

2017

## FLOW AND STRENGTH PROJECTIONS

MONTH: June 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)	198,010,300	225,469,660	27,459,360	\$ 165,734.62	\$ 188,718.11	\$ 22,983.48
B.O.D. (#s)	286,938	345,611	58,673	\$ 76,038.57	\$ 91,586.91	\$ 15,548.34
S. SOLIDS (#s)	361,704	407,369	45,665	\$ 94,404.74	\$ 106,323.19	\$ 11,918.44
PHOSPHORUS (#s)	7,158	7,562	404	\$ 43,921.49	\$ 46,400.43	\$ 2,478.94
AMMONIA-N (#s)	32,960	40,581	7,621	\$ 53,560.00	\$ 65,944.13	\$ 12,384.13
CHLORIDES (#s)	586,609	814,867	228,258	\$ 2,933.05	\$ 4,074.34	\$ 1,141.29
			<b>TOTAL:</b>	<b>\$ 436,592.47</b>	<b>\$ 503,047.10</b>	<b>\$ 66,454.63</b>

(THRU JUNE 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	186,347,620	\$ 155,972.96
B.O.D. (#s)	3,232,707	248,445	\$ 65,837.96
S. SOLIDS (#s)	4,183,878	-212,890	\$ (55,564.21)
PHOSPHORUS (#s)	84,963	-4,738	\$ (29,074.52)
AMMONIA-N (#s)	423,820	28,849	\$ 46,880.34
CHLORIDES (#s)	7,342,132	1,016,247	\$ 5,081.23
		<b>TOTAL:</b>	<b>\$ 189,133.76</b>

**HEART OF THE VALLEY  
METROPOLITAN SEWERAGE DISTRICT**

MONTH: JUNE 2017

**HYDRAULIC AND ORGANIC LOADINGS DATA**

**INFLUENT**

<b>TOTAL FLOW TO PLANT:*</b>	232,395,000 GALLONS	
<b>AVERAGE B.O.D. :</b>	187 mg/L	<b>MAXIMUM DAILY FLOW TO PLANT:</b>
<b>AVERAGE SUSPENDED SOLIDS :</b>	163 mg/L	16,380,000
<b>AVERAGE PHOSPHORUS :</b>	3.89 mg/L	
<b>AVERAGE AMMONIA-N :</b>	23.19 mg/L	
<b>AVERAGE CHLORIDES :</b>	483.08 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	38.85	25.30	25.52	25.55	24.70	27.54
LITTLE CHUTE	26.93	35.99	37.14	35.02	38.97	33.38
KIMBERLY	14.59	12.55	11.75	11.48	10.69	19.16
COMBINED LOCKS	6.04	5.27	5.85	6.16	6.16	2.41
DARBOY	13.60	20.89	19.73	21.79	19.49	17.51

<u>AVERAGE DAILY INFLUENT LOADINGS</u>		<u>%</u>	<u>PLANT DESIGN CRITERIA</u>
<b>FLOW :</b>	7,746,500 GALLONS	65.1	11,900,000 GALLONS/DAY
<b>B.O.D. :</b>	11,702 POUNDS	79.9	14,651 POUNDS/DAY
<b>SUSPENDED SOLIDS :</b>	10,195 POUNDS	62.6	16,278 POUNDS/DAY
<b>PHOSPHORUS :</b>	243 POUNDS	59.8	407 POUNDS/DAY
<b>AMMONIA-N :</b>	1,450 POUNDS	75.5	1,920 POUNDS/DAY
<b>CHLORIDES :</b>	30,203 POUNDS		

