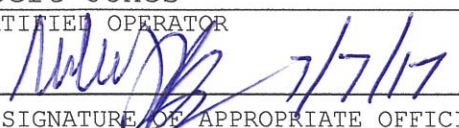


**MONTHLY OPERATION REPORT  
OF  
WATER TREATMENT PLANT**

**For Month of June 2017**

<u>Flint Water Plant</u> NAME OF WATER SYSTEM	<u>2310</u> WSSN	<u>Genesee</u> COUNTY
<u>Robert Jones</u> CERTIFIED OPERATOR		<u>D-1</u> CLASSIFICATION
 SIGNATURE OF APPROPRIATE OFFICIAL		

**TREATMENT RATE AND FILTER DATA**

1. Treatment Rate, Maximum 14.40 Million Gallons Per Day
2. Treatment Rate, Approved Rated Plant Capacity 36 Million Gallons per Day
3. Average Filter Run N/A Hours, Average Head Loss N/A Feet
4. Average Filtration Rate N/A Gallons per Square Ft. per Minute
5. Maximum Filtration Rate N/A Gallons per Square Ft. per Minute
6. Average Wash Water Use N/A percent of Treated Water

**CHEMICAL DATA**

7. Sodium Hypochlorite on hand at CS2 6487 gal.: Estimated supply 90 days
8. Sodium Hypochlorite on hand at outstations 550 gal: Estimated supply 68 days
9. Phosphoric Acid on hand 1981 gal.: Estimated supply 31 days
9. Sodium Hydroxide on hand 1991 gal.: Estimated supply 27 days

**Remarks:**

Submit to: MDEQ - Office of Drinking Water & Municipal Assistance  
LANSING DISTRICT OFFICE  
525 West Allegan Street, 1st Floor South  
(Constitution Hall)  
PO Box 30242  
Lansing, MI 48909-7742



Jun-17

DATE	Total Million Gallons Purchased	Phosphate as PO <sub>4</sub> (mg/L)	Phosphate applied as PO <sub>4</sub> (mg/L)	Phosphate as PO <sub>4</sub> (mg/L)	25% Caustic Soda (mg/l)	Turbidity, NTU units						
						CSII	Tap	Raw				Plant Tap
		# of Samples	Avg.	Max	# of Samples			Avg.	Max			
		1	1A	1B	6			6a	7	8		9
1	12.3	1.3	2.42	3.6	2.14					2	0.14	0.14
2	12.1	1.4	2.33	3.8	2.34					2	0.22	0.29
3	11.6	1.2	2.34	3.4	2.42					2	0.12	0.10
4	11.3	1.2	2.58	3.6	2.43					2	0.10	0.10
5	11.9	1.3	2.57	3.7	2.52					2	0.11	0.11
6	11.3	1.2	2.44	3.6	2.62					2	0.10	0.11
7	10.6	1.2	2.49	3.7	2.61					2	0.10	0.12
8	14.2	1.3	2.42	3.5	2.68					2	0.12	0.12
9	10.6	1.3	2.61	3.7	2.71					2	0.17	0.19
10	12.2	1.3	2.60	3.7	2.72					2	0.16	0.16
11	13.9	1.2	2.59	3.7	2.76					2	0.09	0.09
12	15.6	1.3	2.38	3.6	2.82					2	0.14	0.15
13	10.6	1.5	2.58	3.8	2.82					2	0.37	0.42
14	11.7	1.3	2.39	3.9	2.93					2	0.30	0.44
15	14.2	1.1	2.49	3.4	2.90					2	0.07	0.08
16	12.4	1.2	2.71	3.7	2.85					2	0.08	0.09
17	10.8	1.2	2.70	3.8	2.85					2	0.09	0.10
18	9.9	1.2	2.52	3.8	2.84					2	0.09	0.11
19	13.6	1.1	2.41	3.5	2.86					2	0.07	0.07
20	12.7	1.1	2.45	3.5	2.87					2	0.07	0.07
21	9.8	1.1	2.51	3.4	2.81					2	0.08	0.09
22	9.7	1.1	2.46	3.6	2.91					2	0.07	0.08
23	13.7	1.2	2.52	3.6	2.84					2	0.13	0.13
24	13.0	1.2	2.57	3.6	2.84					2	0.11	0.12
25	9.4	1.1	2.46	3.6	2.84					2	0.08	0.09
26	10.9	1.1	2.61	3.6	2.82					2	0.11	0.15
27	14.4	1.3	2.52	3.8	2.79					2	0.12	0.20
28	13.8	1.3	2.48	3.6	2.59					2	0.12	0.15
29	10.2	1.1	2.57	3.6	2.76					2	0.09	0.12
30	8.9	1.1	2.68	3.7	2.79					2	0.08	0.08
AVG	11.90	1.21	2.51	3.63	2.72					2	0.12	0.14
MAX	15.57	1.51	2.71	3.94	2.93					2	0.37	0.44
MIN	8.86	1.07	2.33	3.37	2.14					2	0.07	0.07
Total	357.13											



