

FLOW AND STRENGTH PROJECTIONS

MONTH: March 2020

	<u>PROJECTED</u>	<u>ACTUAL</u>	<u>DIFFERENCE</u>	<u>PROJECTED INCOME FOR MONTH</u>	<u>ACTUAL INCOME FOR MONTH</u>	<u>SURPLUS OR DEFICIT</u>
FLOW (GALLONS)	213,728,807	303,756,300	90,027,493	\$ 148,755.25	\$ 211,414.38	\$ 62,659.14
B.O.D. (#s)	316,187	418,441	102,254	\$ 69,561.14	\$ 92,057.06	\$ 22,495.92
S. SOLIDS (#s)	327,053	410,549	83,496	\$ 83,071.46	\$ 104,279.36	\$ 21,207.90
PHOSPHORUS (#s)	6,741	7,172	431	\$ 42,609.86	\$ 45,335.41	\$ 2,725.55
AMMONIA-N (#s)	43,809	50,736	6,927	\$ 57,827.88	\$ 66,972.06	\$ 9,144.18
CHLORIDES (#s)	857,310	1,059,299	201,989	\$ 2,571.93	\$ 3,177.90	\$ 605.97
			TOTAL:	\$ 404,397.52	\$ 523,236.18	\$ 118,838.66

(THRU MARCH 2020)

PROJECTED FOR 2020

	<u>END OF YEAR PROJECTED</u>	<u>YEAR TO DATE SURPLUS/ DEFICIT</u>	<u>YEAR TO DATE SURPLUS/ DEFICIT \$\$</u>
FLOW (GALLONS)	2,053,099,003	120,369,260	\$ 83,777.00
B.O.D. (#s)	3,755,281	339,719	\$ 74,738.14
S. SOLIDS (#s)	3,909,560	245,923	\$ 62,464.46
PHOSPHORUS (#s)	80,410	1,403	\$ 8,866.91
AMMONIA-N (#s)	505,265	28,419	\$ 37,513.57
CHLORIDES (#s)	8,748,079	437,648	\$ 1,312.95
		TOTAL:	\$ 268,673.03

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

MONTH: MARCH 2020

HYDRAULIC AND ORGANIC LOADINGS DATA

INFLUENT*

TOTAL FLOW TO PLANT: 290,643,000 GALLONS
AVERAGE B.O.D. : 156 mg/L
AVERAGE SUSPENDED SOLIDS : 125 mg/L
AVERAGE PHOSPHORUS : 2.97 mg/L
AVERAGE AMMONIA-N : 22.59 mg/L
AVERAGE CHLORIDES : 487.14 mg/L

MAXIMUM DAILY FLOW TO PLANT:
15,293,000

PERCENT (%) BY COMMUNITY OF TOTAL MONTHLY VOLUME TREATED AT WWTP

<u>COMMUNITY</u>	<u>FLOW</u>	<u>BOD</u>	<u>TSS</u>	<u>PHOSPHORUS</u>	<u>AMMONIA</u>	<u>CHLORIDES</u>
KAUKAUNA	40.17	27.16	33.43	29.92	26.10	32.56
LITTLE CHUTE	28.12	33.17	23.71	28.02	43.35	32.60
KIMBERLY	13.59	8.77	9.62	10.51	7.82	16.60
COMBINED LOCKS	6.46	7.00	6.07	6.27	5.68	2.34
DARBOY	11.67	23.90	27.18	25.27	17.04	15.91

<u>AVERAGE DAILY INFLUENT LOADINGS</u>	<u>%</u>	<u>MAX</u>	<u>PLANT DESIGN CRITERIA</u>	<u>AVG</u>	<u>%</u>
FLOW : 9,375,581 GALLONS	78.8	11,900,000	GALLONS/DAY	8,500,000	110.30
B.O.D. : 11,253 POUNDS	76.8	14,651	POUNDS/DAY	12,209	92.17
SUSPENDED SOLIDS : 8,921 POUNDS	54.8	16,278	POUNDS/DAY	13,565	65.76
PHOSPHORUS : 211.82 POUNDS	52.0	407	POUNDS/DAY	339	62.48
AMMONIA-N : 1,571 POUNDS	81.8	1,920	POUNDS/DAY	1,600	98.18
CHLORIDES : 35,116 POUNDS					

FINAL EFFLUENT

<u>MONTHLY AVERAGE</u>	<u>%</u>	<u>MONTHLY AVG PERMIT LIMIT</u>	
FLOW: 6,741,258			
SUSPENDED SOLIDS : 10.76 mg/L	35.9	30	mg/L
SUSPENDED SOLIDS : 720.66 lbs	90.0	801	lbs
B.O.D. : 8.27 mg/L	33.1	25	mg/L
PHOSPHORUS : 0.19 mg/L	19.4	1	mg/L
AMMONIA-N : 0.27 mg/L	2.7	10	mg/L
CHLORIDES : 493.57 mg/L			

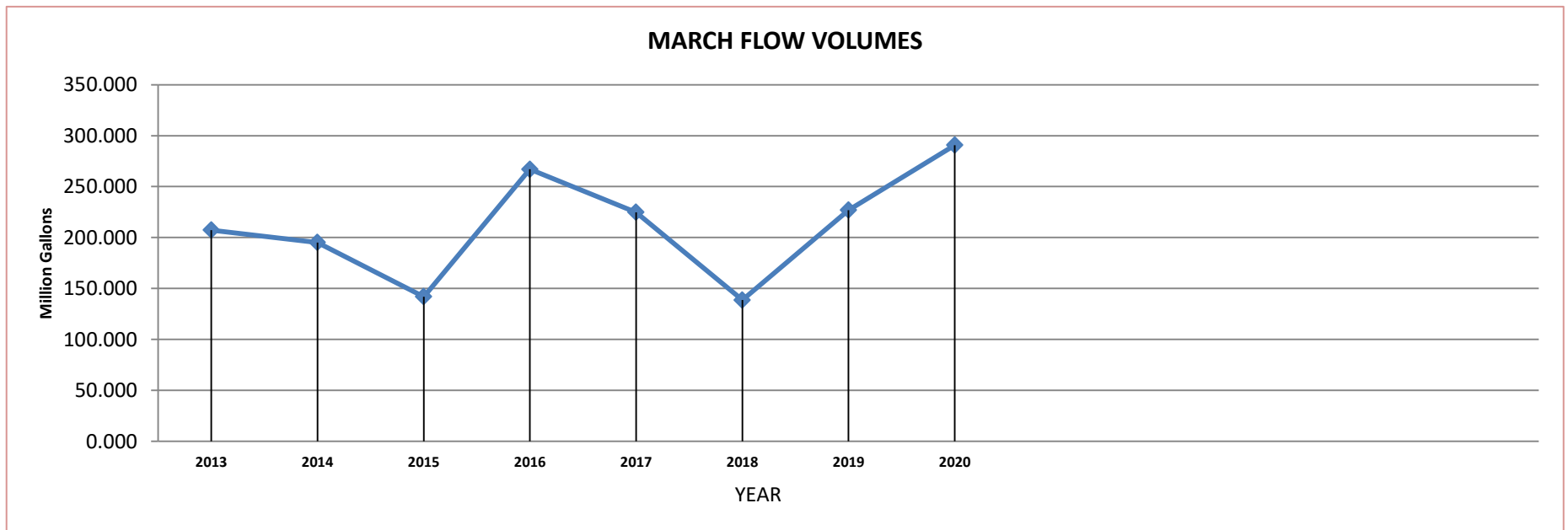
FOX ENERGY CENTER PUMPED: 81,664,000 GALLONS

Effluent to Fox Energy
28%

* INCLUDES HAULED WASTE

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>March Flow</u> <u>Million Gallons</u>	<u>Precipitation</u> <u>Inches</u>
2013	207.339	1.26
2014	195.096	1.49
2015	141.868	0.90
2016	266.917	2.82
2017	224.799	1.67
2018	138.664	0.63
2019	226.921	1.72
2020	290.643	4.17

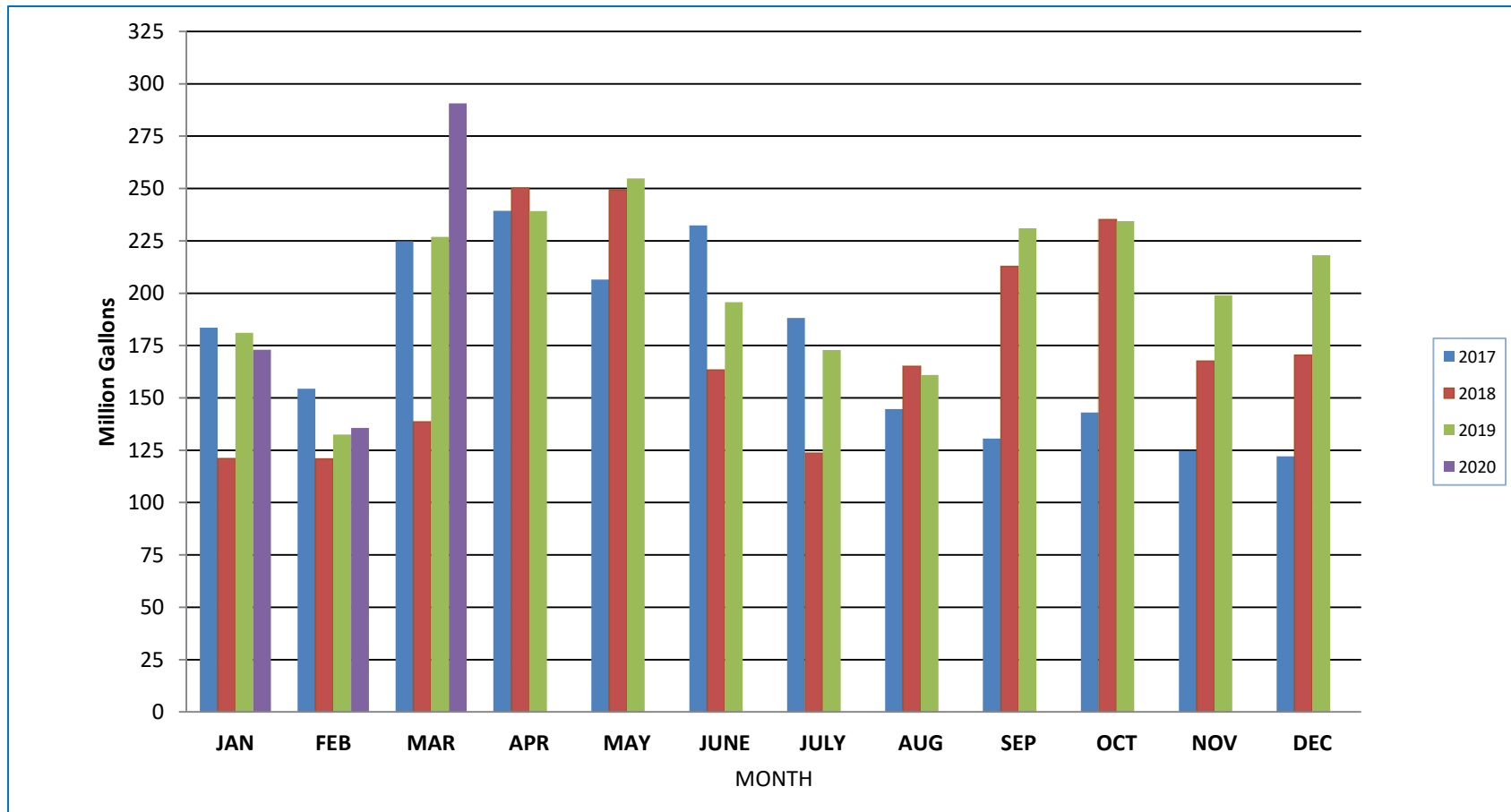


HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>
2017	183.493	154.391	224.799	239.329	206.521	232.395	188.142	144.717	130.601	143.016	124.659	122.136
2018	121.122	120.841	138.664	250.232	249.379	163.461	123.780	165.254	212.799	235.273	167.657	170.368
2019	181.037	132.459	226.921	239.147	254.810	195.654	172.916	160.932	231.033	234.439	199.024	218.097
2020	172.999	135.703	290.643									

*** FLOW VOLUMES REPORTED IN MILLION GALLONS ***

MONTHLY FLOW VOLUMES



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

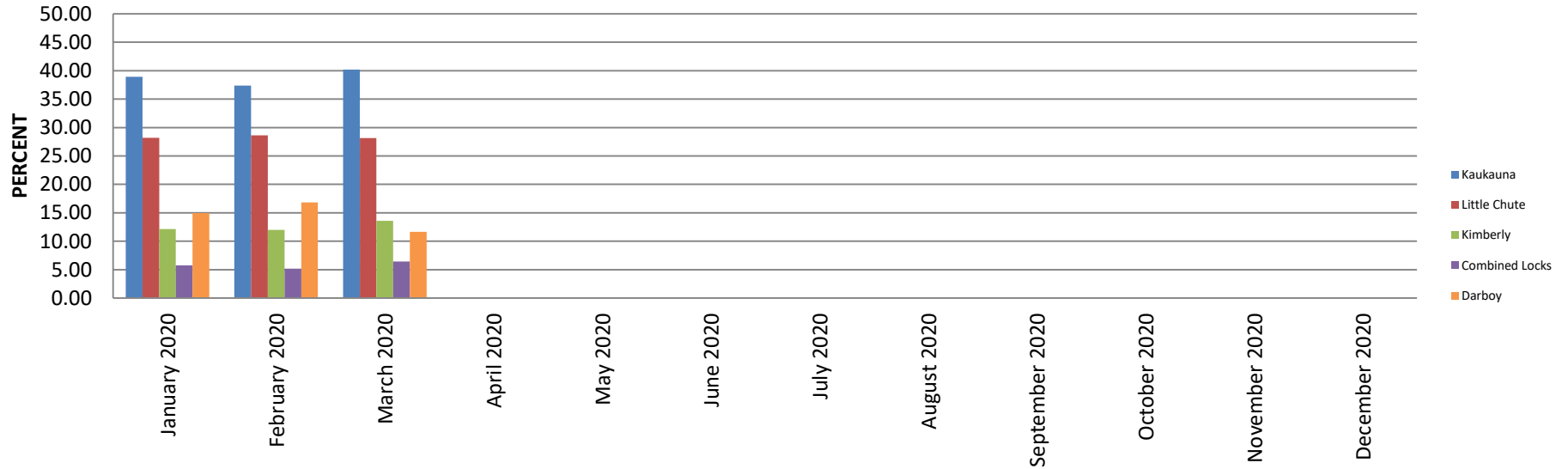
% CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>	<u>Rainfall - Inches</u>
January 2020	38.93	28.17	12.15	5.79	14.97	1.54
February 2020	37.38	28.60	12.01	5.18	16.84	1.02
March 2020	40.17	28.12	13.59	6.46	11.67	4.17
April 2020						
May 2020						
June 2020						
July 2020						
August 2020						
September 2020						
October 2020						
November 2020						
December 2020						

