

Nuisance Flood Plan – Monitoring Report

2023 Quarterly Threshold Review Q4

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

* NF events based on Hight Tide threshold, heavy rainfall events tracked separately

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	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Area</td> <td style="text-align: center;">72 acres</td> </tr> <tr> <td>Buildable %</td> <td style="text-align: center;">4%</td> </tr> <tr> <td>Structures</td> <td style="text-align: center;">450</td> </tr> </table>	Area	72 acres	Buildable %	4%	Structures	450	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Area</td> <td style="text-align: center;">1,157 acres</td> </tr> <tr> <td>Buildable %</td> <td style="text-align: center;">58%</td> </tr> <tr> <td>Structures</td> <td style="text-align: center;">2,500</td> </tr> </table>	Area	1,157 acres	Buildable %	58%	Structures	2,500
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- 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:

	2023 Current Year Annual
✓ FREQUENCY - Nuisance Flooding exceeds 10 to 12 events per year	5 high tide events exceed the Nuisance Flooding threshold (2.3’ NAVD88), 9 heavy rainfall events >1”
✓ 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	One extended event (TS Ophelia): September 23 - 29
✓ 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.

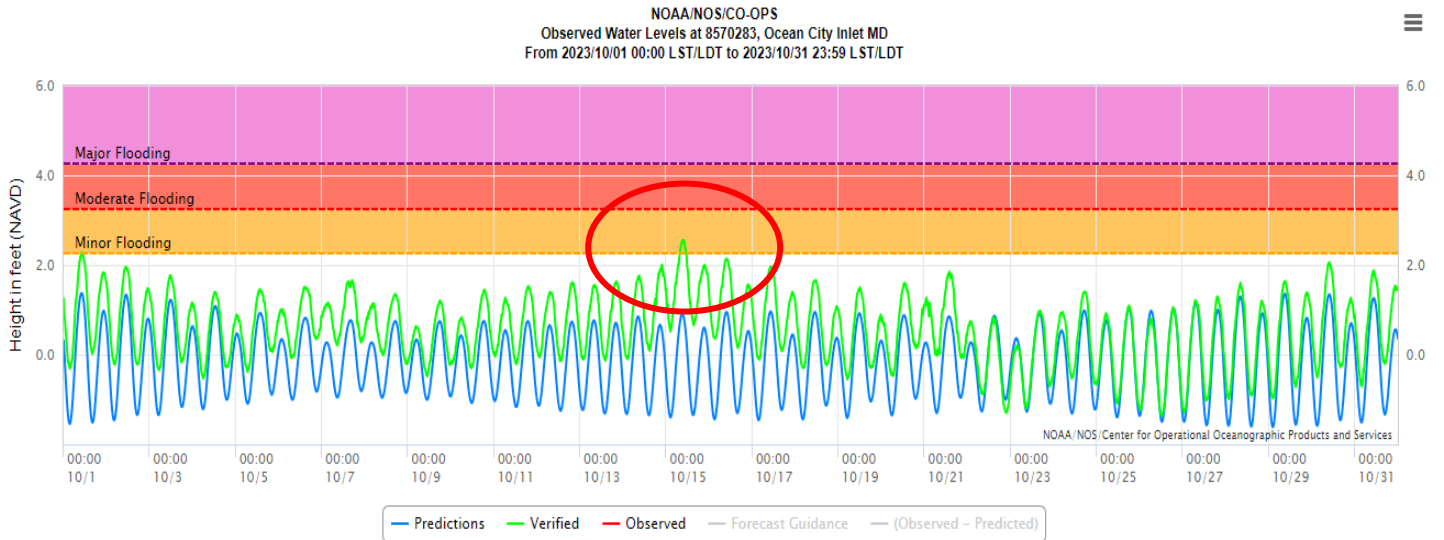
Stage	NWS Elevation (MLLW datum)	FEMA Elevation (NAVD88 datum)
Major	6.0+ feet	4.3+ feet
Moderate	5.0 feet	3.3 feet
Minor	4.0 feet	2.3 feet
Action	3.5 feet	1.3 feet

