

Remnants of Helene Affect the Area

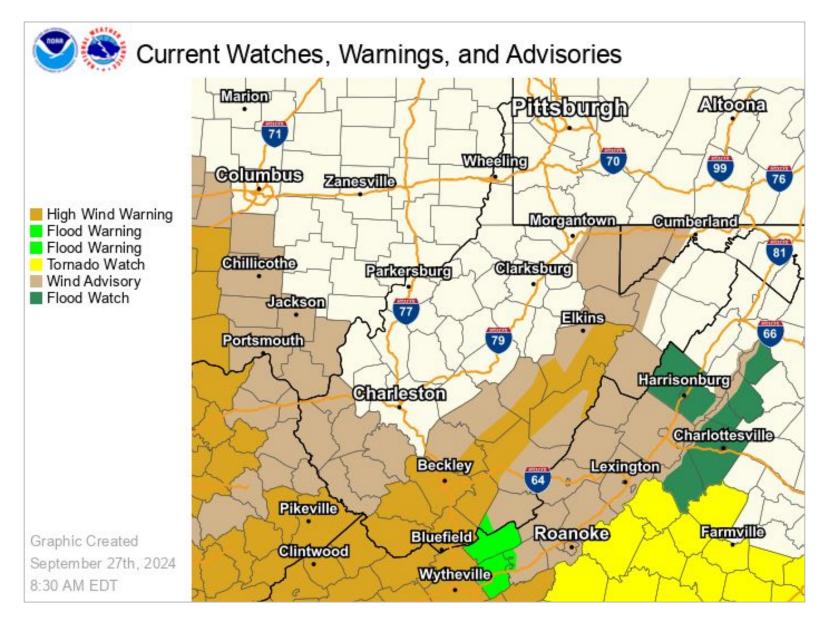
Wind and Flooding Impacts Expected

Decision Support Briefing

→ As of 10 AM September 27, 2024

Important Updates

- → Strongest winds expected through mid-afternoon today.
- → Areas of locally heavy rain possible today on top of saturated soils, with more rain possible Saturday night through Monday.
- → Brief tornado spin-ups possible in SE WV
- → River flooding expected on the New River above Bluestone Lake
- → Some localized flooding possible elsewhere.



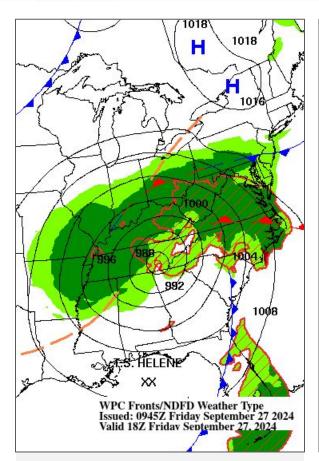


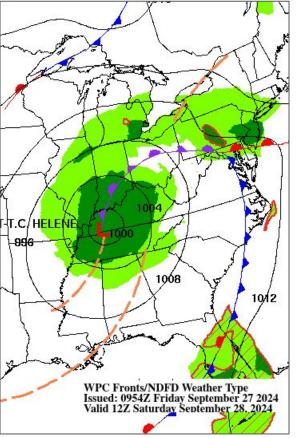
Main Points

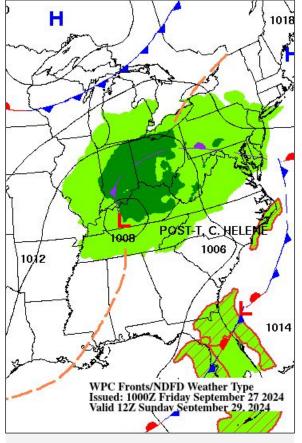
Hazard		Impacts	Location	Timing			
Tornadoes	8	Damage to structures possible	Southeast WV	This afternoon through early evening			
Wind	\$	Strong winds may down trees, cause power outages, and/or property damage	Highest winds across ridgetops and adjacent foothills	This morning through this evening			
Flooding / Flash Flooding		Rises possible on small creeks and streams. Rain may lead to localized flooding in poor drainage or low-lying areas.	Primarily across southern WV where soils are already saturated from 3-5 inches of recent rainfall	This morning through this afternoon			

