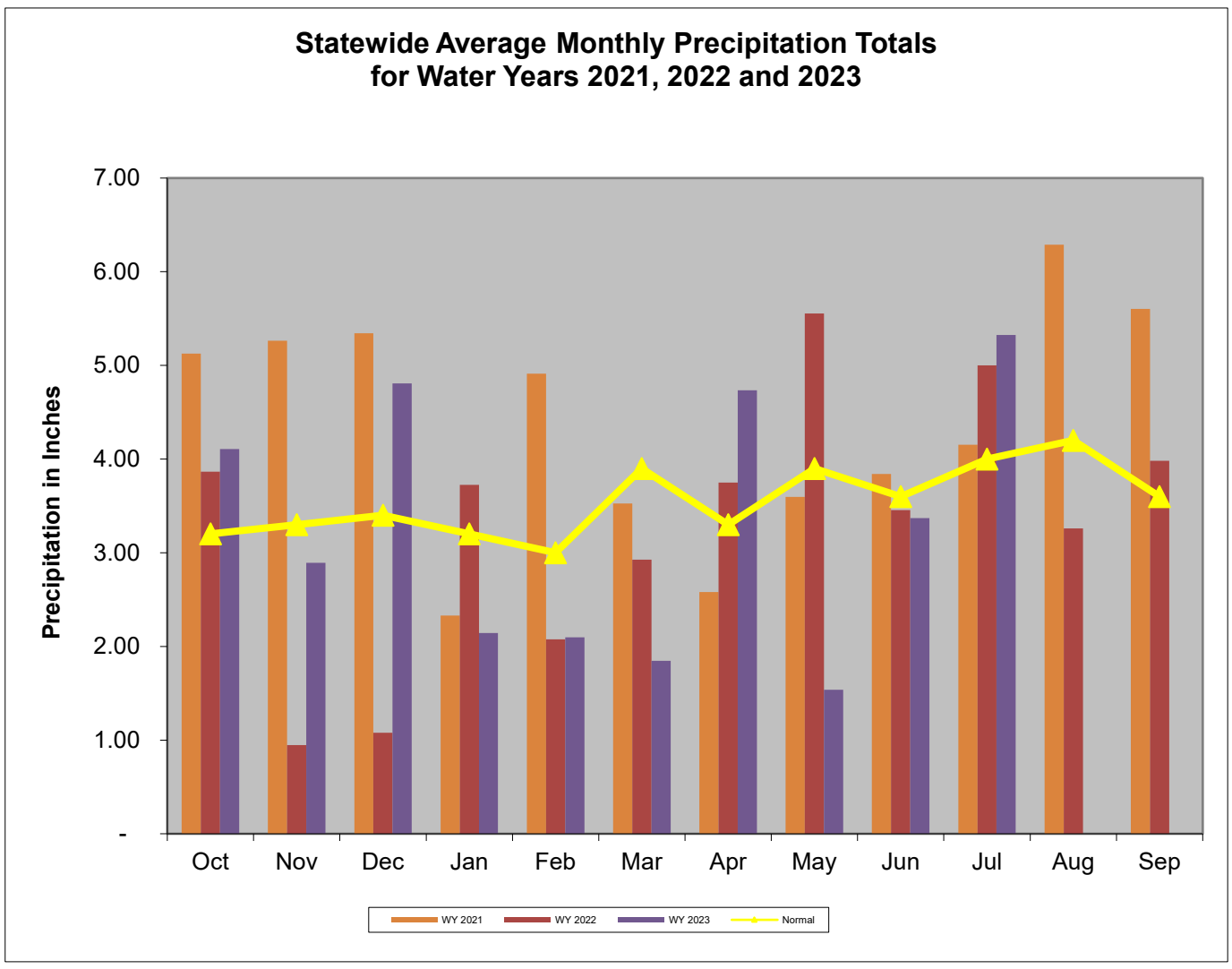
Overall Hydrologic Status for Maryland

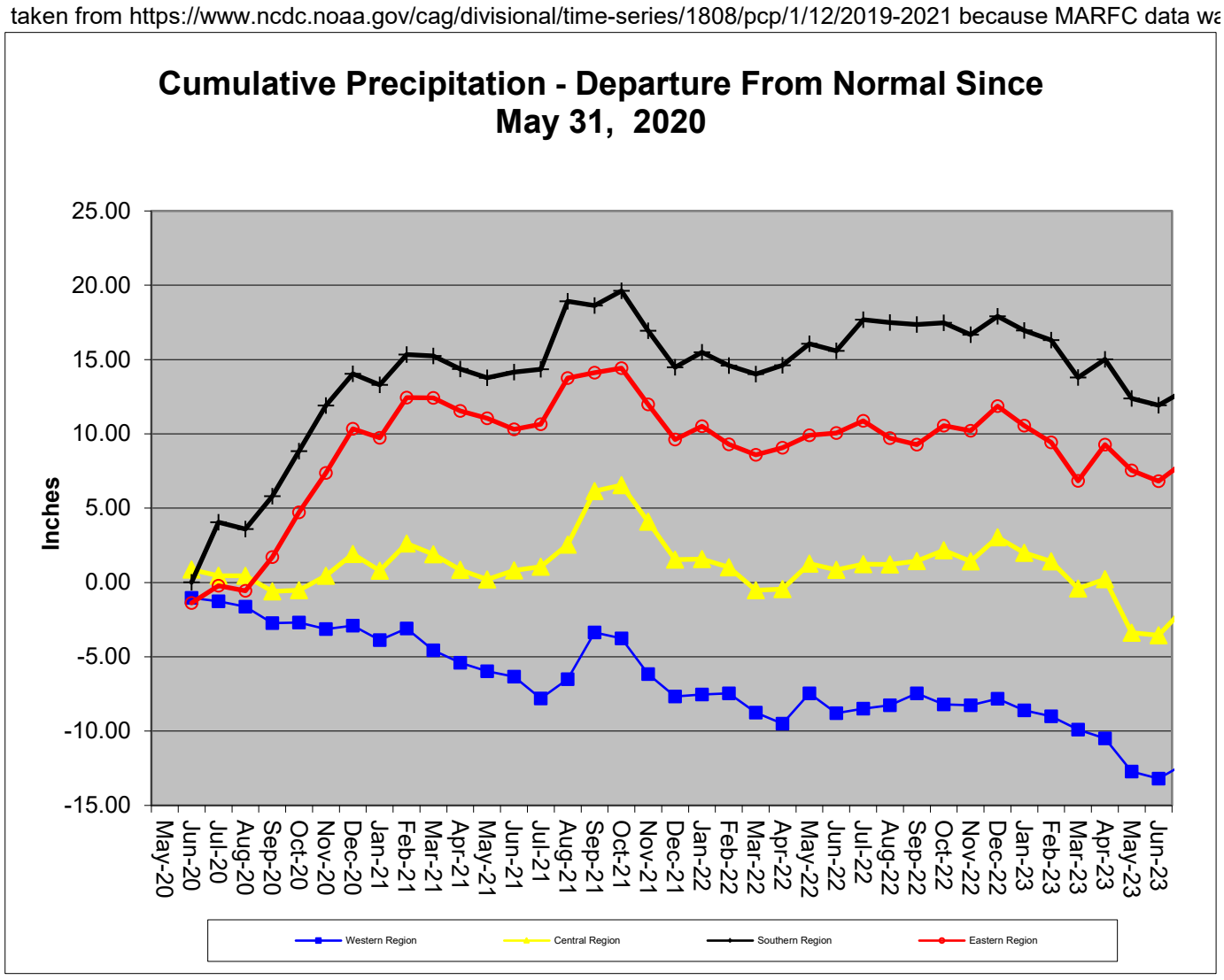
Summary of Hydrologic Indicators for 09-July-2023					
	Rainfall	**Stream Flow**	**Groundwater**	**Reservoirs**	Overall Status
Western	Norma;	Watch	Warning	Normal	Watch
Central	Normal	Watch	Warning	Normal	Watch
Eastern	Normal	Normal	Normal		Normal
Southern	Normal		Normal		Normal

Notes: Some groundwater gages and reservoir data not available for interim evaluations.

