

## HEADWORKS INFLUENT METERS

(LASER)

(ULTRASONIC)

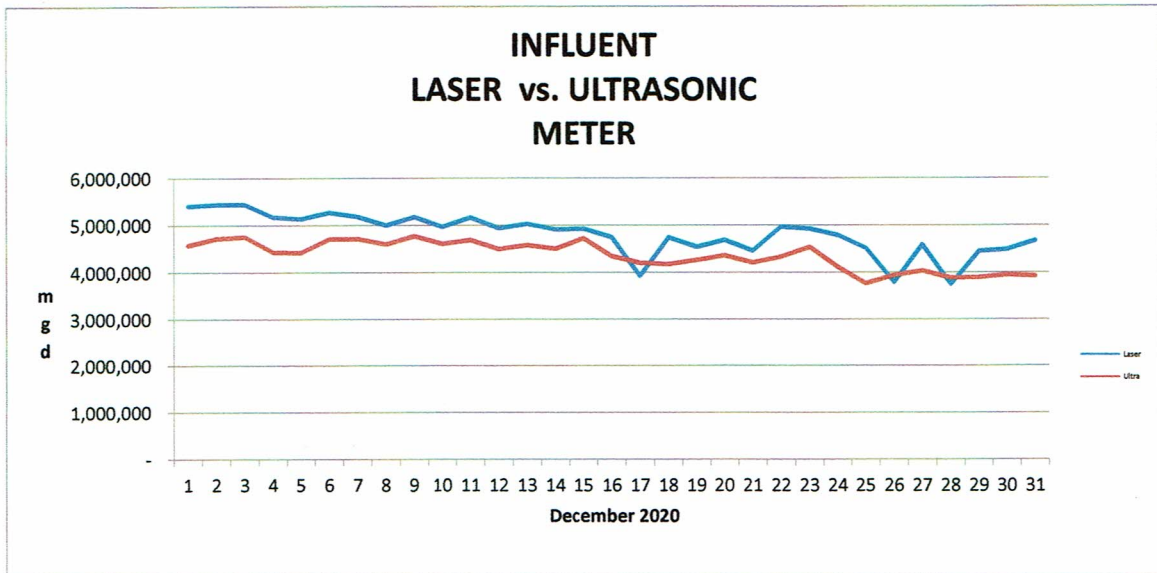
MONTH: December

DATE	FLOW GALLONS	FLOW GALLONS	% DIFF
1	5,408,000	4,582,000	15.27
2	5,440,000	4,724,000	13.16
3	5,439,000	4,755,000	12.58
4	5,174,000	4,438,000	14.22
5	5,137,000	4,423,000	13.90
6	5,270,000	4,708,000	10.66
7	5,183,000	4,715,000	9.03
8	4,995,000	4,598,000	7.95
9	5,174,000	4,768,000	7.85
10	4,965,000	4,605,000	7.25
11	5,161,000	4,688,000	9.16
12	4,933,000	4,497,000	8.84
13	5,027,000	4,580,000	8.89
14	4,906,000	4,502,000	8.23
15	4,921,000	4,721,000	4.06
16	4,743,000	4,348,000	8.33
17	3,924,000	4,204,000	(7.14)
18	4,736,000	4,177,000	11.80
19	4,537,000	4,264,000	6.02
20	4,682,000	4,363,000	6.81
21	4,456,000	4,210,000	5.52
22	4,962,000	4,335,000	12.64
23	4,919,000	4,540,000	7.70
24	4,785,000	4,115,000	14.00
25	4,513,000	3,766,000	16.55
26	3,789,000	3,938,000	(3.93)
27	4,589,000	4,041,000	11.94
28	3,747,000	3,880,000	(3.55)
29	4,450,000	3,896,000	12.45
30	4,486,000	3,952,000	11.90
31	4,670,000	3,924,000	15.97

