

FLOW AND STRENGTH PROJECTIONS

MONTH: March 2017

	<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)	175,987,320	235,697,210	59,709,890	\$ 147,301.39	\$ 197,278.56	\$ 49,977.18
B.O.D. (#s)	315,520	339,292	23,772	\$ 83,612.80	\$ 89,912.38	\$ 6,299.58
S. SOLIDS (#s)	419,340	350,537	-68,803	\$ 109,447.74	\$ 91,490.16	\$ (17,957.58)
PHOSPHORUS (#s)	7,702	6,832	-870	\$ 47,259.47	\$ 41,918.21	\$ (5,341.27)
AMMONIA-N (#s)	39,855	43,486	3,631	\$ 64,764.38	\$ 70,664.28	\$ 5,899.90
CHLORIDES (#s)	754,519	922,520	168,001	\$ 3,772.60	\$ 4,612.60	\$ 840.01
			TOTAL:	\$ 456,158.37	\$ 495,876.19	\$ 39,717.82

(THRU MARCH 2017)

PROJECTED FOR 2017

	<u>END OF YEAR PROJECTED</u>	<u>YEAR TO DATE SURPLUS/ DEFICIT</u>	<u>YEAR TO DATE SURPLUS/ DEFICIT \$\$</u>
FLOW (GALLONS)	1,933,366,797	144,529,707	\$ 120,971.36
B.O.D. (#s)	3,232,707	125,063	\$ 33,141.70
S. SOLIDS (#s)	4,183,878	-137,423	\$ (35,867.40)
PHOSPHORUS (#s)	84,963	-4,056	\$ (24,890.56)
AMMONIA-N (#s)	423,820	11,743	\$ 19,081.90
CHLORIDES (#s)	7,342,132	606,501	\$ 3,032.51
		TOTAL:	\$ 115,469.50

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

MONTH: MARCH 2017

HYDRAULIC AND ORGANIC LOADINGS DATA

INFLUENT

TOTAL FLOW TO PLANT*:	224,799,000 GALLONS	
AVERAGE B.O.D. :	164 mg/L	MAXIMUM DAILY FLOW TO PLANT:
AVERAGE SUSPENDED SOLIDS :	146 mg/L	11,451,000
AVERAGE PHOSPHORUS :	3.76 mg/L	
AVERAGE AMMONIA-N :	23.77 mg/L	
AVERAGE CHLORIDES :	513.08 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	38.90	30.25	33.61	30.56	30.84	31.34
LITTLE CHUTE	26.78	28.23	27.78	26.80	34.69	34.66
KIMBERLY	13.91	12.81	10.63	11.05	9.03	16.90
COMBINED LOCKS	6.24	6.29	6.32	6.48	5.75	2.45
DARBOY	14.16	22.42	21.66	25.11	19.69	14.64

<u>AVERAGE DAILY INFLUENT LOADINGS</u>	<u>%</u>	<u>PLANT DESIGN CRITERIA</u>
FLOW : 7,251,581 GALLONS	60.9	11,900,000 GALLONS/DAY
B.O.D. : 9,903 POUNDS	67.6	14,651 POUNDS/DAY
SUSPENDED SOLIDS : 8,830 POUNDS	54.2	16,278 POUNDS/DAY
PHOSPHORUS : 228 POUNDS	55.9	407 POUNDS/DAY
AMMONIA-N : 1,438 POUNDS	74.9	1,920 POUNDS/DAY
CHLORIDES : 31,030 POUNDS		