Precipitation Indicators for Maryland Drought Regions July 9, 2023						
	WY to Date		Since Jan 31, 2023		Since July 31, 2022	
Regions	**Percent of Normal**	**Condition**	**Percent of Normal**	**Condition**	**Percent of Normal**	**Condition**
Western	87%	Normal	84%	Normal	91%	Normal
Central	92%	Normal	84%	Normal	93%	Normal
Eastern	97%	Normal	89%	Normal	94%	Normal
Southern	88%	Normal	82%	Normal	89%	Normal
WY or Water Year begins on October 1						



Data downloaded from http://www.weather.gov/marfc/Precipitation_Departures except for Garrett County, which was taken from https://www.ncdc.noaa.gov/cag/divisional/time-series/1808/pcp/1/12/2019-2021 because MARFC data wa



Precipitation in Maryland Counties
as of 30 June 2023 (WY 2023)

		Normal Rainfall, Actual Rainfall and Rainfall Departure from Normal in Inches															
		WY[1] To Date (Since September 30, 2022)				11.25 Months (Since July 31, 2022)				2.25 Months (Since April 30, 2023)				5.25 Months (Since January 31, 2023)			
	COUNTY	Normal	Actual	Depart	%	Normal	Actual	Depart	%	Normal	Actual	Depart	%	Normal	Actual	Depart	%
WESTERN REGION	ALLEGANY	33.5	29.7	-3.8	89%	40.2	37.8	-2.4	94%	11.6	10.0	-1.6	86%	21.0	17.5	-3.5	83%
	GARRETT	38.6	35.2	-3.4	91%	46.0	44.6	-1.4	97%	14.0	14.4	0.4	103%	25.2	24.3	-0.9	96%
	WASHINGTON	33.7	26.8	-6.9	80%	40.7	33.5	-7.2	82%	11.4	7.6	-3.8	67%	20.8	14.5	-6.3	70%
	Regional Average	35.3	30.6	-4.7	87%	42.3	38.6	-3.7	91%	12.3	10.7	-1.7	86%	22.3	18.8	-3.6	84%
CENTRAL REGION	BALTIMORE COUNTY	37.4	35.0	-2.4	94%	45.1	43.9	-1.2	97%	12.1	11.1	-1.0	92%	22.8	19.9	-2.9	87%
	CARROLL	35.9	28.9	-7.0	81%	43.6	35.6	-8.0	82%	11.8	6.6	-5.2	56%	22.1	15.7	-6.4	71%
	CECIL	36.4	40.7	4.3	112%	44.0	48.1	4.1	109%	12.0	15.4	3.4	128%	22.5	24.6	2.1	109%
	FREDERICK	35.5	28.7	-6.8	81%	42.8	34.9	-7.9	82%	12.0	7.1	-4.9	59%	22.0	15.7	-6.3	71%
	HARFORD	37.4	39.7	2.3	106%	45.5	49.6	4.1	109%	12.2	13.8	1.6	113%	22.7	22.0	-0.7	97%
	HOWARD	37.0	30.8	-6.2	83%	44.4	38.3	-6.1	86%	12.3	8.9	-3.4	72%	22.9	17.2	-5.7	75%
	MONTGOMERY	35.6	29.8	-5.8	84%	43.1	38.0	-5.1	88%	12.2	8.7	-3.5	71%	22.2	16.6	-5.6	75%
	Regional Average	36.5	33.4	-3.1	92%	44.1	41.2	-2.9	93%	12.1	10.2	-1.9	85%	22.5	18.8	-3.6	84%
SOUTHERN REGION	ANNE ARUNDEL	34.8	31.8	-3.0	91%	42.1	38.9	-3.2	92%	11.8	10.7	-1.1	91%	21.9	18.6	-3.3	85%
	CALVERT	36.6	33.0	-3.6	90%	44.2	39.9	-4.3	90%	12.3	10.8	-1.5	88%	22.7	19.5	-3.2	86%
	CHARLES	35.2	29.5	-5.7	84%	42.7	36.1	-6.6	85%	11.8	8.6	-3.2	73%	21.7	16.6	-5.1	76%
	PRINCE GEORGES	34.9	29.4	-5.5	84%	42.1	37.0	-5.1	88%	11.7	9.9	-1.8	85%	21.6	17.4	-4.2	81%
	ST MARYS	35.8	31.6	-4.2	88%	43.6	39.2	-4.4	90%	11.6	8.9	-2.7	77%	22.0	17.8	-4.2	81%
	Regional Average	35.5	31.1	-4.4	88%	42.9	38.2	-4.7	89%	11.8	9.8	-2.1	83%	22.0	18.0	-4.0	82%
EASTERN REGION	CAROLINE	35.1	35.9	0.8	102%	42.9	42.6	-0.3	99%	11.4	10.9	-0.5	96%	21.7	21.0	-0.7	97%
	DORCHESTER	35.8	34.1	-1.7	95%	43.4	40.2	-3.2	93%	12.0	9.6	-2.4	80%	22.6	18.9	-3.7	84%
	KENT	35.5	35.7	0.2	101%	43.2	42.1	-1.1	97%	11.7	11.4	-0.3	97%	22.0	21.1	-0.9	96%
	QUEEN ANNES	35.2	34.7	-0.5	99%	42.8	40.7	-2.1	95%	11.6	9.8	-1.8	84%	21.9	19.9	-2.0	91%
	SOMERSET	34.2	34.4	0.2	101%	42.3	40.6	-1.7	96%	10.6	10.3	-0.3	97%	21.3	18.9	-2.4	89%
	TALBOT	35.9	33.3	-2.6	93%	43.6	39.6	-4.0	91%	11.9	9.7	-2.2	82%	22.3	19.0	-3.3	85%
	WICOMICO	35.3	33.5	-1.8	95%	43.4	40.2	-3.2	93%	11.1	10.8	-0.3	97%	22.0	19.4	-2.6	88%
	WORCESTER	35.3	31.8	-3.5	90%	43.6	37.5	-6.1	86%	10.6	9.5	-1.1	90%	21.4	17.8	-3.6	83%
	Regional Average	35.3	34.2	-1.1	97%	43.2	40.4	-2.7	94%	11.4	10.3	-1.1	90%	21.9	19.5	-2.4	89%
INDEPENDENT CITY OF BALTIMORE		37.1	34.6	-2.5	93%	44.8	43.5	-1.3	97%	12.1	11.1	-1.0	92%	22.8	19.9	-2.9	87%
Statewide Average		35.7	32.9	-2.9	92%	43.3	40.1	-3.2	93%	11.8	10.2	-1.6	87%	22.2	18.9	-3.3	85%

