

August Superintendents report

September 12, 2023

August was another Rainy month in Vestal of 4.79 Inches, Total plant flow was 510.51 MG with an average daily flow of 16.47 MGD. CBOD of 7 mg/L, Tss of 6 mg/L, TN of 3.3 mg/L with 2 data points to go, Phos of 0.60 mg/L, Ammonia of 0.122 mg/L.

Working on H-Line resolution. DEC was here last Friday to walk the project work to help them understand the scope and urgency for the work to take place. On Tuesday September 5th the DEC approved the work plan to limit influent to 55 MGD for work on Channels 1 and 2 Only.

Operations cleaned and prepped area for Welliver.

There is a hold on the work while it is determined what contractor, and which entity will enter an agreement with a contractor to perform the work based on the Procurement policy. Board Chair called for an emergency meeting for 9/6/2023.

The special board meeting resulted in the board authorizing the use of Welliver and the ok to use \$250,000 from contingency to a line to be used to pay the contractor. Also authorized the use of the Professional services line to pay GHD for its engineering of the pumping plans required for this work.

We also await a PE stamped pumping plan for step 2 and 4 as required by the DEC.

The DEC will also require a periodic review and status update by an engineer as the work progresses.

They also require the plant superintendent to provide a daily report containing what work has been accomplished, the daily process data and all processes that are in service or by-passed. This is similar to the reporting after the February 18 event.

Working on Micro-Turbine underground piping leak. On 8/29/2023 the leak-down test showed a loss of 15 psi in 15 minutes. For the entire month only able to run 2 Micro-Turbines.

Mechanics opened up the PEX flange in the basement wall of the digester building and found what appears to be the cause of the leak. They have repaired and tested the line for pressure. Line is filled and will be put into service over the next few days. Contacted RSP to insure all micro-turbines are free to run when called for.

The 2024 Budget was presented to City Council and Village Trustees on 9/7/2023 it was accepted. I would like to thank all budget participants for their diligence in putting together the 2024 budget.

Superintendents Summary Report for 2023

| | 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 | In | out | In | out | |
| | AVG | | | limit | | | 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 | 21.29 | 3.29 | 165 | 14 | 92% | 151 | 11.5 | 92% | 7.60 | 0.07 | 99% | 17.9 | 3.6 | 80% | 3.10 | 0.400 | 87% | 9.80 | 0.2 | 98% | 17.5 | 1.8 | 90% | | | | |
| Feb | 17.08 | 1.53 | 198 | 10 | 95% | 189 | 6.8 | 96% | 9.50 | 0.05 | 99% | 22.7 | 3.7 | 84% | 5.10 | 0.321 | 94% | 12.9 | 0.3 | 98% | 22.4 | 1.5 | 93% | | | | |
| Mar | 20.76 | 2.82 | 177 | 9 | 95% | 183 | 5.3 | 97% | 8.40 | 0.03 | 100% | 19.1 | 3.8 | 80% | 2.78 | 0.303 | 89% | 10.20 | 0.14 | 99% | 18.6 | 1.4 | 92% | | | | |
| Apr | 16.88 | 3.47 | 200 | 10 | 95% | 178 | 5.1 | 97% | 12.40 | 0.07 | 99% | 21.9 | 2.8 | 87% | 3.00 | 0.470 | 84% | 12.9 | 0.136 | 99% | 21.8 | 1.6 | 93% | | | | |
| May | 18.46 | 0.62 | 204 | 9 | 96% | 192 | 4.8 | 98% | 11.60 | 0.10 | 99% | 21.9 | 2.7 | 88% | 3.20 | 0.416 | 87% | 11.6 | 0.107 | 99% | 21.7 | 1.3 | 94% | | | | |
| Jun | 13.19 | 4.40 | 201 | 8 | 96% | 207 | 4.0 | 98% | 15.00 | 0.10 | 99% | 21.3 | 3.3 | 85% | 3.00 | 0.445 | 85% | 14.5 | 0.196 | 99% | 21.3 | 1.6 | 92% | | | | |
| Jul | 16.20 | 6.82 | 153 | 6 | 96% | 170 | 3.9 | 98% | 12.80 | 0.10 | 99% | 15.7 | 3.5 | 78% | 2.42 | 0.551 | 77% | 8.9 | 0.160 | 98% | 15.6 | 1.19 | 92% | | | | |
| Aug | 16.47 | 4.79 | 168 | 7 | 96% | 174 | 6.0 | 97% | 12.00 | 0.1 | 99% | | | | 2.94 | 0.600 | 80% | 12.8 | 0.122 | 99% | | | | | | | |
| Sep | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nov | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dec | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | TOT | | | | | | | | | | | | | | | | | | | | | | | | | |
| Avg | 17.54 | 27.74 | 183 | 9 | 95% | 181 | 5.9 | 97% | 11.16 | 0.08 | 99% | 20.1 | 3.3 | 83% | 3.19 | 0.438 | 85% | 11.70 | 0.17 | 99% | 19.84 | 1.49 | 92% | | | | |

