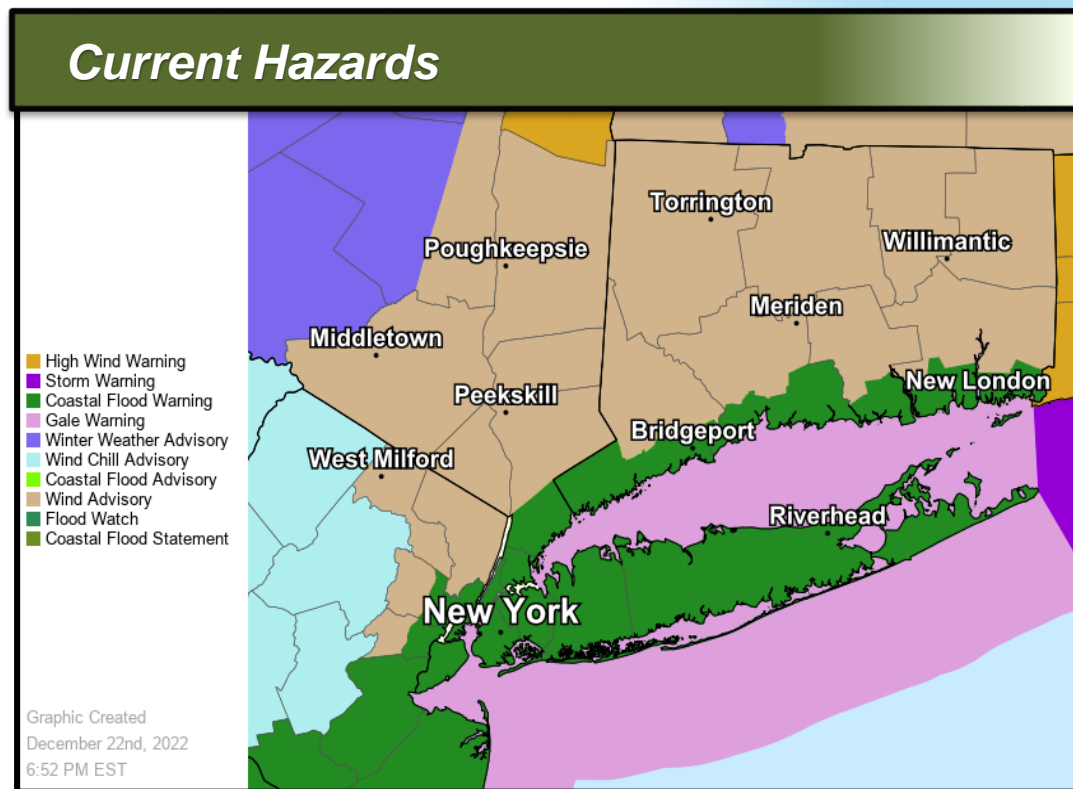


Major Winter Storm Tonight into Friday






Decision Support Briefing #6
As of: 6:00 PM Dec 22, 2022

What Has Changed?

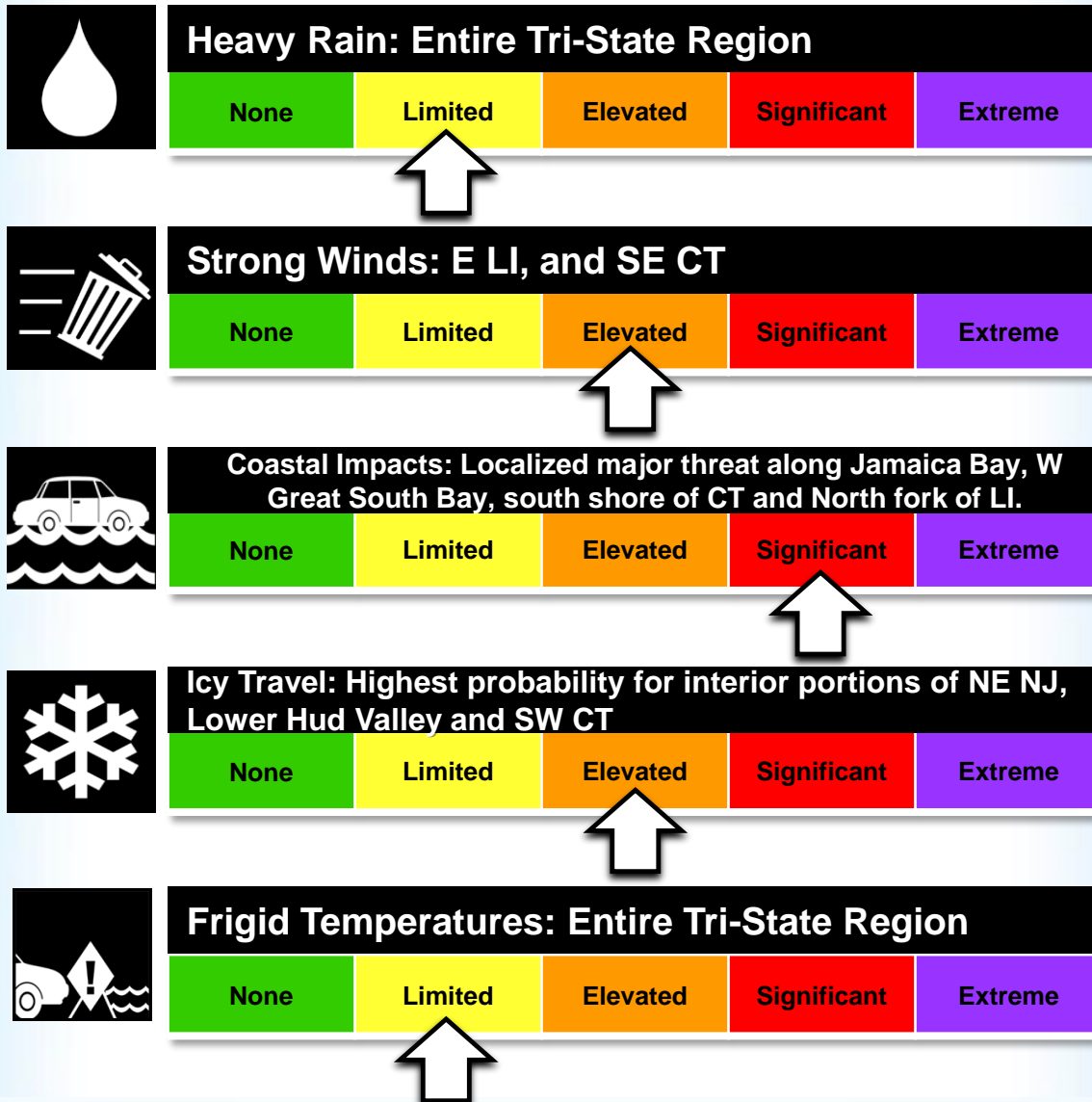
- **Coastal flood advisories and statements are now in effect for this evening's high tide cycle.**
- **Wind Advisory expanded for the entire area.**
- **Forecast Temps and wind chills even colder for late Friday into Saturday**



Main Points

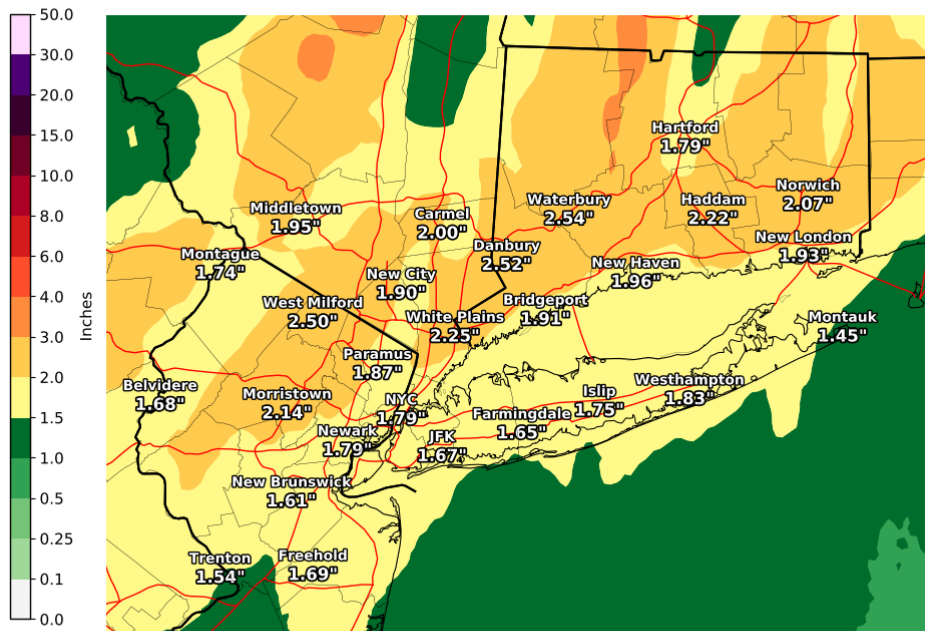
Hazard	Impacts	Location	Timing
Heavy Rain 1.5 to 2.5 inches, locally 3 inches. 	<ul style="list-style-type: none"> • Minor Flooding of Urban Areas, Low-lying Roads. • Rapid rises on small Streams and Creeks. 	Entire Tri-State Region	This evening into Friday morning
Strong Winds 25 to 35 MPH with gusts to 45 to 55 mph 	<ul style="list-style-type: none"> • Strong winds will blow down scattered tree limbs and blow around unsecured objects. • Power outages possible. 	Entire Tri-State Region	Late tonight through Friday evening
Coastal Impacts 1 to 2 ft, locally 3 ft of flooding AGL 	<ul style="list-style-type: none"> • Widespread moderate to locally major flooding likely Fri am high tide for portions of the coast. • Areas of dune erosion and scattered overwashes along oceanfront 	Localized major threat along Jamaica Bay, W Great South Bay, south shore of CT and North fork of LI.	Friday AM high tides
Icy Roads 	<ul style="list-style-type: none"> • Spotty light snow accumulation and flash freeze possible, mainly N&W of NYC. • Scattered areas of black ice areawide. 	Areawide	Friday afternoon into Saturday Morning
Frigid Temperatures Min windchills of -10 to 0 F. 	<ul style="list-style-type: none"> • Temperatures rapidly plummeting below freezing Friday afternoon, and into the teens Friday Evening. 	Entire Tri-State Region	Friday aft into Fri Night

