

FLOW AND STRENGTH PROJECTIONS

MONTH: February 2022

	<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)	144,368,000	114,450,000	-29,918,000	\$ 110,152.78	\$ 87,325.35	\$ (22,827.43)
B.O.D. (#s)	415,796	424,913	9,117	\$ 80,248.63	\$ 82,008.21	\$ 1,759.58
S. SOLIDS (#s)	359,461	343,804	-15,657	\$ 91,303.09	\$ 87,326.22	\$ (3,976.88)
PHOSPHORUS (#s)	6,893	6,849	-44	\$ 46,127.96	\$ 45,833.51	\$ (294.45)
AMMONIA-N (#s)	48,075	48,229	154	\$ 59,949.53	\$ 60,141.56	\$ 192.04
CHLORIDES (#s)	840,697	797,619	-43,078	\$ 3,362.79	\$ 3,190.48	\$ (172.31)
			TOTAL:	\$ 391,144.78	\$ 365,825.32	\$ (25,319.45)

(THRU FEBRUARY 2021)

PROJECTED FOR 2021

	<u>END OF YEAR PROJECTED</u>	<u>YEAR TO DATE SURPLUS/ DEFICIT</u>	<u>YEAR TO DATE SURPLUS/ DEFICIT \$\$</u>
FLOW (GALLONS)	2,053,099,003	-80,044,000	\$ (61,073.57)
B.O.D. (#s)	3,755,281	-18,995	\$ (3,666.04)
S. SOLIDS (#s)	3,909,560	-87,674	\$ (22,269.20)
PHOSPHORUS (#s)	80,410	-369	\$ (2,469.35)
AMMONIA-N (#s)	505,265	4,381	\$ 5,463.11
CHLORIDES (#s)	8,748,079	-177,364	\$ (709.46)
		TOTAL:	\$ (84,724.50)

RAW INFLUENT STRENGTH (Heart of the Valley Metropolitan Sewerage Facility)

February 2022

MONTH	FLOW		TSS			BOD			TOTAL PHOSPHORUS			AMMONIA			CHLORIDE		
	Million * Gallons	Avg MGD	Avg mg/L	Avg #/day	Total #/Month	Avg mg/L	Avg #/day	Total # Month	Avg mg/L	Avg #/day	Total # Month	Avg mg/L	Avg #/day	Total # Month	Avg mg/L	Avg #/day	Total # Month
Jan	144.3	4.7	264	10,292	319,047	351	13,608	421,860	6.54	253	7,858	50.2	1947	60,352	722	28,567	857,010
Feb	129.3	4.6	267	10,291	288,149	375	14,417	403,684	6.64	256	7,158	46.7	1765	49,409	859	33,186	929,200
Mar																	
Apr																	
May																	
Jun																	
Jul																	
Aug																	
Sep																	
Oct																	
Nov																	
Dec																	
Average	137	4.6	266	10,291	303,598	363	14,013	412,772	6.59	255	7,508	48.4	1,856	54,880	791	30,876	893,105
Yearly Total	273.6				607,196			825,544			15,016			109,761			1,786,210

*Includes Hauled Waste

[Plant Design Capacity]

8.5

13,565

12,209

339

1,600

(Hauled Waste Gallons): 151,060

[Max Design Capacity]

11.9

16,278

14,651

407

1,920

February % of Capacity

39%

63%

98%

63%

92%

February Max Daily Flow

5.12

EFFLUENT QUALITY

MONTH	FLOW		TSS			BOD			TOTAL PHOSPHORUS			AMMONIA			CHLORIDE
	Million Gallons	Avg MGD	Avg mg/L	Avg #/day	Total #/Month	Avg mg/L	Avg #/day	Total # Month	Avg mg/L	Avg #/day	Total # Month	Avg mg/L	Avg #/day	Total # Month	Avg mg/L
Jan	61.6	2.0	12.8	212	6,561	10.5	173	5,364	0.34	5.6	173	0.46	8.0	249	746
Feb	63.2	2.3	13.3	249	6,976	11.3	211	5,918	0.33	6.3	177	0.49	9.1	254	829
Mar															
Apr															
May															
Jun															
Jul															
Aug															
Sep															
Oct															
Nov															
Dec															
Average	62.4	2.1	13.0	230	6,769	10.9	192.2	5,641	0.34	6.0	175.3	0.47	8.6	251.4	788
Yearly Total	124.8				13,538			11,282			351			502.9	

Monthly Avg Limit

Jan- March 10 mg/L

April-May 11 mg/L

June-Sept 4.4 mg/L

Oct-Dec 18 mg/L

(PERMIT LIMITS (WDNR) -

Monthly (Avg) 801#

Monthly Avg 30 mg/L

Monthly Avg 31.5#

Weekly (Avg) 1345#

Weekly Avg 45 mg/L

6 mo Avg 10.5#

Daily Max (mg/L) 30

WLA May-Oct

Daily Max mg/L 1.0

Effluent Gallons to Fox Energy

(February)

