

Nuisance Flood Plan – Monitoring Report

2023 Quarterly Threshold Review Q3

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>1/Qtr</u> Frequency 1 NF Event	<u>2</u> High Tide <u>4</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>__</u> High Tide <u>__</u> Heavy Rainfall >1” <u>__</u> Depth <u>__ day</u> Duration <u>avg</u> Extent <u>/Qtr</u> Frequency 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:

	2022 Prior Year Annual
<ul style="list-style-type: none"> ✓ FREQUENCY - Nuisance Flooding exceeds 10 to 12 events per year 	5 high tide events exceed the Nuisance Flooding threshold (2.3’ NAVD88), 16 heavy rainfall events >1”
<ul style="list-style-type: none"> ✓ 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
<ul style="list-style-type: none"> ✓ DURATION - Nuisance flood duration regularly exceeds one tide cycle 	Three extended events: May 7 - 10, September 7 – 9, October 2 - 4
<ul style="list-style-type: none"> ✓ 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

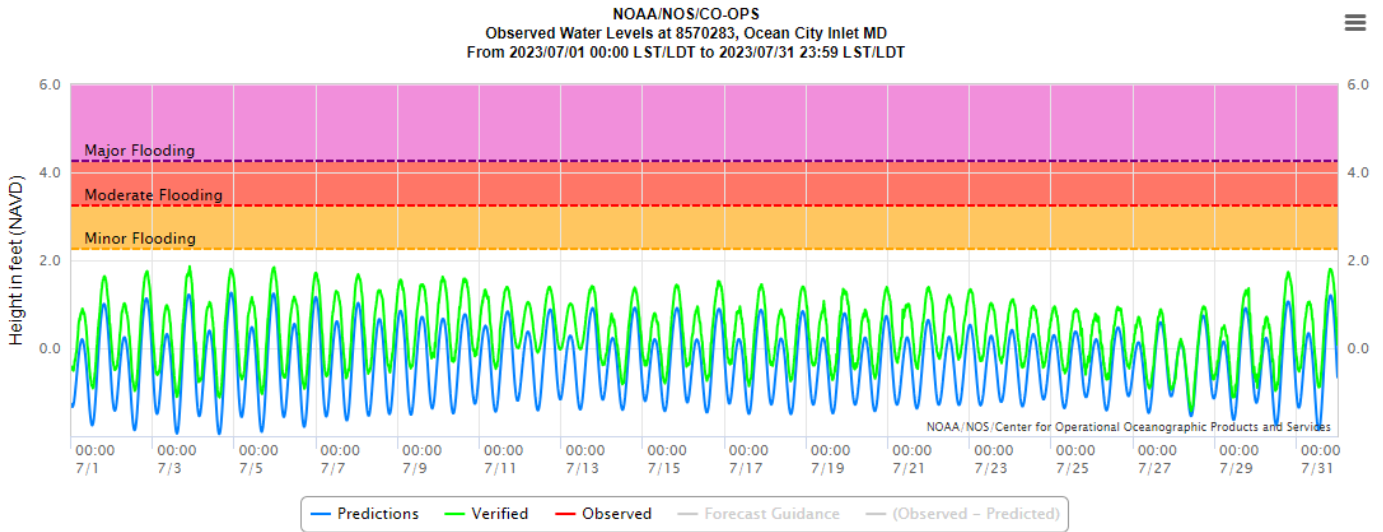
NWS	Elevation (Feet above MHHW)	Tide Elevation (NAVD)	Event Date	Rainfall	Event Type	MyCoast
		2.58	9.26.23		Light Rain	
		2.67	9.23.23	1.58"	Heavy Rain TS Ophelia	*
			7.29.23	1.01"	Thunderstorm	
			7.25.23	1.37"	Thunderstorm	*
			7.16.23	1.35"	Thunderstorm	
			6.12.23	1.33"		
		2.36	6.3.23		Coastal Low	
			4.22.23	1.61"		
			1.25.23	1.38"		
			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	
			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	

