## Memo

To: MCCSD Board of Directors

**From:** District Superintendent

cc: Jim Jackson

Date: September 22, 2022

**Re:** Groundwater Management Report

## The 2021-22 Rain Year

October 1, 2021 was the beginning of the 2021-22 rain year. Average annual precipitation in Mendocino is 39.72 inches, and average rainfall in September is 0.59" inches 3.43" inches of rainfall has been measured in the District for the month as of September 22, 2022 (Figure 1, Table 1).

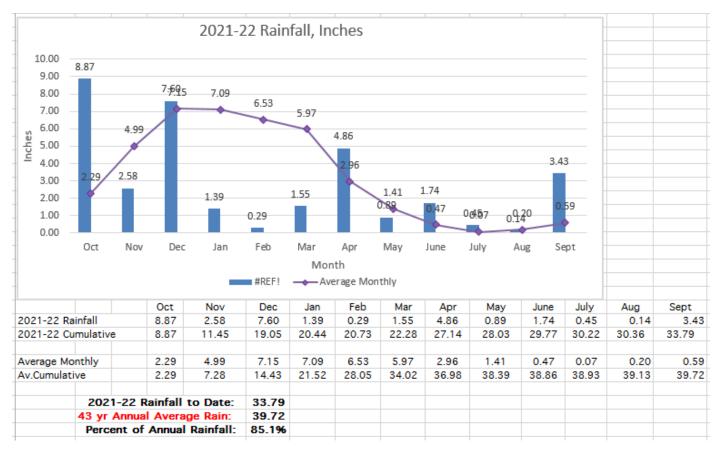


Figure 1, Table 1

## Table 1 2021-22 Rainfall Record

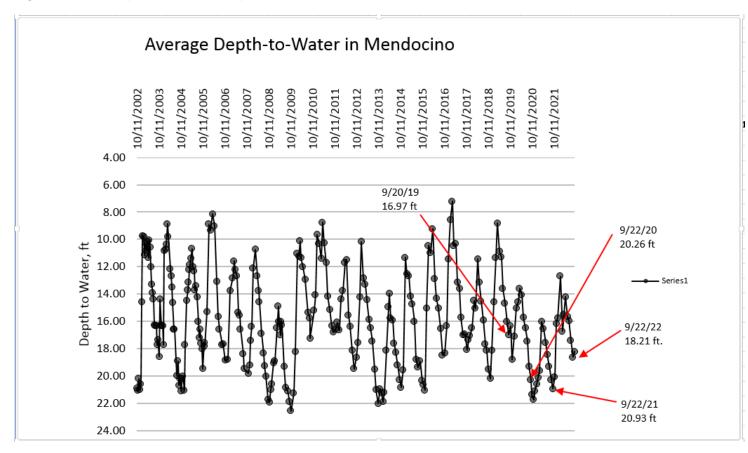
Total Rainfall for Rain Year 2020-21 was 19.6" inches. Mendocino received just 49.3% of normal annual rainfall during the last water year. By September 22, 2022, total rainfall since October 1, 2021 was 33.79" inches, 85% of average annual rainfall.

					DAILY 1	OTAL RA	INFALL					
	2021-22										Elevatii.	n 72 Feet
											Latitude 39.306*	
	Data From : Commumity Serv			rvice District	vice District		10AM				Longitude -12	
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1		0.49									0.05	
2				0.24							0.01	
3		0.40		0.38						0.03		
4				0.24			0.1		1.34	0.09		
5	0.06	0.13		0.02		0.12		0.13		0.08		
6			0.17	0.45				0.02		0.02		
7			0.03					0.23		0.05	0.01	
8		1.21		0.06				0.3		0.03		
9												
10							0.75					
11			0.97				0.04					
12			0.52			0.02	0.01		0.4			
13			0.65				1.63					
14			0.08			0.59	0.02	0.02				
15		0.10	1.30				0.84					
16			0.24									
17	0.57											
18		0.25				0.35	0.27			0.02	0.03	
19	0.60					0.03	0.14					
20	0.03						0.71			0.04		
21	1.94		0.62		0.29		0.32			0.03		
22	0.31		1.51								0.04	
23	4.05		0.09									
24	0.48		0.44			0.05						
25			0.06									
26	0.26		0.63					0.05				
27						0.39						
28			0.27					0.14				
29	0.09		0.02									
30	0.24						0.03					
31	0.24											
Sum	8.87	2.58	7.60	1.39	0.29	1.55	4.86	0.89	1.74	0.39	0.14	0.00
Count	12	6	16	6	1	7	12	7	2	9	5	0
Max	4.05	1.21	1.51	0.45	0.29	0.59	1.63	0.30	1.34	0.09	0.05	0.00
Rainy Days		83					Water year Total Rainfall				30.30	
Maximum Dail	Iaximum Daily Raintall			4.05								

## September 2022 Depth-to-Water (DTW)

The average DTW measurements District-wide in the 24 monitoring wells on September 20, 2022 was 18.21' ft. about 0.40 ft. better than last month, about 2.7 ft. better than September of 2021, and about 2.0 ft. better than September of 2020. Compared to a good rain year like 2019, which received 45.64" inches, the average depth to water is currently about 1.25 ft. below normal for the month.

Figure 2 September 2022, Depth-To-Water Chart



The average depth-to-water reported from the five drought monitoring wells on August 31, 2022 was 21.94 ft. about 0.50 ft. lower than August 23, 2022, and on September 20, 2022 it was recorded at 22.08 ft.

The MCCSD Board declared a Stage 4 Water Shortage Crisis exists within its boundaries on March 28, 2022, based on total rainfall as of that time. August 31, represents the latest Water Shortage evaluation date.

According to The Water Shortage Contingency Plan, depth to water measurements are the primary tool used this time of year for groundwater supply evaluations. Current depth to water measurements in the five drought monitoring wells as of August 31, and September 20, 2022 indicates a Stage 1 water shortage exists within the District Boundaries. Given the ongoing drought conditions over the past three years it is advised to move to the next most severe water shortage condition.

Late Spring rains, combined with strong conservation habits have likely lead to the higher than expected depth to water levels. Following the WSCP the Superintendent recommends caution and continued conservation but moving to a Stage 2 Water Shortage at this time. According to the WSCP November 30, 2022 represent the next water shortage evaluation date where both depth to water and total rainfall will be taken into consideration.