



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

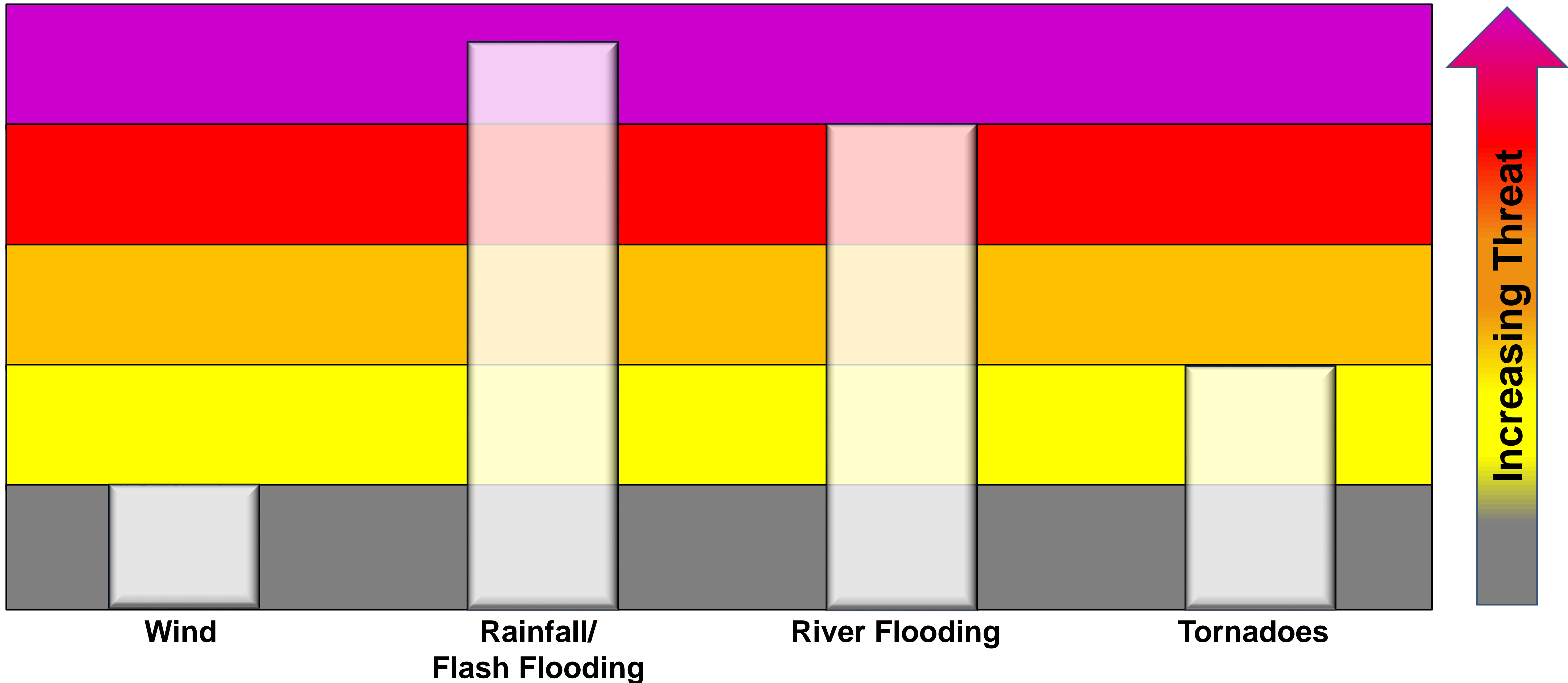
Hazard	Impacts	Location	Timing
 <p>Flooding Rain</p>	<p>Heavy rainfall with rates >1” per hour over several hours will result in rapid-onset urban and small stream flooding</p>	<p>Highest rainfall totals likely between I-80/I-99 and I-81; sharp decrease in rainfall north of I-80.</p>	<p>Wednesday and early Wednesday night</p>
 <p>River Flooding</p>	<p>Widespread rainfall totals of 4-6” with locally-higher amounts of up to 8” will result in inundation flooding with adjacent road closures</p>	<p>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.</p>	<p>Rivers begin rising Wednesday and crest Thursday - Friday</p>
 <p>T-storm Wind Damage</p>	<p>A few strong wind gusts could bring down trees due to saturated soil. An isolated, brief tornado or two is possible.</p>	<p>Southeastern Pennsylvania, especially along, south, and east of I-81/I-78 corridor.</p>	<p>Wednesday afternoon and evening</p>



Threat Levels

Tropical Depression Ida

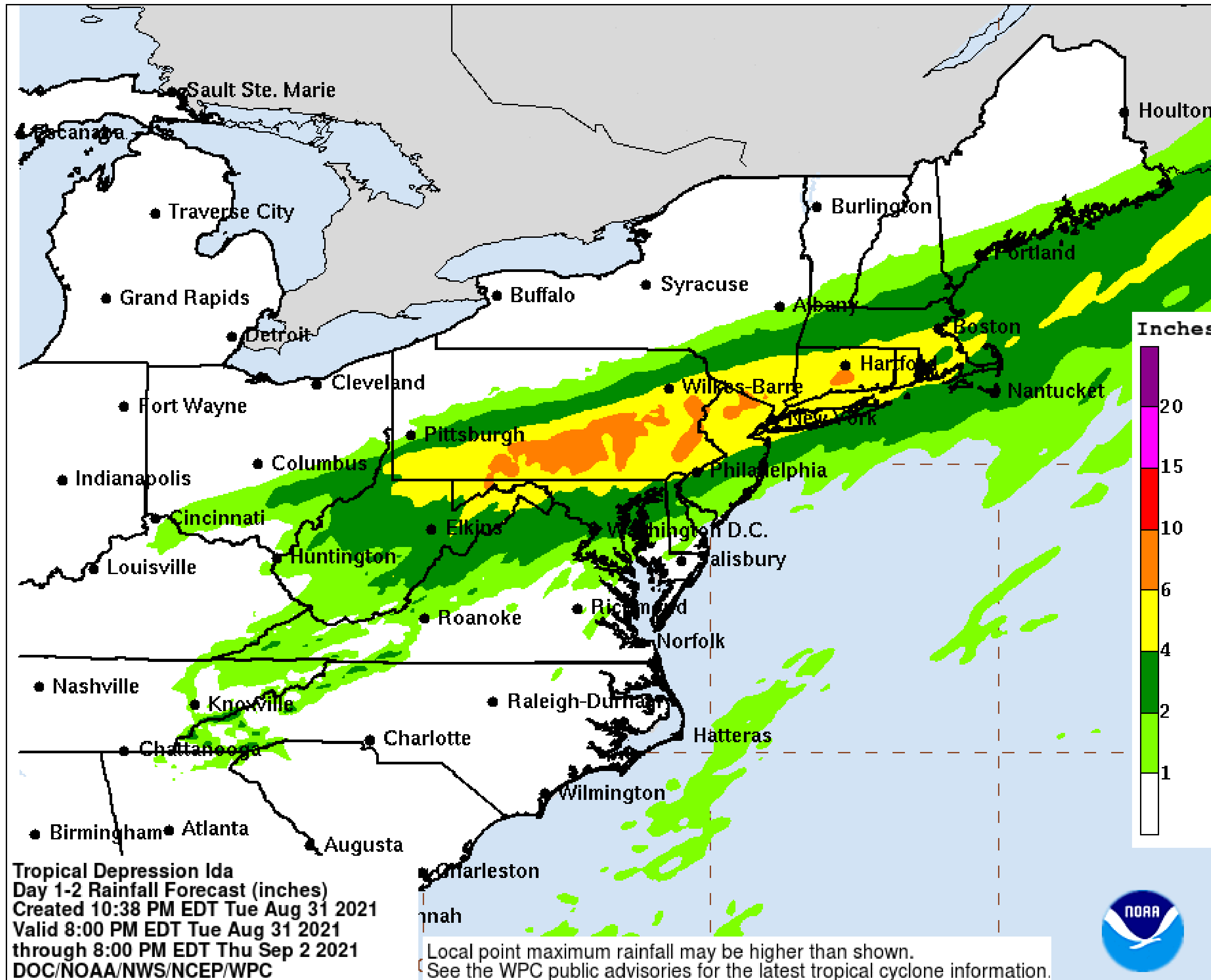
For information on specific hazards in this area, please go to <https://www.weather.gov/ctp/tropical>





Situation Overview

Tropical Depression Ida



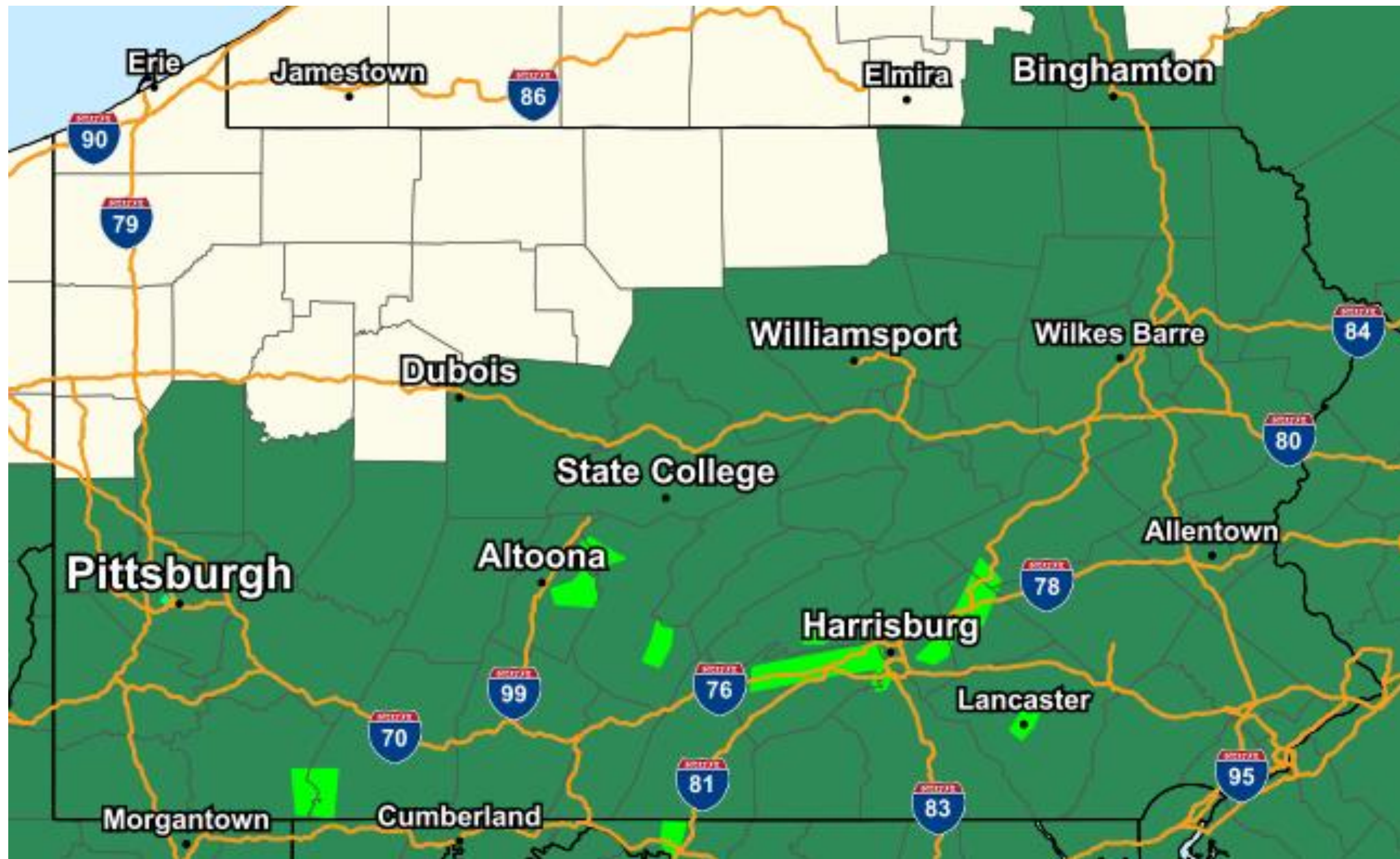
- Ida is forecast to track just south of Pennsylvania today and tonight, bringing heavy rainfall to much of south-central Pennsylvania.
- Heavy to excessive rainfall is forecast with a considerable risk of flooding impacts focused over south-central Pennsylvania.
- Rain will overspread the area this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



Flood Watches/Warnings/Advisories

Tropical Depression Ida

-  = Flash Flood Warning
-  = Flood Watch
-  = Flood Warning
-  = 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

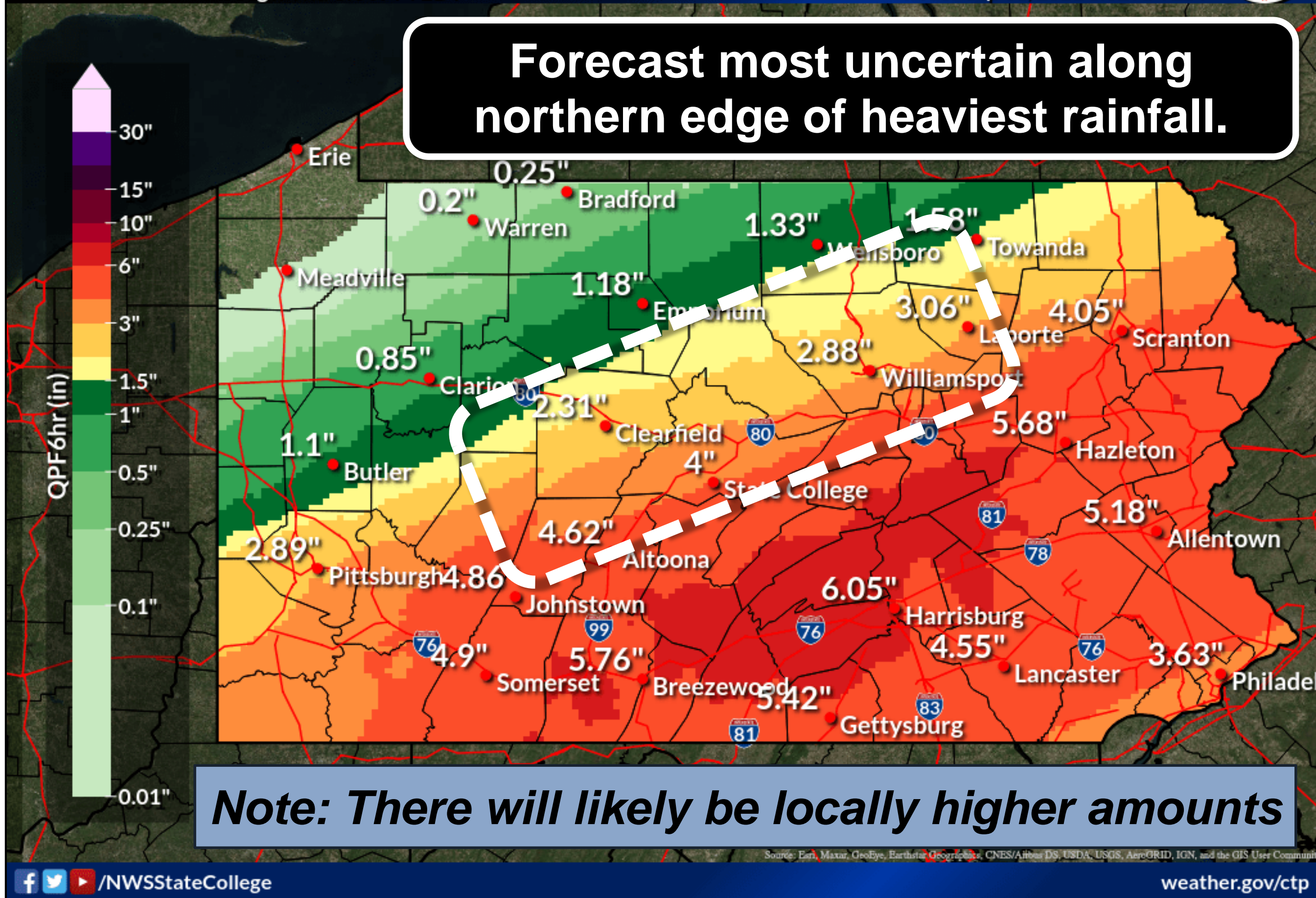
Rainfall Forecast - 48 Hour Total

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.