149,121,000

135,257,000

DIFF= 13,864,000



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

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

MONTH: December

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	5,408,000	5,628,000	5,393,150	(234,850)	(4.35) % DIFFERENCE
2	5,440,000	5,438,000	5,434,360	(3,640)	(0.07) % DIFFERENCE
3	5,439,000	5,446,000	5,421,270	(24,730)	(0.46) % DIFFERENCE
4	5,174,000	5,271,000	5,168,010	(102,990)	(1.99) % DIFFERENCE
5	5,137,000	5,243,000	5,137,000	(106,000)	(2.06) % DIFFERENCE
6	5,270,000	5,323,000	5,270,000	(53,000)	(1.01) % DIFFERENCE
7	5,183,000	5,190,000	5,171,930	(18,070)	(0.35) % DIFFERENCE
8	4,995,000	4,998,000	4,978,750	(19,250)	(0.39) % DIFFERENCE
9	5,174,000	5,033,000	5,165,520	132,520	2.57 % DIFFERENCE
10	4,965,000	4,823,000	4,955,890	132,890	2.68 % DIFFERENCE
11	5,161,000	4,932,000	5,161,000	229,000	4.44 % DIFFERENCE
12	4,933,000	4,714,000	4,933,000	219,000	4.44 % DIFFERENCE
13	5,027,000	4,804,000	5,027,000	223,000	4.44 % DIFFERENCE
14	4,906,000	4,878,000	4,892,450	14,450	0.30 % DIFFERENCE
15	4,921,000	4,896,000	4,921,000	25,000	0.51 % DIFFERENCE
16	4,743,000	5,309,000	4,743,000	(566,000)	(11.93) % DIFFERENCE
17	3,924,000	4,401,000	3,919,200	(481,800)	(12.29) % DIFFERENCE
18	4,736,000	5,078,000	4,732,690	(345,310)	(7.30) % DIFFERENCE
19	4,537,000	4,866,000	4,537,000	(329,000)	(7.25) % DIFFERENCE
20	4,682,000	5,020,000	4,682,000	(338,000)	(7.22) % DIFFERENCE
21	4,456,000	4,566,000	4,433,570	(132,430)	(2.99) % DIFFERENCE
22	4,962,000	5,076,000	4,956,800	(119,200)	(2.40) % DIFFERENCE
23	4,919,000	5,198,000	4,911,170	(286,830)	(5.84) % DIFFERENCE
24	4,785,000	5,054,000	4,779,900	(274,100)	(5.73) % DIFFERENCE
25	4,513,000	4,771,000	4,513,000	(258,000)	(5.72) % DIFFERENCE
26	3,789,000	4,006,000	3,789,000	(217,000)	(5.73) % DIFFERENCE
27	4,589,000	4,848,000	4,589,000	(259,000)	(5.64) % DIFFERENCE
28	3,747,000	4,230,000	3,726,890	(503,110)	(13.50) % DIFFERENCE
29	4,450,000	5,011,000	4,450,000	(561,000)	(12.61) % DIFFERENCE
30	4,486,000	4,436,000	4,486,000	50,000	1.11 % DIFFERENCE
31	4,670,000	4,603,000	4,663,690	60,690	1.30 % DIFFERENCE
TOTAL:	149,121,000	153,090,000	148,943,240	(4,146,760)	-2.78 %
AVERAGE:	4,815,033	4,938,387		(140,248)	
MAXIMUM:	5,440,000	5,628,000			
MINIMUM:					

ULTRASONIC INFLUENT TOTAL FLOW vs LASER INFLUENT TOTAL FLOW

MILLION GALLONS		Difference	
ULTRASONIC	135,257,000	=	13,864,000
LASER	149,121,000		

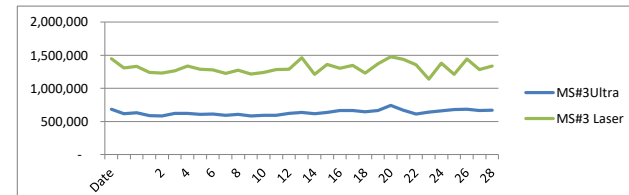
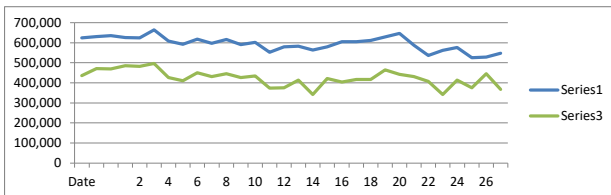
LITTLE CHUTE (December 2020)

