Water Supply Outlook

October 8, 2026
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The ICPRB, through its Section for Cooperative Water Supply Operations on the Potomac (CO-OP), coordinates water supply operations during times of drought and recommends releases of stored water. These operations ensure adequate water supplies for Washington metropolitan area water users and for environmental flow levels. The water supply outlooks are published on ICPRB's website by CO-OP on a monthly basis between April and October. They are meant to provide an update on the possibility of low-flow conditions in the Potomac basin.

Summary/Conclusions

There is a near-normal probability of releases from the Washington metropolitan area's back-up water supply reservoirs for the end of 2026 fall season. Typically, the use of the Jennings Randolph and Little Seneca reservoirs is triggered by low river flows resulting from a combination of low summer precipitation and low groundwater levels. The Potomac basin upstream of Washington, D.C., received 3.4 inches of precipitation in September, 0.4 inches below normal; as of October 1, the 12-month cumulative total was 34.3 inches, 5.6 inches below average. U.S. Geological Survey (USGS) data show variable groundwater conditions across the Potomac River basin with some improvements in the past month but with below-normal groundwater levels persisting at several monitoring wells. Streamflow is currently near the normal range for this time of year. Drought conditions have improved but remain across portions of the basin: as of October 6, 23% of the basin was in moderate drought (D1), and 36% was abnormally dry (D0). The Climate Prediction Center's seasonal outlook indicates that drought conditions across much of the Mid-Atlantic should improve or be removed by the end of December. A Drought Watch for the metropolitan Washington region remains in effect. Water supply reservoirs remain near full. On October 5, CO-OP initiated daily drought monitoring because flows at the Point of Rocks monitoring gage fell below 2,000 cubic feet per second (cfs). While recent rainfall was limited in the Potomac basin upstream of the Washington-area drinking water intakes, remnants of Hurricane Isaias are expected to bring additional rainfall this weekend and early next week.
At present, Potomac River flow is sufficient to meet metropolitan area water demands without upstream reservoir augmentation. The region remains well-protected by established contingency plans should conditions worsen.

ICPRB's Low Flow Outlook

There is a 2 to 6 percent conditional probability that natural Potomac flow will drop below 600 to 700 million gallons per day (MGD) at Little Falls through December 31 of this year. At these flow levels, water supply releases from Jennings Randolph and Little Seneca reservoirs may occur. Releases occur when predicted flow is less than demand plus a required environmental flow-by. Drinking water demand ranges from 400 to 700 MGD during the summer months and the minimum flow-by at Little Falls is 100 MGD. Note that natural flow is defined as observed flow at the Little Falls gage plus total Washington metropolitan Potomac withdrawals, with an adjustment made to remove the effect of North Branch reservoir releases on stream flow.

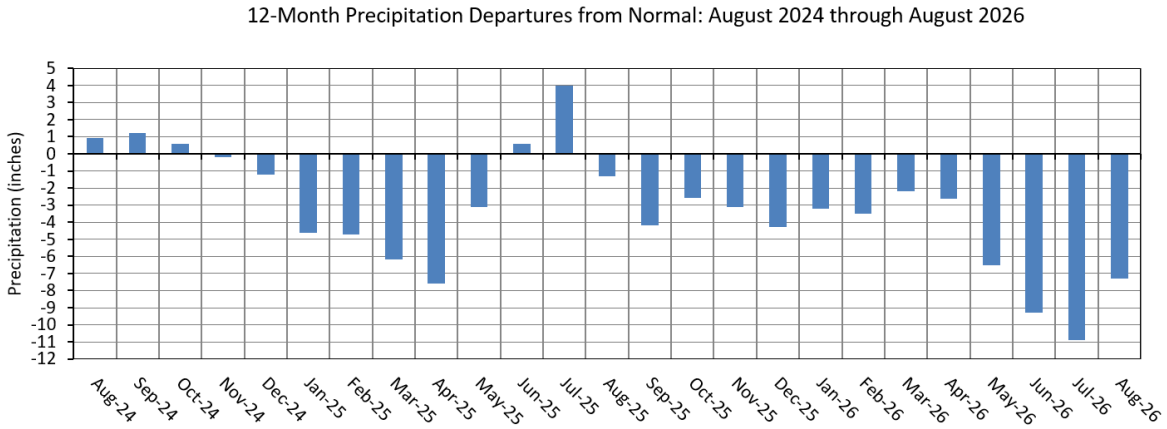
The conditional probability is estimated by analyzing historical stream flow records and considering recent stream flow values, precipitation totals for the prior 12 months, and current groundwater levels. Years with watershed conditions most similar to current conditions are weighed more heavily when determining conditional probability. In contrast, the historical, or unconditional, probability is based solely on the long-term record without adjustment for current conditions. The 2 to 6 percent conditional probability compares to the 2 to 5 percent historical probability and is considered the more reliable indicator.