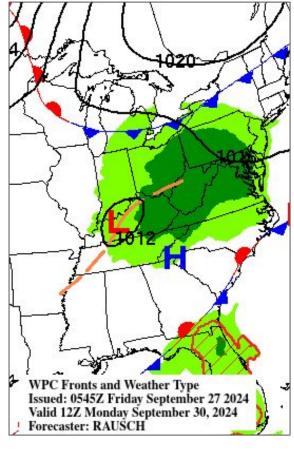


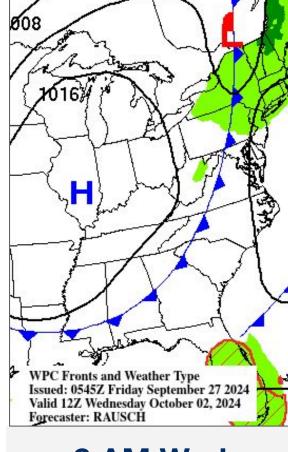












2 PM Today

Strong winds and heavy rain expected today.

8 AM Sat

Much of the area turns drier for Saturday.

8 AM Sun

Shower chances increase on Sunday.

8 AM Mon

Widespread rain chances for Monday.

8 AM Wed

Drying out for mid-week behind a cold front.



Wind Warnings and Advisories

Key Points:

- → Strong winds expected into the afternoon hours across parts of the area.
- → Strongest winds are expected for the high terrain, where a High Wind Warning is in effect. Gusts to 60 mph are possible.
- → The Greenbrier Valley, western slopes, and southwestern West Virginia could see wind gusts of 40 to 50 mph. A wind advisory is in effect for these areas.
- → Wet soils, fully leafed and wet trees may yield enhanced tree damage
- → This will also be an unusual direction for strong winds for most (from the east-southeast) potentially affecting less wind hardened tree lines more
- → Winds should die down by late afternoon or early evening.



Wind Watches Warnings and Advisories



Graphic Created September 27th, 2024 8:30 AM EDT



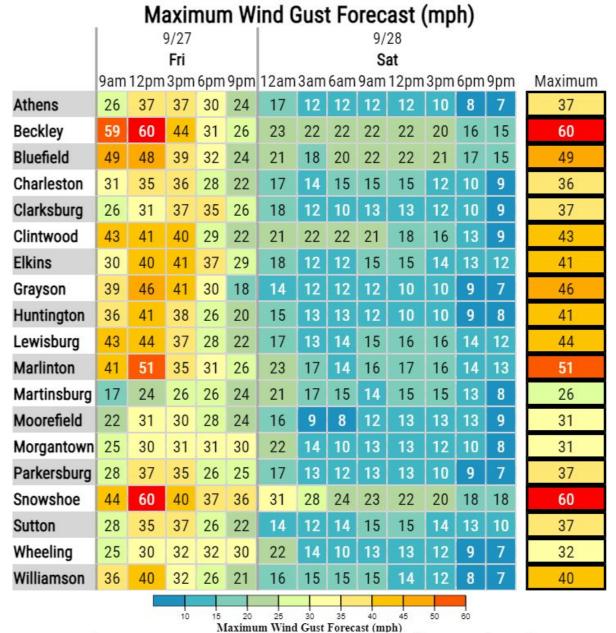




Forecast Wind Speeds

Key Points:

- Strongest winds forecast between now and mid-afternoon.
- → Winds taper down after that, but likely remain gusty well into the evening.



Created: 4 am EDT Fri 9/27/2024 | Values are maximums over the period beginning at the time shown.