Minor Flooding

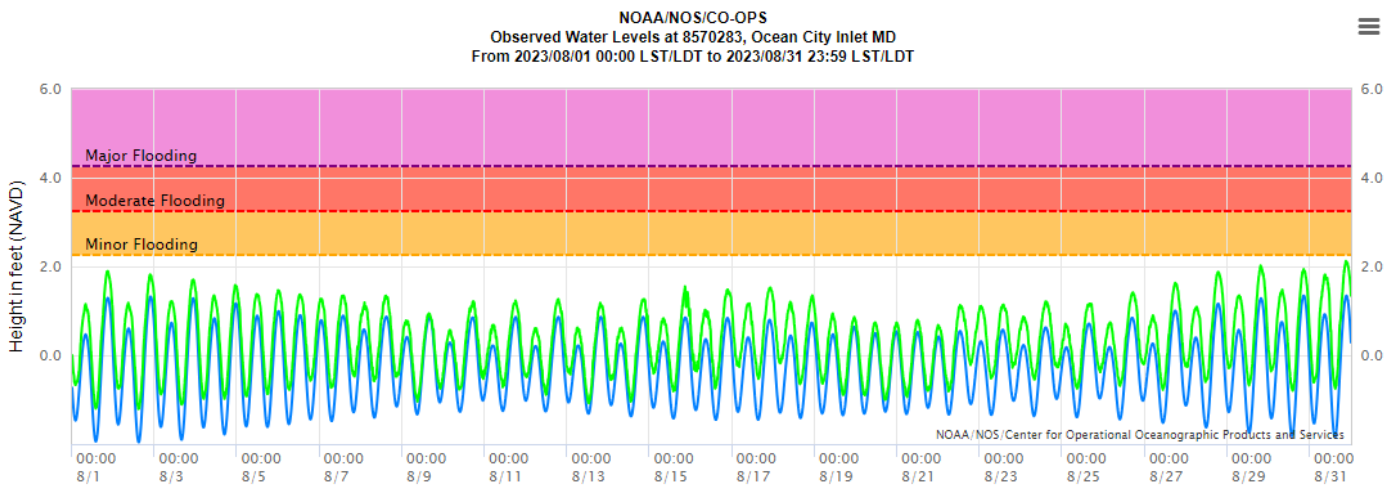
Nuisance Flood Plan – Monitoring Report

2023 Tide Elevations Q3

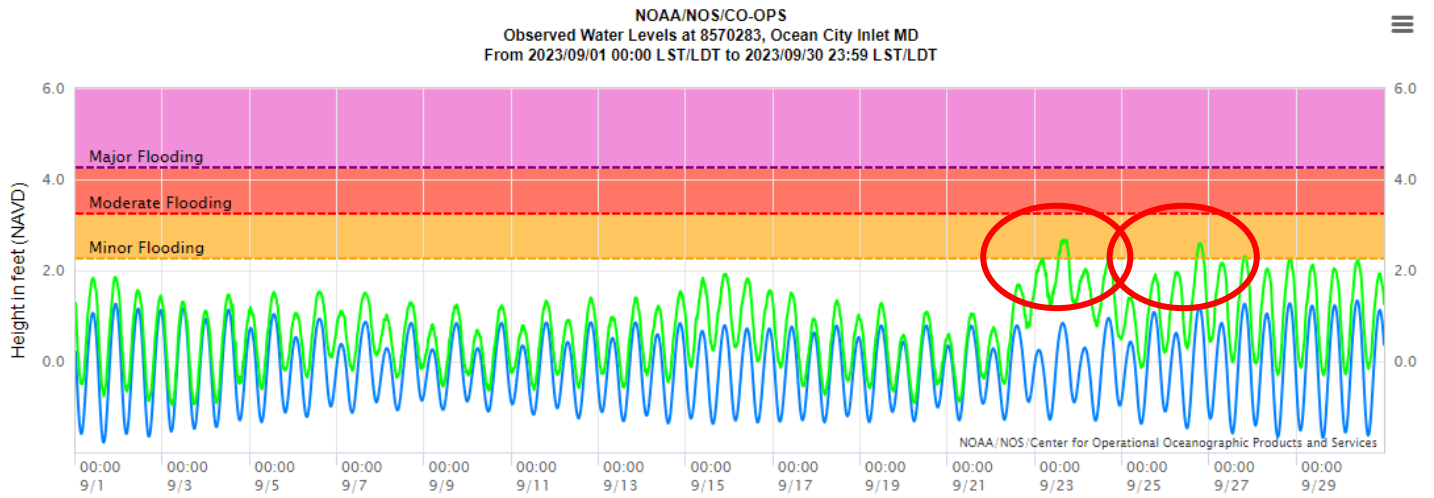
July 2023 – 0 High Tide Flooding Events



August 2023 – 0 High Tide Flooding Events

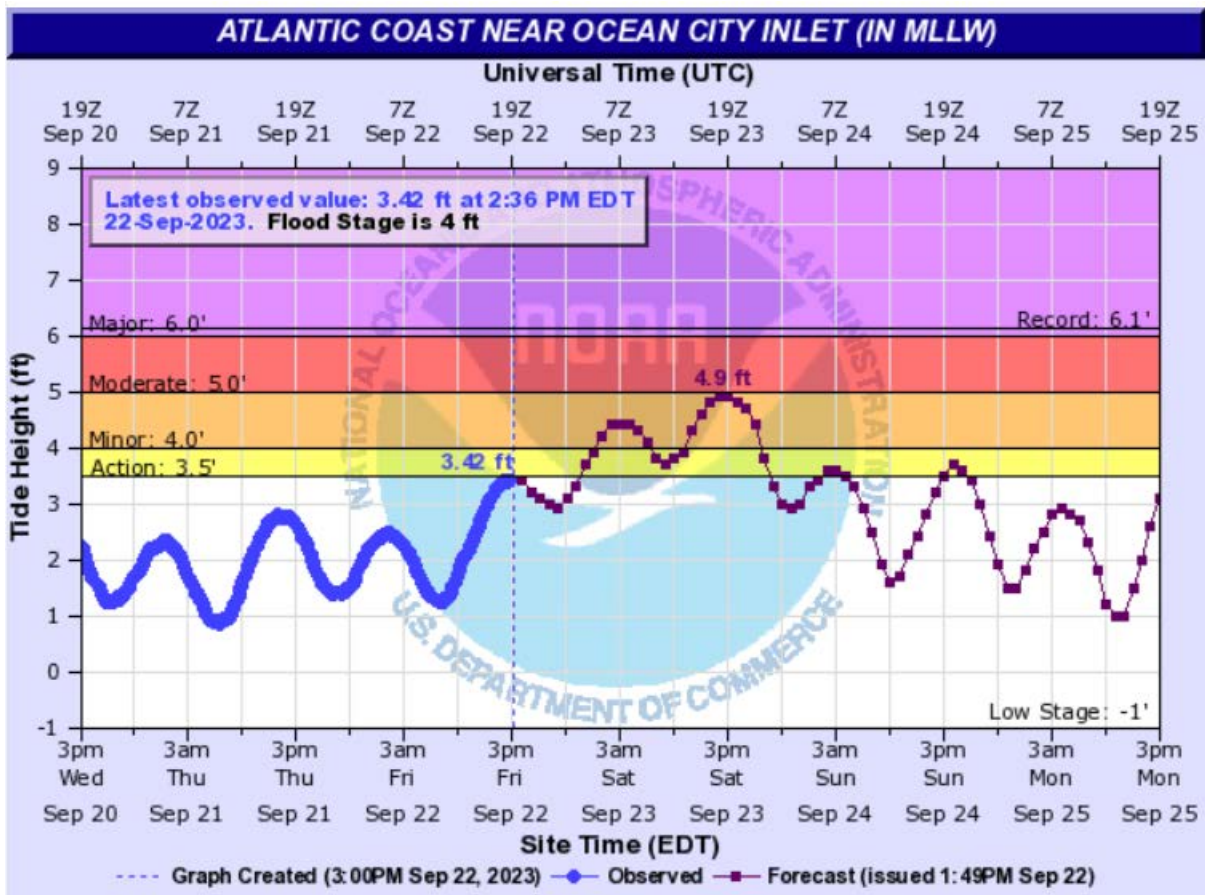


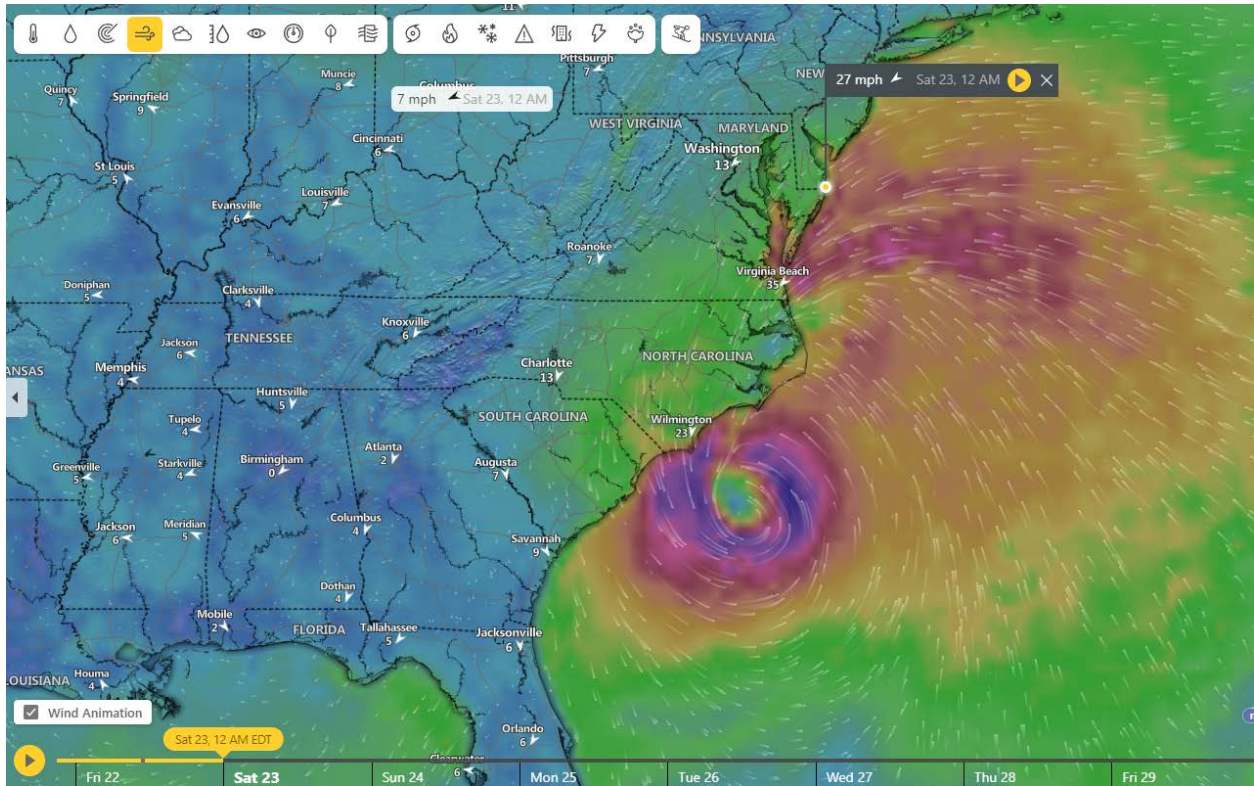
September 2023 – 2 High Tide Flood Events (Above threshold 2.3' NAVD)



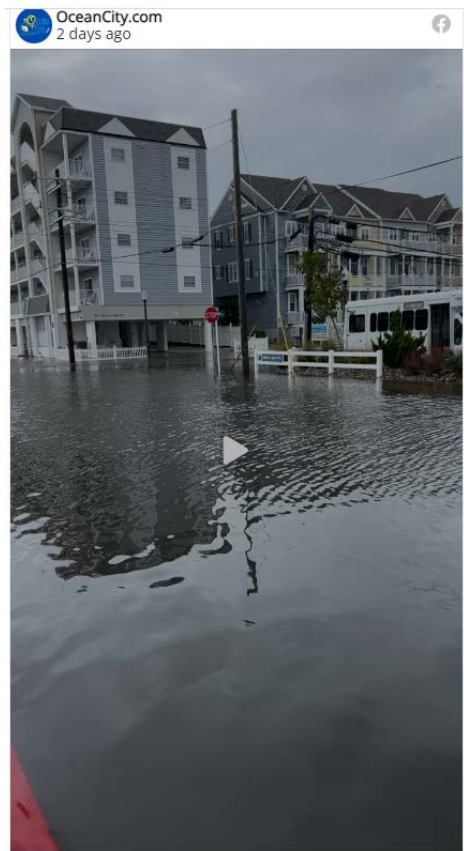
September 23, 2023 – 2.67' minor flooding at high tide

