

HEADWORKS INFLUENT METERS

(LASER)

(ULTRASONIC)

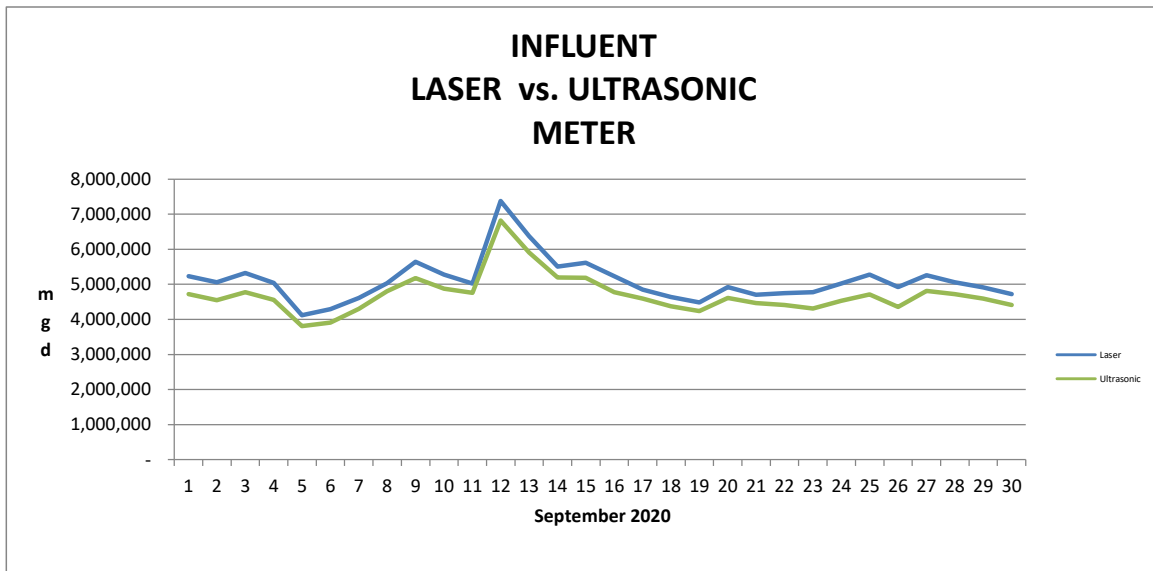
MONTH: September

DATE		FLOW GALLONS		FLOW GALLONS	% DIFF
1		5,232,000		4,718,000	9.82
2		5,056,000		4,548,000	10.05
3		5,322,000		4,777,000	10.24
4		5,037,000		4,553,000	9.61
5		4,120,000		3,812,000	7.48
6		4,291,000		3,911,000	8.86
7		4,607,000		4,300,000	6.66
8		5,027,000		4,806,000	4.40
9		5,646,000		5,177,000	8.31
10		5,278,000		4,879,000	7.56
11		5,026,000		4,761,000	5.27
12		7,380,000		6,816,000	7.64
13		6,377,000		5,908,000	7.35
14		5,504,000		5,195,000	5.61
15		5,616,000		5,187,000	7.64
16		5,235,000		4,773,000	8.83
17		4,852,000		4,590,000	5.40
18		4,642,000		4,373,000	5.79
19		4,482,000		4,241,000	5.38
20		4,923,000		4,612,000	6.32
21		4,704,000		4,466,000	5.06
22		4,750,000		4,414,000	7.07
23		4,777,000		4,312,000	9.73
24		5,018,000		4,531,000	9.71
25		5,276,000		4,714,000	10.65
26		4,922,000		4,356,000	11.50
27		5,262,000		4,809,000	8.61
28		5,059,000		4,724,000	6.62
29		4,909,000		4,590,000	6.50
30		4,719,000		4,413,000	6.48