NWS	Elevation (Feet above MHHW)	Tide Elevation (NAVD)	Event Date	Rainfall	Event Type	MyCoast
Minor Flooding		2.35	12.18.23	1.47"	Nor'Easter	
			12.10.23	1.69"	Heavy Rain	
		2.53	10.15.23	1.02"	Heavy Rain	
		2.58	9.26.23		Light Rain	
		2.67	9.23.23	1.58"	Heavy Rain TS Ophelia	*
			7.29.23	1.01"	Thunderstorm	
			7.25.23	1.37"	Thunderstorm	*
			7.16.23	1.35"	Thunderstorm	
			6.12.23	1.35"		
		2.36	6.3.23		Coastal Low	
			4.22.23	1.61"		
			1.25.23	1.31"		
			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		
		7/9/2021	0.8"+	TS Elsa		

Nuisance Flood Plan – Monitoring Report

2023 Tide Elevations Q4

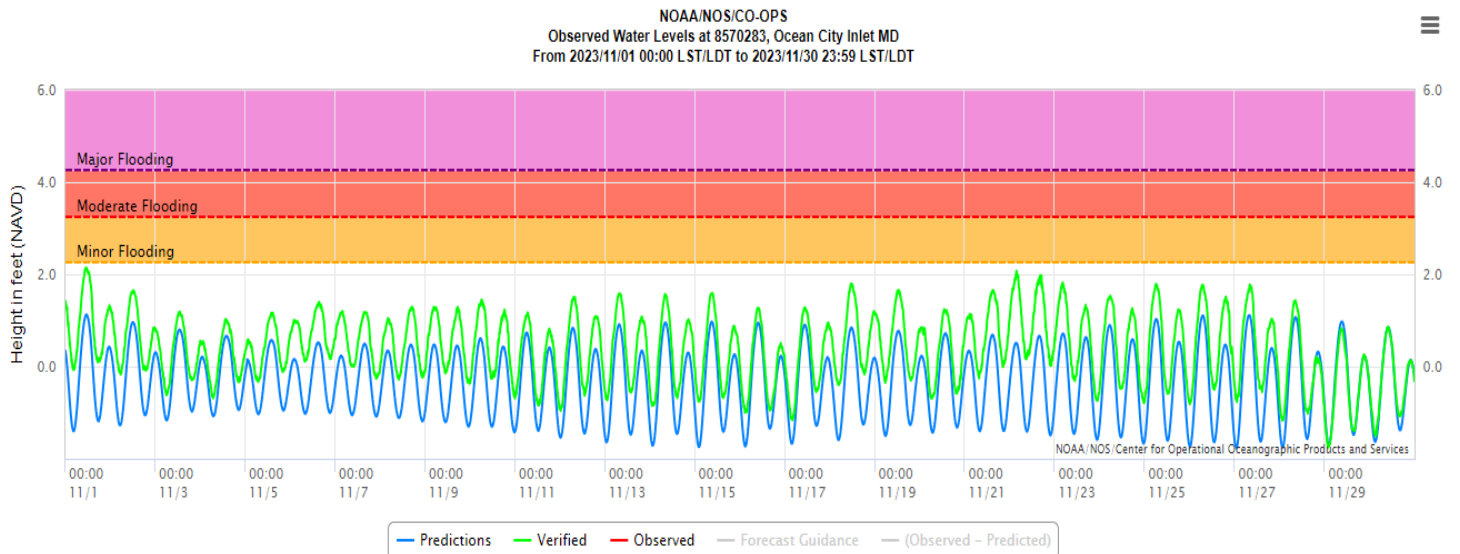
October 2023 – 1 High Tide Flooding Event (above threshold 2.3' NAVD)



