Overall Hydrologic Status for Maryland

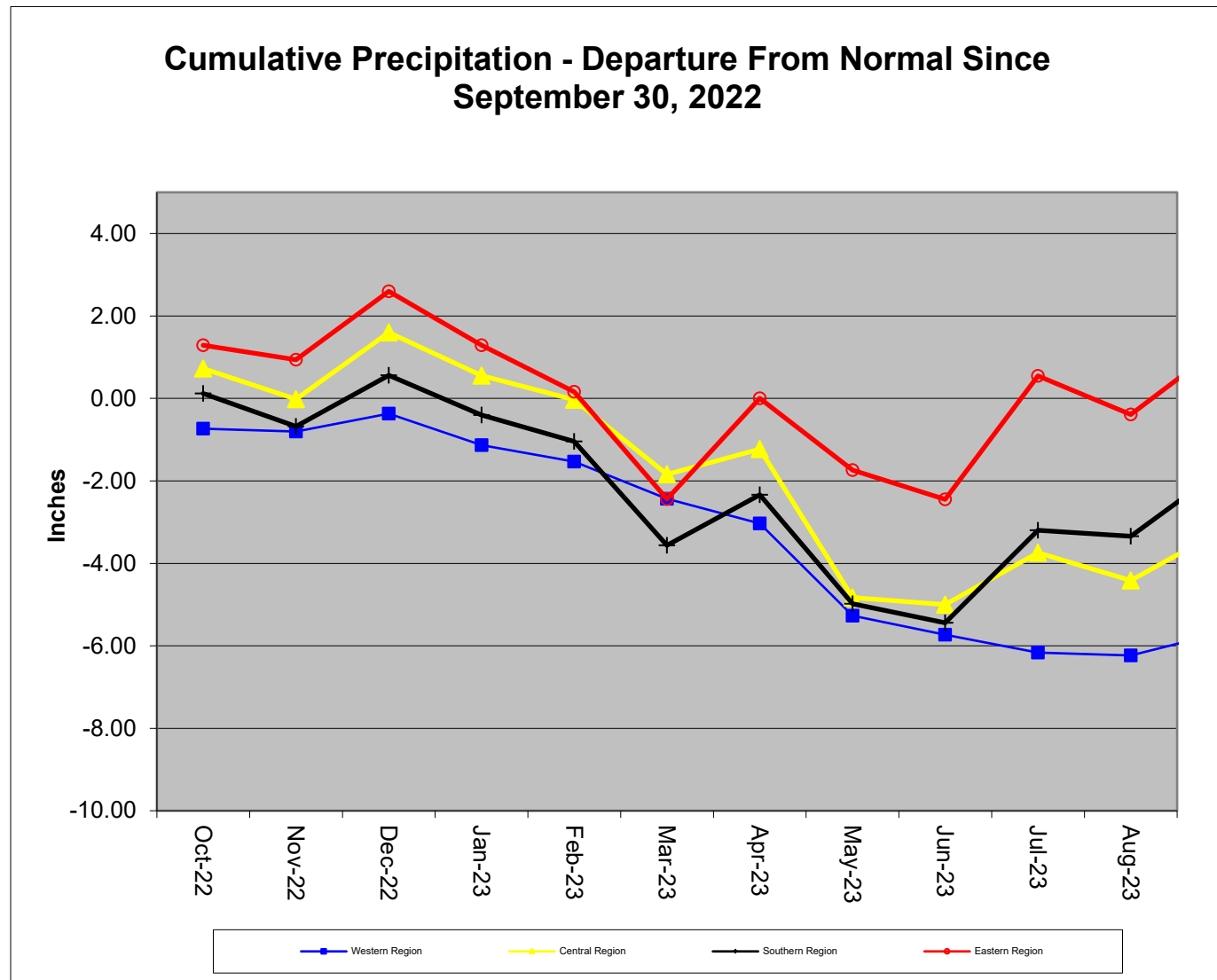|	Rainfall	Stream Flow	Groundwater	Reservoirs	Overall Status
Summary of Hydrologic Indicators for 07-November 2023					
Western	Normal	Normal	Warning	Normal	Watch
Central	Watch	Warning	Warning	Normal	Warning
Eastern	Normal	Normal	Normal		Normal
Southern	Watch		Normal		Normal

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
November 7, 2023

Regions	Since August 31, 2023		Since May 31, 2022		Since Nov 30, 2022	
	Percent of Normal	Condition	Percent of Normal	Condition	Percent of Normal	Condition
Western	85%	Normal	89%	Normal	84%	Watch
Central	68%	Watch	86%	Normal	82%	Watch
Eastern	83%	Normal	98%	Normal	93%	Normal
Southern	74%	Watch	95%	Normal	87%	Normal
WY or Water Year begins on October 1.						