TN and TKN missing 2 Data points

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

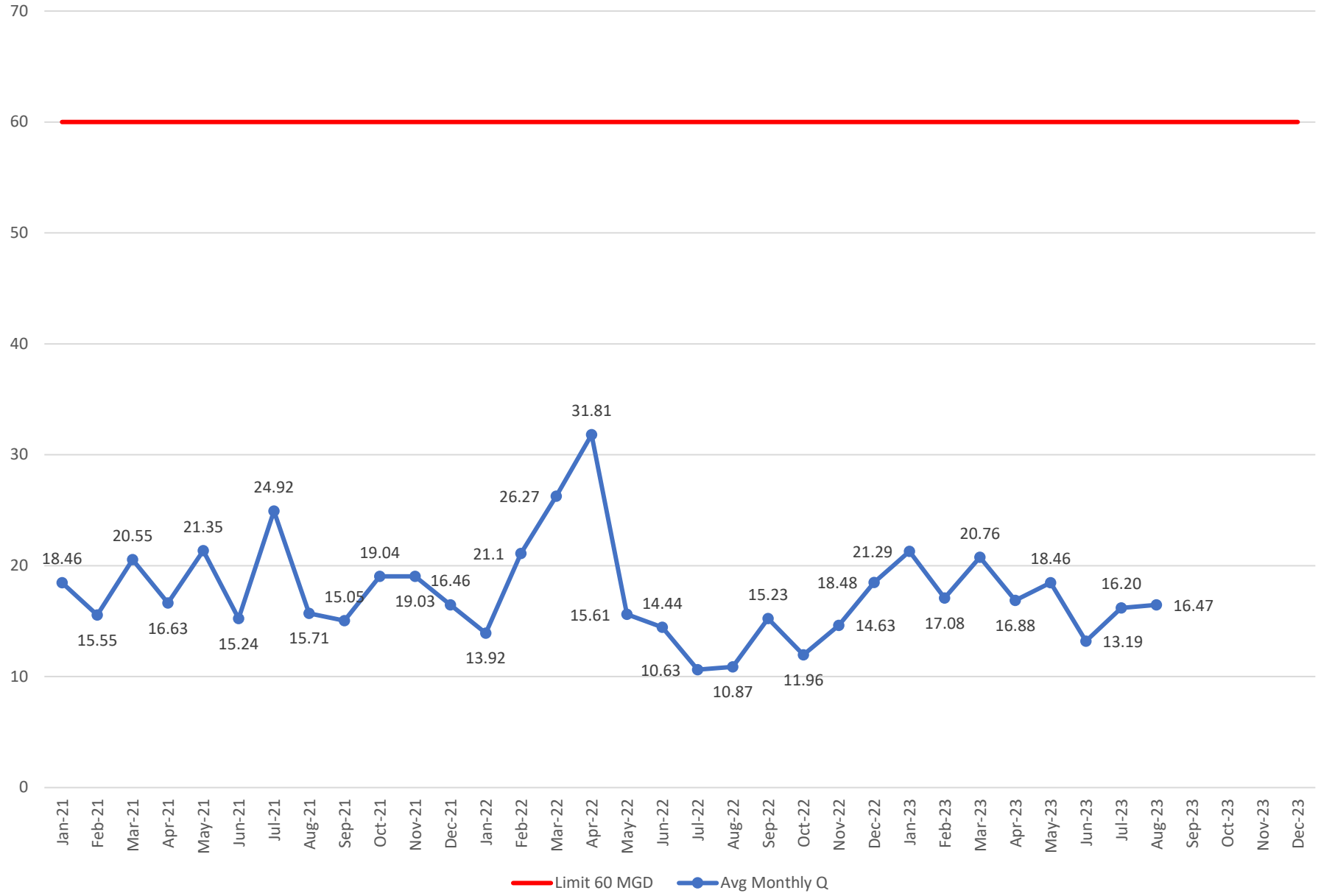
Landfill 2023 Summary

| Date | Digested | Lime Stab | Solids Total | | Bar screen | Grit and Screen | | Grease |
|-----------|----------|-----------|--------------|--------------|------------|-----------------|------------|--------|
| | Tons | Tons | Tons | Cost | Tons | Tons | Cost | Tons |
| January | 694.60 | | 694.60 | \$27,784.00 | | 15.70 | \$706.50 | |
| February | 572.08 | | 572.08 | \$22,883.20 | | 13.97 | \$628.65 | |
| March | 702.74 | | 702.74 | \$28,109.60 | | 25.90 | \$1,165.50 | |
| April | 584.34 | | 584.34 | \$23,373.60 | | 8.63 | \$388.35 | |
| May | 669.35 | | 669.35 | \$26,774.00 | | 28.04 | \$1,261.80 | |
| June | 708.35 | | 708.35 | \$28,334.00 | | 26.26 | \$1,181.70 | |
| July | 781.79 | | 781.79 | \$31,271.60 | | 24.07 | \$1,083.15 | |
| August | 626.47 | | 626.47 | \$25,058.80 | | 38.00 | \$1,710.00 | |
| September | | | | | | | | |
| October | | | | | | | | |
| November | | | | | | | | |
| December | | | | | | | | |
| Average | 667.47 | | 667.47 | \$26,698.60 | | 22.57 | \$1,015.71 | |
| Total | 5,339.72 | | 5,339.72 | \$213,588.80 | | 180.57 | \$8,125.65 | |
| | | | | \$40/Ton | | | \$45/Ton | |