Million Gallons % to Fox Energy

66.16 51%

February Avg #'s

WEEK 1 335

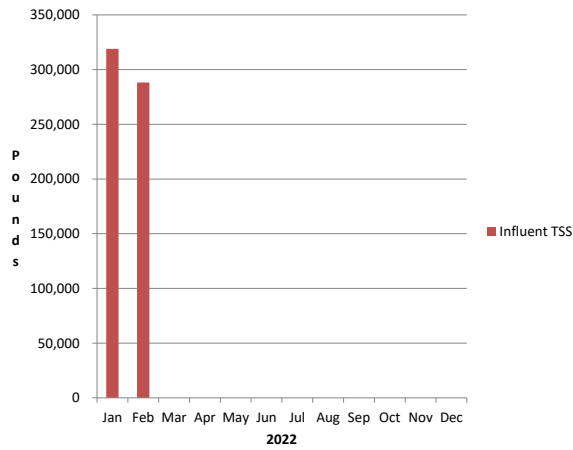
WEEK 2 173

WEEK 3 254

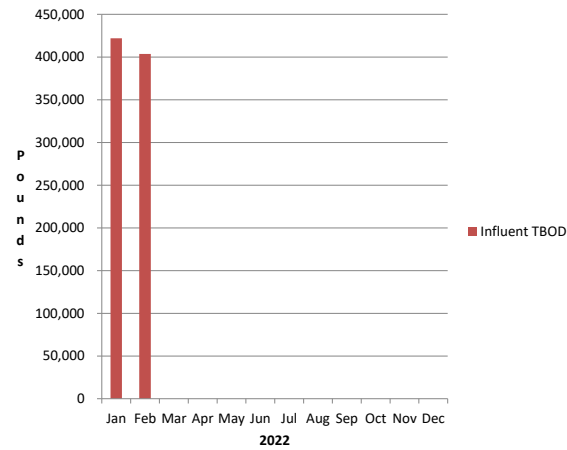
WEEK 4 235

6 mo. Avg #' 7.01 Nov-April

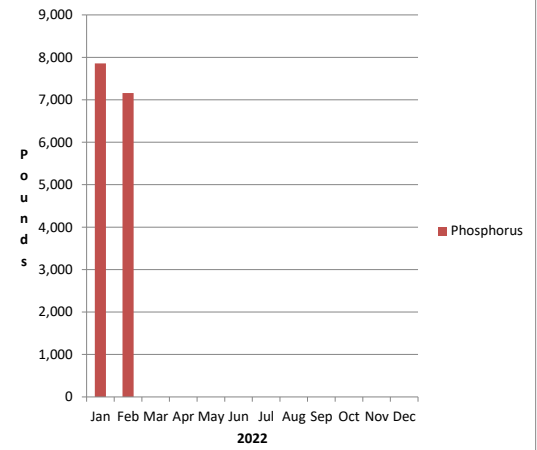
Influent TSS Total Pounds/Mo.



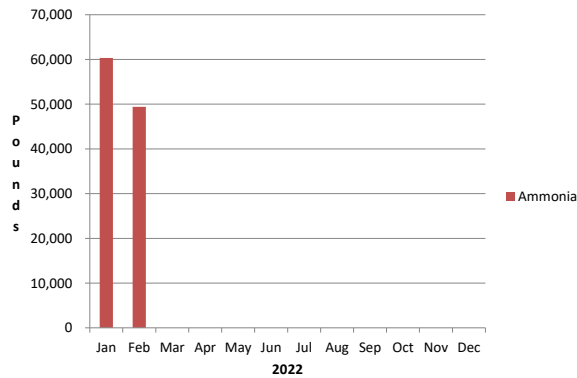
Influent BOD Total Pounds / Mo.



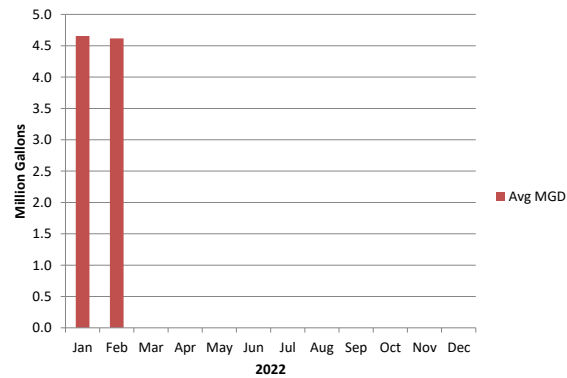
Influent Phosphorus Total Pounds/Mo.



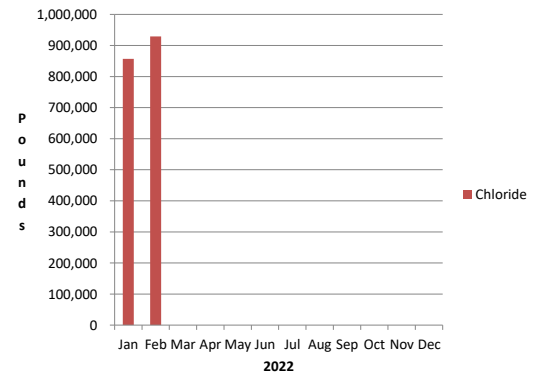
Influent Ammonia Total Pounds/Mo.



Avg Influent MGD/Mo.