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

Stream Flow Status Based on Thirty Day Average for 2023 July 9

Region	Stream Gage Location	Notes	Status Based on 30 Day Average		
			30 Day Average (cfs)	Percentage	Status
Western	Youghiogheny (near Oakland)		86	25%-30%	Normal
Western	Savage River (near Barton)		14.5	30%-35%	Normal
Western	Wills Creek (near Cumberland)		72	10%-15%	Watch
Western	Marsh Run (at Grimes)		5.8	15%-20%	Watch
Central	Catoctin Creek (near Middletown)		19.2	20%-25%	Watch
Central	Monocacy (Jug Bridge near Frederick)		185	5%-10%	Warning
Central	Patuxent (near Unity)		12.3	10%-15%	Watch
Central	Deer Cr (at Rocks)		78.4	20%-25%	Watch
Eastern	Choptank (near Greensboro)		32.0	30%-35%	Normal
Eastern	Nassawango Creek (near Snow Hill)		10.4	45%-50%	Normal
	Susquehanna (at Marietta)		14,336	30%-35%	Normal
	Potomac (at Little Falls)(Adjusted)		3,787	10%-15%	Watch

Notes:

Ground Water Status for 9 July 2023				
Region	USGS Well ID	Well Level[1]	Status	
Western	GA Bc 1	14.64 [3]	Normal	Warning
	AL Ah 1	4.57 [2]	Normal	
	WA Be 2	34.15 [2]	Warning	
	WA Bk 25	49.03 [3]	Emergency	
Central	BA Dc 444	40.62 [3]	Warning	Warning
	BA Ea 18	24.83 [2]	Emergency	
	HA Bd 31	12.34 [2]	Warning	
	HA Ca 23	7.84 [2]	Warning	
	MO Cc 14	36.23 [2]	Warning	
Eastern	QA Cg 69	4.36 [2]	Normal	Normal
	WI Cg 20	5.75 [2]	Normal	
	MC51-01	13.27 [3]	Normal	
	SO Cf 2	3.08 [3]	Normal	
Southern	CH Bg 12 (unconfined)	5.95	Normal	***Normal***
	AA Cc 40 (confined)	NA[2]	Unknown	
	CA Fd 54 (confined)	240.25	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 2023-7-11
[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.

