

Nuisance Flood Plan – Monitoring Report 2022 Quarterly Threshold Review

Q1	Q2	Q3	Q4
<u>1</u> High Tide	<u>1</u> High Tide	<u>1</u> High Tide	<u>2</u> High Tide
<u>2</u> Heavy Rainfall >1"	<u>3</u> Heavy Rainfall >1"	<u>6</u> Heavy Rainfall >1"	<u>5</u> Heavy Rainfall >1"
<u>0</u> days >1' Depth	<u>0</u> days >1' Depth	<u>0</u> days >1' Depth	<u>2</u> days >1' Depth
<u>1</u> day Duration	<u>3</u> day Duration	<u>2</u> day Duration	<u>2</u> day Duration
<u>avg</u> Extent	<u>avg</u> Extent	<u>avg</u> Extent	<u>avg</u> Extent
<u>1/Qtr</u> Frequency	<u>1/Qtr</u> Frequency	<u>1/Qtr</u> Frequency	<u>2/Qtr</u> Frequency
1 NF Event	1 NF Event	1 NF Event	2 NF Events

Threshold Criteria

	Nuisance Flood Area (Tidal)	Special Flood Hazard Area (FEMA 100 year storm)
Frequency	3.7 times per year average	0.1 times per year average
Depth	1 foot	2 to 4+ feet
Duration	One tide cycle (2 to 3 hours)	Multiple tide cycles (1 to 3 days)
Extent	Area 72 acres	Area 1,157 acres
	Buildable % 4%	Buildable % 58%
	Structures 450	Structures 2,500

- Tracking the number of minor flooding days per year, and comparing prior years of data from the tide gauge provides an important planning tool to identify changing conditions. New community responses may be initiated when:

	2021 Annual
✓ FREQUENCY - Nuisance Flooding exceeds 10 to 12 events per year	11 events, only 3 events exceed the Nuisance Flooding threshold (2.3' NAVD88) based on tidal influence
✓ DEPTH - Flood depths during nuisance flooding events reach 2 feet deep (moderate flooding) on a sustained annual basis	Tidal events do not exceed Minor Flooding, Additional study required for rainfall events
✓ DURATION - Nuisance flood duration regularly exceeds one tide cycle	Two extended events February 1-3, October 28-30
✓ EXTENT - When the extent of local nuisance flooding doubles in area, or exceeds 10% of the community buildable area	Typical Minor Flooding events only during this period, Additional study required for area comparison

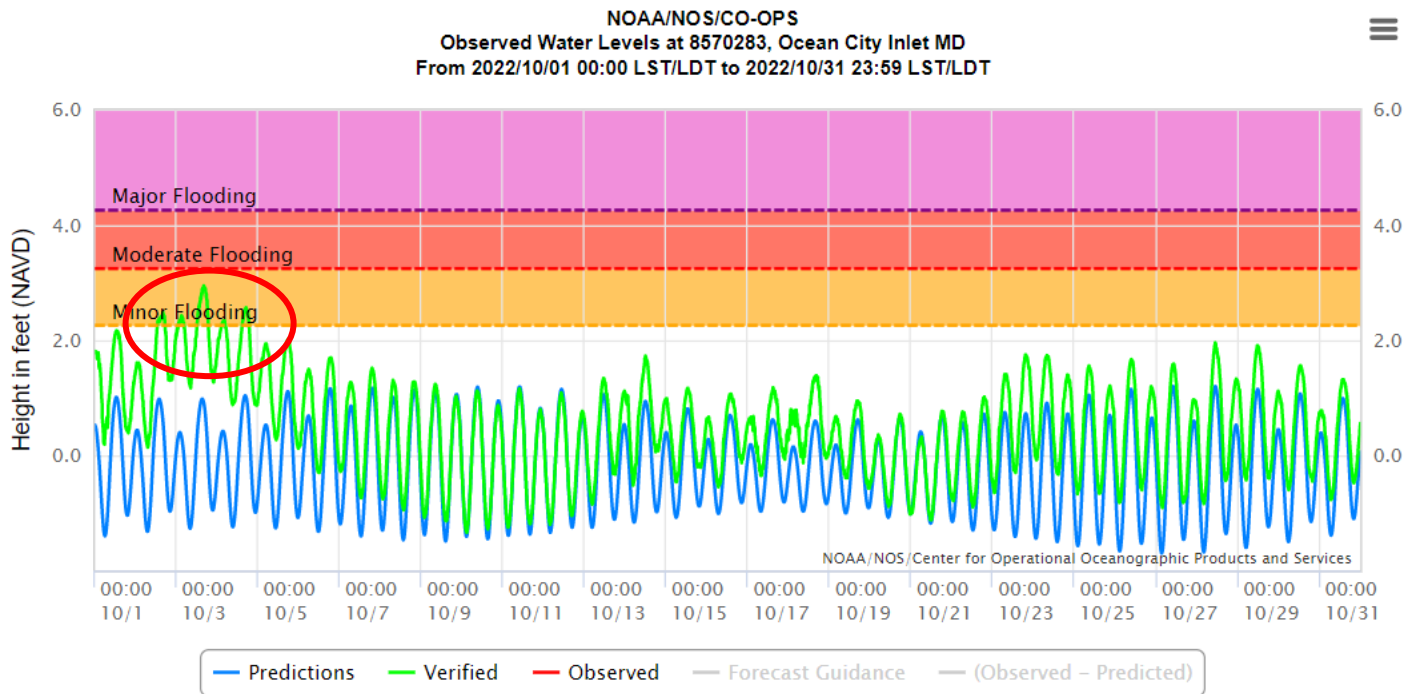
- When any one or more annual threshold(s) are exceeded, the Nuisance Flood Plan work group will meet to evaluate the data and community concerns, and will present a report to the Mayor and City Council with recommendations for action.

