



# TROPICAL DEPRESSION IDA BRIEFING

5:00 AM EDT

Wednesday, September 1, 2021

What has changed: Updated rainfall totals & river forecasts

Next Briefing: Wednesday, September 1, at 6PM EDT

*Disclaimer: The information contained within is time-sensitive. Do not use after 6:00pm EDT Wednesday.*



# Situation Overview




## Tropical Depression Ida

- Significant rainfall amounts over a very short (~12 hour) period of time combined with nearly-saturated antecedent ground conditions will result in considerable flash, urban, and river flooding impacts Wednesday into Thursday across south-central Pennsylvania.
- Widespread rainfall totals of 4-6" are expected across south-central PA with locally-higher amounts of up to 8" possible.
- Several streams and creeks are expected to reach minor to moderate flood levels in the Juniata and Lower Main Stem Susquehanna basins. A few points could crest above major flood stage on Thursday.
- Isolated damaging wind gusts and/or brief tornadoes are possible in extreme southeastern Pennsylvania Wednesday afternoon.



# Situation Overview

Tropical Depression Ida

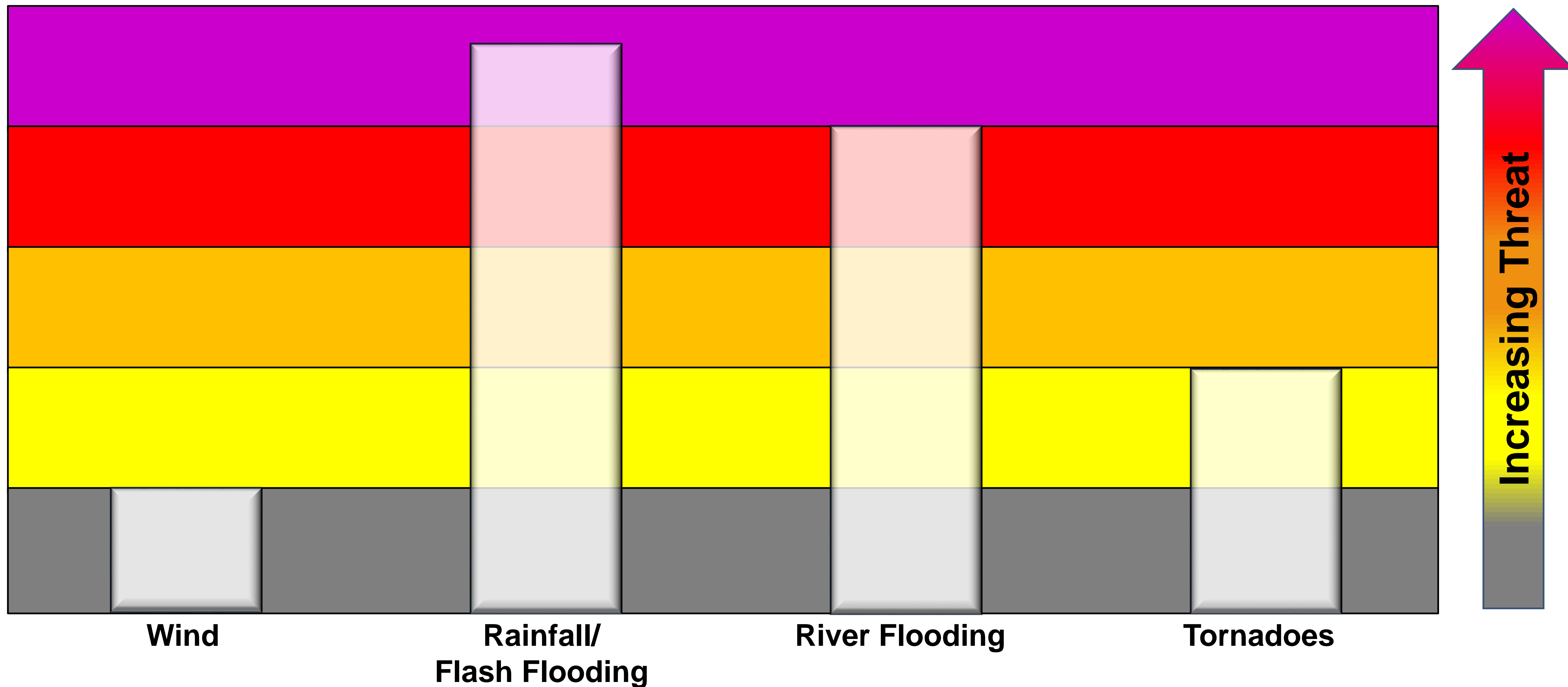
Hazard	Impacts	Location	Timing
 Flooding Rain	Heavy rainfall with rates >1" per hour over several hours will result in rapid-onset urban and small stream flooding	Highest rainfall totals likely between I-80/I-99 and I-81; sharp decrease in rainfall north of I-80.	Wednesday and early Wednesday night
 River Flooding	Widespread rainfall totals of 4-6" with locally-higher amounts of up to 8" will result in inundation flooding with adjacent road closures	Significant (10-15') rises in the Juniata & Lower Main Stem Susquehanna basins, with minor to moderate flooding expected. Major flooding possible in a few locations.	Rivers begin rising Wednesday and crest Thursday - Friday
 T-storm Wind Damage	A few strong wind gusts could bring down trees due to saturated soil. An isolated, brief tornado or two is possible.	Southeastern Pennsylvania, especially along, south, and east of I-81/I-78 corridor.	Wednesday afternoon and evening



# Threat Levels

Tropical Depression Ida

For information on specific hazards in this area, please go to <https://www.weather.gov/ctp/tropical>

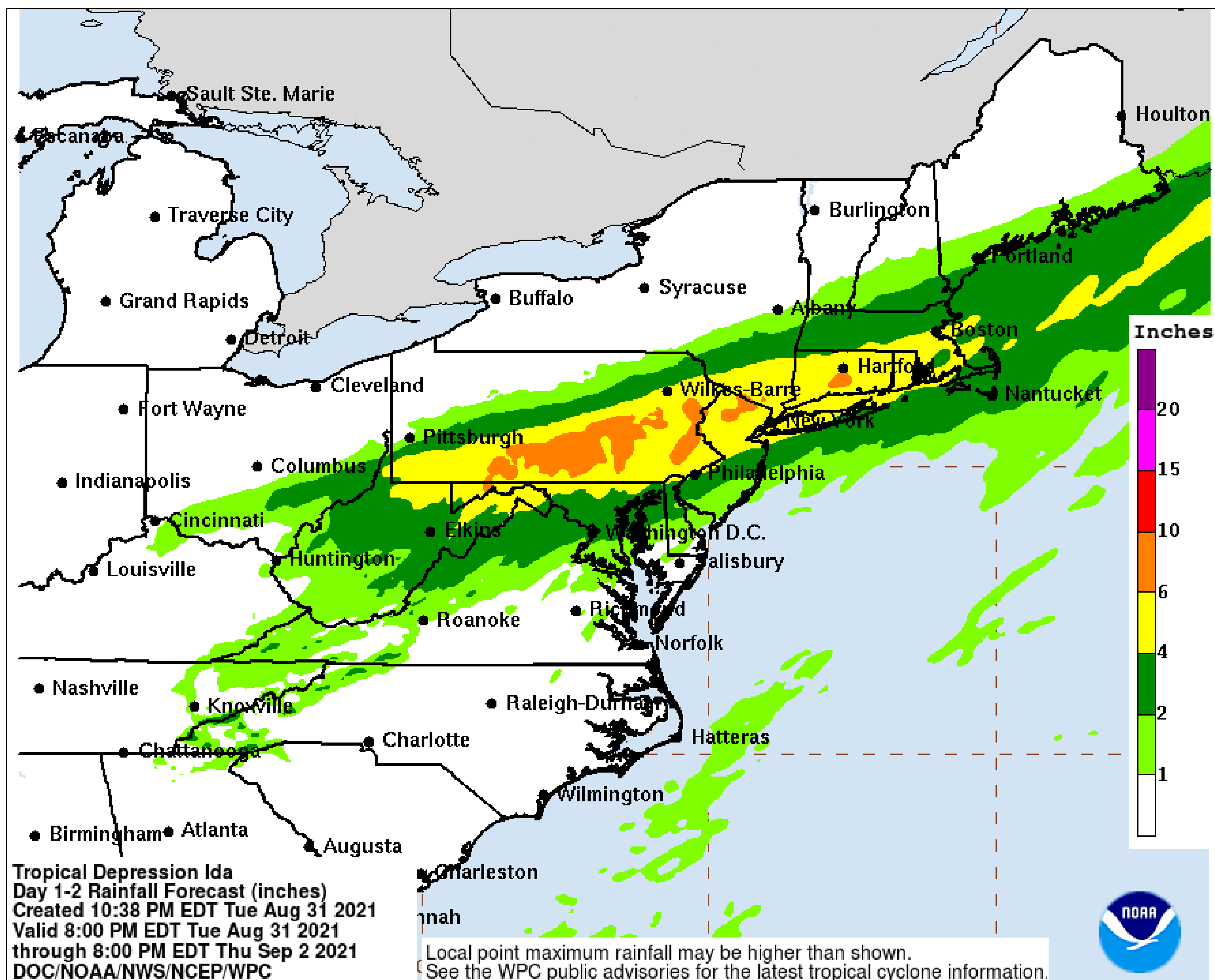






# Situation Overview

## Tropical Depression Ida



- Ida is forecast to track just south of Pennsylvania today and tonight, bringing heavy rainfall to much of south-central Pennsylvania.
- Heavy to excessive rainfall is forecast with a considerable risk of flooding impacts focused over south-central Pennsylvania.
- Rain will overspread the area this morning, increase in intensity this afternoon, and then exit eastern PA later tonight.





# Flood Watches/Warnings/Advisories

Tropical Depression Ida

	= Flash Flood Warning		= Flood Warning
	= Flood Watch		= Flood Advisory



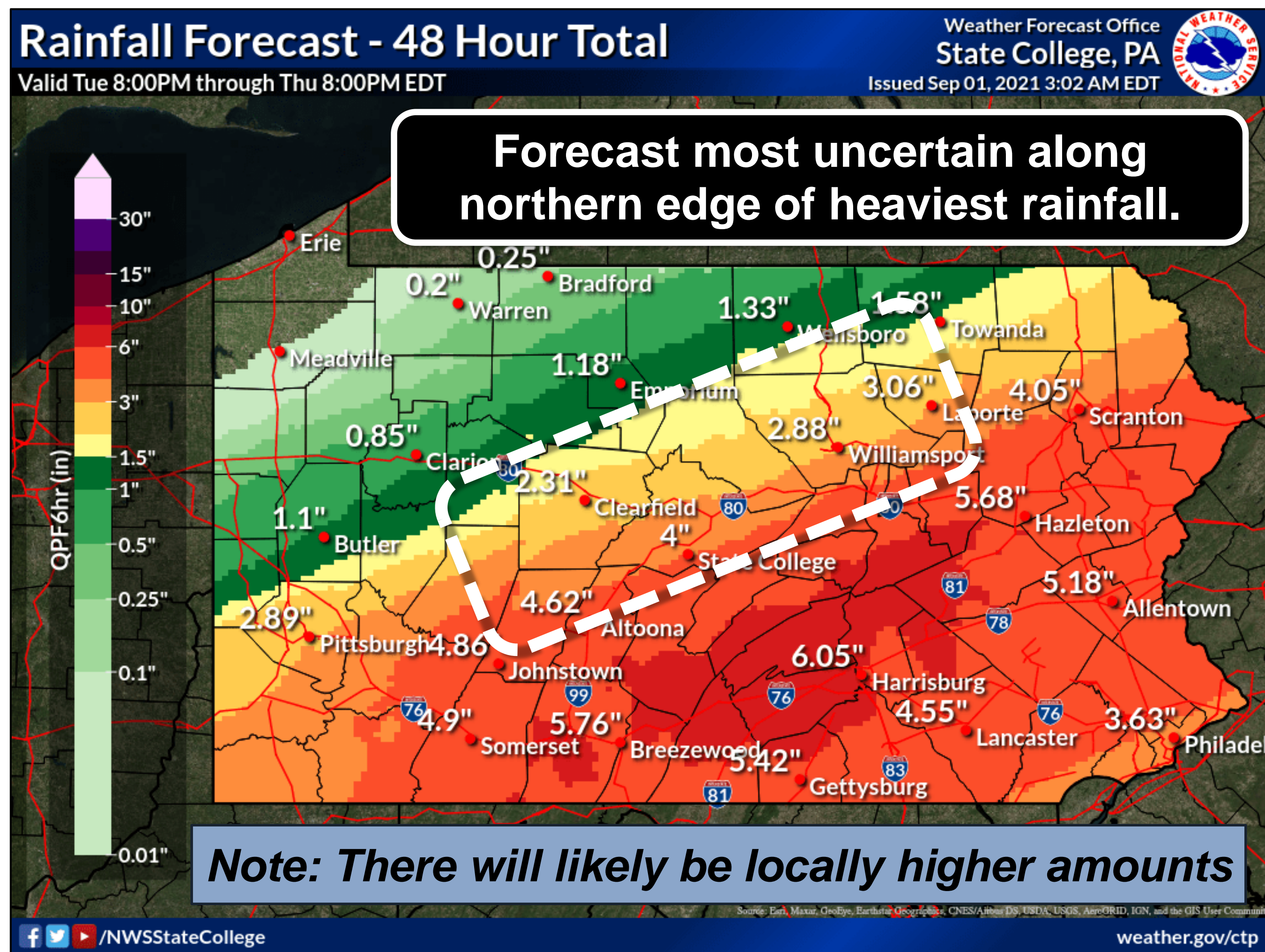
- Flash Flood Watch remains in effect for much of central Pennsylvania
- Valid from 8AM Wednesday to 8AM Thursday
- In addition to the potential for significant flash and urban flooding, considerable river flooding is expected. Flood warnings have already been issued for several river points.
- Continue to monitor forecasts and be prepared to take action should additional flood warnings be issued.





