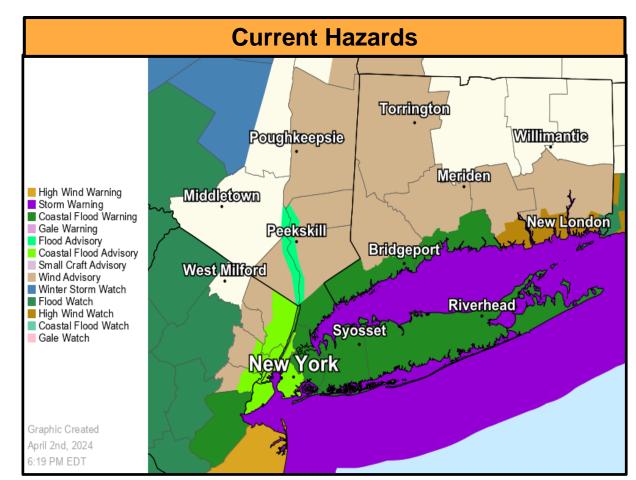


# Major storm system Wednesday into Thursday Morning

**Decision Support Briefing #1** 

## ...What Changed?...

- Strong to damaging wind threat has increased. High Wind watch and Wind advisories have been issued for Wed into Wed Night. Storm warnings have been issued for all waters for Wednesday.
- Threat for widespread moderate coastal flooding has increased. Coastal Flood warnings and advisories have been issued for Wed into Thu Am.





# Major storm system Wednesday into Thursday Morning

**Decision Support Briefing #4** 

## Key Messages...

- ✓ Strong to damaging winds late Wed AM into Wed Night, with gusts to 60 mph possible along the coast.
- $\checkmark$ 2 to 3 inches of rainfall, locally 3  $\frac{1}{2}$ " through late Wed Night. Widespread minor urban, poor drainage and riverine flooding Wed aft into Wed night, with a localized flash flood threat.
- ✓ Widespread moderate (2 to 3 ft inundation above ground) coastal flooding threat during the Wed aft/eve and early Thu AM high tides. Locally major flooding (3+ ft of inundation above ground) possible for vulnerable communities along the southern and eastern bays of Long Island with the early Thu AM high tide.
- ✓ Scattered areas of dune erosion and localized overwashes likely during the times of high tide Wed aft into Thu AM. Significant beach erosion and flooding expected.
- ✓ Storm conditions on all waters Wed into Wed night.
- ✓A light accumulation of sleet and snow possible for higher terrain of Orange County late Wed night into Thu AM





# Heavy Rain and Flood Potential Wed Aft into Eve April 2, 2



### **Hazards:**

- ✓ **Storm Total Rainfall:** 1 <sup>3/4</sup> to 2 <sup>3/4</sup> " likely, locally 3+" possible.
- ✓ **Rainfall Rates:** ¼ " to ½ "/hr rates at times Wed aft into eve. Potential for brief period of ¾ " to 1"/hr rates Wed eve with heavy downpour and possible embedded thunderstorms.

### Impacts:

- ✓ Urban/Poor Drainage Flooding: Widespread minor flooding of urban, poor drainage, and low-lying areas is likely. Localized flash flooding threat of shoreline and riverine roads Wed aft/eve with combined heavy rainfall, runoff and high tide.
- ✓ River Flooding: Minor flooding likely along several quick responding small rivers and streams across NE NJ, Rockland and Westchester NY, and S CT. Minimal or no property damage, but possibly some public threat (e.g., inundation of roads). Low and isolated probability (< 20%) for moderate river flooding at this time.

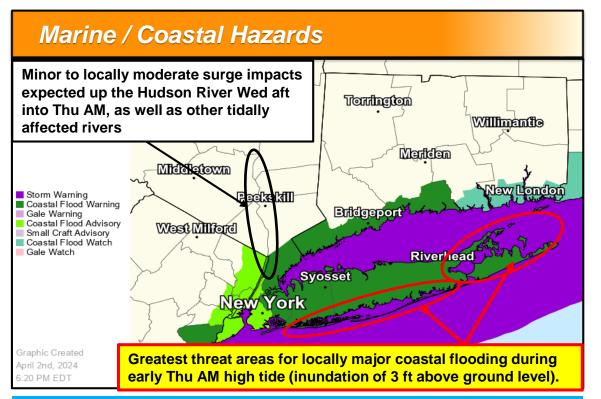
### Timing:

✓ Light to occasionally moderate rain this evening. Rain tapers off some overnight before becoming moderate to heavy Wednesday afternoon into Wednesday night. Rain will taper off early Thursday morning.





