

Director of Operations and Compliance Report

June 17, 2020

Plant Loading, CSO Report, and Director's Notes

Plant Loading

Biochemical Oxygen Demand, 5-Day (Avg. 27094 lbs/day)	43 percent of design
Total Suspended Solids (Avg. 41064 lbs/day)	38 percent of design
Average Daily Flow (50.76 million gallons/day)	124 percent of design
Maximum Daily Flow (95.16 million gallons/day)	76 percent of design

	Permit Limits (avg/max)	Reported Values	Violations
CBOD ₅ , mg/L	20/40	2/3	0
TSS, mg/L	25/45	4/5	0
NH ₃ -N, mg/L	1.5/3.0	0.22/0.25	0
Fecal coliform per 100mL	400* (max)	230	0
Chlorine Residual, mg/L	0.05* (max)	0.011	0
Dissolved Oxygen, mg/L	6.0 (min)	8.19	0
pH, S.U.	6.0/9.0 (min/max)	7.68/8.27	0
Total Nickel, mg/L	0.015 (avg.)	0.011	0
Total Zinc, mg/L	0.075/0.416	0.016/0.023	0

*Effluent disinfection is required May 1 through October 31.

CSO Report

Location	Events	Discharge (million gallons)	Estimated Total Duration of Discharges (hrs)
Oakland Avenue (Outfall 003)	4	20.22	38.68
Lincoln Park (Outfall 004)	1	1.4	1.2
McKinley Avenue (Outfall 007)	4	12.35	25.7
Seventh Ward (Outfall 008)	2	8.68	3.3

Director's Notes:

Permit Issues:

A Draft version for the justification of the District's need for more than 36 months to comply with a potential IL Environmental Protection Agency (IEPA) requirement of a nutrient standard in a new permit has been completed by the District. This documentation includes a letter of justification from Black and Veatch based on the findings from an engineering study on nutrient treatment for the District which they performed in 2014-16, and on their knowledge of the state of the art of nutrient treatment currently available in the industry.

2020 Roll-off Container Services Request for Quotes:

A request for quotes for the roll-off container services for the District is being generated. This will allow the District to ensure that it is always getting the best rates for services of this nature as is available within our service area.

Sanitary Sewer Overflow Report:

A break in the temporary, primary sludge line occurred on June 2nd which allowed sludge to inadvertently be released to Stevens Creek through a leaking stormwater gate, the amount of sludge that made it into Stevens Creek was estimated at <250 gallons. This occurrence had to be reported to the IEPA as a Sanitary Sewer Overflow (SSO) and possibly will lead to a violation. The stormwater gate had been closed as soon as a leak was detected but it was not completely sealed which allowed a slow leak to continue beyond the confines of the Main Plant. Operations staff is being or has been retrained to ensure that **all** flow control devices/structures are functioning properly before leaving them to attend to other duties.

Operations, Laboratory, and Pretreatment Activity Reports – May/June 2020

Operations Activities:

Normal operational activities were conducted as proscribed by standard procedures or in response to conditions within the plant related to the new measures being employed due to Covid-19. Minimal PMs were completed during this period due in most part by the restricted staffing levels the department are currently operating under.

- 1) Operators coordinated two headworks changeovers during this month which were required by changing parameters of flows, and equipment availability.
- 2) Operations worked to facilitate the Maintenance Staff various repairs to the grit system on the East Headworks.
- 3) Operations staff continues to operate the disinfection systems. And are working on ways to make this system more efficient by modifying operation procedures and putting additional emphasis on the employment of both pre-existing and new system equipment. The disinfection season is off to a good start.
- 4) Operators have spent considerable time on maintaining primary sludge wasting systems due to a restricted use temporary sludge hose/pipe.

Laboratory Activities:

Routine:

A total of 1,775 analyses were performed in the laboratory during the month of May 2020.

Monitoring of treatment plant, industrial users, and receiving stream samples for compliance purposes and process monitoring continued. Laboratory personnel continued to perform additional background nutrient monitoring to help fully characterize the nutrient loading on the plant.