- 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

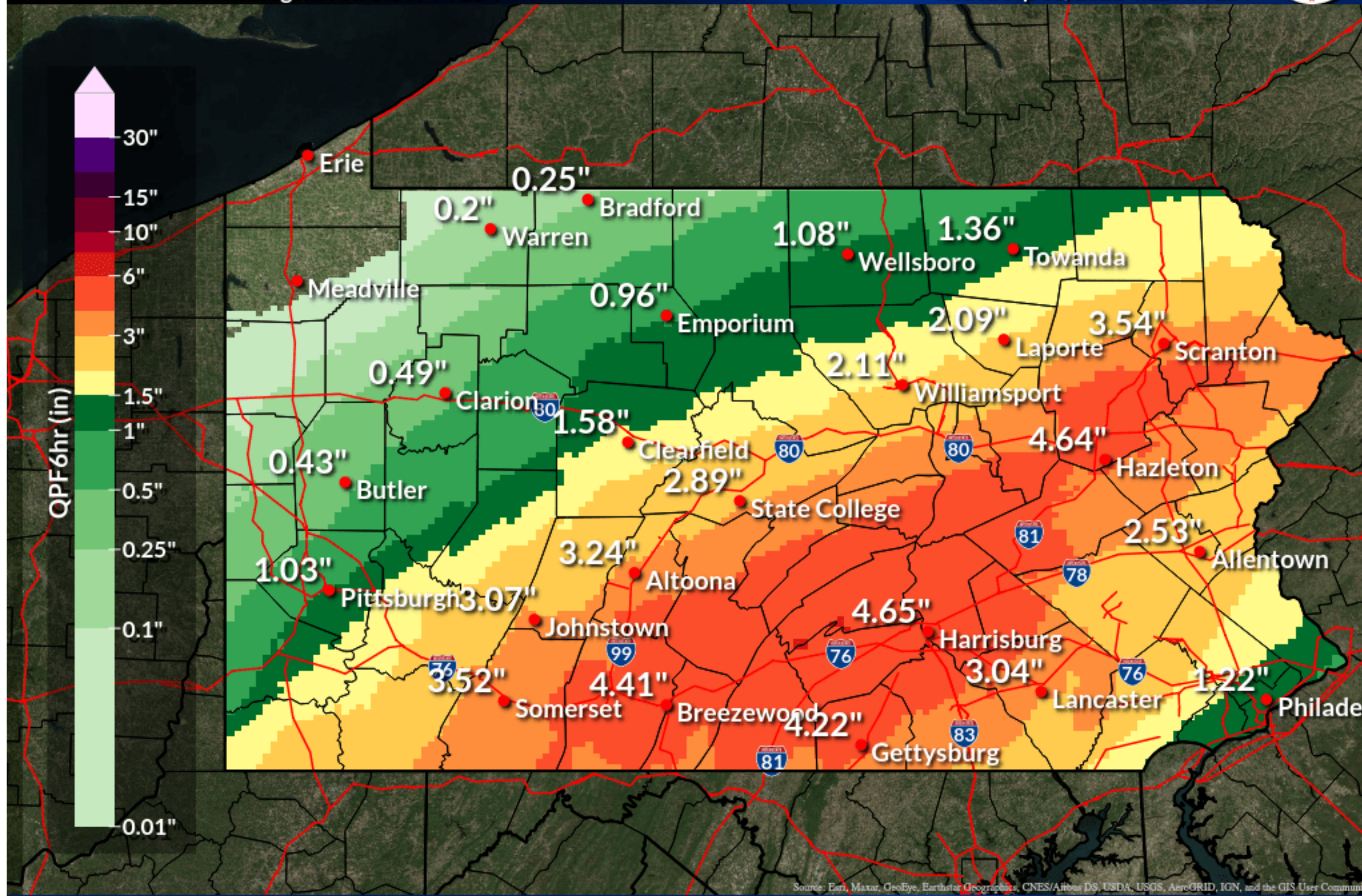
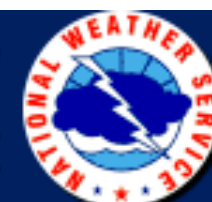
Tropical Depression Ida

Rainfall Forecast - 12 Hour Total

Valid Wed 8:00AM through Wed 8:00PM EDT

Weather Forecast Office
State College, PA

Issued Sep 01, 2021 4:12 AM EDT



[f](#) [t](#) [v](#) /NWSStateCollege

weather.gov/ctp

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

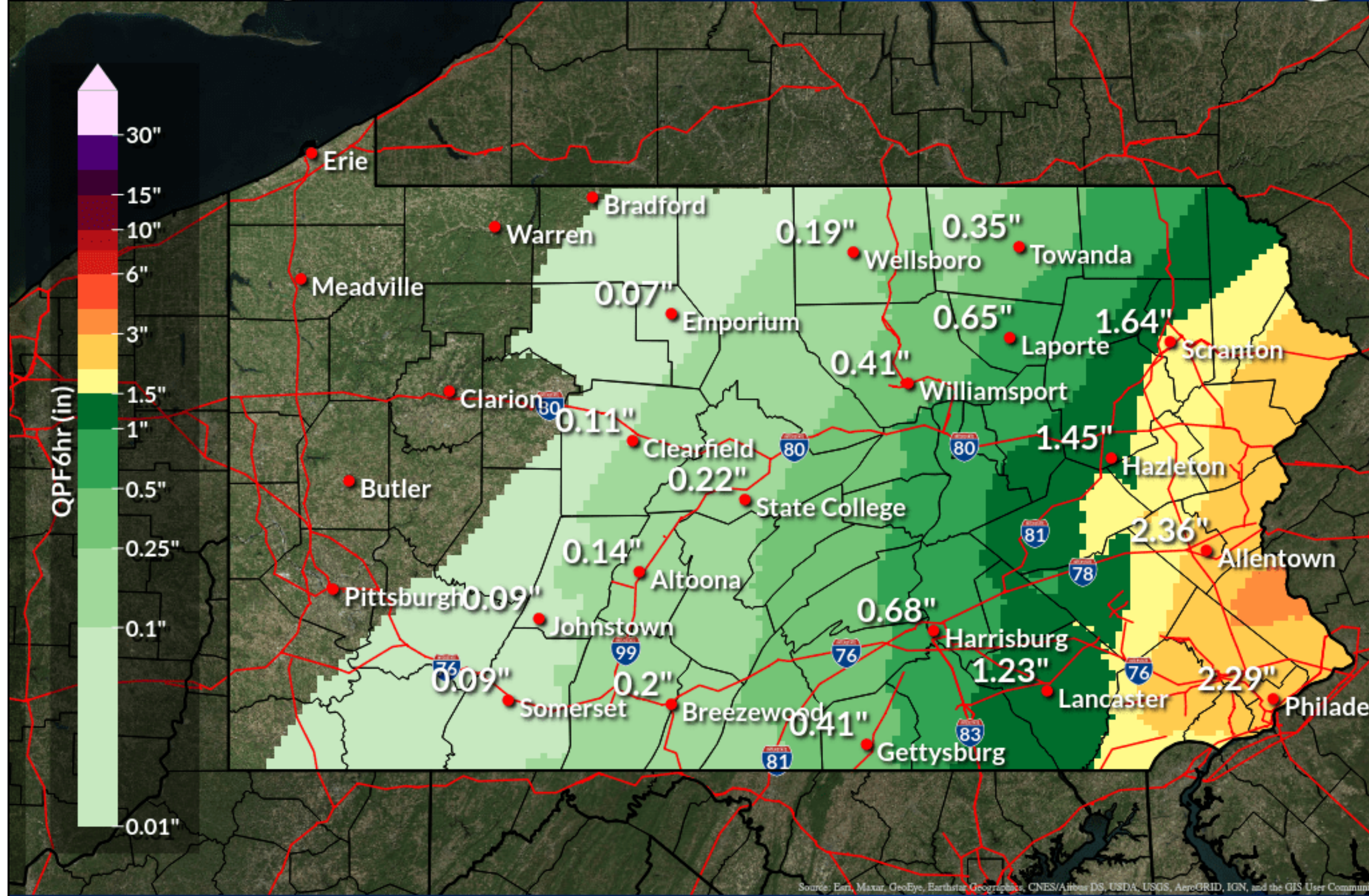
Tropical Depression Ida

Rainfall Forecast - 12 Hour Total

Valid Wed 8:00PM through Thu 8:00AM EDT

Weather Forecast Office
State College, PA

Issued Sep 01, 2021 4:12 AM EDT



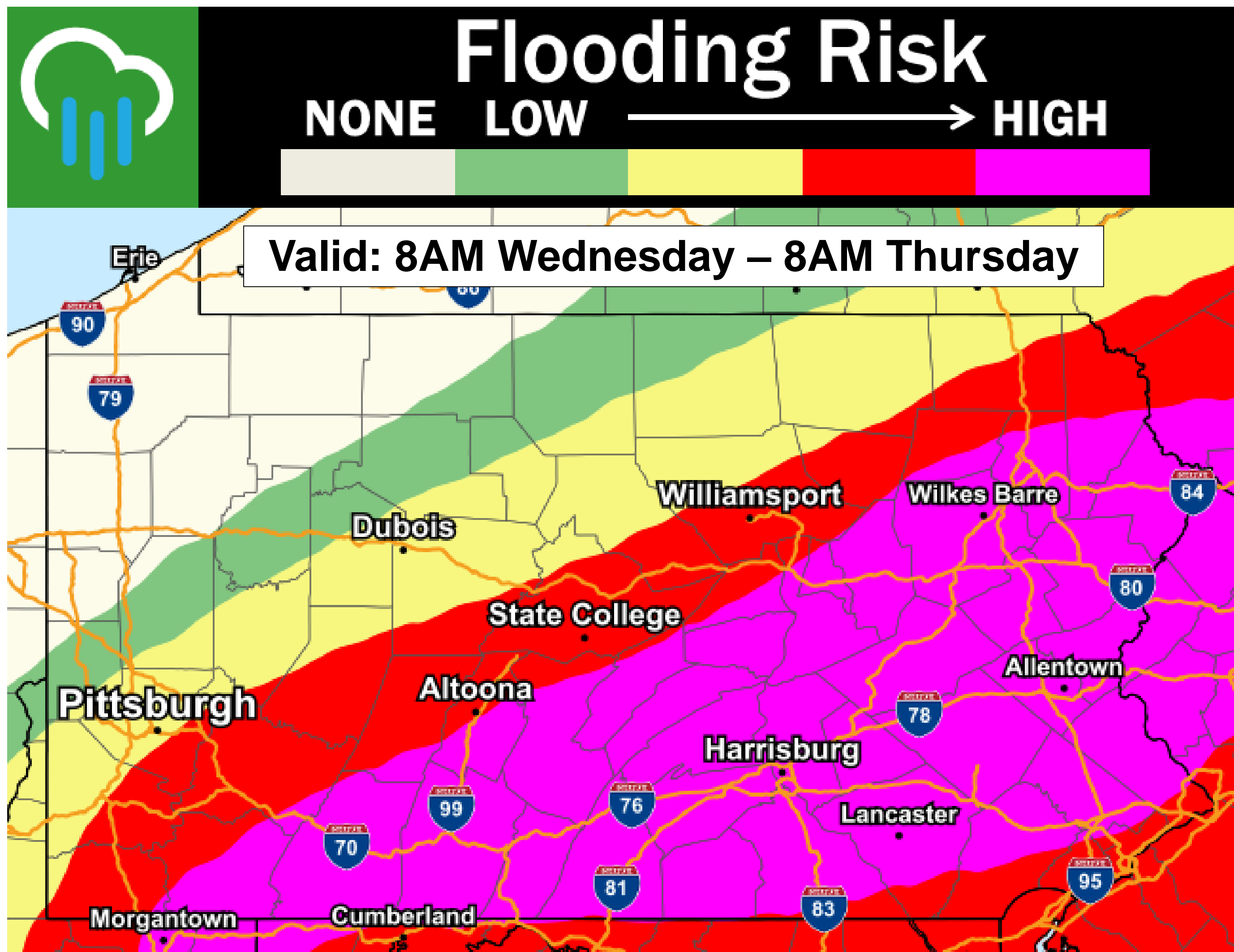
8PM Wednesday – 8AM Thursday

- 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

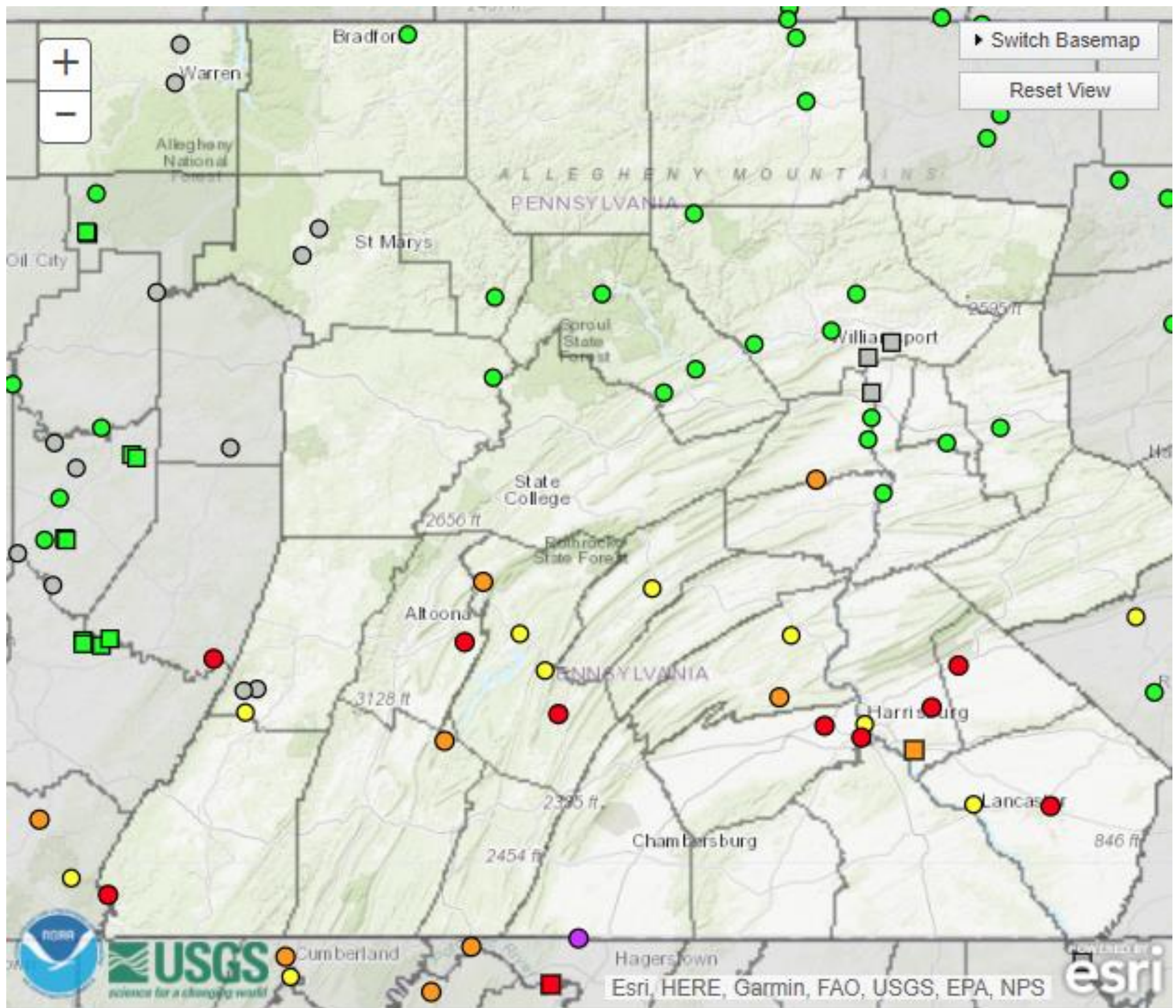


- Areas highlighted in **magenta** have the greatest risk for flash (rapid-onset) flooding today and tonight.
- Urban areas and faster-responding small streams will be the most vulnerable to flash flooding issues.
- Only the 3rd HIGH RISK in Pennsylvania since 2014.