Outlook for natural Potomac River flow at Little Falls – Watershed conditions as of October 1, 2026

Low flow threshold (MGD)	*Low flow threshold (cfs)*	*Historical probability of lower flow October 1 through December 31*	*Conditional probability of lower flow October 1 through December 31*
1200	1858	50%	75%
1000	1548	28%	41%
800	1238	8%	11%
700	1084	5%	6%
600	929	2%	2%

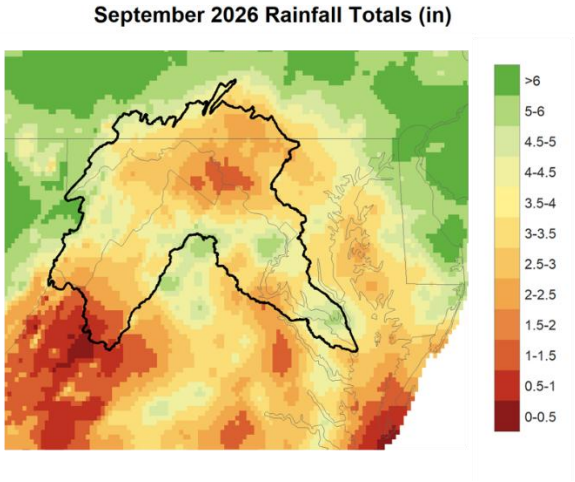
Past Precipitation

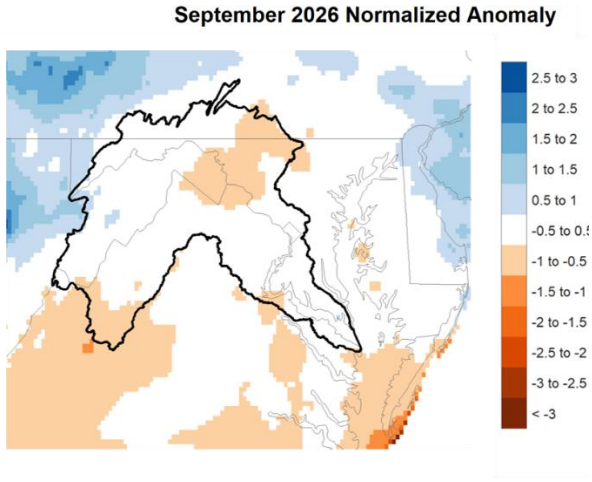
Data from the National Weather Service's Middle Atlantic River Forecast Center (MARFC) indicates that the Potomac basin upstream of Washington, D.C., received 3.4 inches of precipitation in September, which is 0.4 inches below average. As of October 1, the 12-month cumulative precipitation total was 34.3 inches, which is 5.6 inches below average.



Source: Middle Atlantic River Forecast Center, National Weather Service

The maps below illustrate the spatial variability of rainfall across the Potomac River basin in September 2026 based on Oregon State University PRISM (Parameter-elevation Regressions on Independent Slopes Model) data. The normalized rainfall anomaly, which expresses departures from normal relative to historical variability, shows mostly near-normal rainfall conditions across the basin.

