

FLOW AND STRENGTH PROJECTIONS

MONTH: March 2016

	<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)	205,712,487	270,117,400	64,404,913	\$ 162,512.86	\$ 213,392.75	\$ 50,879.88
B.O.D. (#s)	344,746	306,563	-38,183	\$ 87,565.48	\$ 77,867.01	\$ (9,698.48)
S. SOLIDS (#s)	485,764	345,322	-140,442	\$ 106,382.32	\$ 75,625.57	\$ (30,756.74)
PHOSPHORUS (#s)	8,630	7,218	-1,412	\$ 49,380.86	\$ 41,299.97	\$ (8,080.89)
AMMONIA-N (#s)	38,349	45,226	6,877	\$ 65,039.90	\$ 76,703.53	\$ 11,663.63
CHLORIDES (#s)	777,137	929,574	152,437	\$ 3,885.69	\$ 4,647.87	\$ 762.19
			TOTAL:	\$ 474,767.11	\$ 489,536.70	\$ 14,769.58

(THRU MARCH 2016)

PROJECTED FOR 2016

	<u>END OF YEAR PROJECTED</u>	<u>YEAR TO DATE SURPLUS/ DEFICIT</u>	<u>YEAR TO DATE SURPLUS/ DEFICIT \$\$</u>
FLOW (GALLONS)	1,924,757,830	122,236,640	\$ 96,566.95
B.O.D. (#s)	3,352,026	20,467	\$ 5,198.55
S. SOLIDS (#s)	4,647,790	-289,351	\$ (63,367.90)
PHOSPHORUS (#s)	90,738	-4,289	\$ (24,543.32)
AMMONIA-N (#s)	402,396	19,746	\$ 33,488.78
CHLORIDES (#s)	7,179,135	512,950	\$ 2,564.75
		TOTAL:	\$ 49,907.80

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

MONTH: MARCH 2016

HYDRAULIC AND ORGANIC LOADINGS DATA

INFLUENT

TOTAL FLOW TO PLANT: 266,917,000 GALLONS		
AVERAGE B.O.D. :	129 mg/L	MAXIMUM DAILY FLOW TO PLANT:
AVERAGE SUSPENDED SOLIDS :	121 mg/L	16,630,000 Gallons
AVERAGE PHOSPHORUS :	3.49 mg/L	
AVERAGE AMMONIA-N :	19.64 mg/L	
AVERAGE CHLORIDES :	405.00 mg/L	

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	40.24	26.94	30.50	29.03	31.18	34.50
LITTLE CHUTE	25.63	30.84	23.75	26.72	34.70	33.63
KIMBERLY	14.31	15.58	15.83	15.32	10.34	14.54
COMBINED LOCKS	6.46	6.45	6.52	6.69	6.25	2.50
DARBOY	13.37	20.20	23.40	22.24	17.53	14.83

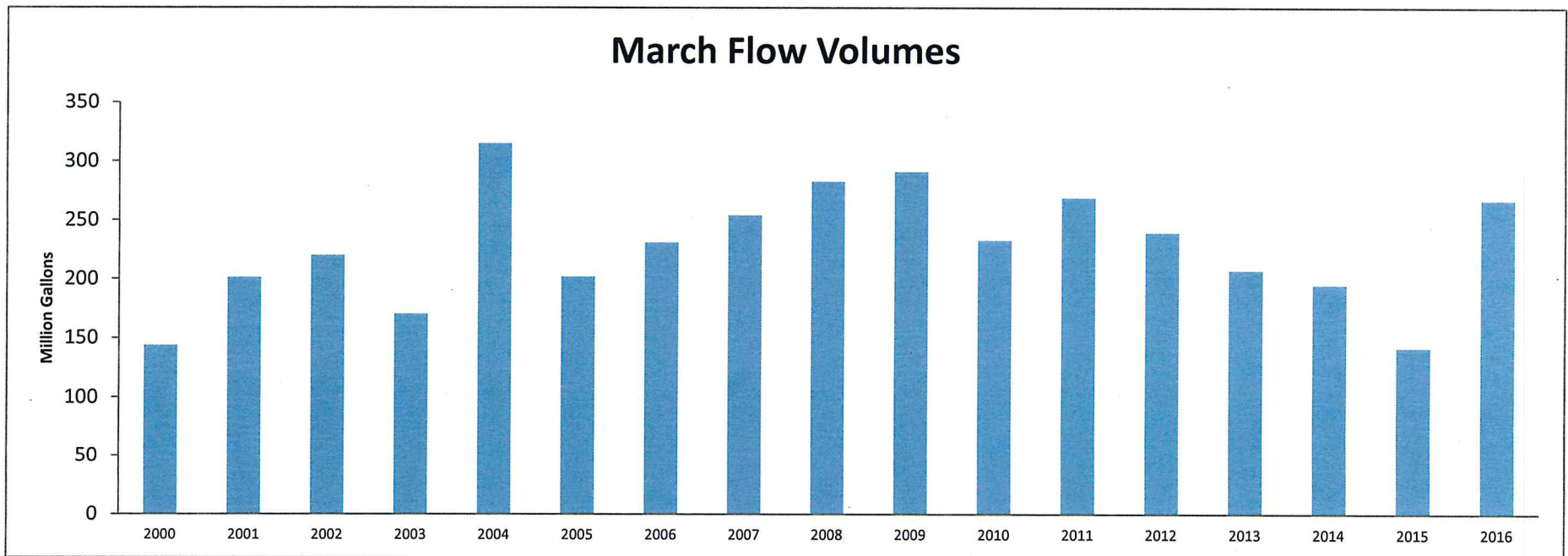
<u>AVERAGE DAILY INFLUENT LOADINGS</u>	<u>%</u>	<u>PLANT DESIGN CRITERIA</u>
FLOW : 8,610,226 GALLONS	72.4	11,900,000 GALLONS/DAY
B.O.D. : 9,296 POUNDS	63.5	14,651 POUNDS/DAY
SUSPENDED SOLIDS : 8,675 POUNDS	53.3	16,278 POUNDS/DAY
PHOSPHORUS : 251 POUNDS	61.6	407 POUNDS/DAY
AMMONIA-N : 1,410 POUNDS	73.4	1,920 POUNDS/DAY
CHLORIDES : 29,083 POUNDS		

