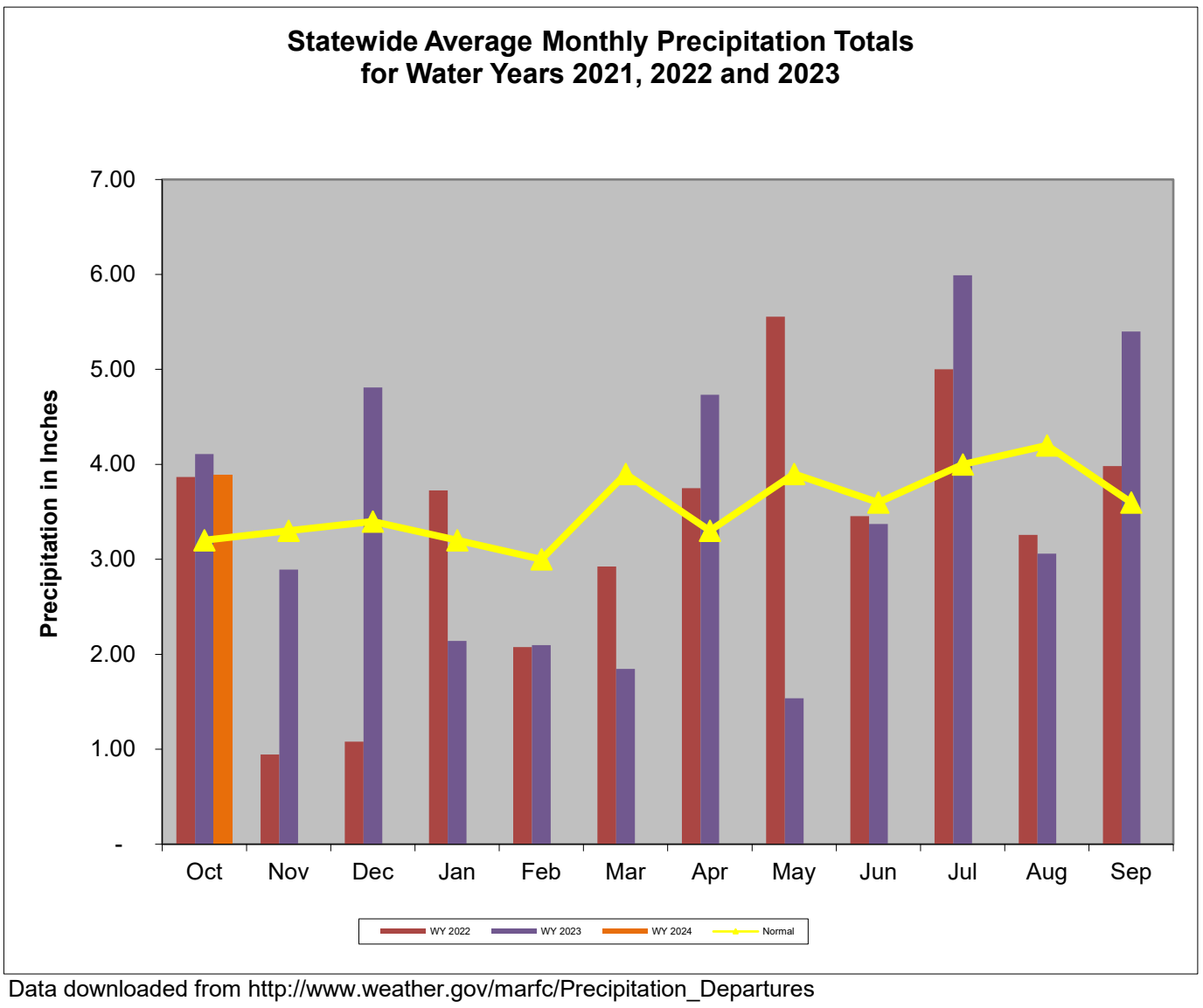
# Overall Hydrologic Status for Maryland

