

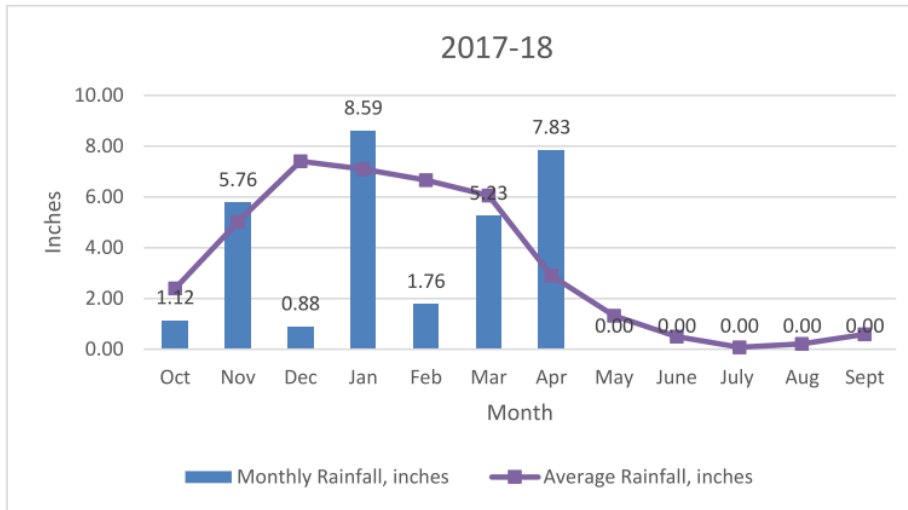
## Memo

**To:** MCCSD Board of Directors  
**From:** District Superintendent  
**cc:** Jim Jackson  
**Date:** April 19, 2018  
**Re:** April 2018 Groundwater Management Report

---

### The 2017-18 Rain Year

October 1, 2017 was the beginning of the 2017-18 rain year. Average precipitation in April is 2.90 inches. By April 19, 2018, Mendocino received 7.83 inches of rainfall. The cumulative average rainfall at the end of April is normally 34.63 inches. For this rain year, MCCSD has recorded 31.17 inches of precipitation. On April 19, 2018, the District had 90% of normal precipitation for this time of year  $[(31.17"/34.63") \cdot 100 = 90\%]$ , and 77.5 % of total average annual precipitation (Tab1-2).



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
2017-18 Rainfall	1.12	5.76	0.88	8.59	1.76	5.23	7.83	0.00	0.00	0.00	0.00	0.00
2017-18 Cumulative	1.12	6.88	7.76	16.35	18.11	23.34	31.17					
Average Monthly	2.40	5.01	7.41	7.10	6.66	6.05	2.90	1.32	0.50	0.08	0.21	0.59
Av.Cumulative	2.40	7.41	14.82	21.91	28.57	34.63	37.52	38.84	39.35	39.42	39.63	40.23

**2017-18 Rainfall to Date: 31.17**  
**29 yr Annual Average Rain: 40.23**  
**Percent of Annual Rainfall: 77.5%**

Table 1

<b>DAILY TOTAL RAINFALL</b>												
2017-18										<i>Elevation 72 Feet</i>		
										<i>Latitude 39.306°</i>		
Data From : Commumnty Service District								10AM		<i>Longitude -123.800°</i>		
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1												
2		0.26	0.38			0.32						
3						0.51						
4				0.61		0.12						
5		0.35					3.83					
6							2.51					
7				0.57		0.18						
8		0.68		1.82		0.04						
9		0.54		0.03								
10												
11					0.12		0.62					
12		0.13				0.82						
13						0.23						
14		0.19				0.26						
15		0.62		0.62		0.97	0.56					
16							0.31					
17				0.59	0.06							
18				0.35	0.20							
19	1.06	0.72	0.47									
20		0.54				0.42						
21	0.06			2.04		0.38						
22					0.13	0.06						
23		0.13				0.63						
24				1.57		0.29						
25		0.97	0.03	0.39	0.21							
26		0.63										
27												
28					1.04							
29												
30												
31												
Sum	1.12	5.76	0.88	8.59	1.76	5.23	7.83	0.00	0.00	0.00	0.00	0.00
Count	2	12	3	10	6	14	5	0	0	0	0	0
Max	1.06	0.97	0.47	2.04	1.04	0.97	3.83	0.00	0.00	0.00	0.00	0.00
Rainy Days	52							Water year Total Rainfall				31.17
Maximum Daily Rainfall				3.83								

Table 2 2017-18 Rainfall Record

2017-18 Rainfall Evaluations

The District is still in a No Water Shortage Condition. The next Water Shortage evaluation is based on the rainfall measured on May 31, 2018 (Table 3). A Water Shortage determination will be made at May of 2018 regular Board meeting on May 29, 2018. The Superintendent will make a recommendation to the Board based on Table 3 of the Water Shortage Contingency Plan (see Table 3 below).