Stage	NWS Elevation (MLLW datum)	FEMA Elevation (NAVD88 datum)
Major	6.0+ feet	4.3+ feet
Moderate	5.0 feet	3.3 feet
Minor	4.0 feet	2.3 feet
Action	3.5 feet	1.3 feet

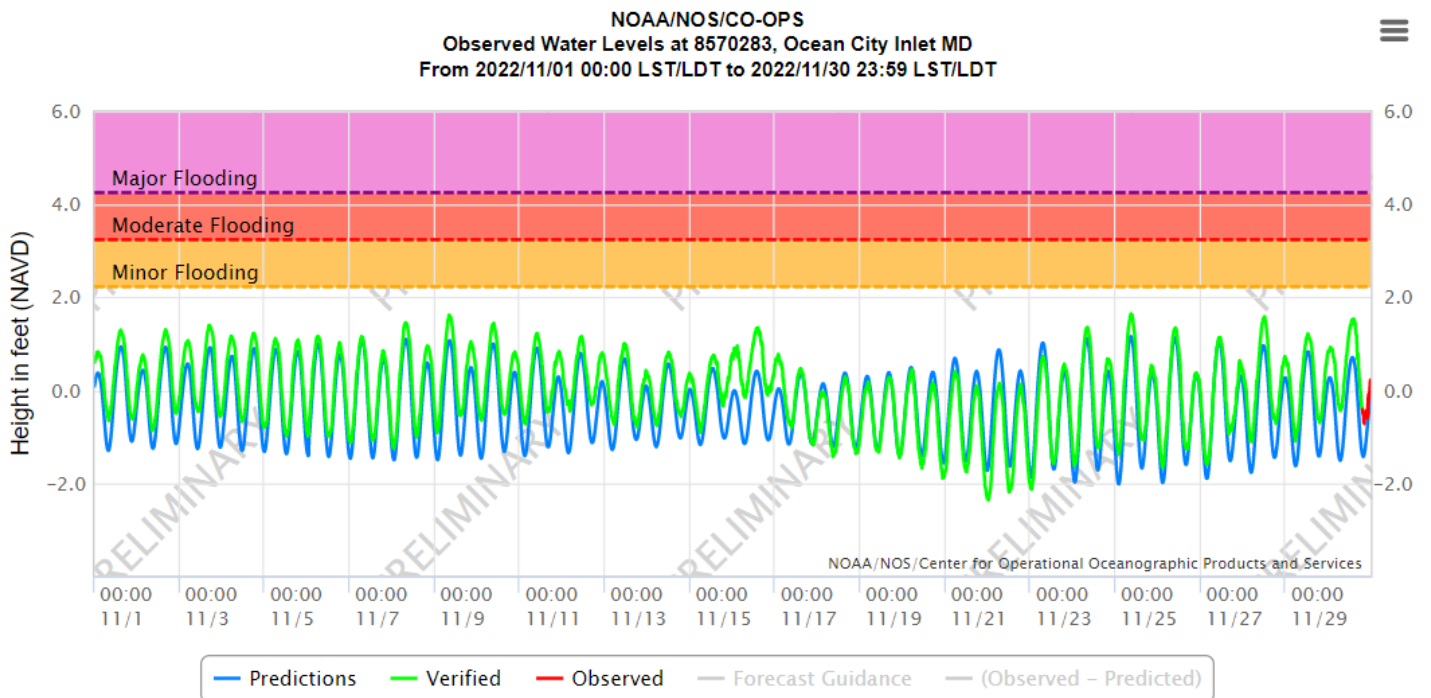
NWS	Elevation (Feet above MHHW)	Tide Elevation (NAVD)	Event Date	Rainfall	Event Type	MyCoast
Minor Flooding			12.23.22	2.52		
		2.51	12.15.22	2.51		
			11.27.22	1.47		
			10.17.22	1.03		*
			10.3.22	0.87	Remnant H. Ian Coastal Low	*
	2.91		10.2.22	1.95	H. Ian Coastal Low	
			10.1.22	1.78	H. Ian Coastal Low	
			9.30.22	1.22	H. Ian Coastal Low	*
	2.32		9.7.22		H. Earl	
			9.1.22	1.51	Coastal Low H. Fiona	*
			8.27.22	1.60		
			8.19.22	1.91		
			8.7.22	1.60		
			7.26.22	1.94		
			6.16.2022	1.62		
			5.16.2022	0.94		
	2.59		5.8.2022	0.73	Coastal Low Pressure	*
			3.12.2022	1.06		
	2.54		1.4.2022	1.46	Winter Storm	
	2.95		10/30/2021	1.14"	Coastal Low Pressure	*
	2.67		10/11/2021		King Tide and Wind	
			9/9/2021	1.91"	TS Ida (remnant)	
			8/21/2021	1.95"	TD Fred (remnant)	
			7/30/2021	1.02"	Thunderstorm	
	0.00		7/9/2021	0.8"+	TS Elsa	
			6/9/2021	1.3"	Thunderstorm	
	2.50		5/29/2021	0.79"	High Tide plus rainfall event (2")	
			4/25/2021	0.46"		
			3/18/2021	1.43"		
	2.71		2/1/2021	0.93"	Nor'easter WS Orlena	*
	3.94	2.21	12/17/2020		Winter Solstice High Tide	
	4.27	2.53	10/30/2020	1.98"	Rainfall	
	3.86	2.13	9/21/2020		H Teddy	*
	3.90	2.17	9/17/2020	1.38"	Coastal Flood Advisory	
	4.03	2.30	8/17/2020		Coastal Storm	
			8/4/2020	1.23"	TS Isaias 1.23" Rainfall Wind	
			7/10/2020	1.92"	TS Fay 5" Rainfall Event	
			7/7/2020	2.56"	Rainfall	*
	4.02	2.29	4/4/2020		Coastal Storm	*
	4.10	2.37	12/2/2019		Winter Storm	