FINAL EFFLUENT

<u>MONTHLY AVERAGE</u>	<u>%</u>	<u>PERMIT LIMIT</u>
cB.O.D. : 6.02 mg/L	24.1	25 mg/L
SUSPENDED SOLIDS : 10.39 mg/L	34.6	30 mg/L
PHOSPHORUS : 0.26 mg/L	25.8	1 mg/L
AMMONIA-N : 0.17 mg/L		
CHLORIDES : 448.46 mg/L		

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

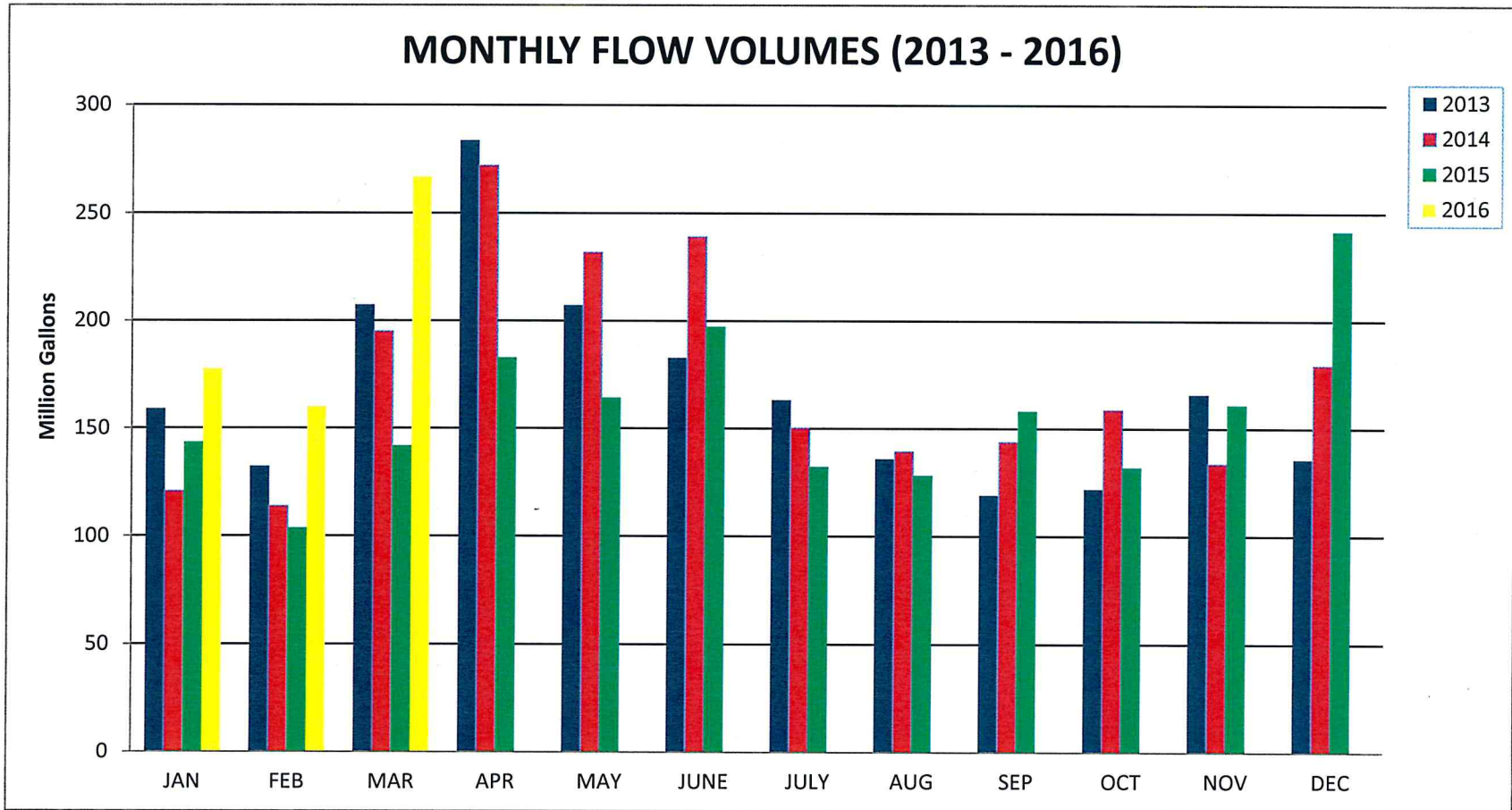
<u>Year</u>	<u>March Flow Million Gallons</u>	<u>Precipitation Inches</u>
2000	143.736	0.55
2001	201.364	0.40
2002	219.970	2.75
2003	170.299	1.59
2004	315.106	3.86
2005	201.629	1.30
2006	230.886	1.25
2007	253.815	3.06
2008	282.649	1.64
2009	290.837	1.98
2010	232.609	0.49
2011	268.746	2.49
2012	239.291	1.58
2013	207.339	1.26
2014	195.096	1.49
2015	141.868	0.90
2016	266.917	2.82



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>
2013	159.014	132.251	207.339	283.615	207.246	182.739	163.201	135.948	119.210	122.015	165.861	135.674
2014	120.943	114.081	195.096	272.038	231.951	239.160	150.335	139.604	143.973	158.887	133.835	179.535
2015	143.460	103.918	141.868	182.911	164.246	197.337	132.478	128.427	158.179	132.217	161.094	241.853
2016	177.906	160.230	266.917									

