January Superintendents Report

February 13, 2024

January saw 4.71 inches of precipitation

Average daily flow was 26.40 MGD and a sum of 818.5 million gallons for the month. April 2022 is the last time we had more flow.

CBOD =10 mg/L, TSS = 5 mg/L, NH3 = 0.14 mg/L, Phos = 0.340 mg/L, Fecals 3 MPN, TN = 3.6 mg/L with 1 Data point remaining.

Industrial Appraisal company (IAC) was here last week

Mechanics repaired a broken plant water line at the UV building. They also repaired a leaking 2 inch potable water line in the Admin. building.

We need to send Mechanics to Backflow Prevention Certification renewal class with 1 Mechanic getting the initial training which is $900. $240 for renewals. These classes are in Binghamton.

On Saturday we experienced an influent surge due to heavy rainfall and a potential lightning strike. This put the auto controls into a cycle of trying to start under abnormal conditions. The process safety instrumentation repeatedly protected the equipment by shutting the system down during start-up. Operators were forced to run cells in hand to limit CN bypassing. As the flows subsided and with the help of our electrical engineer, operators were able to stabilize the system and get everything working in auto. The Superintendent, Assistant Superintendent, Senior operator, Electrical Engineer, Lead shift operator from 2nd shift and second shift personnel all worked to get the plant running. We notified the DEC (Matt Widay) via telephone, and sent out a NYALERT. I asked the operators to monitor the CN facility closely all night after everything was up in running. I spoke to Kruger, (Rockford Herrick) this morning to see if there are any programming solutions we could use or a “B” routine to use if this situation arises again. He said he would set something up.

Notes:

Operator Training advances.

Frito Lay letter.

Superintendents Summary Report for 2024

	FLOW	Precip	CBOD5		REM	Tot Susp Solids		REM	Settleable Solids		REM	Total Nitrogen		REM	Phosphorous		REM	Ammonia		REM	TKN		REM
	MGD	Inches	In	out	%	In	out	%	In	out	%	In	out	%	In	out	%	In	out		In	out	
	AVG			limit			limit			limit			limit			limit			limit			limit	
			18 mg/L			20 mg/L			0.3 mL/L			6.0 mg/L			1.0 mg/L			1800 lbs./Day			11000 lbs/Day		
Jan	26.40	4.71	116	10	91%	123	5	96%	7.40	0.10	99%				2.40	0.340	86%	7.30	0.14	98%	12.3	1.2	90%
Feb																							
Mar																							
Apr																							
May																							
Jun																							
Jul																							
Aug																							
Sep																							
Oct																							
Nov																							
Dec																							
		TOT																					
Avg	26.40	4.71	116	10	91%	123	5.0	96%	7.40	0.10	99%	#DIV/0!	####	#####	2.40	0.340	86%	7.30	0.14	98%	12.30	1.20	90%

Ammonia Lbs in = 44848 Ammonia Lbs out = 882 (calculated)

With One Data point remaining TN inf = 12.9, Eff = 3.6 mg/L

Ammonia limit equates to approx 6 mg/L monthly Avg. / TKN limit equates to 38 mg/L Monthly Avg.

TN limit is 6.0 mg/L From O1A REM = Removal %

The Permit for TN = Monitoring Monthly Avg. from Outfall OO1, Not to Exceed 639,261 lbs. as a Rolling 12 Month Avg.

