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# **An Overview of the Maryland Flood Tabletop Workshop – April 11, 2018**

Kevin G. Wagner  
Coast Smart Council Meeting  
February 25, 2019

# Purpose of Tabletop

- To see how state partners can work together before, during and after a significant flood event.



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# Target Audience

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- Floodplain administrators, emergency management professionals, planners, engineers, public works officials, code enforcement officers, GIS staff and anyone else who may be involved in responding to or providing support for a flood disaster.

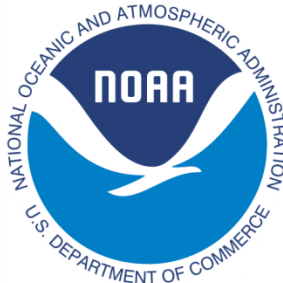


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# Key Partners

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- FEMA Region III
- NOAA, National Weather Service
- Maryland Emergency Management Agency
- Maryland Resiliency Partnership
- Maryland Silver Jackets Team



# Participants

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- **Federal**
  - USACE, FEMA, USGS, NOAA
- **State**
  - MEMA, DNR, MDOT, SHA, MHT, DHCD, DoIT, MIA
- **Local**
  - About 30 county/municipal officials
- **Nonprofit/Private**
  - ESLC, NAPSG Foundation, Michael Baker Intl, Sharp Energy, The Craig Group

**68 People  
Participated!**



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# Agenda

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8:30 AM	Registration and Refreshments
9:00	Welcome and Introductions
9:15	Flood Module 1 – Tidal
10:45	Break
11:00	Flood Module 2 – Riverine
12:00 PM	Lunch (provided)
1:00	Flood Module 2 – Riverine (continued)
1:30	Flood Module 3 – Coastal
2:30	Break
2:45	Flood Module 3 – Coastal (continued)
3:15	Lessons Learned
3:30	Adjourn



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# Situation Manual

- Gives officials, observers, and players from participating organizations the information necessary to observe or participate in the workshop.



# Weather Scenario

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- Tropical Depression #20 developed in the Central Atlantic Ocean on September 8, 2018.
- The storm steadily intensified, becoming Tropical Storm Tucker the next day, September 9<sup>th</sup>.
- As the storm continued to move west-northwestward through a very warm Atlantic Ocean, it continued to steadily intensify, becoming a powerful Category 5 Hurricane by September 14<sup>th</sup>.
- **Affects Maryland September 20<sup>th</sup> – 22<sup>nd</sup>**



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# Latest on Hurricane Tucker



National Weather Service



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Hurricane Tucker  
 September 14, 2018  
 5 AM EDT Friday  
 Advisory 25  
 Current Center Location 21.7 N 57.0 W  
 Max Sustained Wind 160 mph  
 Current Movement 9 mph