## Widespread Moderate Coastal Flooding Wed Aft into Thu AM



### **Coastal Flood Hazards and Impacts:**

- Great South Bay and Twin Forks communities (Coastal Flood Warning)Widespread moderate coastal flooding (2 to 3 ft inundation above ground) expected
  during both the Wed aft/eve and early Thu AM high tides, with locally major flooding (3+
  ft inundation above ground) possible for the early Thu AM high tide.
- Western LI Sound communities (Coastal Flood Warning) Moderate coastal flooding (2 to 2 ½ ft inundation above ground) expected during both the Wed eve and early Thu AM high tides.
- Rest of the coast, including tidally affected rivers of NE NJ and LoHud:
   Widespread minor coastal flooding (1-2 ft inundation above ground) likely during both
   the Wed aft/eve high tide, with widespread minor to moderate flooding likely for the
   early Thu AM high tides.

### **Shoreline Hazards and Impacts:**

- Oceanfront 6 to 10 ft of breaking surf will cause scattered dune erosion and localized overwashes during the times of high tide Wed aft into Thu AM. Widespread beach flooding and erosion are expected as well.
- Western Long Island Sound and Twin Forks of LI Breaking waves of 3 to 7 ft during Wed eve high tide will result in beach erosion and localized damage to shoreline structures. Wave splashover may locally exacerbate flooding of shoreline roads and properties.

### **Forecast Challenges:**

- The combination of heavy rain and elevated water levels on Wednesday afternoon into evening may cause localized flash flooding along some shoreline roads and properties.
- The coverage and magnitude of flooding late Wednesday Night into early Thursday morning will be dependent on track of low pressure, and timing of windshift from easterly gales to northwest gales. This will be refined over the next 24 hours.







# **Coastal Flooding Thresholds**



	8			
	Minor (CF Advisory)	Moderate (CF Warning)	Major (Warning)	
Picture	Westport	Lindenhurst	New Haven	
Hazard	<ul> <li>Low threat of property damageand no direct threat to life.</li> <li>1 to 2 ft of inundation in shoreline and vulnerable areas.</li> </ul>	<ul> <li>Elevated threat of property damagewith a risk to life if one places themselves in unneccesary danger.</li> <li>2 to 3 ft of inundation in shoreline and vulnerable areas.</li> <li>Minor to no inundation of surrounding coastal communities.</li> </ul>	<ul> <li>Significant threat to life and property.</li> <li>3-5+ ft of inundation 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	A few shoreline and vulnerable roadways and adjacent properties will experience shallow flooding.	<ul> <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> <li>Evacuations will be necessary for the most vulnerable shoreline and coastal areas.</li> <li>Many coastal communities will experience damagewith 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>	

Potential Major Flood Impact Areas Thu am

The map below shows the potential extent of flood impact (water above ground) during the late Wed night/early Thu AM high tides. Flooding may be as deep as 3 ft in spots.