September 26, 2023 – 2.58' minor flooding at high tide

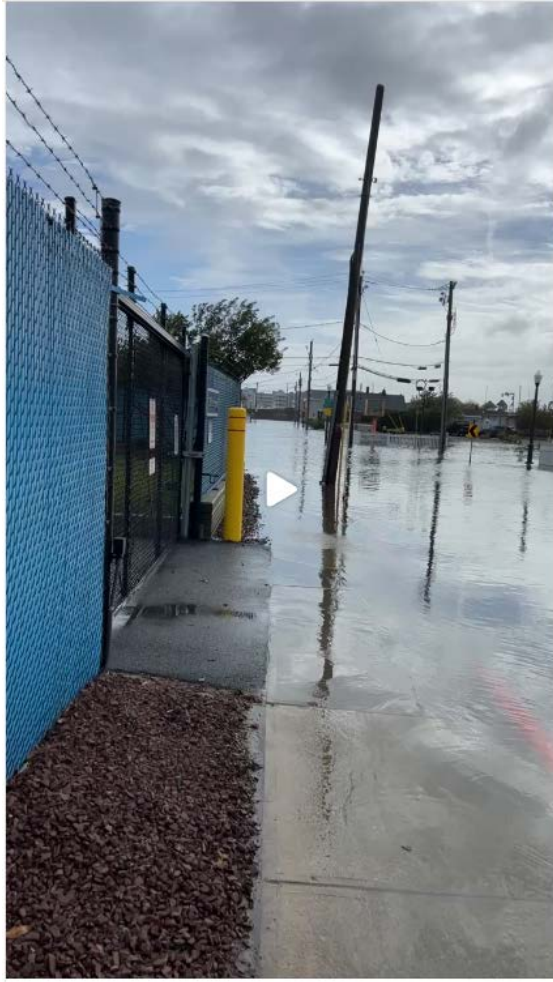




Pictures earlier this afternoon of flooding conditions along Philadelphia Avenue and St. Louis Avenue in Ocean City. High tide was at 3:09 PM this afternoon. 🌊



Second Street and St. Louis Avenue in downtown Ocean City. High tide is here. 🌊



St. Louis Avenue north of the 50 bridge. Downtown Ocean City. High tide was at 3:09 PM today, coupled with storm effects.



