

# 1.Flow and Strength Projections

FLOW: 41,200,920 over projection

BOD: 47,781 #'s over projection

S.SOLIDS: Actual and Projected seem to be leveling out.

PHOSPHORUS: Was under projection netting a loss of (\$-13,763.05)

AMMONIA: ok

CHLORIDES: ok

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## Surplus or Deficit

February netted a SURPLUS of \$ 38,362.02

YTD Surplus of : \$75,751.69

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## 2.Hydraulic and Organic Loadings Data

Total Plant Flow: 154,391,000 for February

All Parameters for the Influent: BOD,TSS,TP,NH3-N, CHLORIDES were normal.

Percent by community: Nothing Notable.

Average Daily Loadings: Nothing Notable

Final Effluent numbers: TSS , NH3 , and TP all remain low.

All Permit Values were met for February.

## 3. Fox Energy Center

Fox Energy Pumped 60,681,000 gallons in February

-netting a monthly dollar amount of \$9302.61

-As of March total revenue collected was \$19,531.48

## FLOW AND STRENGTH PROJECTIONS

MONTH: February 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)	114,060,263	155,260,920	41,200,657	\$ 95,468.44	\$ 129,953.39	\$ 34,484.95
B.O.D. (#s)	247,198	294,979	47,781	\$ 65,507.47	\$ 78,169.44	\$ 12,661.97
S. SOLIDS (#s)	301,047	289,495	-11,552	\$ 78,573.27	\$ 75,558.20	\$ (3,015.07)
PHOSPHORUS (#s)	8,398	6,155	-2,243	\$ 51,530.13	\$ 37,767.08	\$ (13,763.05)
AMMONIA-N (#s)	33,567	37,967	4,400	\$ 54,546.38	\$ 61,696.38	\$ 7,150.00
CHLORIDES (#s)	547,337	715,982	168,645	\$ 2,736.69	\$ 3,579.91	\$ 843.23
			<b>TOTAL:</b>	<b>\$ 348,362.37</b>	<b>\$ 386,724.39</b>	<b>\$ 38,362.02</b>

(THRU FEBRUARY 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	84,819,817	\$ 70,994.19
B.O.D. (#s)	3,232,707	101,291	\$ 26,842.12
S. SOLIDS (#s)	4,183,878	-68,620	\$ (17,909.82)
PHOSPHORUS (#s)	84,963	-3,186	\$ (19,549.30)
AMMONIA-N (#s)	423,820	8,112	\$ 13,182.00
CHLORIDES (#s)	7,342,132	438,500	\$ 2,192.50
		<b>TOTAL:</b>	<b>\$ 75,751.69</b>

# HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

MONTH: February 2017

## HYDRAULIC AND ORGANIC LOADINGS DATA

### INFLUENT

**TOTAL FLOW TO PLANT:** 154,391,000 GALLONS  
**AVERAGE B.O.D. :** 191 mg/L  
**AVERAGE SUSPENDED SOLIDS :** 167 mg/L  
**AVERAGE PHOSPHORUS :** 4.71 mg/L  
**AVERAGE AMMONIA-N :** 29.83 mg/L  
**AVERAGE CHLORIDES :** 538.33 mg/L

**MAXIMUM DAILY FLOW TO PLANT:**  
9,290,000

### 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	39.36	30.23	31.34	31.89	30.60	32.64
LITTLE CHUTE	24.32	26.07	27.16	25.31	34.06	29.39
KIMBERLY	13.16	11.32	11.17	11.08	9.22	18.97
COMBINED LOCKS	5.99	6.86	7.12	6.45	5.76	2.59
DARBOY	17.17	25.52	23.22	25.27	20.37	16.42

### AVERAGE DAILY INFLUENT LOADINGS

**FLOW :** 5,513,964 GALLONS  
**B.O.D. :** 7,939 POUNDS  
**SUSPENDED SOLIDS :** 6,942 POUNDS  
**PHOSPHORUS :** 196 POUNDS  
**AMMONIA-N :** 1,239 POUNDS  
**CHLORIDES :** 22,360 POUNDS

<u>%</u>
46.3
54.2
42.6
48.0
64.5

### PLANT DESIGN CRITERIA

11,900,000 GALLONS/DAY  
14,651 POUNDS/DAY  
16,278 POUNDS/DAY  
407 POUNDS/DAY  
1,920 POUNDS/DAY

### FINAL EFFLUENT

**MONTHLY  
AVERAGE**

**FLOW:** 3,346,786 GALLONS  
**cB.O.D. :** 5.25 mg/L  
**SUSPENDED SOLIDS :** 8.77 mg/L  
**PHOSPHORUS :** 0.22 mg/L  
**AMMONIA-N :** 0.26 mg/L  
**CHLORIDES :** 556.67 mg/L

