼ mile or less at times
  - ✓ Temperatures: Lower to Mid 20s Interior.
- ✓ **Much of Region** - 8-12” of snowfall likely.
  - ✓ Snowfall rates: 1-2”/hr Wed Eve/Night
  - ✓ Visibility: ¼ mile or less at times
  - ✓ Temperatures: Upper 20s to Lower 30s
- ✓ **S&E LI and far SE CT**- 3-10” of snow and sleet
  - ✓ Snowfall rates: 1-2”/hr possible Wed Eve through around 1 am
  - ✓ Temperatures: Lower to Mid 30s

## Impacts:

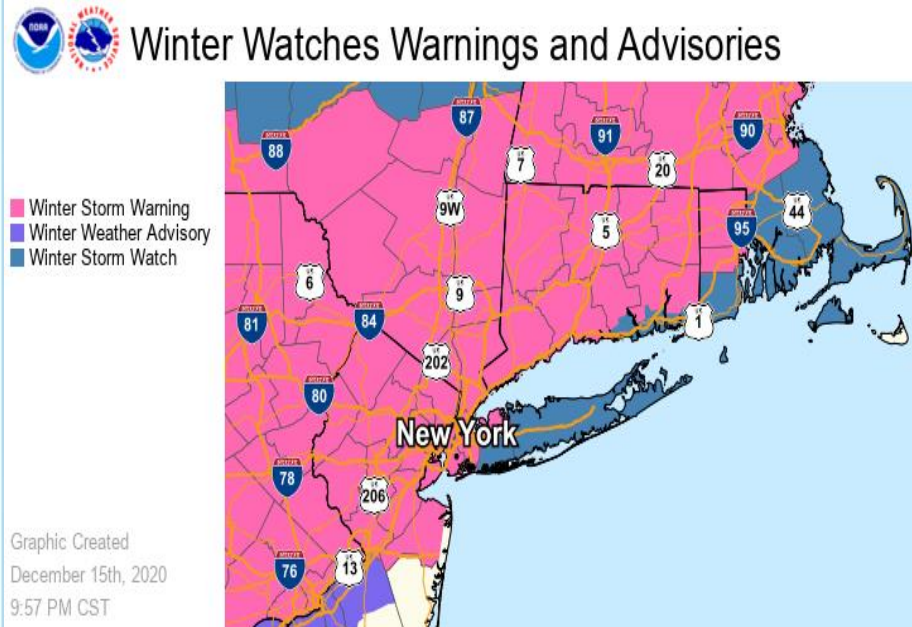
- ✓ Difficult travel Wed Eve into Thu AM
- ✓ Scattered to numerous downed tree limbs and power lines  
Blizzard conditions possible at times Wed Night for coast

## Timing:

- ✓ Snow develops Wed aft
- ✓ Heavy snow Wed Eve, continues into Wed Night
- ✓ Snow tapers off Thu AM

