Mendocino City Community Services District

Memo

To: MCCSD Board of Directors

From: District Superintendent

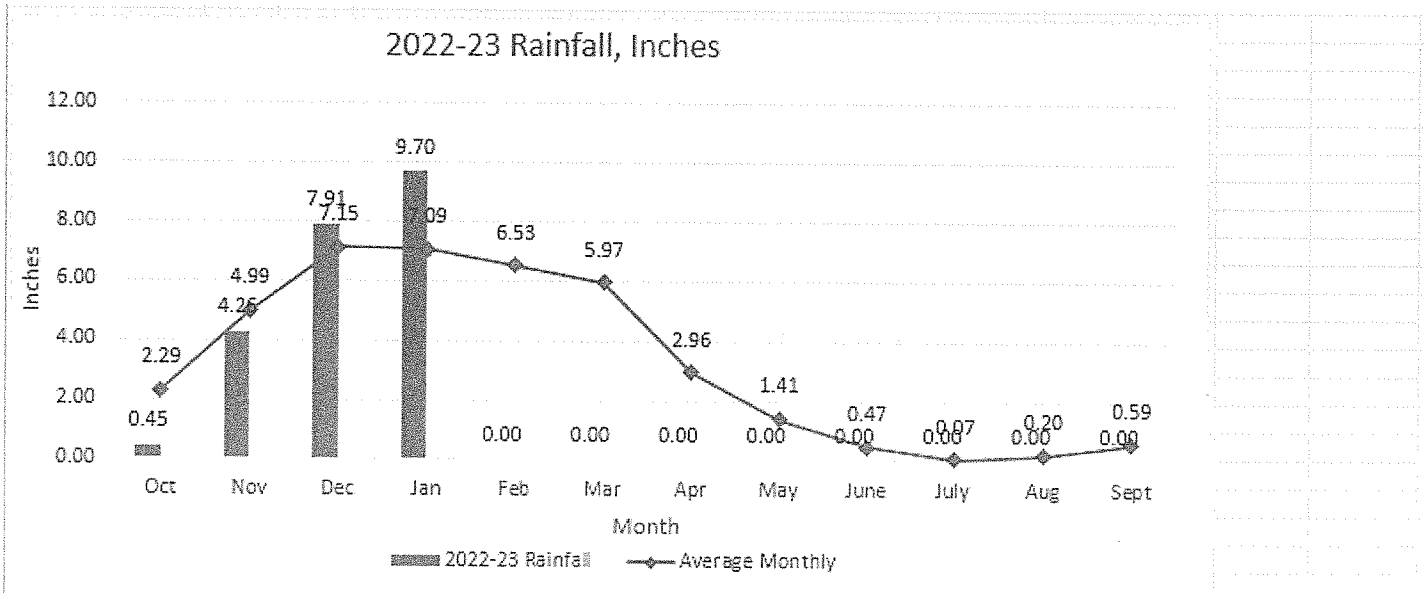
cc: Jim Jackson

Date: February 1, 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 January is 7.09" inches. 9.70" inches of rainfall has been measured in the District for the month, as of January 31, 2023 (Figure 1, Table 1).



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
2022-23 Rainfall	0.45	4.26	7.91	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2022-23 Cumulative	0.45	4.71	12.62	22.32	22.32	22.32	22.32	22.32	22.32	22.32	22.32	22.32
Average Monthly	2.29	4.99	7.15	7.09	6.53	5.97	2.96	1.41	0.47	0.07	0.20	0.59
Av.Cumulative	2.29	7.28	14.43	21.52	28.05	34.02	36.98	38.39	38.86	38.93	39.13	39.72

2022-23 Rainfall to Date: 22.32
43 yr Annual Average Rain: 39.72
Percent of Annual Rainfall: 56.2%

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 January 31, 2023, total rainfall since October 1, 2022 was 22.32" inches, 56% of average annual rainfall, and 104% of average rainfall to date.