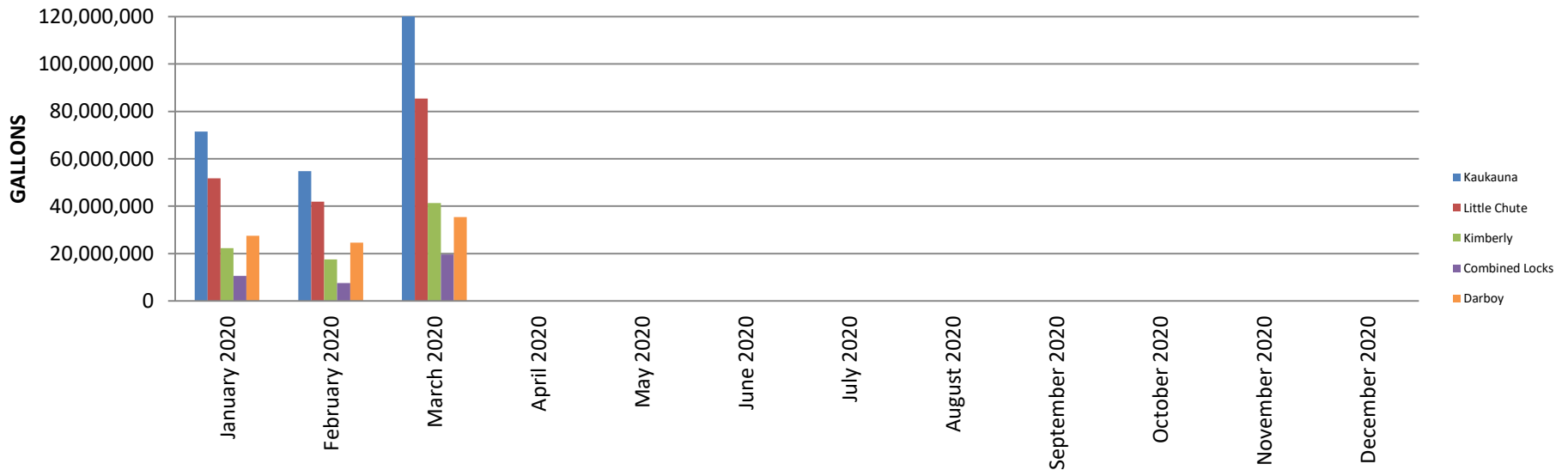
GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	71,501,500	51,734,000	22,308,000	10,633,000	27,501,000
February 2020	54,742,700	41,878,000	17,584,000	7,585,000	24,662,000
March 2020	122,009,300	85,409,000	41,277,000	19,612,000	35,449,000
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

% CONTRIBUTION BY COMMUNITY - FLOW GALLONS



GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

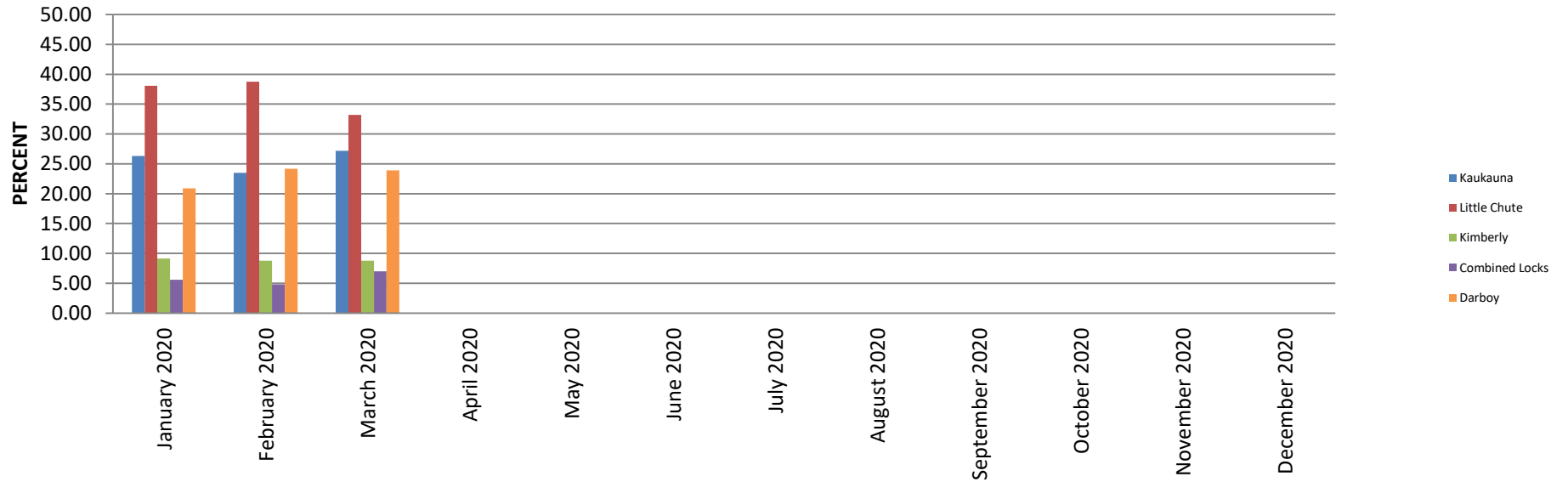
% CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	26.31	38.06	9.14	5.61	20.89
February 2020	23.51	38.75	8.78	4.80	24.16
March 2020	27.16	33.17	8.77	7.00	23.90
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

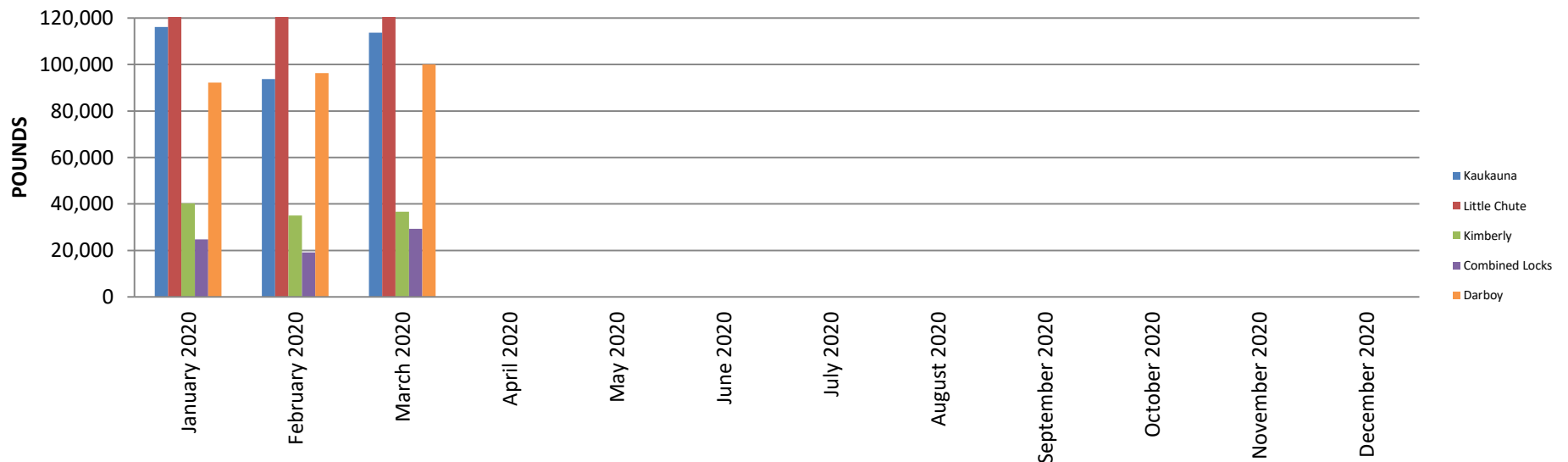
POUNDS CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	116,126	167,978	40,327	24,751	92,218
February 2020	93,736	154,514	35,010	19,140	96,334
March 2020	113,644	138,814	36,687	29,304	99,993
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

% CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

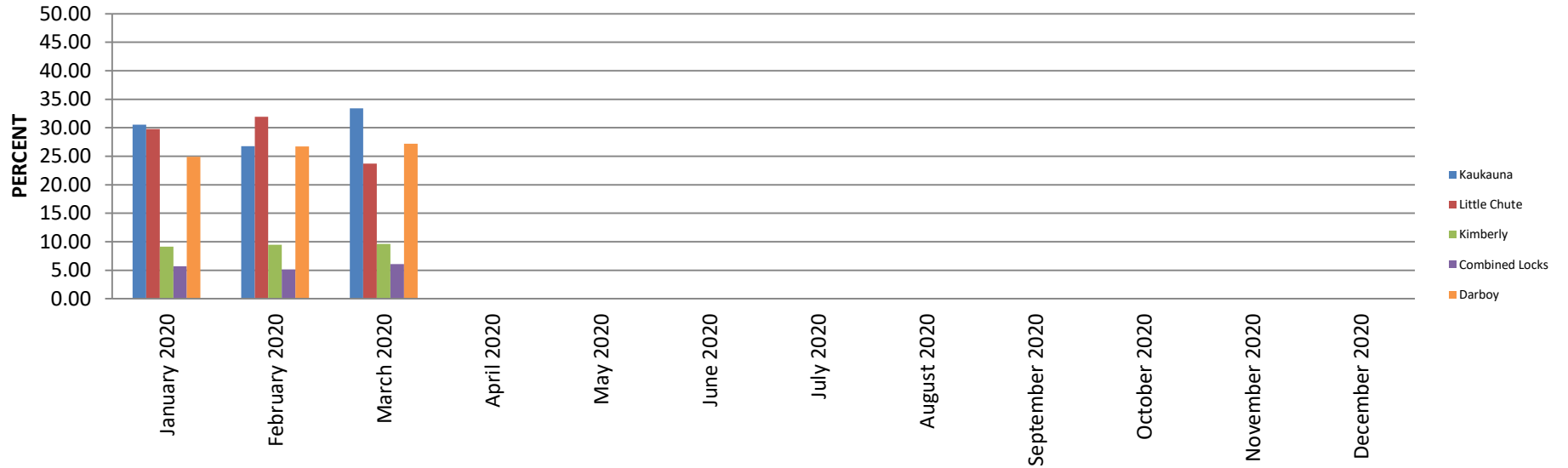
% CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	30.55	29.76	9.13	5.69	24.88
February 2020	26.76	31.92	9.47	5.13	26.72
March 2020	33.43	23.71	9.62	6.07	27.18
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

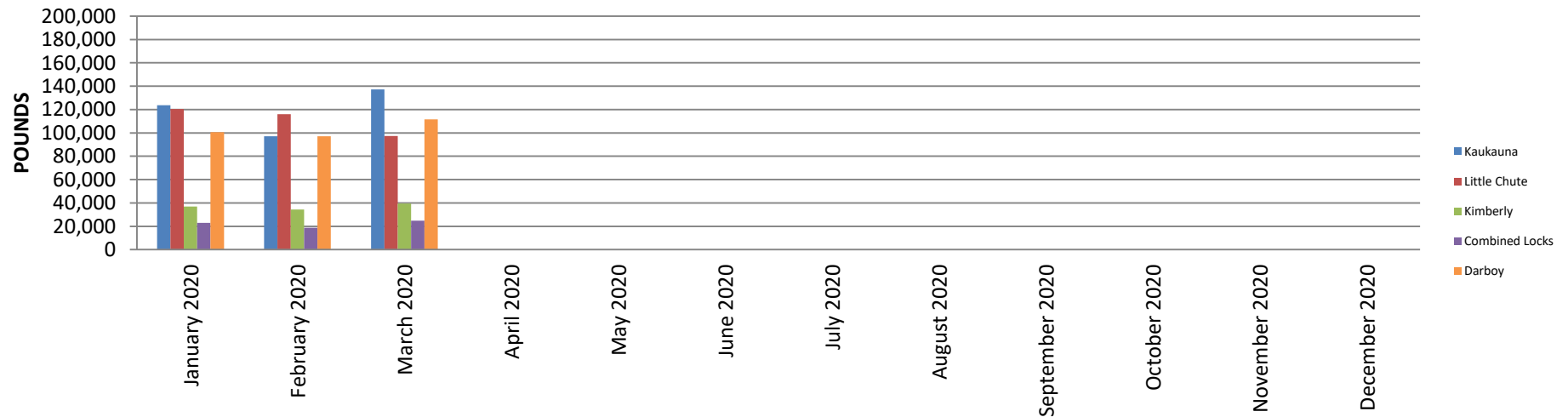
POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	123,653	120,453	36,933	23,018	100,685
February 2020	97,202	115,929	34,406	18,648	97,055
March 2020	137,248	97,336	39,475	24,911	111,578
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

% CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

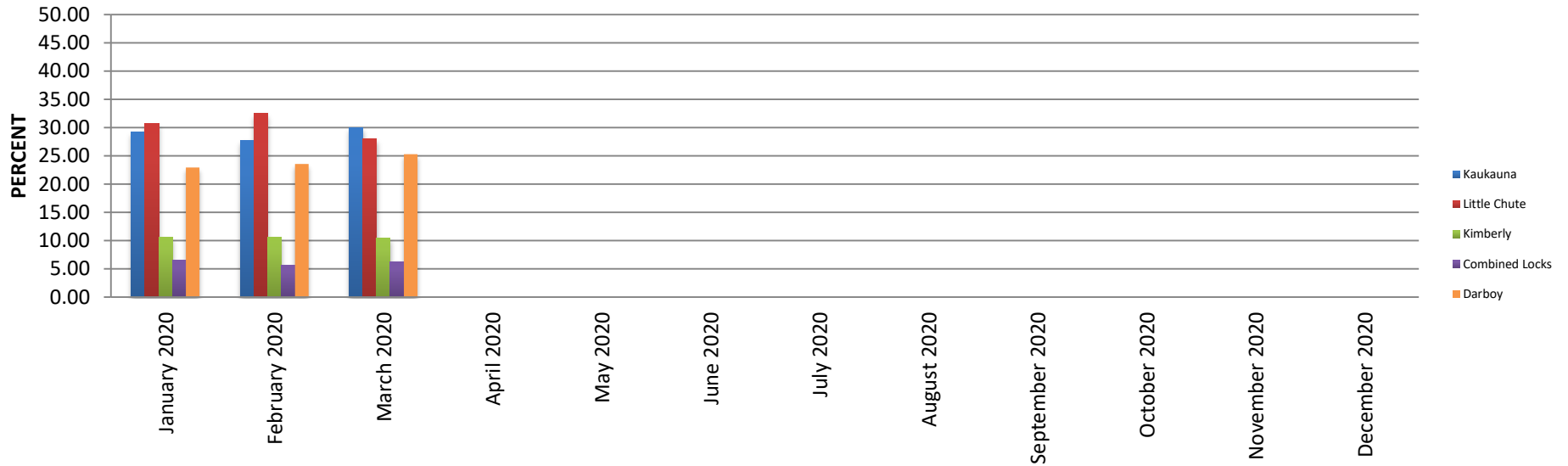
% CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	29.15	30.78	10.62	6.50	22.95
February 2020	27.70	32.49	10.59	5.65	23.56
March 2020	29.92	28.02	10.51	6.27	25.27
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