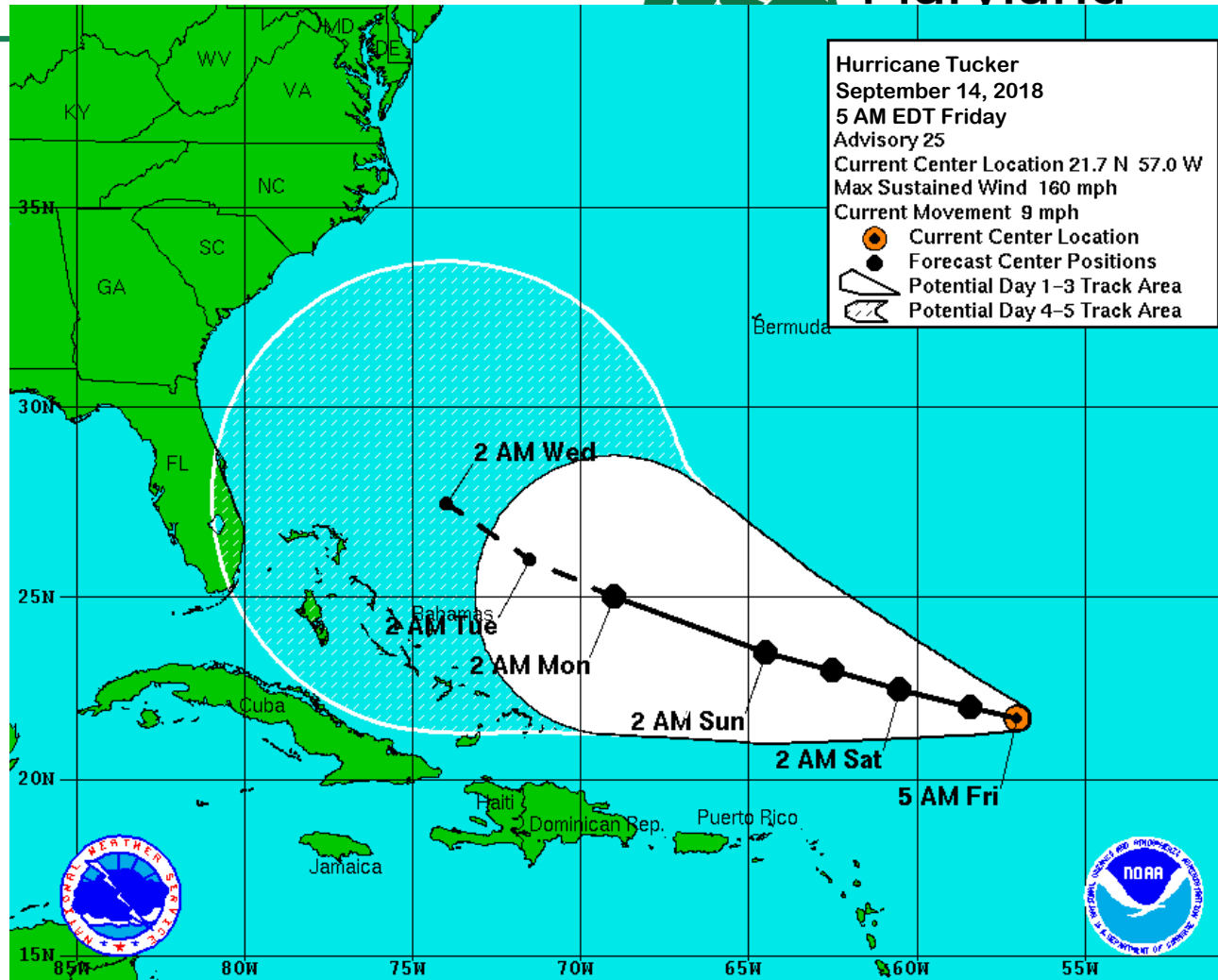
- Current Center Location
- Forecast Center Positions
- Potential Day 1-3 Track Area
- Potential Day 4-5 Track Area

## Key Messages

Current Location:  
About 1600 miles SE of Ocean City, MD

Current Strength:  
160 mph (Category 5)

Forecast:  
Expected to remain a major hurricane through the middle of next week.



