

Water Supply Outlook



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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 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 an above-normal probability of releases from the Washington metropolitan area’s back-up water supply reservoirs for the 2026 summer and fall seasons. 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 inches of precipitation in March, which is 0.5 inches below normal. As of April 1, the 12-month cumulative precipitation is 37.6 inches, or 2.2 inches below normal. Streamflow and groundwater levels remain below normal. According to Middle Atlantic River Forecast Center, the Water Resource Outlook for the Middle Atlantic is “fair.” Although some improvement has occurred over the past several months, moderate drought to abnormally dry conditions persist across the Potomac basin. Precipitation is expected to be near normal over the next couple of weeks. At the same time, higher-than-normal temperatures are expected to increase evaporative demand. The seasonal drought outlook is more favorable, with drought conditions expected to improve through June.

At present, there is sufficient flow in the Potomac River to meet Washington metropolitan area’s water demands without augmentation from upstream reservoirs. If low-flow conditions worsen, the metro area is well-protected from a water supply shortage through well-established contingency plans.

ICPRB’s Low Flow Outlook

There is a 14 to 21 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.

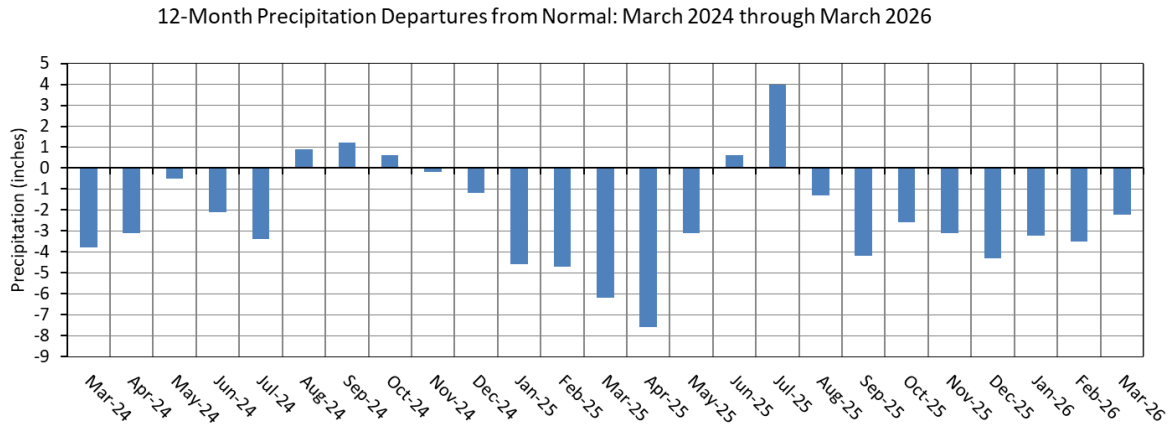
The conditional probability is estimated by analyzing historical stream flow records and considering recent stream flow values, precipitation totals for the prior 12 months, and current groundwater levels. Years with watershed conditions most similar to current conditions are weighed more heavily when determining conditional probability. In contrast, the historical, or unconditional, probability is based solely on the long-term record without adjustment for current conditions. The 14 to 21 percent conditional probability compares to the 8 to 15 percent historical probability and is considered the more reliable indicator.

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

Low flow threshold (MGD)	Low flow threshold (cfs)	Historical probability of lower flow April 1 through December 31	Conditional probability of lower flow April 1 through December 31
1200	1858	69%	76%
1000	1548	48%	57%
800	1238	25%	32%
700	1084	15%	21%
600	929	8%	14%