<u>%</u>
21.0
29.2
22.4

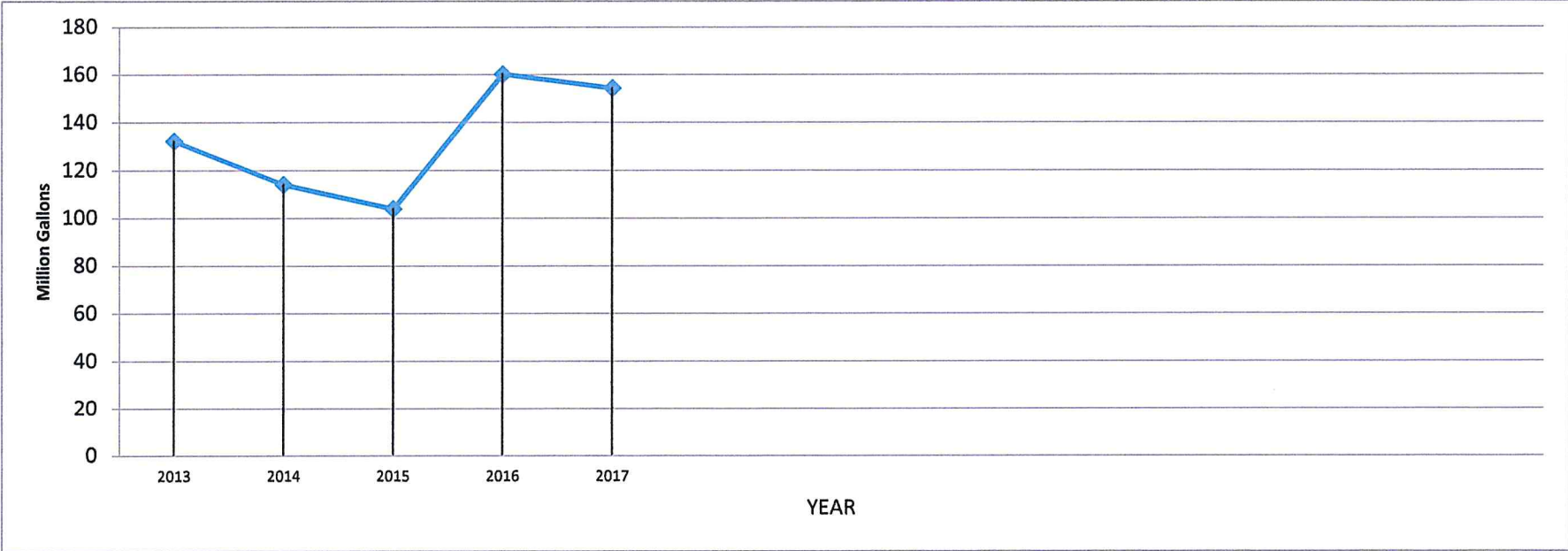
### PERMIT LIMIT

25 mg/L  
30 mg/L  
1 mg/L

# HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>February Flow Million Gallons</u>	<u>Precipitation Inches</u>
2013	132.251	1.22
2014	114.081	1.74
2015	103.918	0.52
2016	160.230	1.13
2017	154.391	0.00

FEBRUARY FLOW VOLUMES





# HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

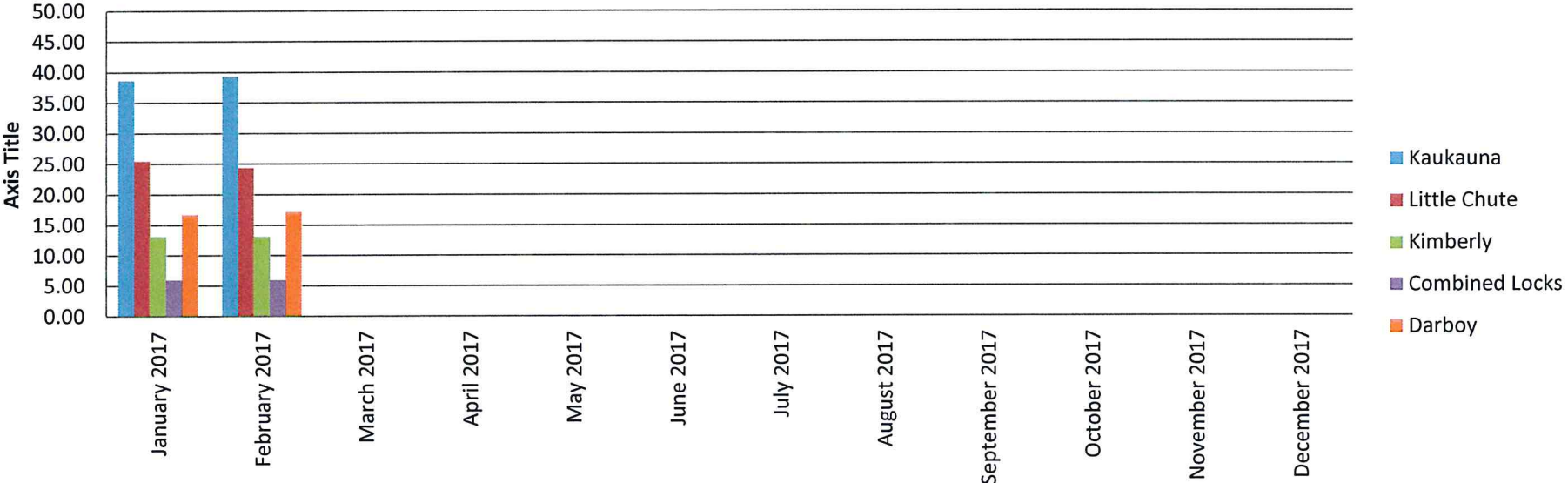
## % CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<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						
April 2017						
May 2017						
June 2017						
July 2017						
August 2017						
September 2017						
October 2017						
November 2017						
December 2017						