Statewide Average Monthly Precipitation Totals for Water Years 2021, 2022 and 2023
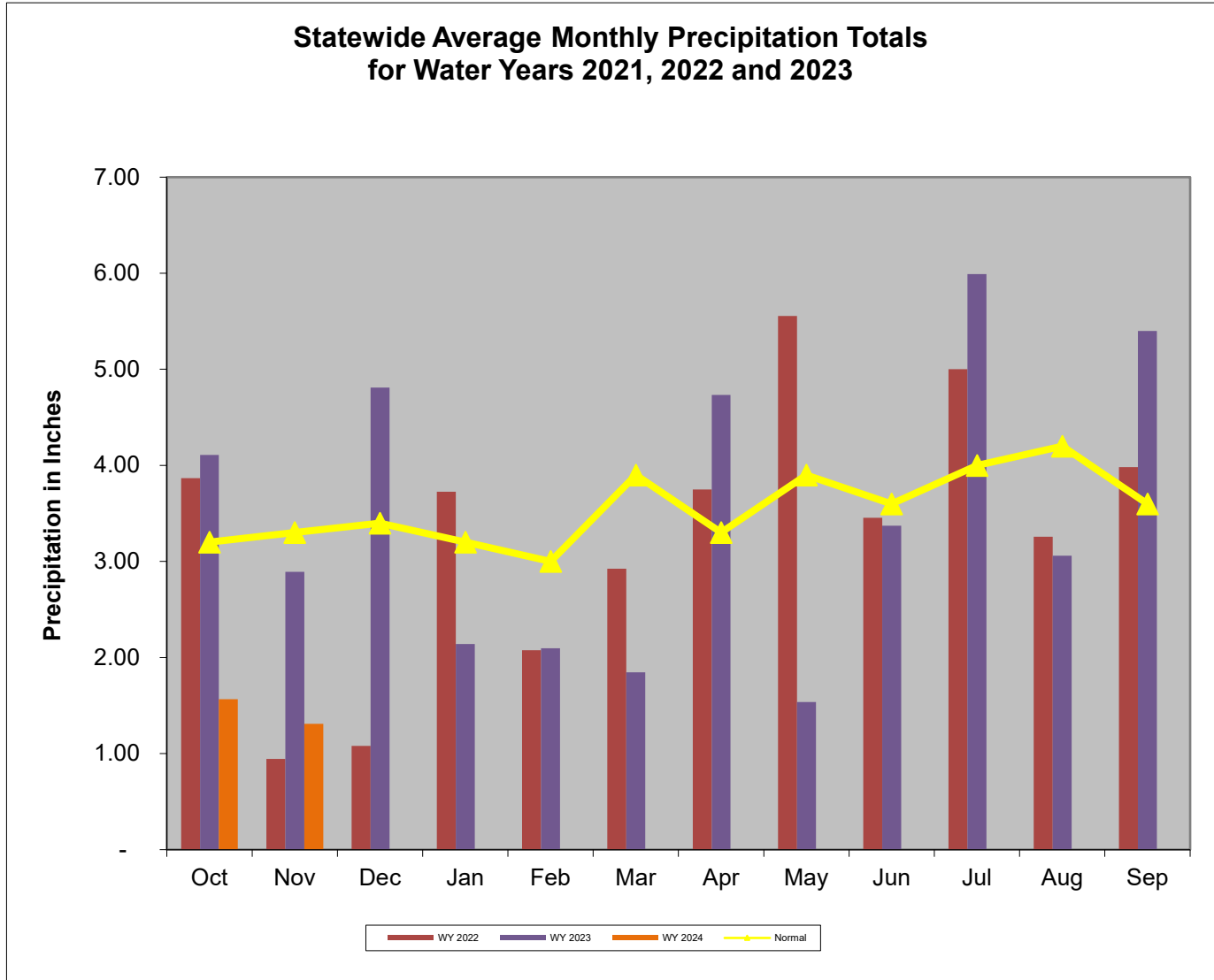
Data downloaded from http://www.weather.gov/marfc/Precipitation_Departures