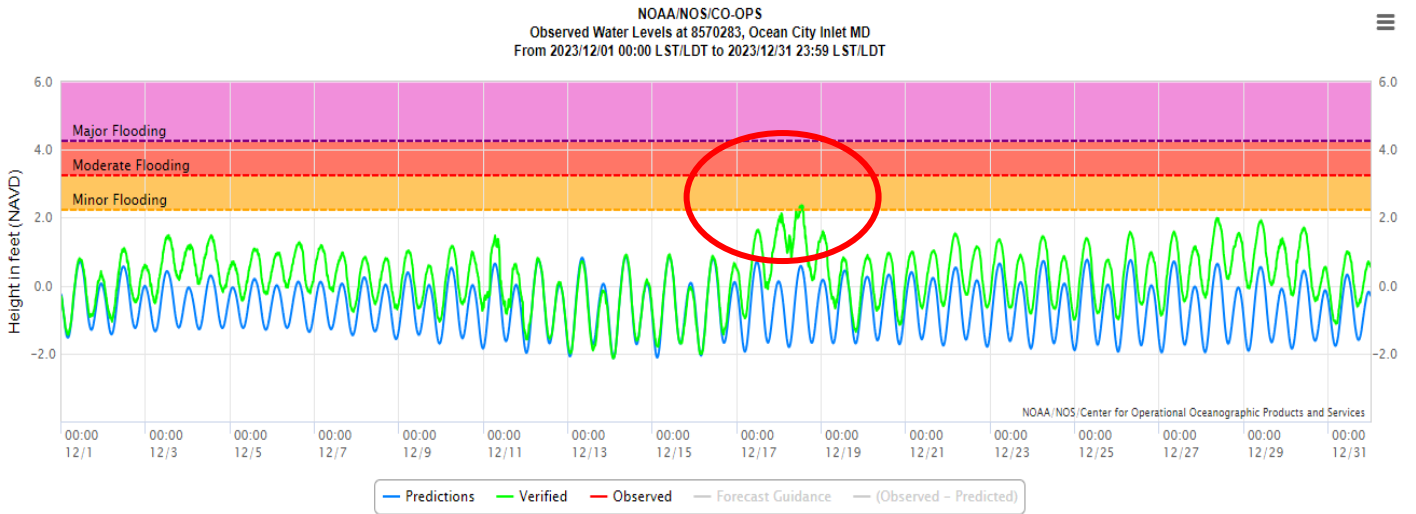
(October 1, 2023 – 2.28 feet)

October 15, 2023 – 2.53 feet

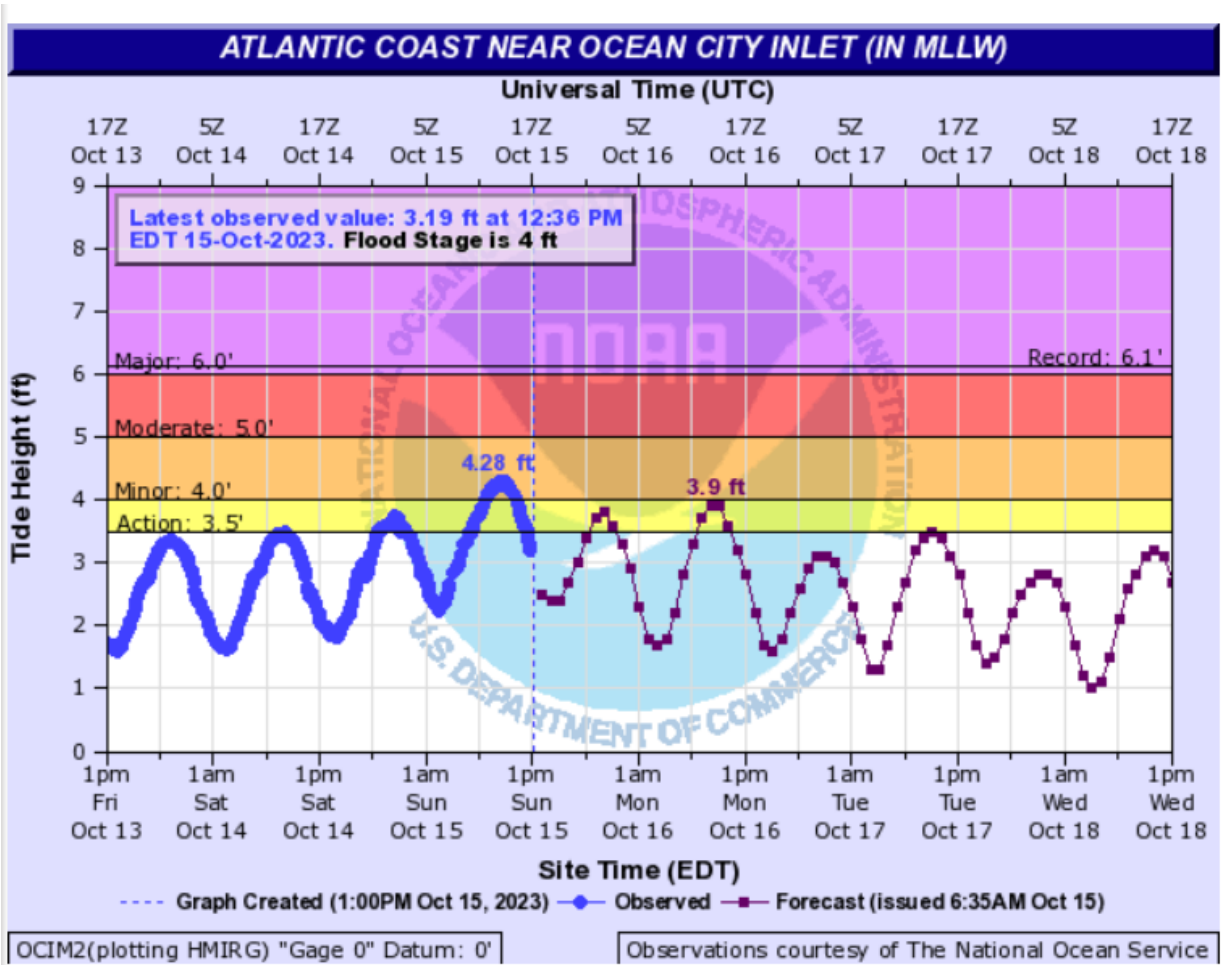
November 2023 – 0 High Tide Flooding Events