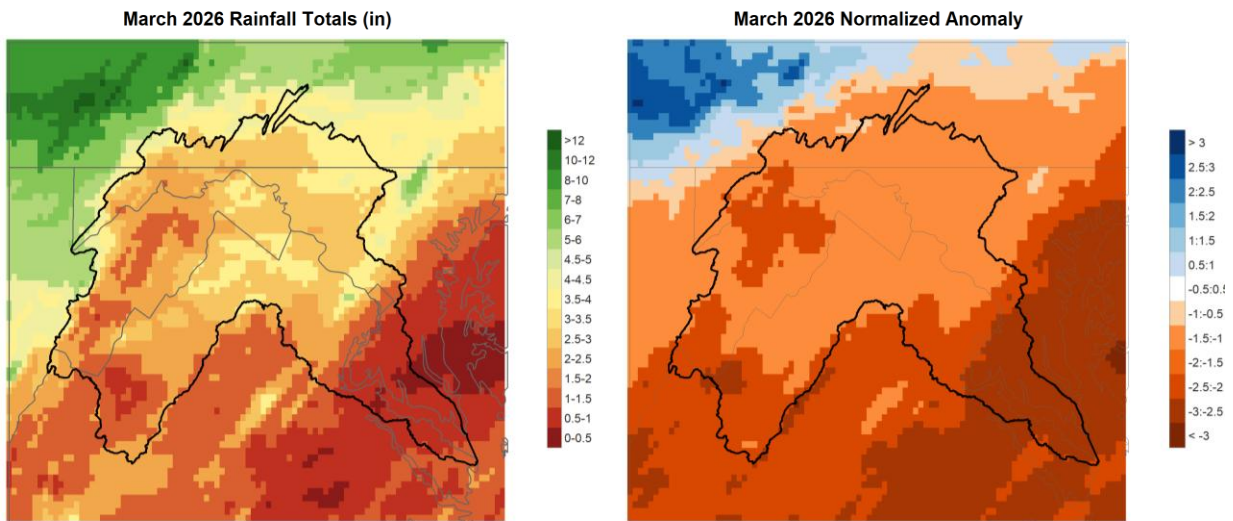
Past Precipitation

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 inches of precipitation in March, which is 0.5 inches below normal. As of April 1, the 12-month cumulative precipitation stands at 37.6 inches, which is -2.2 inches below normal.



Source: Middle Atlantic River Forecast Center, National Weather Service

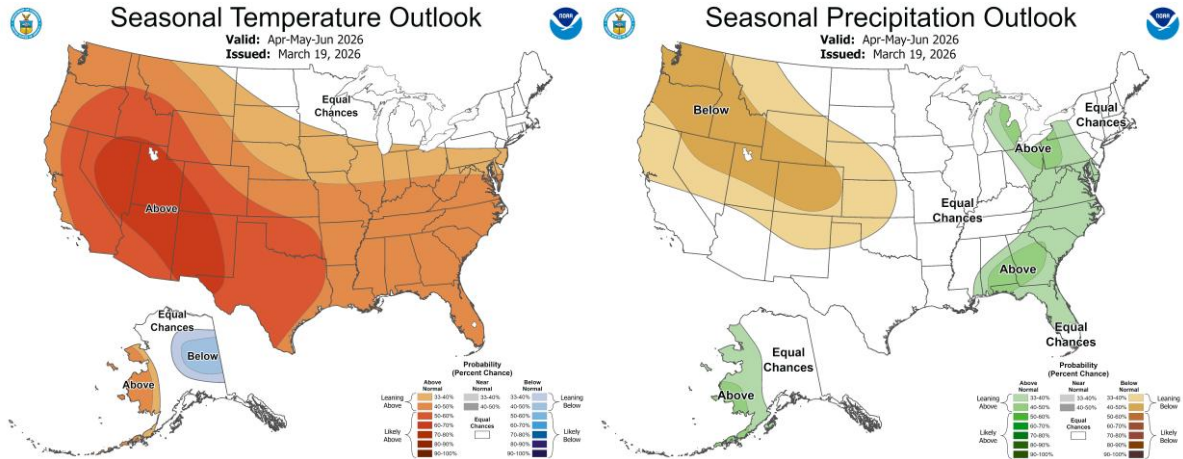
The maps below illustrate the spatial variability of rainfall over the Potomac Basin in March based on Oregon State University PRISM (Parameter-elevation Regressions on Independent Slopes Model) data. The normalized rainfall anomaly, indicating departure from normal conditions, shows that rainfall was below normal across the basin.



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

Precipitation and Drought Outlook for April, May, June

The Climate Prediction Center's outlooks for April indicate above-normal temperatures and near-normal precipitation across the Mid-Atlantic region. The seasonal outlook for April through June 2026 indicates above normal temperatures and precipitation across the Potomac River basin.