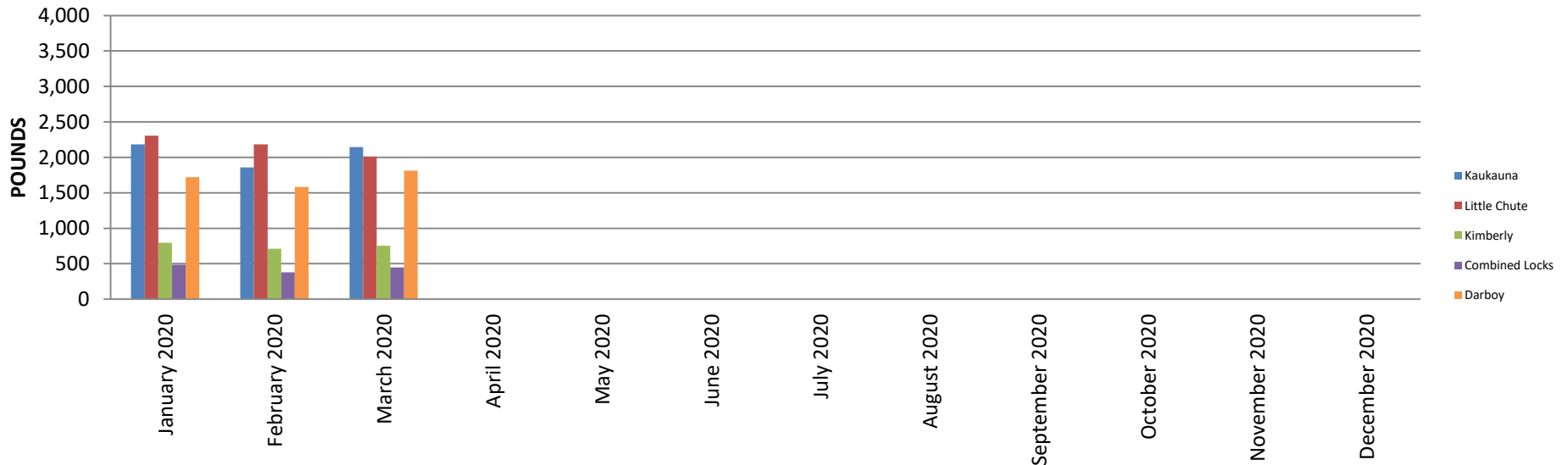
POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	2,185	2,306	796	487	1,720
February 2020	1,860	2,182	711	380	1,582
March 2020	2,146	2,010	754	450	1,813
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

% CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

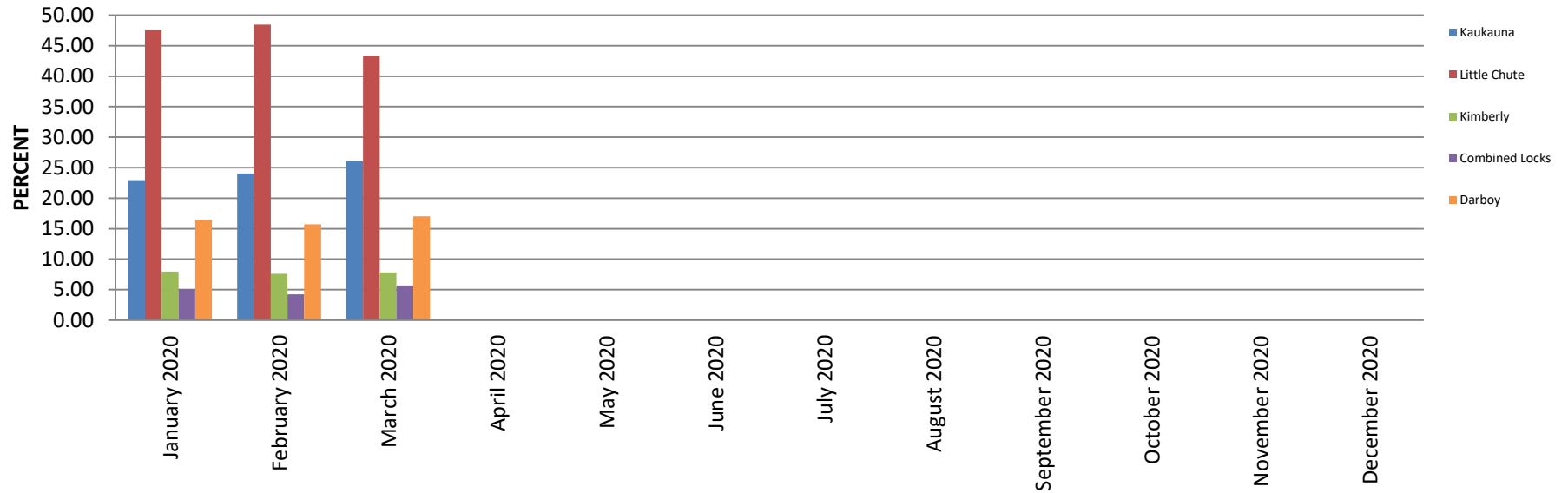
% CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	22.94	47.58	7.96	5.10	16.42
February 2020	24.04	48.44	7.60	4.22	15.70
March 2020	26.10	43.35	7.82	5.68	17.04
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

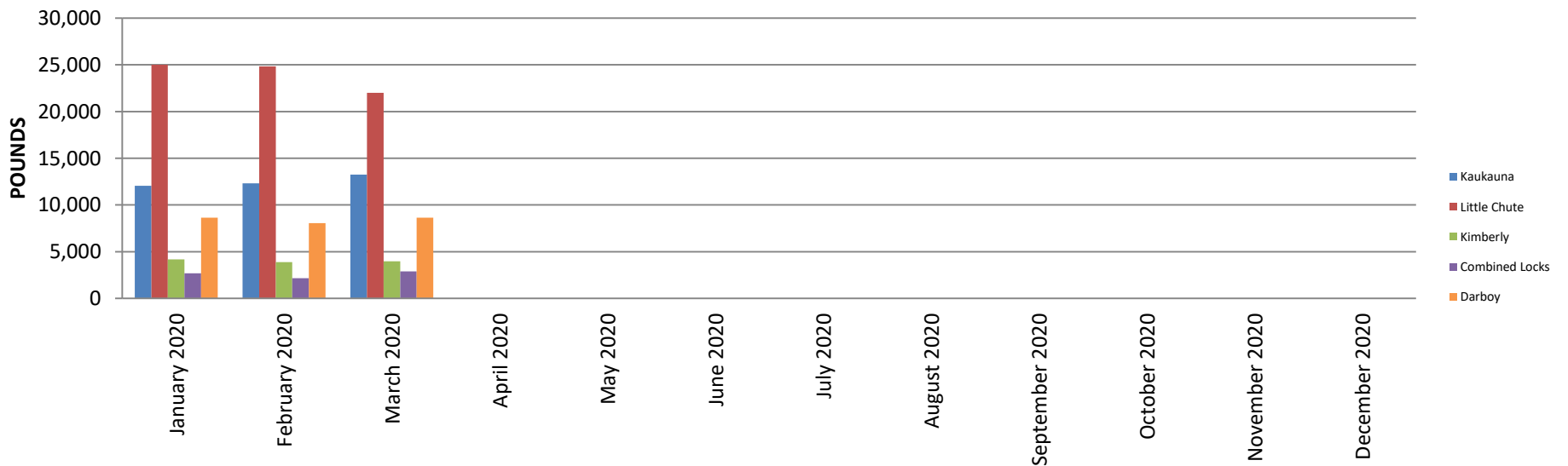
POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	12,057	25,004	4,184	2,679	8,628
February 2020	12,321	24,825	3,892	2,161	8,046
March 2020	13,244	21,996	3,969	2,883	8,644
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

% CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

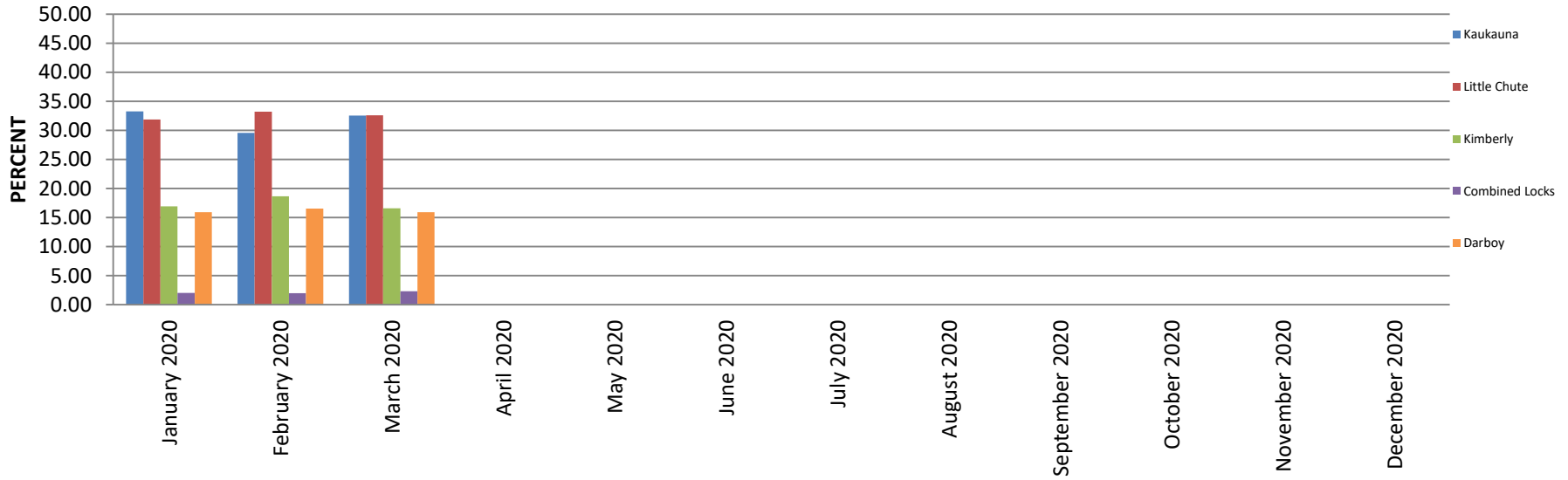
% CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	33.27	31.86	16.93	2.04	15.91
February 2020	29.57	33.23	18.68	1.97	16.54
March 2020	32.56	32.60	16.60	2.34	15.91
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

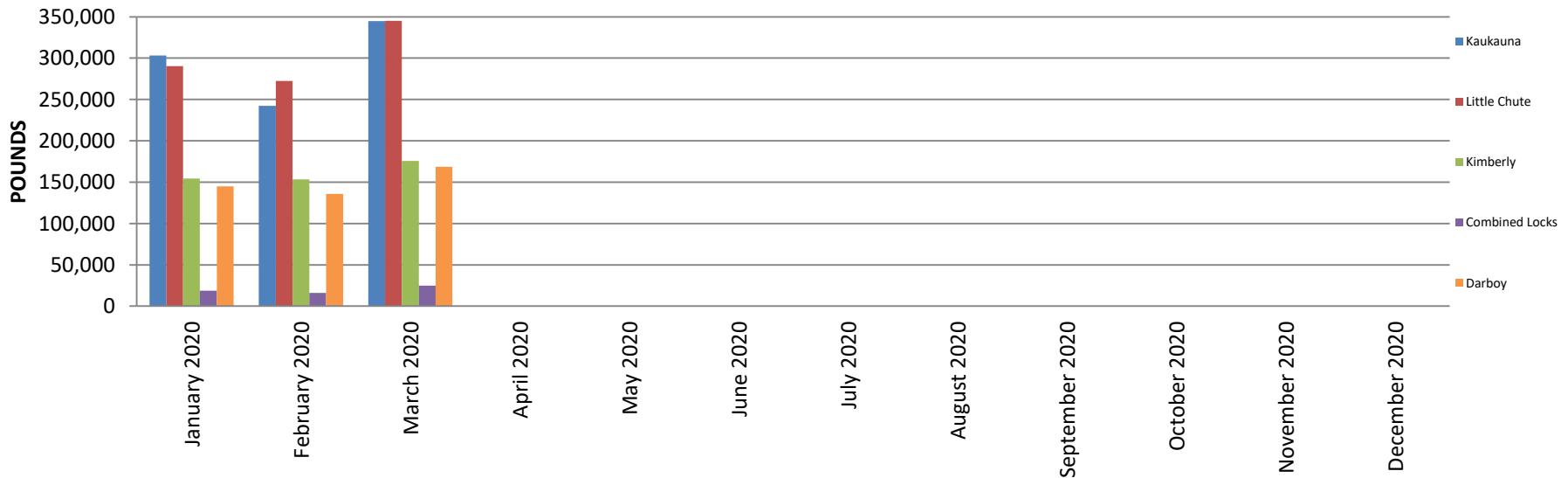
POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2020	303,362	290,456	154,342	18,577	145,056
February 2020	242,458	272,495	153,190	16,145	135,618
March 2020	344,863	345,310	175,792	24,776	168,557
April 2020					
May 2020					
June 2020					
July 2020					
August 2020					
September 2020					
October 2020					
November 2020					
December 2020					

% CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

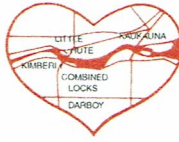


POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS



DISTRICT DIRECTOR:

Brian M. Helminger



COMMISSIONERS:

David J. Casper, President
Bruce M. Siebers, Vice-Pres.
Patrick E. Hennessey, Secretary
Kevin P. Coffey
John W. Sundelius

SERVING:

Combined Locks
Kaukauna
Kimberly
Little Chute
Darboy S.D.