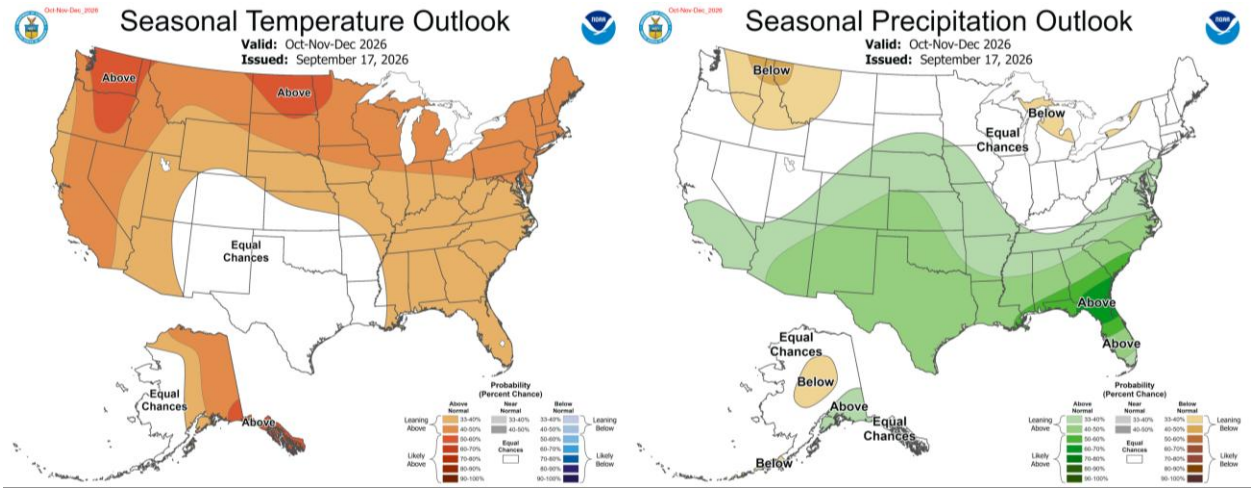




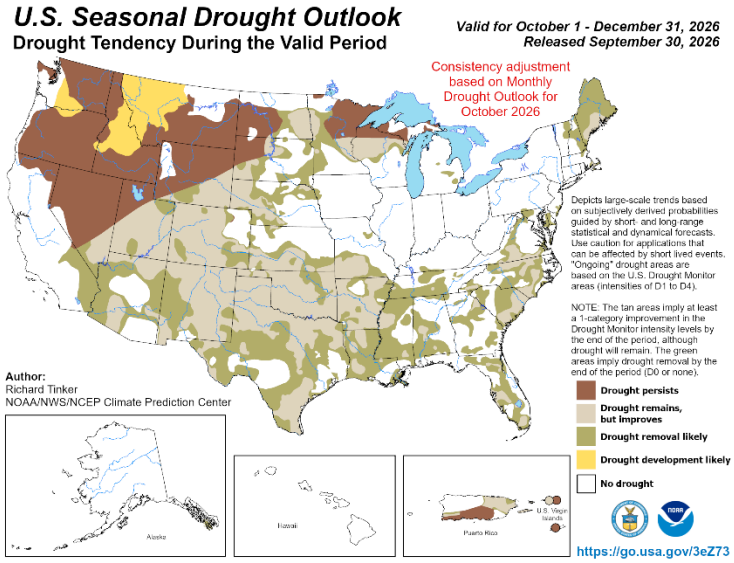
Source: PRISM Climate Group, Oregon State University, https://prism.oregonstate.edu

Precipitation and Drought Outlook for October, November and December 2026

The Climate Prediction Center's updated outlook for October 2026 indicates equal chances of above-, near-, or below-normal precipitation and temperature across much of the Mid-Atlantic region. The seasonal outlook for October through December 2026 favors above-normal temperatures and above-normal precipitation in southern and eastern parts of the Mid-Atlantic region.

