

## 2020 - WATER CONSUMPTION

DATE	Lake Mitchell Influent MG	B-Y Rural Water Influent MG	Effluent to Water Towers MG
6/1/2020	0-MG	2.660	2.578
6/2/2020	0-MG	2.902	3.000
6/3/2020	0-MG	2.914	2.928
6/4/2020	0-MG	1.945	1.789
6/5/2020	0-MG	2.946	3.125
6/6/2020	0-MG	2.669	2.674
6/7/2020	0-MG	2.030	1.907
6/8/2020	0-MG	2.725	2.684
6/9/2020	0-MG	1.973	2.068
6/10/2020	0-MG	1.865	1.557
6/11/2020	0-MG	2.18	2.150
6/12/2020	0-MG	2.183	2.252
6/13/2020	0-MG	2.714	2.713
6/14/2020	0-MG	3.161	2.973
6/15/2020	0-MG	2.447	2.384
6/16/2020	0-MG	2.909	2.862
6/17/2020	0-MG	3.329	3.241
6/18/2020	0-MG	2.563	2.453
6/19/2020	0-MG	2.952	2.862
6/20/2020	0-MG	1.657	1.475
6/21/2020	0-MG	2.433	2.487
6/22/2020	0-MG	1.236	1.283
6/23/2020	0-MG	2.615	2.559
6/24/2020	0-MG	2.786	2.705
6/25/2020	0-MG	2.664	2.586
6/26/2020	0-MG	2.589	2.497
6/27/2020	0-MG	2.064	1.863
6/28/2020	0-MG	2.194	2.243
6/29/2020	0-MG	2.796	2.691
6/30/2020	0-MG	2.586	2.541
<b>TOTALS</b>	<b>0-MG</b>	<b>74.687</b>	<b>73.130</b>

<u>Date</u>	<u>Source</u>	<u>Site</u>	<u>Chlorine PPM</u> 0.5PPM-4.00PPM	<u>Bacteria</u>
6/3/2020	Queen of Peace	#3	2.97	Absent
6/3/2020	East Cenex Store	#4	2.61	Absent
6/3/2020	J-Mart Sinclair	#5	2.59	Absent
6/3/2020	Arnies	#8	2.94	Absent
6/3/2020	Wesly Acres	#9	2.57	Absent
6/3/2020	Culvers	#10	2.63	Absent
6/3/2020	GT Body	#20	2.10	Absent
6/10/2020	Water Treatment Plant	#1	2.67	Absent
6/10/2020	Fire Dept	#2	2.46	Absent
6/10/2020	Dakota Medical Specialis	#6	2.60	Absent
6/10/2020	Erickson Oil Products	#7	2.49	Absent
6/10/2020	Mitchell Tech Inst	#16	2.58	Absent
6/10/2020	Holy Family Church	#17	2.71	Absent
6/10/2020	Mitchell Middle School	#18	2.49	Absent
6/10/2020	Brady Memorial Home	#19	2.71	Absent
<b>Average</b>			<b>2.61</b>	<b>Absent</b>

# CITY OF MITCHELL

## Monthly - Chemical Inventory at the Water Treatment Plant

Date: 7/1/20

Coagulant – (AF-1102) 903 Gallons

Lime 159,104 lbs. or 79.552 Ton's

Fluoride 814 Gallon's

Sodium Chlorite – (PHI-3125) 80 Gallon's

Polymer-(PHI-2386) 5 Gallon's  
(AF-84500) 225 Gallon's

Activated Carbon 6,650 lbs. or 3.325 Ton's

Chlorine 275 lbs. or 0.137 Ton

Poly-phosphate 2650 lbs. or 1.325 Ton's

Carbon Dioxide 0 Lbs. or 0 Ton's

Ammonia 671 lbs. or 0.335 Ton's

# MONTHLY -- B-Y WATER- GALLON AND CHEMICAL USAGE REPORT

MONTH --- June      YEAR - 2020

Influent ----- 74.687-- Million Gallon's

Effluent ----- 73.130 -- Million Gallon's

Chemical costs for B-Y Water:

Chlorine usage ----- 10 lbs. @ \$1.45 per lb. = \$14.50

Ammonia usage ----- 2 lbs. @ \$2.17 per lb. = \$4.34

Poly -phosphate----- 750 lbs. @ \$1.75 per lb. = \$1312.5

Total = \$1331.34

Cost per Unit (750 gallon) = \$0.013

Cost per 1,000 gallons of water = \$0.018

# CITY OF MITCHELL

## MONTHLY WATER TREATMENT CHEMICAL COMSUMPTION REPORT MONTH / YEAR—June, 2020----- Jon Vermeulen – Utilities Superintendent