Heart of the Valley

METROPOLITAN SEWERAGE DISTRICT

801 THILMANY ROAD
KAUKAUNA, WISCONSIN 54130
(920) 766-5731 FAX (920) 766-5733
www.hvmsd.org

Facility: Wisconsin Public Service Corporation - Fox Energy Center
P.O. Box 5651
Bismarck, ND 58506

Attn: Account # N2310E

Month: March

Year: 2020

Gallons of Final Effluent Purchased (Billing)

<u>Date</u>	<u>Gallons</u>	<u>Date</u>	<u>Gallons</u>
3/1/2019	2,825,000	3/21/2019	2,705,000
3/2/2019	2,689,000	3/22/2019	2,791,000
3/3/2019	2,452,000	3/23/2019	2,785,000
3/4/2019	2,418,000	3/24/2019	3,027,000
3/5/2019	2,419,000	3/25/2019	3,124,000
3/6/2019	2,419,000	3/26/2019	3,123,000
3/7/2019	2,257,000	3/27/2019	3,107,000
3/8/2019	2,045,000	3/28/2019	2,848,000
3/9/2019	2,748,000	3/29/2019	2,291,000
3/10/2019	2,838,000	3/30/2019	2,316,000
3/11/2019	2,733,000	3/31/2019	2,642,000
3/12/2019	2,420,000		
3/13/2019	2,419,000		
3/14/2019	2,419,000	Total:	81,664,000
3/15/2019	2,418,000		
3/16/2019	2,336,000		
3/17/2019	3,027,000		
3/18/2019	2,969,000		
3/19/2019	2,447,000		
3/20/2019	2,607,000		

Facility: Wisconsin Public Service Corporation - Fox Energy Center
P.O. Box 5651
Bismarck, ND 58506

Attn: Account # N2310E

MONTHLY BILLING

Month: March

Year: 2020

GALLONS PURCHASED: 81,664,000

BILLING RATE: \$0.1592812 PER 1000 GALLONS

TOTAL AMOUNT DUE: \$13,007.54

**Heart of the Valley
Metropolitan Sewerage District**

**Fox Energy Revenue
From the Sale of Final Effluent**

2020

Final Effluent Sent to Fox Energy Facility

Gallons: 251,953,000

Charge Per 1000 Gallons: \$0.1592812 Per 1000 Gallons

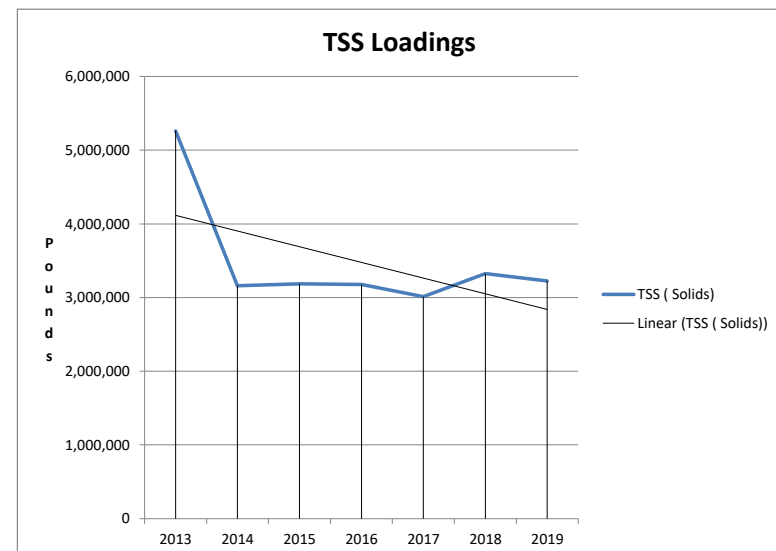
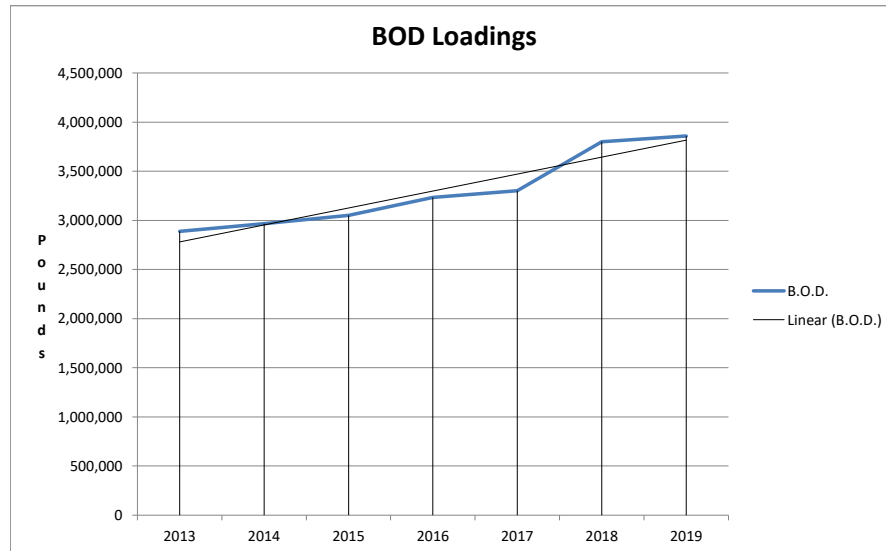
Sale of Final Effluent (Revenue Collected): \$40,131.38

Raw Influent Loadings

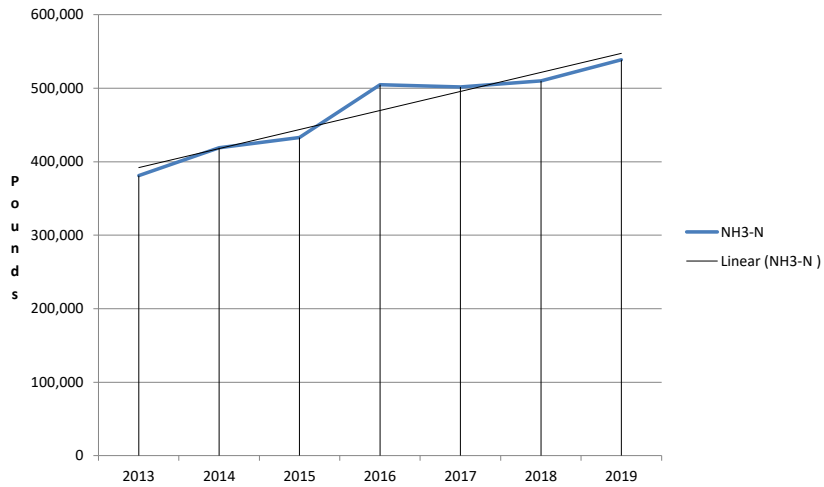
2013 - 2019

Yearly Pounds

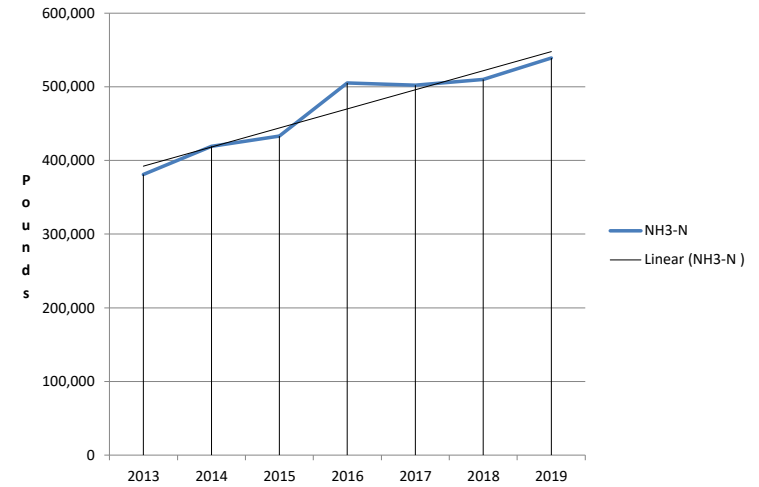
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
B.O.D.	2,887,000	2,966,000	3,053,000	3,235,000	3,302,000	3,802,000	3,858,000
TSS (Solids)	5,261,000	3,161,000	3,185,000	3,178,000	3,013,000	3,323,000	3,224,000
NH3-N	381,000	419,000	433,000	505,000	502,000	510,000	539,000
Total Phosph	76,000	75,000	77,000	83,000	79,000	75,000	76,000
Chlorides	8,349,000	8,227,000	8,212,000	9,031,000	9,330,000	9,105,000	9,350,000
Flow Billion (2.014	2.080	1.888	2.021	2.094	2.128	2.447



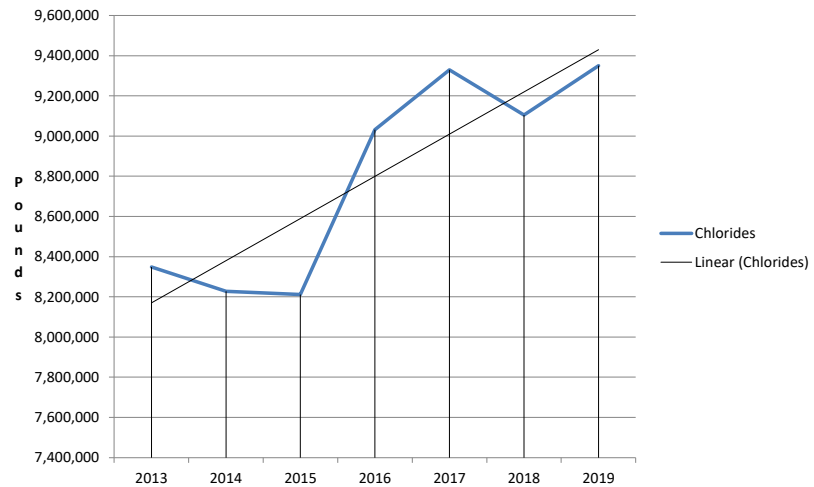
NH3-N Loadings



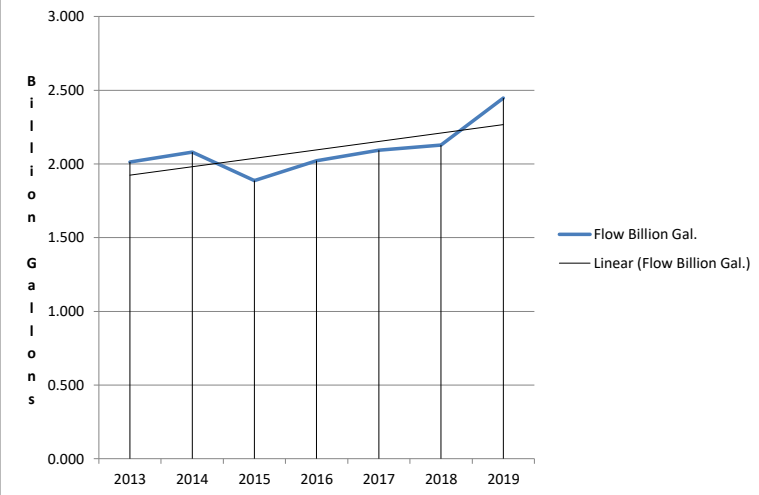
Total Phosphorus Loadings



Chloride Loadings



Billion Gallons

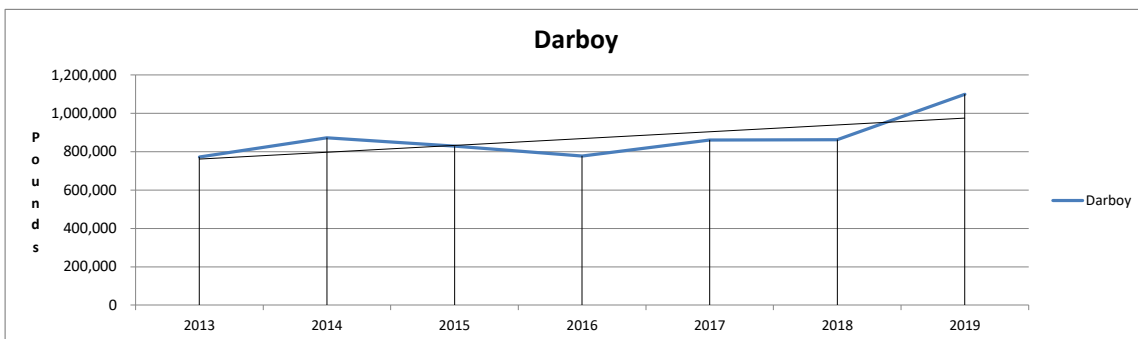


BOD LOADINGS

2013 -2019

Pounds of BOD/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Darboy	772,782	873,183	828,513	777,435	860,793	862,874	1,100,119

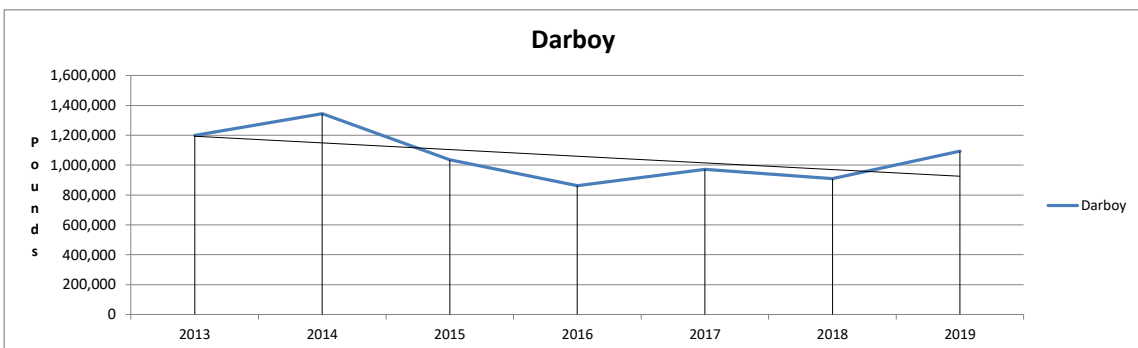


TSS LOADINGS

2013 -2019

Pounds of TSS/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Darboy	1,198,908	1,345,381	1,035,667	863,012	972,689	909,522	1,093,526

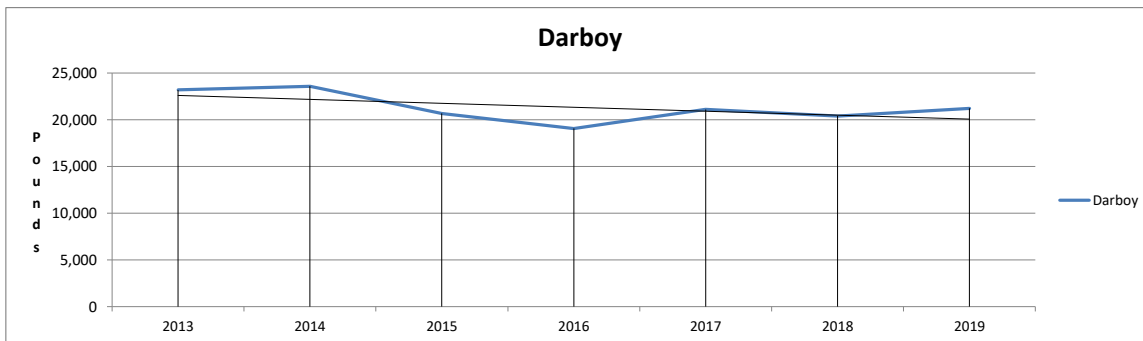


TOTAL PHOSPHORUS LOADINGS

2013 -2019

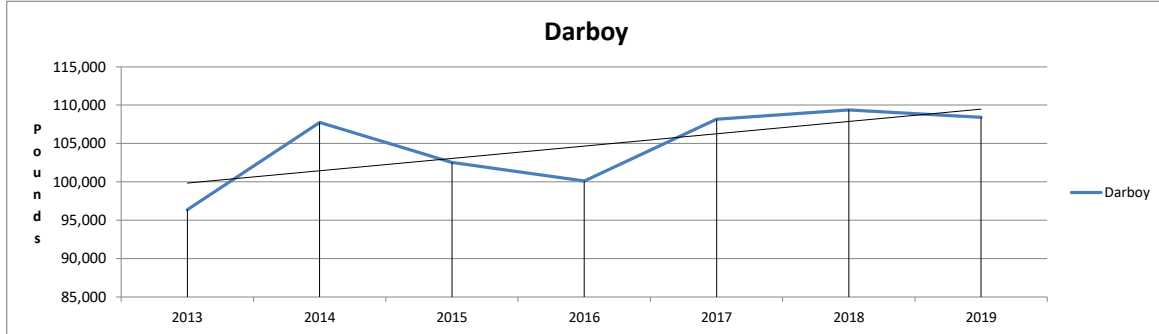
Pounds of Phosphorus/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Darboy	23,190	23,593	20,671	19,063	21,114	20,402	21,226



