



First Nor'easter of the Season

Dates of event: Oct. 12-14, 2025 Report Prepared: Oct. 18, 2025

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A powerful October nor'easter brought three consecutive rounds of tidal flooding to Highlands. Furthermore, gusty winds and rain affected the borough.

The nor'easter, which had elements of a tropical storm in its structure, affected the town from Sunday, Oct. 12 to Tuesday, Oct. 14. The main impacts from the storm were on Oct. 12-13, with a combination of flooding high tides, gusty winds, and rain.

Coastal flood alerts were put into place by the National Weather Service (NWS) in Mount Holly for Highlands. The NWS covered the three flooding high tides to alert stakeholders of the dangers the flooding tide faces.

Three consecutive high tides rose into flood stage at Sandy Hook (bayside) tidal station, the closest recording location to Highlands.

Date	Time in Flood Stage	Peak Tide Height	Peak Tide Time	Peak Flood Stage
10/12/2025	11:42AM to 2:00PM	7.16 feet	12:48PM	Minor
10/3/2025	12:30AM to 3:54AM	7.49 feet	2:12AM	Minor
10/13/2025	11:06AM to 3:48PM	7.71 feet	1:42PM	Moderate

The four high tides that brought flooding to Highlands. Data taken from the <u>Sandy Hook station</u> <u>via the National Oceanic and Atmospheric Administration</u>. Tide height is above Mean Lower Low Water (MLLW).

The most significant high tide was the daytime tide on Oct. 13. It was the only one in moderate flood stage, where property damage typically begins. The 7.71-foot crest was the 65th highest crest since records in Sandy Hook began in 1910. In other words, this high tide ranked the highest 0.15% of days on record.

The wind direction protected Highlands from even higher tides. Winds around the counterclockwise spinning low pressure were from the northeast. This meant the fetch of onshore winds was short, limited to the distance between Highlands and Brookyln, NY (12 miles). In comparison, most locations at the Jersey Shore experienced at least two tides in moderate flood stage, thanks to the longer fetch of onshore winds.

For reference, the tide gauge in Waretown, Ocean County, reported their highest tide on record.





In all, Sandy Hook's tide gauge experienced flooding for 9 hours and 24 minutes during the nor'easter.

Flood Stage	Time in Flood Stage	Percent of flood time (9 hr. 24 min. total)
Major	Never occurred	0%
Moderate	6 minutes	1.1%
Minor	9 hours, 18 minutes	98.9%

Winds were stiff. A wind advisory was put into place for Sunday and Monday by the NWS for minor damage expected from the gusts.

The closest National Oceanic and Atmospheric Administration weather sensor with wind to Highlands is in Monmouth Beach. Here, winds continuously gusted 30-40 mph from 9 a.m. Oct. 12 to 9 p.m. Oct. 13. The peak gust was 39 mph, hit multiple times on Oct. 13.

Sustained winds, or constantly blowing winds, were 15 to 25 mph for much of the two-day period.

Rainfall exaggerated the impact of tidal flooding. A total of 2.82 inches of rain fell at the CoCoRaHS volunteer weather observer gauge in Red Bank, the closest reasonably accurate precipitation sensor to Highlands.

While significant, this fell over the span of four days (Oct. 11-14). While most of this occurred on Oct. 12 and 13, there was likely enough rain for isolated roadway flood conditions based on precipitation alone.

How ShorelySafe Responded

ShorelySafe was in close contact with Highlands before and during the event. Joe Martucci, Kathy Shaw and Tony Flores initially spoke on Oct. 9 about public, borough specific coverage of the storm. This was during the recording of Highlands' first two evergreen videos for town's use.

On Oct. 10, the first public video for the storm was released. This went to the <u>Highlands</u> <u>Emergency Management's official Facebook page</u>, as well as the <u>Highland's website</u>. The video earned 2,600 views, 23 engagements and 12 shares on Facebook alone.

On Oct. 12, an in-event, Highlands specific video was created. This was also released to <u>Facebook</u> and Highlands' website. This was watched over 2,200 times on Facebook alone, with nine engagements and 5 shares. Tony Flores noted that the Facebook traffic was much higher than usual for similar storms, showing public engagement in the hyper local videos.





Furthermore, Tony Flores and Joe Martucci were in constant contract before and during the storm. Tony sent multiple photos and videos to Joe, documenting the location of each element. This will then be used to create a storm archive for future content.