FINAL EFFLUENT

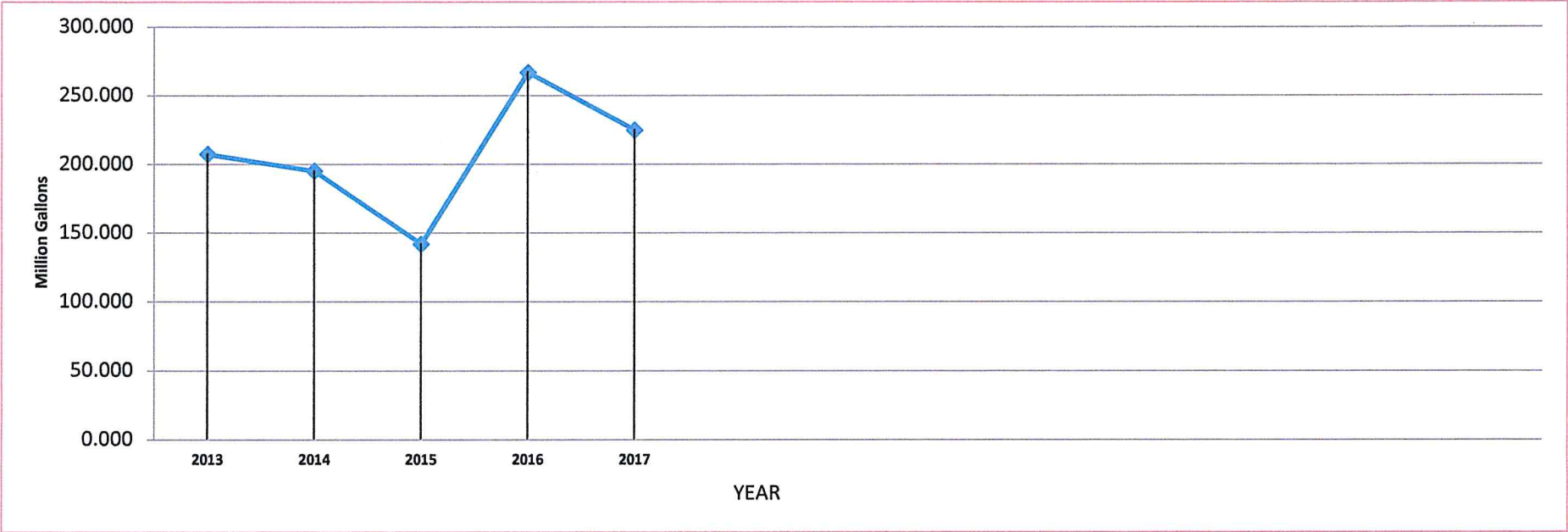
<u>MONTHLY AVERAGE</u>	<u>%</u>	<u>PERMIT LIMIT</u>
FLOW: 4,855,161 GALLONS	%	
cB.O.D. : 3.91 mg/L	15.6	25 mg/L
SUSPENDED SOLIDS : 7.07 mg/L	23.6	30 mg/L
PHOSPHORUS : 0.14 mg/L	14.3	1 mg/L
AMMONIA-N : 0.21 mg/L		
CHLORIDES : 508.46 mg/L		

* Includes Holding and Septic Tanks

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>March Flow Million Gallons</u>	<u>Precipitation 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

MARCH FLOW VOLUMES



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

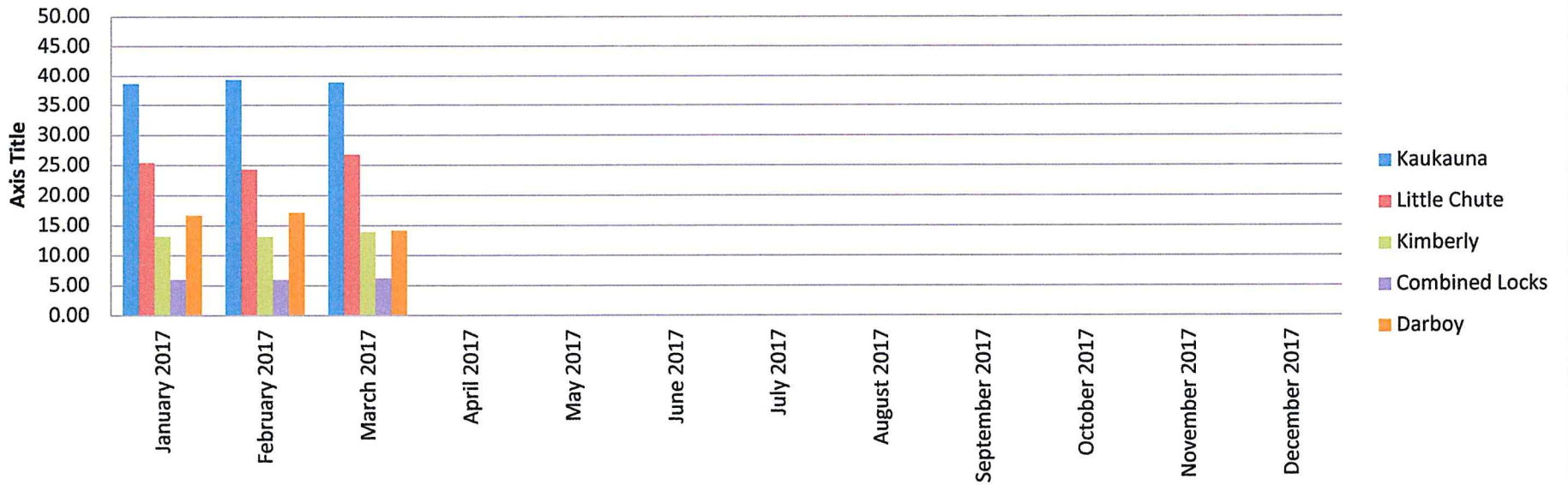
% CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>	<u>Rainfall - Inches</u>	
January 2017	38.67	25.42	13.20	5.98	16.73		*Rain Gauge
February 2017	39.36	24.32	13.16	5.99	17.17		Started
March 2017	38.90	26.78	13.91	6.24	14.16	1.67*	March 13th
April 2017							
May 2017							
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December 2017							