Summary of Greatest Impacts



Heavy Rain

Expected Rainfall/Liquid Equivalent - Official NWS Forecast
Valid: 12/22/2022 04:00 PM - 12/26/2022 04:00 AM EST



Hazards:

- ✓ Total rainfall of 1.5" to 2.5" with locally 3 inches possible this afternoon into Friday Morning.
- ✓ Rainfall rates of 0.25 to 0.5"/hr

Impacts –

- ✓ Minor urban flooding of low-lying Roads, and Small Streams and Creeks
- ✓ Minor river flooding possible on fast responding creeks/rivers

Timing:

- ✓ Heaviest rain from 7pm tonight through 7am Friday.



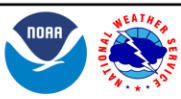
National Weather Service
New York NY
12/22/2022 04:32 PM EST

Follow Us:
weather.gov/nyc

Forecast Challenges:

Heavy rain will likely come to an end before the time of Fri AM high tide.

Flood Hazard Outlook



Experimental 7-Day Flood Hazard Outlook

Includes Flash, River, and Tidal Flood Hazards

NWC National Water Center

Issued: 2022-12-22 03:00 PM CST (21:00 UTC) | Valid Through: 2022-12-29 03:00 PM CST (21:00 UTC) | Next Issuance: 2022-12-23 03:00 PM CST (21:00 UTC)

Flood Hazard Messages

Northeast

- Flash, urban, and small stream flooding impacts, as well as minor to isolated moderate river flooding impacts, are likely today through Saturday in response to locally heavy rainfall combined with snowmelt.

Eastern Seaboard

- Widespread minor to isolated major coastal flooding impacts are possible during high tide today and Friday. Refer to products issued by local NWS offices for more details.

Mid-Atlantic

- Localized urban, small stream, and poor-drainage flooding will be possible through Friday across portions of New Jersey south to the Delmarva region due to moderate rainfall.

Northern High Plains/Midwest/Upper Great Lakes

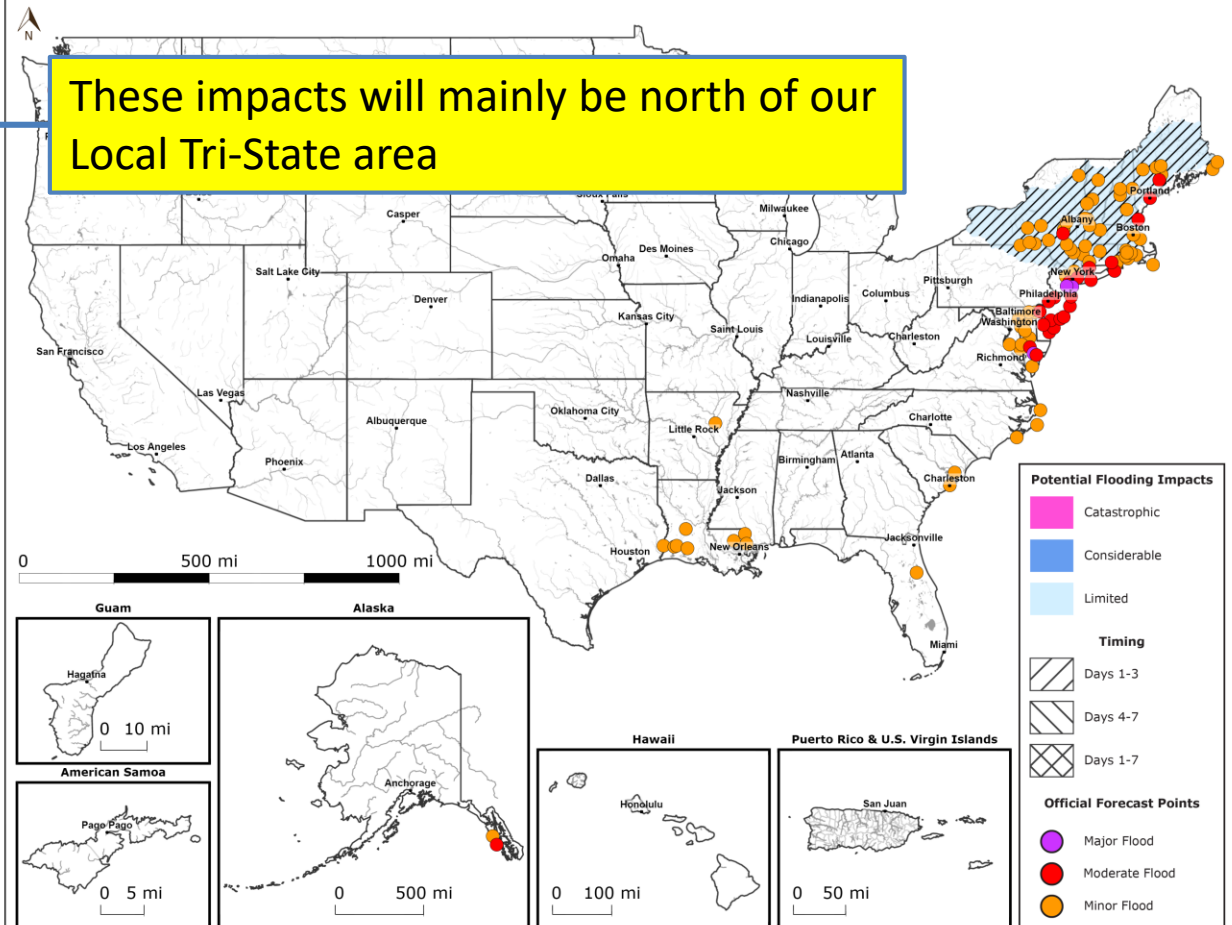
- Very cold temperatures Friday through the weekend will create favorable conditions for rapid river ice formation and potential ice jams.

Western Washington and Oregon

- Multiple rounds of rainfall combined with a significant warm up this weekend and early next week may result in hydrologic impacts. Confidence remains low at this time, but this area should be closely monitored.

Disclaimer: This outlook provides an overview of potential flooding impacts. Please refer to detailed products issued by local National Weather Service offices for official forecasts and warnings. (www.weather.gov)

These impacts will mainly be north of our Local Tri-State area



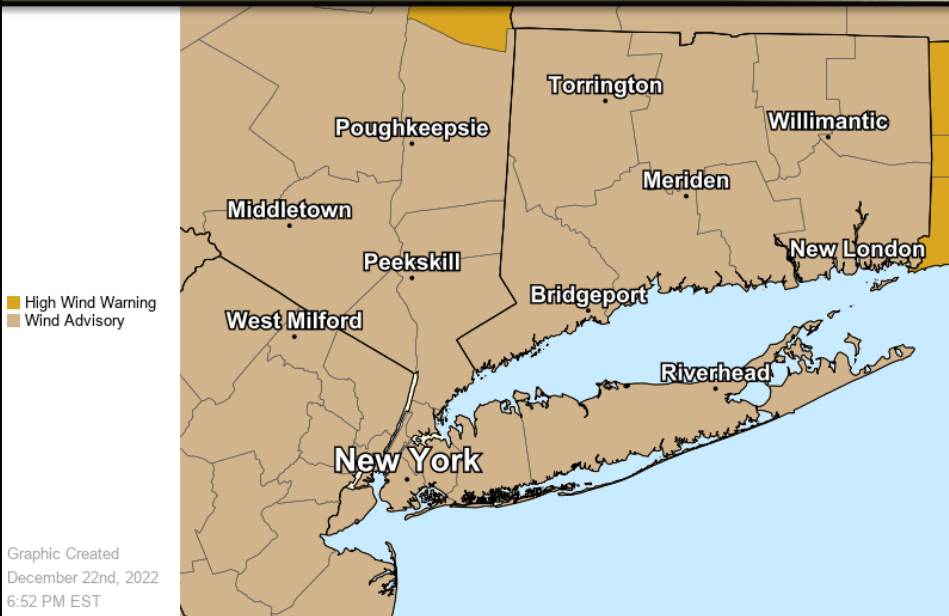
To learn more or provide feedback, visit: https://nws.weather.gov/products/PDD/PDD_ExpFloodHazardOutlook_2022.pdf

Prepared with NWC/WPC/NWS Forecasts



Strong/Damaging Winds

Wind Related Hazards



Forecast Challenges:

The potential for a brief period of high winds Friday morning/early afternoon with a line of heavy showers ahead of the cold front will be alerted if needed using short fuse wind or severe thunderstorm warning products.

Hazards and Impacts:

Location – Strongest winds along the coast
Wind Advisory in Effect tonight thru Friday Night

- ✓ **Strong Winds:** SE/S winds of 25 to 35 mph with gusts 45 to 55 mph tonight into early Fri morning for the coast and 55-60 mph over the waters. Winds will shift to the SW/W late Friday morning into afternoon with the same speed.
- ✓ **There is potential for a brief period of damaging southerly winds of 40 mph with gusts to 60 mph with a narrow line of heavy showers and embedded thunderstorms ahead of the cold front Friday morning.**
- ✓ **Impacts:** Strong winds will blow down scattered tree limbs and blow around unsecured objects. Power outages are possible.