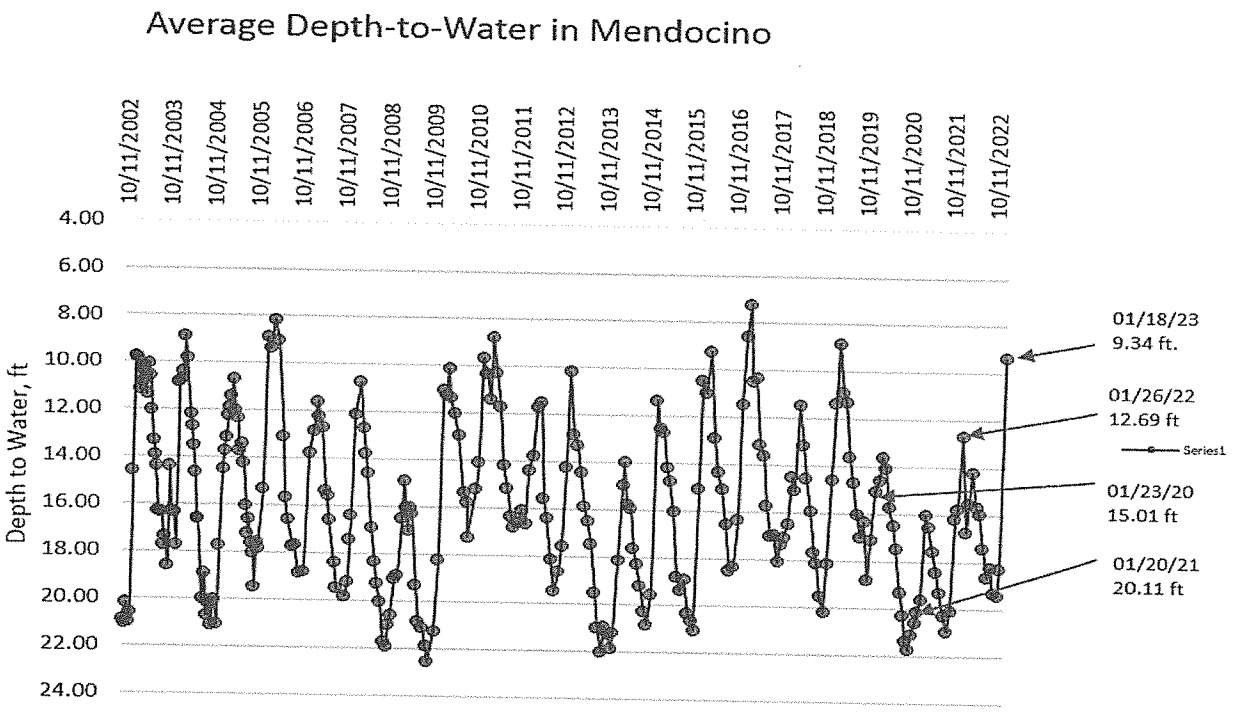
				DAILY TOTAL RAINFALL								
	2022-23										Elevation 72 Feet	
											Latitude 39.306°	
	Data From: Commumnty Service District						10AM				Longitude -123.800°	
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1		0.05	0.03	0.04								
2				0.32								
3		0.02	0.19	0.32								
4	0.02	0.68	0.30	1.54								
5	0.01	0.07	0.31	0.24								
6	0.01	0.53	0.10	1.04								
7		0.83	0.02	1.90								
8		0.13	0.19	0.45								
9			1.49	0.38								
10	0.03	0.01	0.71	0.14								
11	0.02	0.11	0.24	0.71								
12	0.02	0.03	0.02	1.28								
13	0.02	0.04	0.02	0.66								
14			0.01	0.17								
15		0.02	0.01	0.02								
16	0.01											
17	0.01											
18	0.02		0.03	0.47								
19			0.01	0.01								
20			0.01									
21	0.05		0.24									
22			0.09									
23			0.02									
24	0.02											
25												
26			1.53	0.01								
27		0.04	0.15									
28			0.16									
29			1.73									
30		1.70	0.30									
31	0.21											
Sum	0.45	4.26	7.91	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Count	13	14	25	18	0	0	0	0	0	0	0	0
Max	0.21	1.70	1.73	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rainy Days		70					Water year Total Rainfall					22.32
Maximum Daily Rainfall				1.90								

Table 1 2022-23 Rainfall Record

January 2023 Depth-to-Water (DTW)

The average DTW measurements District-wide in the 24 monitoring wells on January 18, 2022 was 9.34 ft., about 9ft ft. better than December of 2022, about 3.3 ft. better than January of 2022, and about 10.8 ft. better than January of 2021. Compared to a good rain year like 2019, which received 45.64" inches, the average depth to water is currently about 5.2 ft. better than average for the month.

Figure 2 January 2023, Depth-To-Water Chart



The average depth-to-water reported from the five drought monitoring wells on December 31, was recorded at 19.8 ft. on January 31, is was 13.06

The MCCSD Board declared that a Stage 2 water shortage existed within its boundaries on September 26, 2022, based the Water Shortage Contingency Plan and average depth to water recorded in the five drought monitoring wells as of August 31, 2022.

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"[redacted] inches.

Based on the January 31, 2023 rainfall totals, and depth to water measurements the WSCP indicates that no water shortage currently exists within the District boundaries. However the plan also advises that if there is a pre-existing stage 2 or 3 water shortage then modify the condition criteria for the next most severe water shortage condition. It is still early in the rain year and unknown if current weather patterns will continue. Following the WSCP the Superintendent recommends moving to a Stage 1 Water Shortage at this time, and continue to evaluate through the winter and spring.