

# Strong Storm System Friday Night into Saturday

## Decision Support Briefing #2

As of: 6:00 AM January 11, 2024

### What Has Changed?

- Storm watch issued for the ocean waters starting Friday night
- Gale watch for the remaining waters starting Friday night

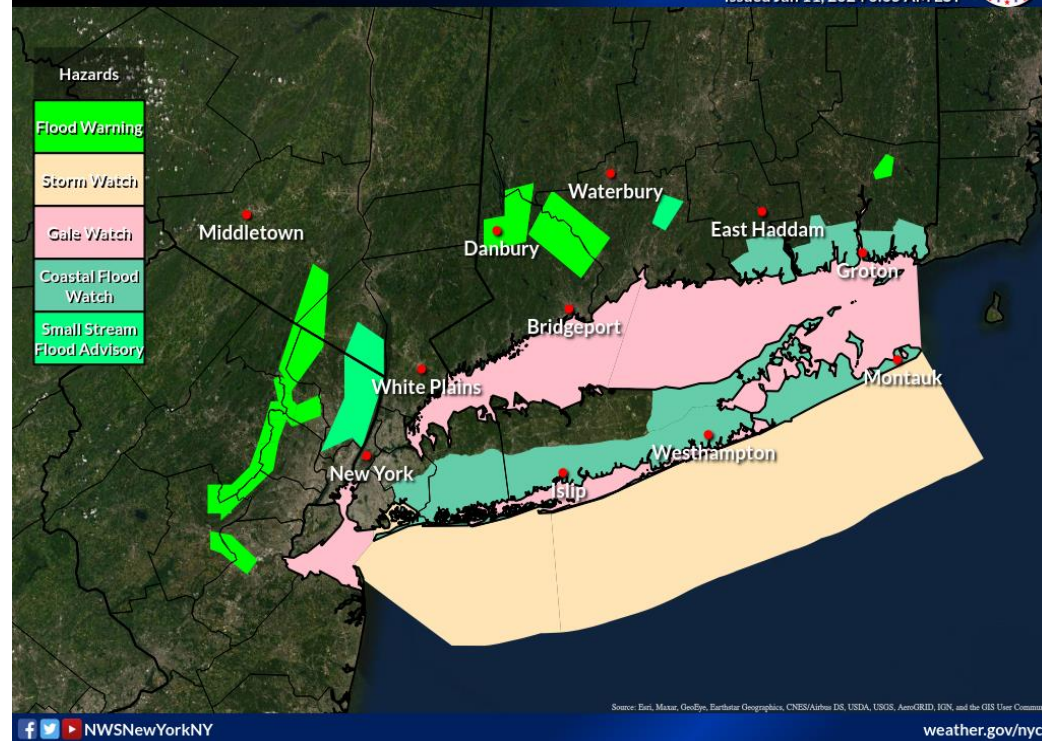
### Key Messages...

- ✓ Widespread minor to moderate river flooding is likely Friday Night into Saturday. Locally major river flooding possible.
- ✓ Widespread minor urban and poor drainage flooding threat Friday Night into Saturday. Isolated flash flooding possible.
- ✓ Widespread moderate coastal flooding likely for south shore of Queens, southern and eastern Long Island and SE CT coast with the Saturday morning high tide. Locally major flooding possible along the southern bays of LI and Queens.
- ✓ Widespread dune erosion and scattered overwashes likely along the ocean beachfront Saturday morning.
- ✓ Strong winds possible for the coast Friday Night into Saturday.
- ✓ Storm/Gale conditions likely on all waters Friday Night into Sunday morning.

### Current Hazards

Weather Forecast Office  
New York, NY

Issued Jan 11, 2024 6:05 AM EST



## Moderate River Flood Threat For Friday Night into Saturday

### Current Convective and Flood Watches



### Compounding Factors:

- ✓ Streamflows are running very high (above the 90<sup>th</sup> percentile), with well above normal soil moisture (99<sup>th</sup> percentile), increasing the threat for flood impacts.
- ✓ River flooding will likely be exacerbated along the tidal reaches of rivers Saturday morning during time of high tide.

### Hazard:

- ✓ **Storm Total Rainfall:**
  - ✓ 1 to 2", locally higher amounts possible.
  - ✓ Much of this will fall between 7pm Friday evening and 8am Saturday
- ✓ **Rainfall Rates:**
  - ✓ 1/4 to 1/2"/hr possible between 7pm and 8am Saturday.

### Timing:

- ✓ Heaviest rainfall between 7pm Friday evening and 8am Saturday morning, but significant river flood impacts could continue through Sunday.

### Impacts:

- ✓ Flashy river and streams of NE NJ, Lower Hud and SW CT expected to continue falling below flood stage through Thursday morning. A few larger stem rivers may remain in flood into this weekend.
- ✓ **Moderate River Flooding threat for Friday Night into Saturday** along numerous quick responding small rivers and streams of NE NJ, Lower Hud and SW CT. Locally **Major River Flooding** possible. **Some inundation of structures and roads, evacuations of people and/or transfer of property to higher elevations is possible along several rivers.**
- ✓ **Widespread minor urban and poor drainage flooding potential Friday evening into Saturday morning. Isolated flash flooding possible.** This will likely cause scattered disruptions to transportation, and scattered flooding of basements, first floors of residences and businesses, as well as some underground infrastructures.



# Official Rainfall Forecast

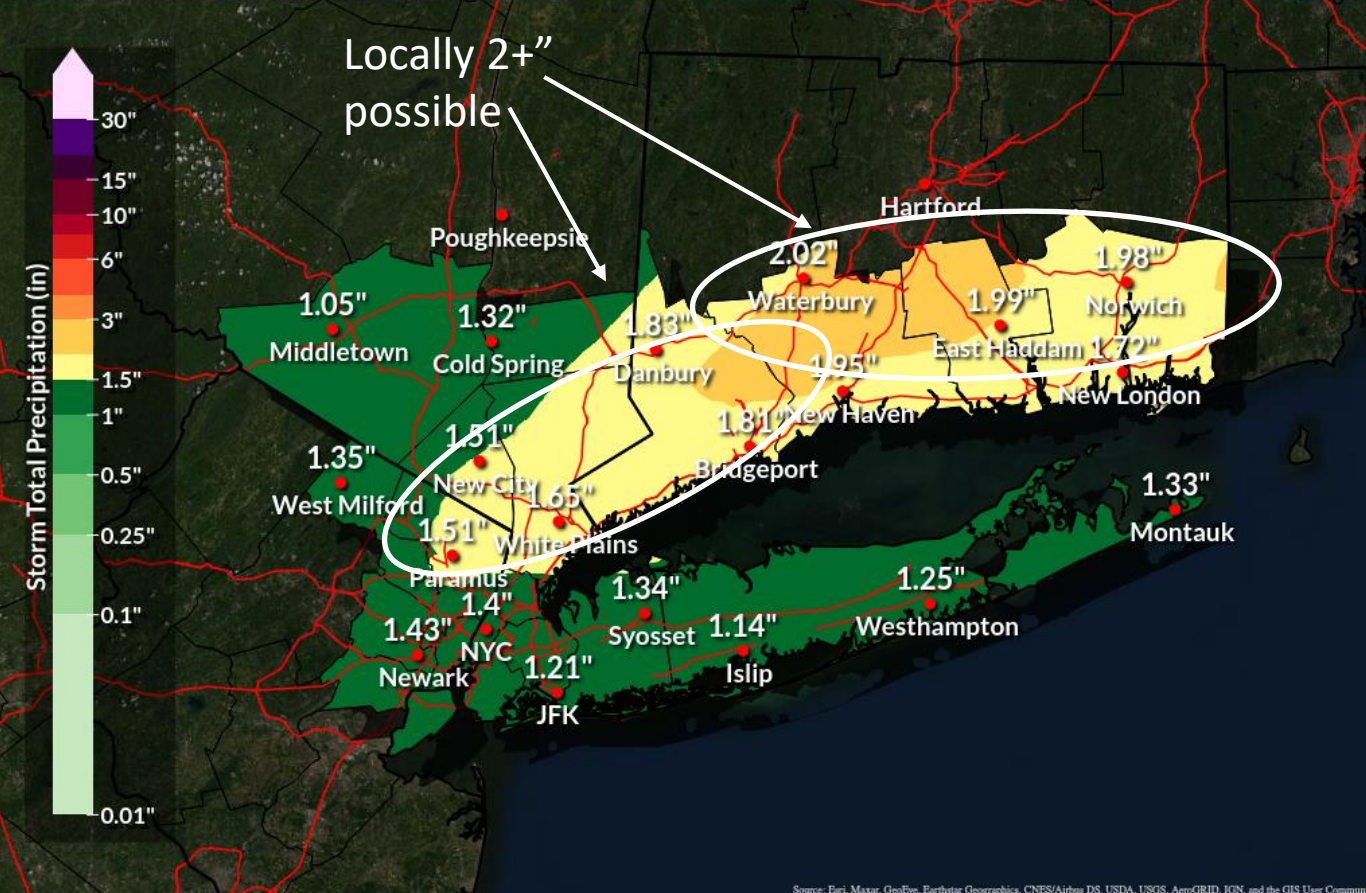
## Expected Rainfall/Liquid Equivalent - Official NWS Forecast