Timing:

- ✓ Strongest winds from 10pm Thursday through 10pm Friday.



Strong/Damaging Winds

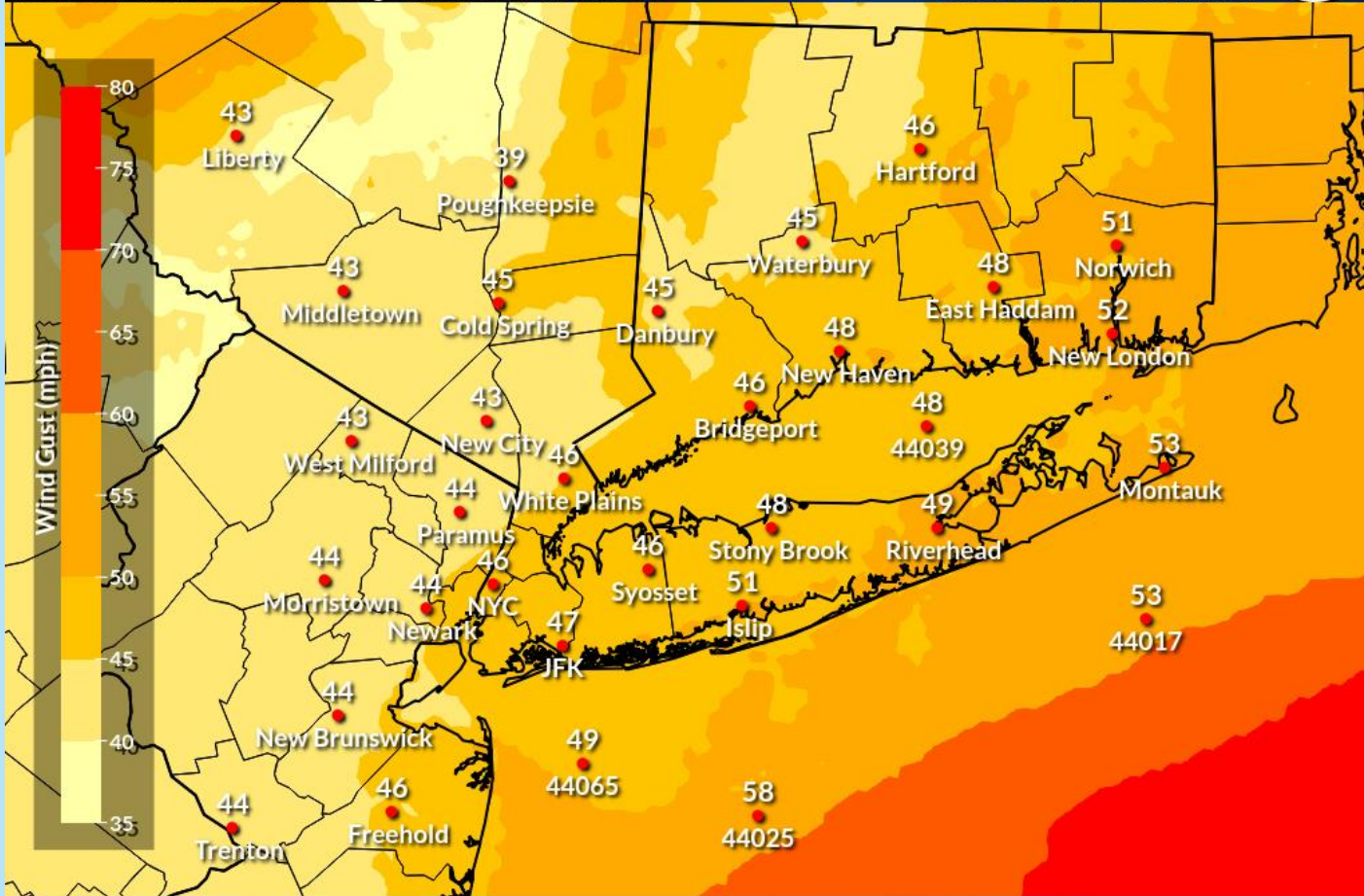
Forecast Maximum Wind Gusts

Weather Forecast Office
New York, NY



Valid: Thu Dec 22 10:00 PM through Fri Dec 23 10:00 PM

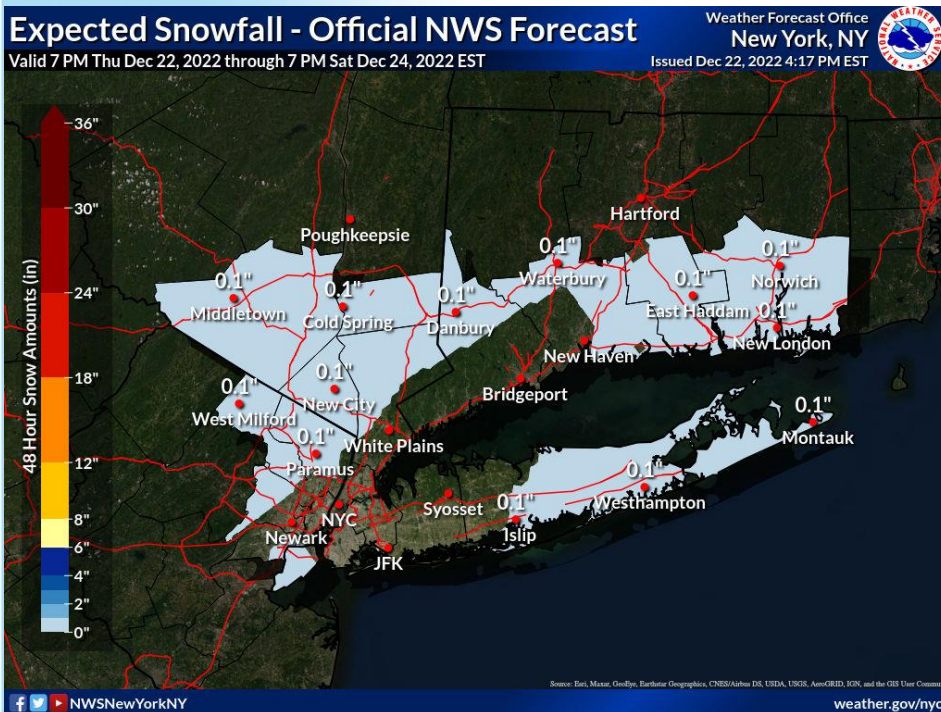
Issued Dec 22, 2022 4:52 PM EST



NWSNewYorkNY

weather.gov/nyc

Snow Showers/Flash Freeze/Black Ice Potential



Hazards and Impacts:

Scattered areas of black ice areawide late Fri into Sat morning.

- **Air temps:** Rapidly dropping below freezing in the early to mid afternoon. Road temps would likely lag by 1 to 2 hours.

Localized Flash Freeze Potential Fri aft/eve (Mainly N&W of NYC)

Snow Shower Potential: Highest likelihood N&W of NYC Fri aft/eve

- **Snow Accum:**
 - **Likely:** Dusting in spots
 - **Reasonable worst case:** 1-2" west of the Hudson River, 1" for rest of Lower Hud and S CT, Less than an inch for city/coast.
- **Snow Character:** Dry and powdery

Impacts:

- ✓ **Locally dangerous travel Fri aft/eve**

Forecast Challenges:

The coverage and intensity of any post arctic front snow showers. The flash freeze threat will be predicated on this activity. Potential for a bit of ocean effect snow Fri Night into Sat morning across eastern LI.