**Fluoridation & Chlorination**

**WSSN 2310**

**Jun-17**

DATE	Fluoride Applied F <sup>-</sup> mg/l	Fluoride Analyses mg/l			Chlorine App. Mg/l			Chlorine Residual mg/l								
		Raw	Tap	Dist	Chlorine App. Mg/l	Chlorine (prior to filtration) mg/L OCl <sup>-</sup>	Post Chlorine mg/L	Sta II	Dort	3MG Well	Tap					
								Free	Free	Free	Free					
		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1			0.74		1.14				0.9						1.9	
2			0.76		1.14				0.9						1.7	
3			0.83		1.16				0.9						1.9	
4			0.78		1.18				1.0						2.0	
5			0.80		1.18				1.0						1.8	
6			0.77		1.22				0.9						2.0	
7			0.90		1.22				0.8						1.8	
8			0.82		1.06				0.9						1.8	
9			0.78		1.10				0.7						1.8	
10			0.77		1.21				0.8						1.9	
11			0.76		1.17				0.9						1.9	
12			0.80		1.16				0.9						1.8	
13			0.80		1.17				0.9						1.9	
14			0.79		1.19				1.0						1.9	
15			0.77		1.33				0.9						1.9	
16			0.80		1.25				0.9						1.9	
17			0.85		1.33				0.8						1.9	
18			0.79		1.39				0.9						2.0	
19			0.82		1.39				0.8						1.8	
20			0.81		1.33				0.9						2.0	
21			0.83		1.36				0.8						1.9	
22			0.88		1.37				0.9						1.9	
23			0.74		1.36				0.9						1.8	
24			0.71		1.27				0.8						1.7	
25			0.84		1.32				0.8						1.9	
26			0.87		1.37				0.8						1.8	
27			0.82		1.25				0.9						1.8	
28			0.72		1.24				0.9						1.9	
29			0.78		1.38				0.9						1.9	
30			0.86		1.44				0.9						1.9	
AVG			0.80		1.26				0.9						1.9	
MAX			0.90		1.44				1.0						2.0	
MIN			0.71		1.06				0.7						1.7	