**FINAL EFFLUENT**

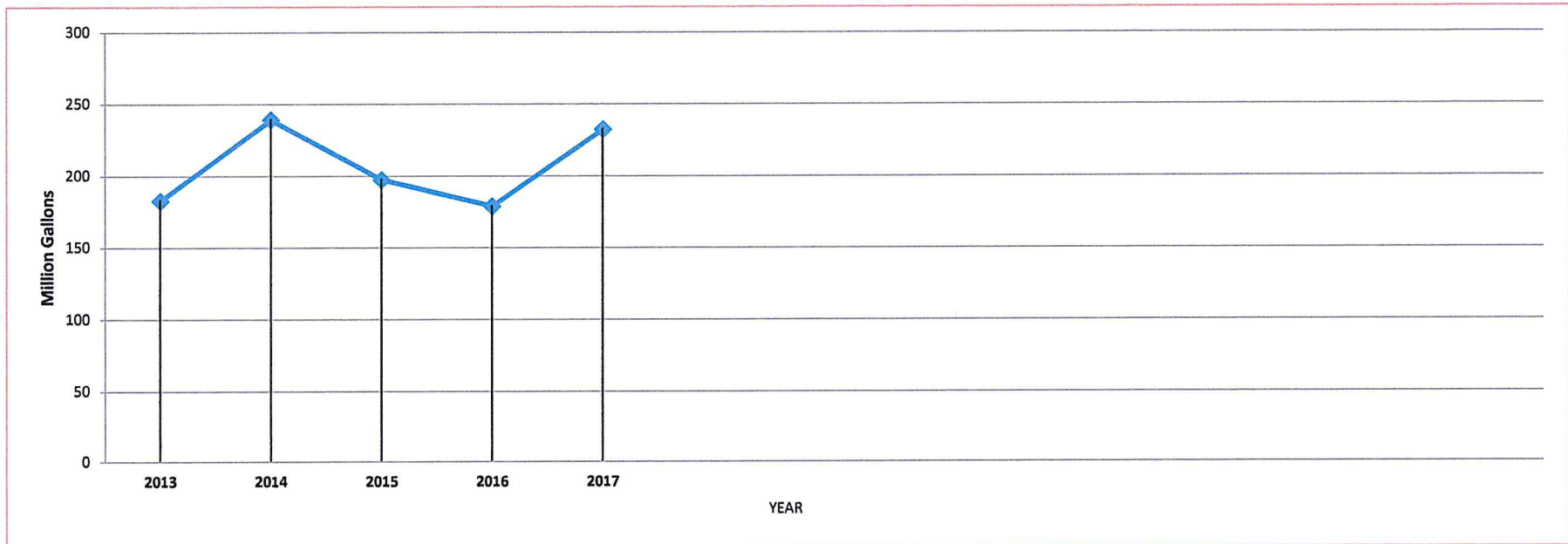
	<u>MONTHLY AVERAGE</u>	<u>%</u>	<u>PERMIT LIMIT</u>
<b>FLOW:</b>	6,481,533 GALLONS		
<b>cB.O.D. :</b>	4.64 mg/L	18.6	25 mg/L
<b>SUSPENDED SOLIDS :</b>	11.16 mg/L	37.2	30 mg/L
<b>PHOSPHORUS :</b>	0.31 mg/L	30.8	1 mg/L
<b>AMMONIA-N :</b>	0.25 mg/L		
<b>CHLORIDES :</b>	478.08 mg/L		

\* Includes Holding and Septic Tanks

# HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>June Flow</u> <u>Million Gallons</u>	<u>Precipitation</u> <u>Inches</u>
2013	182.739	2.27
2014	239.160	5.92
2015	197.337	4.59
2016	178.887	5.19
2017	232.395	6.37

JUNE FLOW VOLUMES





# HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

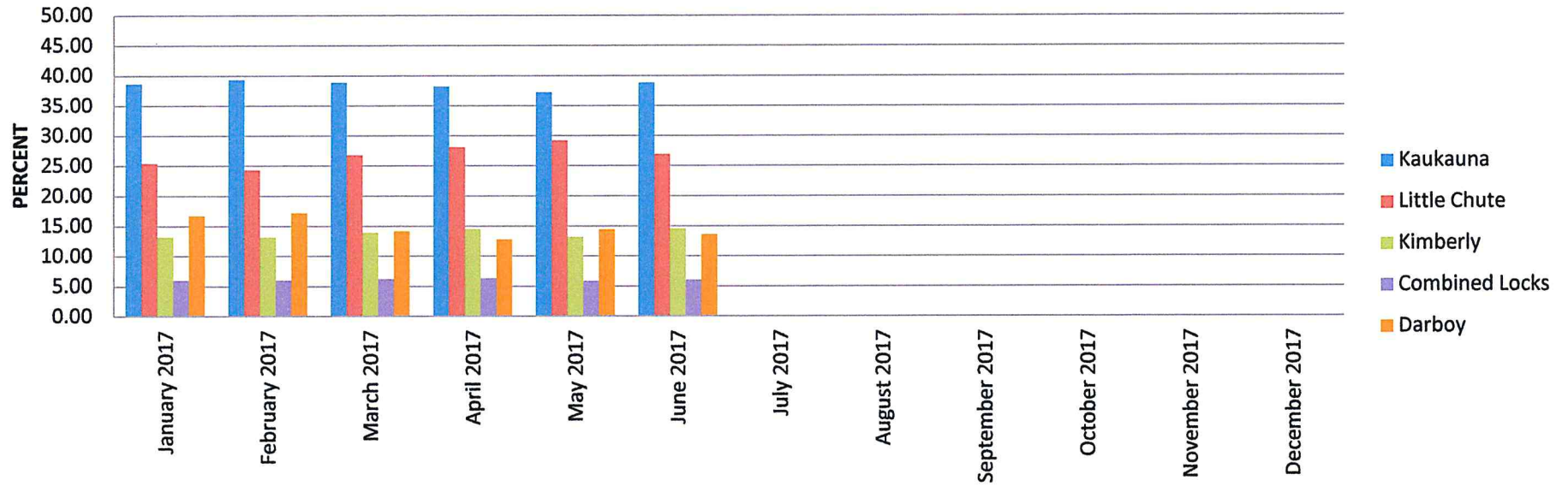
## % CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<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	38.85	26.93	14.59	6.04	13.60	6.37
July 2017						
August 2017						
September 2017						
October 2017						
November 2017						
December 2017						

