


Flood Control District of Maricopa County

Flood Warning Branch Meteorological Services Program (MSP)

Rainfall Outlook Table Explainer



The table is titled "RAINFALL OUTLOOK" and is organized into seven columns labeled A through G. Column A is "FORECAST ZONES", B is "RAINFALL COVERAGE", C is "PRIME TIME RAIN PERIOD", D is "FORECAST RAIN AMOUNT", E is "CHANCE ≥0.50\"", F is "CHANCE ≥1.25\"", and G is "FLASH FLOOD POTENTIAL". The table lists 17 forecast zones, grouped into Central County, NE County, NW County, and SW County. Each zone has a row of data detailing its rainfall coverage, prime time rain period, forecast rain amount, and chances of rain.

A		B	C	D	E	F	G
FORECAST ZONES		RAINFALL COVERAGE	PRIME TIME RAIN PERIOD	FORECAST RAIN AMOUNT	CHANCE ≥0.50"	CHANCE ≥1.25"	FLASH FLOOD POTENTIAL
Central County Zones	East Valley	Scattered	5PM - Midnight	0.75 to 1.50"	High	Moderate	Low
	Gila River	Limited	5PM - Midnight	0.50 to 1.00"	Moderate		
	Phoenix North	Limited	5PM - Midnight	0.50 to 1.00"	Moderate		
	Phoenix South	Scattered	5PM - Midnight	0.50 to 1.25"	High	Low	
	Scottsdale South	Scattered	5PM - Midnight	0.25 to 0.75"	Low		
	Southeast Valley	Limited	5PM - Midnight	0.25 to 0.50"	Low		
NE County Zones	Lower Salt River Lakes	Widespread	1PM - 5PM	2-3"	High	High	Extreme
	New River/Cave Creek	Scattered	5PM - Midnight	1-2"	High	Moderate	Moderate
	Scottsdale North	Widespread	1PM - 5PM	2-3"	High	High	Elevated
	Superstition	Widespread	1PM - 5PM	1-3"	High	High	High
NW County Zones	Northwest Valley	Scattered	1PM - 8PM	0.75 to 1.50"	High	Moderate	Low
	Upper Centennial	Scattered	1PM - 8PM	0.75 to 1.50"	High	Moderate	Low
	West Valley	Scattered	5PM - Midnight	0.50 to 1.25"	High	Low	
	Wickenburg	Limited	5PM - Midnight	0.25 to 0.75"	Low		
SW County Zones	Gila Bend	Limited	1PM - Midnight	1-2"	High	High	Moderate
	Palo Verde	Limited	5PM - Midnight	0.50 to 1.00"	Moderate		
	Rainbow Valley	Limited	5PM - Midnight	0.25 to 0.50"	Low		

Issued: 11:00 AM, June 12th, 2025 - Forecast Valid: Now through 12:00 PM June 13th, 2025

Section A (“Forecast Zones”) – There are 17 different Forecast Zones (FZs) included in the MSP Rainfall Outlook product that are geographically grouped in the table for easy identification. Note that individual FZ spatial boundaries may be viewed using 2 different options:

- 1) ArcGIS Map (benefit allows user to input address) – <https://experience.arcgis.com/experience/93209e3b4a5e436ba98aa90b910dbfb5/>
- 2) ALERT Google Map – <https://alert.fcd.maricopa.gov/alert/Google/v3/gmap.html> and selecting the “MSP Forecast Zones” option under the “Layers” tab

Section B (“Rainfall Coverage”) – Indicates expected measurable (≥ 0.01 ”) rainfall spatial coverage varying from “None” (left blank), “Limited” (<20%), “Scattered” (20% to 50%), and “Widespread” (>50%). Note heavy rainfall may still occur with “Limited” rainfall coverage. A “Limited” coverage forecast coupled with a localized heavy rain threat commonly occurs during the Monsoon!

Section C (“Prime Time Rain Period”) – Indicates when the majority of forecast total rainfall is anticipated. Heavy rainfall over a shorter period increases risk of runoff and/or flash flooding, especially over urbanized population centers and anywhere soils are already saturated.

Section D (“Forecast Rain Amount”) – Indicates the potential highest rainfall amount range over the entire valid forecast period (shown in “Section H”).

Section E (“Chance ≥ 0.50 ”) – Indicates forecast confidence for any location in a specified Forecast Zone to observe greater than or equal to 0.50” of rainfall. A “None” (left blank), “Low”, “Moderate”, or “High” rating is assigned, representing increasing forecast confidence for heavier rainfall. Rainfall amounts of at least 0.50” over a short period (i.e., less than 1 hour) may start resulting in runoff, depending on antecedent soil conditions, or nuisance type urban flooding given prevalence of impermeable surfaces.

Section F (“Chance ≥ 1.25 ”) – Indicates forecast confidence for any location in a specified Forecast Zone to observe greater than or equal to 1.25” of rainfall. A “None” (left blank), “Low”, “Moderate”, or “High” rating is assigned, representing increasing forecast confidence for heavier rainfall. Rainfall amounts of at least 1.25” over a short period (i.e., 3 hours or less) has greater potential to result in runoff/flash flooding (especially over recent burn scars), water flowing in normally dry streambeds, water covering or flowing across low water crossings, ponding on roadways, and general urbanized flooding.

Section G (“Flash Flood Potential”) – Indicates overall flash flooding potential based on the hydrometeorological combination of antecedent soil conditions with forecast rainfall amount, intensity, and duration. There are 5 “Flash Flood Potential” categories: “Low”, “Moderate”, “Elevated”, “High”, “Extreme”. A category specific flood hazard description and associated impacts are provided in the following Table.

Flood Threat Categories Explained		
Category	General Description For Flood Hazards	Possible Impacts
Low	Precipitation falls but little if any runoff; flow only on impervious surfaces; soils generally able to absorb precipitation	Water ponding on area roadways; minor runoff in urban channels
Moderate	Tributary washes running; flow in streets and low spots; sediments begin to move	In addition to previous category's impacts; impassible unbridged road crossings; standing water in low spots; localized road closures
Elevated	Rivers, creeks, and washes running; minor bank erosion; street flooding with debris; shallow sheet flow	In addition to previous category's impacts; roads washed out; water rescues
High	Rivers, creeks, and washes running near bank full; moderate erosion; widespread street flooding; widespread sheet flow	In addition to previous category's impacts; bridges washed out; major highway closures, urban water rescues; localized damage to structures and properties; localized evacuations
Extreme	Rivers, creeks, and washes running out of their banks; large scale erosion; widespread street flooding	Catastrophic damage to area roadways, structures and/or properties; widespread evacuations

Section H (“Issued” and “Forecast Valid”) – Indicates 1) when the Rainfall Outlook was created and 2) the time period that Rainfall Outlook details are applicable.