**Too soon to speculate on threats to the mainland United States.**



# Latest on Hurricane Tucker



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## Key Messages

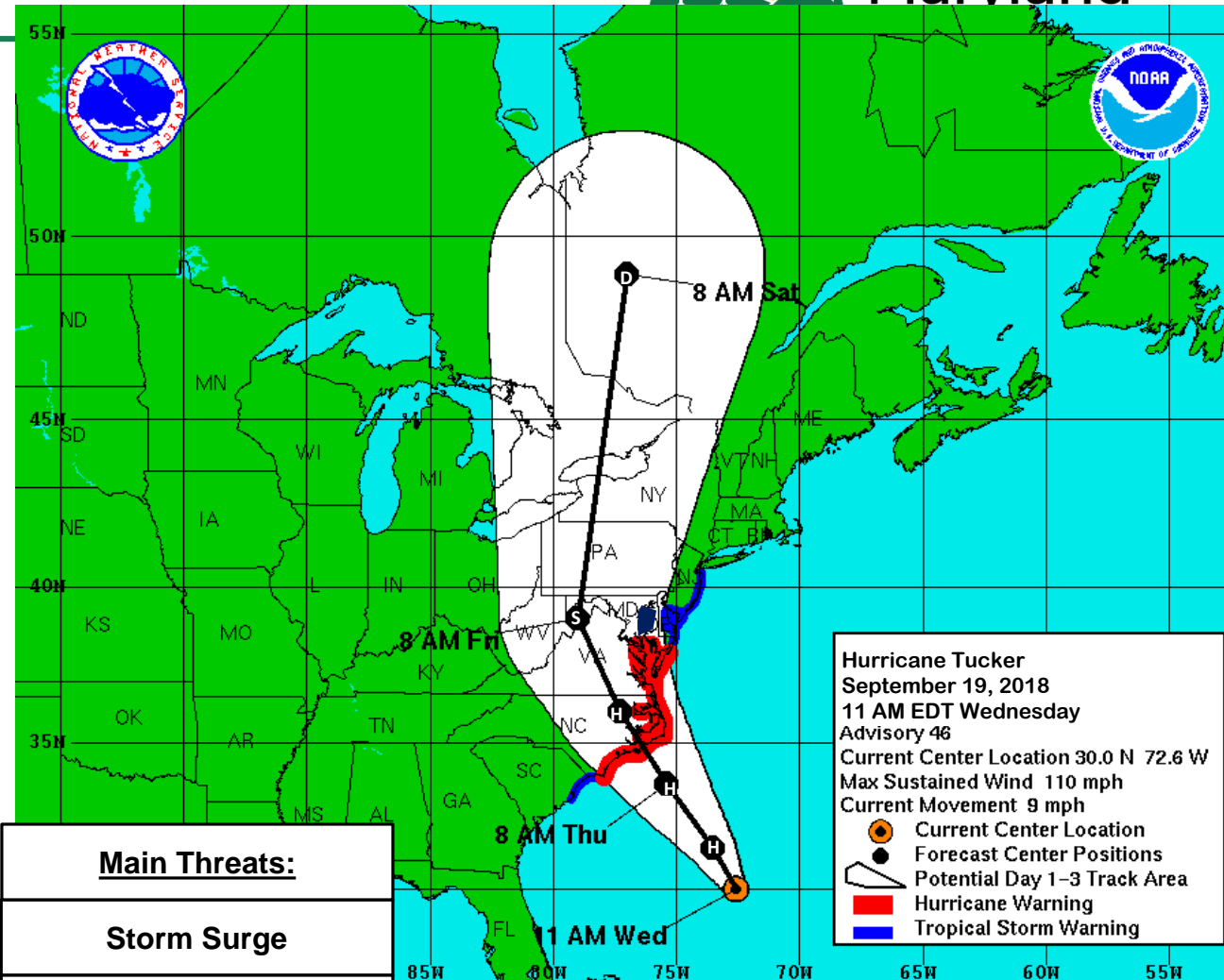
Hurricane Warning for lower MD Chesapeake Bay; Tropical Storm Warning for MD Atlantic Coast & Upper MD Bay

Current Location:  
About 600 miles S of Ocean City, MD

Current Strength:  
110 mph (Category 2)

Landfall along the North Carolina coast looks likely on Thursday.

Impacts to Maryland looking very certain.