Weather Forecast Office  
New York, NY



Valid Fri 7:00PM through Sat 1:00PM EST

Issued Jan 11, 2024 7:39 AM EST



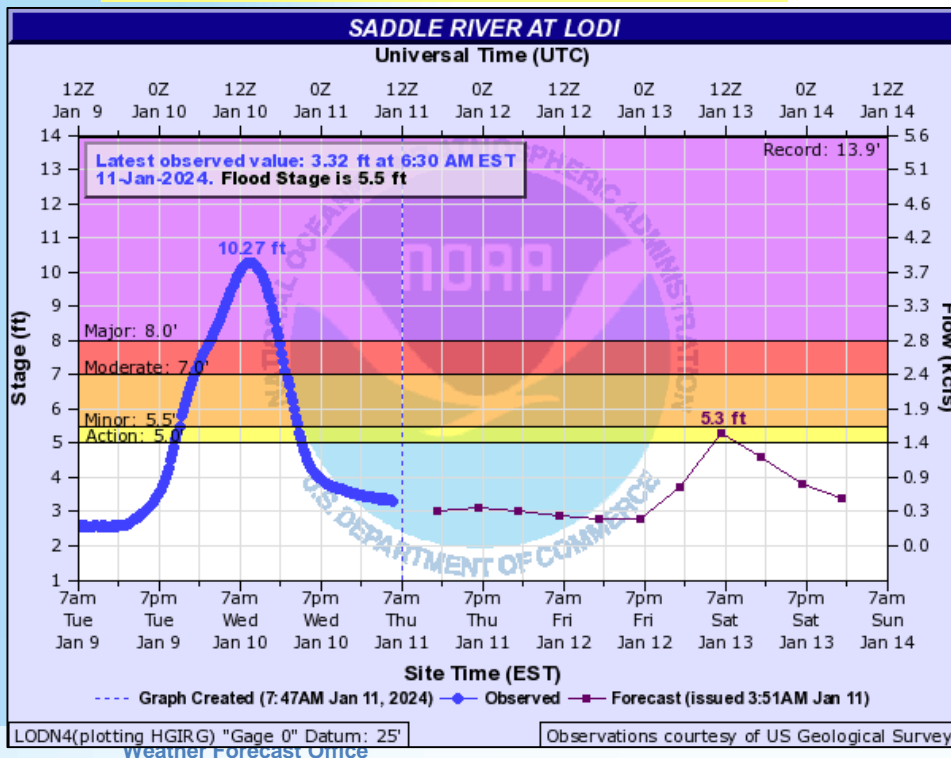
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

# Bergen County: Northeastern NJ River Flooding Potential

- ✓ Water levels will continue to remain below action stage through Friday evening.
- ✓ **Moderate flooding threat for several quick responding rivers and streams, including the Saddle River on Saturday.**
- ✓ **Moderate Flood Impacts:** Some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations.

For more details...See here for the latest [river forecasts](#), impact catalogs, and [inundation maps](#).

## Official RFC Forecast – Saddle River at Lodi



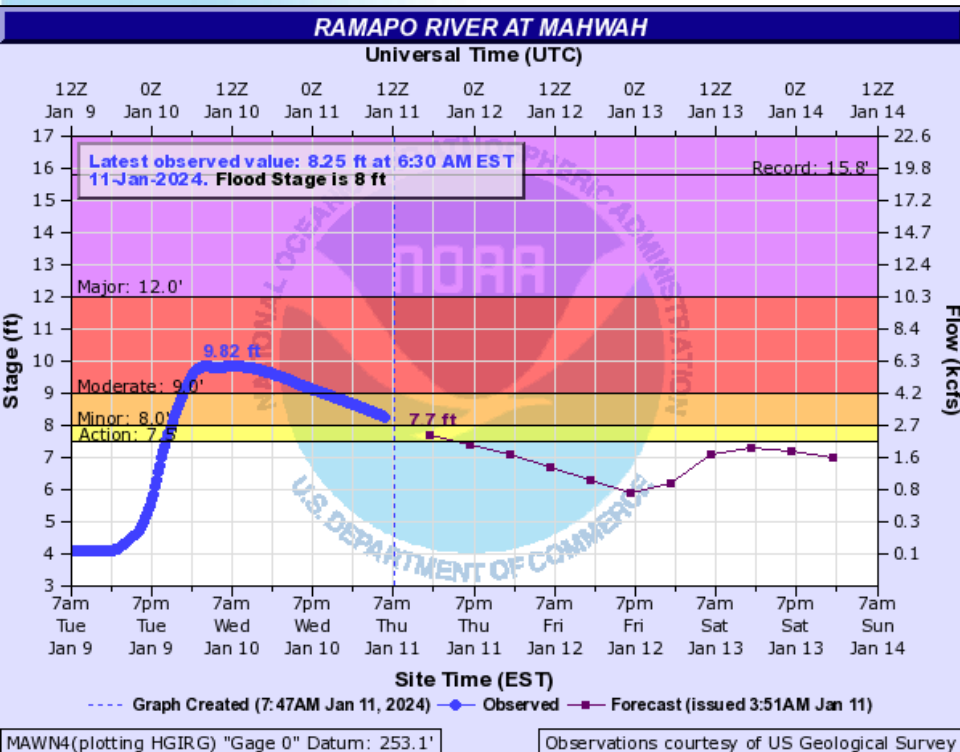
Continue to monitor river forecasts over the next 48 hrs as information on forecast rainfall amounts Friday Night into Saturday, and observed stream flows and soil moisture gets better resolved by hydrologic models.

# Bergen County: Northeastern NJ River Flooding Potential

- ✓ Minor flooding continues along the Ramapo River, expected to subside this morning.
- ✓ **Moderate flooding threat along several quick responding rivers and streams, including the Ramapo River, Hackensack, Hohokus and Pascack Friday Night into Saturday. Monitor forecast trends over the next 48 hrs.**
- ✓ **Moderate Flood Impacts:** Some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations.

For more details...See here for the latest [river forecasts](#), impact catalogs, and [inundation maps](#).

## Official RFC Forecast – Ramapo River at Mahwah NJ



**Continue to monitor river forecasts over the next 48 hrs as information on forecast rainfall amounts Friday Night into Saturday, and observed stream flows and soil moisture gets better resolved by hydrologic models.**



## Passaic County: Northeastern NJ River Flooding Potential

- ✓ Moderate to Major flooding continues along the Passaic River, possibly continuing through this weekend.
- ✓ Major Flooding Impacts: Extensive inundation of structures and roads, significant evacuations of people and/or transfer of property to higher elevations is likely.
  - ✓ Passaic River Impacts: At 9ft+, widespread flooding occurs in Fairfield, Wayne, and parts of Paterson.