River Flooding

Tropical Depression Ida



□	Forecast available
○	Probability and forecasts available
◇	Observations only available
Major Flooding	
Moderate Flooding	
Minor Flooding	
Near Flood Stage	
No Flooding	
Observations Are Not Current	
Out of Service	
Flood Category Not Defined	
At or Below Low Water Threshold	

- 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 & Category</i>	<i>Above Flood Stage</i>	<i>Crest Time</i>	<i>Below Flood Stage</i>
Aughwick Creek at Shirleysburg	10 ft	3.45 ft	13.30 ft	Wednesday night	Thursday afternoon	Friday midday
Conestoga River at Lancaster	11 ft	3.65 ft	14.00 ft	Thursday early AM	Thursday afternoon	Thursday night
Conodoguinet Creek near Hogestown	8 ft	1.41 ft	11.10 ft	Wednesday night	Thursday night	Saturday morning
Frankstown Branch of the Juniata at Williamsburg	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	--
Little Juniata River at Spruce Creek	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



River Forecasts as of Wednesday Morning

Tropical Depression Ida

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<i>Location</i>	<i>Flood Stage</i>	<i>Current Level</i>	<i>Forecast Crest & Category</i>	<i>Above Flood Stage</i>	<i>Crest Time</i>	<i>Below Flood Stage</i>
Raystown Branch Juniata River at Saxton	17 ft	3.41 ft	18.50 ft	Thursday morning	Thursday afternoon	Thursday night
Sherman Creek at Shermans Dale	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	--
Swatara Creek at Harper Tavern	9 ft	1.05 ft	14.20 ft	Wednesday night	Thursday afternoon	Friday night
Swatara Creek near Hershey	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
Youghiogheny River near Confluence	12 ft	2.65 ft	14.70 ft	Wednesday night	Thursday morning	Friday midday
Yellow Breeches Creek near Camp Hill	7 ft	1.04 ft	10.80 ft	Wednesday night	Thursday afternoon	Friday night

Major River Flooding

Moderate River Flooding

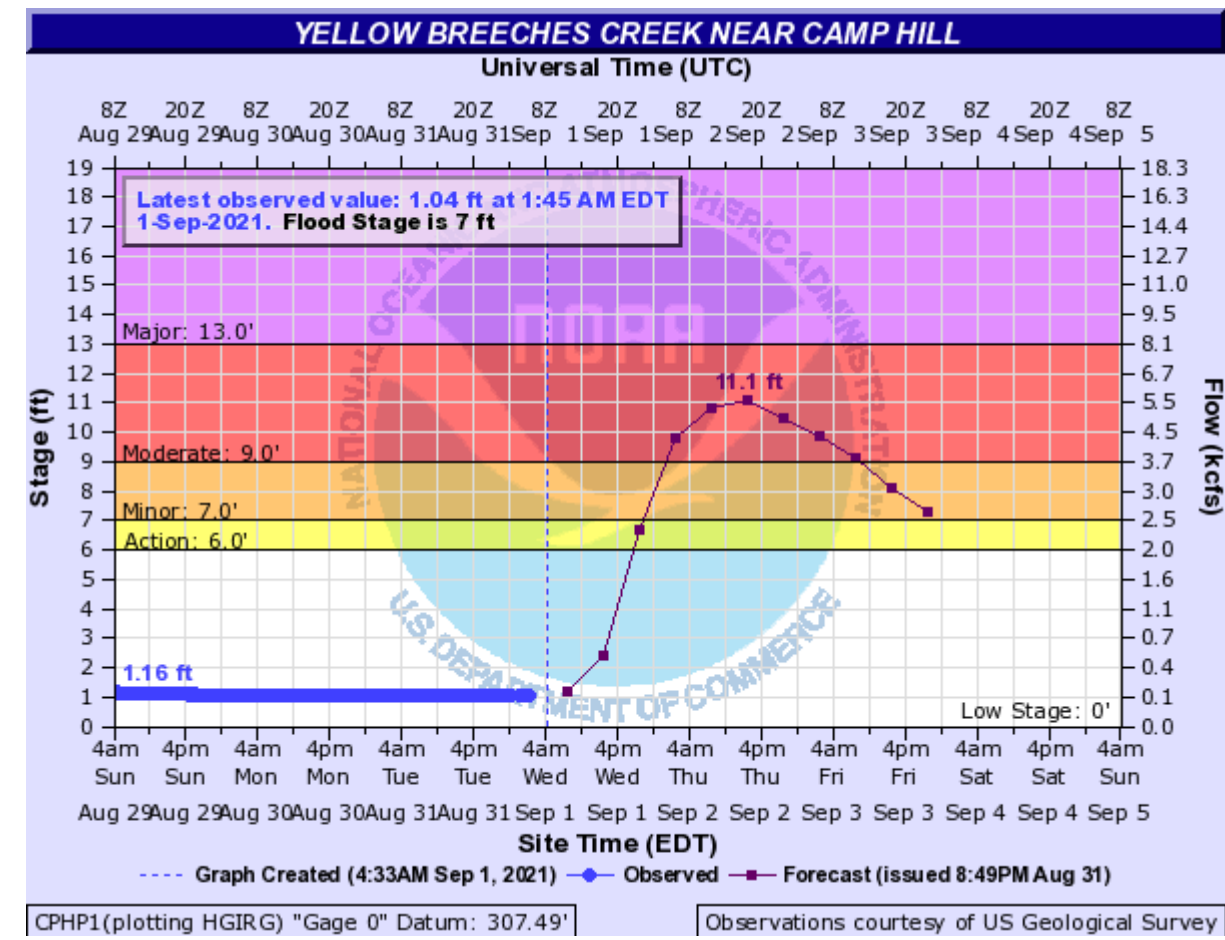
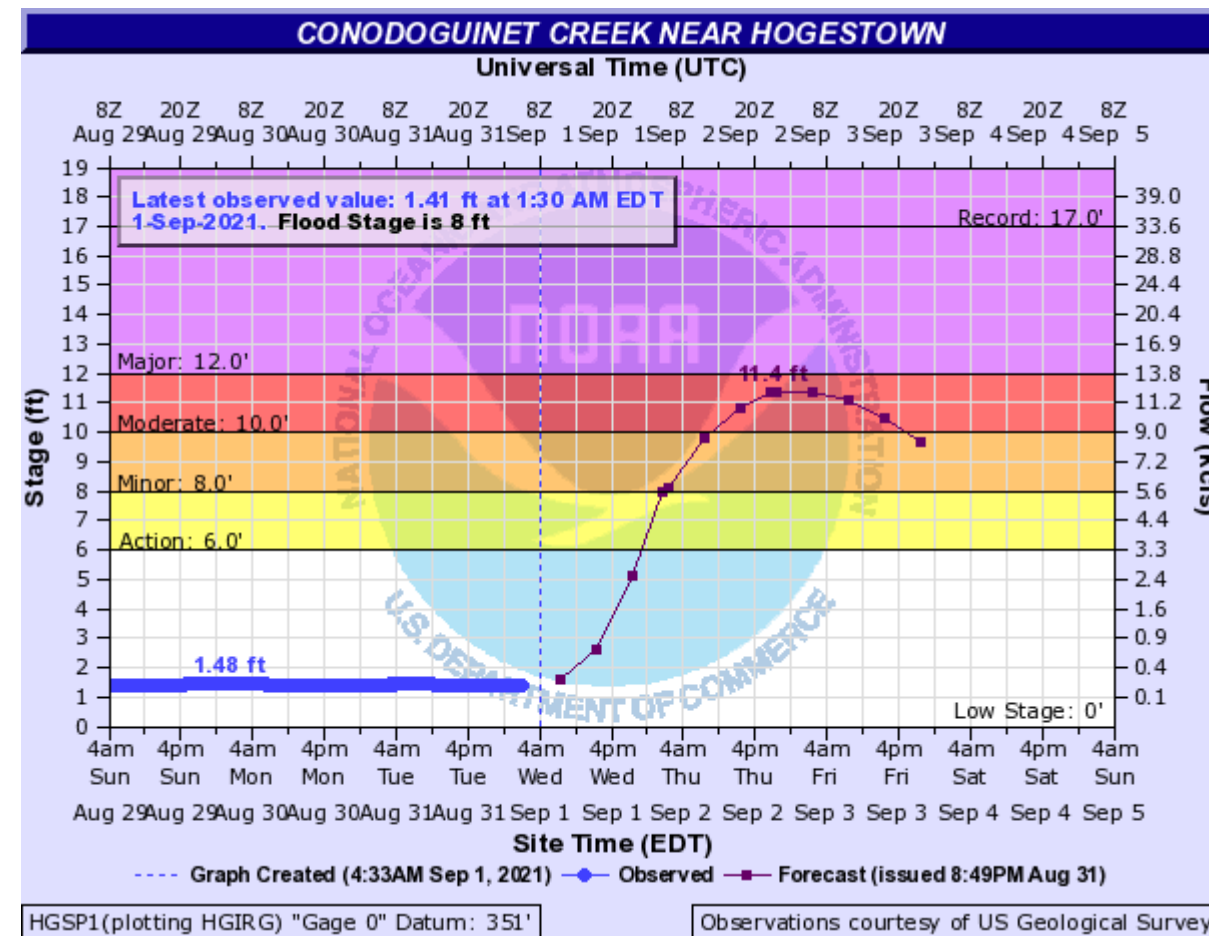
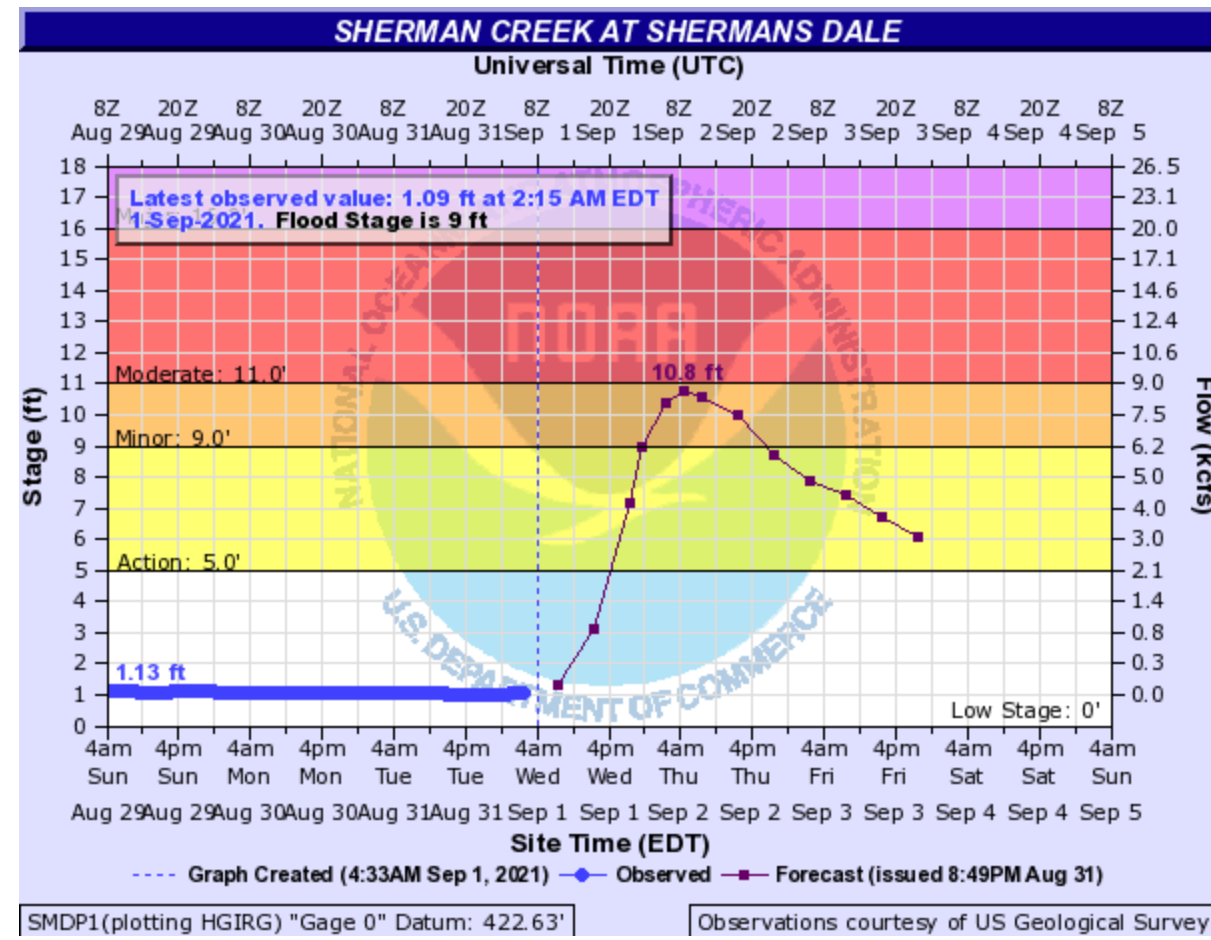
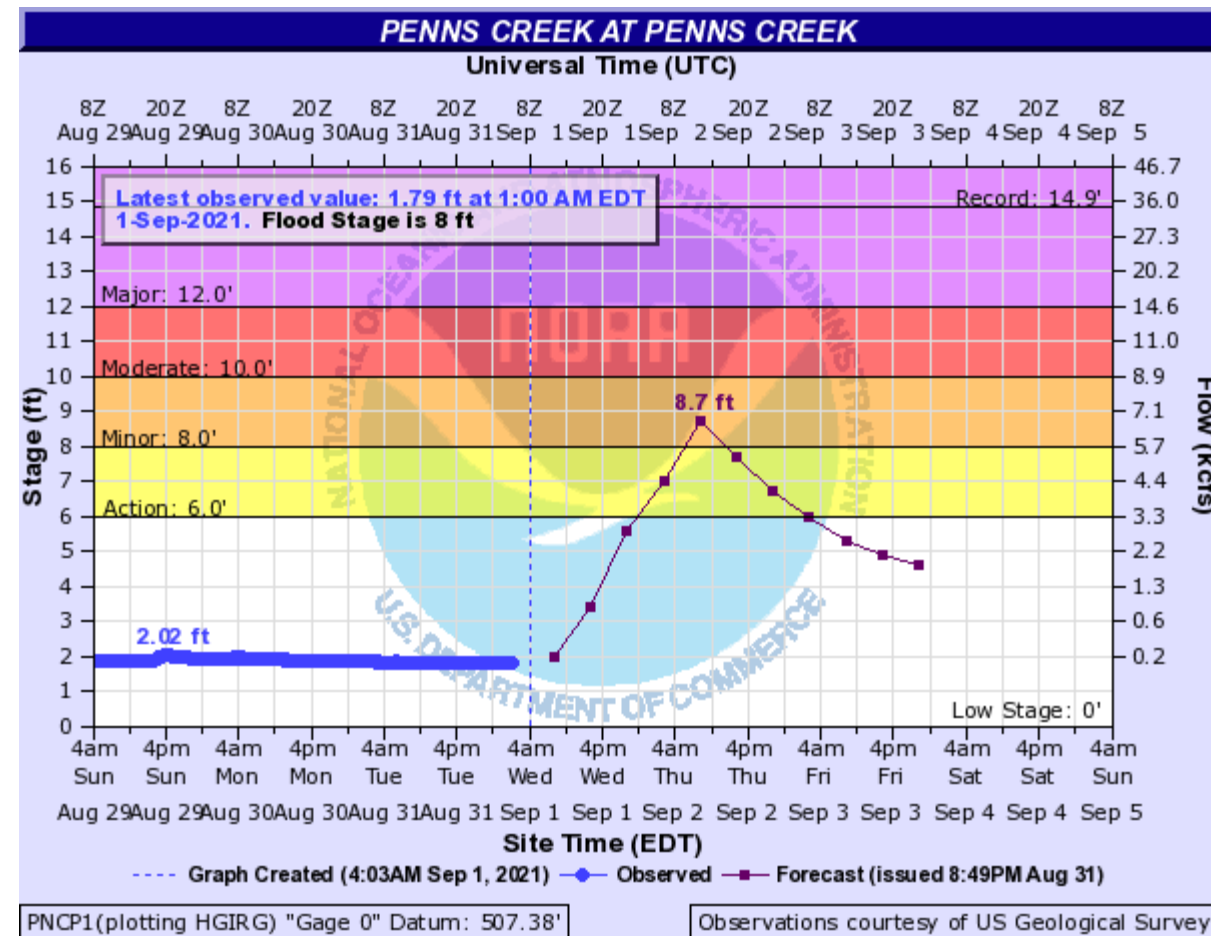
Minor River Flooding