Coagulant Aid- (2187)	=	<u>0</u> -Gals.	X	<u>CONTRACT</u>	=	<u>\$0.00</u>
Lime	=	<u>0#</u> or <u>0</u> - TON'S	X	<u>\$192.39/TON</u>	=	<u>\$0.00</u>
Sodium Chlorite	=	<u>0</u> -GAL.	X	<u>CONTRACT</u>	=	<u>\$0.00</u>
Fluoride	=	<u>0</u> -GAL.	X	<u>\$1.99/GAL.</u>	=	<u>\$0.00</u>
Polymer (2386)	=	<u>0</u> -GAL.	X	<u>CONTRACT</u>	=	<u>\$0.00</u>
Activated Carbon	=	<u>0#</u> or <u>0</u> - TON'S	X	<u>\$1,936.25/TON</u>	=	<u>\$0.00</u>
Chlorine	=	<u>10#</u> or <u>0</u> - TON'S	X	<u>\$1.45/LB.</u>	=	<u>\$14.50</u>
Poly Phosphate	=	<u>750#</u> or <u>.40</u> TON	X	<u>\$1.75/LB.</u>	=	<u>\$1,312.50</u>
Carbon Dioxide	=	<u>0#</u> or <u>0</u> - TON'S	X	<u>\$178.00/TON</u>	=	<u>\$0.00</u>
Ammonia	=	<u>2#</u> or <u>0</u> - TON'S	X	<u>\$2.17 /LB.</u>	=	<u>\$4.34</u>
Pristine Contract	=	<u>0</u> -MG of WATER	X	<u>.255/1000 GALS. RAW WATER</u>	=	<u>\$0.00</u>
TOTAL =						<u>\$1,331.34</u>

Raw Water Treated (LAKE) 0 MG-----or 0 MGD-----or----- PEAK DAY 0 MG  
 Finished Water (EFFLUENT) 73.130 MG-----or 2.438 MGD-----or----- PEAK DAY 3.241 MG  
 B-Y- Water (INFLUENT) 74.687 MG----- or 2.490 MGD-----or----- PEAK DAY 3.329 MG  
 B-Y & RAW WATER TREATED – TOTAL= 74.687 MG --- or 2.490 MGD ----or ----- PEAK DAY 3.329 MG

Chemical cost = 1,331.34 = \$17.82 per MG or 0.013 cents per Unit (750 GALLONS).

### CHEMICAL FEED RATES IN Mg/L

Coagulant Aid- (2187)	=	<u>0</u> Mg/L --	<u>0</u> Gallons / Raw Water
Lime	=	<u>0</u> Mg/L	<u>0</u> lbs. / 7 lbs. Per Gallon/ Raw Water
Sodium Chlorite	=	<u>0</u> Mg/L --	<u>0</u> Gallons / Raw Water
Fluoride	=	<u>0</u> Mg/L --	<u>0</u> Gallons / Raw Water
Polymer (2386)	=	<u>0</u> Mg/L --	<u>0</u> Gallons / Raw Water
Activated Carbon	=	<u>0</u> Mg/L --	<u>0</u> lbs. / 4 lbs. per Gallon / Raw Water
Chlorine	=	<u>0</u> Mg/L --	<u>10</u> lbs. / 11.75 lbs. per Gallon / Raw Water
Poly Phosphate	=	<u>2.3</u> Mg/L--	<u>800</u> lbs. / 10.5 lbs. per Gallon / Raw Water
Carbon Dioxide	=	<u>0</u> Mg/L --	<u>0</u> lbs. / 8.50 lbs. per Gallon / Raw Water
Ammonia	=	<u>0</u> Mg/L --	<u>2</u> lbs. / 5.15 lbs. per Gallon / Raw Water
Polymer	=	<u>0</u> Mg/L --	<u>0</u>

# City of Mitchell Water Rate Charged

7/1/2020

	Base Rate (1,000 Gallons)	Added Rate (1,000 Gallons)	Combined Rate (1,000 Gallons)
Use below 2.65 MGD =	\$1.06	\$0.00	\$1.06
Use between 2.65 MGD to 2.90 MGD =	\$1.06	\$1.00	\$2.06
Use between 2.90 MGD to 3.15 MGD =	\$1.06	\$1.50	\$2.56
All use over 3.15 MGD =	\$1.06	\$2.00	\$3.06