### Main Threats:

Storm Surge

Heavy Rainfall

**Greatest Risk Timing: Thursday night & Friday**



# Storm Surge Potential



National Weather Service



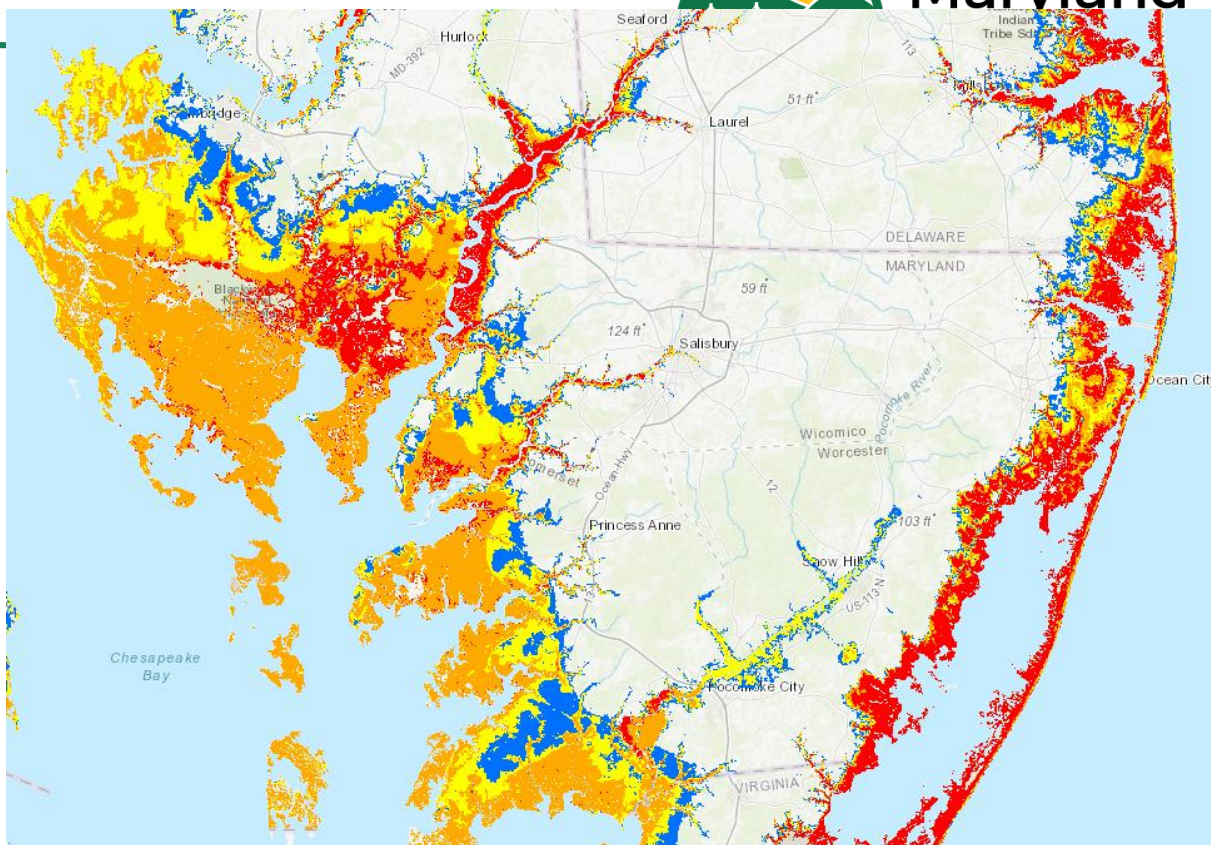
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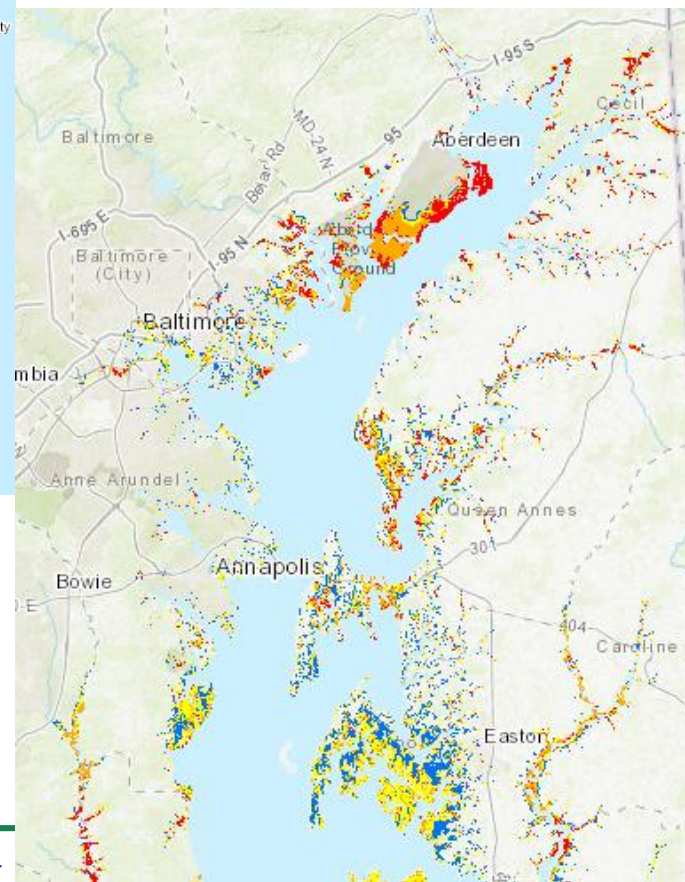
### Key Point

This is the maximum possible storm surge for ANY Category 3 hurricane.

This does not factor in the current forecast path.



- Less than 3 feet above ground
- Greater than 3 feet above ground
- Greater than 6 feet above ground
- Greater than 9 feet above ground