Near Flood

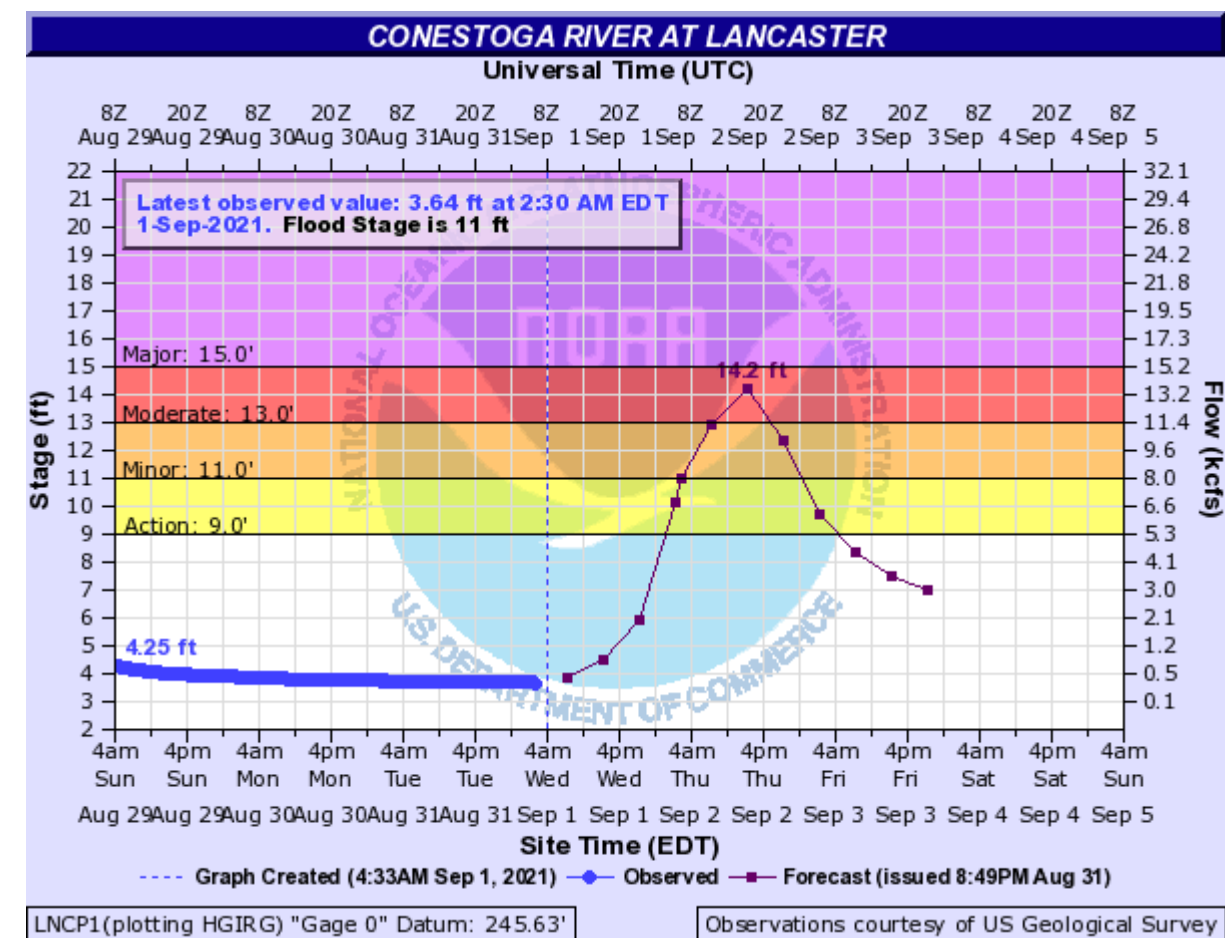
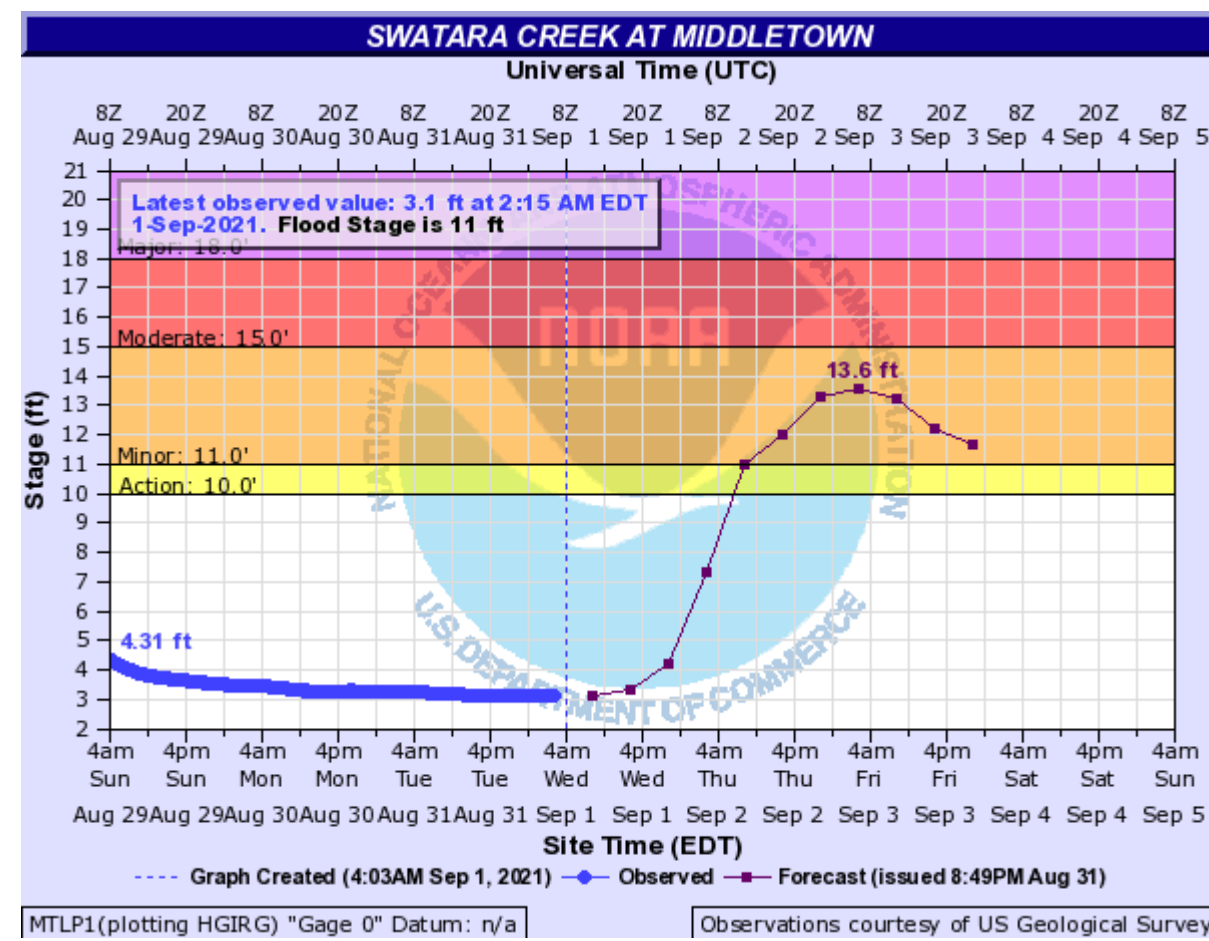
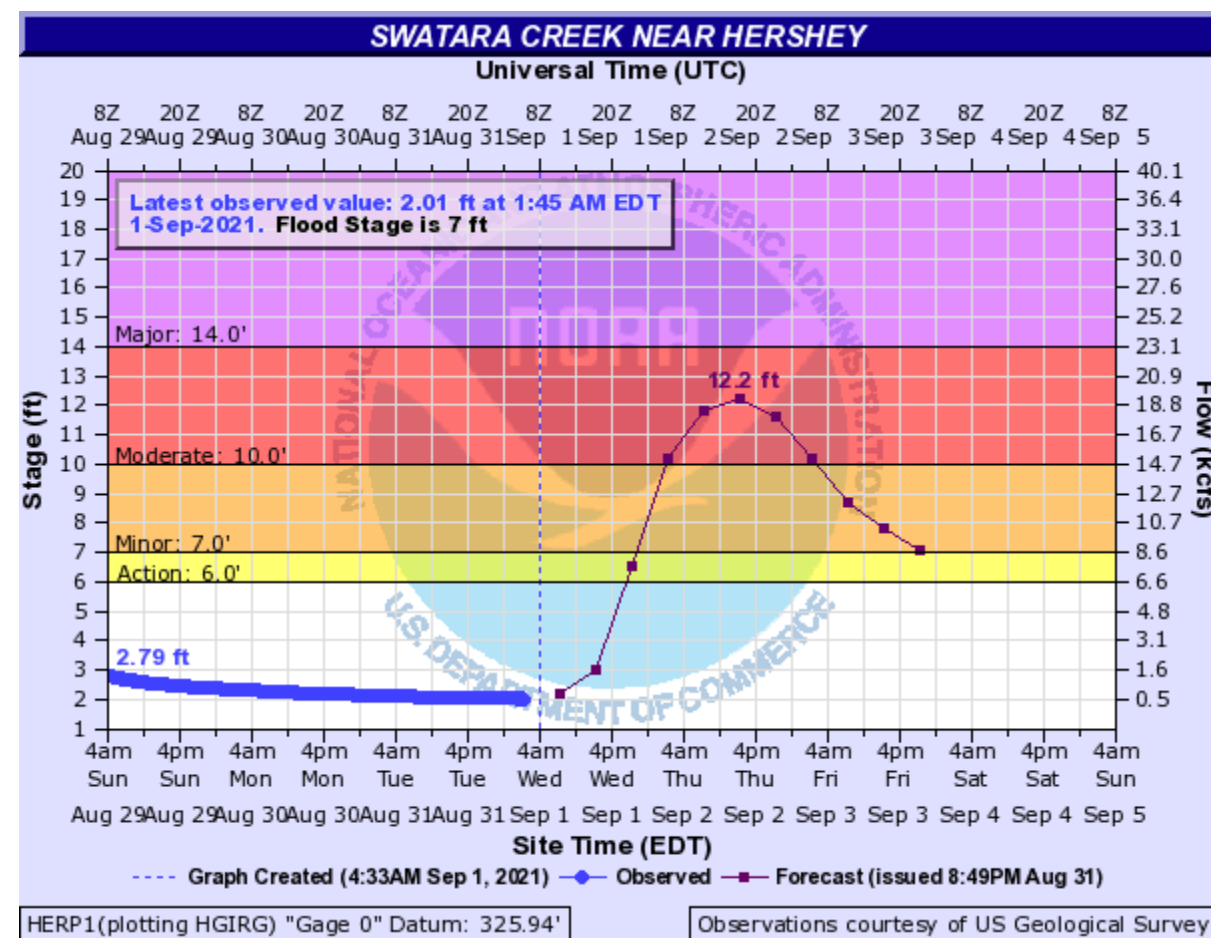
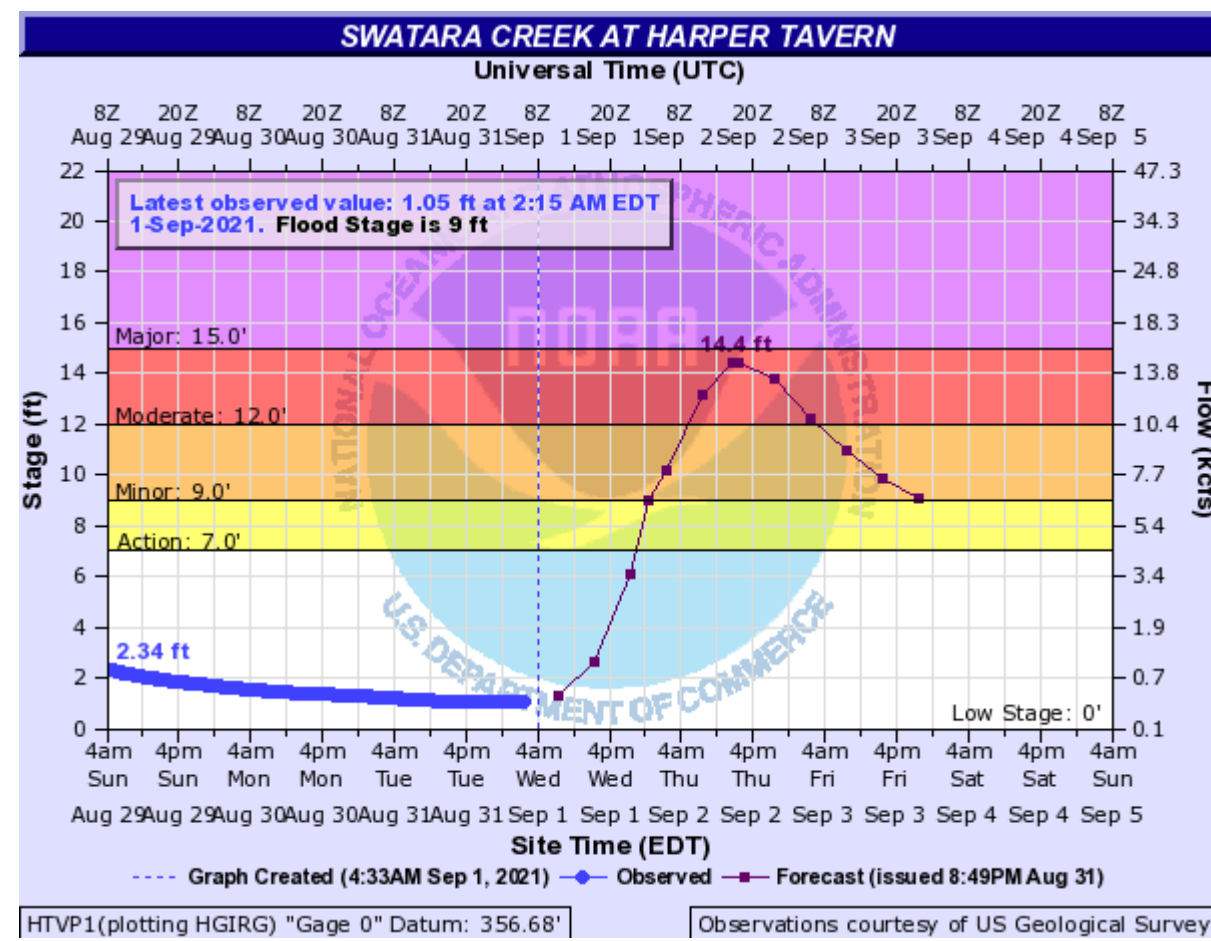