Nuisance Flood Plan – Monitoring Report

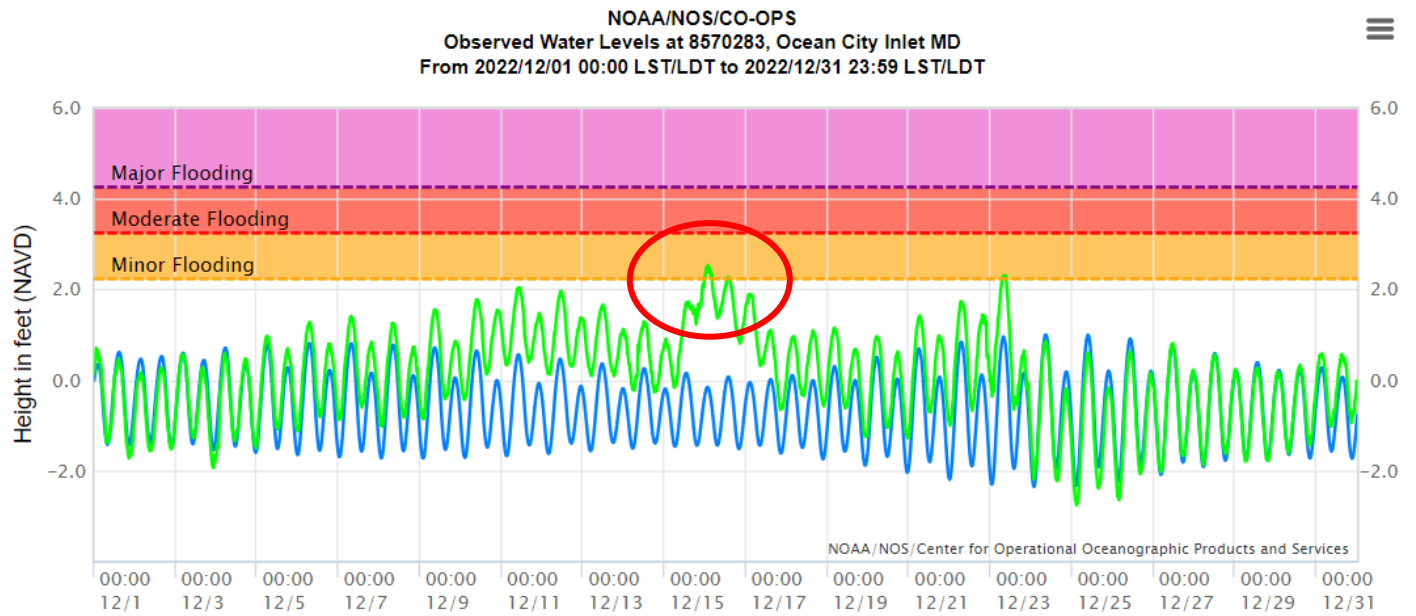
2022 Tide Elevations Q4



October 2022 – 1 High Tide Event (5 high tide cycles)



November 2022 – 0 High Tide Events

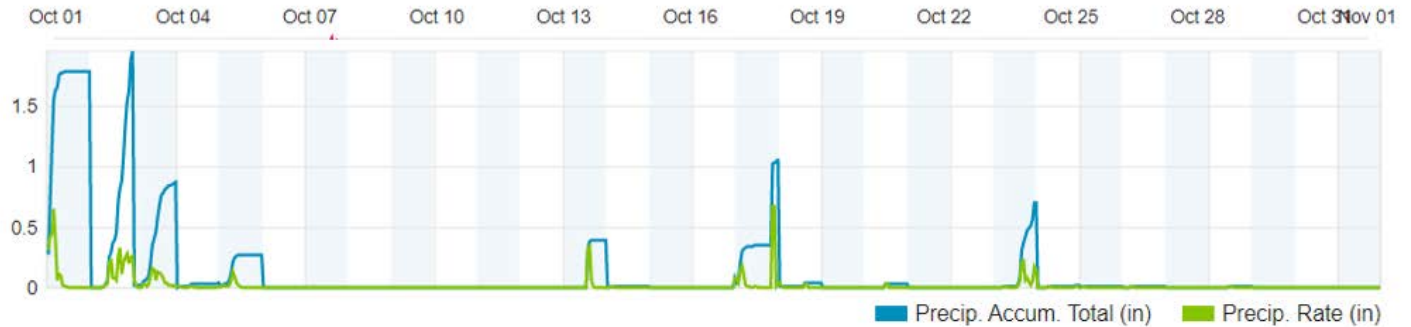


December 2022 – 1 High Tide Event (Above threshold 2.3' NAVD)