# Summary of Greatest Impacts



## Wind



## Surge/Inundation



## Inland Flooding



## Tornado/Waterspout



## Marine







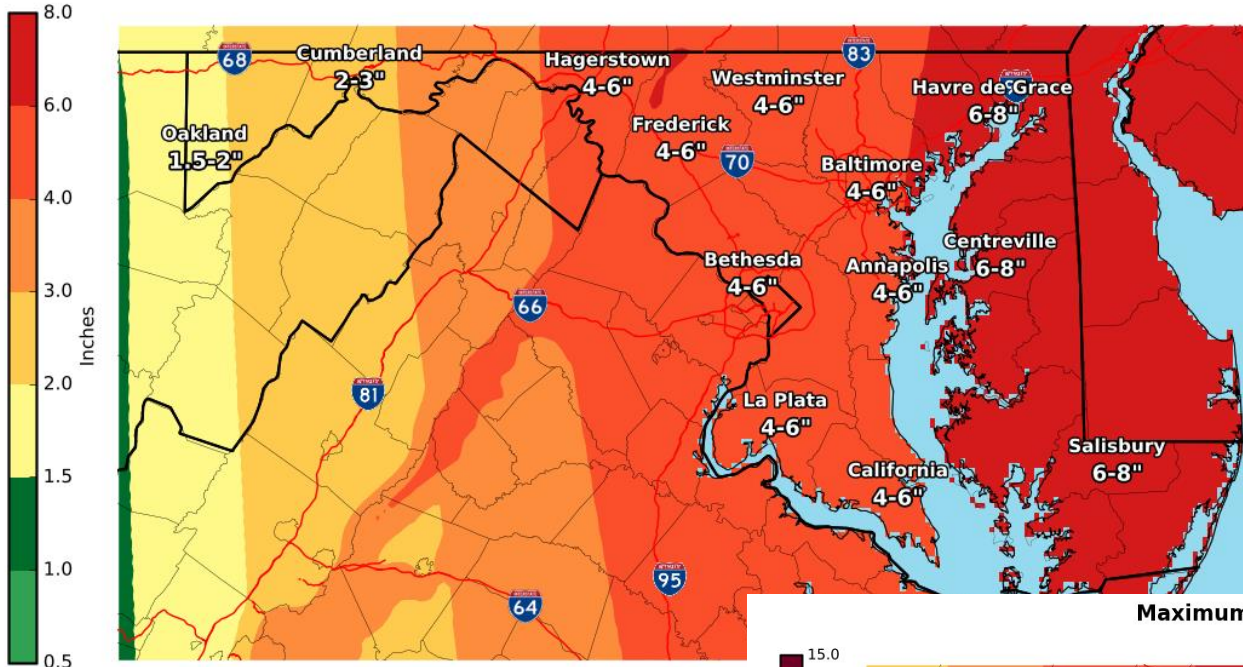
National Weather Service



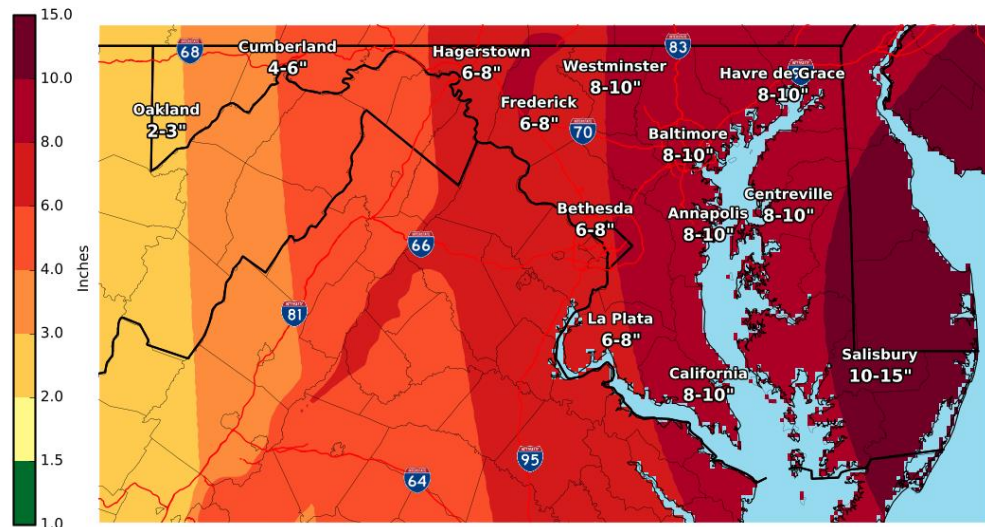
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### Expected Rainfall



### Maximum Potential Rainfall



## Key Messages

Heavy rain likely Thursday through Friday. Most of the state is likely to receive 3 inches or more of rain.

Worst case rainfall could exceed 10 inches on the Atlantic Coast.