River Forecasts

Tropical Depression Ida



Click on image to see current river stage and forecast

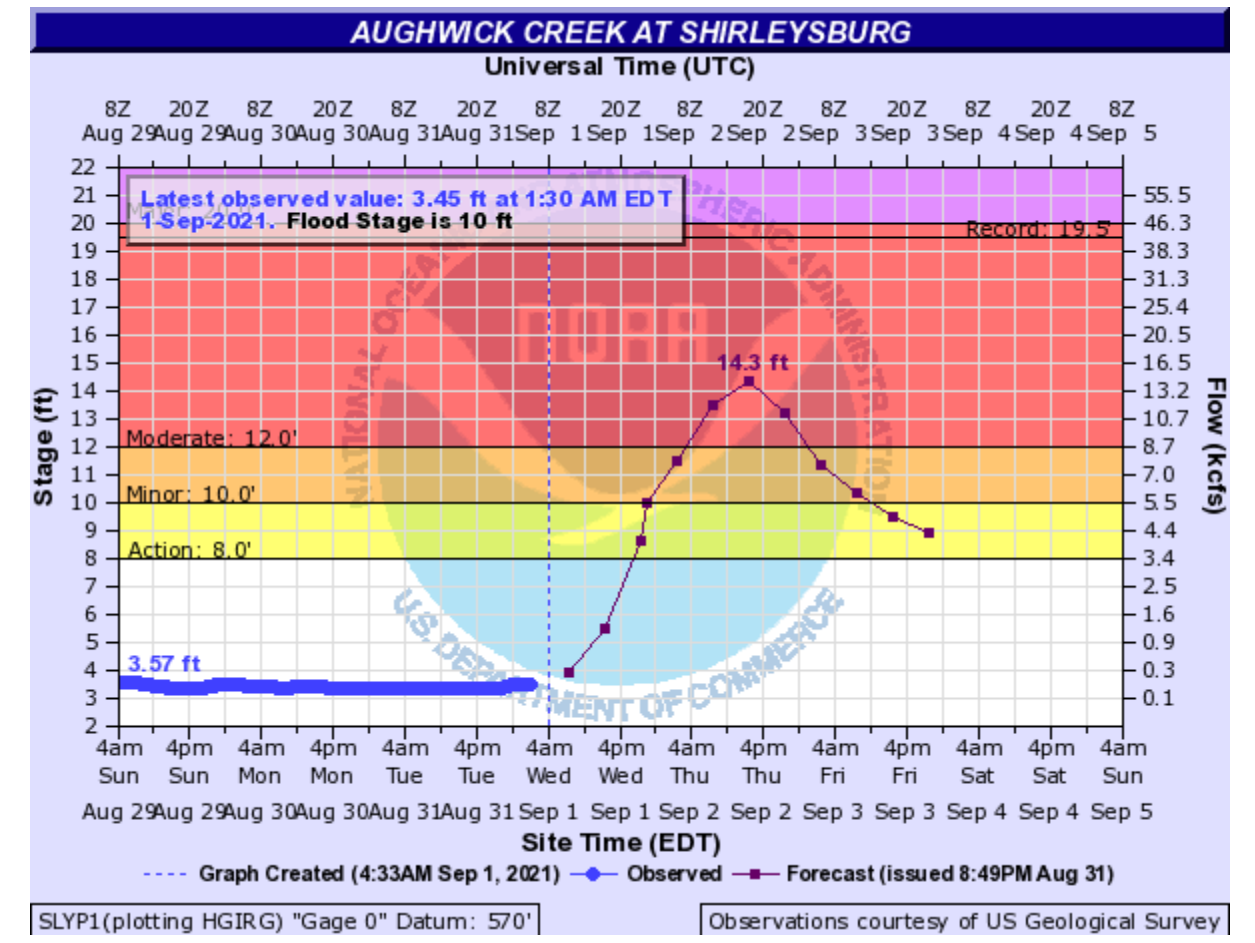
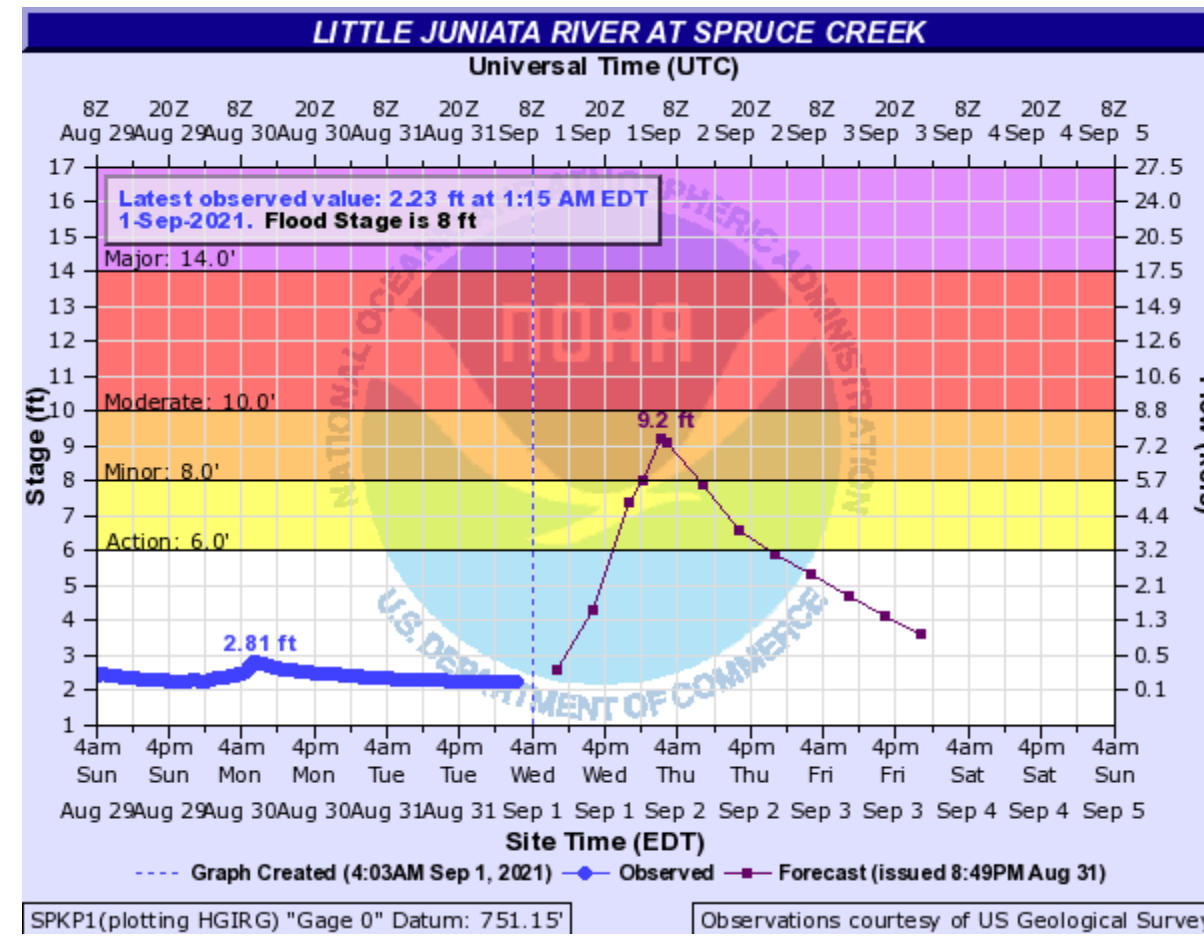
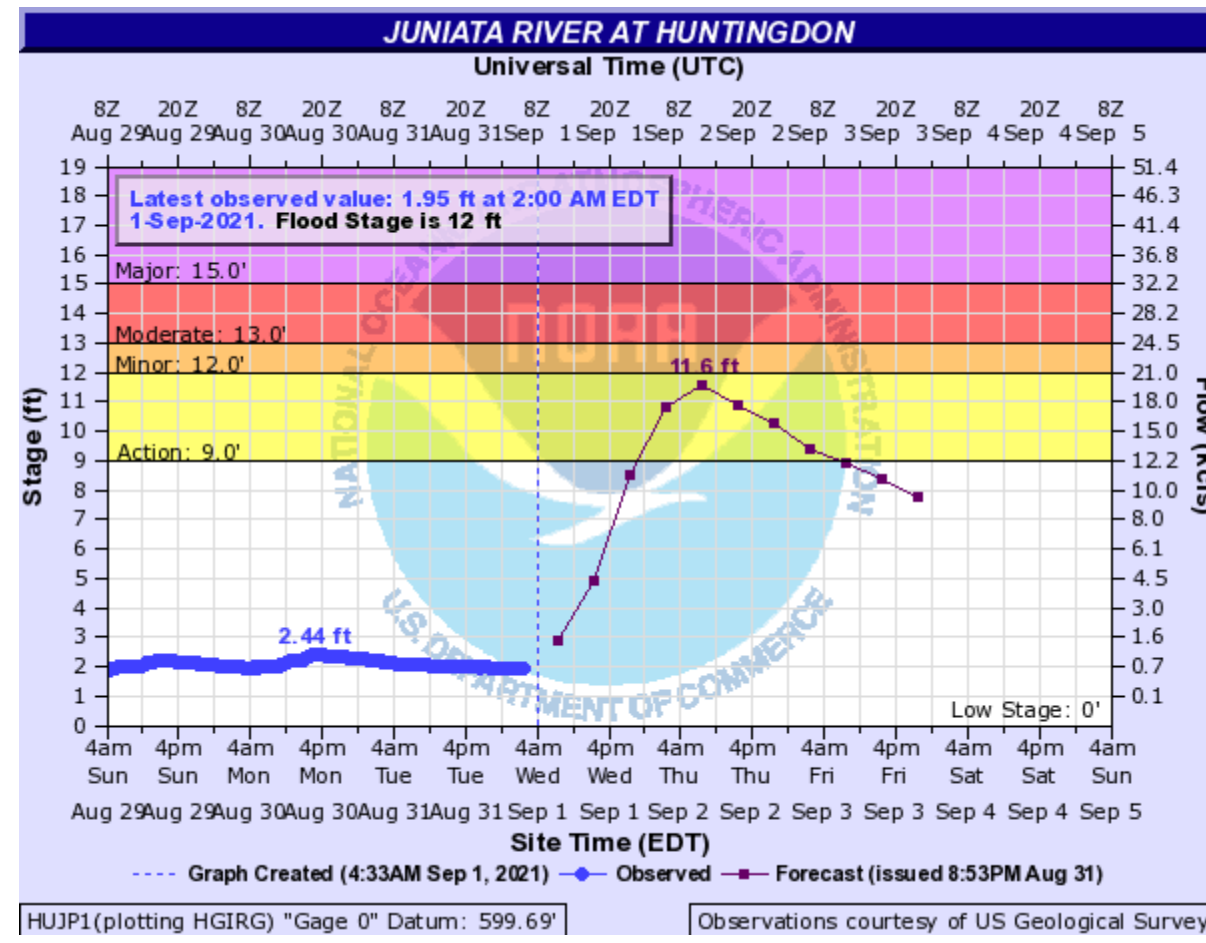
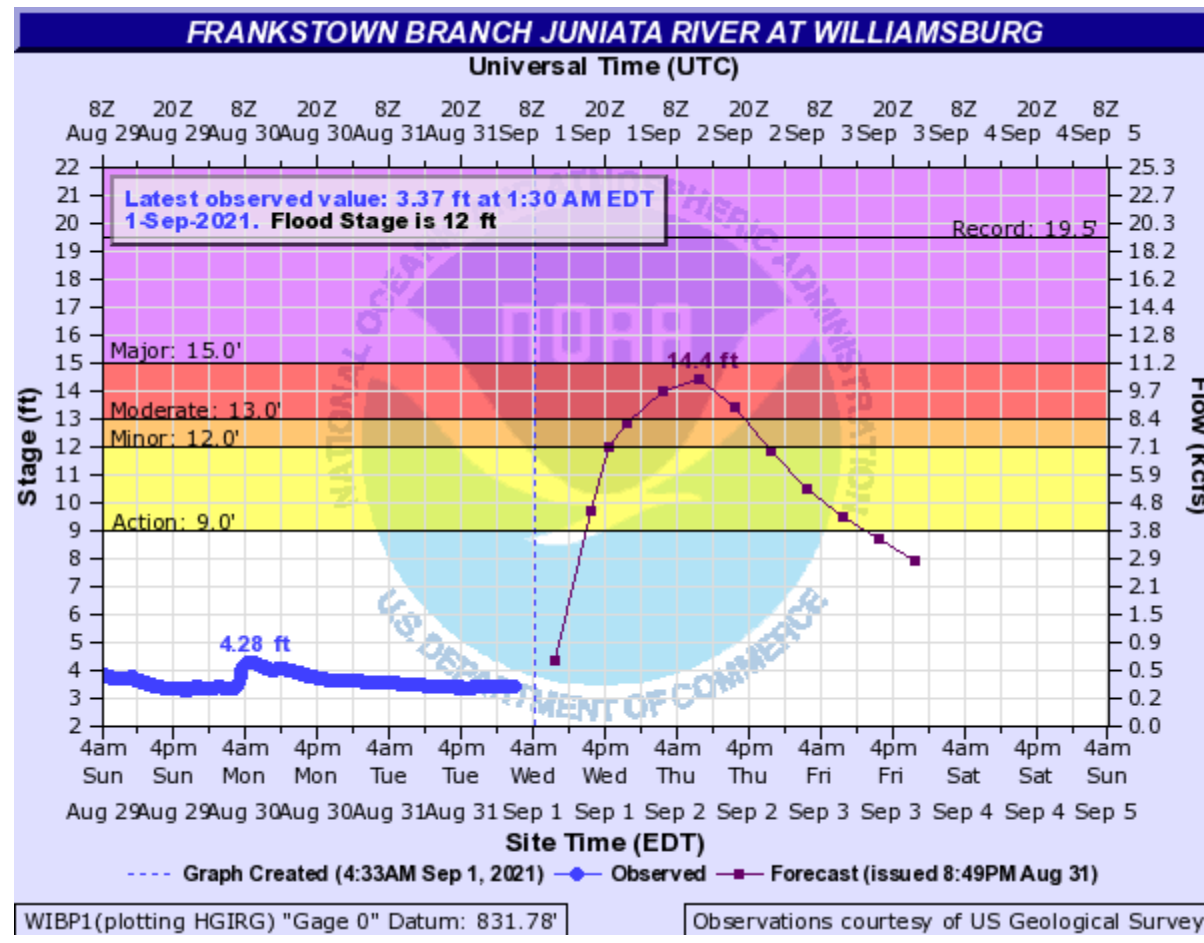