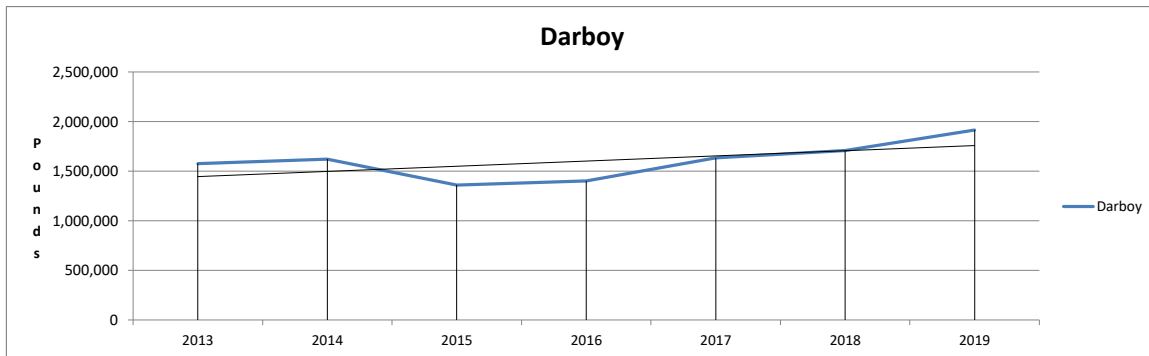
AMMONIA LOADINGS

	2013 -2019						
	<u>Pounds of Ammonia/ Yr</u>						
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Darboy	96,373	107,724	102,535	100,100	108,147	109,391	108,409



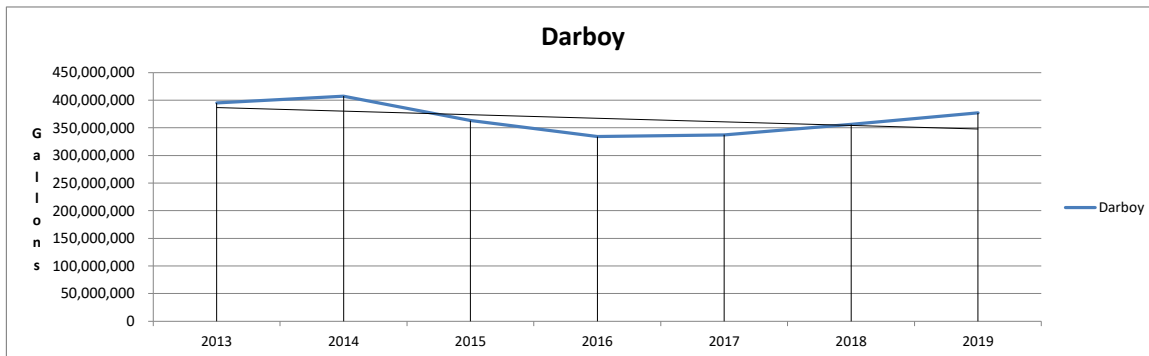
CHLORIDE LOADINGS

	2013 -2019						
	<u>Pounds of Chloride/ Yr</u>						
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Darboy	1,577,551	1,623,675	1,361,573	1,402,070	1,634,035	1,709,147	1,915,269



FLOW GALLONS

	2013 -2019						
	<u>Gallons of Flow/ Yr</u>						
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Darboy	394,763,000	407,256,000	363,024,000	334,095,000	337,214,000	356,147,000	376,897,000

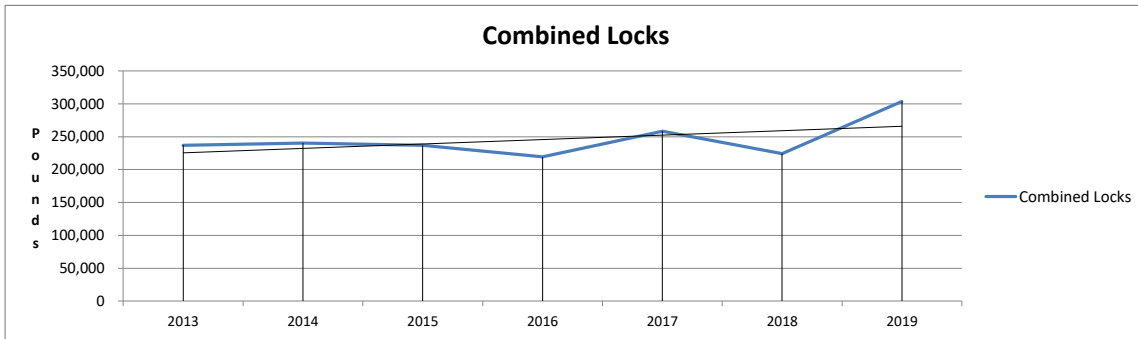


BOD LOADINGS

2013 -2019

Pounds of BOD/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Combined Locks	237,135	240,411	236,809	219,359	258,495	224,502	303,500

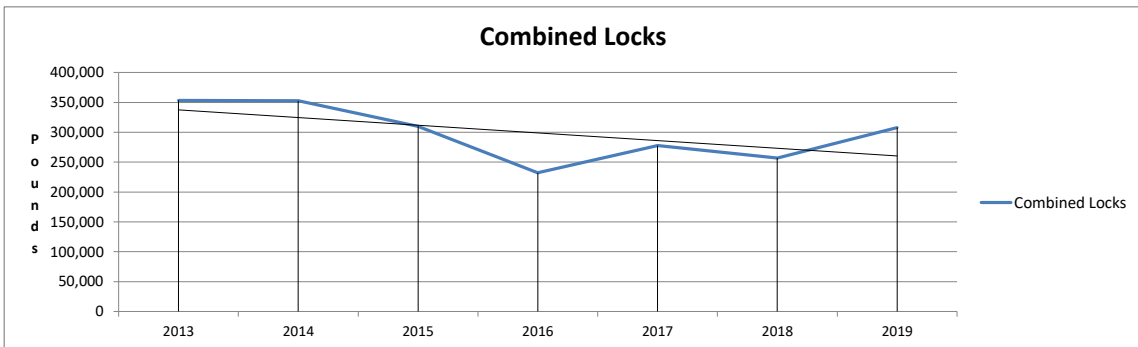


TSS LOADINGS

2013 -2019

Pounds of TSS/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Combined Locks	353,381	352,467	309,954	232,175	277,459	256,972	307,915

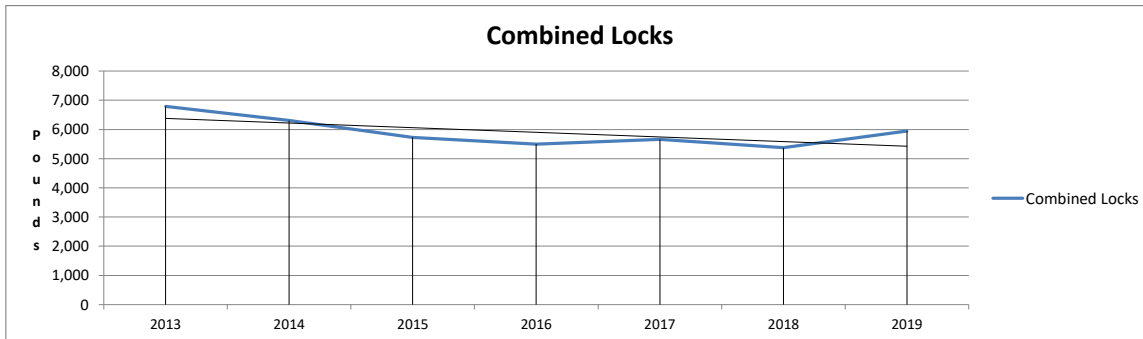


TOTAL PHOSPHORUS LOADINGS

2013 -2019

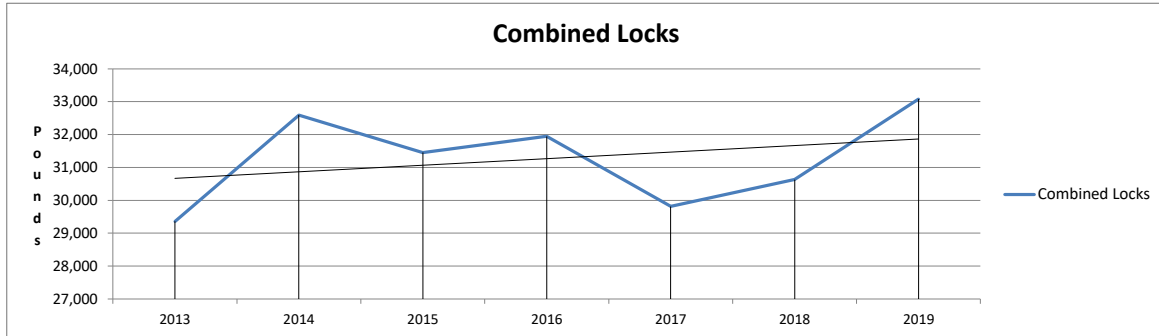
Pounds of Phosphorus/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Combined Locks	6,787	6,303	5,727	5,499	5,657	5,370	5,950



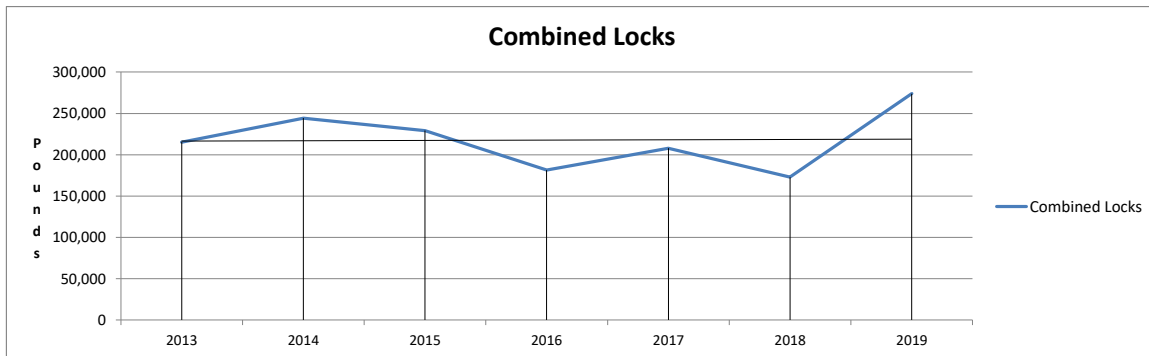
AMMONIA LOADINGS

	2013 -2019						
	Pounds of Ammonia/ Yr						
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Combined Locks	29,362	32,593	31,454	31,946	29,815	30,633	33,076



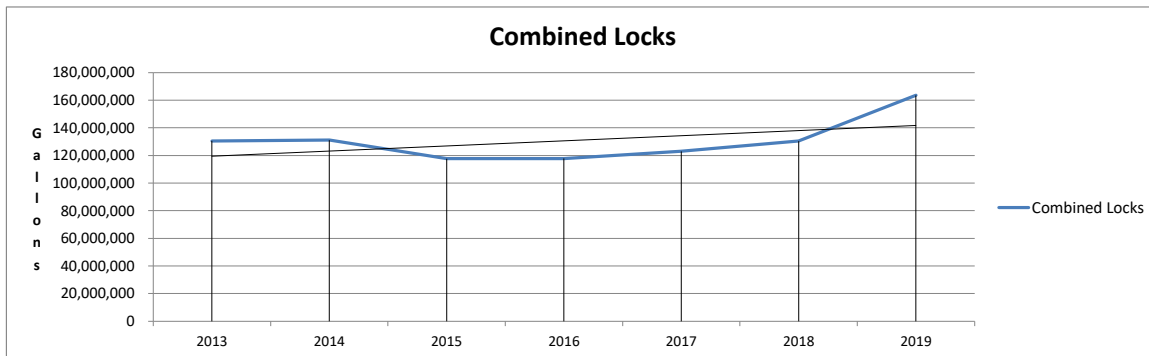
CHLORIDE LOADINGS

	2013 -2019						
	Pounds of Chloride/ Yr						
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Combined Locks	215,340	244,343	229,323	181,427	207,870	172,836	273,864



FLOW GALLONS

	2013 -2019						
	Gallons of Flow/ Yr						
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Combined Locks	130,481,000	131,124,000	117,688,000	117,817,000	122,997,000	130,346,000	163,519,000

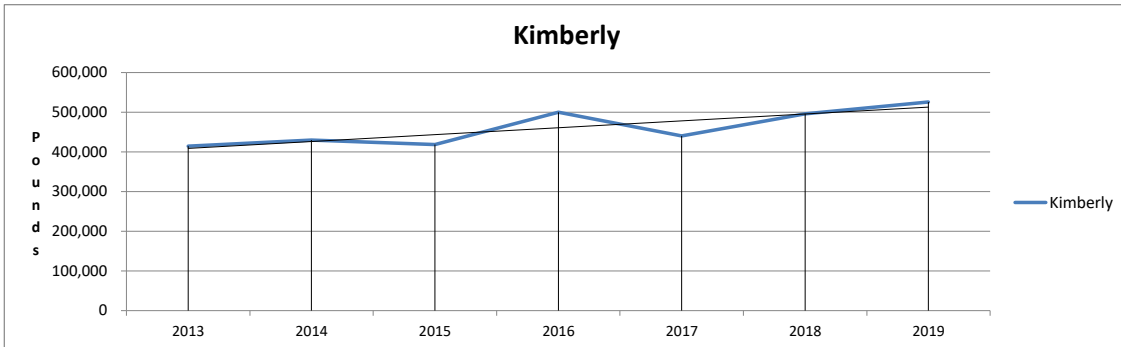


BOD LOADINGS

2013 -2019

Pounds of BOD/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Kimberly	414,645	430,171	418,662	499,892	440,561	495,597	526,203

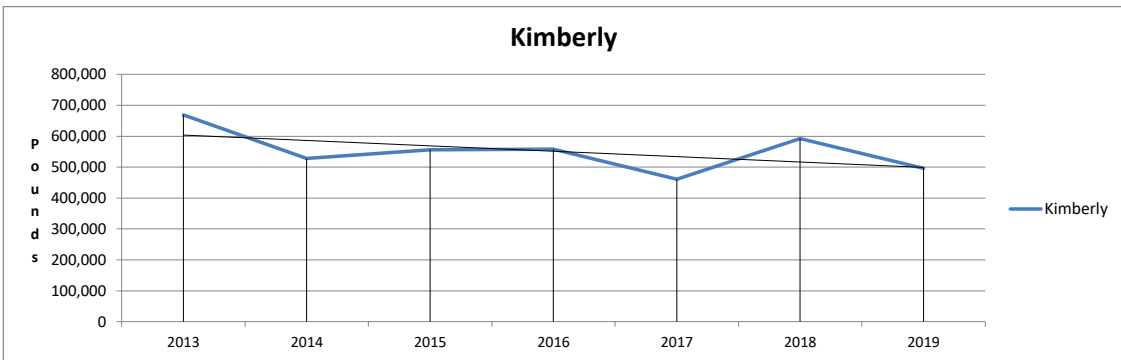


TSS LOADINGS

2013 -2019

Pounds of TSS/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Kimberly	668,749	528,532	556,598	557,869	460,705	592,013	495,982

