# Heavy Rain, Coastal Flooding, and Strong Winds March 9, 2024

**IMPACTS** 

This Evening into Monday

### **Overview**

- An intensifying low pressure system will approach today and track just north of the region tonight into Sun.
- This will likely bring widespread minor urban, poor drainage, and river flooding this eve into Sun morning and minor to moderate coastal flooding with the Sat Eve and Sun AM high tides.
- Behind the storm, strong winds are likely Sun morn through Mon.



### Flood Watches Warnings and Advisories

Flood Warning Flood Watch



Graphic Created March 9th, 2024

5:34 AM EST **National Oceanic and** Atmospheric Administration Heavy Rain - Flood Watch in Effect for portions of the area Late Sat into Sun AM

- Storm Total Rainfall: 1 to 2" likely, locally 2 1/2" possible this aft into early Sun AM. Highest amounts likely across NE NJ, LoHud, and SW CT.
- Peak Rainfall Rates: 3 to 6 hr period of 1/4" to 1/2"/ hr rates btwn 8pm tonight and 3am Sun. Low probability of brief 3/4" to 1"/hr rates.
- Urban/Poor Drainage Flooding: Scattered to widespread minor flooding of urban, poor drainage, and low-lying areas. Localized flash flooding threat for coastal and tidally affected riverine communities during times of high tide Sat PM and Sun AM.
- River/Stream Flooding: Minor flooding likely along a few to several quick responding small rivers, streams, particularly across NE NJ. There is the potential of moderate flooding if rainfall exceeds 2 1/2" in 6-12 hrs, particularly across NE NJ. Significant rises and minor flood impacts are likely for large stem rivers of CT through this weekend.

#### Coastal Flooding - Minor to Moderate with this Eve and Sun AM high tides

- Widespread minor coastal flooding (1-2 ft inundation above ground) likely for much of the coast with the Eve and Sun AM high tides. Moderate coastal flooding (2 to 2 ½ ft inundation above ground) possible along Western LI Sound tonight, with a more localized potential for Jamaica and Western Great South Bay tonight, and the eastern Great South Bay Sun AM.
- Scattered dune erosion along oceanfront tonight and Sun AM tides. Overwashes not expected.

#### **Strong Winds – Tonight into Mon**

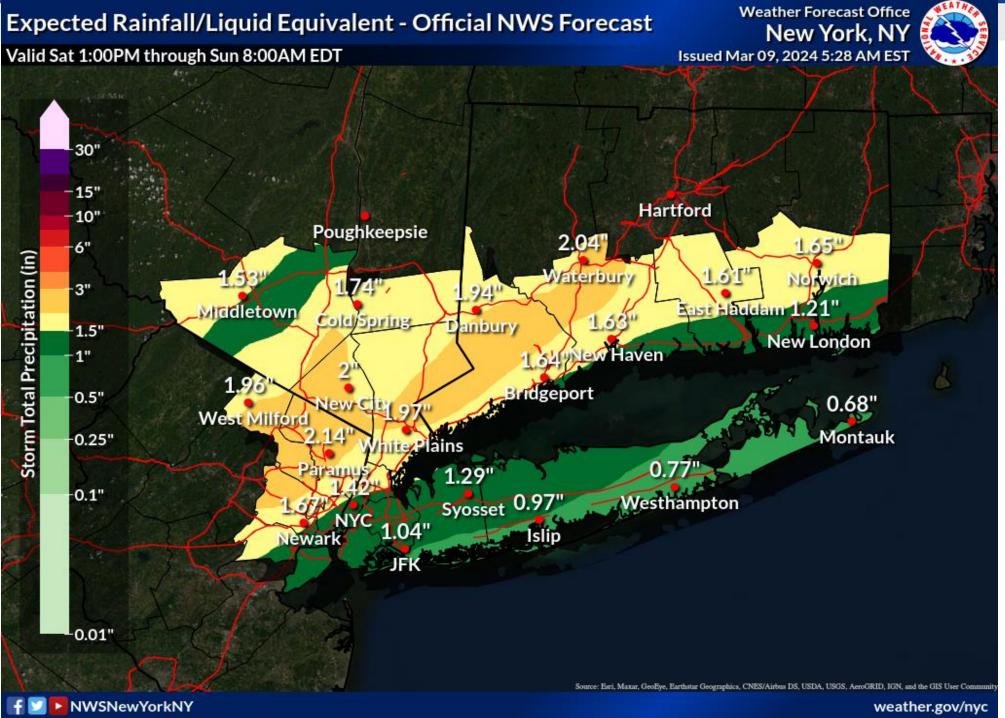
- Southeast winds tonight gusting up to 40 mph near the coast. West winds 15 to 25 mph gusts 30 to 40 mph late Sun AM into night, increasing to Northwest 25 to 35 mph with gusts to 45 to 50 mph Mon Morn. Scattered downed tree branches likely, with a few downed trees possible due to wet grounds. Power outages possible.
- Flood Watch: For NE NJ and Rockland County NY this Eve thru Sun AM.
  - Coastal Flood Watch: For locations adjacent to western Long Island Sound during tonight's high tide
  - Gale Warning and Gale Watch: For all waters this aft thru Sun Night
  - Soil moisture is running 80-100% above normal, with a majority of area rivers and streamflows running much above normal. This will allow for rainfall to more quickly become runoff and flood.
  - Heavy rainfall and runoff coinciding with the high tides (minor to locally moderate coastal flood levels) will exacerbate flooding along the coast and tidally affected waterways.