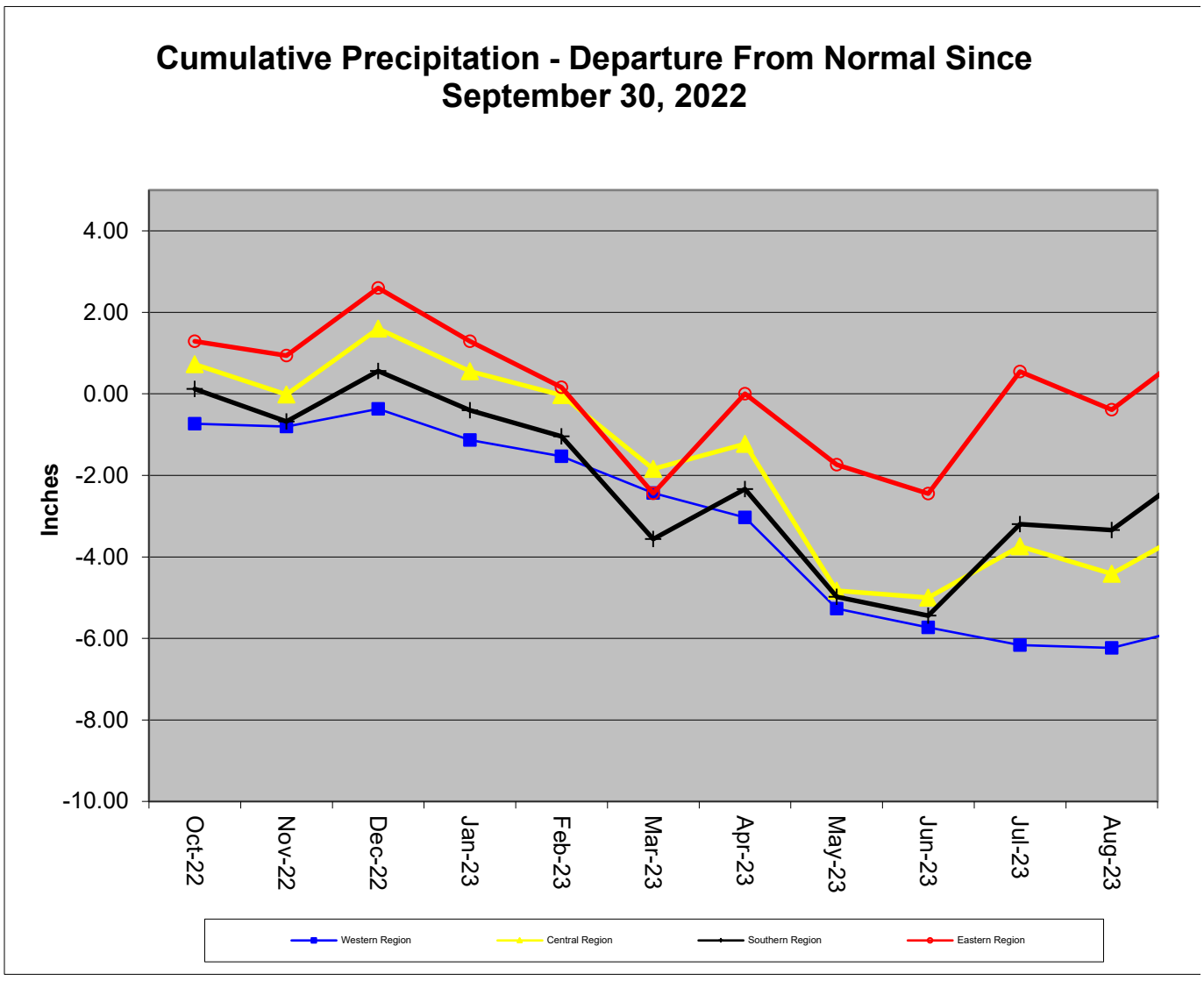
| Summary of Hydrologic Indicators for 21-October 2023 | | | | | |
|---|---|---|---|---|---|
| | **Rainfall** | **Stream Flow** | **Groundwater** | **Reservoirs** | Overall Status |
| Western | Normal | Normal | Warning | Normal | Watch |
| Central | Normal | Normal | Warning | Normal | Warning |
| Eastern | Normal | Normal | Normal | | Normal |
| Southern | Normal | | Normal | | Normal |

Notes: The WSSC Patuxent reservoirs have less then 120 days of water in storage. This is a result of dredging in the Triadelphia, which is scheduled to end by November 2023.