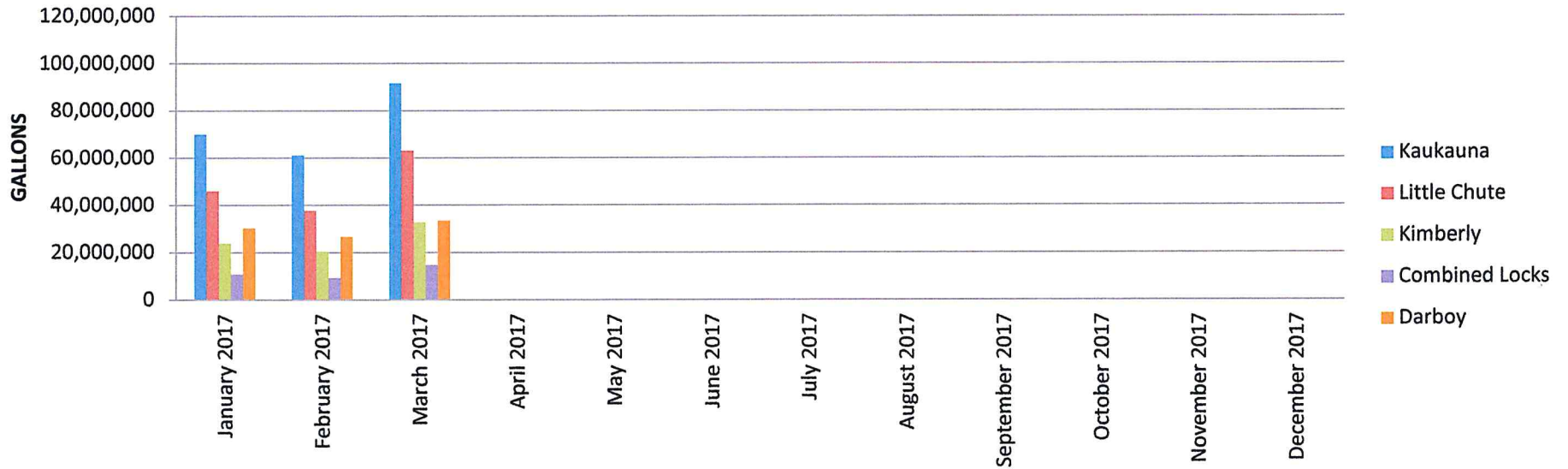
GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	70,086,400	46,073,000	23,922,000	10,834,000	30,324,000
February 2017	61,107,920	37,766,000	20,426,000	9,296,000	26,665,000
March 2017	91,695,210	63,127,000	32,780,000	14,711,000	33,384,000
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

% CONTRIBUTION BY COMMUNITY - FLOW GALLONS



GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

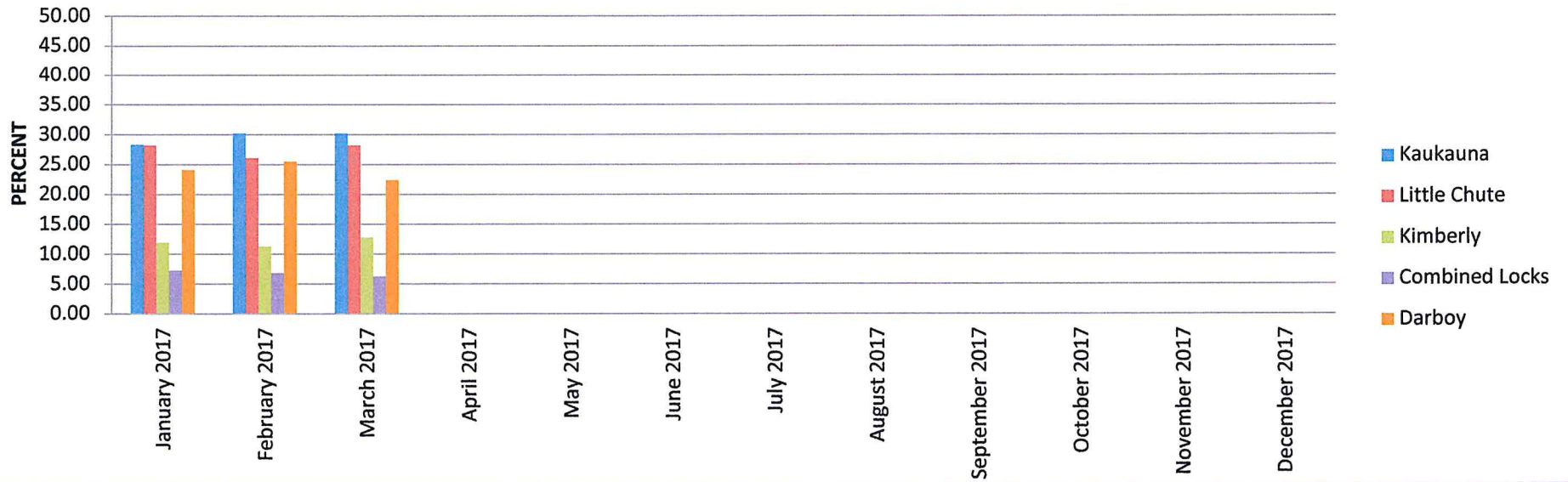
% CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	28.37	28.24	11.98	7.28	24.13
February 2017	30.23	26.07	11.32	6.86	25.52
March 2017	30.25	28.23	12.81	6.29	22.42
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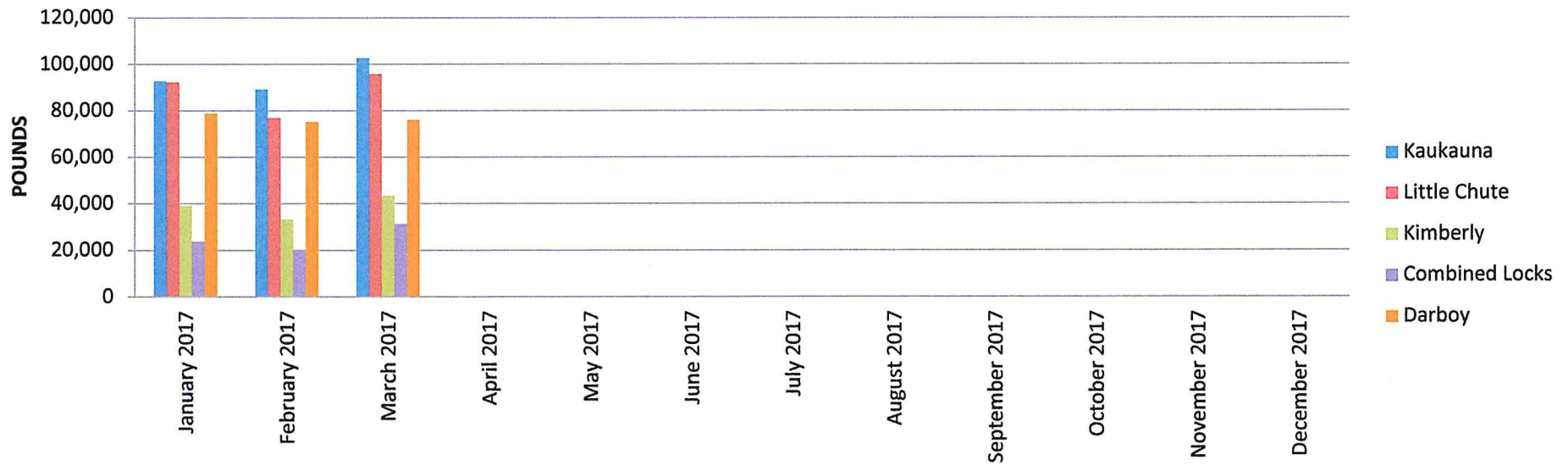
POUNDS CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	92,752	92,337	39,172	23,785	78,888
February 2017	89,162	76,903	33,377	20,248	75,289
March 2017	102,646	95,788	43,450	31,332	76,077
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