Nuisance Flood Plan – Monitoring Report

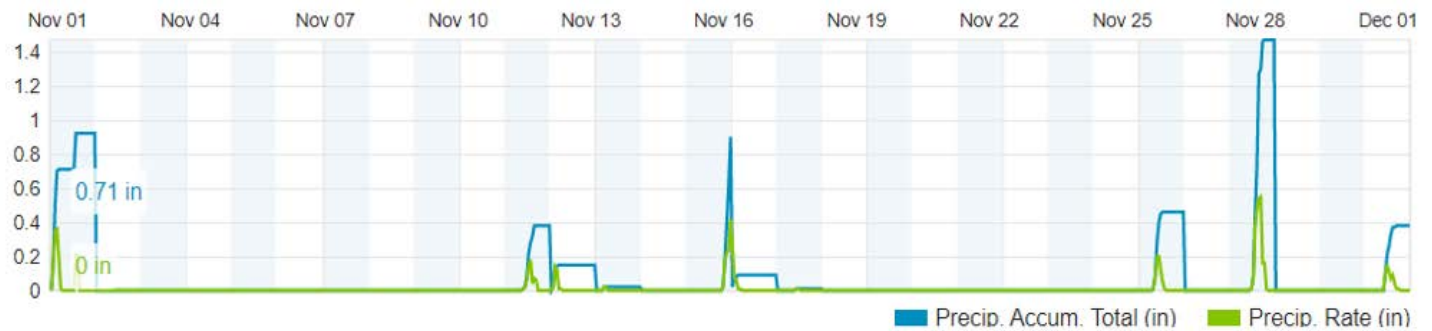
2022 Rainfall Events Q4

October 1, 2022 - October 31, 2022



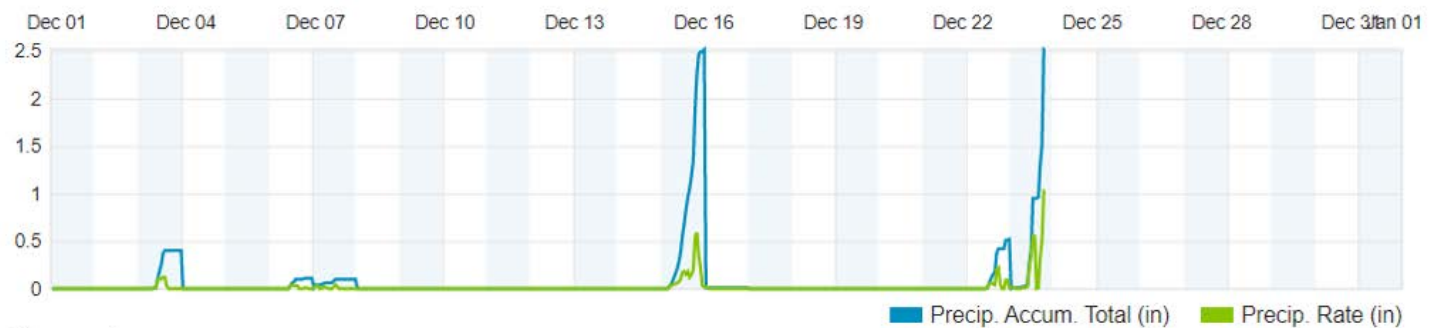
October 1, 2022 – 1.78 inches, October 2, 2022 – 1.95 inches, October 3, 2022 – 0.87 inches,
October 17, 2022 – 1.03 inches (KMDOCEAN6)

November 1, 2022 - November 30, 2022



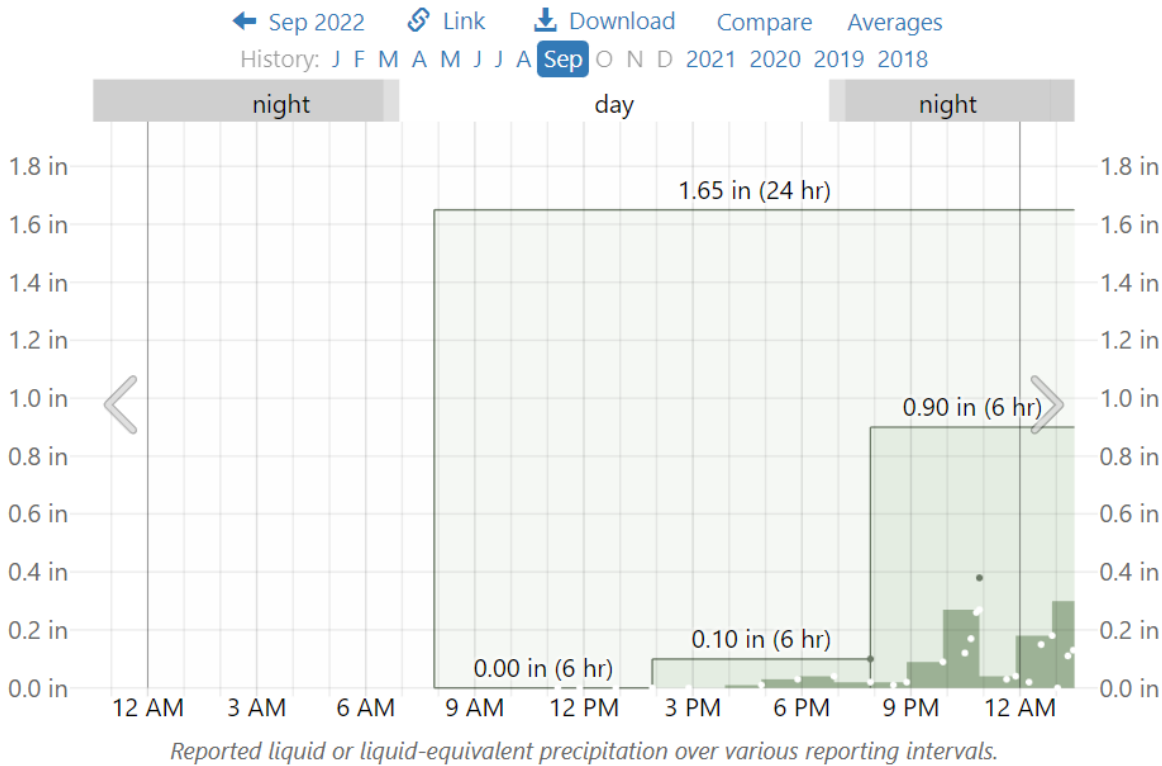
November 27, 2022 – 1.47 inches (KMDOCEAN6)