MS#2				
	Ultrasonic		Laser	%
Date	Gallons		Gallons	Diff
1	625,000		436,000	30.24
2	631,000		471,000	25.36
3	635,000		470,000	25.98
4	626,000		486,000	22.36
5	624,000		483,000	22.60
6	664,000		496,000	25.30
7	608,000		426,000	29.93
8	593,000		411,000	30.69
9	618,000		451,000	27.02
10	597,000		432,000	27.64
11	616,000		446,000	27.60
12	591,000		426,000	27.92
13	602,000		435,000	27.74
14	553,000		374,000	32.37
15	580,000		376,000	35.17
16	583,000		414,000	28.99
17	564,000		342,000	39.36
18	580,000		422,000	27.24
19	606,000		404,000	33.33
20	606,000		417,000	31.19
21	612,000		417,000	31.86
22	630,000		464,000	26.35
23	647,000		443,000	31.53
24	587,000		431,000	26.58
25	537,000		407,000	24.21
26	562,000		342,000	39.15
27	576,000		414,000	28.13
28	525,000		375,000	28.57
29	528,000		446,000	15.53
30	548,000		367,000	33.03
31	544,000		382,000	29.78
<b>TOTAL</b>	<b>18,398,000</b>		<b>13,106,000</b>	

MS#3				
	Ultrasonic		Laser	%
Date	Gallons		Gallons	Diff
1	686,000		1,446,000	(110.79)
2	619,000		1,306,000	(110.99)
3	631,000		1,331,000	(110.94)
4	587,000		1,240,000	(111.24)
5	585,000		1,231,000	(110.43)
6	623,000		1,263,000	(102.73)
7	622,000		1,335,000	(114.63)
8	607,000		1,287,000	(112.03)
9	613,000		1,280,000	(108.81)
10	593,000		1,228,000	(107.08)
11	609,000		1,274,000	(109.20)
12	584,000		1,218,000	(108.56)
13	595,000		1,241,000	(108.57)
14	595,000		1,285,000	(115.97)
15	623,000		1,288,000	(106.74)
16	637,000		1,462,000	(129.51)
17	616,000		1,209,000	(96.27)
18	635,000		1,360,000	(114.17)
19	664,000		1,303,000	(96.23)
20	664,000		1,345,000	(102.56)
21	647,000		1,229,000	(89.95)
22	666,000		1,369,000	(105.56)
23	742,000		1,478,000	(99.19)
24	673,000		1,438,000	(113.67)
25	615,000		1,356,000	(120.49)
26	644,000		1,139,000	(76.86)
27	660,000		1,379,000	(108.94)
28	680,000		1,213,000	(78.38)
29	683,000		1,441,000	(110.98)
30	667,000		1,284,000	(92.50)
31	673,000		1,336,000	(98.51)
<b>TOTAL</b>	<b>19,738,000</b>		<b>40,594,000</b>	

<b>Avg</b>	<b>Avg Daily</b>	<b>Avg</b>	
593,484	<b>DIFF</b>	422,774	<b>28.798</b>
	<b>170,710</b>		

<b>Avg</b>	<b>Avg Daily</b>	<b>Avg</b>	
636,710	<b>DIFF</b>	1,309,484	<b>#####</b>
	<b>(672,774)</b>		



KIMBERLY

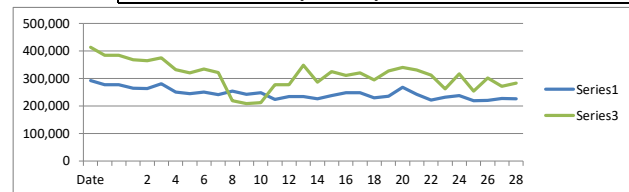
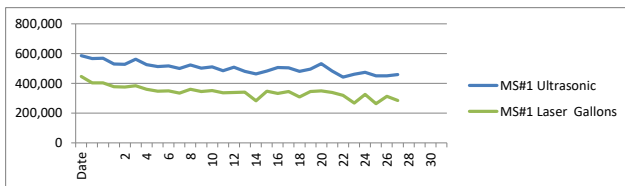
MS#1				
	Ultrasonic		Laser	
Date	Gallons		Gallons	
			%	
			Diff	
1	586,000		446,000	23.89
2	565,000		403,000	28.67
3	569,000		402,000	29.35
4	530,000		376,000	29.06
5	528,000		374,000	29.17
6	562,000		383,000	31.85
7	526,000		360,000	31.56
8	512,000		347,000	32.23
9	516,000		349,000	32.36
10	499,000		334,000	33.07
11	523,000		360,000	31.17
12	502,000		344,000	31.47
13	511,000		351,000	31.31
14	485,000		337,000	30.52
15	508,000		338,000	33.46
16	480,000		341,000	28.96
17	464,000		283,000	39.01
18	483,000		348,000	27.95
19	505,000		333,000	34.06
20	504,000		344,000	31.75
21	481,000		309,000	35.76
22	496,000		344,000	30.65
23	531,000		349,000	34.27
24	482,000		339,000	29.67
25	441,000		320,000	27.44
26	461,000		268,000	41.87
27	473,000		325,000	31.29
28	450,000		263,000	41.56
29	451,000		312,000	30.82
30	458,000		284,000	37.99
31	458,000		296,000	35.37
<b>TOTAL</b>	<b>15,540,000</b>		<b>10,562,000</b>	

