

Memo

To: MCCSD Board of Directors
From: District Superintendent
cc: Jim Jackson
Date: March 22, 2023
Re: Groundwater Management Report

The 2022-23 Rain Year

October 1, 2022 was the beginning of the 2022-23 rain year. Average annual precipitation in Mendocino is 39.72 inches, and average rainfall in March is 5.97" inches. 8.80" inches of rainfall has been measured in the District for the month, as of March 22, 2023 (Figure 1, Table 1).

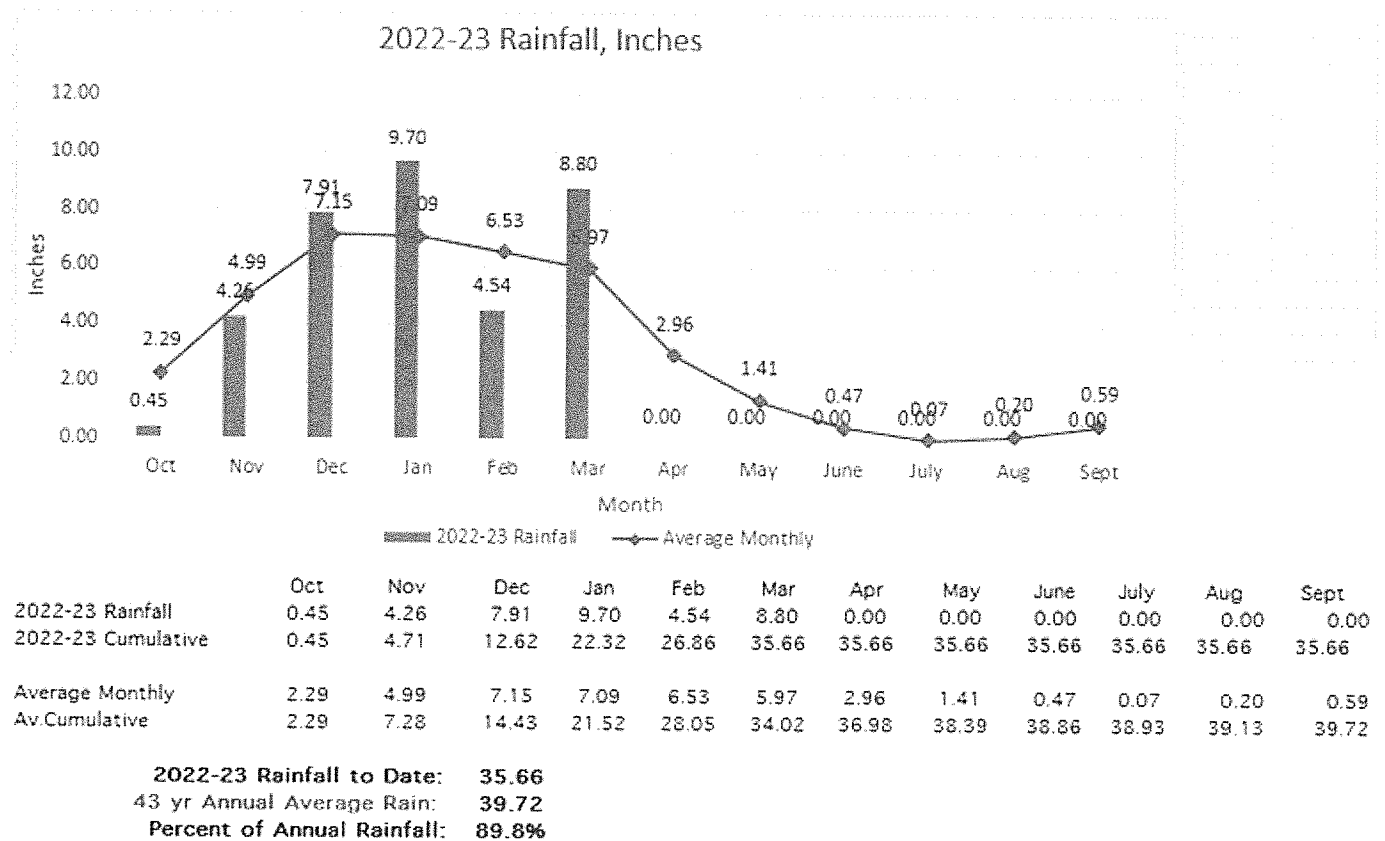


Figure 1, Table 1

Total Rainfall for Rain Year 2021-22 was 33.82" inches. Mendocino received 85% of normal annual rainfall during the last water year. By March 22, 2023, total rainfall since October 1, 2022 was 35.66" inches, 90% of average annual rainfall.