# Expected Storm Total Rainfall

Tropical Depression Ida



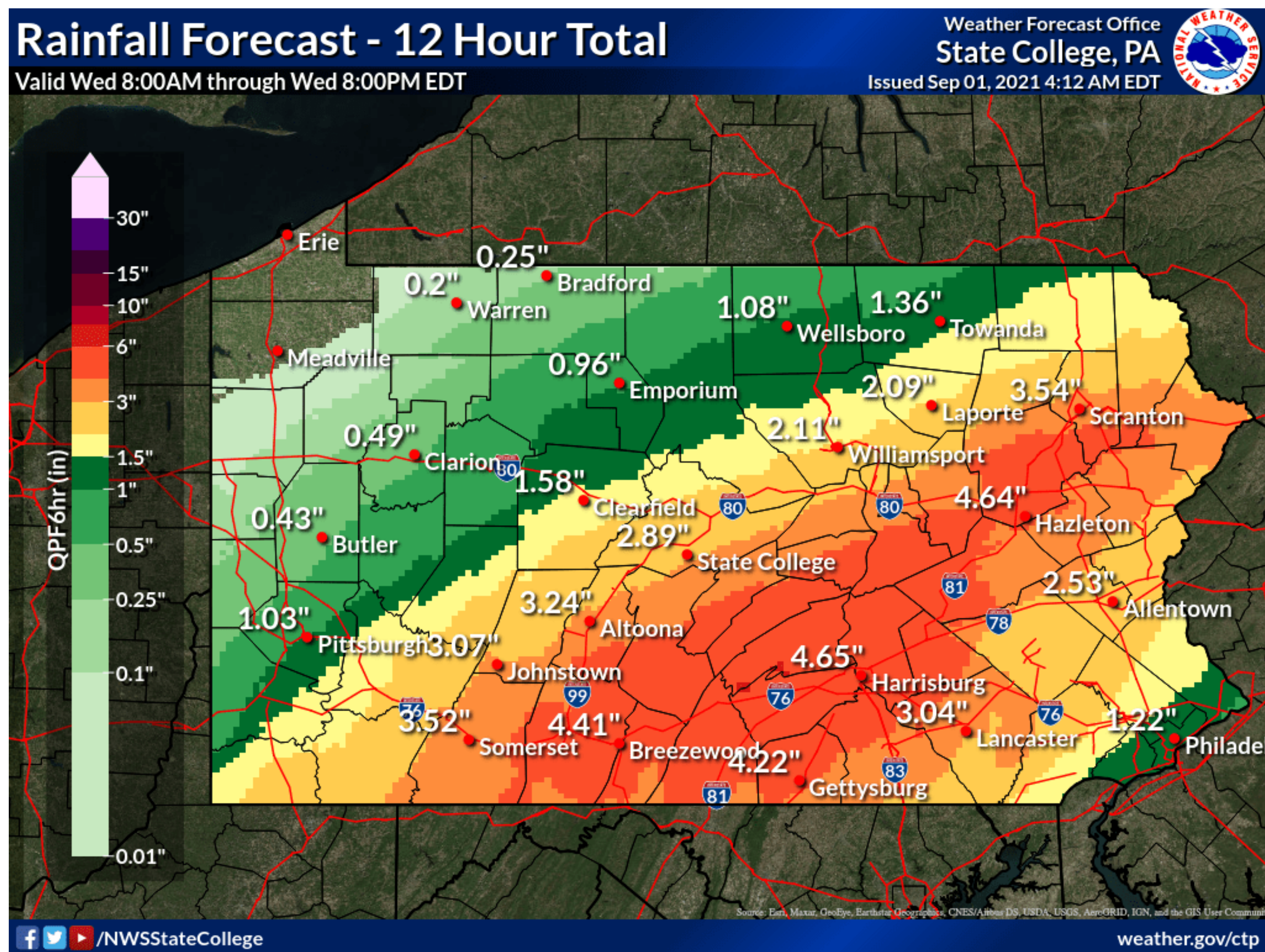
- Rainfall totals of 4-6+ inches in a 24-hour period would correspond to a top-5 daily maximum rainfall record at several locations.
- A narrow corridor of locally higher amounts up to 8" is possible across south-central PA between the I-99/I-80 and I-81 corridors.
- The heaviest rainfall is expected this afternoon and evening.
- There will be a tight gradient on the northern edge of the rainfall footprint.





# 12-Hour Rainfall 8am – 8pm Wednesday

Tropical Depression Ida



## 8AM – 8PM Wednesday

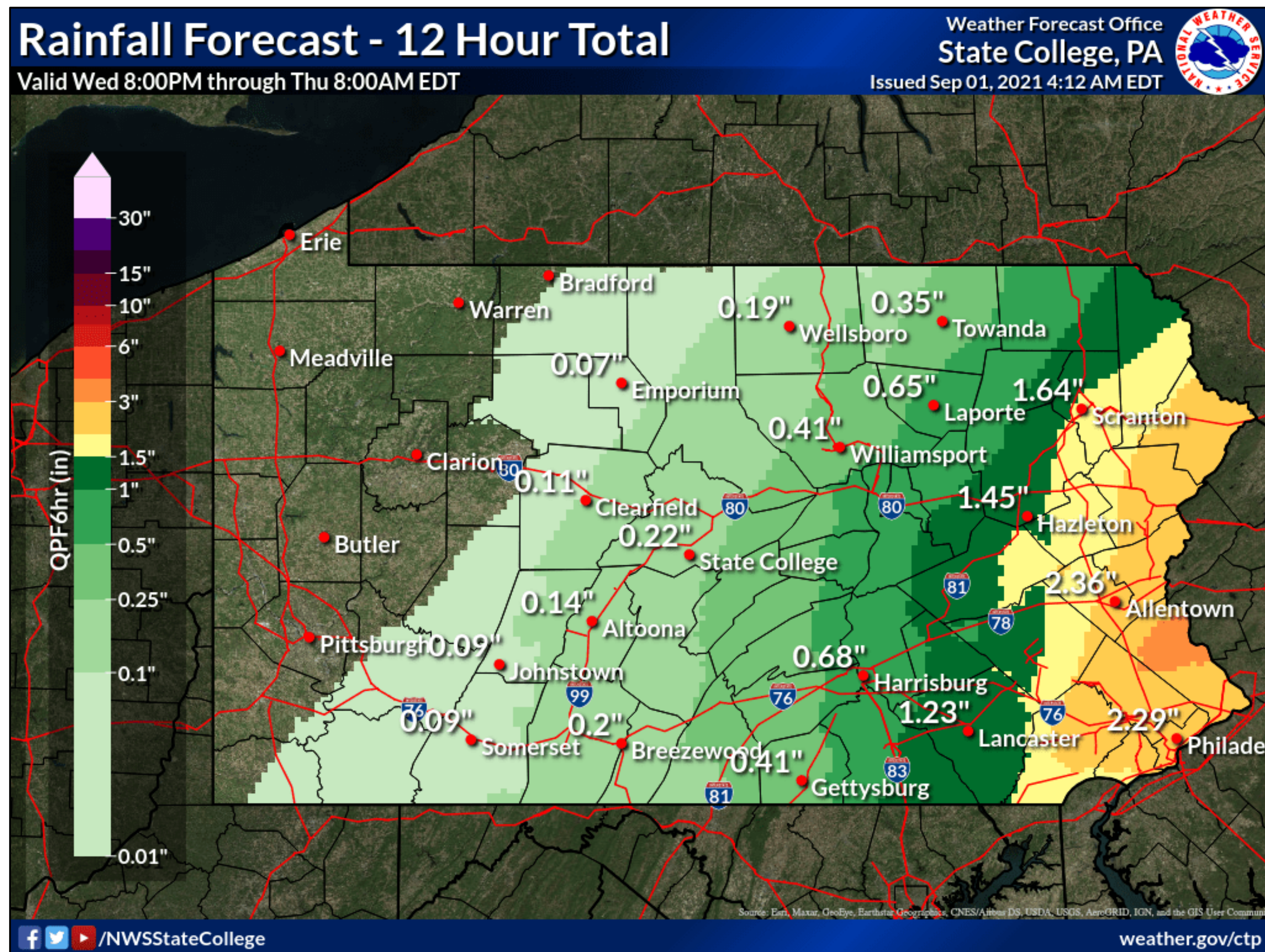
- Moderate to heavy rain overspreads south-central PA.
- Flash flooding likely in parts of south-central PA.
- Juniata River & Lower Susquehanna tributaries rise rapidly into the evening.
- Moderate to heavy rain during the evening rush hour along, south, and east of the I-80/I-99 corridor.
- Afternoon isolated damaging winds/tornadoes possible southeast of I-81/I-78.





# 12-Hour Rainfall 8pm Wednesday – 8am Thursday

Tropical Depression Ida



## 8PM Wednesday – 8AM Thursday

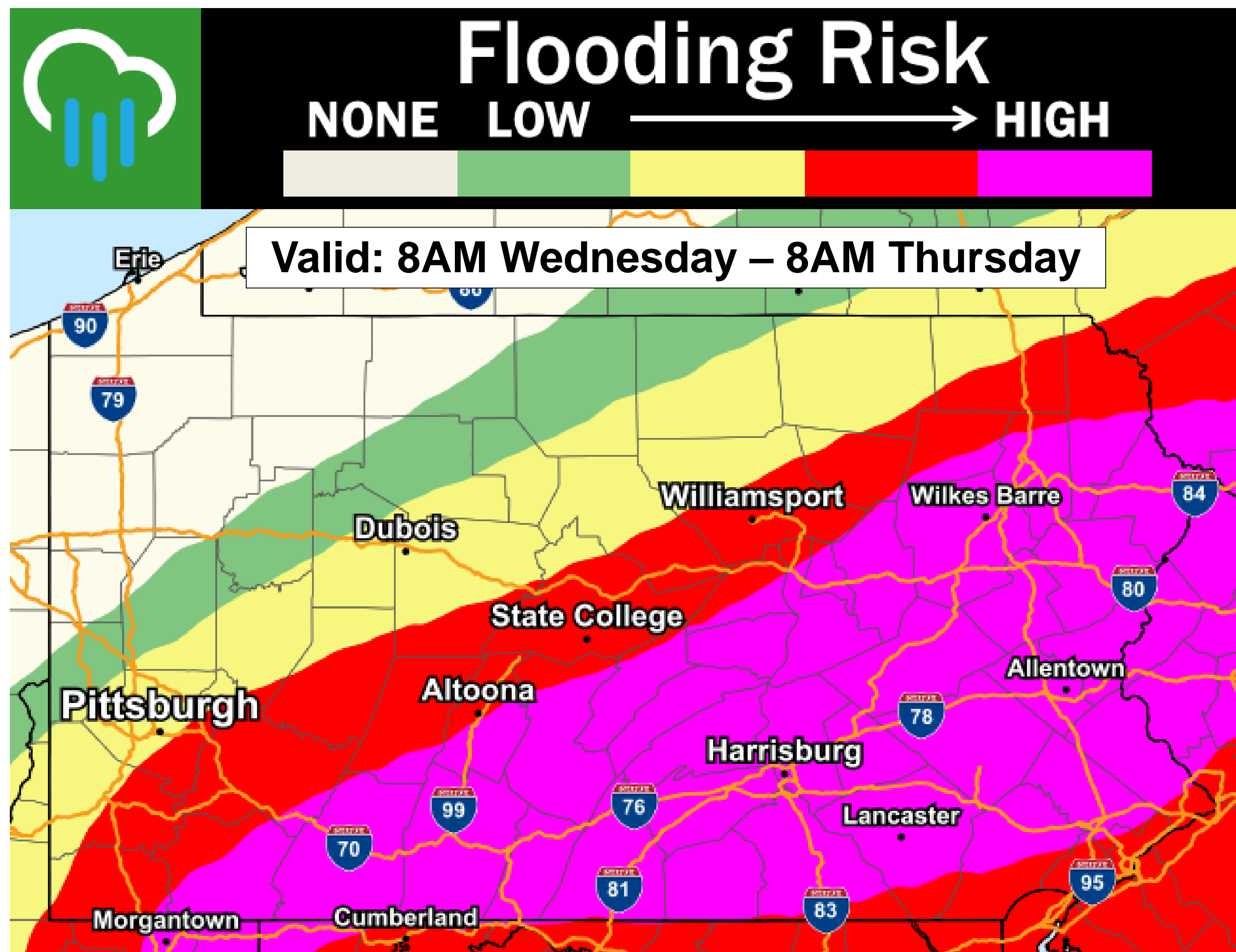
- Heavy rain continues to push east, tapering off for most by midnight.
- Flash flood threat decreases overnight as rain moves out.
- River flooding begins for Juniata & Lower Susquehanna tributaries; some rivers crest around daybreak Thursday. Others crest during the day Thursday into Friday.





# Excessive Rainfall Outlook

Tropical Depression Ida



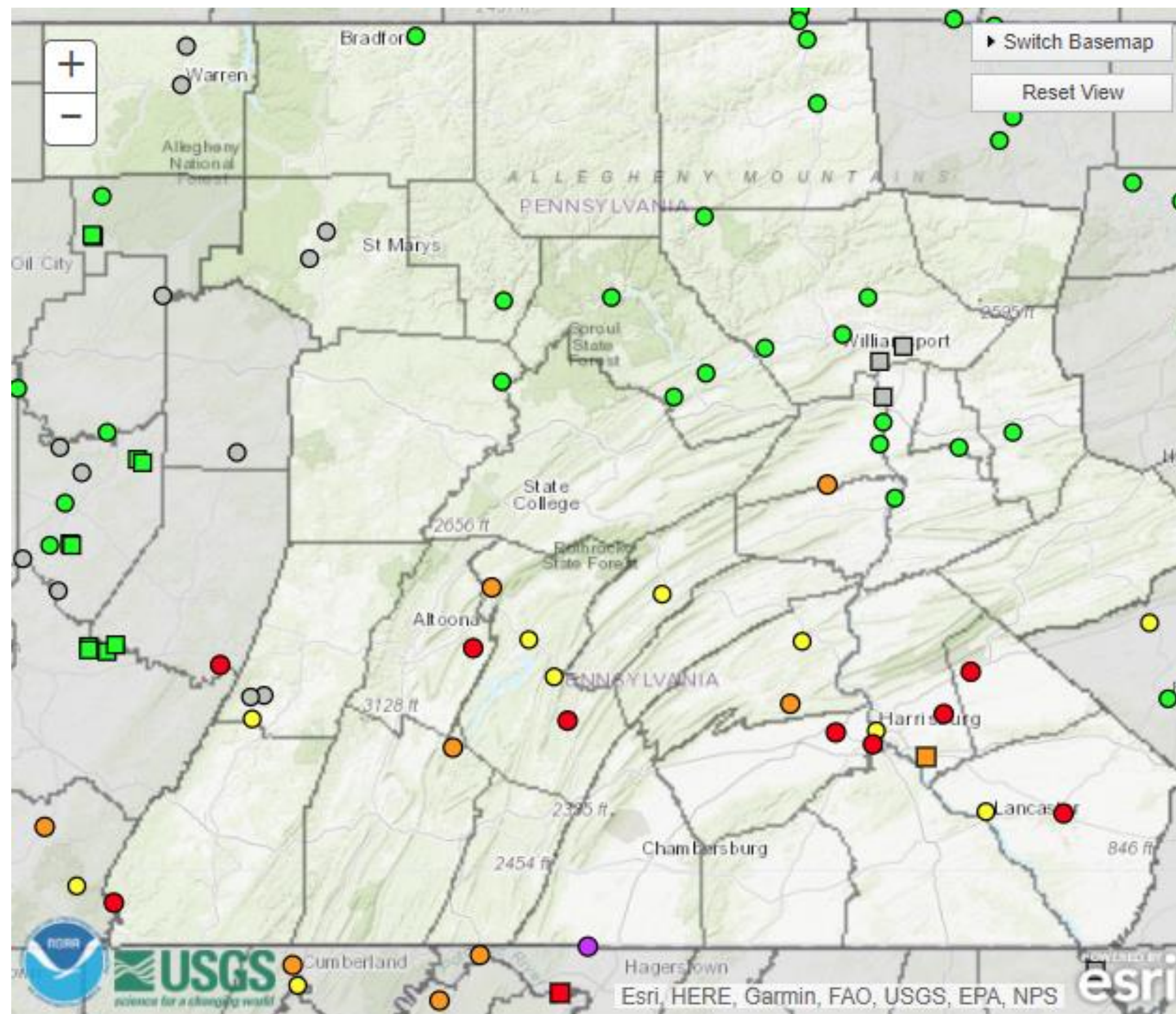
- Areas highlighted in **magenta** have the greatest risk for flash (rapid-onset) flooding today and tonight.
- Urban areas and faster-responding small streams will be the most vulnerable to flash flooding issues.
- Only the 3<sup>rd</sup> HIGH RISK in Pennsylvania since 2014.





