

FLOW AND STRENGTH PROJECTIONS

MONTH: May 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)	194,631,997	205,118,310	10,486,313	\$ 162,906.98	\$ 171,684.03	\$ 8,777.04
B.O.D. (#s)	282,036	340,524	58,488	\$ 74,739.54	\$ 90,238.89	\$ 15,499.35
S. SOLIDS (#s)	384,358	377,381	-6,977	\$ 100,317.44	\$ 98,496.38	\$ (1,821.06)
PHOSPHORUS (#s)	7,278	7,277	-1	\$ 44,657.81	\$ 44,652.47	\$ (5.34)
AMMONIA-N (#s)	37,460	44,064	6,604	\$ 60,872.50	\$ 71,603.56	\$ 10,731.06
CHLORIDES (#s)	670,992	841,743	170,751	\$ 3,354.96	\$ 4,208.71	\$ 853.75
			TOTAL:	\$ 446,849.23	\$ 480,884.04	\$ 34,034.81

(THRU MAY 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	158,888,260	\$ 132,989.47
B.O.D. (#s)	3,232,707	189,772	\$ 50,289.61
S. SOLIDS (#s)	4,183,878	-258,554	\$ (67,482.66)
PHOSPHORUS (#s)	84,963	-5,142	\$ (31,553.46)
AMMONIA-N (#s)	423,820	21,228	\$ 34,496.22
CHLORIDES (#s)	7,342,132	787,989	\$ 3,939.94
		TOTAL:	\$ 122,679.13

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

MONTH: MAY 2017

HYDRAULIC AND ORGANIC LOADINGS DATA

<u>INFLUENT</u>		
TOTAL FLOW TO PLANT:*	206,521,000 GALLONS	
AVERAGE B.O.D. :	195 mg/L	MAXIMUM DAILY FLOW TO PLANT:
AVERAGE SUSPENDED SOLIDS :	182 mg/L	12,531,000
AVERAGE PHOSPHORUS :	4.49 mg/L	
AVERAGE AMMONIA-N :	27.52 mg/L	
AVERAGE CHLORIDES :	500.00 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	37.25	25.14	26.40	26.79	29.07	28.34
LITTLE CHUTE	29.24	36.24	37.88	35.47	37.32	35.40
KIMBERLY	13.22	10.89	10.36	11.23	9.45	20.01
COMBINED LOCKS	5.85	6.17	6.14	6.00	5.98	1.69
DARBOY	14.44	21.56	19.20	20.51	18.19	14.56

<u>AVERAGE DAILY INFLUENT LOADINGS</u>		<u>%</u>	<u>PLANT DESIGN CRITERIA</u>
FLOW :	6,661,968 GALLONS	56.0	11,900,000 GALLONS/DAY
B.O.D. :	10,816 POUNDS	73.8	14,651 POUNDS/DAY
SUSPENDED SOLIDS :	10,130 POUNDS	62.2	16,278 POUNDS/DAY
PHOSPHORUS :	250 POUNDS	61.3	407 POUNDS/DAY
AMMONIA-N :	1,529 POUNDS	79.6	1,920 POUNDS/DAY
CHLORIDES :	27,780 POUNDS		

FINAL EFFLUENT

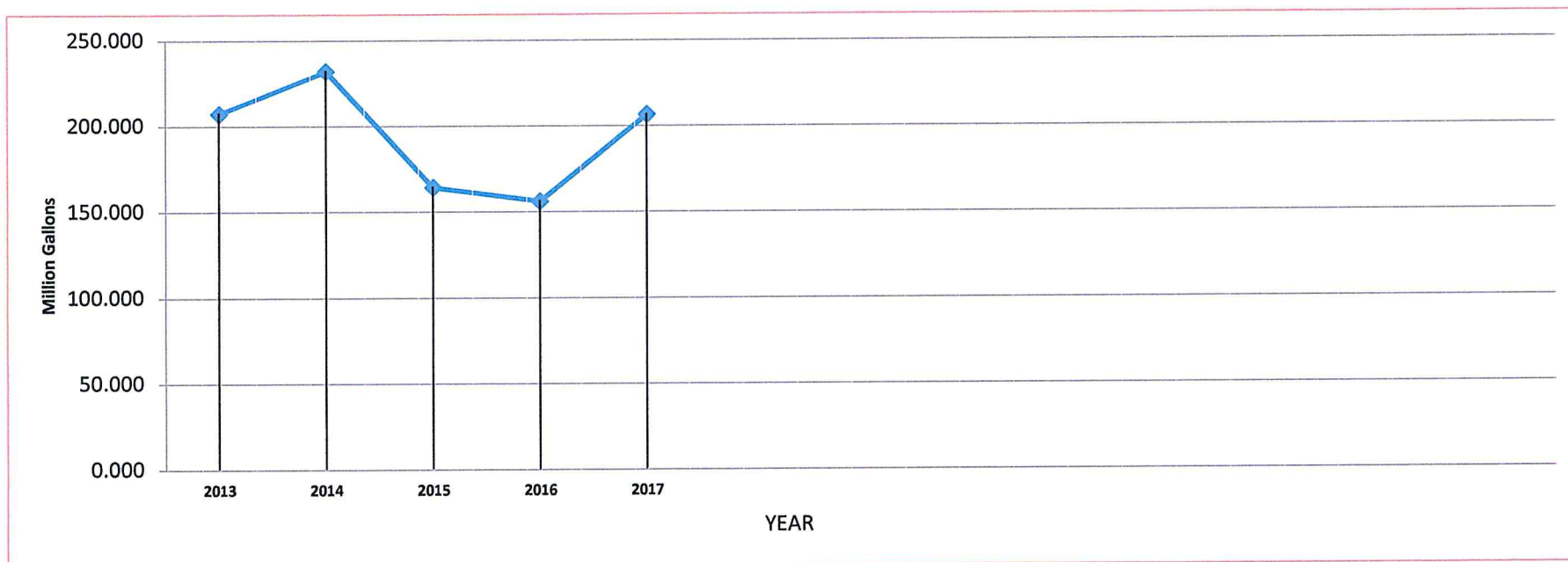
	<u>MONTHLY AVERAGE</u>	<u>%</u>	<u>PERMIT LIMIT</u>
FLOW:	6,577,839 GALLONS		
cB.O.D. :	5.05 mg/L	20.2	25 mg/L
SUSPENDED SOLIDS :	8.74 mg/L	29.1	30 mg/L
PHOSPHORUS :	0.32 mg/L	32.3	1 mg/L
AMMONIA-N :	0.33 mg/L		
CHLORIDES :	489.29 mg/L		