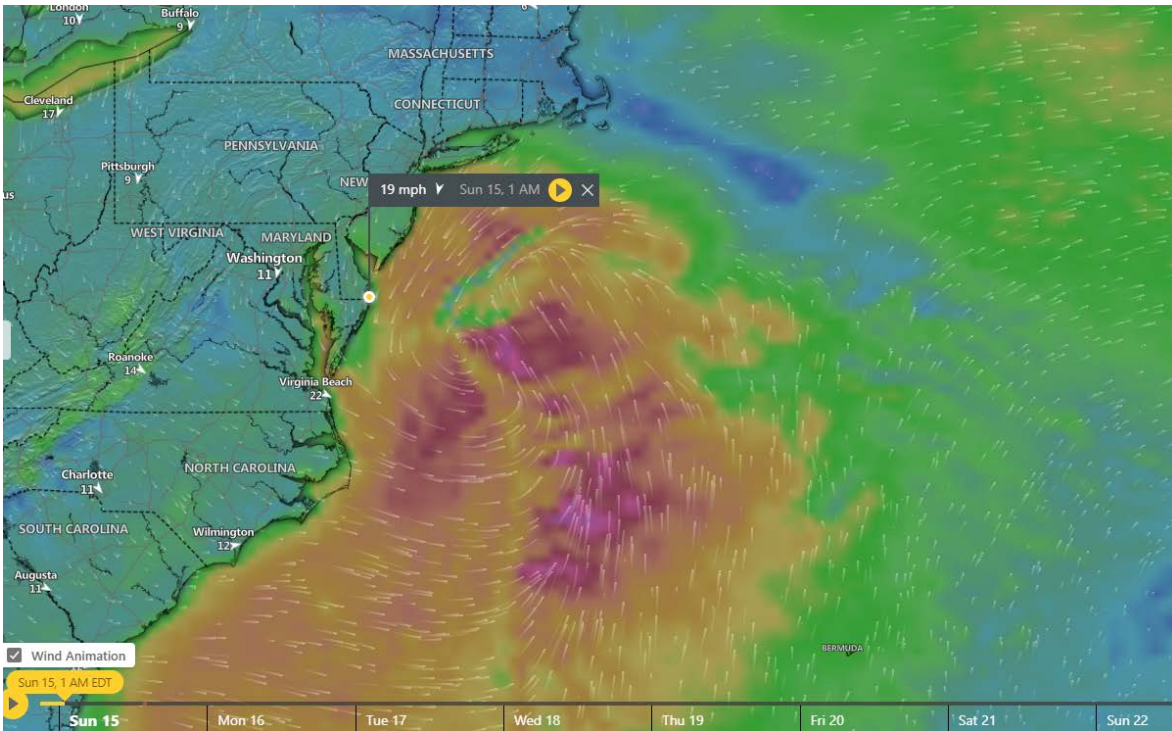


December 2023 – 0 High Tide Flood Events (Above threshold 2.3' NAVD)