Official RFC Forecast – Passaic at Little Falls

Probabilistic Forecast - Passaic at Little Falls

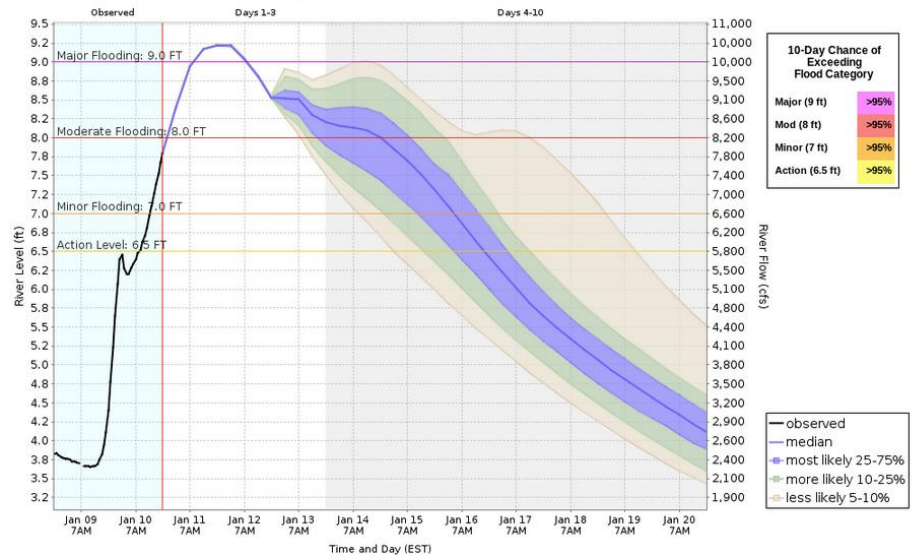
For official forecast details...See the latest [river forecasts](#) from WFO PHI, impact catalogs, and [inundation maps](#).

Continue to monitor river forecasts over the next 48 hrs as information on forecast rainfall amounts Friday Night into Saturday, and observed stream flows and soil moisture gets better resolved by hydrologic models.

**NAEFS - 10 Day River Level Probabilities**  
Based on North American Ensemble Forecast System Model Simulations  
Used to Estimate the Range of Possible River Levels



Jan 11 - Jan 21, 2024  
Passaic River at Little Falls, NJ



# Passaic County: Northeastern NJ River Flooding Potential

- ✓ Major flooding continues along the Pompton River. **Possible moderate flooding Friday Night into Saturday.**
- ✓ Major Flooding Impacts: Extensive inundation of structures and roads, significant evacuations of people and/or transfer of property to higher elevations is likely.
  - ✓ Pompton River Impacts: At 20ft+, widespread flooding occurs in Wayne, Pequannock and Pompton Lakes

Official RFC Forecast – Pompton River at Pompton Plains

Probabilistic Forecast - Pompton River at Pompton Plains

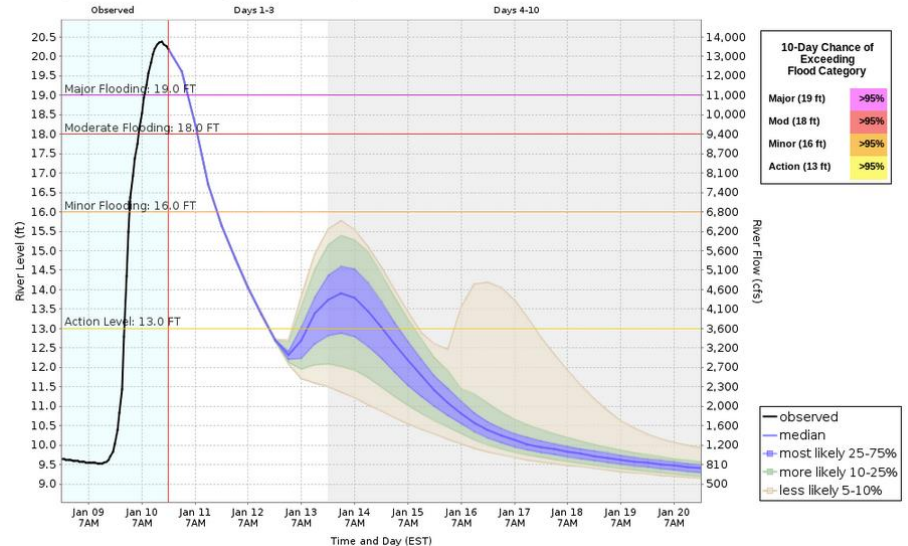
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**NAEFS - 10 Day River Level Probabilities**  
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Used to Estimate the Range of Possible River Levels



Jan 11 - Jan 21, 2024  
Pompton River at Pompton Plains, NJ



# Essex County: Northeastern NJ River Flooding Potential

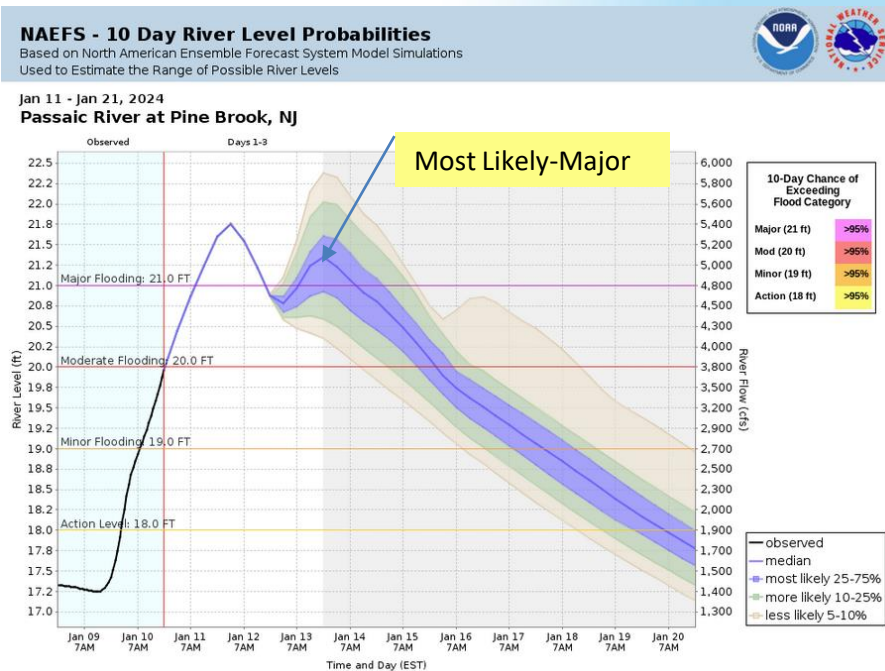
- ✓ Moderate to Major flooding forecast for the Passaic River at Pine Brook through the end of the week, possibly continuing through this weekend.
- ✓ Major Flooding Impacts: Extensive inundation of structures and roads, significant evacuations of people and/or transfer of property to higher elevations is likely.
  - ✓ Passaic at Pine Brook Impacts: At 21ft+, widespread flooding occurs in Fairfield and parts of Wayne and West Caldwell. Residences between Route 80 and Route 46 may flood in Fairfield.

Official RFC Forecast – Passaic at Pine Brook

Probabilistic Forecast - Passaic at Pine Brook

For official forecast details...See here for the latest [river forecasts](#) from WFO PHI, impact catalogs, and [inundation maps](#).