December 1, 2022 - December 31, 2022

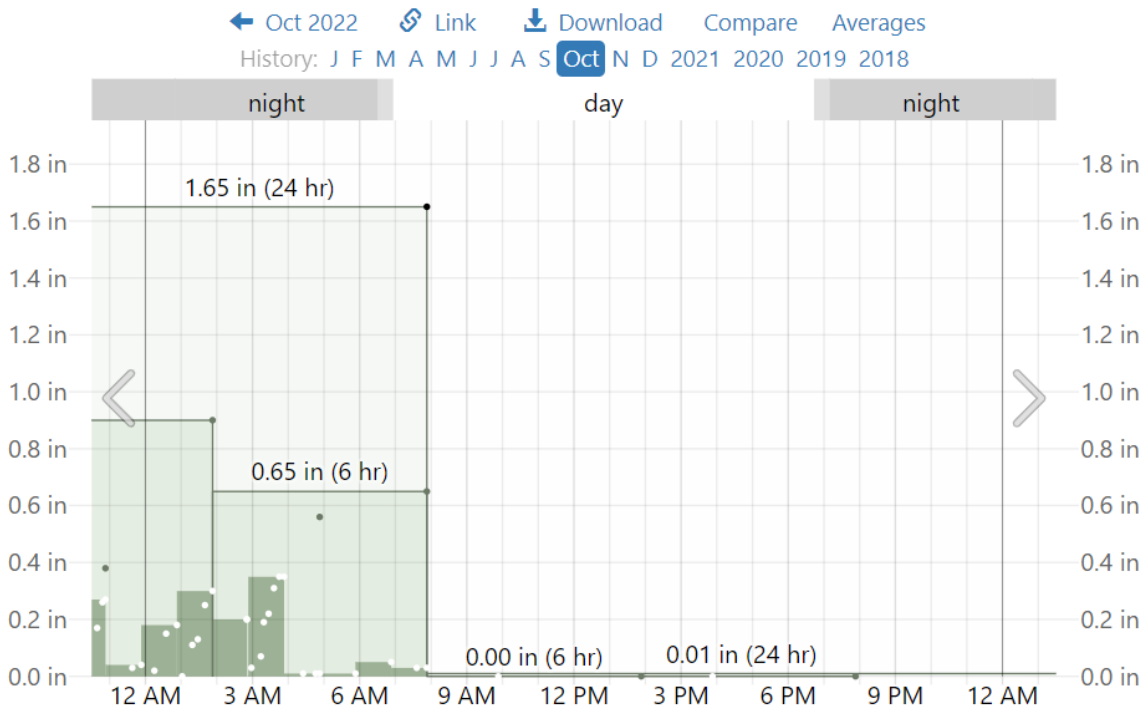


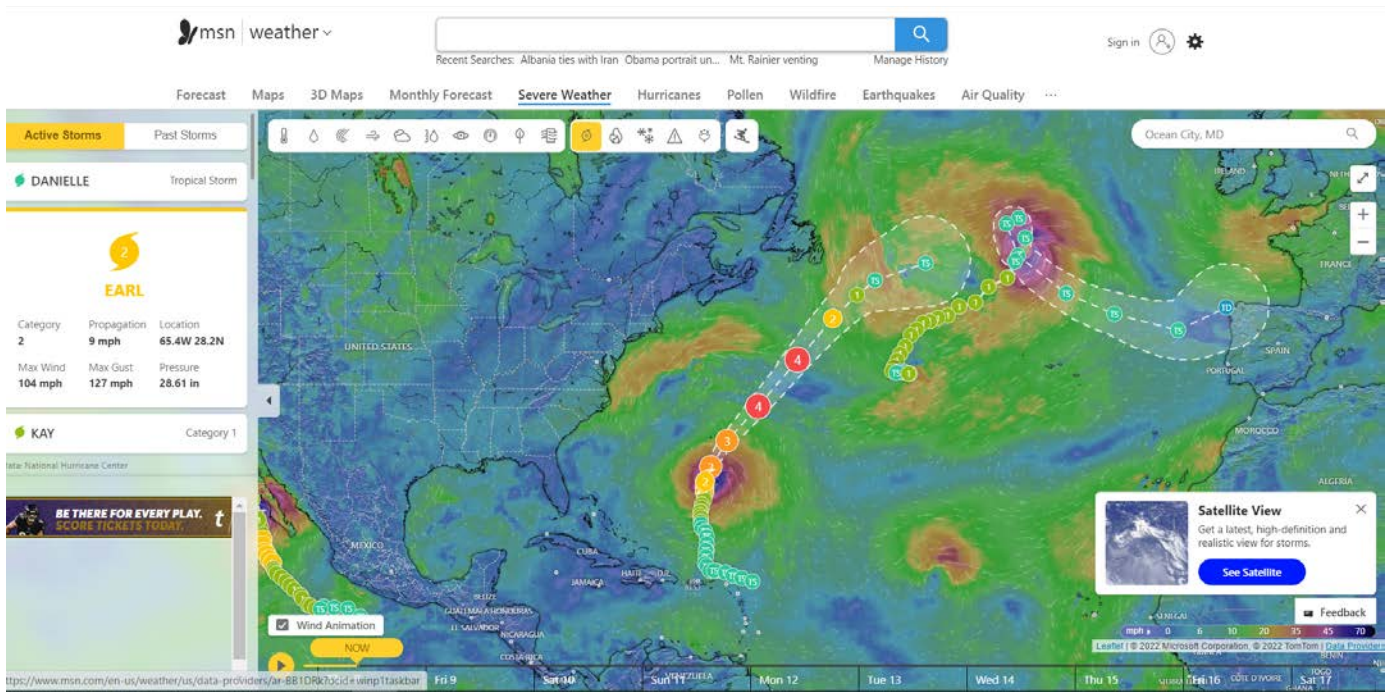
December 15, 2022 – 2.51 inches, December 23, 2022 – 2.52 inches (KMDOCEAN6)

Liquid-Equivalent Precipitation on Friday, September 30, 2022 at Ocean City Municipal Airport



Liquid-Equivalent Precipitation on Saturday, October 1, 2022 at Ocean City Municipal Airport





Hurricane Ian



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Oceans Calling Festival Canceled Due to Weather