Month: 5

Year: 2020

Billing Month: 7

Day of Month	24 Hour Use(Kgal)	Use Above 2.65 MGD	Base Rate Use	Base Rate Cost	2.65 - 2.9 MGD Useage	2.65 - 2.9 MGD Added Cost	2.9 - 3.15 MGD Useage	2.9 - 3.15 MGD Added Cost	All Use Over 3.15 MGD	All Use Over 3.15 MGD Cost	Total Daily Cost
28	2,281,000	0	2,281,000	\$2,417.86	0	\$0.00	0	\$0.00	0	\$0.00	\$2,417.86
29	2,643,000	0	2,643,000	\$2,801.58	0	\$0.00	0	\$0.00	0	\$0.00	\$2,801.58
30	1,725,000	0	1,725,000	\$1,828.50	0	\$0.00	0	\$0.00	0	\$0.00	\$1,828.50
31	2,063,000	0	2,063,000	\$2,186.78	0	\$0.00	0	\$0.00	0	\$0.00	\$2,186.78
<b>TOTALS</b>	<b>8,712,000</b>	<b>0</b>	<b>8,712,000</b>	<b>\$9,234.72</b>	<b>0</b>	<b>\$0.00</b>	<b>0</b>	<b>\$0.00</b>	<b>0</b>	<b>\$0.00</b>	<b>\$9,234.72</b>

Previous Month Read = 11,470,920,000  
 Current Month Read = 11,479,632,000  
 Current Month Use = 8,712,000

	Total Cost	Gallons Used	Base Cost	Cost Over 2.65MGD
Days billed in May =	\$9,234.72	8,712,000	\$9,234.72	\$0.00
Days carried from previous month =	\$0.00	0	\$0.00	\$0.00
<b>Total bill for May =</b>	<b>\$9,234.72</b>	<b>8,712,000</b>	<b>\$9,234.72</b>	<b>\$0.00</b>

Days that will be billed in July = \$9,234.72

Note: May billing meter was read on May 28th @ 12 a.m. therefore May 28th to 31st days are included in July billing.

# City of Mitchell Water Rate Charged

7/1/2020

	Base Rate (1,000 Gallons)	Added Rate (1,000 Gallons)	Combined Rate (1,000 Gallons)
Use below 2.65 MGD =	\$1.23	\$0.00	\$1.23
Use between 2.65 MGD to 2.90 MGD =	\$1.23	\$1.00	\$2.23
Use between 2.90 MGD to 3.15 MGD =	\$1.23	\$1.50	\$2.73
All use over 3.15 MGD =	\$1.23	\$2.00	\$3.23