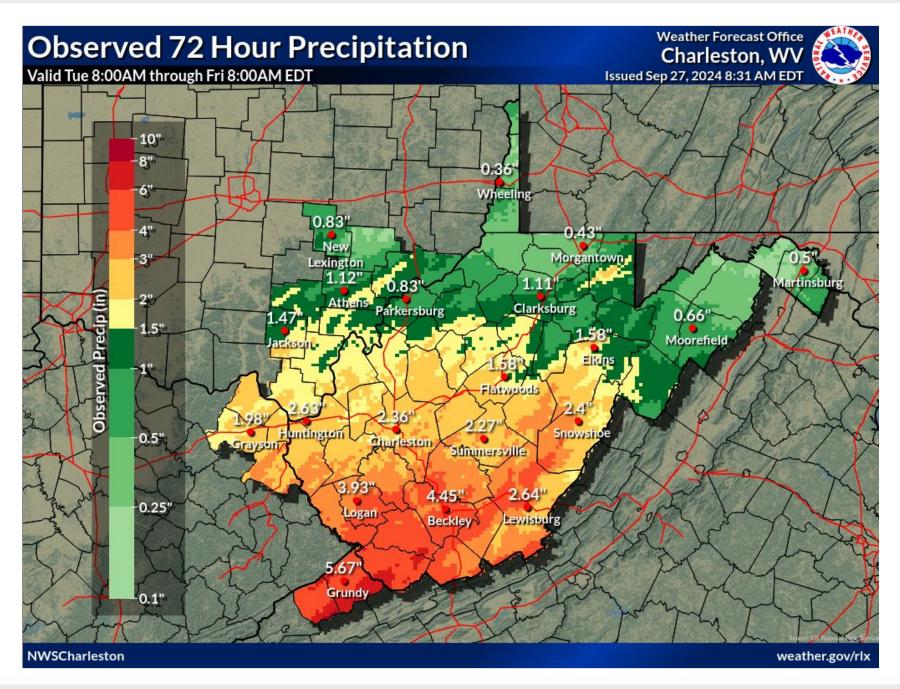


Precipitation: Past 72 Hours*

*Data is radar estimated

Key Points:

- → Much of the central and southern mountains and Greenbrier Valley has seen 3-6 inches of rainfall in the past three days.
- → Some confirmed flash flooding in Mercer County Wednesday evening and Thursday.

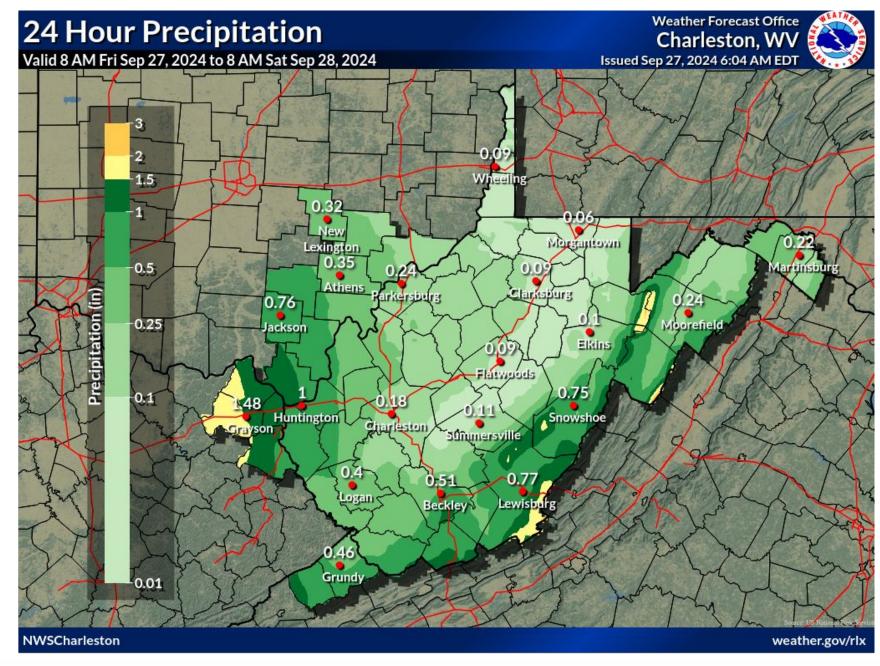




Rainfall Outlook

Key Points:

- → Drought has helped blunt the worst impacts so far, but the ground is now quite saturated in southern WV and further heavy rains could cause localized flash flooding issues.
- → Heavy rains upstream on the New River over VA and NC are expected to cause flooding above Bluestone Lake.
- → Additional rainfall is expected for the weekend, additional isolated water issues remain possible on saturated soils





Precipitation Timing

Key Points

- Widespread rainfall today, tapering off later.
- Drier for most on Saturday, with the exception of the Huntington Tri-State area.
- Rain chances increase
 Saturday night through
 Monday night as the remnants
 of Helene move back east
 towards West Virginia.
- → Precipitation tapers off later Tuesday into Wednesday behind a cold front.

	Probability of Pre	cipitation Forecas	t (%)
2	9/29	9/30	11

	9/2	27		9/2	28		9/29			9/30			10/1				10/2				10/3		
	Fr	ri		Sa	at		Sun			Mon			Tue			Wed				Thu			
	12pm	6pm	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am	6am	12pm	6pm	12am
Athens	90	50	10	45	45	65	65	65	75	75	50	35	60	55	30	20	30	25	20	10	10	10	5
Beckley	90	40	5	15	15	20	30	45	70	70	45	55	70	65	40	50	50	40	20	15	15	15	5
Bluefield	95	10	5	10	20	30	35	55	70	70	45	60	75	75	45	50	50	35	25	15	15	15	5
Charleston	80	20	10	30	30	50	55	60	75	70	55	60	70	65	45	40	40	40	30	20	10	10	5
Clarksburg	75	35	10	10	10	20	35	40	65	65	65	65	75	70	55	55	45	45	35	30	15	10	5
Clintwood	85	5	10	30	30	55	55	55	75	70	50	50	70	65	40	45	45	40	20	10	10	10	5
Elkins	65	45	15	15	10	10	35	55	80	75	80	80	85	80	65	65	60	45	45	40	20	15	10
Grayson	95	25	25	70	70	75	70	80	80	75	40	60	65	55	20	30	30	30	10	10	10	10	5
Huntington	95	25	20	50	55	60	65	75	75	70	40	60	60	55	25	30	30	25	15	10	10	10	5
Lewisburg	100	35	5	10	15	15	25	55	70	70	50	65	70	70	40	45	45	35	20	10	15	15	5
Marlinton	100	65	40	10	15	15	30	55	75	75	65	75	85	80	50	55	50	40	25	15	15	15	5
Martinsburg	85	80	65	30	30	45	50	50	75	75	85	85	85	85	70	55	55	55	25	20	20	20	10
Moorefield	85	90	30	5	10	15	30	40	65	65	75	75	85	85	55	55	55	50	20	20	15	15	5
Morgantown	80	65	25	5	10	20	35	40	65	65	75	75	75	75	60	60	50	50	40	40	15	10	10
Parkersburg	85	40	10	30	30	50	55	50	75	70	50	45	65	60	35	25	35	30	20	15	10	10	5
Snowshoe	90	75	45	10	15	15	30	55	80	80	75	75	85	80	55	60	60	45	30	25	20	20	5
Sutton	75	35	5	15	15	20	40	45	80	75	70	65	80	75	60	55	60	55	40	35	20	15	5
Wheeling	90	65	25	5	15	30	45	45	65	65	60	60	65	65	50	50	40	40	35	30	15	5	5
Williamson	85	5	15	35	40	55	55	55	75	70	45	55	70	65	35	45	45	45	20	10	10	10	5

10 20 30 40 50 60 70 80 90 100 Probability of Precipitation Forecast (%)

Created: 4 am EDT Fri 9/27/2024 | Values are maximums over the period beginning at the time shown.