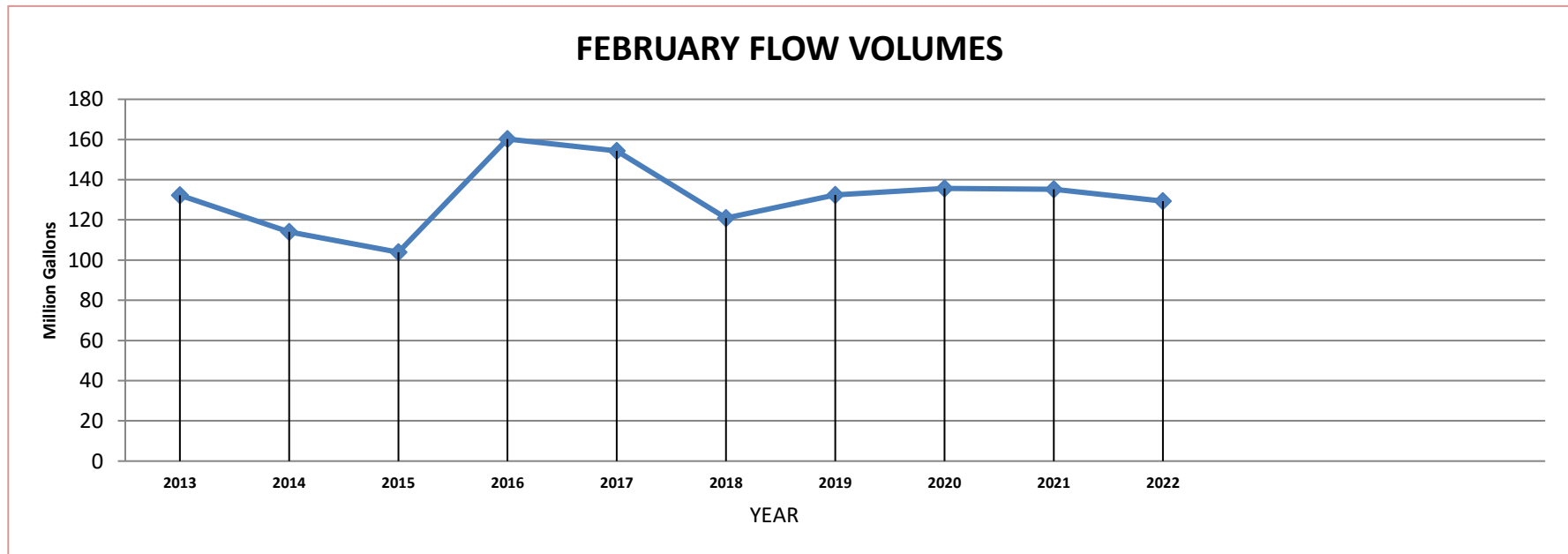


Influent Chloride Total Pounds/Mo.



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
2018	120.841	0.00
2019	132.459	2.81
2020	135.703	1.02
2021	135.210	1.29
2022	129.312	0.50



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

% CONTRIBUTION BY COMMUNITY - FLOW GALLONS

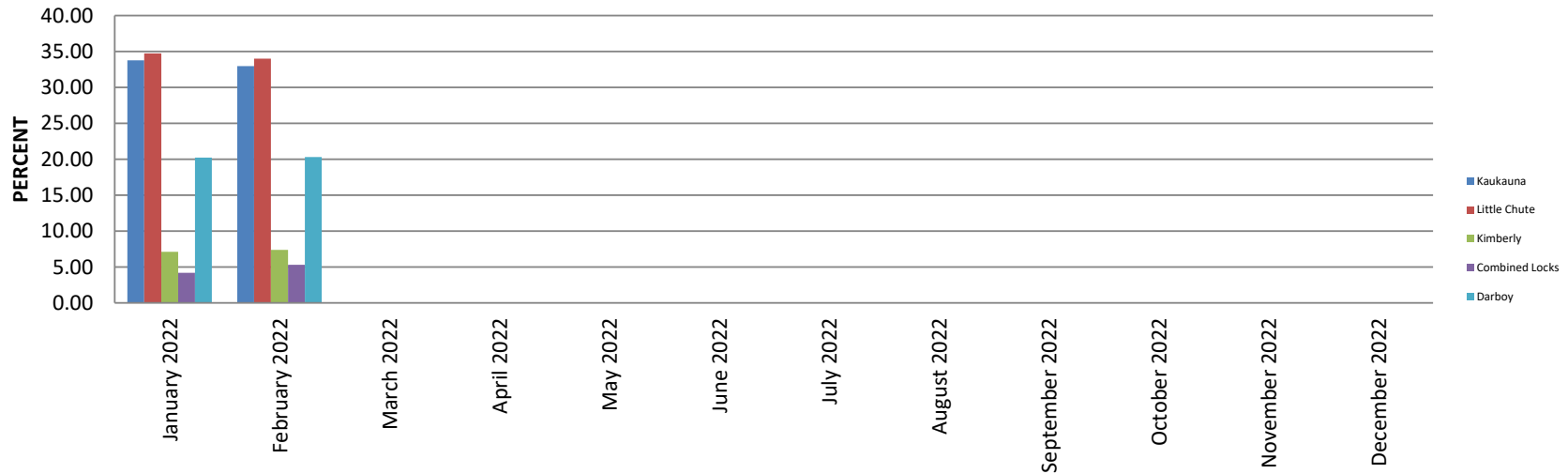
	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>	<u>Rainfall - Inches*</u>
January 2022	33.76	34.71	7.12	4.19	20.22	0.28
February 2022	32.97	34.01	7.39	5.30	20.32	0.50
March 2022						
April 2022						
May 2022						
June 2022						
July 2022						
August 2022						
September 2022						
October 2022						
November 2022						
December 2022						

* Nov-March=Rain,Melted Snow, Etc (in.)

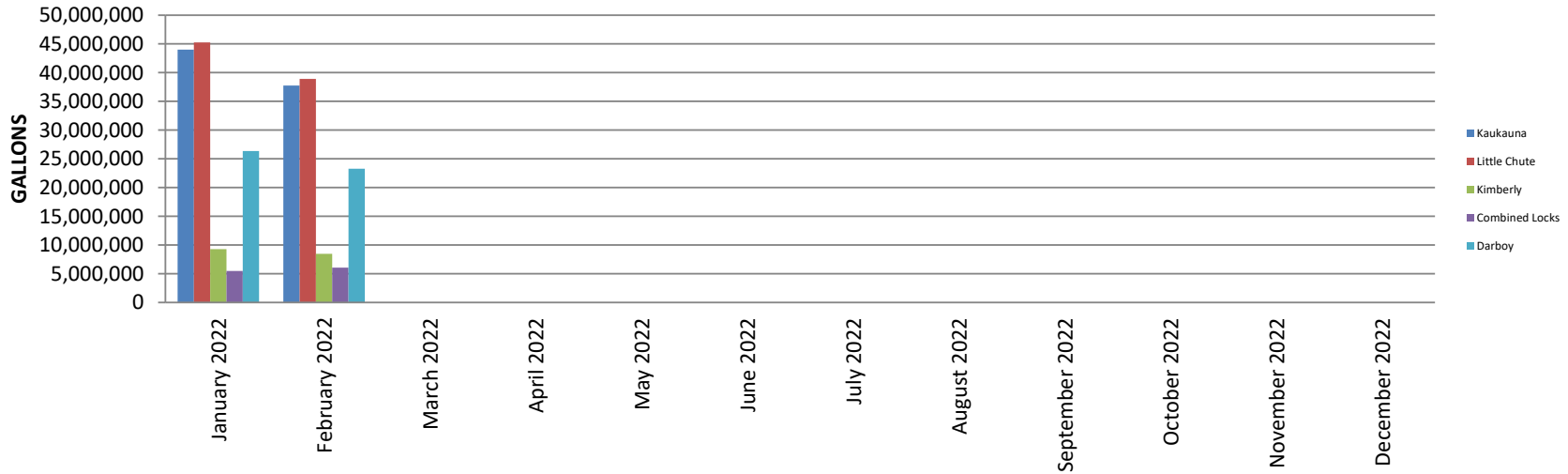
GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	44,006,000	45,240,000	9,281,000	5,463,000	26,358,000
February 2022	37,739,000	38,925,000	8,463,000	6,063,000	23,260,000
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