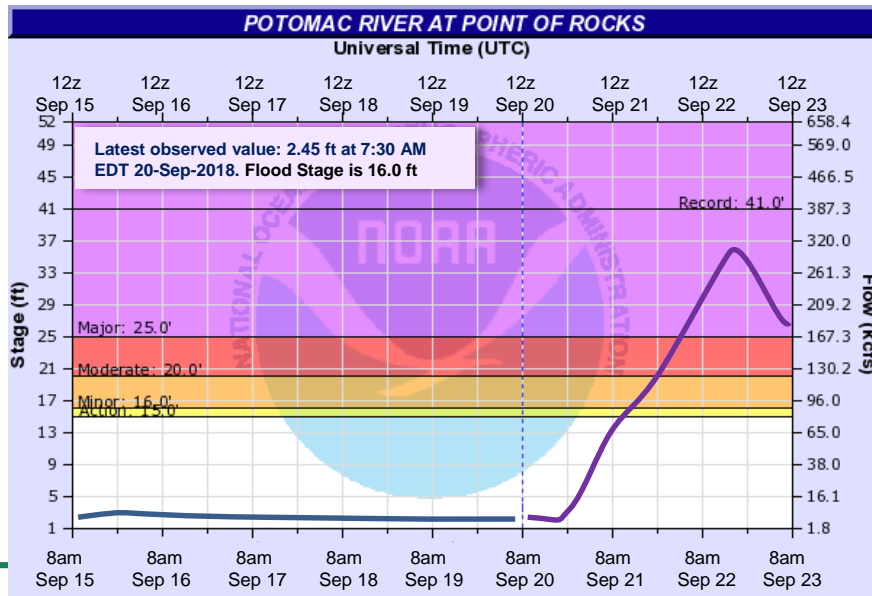
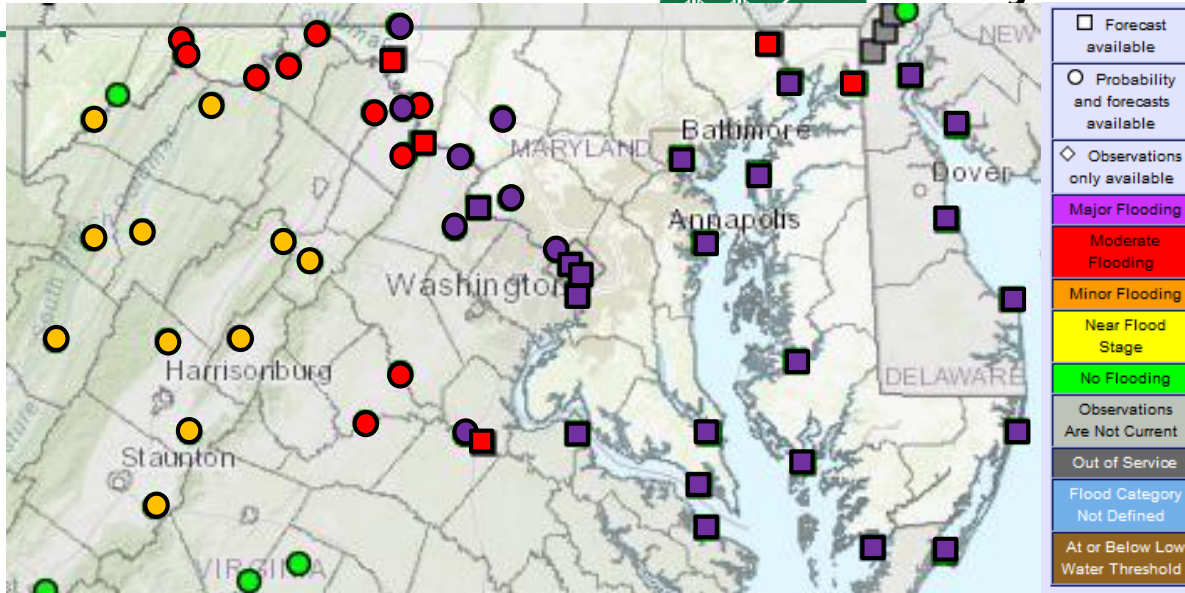


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Location	Flood Stage	Max Forecast	When?
Cumberland	17 feet	22.5 feet	Friday
Paw Paw	25 feet	31.5 feet	Friday
Hancock	30 feet	34.5 feet	Friday
Shepherdstown	15 feet	32.5 feet	Saturday
Point of Rocks	16 feet	36.0 feet	Saturday
Little Falls	10 feet	19.0 feet	Sunday

# Photos

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# Takeaways

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- **Substantial Damage**

- Information collected during response and recovery can help with determinations (ex. Damage assessments)

- **Permits**

- Still required, but process can be expedited and fees waived

- **Training**

- Identify gaps, fill the need

- **Communication**

- Different tools, giving information at the right time



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# Questions?

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