Excessive Rainfall Outlook

Day 1 Outlook (Today & Tonight)

Key Points:

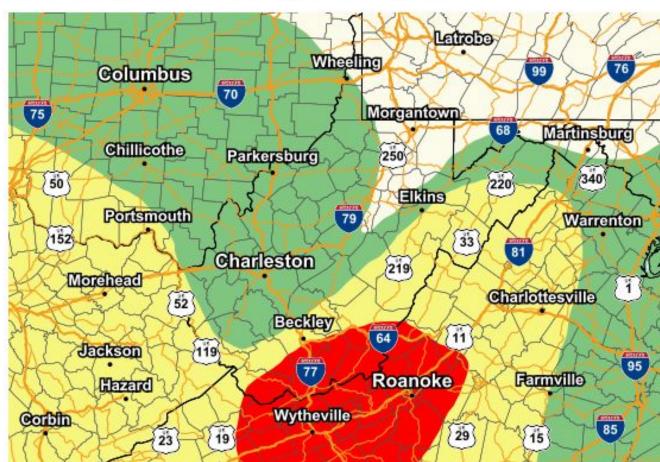
- → Greatest concern is for the central & southern mountains and Greenbrier Valley, where the ground is saturated already.
- → Secondary concern for the Tug Fork region into the Huntington Tri-State area where the heaviest rain is expected today.



Day One Excessive Rainfall Outlook



Graphic Created September 27th, 2024 8:29 AM EDT





Excessive Rainfall Outlook

Day 2 Outlook (Tomorrow & Tomorrow Night)

Key Points:

→ Flooding concerns much lower for Saturday, but it may not take much in some areas to cause issues.



Day Two Excessive Rainfall Outlook



Graphic Created September 27th, 2024 8:30 AM EDT





Excessive Rainfall Outlook

Day 3 Outlook (Sunday & Sunday Night)

Key Points:

- Rain building back across the area will bring renewed concerns for flooding potential.
- Much of the rain looks to be on the lighter side, but there could be some areas of heavier rain and embedded thunderstorms that could cause localized flooding issues.