* Includes Holding and Septic Tanks

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>May Flow</u> <u>Million Gallons</u>	<u>Precipitation</u> <u>Inches</u>
2013	207.246	2.76
2014	231.951	3.03
2015	164.246	3.44
2016	156.148	2.52
2017	206.521	2.88

MAY FLOW VOLUMES



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

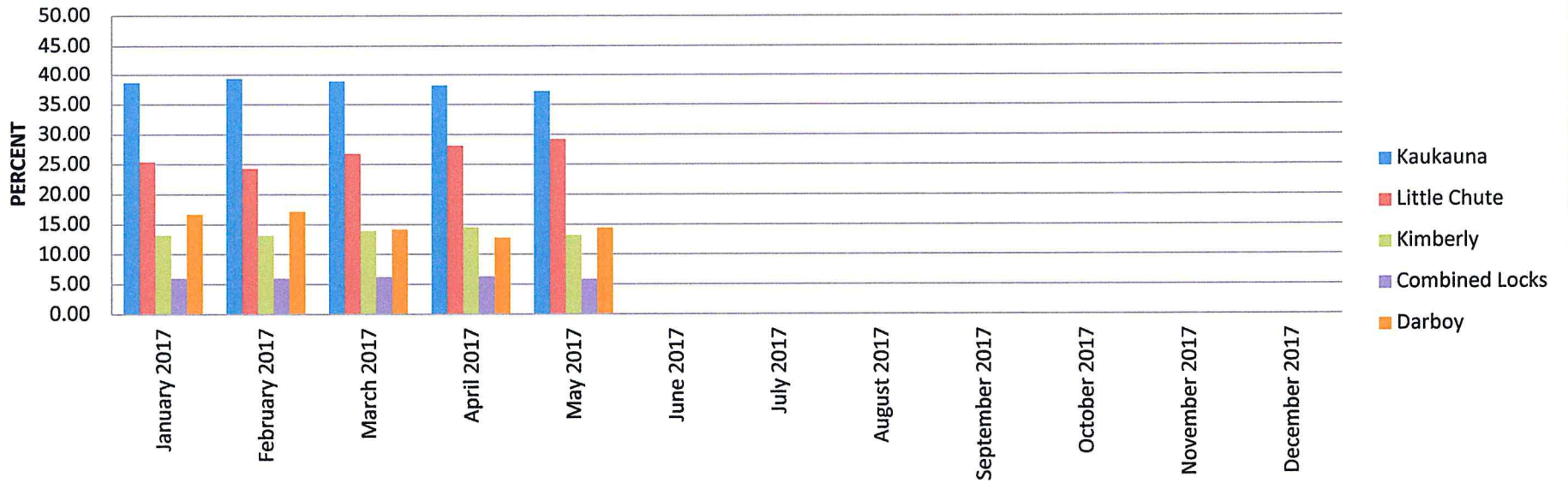
% CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<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	
February 2017	39.36	24.32	13.16	5.99	17.17	
March 2017	38.90	26.78	13.91	6.24	14.16	1.67
April 2017	38.22	28.14	14.51	6.32	12.81	3.44
May 2017	37.25	29.24	13.22	5.85	14.44	2.88
June 2017						
July 2017						
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September 2017						
October 2017						
November 2017						
December 2017						