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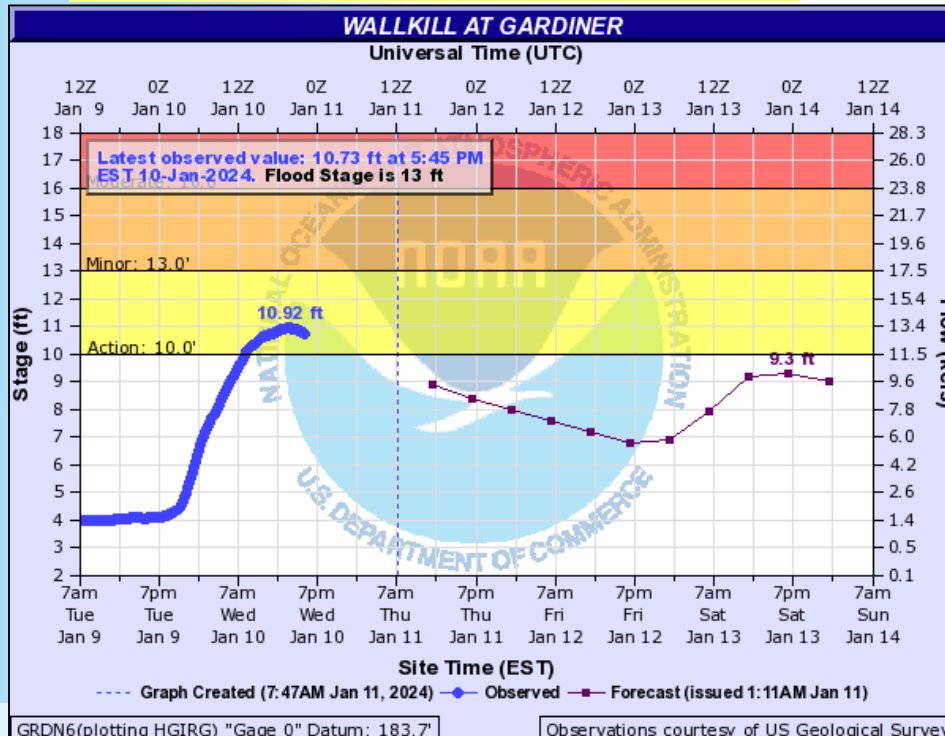


# Lower Hudson Valley River Flooding Potential

- ✓ Water levels will continue to subside below flood this evening.
- ✓ **Moderate flood threat for several quick responding small rivers and streams, particularly in Rockland and Westchester County, including Bronx River, Sprain Brook, Saw Mill River, and Hutchinson River.**
- ✓ **Moderate Flood Impacts:** Some inundation of structures and roads near streams, evacuations of people and/or transfer of property to higher elevations.

For more details...See here for the latest [river forecasts](#) and impact catalogs.

## Official RFC Forecast – Wallkill at Gardiner NY



Continue to monitor river forecasts over the next 48 hrs as information on forecast rainfall amounts Friday Night into Saturday, and observed stream flows and soil moisture gets better resolved by hydrologic models.

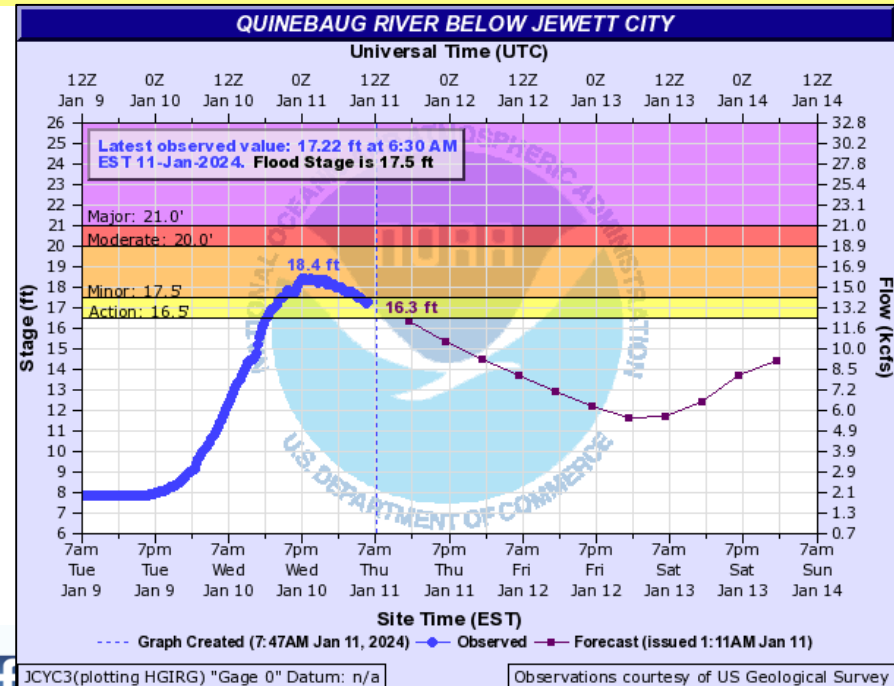
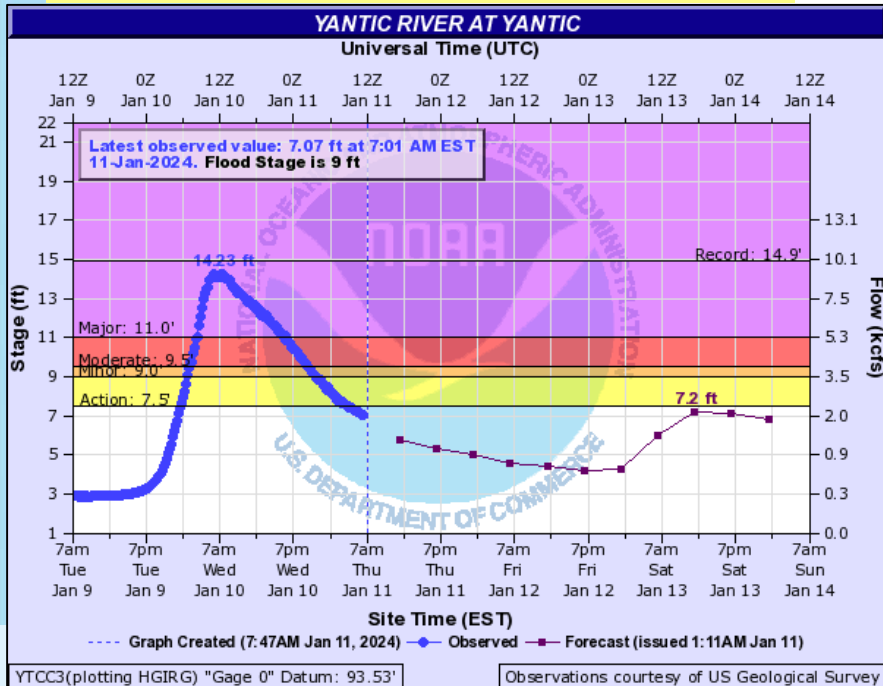
# CT River Flooding Potential

- ✓ Moderate to Major flooding continues along the Yantic and Still River, expected to gradually subside below flood through Thursday. Moderate flooding threat exists for the Yantic, Pomeraug and Still Rivers Friday Night into Saturday.
- ✓ **Moderate Flooding Impacts:** Extensive inundation of structures and roads, evacuations of people and/or transfer of property to higher elevations is likely.
- ✓ Minor flooding continues along a few quick responding small rivers and streams. Minor flood threat for exists for Quinebaug, Rippowam and Quinnipiac Rivers Friday Night into Saturday