**National Weather Service New York, NY** 

Next Briefing Update: by 6pm



## **Storm Total Rainfall**

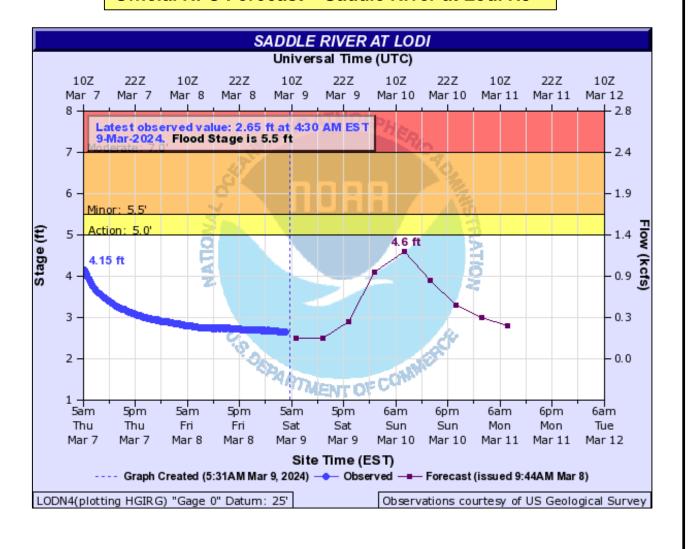






## Northeastern NJ River Flooding Potential

#### Official RFC Forecast - Saddle River at Lodi NJ



### **Probabilistic River Flooding Threat –**

Minor flooding threat along a few to several quick responding small rivers and streams, including the Saddle River, Ramapo River, Rahway, Passaic, Hackensack Rivers and Hohokus Brook "IF" greater than 1 ½" of rain is realized in 6-12 hr (Probability: Moderate)

 Impacts: Minimal or no property damage, but possibly some public threat (e.g., inundation of roads)

Moderate flooding threat along a few quick responding small rivers and streams "IF" greater than 2 ½" of rainfall is realized in 6-12 hr, particularly the Saddle and Ramapo Rivers (Probability: Low)

 Impacts: Some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations.

**Forecast Challenge:** The river flooding probability will increase if rainfall amounts trend higher than forecast. This will be refined over the next 24 hours. In addition, heavy rainfall and runoff coinciding with tonight's high tides will exacerbate flooding along the coast and tidally affected waterways.

For more details...See here for the latest <u>river forecasts</u>, impact catalogs, and <u>inundation maps</u>.





## Southern CT River Flooding Potential

#### Official RFC Forecast - Yantic River at Yantic CT



### <u>Probabilistic River Flooding Threat</u> –

Minor flooding threat along a few to several quick responding small rivers and streams "IF" greater than 2" of rainfall is realized in 6-12 hr, including the Still, and Rippowam Rivers. (Probability: Low)

Impacts: Minimal or no property damage, but possibly some public threat (e.g., inundation of roads)

Moderate flooding threat along a few quick responding small rivers and streams "IF" greater than 3" of rainfall is realized in 6-12 hr, including the Still and Rippowam Rivers. (Probability: Slight)

Impacts: Some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations.

Significant rises w/ a minor flooding threat continuing along slow responding, large stem rivers, including Connecticut and Housatonic River.

Forecast Challenge: Forecast Challenge: The river flooding probability will increase if rainfall amounts trend higher than forecast. This will be refined over the next 24 hours. In addition, heavy rainfall and runoff coinciding with tonight's high tides will exacerbate flooding along the coast and tidally affected waterways.

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## Lower Hudson Valley River Flooding Potential

### **Probabilistic River Flooding Threat –**

Minor flooding threat along a few to several quick responding small rivers and streams, including the Bronx River, Sprain Brook, Saw Mill River, Hutchinson and Mamaroneck Rivers in Westchester County, and Ramapo and Hackensack Rivers in Rockland County "IF" greater than 2" of rain is realized in 6-12 hr. (Probability: Low)

• Impacts: Minimal or no property damage, but possibly some public threat (e.g., inundation of roads)

Moderate flooding threat along a few quick responding small rivers and streams "IF" greater than 3" of rain is realized in 6-12 hr. (Probability: Slight)

• Impacts: Some inundation of structures and roads near stream, evacuations of people and/or transfer of property to higher elevations.