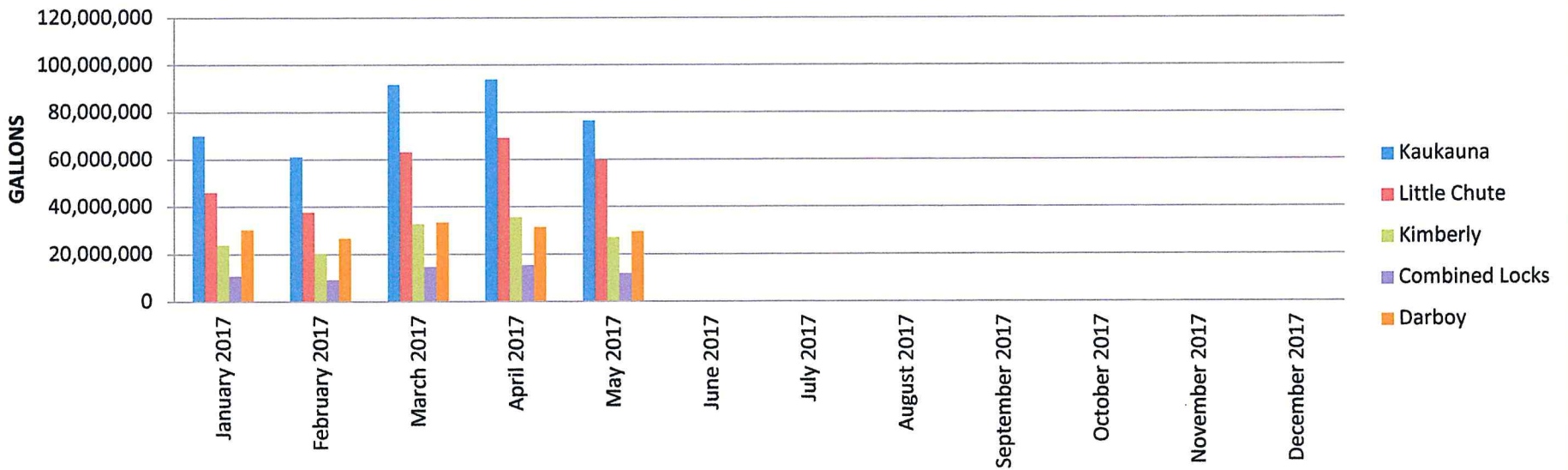
GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<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	93,844,850	69,108,000	35,626,000	15,513,000	31,464,000
May 2017	76,411,310	59,973,000	27,122,000	11,991,000	29,621,000
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

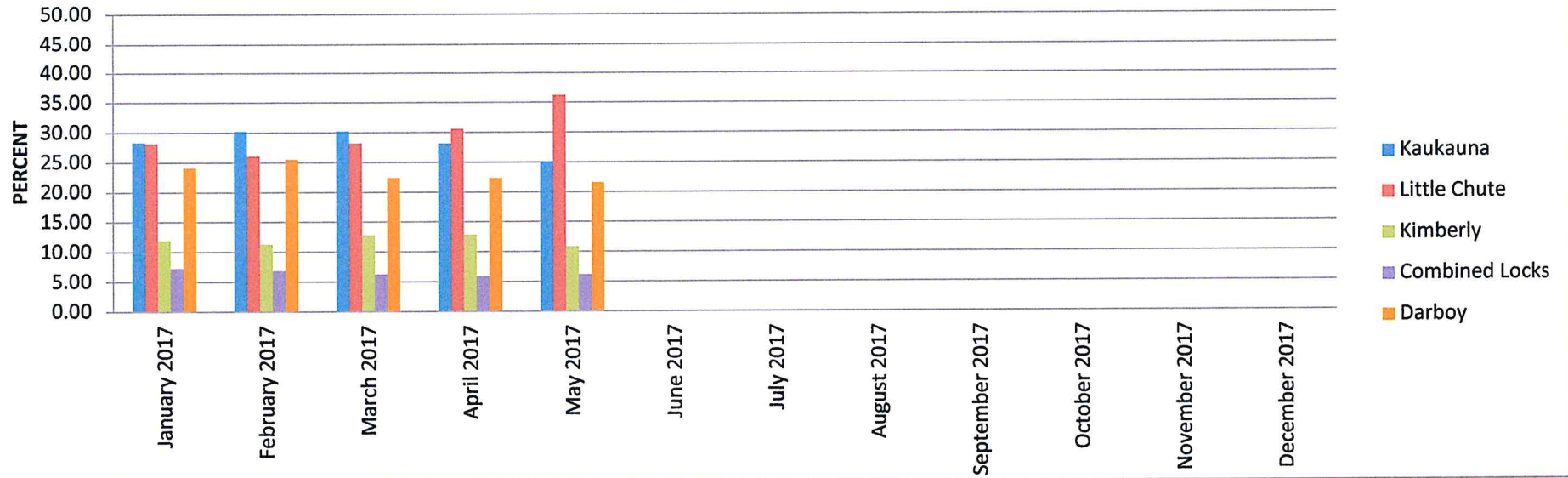
% CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<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
April 2017	28.19	30.62	12.90	5.91	22.37
May 2017	25.14	36.24	10.89	6.17	21.56
June 2017					
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December 2017					