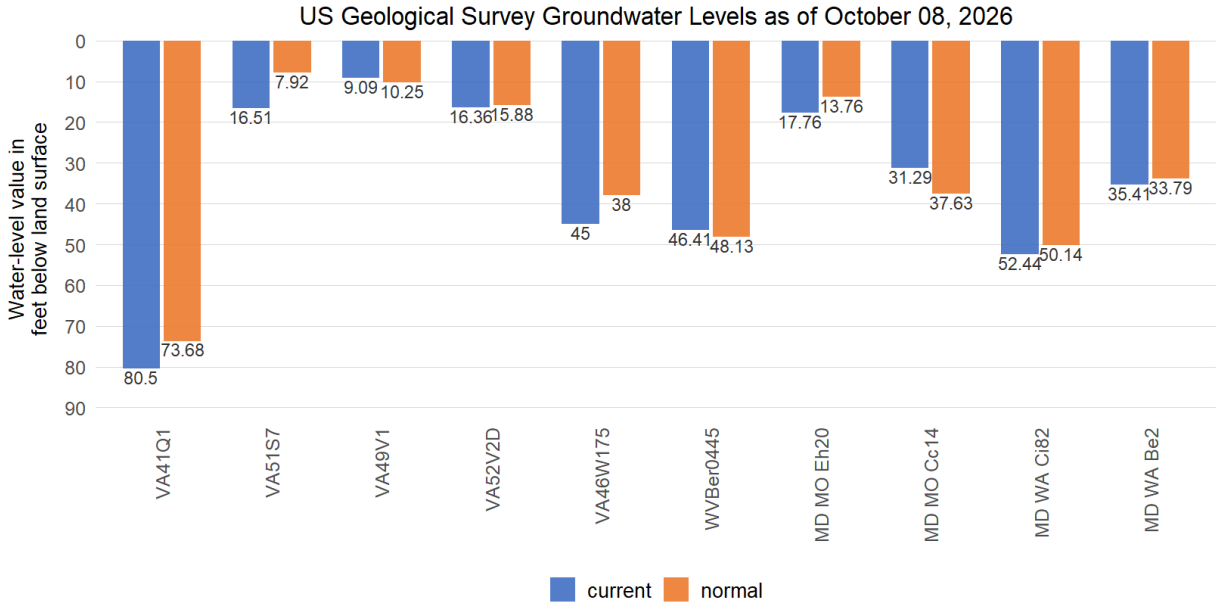


The Climate Prediction Center's Seasonal Drought Outlook indicates that drought conditions across much of the Mid-Atlantic are expected to improve or be removed by the end of November.



Groundwater – Current Conditions

As of early October, U.S. Geological Survey (USGS) data show variable groundwater conditions across the Potomac River basin. Despite some improvements, several monitoring wells are still indicating below-normal conditions.



Reservoir Storage – Current Conditions

There have been no water supply releases from the CO-OP shared system so far this year. For the latest information on North Branch Potomac River and Savage River releases, visit https://www.nab-wc.usace.army.mil/nab/northBranch.html.