153,049,000

141,266,000

DIFF= 11,783,000



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

*** PLANT FLOW vs. METER STATIONS FLOW ***

MONTH: SEPTEMBER

YEAR: 2020

DATE	(LASER)	(LASER)	(LASER)	PLANT vs. M.STATIONS	
	PLANT FLOW GALLONS	METER STATIONS FLOW GALLONS	PLANT FLOW MINUS HAULERS' GALLONS	DIFFERENCE GALLONS	% DIFFERENCE
1	5,232,000	4,934,100	5,222,060	287,960	5.51 % DIFFERENCE
2	5,056,000	4,663,800	5,051,720	387,920	7.68 % DIFFERENCE
3	5,322,000	4,905,300	5,301,690	396,390	7.48 % DIFFERENCE
4	5,037,000	4,560,200	5,024,250	464,050	9.24 % DIFFERENCE
5	4,120,000	3,756,000	4,120,000	364,000	8.83 % DIFFERENCE
6	4,291,000	3,901,200	4,291,000	389,800	9.08 % DIFFERENCE
7	4,607,000	4,204,000	4,602,130	398,130	8.65 % DIFFERENCE
8	5,027,000	5,033,200	5,027,000	(6,200)	(0.12) % DIFFERENCE
9	5,646,000	5,647,200	5,641,220	(5,980)	(0.11) % DIFFERENCE
10	5,278,000	5,286,300	5,268,560	(17,740)	(0.34) % DIFFERENCE
11	5,026,000	5,300,700	5,022,160	(278,540)	(5.55) % DIFFERENCE
12	7,380,000	7,773,800	7,380,000	(393,800)	(5.34) % DIFFERENCE
13	6,377,000	6,720,500	6,377,000	(343,500)	(5.39) % DIFFERENCE
14	5,504,000	5,777,900	5,498,920	(278,980)	(5.07) % DIFFERENCE
15	5,616,000	5,897,500	5,610,260	(287,240)	(5.12) % DIFFERENCE
16	5,235,000	5,405,700	5,224,660	(181,040)	(3.47) % DIFFERENCE
17	4,852,000	5,009,300	4,846,940	(162,360)	(3.35) % DIFFERENCE
18	4,642,000	4,513,900	4,642,000	128,100	2.76 % DIFFERENCE
19	4,482,000	4,362,300	4,482,000	119,700	2.67 % DIFFERENCE
20	4,923,000	4,780,600	4,923,000	142,400	2.89 % DIFFERENCE
21	4,704,000	4,696,700	4,678,600	(18,100)	(0.39) % DIFFERENCE
22	4,750,000	4,698,600	4,750,000	51,400	1.08 % DIFFERENCE
23	4,777,000	4,512,800	4,777,000	264,200	5.53 % DIFFERENCE
24	5,018,000	4,740,400	5,007,410	267,010	5.33 % DIFFERENCE
25	5,276,000	4,953,900	5,268,890	314,990	5.98 % DIFFERENCE
26	4,922,000	4,629,900	4,922,000	292,100	5.93 % DIFFERENCE
27	5,262,000	4,940,100	5,262,000	321,900	6.12 % DIFFERENCE
28	5,059,000	4,869,900	5,054,500	184,600	3.65 % DIFFERENCE
29	4,909,000	4,722,400	4,903,540	181,140	3.69 % DIFFERENCE
30	4,719,000	4,382,700	4,709,910	327,210	6.95 % DIFFERENCE
TOTAL:	153,049,000	149,580,900	152,890,420	3,309,520	2.16 %
AVERAGE:	5,101,633	4,825,190		110,317	
MAXIMUM:	7,380,000	7,773,800			
MINIMUM:					

ULTRASONIC INFLUENT TOTAL FLOW vs LASER INFLUENT TOTAL FLOW

MILLION GALLONS		Difference	
ULTRASONIC	144,085,000	=	8,964,000
LASER	153,049,000		

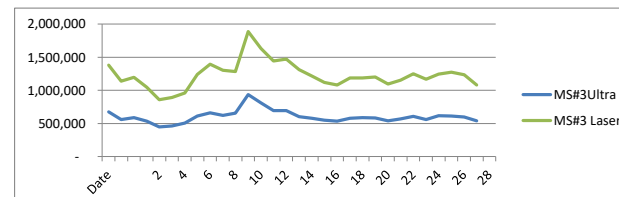
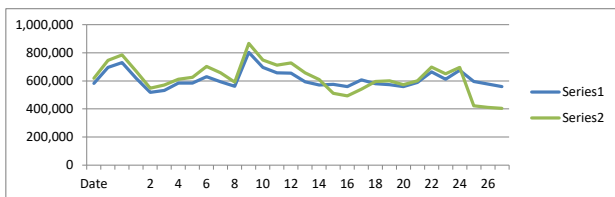
LITTLE CHUTE (September 2020)