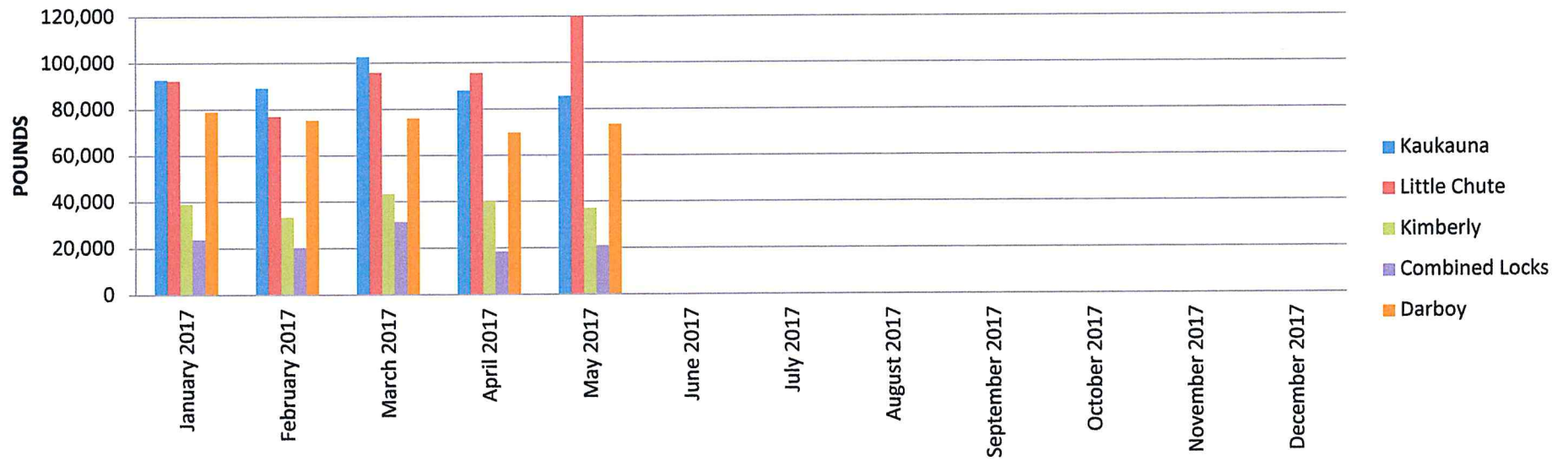
POUNDS CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<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	87,987	95,572	40,256	18,447	69,830
May 2017	85,596	123,409	37,097	21,002	73,421
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

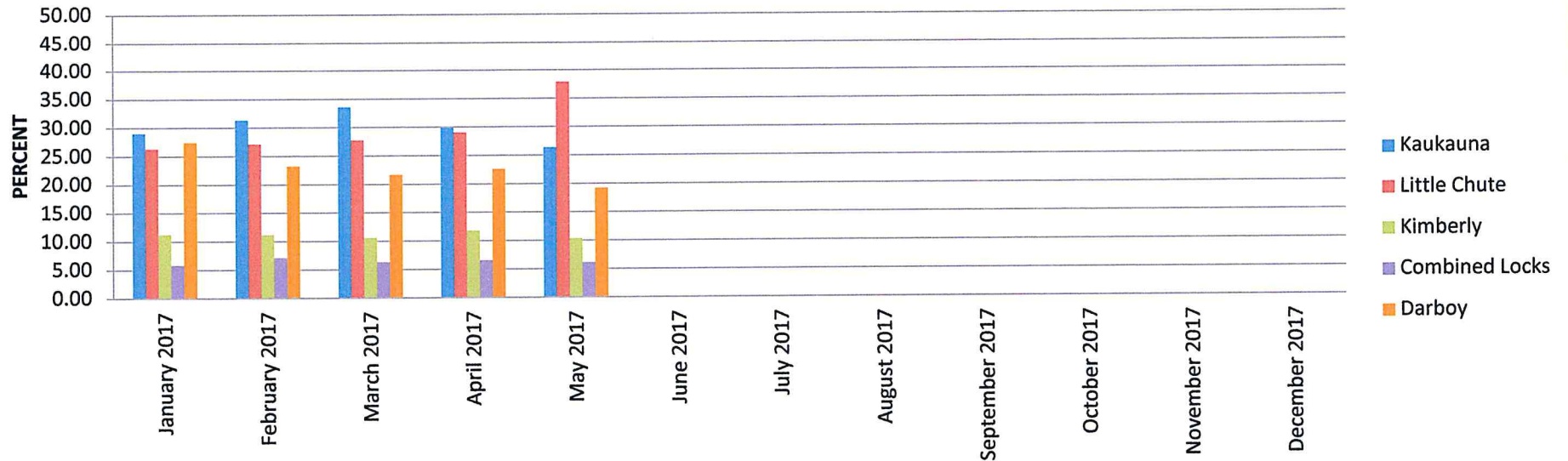
% CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS

	<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
April 2017	29.94	29.08	11.82	6.55	22.62
May 2017	26.40	37.88	10.36	6.14	19.20
June 2017					
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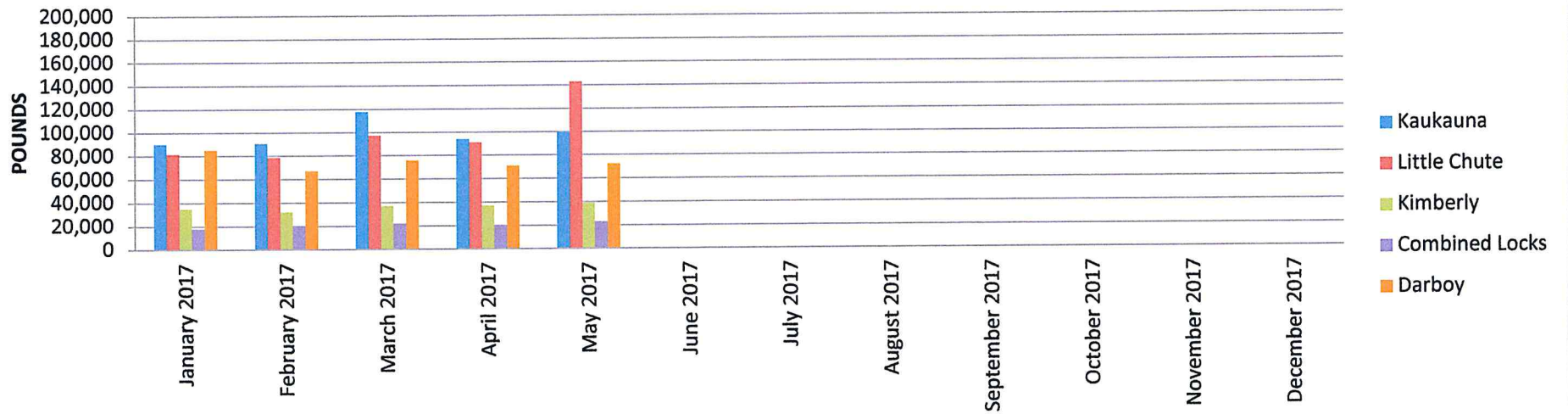
POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS

	<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	93,974	91,273	37,087	20,549	70,999
May 2017	99,643	142,965	39,109	23,189	72,476
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