# River Flooding

Tropical Depression Ida



- Widespread significant rises on rivers & creeks expected.
- Minor to moderate flooding along many small streams and tributaries in Juniata and Lower Main Stem Susquehanna basins. Major flooding may occur in a few locations.
- Rivers will crest Thursday into Friday and then fall through the weekend.

Click [here](#) for the latest river forecasts





# River Forecasts as of Wednesday Morning

Tropical Depression Ida

**NOTE:** River Flood Warnings have been issued for locations listed in **bold**.

<i>Location</i>	<i>Flood Stage</i>	<i>Current Level</i>	<i>Forecast Crest &amp; Category</i>	<i>Above Flood Stage</i>	<i>Crest Time</i>	<i>Below Flood Stage</i>
<b>Aughwick Creek at Shirleysburg</b>	10 ft	3.45 ft	13.30 ft	Wednesday night	Thursday afternoon	Friday midday
<b>Conestoga River at Lancaster</b>	11 ft	3.65 ft	14.00 ft	Thursday early AM	Thursday afternoon	Thursday night
<b>Conodoguinet Creek near Hogestown</b>	8 ft	1.41 ft	11.10 ft	Wednesday night	Thursday night	Saturday morning
<b>Frankstown Branch of the Juniata at Williamsburg</b>	12 ft	3.37 ft	14.40 ft	Wednesday evening	Thursday morning	Thursday night
Juniata River at Huntingdon	12 ft	1.95 ft	11.60 ft	--	Thursday morning	--
Juniata River at Lewistown	23 ft	5.30 ft	22.80 ft	--	Thursday night	--
Juniata River at Mapleton Depot	20 ft	4.74 ft	16.30 ft	--	Thursday afternoon	--
Juniata River at Newport	22 ft	4.66 ft	19.70 ft	--	Thursday night	--
<b>Little Juniata River at Spruce Creek</b>	8 ft	2.23 ft	9.10 ft	Wednesday night	Thursday early AM	Thursday evening
Penns Creek at Penns Creek	8 ft	1.79 ft	8.70 ft	Thursday morning	Thursday morning	Thursday afternoon

Major River Flooding

Moderate River Flooding

Minor River Flooding

Near Flood

Last Updated: 9/1/2021 5:01 AM

[www.weather.gov/ctp/briefing](http://www.weather.gov/ctp/briefing)

National Weather Service – State College, PA





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Raystown Branch Juniata River at Saxton	17 ft	3.41 ft	18.50 ft	Thursday morning	Thursday afternoon	Thursday night
<b>Sherman Creek at Shermans Dale</b>	9 ft	1.09 ft	10.60 ft	Wednesday night	Thursday morning	Thursday evening
Stonycreek River at Ferndale	19 ft	4.16 ft	16.50 ft	--	Wednesday afternoon	--
Susquehanna River at Harrisburg	17 ft	4.41 ft	12.20 ft	--	Friday morning	--
Susquehanna River at Marietta	49 ft	36.02 ft	46.80 ft	--	Friday afternoon	--
<b>Swatara Creek at Harper Tavern</b>	9 ft	1.05 ft	14.20 ft	Wednesday night	Thursday afternoon	Friday night
<b>Swatara Creek near Hershey</b>	7 ft	2.01 ft	11.90 ft	Wednesday night	Thursday afternoon	Friday night
Swatara Creek at Middletown	11 ft	3.10 ft	13.60 ft	Thursday morning	Friday early AM	Saturday morning
<b>Youghiogheny River near Confluence</b>	12 ft	2.65 ft	14.70 ft	Wednesday night	Thursday morning	Friday midday
<b>Yellow Breeches Creek near Camp Hill</b>	7 ft	1.04 ft	10.80 ft	Wednesday night	Thursday afternoon	Friday night