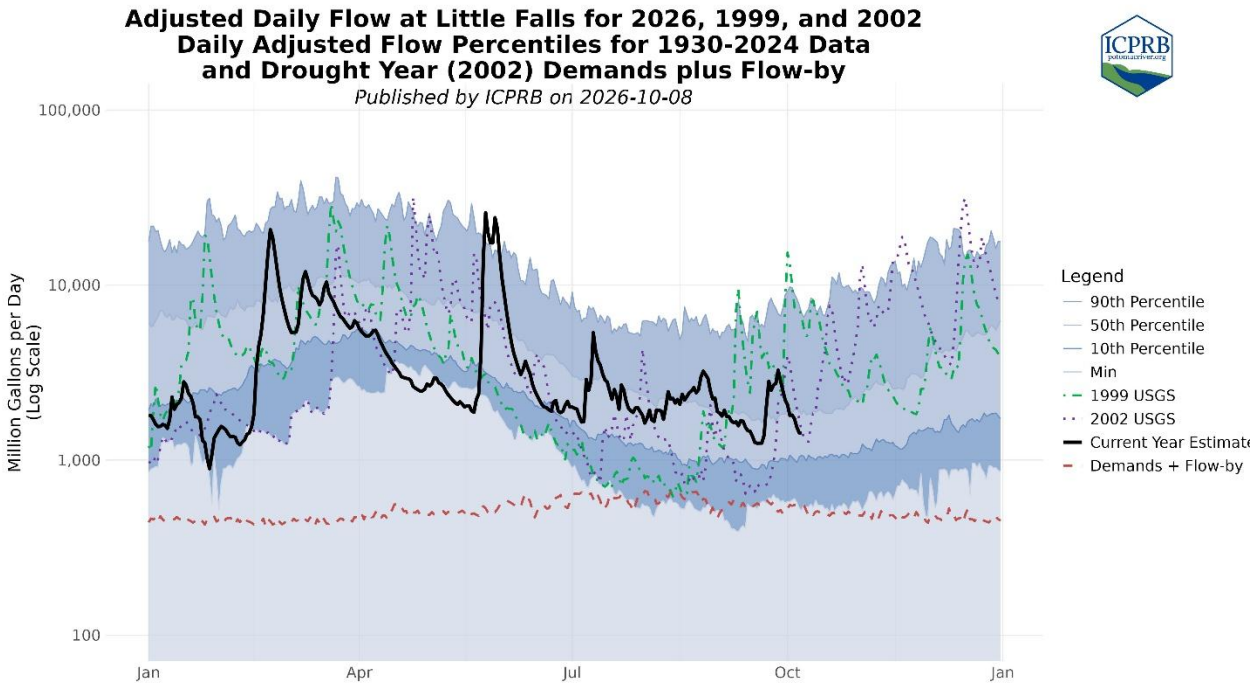
Reservoir storage as of October 6, 2026

Facility	Percent Full	Current usable storage, BG	Total usable capacity, BG
WSSC Water's Patuxent reservoirs[1]	85	8.9	10.5
Fairfax Water's Occoquan Reservoir[2]	100	8.2	8.2
Little Seneca Reservoir[3]	98	3.8	3.9
Jennings Randolph water supply[4]	100	13.1	13.1
Jennings Randolph water quality[4]	64	10.4	16.3
Savage Reservoir[5]	57	3.6	6.3

[1] Bathymetric study conducted December 2015 with revisions in December 2016, and unusable storage corrected June 2017.
[2] Bathymetric study conducted in 2019. (2002, 1999, 1966
[3] Usable capacity consistent with Ortt, *el al.* (2011).
[4] 2013 revised stage-storage curve provided by Bill Haines, US Army Corps of Engineers, Baltimore District.
[5] 1998 revised stage-storage curve provided by Bill Haines, US Army Corps of Engineers, Baltimore District.

Potomac River Flow

On October 1, the adjusted flow at Little Falls measured approximately 2.4 billion gallons per day (BGD), above the median of about 1.9 BGD for this time of year and below the 90th percentile of 9.2 BGD. The average flow for September was 1.8 BGD, while the nine-month average from January through September was about 4 BGD. Adjusted flow, shown in the figure below, is the flow that would occur in the absence of major Washington metropolitan area withdrawals, but includes releases from upstream reservoirs.