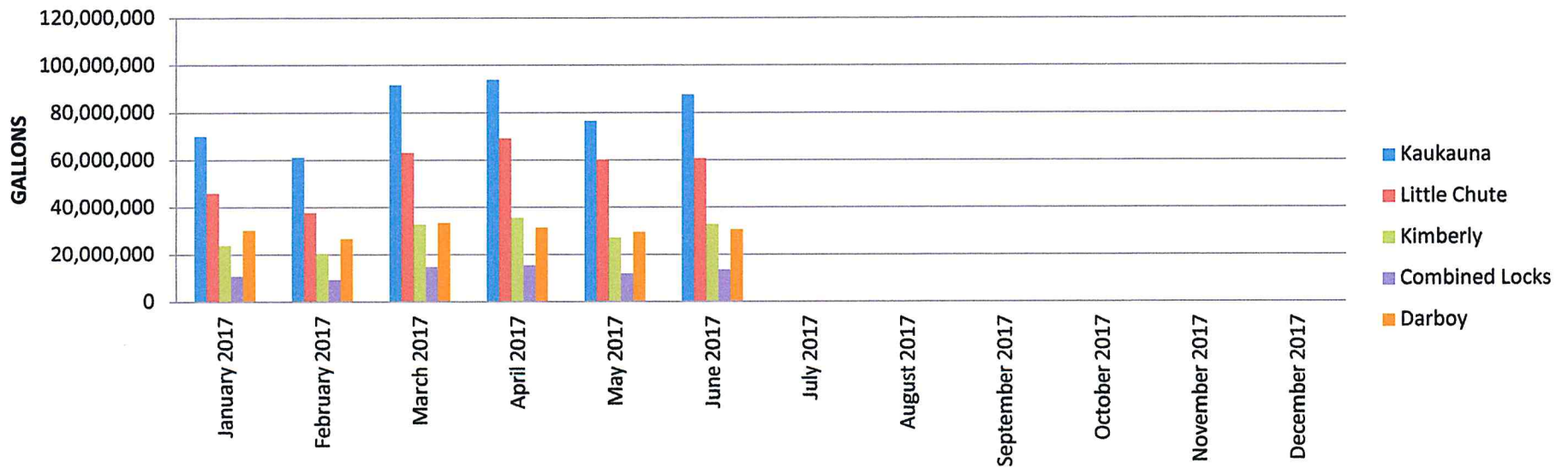
## GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<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	87,589,660	60,724,000	32,887,000	13,613,000	30,656,000
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

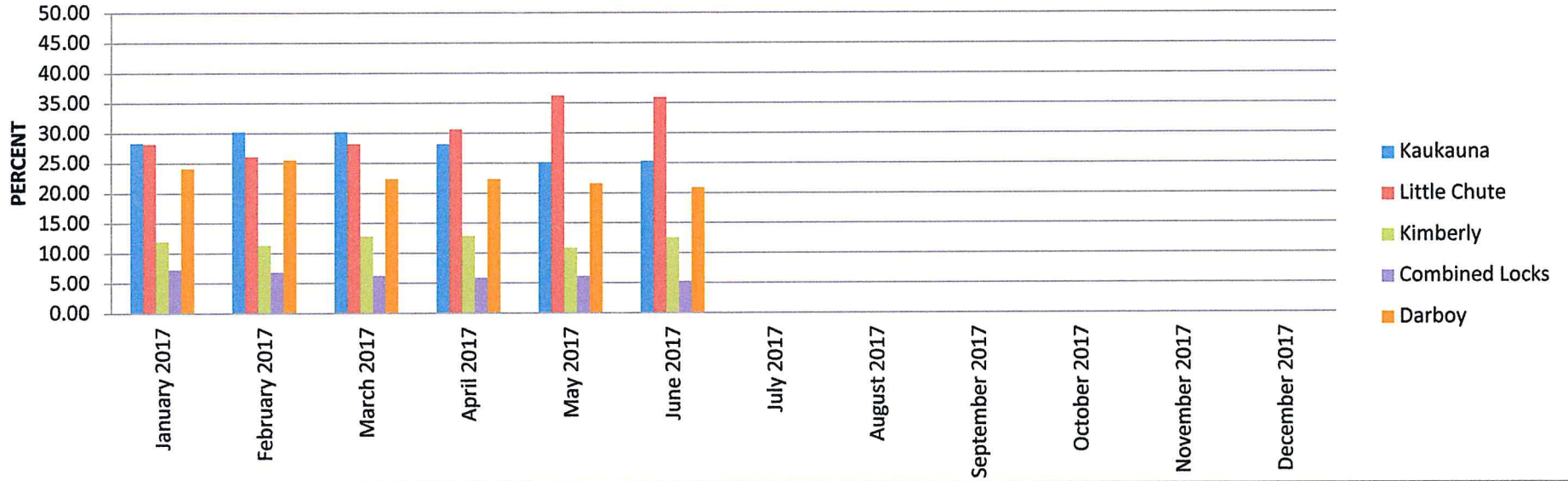
## % CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<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	25.30	35.99	12.55	5.27	20.89
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