| Precipitation Indicators for Maryland Drought Regions<br>October 21, 2023 | | | | | | |
|---|---|---|---|---|---|---|
| | WY to Date | | Since April 30, 2022 | | Since October 31, 2022 | |
| **Regions** | **Percent of Normal** | **Condition** | **Percent of Normal** | **Condition** | **Percent of Normal** | **Condition** |
| Western | 118% | Normal | 91% | Normal | 90% | Normal |
| Central | 102% | Normal | 92% | Normal | 91% | Normal |
| Eastern | 110% | Normal | 107% | Normal | 101% | Normal |
| Southern | 118% | Normal | 106% | Normal | 97% | Normal |
| WY or Water Year begins on October 1. | | | | | | |




Data downloaded from http://www.weather.gov/marfc/Precipitation_Departures



# Precipitation in Maryland Counties
# as of 21 October 2023 (WY 2024)

| | | Normal Rainfall, Actual Rainfall and Rainfall Departure from Normal in Inches | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | WY[1] To Date (Since September 30, 2023) | | | | 11.75 Months (Since October 31, 2022) | | | | 2.75 Months (Since July 31, 2023) | | | | 5.75 Months (Since April 30, 2023) | | | |
| | COUNTY | Normal | Actual | Depart | % | Normal | Actual | Depart | % | Normal | Actual | Depart | % | Normal | Actual | Depart | % |
| WESTERN REGION | ALLEGANY | 3.0 | 3.8 | 0.8 | 127% | 40.3 | 37.1 | -3.2 | 92% | 9.7 | 10.9 | 1.2 | 112% | 21.2 | 19.7 | -1.5 | 93% |
| | GARRETT | 3.2 | 4.0 | 0.8 | 125% | 46.6 | 42.8 | -3.8 | 92% | 10.6 | 12.0 | 1.4 | 113% | 25.0 | 24.3 | -0.7 | 97% |
| | WASHINGTON | 3.3 | 3.4 | 0.1 | 103% | 40.8 | 34.7 | -6.1 | 85% | 10.3 | 10.9 | 0.6 | 106% | 21.6 | 17.6 | -4.0 | 81% |
| | Regional Average | 3.2 | 3.7 | 0.6 | 118% | 42.6 | 38.2 | -4.4 | 90% | 10.2 | 11.3 | 1.1 | 110% | 22.6 | 20.5 | -2.1 | 91% |
| CENTRAL REGION | BALTIMORE COUNTY | 4.0 | 4.0 | 0.0 | 100% | 45.6 | 42.2 | -3.4 | 93% | 11.7 | 12.9 | 1.2 | 110% | 24.2 | 23.8 | -0.4 | 98% |
| | CARROLL | 3.7 | 3.6 | -0.1 | 97% | 43.9 | 36.3 | -7.6 | 83% | 11.4 | 10.9 | -0.5 | 96% | 23.4 | 17.5 | -5.9 | 75% |
| | CECIL | 3.7 | 3.8 | 0.1 | 103% | 44.9 | 45.1 | 0.2 | 100% | 11.7 | 12.0 | 0.3 | 103% | 24.1 | 25.5 | 1.4 | 106% |
| | FREDERICK | 3.6 | 3.7 | 0.1 | 103% | 42.9 | 36.6 | -6.3 | 85% | 10.9 | 11.0 | 0.1 | 101% | 22.8 | 17.7 | -5.1 | 78% |
| | HARFORD | 3.9 | 4.2 | 0.3 | 108% | 46.0 | 44.4 | -1.6 | 97% | 12.0 | 12.6 | 0.6 | 105% | 24.7 | 25.1 | 0.4 | 102% |
| | HOWARD | 3.7 | 3.6 | -0.1 | 97% | 44.5 | 39.4 | -5.1 | 89% | 11.1 | 12.0 | 0.9 | 108% | 23.5 | 21.1 | -2.4 | 90% |