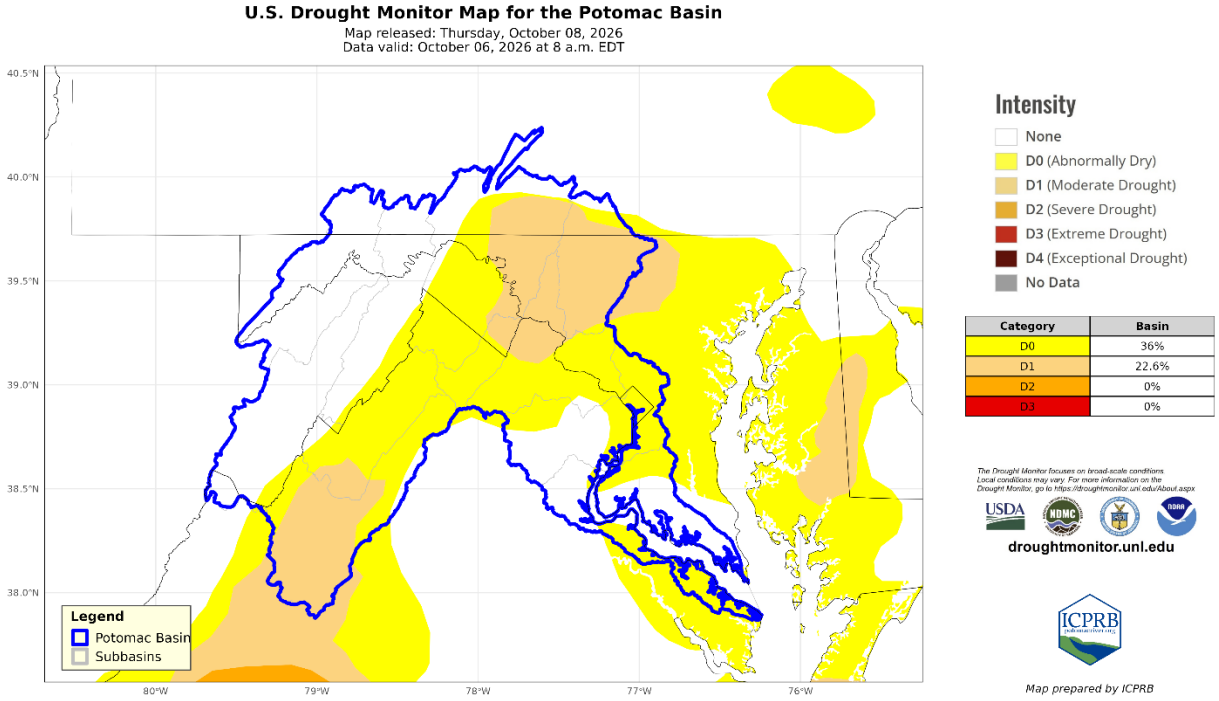
Adjusted flow represents the natural flow that would occur in the absence of major withdrawals. The USGS publishes adjusted flow data for Little Falls based on actual withdrawals reported by the CO-OP utilities and Loudoun Water. However, the USGS data may not always be available in time for the outlook. In such cases, ICPRB estimates the adjusted flow using a 20-day rolling average of past withdrawal data or observed data collected from the utilities.

Environmental Flow-by

Average observed Potomac flow at Little Falls in September was well above the minimum recommended environmental flow-by of 100 MGD.

Drought Status

As of early October, drought conditions remain in effect across portions of the Potomac River basin. In Maryland, the Central drought region remains under a drought warning, while the Western and Eastern regions are under a drought watch. In Virginia, drought warning and watch conditions remain across several drought evaluation regions, including portions of the Potomac basin. The Roanoke drought region is in a drought emergency. In Pennsylvania, portions of the Potomac River basin remain under drought watch, including Franklin, Fulton, and Cumberland Counties. The metropolitan regional drought stage under the Metropolitan Washington Council of Governments (COG) Regional Water Supply and Drought Awareness Response Plan remains at the Drought Watch stage.

U.S. Drought Monitor

The U.S. Drought Monitor map indicates that abnormally dry to moderate drought conditions are present in the Potomac basin. As of October 6, 2026, 23% of the basin was in moderate drought (D1), and 36% was abnormally dry (D0), indicating some improvement in the past month. No portion of the basin was in severe (D2) or extreme drought (D3).