COMBINED LOCKS

MS#4				
	Ultrasonic		Laser	
Date	Gallons		Gallons	
			%	
			Diff	
1	293,000		414,000	(41.30)
2	277,000		385,000	(38.99)
3	278,000		385,000	(38.49)
4	265,000		368,000	(38.87)
5	264,000		365,000	(38.26)
6	281,000		375,000	(33.45)
7	251,000		332,000	(32.27)
8	245,000		320,000	(30.61)
9	251,000		335,000	(33.47)
10	242,000		322,000	(33.06)
11	254,000		219,000	13.78
12	243,000		209,000	13.99
13	248,000		213,000	14.11
14	224,000		278,000	(24.11)
15	235,000		278,000	(18.30)
16	235,000		348,000	(48.09)
17	227,000		287,000	(26.43)
18	238,000		325,000	(36.55)
19	249,000		311,000	(24.90)
20	249,000		321,000	(28.92)
21	230,000		295,000	(28.26)
22	236,000		328,000	(38.98)
23	268,000		340,000	(26.87)
24	243,000		331,000	(36.21)
25	222,000		312,000	(40.54)
26	232,000		262,000	(12.93)
27	238,000		317,000	(33.19)
28	220,000		254,000	(15.45)
29	221,000		302,000	(36.65)
30	228,000		272,000	(19.30)
31	227,000		283,000	(24.67)
<b>TOTAL</b>	<b>7,614,000</b>		<b>9,686,000</b>	

<b>Avg</b>	<b>Avg Daily</b>	<b>Avg</b>	
501,290	<b>DIFF</b>	340,710	<b>32.07</b>
	<b>160,581</b>		

<b>Avg</b>	<b>Avg Daily</b>	<b>Avg</b>	
245,613	<b>DIFF</b>	312,452	<b>(27.007)</b>
	<b>(66,839)</b>		



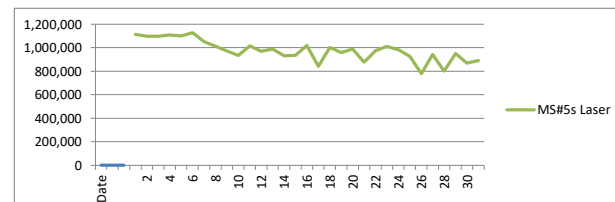
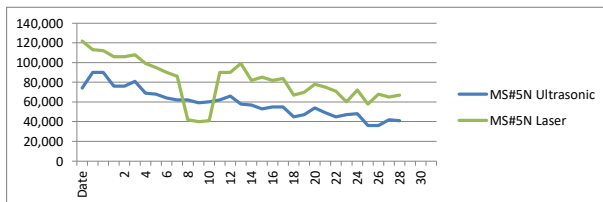
KAUKAUNA (December 2020)

Date	MS#5N		% Diff
	Ultrasonic Gallons	Laser Gallons	
1	74,000	122,000	(64.86)
2	90,000	113,000	(25.56)
3	90,000	112,000	(24.44)
4	76,000	106,000	(39.47)
5	76,000	106,000	(39.47)
6	81,000	108,000	(33.33)
7	69,000	99,000	(43.48)
8	68,000	95,000	(39.71)
9	64,000	90,000	(40.63)
10	62,000	86,000	(38.71)
11	62,000	42,000	32.26
12	59,000	40,000	32.20
13	60,000	41,000	31.67
14	62,000	90,000	(45.16)
15	66,000	90,000	(36.36)
16	58,000	99,000	(70.69)
17	57,000	82,000	(43.86)
18	53,000	85,000	(60.38)
19	55,000	82,000	(49.09)
20	55,000	84,000	(52.73)
21	45,000	67,000	(48.89)
22	47,000	70,000	(48.94)
23	54,000	78,000	(44.44)
24	49,000	75,000	(53.06)
25	45,000	71,000	(57.78)
26	47,000	60,000	(27.66)
27	48,000	72,000	(50.00)
28	36,000	58,000	(61.11)
29	36,000	68,000	(88.89)
30	42,000	65,000	(54.76)
31	41,000	67,000	(63.41)
<b>TOTAL</b>	<b>1,827,000</b>	<b>2,523,000</b>	