## Forecast Challenges:

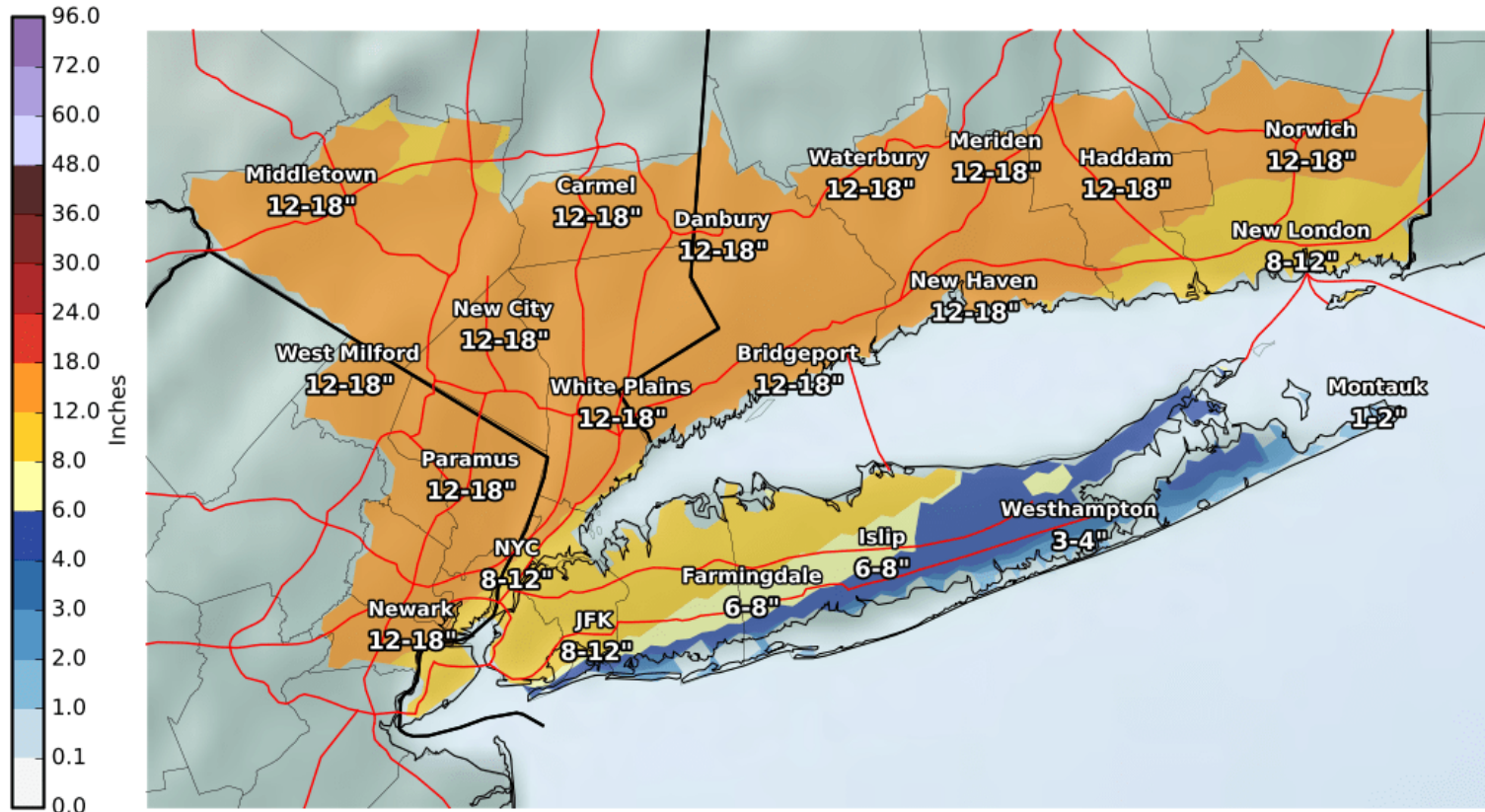
- ✓ Uncertainty in how far north sleet mixes in along coast.
  - ✓ Likely period of mixing across southern and eastern portions of Long Island and extreme SE CT





# Most Likely Snowfall – Official Forecast

**Expected Snowfall - Official NWS Forecast**  
Valid: 12/16/2020 01:00 PM - 12/17/2020 07:00 PM



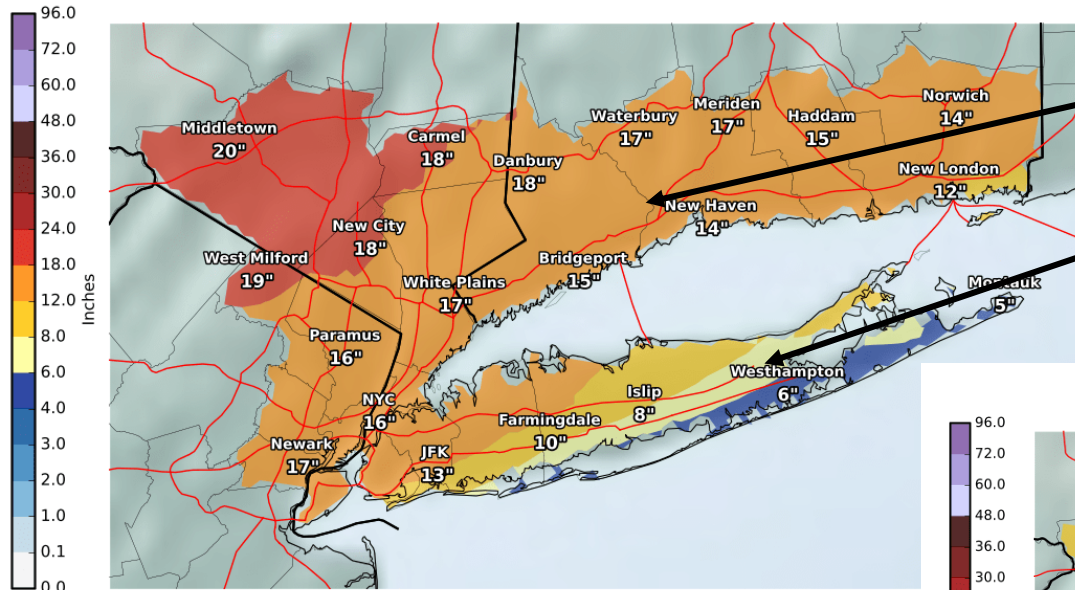
**National Weather Service**  
New York NY  
12/15/2020 04:20 PM EST