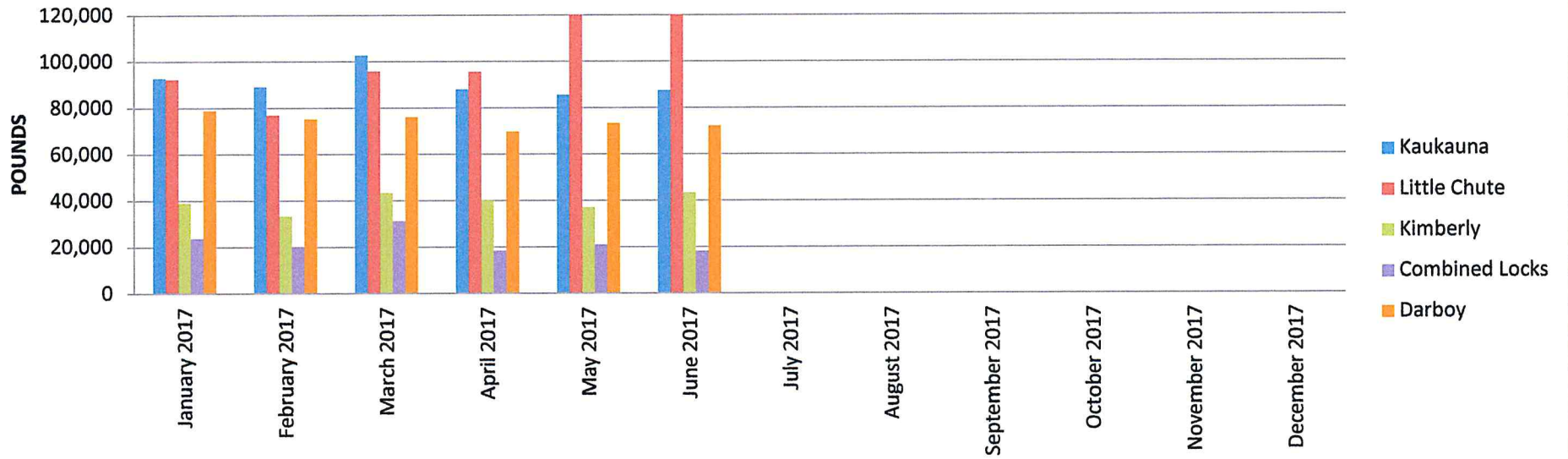
## POUNDS CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<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	87,442	124,373	43,377	18,210	72,210
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

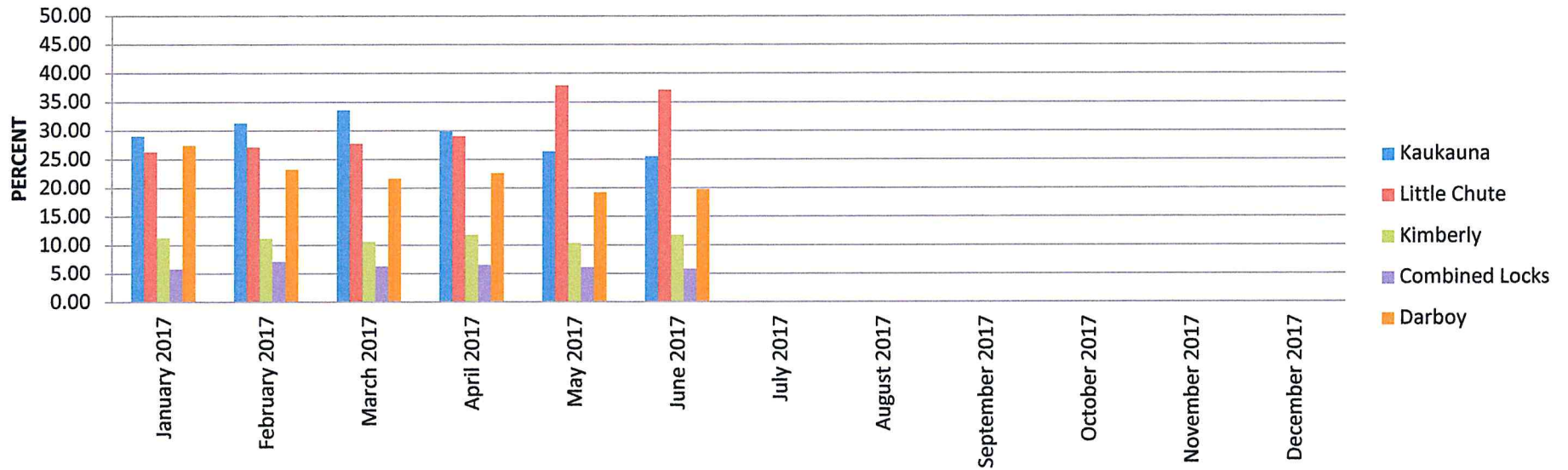
## % CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS

	<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	25.52	37.14	11.75	5.85	19.73
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

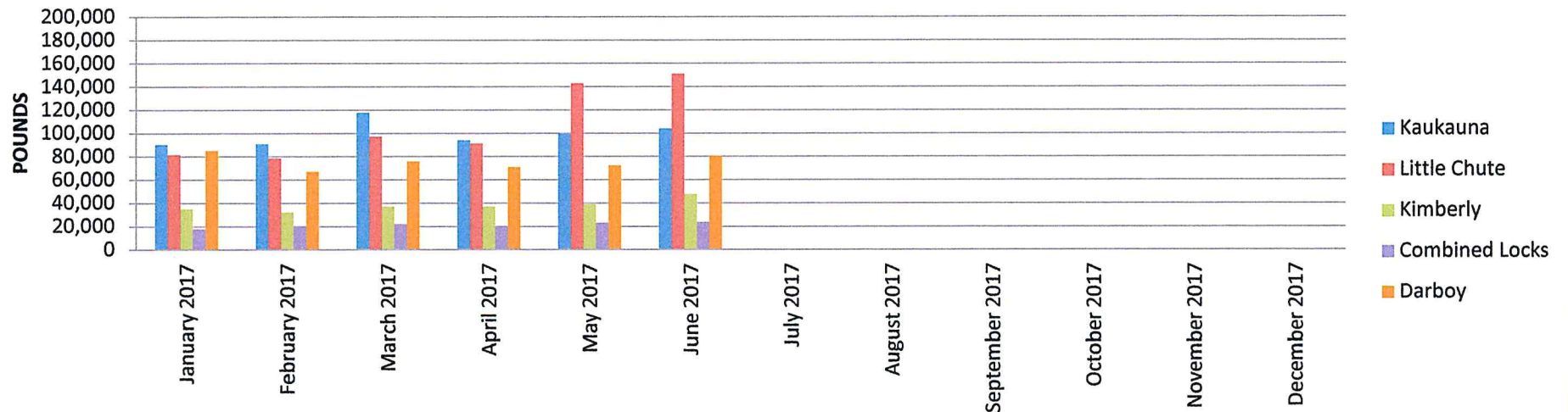
## POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS

	<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	93,974	91,273	37,087	20,549	70,999
May 2017	99,643	142,965	39,109	23,189	72,476
June 2017	103,978	151,297	47,872	23,832	80,389
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

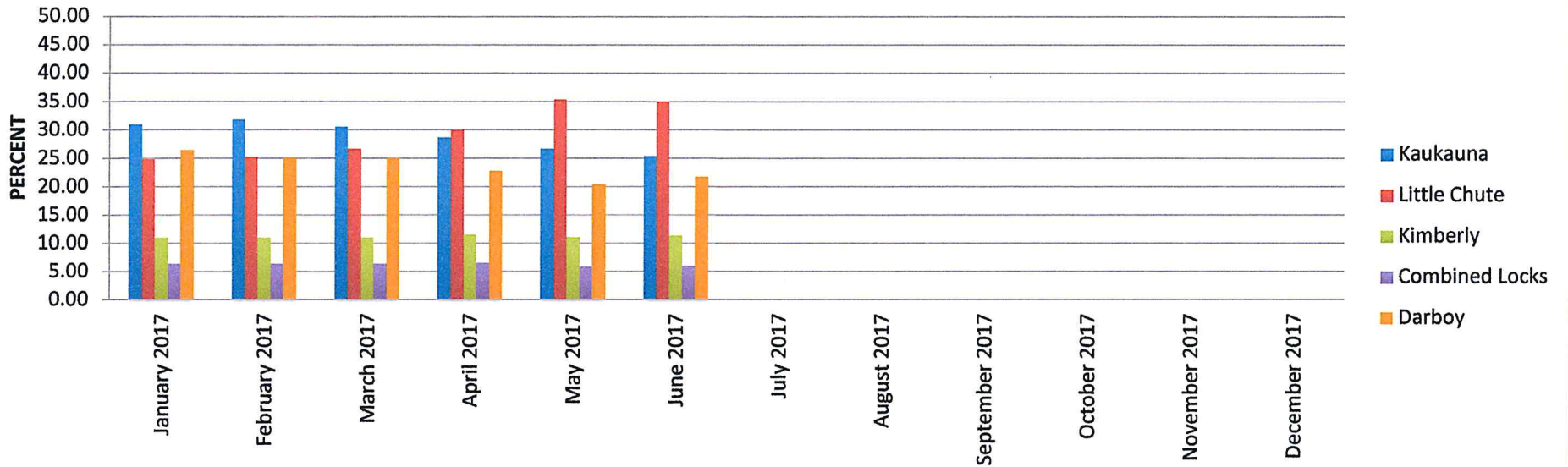
## % CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<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	25.55	35.02	11.48	6.16	21.79
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