| | MONTGOMERY | 3.6 | 3.8 | 0.2 | 106% | 43.1 | 40.1 | -3.0 | 93% | 11.0 | 12.9 | 1.9 | 117% | 23.2 | 22.1 | -1.1 | 95% |
| | Regional Average | 3.7 | 3.8 | 0.1 | 102% | 44.4 | 40.6 | -3.8 | 91% | 11.4 | 12.0 | 0.6 | 106% | 23.7 | 21.8 | -1.9 | 92% |
| SOUTHERN REGION | ANNE ARUNDEL | 3.6 | 4.1 | 0.5 | 114% | 42.4 | 42.0 | -0.4 | 99% | 10.9 | 13.8 | 2.9 | 127% | 22.9 | 25.4 | 2.5 | 111% |
| | CALVERT | 3.6 | 5.1 | 1.5 | 142% | 44.3 | 44.9 | 0.6 | 101% | 11.2 | 15.0 | 3.8 | 134% | 23.6 | 26.6 | 3.0 | 113% |
| | CHARLES | 3.6 | 3.8 | 0.2 | 106% | 42.9 | 40.5 | -2.4 | 94% | 11.1 | 12.1 | 1.0 | 109% | 23.0 | 22.4 | -0.6 | 97% |
| | PRINCE GEORGES | 3.6 | 3.8 | 0.2 | 106% | 42.3 | 40.6 | -1.7 | 96% | 10.8 | 13.4 | 2.6 | 124% | 22.7 | 24.6 | 1.9 | 108% |
| | ST MARYS | 3.6 | 4.4 | 0.8 | 122% | 44.0 | 42.0 | -2.0 | 95% | 11.4 | 11.8 | 0.4 | 104% | 23.4 | 23.0 | -0.4 | 98% |
| | Regional Average | 3.6 | 4.2 | 0.6 | 118% | 43.2 | 42.0 | -1.2 | 97% | 11.1 | 13.2 | 2.1 | 119% | 23.1 | 24.4 | 1.3 | 106% |
| EASTERN REGION | CAROLINE | 3.4 | 3.8 | 0.4 | 112% | 43.3 | 47.6 | 4.3 | 110% | 11.2 | 13.4 | 2.2 | 120% | 23.0 | 27.7 | 4.7 | 120% |
| | DORCHESTER | 49.6 | 49.7 | 0.1 | 100% | 43.6 | 44.7 | 1.1 | 103% | 11.0 | 12.5 | 1.5 | 114% | 23.2 | 25.2 | 2.0 | 109% |
| | KENT | 48.4 | 48.4 | 0.0 | 100% | 43.6 | 43.3 | -0.3 | 99% | 11.3 | 12.6 | 1.3 | 112% | 23.3 | 24.1 | 0.8 | 103% |
| | QUEEN ANNES | 49.0 | 48.9 | -0.1 | 100% | 43.3 | 43.4 | 0.1 | 100% | 11.1 | 12.5 | 1.4 | 113% | 23.1 | 24.0 | 0.9 | 104% |
| | SOMERSET | 47.5 | 48.0 | 0.5 | 101% | 43.1 | 43.8 | 0.7 | 102% | 11.4 | 11.0 | -0.4 | 96% | 22.7 | 23.9 | 1.2 | 105% |
| | TALBOT | 46.6 | 45.9 | -0.7 | 98% | 43.7 | 41.2 | -2.5 | 94% | 11.2 | 10.7 | -0.5 | 96% | 23.2 | 22.3 | -0.9 | 96% |
| | WICOMICO | 48.2 | 49.8 | 1.6 | 103% | 43.9 | 46.0 | 2.1 | 105% | 11.4 | 14.4 | 3.0 | 126% | 22.9 | 27.1 | 4.2 | 118% |
| | WORCESTER | 44.8 | 45.7 | 0.9 | 102% | 44.4 | 41.8 | -2.6 | 94% | 11.8 | 12.1 | 0.3 | 103% | 23.1 | 23.4 | 0.3 | 101% |
| | Regional Average | 42.2 | 42.5 | 0.3 | 101% | 43.6 | 44.0 | 0.4 | 101% | 11.3 | 12.4 | 1.1 | 110% | 23.1 | 24.7 | 1.7 | 107% |
| INDEPENDENT CITY OF BALTIMORE | | 4.0 | 4.0 | 0.0 | 100% | 45.3 | 41.8 | -3.5 | 92% | 11.7 | 12.9 | 1.2 | 110% | 24.2 | 23.8 | -0.4 | 98% |
| **Statewide Average** | | 16.5 | 16.8 | 0.3 | 102% | 43.7 | 41.8 | -1.9 | 96% | 11.2 | 12.3 | 1.2 | 111% | 23.3 | 23.2 | -0.0 | 100% |