Day Three Excessive Rainfall Outlook



Graphic Created September 27th, 2024 8:30 AM EDT



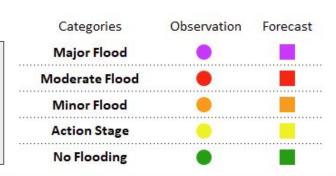


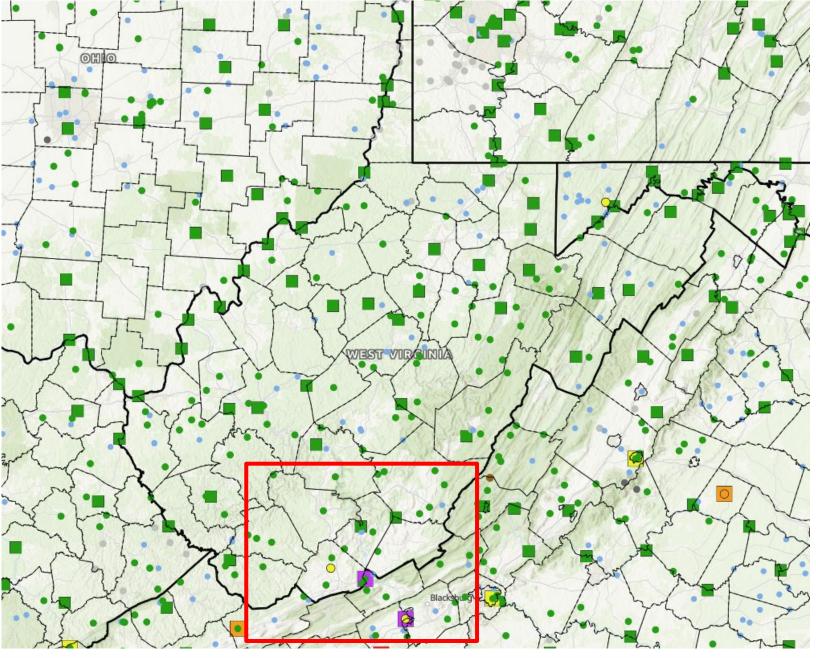
River Flooding

Key Points:

- → Mainstem river flooding is NOT expected across the bulk of West Virginia from this event.
- → Upstream rainfall across the VA and NC portions of the New River basin are forecast to cause Moderate to Major flooding on the New River.
- → The portion of the New River above Bluestone Lake is forecast to be impacted by flooding.
- → Bluestone Lake and Dam will protect downstream areas of the New and Kanawha Rivers, though some increased releases are expected.

NOTE: River Forecasts typically include ONLY 2 days of future rain from <u>forecast issuance time</u> (lower right of hydrograph). Occasionally 3 days of future rain is included.







Hydrographs

10 Day Probability & Official River Forecast - New River at VA/WV border

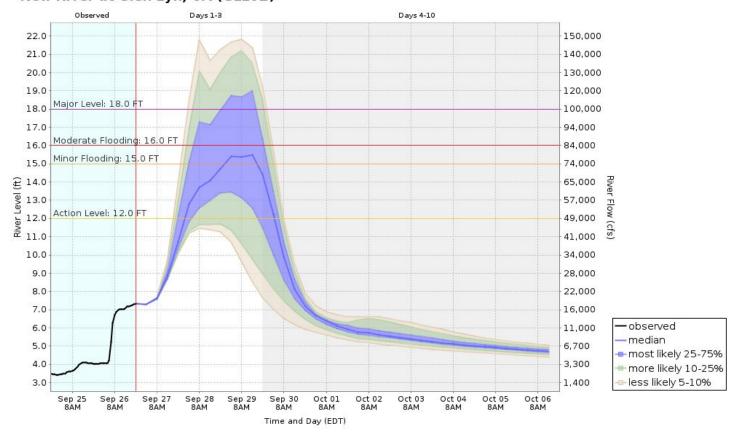
GEFS - 10 Day River Level Probabilities

Based on Global Ensemble Forecast System Model Simulations
Used to Estimate the Range of Possible River Levels



Sep 27 - Oct 07, 2024

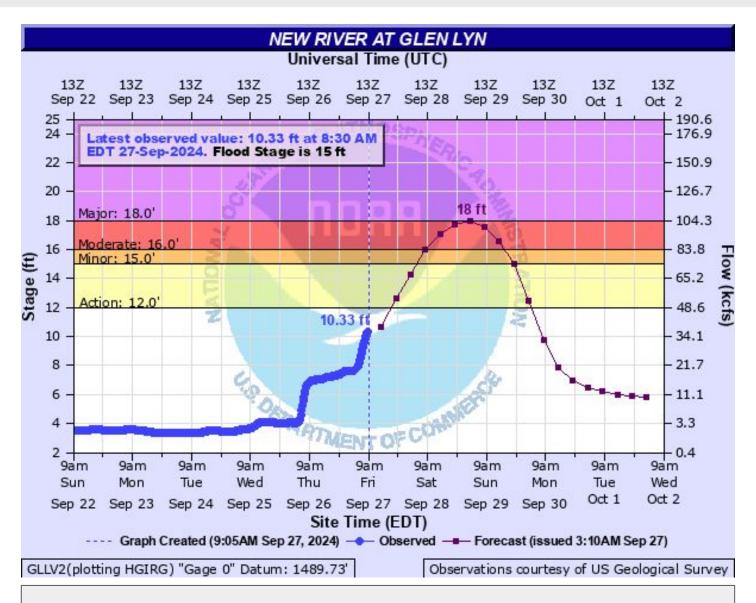
New River at Glen Lyn, VA (GLLV2)



Model runtime: 08:00 PM EDT Sep 26 2024 Ohio River Forecast Center

10 Day River Level Probability:

Computer model simulations showing the range of possible river level outcomes for the next 10 days. Less spatially precise than the official forecast.