Cumulative Precipitation - Departure From Normal Since September 30, 2022

Precipitation in Maryland Counties
as of 07 November 2023 (WY 2024)

| | | Normal Rainfall, Actual Rainfall and Rainfall Departure from Normal in Inches | | | | | | | | | | | | | | | |
| | | WY[1] To Date (Since September 30, 2023) | | | | 11.25 Months (Since November 30, 2022) | | | | 2.25 Months (Since August 31, 2023) | | | | 5.25 Months (Since May 31, 2023) | | | |
	COUNTY	Normal	Actual	Depart	%	Normal	Actual	Depart	%	Normal	Actual	Depart	%	Normal	Actual	Depart	%
WESTERN REGION	ALLEGANY	5.6	3.3	-2.3	59%	39.7	33.0	-6.7	83%	9.1	7.8	-1.3	86%	19.6	17.5	-2.1	89%
	GARRETT	6.1	6.1	0.0	100%	45.7	41.4	-4.3	91%	9.8	9.9	0.1	101%	23.0	22.7	-0.3	99%
	WASHINGTON	6.2	2.6	-3.6	42%	40.4	30.9	-9.5	76%	10.0	7.0	-3.0	70%	20.5	15.8	-4.7	77%
	Regional Average	6.0	4.0	-2.0	67%	41.9	35.1	-6.8	84%	9.6	8.2	-1.4	85%	21.0	18.7	-2.4	89%
CENTRAL REGION	BALTIMORE COUNTY	7.7	2.5	-5.2	32%	45.6	38.1	-7.5	84%	12.1	8.6	-3.5	71%	23.4	21.6	-1.8	92%
	CARROLL	7.1	2.2	-4.9	31%	43.8	32.1	-11.7	73%	11.4	6.8	-4.6	60%	22.5	15.4	-7.1	68%
	CECIL	7.1	2.4	-4.7	34%	44.8	40.9	-3.9	91%	11.5	8.2	-3.3	71%	23.4	23.7	0.3	101%
	FREDERICK	6.8	2.4	-4.4	35%	42.6	32.2	-10.4	76%	10.9	7.1	-3.8	65%	21.6	15.5	-6.1	72%
	HARFORD	7.7	2.8	-4.9	36%	46.2	40.1	-6.1	87%	12.1	8.4	-3.7	69%	24.2	23.2	-1.0	96%
	HOWARD	7.3	2.1	-5.2	29%	44.5	35.3	-9.2	79%	11.4	7.7	-3.7	68%	22.6	18.6	-4.0	82%
	MONTGOMERY	6.9	1.8	-5.1	26%	42.9	35.2	-7.7	82%	11.0	7.9	-3.1	72%	22.1	19.0	-3.1	86%
	Regional Average	7.2	2.3	-4.9	32%	44.3	36.3	-8.1	82%	11.5	7.8	-3.7	68%	22.8	19.6	-3.3	86%
SOUTHERN REGION	ANNE ARUNDEL	6.9	2.6	-4.3	38%	42.3	38.3	-4.0	91%	10.8	8.4	-2.4	78%	21.9	22.3	0.4	102%
	CALVERT	7.1	3.0	-4.1	42%	44.4	40.0	-4.4	90%	11.0	9.4	-1.6	85%	22.8	22.9	0.1	100%
	CHARLES	6.9	2.0	-4.9	29%	42.8	35.9	-6.9	84%	10.8	6.8	-4.0	63%	22.3	19.3	-3.0	87%
	PRINCE GEORGES	7.1	2.0	-5.1	28%	42.3	36.4	-5.9	86%	10.9	7.6	-3.3	70%	22.1	21.3	-0.8	96%
	ST MARYS	7.1	3.1	-4.0	44%	44.1	37.8	-6.3	86%	11.0	8.1	-2.9	74%	22.8	20.1	-2.7	88%
	Regional Average	7.0	2.5	-4.5	36%	43.2	37.7	-5.5	87%	10.9	8.1	-2.8	74%	22.4	21.2	-1.2	95%
EASTERN REGION	CAROLINE	6.7	3.7	-3.0	55%	43.2	44.5	1.3	103%	10.5	10.2	-0.3	97%	22.3	25.8	3.5	116%
	DORCHESTER	52.9	49.3	-3.6	93%	43.6	41.0	-2.6	94%	10.3	8.2	-2.1	80%	22.6	22.8	0.2	101%
	KENT	51.6	47.4	-4.2	92%	43.5	39.9	-3.6	92%	11.1	8.6	-2.5	77%	22.3	22.2	-0.1	100%
	QUEEN ANNES	52.2	48.6	-3.6	93%	43.1	40.6	-2.5	94%	10.8	9.0	-1.8	83%	22.2	22.3	0.1	100%
	SOMERSET	50.5	47.5	-3.0	94%	42.9	39.6	-3.3	92%	10.1	8.3	-1.8	82%	22.3	20.1	-2.2	90%
	TALBOT	50.0	46.6	-3.4	93%	43.7	39.3	-4.4	90%	10.7	7.6	-3.1	71%	22.5	21.1	-1.4	94%
	WICOMICO	51.2	48.0	-3.2	94%	43.6	41.0	-2.6	94%	10.1	9.8	-0.3	97%	22.3	22.6	0.3	101%
	WORCESTER	48.0	44.5	-3.5	93%	44.2	37.4	-6.8	85%	10.6	8.6	-2.0	81%	22.8	19.3	-3.5	85%
	Regional Average	45.4	42.0	-3.4	92%	43.5	40.4	-3.1	93%	10.5	8.8	-1.7	83%	22.4	22.0	-0.4	98%
INDEPENDENT CITY OF BALTIMORE		7.7	2.5	-5.2	32%	45.3	37.7	-7.6	83%	12.1	8.6	-3.5	71%	23.4	21.6	-1.8	92%
Statewide Average		19.8	15.8	-4.0	80%	43.6	37.9	-5.7	87%	10.8	8.3	-2.6	76%	22.4	20.7	-1.7	92%