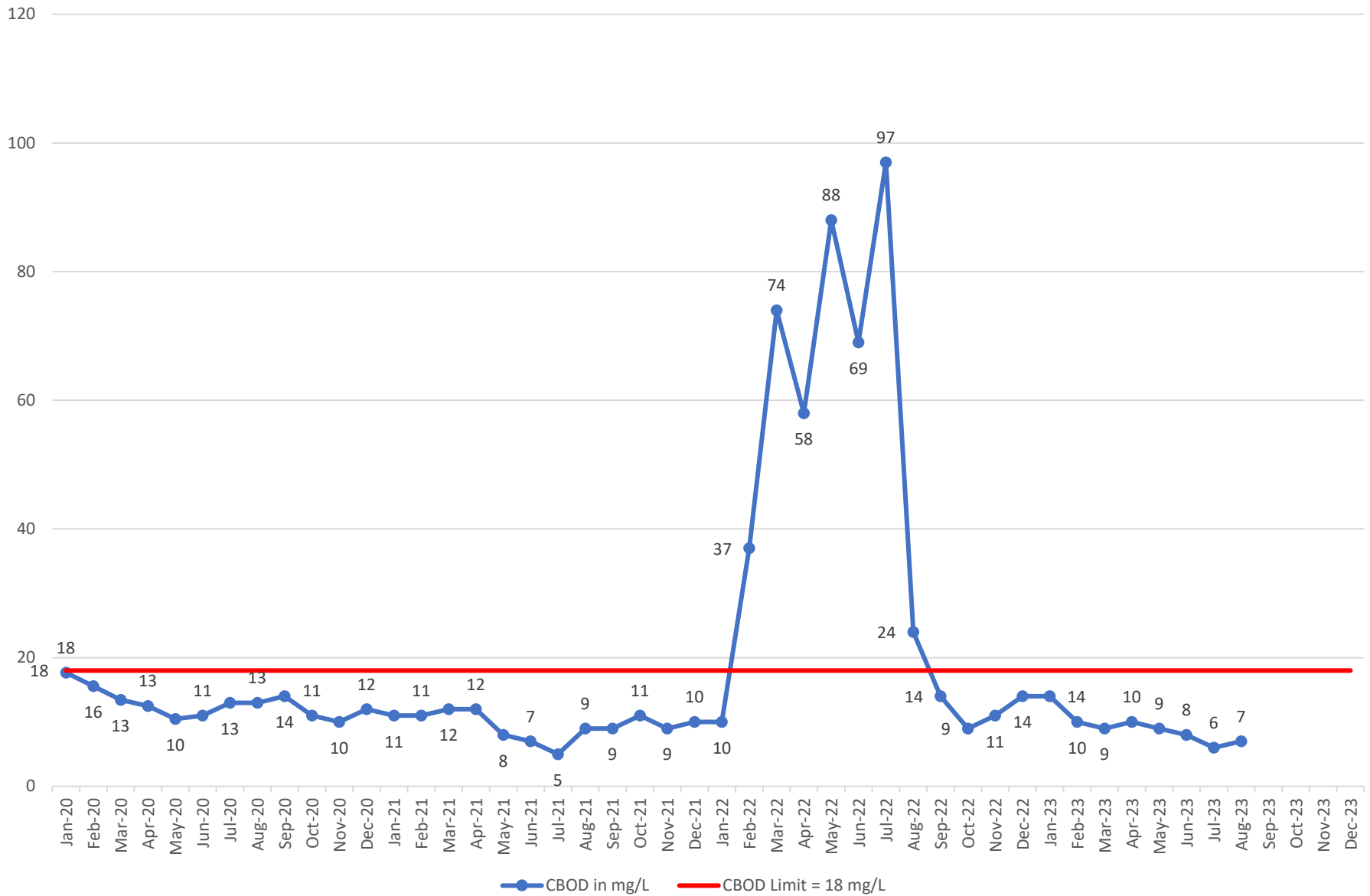
\$221,714.45

Annual Cost to Date