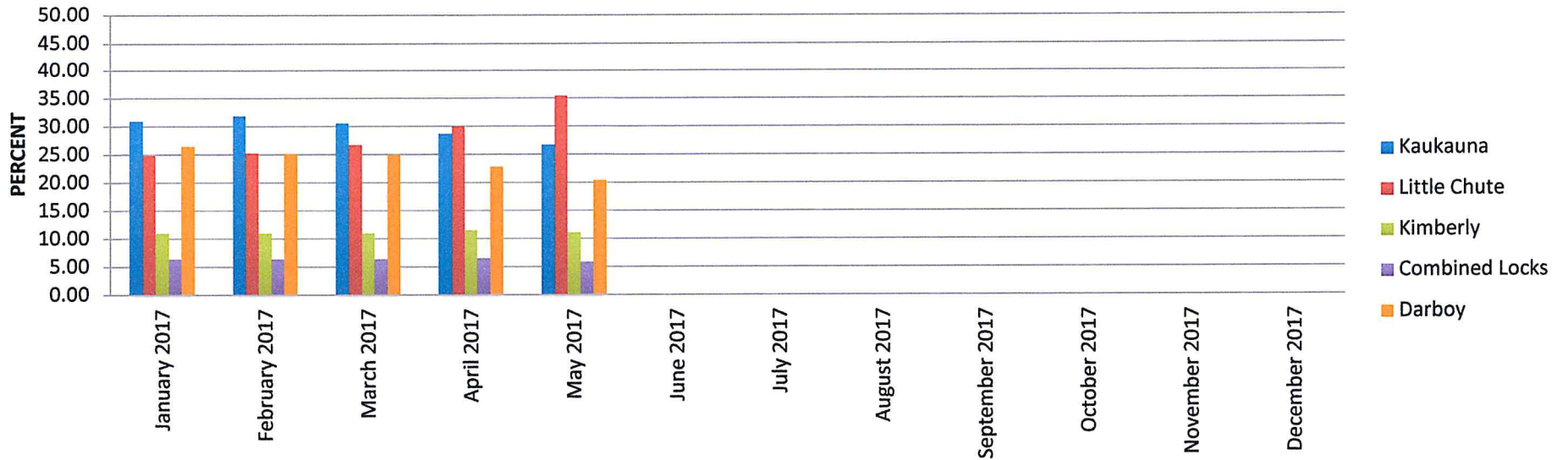
% CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<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
April 2017	28.82	30.08	11.57	6.60	22.93
May 2017	26.79	35.47	11.23	6.00	20.51
June 2017					
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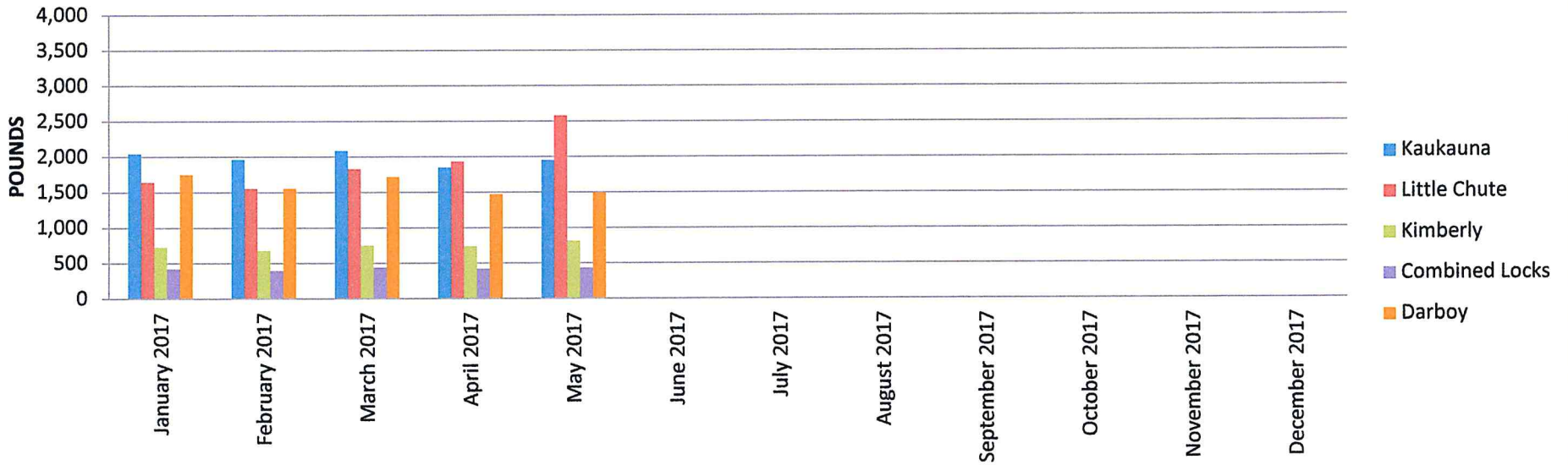
POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<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	1,852	1,933	744	424	1,474
May 2017	1,949	2,581	817	437	1,492
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

% CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

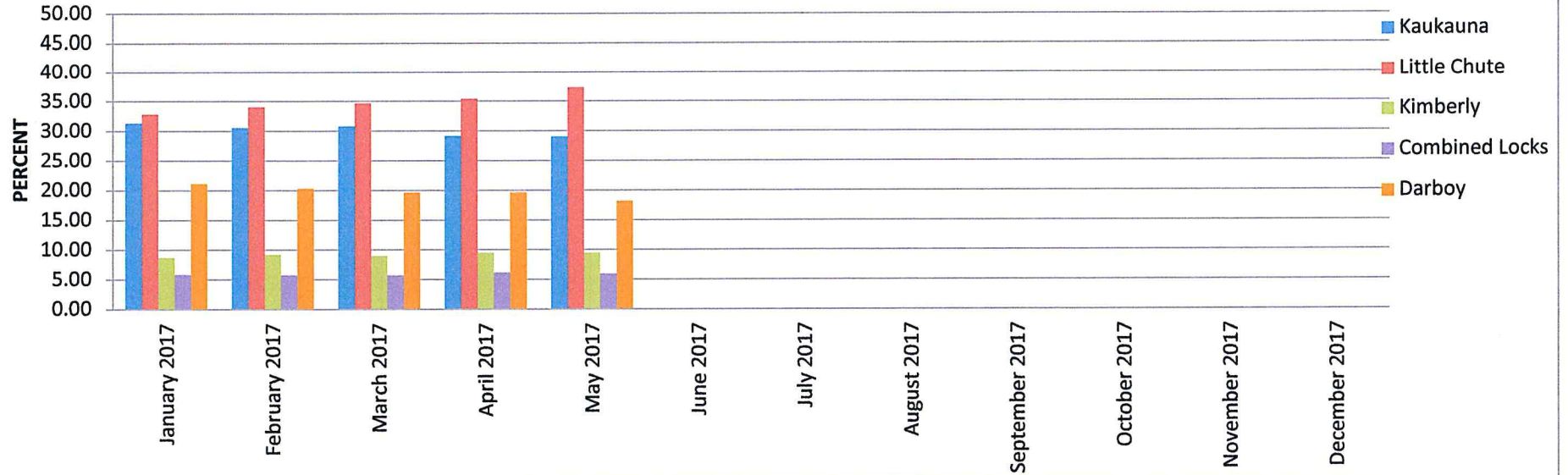
% CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<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	29.20	35.41	9.53	6.20	19.65
May 2017	29.07	37.32	9.45	5.98	18.19
June 2017					
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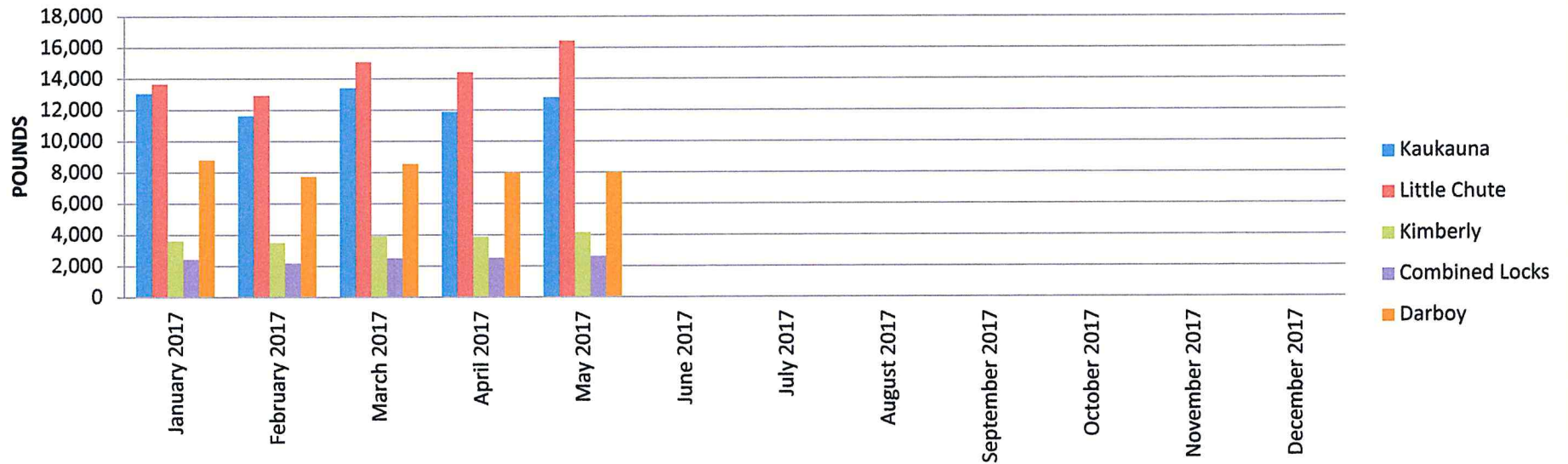
POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<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	11,891	14,420	3,882	2,522	8,002
May 2017	12,807	16,443	4,162	2,637	8,014
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

% CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

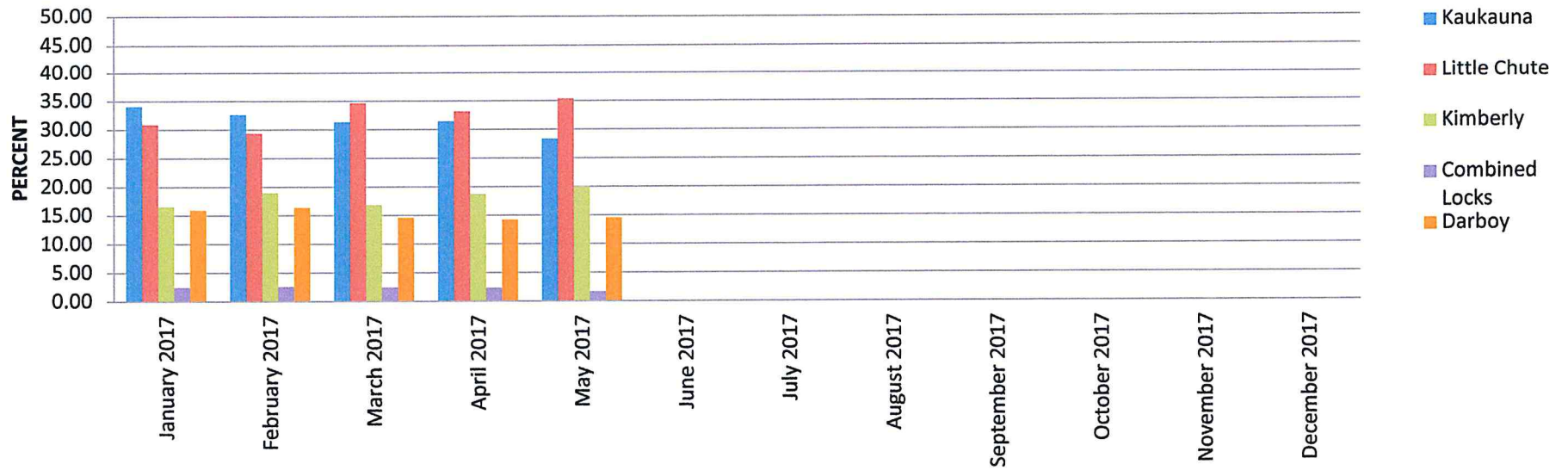
% CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<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
April 2017	31.46	33.19	18.75	2.38	14.23
May 2017	28.34	35.40	20.01	1.69	14.56
June 2017					
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December 2017					