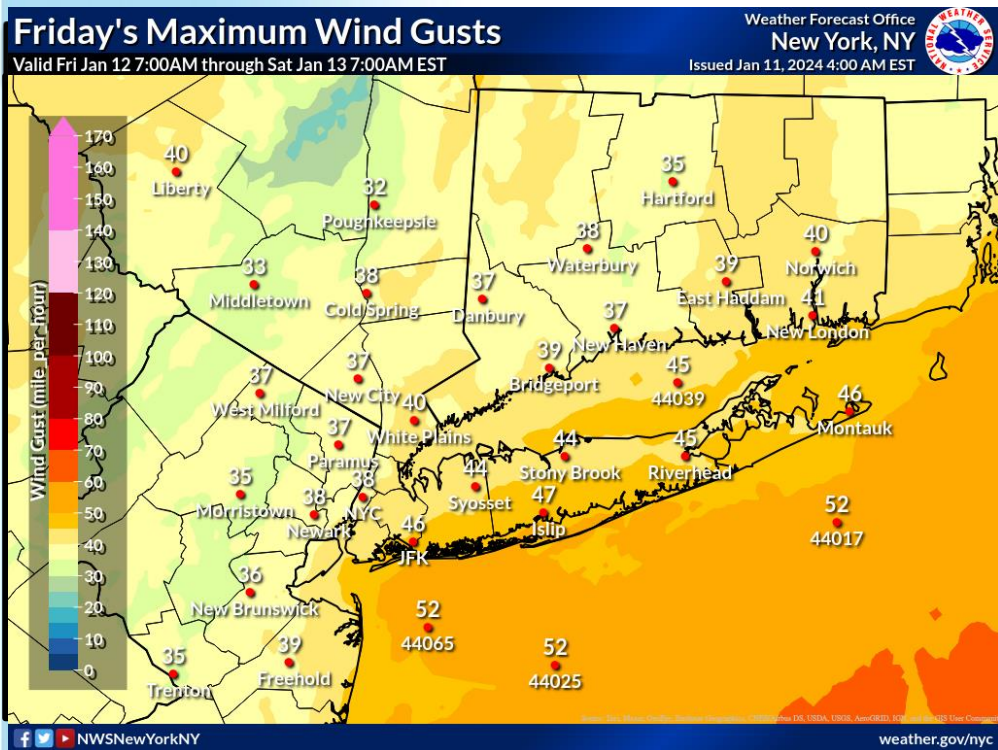
For more details...See here for the latest [river forecasts](#) and impact catalogs.

Official RFC Forecast – Yantic River at Yantic CT

Official RFC Forecast – Quinebaug River below Jewett City



# Strong Winds



## Hazards and Impacts:

### Coastal Strong Wind Potential for Friday Night into Saturday

- ✓ **Peak Winds:** South to southeast winds of 25 to 35 mph with gusts up to 50 mph Friday night. Strongest winds between 7pm Friday and 8am Saturday. Southwest winds of 20 to 30 mph with gusts up to 45 mph during the day Saturday.
- ✓ **Impacts:** Scattered tree limbs will likely be downed, as well as isolated trees and power lines. A few power outages possible. Poorly secured outdoor objects will be damaged or blown away.

## Forecast Challenges:

Southeast wind direction and saturated soils may increase the downed tree and powerline impacts.



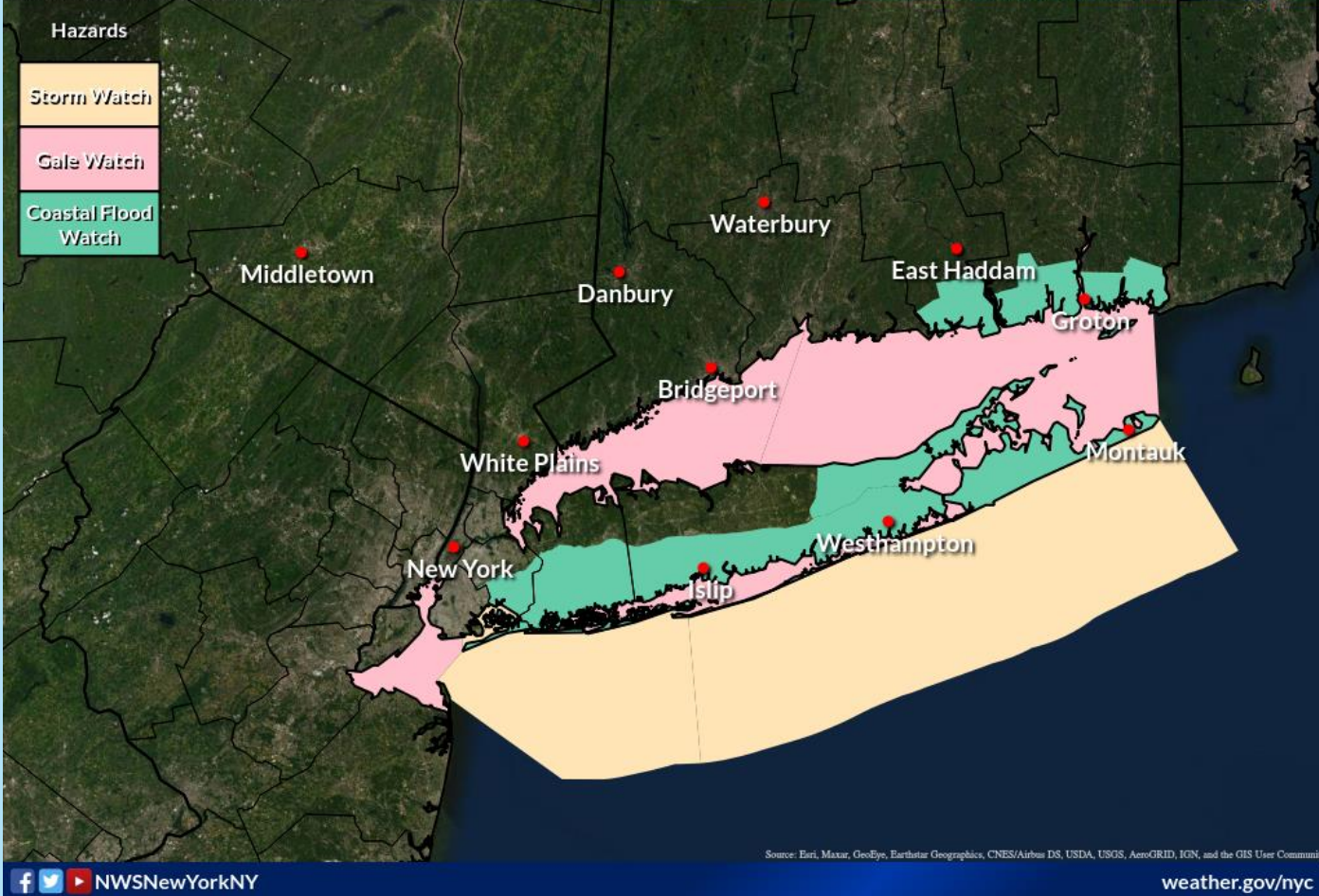


# Marine Headlines

Friday Evening into Saturday

Weather Forecast Office  
New York, NY

Issued Jan 11, 2024 5:46 AM EST



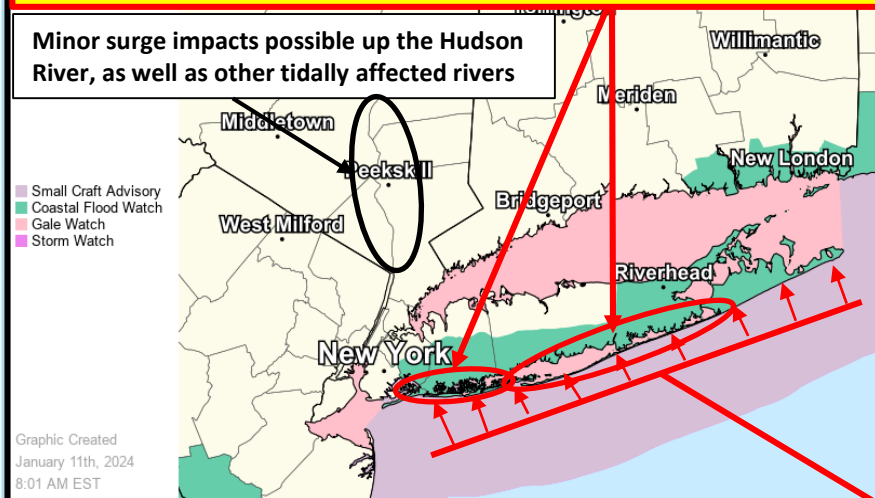
**Storm Watch: Ocean waters starting Friday night**  
**Gale Watch: Remaining waters starting Friday night**  
**High Seas on the ocean 12 to 16 ft, 4 to 6 ft on LI Sound**

# Coastal Flooding Hazard and Impacts

## Marine / Coastal Hazards

**Greatest threat areas for locally major coastal flooding during Saturday morning high tide (inundation of 3 ft above ground level).**

Minor surge impacts possible up the Hudson River, as well as other tidally affected rivers



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 see to the [NWS New York, NY Coastal Flooding Page](#)

### Forecast Challenges:

- ✓ Considerable spread exists in peak storm surge timing for Sat AM, dependent on time of windshift from SE gales to WSW gales. This will be the key determinant in how widespread the major flood threat will be. This will be refined over the next 36 hours.
- ✓ Freshwater runoff coinciding with this Sat AM high tide will exacerbate street and property flooding along tidally affected rivers.