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Second Street and St. Louis Avenue in downtown Ocean City. High tide is here.
10 / 23



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St. Louis Avenue north of the 50 bridge. ☹️ Downtown Ocean City. High tide was at 3:09 PM today. ☹️ coupled with storm effects. ☹️

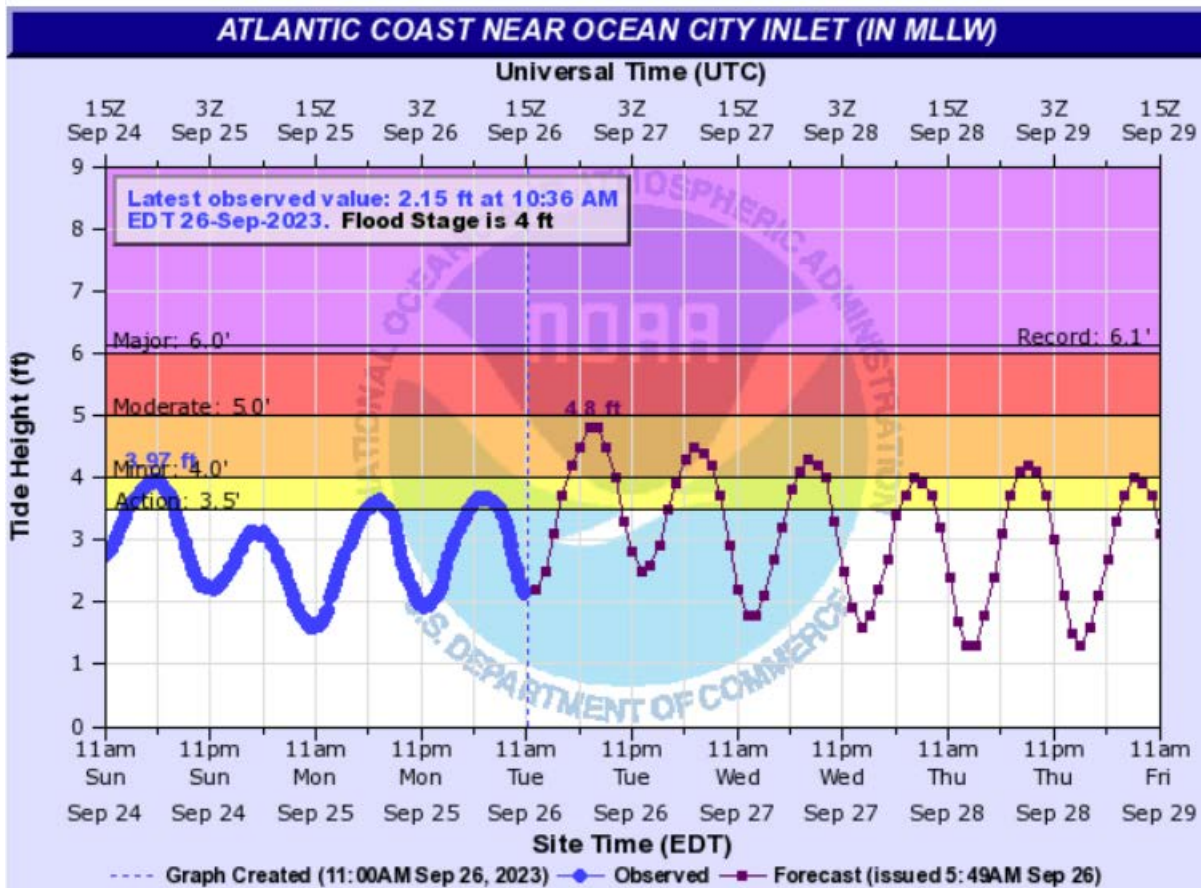
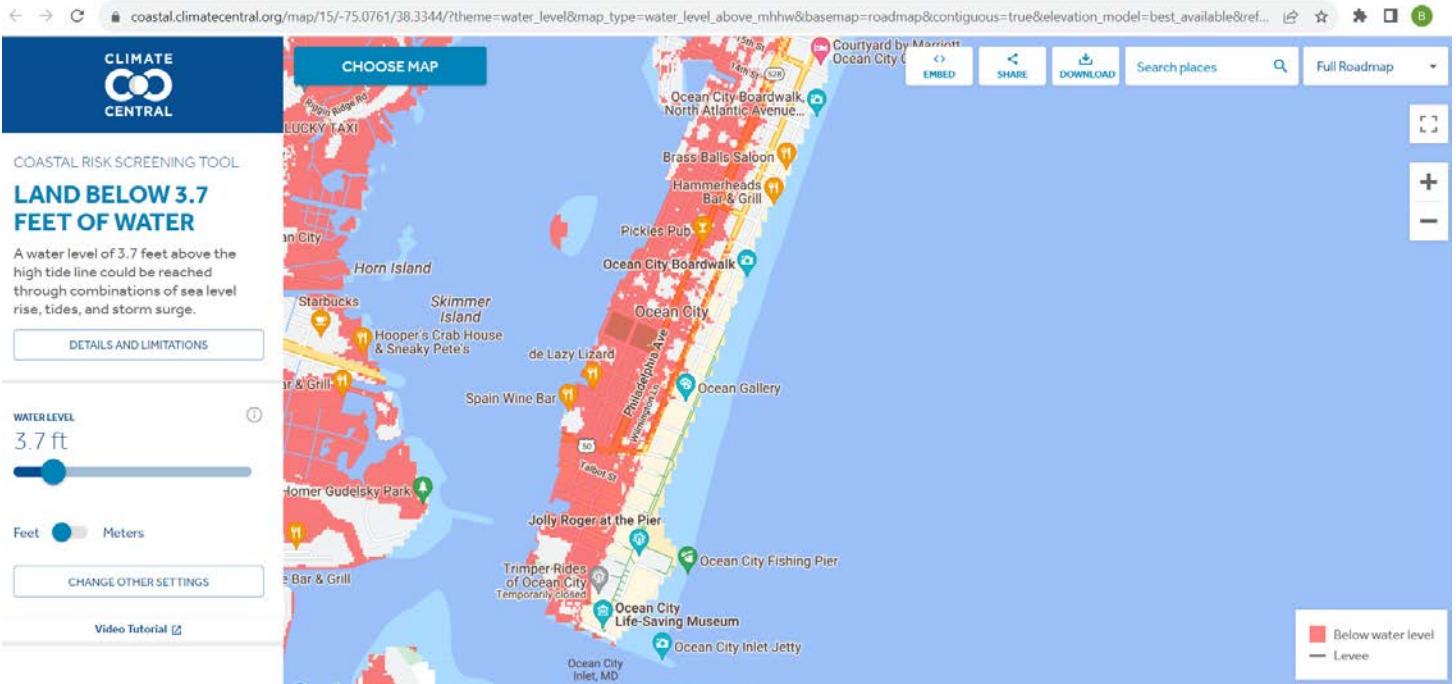
9 / 23