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



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

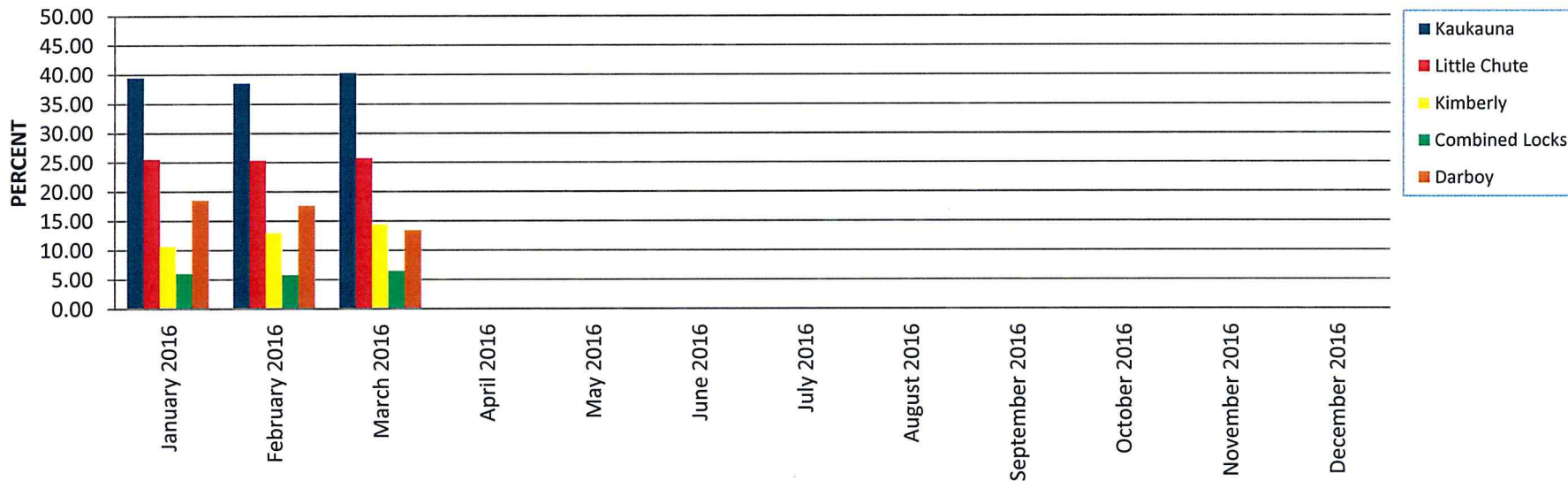
% CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>	<u>Rainfall - Inches</u>
January 2016	39.42	25.45	10.65	6.00	18.48	1.53
February 2016	38.50	25.23	12.94	5.76	17.56	1.13
March 2016	40.24	25.63	14.31	6.46	13.37	2.82
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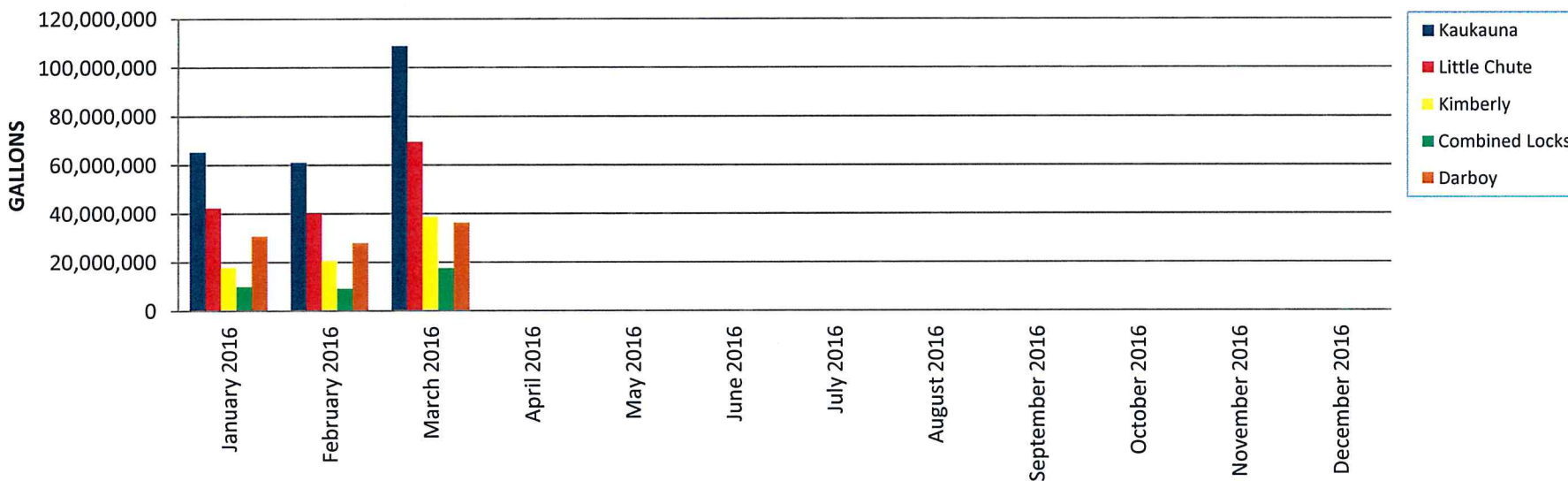
GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	65,220,640	42,115,000	17,613,000	9,929,000	30,576,000
February 2016	60,936,840	39,936,000	20,481,000	9,116,000	27,791,000
March 2016	108,697,400	69,221,000	38,650,000	17,438,000	36,111,000
April 2016					
May 2016					
June 2016					
July 2016					
August 2016					
September 2016					
October 2016					
November 2016					
December 2016					