		MS#2		
	Ultrasonic		Laser	%
Date	Gallons		Gallons	Diff
1	581,000		619,000	(6.54)
2	695,000		745,000	(7.19)
3	730,000		785,000	(7.53)
4	618,000		669,000	(8.25)
5	517,000		547,000	(5.80)
6	531,000		570,000	(7.34)
7	584,000		612,000	(4.79)
8	584,000		625,000	(7.02)
9	629,000		702,000	(11.61)
10	593,000		656,000	(10.62)
11	561,000		591,000	(5.35)
12	803,000		867,000	(7.97)
13	696,000		749,000	(7.61)
14	657,000		713,000	(8.52)
15	655,000		728,000	(11.15)
16	593,000		658,000	(10.96)
17	571,000		610,000	(6.83)
18	576,000		511,000	11.28
19	559,000		493,000	11.81
20	607,000		541,000	10.87
21	579,000		595,000	(2.76)
22	573,000		601,000	(4.89)
23	560,000		572,000	(2.14)
24	588,000		601,000	(2.21)
25	663,000		698,000	(5.28)
26	612,000		651,000	(6.37)
27	676,000		696,000	(2.96)
28	595,000		423,000	28.91
29	578,000		410,000	29.07
30	558,000		404,000	27.60
TOTAL	18,322,000		18,642,000	

		MS#3		
	Ultrasonic		Laser	%
Date	Gallons		Gallons	Diff
1	675,000		1,380,000	(104.44)
2	562,000		1,138,000	(102.49)
3	590,000		1,198,000	(103.05)
4	536,000		1,048,000	(95.52)
5	449,000		857,000	(90.87)
6	461,000		893,000	(93.71)
7	506,000		959,000	(89.53)
8	613,000		1,241,000	(102.45)
9	660,000		1,394,000	(111.21)
10	622,000		1,303,000	(109.49)
11	654,000		1,284,000	(96.33)
12	936,000		1,885,000	(101.39)
13	811,000		1,629,000	(100.86)
14	696,000		1,445,000	(107.61)
15	695,000		1,474,000	(112.09)
16	605,000		1,311,000	(116.69)
17	581,000		1,215,000	(109.12)
18	551,000		1,119,000	(103.09)
19	534,000		1,081,000	(102.43)
20	581,000		1,187,000	(104.30)
21	590,000		1,189,000	(101.53)
22	583,000		1,201,000	(106.00)
23	539,000		1,097,000	(103.53)
24	567,000		1,152,000	(103.17)
25	606,000		1,250,000	(106.27)
26	560,000		1,167,000	(108.39)
27	618,000		1,247,000	(101.78)
28	615,000		1,274,000	(107.15)
29	598,000		1,236,000	(106.69)
30	538,000		1,081,000	(100.93)
TOTAL	18,132,000		36,935,000	

Avg	Avg Daily	Avg	
610,733	DIFF	621,400	(1.406)
	(10,667)		

Avg	Avg Daily	Avg	
604,400	DIFF	1,231,167	#####
	(626,767)		