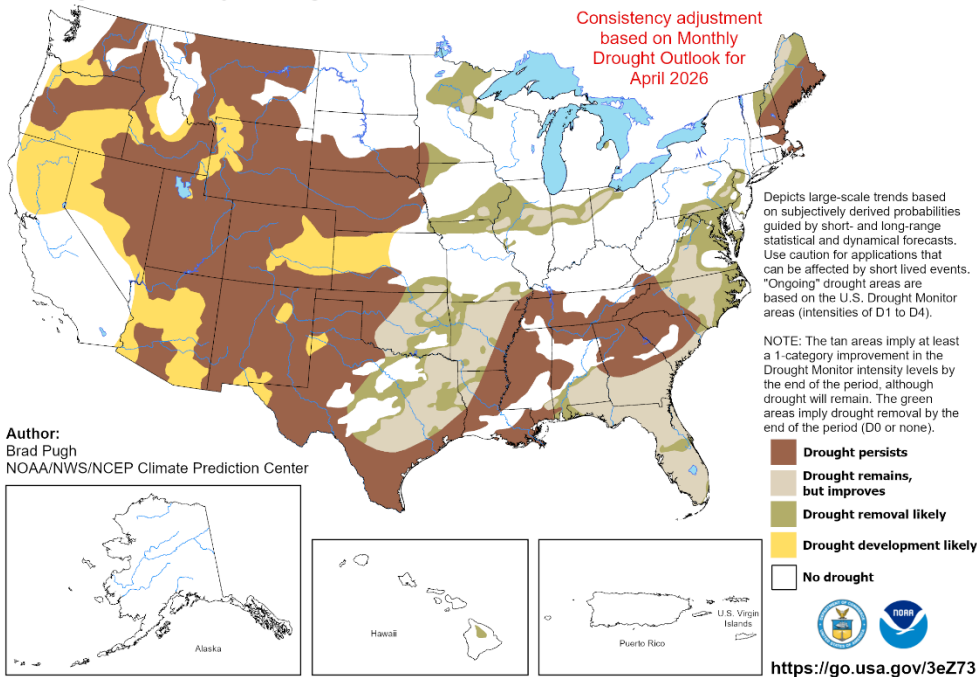


The Climate Prediction Center's Seasonal Drought Outlook indicates that drought removal is likely in a large portion of the basin through June 30, 2026. However, drought is likely to persist in April.

U.S. Seasonal Drought Outlook

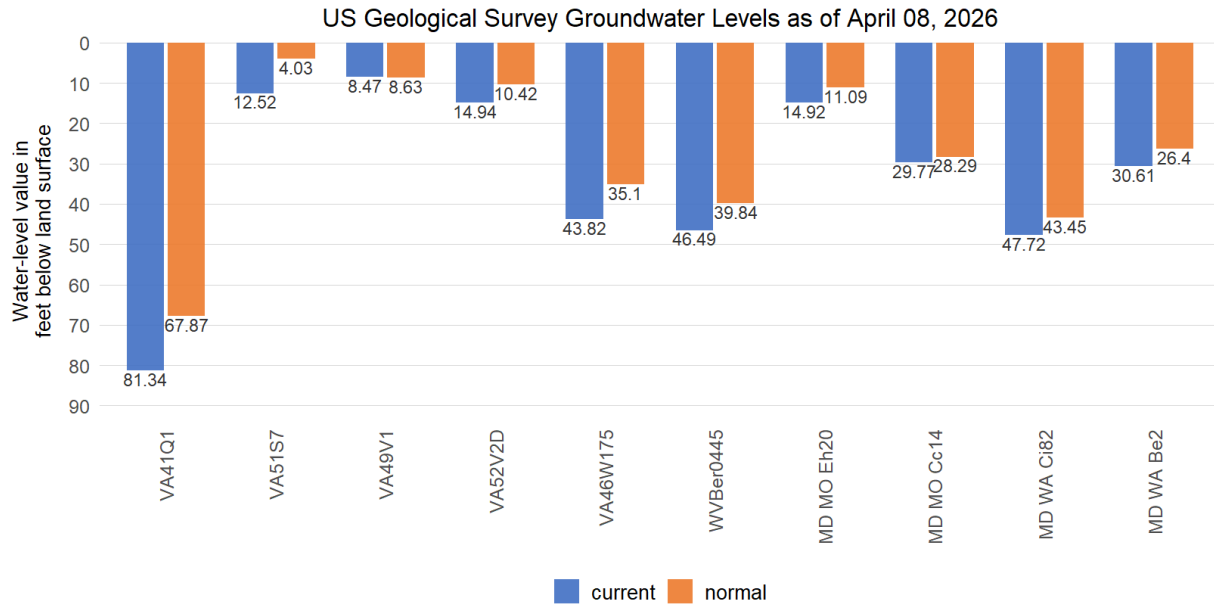
Drought Tendency During the Valid Period

Valid for April 1 - June 30, 2026
Released March 31, 2026



Groundwater – Current Conditions

As of early April, U.S. Geological Survey (USGS) data show that groundwater levels across the Potomac River basin generally are below their long-term averages.