High Winds and Predicted Tropical Storm Conditions Expected This Weekend in Ocean City, Maryland

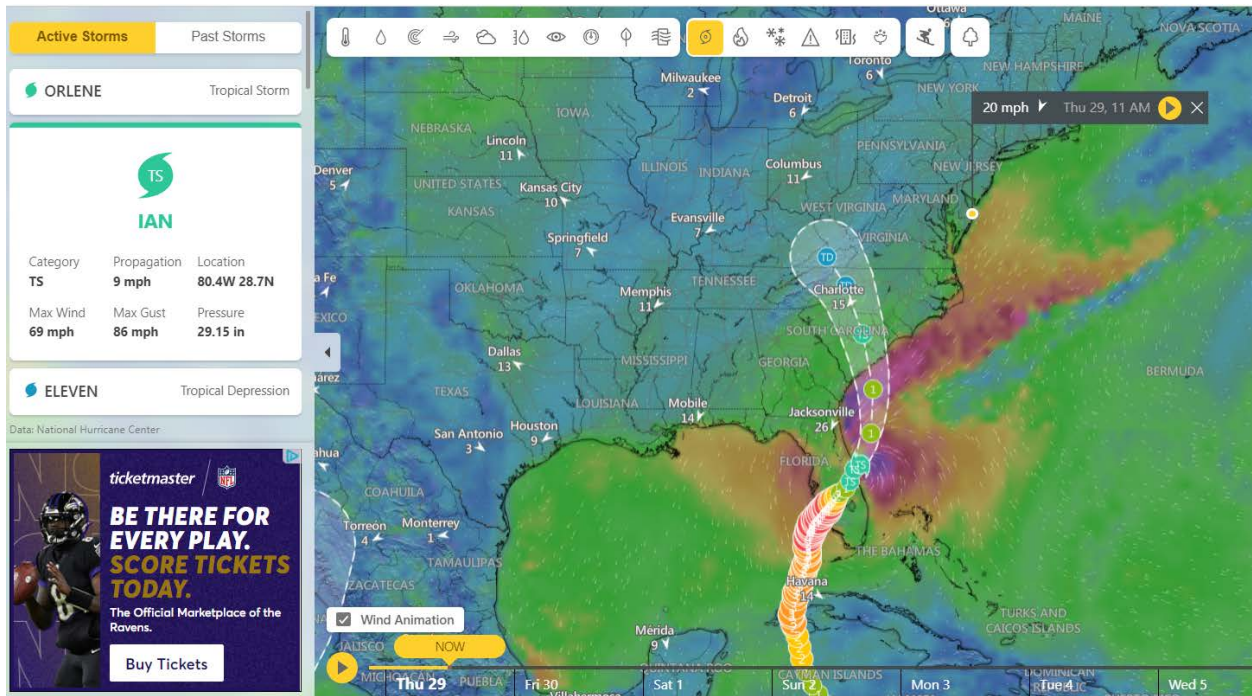
Ocean City, Maryland - (September 29, 2022): The highly anticipated three-day music festival, Oceans Calling, has been canceled due to the updated weather forecast of Hurricane Ian. The festival, which would be a first for the resort town, was forced to cancel due to the unsafe weather conditions, including high winds, tidal flooding, and heavy rain.