KIMBERLY

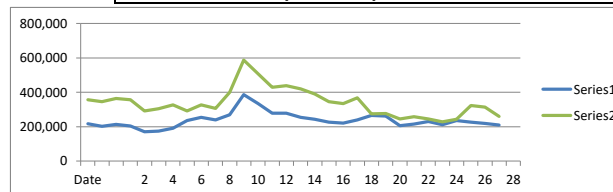
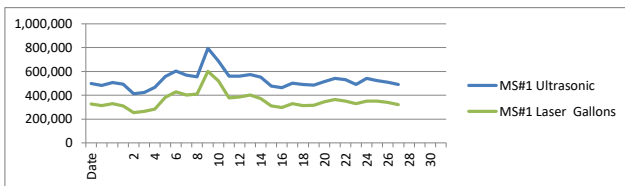
MS#1			
	Ultrasonic		Laser
Date	Gallons		Gallons
			% Diff
1	499,000		326,000 34.67
2	482,000		312,000 35.27
3	507,000		329,000 35.11
4	492,000		310,000 36.99
5	412,000		253,000 38.59
6	423,000		264,000 37.59
7	465,000		283,000 39.14
8	558,000		382,000 31.54
9	602,000		429,000 28.74
10	567,000		401,000 29.28
11	554,000		409,000 26.17
12	793,000		601,000 24.21
13	687,000		519,000 24.45
14	561,000		377,000 32.80
15	561,000		385,000 31.37
16	574,000		401,000 30.14
17	552,000		372,000 32.61
18	476,000		309,000 35.08
19	462,000		298,000 35.50
20	502,000		328,000 34.66
21	490,000		313,000 36.12
22	485,000		316,000 34.85
23	515,000		345,000 33.01
24	542,000		363,000 33.03
25	531,000		351,000 33.90
26	491,000		328,000 33.20
27	542,000		350,000 35.42
28	523,000		351,000 32.89
29	509,000		341,000 33.01
30	489,000		321,000 34.36
TOTAL	15,846,000		10,667,000

COMBINED LOCKS

MS#4			
	Ultrasonic		Laser
Date	Gallons		Gallons
			% Diff
1	218,000		356,000 (63.30)
2	203,000		346,000 (70.44)
3	214,000		365,000 (70.56)
4	204,000		357,000 (75.00)
5	171,000		292,000 (70.76)
6	175,000		304,000 (73.71)
7	192,000		327,000 (70.31)
8	236,000		291,000 (23.31)
9	254,000		327,000 (28.74)
10	240,000		306,000 (27.50)
11	270,000		400,000 (48.15)
12	386,000		587,000 (52.07)
13	335,000		507,000 (51.34)
14	279,000		430,000 (54.12)
15	279,000		439,000 (57.35)
16	254,000		420,000 (65.35)
17	244,000		390,000 (59.84)
18	227,000		346,000 (52.42)
19	221,000		334,000 (51.13)
20	240,000		367,000 (52.92)
21	265,000		274,000 (3.40)
22	262,000		277,000 (5.73)
23	206,000		246,000 (19.42)
24	216,000		259,000 (19.91)
25	230,000		245,000 (6.52)
26	212,000		229,000 (8.02)
27	235,000		244,000 (3.83)
28	227,000		324,000 (42.73)
29	220,000		314,000 (42.73)
30	210,000		260,000 (23.81)
TOTAL	7,125,000		10,163,000

Avg	Avg Daily	Avg	
528,200	DIFF	355,567	33.12
	172,633		

Avg	Avg Daily	Avg	
237,500	DIFF	338,767	(43.147)
	(101,267)		



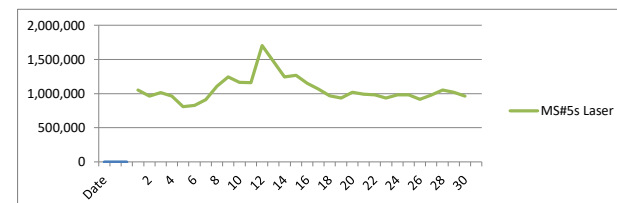
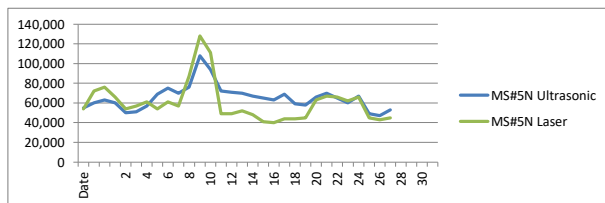
KAUKAUNA (September 2020)