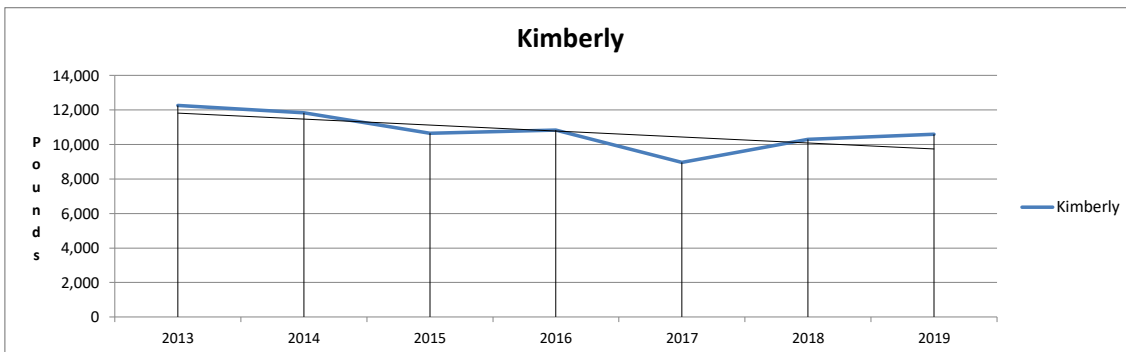


TOTAL PHOSPHORUS LOADINGS

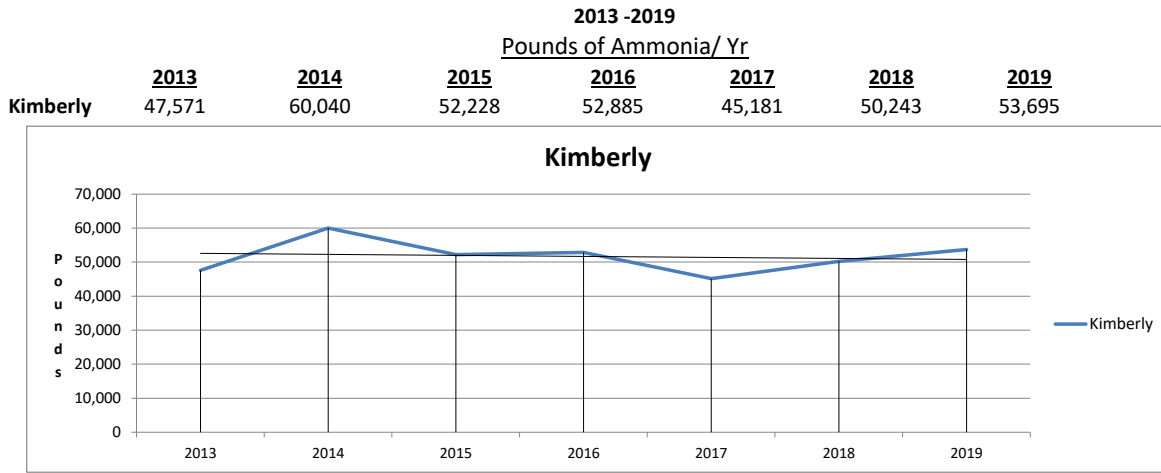
2013 -2019

Pounds of Phosphorus/ Yr

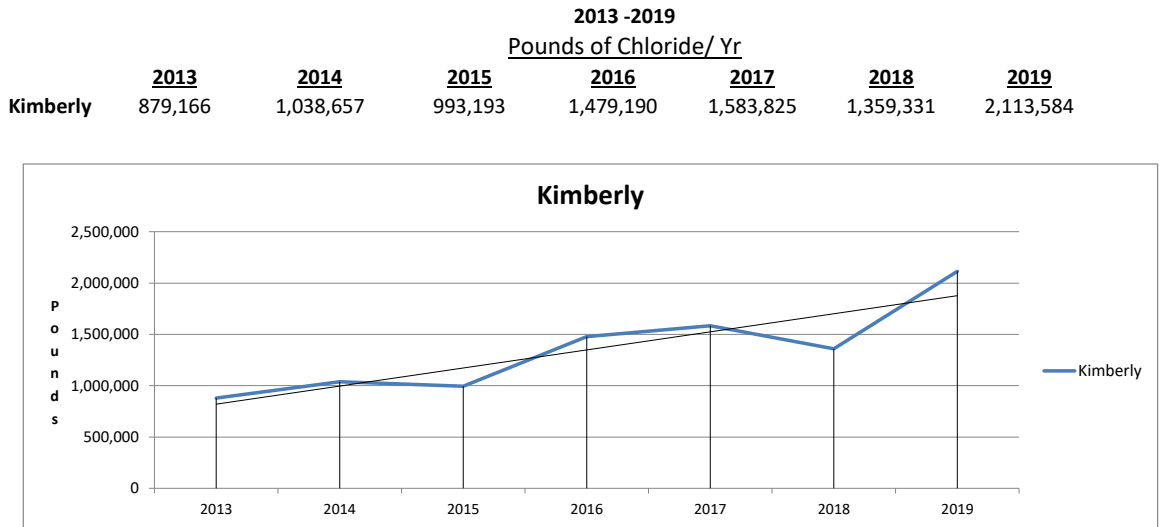
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Kimberly	12,269	11,833	10,657	10,838	8,968	10,291	10,603



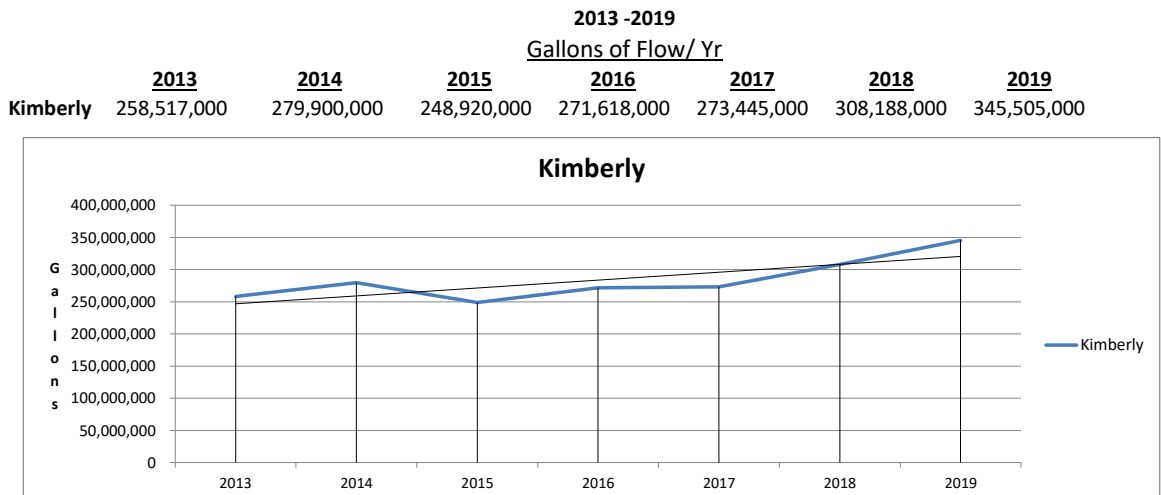
AMMONIA LOADINGS



CHLORIDE LOADINGS



FLOW GALLONS

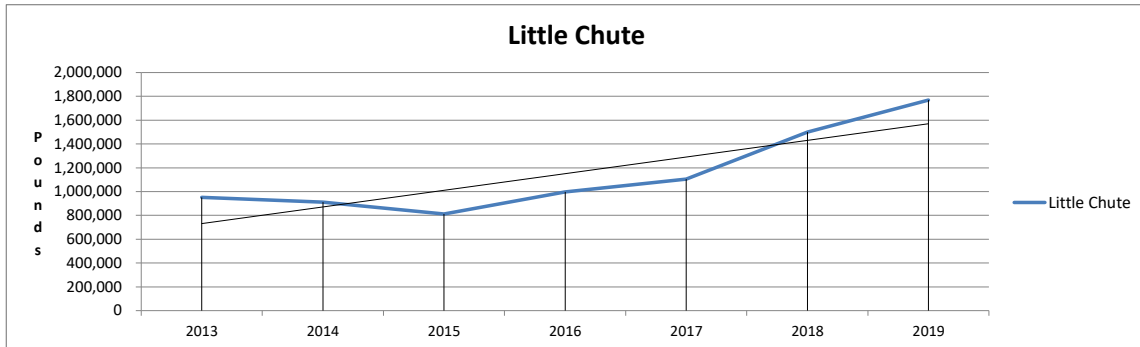


BOD LOADINGS

2013 -2019

Pounds of BOD/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Little Chute	952,520	911,281	813,310	998,017	1,105,170	1,500,818	1,768,228

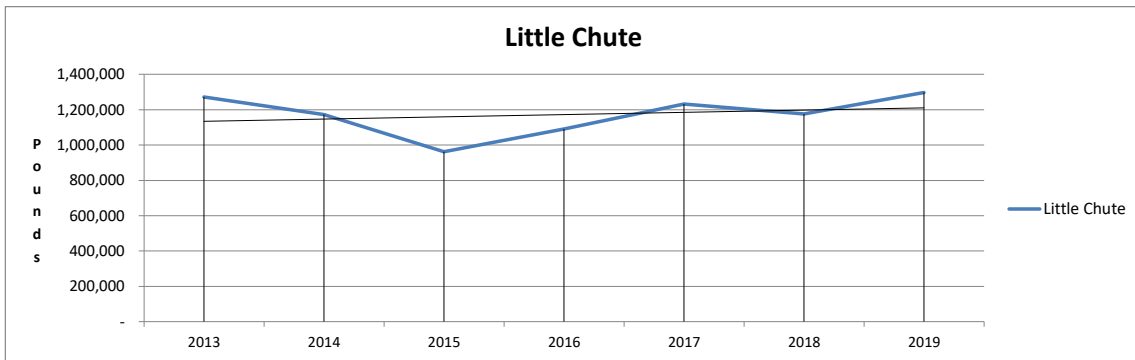


TSS LOADINGS

2013 -2019

Pounds of TSS/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Little Chute	1,272,304	1,172,313	962,845	1,090,645	1,231,652	1,176,158	1,297,898

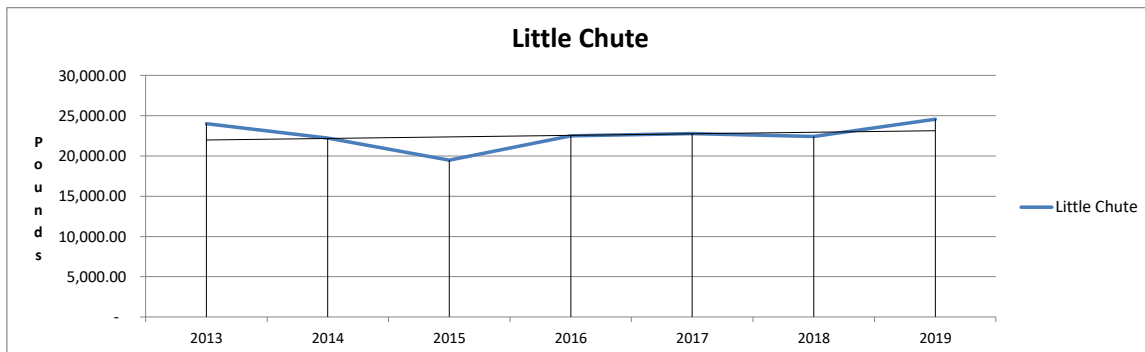


TOTAL PHOSPHORUS LOADINGS

2013 -2019

Pounds of Phosphorus/ Yr

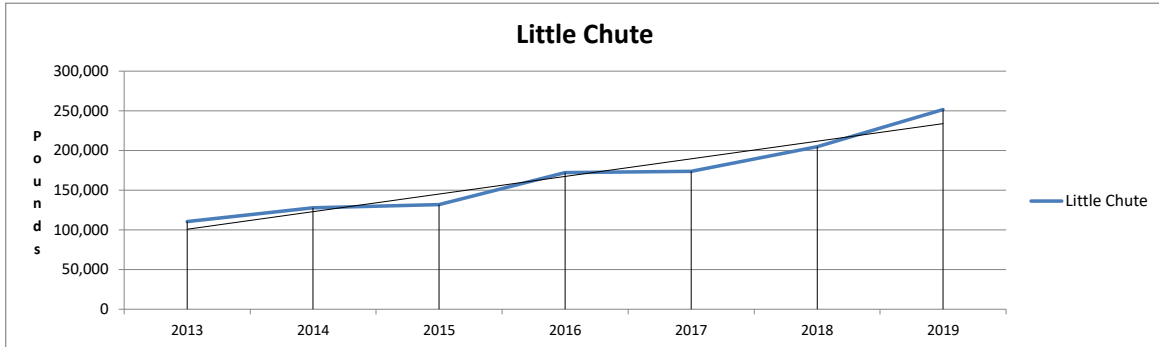
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Little Chute	24,003.13	22,225.96	19,500.05	22,503.74	22,787.53	22,425.32	24,585.55



AMMONIA LOADINGS

2013 -2019
Pounds of Ammonia/ Yr

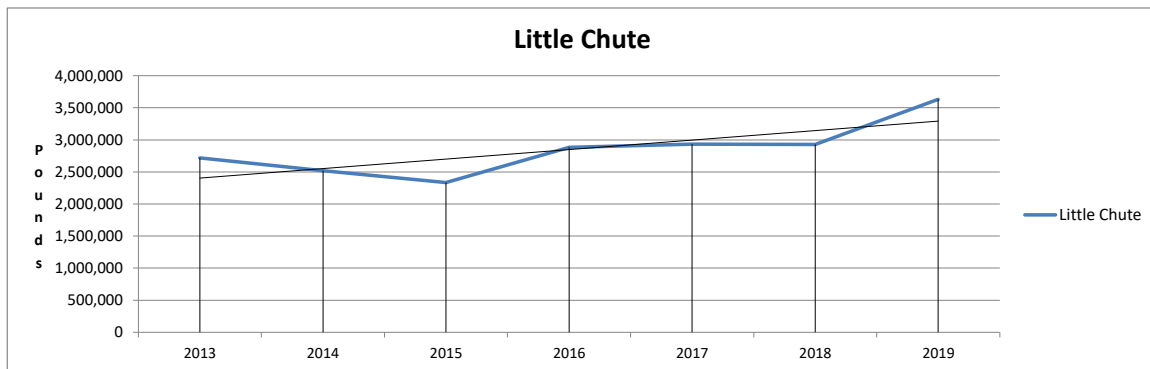
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Little Chute	110,233	127,597	131,821	172,079	173,759	204,901	251,533



CHLORIDE LOADINGS

2013 -2019
Pounds of Chloride/ Yr

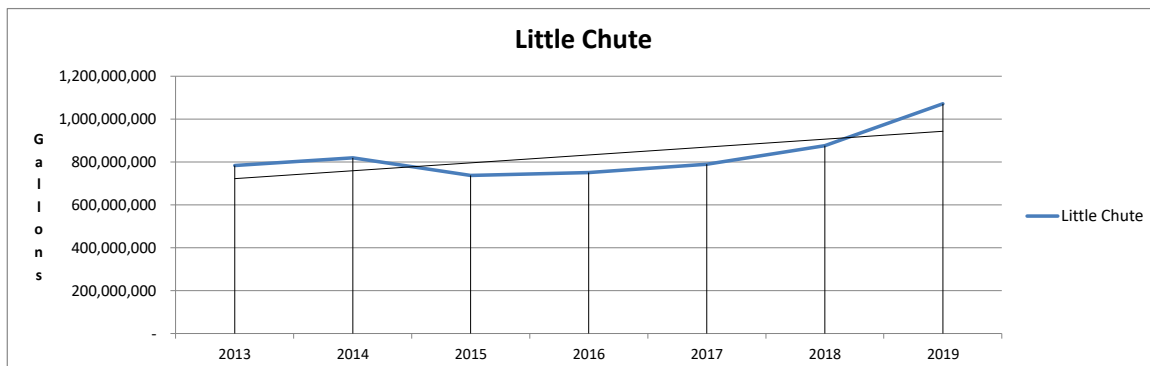
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Little Chute	2,720,299	2,517,331	2,332,516	2,881,758	2,935,777	2,928,684	3,630,435