% CONTRIBUTION BY COMMUNITY - FLOW GALLONS



GALLONS CONTRIBUTION BY COMMUNITY - FLOW GALLONS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

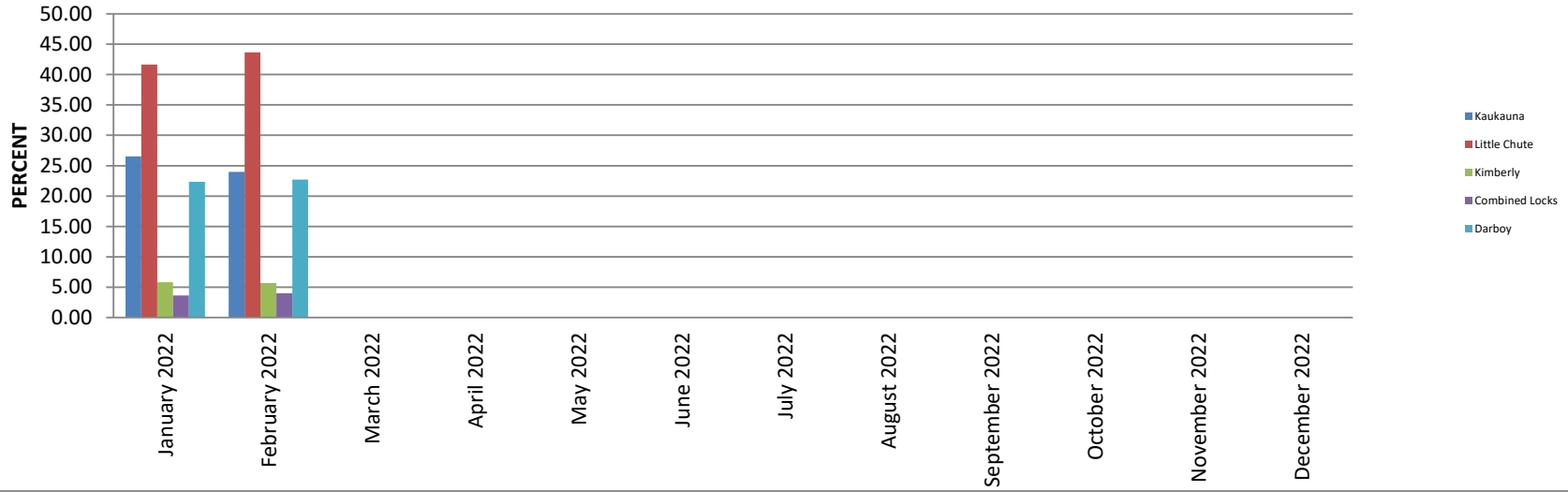
% CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	26.54	41.67	5.82	3.61	22.35
February 2022	23.98	43.65	5.68	3.99	22.71
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

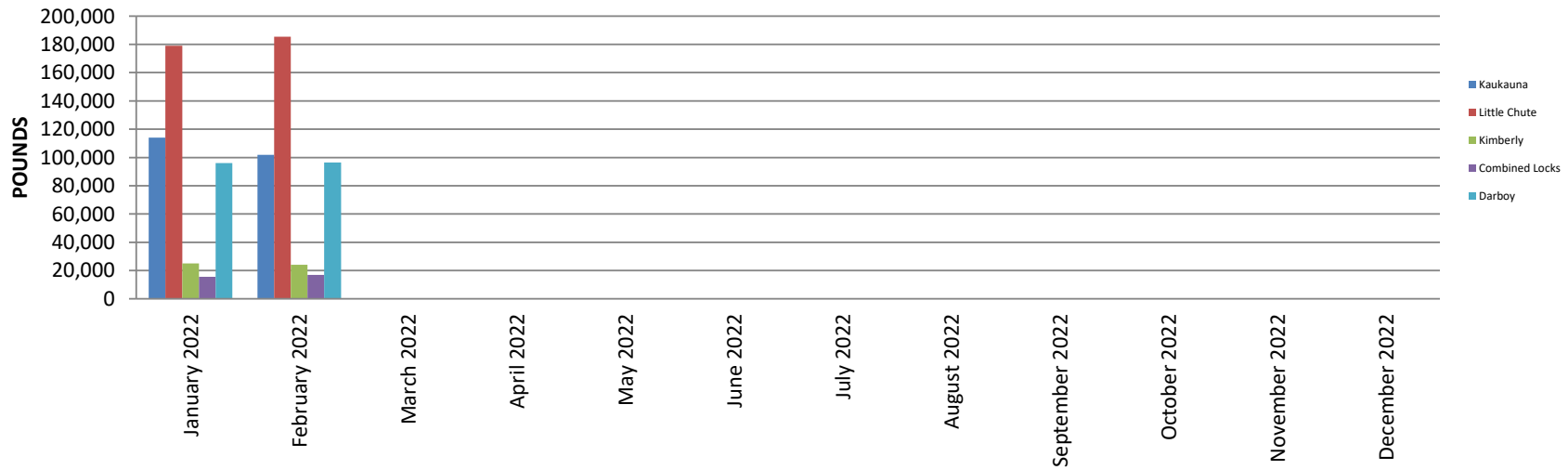
POUNDS CONTRIBUTION BY COMMUNITY - B.O.D. POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	114,049	179,088	25,032	15,529	96,075
February 2022	101,875	185,458	24,145	16,935	96,501
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