FLOW PERCENT CONTRIBUTED BY COMMUNITY



FLOW GALLONS CONTRIBUTED BY COMMUNITY



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

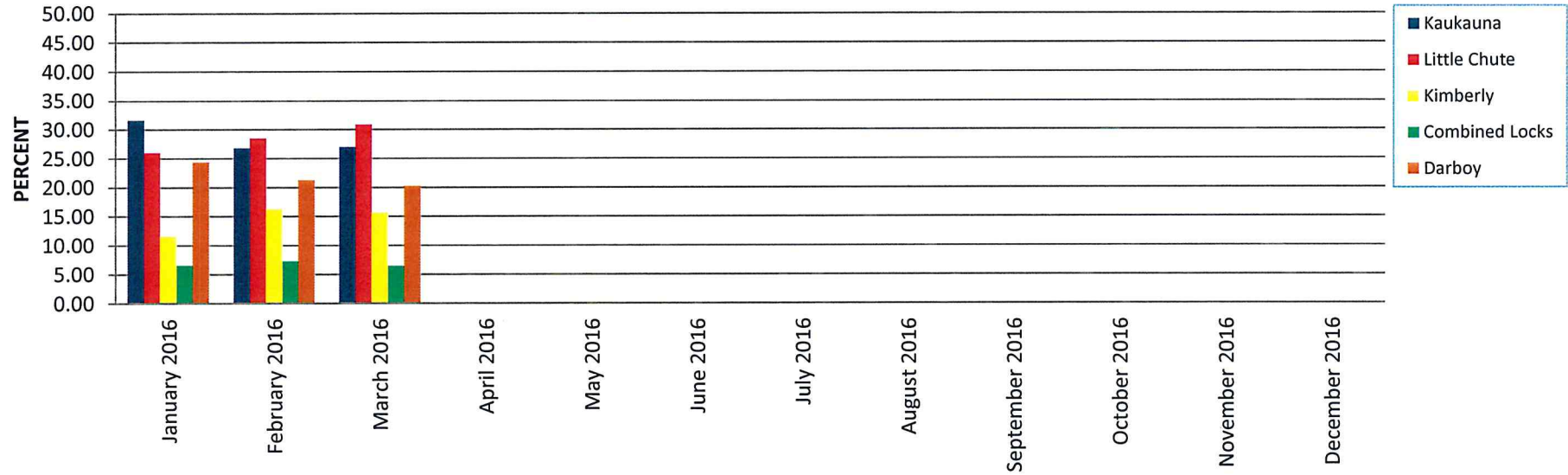
% CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	31.61	25.94	11.56	6.56	24.32
February 2016	26.78	28.46	16.25	7.27	21.24
March 2016	26.94	30.84	15.58	6.45	20.20
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December 2016					

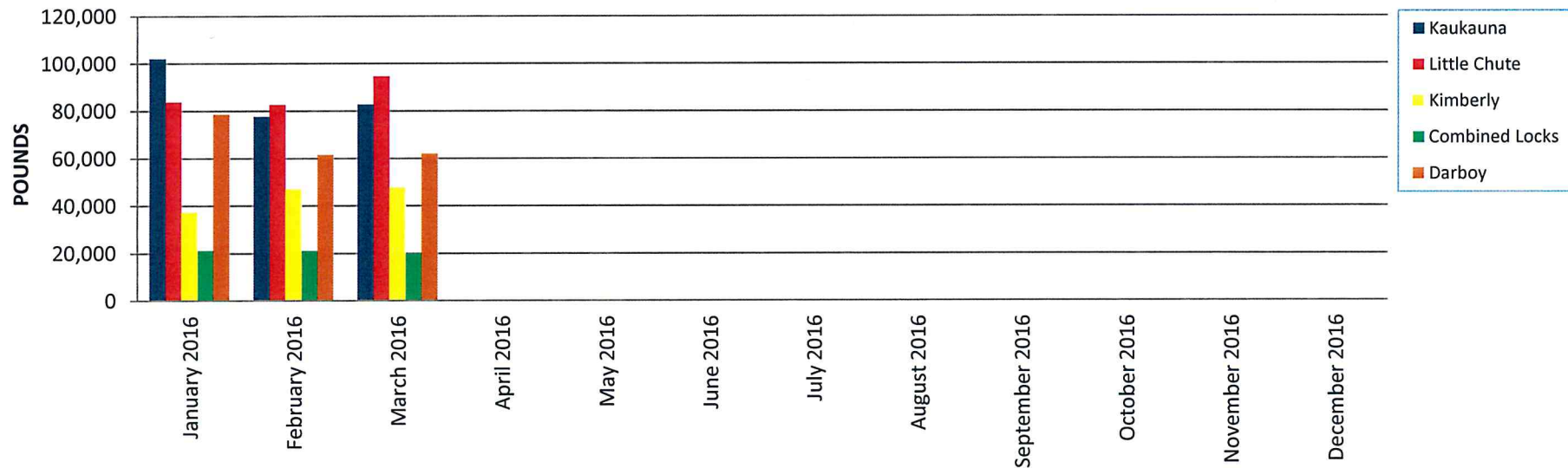
POUNDS CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	102,026	83,715	37,314	21,186	78,503
February 2016	77,616	82,483	47,098	21,080	61,548
March 2016	82,595	94,529	47,752	19,761	61,926
April 2016					
May 2016					
June 2016					
July 2016					
August 2016					
September 2016					
October 2016					
November 2016					
December 2016					

