

## Nuisance Flood Plan – Monitoring Report 2021 Quarterly Threshold Review

<p style="text-align: center;"><b>Q1</b></p> <p><u>4</u> High Tide <u>1</u> Heavy Rainfall &gt;1” <u>&lt;1’</u> Depth <u>2 days</u> Duration <u>avg</u> Extent <u>1/Qtr</u> Frequency</p> <p style="text-align: center;"><b>1 NF Event</b></p>	<p style="text-align: center;"><b>Q2</b></p> <p><u>1</u> High Tide <u>2</u> Heavy Rainfall &gt;1” <u>&lt;1’</u> Depth <u>&lt;1 day</u> Duration <u>avg</u> Extent <u>/Qtr</u> Frequency</p> <p style="text-align: center;"><b>1 NF Event</b></p>		
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	Nuisance Flood Area (Tidal)	Special Flood Hazard Area (FEMA)
<b>Frequency</b>	<b>3.7 times per year average</b>	<b>0.1 times per year average</b>
<b>Depth</b>	<b>1 foot</b>	<b>2 to 4+ feet</b>
<b>Duration</b>	<b>One tide cycle (2 to 3 hours)</b>	<b>Multiple tide cycles (1 to 3 days)</b>
<b>Extent</b>	<b>Area</b> <b>72 acres</b> <b>Buildable %</b> <b>4%</b> <b>Structures</b> <b>450</b>	<b>Area</b> <b>1,157 acres</b> <b>Buildable %</b> <b>58%</b> <b>Structures</b> <b>2,500</b>

- 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:

	2020 Annual
✓ <b>FREQUENCY - Nuisance Flooding exceeds 10 to 12 events per year</b>	<b>8 events, only 2 events exceed the Nuisance Flooding threshold (2.3’ NAVD88) based on tidal influence</b>
✓ <b>DEPTH - Flood depths during nuisance flooding events reach 2 feet deep (moderate flooding) on a sustained annual basis</b>	<b>Tidal events do not exceed Minor Flooding, Additional study required for rainfall events</b>
✓ <b>DURATION - Nuisance flood duration regularly exceeds one tide cycle</b>	<b>One extended event September 19-23</b>
✓ <b>EXTENT - When the extent of local nuisance flooding doubles in area, or exceeds 10% of the community buildable area</b>	<b>Typical Minor Flooding events only during this period, Additional study required for area comparison</b>