Outfall OO1 includes Flow Through O1A (DN cells) and O1B (DN Cell Bypass)

These numbers represent Outfall from OO1

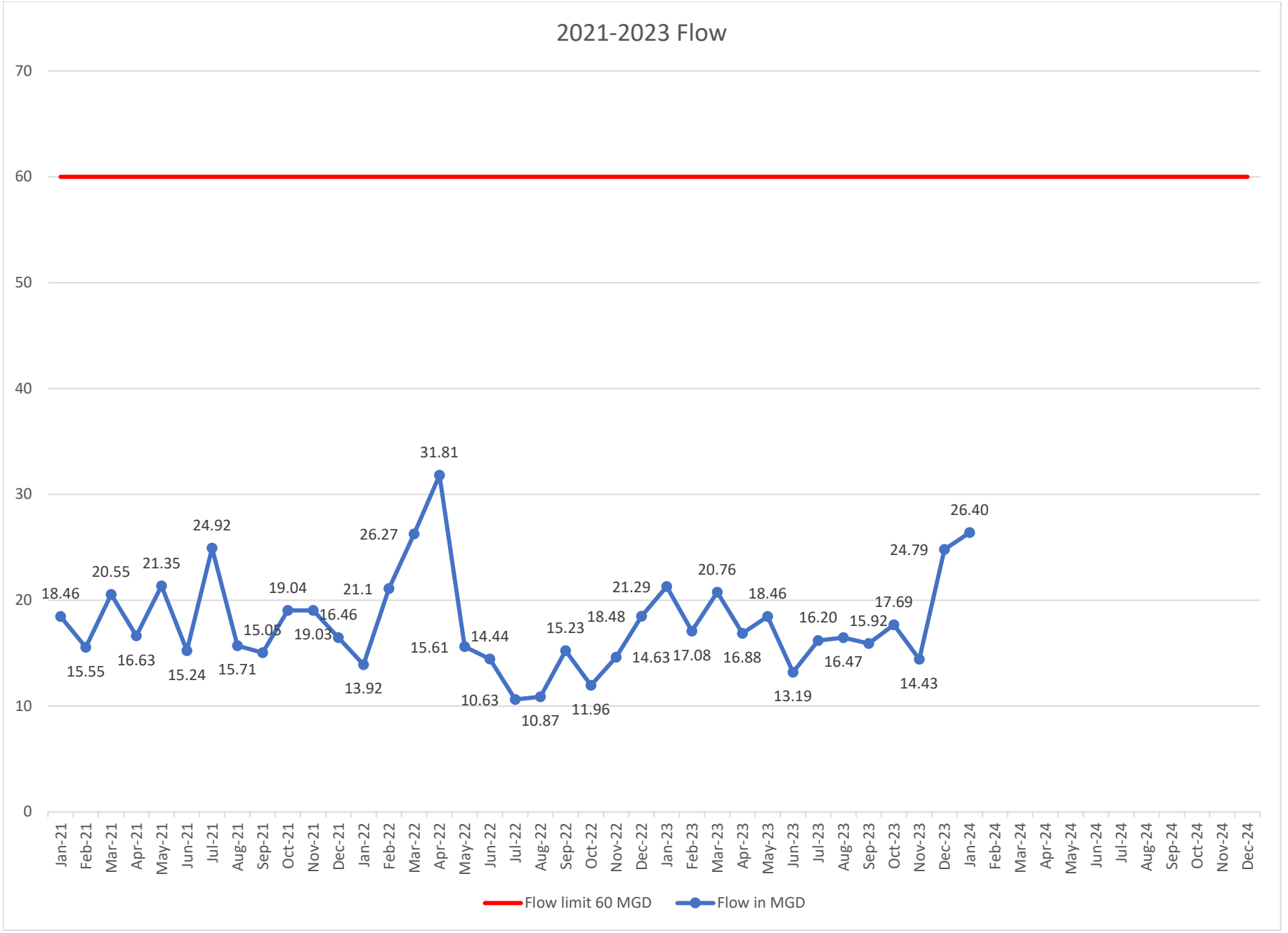
Landfill 2024 Summary

Date	Digested	Lime Stab	Solids Total		Bar screen	Grit and Screen		Grease
	Tons	Tons	Tons	Cost	Tons	Tons	Cost	Tons
January	717.02		717.02	$28,680.80		22.98	$1,034.10	
February								
March								
April								
May								
June								
July								
August								
September								
October								
November								
December								
Average	717.02		717.02	$28,680.80		22.98	$1,034.10	
Total	717.02		717.02	$28,680.80		22.98	$1,034.10	
				$40/Ton			$45/Ton	