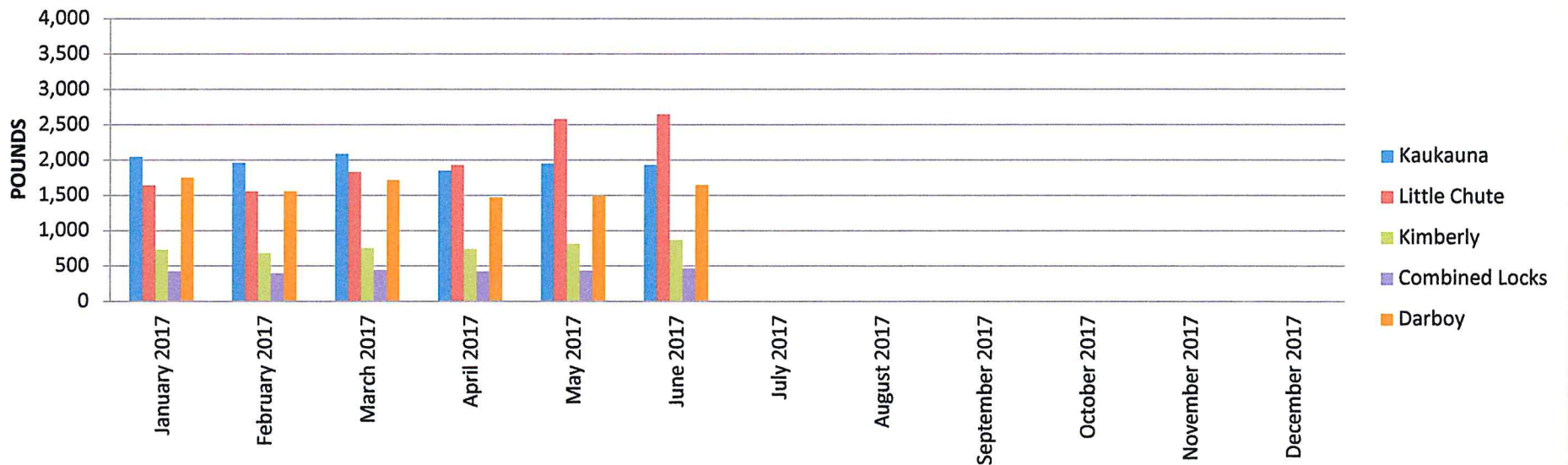
## POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<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	1,932	2,648	868	466	1,648
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

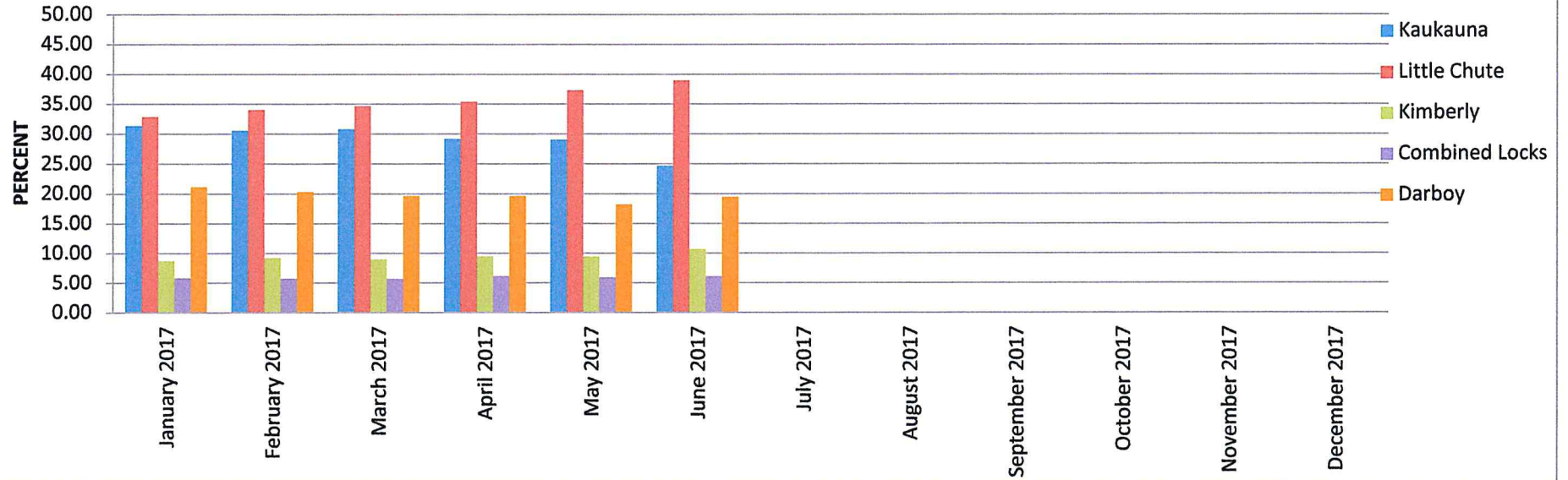
## % CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<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	24.70	38.97	10.69	6.16	19.49
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