Date	MS#5N		% Diff
	Ultrasonic Gallons	Laser Gallons	
1	55,000	54,000	1.82
2	60,000	72,000	(20.00)
3	63,000	76,000	(20.63)
4	60,000	66,000	(10.00)
5	50,000	54,000	(8.00)
6	51,000	57,000	(11.76)
7	57,000	61,000	(7.02)
8	69,000	54,000	21.74
9	75,000	61,000	18.67
10	70,000	57,000	18.57
11	76,000	87,000	(14.47)
12	108,000	128,000	(18.52)
13	94,000	111,000	(18.09)
14	72,000	49,000	31.94
15	71,000	49,000	30.99
16	70,000	52,000	25.71
17	67,000	48,000	28.36
18	65,000	41,000	36.92
19	63,000	40,000	36.51
20	69,000	44,000	36.23
21	59,000	44,000	25.42
22	58,000	45,000	22.41
23	66,000	63,000	4.55
24	70,000	67,000	4.29
25	65,000	66,000	(1.54)
26	60,000	62,000	(3.33)
27	67,000	66,000	1.49
28	49,000	45,000	8.16
29	47,000	43,000	8.51
30	53,000	45,000	15.09
TOTAL	1,959,000	1,807,000	

Date	MS#5s		% Diff
	Ultrasonic Gallons	Laser Gallons	
1	Meter		
2	Failed.		
3		1,050,000	
4		964,000	
5		1,014,000	
6		964,000	
7		807,000	
8		828,000	
9		911,000	
10		1,108,000	
11		1,244,000	
12		1,163,000	
13		1,161,000	
14		1,704,000	
15		1,472,000	
16		1,243,000	
17		1,269,000	
18		1,149,000	
19		1,064,000	
20		965,000	
21		936,000	
22		1,018,000	
23		992,000	
24		980,000	
25		936,000	
26		983,000	
27		980,000	
28		978,000	
29		1,051,000	
30		1,020,000	
TOTAL		31,831,000	

Avg 65,300 **Avg Daily DIFF** 5,067 **Avg** 60,233 **8.134**

Avg #DIV/0! **Avg Daily DIFF** #DIV/0! **Avg** 1,061,033



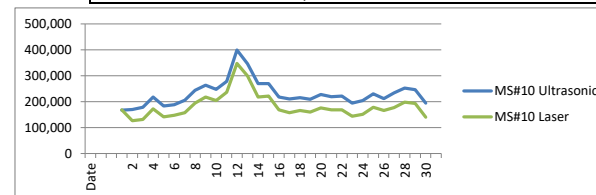
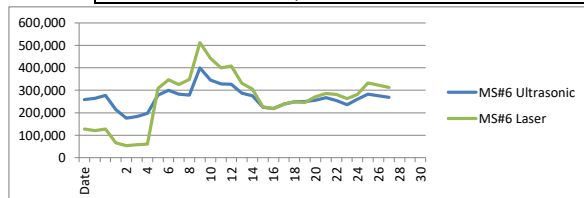
KAUKAUNA (September 2020)

		MS#6		
	Ultrasonic		Laser	
Date	Gallons		Gallons	%
				Diff
1	258,000		128,000	50.39
2	264,000		121,000	54.17
3	277,000		128,000	53.79
4	215,000		66,000	69.30
5	176,000		54,000	69.32
6	183,000		57,000	68.85
7	197,000		61,000	69.04
8	278,000		309,000	(11.15)
9	300,000		347,000	(15.67)
10	283,000		325,000	(14.84)
11	279,000		348,000	(24.73)
12	399,000		512,000	(28.32)
13	346,000		442,000	(27.75)
14	328,000		399,000	(21.65)
15	327,000		408,000	(24.77)
16	287,000		331,000	(15.33)
17	276,000		306,000	(10.87)
18	225,000		226,000	(0.44)
19	218,000		219,000	(0.46)
20	239,000		239,000	-
21	248,000		248,000	-
22	250,000		246,000	1.60
23	255,000		272,000	(6.67)
24	267,000		285,000	(6.74)
25	254,000		282,000	(11.02)
26	235,000		263,000	(11.91)
27	260,000		281,000	(8.08)
28	283,000		332,000	(17.31)
29	275,000		323,000	(17.45)
30	269,000		313,000	(16.36)
TOTAL	7,951,000		7,871,000	