December 18, 2023 – 2.35 feet





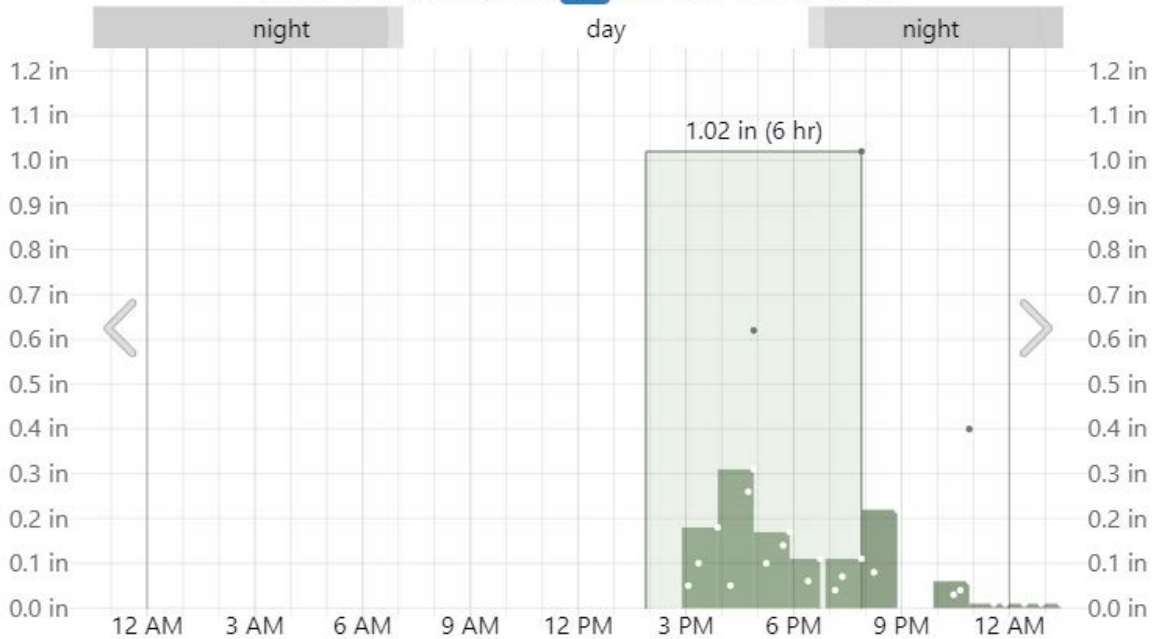
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2023 Rainfall Events Q4

Liquid-Equivalent Precipitation on Saturday, October 14, 2023 at Ocean City Municipal Airport

[← Oct 2023](#)
[Link](#)
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[Averages](#)