**Follow Us:**   
[weather.gov/nyc/winter](https://www.weather.gov/nyc/winter)

# Probabilistic Snowfall Forecast

## High End Amount - 1 in 10 Chance (10%) Of Higher Snowfall

Valid: 12/16/2020 01:00 PM - 12/17/2020 07:00 PM

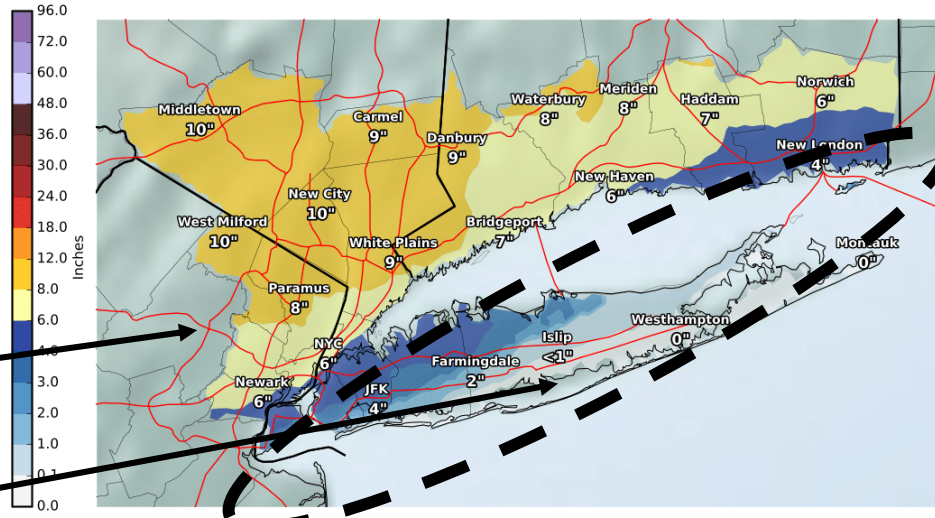


Snow amounts could be this high in spots where heavy snow banding is most persistent.

Or...If there is no mixing with sleet along the coast

## Low End Amount - 9 in 10 Chance (90%) Of Higher Snowfall

Valid: 12/16/2020 01:00 PM - 12/17/2020 07:00 PM



Expect at least this much snow

Greatest uncertainty in forecast snowfall amounts due to a period of sleet and/or rain mixing in.