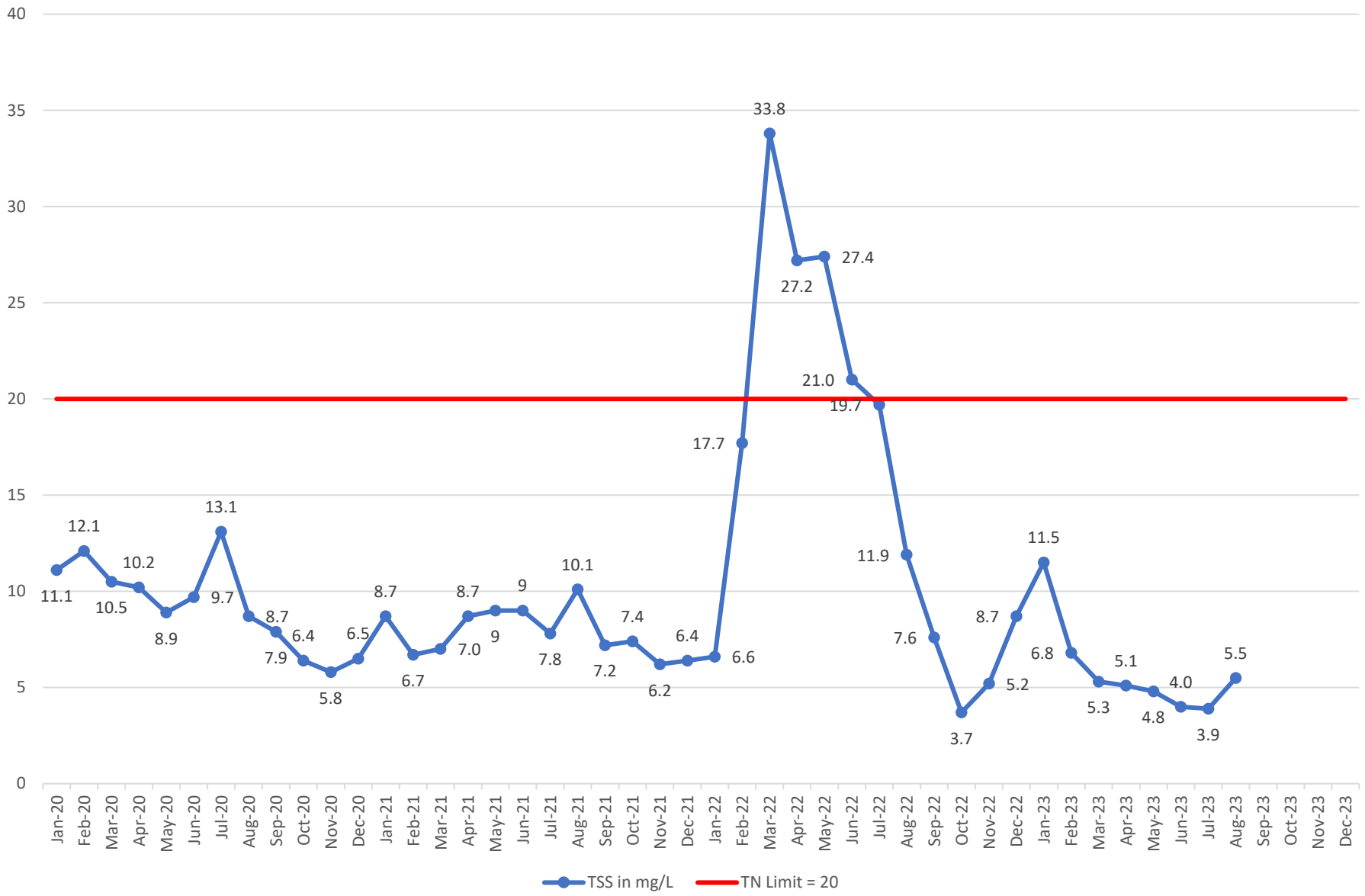
2021-2023 Flow