Month: 6

Year: 2020

Billing Month: 7

Day of Month	24 Hour Use(Kgal)	Use Above 2.65 MGD	Base Rate Use	Base Rate Cost	2.65 - 2.9 MGD Usage	2.65 - 2.9 MGD Added Cost	2.9 - 3.15 MGD Usage	2.9 - 3.15 MGD Added Cost	All Use Over 3.15 MGD	All Use Over 3.15 MGD Cost	Total Daily Cost
1	2,849,000	199,000	2,849,000	\$3,504.27	199,000	\$199.00	0	\$0.00	0	\$0.00	\$3,703.27
2	2,663,000	13,000	2,663,000	\$3,275.49	13,000	\$13.00	0	\$0.00	0	\$0.00	\$3,288.49
3	2,969,000	319,000	2,969,000	\$3,651.87	250,000	\$250.00	69,000	\$103.50	0	\$0.00	\$4,005.37
4	2,298,000	0	2,298,000	\$2,826.54	0	\$0.00	0	\$0.00	0	\$0.00	\$2,826.54
5	2,711,000	61,000	2,711,000	\$3,334.53	61,000	\$61.00	0	\$0.00	0	\$0.00	\$3,395.53
6	2,729,000	79,000	2,729,000	\$3,356.67	79,000	\$79.00	0	\$0.00	0	\$0.00	\$3,435.67
7	2,377,000	0	2,377,000	\$2,923.71	0	\$0.00	0	\$0.00	0	\$0.00	\$2,923.71
8	2,786,000	136,000	2,786,000	\$3,426.78	136,000	\$136.00	0	\$0.00	0	\$0.00	\$3,562.78
9	1,778,000	0	1,778,000	\$2,186.94	0	\$0.00	0	\$0.00	0	\$0.00	\$2,186.94
10	2,033,000	0	2,033,000	\$2,500.59	0	\$0.00	0	\$0.00	0	\$0.00	\$2,500.59
11	2,167,000	0	2,167,000	\$2,665.41	0	\$0.00	0	\$0.00	0	\$0.00	\$2,665.41
12	2,154,000	0	2,154,000	\$2,649.42	0	\$0.00	0	\$0.00	0	\$0.00	\$2,649.42
13	2,397,000	0	2,397,000	\$2,948.31	0	\$0.00	0	\$0.00	0	\$0.00	\$2,948.31
14	3,323,000	673,000	3,323,000	\$4,087.29	250,000	\$250.00	250,000	\$375.00	173,000	\$346.00	\$5,058.29
15	2,550,000	0	2,550,000	\$3,136.50	0	\$0.00	0	\$0.00	0	\$0.00	\$3,136.50
16	2,757,000	107,000	2,757,000	\$3,391.11	107,000	\$107.00	0	\$0.00	0	\$0.00	\$3,498.11
17	3,124,000	474,000	3,124,000	\$3,842.52	250,000	\$250.00	224,000	\$336.00	0	\$0.00	\$4,428.52
18	2,514,000	0	2,514,000	\$3,092.22	0	\$0.00	0	\$0.00	0	\$0.00	\$3,092.22
19	2,923,000	273,000	2,923,000	\$3,595.29	250,000	\$250.00	23,000	\$34.50	0	\$0.00	\$3,879.79
20	1,969,000	0	1,969,000	\$2,421.87	0	\$0.00	0	\$0.00	0	\$0.00	\$2,421.87
21	2,086,000	0	2,086,000	\$2,565.78	0	\$0.00	0	\$0.00	0	\$0.00	\$2,565.78
22	2,608,000	0	2,608,000	\$3,207.84	0	\$0.00	0	\$0.00	0	\$0.00	\$3,207.84
23	2,315,000	0	2,315,000	\$2,847.45	0	\$0.00	0	\$0.00	0	\$0.00	\$2,847.45
24	2,764,000	114,000	2,764,000	\$3,399.72	114,000	\$114.00	0	\$0.00	0	\$0.00	\$3,513.72
25	2,652,000	2,000	2,652,000	\$3,261.96	2,000	\$2.00	0	\$0.00	0	\$0.00	\$3,263.96
26	2,565,000	0	2,565,000	\$3,154.95	0	\$0.00	0	\$0.00	0	\$0.00	\$3,154.95
27	2,332,000	0	2,332,000	\$2,868.36	0	\$0.00	0	\$0.00	0	\$0.00	\$2,868.36
28	1,885,000	0	1,885,000	\$2,318.55	0	\$0.00	0	\$0.00	0	\$0.00	\$2,318.55
29	3,064,000	414,000	3,064,000	\$3,768.72	250,000	\$250.00	164,000	\$246.00	0	\$0.00	\$4,264.72
30	2,539,000	0	2,539,000	\$3,122.97	0	\$0.00	0	\$0.00	0	\$0.00	\$3,122.97
31	0	0	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00
<b>TOTALS</b>	<b>75,881,000</b>	<b>2,864,000</b>	<b>75,881,000</b>	<b>\$93,333.63</b>	<b>1,961,000</b>	<b>\$1,961.00</b>	<b>730,000</b>	<b>\$1,095.00</b>	<b>173,000</b>	<b>\$346.00</b>	<b>\$96,735.63</b>

Previous Month Read = 11,470,920,000  
 Current Month Read = 11,555,513,000  
 Current Month Use = 84,593,000

**Total Cost**      **Gallons Used**      **Base Cost**      **Cost Over 2.65MGD**  
 Days billed in June = \$96,735.63      75,881,000      \$93,333.63      \$3,402.00  
 Days carried from previous month = \$9,234.72      8,712,000      \$9,234.72      \$0.00  
**Total bill for June = \$105,970.35      84,593,000      \$102,568.35      \$3,402.00**

Days that will be billed in July = \$0.00

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Note: May billing meter was read on May 28th @ 12 a.m. therefore May 28th to 31st days will be included in July billing.