"We are extremely disappointed to cancel Oceans Calling Festival," commented Ocean City Mayor Rick Meehan. "We have been working closely with the event promoters since May 2021. Their hard work, and the hard work of our staff, were evident in every detail of the event planning and preparation. Although this is disappointing to all of us, we are already working with C3 Presents to bring Oceans Calling Festival back to Maryland's Coast next year."

Hurricane Ian is currently off the coast of South Carolina. Effects of the storm are predicted in our area as early as Friday. The National Weather Service has issued a Hazard Weather Outlook for Maryland and Virginia Beaches.

Residents and visitors are encouraged to stay informed and be prepared for storm conditions. Storm related updates will be posted on the Town of Ocean City's Social Media sites. For more information or to subscribe for enews, visit www.oceancitymd.gov/enews.

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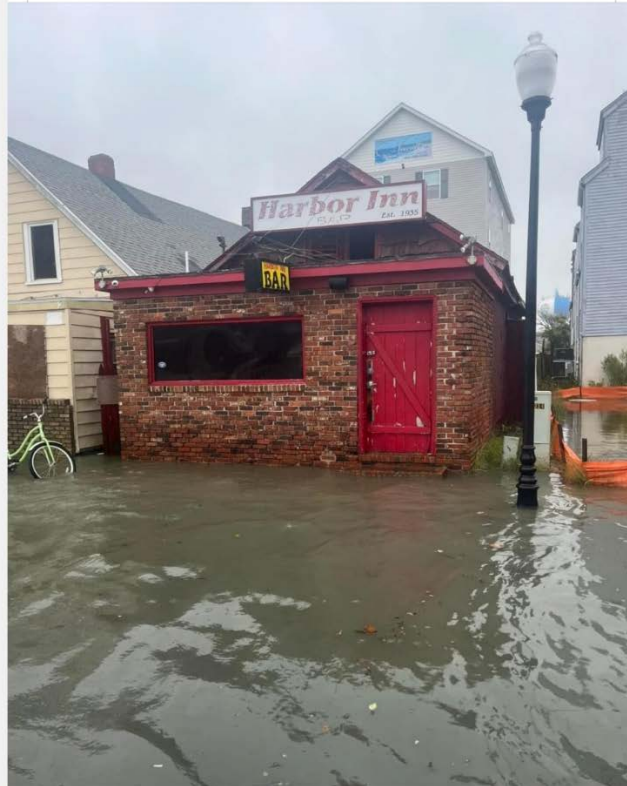
◀ Messenger