Major River Flooding

Moderate River Flooding

Minor River Flooding

Near Flood

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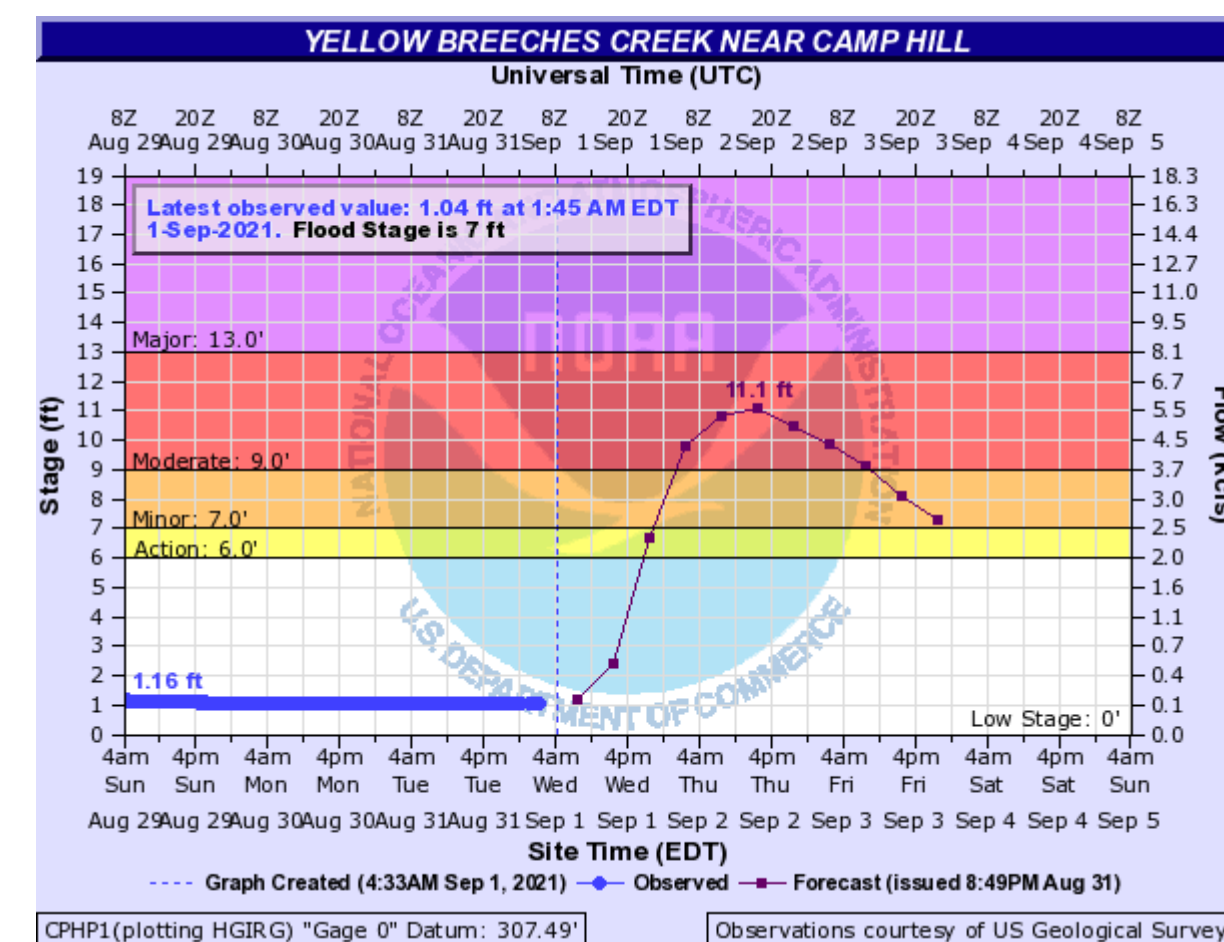
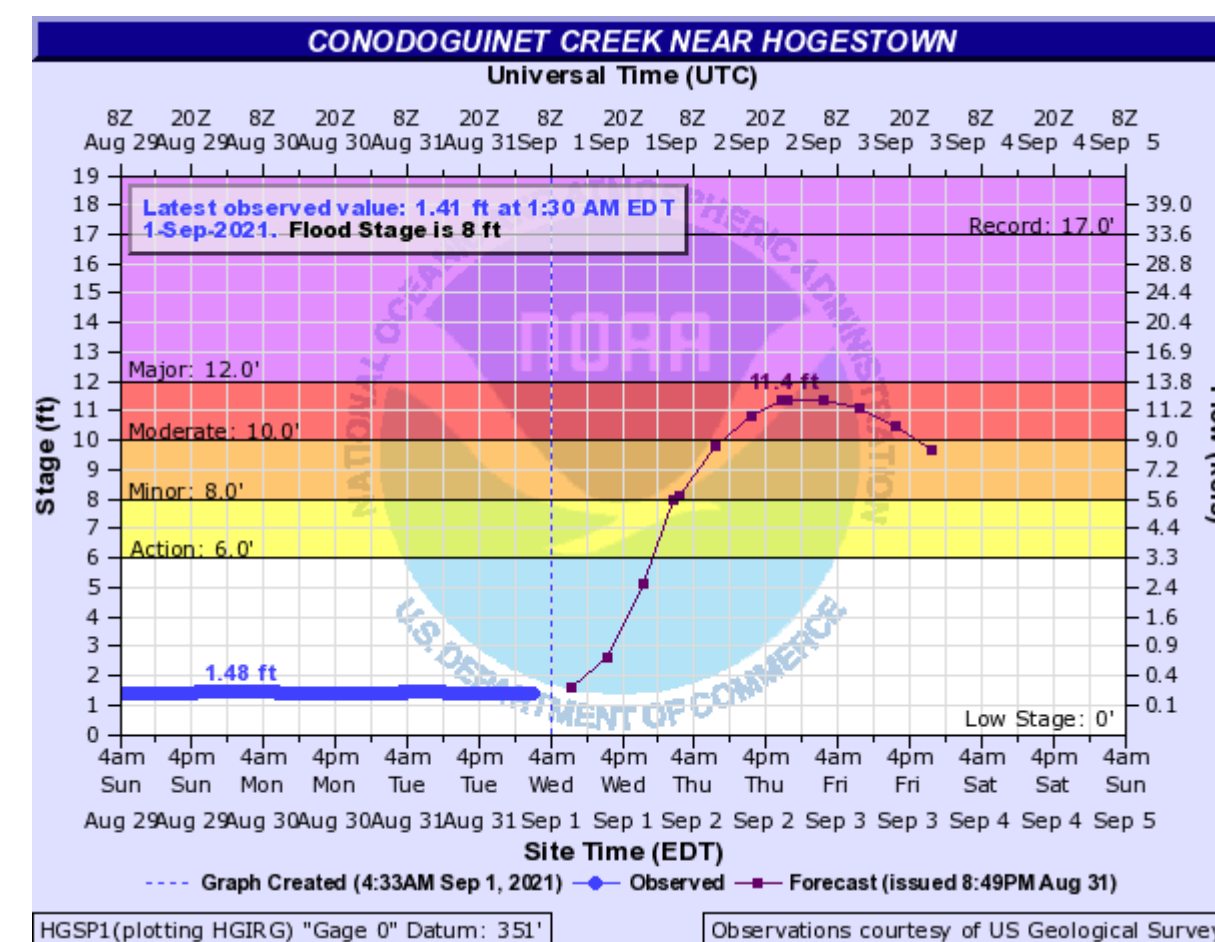
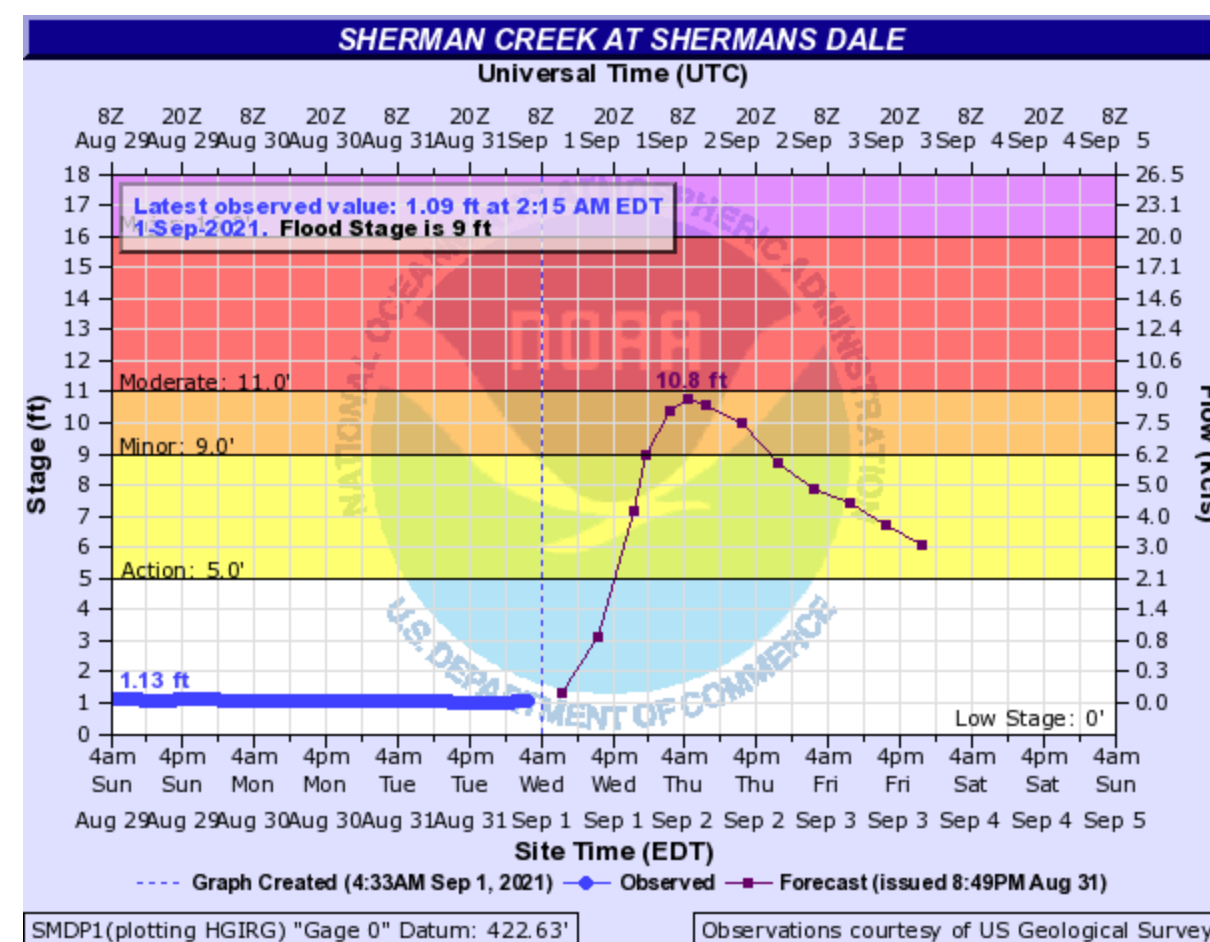
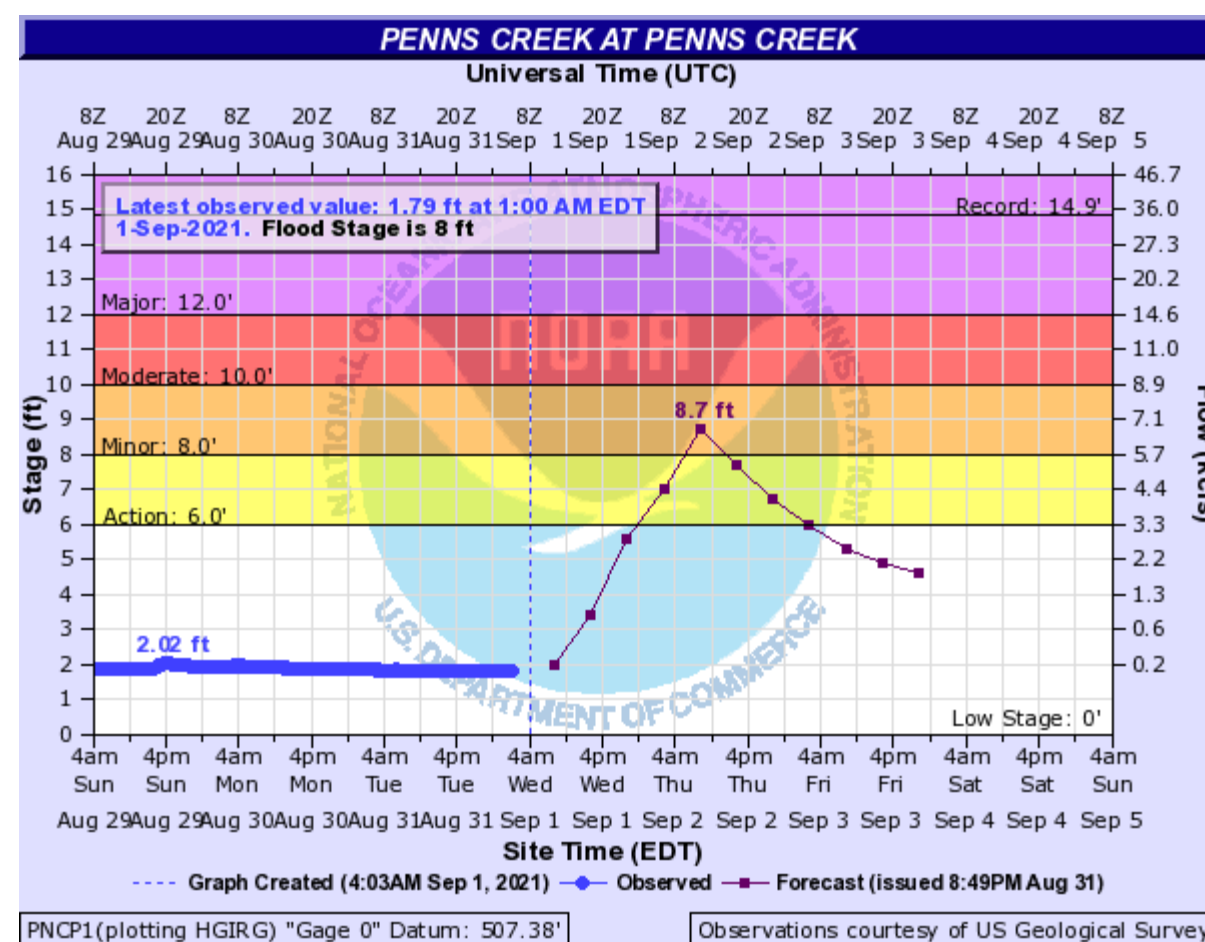
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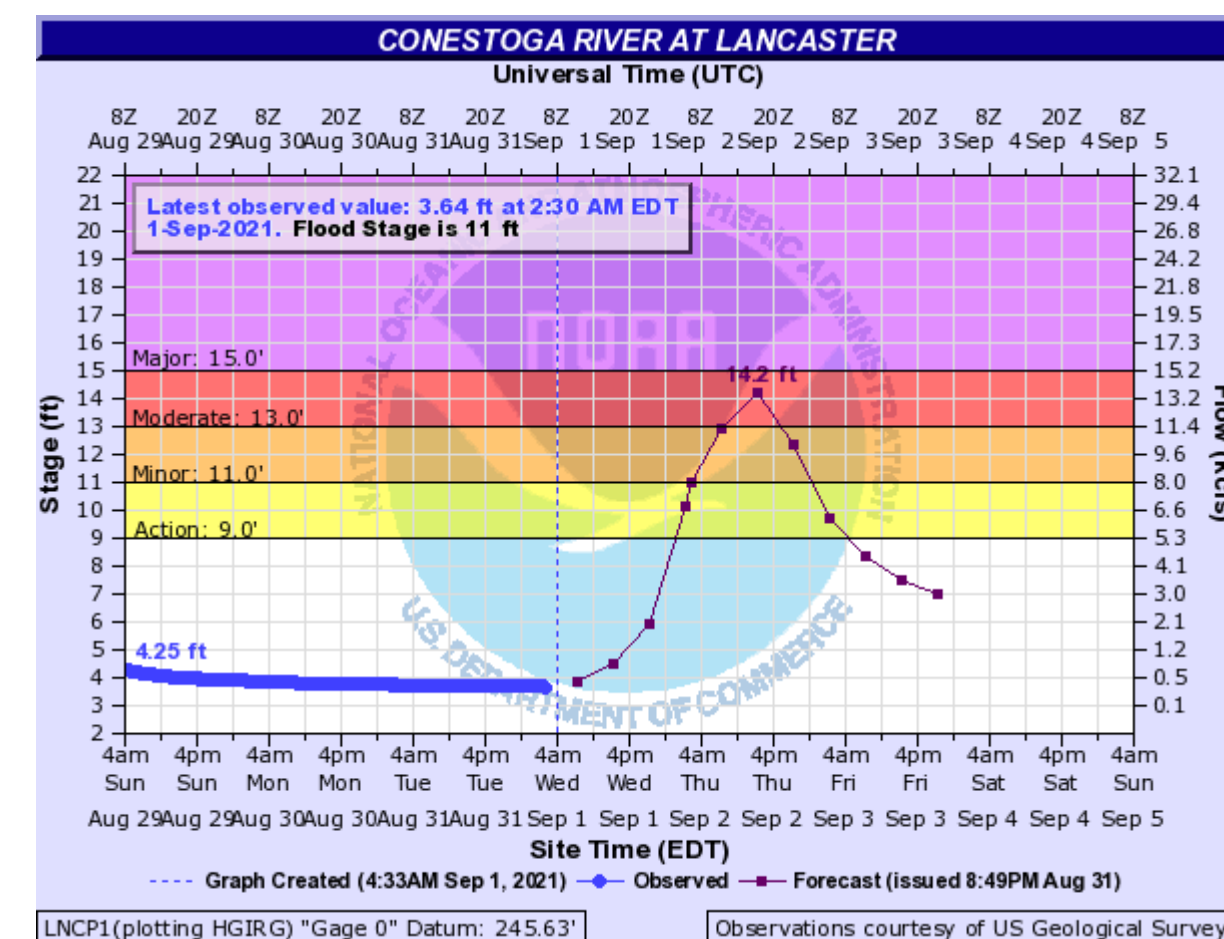
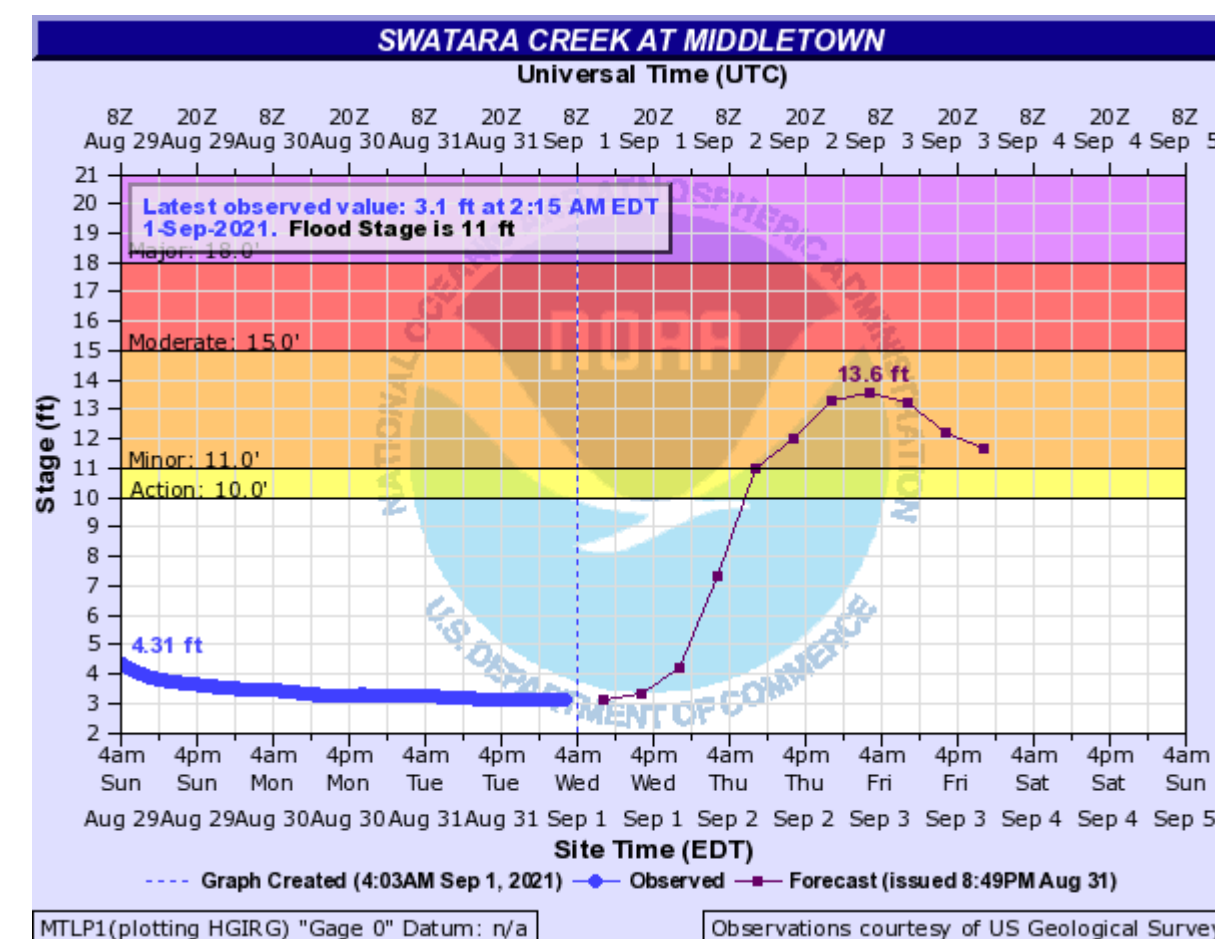
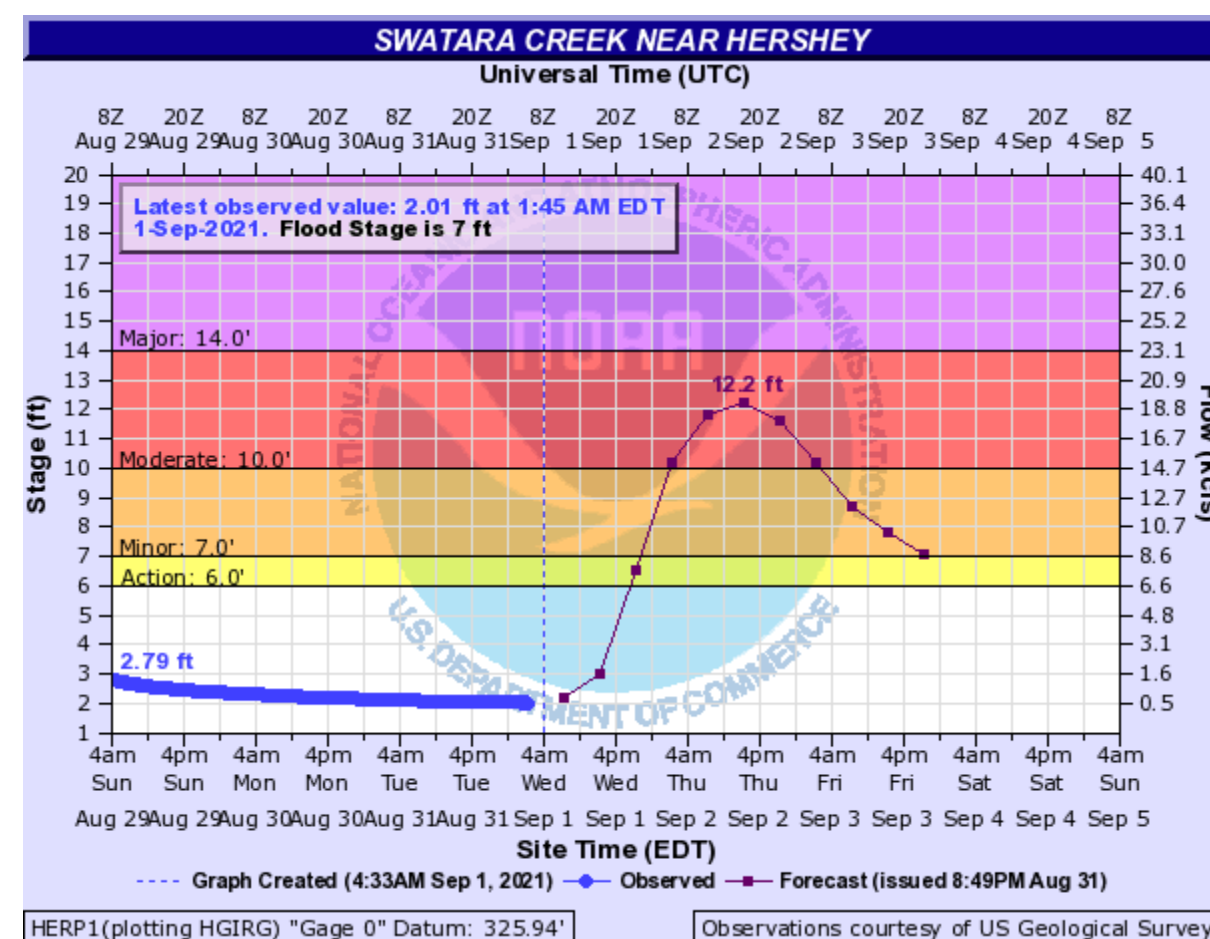
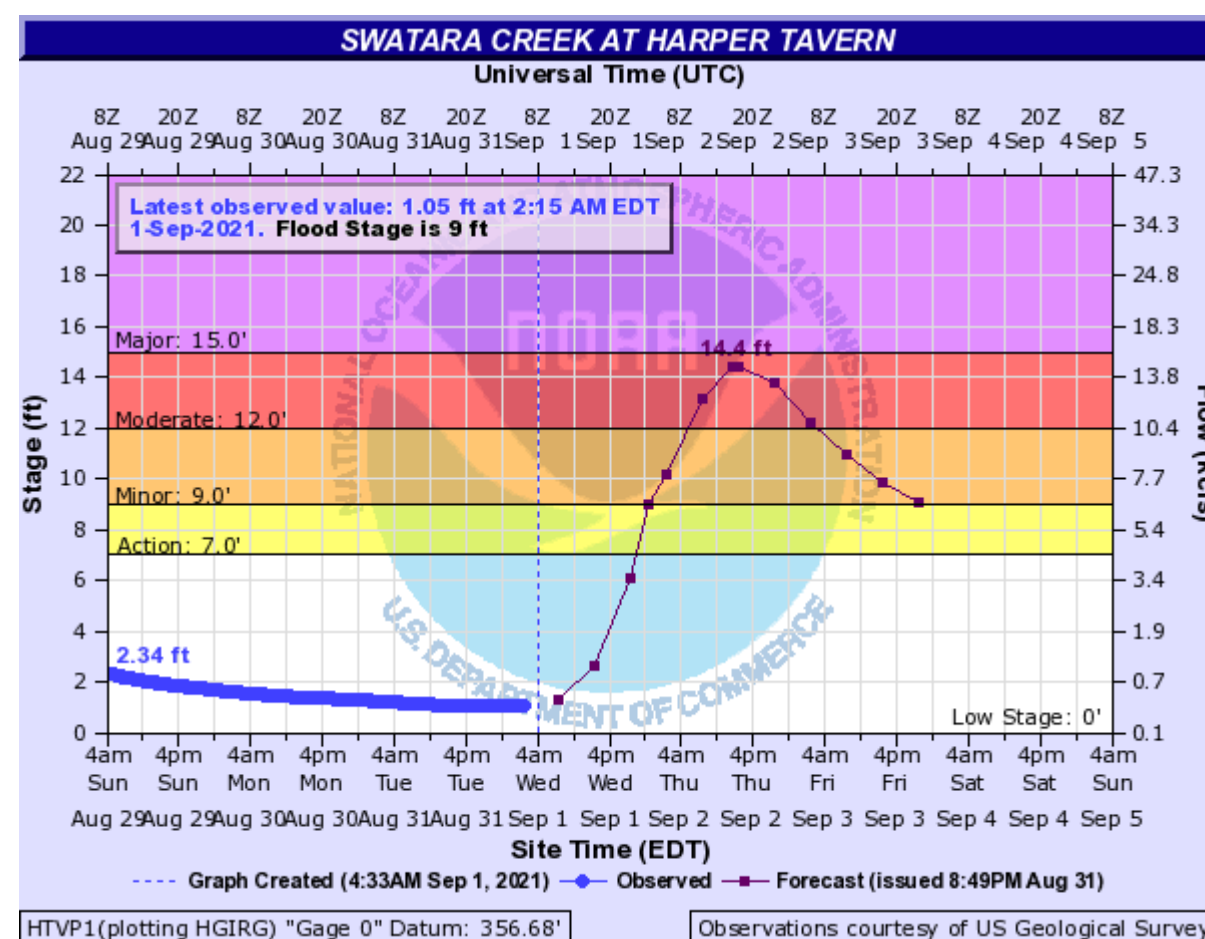