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



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



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

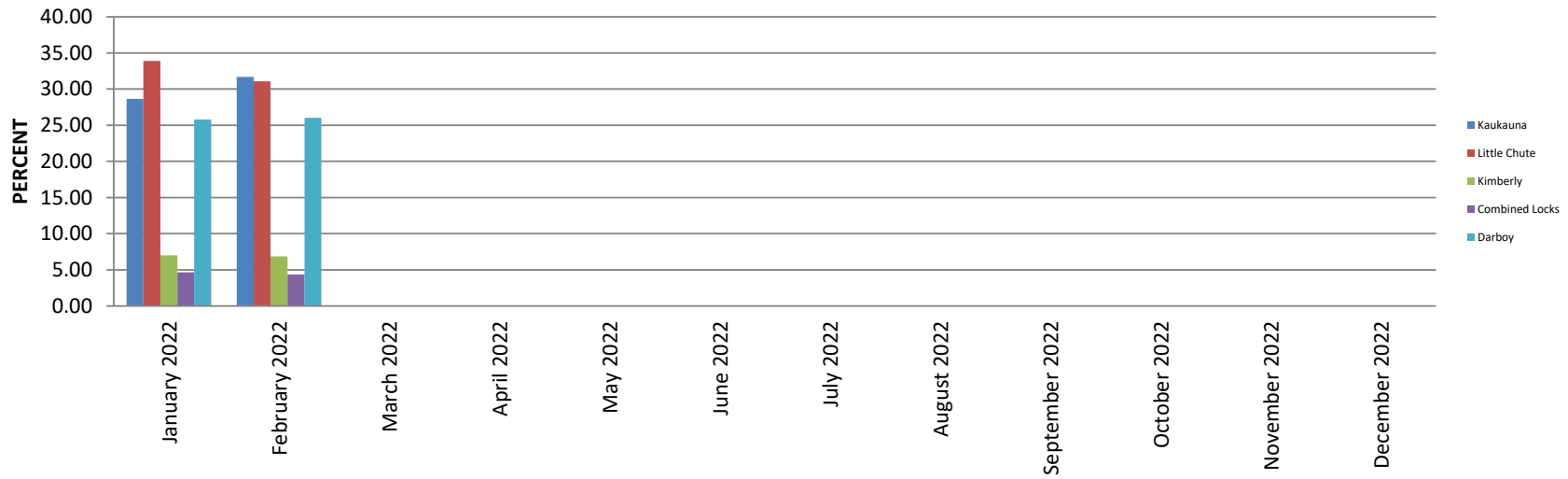
% CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	28.65	33.89	7.00	4.65	25.81
February 2022	31.68	31.07	6.85	4.36	26.04
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

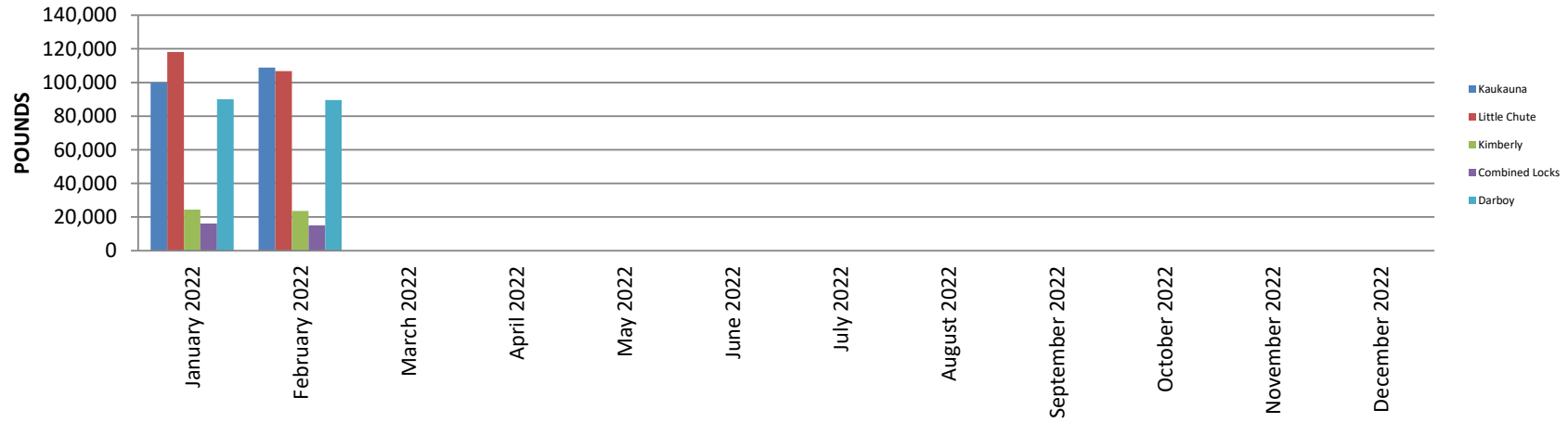
POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	99,881	118,168	24,409	16,212	90,008
February 2022	108,904	106,811	23,566	15,004	89,520
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