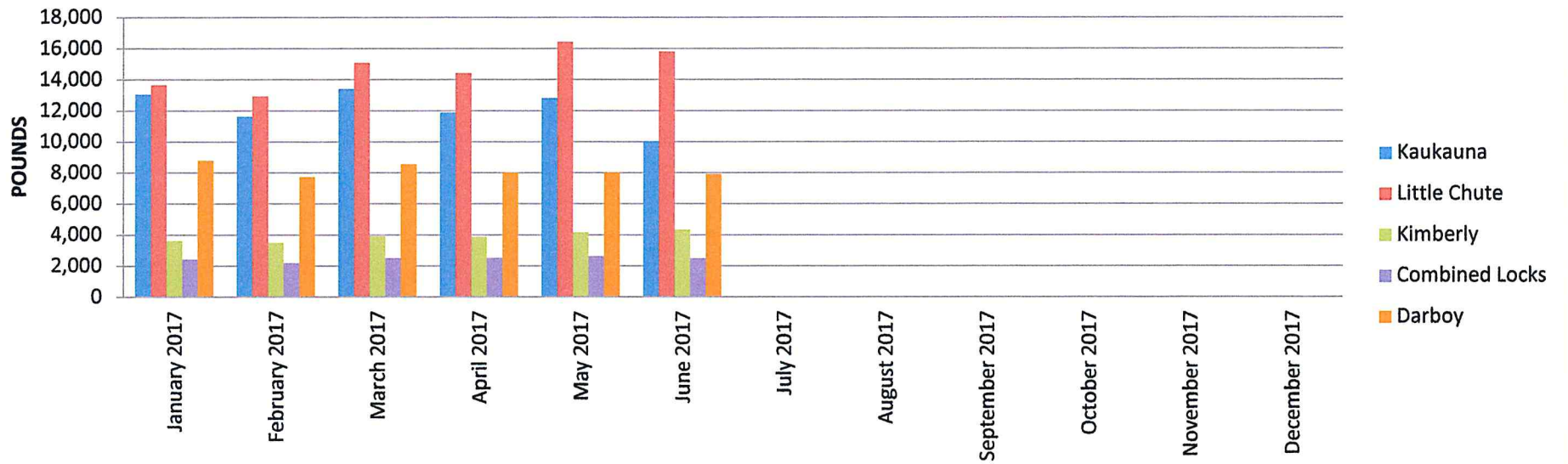
## POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<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	10,025	15,813	4,338	2,498	7,908
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

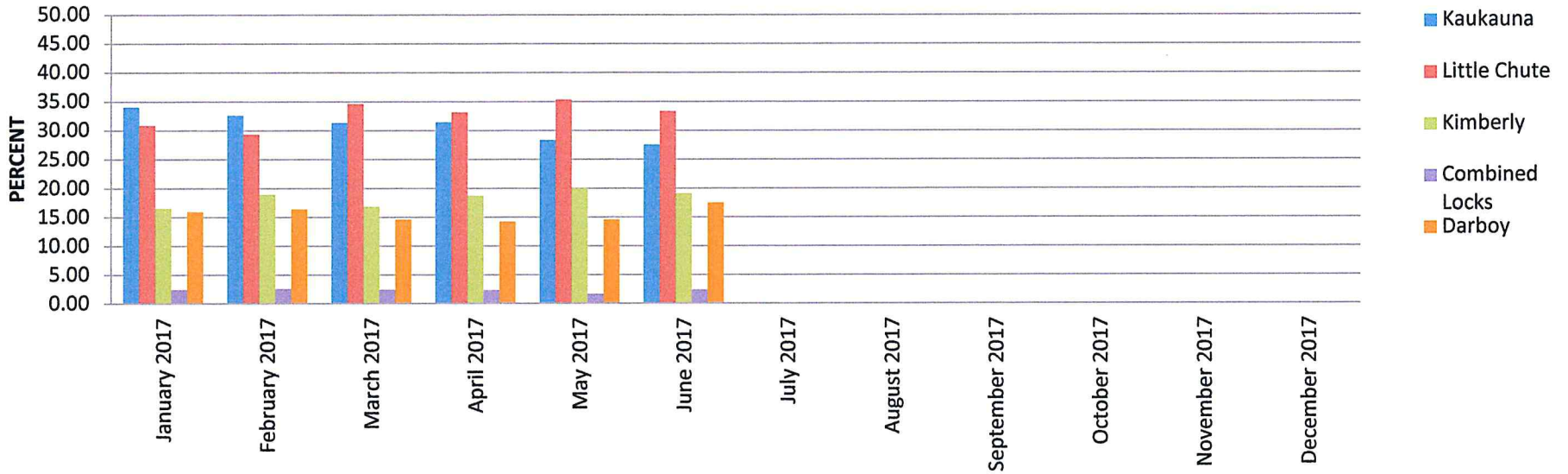
## % CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<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	27.54	33.38	19.16	2.41	17.51
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