Official River Forecast:

Expected river levels for the next 2-3 days.



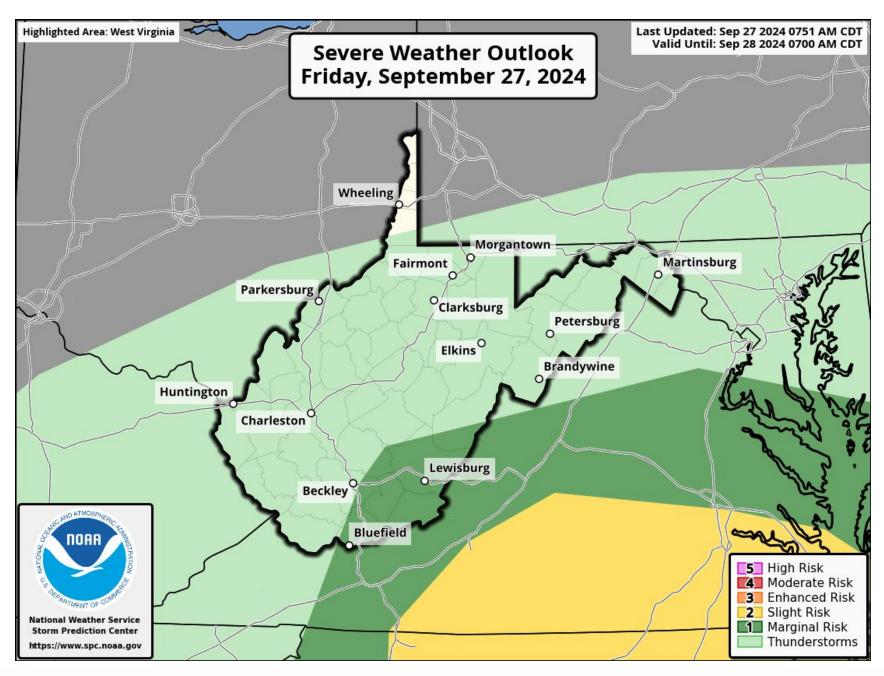


Severe Weather Outlook

Day 1 Outlook (Today)

Key Points:

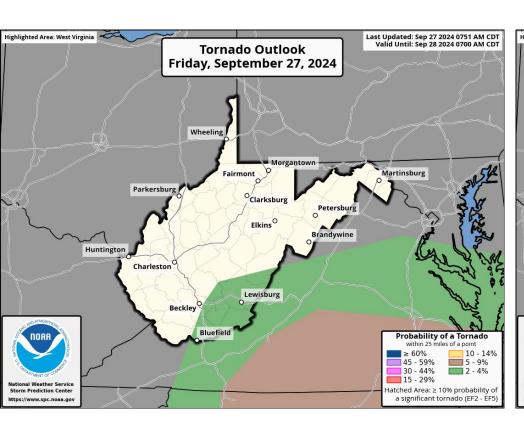
- → Isolated thunderstorms possible today across most of West Virginia.
- → A Marginal Risk (Level 1 of 5) for severe thunderstorms is assessed for southeastern West Virginia.
- → This risk is driven entirely by a low-end risk for a tornado in that area (see next slide).
- → Could see some northwest expansion of this risk area.