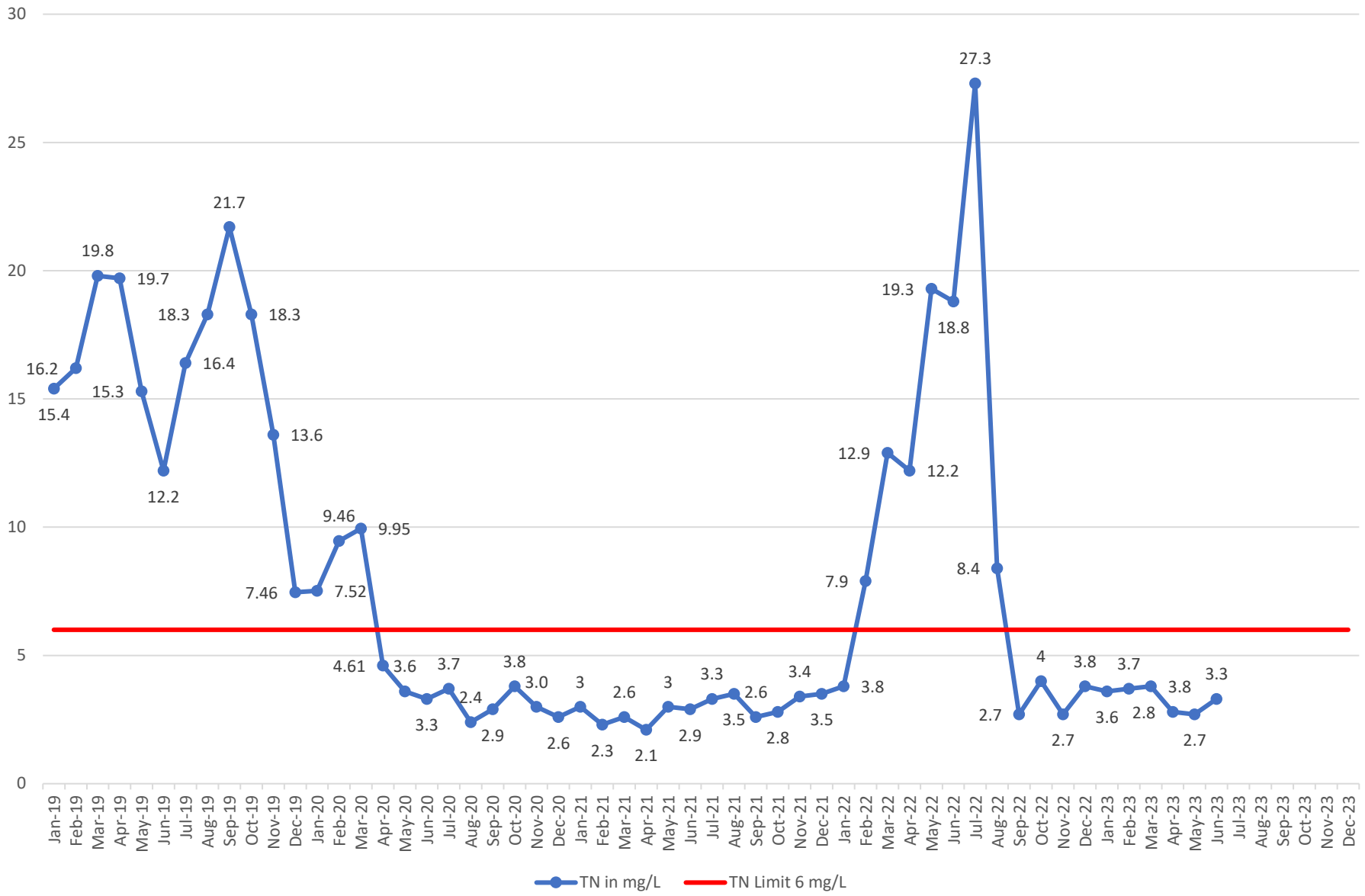
2020-2023 CBOD Limit = 18 mg/L/Day Monthly Avg