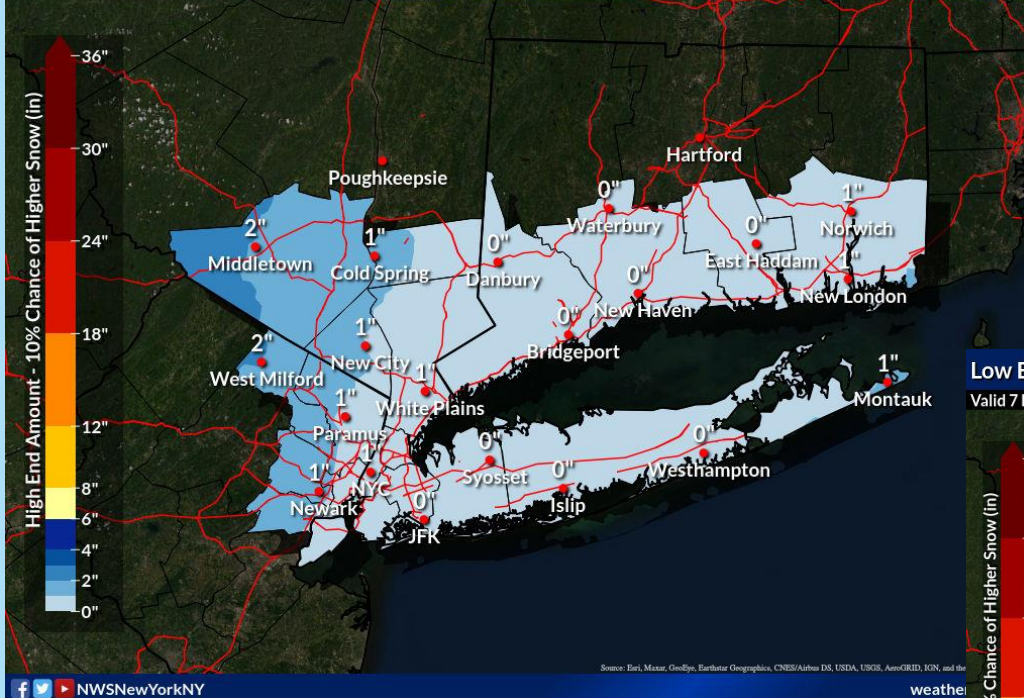
Probabilistic Snowfall Forecast

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

Valid 7 PM Thu Dec 22, 2022 through 7 PM Sat Dec 24, 2022 EST

Weather Forecast Office
New York, NY

Issued Dec 22, 2022 4:17 PM EST



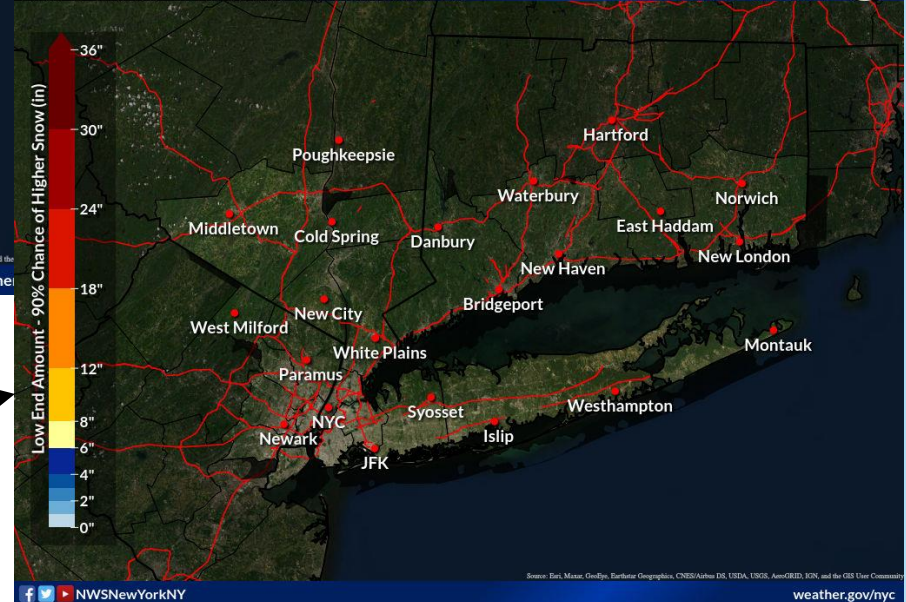
Snow amounts could be close to these levels with heavier and/or more widespread snow shower activity behind the arctic front. **This would pose an elevated threat for flash freeze conditions!**

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

Valid 7 PM Thu Dec 22, 2022 through 7 PM Sat Dec 24, 2022 EST

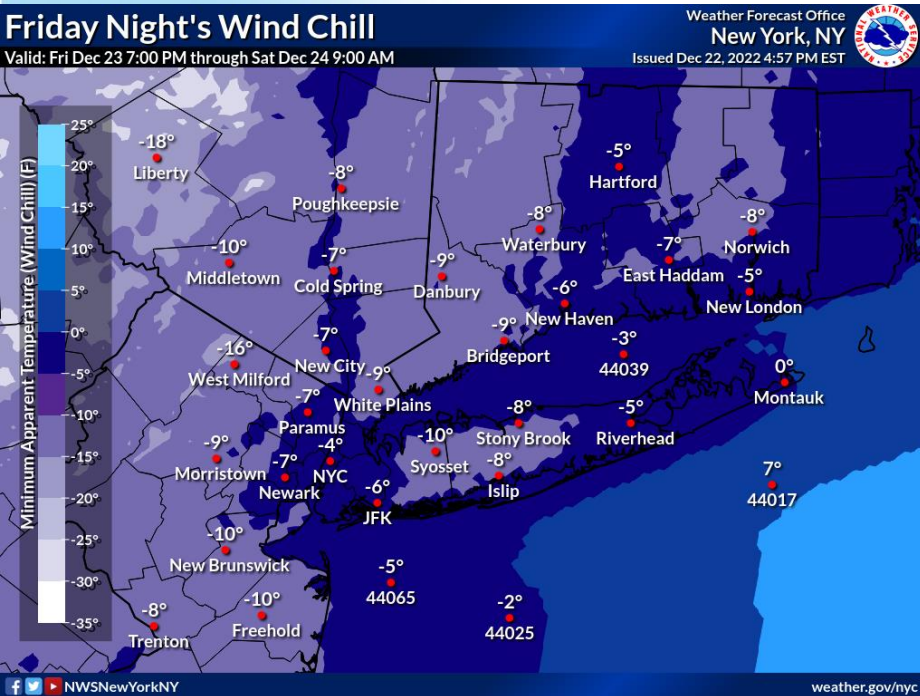
Weather Forecast Office
New York, NY

Issued Dec 22, 2022 4:17 PM EST



If post arctic front snow shower activity dissipates as it approaches the coast, no accumulation will occur.

Cold Temperatures / Sub Zero Wind Chills



Hazards:

- ✓ **Temperatures drop rapidly to freezing Friday afternoon, into the teens by evening, with minimum wind chills of 0 to 10 below.**
 - ✓ **Friday Night:**
 - ✓ Low Temps: Around 5 to 10F interior and mainly 10 to 15F coast.
 - ✓ Min wind chills: -10 to 0F
 - ✓ **Saturday:**
 - ✓ High Temps: 15 to 20F interior and Lower 20s coast.
 - ✓ Wind chills: -5 to 10F
 - ✓ **Saturday Night:**
 - ✓ Low Temps: Upper single digits and lower teens interior, lower to upper teens coast
 - ✓ Wind chills: -5 to 5F
 - ✓ **Sunday:**
 - ✓ High Temps: Mid 20s interior and Upper 20s to 30 coast.
 - ✓ Wind chills: 10 to 20F

Impacts:

- ✓ The lowest wind chills will be felt Friday night into Saturday morning with prolonged exposure leading to frostbite.
- ✓ With 72 to 84 hours of sub freezing temperatures there is some potential for the freezing of poorly-insulated pipes.

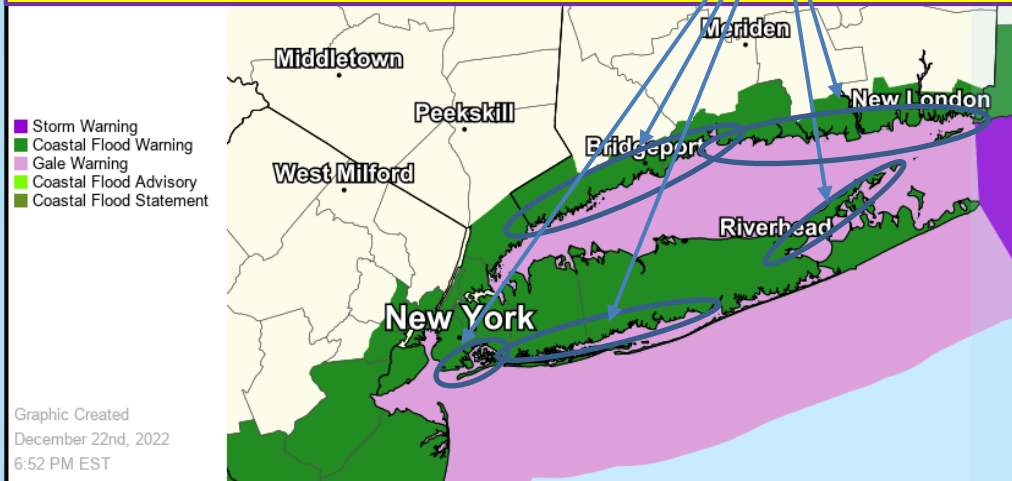
Forecast Challenges:

- ✓ Depending on how quickly temperatures plummet Friday afternoon, there is potential for a flash freeze of slushy surfaces across the Interior, especially on bridges and elevated surfaces.

Coastal Flooding

Marine / Coastal Hazards

Threat areas for locally major coastal flooding during Friday morning high tide (3 ft above ground level). Elsewhere threat is for moderate coastal flooding.



For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential inundation map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

Coastal Flood Hazards and Impacts:

- ✓ **Widespread Moderate to locally Major coastal flooding (1 1/2 to 2/12 ft, locally 3 ft flooding above ground)** for S Nassau, S Queens, SW Suffolk as well as north Fork of LI and coastal CT.
- ✓ **Potential Impacts** – Numerous low-lying and shoreline roads will be closed in the area, with adjacent properties taking on water. Cars may be inundated if not moved to higher ground. Some flooding into areas that normally don't experience flooding.
- ✓ **Widespread moderate coastal flooding (1 to 2 ft above ground)** along NY/NJ harbor, Newark bay and tidally affected portions of Hackensack and Passaic Rivers, SE Suffolk, SE CT, and sound front communities of LI.

Shoreline Hazards and Impacts:

- ✓ 10-15' breaking waves along the oceanfront, resulting in widespread dune erosion and scattered overwashes.
- ✓ 3 to 6' along coastal CT and Orient Point shoreline resulting in beach erosion, localized overwashes, and possible damage to shoreline structures.




Timing:

- ✓ Around and near the times of high tide Fri AM

Forecast Challenge: The extent of major coastal flooding (3 ft above ground) will depend on strong southeast winds continuing right through the time of high tide Fri AM. Locally minor flooding with this eve high tide. Potential for residual minor to moderate coastal flooding in the eastern great South Bay with Friday Evening High Tide.