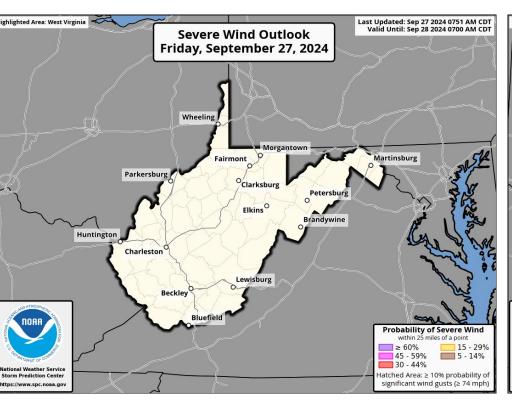


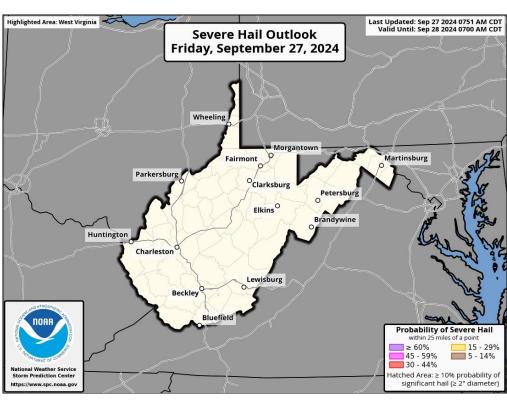


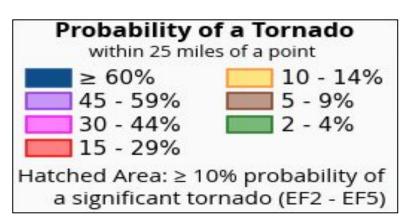
Severe Weather Outlook

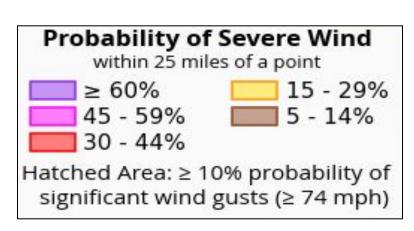
Day 1 - Tornado, Wind & Hail Outlooks

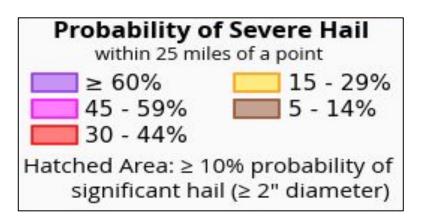














Noteworthy Weather

Recent Events

- → Tornado confirmed by pictures and video on Wednesday near Hillsboro, Pocahontas County.
- → Tornado warning was in effect with approx. 20 minutes of lead time.
- → Waiting on more details before assigning rating or track length, but no reports of significant damage or injuries were received.



Photo Credit: Lonnie Fogus





Impacts From Remains of Helene

	Friday, Sep 27	Saturday, Sep 28	Sunday, Sep 29	Monday, Sep 30	Tuesday, Oct 1
Strong Wind	Mountains, Greenbrier Valley, southwest WV				
Tornadoes	Southeastern WV				
River Flooding	New River above Bluestone Lake	New River above Bluestone Lake	New River above Bluestone Lake	New River above Bluestone Lake	
Flash Flooding	Area-wide, greatest for mountains, Tug Fork, and Greenbrier Valley	Area-wide, except Northern Panhandle	Area-wide, except Ohio Valley	Central & Eastern WV	

This outlook depicts timing and magnitude of potential impacts from excessive rainfall and strong winds, which could lead to flash flooding and/or flooding on streams and rivers, as well as tree damage and power outages.

Potential aggravating factors such as pre-existing conditions and time of year are also taken into consideration.

Risk Levels No/None Limited Elevated Significant Extreme





Contact & Next Briefing Information



→ weather.gov/rlx/briefing



- → By 10 AM Monday, September 30, 2024
- → Method: Google Meet



Disclaimer

- → Information contained in this briefing is time-sensitive
- → Do Not Use After: September 27, 2024



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