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

Stream Flow Status Based on Thirty Day Average for 2023 November 07

Region	Stream Gage Location	Notes	Status Based on 30 Day Average		
			30 Day Average (cfs)	Percentage	Status
Western	Youghiogheny (near Oakland)		140	60%-65%	Normal
Western	Savage River (near Barton)		12.9	40%-45%	Normal
Western	Wills Creek (near Cumberland)		37	25%-30%	Normal
Western	Marsh Run (at Grimes)		4.4	35%-40%	Normal
Central	Catoctin Creek (near Middletown)		4.5	0%-5%	Emergency
Central	Monocacy (Jug Bridge near Frederick)		105	5%-10%	Warning
Central	Patuxent (near Unity)		8.3	5%-10%	Warning
Central	Deer Cr (at Rocks)		44.2	10%-15%	Watch
Eastern	Choptank (near Greensboro)		40.2	45%-50%	Normal
Eastern	Nassawango Creek (near Snow Hill)		9.5	40%-45%	Normal
	Susquehanna (at Marietta)		20,571	60%-65%	Normal
	Potomac (at Little Falls)(Adjusted)		1,835	5%-10%	Warning

Notes:

Ground Water Status for 07 November 2023				
Region	USGS Well ID	Well Level[1]	Status	
Western	GA Bc 1	13.33 [03]	Normal	Warning
	AL Ah 1	4.54 [02]	Normal	
	WA Be 2	35.87 [02]	Warning	
	WA Bk 25	50.72 [03]	Emergency	
Central	BA Dc 444	42.95 [03]	Warning	Warning
	BA Ea 18	27.05 [02]	Emergency	
	HA Bd 31	12.5 [02]	Normal	
	HA Ca 23	7.98 [02]	Normal	
	MO Cc 14	38.33 [02]	Normal	
Eastern	QA Cg 69	3.89 [02]	Normal	Normal
	WI Cg 20	6 [02]	Normal	
	MC51-01	12.94 [03]	Normal	
	SO Cf 2	5.28 [03]	Normal	
Southern	CH Bg 12 (unconfined)	5.1 [03]	Normal	*Normal*
	AA Cc 40 (confined)	NA[2]	Unknown	
	CA Fd 54 (confined)	241.68	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 2023-11-09