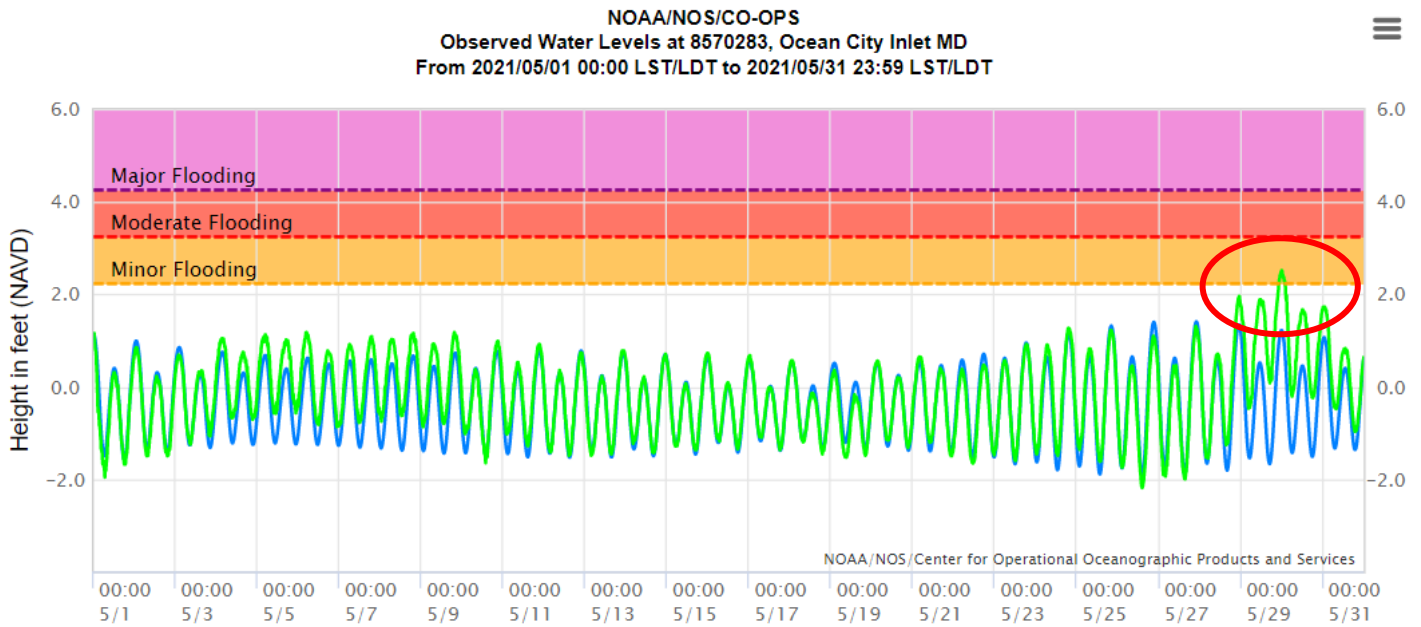
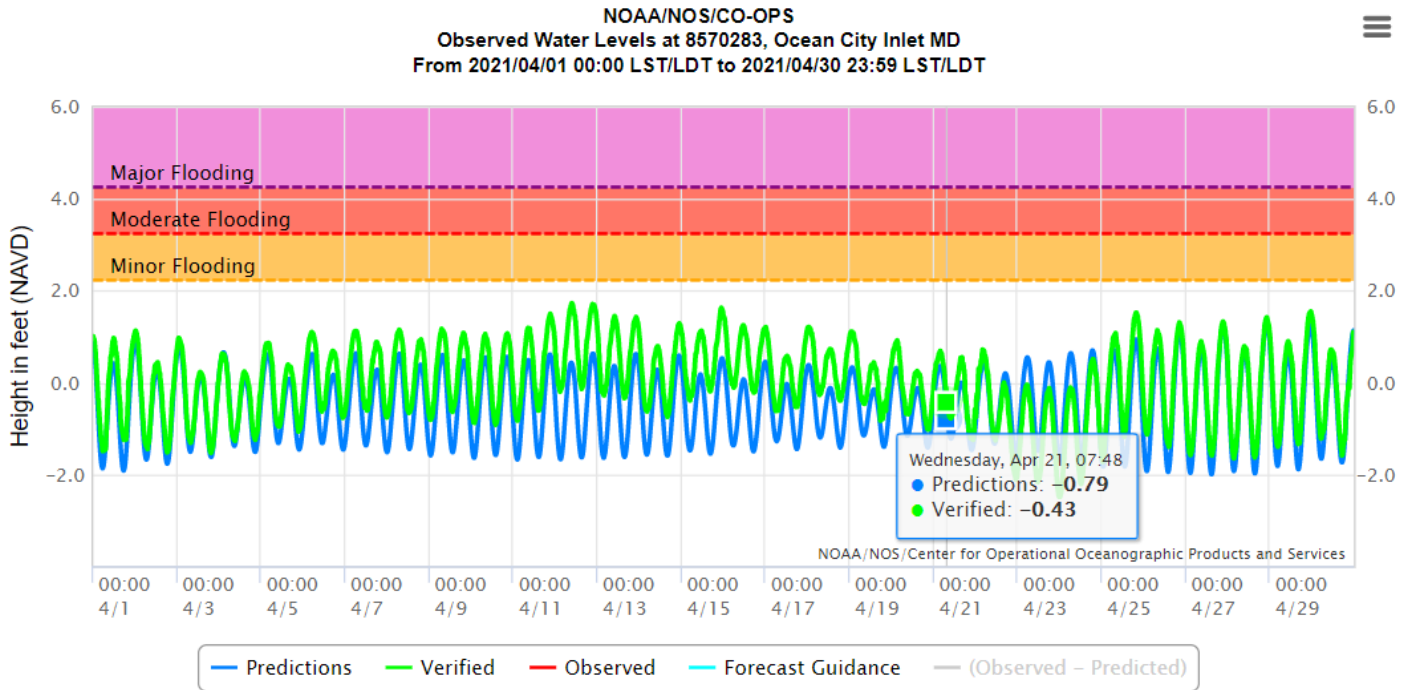
- When any one or more annual threshold(s) are exceeded, the Nuisance Flood Plan work group will meet to evaluate the data and community concerns, and will present a report to the Mayor and City Council with recommendations for action.

