

FLOW AND STRENGTH PROJECTIONS

MONTH: January 2021

	<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)	176,935,863	155,196,000	-21,739,863	\$ 111,115.72	\$ 97,463.09	\$ (13,652.63)
B.O.D. (#s)	415,175	464,448	49,273	\$ 78,468.08	\$ 87,780.60	\$ 9,312.53
S. SOLIDS (#s)	411,723	414,584	2,861	\$ 97,990.07	\$ 98,670.99	\$ 680.92
PHOSPHORUS (#s)	7,858	8,186	328	\$ 49,136.07	\$ 51,187.06	\$ 2,050.98
AMMONIA-N (#s)	52,664	58,147	5,483	\$ 65,092.70	\$ 71,869.69	\$ 6,776.99
CHLORIDES (#s)	897,177	897,459	282	\$ 2,691.53	\$ 2,692.38	\$ 0.85
			TOTAL:	\$ 404,494.18	\$ 409,663.81	\$ 5,169.63

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	-21,739,863	\$ (13,652.63)
B.O.D. (#s)	3,755,281	49,273	\$ 9,312.53
S. SOLIDS (#s)	3,909,560	2,861	\$ 680.92
PHOSPHORUS (#s)	80,410	328	\$ 2,050.98
AMMONIA-N (#s)	505,265	5,483	\$ 6,776.99
CHLORIDES (#s)	8,748,079	282	\$ 0.85
		TOTAL:	\$ 5,169.63

INFLUENT STRENGTH (Heart of the Valley Metropolitan Sewerage Facility)

2021

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	151.4	4.9	217	8,736	270,817	300	12,085	374,624	6.05	243	7,528	49.0	1,961	60,780	702	28,228	875,077
Feb																	
Mar																	
Apr																	
May																	
Jun																	
Jul																	
Aug																	
Sep																	
Oct																	
Nov																	
Dec																	
Average	151.4	4.9	217	8,736	270,817	300	12,085	374,624	6.05	243	7,528	49.0	1,961	60,780	702	28,228	875,077
Total	151.4				270,817			374,624			7,528			60,780			875,077

*Includes Hauled Waste

[Plant Design Capacity]

8.5

13,565

12,209

339

1,600

[Max Design Capacity]

11.9

16,278

14,651

407

1,920

January % of Capacity

41%

54%

82%

60%

102%

January Max Daily Flow

5.951

EFFLUENT QUALITY

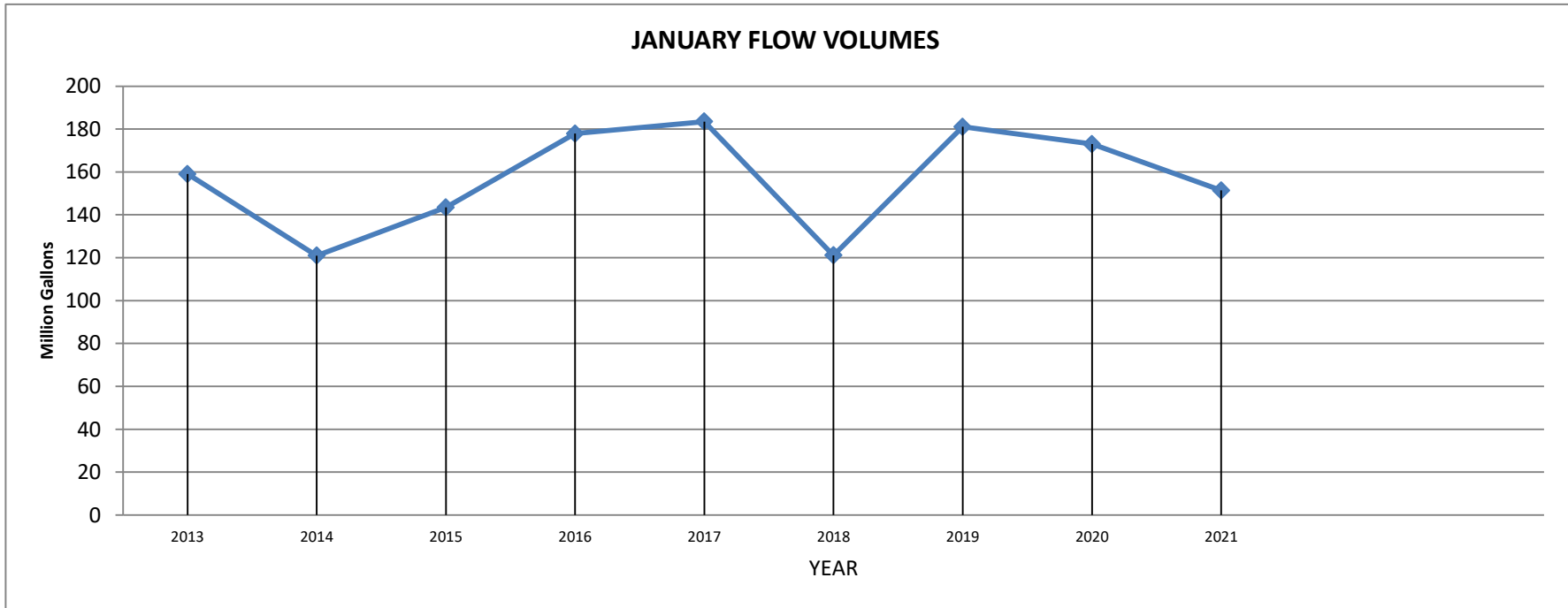
MONTH	FLOW		TSS			BOD			TOTAL PHOSPHORUS			AMMONIA			CHLORIDE
	Million Gallons	Avg MGD	Avg mg/L	Avg #/day	Total #/Month	Avg mg/L	Avg #/day	Total # Month	Avg mg/L	Avg #/day	Total # Month	Avg mg/L	Avg #/day	Total # Month	Avg mg/L
Jan	63.8	2.1	10.9	185	5,721	9.3	160	4,957	0.31	5.2	163	0.42	7.8	241.9	707
Feb															
Mar															
Apr															
May															
Jun															
Jul															
Aug															
Sep															
Oct															
Nov															
Dec															
Average	63.8	2.1	10.9	185	5,721	9.3	159.9	4,957	0.31	5.2		0.42	7.8	241.9	707
Total	63.8				5,721			4,957			163			241.9	