[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

November 7, 2023
(Released Thursday, Nov. 9, 2023)
Valid 7 a.m. EST
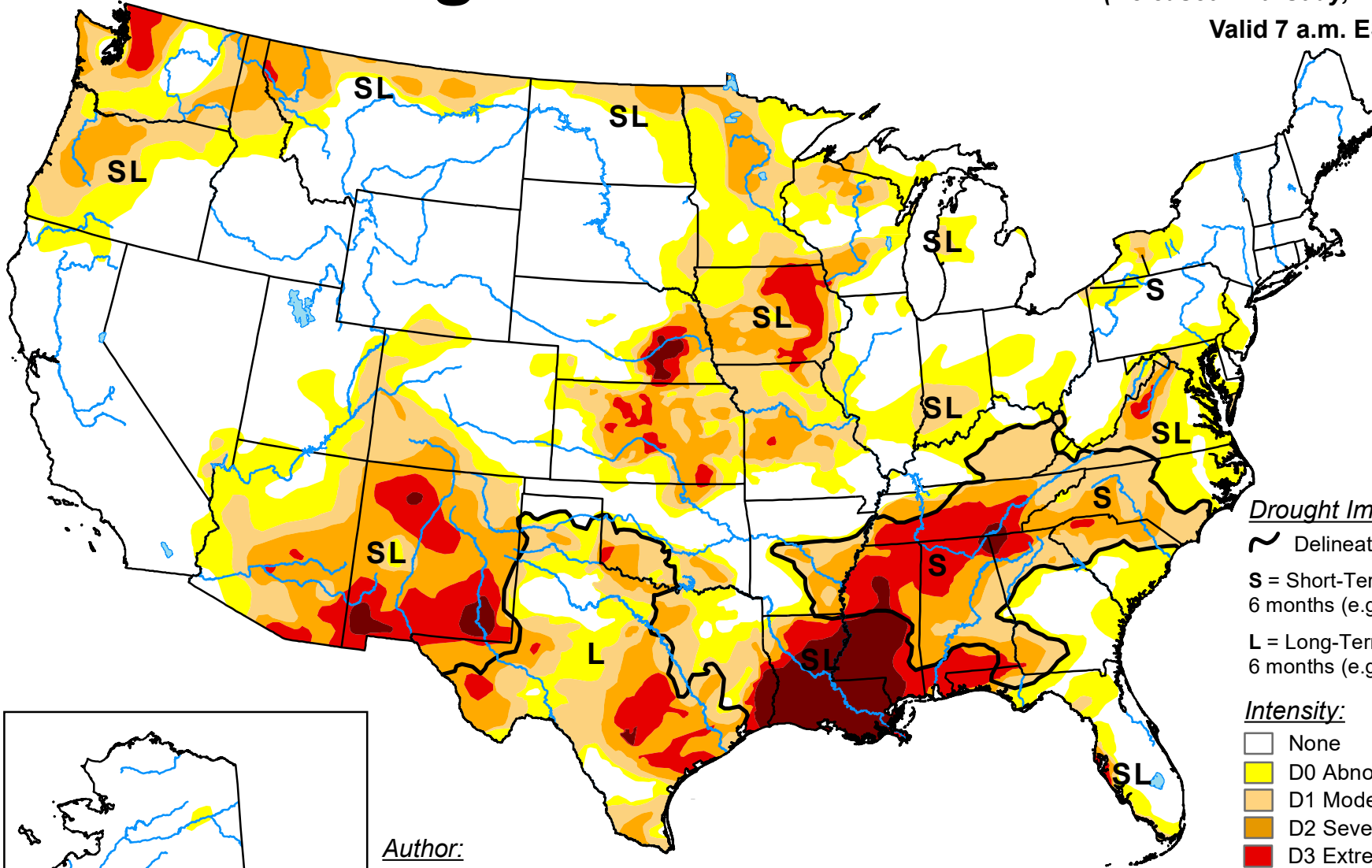
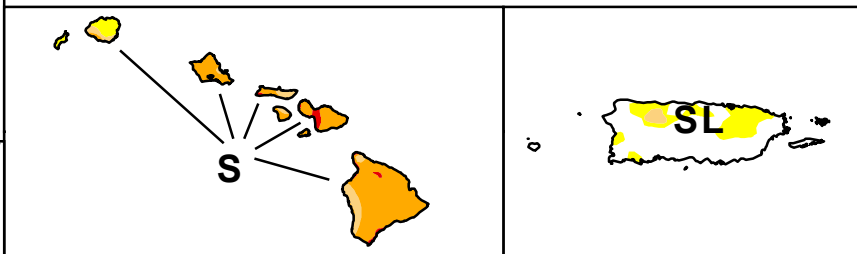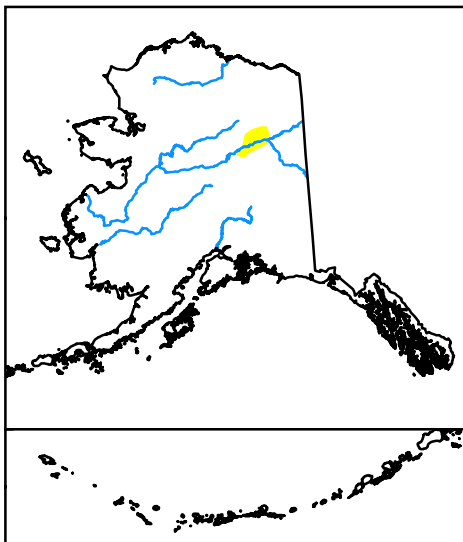### *Drought Impact Types:*