FLOW GALLONS

2013 -2019
Gallons of Flow/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Little Chute	522,533,000	544,201,000	474,045,000	504,459,000	549,502,000	562,652,000	701,637,000

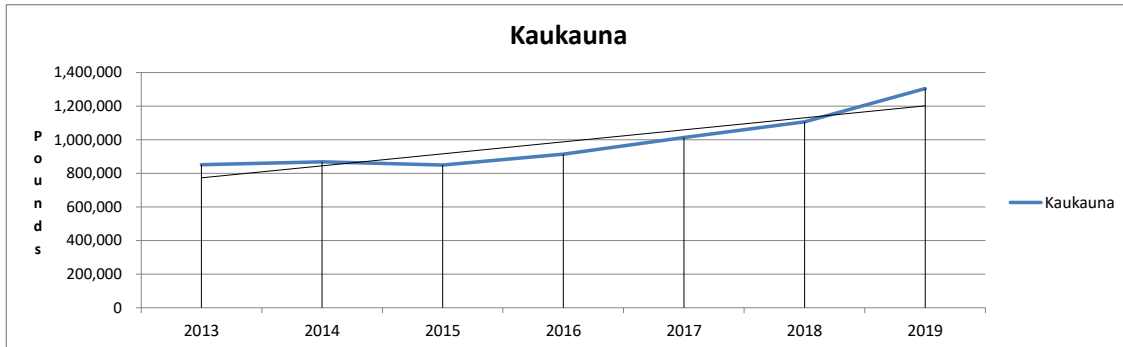


BOD LOADINGS

2013 -2019

Pounds of BOD/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Kaukauna	851,551	867,639	849,511	913,981	1,012,966	1,107,495	1,304,550

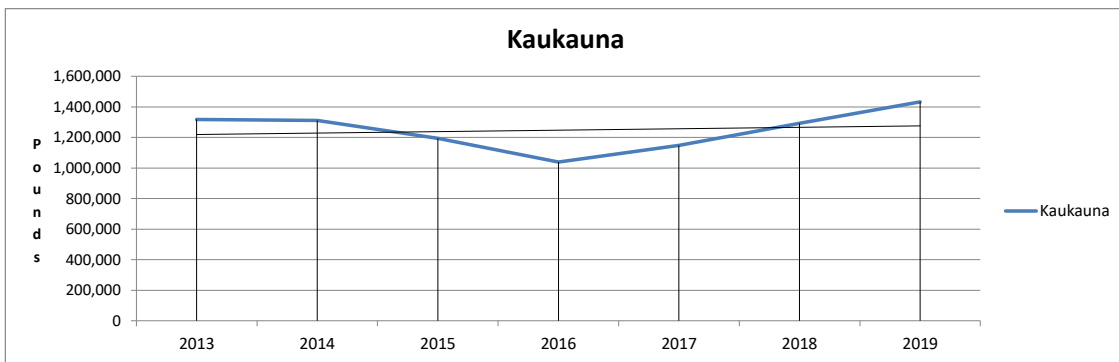


TSS LOADINGS

2013 -2019

Pounds of TSS/ Yr

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Kaukauna	1,317,929	1,311,467	1,193,984	1,039,601	1,148,678	1,293,092	1,432,870

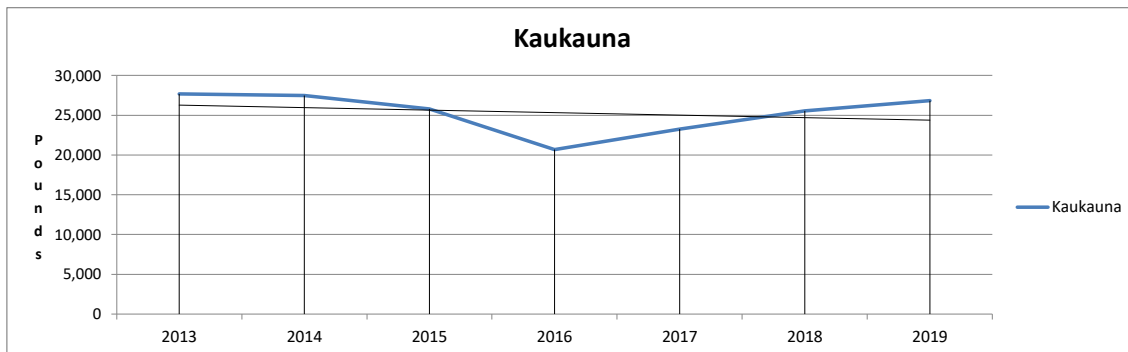


TOTAL PHOSPHORUS LOADINGS

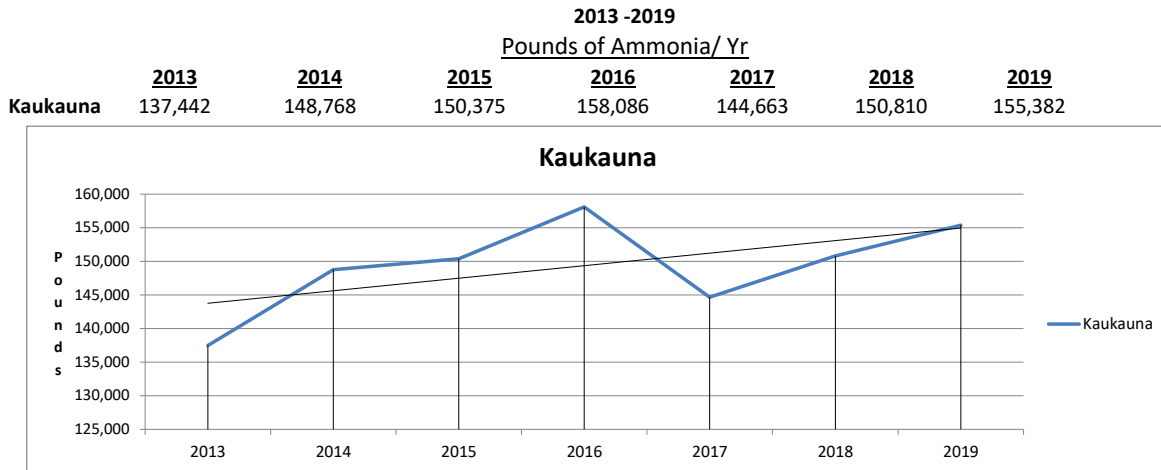
2013 -2019

Pounds of Phosphorus/ Yr

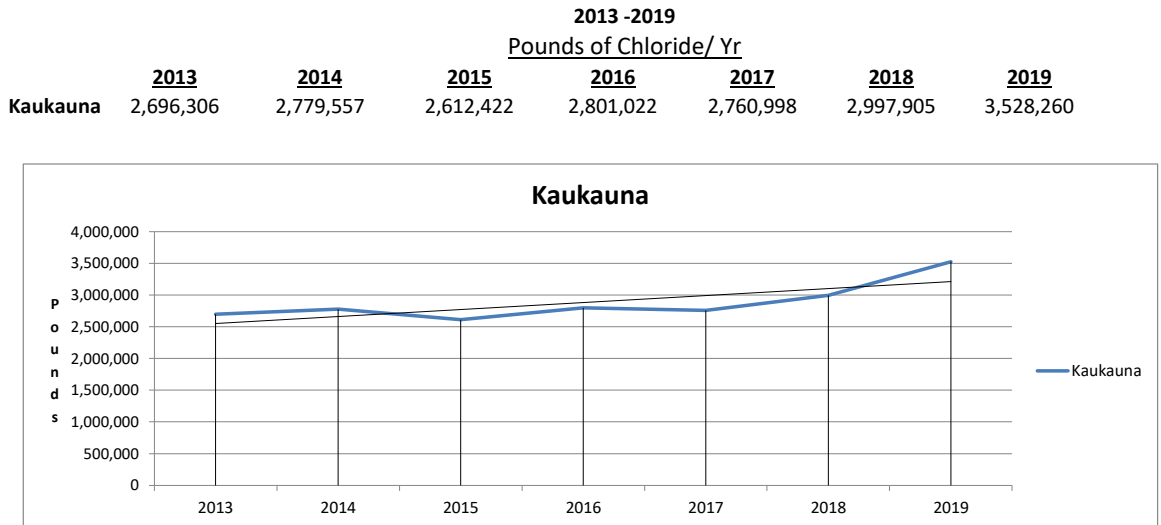
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Kaukauna	27,685	27,478	25,798	20,671	23,267	25,539	26,855