**Chemical Analyses                      WSSN 2310                      Jun-17**

D A T E	pH		Total Hardness as CaCO <sub>3</sub> mg/l		Total Alkalinity as CaCO <sub>3</sub> mg/l		NonCarbonate Hardness as CaCO <sub>3</sub> mg/l		Iron mg/L		Calcium Ca <sup>2+</sup> mg/l		Magnesium as Mg <sup>2+</sup> mg/l		Chloride as Cl <sup>-</sup> mg/l	
	CSII	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap
	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
1	7.35	7.45		98		74		24		0.01		31.3		4.9		14
2	7.32	7.40		94		70		24		0.02		28.9		5.3		13
3	7.33	7.39		98		70		28		0.01		32.9		3.9		13
4	7.35	7.51		98		74		24		0.02		32.9		3.9		13
5	7.40	7.44		96		74		22		0.01		29.7		5.3		13
6	7.47	7.50		96		74		22		0.02		29.7		5.3		13
7	7.48	7.52		100		74		26		0.02		30.5		5.8		13
8	7.40	7.48		98		74		24		0.01		30.5		5.3		13
9	7.38	7.39		96		72		24		0.02		29.7		5.3		13
10	7.42	7.43		98		74		24		0.01		28.9		6.3		14
11	7.38	7.45		100		72		28		0.01		29.7		6.3		14
12	7.39	7.47		100		74		26		0.01		30.5		5.8		13
13	7.38	7.45		98		74		24		0.01		28.1		6.8		13
14	7.46	7.48		98		74		24		0.01		29.7		5.8		13
15	7.46	7.46		98		76		22		0.01		29.7		5.8		14
16	7.42	7.49		98		72		26		0.01		28.9		6.3		14
17	7.41	7.49		96		74		22		0.01		29.7		5.3		13
18	7.30	7.41		96		74		22		0.01		28.9		5.8		14
19	7.41	7.44		98		76		22		0.01		29.7		5.8		14
20	7.43	7.46		100		76		24		0.01		29.7		6.3		14
21	7.40	7.49		100		78		22		0.01		28.9		6.8		14
22	7.41	7.51		100		76		24		0.01		30.5		5.8		14
23	7.43	7.44		100		74		26		0.03		32.1		4.9		13
24	7.46	7.53		102		72		30		0.02		31.3		5.8		14
25	7.43	7.61		100		72		28		0.01		30.5		5.8		13
26	7.37	7.45		102		70		32		0.01		32.1		5.3		13
27	7.45	7.52		100		70		30		0.01		31.3		5.3		13
28	7.41	7.54		100		74		26		0.01		30.5		5.8		13
29	7.43	7.54		98		76		22		0.01		28.9		6.3		13
30	7.45	7.49		98		72		26		0.01		29.7		5.8		13
AVG	7.41	7.47		98		74		25		0.01		30.2		5.6		13
MAX	7.48	7.61		102		78		32		0.03		32.9		6.8		14.0
MIN	7.30	7.39		94		70		22		0.01		28.1		3.9		13.0



WSSN 2310

Jun-17

D A T E	Total Coliform						Standard Plate Count	Conductivity (mS)	Temp deg.C	Color		Odor			
	Plant Tap									Raw	Tap	Raw	Tap	Raw	Tap
			Dort	3MG Well	Sta II	Lab Tap									
	60	61	62	63	64	65									
1					2/0	2/0			0.21	10.7					
2					2/0	2/0			0.21	10.7					
3					2/0	2/0			0.22	10.8					
4					2/0	2/0			0.21	10.6					
5					2/0	2/0			0.21	11.6					
6					2/0	2/0			0.21	11.1					
7					2/0	2/0		<2	0.21	11.3					
8					2/0	2/0			0.21	11.6					
9					2/0	2/0			0.21	12.1					
10					2/0	2/0			0.21	13.1					
11					2/0	2/0			0.21	13.3					
12					2/0	2/0			0.22	13.8					
13					2/0	2/0		<2	0.22	14.4					
14					2/0	2/0			0.22	13.8					
15					2/0	2/0			0.21	13.3					
16					2/0	2/0			0.21	14.0					
17					2/0	2/0			0.21	14.3					
18					2/0	2/0			0.22	14.6					
19					2/0	2/0			0.23	14.2					
20					2/0	2/0		<2	0.23	14.3					
21					2/0	2/0			0.23	13.7					
22					2/0	2/0			0.23	13.8					
23					2/0	2/0			0.23	14.0					
24					2/0	2/0			0.23	13.6					
25					2/0	2/0			0.23	13.4					
26					2/0	2/0			0.23	13.3					
27					2/0	2/0		<2	0.23	12.8					
28					2/0	2/0			0.23	13.1					
29					2/0	2/0			0.23	13.2					
30					2/0	2/0			0.23	13.8					
AVG									0.22	12.9					
MAX									0.23	14.6					
MIN									0.21	10.6					