WY[1] - USGS Water Year, which begins October 1

## Stream Flow Status Based on Thirty Day Average for 2023 October 21

| Region | Stream Gage Location | Notes | Status Based on 30 Day Average | | |
|---|---|---|---|---|---|
| | | | 30 Day Average (cfs) | Percentage | Status |
| Western | Youghiogheny (near Oakland) | | 83 | 65%-70% | Normal |
| Western | Savage River (near Barton) | | 14.5 | 60%-65% | Normal |
| Western | Wills Creek (near Cumberland) | | 40 | 35%-40% | Normal |
| Western | Marsh Run (at Grimes) | | 4.4 | 35%-40% | Normal |
| Central | Catoctin Creek (near Middletown) | | 6.8 | 25%-30% | Normal |
| Central | Monocacy (Jug Bridge near Frederick) | | 157 | 25%-30% | Normal |
| Central | Patuxent (near Unity) | | 10.6 | 25%-30% | Normal |
| Central | Deer Cr (at Rocks) | | 59.5 | 35%-40% | Normal |
| Eastern | Choptank (near Greensboro) | | 57.2 | 65%-70% | Normal |
| Eastern | Nassawango Creek (near Snow Hill) | | 24.1 | 70%-75% | Normal |
| | Susquehanna (at Marietta) | | 20,848 | 75%-80% | Normal |
| | Potomac (at Little Falls)(Adjusted) | | 2,748 | 35%-40% | Normal |

Notes:

| Ground Water Status for 21 October 2023 | | | | |
|---|---|---|---|---|
| Region | USGS Well ID | Well Level[1] | Status | |
| Western | GA Bc 1 | 11.54[3] | Normal | Warning |
| | AL Ah 1 | 3.63[2] | Normal | |
| | WA Be 2 | 35.61[2] | Warning | |
| | WA Bk 25 | 50.48[3] | Emergency | |
| Central | BA Dc 444 | 42.6[3] | Warning | Warning |
| | BA Ea 18 | 26.5[2] | Emergency | |
| | HA Bd 31 | 13.01[2] | Normal | |
| | HA Ca 23 | 7.89[2] | Normal | |
| | MO Cc 14 | 38.14[2] | Normal | |
| Eastern | QA Cg 69 | 3.45[2] | Normal | Normal |
| | WI Cg 20 | 5.78[2] | Normal | |
| | MC51-01 | 12.32[3] | Normal | |
| | SO Cf 2 | 5.00[3] | Normal | |
| Southern | CH Bg 12 (unconfined) | 5.16[3] | Normal | ***Normal*** |
| | AA Cc 40 (confined) | NA[2] | Unknown | |
| | CA Fd 54 (confined) | 241.46 | On Trend[4] | |
| | CH Dd 33 (confined) | NA[2] | Unknown | |
| | PG De 21 (confined) | NA[2] | Unknown | |
| | SM Fg 45 (confined) | NA[2] | Unknown | |

[1] - Measurement of water level as feet below land surface
[2] - Not Available as of 2023-10-23
[3] - Value computed from real time measurement
[4] - In accordance with Maryland's drought monitoring and response plan, the impact of drought upon confined aquifers is analyzed as a departure from long term trend.