Lower Susquehanna River Basin Tributaries

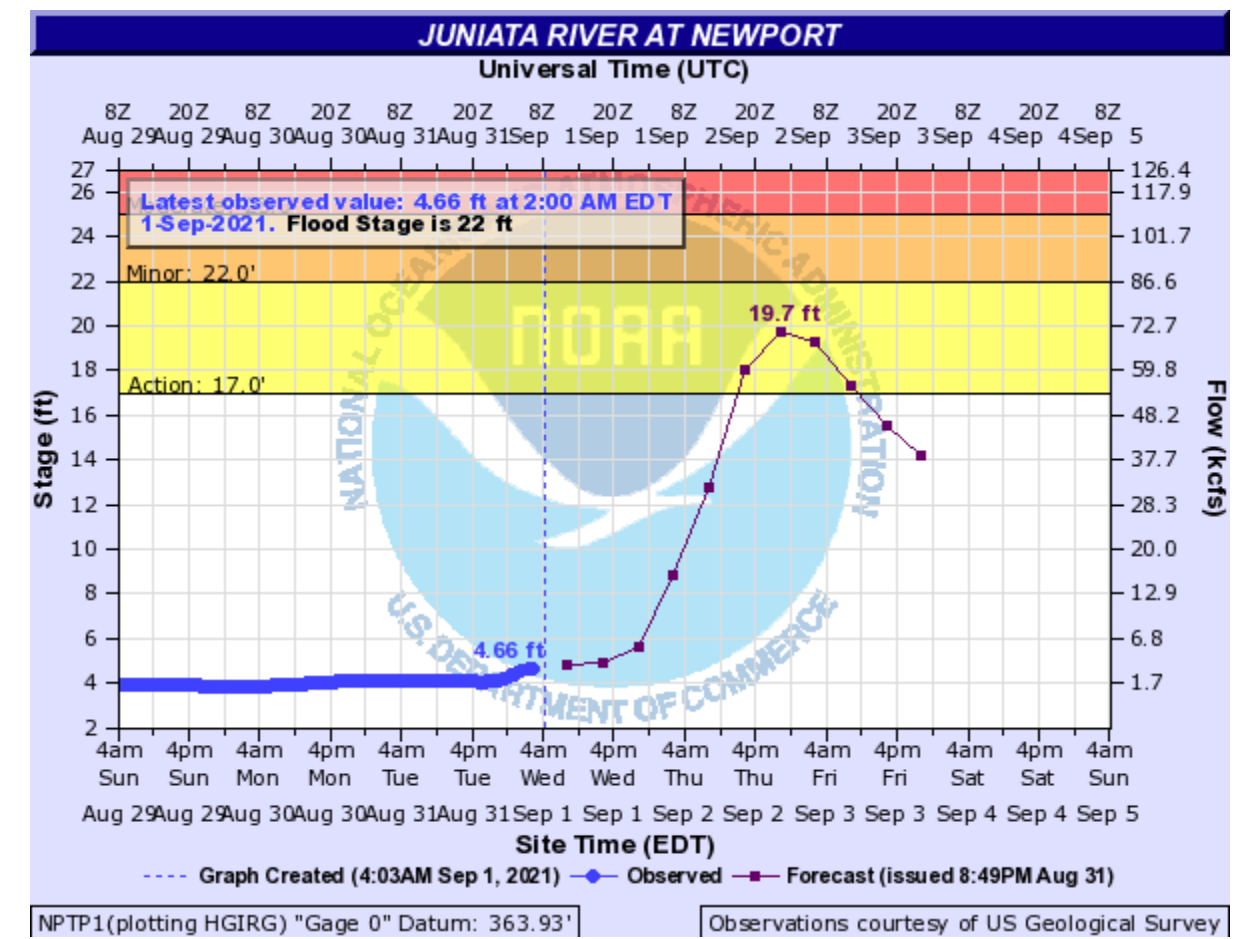
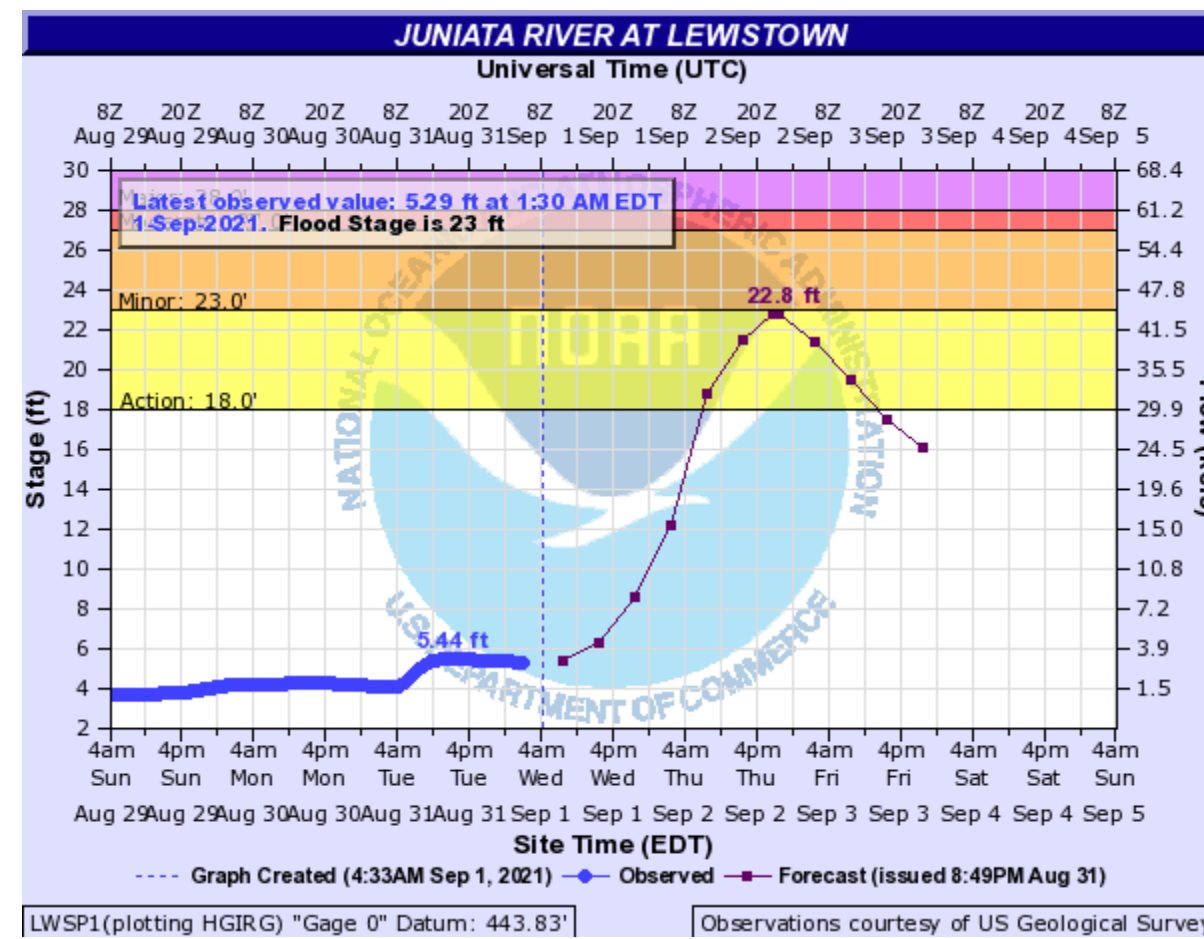
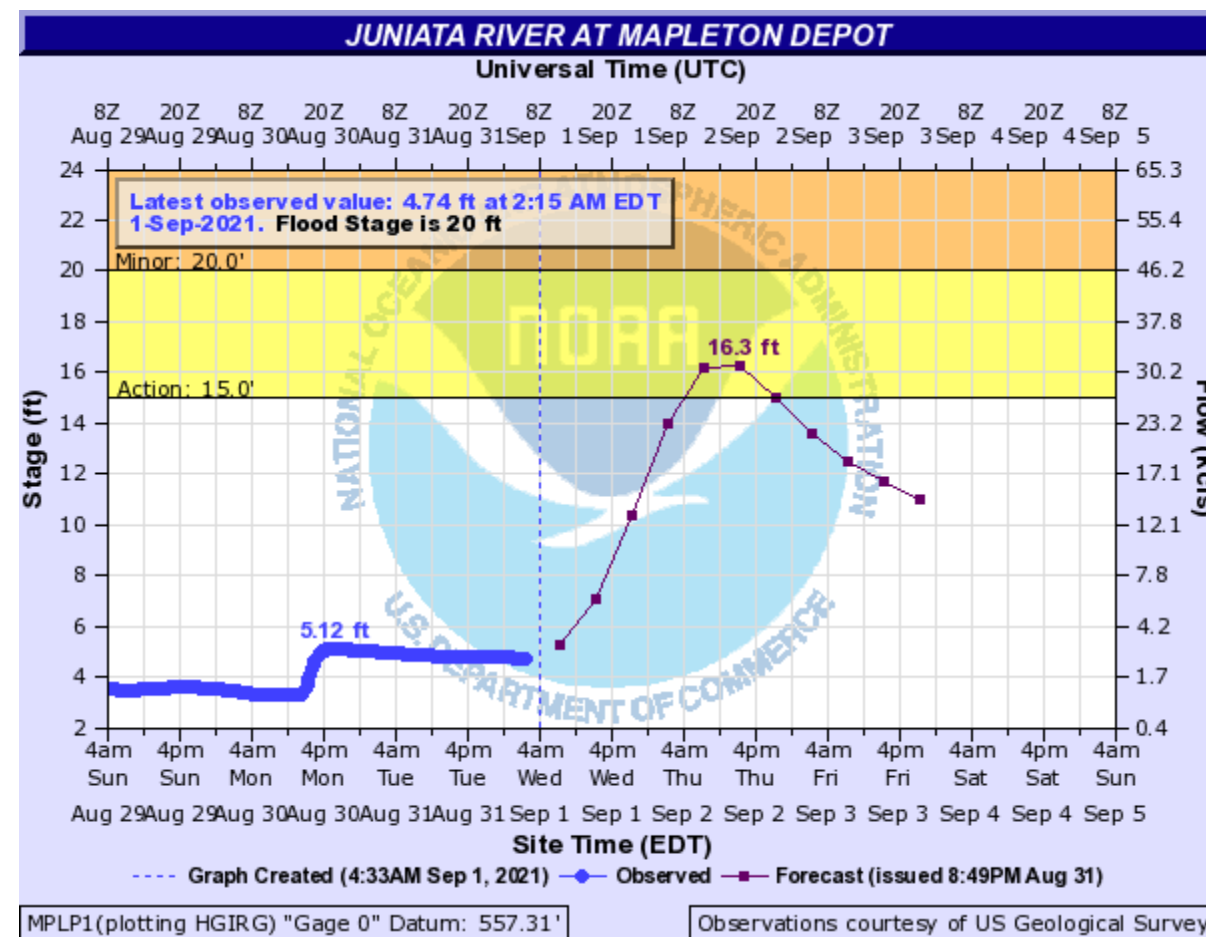
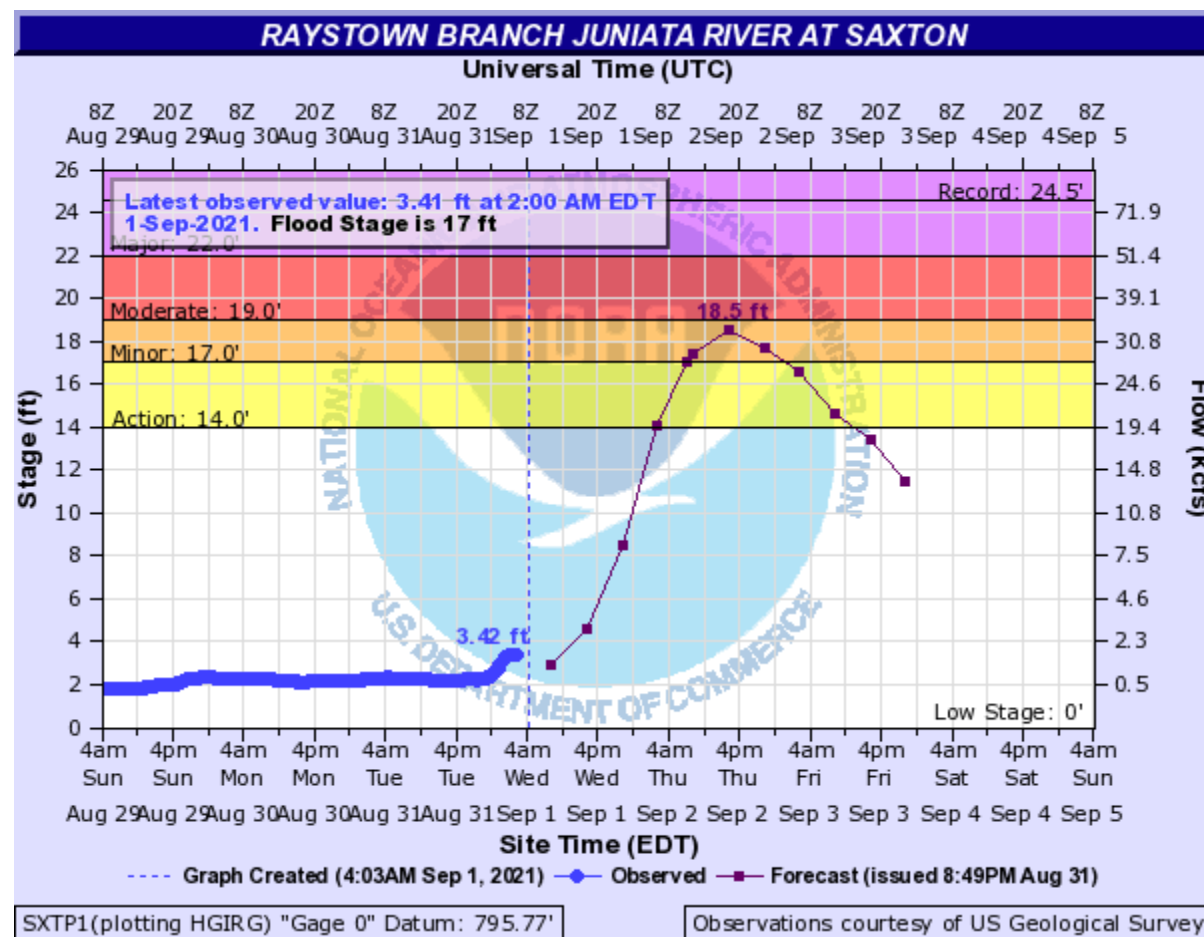