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St. Louis Avenue north of the 50 bridge. ☹️ Downtown Ocean City. High tide was at 3:09 PM today. ☹️ coupled with storm effects. ☹️

9 / 23



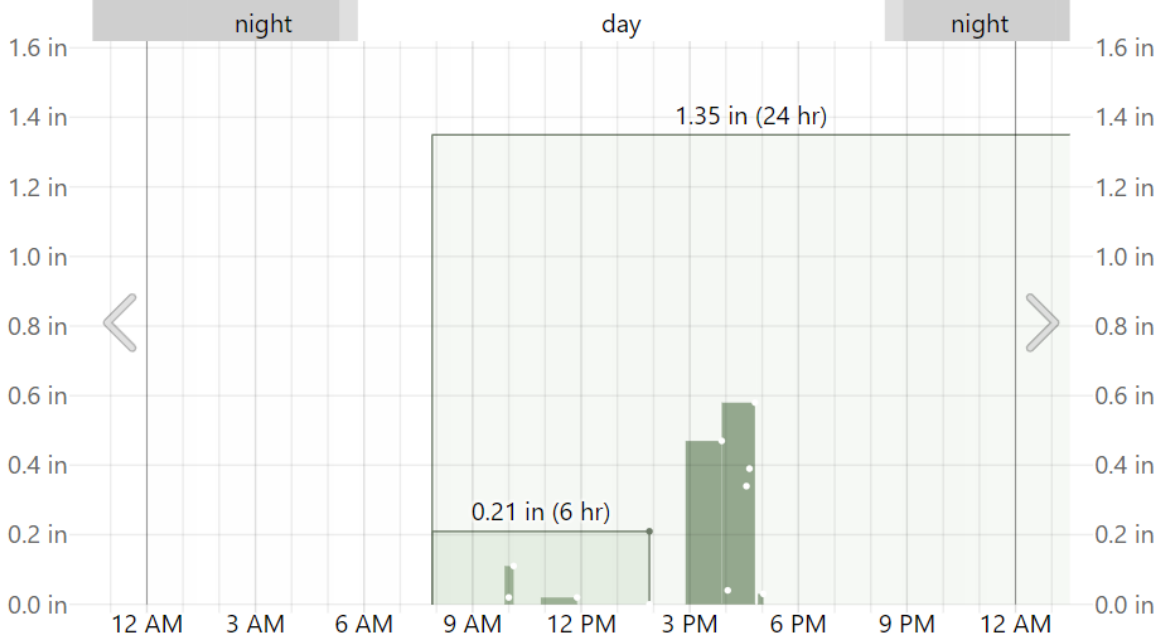
Nuisance Flood Plan – Monitoring Report

2023 Rainfall Events Q3

Liquid-Equivalent Precipitation on Sunday, July 16, 2023 at Ocean City Municipal Airport

[← Jul 2023](#) [Link](#) [Download](#) [Compare](#) [Averages](#)

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

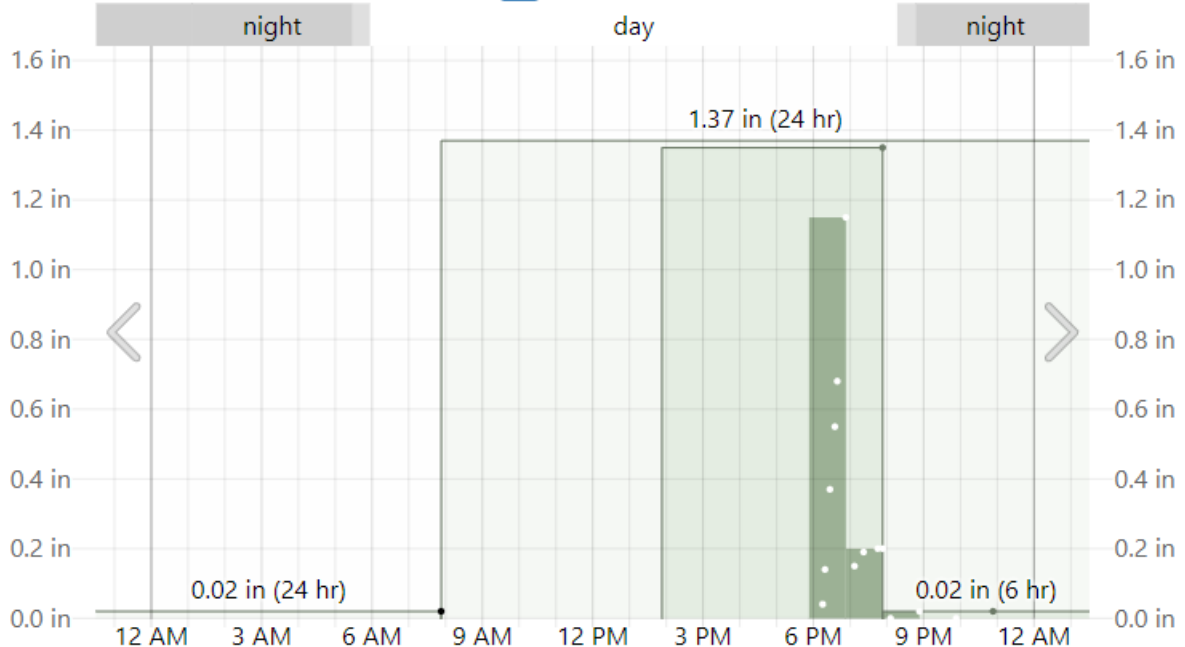


Reported liquid or liquid-equivalent precipitation over various reporting intervals.