**Forecast Challenge:** The river flooding probability will increase if rainfall amounts trend higher than forecast. This will be refined over the next 24 hours. In addition, heavy rainfall and runoff coinciding with tonight's high tides will exacerbate flooding along the coast and tidally affected waterways.

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CHALLENGES

**FORECAST** 

## Minor to Moderate Coastal Flooding

#### **Through Sunday Morning high tides**



Southeast gales will likely develop this eve and continue into early Sun morning, before shifting to westerly gales. Peak surge will likely occur between high tides tonight into early Sun Am for much of the region, with strong westerly winds on Sunday morning likely relaxing surge except in the Great South Bay.

The exact timing of windshift will be critical to determine the magnitude of water levels for both high tide cycles. Forecast incorporates probabilistic surge guidance for tonight's high tide cycle to provide a safety margin.

#### Coastal Flooding Impacts: Minor to Moderate this Eve and Sun AM high tides

- Jamaica Bay and western Great South Bay communities Localized moderate coastal flooding (2 to 2 ½ ft inundation above ground) possible during both the Eve and Sun AM high tides.
- Western LI Sound communities Moderate coastal flooding (2 to 2 ½ ft inundation above ground) possible during tonight's high tides due to combination of elevated water levels and 3 to 4 ft breaking waves.
- Eastern Great South Bay communities Moderate coastal flooding (2 to 2 ½ ft inundation above ground) possible during Sun AM high tides as winds shift from to the west and slosh elevated water levels into areas east from Bay Shore to Mastic beach, including the north shore of Fire Island. There is low confidence in this scenario.
- Elsewhere, widespread minor coastal flooding (1 to locally 2 ft inundation above ground) likely for much of the coast with the Eve and/or Sun AM high tides.
- In addition, heavy rain during this evening's high tide will likely exacerbate urban and poor drainage flood issues for coastal and shoreline roads, including along tidally affected rivers.

#### **Shoreline Impacts:**

- Oceanfront 8 to 12 ft breaking surf will likely cause scattered dune erosion and damage to dune structures during Sat PM and Sun AM high tides. Overwashes are not expected.
- Western Long Island Sound (particularly coastal Westchester and Coastal SW CT) and Twin Forks of LI – Breaking waves of 3 to 5 ft during tonight's high tide may result in beach erosion and localized damage to shoreline structures. Wave splashover onto shoreline roads and properties will likely exacerbate flooding.

Gale conditions likely on all waters this aft thru Sun night.

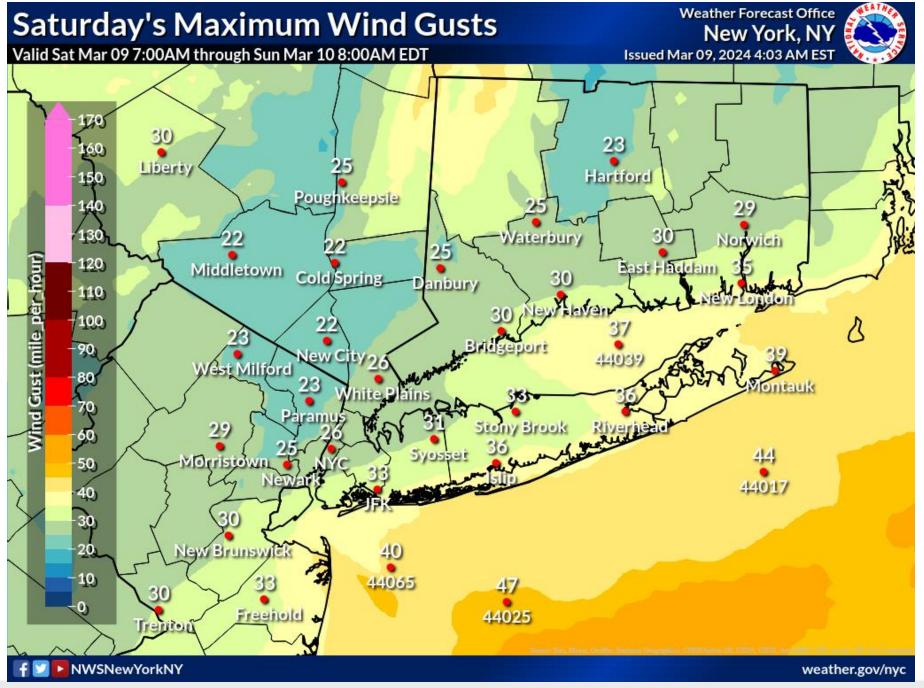
& IMPACTS

**HAZARDS** 

- Coastal Flood Watch: Locations adjacent to western LI Sound for tonight's high tide cylce
- Gale Warning and Gale Watch: For all waters this aft thru Sun Night



## **Maximum Wind Gust Forecast**







## **Maximum Wind Gust Forecast**