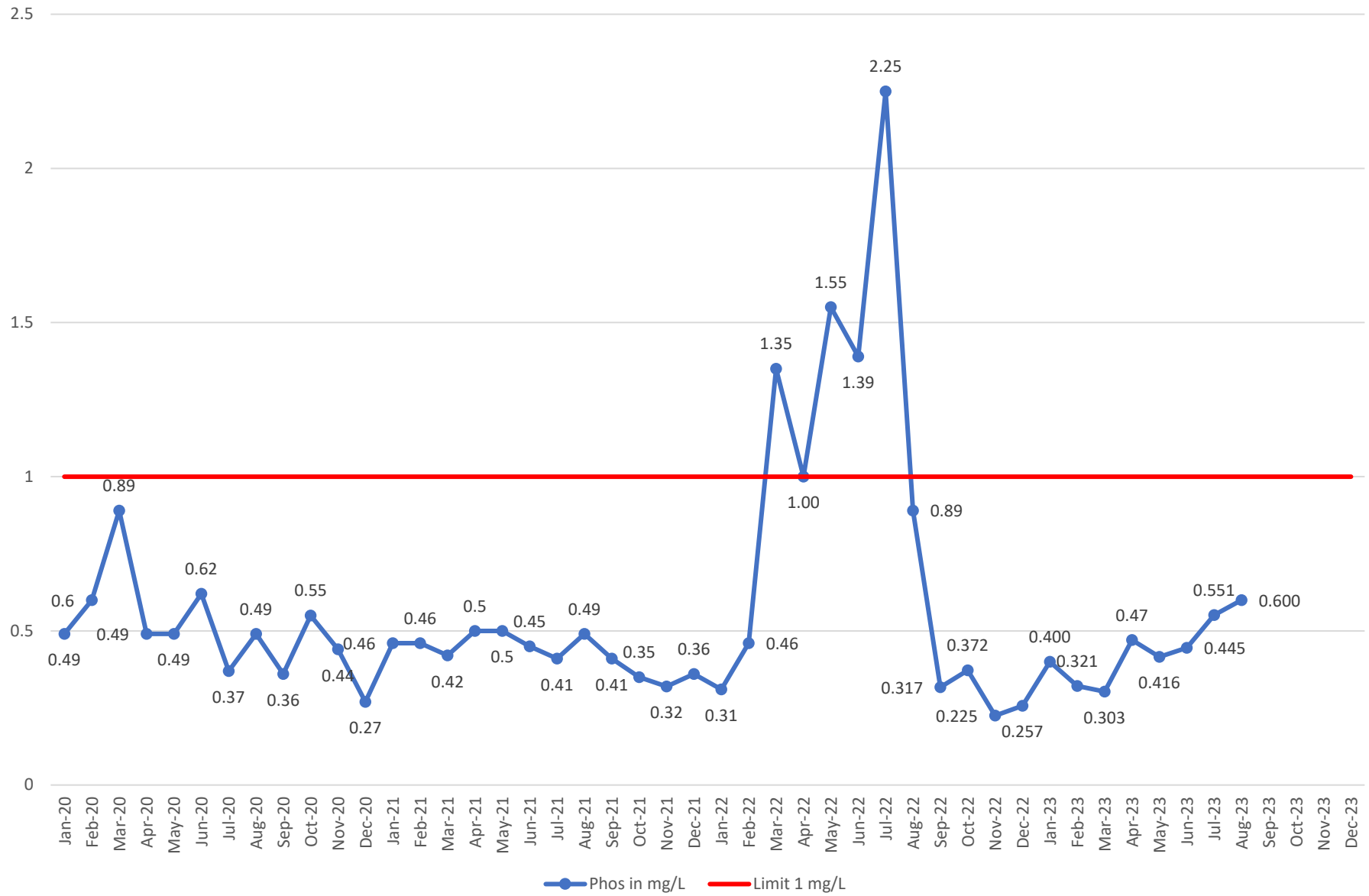
TSS 2020-2023
Limit = 20 mg/L/Day Monthly Avg