Liquid-Equivalent Precipitation on Tuesday, July 25, 2023 at Ocean City Municipal Airport

[← Jul 2023](#) [Link](#) [Download](#) [Compare](#) [Averages](#)

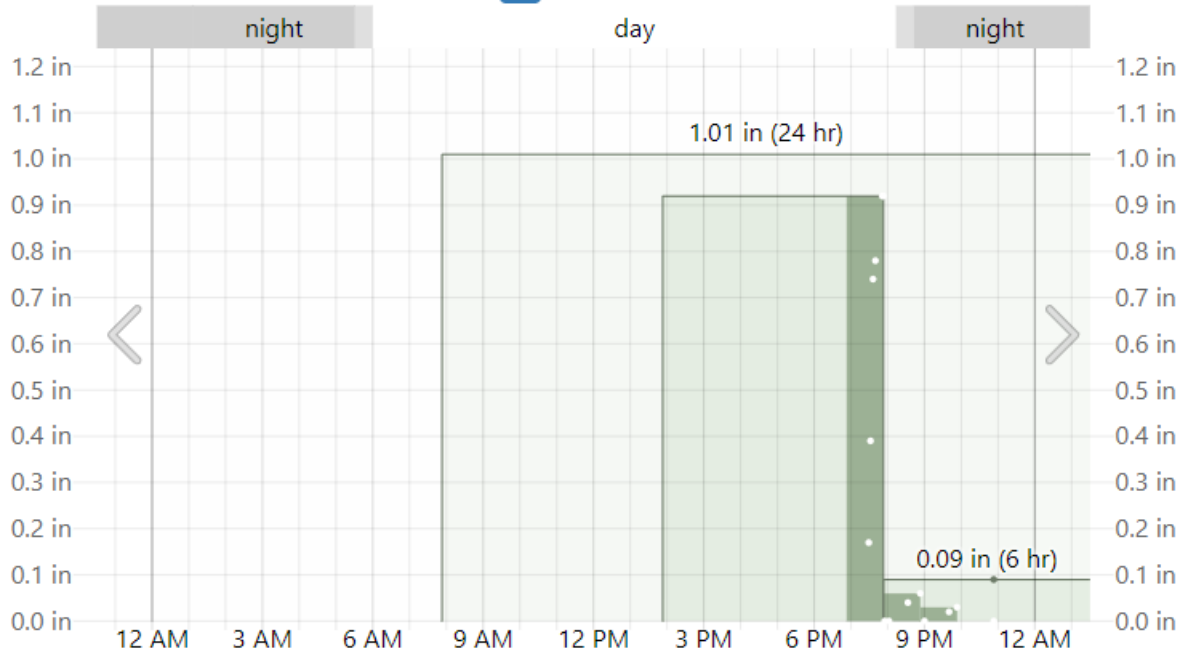
History: J F M A M J **Jul** A S O N D 2022 2021 2020 2019



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

Liquid-Equivalent Precipitation on Saturday, July 29, 2023 at Ocean City Municipal Airport

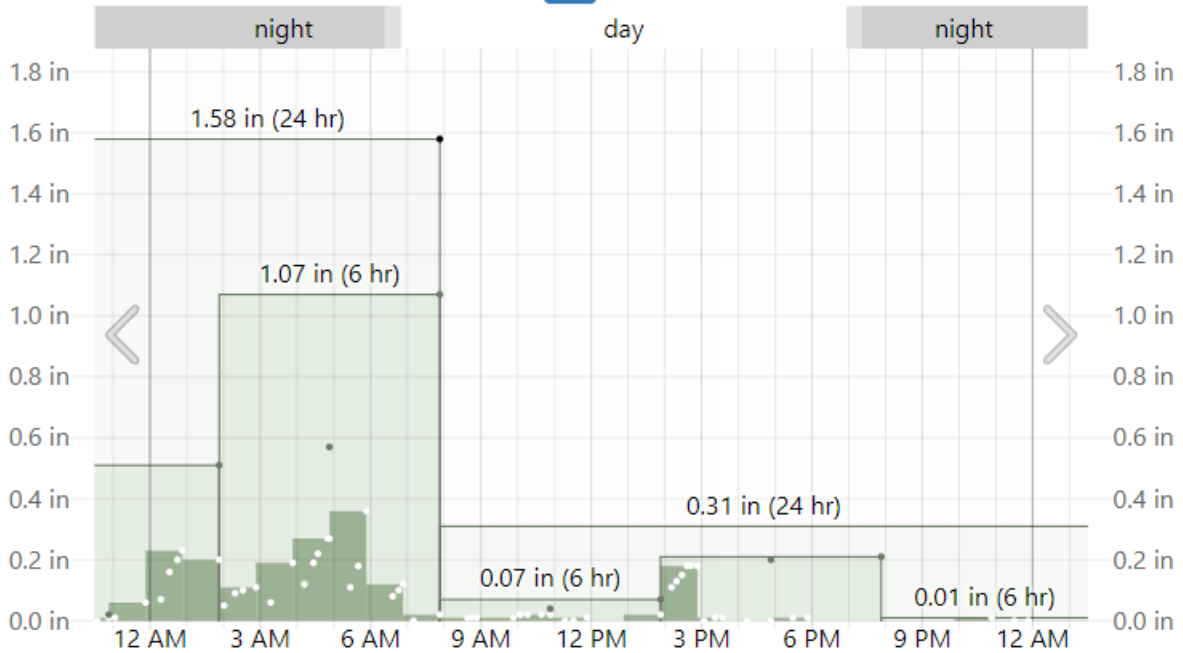
[← Jul 2023](#)
[Link](#)
[Download](#)
[Compare](#)
[Averages](#)
 History: J F M A M J **Jul** A S O N D 2022 2021 2020 2019



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

Liquid-Equivalent Precipitation on Saturday, September 23, 2023 at Ocean City Municipal Airport

[← Sep 2023](#)
[Link](#)
[Download](#)
[Compare](#)
[Averages](#)
 History: J F M A M J J A **Sep** O N D 2022 2021 2020 2019