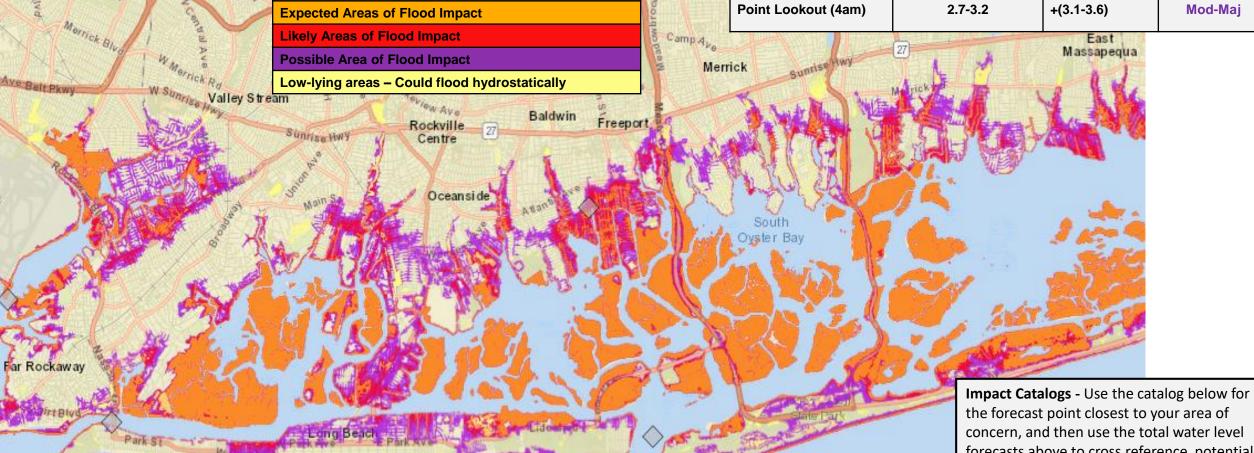
For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the

etc.) in your area of concern please go to the NWS New York, NY Coastal Flooding Page

potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology,

**Map Legend** 

	Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
	Freeport (5am)	2.7-3.2	+(4.0-4.5)	Major
Palla.	East Rockaway (4am)	2.6-3.1	+(2.8-3.4)	Mod-Maj
	Point Lookout (4am)	2.7-3.2	+(3.1-3.6)	Mod-Maj



concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

• Freeport

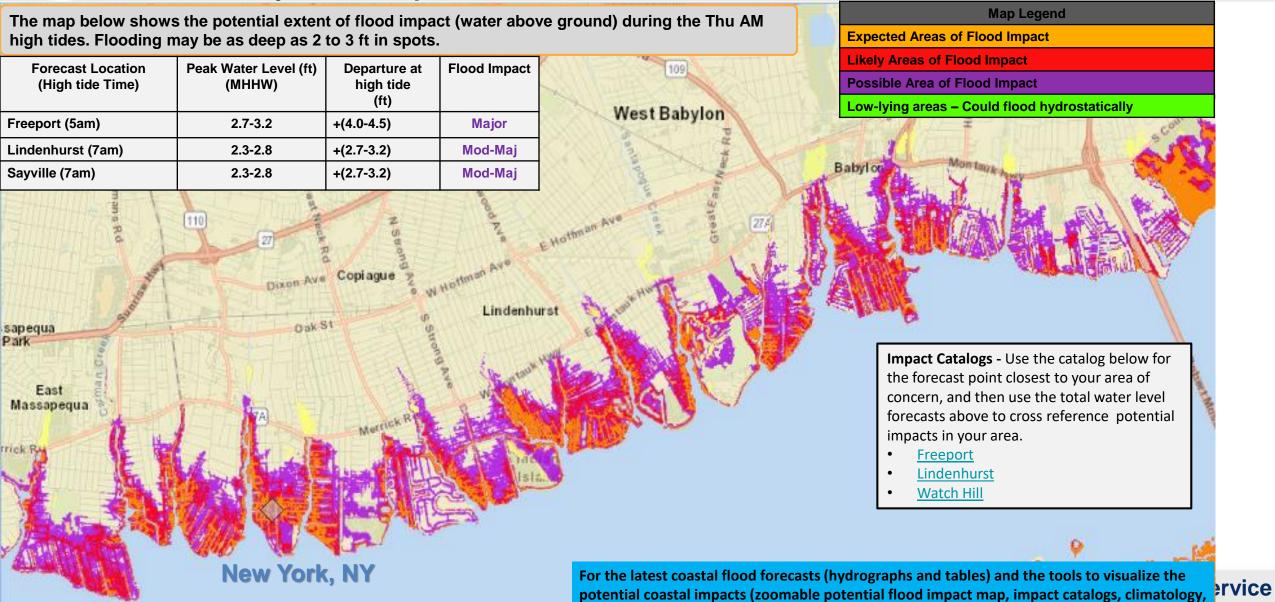
- East Rockaway
- Point Lookout

r, NY



# Coastal Flooding

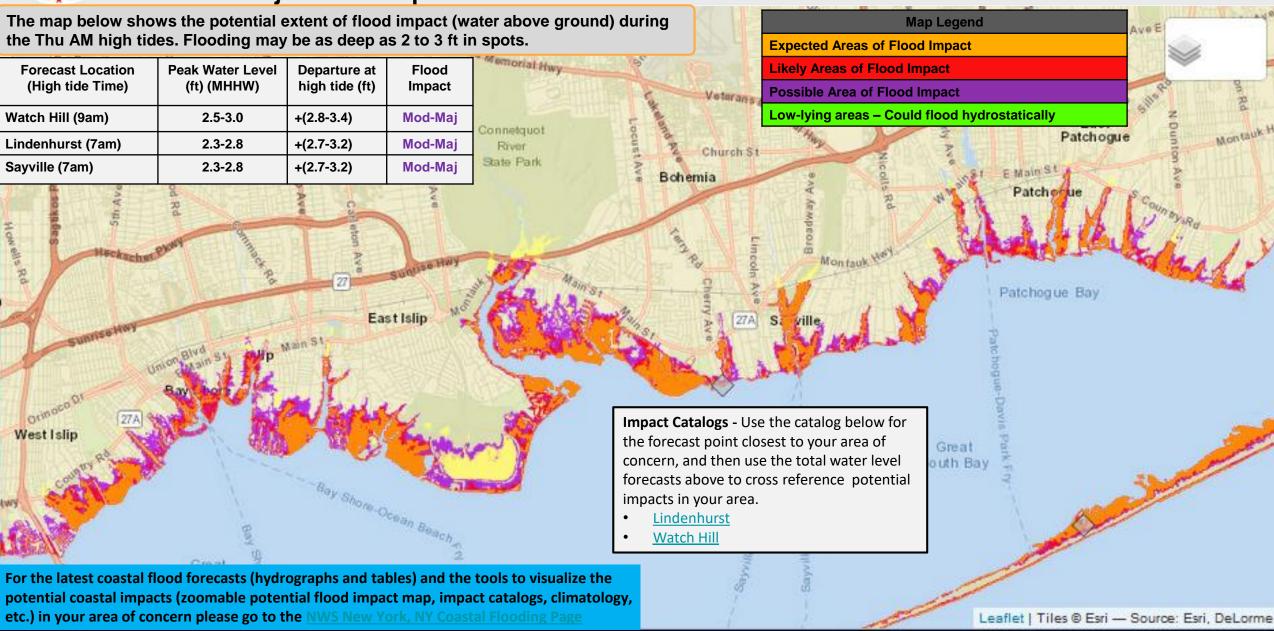
## **Potential Major Flood Impact Areas Thu Am**



etc.) in your area of concern please go to the NWS New York, NY Coastal Flooding Page



**Potential Major Flood Impact Areas Thu Am** 





## **Potential Major Flood Impact Areas Thu Am**

Bellpo

Fire Island

National

Seashore

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

Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Watch Hill (9am)	2.5-3.0	+(2.8-3.4)	Mod-Maj
Lindenhurst (7am)	2.3-2.8	+(2.7-3.2)	Mod-Maj
Sayville (7am)	2.3-2.8	+(2.7-3.2)	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.

- <u>Lindenhurst</u>
- Watch Hill

Patchogue Bay

**Likely Areas of Flood Impact** Brookhaven **Possible Area of Flood Impact** Low-lying areas - Could flood hydrostatically Narrow Bay Bellport Bay 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