(PERMIT LIMITS (WDNR))	Monthly (Avg)	801#	Monthly Avg	30 mg/L	Monthly Avg	31.5#	Jan- March	10 mg/L
	Weekly (Avg)	1345#	Weekly Avg	45 mg/L	6 mo Avg	10.5#	April-May	11 mg/L
	Daily Max (mg/L)	30	WLA May-Oct		Daily Max mg/L	1.0	June-Sept	4.4 mg/L
							Oct- Dec	18 mg/L

Effluent Gallons to Fox Energy	January	Avg #'s	6 mo. Avg #'s=	8.01	Nov-April
(January)	WEEK 1	206			
	WEEK 2	157			
Million Gallons	WEEK 3	207			
% to Fox Energy	WEEK 4	169			
87.57	58%				

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

<u>Year</u>	<u>January Flow Million Gallons</u>	<u>Precipitation Inches</u>
2013	159.014	1.79
2014	120.943	1.65
2015	143.460	0.56
2016	177.906	1.53
2017	183.493	0.00
2018	121.122	0.60
2019	181.037	2.36
2020	172.999	1.54
2021	151.398	0.71



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 2021	32.64	36.57	7.19	6.49	17.12	0.71
February 2021						
March 2021						
April 2021						
May 2021						
June 2021						
July 2021						
August 2021						
September 2021						
October 2021						
November 2021						
December 2021						

* 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 2021	50,653,000	56,758,000	11,153,000	10,069,000	26,563,000
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

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 2021	25.57	38.82	6.06	5.46	24.09
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

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 2021	118,779	180,309	28,143	25,348	111,869
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

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 2021	28.68	34.25	6.00	5.23	25.84
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

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 2021	118,920	141,992	24,872	21,690	107,110
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

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 2021	28.27	34.26	6.86	7.47	23.14
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

POUNDS CONTRIBUTION BY COMMUNITY - PHOSPHORUS POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2021	2,314	2,805	561	611	1,894
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

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 2021	24.85	46.49	5.08	6.49	17.09
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

POUNDS CONTRIBUTION BY COMMUNITY - AMMONIA POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2021	14,449	27,032	2,951	3,776	9,940
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

HEART OF THE VALLEY METROPOLITAN SEWERAGE DISTRICT

% CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

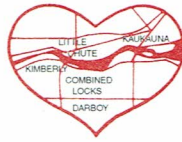
	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2021	29.06	44.82	10.50	2.98	12.63
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

POUNDS CONTRIBUTION BY COMMUNITY - CHLORIDE POUNDS

	<u>Kaukauna</u>	<u>Little Chute</u>	<u>Kimberly</u>	<u>Combined Locks</u>	<u>Darboy</u>
January 2021	260,808	402,271	94,270	26,746	113,365
February 2021					
March 2021					
April 2021					
May 2021					
June 2021					
July 2021					
August 2021					
September 2021					
October 2021					
November 2021					
December 2021					

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:** January**Year:** 2021

Gallons of Final Effluent Purchased (Billing)

<u>Date</u>	<u>Gallons</u>	<u>Date</u>	<u>Gallons</u>
1/1/2021	2,627,000	1/21/2021	2,712,000
1/2/2021	2,643,000	1/22/2021	2,730,000
1/3/2021	2,637,000	1/23/2021	2,723,000
1/4/2021	3,312,000	1/24/2021	2,797,000
1/5/2021	2,632,000	1/25/2021	2,829,000
1/6/2021	2,724,000	1/26/2021	2,821,000
1/7/2021	3,184,000	1/27/2021	3,040,000
1/8/2021	2,737,000	1/28/2021	2,890,000
1/9/2021	3,289,000	1/29/2021	2,896,000
1/10/2021	2,836,000	1/30/2021	2,717,000
1/11/2021	3,041,000	1/31/2021	2,733,000
1/12/2021	2,843,000		
1/13/2021	2,524,000		
1/14/2021	2,810,000	Total:	87,573,000
1/15/2021	3,078,000		
1/16/2021	2,774,000		
1/17/2021	2,721,000		
1/18/2021	2,665,000		
1/19/2021	2,831,000		
1/20/2021	2,777,000		

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

Attn: Account # N2310E

MONTHLY BILLING

Month: January

Year: 2021

GALLONS PURCHASED: 87,573,000

BILLING RATE: \$0.1619962 PER 1000 GALLONS

TOTAL AMOUNT DUE: \$14,186.49

**Heart of the Valley
Metropolitan Sewerage District**

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

2021

Final Effluent Sent to Fox Energy Facility

Gallons: 87,573,000

Charge Per 1000 Gallons: \$0.1619962 Per 1000 Gallons

Sale of Final Effluent (Revenue Collected): \$14,186.49