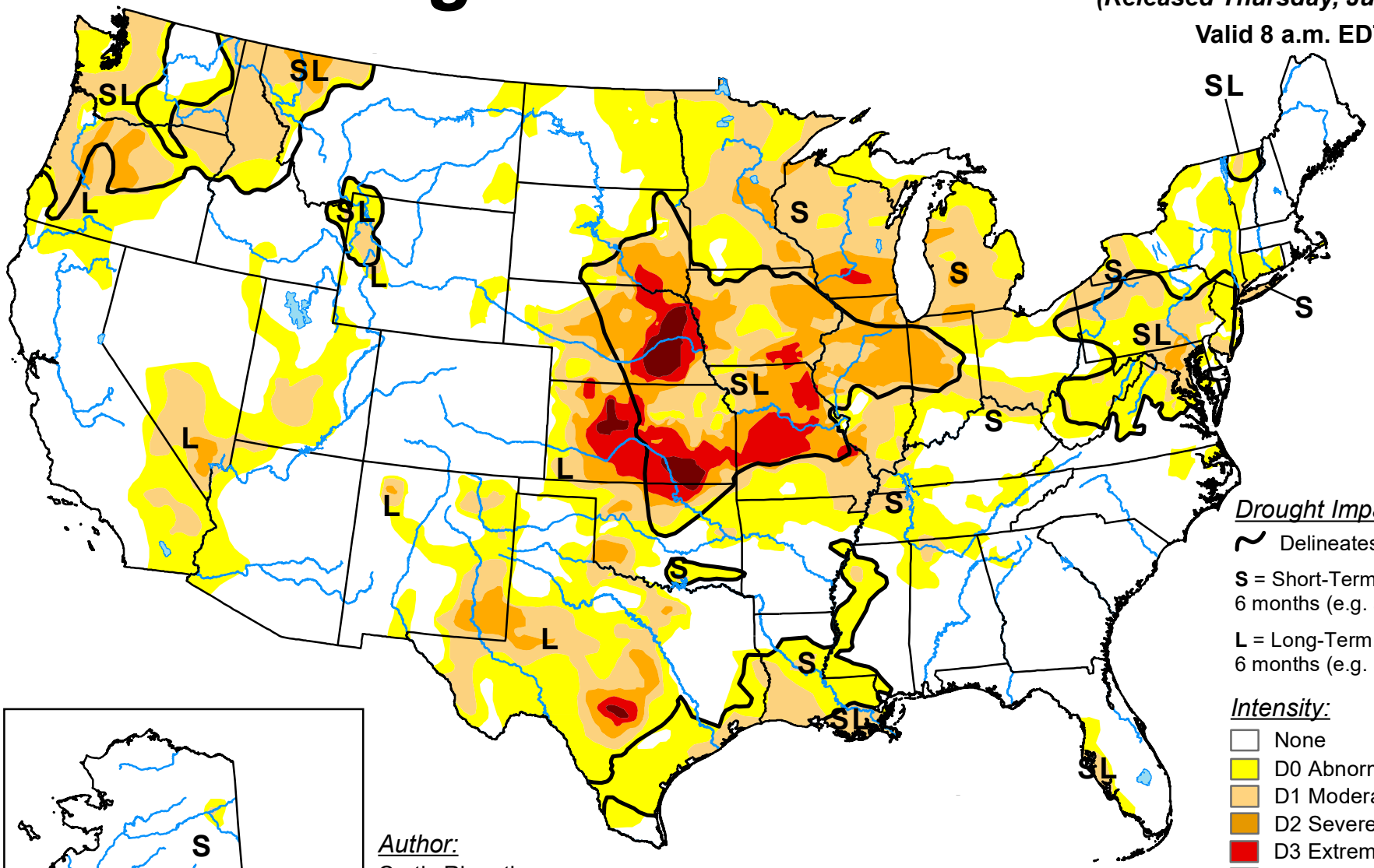
Selected ground water levels are available from USGS at:
http://md.water.usgs.gov/groundwater/
Data for other wells may be downloaded from:
USGS - NWIS Web Information for USA