National Weather Service  
New York NY  
12/15/2020 04:20 PM EST

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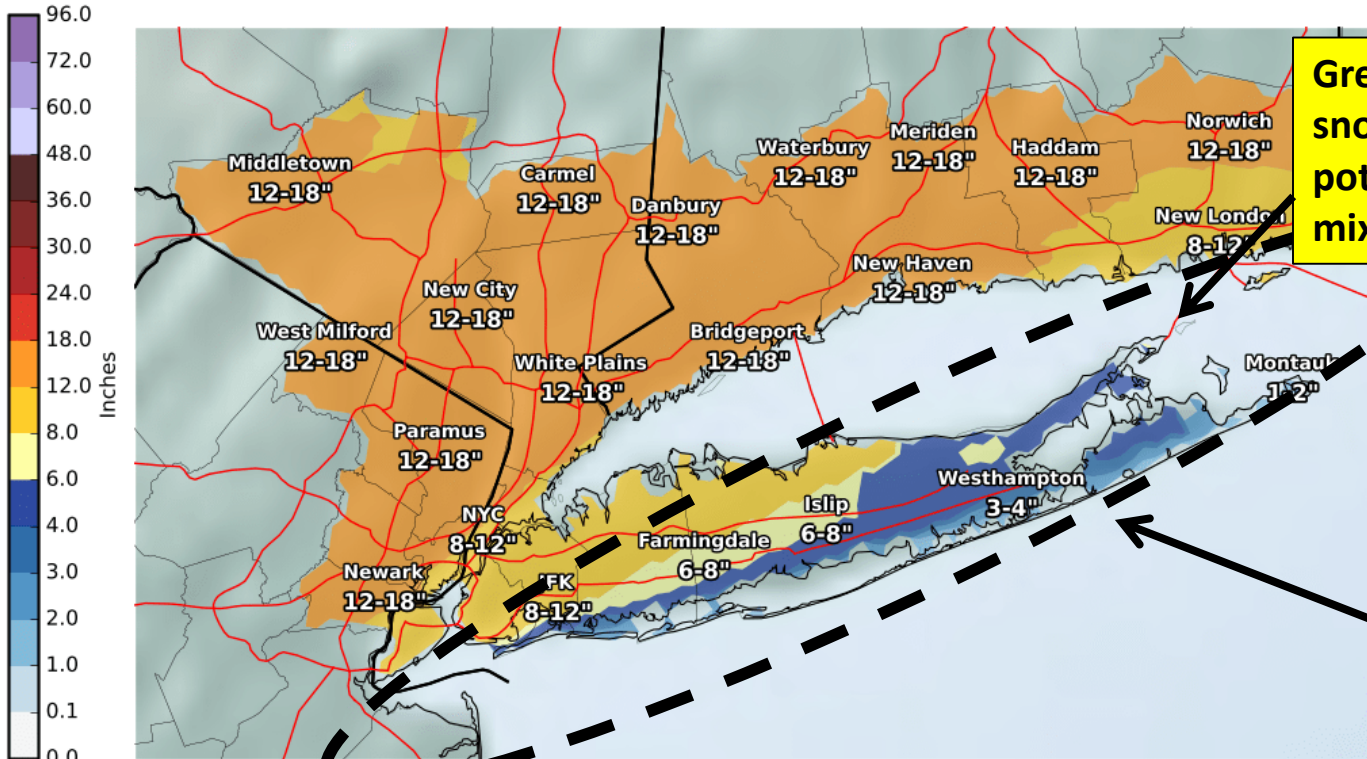
National Weather Service  
New York NY  
12/15/2020 04:20 PM EST

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# Snow/Sleet Line Uncertainty

**Expected Snowfall - Official NWS Forecast**  
Valid: 12/16/2020 01:00 PM - 12/17/2020 07:00 PM



**Greatest uncertainty in snowfall amounts due to a potential for sleet and or rain mixing in.**

**This zone of mixed precip could shift 20 miles north or south. If it move northwest amounts will be lower for the city/coast. If it moves southeast, amounts will be higher for the city/coast.**



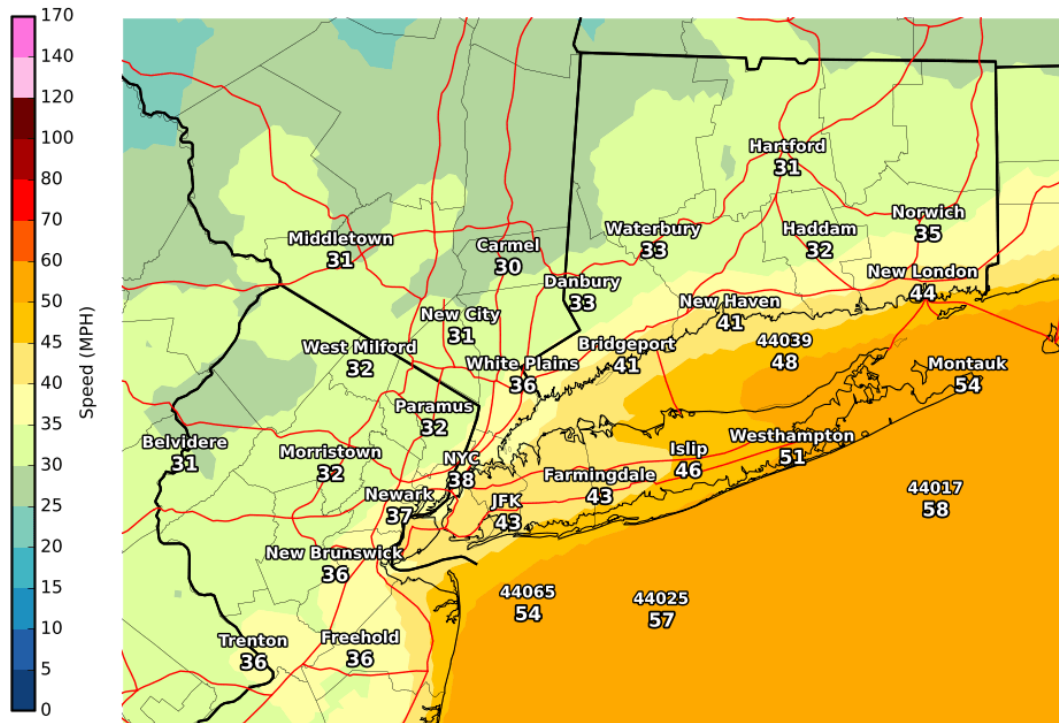
**National Weather Service**  
New York NY  
12/15/2020 04:20 PM EST