$29,714.90

Annual Cost to Date

$420,000 budgeted for 2024


2021-2023 Flow
70
60
50
40
30
20
10
0
18.46
15.55
20.55
16.63
21.35
15.24
24.92
15.71
15.05
19.04
19.03
16.46
13.92
21.1
26.27
31.81
15.61
14.44
10.63
10.87
15.23
11.96
18.48
21.29
14.63
17.08
20.76
16.88
18.46
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16.20
16.47
15.92
17.69
14.43
24.79
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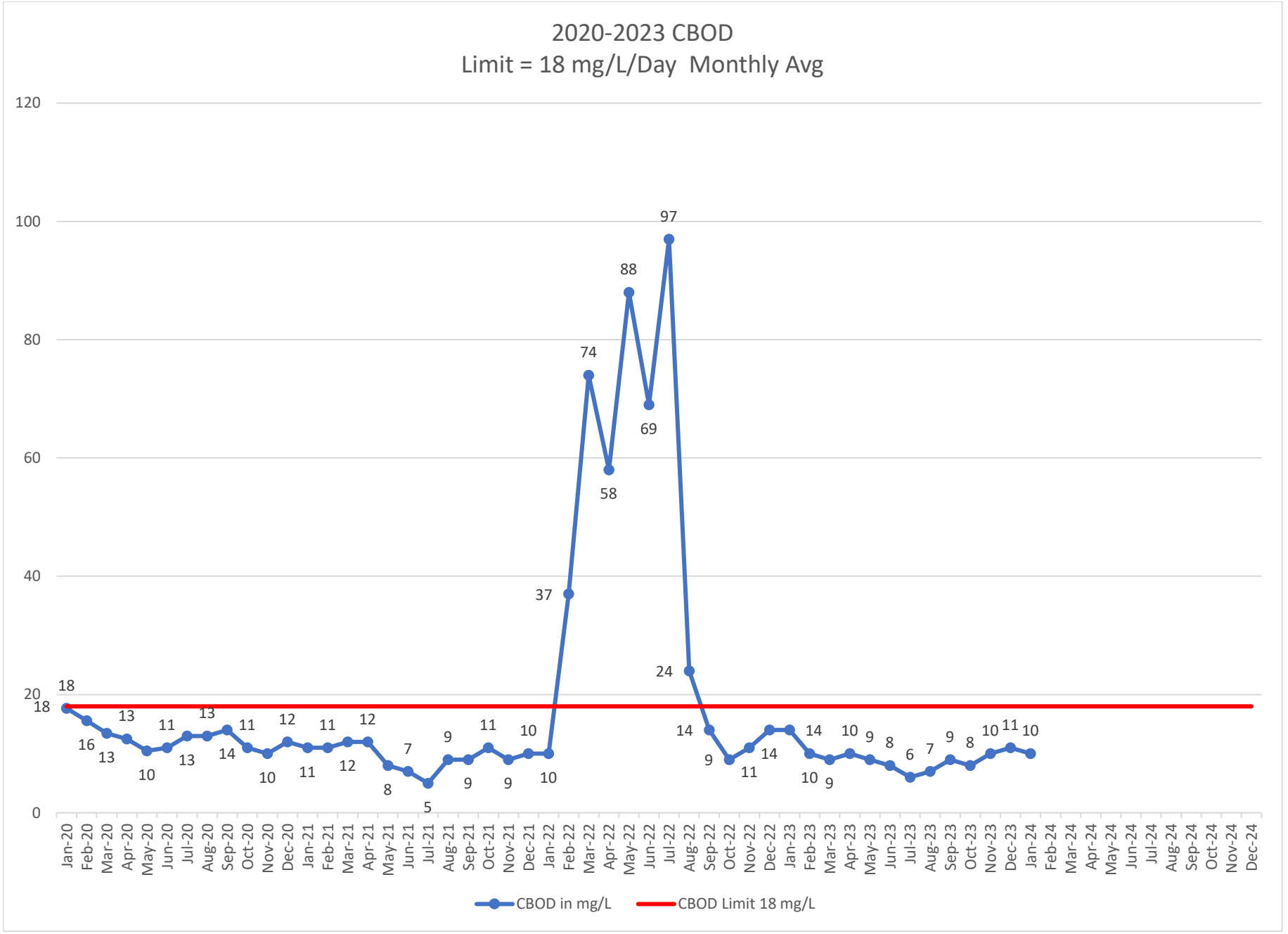
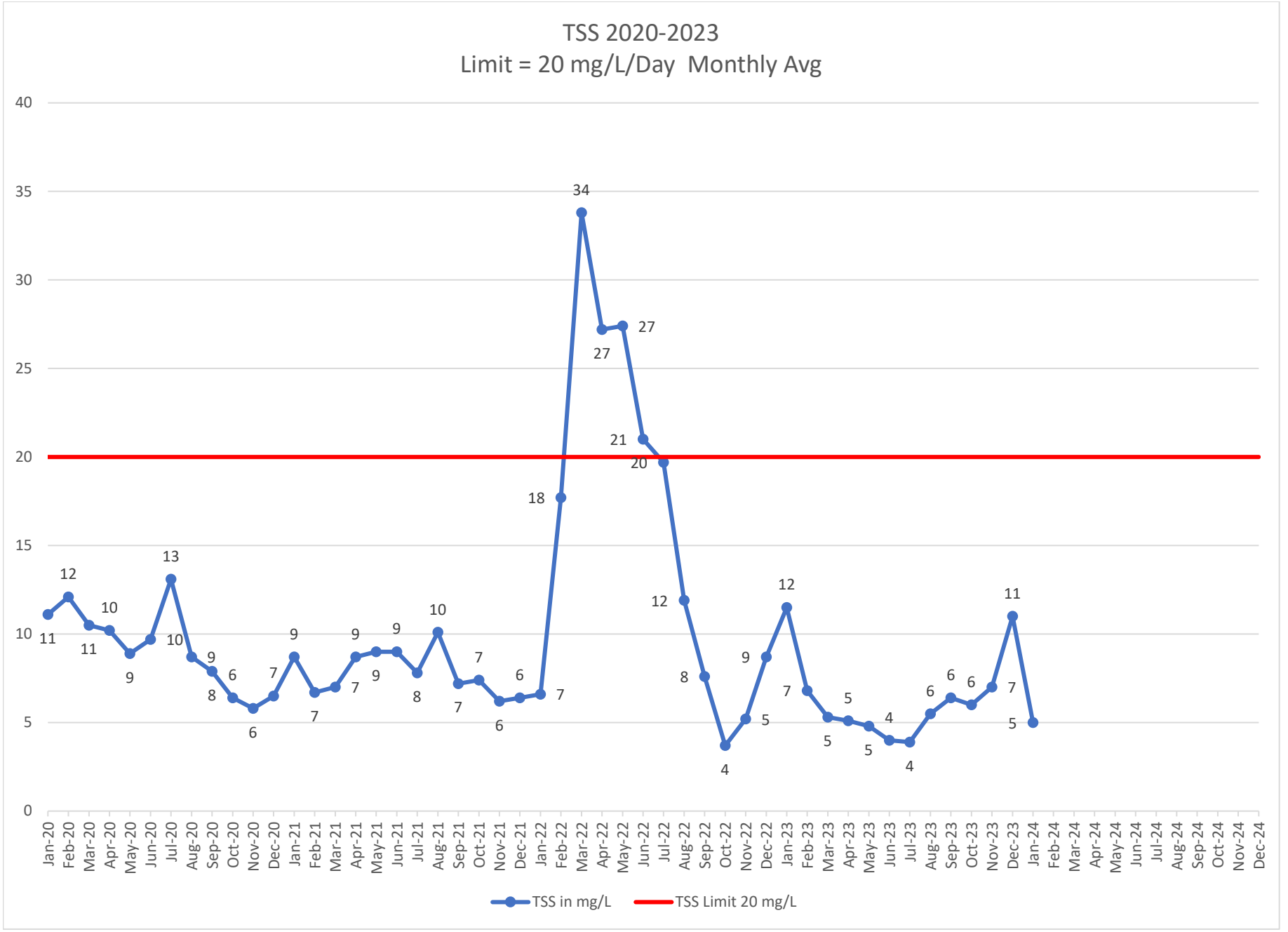
Flow limit 60 MGD
Flow in MGD