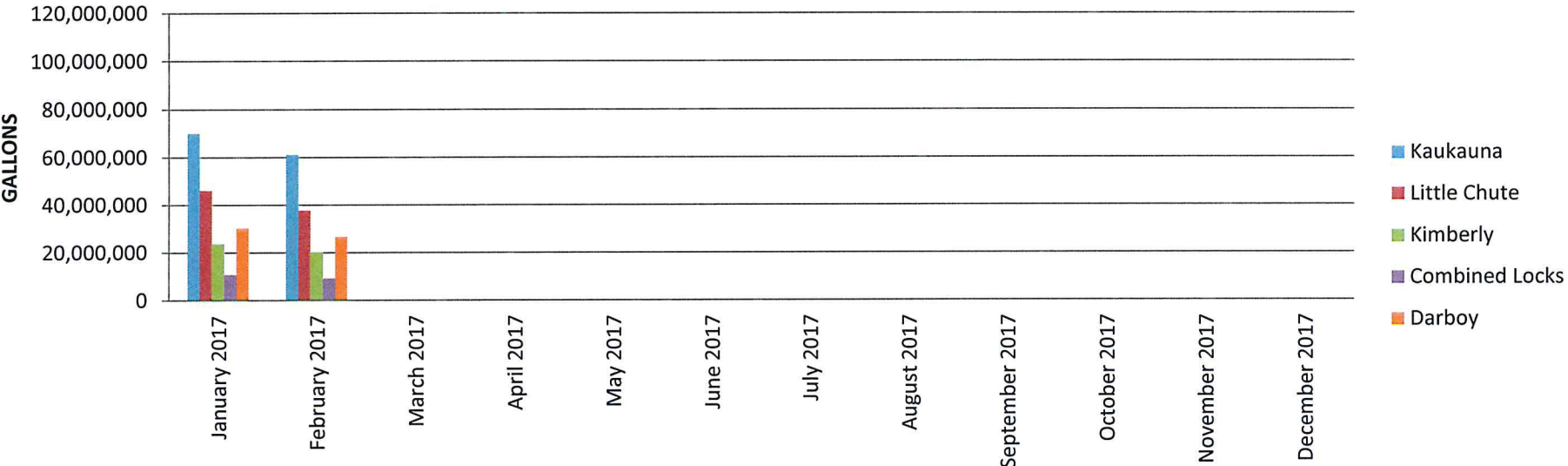
## GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<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					
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

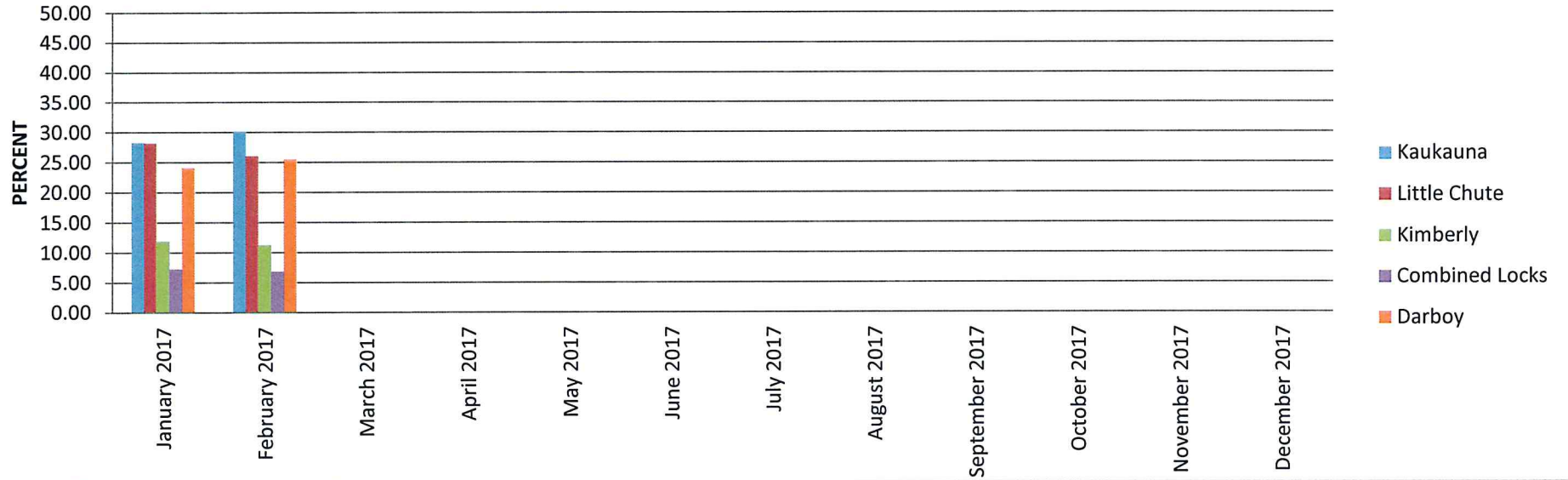
	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	28.37	28.24	11.98	7.28	24.13
February 2017	30.23	26.07	11.32	6.86	25.52
March 2017					
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