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# Strong Winds

## Maximum Wind Gust (MPH)

Valid: 12/15/2020 10:00 PM - 12/20/2020 10:00 PM EST



## Hazards:

- ✓ **Eastern Long Island**
  - ✓ NE winds 25-35mph with gusts to near 50 mph
- ✓ **NYC & Coast**
  - ✓ NE winds 25 to 30 mph with gusts to 45 mph
- ✓ **Interior**
  - ✓ NE 15-20 gusts to 35mph

## Impacts:

- ✓ Scattered to numerous downed tree limbs and power lines
- ✓ Near blizzard conditions along portions of the coast

## Timing:

- ✓ Wed Eve into early Thu AM



**National Weather Service**  
 New York NY  
 12/15/2020 10:05 PM EST

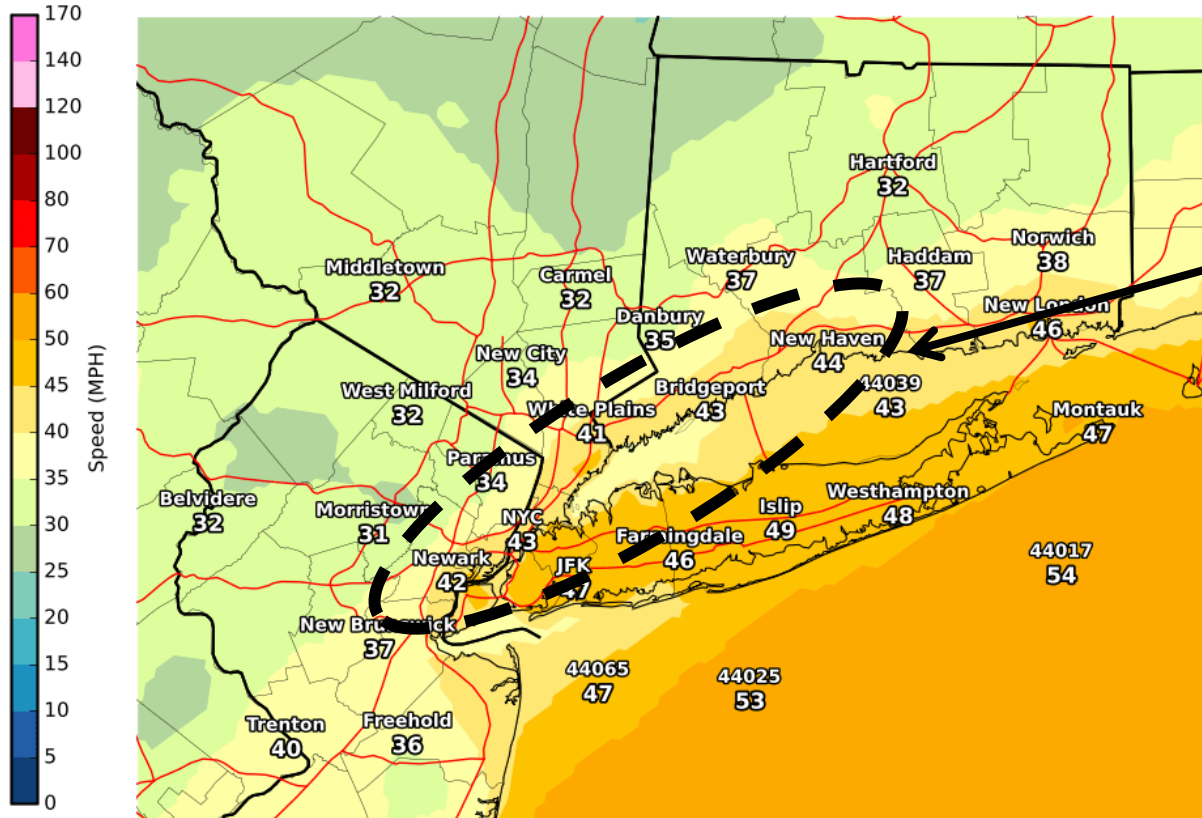
Follow Us:     
[weather.gov/nyc](https://weather.gov/nyc)