History: J F M A M J J A S **Oct** N D 2022 2021 2020 2019

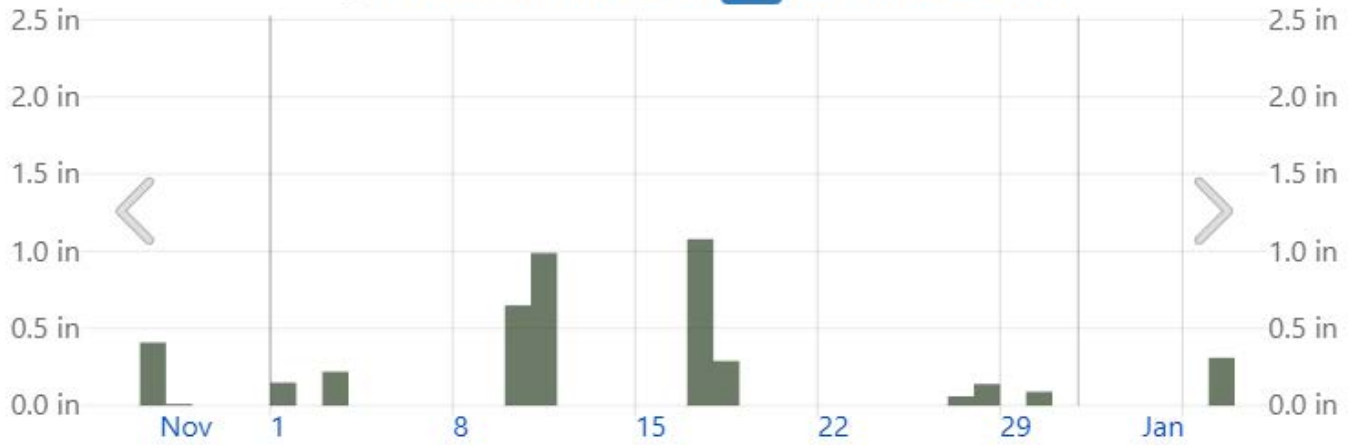


Reported liquid or liquid-equivalent precipitation over various reporting intervals.

Daily Precipitation in December 2023 at Ocean City Municipal Airport

[← Winter 2023](#)
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[Averages](#)

History: J F M A M J J A S O N **Dec** 2022 2021 2020 2019

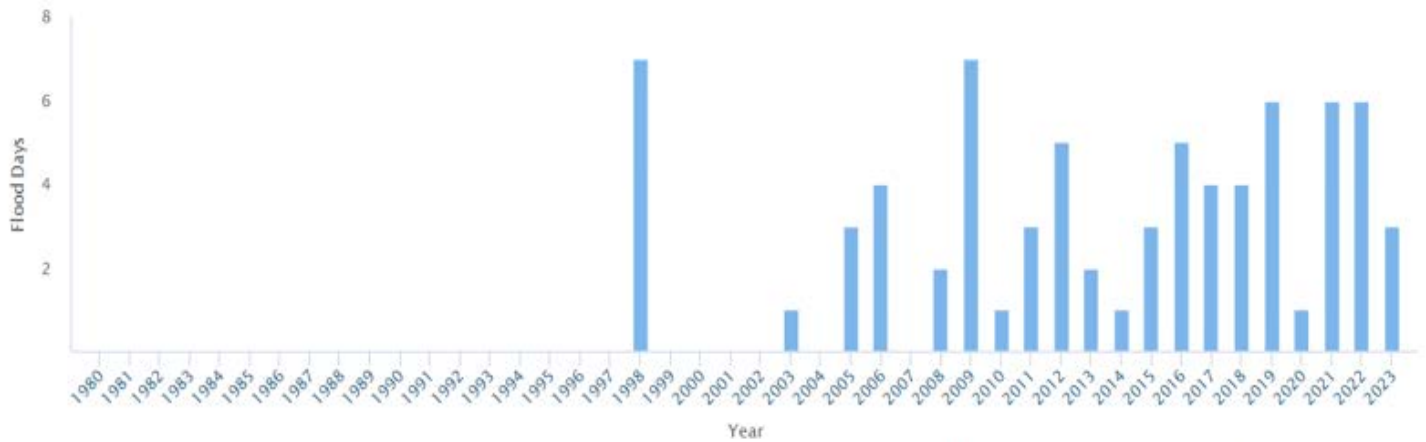


The daily measured quantity of liquid or liquid-equivalent precipitation.