Distribution System Monitoring WSSN 2310

Jun-17

DATE	Free Chlorine Residual at Bacteriological Monitoring Stations mg/l																									Number of Samples				
	1	2	3	4	CS	6	7	8	9	10	WR**	12	13	14	15	16	17	18	19	20	21	22	23	24	25					
1							1.13	1.57	1.54	1.68									1.09					1.32		6				
2	1.30	1.30	1.44	1.28																1.43					1.30	6				
3																										0				
4																										0				
5	1.26	1.23	1.40	1.45	1.58	1.17															1.07					7				
6							1.41	1.52	1.06	1.58		1.46											1.24			6				
7													0.99	1.60	0.87	1.40	1.51	0.83					1.65			7				
8					1.40	1.05						1.59								1.23	1.42			1.14		6				
9													1.01	1.44	0.97	1.59	1.44	0.96							1.29	7				
10																										0				
11																										0				
12	1.32	1.30	1.50	1.36	1.38	1.26																0.89				7				
13							1.24	1.55	1.48	1.57		1.39											1.26			6				
14													1.30	1.63	1.11	1.47	1.49	0.78						1.52		7				
15							1.45	1.59	1.46	1.60										1.11	1.24				1.17	7				
16	1.30	1.06	1.38	1.52																0.77					1.41	6				
17																										0				
18																										0				
19	1.21	1.22	1.26	1.37	1.30	1.02																0.84				7				
20							1.34	1.71	1.03	1.57		1.46											1.05			6				
21													1.12	1.62	0.74	1.62	1.51	0.75						1.78		7				
22					1.52	0.45						1.44								0.42				1.11		5				
23													0.88	1.48	0.83	1.57	1.58	0.95							1.01	7				
24																										0				
25																										0				
26	1.22	1.24	1.26	1.29	1.62	0.70															1.23					7				
27							1.22	1.63	1.20	1.54		1.77											1.29			6				
28													0.91	1.48	0.88	1.65	1.54	1.14					1.67			7				
29							1.30	1.56	1.57	1.59										0.64				1.45		6				
30	1.27	1.16	1.38	1.40																1.02	1.33				1.00	7				
<b>Monthly Cl<sub>2</sub> Avg.</b>				<b>1.29</b>																										
<b>Total Samples</b>				<b>143</b>																										



Distribution System Monitoring

WSSN 2310

Jun-17

DATE	Total Chlorine Residual at Bacteriological Monitoring Stations mg/l																									Number of Samples			
	1	2	3	4	CS	6	7	8	9	10	WR**	12	13	14	15	16	17	18	19	20	21	22	23	24	25				
1							1.47	1.79	1.74	1.80									1.33					1.51		6			
2	1.39	1.38	1.57	1.58																1.57					1.44	6			
3																										0			
4																										0			
5	1.39	1.38	1.61	1.60	1.83	1.33															1.22					7			
6							1.51	1.79	1.22	1.76		1.64										1.45				6			
7													1.19	1.74	1.01	1.75	1.68	0.99					1.88			7			
8					1.51	1.38						1.71							1.36	1.54				1.42		6			
9													1.13	1.60	1.22	1.72	1.69	1.25							1.46	7			
10																										0			
11																										0			
12	1.45	1.48	1.71	1.61	1.55	1.41															1.03					7			
13							1.50	1.74	1.66	1.78		1.57										1.43				6			
14													1.44	1.73	1.28	1.60	1.60	0.94					1.67			7			
15							1.53	1.72	1.64	1.71									1.24	1.35				1.32		7			
16	1.46	1.31	1.72	1.73															0.92						1.62	6			
17																										0			
18																										0			
19	1.38	1.32	1.50	1.51	1.46	1.22															1.03					7			
20							1.48	1.80	1.23	1.73		1.69										1.20				6			
21													1.25	1.80	0.97	1.72	1.61	0.91					1.95			7			
22					1.69	0.70						1.54							0.57					1.40		5			
23													1.07	1.68	1.15	1.76	1.71	1.18							1.15	7			
24																										0			
25																										0			
26	1.45	1.32	1.55	1.51	1.81	0.92															1.40					7			
27							1.33	1.76	1.34	1.72		1.86										1.45				6			
28													1.13	1.62	1.27	1.77	1.65	1.24					1.90			7			
29							1.43	1.77	1.66	1.71									0.92					1.53		6			
30	1.41	1.28	1.50	1.52															1.16	1.46					1.17	7			
<b>Monthly Cl<sub>2</sub> Avg.</b>					<b>1.47</b>																								
<b>Total Samples</b>					<b>143</b>																								



**ROUTINE POSITIVE DISTRIBUTION SAMPLES**

**Jun-17**

Total number of positive routine samples:				Total Coliform: <u>0</u>			E.coli Bacteria: <u>0</u>		Chlorine Residual (mg/L)	
Date	Monitoring Station	Total Coliform	E.coli Bacteria	Date	Time	Retest of Station, Upstream & Downstream	Total Coliform	E.coli Bacteria	Free	Total
Total number of routine distribution samples analyzed:				143						
Total number of routine distribution samples required:				100						