B.O.D. PERCENT CONTRIBUTED BY COMMUNITY



B.O.D. POUNDS CONTRIBUTED BY COMMUNITY



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

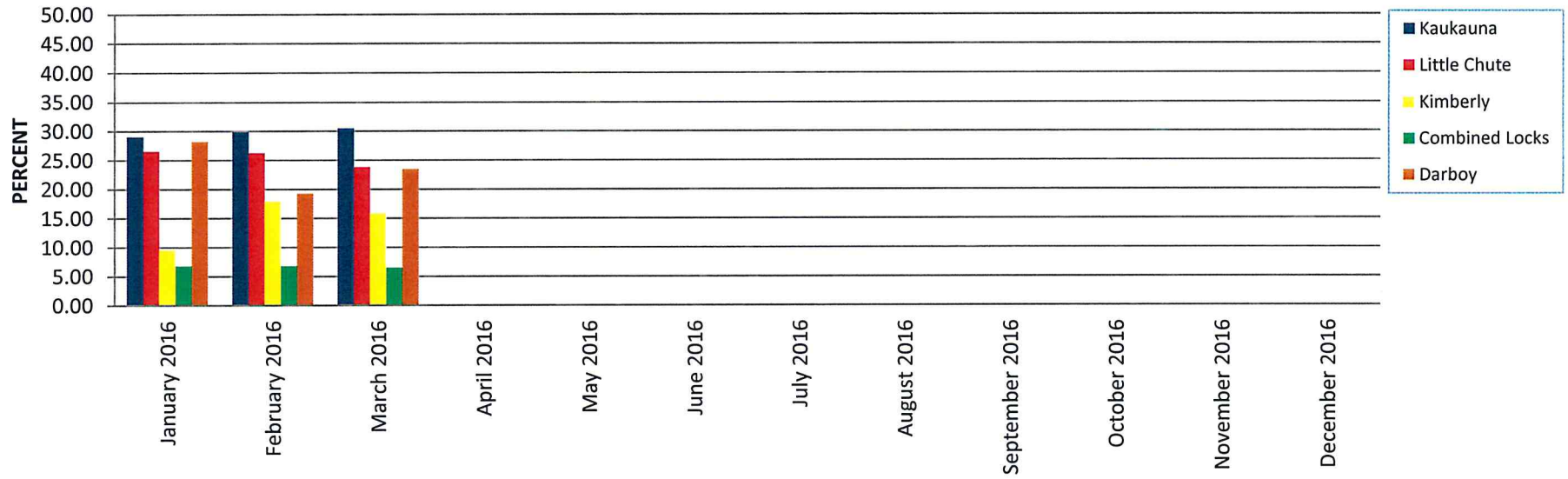
% CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	29.01	26.50	9.55	6.78	28.16
February 2016	29.88	26.17	17.94	6.81	19.20
March 2016	30.50	23.75	15.83	6.52	23.40
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December 2016					

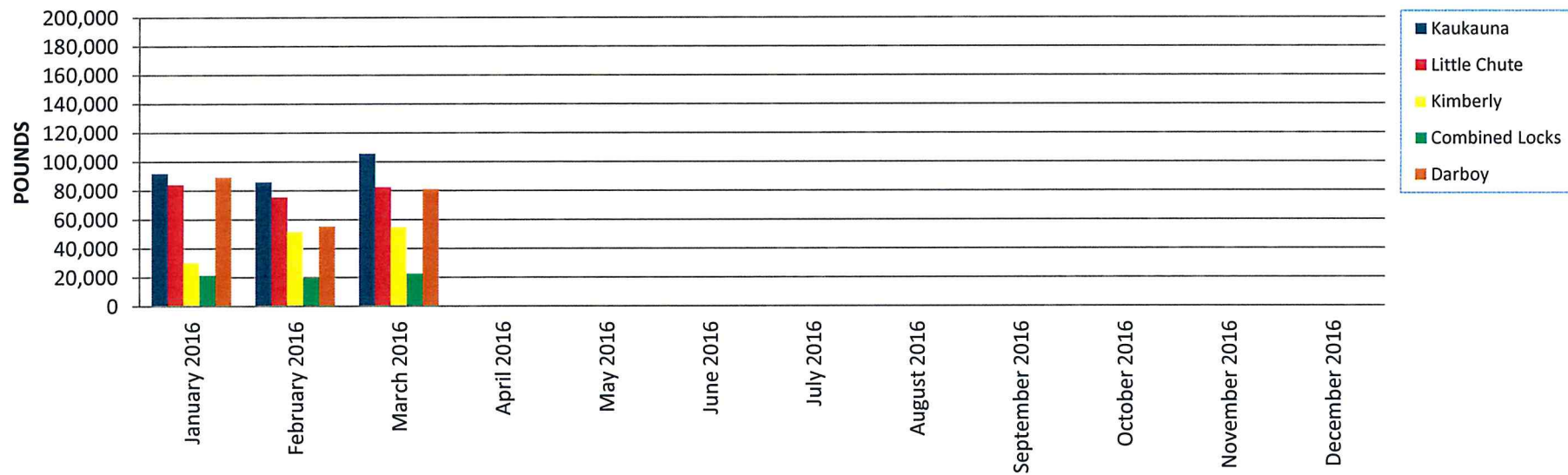
POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	91,773	83,828	30,192	21,454	89,055
February 2016	85,783	75,143	51,491	19,546	55,121
March 2016	105,329	82,029	54,650	22,509	80,806
April 2016					
May 2016					
June 2016					
July 2016					
August 2016					
September 2016					
October 2016					
November 2016					
December 2016					