# River Forecasts

## Tropical Depression Ida



Click on image to see current river stage and forecast



## Lower Susquehanna River Basin Tributaries

Last Updated: 9/1/2021 5:01 AM

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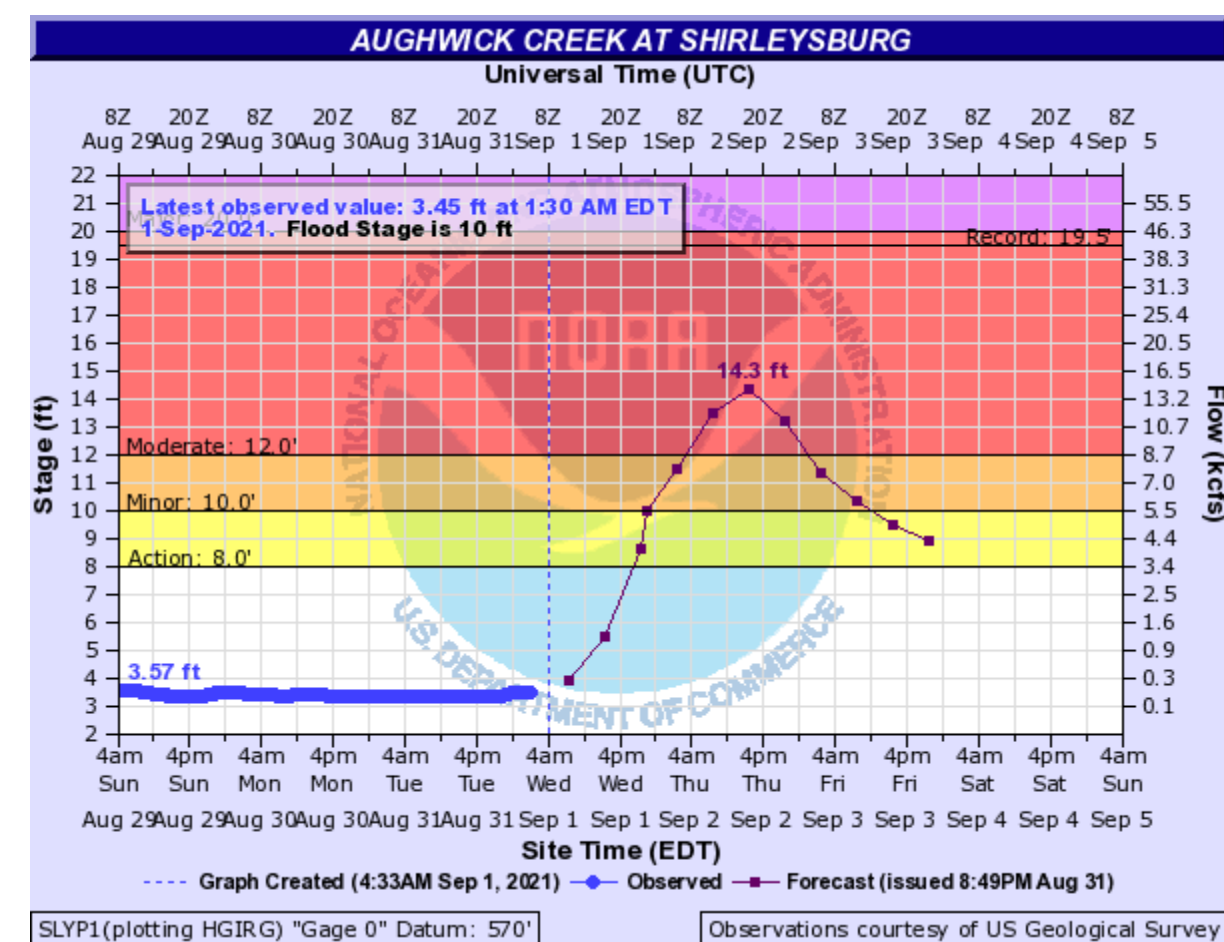
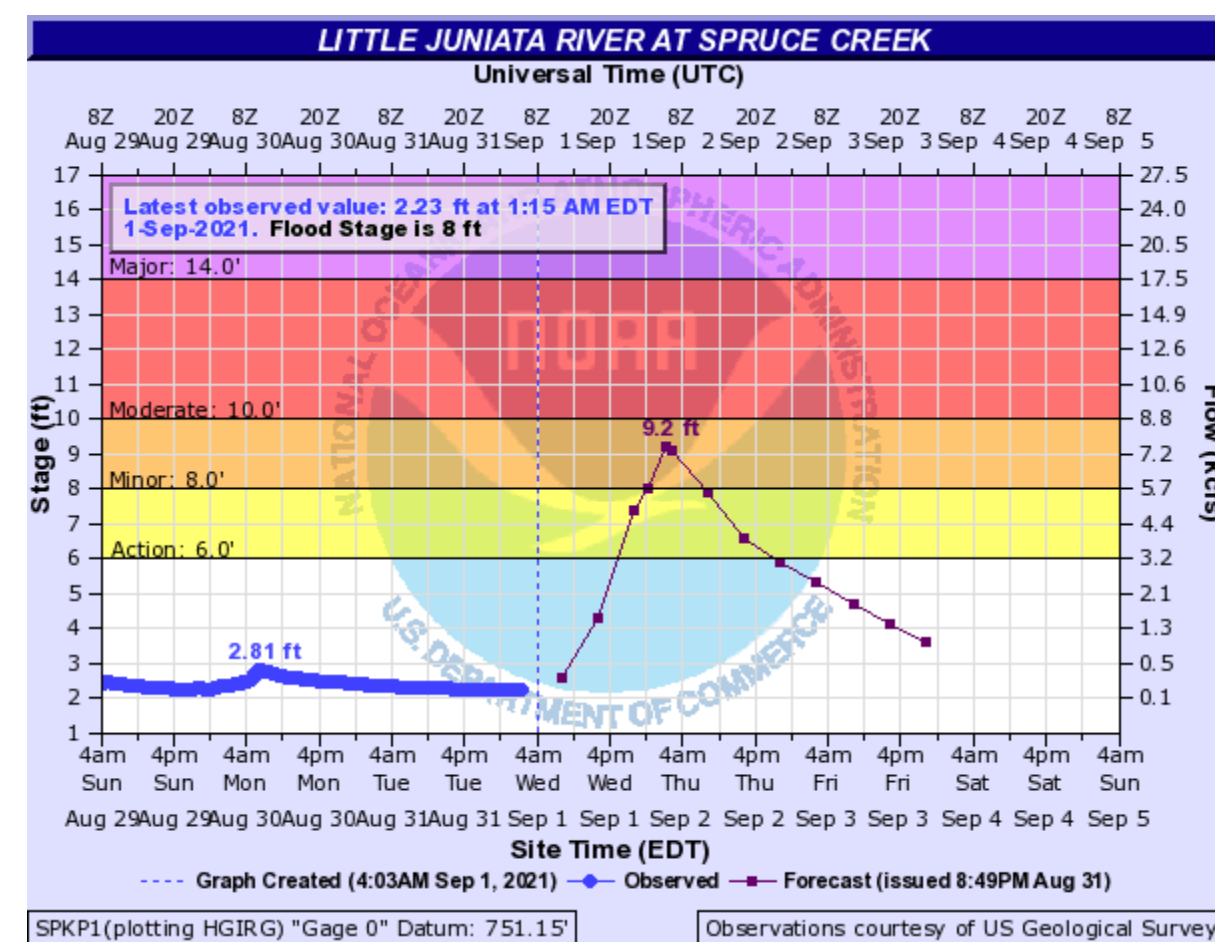