2020-2023 CBOD
Limit = 18 mg/L/Day Monthly Avg
120
100
80
60
40
20
0
18
18 16 13 13 10 11 13 13 14 11 10 12 11 11 12 12 8 7 5 9 9 11 9 10 10 37 74 58 88 69 97 24 14 9 11 14 14 10 14 9 10 9 8 6 7 9 8 10 11 10
Jan-20 Feb-20 Mar-20 Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Jan-21 Feb-21 Mar-21 Apr-21 May-21 Jun-21 Jul-21 Aug-21 Sep-21 Oct-21 Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep-22 Oct-22 Nov-22 Dec-22 Jan-23 Feb-23 Mar-23 Apr-23 May-23 Jun-23 Jul-23 Aug-23 Sep-23 Oct-23 Nov-23 Dec-23 Jan-24 Feb-24 Mar-24 Apr-24 May-24 Jun-24 Jul-24 Aug-24 Sep-24 Oct-24 Nov-24 Dec-24
CBOD in mg/L
CBOD Limit 18 mg/L


TSS 2020-2023
Limit = 20 mg/L/Day Monthly Avg
40
35
30
25
20
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10
5
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11
12
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10
9
10
13
10
9
8
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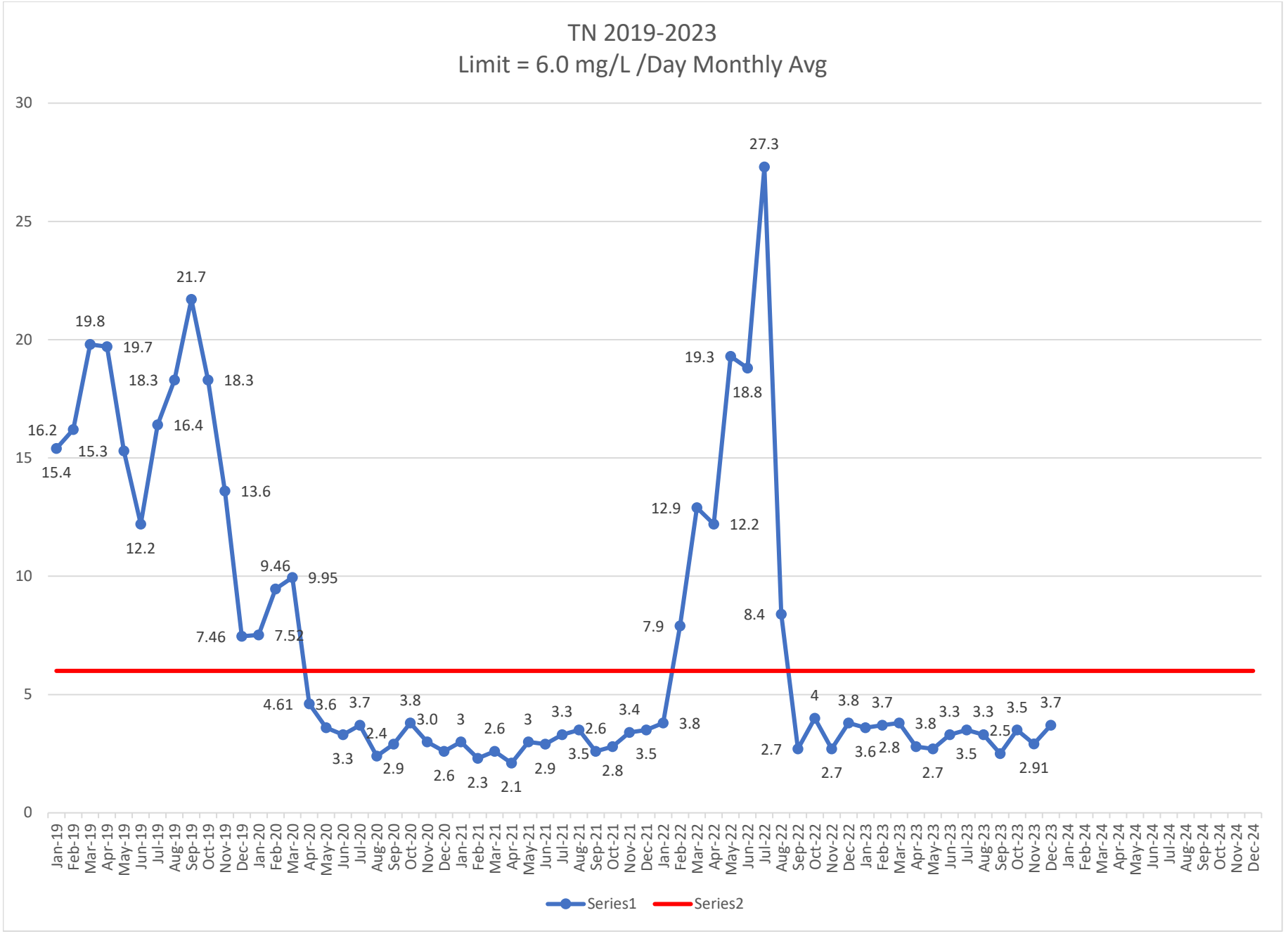
TSS in mg/L
TSS Limit 20 mg/L