TSS PERCENT CONTRIBUTED BY COMMUNITY



TSS POUNDS CONTRIBUTED BY COMMUNITY



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

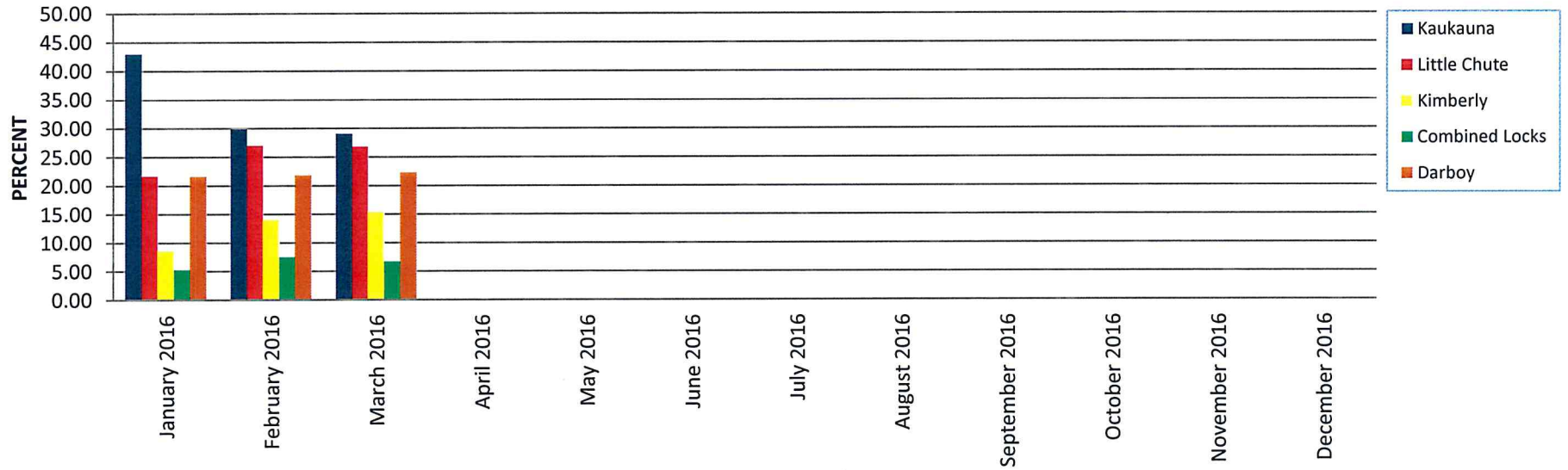
% CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	42.93	21.63	8.59	5.26	21.59
February 2016	29.87	26.92	13.99	7.44	21.77
March 2016	29.03	26.72	15.32	6.69	22.24
April 2016					
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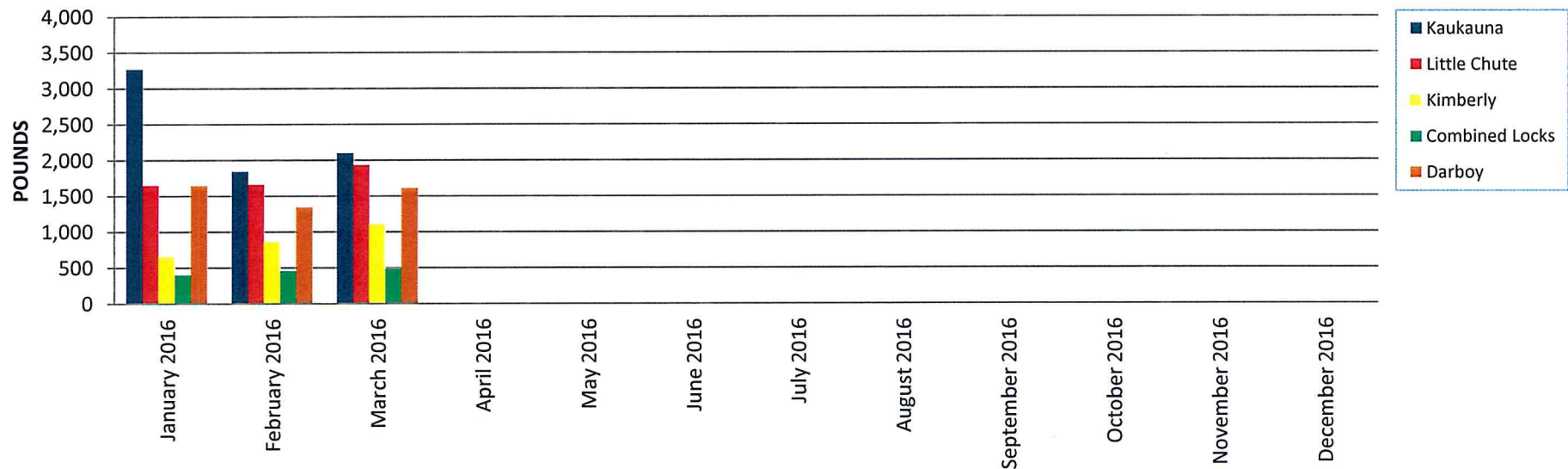
POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	3,265	1,645	654	400	1,642
February 2016	1,838	1,656	861	458	1,340
March 2016	2,096	1,929	1,106	483	1,605
April 2016					
May 2016					
June 2016					
July 2016					
August 2016					
September 2016					
October 2016					
November 2016					
December 2016					

PHOSPHORUS PERCENT CONTRIBUTED BY COMMUNITY



PHOSPHORUS POUNDS CONTRIBUTED BY COMMUNITY



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

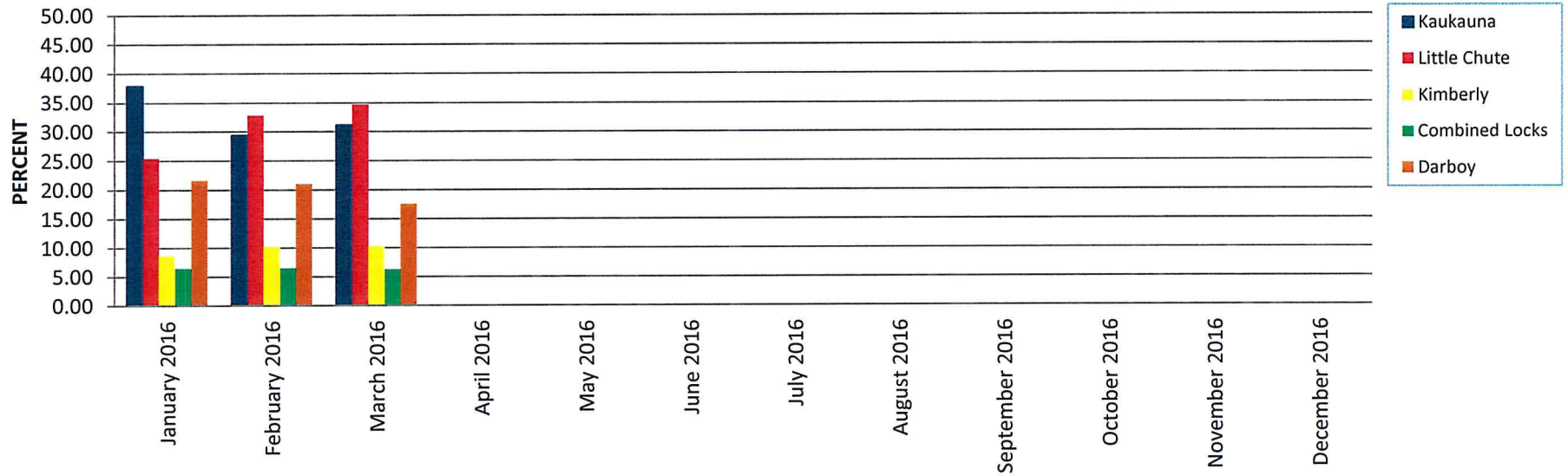
% CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	37.92	25.36	8.64	6.45	21.63
February 2016	29.38	32.85	10.30	6.49	20.98
March 2016	31.18	34.70	10.34	6.25	17.53
April 2016					
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November 2016					
December 2016					