River Forecasts

Tropical Depression Ida



Click on image to see current river stage and forecast

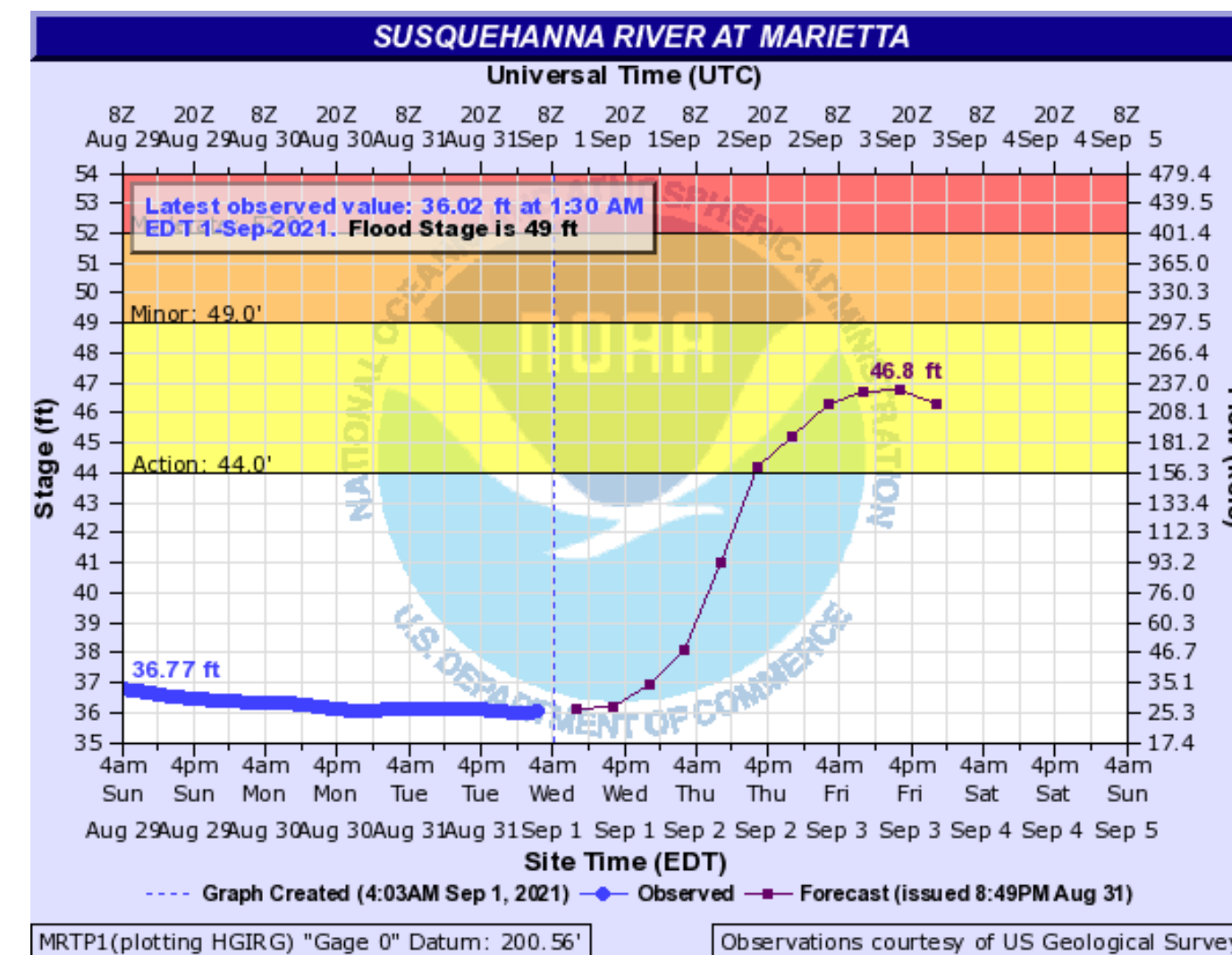
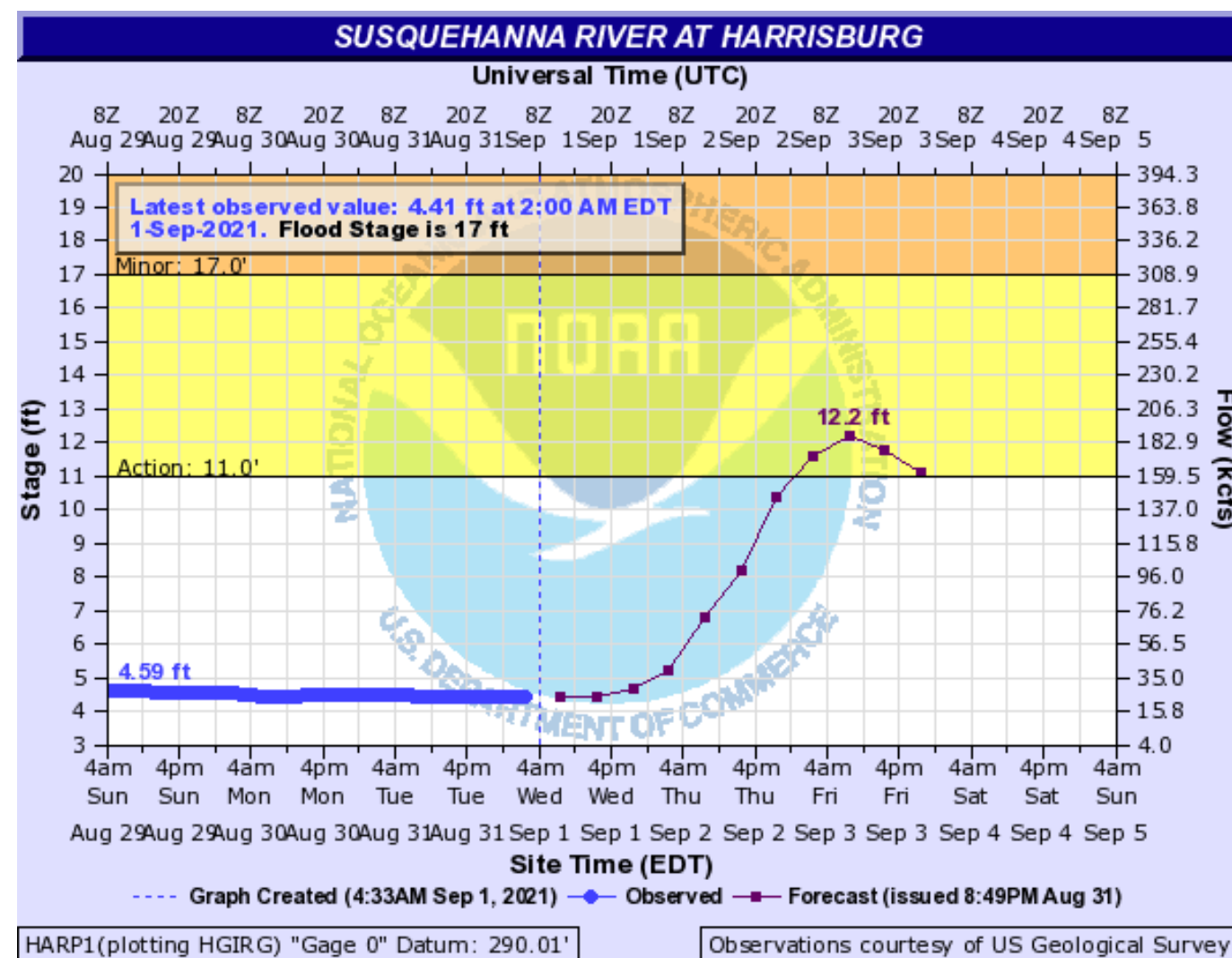
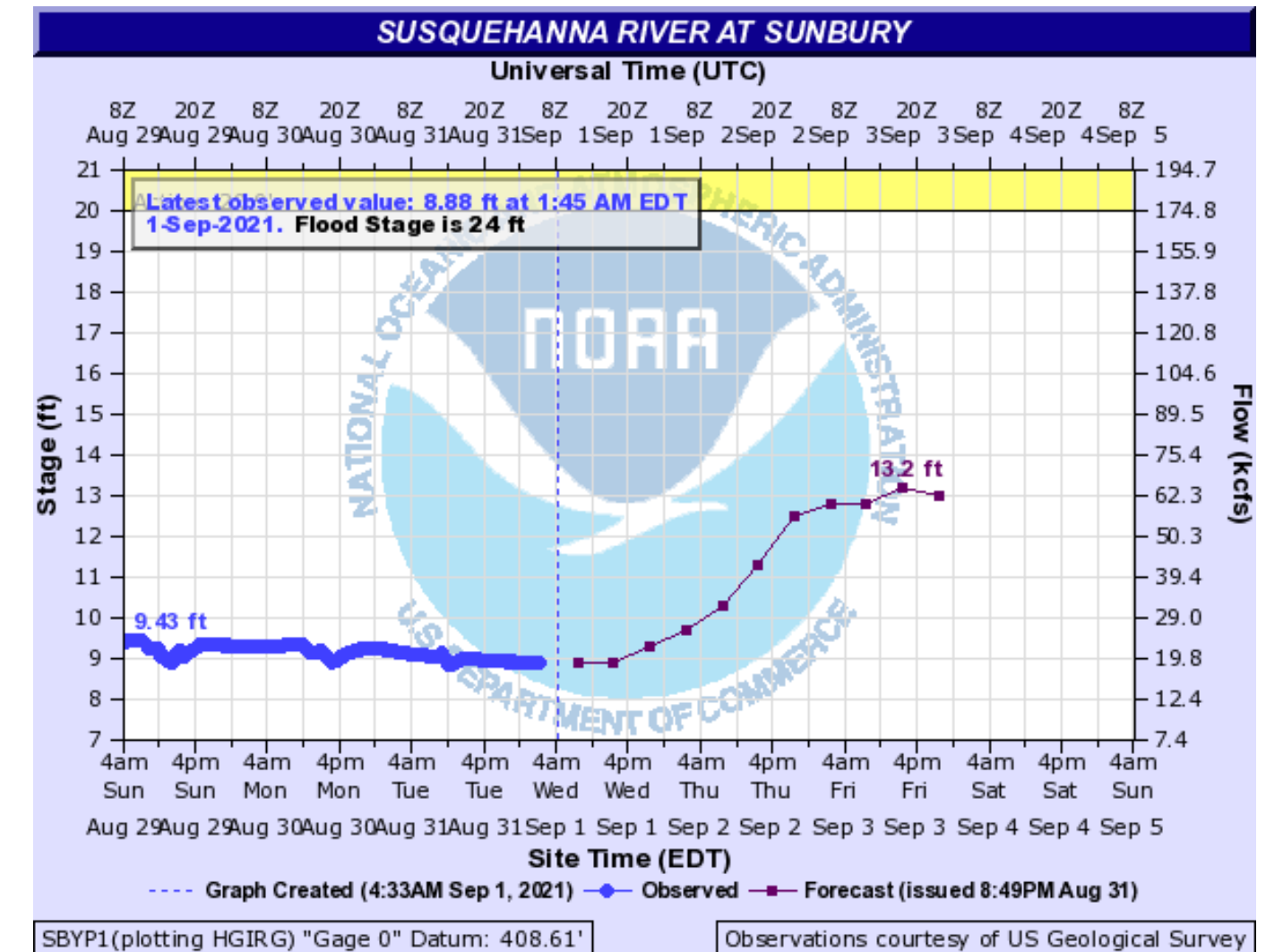
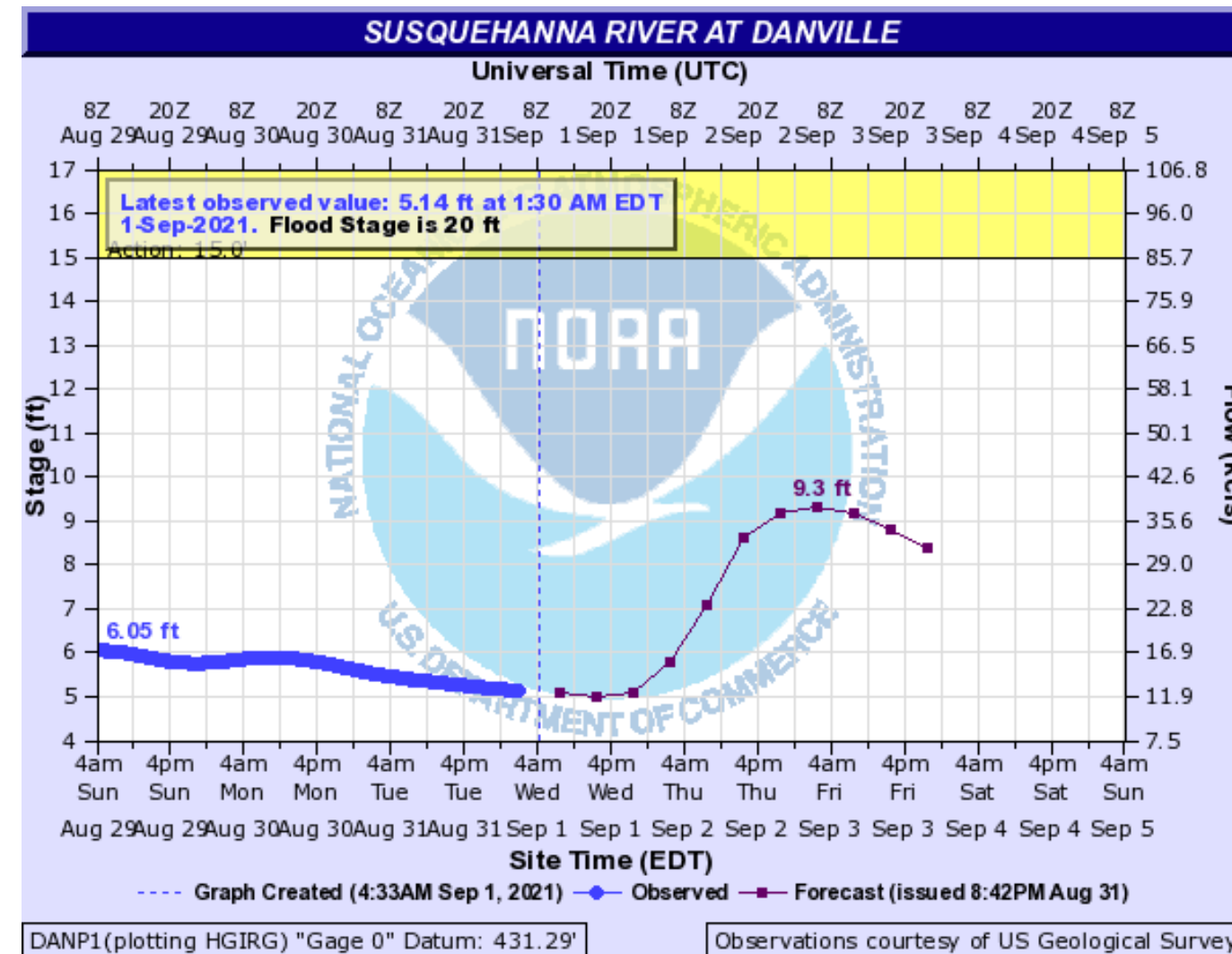
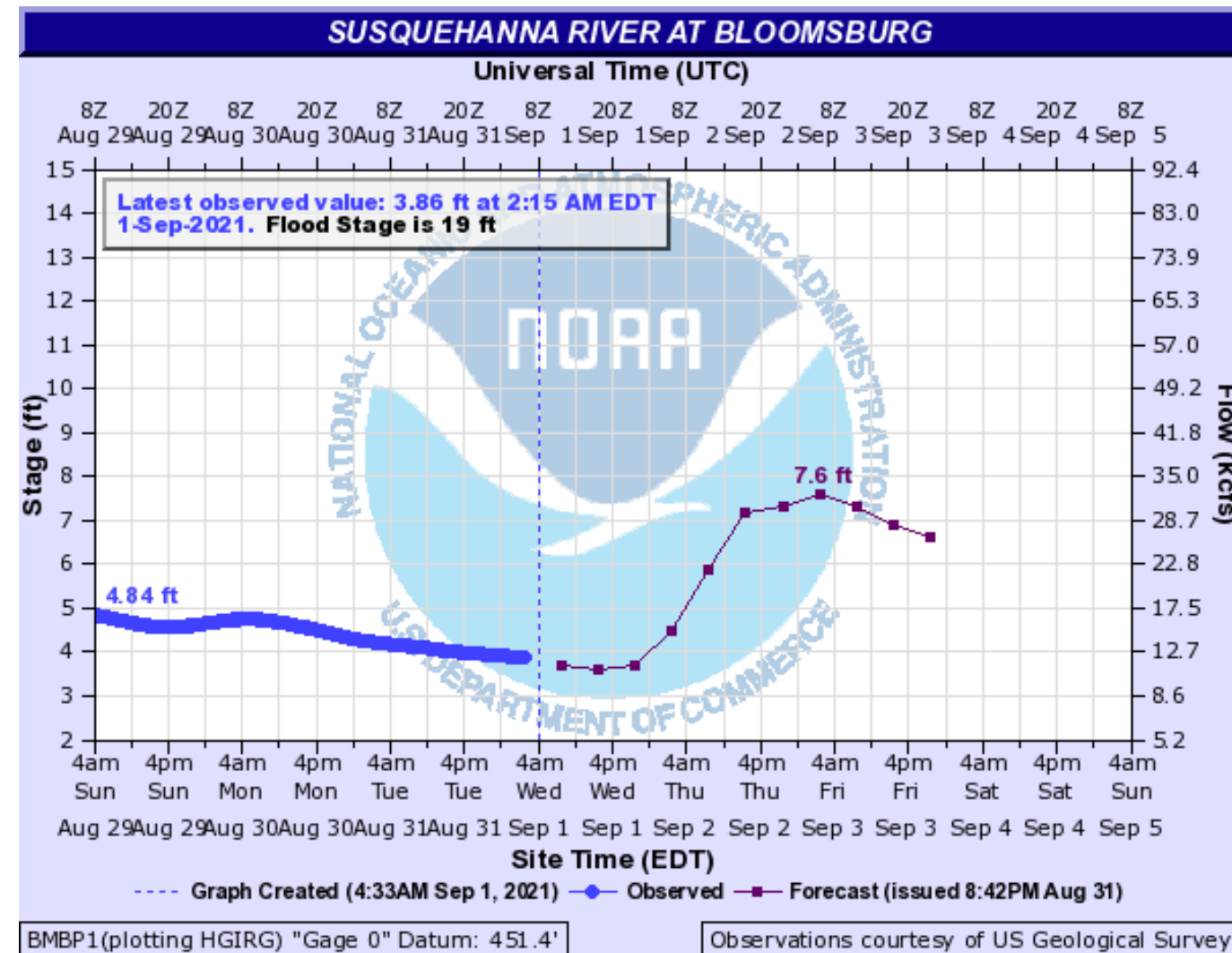