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

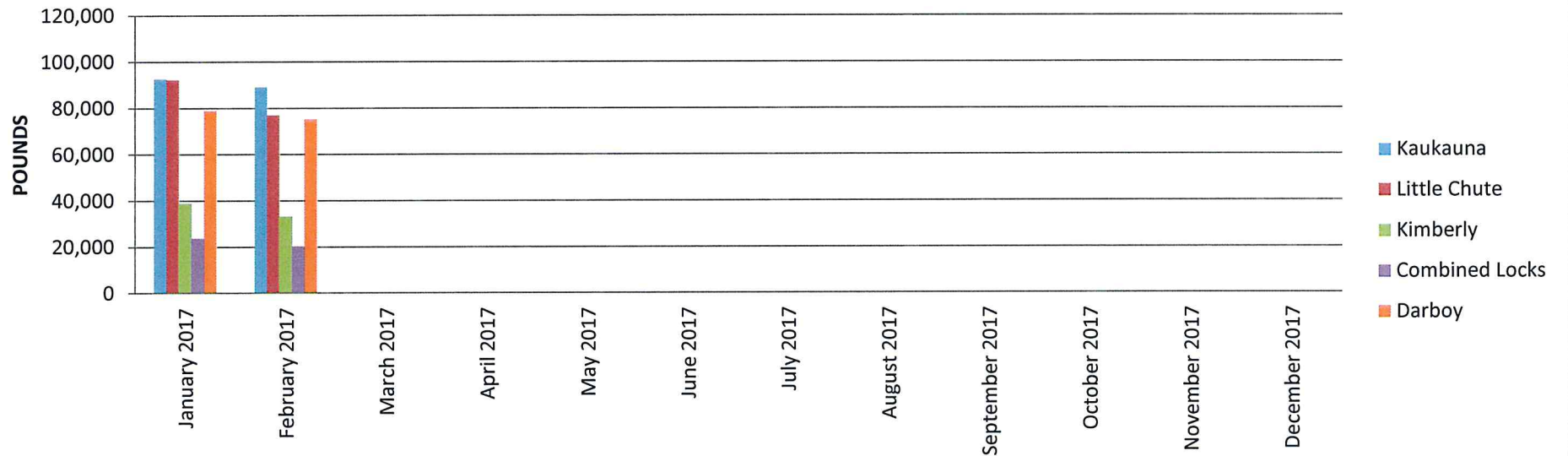
	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	92,752	92,337	39,172	23,785	78,888
February 2017	89,162	76,903	33,377	20,248	75,289
March 2017					
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 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

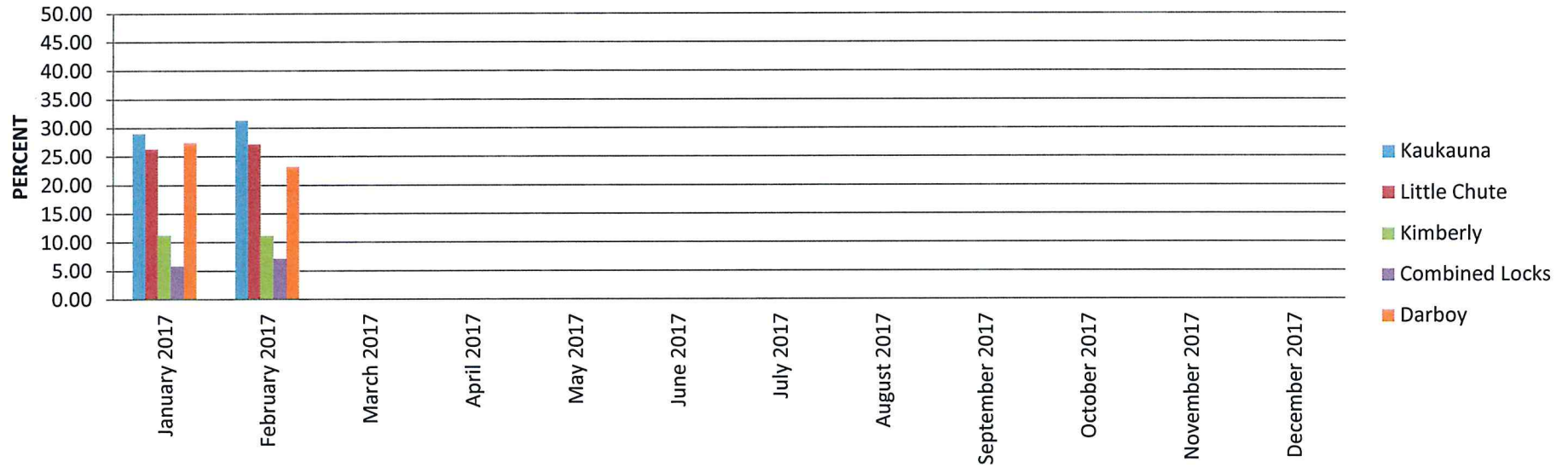
## % CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS

	<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					
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

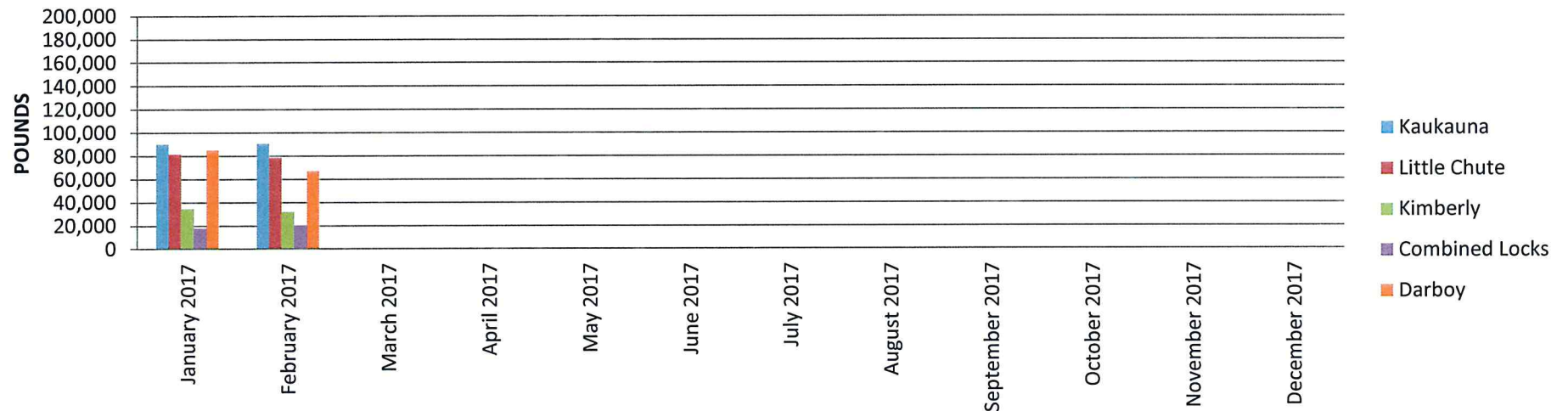
## POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS

	<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					
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

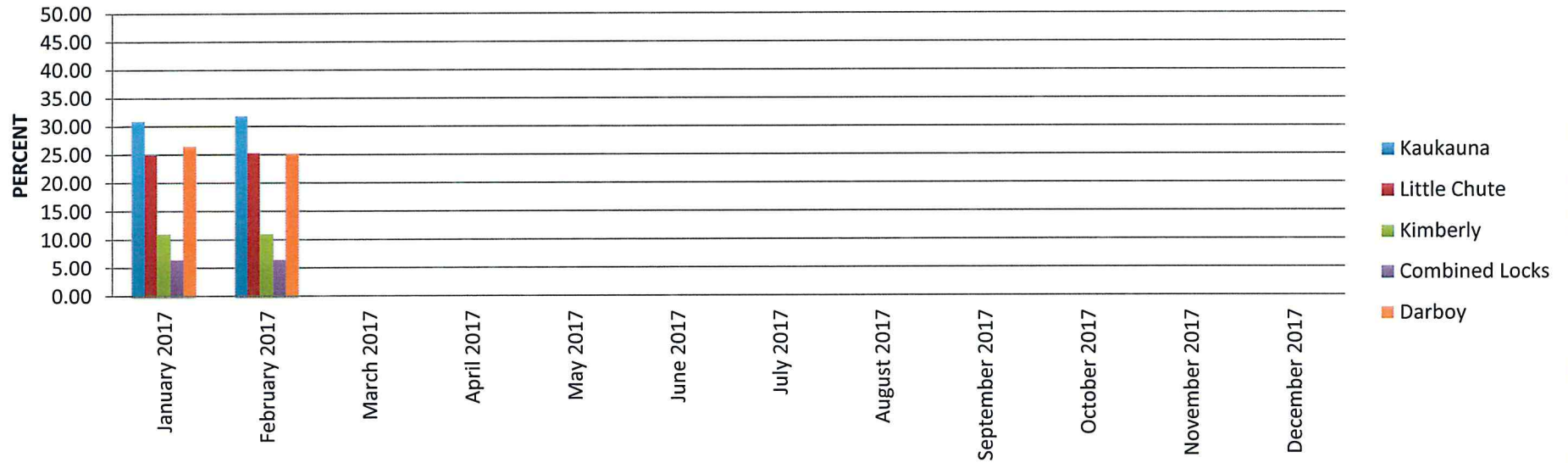
## % CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<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					
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