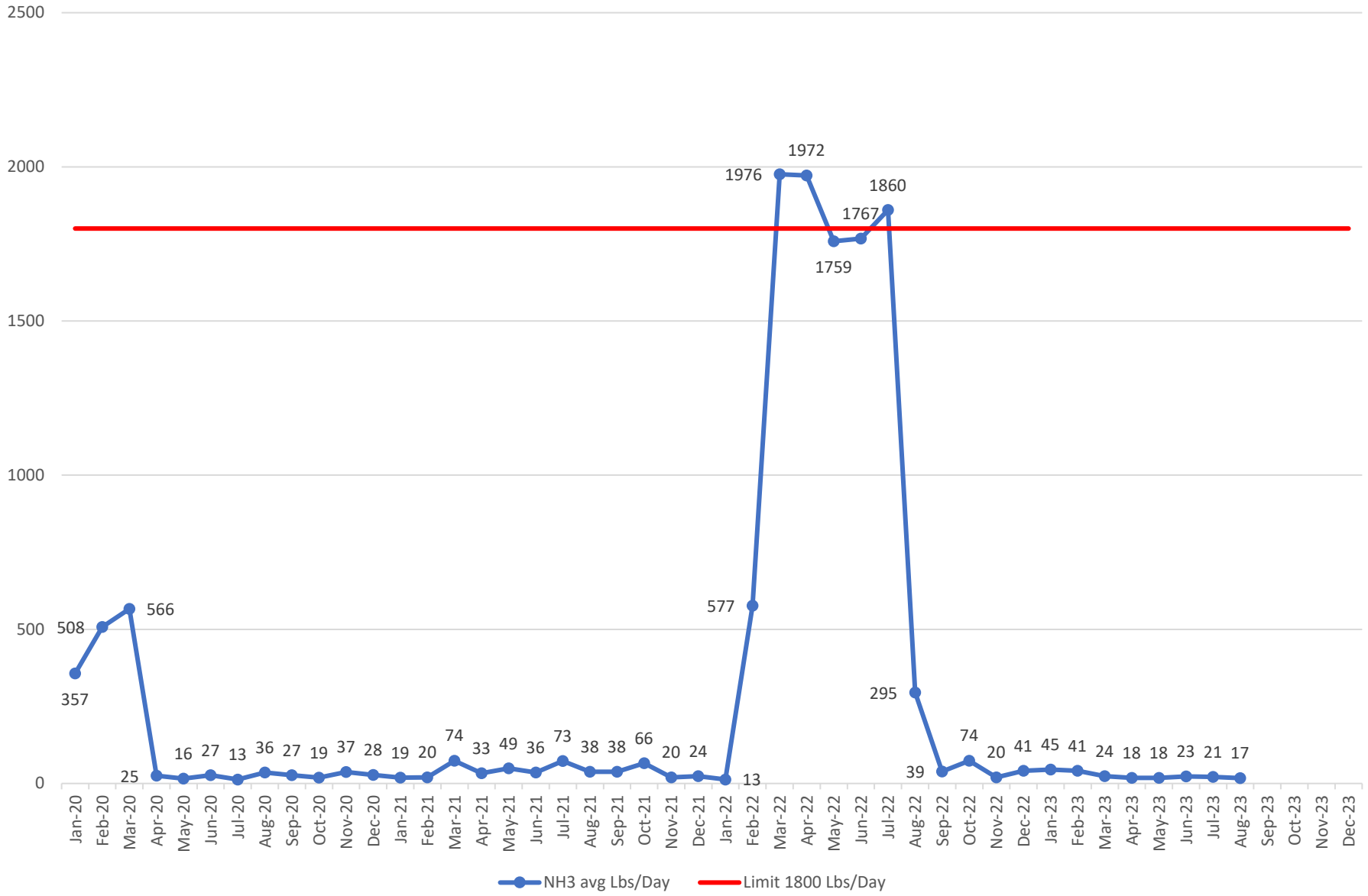
TN 2019-2023
Limit = 6.0 mg/L /Day Monthly Avg



