Mendocino City Community Services District

Memo

To: MCCSD Board of Directors

From: District Superintendent

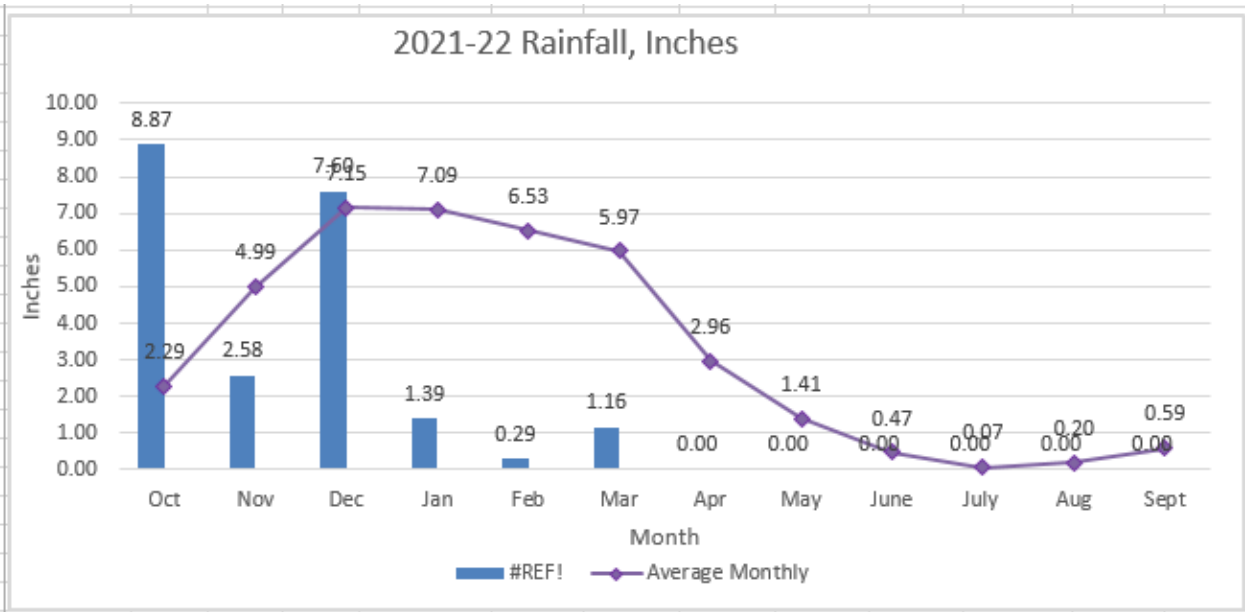
cc: Jim Jackson

Date: March 25, 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 March is 5.97" inches. Just 1.16" inches of rainfall has been measured in the District for the month as of March 25, (Figure 1, Table 1).



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
2021-22 Rainfall	8.87	2.58	7.60	1.39	0.29	1.16	0.00	0.00	0.00	0.00	0.00	0.00
2021-22 Cumulative	8.87	11.45	19.05	20.44	20.73	21.89	21.89	21.89	21.89	21.89	21.89	21.89
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

2021-22 Rainfall to Date:	**21.89**
43 yr Annual Average Rain:	**39.72**
Percent of Annual Rainfall:	**55.1%**

Figure 1, Table 1

Table 1 2021-22 Rainfall Record

				DAILY TOTAL RAINFALL								
	2021-22										*Elevation 72 Feet*	
											Latitude 39.306°	
	Data From: Communmty Service District						10AM				*Longitude -123.800°*	
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1		0.49										
2				0.24								
3		0.40		0.38								
4				0.24								
5	0.06	0.13		0.02		0.12						
6			0.17	0.45								
7			0.03									
8		1.21		0.06								
9												
10												
11			0.97									
12			0.52			0.02						
13			0.65									
14			0.08			0.59						
15		0.10	1.30									
16			0.24									
17	0.57											
18		0.25				0.35						
19	0.60					0.03						
20	0.03											
21	1.94		0.62		0.29							
22	0.31		1.51									
23	4.05		0.09									
24	0.48		0.44			0.05						
25			0.06									
26	0.26		0.63									
27												
28			0.27									
29	0.09		0.02									
30	0.24											
31	0.24											
Sum	8.87	2.58	7.60	1.39	0.29	1.16	0.00	0.00	0.00	0.00	0.00	0.00
Count	12	6	16	6	1	6	0	0	0	0	0	0
Max	4.05	1.21	1.51	0.45	0.29	0.59	0.00	0.00	0.00	0.00	0.00	0.00
Rainy Days		47					Water year Total Rainfall					21.89
Maximum Daily Rainfall				4.05								

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 March 25, 2022, total rainfall since October 1, 2021 was 21.89” inches, 55% of annual rainfall, and 19% of normal rainfall for March.

March 2022 Depth-to-Water (DTW)

The average DTW measurements District-wide in the 24 monitoring wells on March 23, 2022 was 15.48 ft.. (figure 2) about 0.5 ft. better than March of 2021.