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

9/18/2023	Mon	7.292		0.190	Rain	Cloudy	76		Drain Pri North
9/19/2023	Tue	6.714				Sunny	77		Pri 90 & 40 on line
9/20/2023	Wed	6.586				P. Cloudy	77		1 Oases
9/21/2023	Thu	6.346				P. Cloudy	77		
9/22/2023	Fri	6.649				Cloudy	76		
9/23/2023	Sat	8.473		2.490	Rain	Cloudy	75		Trop Ophelia
9/24/2023	Sun	7.398				Cloudy	77		

Nuisance Tidal Flooding Report

MyCoast reports from July through September 2023



07/25/2023 | 7:20 pm

Tidal Overview

5 hours 8 minutes after high tide

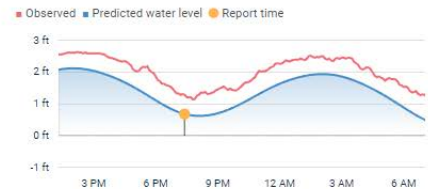
Data from OCEAN CITY INLET (0.6 miles away)

Water Level (at time of report): 7:20 pm, 1.3'

(NWS Flood Status: None)

High Tide (Predicted): 2:01 pm, 2.1'

High Tide (Observed): 2:12 pm, 2.6'



[\(Click here for full tide details from NOAA Tides & Currents\)](#)

Weather Overview



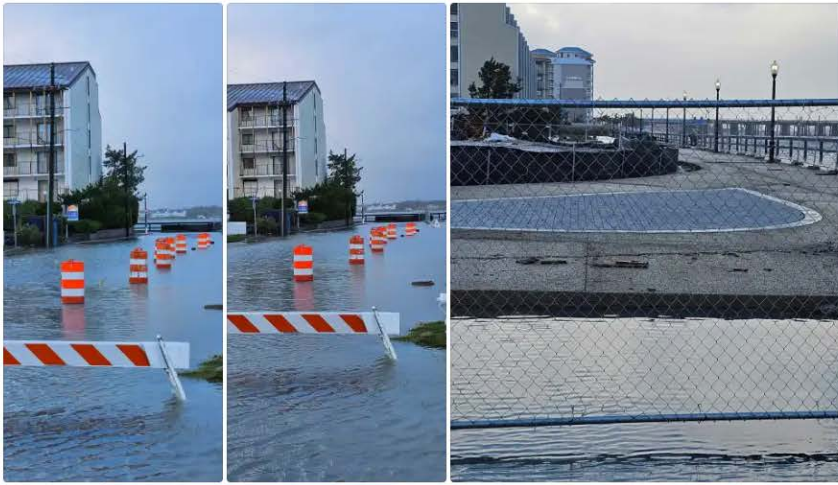
Wind Speed: 0.1 MPH

Wind Direction: N (3°)

Temperature: 70°F

Rainfall (Calendar Day): 1.129"

Rainfall (Past 24 Hours): 0"



09/23/2023 | 8:04 am

Tidal Overview

4 hours 22 minutes after high tide

Data from OCEAN CITY INLET (0.6 miles away)

Water Level (at time of report): 8:04 am, 3.1'

(NWS Flood Status: None)

High Tide (Predicted): 2:01 am, 2'

High Tide (Observed): 3:42 am, 3.9'



(Click here for full tide details from NOAA Tides & Currents)

Weather Overview



Wind Speed: 21.9 MPH

Wind Direction: ENE (69°)

Temperature: 72°F

Rainfall (Calendar Day): 0.023"

Rainfall (Past 24 Hours): 1.55"

(Click here for full weather details)

09/23/2023 | 3:55 pm

Tidal Overview

0 hours 41 minutes before high tide

Data from OCEAN CITY INLET (0.6 miles away)

Water Level (at time of report): 3:55 pm, 4.4'

(NWS Flood Status: Flood)

High Tide (Predicted): 3:09 pm, 2.6'

High Tide (Observed): 4:36 pm, 4.4'



(Click here for full tide details from NOAA Tides & Currents)

Weather Overview



Wind Speed: 25.3 MPH

Wind Direction: E (90°)

Temperature: 73°F

Rainfall (Calendar Day): 0.169"

Rainfall (Past 24 Hours): 1.83"



01/10/2024 | 8:14 am

Tidal Overview

1 hours 2 minutes after high tide

Data from OCEAN CITY INLET (0.6 miles away)

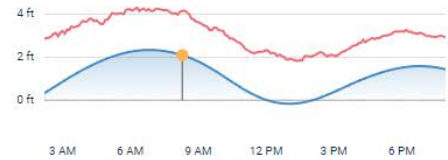
Water Level (at time of report): 8:14 am, 4'

(NWS Flood Status: Action)

High Tide (Predicted): 6:51 am, 2.3'

High Tide (Observed): 7:12 am, 4.2'

Observed Predicted water level Report time



[\(Click here for full tide details from NOAA Tides & Currents\)](#)

Weather Overview



Wind Speed: 10.3 MPH

Wind Direction: W (260°)

Temperature: 52°F

Rainfall (Calendar Day): 0"

Rainfall (Past 24 Hours): 1.38"



09/23/2023 | 4:00 pm

Tidal Overview

0 hours 36 minutes before high tide

Data from OCEAN CITY INLET (0.1 miles away)

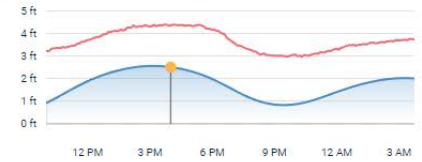
Water Level (at time of report): 4:00 pm, 4.4'

(NWS Flood Status: Flood)

High Tide (Predicted): 3:09 pm, 2.6'

High Tide (Observed): 4:36 pm, 4.4'

Observed Predicted water level Report time



[\(Click here for full tide details from NOAA Tides & Currents\)](#)