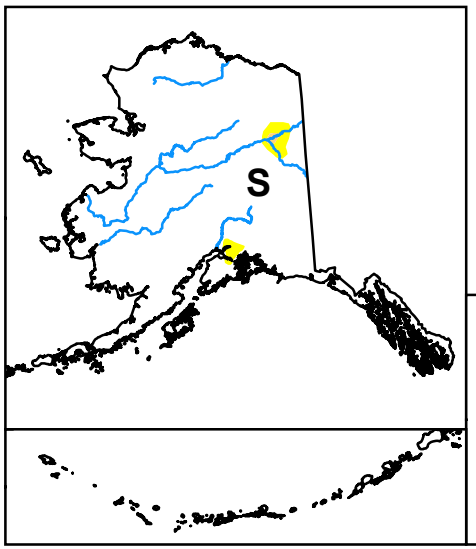
U.S. Drought Monitor

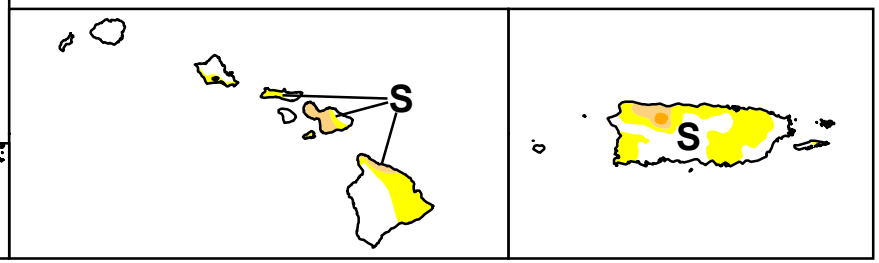
July 4, 2023

(Released Thursday, Jul. 6, 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:

Curtis Riganti

National Drought Mitigation Center

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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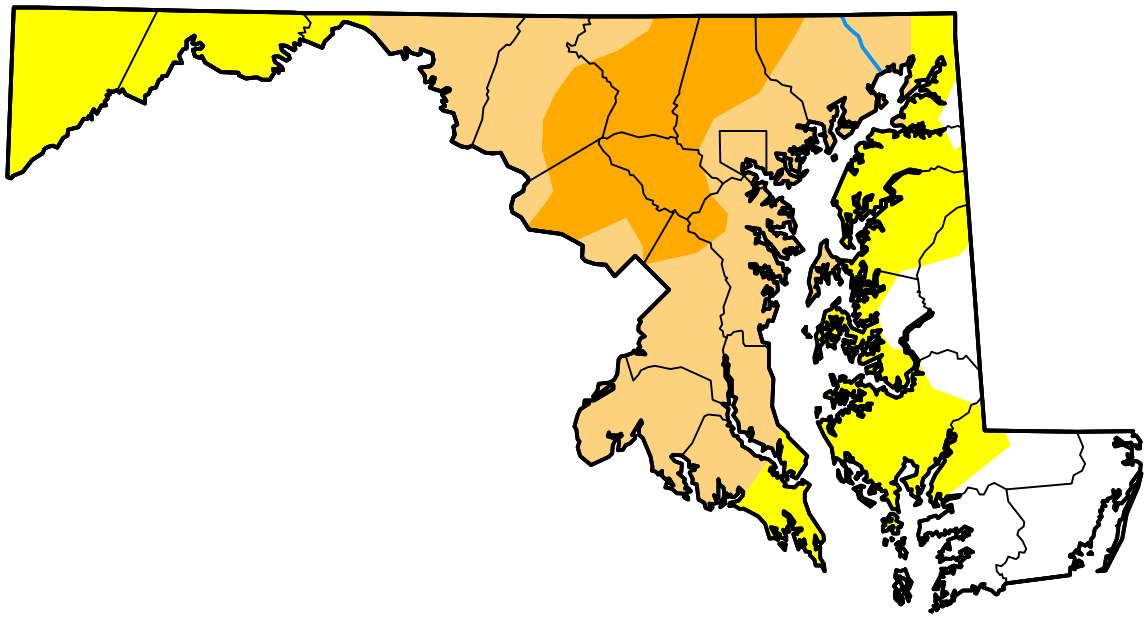
U.S. Drought Monitor

Maryland



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Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	15.41	84.59	54.22	17.49	0.00	0.00
Last Week *06-27-2023*	6.78	93.22	60.18	22.54	0.00	0.00
3 Months Ago *04-04-2023*	16.43	83.57	30.96	0.00	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 *09-27-2022*	65.82	34.18	6.75	0.00	0.00	0.00
One Year Ago *07-05-2022*	94.10	5.90	0.00	0.00	0.00	0.00

Intensity:

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