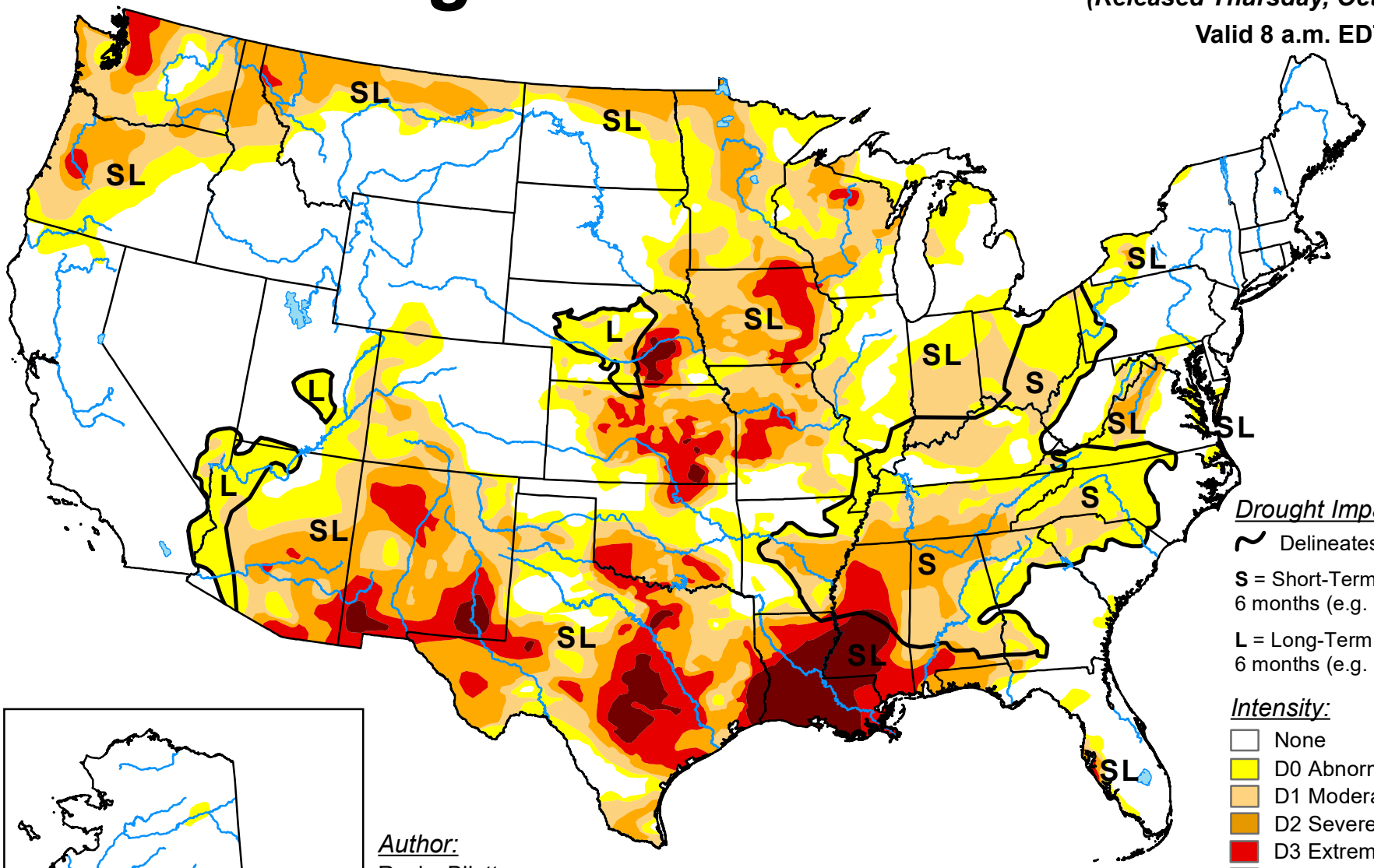
Selected ground water levels are available from USGS at:
http://md.water.usgs.gov/groundwater/
Data for other wells may be downloaded from:
USGS - NWIS Web Information for USA