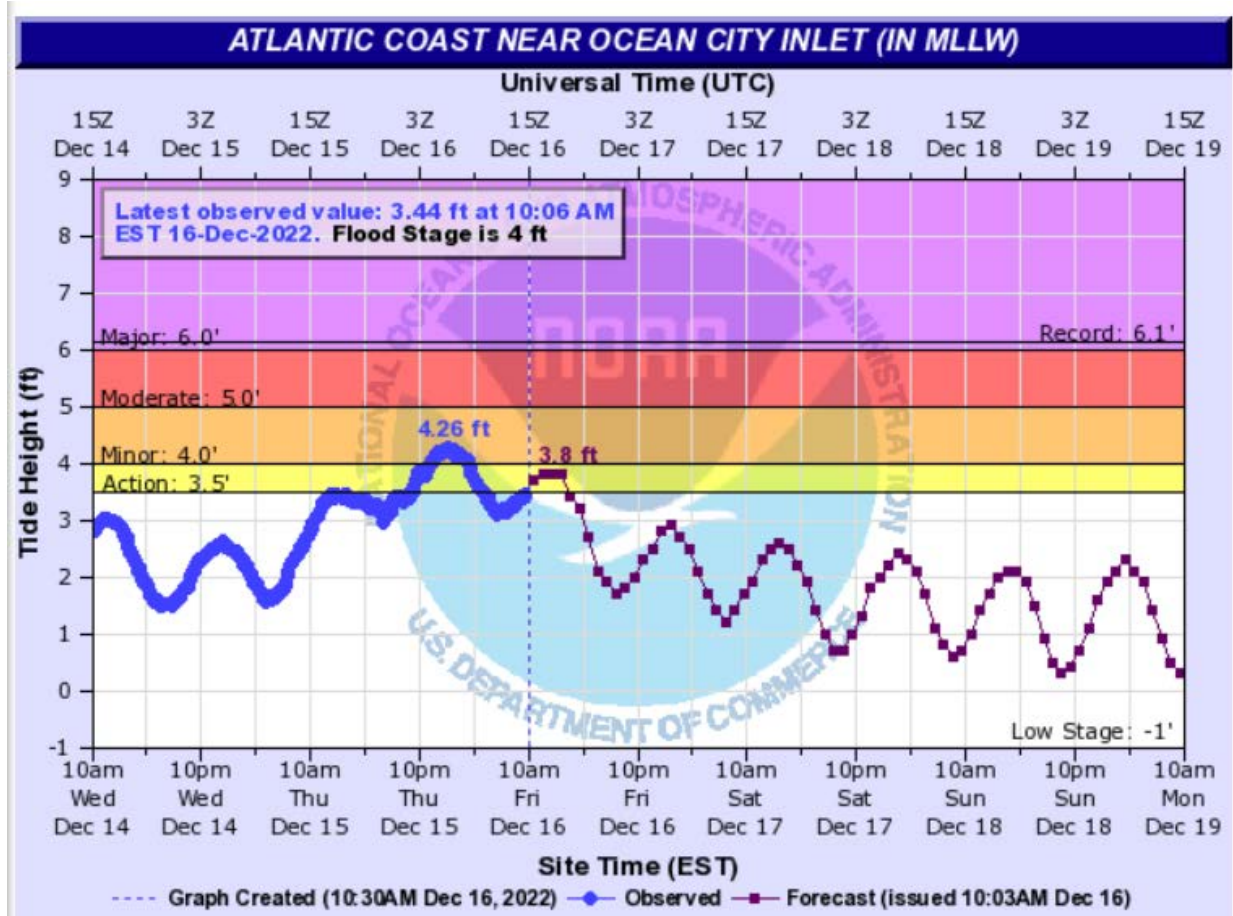
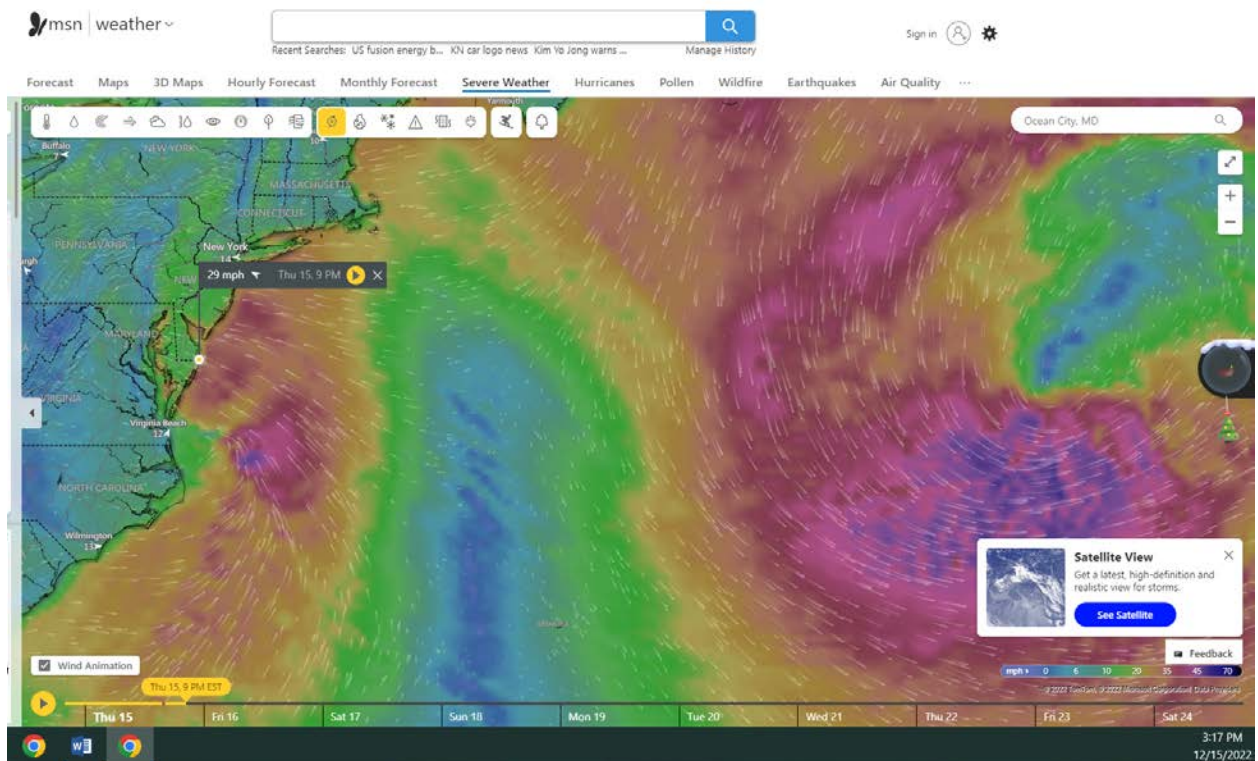


Harbor Inn

34m · 🌐

**Closed today only Monday
10/03 due inclement weather.**





Nuisance Tidal Flooding Report

MyCoast reports from October through December 2022 (see attached)

NOS/NOAA/CO-OPS
Top-10 Highest Water Levels
8570283, Ocean City Inlet MD

Date	Height (Feet above MHHW)	Event Category	Event	Source
February 5, 1998	3.65	Extra Tropical	Nor easter	Observed Peak Water Level
October 29, 2012	3.58	Tropical	Hurricane Sandy	Observed Peak Water Level
November 22, 2006	3.15	Extra Tropical	Nor easter	Observed Peak Water Level
January 28, 1998	2.94	Extra Tropical	Nor easter	Observed Peak Water Level
November 13, 2009	2.83	Extra Tropical	Hurricane Ida	Observed Peak Water Level
March 6, 2013	2.43	Extra Tropical	Coastal Low Pressure & Onshore Winds	Observed Peak Water Level
January 23, 2016	2.40	Extra Tropical	Blizzard of 2016	Observed Peak Water Level
May 12, 2008	2.34	Extra Tropical	Nor easter	Observed Peak Water Level
October 18, 2009	2.32	Sub-Tropical (offshore)	Strong, Onshore Winds	Observed Peak Water Level
October 29, 2021	2.27	Extra Tropical	Coastal Low Pressure & Strong Winds	Observed Peak Water Level

Listing of the top historical water levels, along with the associated weather event. Most values are based on the peak water level observed at the tide gauge. At times where observed water levels are unavailable, values may be taken from high water marks. For additional information or data, please visit the [Extreme Water Levels](#) website.