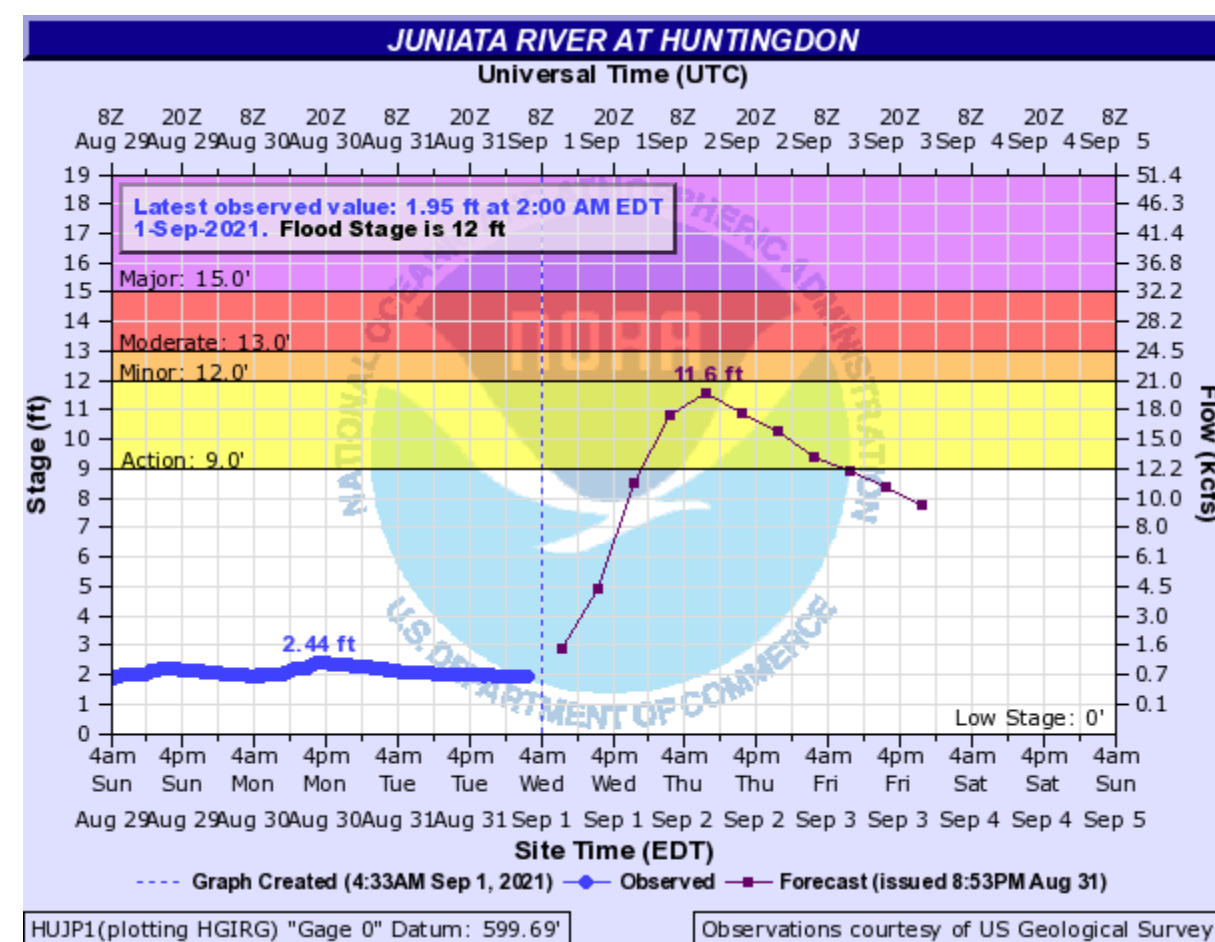
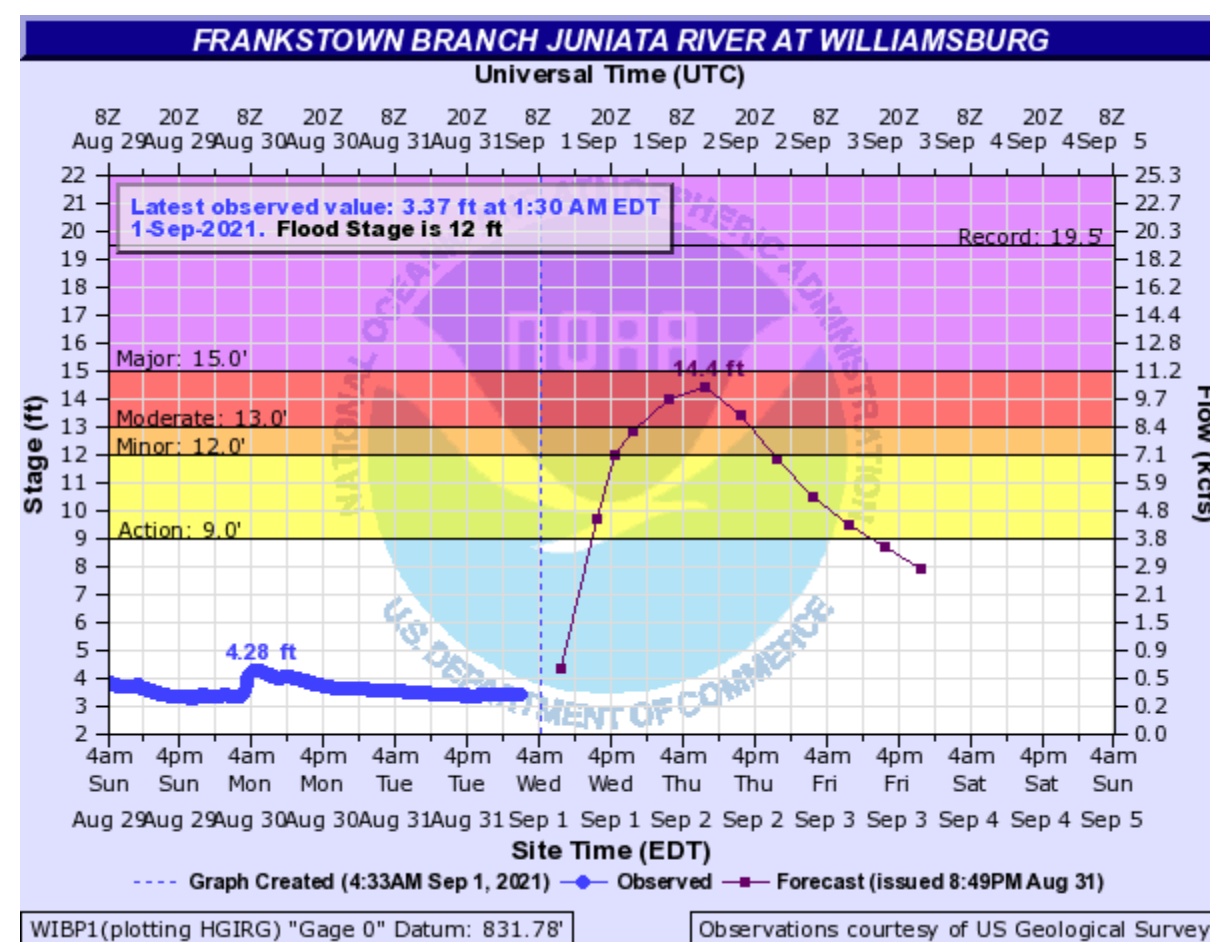
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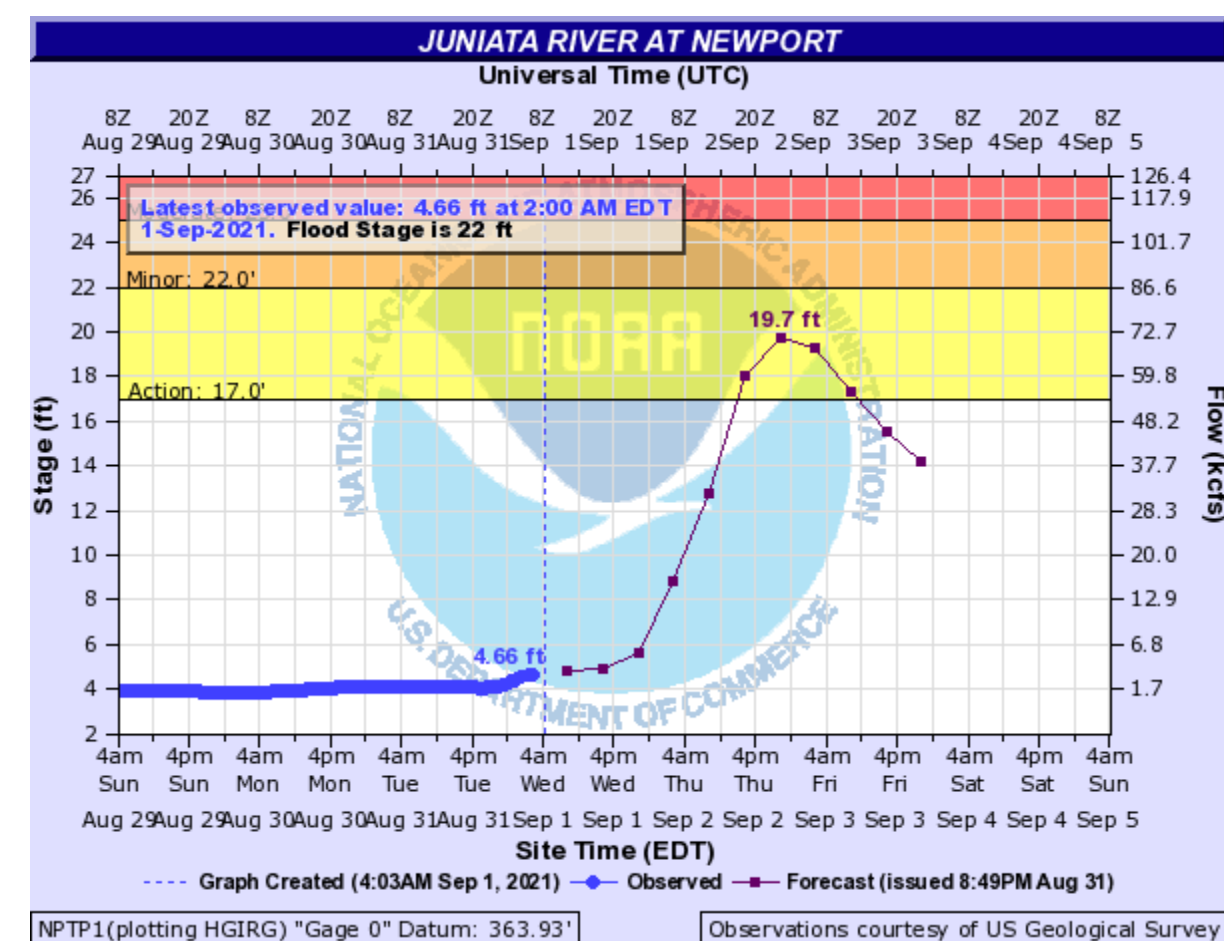
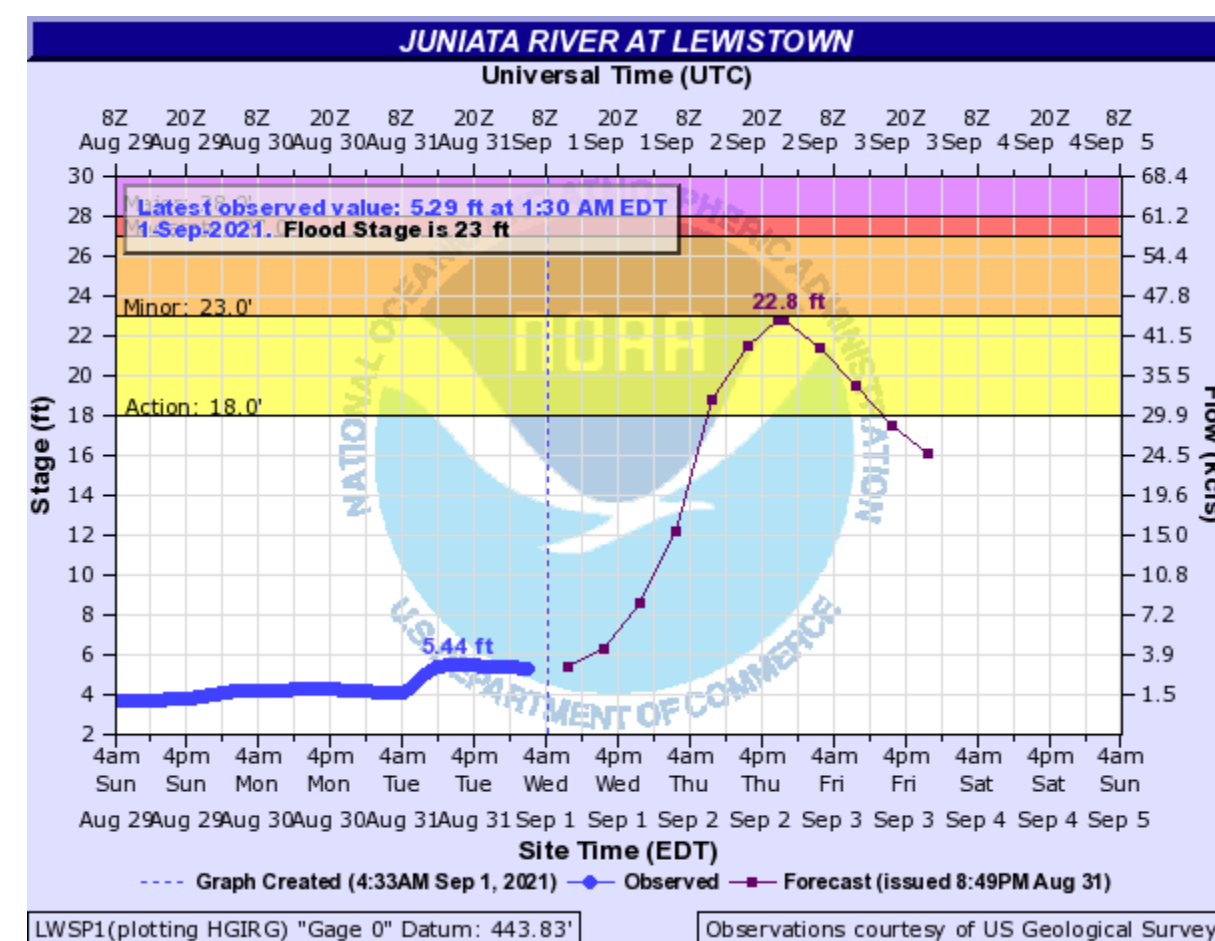
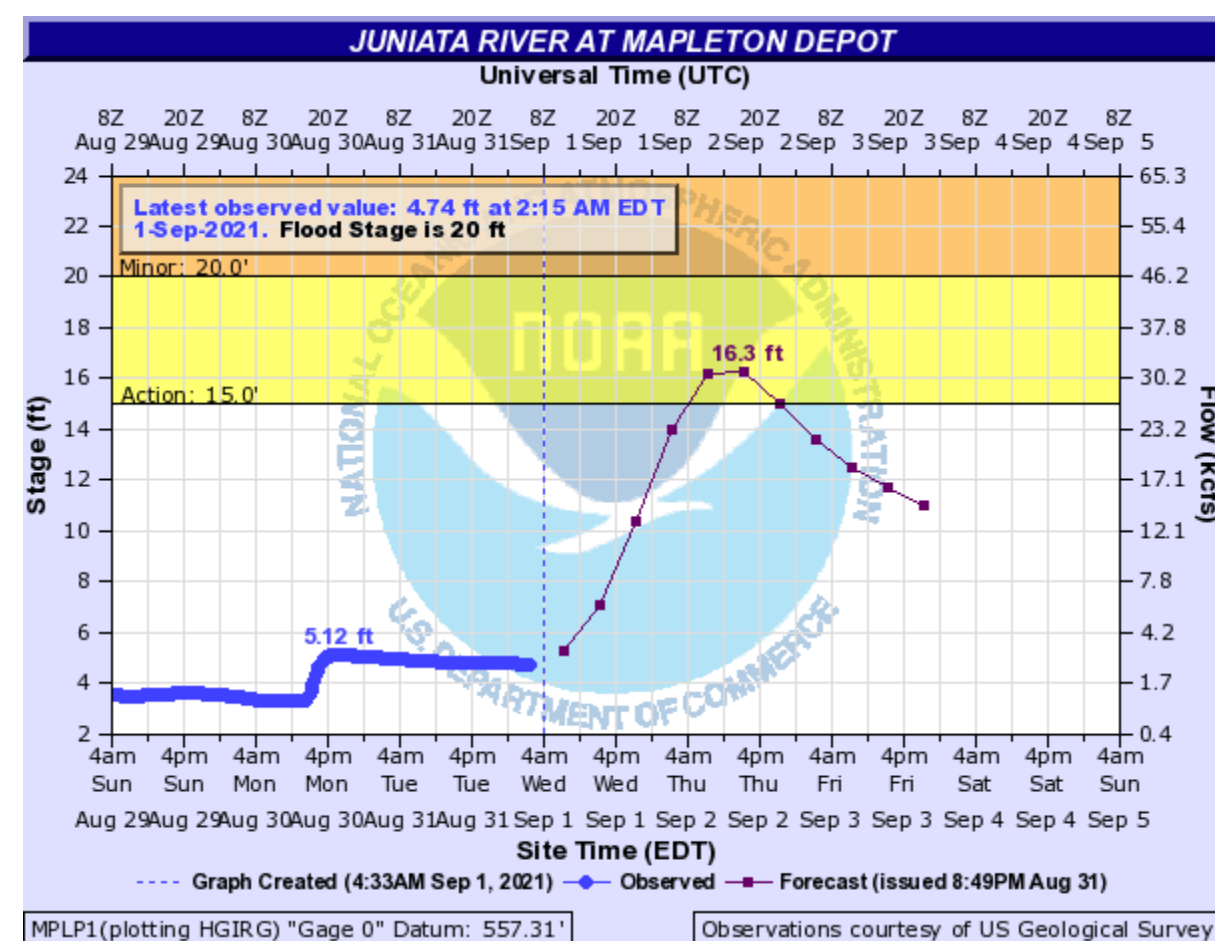
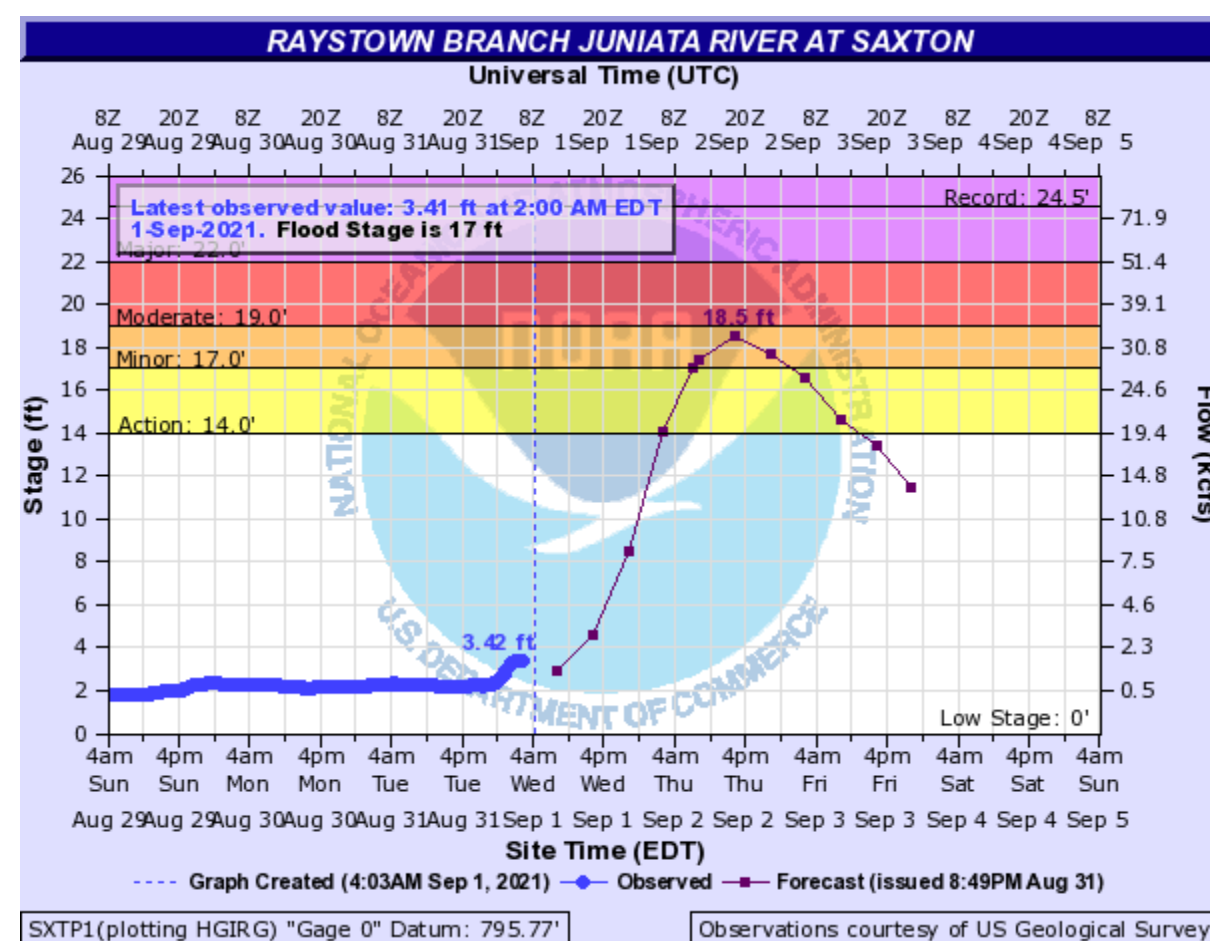