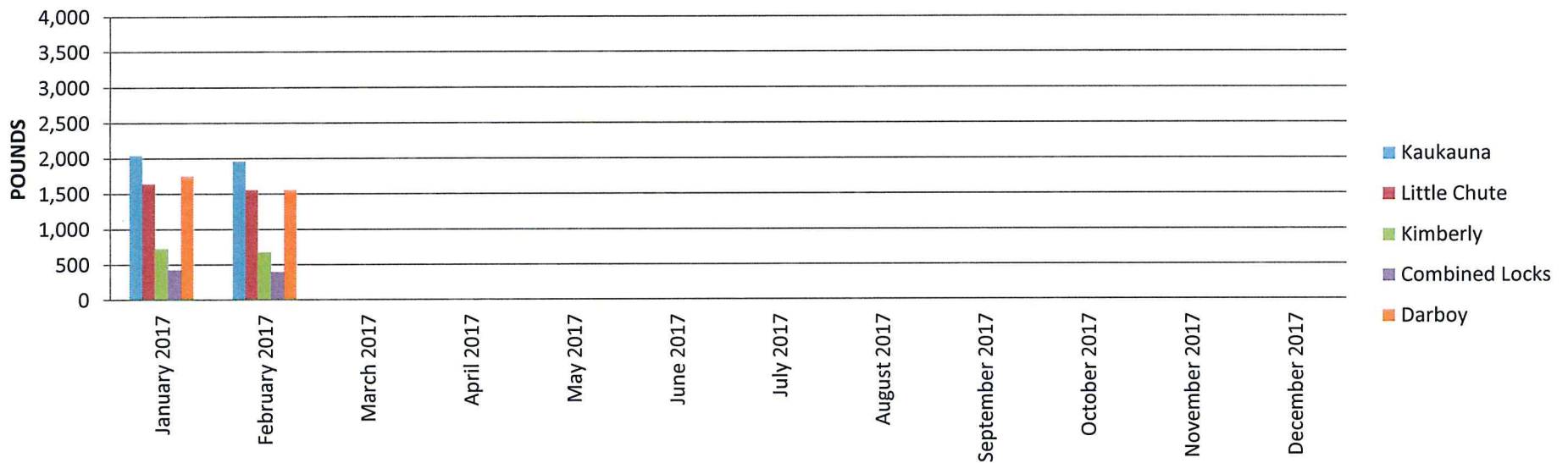
## POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<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					
April 2017					
May 2017					
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

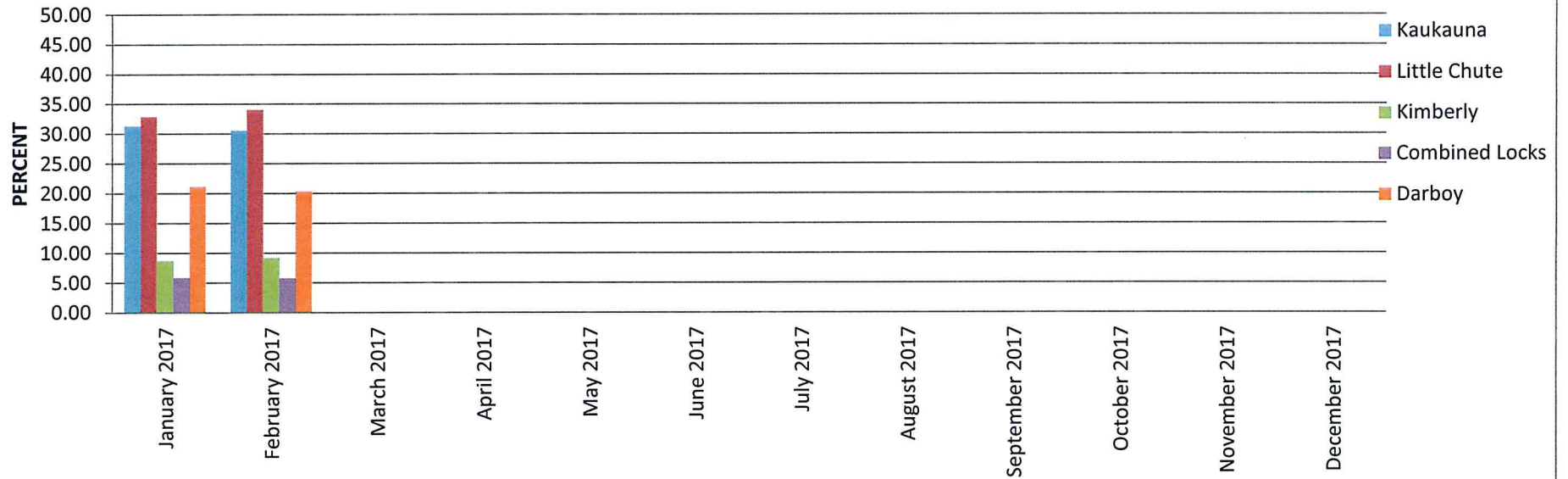
## % CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<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					
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