Coastal Flooding Thresholds

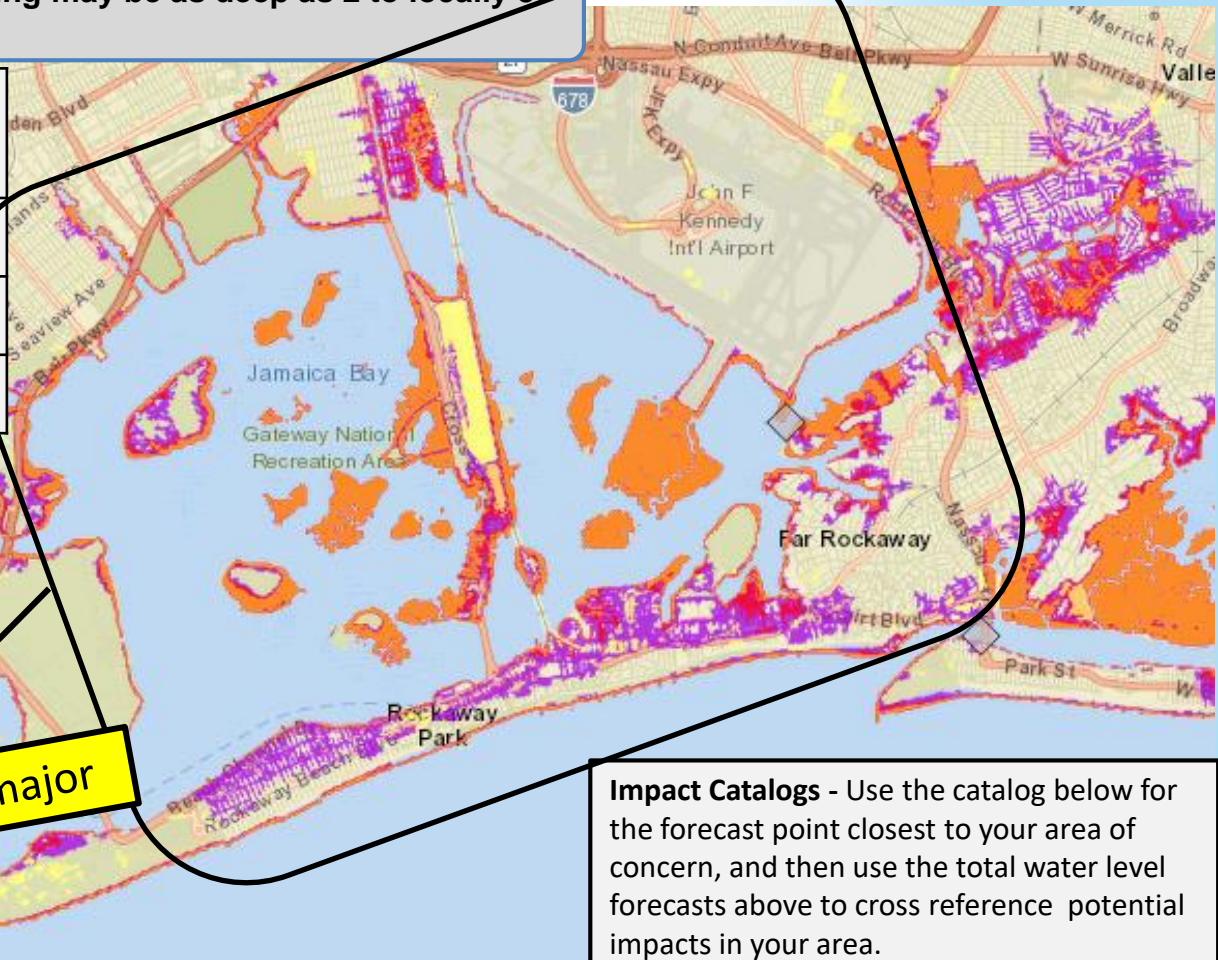
	Minor (CF Advisory)	Moderate (CF Warning)	Major (Warning)
Picture	 <p>Westport</p>	 <p>Lindenhurst</p>	 <p>New Haven</p>
Hazard	<ul style="list-style-type: none"> • Low threat of property damage...and no direct threat to life. • 1 to 2 ft of inundation in shoreline and vulnerable areas. 	<ul style="list-style-type: none"> • Elevated threat of property damage...with a risk to life if one places themselves in unnecessary danger. • 2 to 3 ft of inundation in shoreline and vulnerable areas. • Minor to no inundation of surrounding coastal communities. 	<ul style="list-style-type: none"> • Significant threat to life and property. • 3-5+ ft of inundation in shoreline and other vulnerable areas. • Minor to moderate inundation (1 to 3 ft) of surrounding coastal communities that rarely experience coastal flooding.
Impact	<ul style="list-style-type: none"> • A few shoreline and vulnerable roadways and adjacent properties will experience shallow flooding. 	<ul style="list-style-type: none"> • Several shoreline and vulnerable area home and businesses will experience water inside. • Several low-lying coastal and shoreline roads will be closed. • A few cars may take on water or even be destroyed. 	<ul style="list-style-type: none"> • Evacuations will be necessary for the most vulnerable shoreline and coastal areas. • Many coastal communities will experience damage...with some shoreline and flood prone homes and businesses being destroyed. • Many cars will likely be submerged or washed away. • Several sections of nearshore roads and escape routes will be impassable and a few could be washed out. • Flood waters may extend well inland in low lying areas.

Coastal Flooding – Potential Flood Impact Areas

The map below shows the potential extent of flood impact (water above ground) during the Friday morning high tides. Flooding may be as deep as 2 to locally 3 ft in spots.

Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Jamaica Bay (8am)	2.6-3.1	+(2.2-2.7)	Mod-Maj
Rockaway Inlet (7am)	3.1-3.6	+(2.2-2.7)	Moderate
East Rockaway (7am)	2.7-3.2	+(2.0-2.5)	Mod-Maj

Map Legend
Expected Areas of Flood Impact
Likely Areas of Flood Impact
Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically



Primary concern area for localized major

Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

- [Jamaica Bay at Inwood](#)
- [East Rockaway](#)
- [Rockaway Inlet](#)

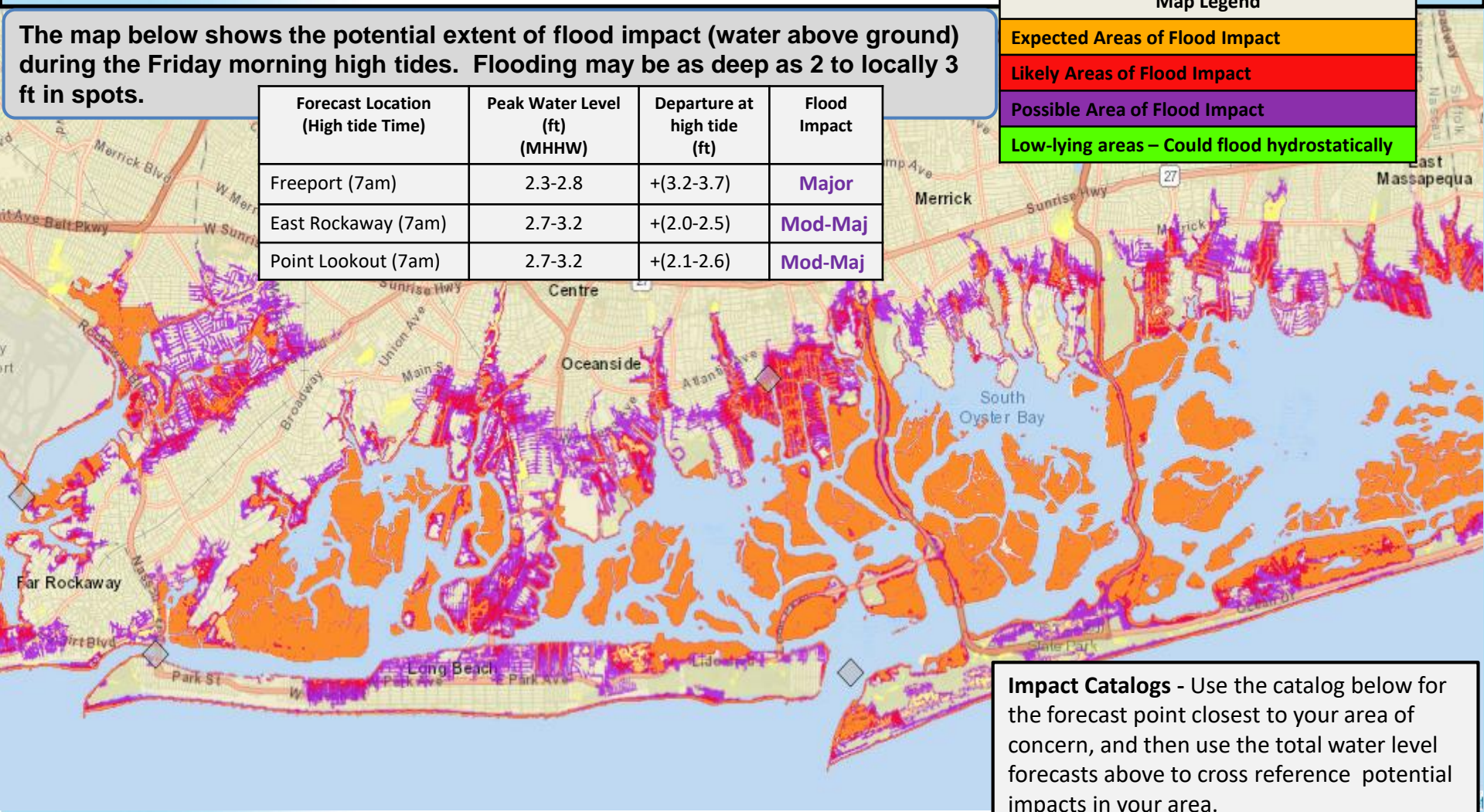
For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