Date	MS#5s		% Diff
	Ultrasonic Gallons	Laser Gallons	
1	Meter Failed.		1,115,000
2			1,098,000
3			1,098,000
4			1,109,000
5			1,101,000
6			1,129,000
7			1,052,000
8			1,013,000
9			973,000
10			934,000
11			1,016,000
12			971,000
13			990,000
14			932,000
15			935,000
16			1,018,000
17			843,000
18			1,002,000
19			959,000
20			990,000
21			876,000
22			975,000
23			1,011,000
24			983,000
25			927,000
26			779,000
27			943,000
28			800,000
29			950,000
30			868,000
31			890,000
<b>TOTAL</b>			<b>30,280,000</b>

<b>Avg</b>	<b>Avg Daily</b>	<b>Avg</b>	
58,935	<b>DIFF</b>	81,387	<b>(40.347)</b>
	<b>(22,452)</b>		

<b>Avg</b>	<b>Avg Daily</b>	<b>Avg</b>
#DIV/0!	<b>DIFF</b>	976,774
	<b>#DIV/0!</b>	



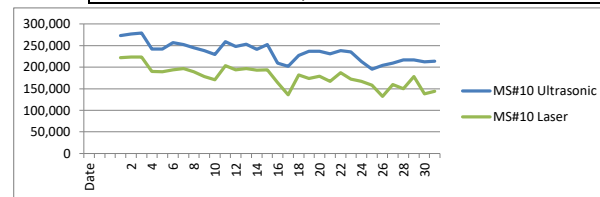
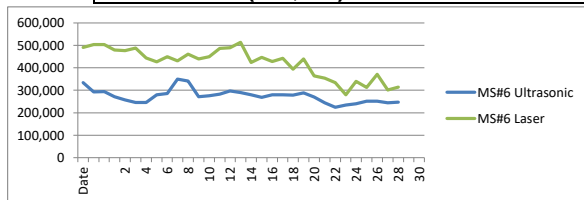
KAUKAUNA (December 2020)

MS#6				
	Ultrasonic		Laser	
Date	Gallons		Gallons	%
				Diff
1	334,000		491,000	(47.01)
2	293,000		504,000	(72.01)
3	294,000		504,000	(71.43)
4	272,000		479,000	(76.10)
5	257,000		476,000	(85.21)
6	246,333		488,000	(98.11)
7	246,333		444,000	(80.24)
8	280,333		427,000	(52.32)
9	285,667		449,000	(57.18)
10	349,667		431,000	(23.26)
11	341,667		461,000	(34.93)
12	271,000		440,000	(62.36)
13	276,000		449,000	(62.68)
14	283,000		487,000	(72.08)
15	297,000		489,000	(64.65)
16	290,000		513,000	(76.90)
17	280,000		424,000	(51.43)
18	268,000		447,000	(66.79)
19	280,000		428,000	(52.86)
20	280,000		442,000	(57.86)
21	279,000		394,000	(41.22)
22	288,000		439,000	(52.43)
23	270,000		364,000	(34.81)
24	244,000		354,000	(45.08)
25	224,000		334,000	(49.11)
26	234,000		280,000	(19.66)
27	240,000		339,000	(41.25)
28	251,000		312,000	(24.30)
29	252,000		371,000	(47.22)
30	244,000		301,000	(23.36)
31	247,000		314,000	(27.13)
<b>TOTAL</b>	<b>8,498,000</b>		<b>13,075,000</b>	