Weather Overview



Wind Speed: 25.3 MPH

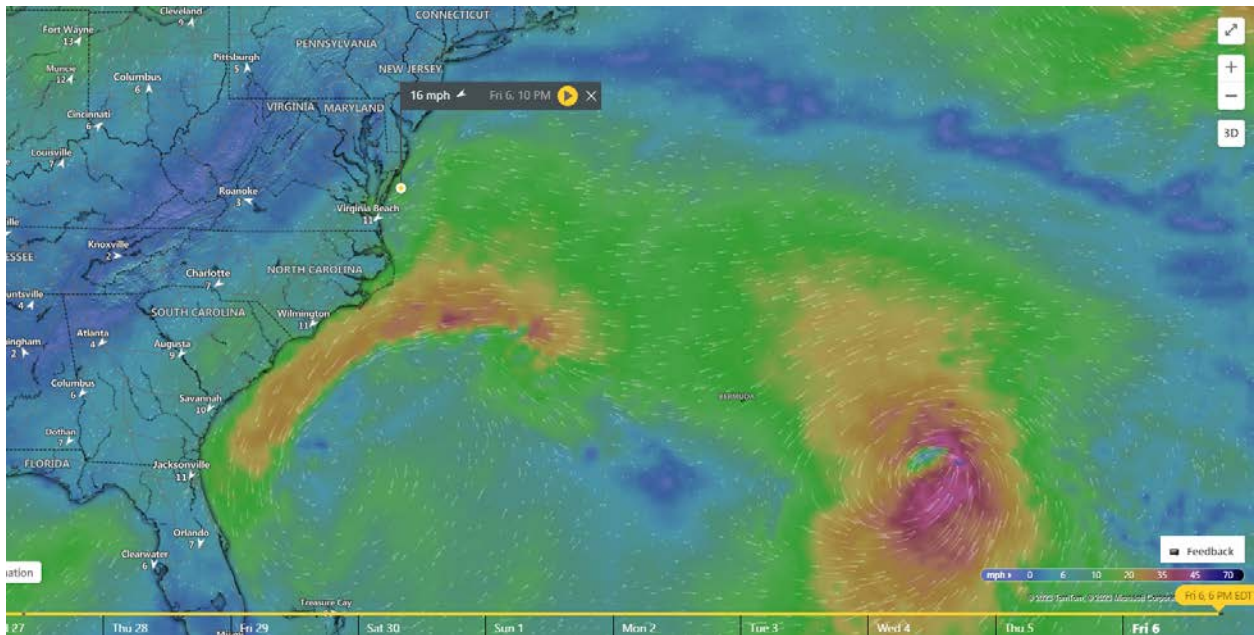
Wind Direction: E (90°)

Temperature: 73°F

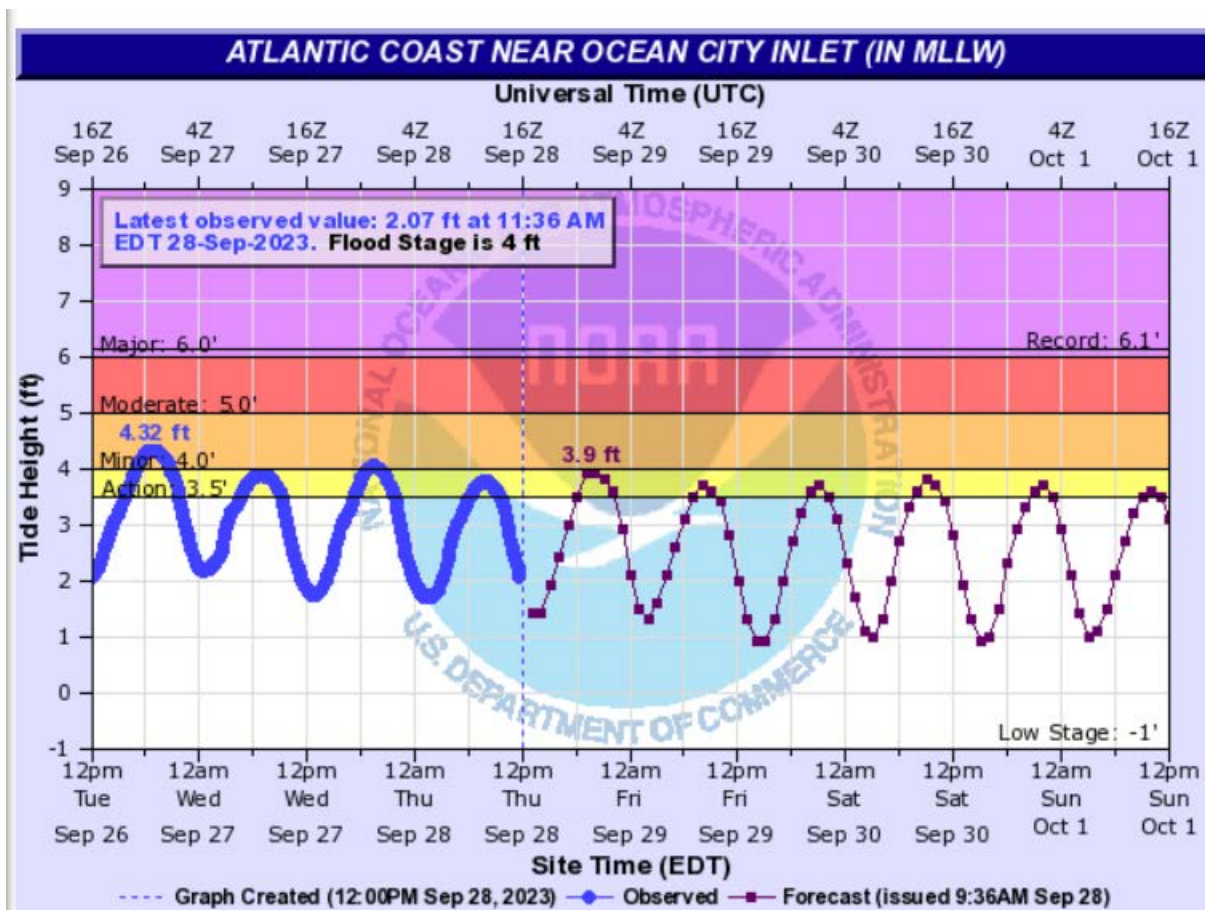
Rainfall (Calendar Day): 0.169"

Rainfall (Past 24 Hours): 1.83"

Remnants of TS Ophelia during setup for Oceans Calling event



Friday forecast



https://www.w boc.com/news/ocean-city-feels-the-impact-of-tropical-storm-ophelia/article_cab34086-5a3e-11ee-bab2-ff165bc4e0de.html

Ocean City Feels the Impact of Tropical Storm Ophelia

Kirstyn Clark
Sep 23, 2023



Tropical Storm Ophelia hit Ocean City early Saturday morning, leaving a path of flooding and property damage. (Photo: WBOC)

OCEAN CITY, Md. -- Tropical Storm Ophelia hit Ocean City early Saturday morning, leaving a path of flooding and property damage.