# Strong Wind and Heavy Wet Snow Impacts

## Maximum Wind Gust (MPH)

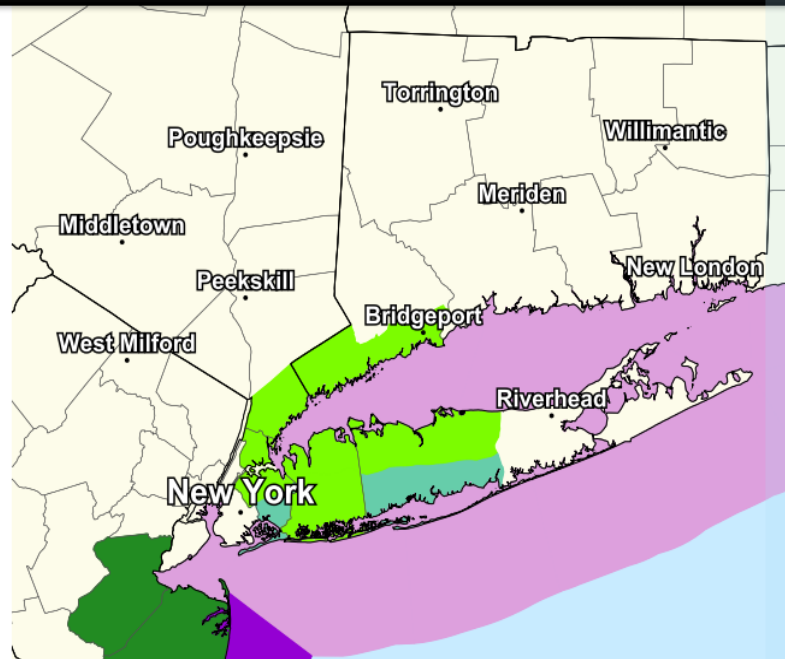
Valid: 12/14/2020 04:00 PM - 12/19/2020 04:00 PM EST



Potential for the zone of more widespread downed tree limbs and power lines (NE NJ, NYC, NW Long Island, SW Connecticut, and S Westchester) due to heavy wet snow (6-12") and strong winds.

# Coastal Flooding

## Marine / Coastal Hazards



Graphic Created  
December 15th, 2020  
10:57 PM EST

## Coastal Flood Hazards and Impacts:

- ✓ Minor to locally moderate coastal impacts likely Wed PM (1-1½ ft inundation)
  - ✓ Localized moderate impacts along W LI Sound due to 3-5 ft wave action
- ✓ Moderate coastal impacts possible Thu AM. (2-3 ft inundation)
  - ✓ South shore bays of Queens and LI
  - ✓ Several waterfront road closures and potential property damage

## Shoreline Hazards and Impacts:

- ✓ 6-10' breaking waves along the oceanfront, 3 to 6' along LI sound shoreline and Twin Forks.
- ✓ Widespread beach erosion and flooding. Scattered areas of dune erosion and isolated washovers along oceanfront Wed PM into Thu AM.
- ✓ Minor damage to shoreline structures possible along W LI Sound Wed PM.

## Timing:

- ✓ During times of high tide Wed PM and Thu AM

Please go to the NWS New York, NY Coastal Flooding Page for the latest coastal flood forecast and the tools to visualize the coastal impacts.