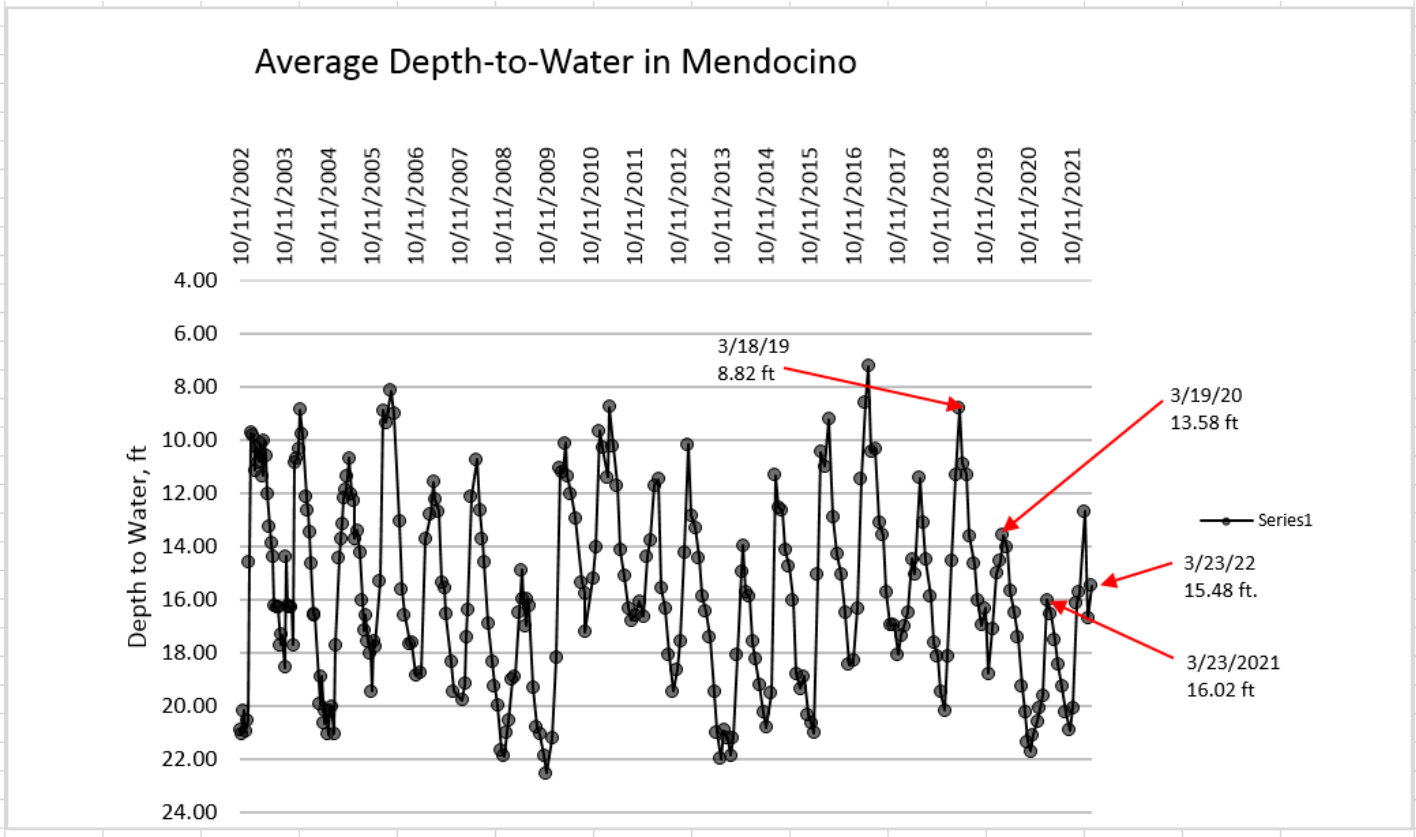


Figure 2 March 2022, Depth-To-Water Chart

The average depth-to-water reported from the five drought monitoring wells on March 23, 2022 was 18.11 ft. about 1.1 ft. worse than February of 2022.

March 31, represents another Water Shortage evaluation date. Rainfall this year has been difficult to predict. Average depth to water measurements over the 5 drought monitoring wells are continuing to decline. According to the Water Shortage Contingency Plan a “water shortage emergency should be declared when a lack of groundwater supply appears imminent.”

MCCSD Water Shortage Contingency Plan

Stages of Action and Water Shortage Condition Criteria

A water shortage emergency should be declared when a lack of groundwater supply appears imminent, such as after an unusually dry winter, or following a period of consecutive dry seasons. For the MCCSD, groundwater supply is generally adequate during the wet season from December through April, even during minor drought years. The critical period, when supplies are most likely to be short, is typically from May through November. In order to determine the

3 **Emergency**	severe	50% to 60% of normal	±15 years	8-10”	22-26” and <7” since Feb 1
					16-22” and 7-18” since Feb 1
4 **Crisis**	historic	less than 50% of normal	±50 years	<8”	16-22” and <7” since Feb 1
					<16”

**Rainfall measured from October 1.*

Also following the WSCP if the District has have not recorded 7” inches of rain fall between Feb 1, and March 31, 2022 then a Stage 4 Water Shortage Emergency Exists within the District. To date the District has recorded 1.45” inches of rainfall since Feb 1. It does not appear likely that the District will record over 7” of rain from Feb 1-March 31.

NOAA and NIDIS National Integrated Drought Information System moved Mendocino into D3 Extreme drought on February 24, 2022.

The Superintendent advises that a water shortage appears imminent for 2022 and the Board should consider moving into a Stage 4 Water Shortage at this time.