TN 2019-2023
Limit = 6.0 mg/L /Day Monthly Avg
30
25
20
15
10
5
0
15.4
16.2
19.8
15.3
19.7
12.2
18.3
21.7
16.4
18.3
13.6
7.46
9.46
7.52
9.95
4.61
3.6
3.3
3.7
2.4
2.9
3.8
3.0
2.6
3
2.3
2.6
2.1
3
2.9
3.3
3.5
2.6
2.8
3.4
3.5
7.9
12.9
3.8
19.3
12.2
18.8
8.4
27.3
2.7
4
2.7
3.8
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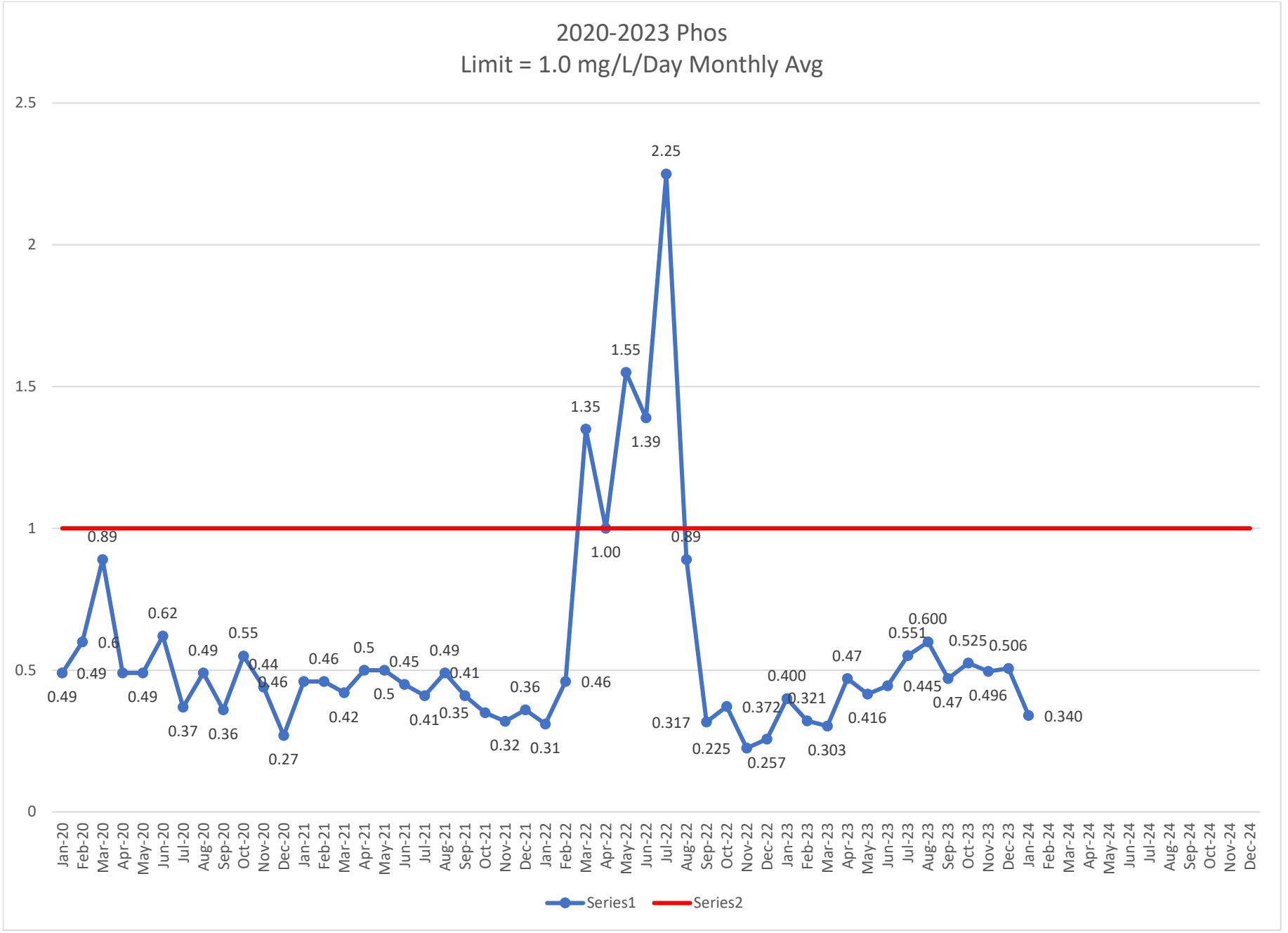
Series1
Series2