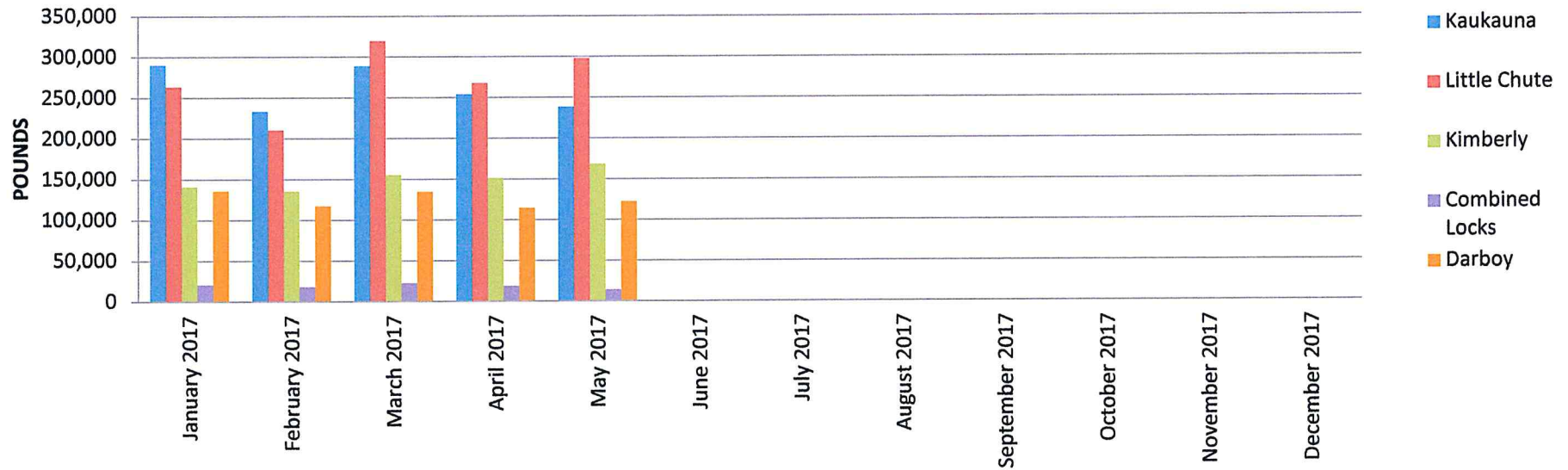
POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<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	254,166	268,101	151,491	19,207	114,926
May 2017	238,575	297,961	168,416	14,259	122,531
June 2017					
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November 2017					
December 2017					

% CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

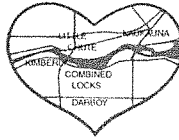


POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS



DISTRICT DIRECTOR:

Brian M. Helminger



COMMISSIONERS:

David J. Casper, President
Bruce M. Siebers, Vice-Pres.
Kevin P. Coffey, Secretary
Patrick E. Hennessey
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 19800
Green Bay, WI 54307-9004

Attn: Account # N2310E

Month: May

Year: 2017

Gallons of Final Effluent Purchased (Billing)

<u>Date</u>	<u>Gallons</u>	<u>Date</u>	<u>Gallons</u>
5/1/2017	0	5/21/2017	0
5/2/2017	0	5/22/2017	0
5/3/2017	0	5/23/2017	0
5/4/2017	0	5/24/2017	0
5/5/2017	0	5/25/2017	0
5/6/2017	0	5/26/2017	0
5/7/2017	0	5/27/2017	57,000
5/8/2017	0	5/28/2017	424,000
5/9/2017	0	5/29/2017	1,144,000
5/10/2017	0	5/30/2017	703,000
5/11/2017	0	5/31/2017	280,000
5/12/2017	0		
5/13/2017	0		
5/14/2017	0		
5/15/2017	0		
5/16/2017	0		
5/17/2017	0		
5/18/2017	0		
5/19/2017	0		
5/20/2017	0		
		Total:	2,608,000

Facility: Wisconsin Public Service Corporation - Fox Energy Center
P.O. Box 19800
Green Bay, WI 54307-9004

Attn: Account # N2310E

MONTHLY BILLING

Month: May

Year: 2017

GALLONS PURCHASED: 2,608,000

BILLING RATE: \$0.1533035 PER 1000 GALLONS

TOTAL AMOUNT DUE: \$399.82

**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: 206,482,000

Charge Per 1000 Gallons: \$0.1533035 Per 1000 Gallons

Sale of Final Effluent (Revenue Collected): \$31,654.41