### Coastal Flood Hazards and Impacts: Saturday Morning high tide:

- ✓ **Coastal Flood Watch Areas:** Widespread moderate coastal flooding (2 to 2 ½ ft above ground) likely for vulnerable coastal areas. **Locally major coastal flooding (3 ft above ground) possible for the red circled area.**
- ✓ **Potential Impacts:** Numerous low-lying and shoreline roads are likely to be closed in the affected area, with adjacent properties taking on water. Scattered flooding of basements and first floors of low-lying residence possible. Cars will likely be damaged if not moved to higher ground.

### Shoreline Hazards and Impacts:

- ✓ **For Friday Night into Saturday: 12-16' breaking waves along the oceanfront, resulting in widespread dune base erosion and scattered overwashes with Sat afternoon high tide. Isolated breaches or inundation is possible where dune structures have been severely compromised by previous storms.**
- ✓ 3 to 5' waves along southeast coastal CT and 4 to 8' along Orient Point shoreline resulting in beach erosion and wave splasher onto shoreline roads and properties.




### Timing:

- ✓ Widespread Minor to Moderate coastal flooding likely around the times of high tide Saturday morning. Major flooding potential in southern bays of LI and Queens





# Coastal Flooding Thresholds

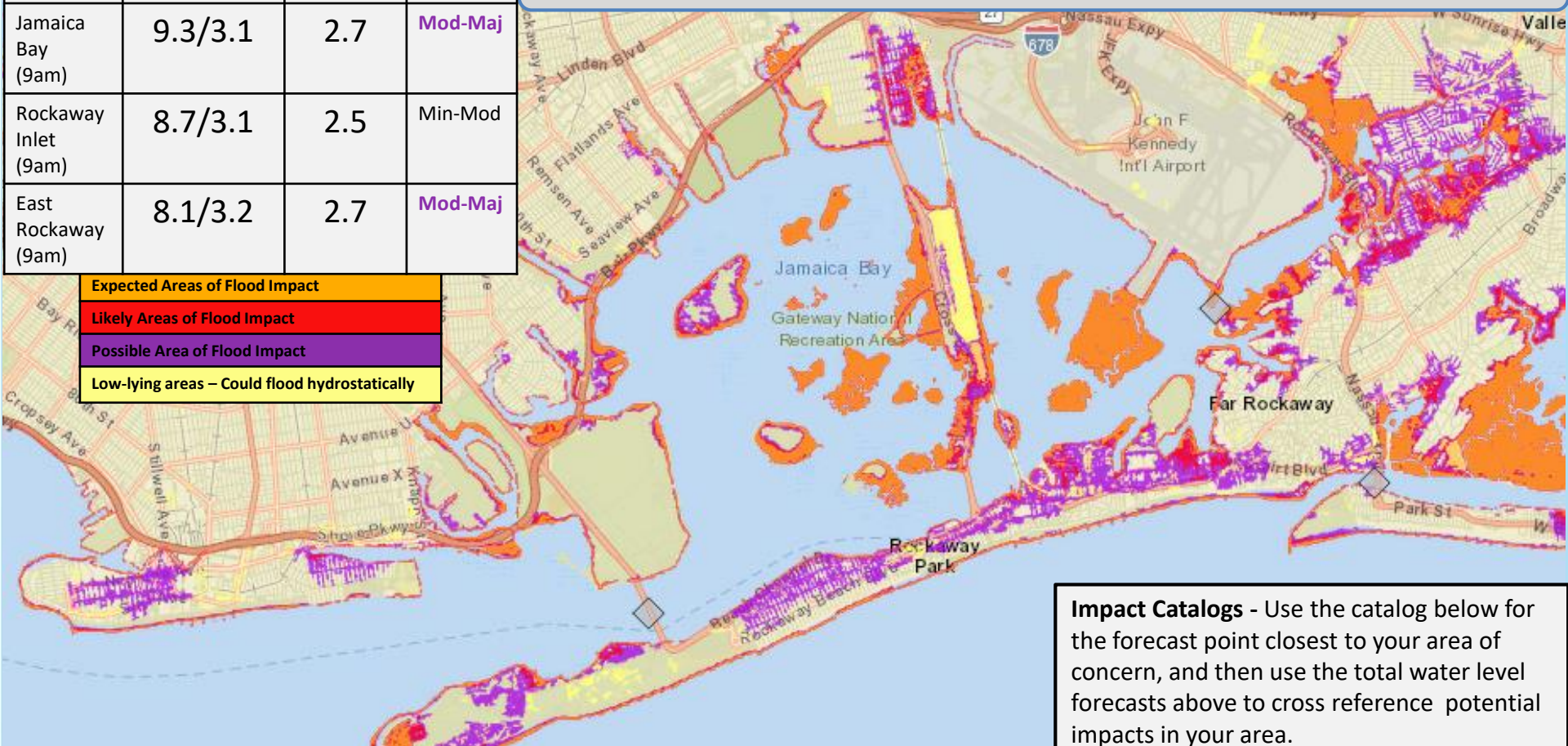
	Minor (CF Advisory)	Moderate (CF Warning)	Major ( <b>Warning</b> )
Picture	 Westport	 Lindenhurst	 New Haven
Hazard	<ul style="list-style-type: none"> <li>• <b>Low threat of property damage...</b>and no direct threat to life.</li> <li>• <b>1 to 2 ft of inundation</b> in shoreline and vulnerable areas.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



# Coastal Flooding – Potential Flood Impact Areas

Forecast Location (High tide Time)	Peak Water Level (ft) (MLLW/MHHW)	Departure at high tide (ft)	Flood Impact
Jamaica Bay (9am)	9.3/3.1	2.7	Mod-Maj
Rockaway Inlet (9am)	8.7/3.1	2.5	Min-Mod
East Rockaway (9am)	8.1/3.2	2.7	Mod-Maj

The map below shows the potential extent of flood impact (water above ground) during the Saturday morning high tides. Flooding will likely be as deep as 2 to 2 ½ ft in spots, possibly as much as 3 ft in spots.