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



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



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

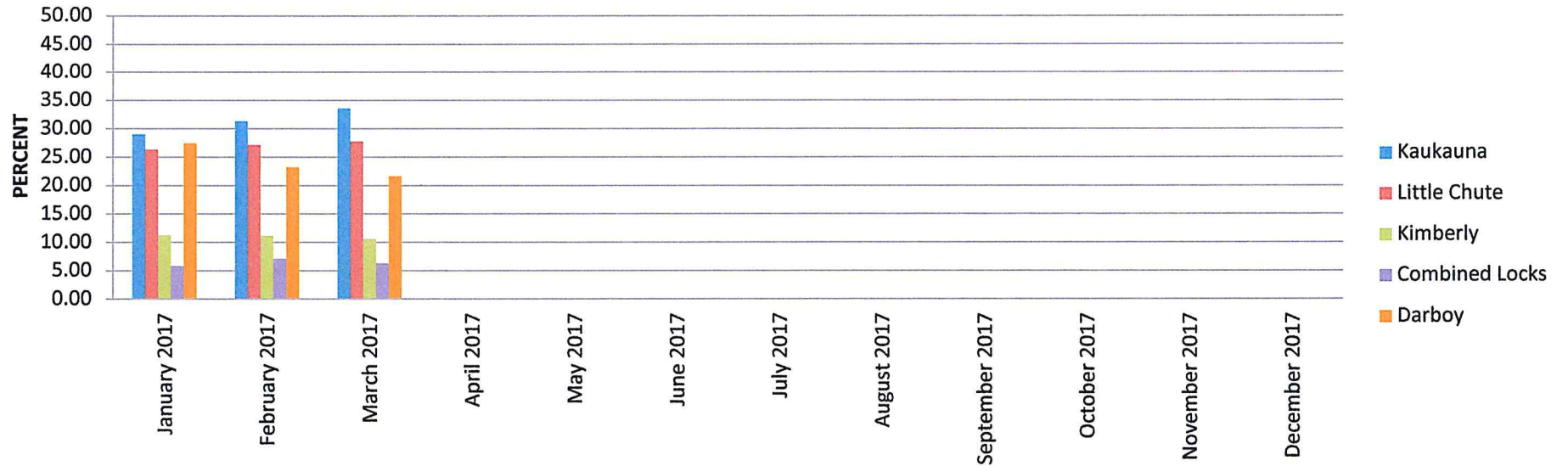
% CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	29.08	26.35	11.30	5.83	27.43
February 2017	31.34	27.16	11.17	7.12	23.22
March 2017	33.61	27.78	10.63	6.32	21.66
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December 2017					