Juniata River Basin



River Forecasts

Tropical Depression Ida



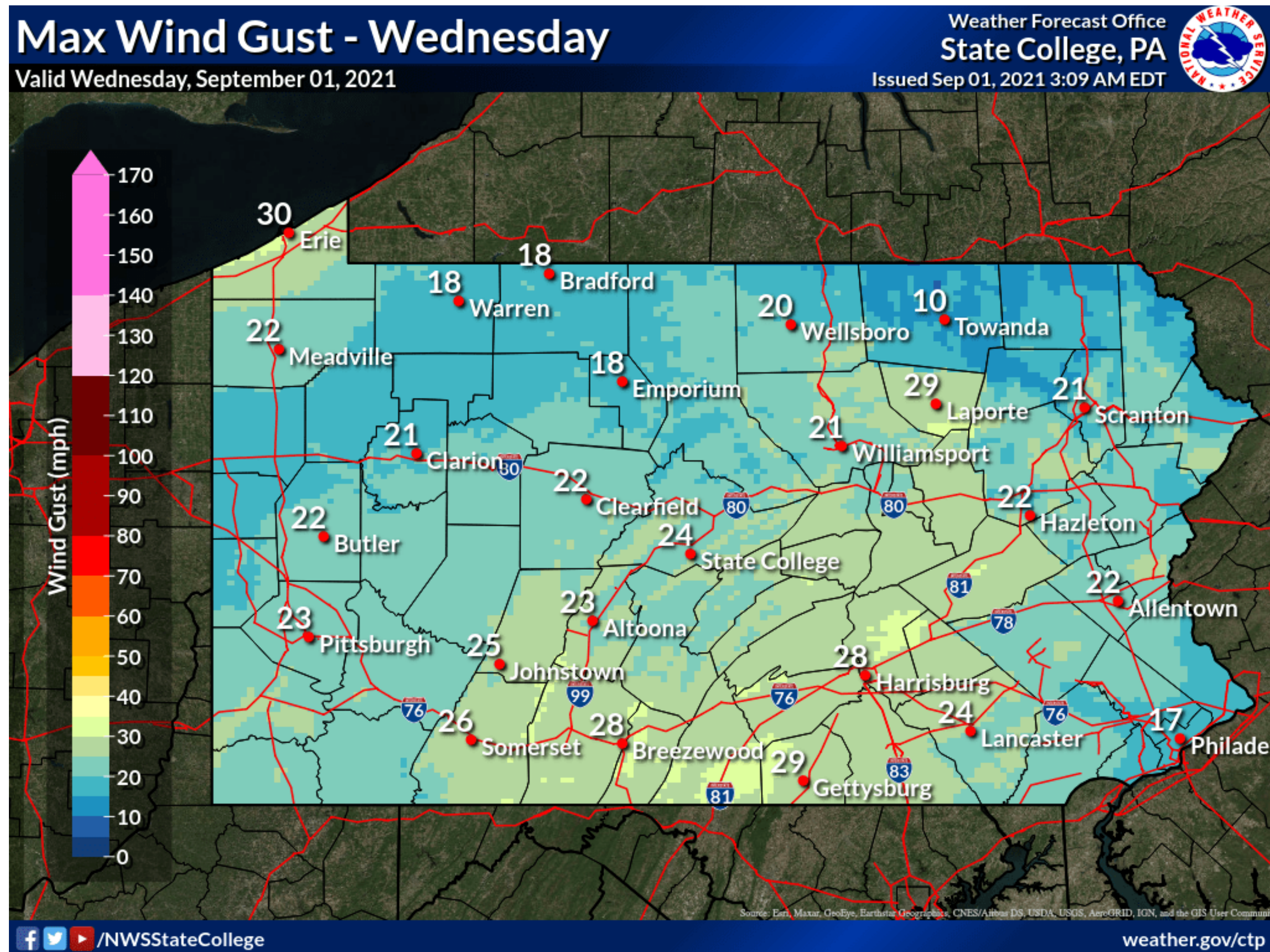
Click on image to see current river stage and forecast

Main Stem Susquehanna River Basin



Wind Threat / Potential Impact

Tropical Depression Ida

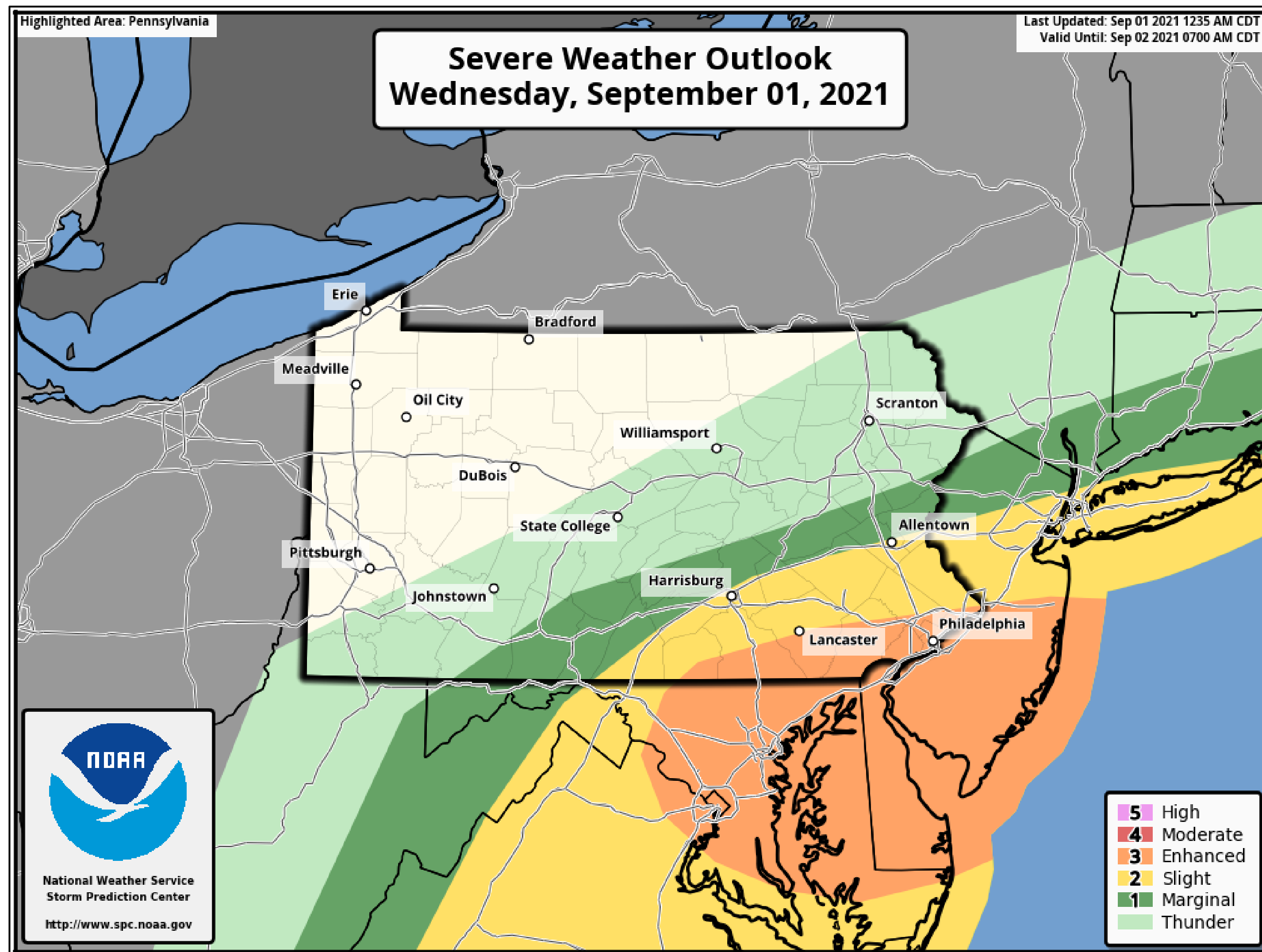


- Wind gusts of 25 to 30 mph are expected in southeast PA this afternoon and evening.
- Saturated soils may increase the likelihood of downed trees/power lines.



Tornado Potential

Tropical Depression Ida

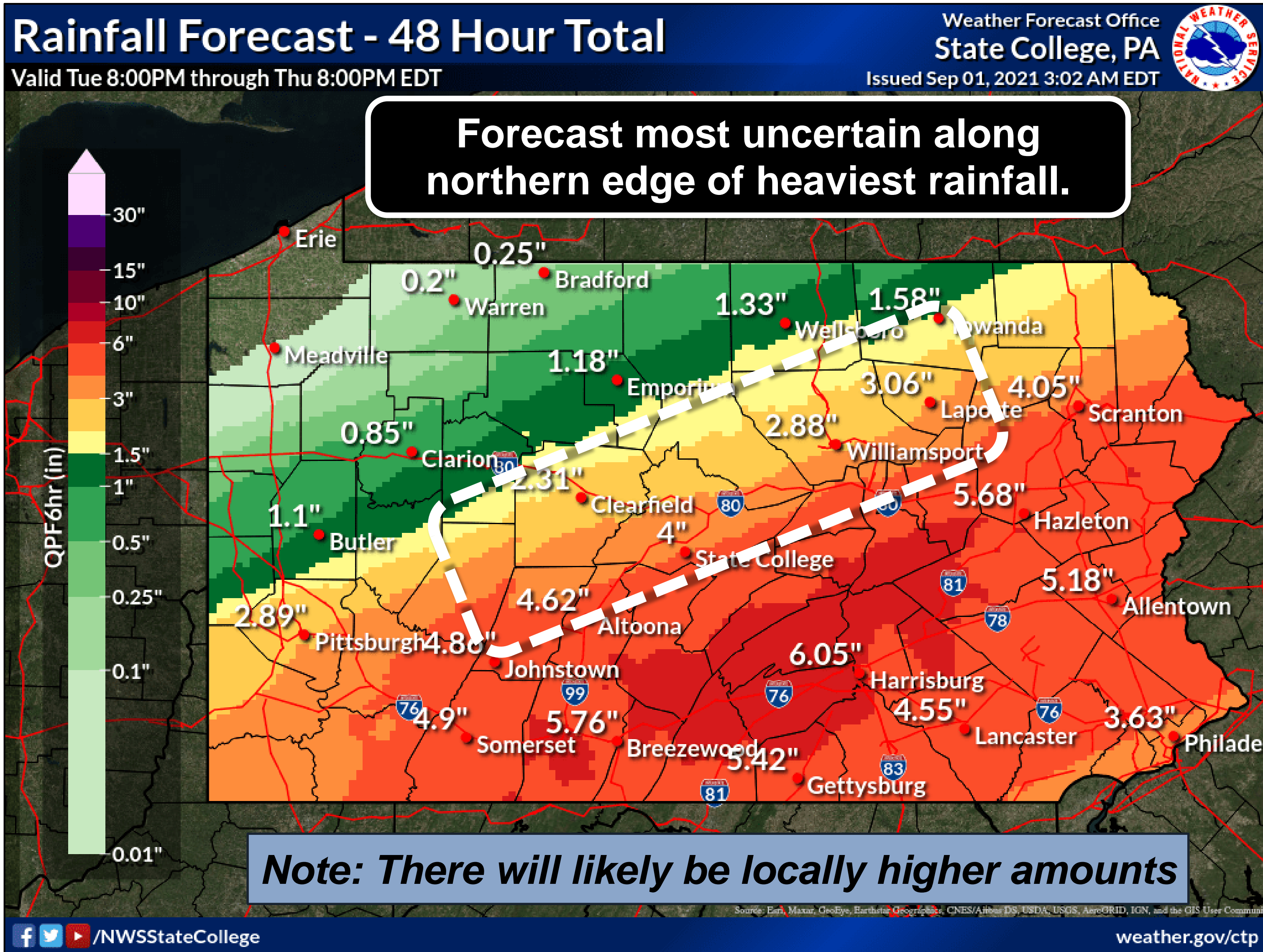


- An isolated, short-lived tornado or two is possible this afternoon and evening, generally south and east of the I-81/I-78 corridor.



Heavy Rainfall Summary

Tropical Depression Ida



- **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.



Post-event Outlook

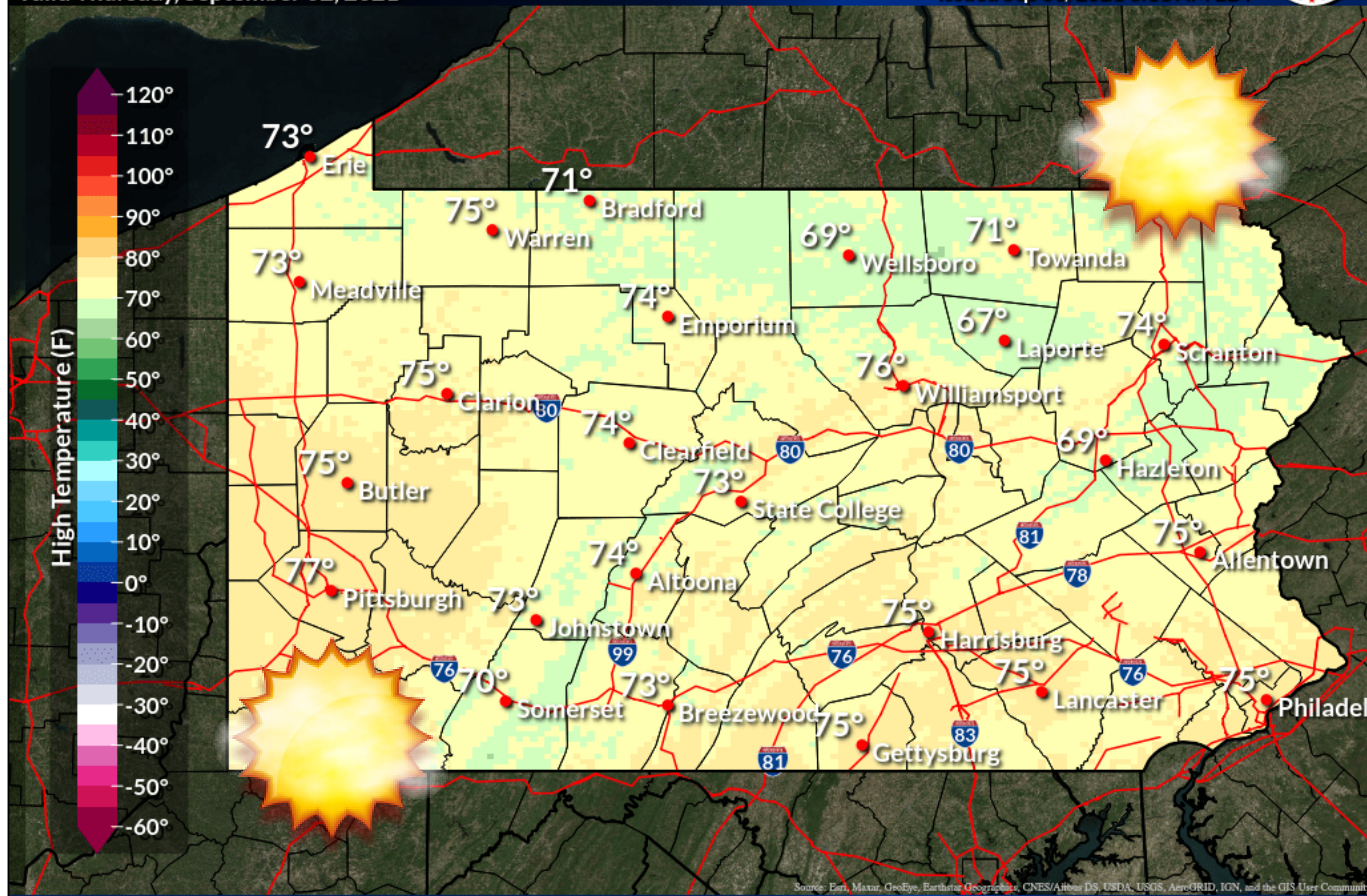
Thursday into the weekend

High Temperature - Thursday

Valid Thursday, September 02, 2021

Weather Forecast Office
State College, PA

Issued Sep 01, 2021 3:11 AM EDT




- 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

 **Facebook:** NWSStateCollege

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