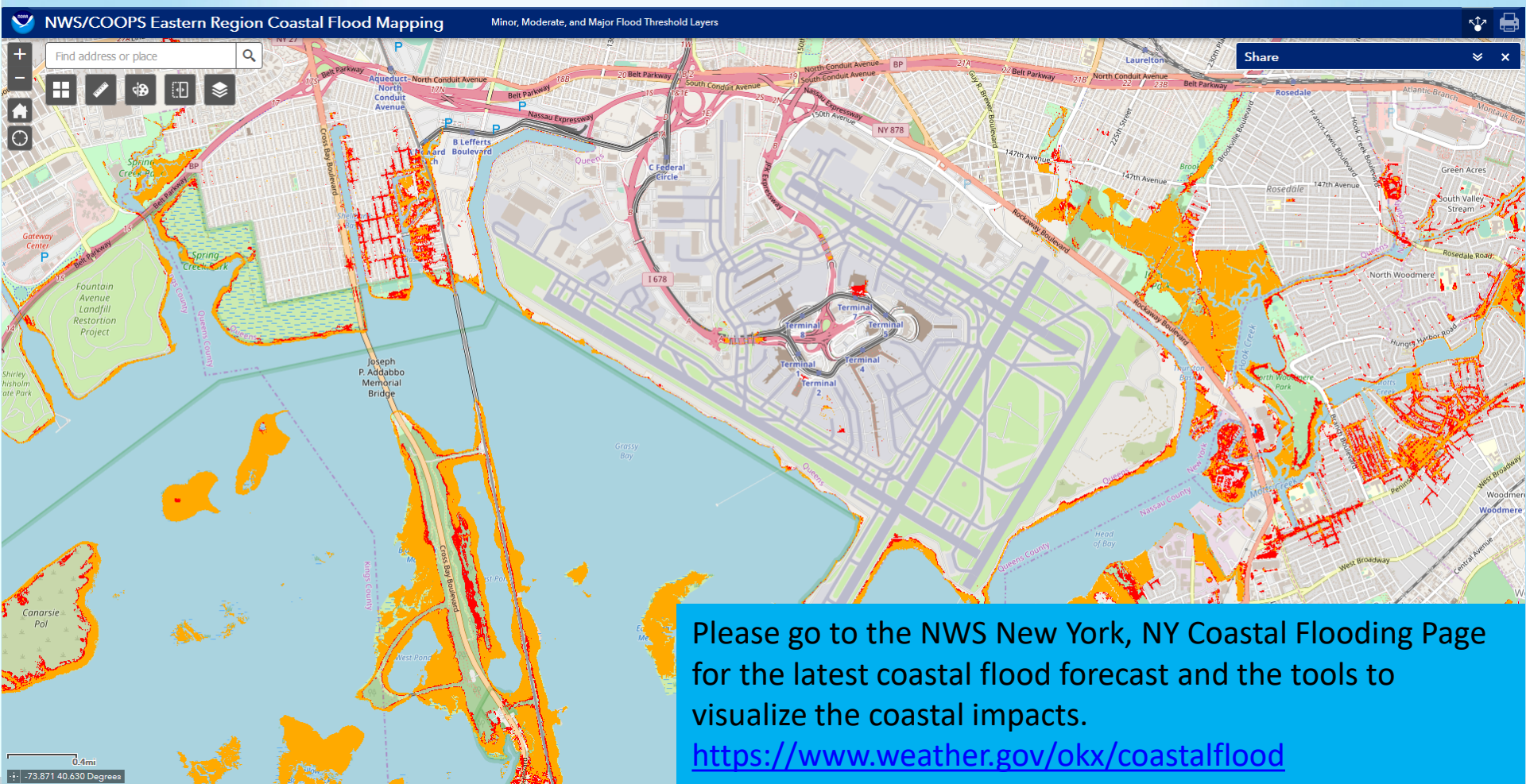
<https://www.weather.gov/okx/coastalflood>



# Coastal Flooding –Inundation Areas

Greatest threat areas for Moderate inundation during Thu AM high tides.

(Likely inundation areas of inundation are shaded in orange. Potential areas of inundation are shaded in Red)



Please go to the NWS New York, NY Coastal Flooding Page for the latest coastal flood forecast and the tools to visualize the coastal impacts.  
<https://www.weather.gov/okx/coastalflood>