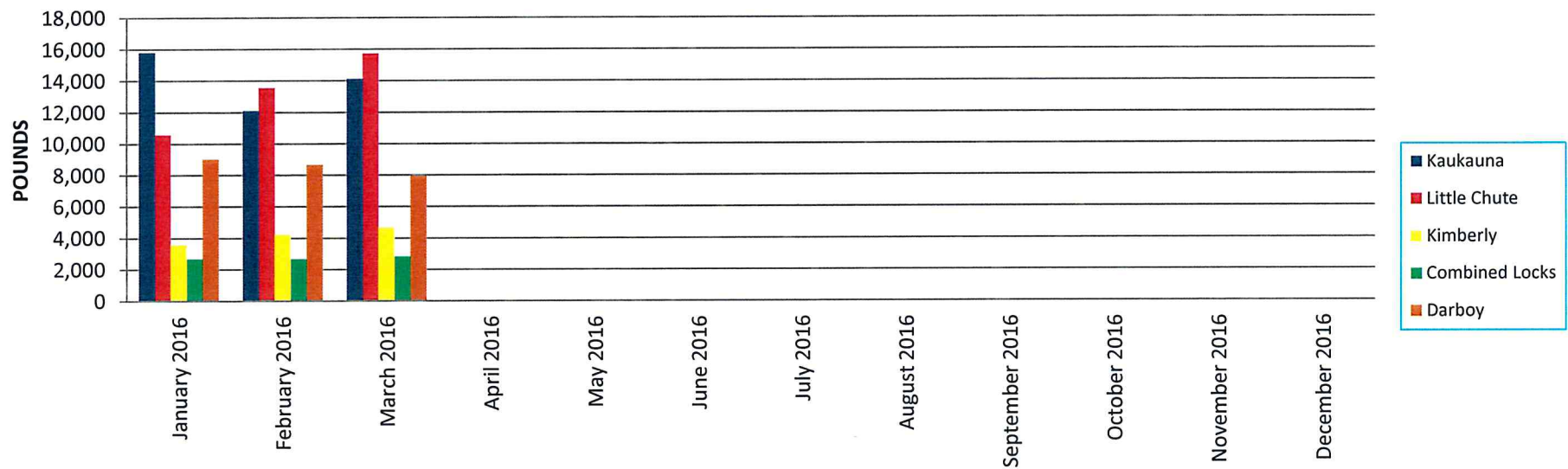
POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	15,793	10,560	3,597	2,685	9,009
February 2016	12,105	13,533	4,241	2,674	8,643
March 2016	14,101	15,694	4,677	2,827	7,927
April 2016					
May 2016					
June 2016					
July 2016					
August 2016					
September 2016					
October 2016					
November 2016					
December 2016					