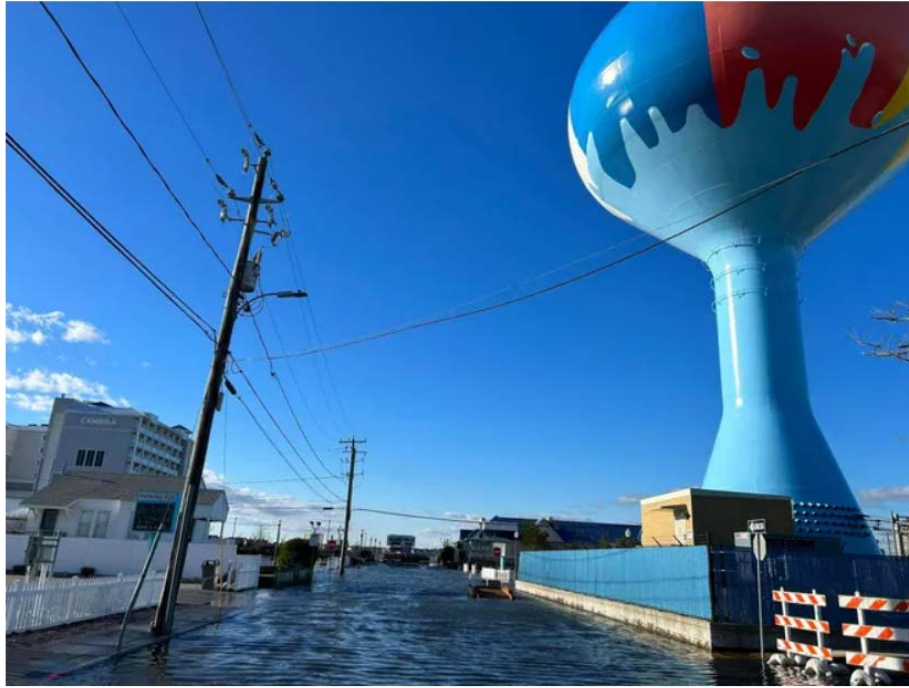
December 10, 2023 – 1.69 inches

December 18, 2023 – 1.47 inches Nor'Easter

1980-2023 Annual Flood Days at 8570283, Ocean City Inlet MD Threshold: 1.73 feet above MHHW

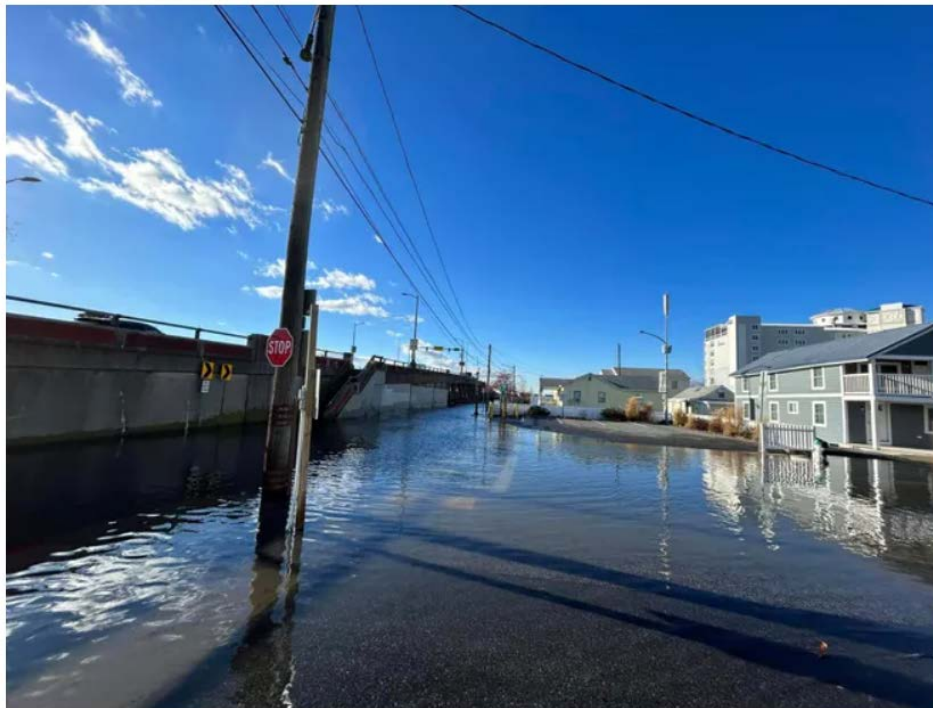


NOAA/NOS/Center for Operational Oceanographic Products and Services



Heavy rain Sunday night brought flooded streets to Ocean City on Monday, Dec. 18, 2023, as captured in this photo courtesy of OceanCity.Com.

OceanCity.com Provided Photos



Heavy rain Sunday night brought flooded streets to Ocean City on Monday, Dec. 18, 2023, as captured in this photo courtesy of OceanCity.Com.

OceanCity.com Provided Photos

Nuisance Tidal Flooding Report

MyCoast reports from October through December 2023 (None)