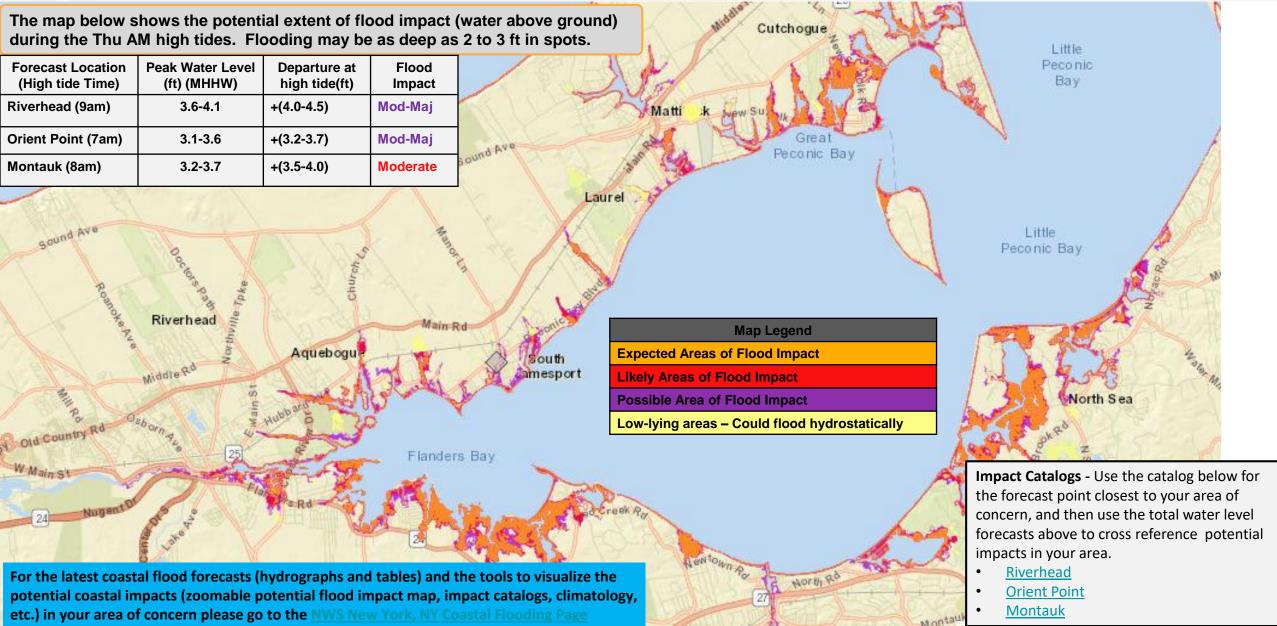
Map Legend

**Expected Areas of Flood Impact** 

**New York, NY** 

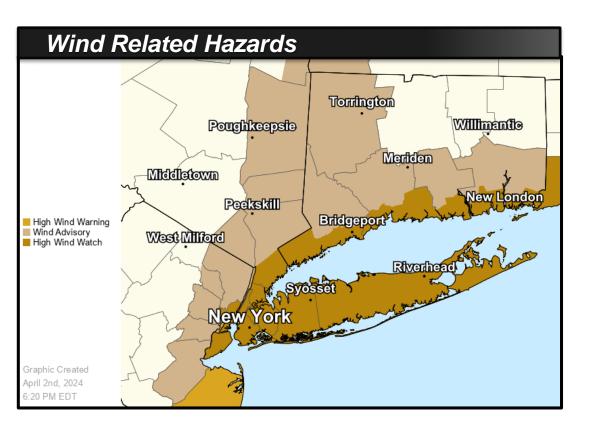


Potential Major Flood Impact Areas Thu Am





## Strong to Damaging Winds Wed aft into Wed Night



## **Hazards and Impacts**:

#### √ Hazards:

- High Wind Watch for Long Island, NYC/NJ metro, and Coastal Westchester and CT
- ✓ Wind Advisory for interior portions of NE NJ, LoHud, and S CT.
- ✓ Storm Warnings for all waters Wed into Wed Night

#### √ Peak Winds:

- ✓ Along the Coast, including NYC: Easterly winds 25-40 mph with gusts 55 to 60 mph Wed aft into Wed Night.
  - ✓ Impacts: Damaging winds may blow down numerous tree limbs, as well as scattered trees and power lines. Travel will be difficult, especially for high profile vehicles.
- Across Interior: Easterly winds 15-25 with gusts to 50 mph for the interior late Wed aft into Wed Night.
  - ✓ Impacts: Strong winds will blow down scattered tree limbs, as well as a few trees and power lines could be downed.
- ✓ Timing: Winds will gradually subside late Wed night before shifting northwest
  Thu AM.



# Wednesday's Wind Gust Forecast