**Table 3: Water Shortage Stage Criteria**

Water Shortage Stage	Severity	Rainfall	Expected Recurrence	Evaluation Date/ Cumulative Rainfall Total		
				Jan. 31	March 31	May 31
<b>1 Alert</b>	mild	75% to 82.5% of normal	±5 years	14-19"	29-32" and <7" since Feb 1	32-35" and <12" since Feb 1
					26-29" and 7-18" since Feb 1	29-32" and 10-20" since Feb 1
					22-26" and >18" since Feb 1	24-29" and >20" since Feb 1
<b>2 Warning</b>	moderate	60% to 75% of normal	±8 years	10-14"	26-29" and <7" since Feb 1	29-32" and <10" since Feb 1
					22-26" and 7-18" since February 1	24-29" and 10-20" since February 1
					16-22" and >18" since Feb 1	20-24" and >20" since Feb 1
<b>3 Emergency</b>	severe	50% to 60% of normal	±15 years	8-10"	22-26" and <7" since Feb 1	24-29" and <10" since Feb 1
					16-22" and 7-18" since Feb 1	20-24" and 10-20" since Feb 1
<b>4 Crisis</b>	historic	less than 50% of normal	±50 years	<8"	16-22" and <7" since Feb 1	20-24" and <10" since Feb 1
					<16"	<20"

\*Rainfall measured from October 1.

On April 19<sup>th</sup>, total rainfall was 31.17 Inches. On May 31<sup>st</sup>, there is a possibility of a Stage 1 Water Shortage declaration:

29"-32" and 10-20" since February 1—Stage 1

If there are more than 32 inches of rainfall at the end of May, the District will remain in a No Water Shortage Condition.

Depth-To-Water (DTW)

The DTW measurements in the District's 24 monitoring wells on April 19, 2018 was 11.43 ft. Above average rainfall in April helped to significantly recharge the local aquifer (Figure 1).

# Mendocino Depth to Water, ft

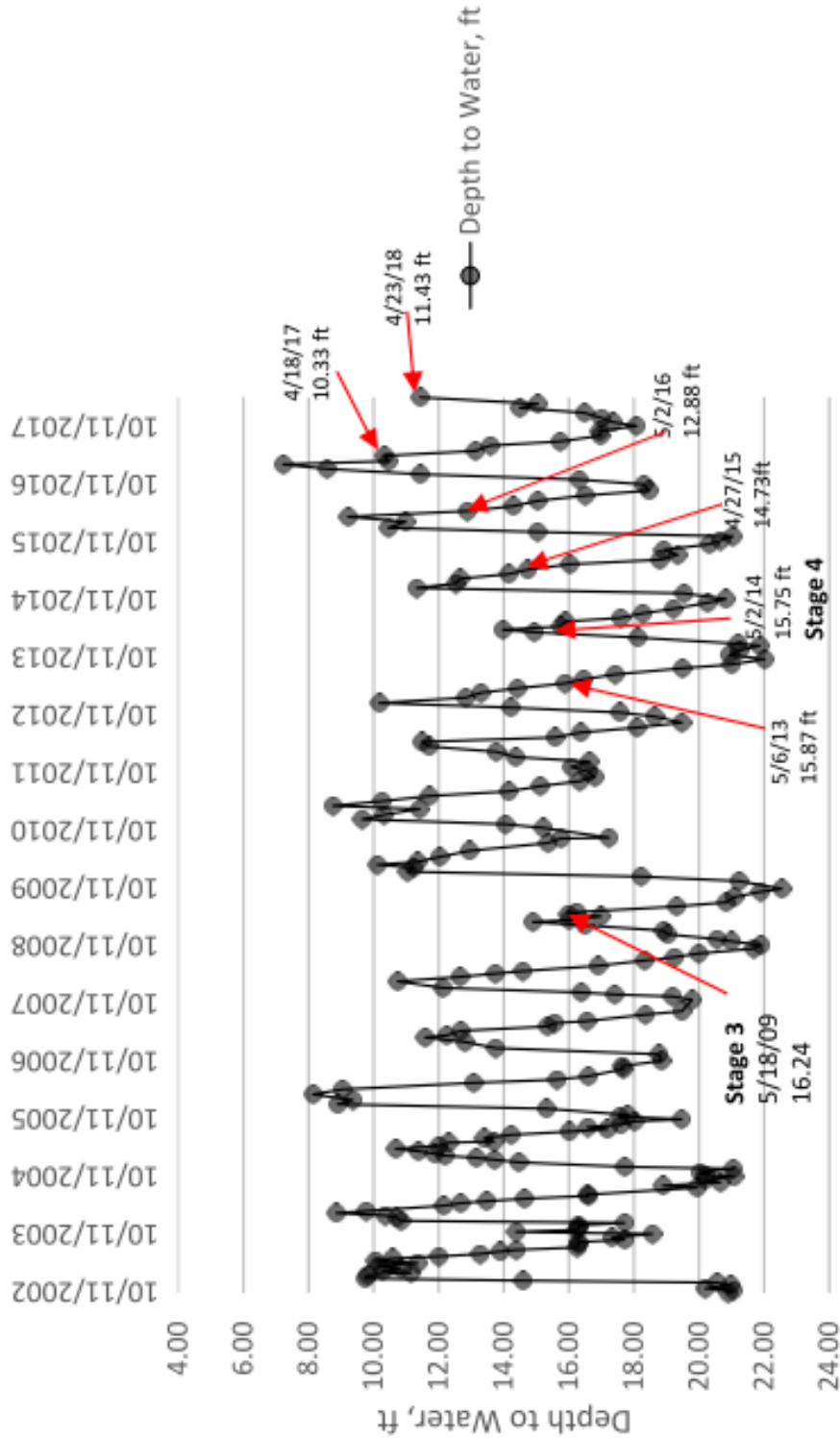


Figure 1

April 2018 DTW Chart