**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](#)

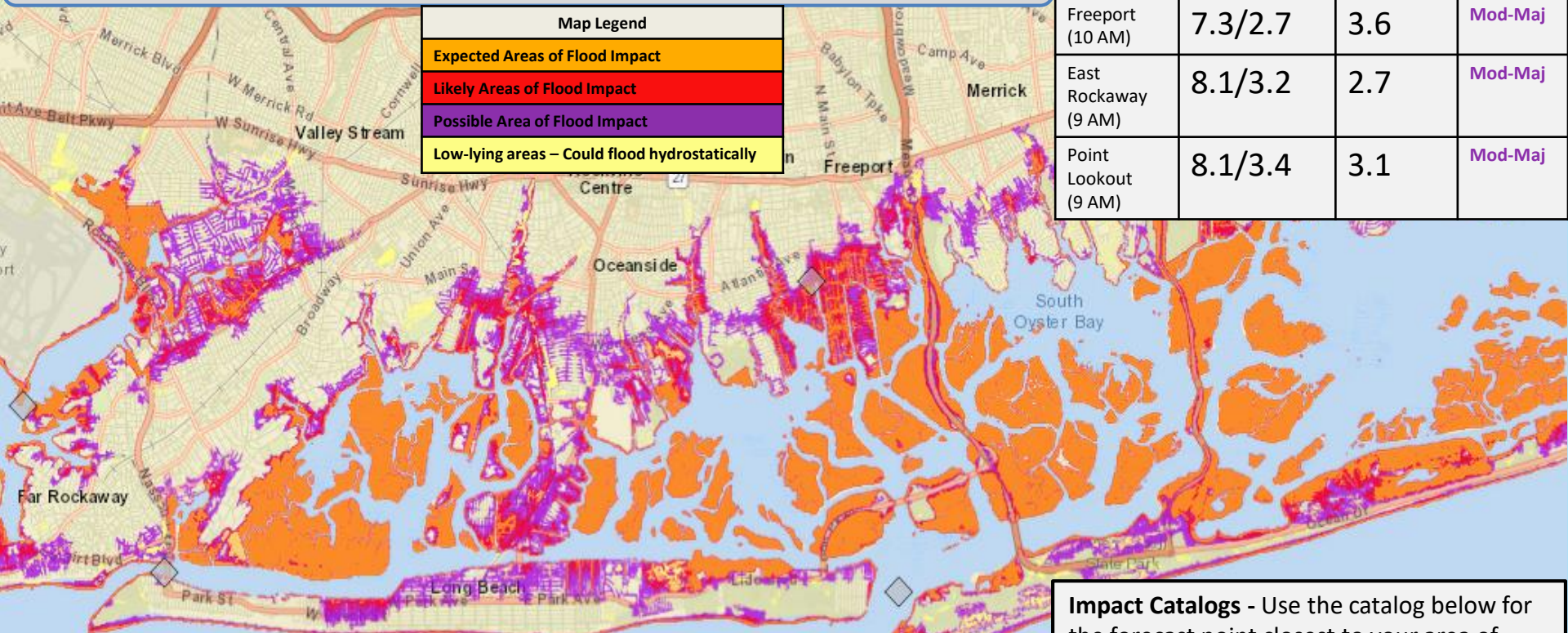
For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)



# Coastal Flooding – Potential Flood Impact Areas

The map below shows the potential extent of flood impact (water above ground) during the Saturday morning high tides. Flooding may be as deep as 2 to 2 1/2, locally 3 ft in spots.

Map Legend
Expected Areas of Flood Impact
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) (MLLW/MHHW)	Departure at high tide (ft)	Flood Impact
Freeport (10 AM)	7.3/2.7	3.6	Mod-Maj
East Rockaway (9 AM)	8.1/3.2	2.7	Mod-Maj
Point Lookout (9 AM)	8.1/3.4	3.1	Mod-Maj

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

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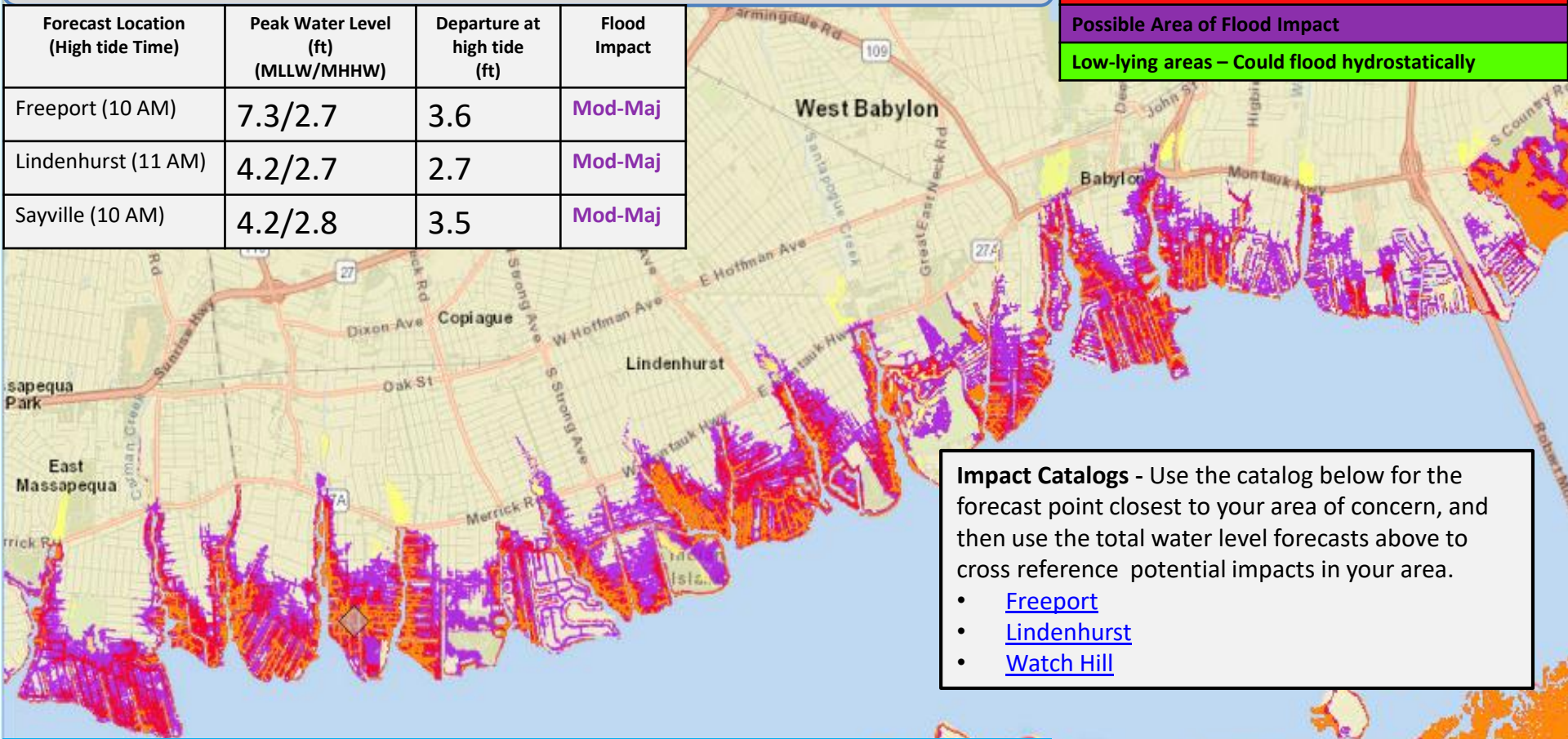


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Freeport (10 AM)	7.3/2.7	3.6	Mod-Maj
Lindenhurst (11 AM)	4.2/2.7	2.7	Mod-Maj
Sayville (10 AM)	4.2/2.8	3.5	Mod-Maj