Source: USGS NWIS · Parameter 72019 · Normal = historical monthly mean

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 April 8, 2026

Facility	Percent Full	Current usable storage, BG	Total usable capacity, BG
WSSC Water's Patuxent reservoirs ¹	75	7.9	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	98	15.9	16.3
Savage Reservoir ⁵	74	4.6	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

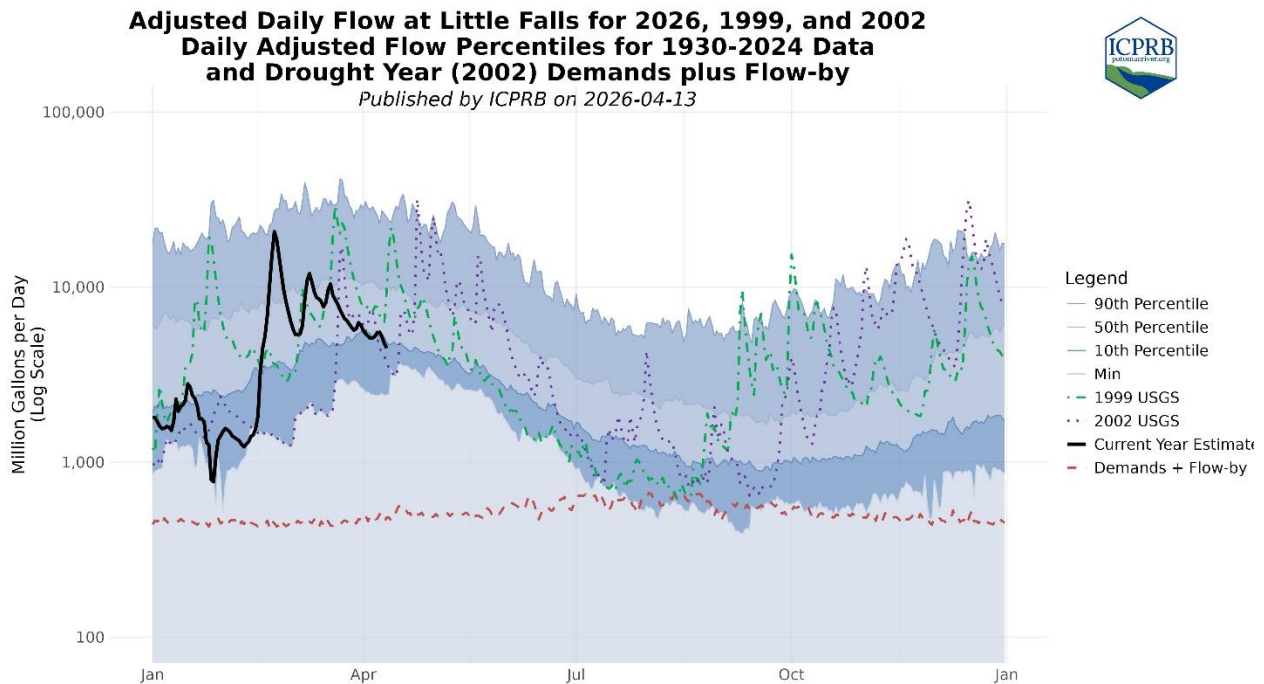
³ Usable capacity consistent with Ortt, *et al.* (2011).

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

Potomac River flows are near the 10th percentile flow levels for this time of year. On April 1, the adjusted flow at Little Falls measured approximately 5.9 billion gallons per day (BGD), falling between the historical 50th percentile (11.1 BGD) and slightly above the 10th percentile (5.6 BGD) for that date. The average flow for March was 7.8 BGD, while the three-month average from January through March is 7.8 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 March was well above the minimum recommended environmental flow-by of 100 MGD.

Drought Status

As of March 31, the Central and Western drought regions in [Maryland](#) are under a drought watch while the Eastern drought region is under drought warning. In [Virginia](#), five regions are currently under a drought warning, including Shenandoah and Northern Virginia, while several are under a drought watch. In [Pennsylvania](#), portions of the Potomac River basin, primarily Franklin, Fulton, and Bedford Counties are under a drought warning. The metropolitan regional drought stage, under the Metropolitan Washington Council of Governments (MWCOG) Water Supply and Drought Response Awareness Plan, is normal.

U.S. Drought Monitor

The U.S. Drought Monitor map indicates that abnormally dry to severe drought conditions are present in the Potomac basin. As of April 9, 2026, about 8% of the basin was abnormally dry (D0), 77% in moderate drought (D1), and 15% in severe drought (D2).