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

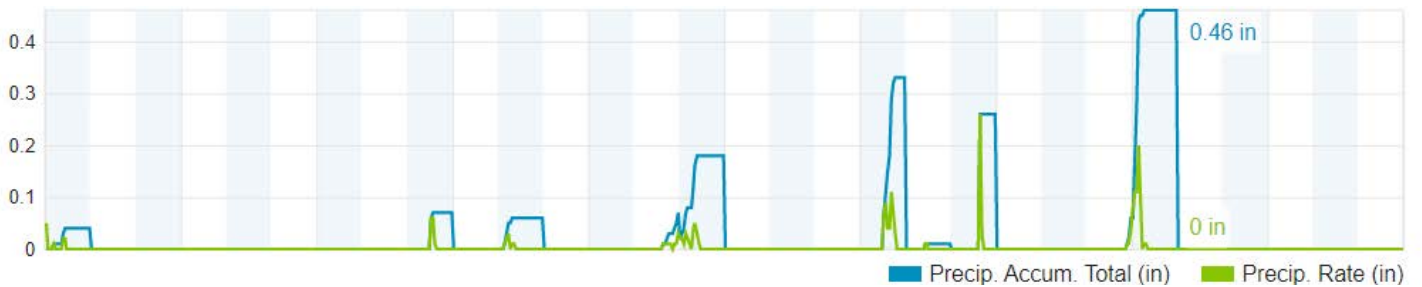
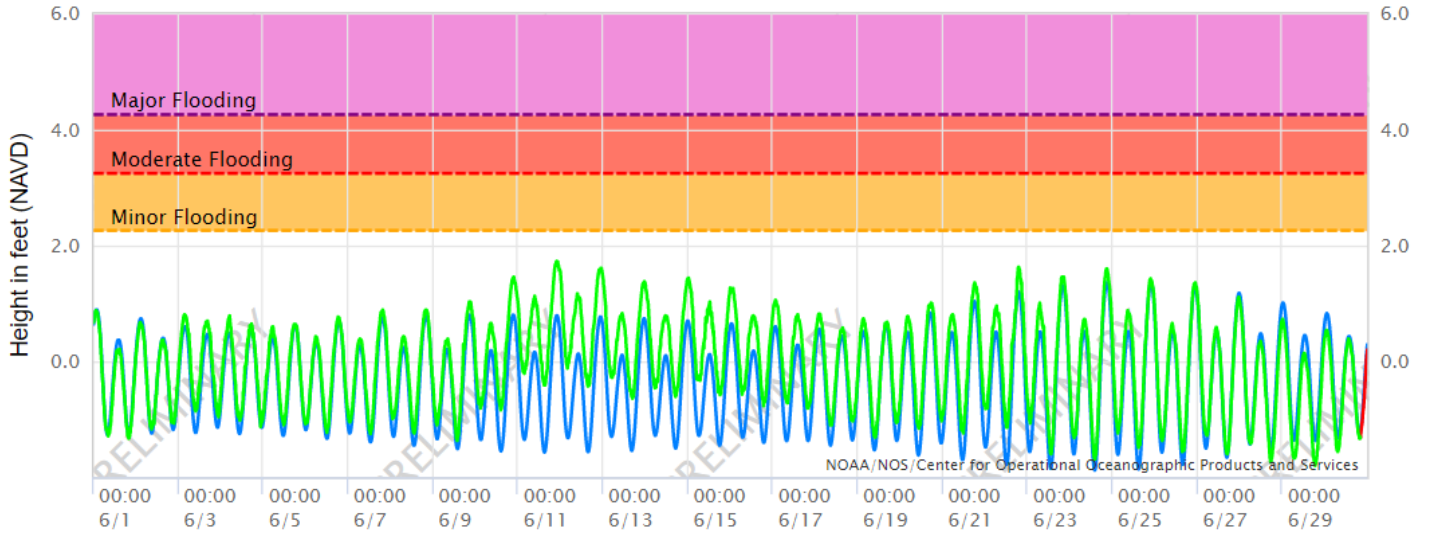
NWS	Elevation (Feet above MHHW)	Elevation (NAVD)	Event Date	Rainfall	Event Type	MyCoast
			6/9/2021	1.3"	Thunderstorm	
			5/29/2021	0.79"	High Tide plus rainfall event (2")	
			4/25/2021	0.46"		
			3/18/2021	1.43"		
Minor Flooding		2.71	2/1/2021	0.93"	Nor'easter WS Orlena	*
	3.94	2.21	12/17/2020		Winter 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	
	4.30	2.57	11/18/2019		Coastal Storm	
	4.72	2.99	10/12/2019		TS Melissa	
	4.89	3.16	10/11/2019		Coastal Storm	
	4.85	3.12	10/11/2019		Coastal Storm	
	4.64	2.91	10/10/2019		Coastal Storm	
	4.32	2.59	9/6/2019	1.63"	H Dorian 1.63" Rainfall	
	4.27	2.54	10/27/2018		Noreaster	
	4.06	2.33	10/12/2018		TS Michael	
	4.58	2.85	9/9/2018		H Florence/Isaac/Helene	
			6/9/2018	7.5"	7.5" Rainfall Event	
	4.01	2.28	3/21/2018		Noreaster	
4.35	2.62	3/7/2018		Noreaster, TS Riley		
4.09	2.36	11/8/2017		Winter Storm		
4.47	2.74	9/19/2017		TS Jose		
		7/28/2017	1.76"	1.76" Rainfall		
		7/14/2017	1.2"	Flash Flood 1.2" Rainfall		