		MS#10		
	Ultrasonic		Laser	
Date	Gallons		Gallons	%
				Diff
1	167,000		169,000	(1.20)
2	170,000		126,000	25.88
3	178,000		132,000	25.84
4	218,000		172,000	21.10
5	183,000		141,000	22.95
6	188,000		147,000	21.81
7	206,000		157,000	23.79
8	244,000		194,000	20.49
9	263,000		218,000	17.11
10	248,000		204,000	17.74
11	279,000		236,000	15.41
12	400,000		347,000	13.25
13	346,000		299,000	13.58
14	270,000		218,000	19.26
15	270,000		222,000	17.78
16	218,000		169,000	22.48
17	210,000		157,000	25.24
18	216,000		166,000	23.15
19	209,000		160,000	23.44
20	228,000		176,000	22.81
21	219,000		168,000	23.29
22	222,000		169,000	23.87
23	194,000		144,000	25.77
24	204,000		151,000	25.98
25	230,000		178,000	22.61
26	212,000		166,000	21.70
27	234,000		177,000	24.36
28	253,000		198,000	21.74
29	246,000		193,000	21.54
30	195,000		140,000	28.21
TOTAL	6,920,000		5,494,000	

Avg	Avg Daily	Avg	
265,033	DIFF	262,367	4.831
	2,667		

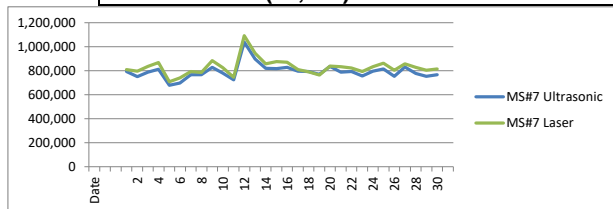
Avg	Avg Daily	Avg	
230,667	DIFF	183,133	21.033
	47,533		



DARBOY (September 2020)

MS#7				
	Ultrasonic		Laser	
Date	Gallons		Gallons	%
				Diff
1	793,000		809,000	(2.018)
2	752,000		796,000	(5.851)
3	789,000		838,000	(6.210)
4	812,000		868,000	(6.897)
5	680,000		710,000	(4.412)
6	698,000		740,000	(6.017)
7	767,000		794,000	(3.520)
8	768,000		787,000	(2.474)
9	828,000		884,000	(6.763)
10	780,000		826,000	(5.897)
11	725,000		745,000	(2.759)
12	1,038,000		1,093,000	(5.299)
13	899,000		945,000	(5.117)
14	820,000		859,000	(4.756)
15	819,000		877,000	(7.082)
16	828,000		872,000	(5.314)
17	796,000		809,000	0.503
18	793,000		792,000	0.126
19	769,000		765,000	0.520
20	836,000		840,000	(0.478)
21	788,000		834,000	(5.838)
22	795,000		824,000	(3.648)
23	758,000		793,000	(4.617)
24	797,000		833,000	(4.517)
25	815,000		862,000	(5.767)
26	753,000		804,000	(6.773)
27	832,000		859,000	(3.245)
28	777,000		830,000	(6.821)
29	755,000		805,000	(6.623)
30	767,000		816,000	(6.389)
TOTAL	23,827,000		24,909,000	

Avg	Avg Daily	Avg	
794,233	DIFF	830,300	(4.465)
	(36,067)		



August Total Flows

Kaukauna*		% Diff
Laser	12,222,000	(36.85)
Ultrasonic	16,726,000	

Darboy		% Diff
Laser	26,213,000	6.03
Ultrasonic	24,633,000	

Combined Locks		% Diff
Laser	11,647,000	47.08
Ultrasonic	6,164,000	

Kimberly		% Diff
Laser	9,656,000	(53.35)
Ultrasonic	14,807,000	

Little Chute		% Diff
Laser	61,504,000	37.50
Ultrasonic	38,442,000	

September Total Flows

Kaukauna*		% Diff
Laser	15,172,000	(10.93)
Ultrasonic	16,830,000	

Darboy		% Diff
Laser	24,909,000	4.34
Ultrasonic	23,827,000	

Combined Locks		% Diff
Laser	10,163,000	29.89
Ultrasonic	7,125,000	

Kimberly		% Diff
Laser	10,667,000	(48.55)
Ultrasonic	15,846,000	

Little Chute		% Diff
Laser	55,577,000	34.41
Ultrasonic	36,454,000	