2020-2023 Phos
Limit = 1.0 mg/L/Day Monthly Avg
2.5
2
1.5
1
0.5
0
0.49
0.49
0.89
0.6
0.49
0.62
0.49
0.37
0.49
0.36
0.55
0.44
0.46
0.27
0.46
0.42
0.5
0.5
0.45
0.41
0.49
0.41
0.35
0.32
0.36
0.31
1.35
0.46
1.55
1.00
1.39
2.25
0.89
0.317
0.225
0.372
0.257
0.400
0.321
0.303
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0.600
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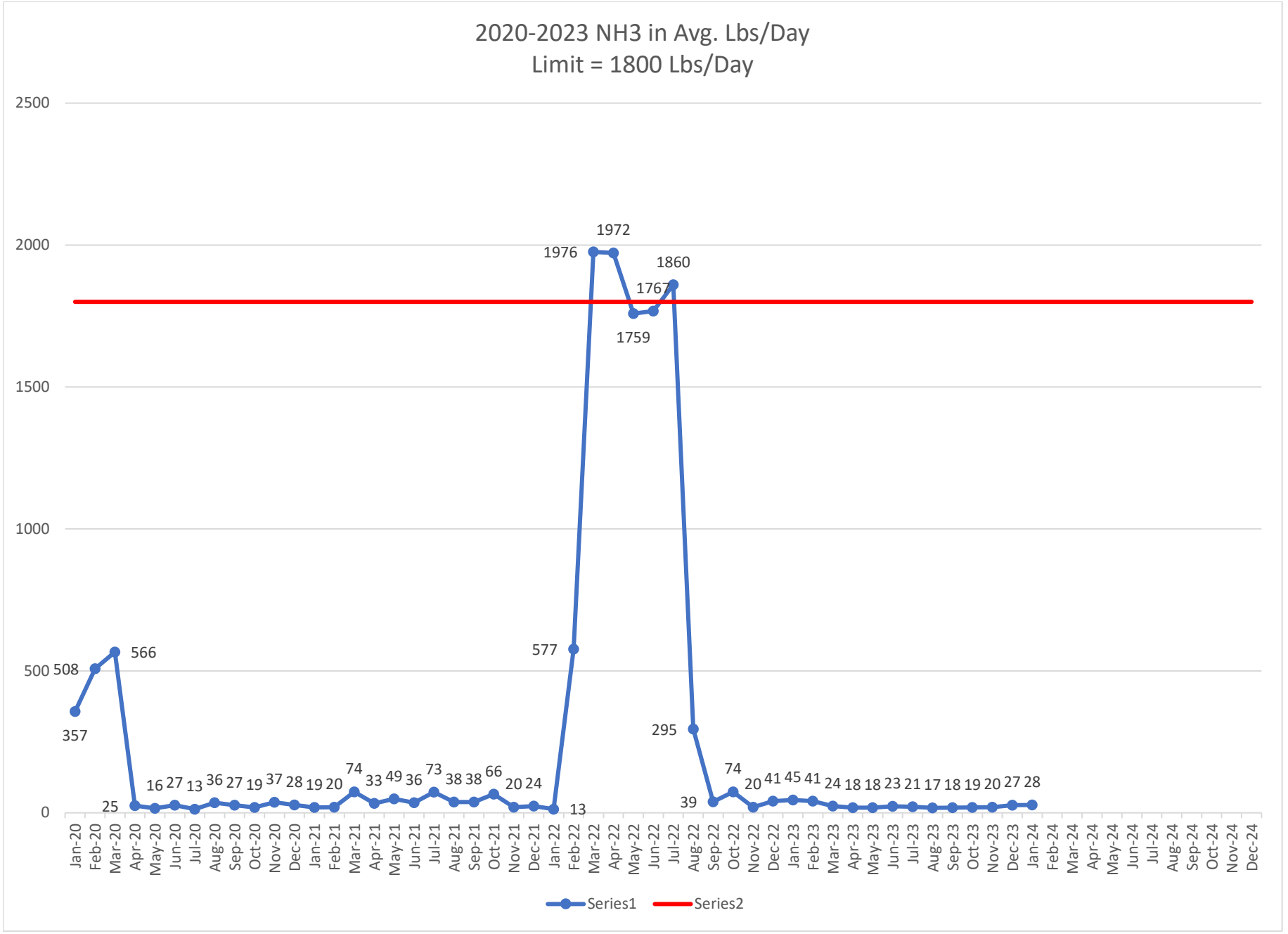
Series1
Series2


2020-2023 NH3 in Avg. Lbs/Day
Limit = 1800 Lbs/Day
2500
2000
1500
1000
500
0
357 508 566 25 16 27 13 36 27 19 37 28 19 20 74 33 49 36 73 38 38 66 20 24 13 577 1976 1972 1759 1767 1860 295 39 74 20 41 45 41 24 18 18 23 21 17 18 19 20 27 28
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Series1
Series2