% CONTRIBUTION BY COMMUNITY -TOTAL SUSPENDED SOLIDS POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - TOTAL SUSPENDED SOLIDS POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

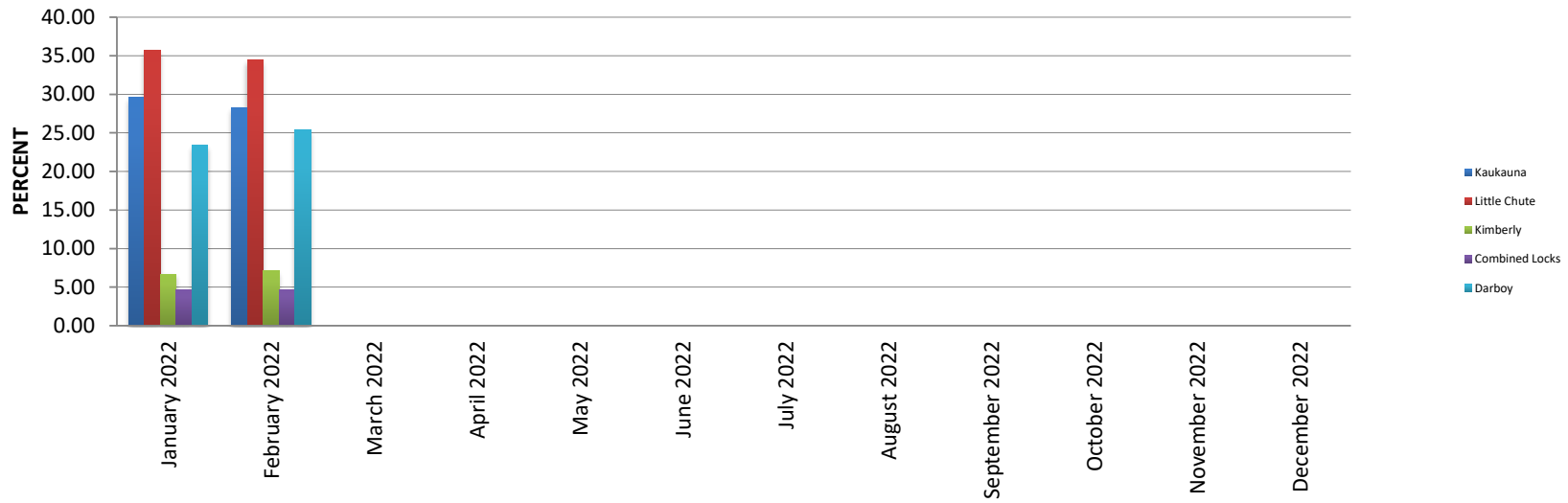
% CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	29.58	35.66	6.70	4.62	23.44
February 2022	28.25	34.51	7.19	4.68	25.37
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

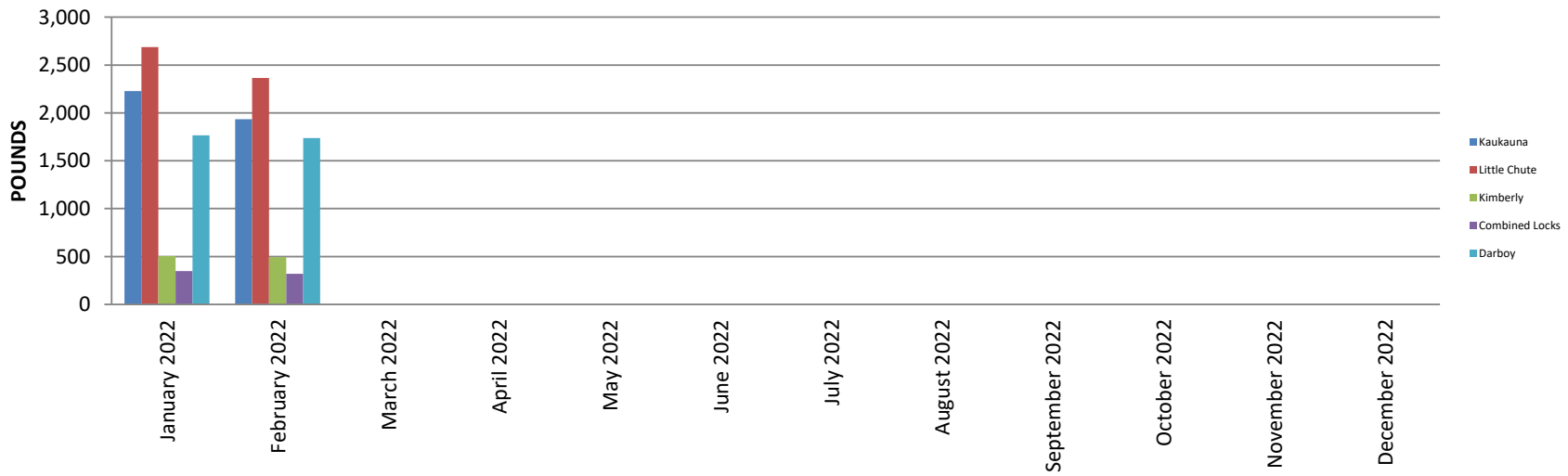
POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	2,229	2,686	505	348	1,766
February 2022	1,935	2,364	493	320	1,737
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

% CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

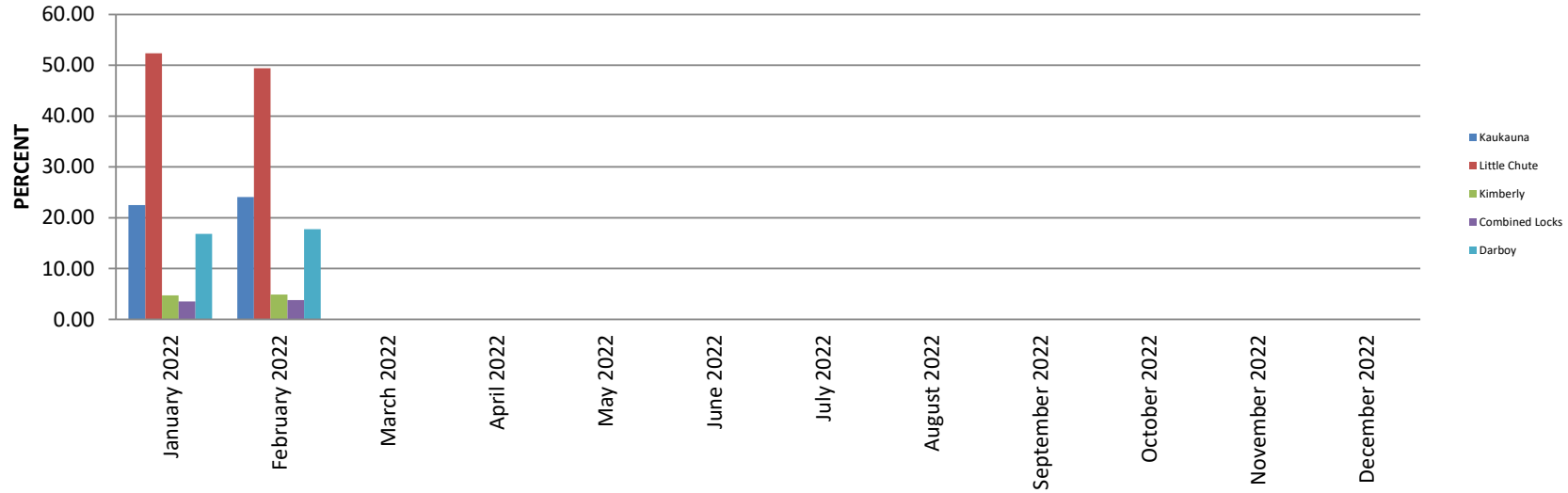
% CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	22.50	52.38	4.72	3.55	16.85
February 2022	24.08	49.43	4.90	3.82	17.77
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

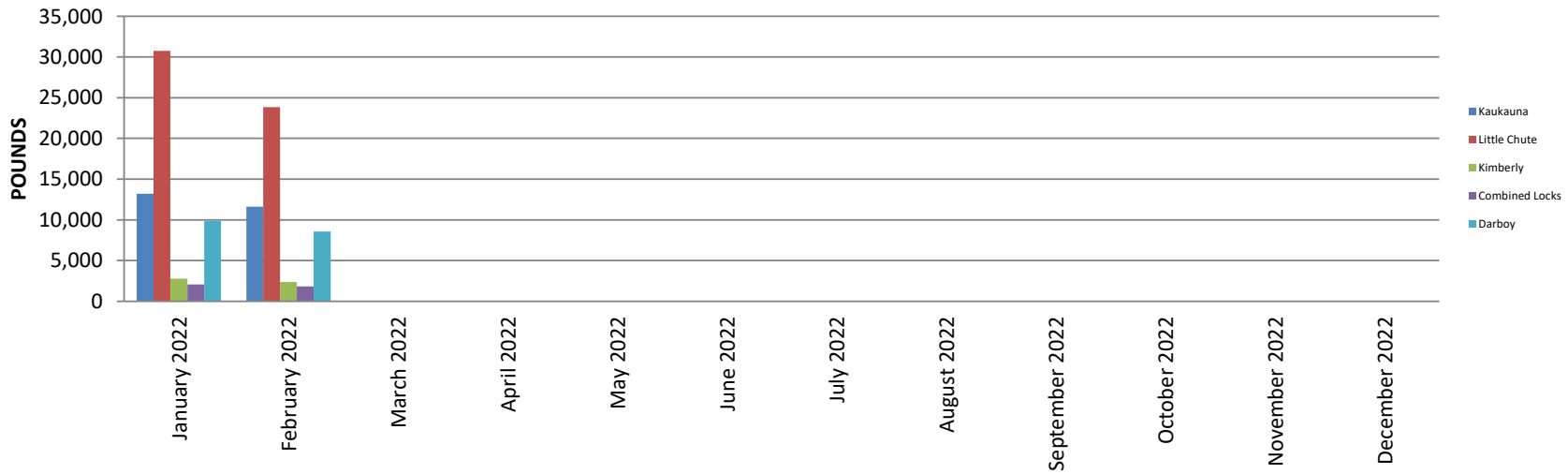
POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	13,213	30,761	2,773	2,083	9,895
February 2022	11,612	23,841	2,363	1,842	8,570
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

% CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS



POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS



HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

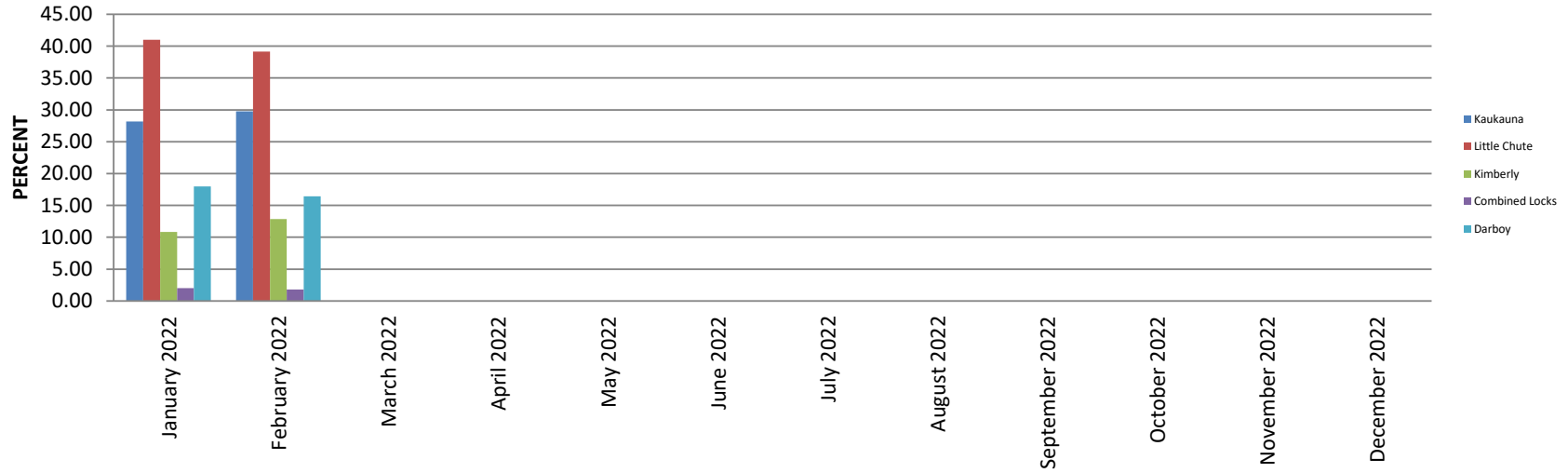
% CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	28.19	40.98	10.85	2.00	17.98
February 2022	29.77	39.14	12.86	1.82	16.42
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

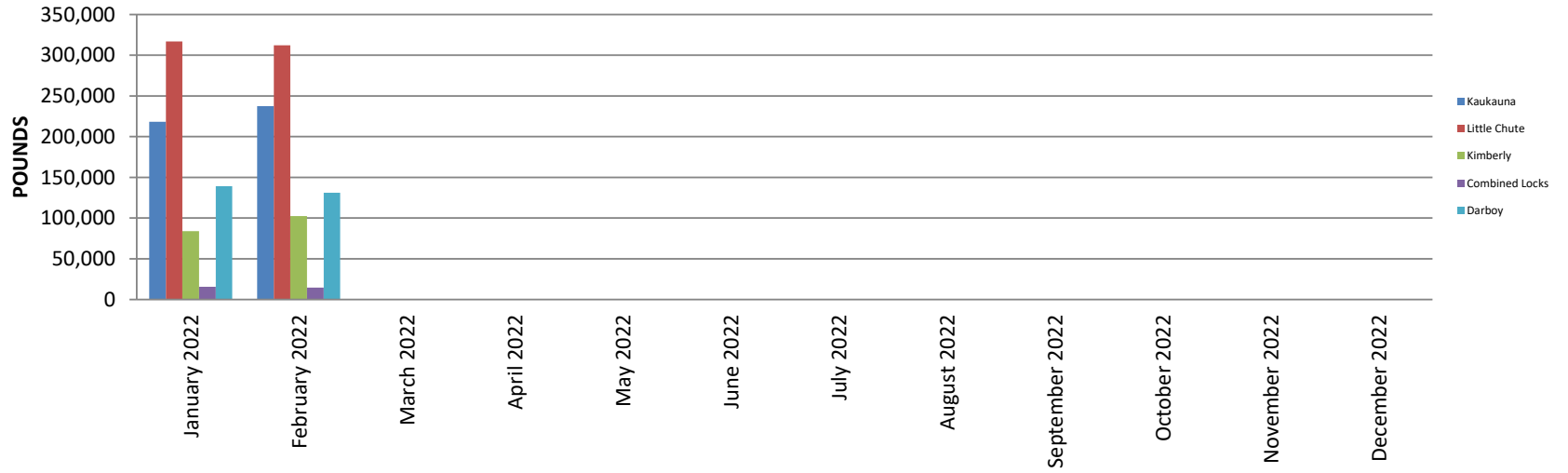
POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2022	218,136	317,040	83,950	15,473	139,137
February 2022	237,466	312,154	102,539	14,529	130,931
March 2022					
April 2022					
May 2022					
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					

% 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.
 Patrick E. Hennessey, Secretary
 Kevin P. Coffey
 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 5651
 Bismarck, ND 58506

Attn: Account # N2310E

Month: February

Year: 2022

Gallons of Final Effluent Purchased (Billing)

<u>Date</u>	<u>Gallons</u>	<u>Date</u>	<u>Gallons</u>
2/1/2022	1,900,000	2/21/2022	1,658,000
2/2/2022	1,666,000	2/22/2022	606,000
2/3/2022	1,073,000	2/23/2022	2,962,000
2/4/2022	1,216,000	2/24/2022	2,792,000
2/5/2022	1,296,000	2/25/2022	2,794,000
2/6/2022	1,820,000	2/26/2022	2,756,000
2/7/2022	3,354,000	2/27/2022	2,579,000
2/8/2022	2,681,000	2/28/2022	2,828,000
2/9/2022	2,785,000		
2/10/2022	2,754,000		
2/11/2022	2,834,000		
2/12/2022	2,502,000		
2/13/2022	3,100,000		
2/14/2022	3,073,000	Total:	66,157,000
2/15/2022	2,562,000		
2/16/2022	2,622,000		
2/17/2022	3,174,000		
2/18/2022	2,553,000		
2/19/2022	2,516,000		
2/20/2022	1,701,000		

Facility: Wisconsin Public Service Corporation - Fox Energy Center
P.O. Box 5651
Bismarck, ND 58506

Attn: Account # N2310E

MONTHLY BILLING

Month: February

Year: 2022

GALLONS PURCHASED: 66,157,000

BILLING RATE: \$0.1635645 PER 1000 GALLONS

TOTAL AMOUNT DUE: \$10,820.94

**Heart of the Valley
Metropolitan Sewerage District**

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

2022

Final Effluent Sent to Fox Energy Facility

Gallons: 148,870,000

Charge Per 1000 Gallons: \$0.1635645 Per 1000 Gallons

Sale of Final Effluent (Revenue Collected): \$24,349.85