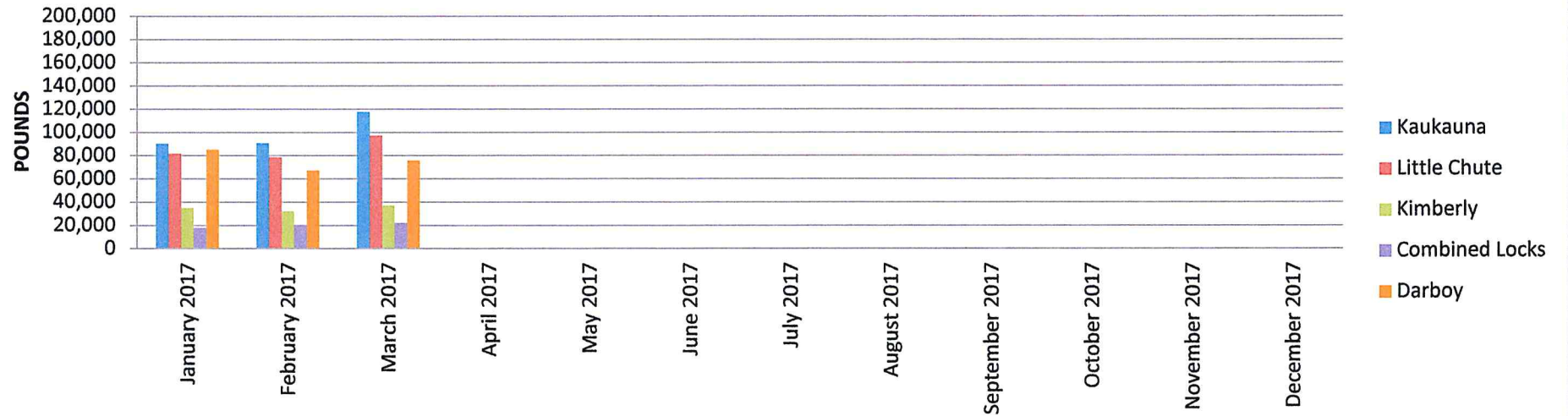
POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	90,234	81,769	35,081	18,106	85,135
February 2017	90,717	78,623	32,349	20,599	67,207
March 2017	117,799	97,395	37,259	22,157	75,928
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

% CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

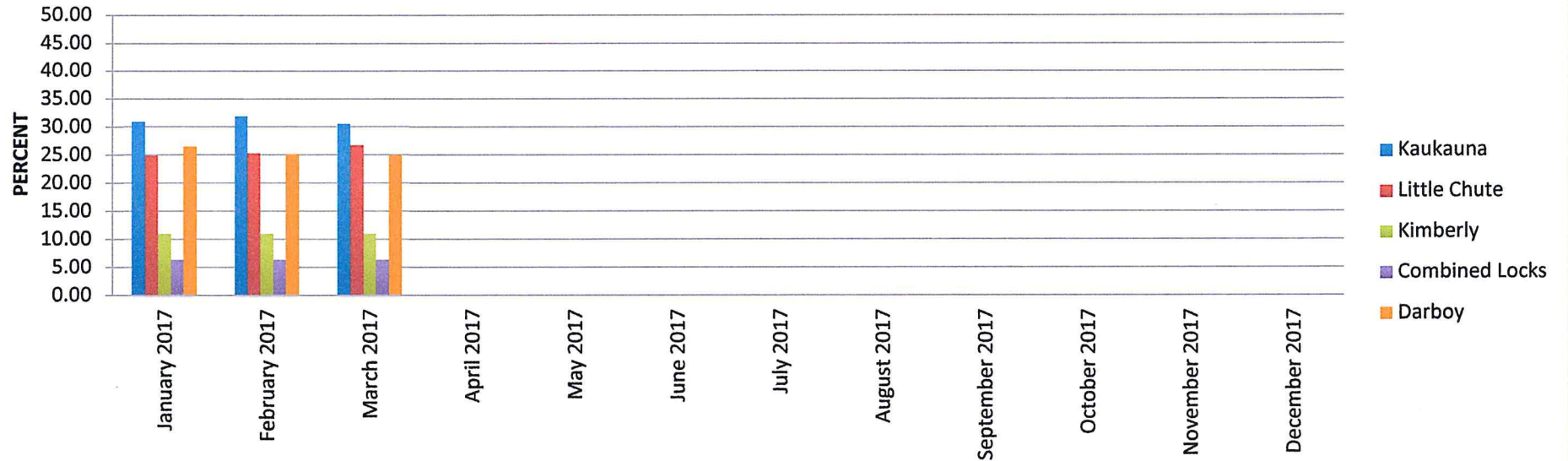
% CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	30.98	24.92	11.11	6.44	26.55
February 2017	31.89	25.31	11.08	6.45	25.27
March 2017	30.56	26.80	11.05	6.48	25.11
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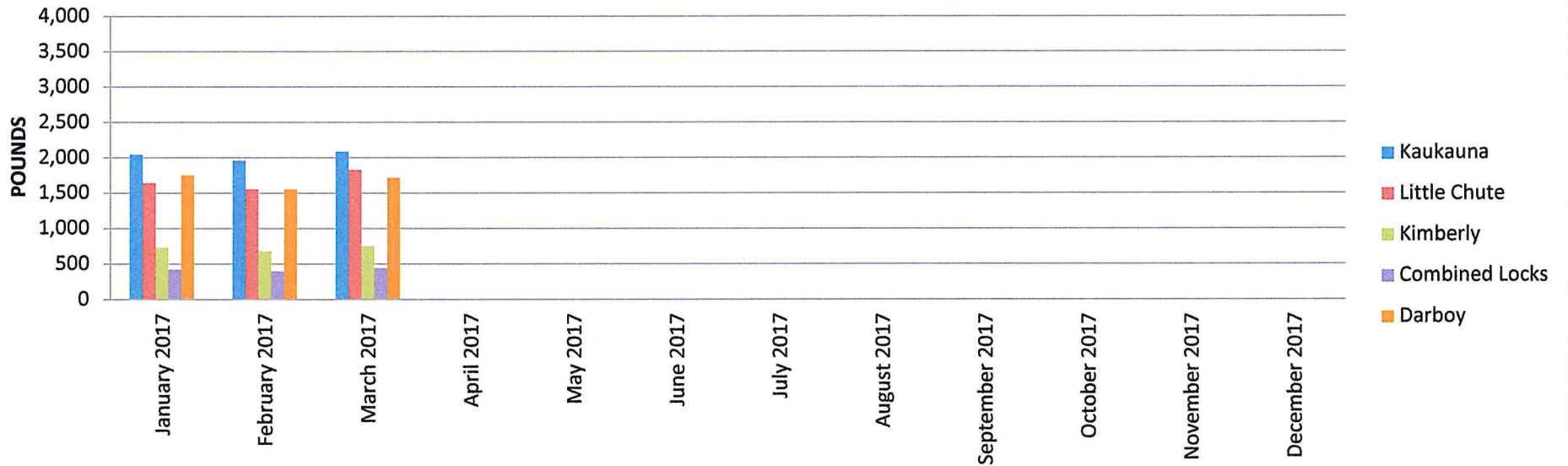
POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	2,044	1,643	733	425	1,751
February 2017	1,963	1,558	682	397	1,555
March 2017	2,088	1,831	755	443	1,716
April 2017					
May 2017					
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August 2017					
September 2017					
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November 2017					
December 2017					

% CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

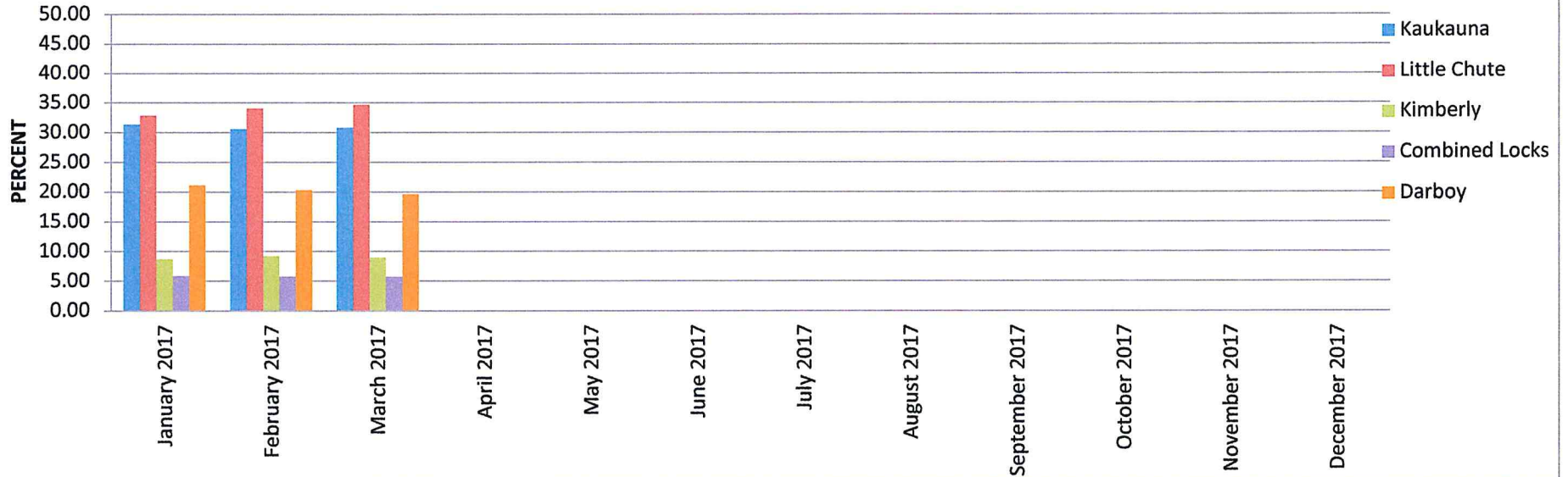
% CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	31.39	32.86	8.72	5.87	21.15
February 2017	30.60	34.06	9.22	5.76	20.37
March 2017	30.84	34.69	9.03	5.75	19.69
April 2017					
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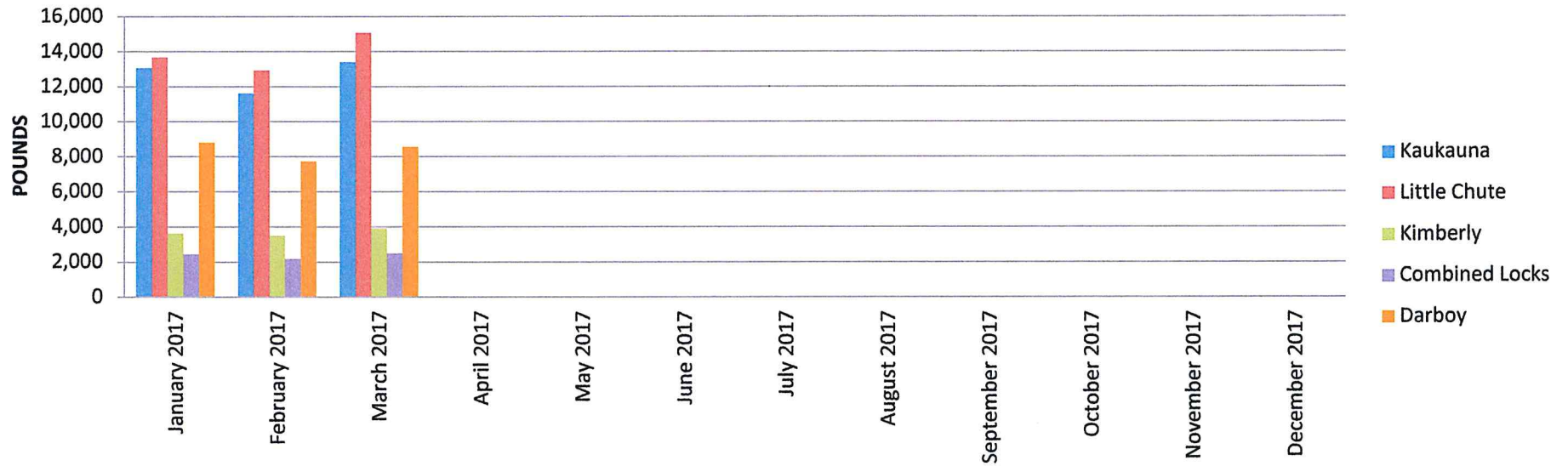
POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	13,065	13,677	3,631	2,445	8,804
February 2017	11,618	12,930	3,499	2,187	7,734
March 2017	13,413	15,083	3,926	2,501	8,563
April 2017					
May 2017					
June 2017					
July 2017					
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% CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