AMMONIA PERCENT CONTRIBUTED BY COMMUNITY



AMMONIA POUNDS CONTRIBUTED BY COMMUNITY



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

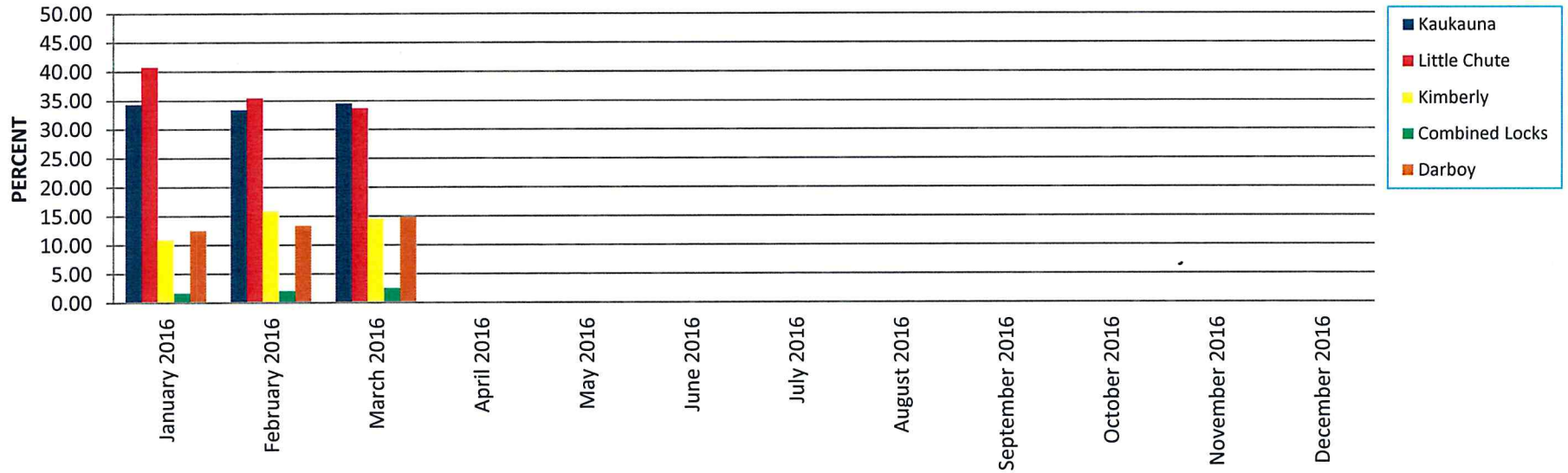
% CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	34.32	40.69	10.91	1.64	12.44
February 2016	33.35	35.43	15.88	2.04	13.31
March 2016	34.50	33.63	14.54	2.50	14.83
April 2016					
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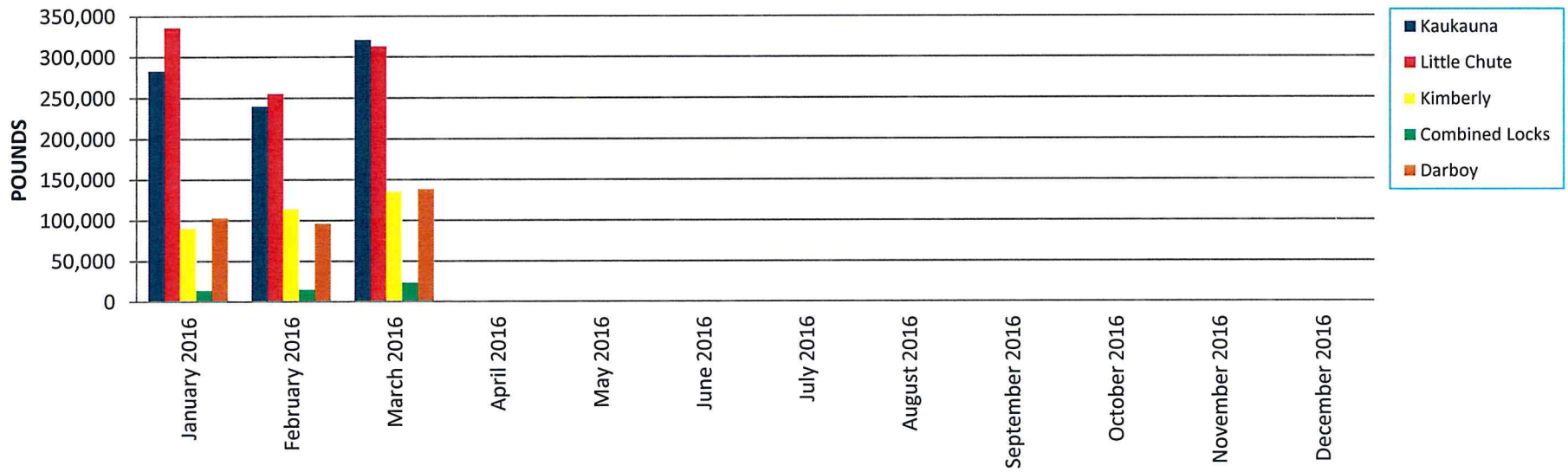
POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2016	283,016	335,506	89,944	13,504	102,591
February 2016	239,748	254,722	114,133	14,653	95,661
March 2016	320,719	312,610	135,135	23,269	137,841
April 2016					
May 2016					
June 2016					
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December 2016					

CHLORIDE PERCENT CONTRIBUTED BY COMMUNITY



CHLORIDE POUNDS CONTRIBUTED BY COMMUNITY

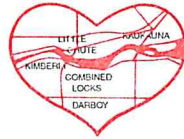


DISTRICT DIRECTOR:

Glen H. Geurts

SERVING:

Combined Locks
 Kaukauna
 Kimberly
 Little Chute
 Darboy S.D.

**COMMISSIONERS:**

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

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 19800
 Green Bay, WI 54307-9004

Attn: Account # N2310E

Month: March

Year: 2016

Gallons of Final Effluent Purchased (Billing)

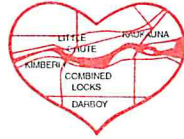
<u>Date</u>	<u>Gallons</u>	<u>Date</u>	<u>Gallons</u>
3/1/2016	2,848,000	3/21/2016	2,871,000
3/2/2016	2,848,000	3/22/2016	2,872,000
3/3/2016	2,848,000	3/23/2016	2,814,000
3/4/2016	2,846,000	3/24/2016	2,109,000
3/5/2016	2,847,000	3/25/2016	2,457,000
3/6/2016	2,714,000	3/26/2016	2,753,000
3/7/2016	2,509,000	3/27/2016	2,753,000
3/8/2016	2,631,000	3/28/2016	2,248,000
3/9/2016	2,582,000	3/29/2016	719,000
3/10/2016	2,872,000	3/30/2016	411,000
3/11/2016	2,870,000	3/31/2016	1,311,000
3/12/2016	3,581,000		
3/13/2016	2,957,000		
3/14/2016	2,417,000	Total:	80,082,000
3/15/2016	2,710,000		
3/16/2016	3,016,000		
3/17/2016	2,870,000		
3/18/2016	3,006,000		
3/19/2016	2,923,000		
3/20/2016	2,869,000		

DISTRICT DIRECTOR:

Glen H. Geurts

SERVING:

Combined Locks
Kaukauna
Kimberly
Little Chute
Darboy S.D.



COMMISSIONERS:

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Patrick E. Hennessey
John W. Sundelius

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 19800
Green Bay, WI 54307-9004

Attn: Account # N2310E

MONTHLY BILLING

Month: March

Year: 2016

GALLONS PURCHASED: 80,082,000

BILLING RATE: \$0.1552173 PER 1000 GALLONS

TOTAL AMOUNT DUE: \$12,430.11

**Heart of the Valley
Metropolitan Sewerage District**

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

2016

Final Effluent Sent to Fox Energy Facility

Gallons: 225,624,000

Charge Per 1000 Gallons: \$0.1552173 Per 1000 Gallons

Sale of Final Effluent (Revenue Collected): \$35,020.75