2020-2023 Phos
Limit = 1.0 mg/L/Day Monthly Avg



2020-2023 NH3 in Avg. Lbs/Day
Limit = 1800 Lbs/Day



Elliott Wagner

From: Ellis, Valarie D (DEC) <valarie.ellis@dec.ny.gov>
Sent: Tuesday, September 5, 2023 4:11 PM
To: Elliott Wagner
Cc: Widay, Matthew J (DEC); Vigneault, Thomas M (DEC); Ron Warwick; Adam Afify; rblake@cityofbinghamton.gov; gkolba@live.com; 'Flushed499@gmail.com'; cpapastrat1@gmail.com; Ed Crumb; randrew0628@hotmail.com; john.lagorga@GHD.com; Rossignol, Audra E (DEC)
Subject: RE: Peak flow process reduction request

Elliott,

The Department understands from your message below that limiting influent flow to 55 mgd during wet weather events is necessary to provide up to 5 mgd of nutrients to the off-line CN cells for the duration of Emseal curing and the membrane installation. This work may entail 16 days/channel, or a total of 32 days, depending upon required preparation time.

The Department hereby approves the operational plan to limit the influent flow to 55 mgd during the duration of the Emseal and membrane rehabilitation work on channels 1 and 2 (under the proposed Plan 1 of the work plan submitted on August 23, 2023).

Please continue to keep us apprised of the status of the repairs and when the work will commence.

Valarie

From: Elliott Wagner <ewagner@bjcwwtp.onmicrosoft.com>
Sent: Tuesday, September 5, 2023 2:47 PM
To: Ellis, Valarie D (DEC) <valarie.ellis@dec.ny.gov>
Cc: Widay, Matthew J (DEC) <Matthew.Widay@dec.ny.gov>; Vigneault, Thomas M (DEC) <thomas.vigneault@dec.ny.gov>; Ron Warwick <rwarwick@bjcwwtp.onmicrosoft.com>; Adam Afify <aafify@bjcwwtp.onmicrosoft.com>; rblake@cityofbinghamton.gov; gkolba@live.com; 'Flushed499@gmail.com' <flushed499@gmail.com>; cpapastrat1@gmail.com; Ed Crumb <ecrumb@bjcjsb.onmicrosoft.com>; randrew0628@hotmail.com
Subject: RE: Peak flow process reduction request

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Tom, Valarie, Matt,

As you know our permit is based on 60 MGD influent and Secondary, our DN cells are permitted to 35 MGD. Our Disinfection is for all flow through the facility up to 72 mgd.

We would respectfully request to limit our influent to 55 MGD.

Our daily recycle flow is approximately 5 MGD.

This combined with our influent would send 60 MGD through our secondary treatment. And 35 MGD through our DN cells with all flow going through Disinfection.

This request is only for the CN influent channels 1 and 2 portion of the project. Each channel could potentially take, at the most, 16 days to remove old Emseal, repair concrete, dry concrete, install new Emseal and get the required 8-day cure time for Emseal and 24 hours cure time for the roofing membrane cover.

At present we have a rental pump and our own Godwin pump for a combined 5.76 mgd capability. This capability will be sufficient to keep the 3 cells alive while we are aerating them.

Again, this request is for approximately 32 days total.

The other plans will have to be submitted once we receive them from our engineers, GHD.

As of today, we called off Welliver.

We have a special board meeting scheduled for 1 pm tomorrow to look at how and who will pay and engage with a contractor in regard to H-Line repair work.

Thank you for your consideration.

Elliott Wagner
Superintendent
NYSDEC 4A WWTP Lic. #14305
Master Electrician A Lic. #283
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Cell: 607 768 5114

From: Ellis, Valarie D (DEC) <valarie.ellis@dec.ny.gov>

Sent: Tuesday, September 5, 2023 1:42 PM

To: Elliott Wagner <ewagner@bjcwwtp.onmicrosoft.com>

Cc: Widay, Matthew J (DEC) <Matthew.Widay@dec.ny.gov>; Vigneault, Thomas M (DEC) <thomas.vigneault@dec.ny.gov>

Subject: Peak flow process reduction request

Good Afternoon, Elliott

While Matt Widay and I were on site last Friday, BJC requested that the Department ascent to, and provide written approval for, a flow process reduction of 55 mgd, rather than the required peak flow treatment of 60 mgd should any significant wet weather events occur during the H-Line rehabilitation work. It is our understanding that a margin of 5 mgd is needed to provide backwashing capabilities.

Please provide this request in writing so that the Department may document BJC's reasoning for the reduction of 5 mgd while the rehabilitation work is on-going. Once we receive the request, we expect a quick turnaround in our response.

Thank you,
Valarie

Valarie D Ellis, B.Arts, B.Sci(Eng), PE

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**Department of
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