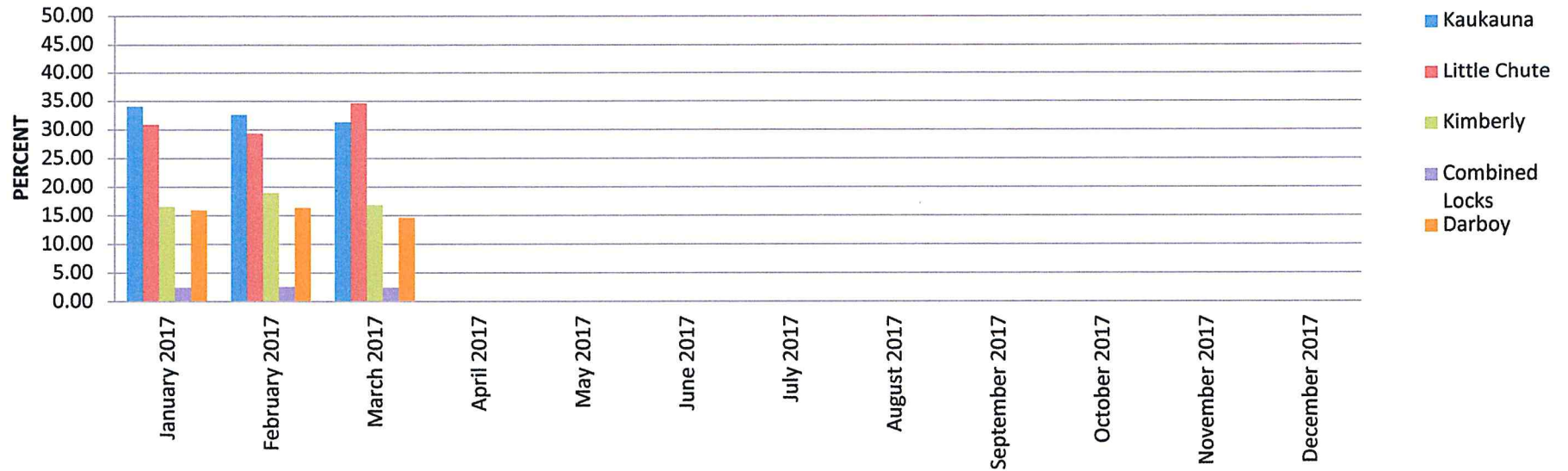
% CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	34.08	30.92	16.58	2.46	15.96
February 2017	32.64	29.39	18.97	2.59	16.42
March 2017	31.34	34.66	16.90	2.45	14.64
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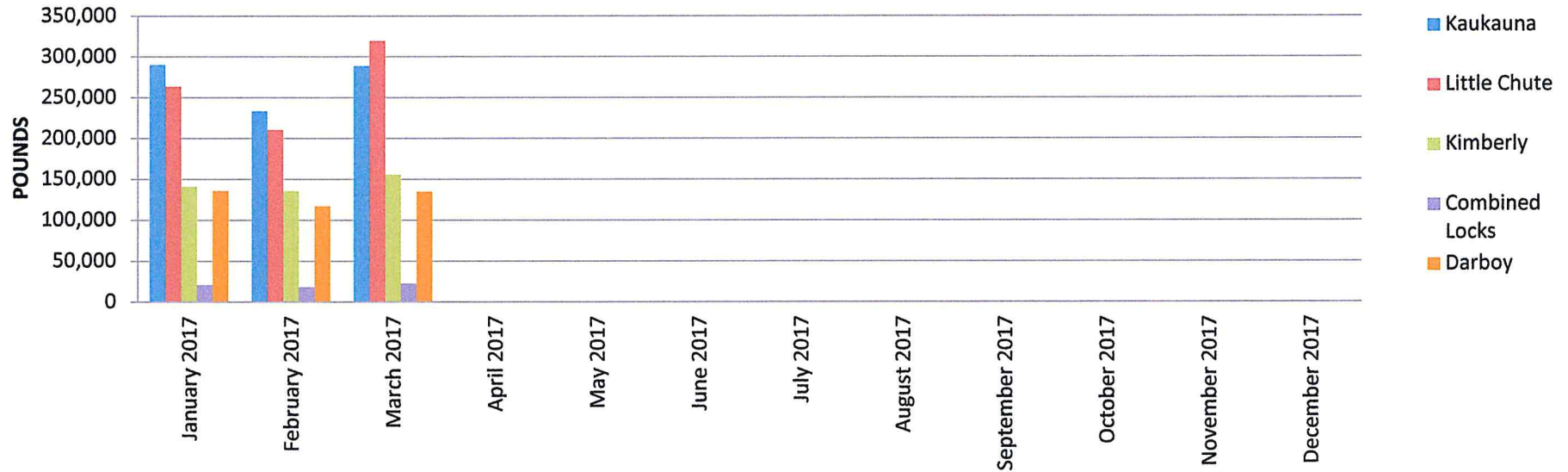
POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	290,487	263,589	141,331	20,961	136,083
February 2017	233,674	210,399	135,811	18,539	117,560
March 2017	289,153	319,766	155,878	22,631	135,093
April 2017					
May 2017					
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% CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

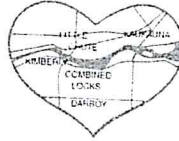


DISTRICT DIRECTOR:

Brian M. Helminger

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: 2017

Gallons of Final Effluent Purchased (Billing)

<u>Date</u>	<u>Gallons</u>	<u>Date</u>	<u>Gallons</u>
3/1/2017	2,452,000	3/21/2017	2,967,000
3/2/2017	1,771,000	3/22/2017	2,969,000
3/3/2017	2,951,000	3/23/2017	2,879,000
3/4/2017	2,967,000	3/24/2017	2,369,000
3/5/2017	2,740,000	3/25/2017	2,369,000
3/6/2017	2,366,000	3/26/2017	2,371,000
3/7/2017	2,890,000	3/27/2017	2,373,000
3/8/2017	2,964,000	3/28/2017	2,005,000
3/9/2017	2,218,000	3/29/2017	1,667,000
3/10/2017	2,100,000	3/30/2017	2,048,000
3/11/2017	2,308,000	3/31/2017	1,514,000
3/12/2017	2,669,000		
3/13/2017	2,531,000		
3/14/2017	2,370,000		
3/15/2017	1,355,000		
3/16/2017	1,803,000		
3/17/2017	2,975,000		
3/18/2017	2,443,000		
3/19/2017	2,371,000		
3/20/2017	2,514,000		
		Total:	74,289,000

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: 2017

GALLONS PURCHASED: 74,289,000

BILLING RATE: \$0.1533035 PER 1000 GALLONS

TOTAL AMOUNT DUE: \$11,388.76

**Heart of the Valley
Metropolitan Sewerage District**

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

2017

Final Effluent Sent to Fox Energy Facility

Gallons: 201,693,000

Charge Per 1000 Gallons: \$0.1533035 Per 1000 Gallons

Sale of Final Effluent (Revenue Collected): \$30,920.24