# Nuisance Flood Plan – Monitoring Report

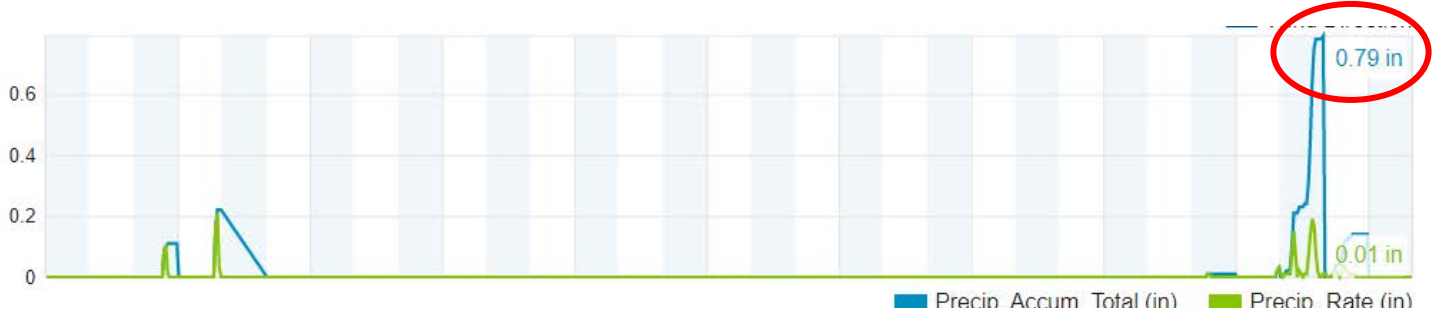
## 2021 Tide Elevations Q2



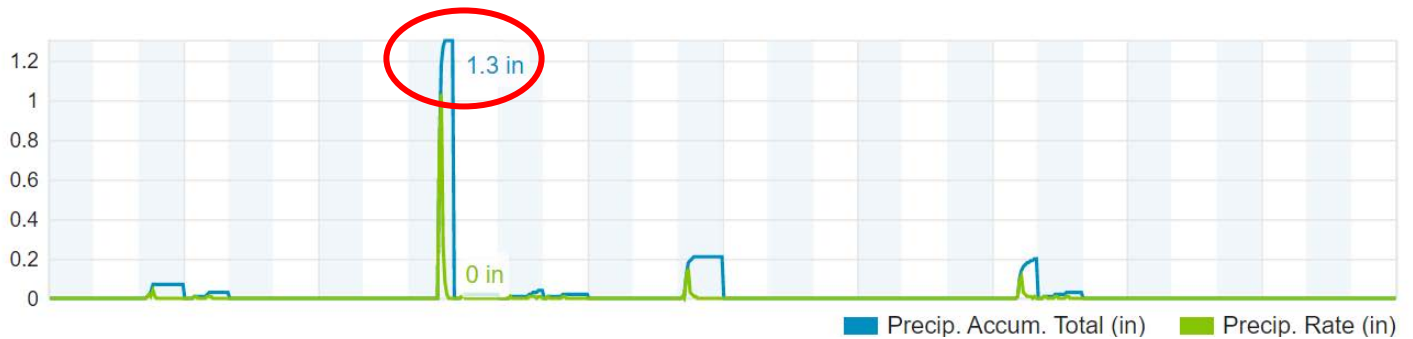
NOAA/NOS/CO-OPS  
 Observed Water Levels at 8570283, Ocean City Inlet MD  
 From 2021/06/01 00:00 LST/LDT to 2021/06/30 23:59 LST/LDT



**April 2021 Rainfall (Beach Plaza Hotel - KMDOCEAN13) 4.25.21 high event**



**May 2021 Rainfall (Beach Plaza Hotel - KMDOCEAN13) 5.29.21 high event**



**June 2021 Rainfall (Beach Plaza Hotel - KMDOCEAN13) June 9, 2021 high event**

## Nuisance Tidal Flooding Report

No Photos reported

Nuisance flooding similar to prior events

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**Subject:** Report on Rainfall Event

**Date:** Saturday May 29, 2021

Flooding issues were south of the route 50 bridge on Philadelphia Avenue with the cars having issues at Worcester to Wicomico (deepest water 1.0 plus feet estimates) and 12th to 9th streets on Coastal southbound. St Louis normal flooding from 9th Street to Talbot. All lasted a little over one hour due to amount of rain that fell (over 2.0 inches in 1-2 hours) and incoming tide. Water draining was slow. Rain in the north end of Town was much light with no issues reported. Two people were removed from their vehicles by DPW at Worcester/Wicomico street area and two people from one car (both elderly) at 11th street and Coastal by OCPD. All three of these cars were disabled and removed. Total of eleven vehicles were removed/towed from water damage and one OCPD vehicle towed to 65th street. There were three accidents downtown during this flooding but do not believe the flooding contributed to the wrecks. All flooding subsided in one – two hours. No injuries.

Weather Service NWS Wakefield and the State were notified. MD CHART assisted with clearing the roads. All vehicles were private towed and the OCPD car was removed by MD CHART.

Bob



***Bob Rhode, Emergency Management Coordinator/Planner Town of Ocean City, Maryland Emergency Services***

***Public Safety Building 6501 Coastal Highway Ocean City, Maryland 21842***

***Office: 410.723.6650 Cell: 443.235.4443 Fax: 410.723.6962***

Email: [brhode@oceancitymd.gov](mailto:brhode@oceancitymd.gov)