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Freeport (7am)	2.3-2.8	+(3.2-3.7)	Major
East Rockaway (7am)	2.7-3.2	+(2.0-2.5)	Mod-Maj
Point Lookout (7am)	2.7-3.2	+(2.1-2.6)	Mod-Maj

Map Legend
Expected Areas of Flood Impact
Likely Areas of Flood Impact
Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically



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- [Freeport](#)
- [East Rockaway](#)
- [Point Lookout](#)

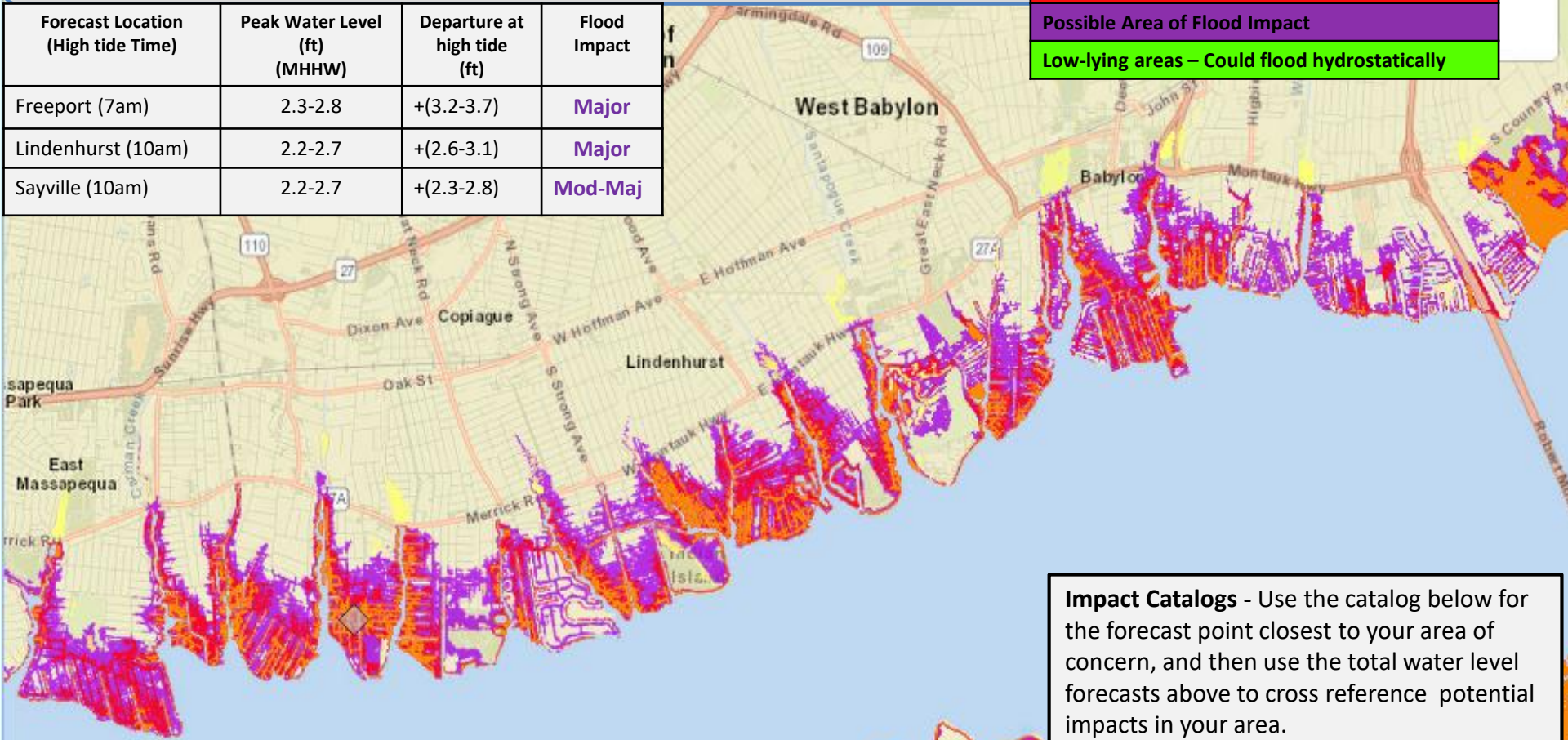
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Possible Area of Flood Impact	
Low-lying areas – Could flood hydrostatically	

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Freeport (7am)	2.3-2.8	+(3.2-3.7)	Major
Lindenhurst (10am)	2.2-2.7	+(2.6-3.1)	Major
Sayville (10am)	2.2-2.7	+(2.3-2.8)	Mod-Maj



Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

- [Freeport](#)
- [Lindenhurst](#)
- [Watch Hill](#)

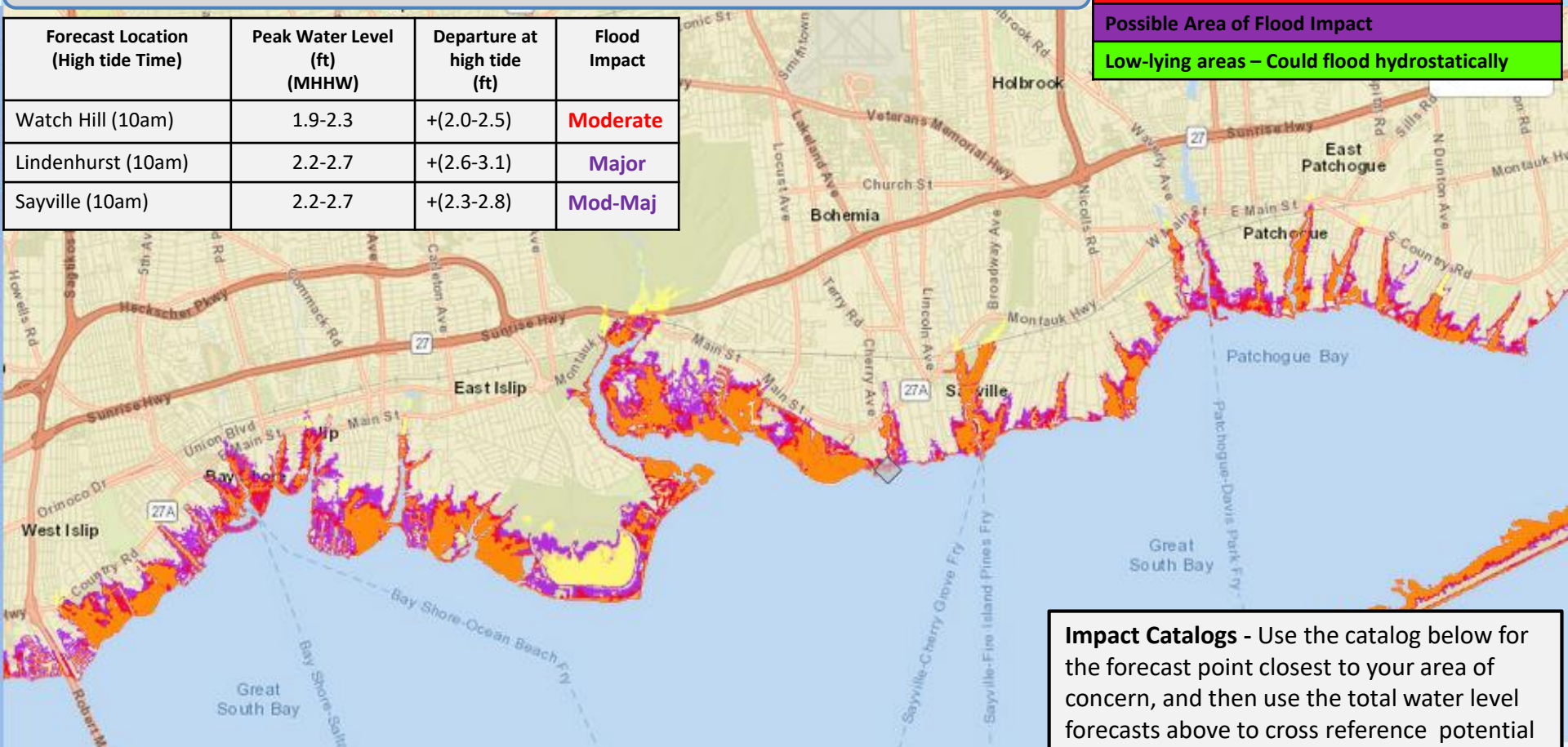
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Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically

Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Watch Hill (10am)	1.9-2.3	+(2.0-2.5)	Moderate
Lindenhurst (10am)	2.2-2.7	+(2.6-3.1)	Major
Sayville (10am)	2.2-2.7	+(2.3-2.8)	Mod-Maj



Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

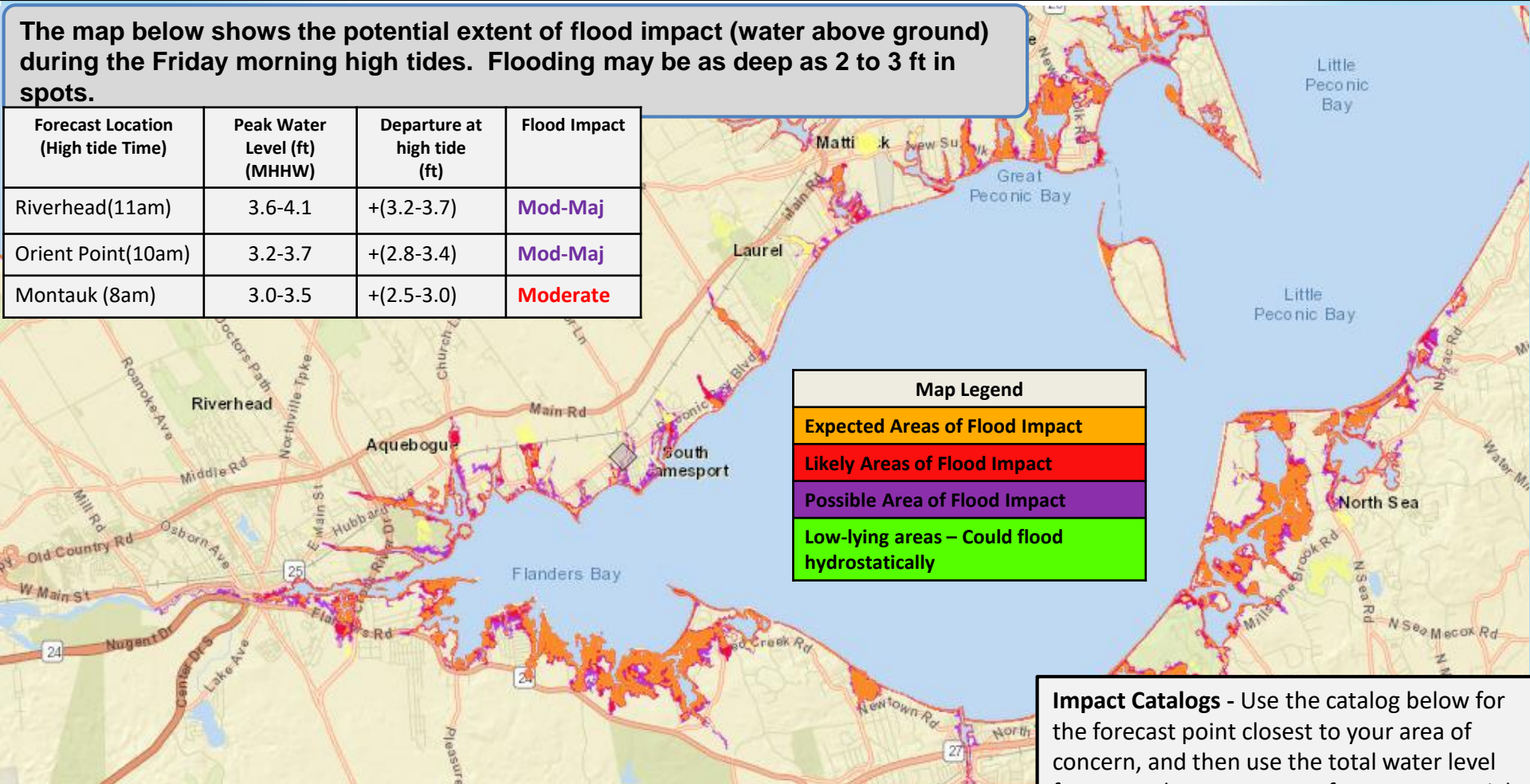
- [Lindenhurst](#)
- [Watch Hill](#)

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Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Riverhead(11am)	3.6-4.1	+(3.2-3.7)	Mod-Maj
Orient Point(10am)	3.2-3.7	+(2.8-3.4)	Mod-Maj
Montauk (8am)	3.0-3.5	+(2.5-3.0)	Moderate



Map Legend
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Likely Areas of Flood Impact
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Low-lying areas – Could flood hydrostatically

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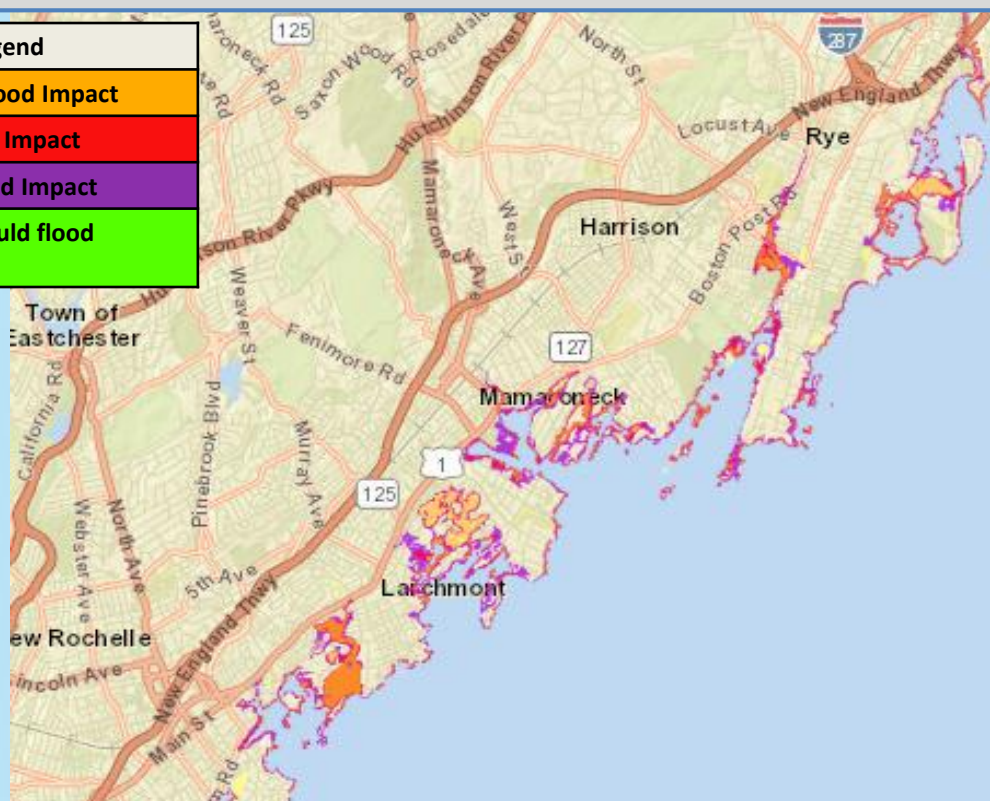
- [Riverhead](#)
- [Orient Point](#)
- [Montauk](#)

For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

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Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically



Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Stamford (11am)	3.7-4.2	+(2.7-3.2)	Mod-Maj
Kings Point (11am)	3.7-4.2	+(2.7-3.2)	Moderate

Wave action of 1 to 3 ft along shoreline may locally enhance coastal impacts.

Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

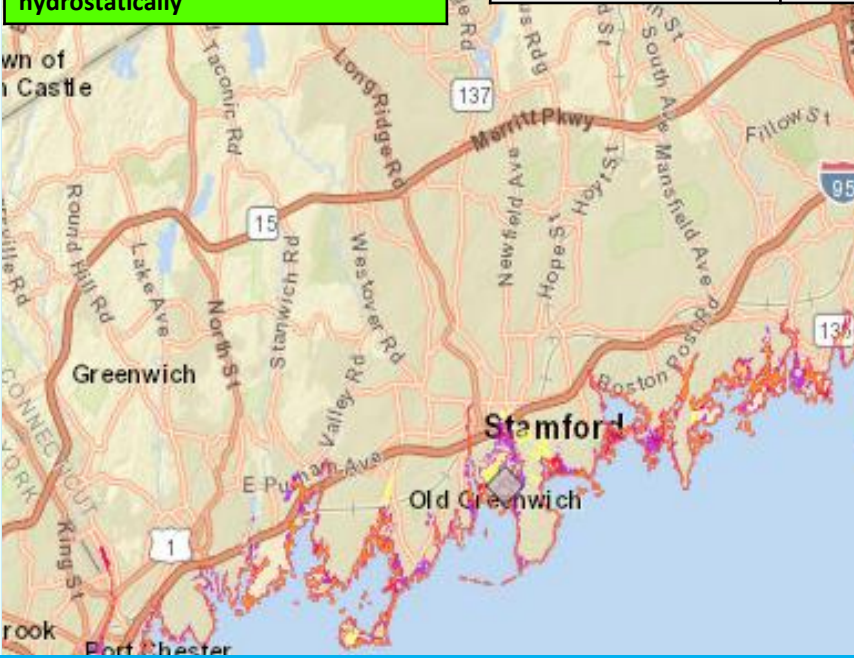
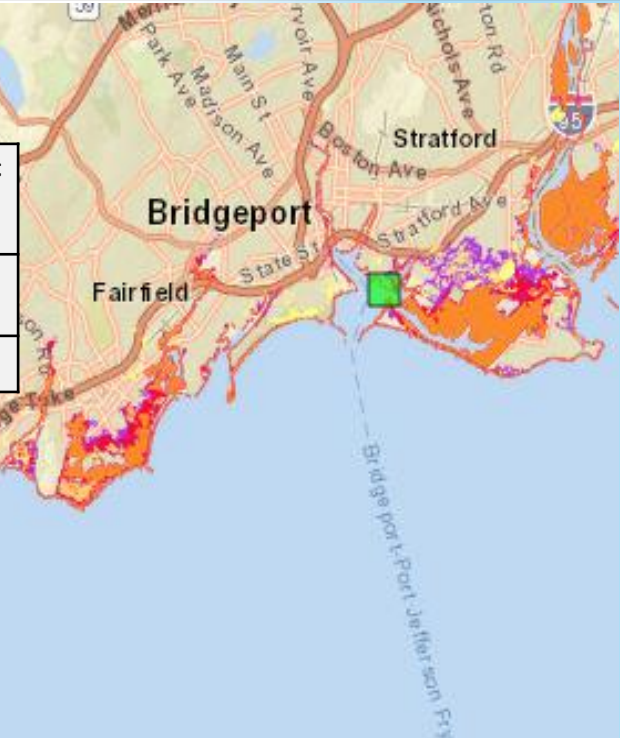
- [Stamford](#)
- [King Point](#)

For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

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Expected Areas of Flood Impact				
Likely Areas of Flood Impact				
Possible Area of Flood Impact				
Low-lying areas – Could flood hydrostatically				
	Stamford (11am)	3.7-4.2	+(2.7-3.2)	Mod-Maj
	Bridgeport (11am)	3.6-4.1	+(3.1-3.6)	Mod-Maj



Wave action of 2 to 4 ft breaking along the shoreline will present a localized major flood threat.

Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

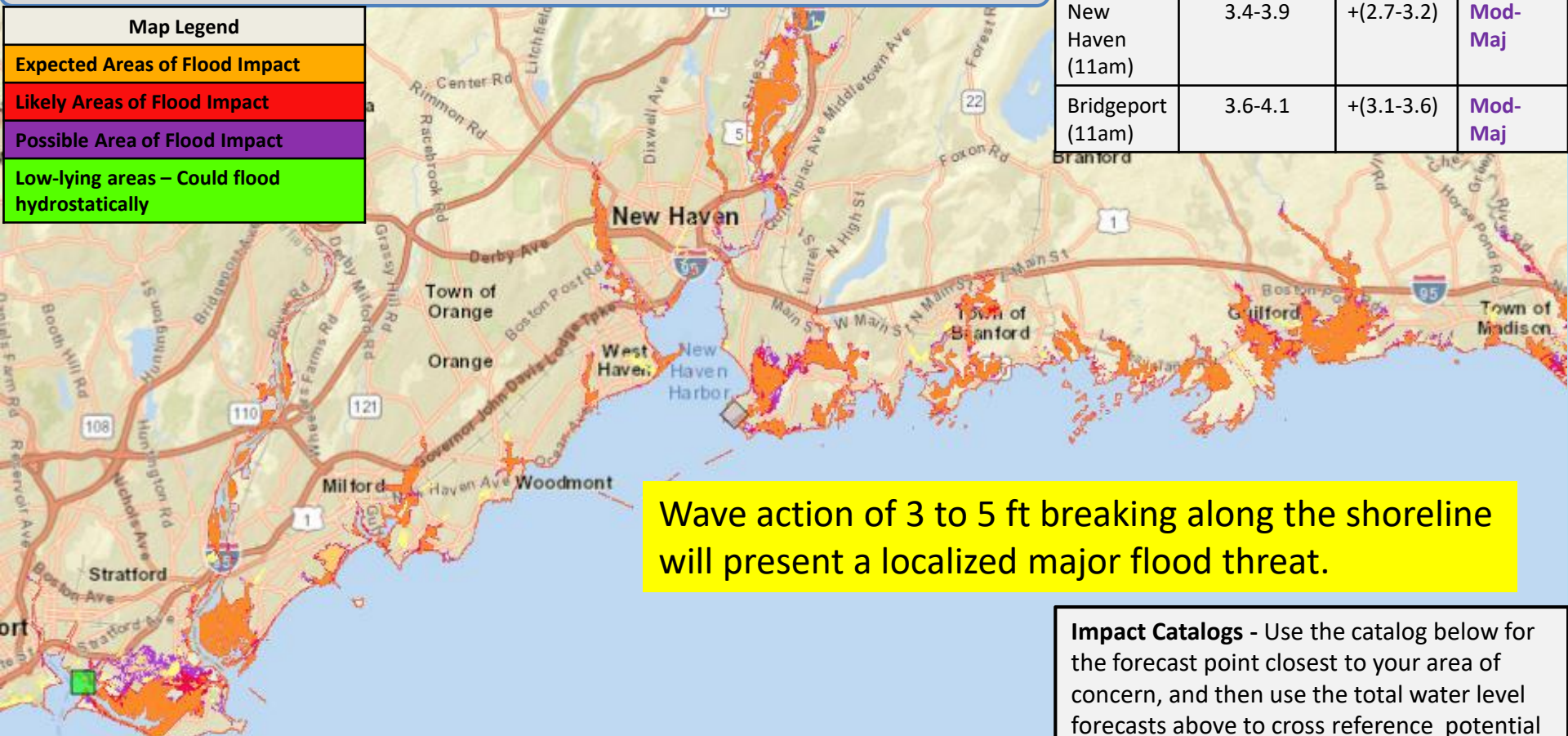
- [Stamford](#)
- [Bridgeport](#)

For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

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Likely Areas of Flood Impact
Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically



Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
New Haven (11am)	3.4-3.9	+(2.7-3.2)	Mod-Maj
Bridgeport (11am)	3.6-4.1	+(3.1-3.6)	Mod-Maj

Wave action of 3 to 5 ft breaking along the shoreline will present a localized major flood threat.

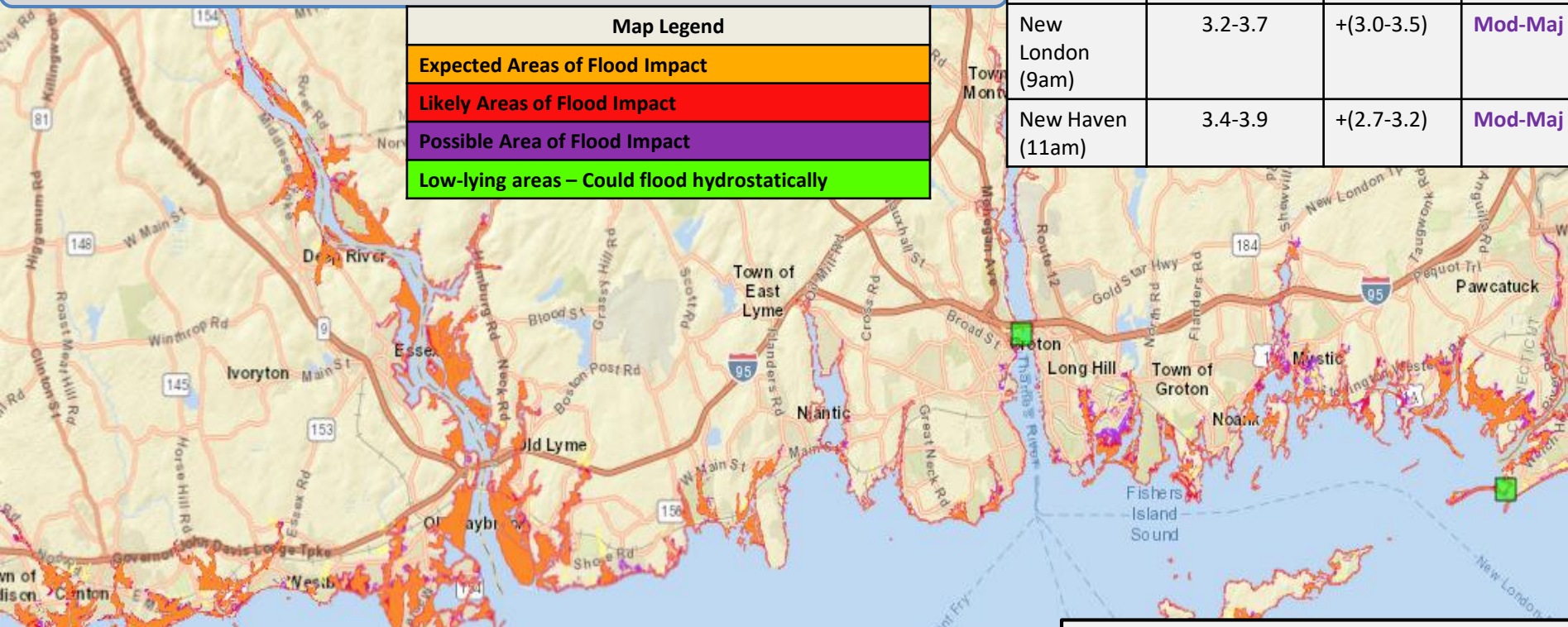
Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

- [New Haven](#)
- [Bridgeport](#)

For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

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Wave action of 3 to 5 ft breaking along the shoreline will present a localized major flood threat.

Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

- [New Haven](#)
- [New London](#)

For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

Event Summary

A potent low pressure system will affect the area through Saturday morning.

- ✓ Locally major coastal flooding potential for south facing communities of southern Nassau, SW Suffolk, S Queens, south shore of north fork of LI, including Riverhead, and coastal CT for Friday am high tide cycles. Elsewhere widespread moderate coastal flooding conditions.
- ✓ Widespread dune erosion and scattered overwashes from breaking surf peaking at 10-15 ft during the Fri into Fri Night period along the oceanfront.
- ✓ Southeasterly to southerly winds 25-35 mph with gusts 45-55 mph are likely over coastal areas and the waters tonight into Friday morning. Winds then shift to the SW/W during the afternoon on Friday with similar speeds through Friday Evening. **Note:** A brief period of damaging southerly winds of 40 mph with gusts to 60mph is possible just ahead of cold front.
- ✓ Potential for local flash freeze N&W of NYC Fri aft/eve rush. Otherwise areas of black ice and frigid temperatures Fri Eve/Night, with sub freezing temperatures continuing through Monday.
- ✓ Heavy rainfall of 1.5" to 2.5", with locally 3" for the Tri State may lead to local urban and small stream flooding tonight into Friday afternoon.
- ✓ Gale conditions are expected on all waters late tonight through Friday night.