**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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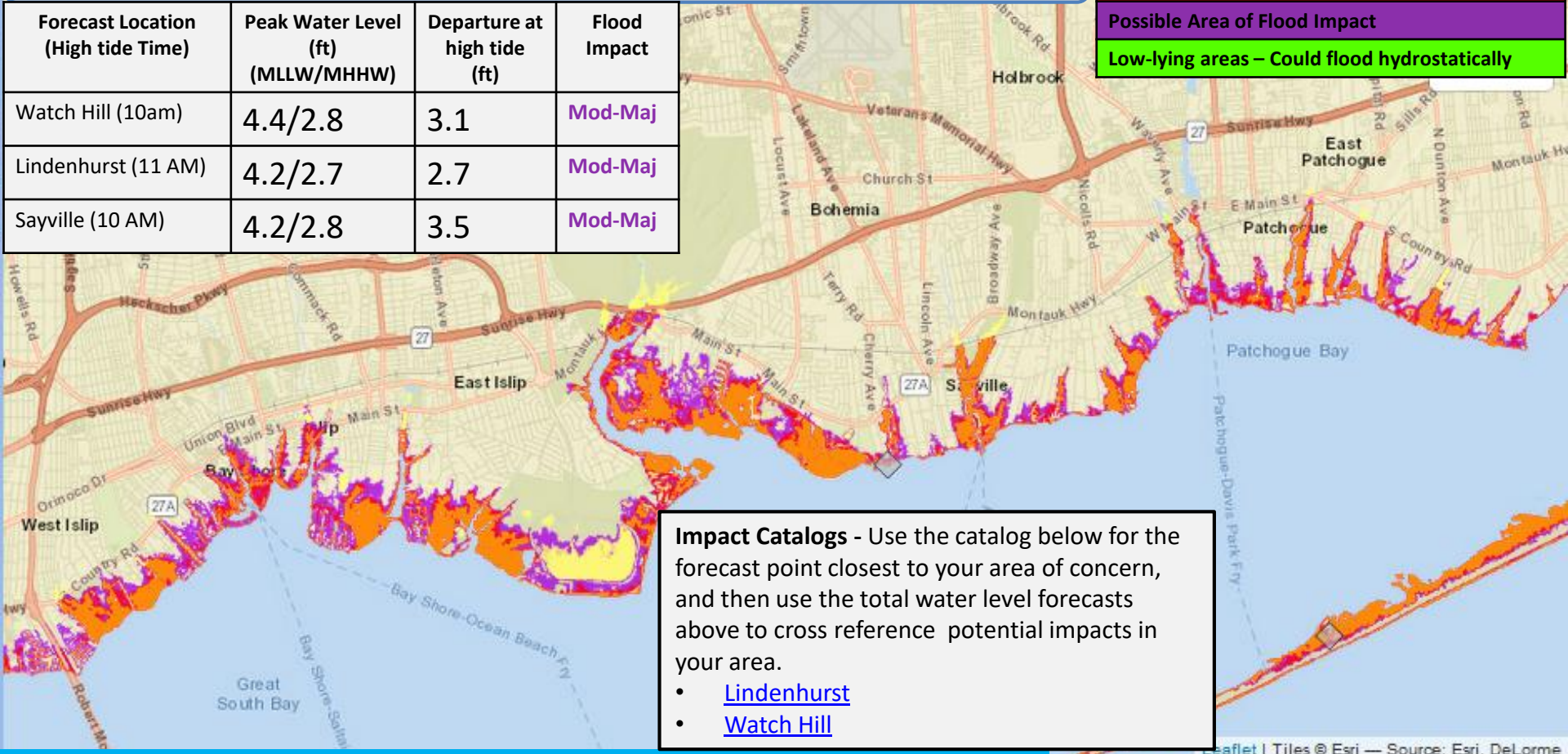


# Coastal Flooding – Potential Major Flood Impact Areas

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Map Legend	
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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) (MLLW/MHHW)	Departure at high tide (ft)	Flood Impact
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Sayville (10 AM)	4.2/2.8	3.5	Mod-Maj



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

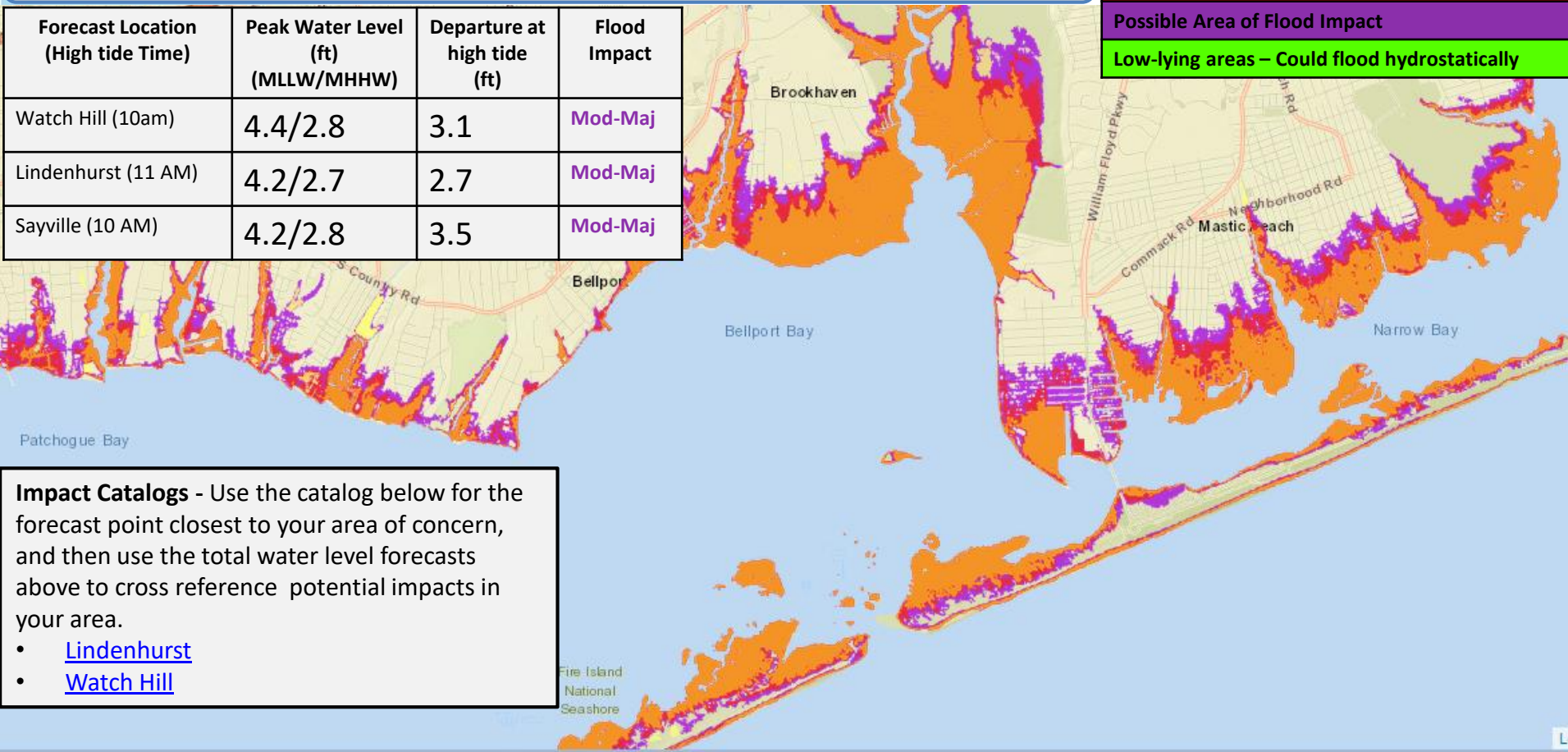
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- [Watch Hill](#)

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# Event Summary

- ✓ Widespread 1 to 2", locally higher, of rainfall late Friday into Saturday.
  - ✓ **Widespread moderate river flood threat across NE NJ, Lower Hudson Valley and SW CT into Thursday.**
  - ✓ Widespread minor urban and poor drainage flood threat, with isolated flash flood threat.
- ✓ **Widespread moderate (2 to 2 ½ ft inundation above ground) coastal flooding** for vulnerable coastal communities along Jamaica Bay, southern and eastern coastal of Long Island, and southeastern coastal CT during the Saturday morning high tide.
  - ✓ **Locally major (around 3 ft inundation above ground) coastal flooding is possible along the south shore bays and ocean front of Queens and Long Island.**
    - ✓ Elsewhere widespread minor to moderate coastal flooding, including up tidally affected rivers as well.
- ✓ Southeast winds 25 to 35 mph with gusts 45 to 50 mph likely Friday Night along the coast, shifting to the southwest Saturday, causing scattered tree impacts. Power impacts possible.
- ✓ 12 to 16 ft breaking surf causing widespread dune erosion and scattered overwashes for the ocean beachfront Friday Night into Saturday. Isolated dune breaches are possible where dunes are severely compromised.
- ✓ Storm/Gale conditions likely on all waters late Friday into Saturday.