# River Forecasts

## Tropical Depression Ida



Click on image to see current river stage and forecast

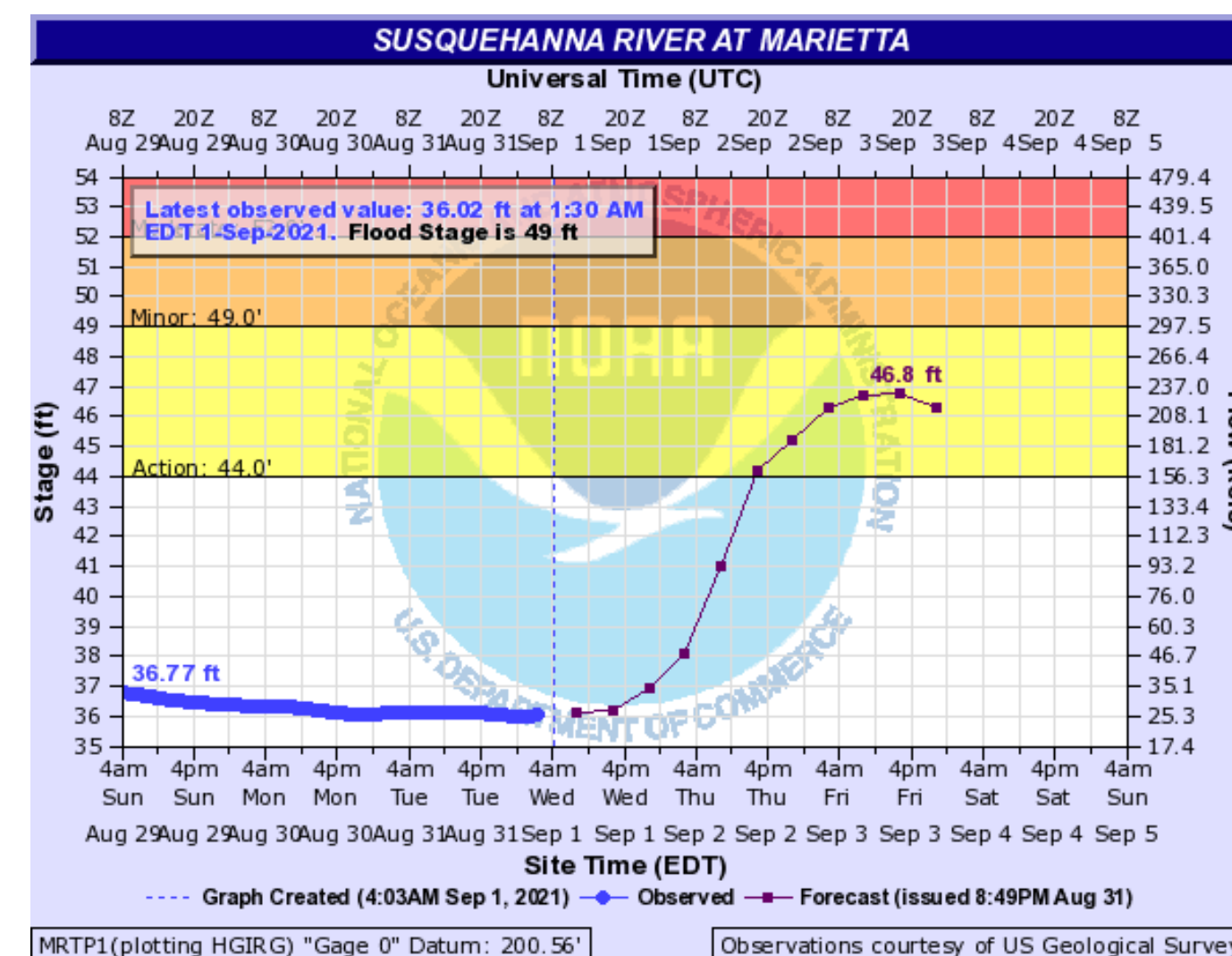
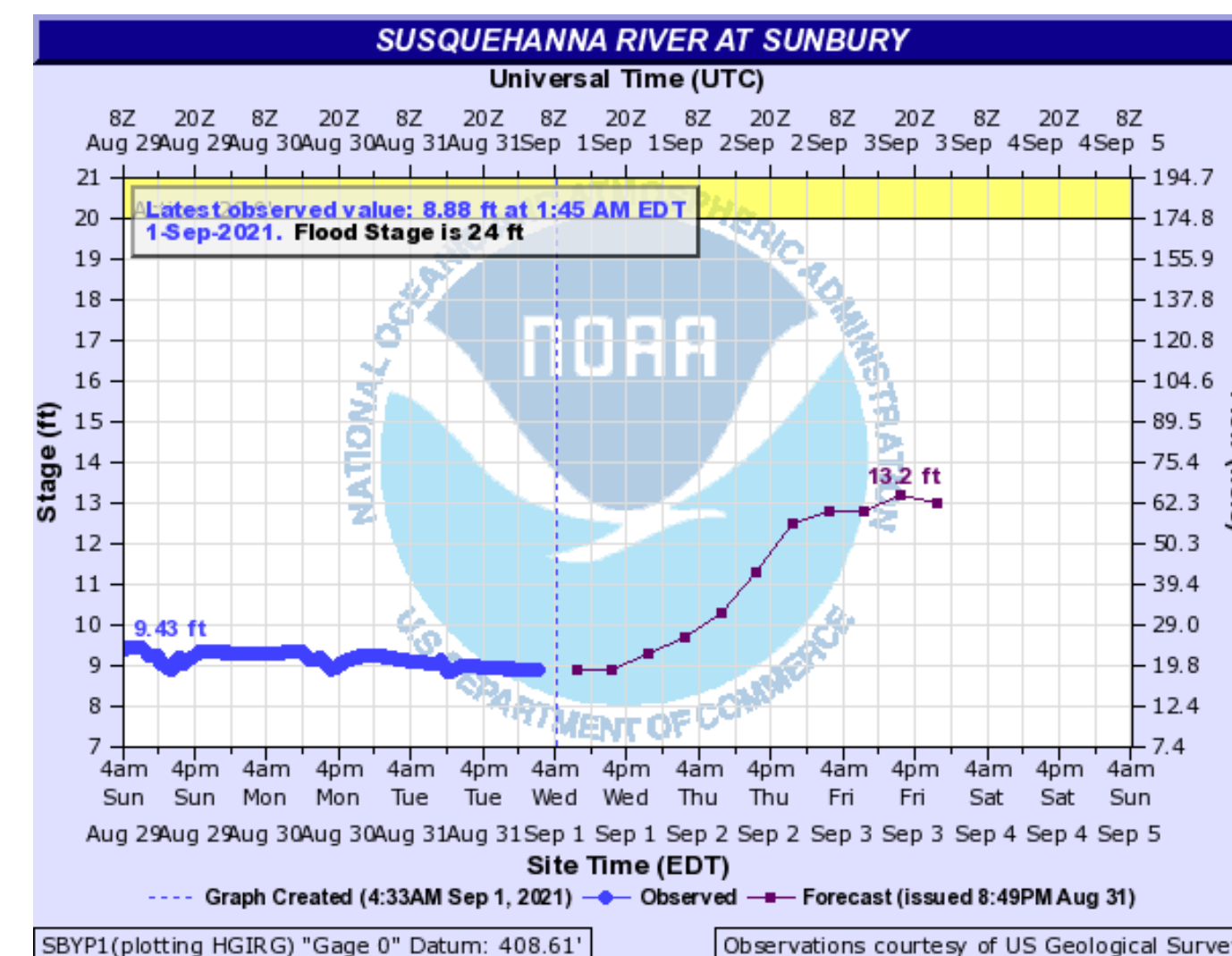