~ 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

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
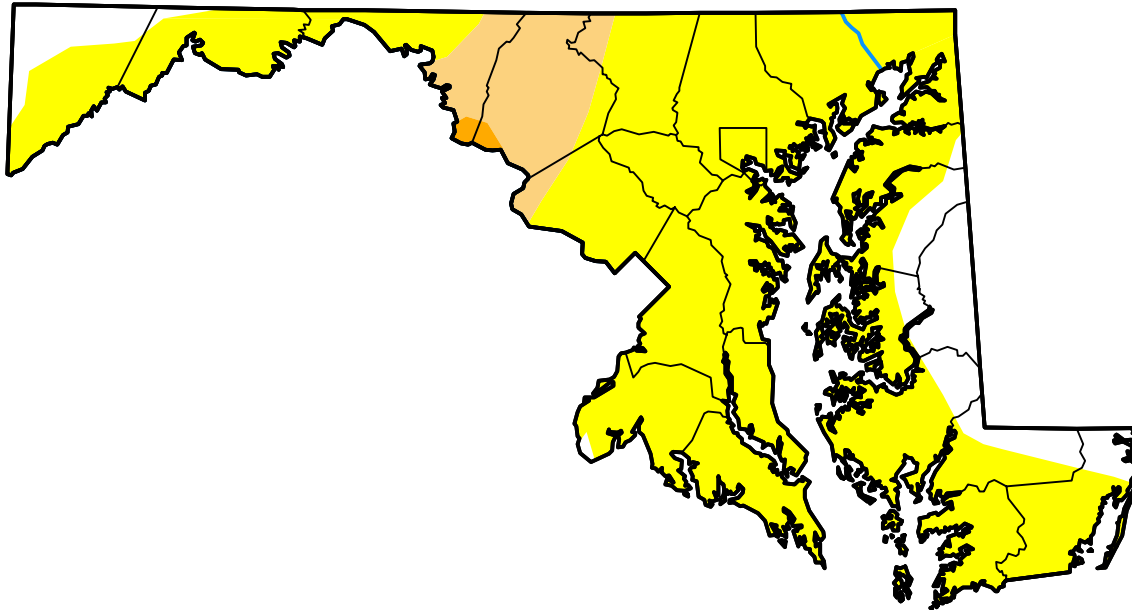
Author:
Lindsay Johnson
National Drought Mitigation Center

USDA NDMC DEPARTMENT OF COMMERCE NOAA

droughtmonitor.unl.edu

U.S. Drought Monitor
Maryland

November 7, 2023
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Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	12.82	87.18	9.86	0.47	0.00	0.00
Last Week 10-31-2023	48.31	51.69	3.33	0.47	0.00	0.00
3 Months Ago 08-08-2023	67.43	32.57	19.42	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 09-26-2023	63.11	36.89	3.30	0.47	0.00	0.00
One Year Ago 11-08-2022	67.84	32.16	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

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