MS#10				
	Ultrasonic		Laser	
Date	Gallons		Gallons	%
				Diff
1	273,000		222,000	18.68
2	277,000		223,000	19.49
3	279,000		223,000	20.07
4	242,000		190,000	21.49
5	242,000		189,000	21.90
6	257,000		194,000	24.51
7	252,000		197,000	21.83
8	245,000		189,000	22.86
9	238,000		178,000	25.21
10	229,000		171,000	25.33
11	259,000		203,000	21.62
12	248,000		194,000	21.77
13	253,000		197,000	22.13
14	241,000		193,000	19.92
15	252,000		194,000	23.02
16	209,000		164,000	21.53
17	202,000		136,000	32.67
18	227,000		182,000	19.82
19	237,000		174,000	26.58
20	237,000		179,000	24.47
21	231,000		167,000	27.71
22	238,000		187,000	21.43
23	235,000		172,000	26.81
24	213,000		167,000	21.60
25	195,000		158,000	18.97
26	204,000		132,000	35.29
27	209,000		160,000	23.44
28	217,000		150,000	30.88
29	217,000		178,000	17.97
30	212,000		138,000	34.91
31	214,000		144,000	32.71
<b>TOTAL</b>	<b>7,284,000</b>		<b>5,545,000</b>	

<b>Avg</b>	<b>Avg Daily</b>	<b>Avg</b>	
274,129	<b>DIFF</b>	421,774	<b>(53.902)</b>
	<b>(147,645)</b>		

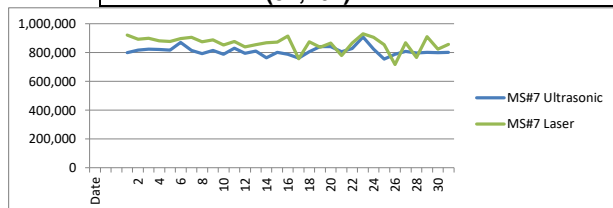
<b>Avg</b>	<b>Avg Daily</b>	<b>Avg</b>	
234,968	<b>DIFF</b>	180,033	<b>24.085</b>
	<b>54,934</b>		



DARBOY (December 2020)

MS#7				
	Ultrasonic		Laser	
Date	Gallons		Gallons	%
				Diff
1	799,000		922,000	(15.394)
2	818,000		893,000	(9.169)
3	823,000		899,000	(9.235)
4	821,000		882,000	(7.430)
5	818,000		876,000	(7.090)
6	871,000		898,000	(3.100)
7	814,000		907,000	(11.425)
8	793,000		874,000	(10.214)
9	816,000		889,000	(8.946)
10	788,000		853,000	(8.249)
11	830,000		878,000	(5.783)
12	796,000		839,000	(5.402)
13	811,000		855,000	(5.425)
14	764,000		869,000	(13.743)
15	801,000		872,000	(8.864)
16	788,000		915,000	(16.117)
17	762,000		757,000	(14.829)
18	806,000		875,000	(8.561)
19	842,000		838,000	0.475
20	842,000		865,000	(2.732)
21	806,000		779,000	3.350
22	829,000		867,000	(4.584)
23	908,000		931,000	(2.533)
24	823,000		906,000	(10.085)
25	754,000		854,000	(13.263)
26	788,000		717,000	9.010
27	809,000		869,000	(7.417)
28	798,000		766,000	4.010
29	801,000		910,000	(13.608)
30	799,000		824,000	(3.129)
31	802,000		858,000	(6.983)
<b>TOTAL</b>	<b>25,120,000</b>		<b>26,737,000</b>	

<b>Avg</b>	<b>Avg Daily</b>	<b>Avg</b>	
810,323	DIFF	862,484	(6.983)
	(52,161)		





## November Total Flows

<b>Kaukauna*</b>		<b>% Diff</b>
Laser	29,092,000	17.07
Ultrasonic	24,127,000	

<b>Darboy</b>		
Laser	28,227,000	7.72
Ultrasonic	26,048,000	

<b>Combined Locks</b>		
Laser	14,105,000	26.20
Ultrasonic	10,410,000	

<b>Kimberly</b>		
Laser	16,383,000	(28.35)
Ultrasonic	21,027,000	

<b>Little Chute</b>		
Laser	67,366,000	29.33
Ultrasonic	47,606,000	

## December Total Flows

<b>Kaukauna*</b>		<b>% Diff</b>
Laser	21,143,000	16.71
Ultrasonic	17,609,000	

<b>Darboy</b>		
Laser	26,737,000	6.05
Ultrasonic	25,120,000	

<b>Combined Locks</b>		
Laser	9,686,000	21.39
Ultrasonic	7,614,000	

<b>Kimberly</b>		
Laser	10,562,000	(47.13)
Ultrasonic	15,540,000	

<b>Little Chute</b>		
Laser	53,700,000	28.98
Ultrasonic	38,136,000	

\* MS 5 South not included