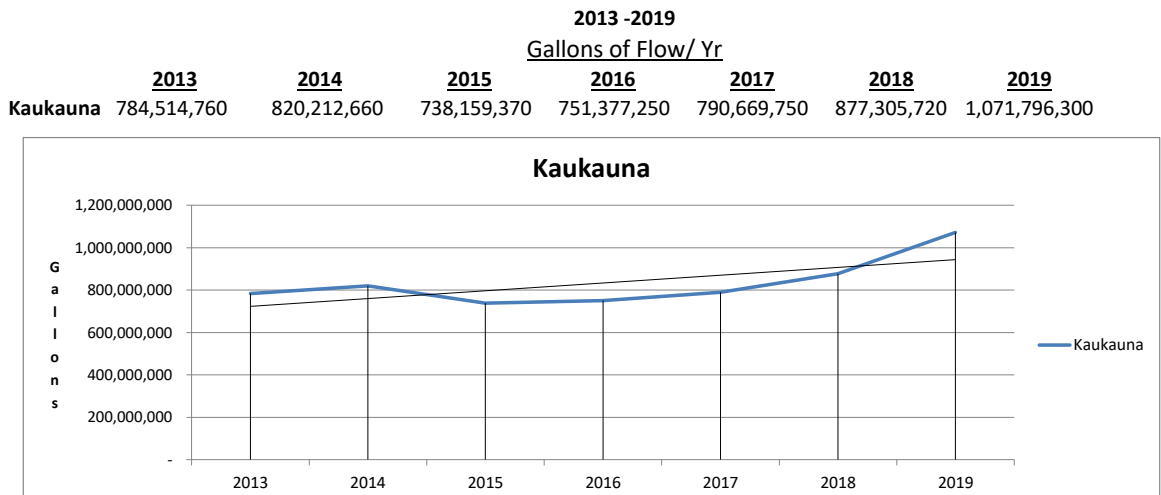
AMMONIA LOADINGS



CHLORIDE LOADINGS

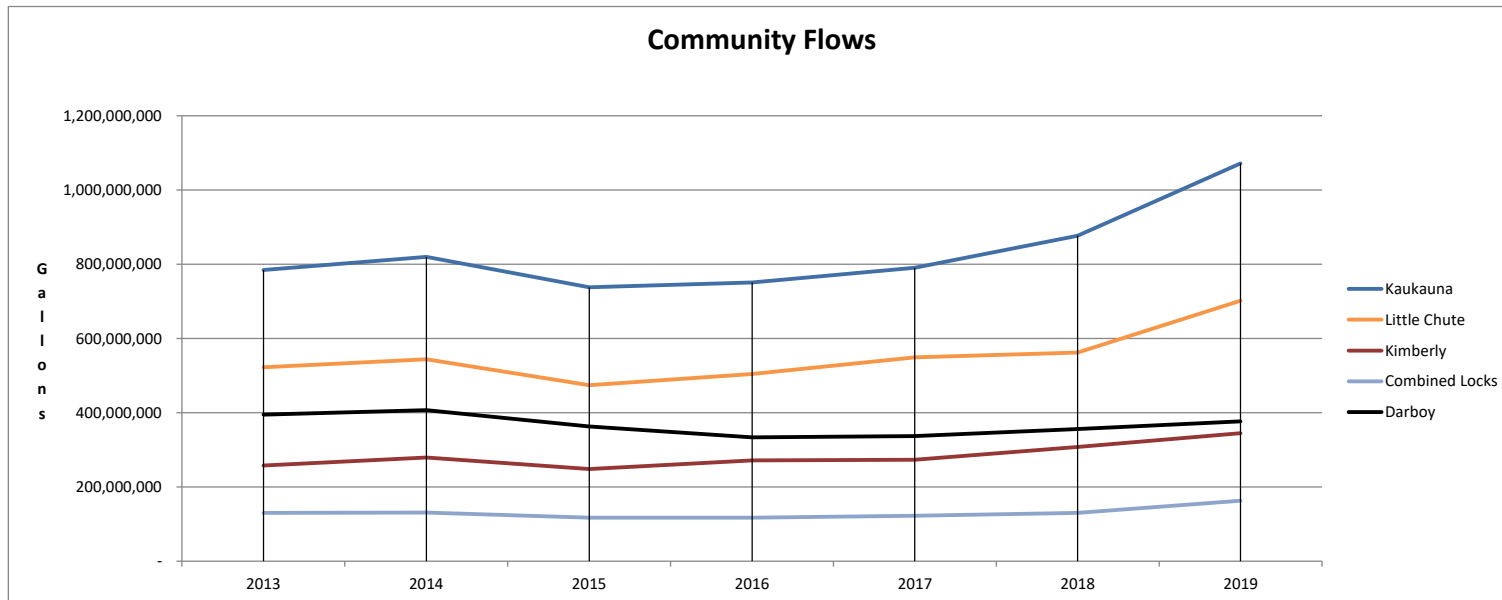


FLOW GALLONS



Community Flows 2013 - 2019

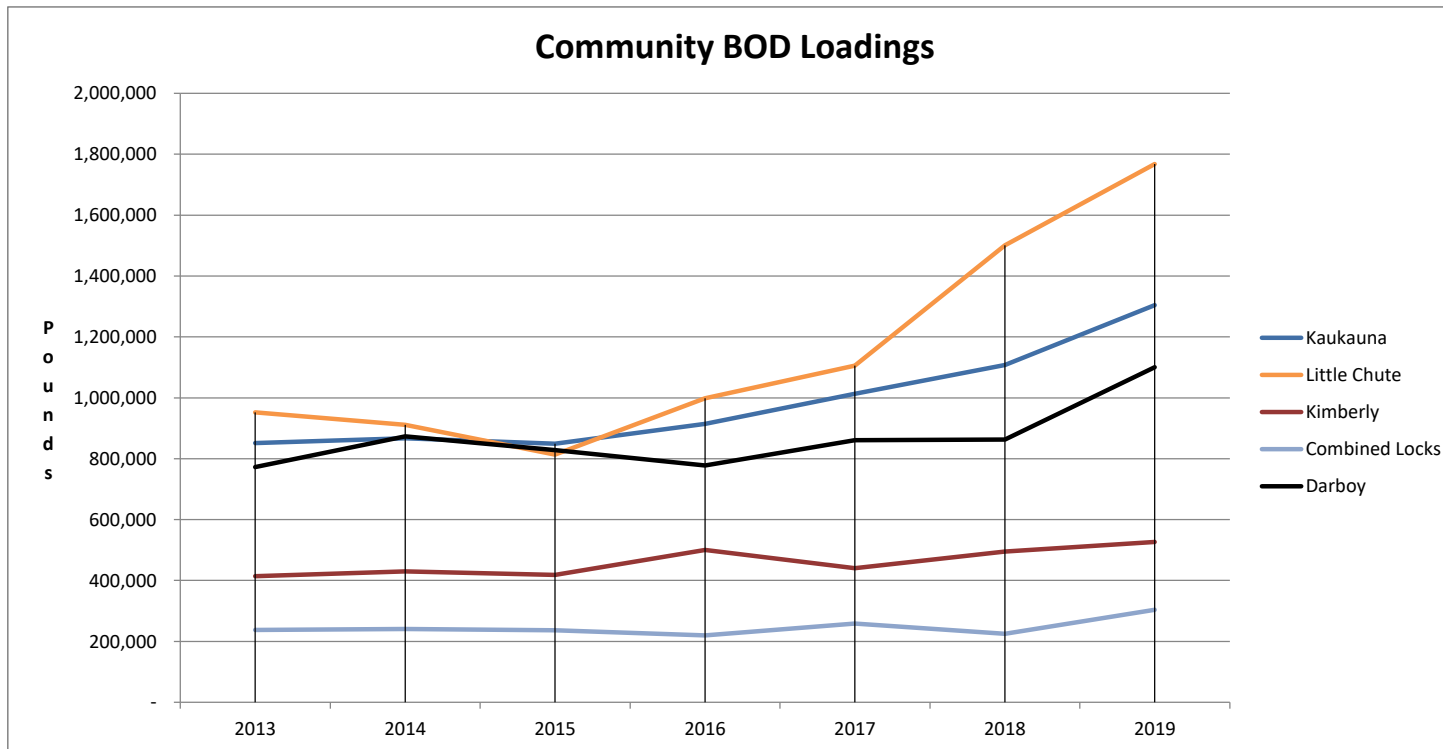
	2013	2014	2015	2016	2017	2018	2019
Kaukauna	784,514,760	820,212,660	738,159,370	751,377,250	790,669,750	877,305,720	1,071,796,300
Little Chute	522,533,000	544,201,000	474,045,000	504,459,000	549,502,000	562,652,000	701,637,000
Kimberly	258,517,000	279,900,000	248,920,000	271,618,000	273,445,000	308,188,000	345,505,000
Combined Locks	130,481,000	131,124,000	117,688,000	117,817,000	122,997,000	130,346,000	163,519,000
Darboy	394,763,000	407,256,000	363,024,000	334,095,000	337,214,000	356,147,000	376,897,000



Community BOD Loadings

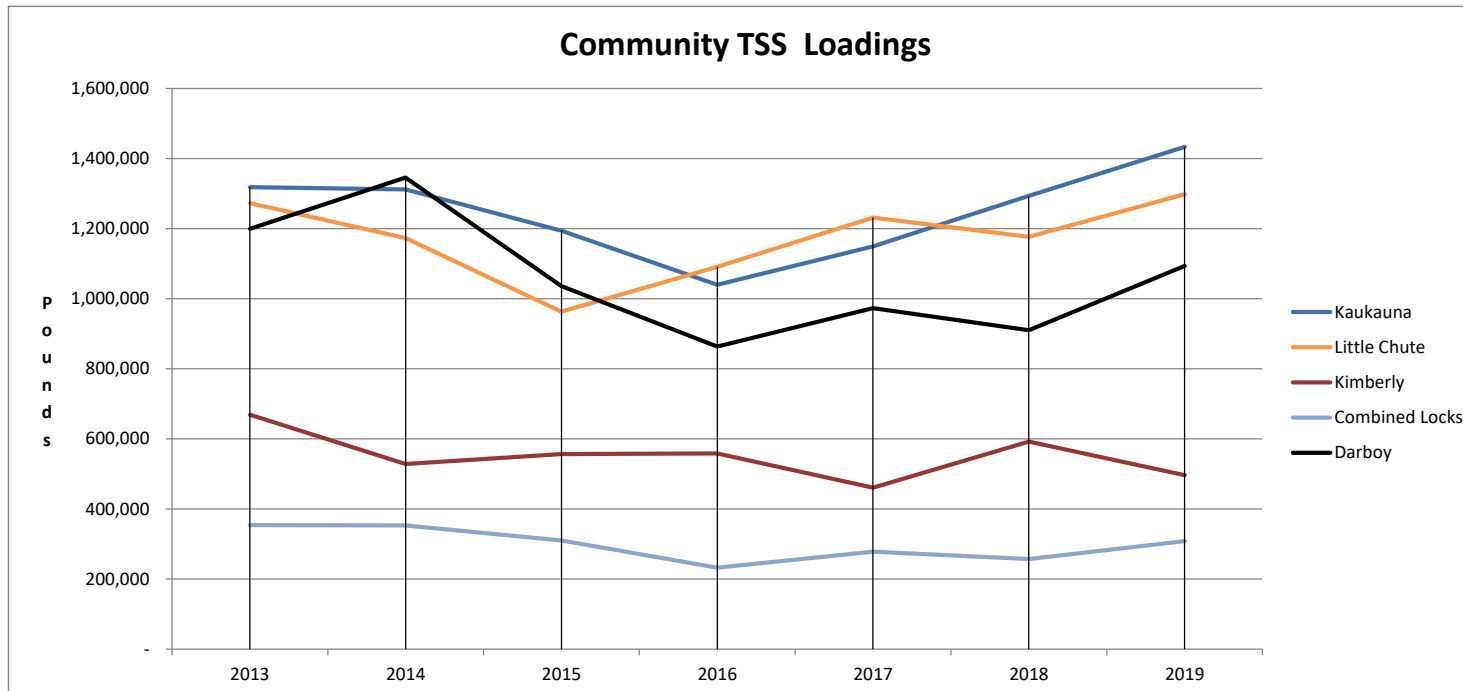
2013 - 2019

	2013	2014	2015	2016	2017	2018	2019
Kaukauna	851,551	867,639	849,511	913,981	1,012,966	1,107,495	1,304,550
Little Chute	952,520	911,281	813,310	998,017	1,105,170	1,500,818	1,768,228
Kimberly	414,645	430,171	418,662	499,892	440,561	495,597	526,203
Combined Locks	237,135	240,411	236,809	219,359	258,495	224,502	303,500
Darboy	772,782	873,183	828,513	777,435	860,793	862,874	1,100,119



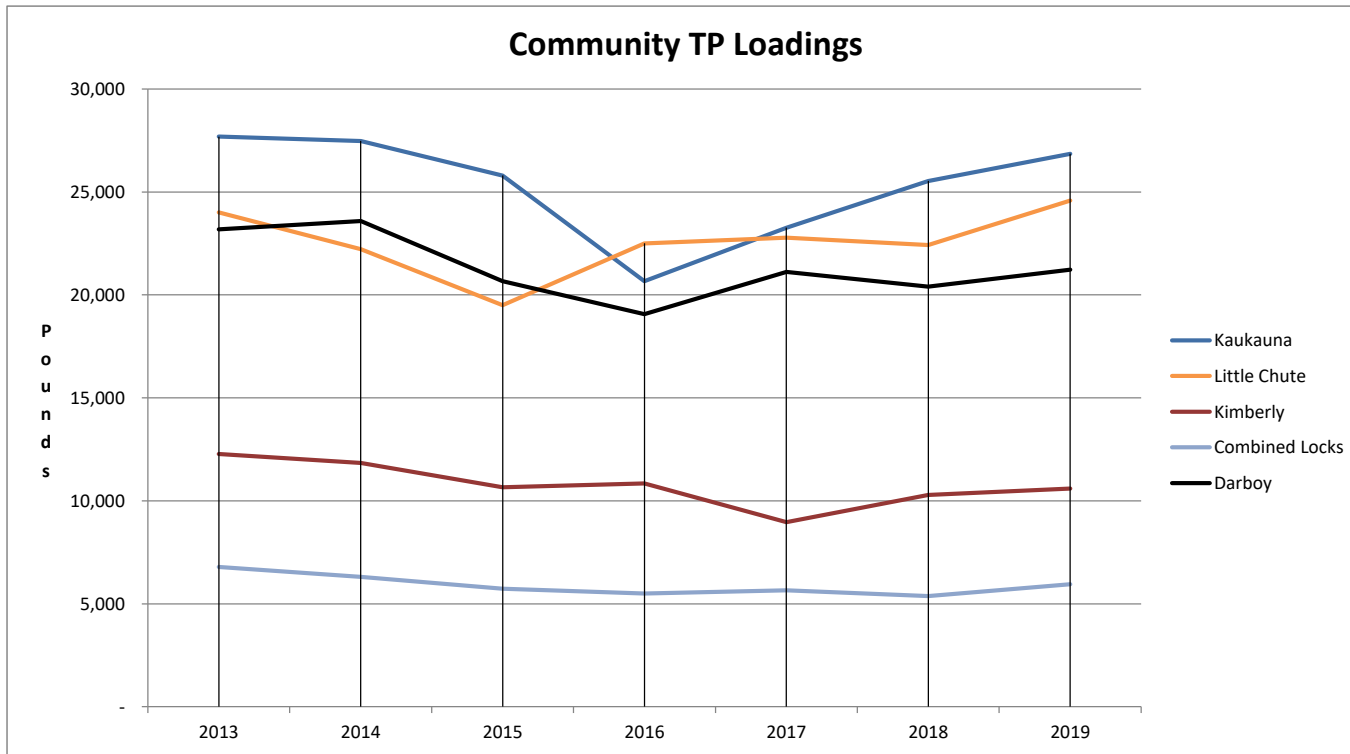
Community TSS Loadings 2013 - 2019

	2013	2014	2015	2016	2017	2018	2019
Kaukauna	1,317,929	1,311,467	1,193,984	1,039,601	1,148,678	1,293,092	1,432,870
Little Chute	1,272,304	1,172,313	962,845	1,090,645	1,231,652	1,176,158	1,297,898
Kimberly	668,749	528,532	556,598	557,869	460,705	592,013	495,982
Combined Locks	353,381	352,467	309,954	232,175	277,459	256,972	307,915
Darboy	1,198,908	1,345,381	1,035,667	863,012	972,689	909,522	1,093,526



Community TP Loadings 2013 - 2019

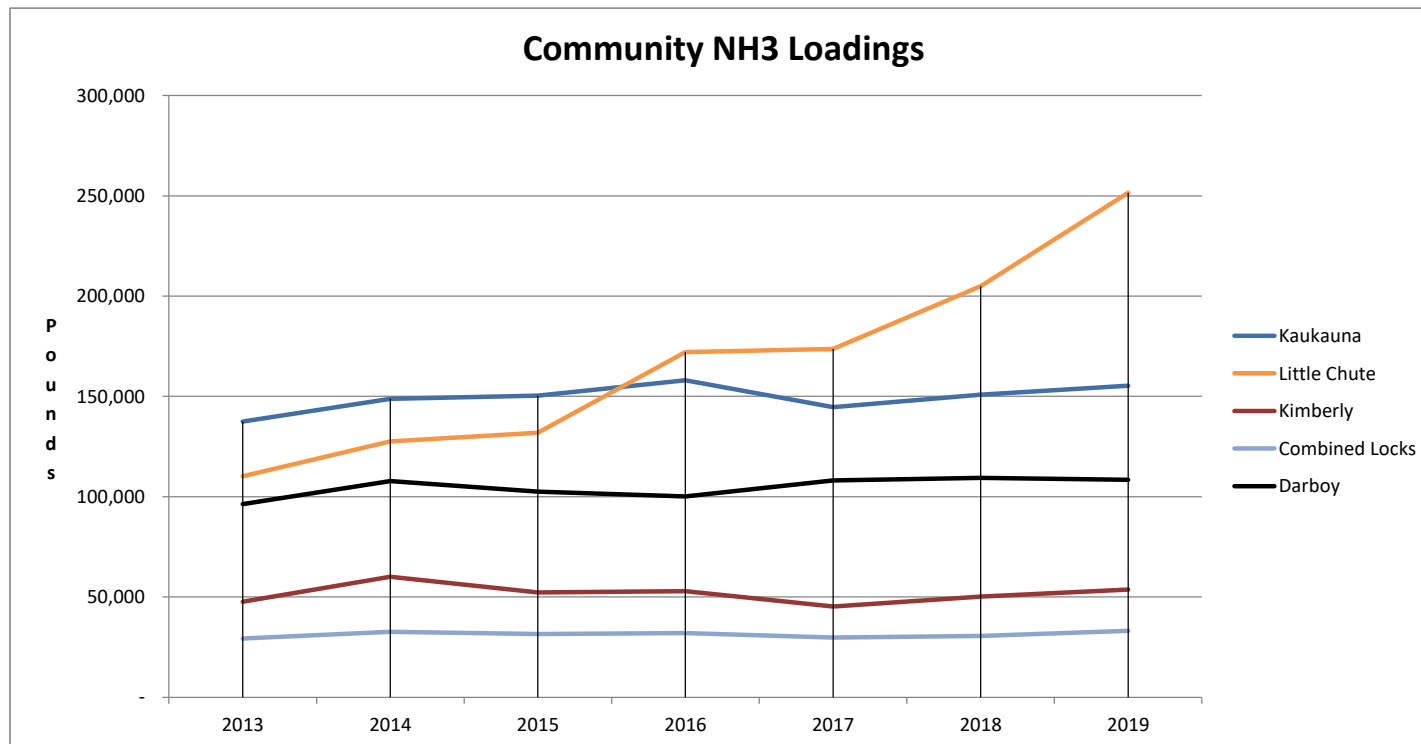
	2013	2014	2015	2016	2017	2018	2019
Kaukauna	27,685	27,478	25,798	20,671	23,267	25,539	26,855
Little Chute	24,003	22,226	19,500	22,504	22,788	22,425	24,586
Kimberly	12,269	11,833	10,657	10,838	8,968	10,291	10,603
Combined Locks	6,787	6,303	5,727	5,499	5,657	5,370	5,950
Darboy	23,190	23,593	20,671	19,063	21,114	20,402	21,226



Community NH3 Loadings

2013 - 2019

	2013	2014	2015	2016	2017	2018	2019
Kaukauna	137,442	148,768	150,375	158,086	144,663	150,810	155,382
Little Chute	110,233	127,597	131,821	172,079	173,759	204,901	251,533
Kimberly	47,571	60,040	52,228	52,885	45,181	50,243	53,695
Combined Locks	29,362	32,593	31,454	31,946	29,815	30,633	33,076
Darboy	96,373	107,724	102,535	100,100	108,147	109,391	108,409



Community Chloride Loadings 2013 - 2019

	2013	2014	2015	2016	2017	2018	2019
Kaukauna	2,696,306	2,779,557	2,612,422	2,801,022	2,760,998	2,997,905	3,528,260
Little Chute	2,720,299	2,517,331	2,332,516	2,881,758	2,935,777	2,928,684	3,630,435
Kimberly	879,166	1,038,657	993,193	1,479,190	1,583,825	1,359,331	2,113,584
Combined Locks	215,340	244,343	229,323	181,427	207,870	172,836	273,864
Darboy	1,577,551	1,623,675	1,361,573	1,402,070	1,634,035	1,709,147	1,915,269