## Juniata River Basin





Click on  
image to see  
current river  
stage and  
forecast



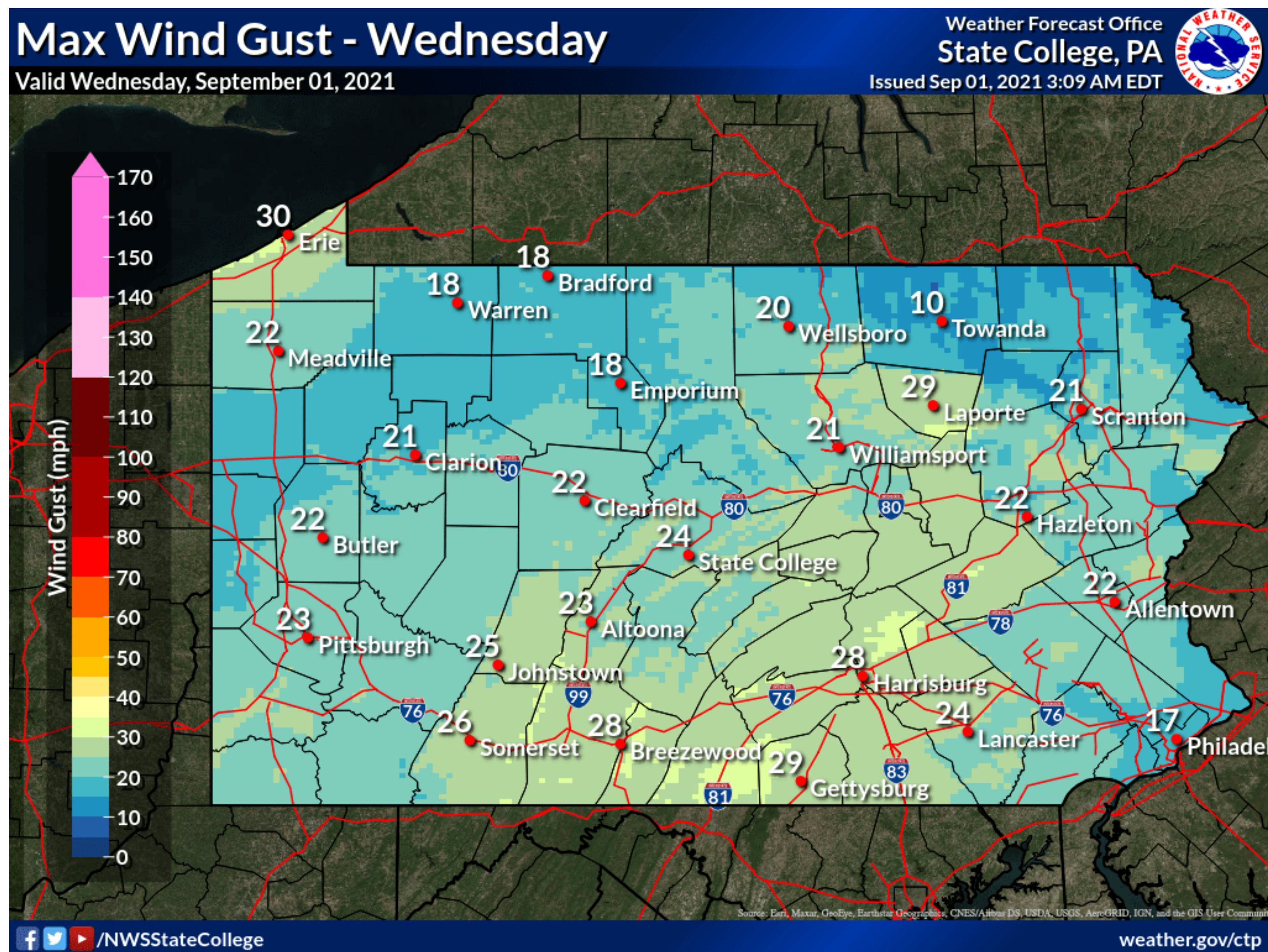
# Main Stem Susquehanna River Basin





# Wind Threat / Potential Impact

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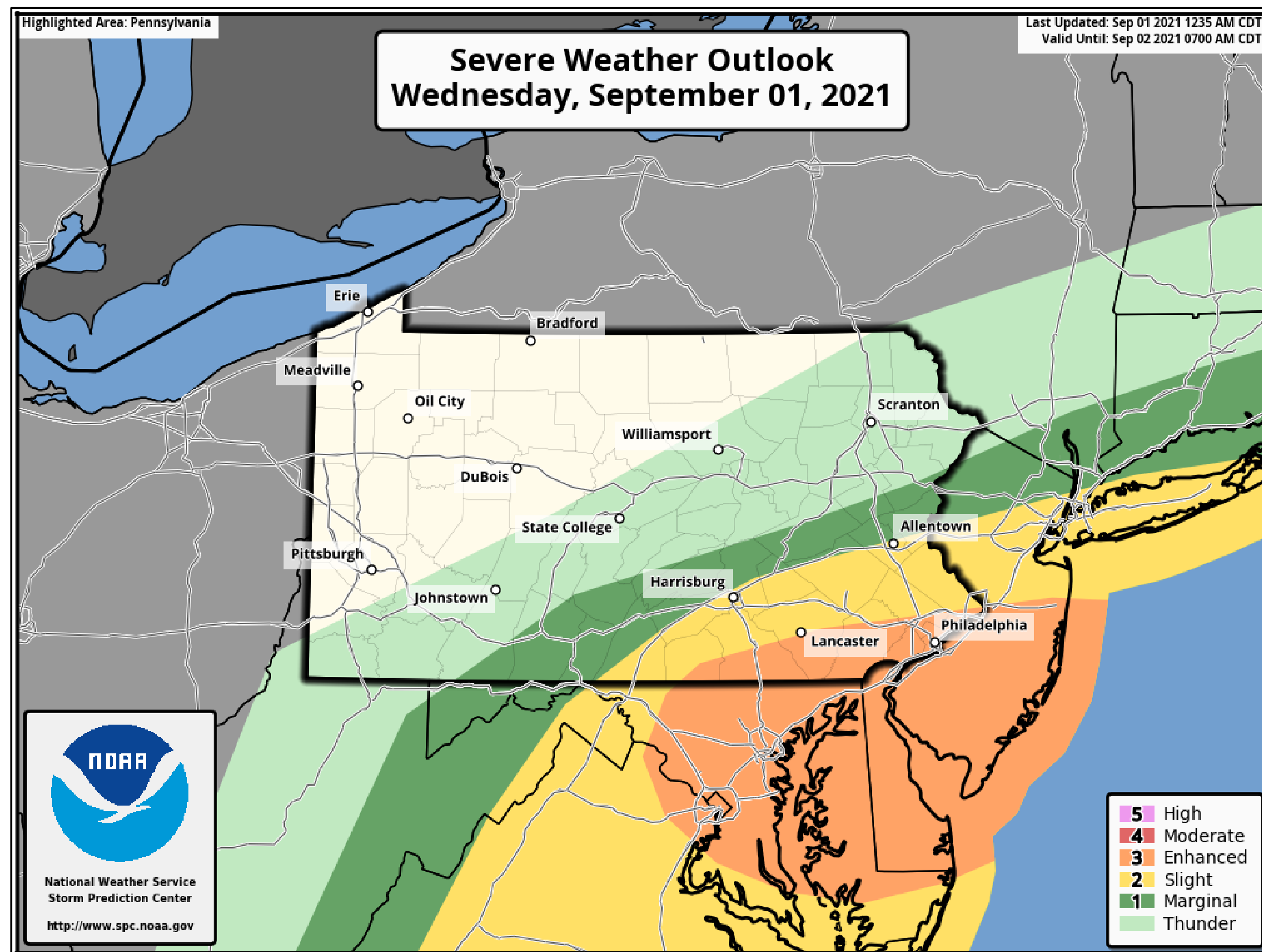
- Wind gusts of 25 to 30 mph are expected in southeast PA this afternoon and evening.
- Saturated soils may increase the likelihood of downed trees/power lines.





# Tornado Potential

Tropical Depression Ida



- An isolated, short-lived tornado or two is possible this afternoon and evening, generally south and east of the I-81/I-78 corridor.





# Heavy Rainfall Summary

Tropical Depression Ida

## Rainfall Forecast - 48 Hour Total

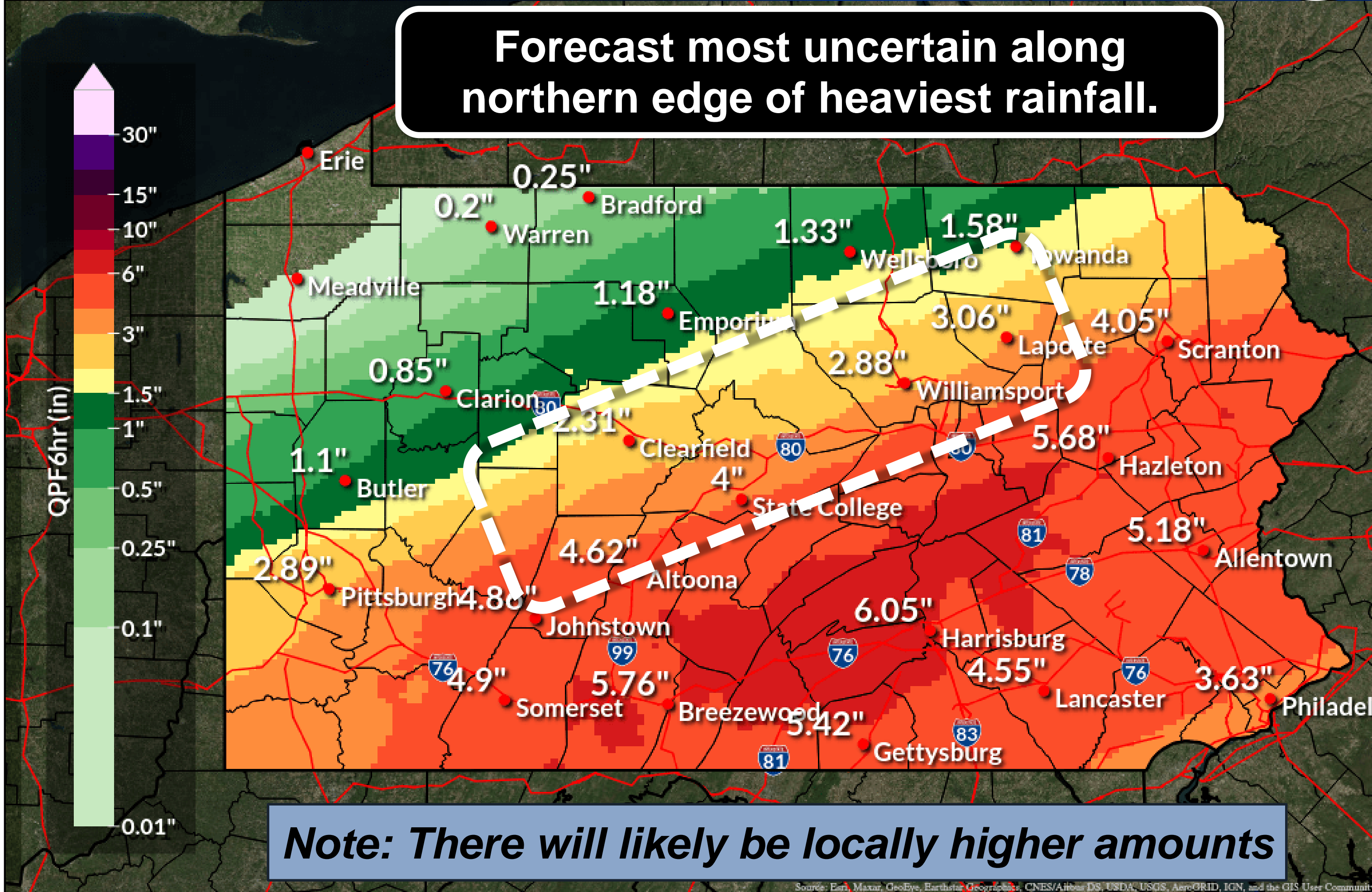
Valid Tue 8:00PM through Thu 8:00PM EDT

Weather Forecast Office  
State College, PA

Issued Sep 01, 2021 3:02 AM EDT



**Forecast most uncertain along  
northern edge of heaviest rainfall.**



- **TOTAL:** 4-6", locally up to 8"
- **WHEN:** Today & Tonight
- **HEAVIEST:** Wednesday afternoon & evening.
- **RIVER FLOODING:** Minor to moderate flooding on small streams & creeks in southern PA; Juniata & Lower Main Stem Susquehanna basins will crest Thursday.
- **DAMAGING WINDS/TORNADO:** Brief, isolated damaging wind gusts Wednesday PM in SE PA.

/NWSStateCollege

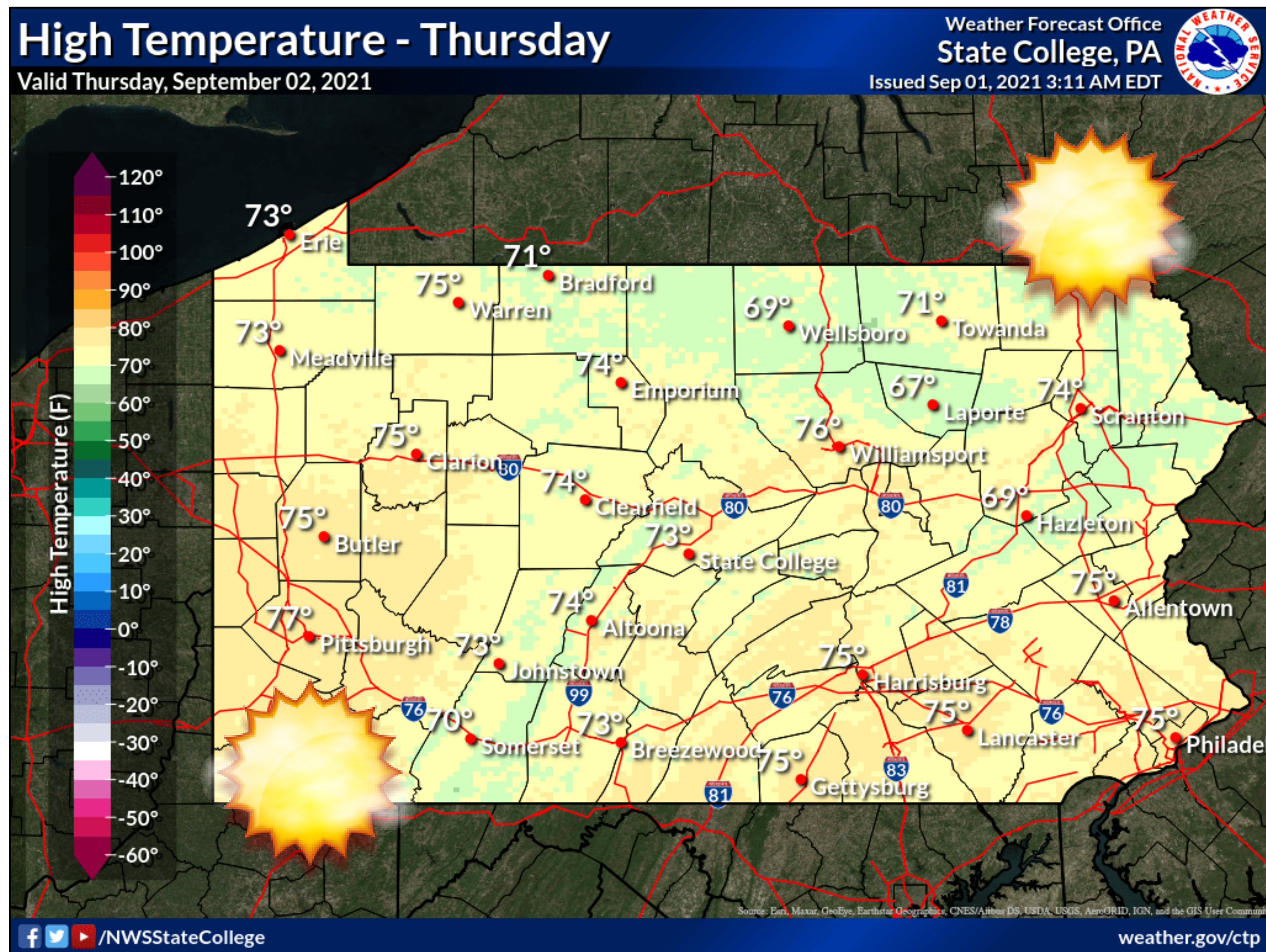
weather.gov/ctp





# Post-event Outlook

Thursday into the weekend





- Much lower humidity and cloud-free skies move in quickly Thursday morning.
- River points crest Thursday into Friday; fall through the weekend.
- A dry and seasonable stretch of weather continues Friday and Saturday.








# Next Briefing: By Wednesday at 6:00 PM EDT Method: Email


**Web:** <http://weather.gov/statecollege>

**Phone:** (814) 954-6440

**E-mail:** [ctp.stormreports@noaa.gov](mailto:ctp.stormreports@noaa.gov)

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