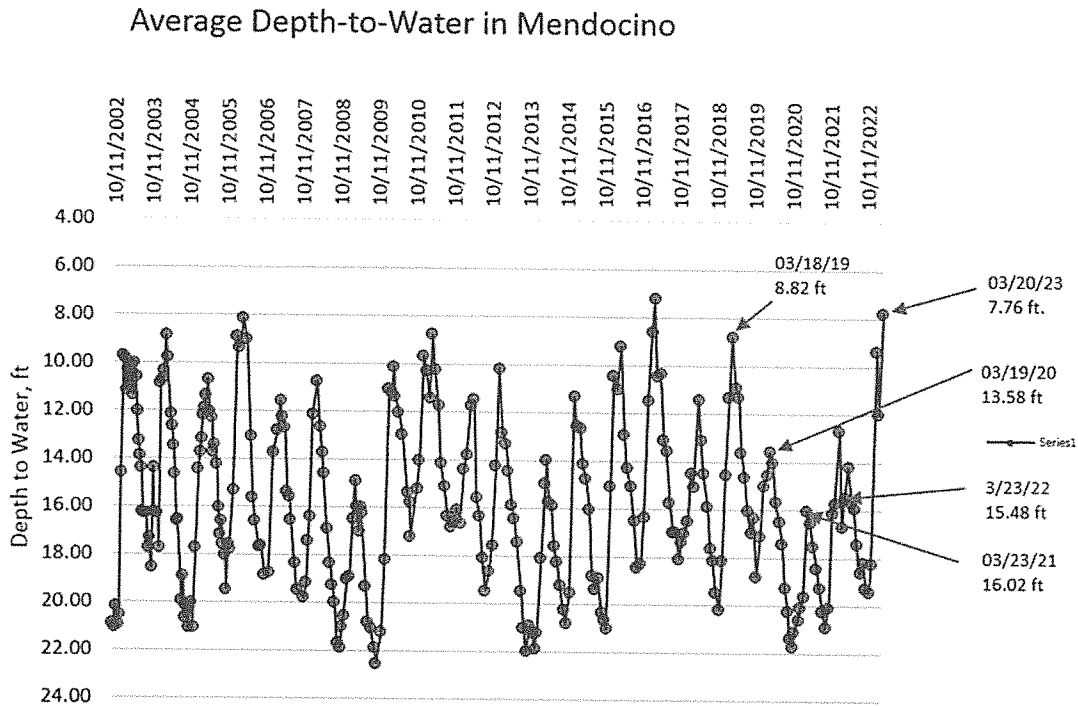
DAILY TOTAL RAINFALL													
2022-23												Elevation 72 Feet	
Data From: Community Service District												Latitude 39.306°	
Day	Oct	Nov	Dec	Jan	Feb	Mar	10AM Apr	May	Jun	Jul	Aug	Sep	Longitude -123.000°
1		0.05	0.03	0.04		0.01							
2				0.32	0.86	0.03							
3		0.02	0.19	0.32		0.47							
4	0.02	0.68	0.30	1.54	0.81	0.41							
5	0.01	0.07	0.31	0.24	0.02	0.5							
6	0.01	0.53	0.10	1.04	.01	0.2							
7		0.83	0.02	1.90		0.79							
8		0.13	0.19	0.45	0.01	0.07							
9			1.49	0.38	0.03	1.18							
10	0.03	0.01	0.71	0.14	0.35	0.05							
11	0.02	0.11	0.24	0.71		0.35							
12	0.02	0.03	0.02	1.28		0.46							
13	0.02	0.04	0.02	0.66		1.97							
14			0.01	0.17	0.15	1.18							
15		0.02	0.01	0.02		0.02							
16	0.01					0.01							
17	0.01					0.01							
18	0.02		0.03	0.47		0.37							
19			0.01	0.01		0.15							
20			0.01			0.35							
21	0.05		0.24		0.30	0.22							
22			0.09		0.24								
23			0.02		0.47								
24	0.02												
25					0.03								
26			1.53	0.01	0.68								
27		0.04	0.15		0.34								
28			0.16		0.25								
29			1.73										
30		1.70	0.30										
31	0.21												
Sum	0.45	4.26	7.91	9.70	4.54	8.80	0.00	0.00	0.00	0.00	0.00	0.00	
Count	13	14	25	18	14	21	0	0	0	0	0	0	
Max	0.21	1.70	1.73	1.90	0.86	1.97	0.00	0.00	0.00	0.00	0.00	0.00	
Rainy Days		105											
Maximum Daily Rainfall				1.97									Water year Total Rainfall 35.66

Table 1 2022-23 Rainfall Record

March 2023 Depth-to-Water (DTW)

The average DTW measurements District-wide in the 24 monitoring wells on March 20, 2023 was 7.76' ft., about 4.25 ft. better than February 2023, about 7.7 ft. better than March of 2022, and about 8.25 ft. better than March of 2021. Compared to a good rain year like 2019, which received 45.64" inches, the average depth to water is currently about 1.06 ft. better than average for the month.

Figure 2 March 2023, Depth-To-Water Chart



January 31, 2022 represents the most recent Water Shortage evaluation date. At that time depth to water measurements in the five drought monitoring wells recorded an average of 13.06 ft. and rainfall totals were 22.32" inches. The MCCSD Board declared that a Stage 1 water shortage existed within its boundaries on February 6, 2023 based the Water Shortage Contingency Plan.

The average depth-to-water reported from the five drought monitoring wells on January 31 was 13.06 ft. On March 20, 2023 it was recorded at 10.99 ft. Rainfall totals and depth to water averages are looking better this year. Late season rain still plays a critical role.

March 31, 2023 represents the next water shortage evaluation date. Following the WSCP the Superintendent recommends maintaining the Stage 1 Water Shortage at this time, and continue to monitor.