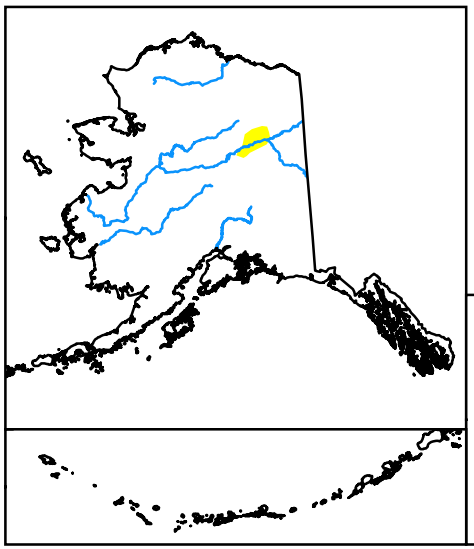
# U.S. Drought Monitor

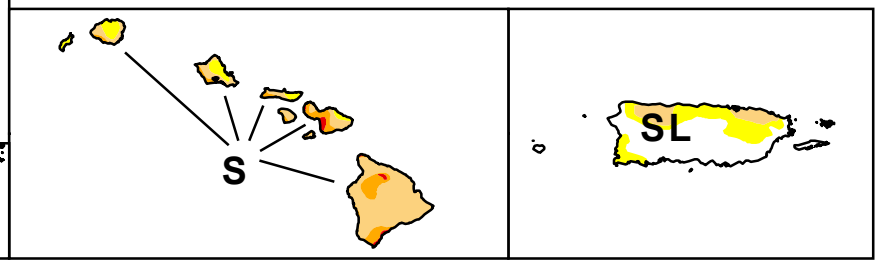
**October 17, 2023**

***(Released Thursday, Oct. 19, 2023)***

**Valid 8 a.m. EDT**









*Drought Impact Types:*

Delineates dominant impacts

**S** = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

**L** = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

*Intensity:*

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought


*Author:*
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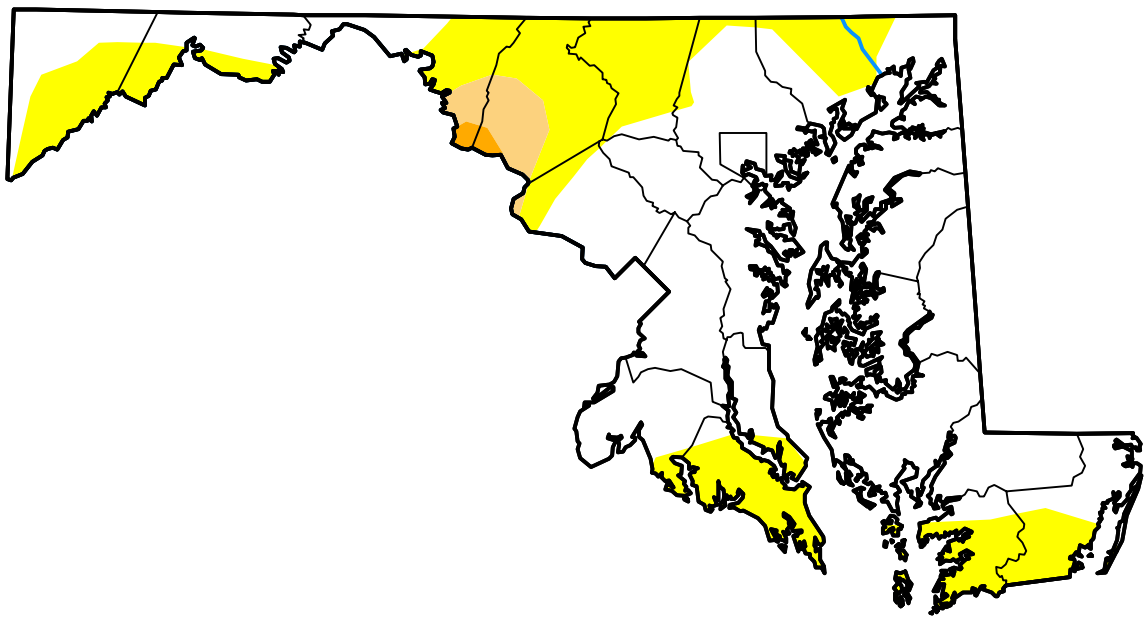
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx*

USDA NDMC NOAA

**droughtmonitor.unl.edu**

# *U.S. Drought Monitor*

# Maryland



## October 17, 2023

***(Released Thursday, Oct. 19, 2023)***

**Valid 8 a.m. EDT**

*Drought Conditions (Percent Area)*

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|---|---|---|---|---|---|
| **Current** | 67.60 | 32.40 | 3.31 | 0.47 | 0.00 | 0.00 |
| **Last Week** *10-10-2023* | 64.56 | 35.44 | 3.30 | 0.47 | 0.00 | 0.00 |
| **3 Months Ago** *07-18-2023* | 41.45 | 58.55 | 33.22 | 11.33 | 0.00 | 0.00 |
| **Start of Calendar Year** *01-03-2023* | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Start of Water Year** *09-26-2023* | 63.11 | 36.89 | 3.30 | 0.47 | 0.00 | 0.00 |
| **One Year Ago** *10-18-2022* | 93.82 | 6.18 | 0.00 | 0.00 | 0.00 | 0.00 |

*Intensity:*

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx*

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**droughtmonitor.unl.edu**