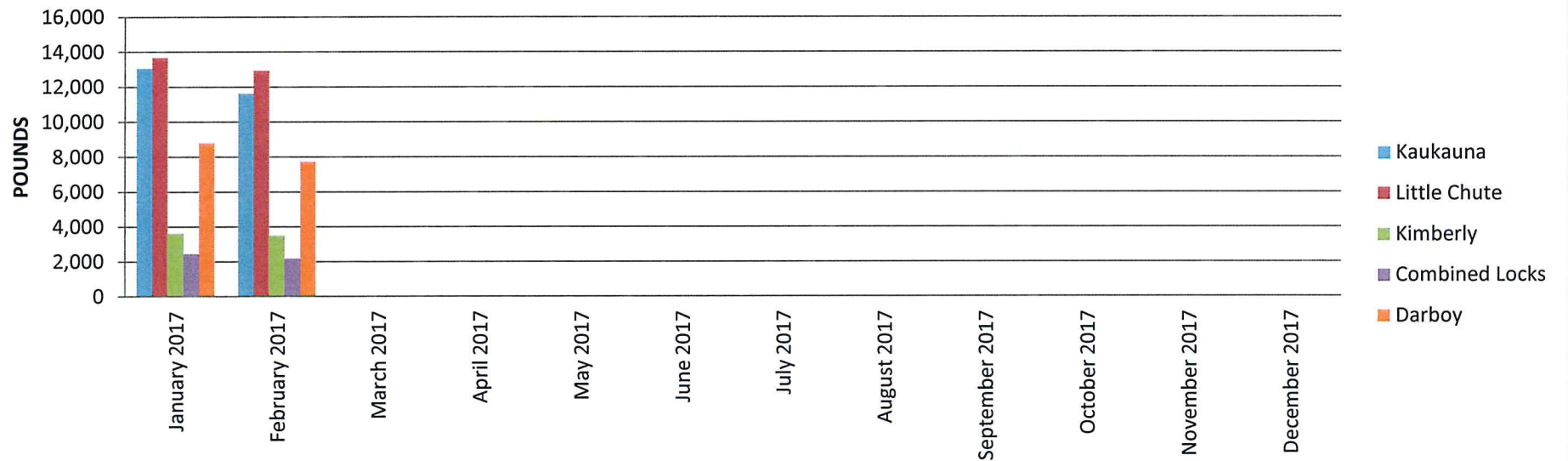
## POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<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					
April 2017					
May 2017					
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

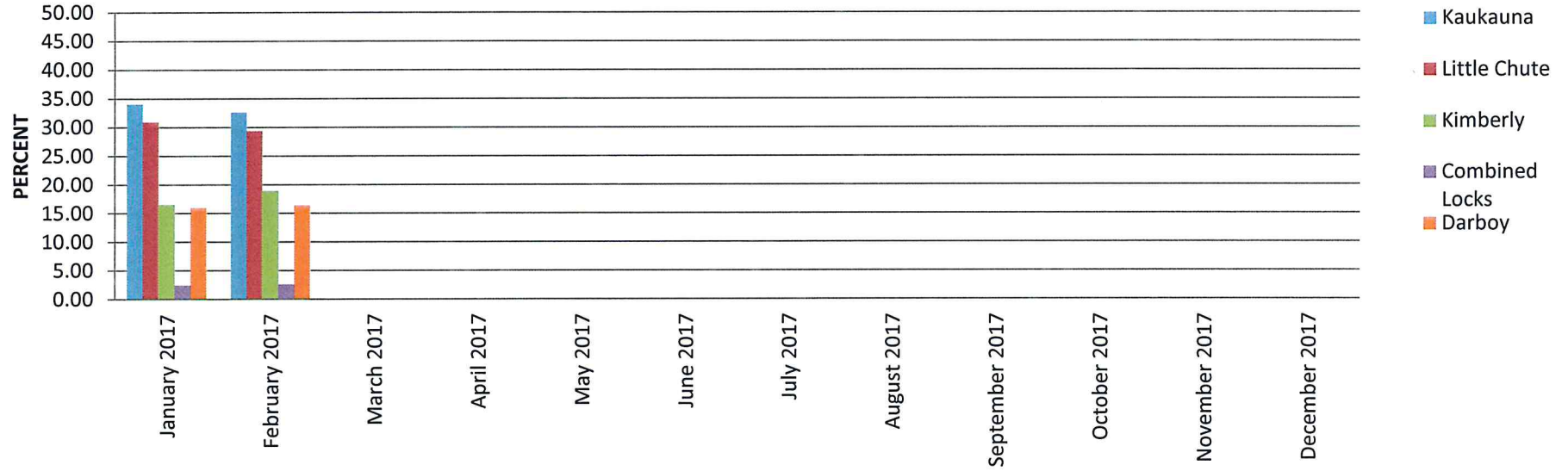
	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	34.08	30.92	16.58	2.46	15.96
February 2017	32.64	29.39	18.97	2.59	16.42
March 2017					
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					

## POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

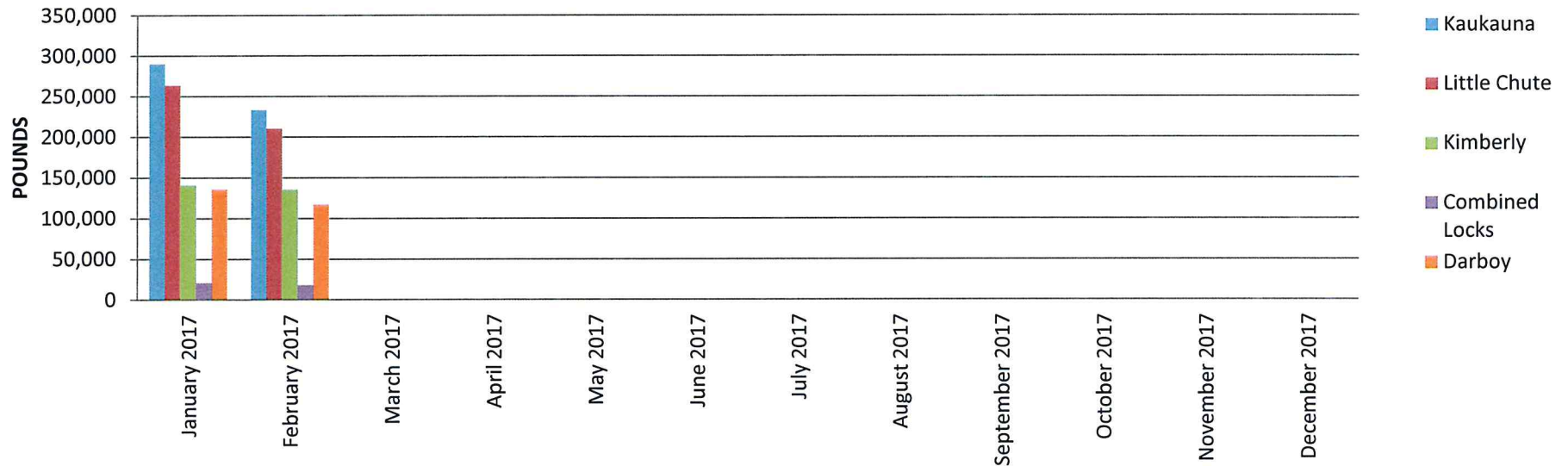
	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2017	290,487	263,589	141,331	20,961	136,083
February 2017	233,674	210,399	135,811	18,539	117,560
March 2017					
April 2017					
May 2017					
June 2017					
July 2017					
August 2017					
September 2017					
October 2017					
November 2017					
December 2017					



## % CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

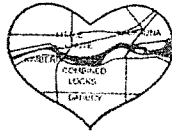


## POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS



**DISTRICT DIRECTOR:**

Brian M. Helminger

**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:** February**Year:** 2017

## Gallons of Final Effluent Purchased (Billing)

<u>Date</u>	<u>Gallons</u>	<u>Date</u>	<u>Gallons</u>
2/1/2017	2,282,000	2/21/2017	2,625,000
2/2/2017	2,139,000	2/22/2017	1,598,000
2/3/2017	2,255,000	2/23/2017	2,716,000
2/4/2017	2,442,000	2/24/2017	2,715,000
2/5/2017	2,442,000	2/25/2017	2,609,000
2/6/2017	718,000	2/26/2017	1,946,000
2/7/2017	1,248,000	2/27/2017	2,121,000
2/8/2017	2,594,000	2/28/2017	3,413,000
2/9/2017	2,595,000		
2/10/2017	2,593,000		
2/11/2017	2,563,000		
2/12/2017	1,569,000		
2/13/2017	1,938,000		
2/14/2017	2,437,000		
2/15/2017	2,544,000		
2/16/2017	2,716,000		
2/17/2017	2,383,000		
2/18/2017	775,000		
2/19/2017	589,000		
2/20/2017	2,116,000		
		<b>Total:</b>	<b>60,681,000</b>

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

**Attn:** Account # N2310E

## **MONTHLY BILLING**

**Month:** February

**Year:** 2017

**GALLONS PURCHASED:** 60,681,000

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

**TOTAL AMOUNT DUE: \$9,302.61**

**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: 127,404,000**

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

**Sale of Final Effluent (Revenue Collected): \$19,531.48**