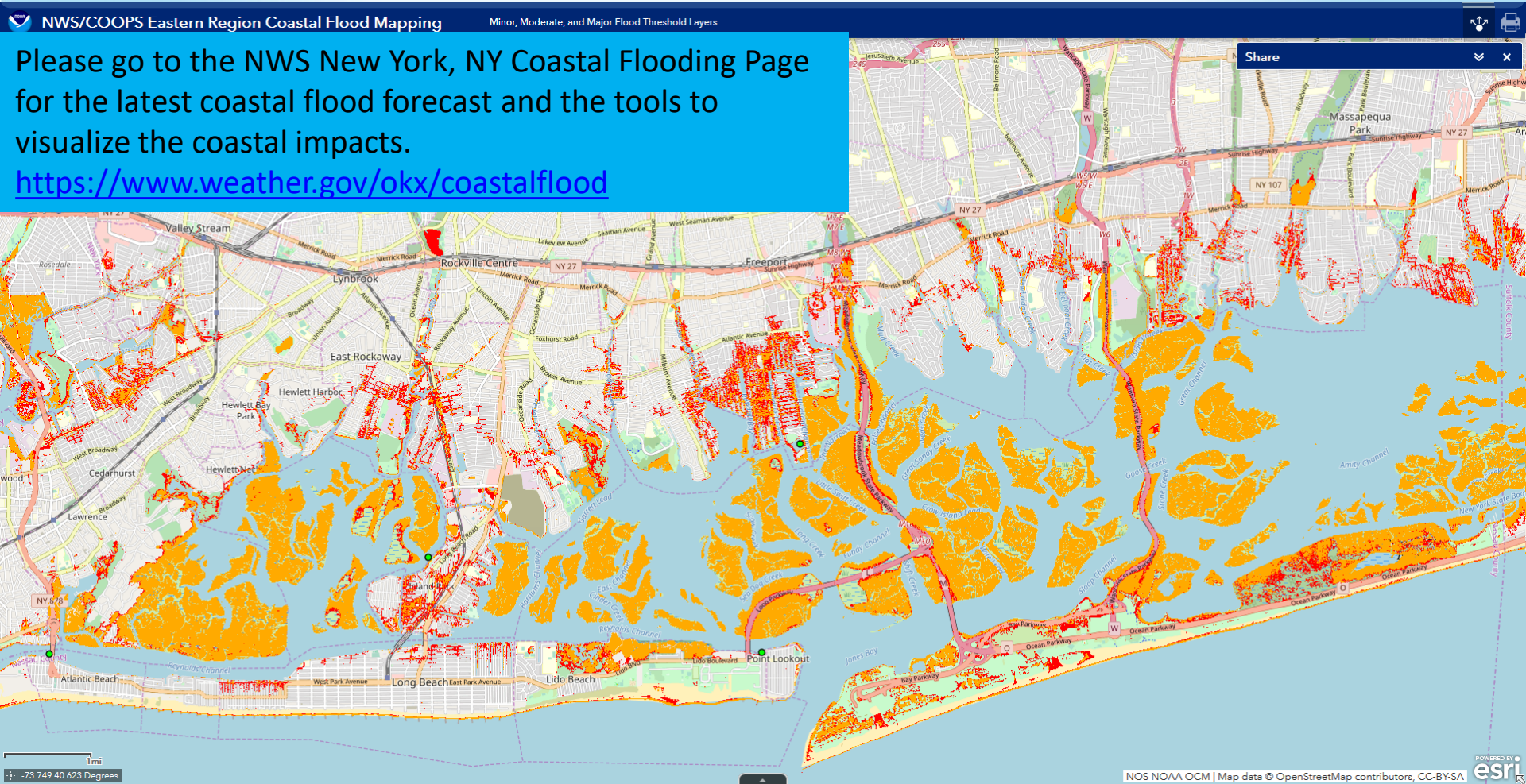
# Coastal Flooding – Inundation Areas

Greatest threat areas for Moderate inundation during Thu AM high tides.

(Likely inundation areas of inundation are shaded in orange. Potential areas of inundation are shaded in Red)

NWS/COOPS Eastern Region Coastal Flood Mapping  
Minor, Moderate, and Major Flood Threshold Layers

Please go to the NWS New York, NY Coastal Flooding Page for the latest coastal flood forecast and the tools to visualize the coastal impacts.  
<https://www.weather.gov/okx/coastalflood>





# Event Summary

- ✓ **Winter Storm Warning in effect for most of the area for Wed Afternoon into Thursday Morning**
  - ✓ Heavy Snow (8-12") potential for Much of the Region
  - ✓ A swath of 12-18" of snow likely N&W of NYC
    - ✓ 1-2"/hr snowfall rates Wed Eve/Night
    - ✓ Blizzard conditions possible along portions of the coastal plain.
  - ✓ Sleet and/or rain will mix in across S&E Long Island and SE CT, limiting amounts (3-10")
  
- ✓ Strong Winds for the NYC/NJ metro and Coast
  - ✓ 20-35mph with gusts to 40-50mph
  - ✓ Scattered to numerous downed tree branches and powerlines.
  
- ✓ **Coastal Flood Advisories and Watches in Effect**
  - ✓ Minor to locally moderate coastal flood potential Wed PM
  - ✓ Minor to moderate coastal flood potential with Thu AM high tides
  
- ✓ **Gale Warning in effect for all waters Wed Afternoon into Thursday Morning**
  - ✓ 30-40kt with gusts 45kt. Occasional gusts to 50 kt possible
  - ✓ Ocean seas 12-16 ft. 4-7 ft on LI Sound.



# Contact and Next Briefing Information



**Next Briefing**  
**When:** *Around 6 AM Wednesday*  
**Method:** *Email*



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<http://www.weather.gov/okx/>



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<http://www.twitter.com/NWSNewYorkNY>



**YouTube:**  
<https://www.youtube.com/user/NWSNewYorkNY>

**Disclaimer:** *The information contained within this briefing is time-sensitive, do not use after 6 AM Wednesday (12/16/20).*