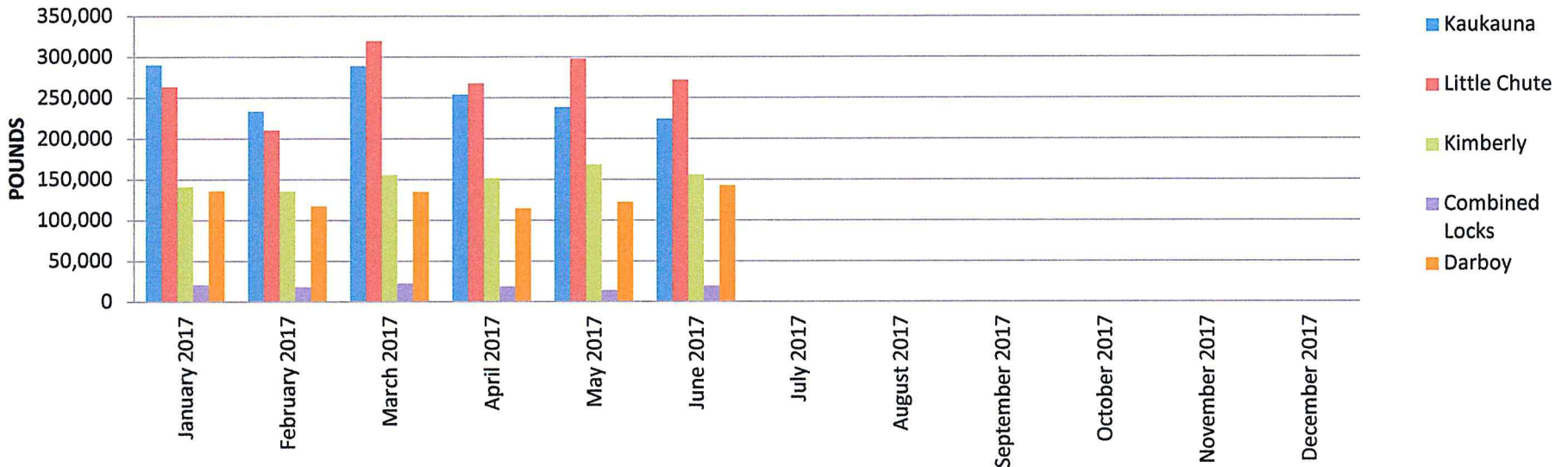
## POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<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	224,424	271,994	156,109	19,621	142,719
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

## % CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS



## POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS



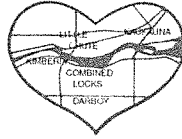


**DISTRICT DIRECTOR:**

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:** June**Year:** 2017

## Gallons of Final Effluent Purchased (Billing)

<u>Date</u>	<u>Gallons</u>	<u>Date</u>	<u>Gallons</u>
6/1/2017	0	6/21/2017	1,000
6/2/2017	0	6/22/2017	0
6/3/2017	0	6/23/2017	0
6/4/2017	0	6/24/2017	0
6/5/2017	0	6/25/2017	418,000
6/6/2017	0	6/26/2017	1,954,000
6/7/2017	0	6/27/2017	2,724,000
6/8/2017	0	6/28/2017	2,725,000
6/9/2017	738,000	6/29/2017	2,721,000
6/10/2017	2,047,000	6/30/2017	2,720,000
6/11/2017	2,026,000		
6/12/2017	2,401,000		
6/13/2017	2,528,000		
6/14/2017	2,533,000	<b>Total:</b>	<b>37,949,000</b>
6/15/2017	2,532,000		
6/16/2017	2,762,000		
6/17/2017	2,797,000		
6/18/2017	2,759,000		
6/19/2017	1,554,000		
6/20/2017	9,000		

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

**Attn:** Account # N2310E

## **MONTHLY BILLING**

**Month:** June

**Year:** 2017

**GALLONS PURCHASED:** 37,949,000

**BILLING RATE:** \$0.1533035 PER 1000 GALLONS

**TOTAL AMOUNT DUE: \$5,817.71**

**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: 244,431,000**

**Charge Per 1000 Gallons: \$0.1533035 Per 1000 Gallons**

**Sale of Final Effluent (Revenue Collected): \$37,472.13**