Non-Routine:

- 1) The annual NPDES sampling of the influent, effluent, and sludge was conducted. The annual sampling includes the normal quarterly NPDES analyses as well as testing for one hundred and ten (110) organic priority pollutants.
- 2) Keith Richard and Markesha Davis participated in a conference call with the WEF Laboratory Practices Committee on May 19, 2020. The topic of the call was "The Water Lab's COVID-19 Update". Keith and Markesha both serve on the committee which is comprised of wastewater laboratory professionals from across the country.
- 3) Keith Richard attended a webinar hosted by the USEPA on May 27, 2020 titled "EPA Expands Research on SARS-CoV-2 in the Environment". The webinar focused on the various research initiatives in progress at the USEPA to study evidence of inactive SARS-CoV-2, the virus that causes COVID-19, in wastewater. Several analytical methods are in development to allow for more widespread analysis of SARS-CoV-2 indicators in wastewater with the hopes of better tracking the prevalence of the virus across the country.
- 4) The SDD Lab is conducting a testing regimen to attempt to gather more information on the false positive result from the Idexx tests last year. To-date we have not had an instance of a false positive; with the changes in industry production the project may be inconclusive this year.

Pretreatment Activities:

General Activities:

- 1) Pretreatment personnel monitored seven commercial and industrial users (IU) during May 2020 and performed one industrial user inspection.
- 2) The SDD received a request to amend **HR Ewell Trucking's (#390)** discharge permit. **HR Ewell** completed the sampling required to issue monitoring waivers for pollutants that are not present in their discharge.
- 3) The SDD received an application for a wastewater hauler discharge permit from **Gulliford's Septic**.
- 4) The SDD issued a wastewater hauler discharge permit to **Portable Sanitation Systems**.
- 5) The SDD issued discharge permits to **H&M Trucking, voestalpine Nortrak** and **Norfolk and Southern Railway**.
- 6) The SDD received a discharge permit application from **Tate and Lyle**.
- 7) The annual plant sampling was completed by Pretreatment and Laboratory staff. The sampling went very smoothly, and we appreciate everyone's hard work to get the required sampling completed. The data collected in our annual sampling event will be included in our 2020 Pretreatment Report.

Pretreatment Ordinance - Verbal Notices:

- 1) A Verbal Notice was issued to **Prairie Farms** on May 11, 2020 because they exceeded their total Fats, Oils and Grease limit. **Prairie Farms** is limiting access to their facility due to COVID-19, and they apparently neglected to allow a contractor to pump their grease interceptor. They have since had a pump out scheduled.
- 2) A Verbal Notice was issued to **Tate and Lyle** on May 11, 2020 because they exceeded their daily TSS limit.

- 3) A Verbal Notice was issued to **St Mary's Hospital** on May 19, 2020 for exceeding their upper pH limit at their pt. B discharge.
- 4) A Verbal Notice was issued to **Tate and Lyle** on June 2, 2020 because they exceeded their upper pH limit in their West Main Outfall sample.

Pretreatment Ordinance - Warning Notices:

Warning Notice 20-003 was issued to **Tate and Lyle** on June 1, 2020 for exceeding their daily maximum TSS discharge limit on May 8th and May 17th. **Tate and Lyle's** response to the Warning Notice has not been received yet.

Pretreatment Ordinance - Notices of Violation (NOV):

No Notices of Violation were issued during May 2020.

Pretreatment Ordinance - Executive Orders:

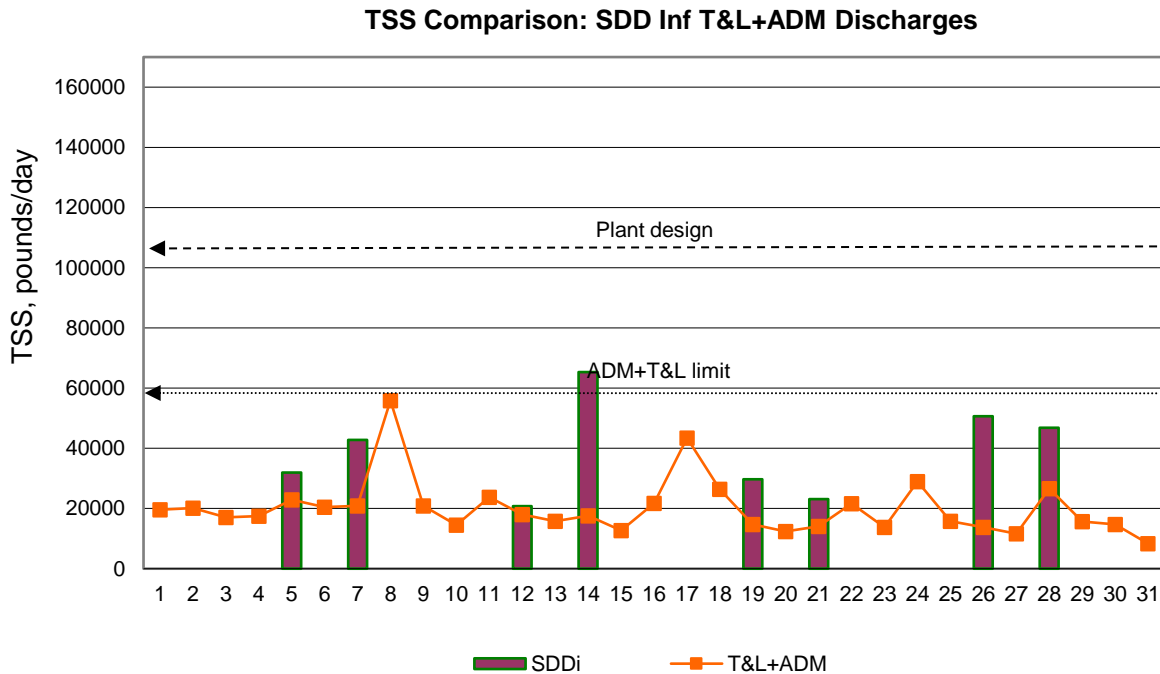
No Executive Orders were issued during May 2020.

Pretreatment Ordinance - Penalty Assessments:

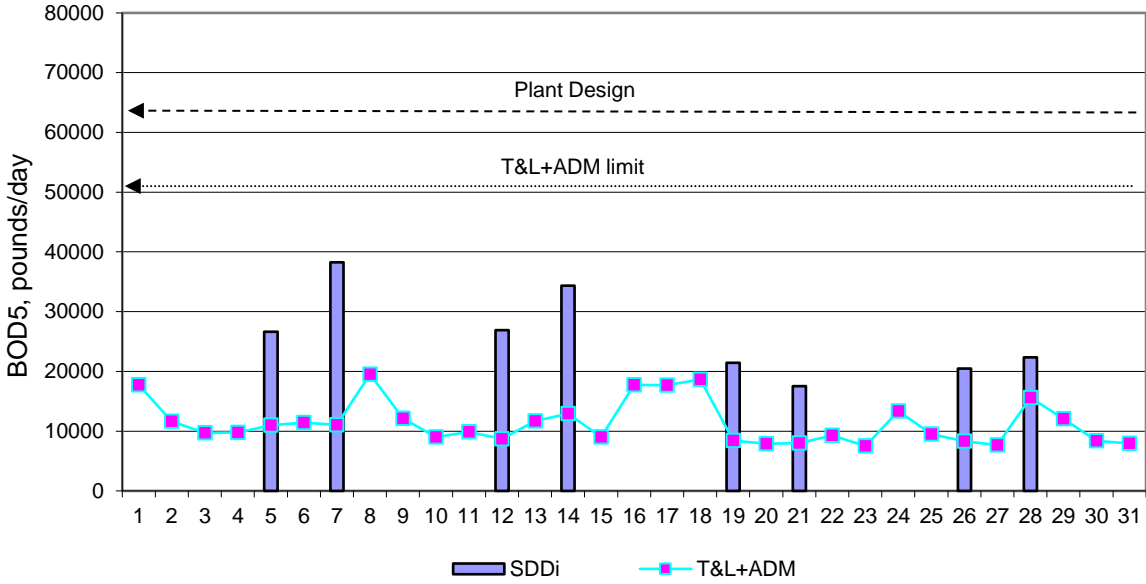
The following industrial penalties were assessed for May 2020:

- | | |
|-------------------------|----------------|
| 1) Tate and Lyle | \$6,000 |
| 2) Prairie Farms | \$1,000 |

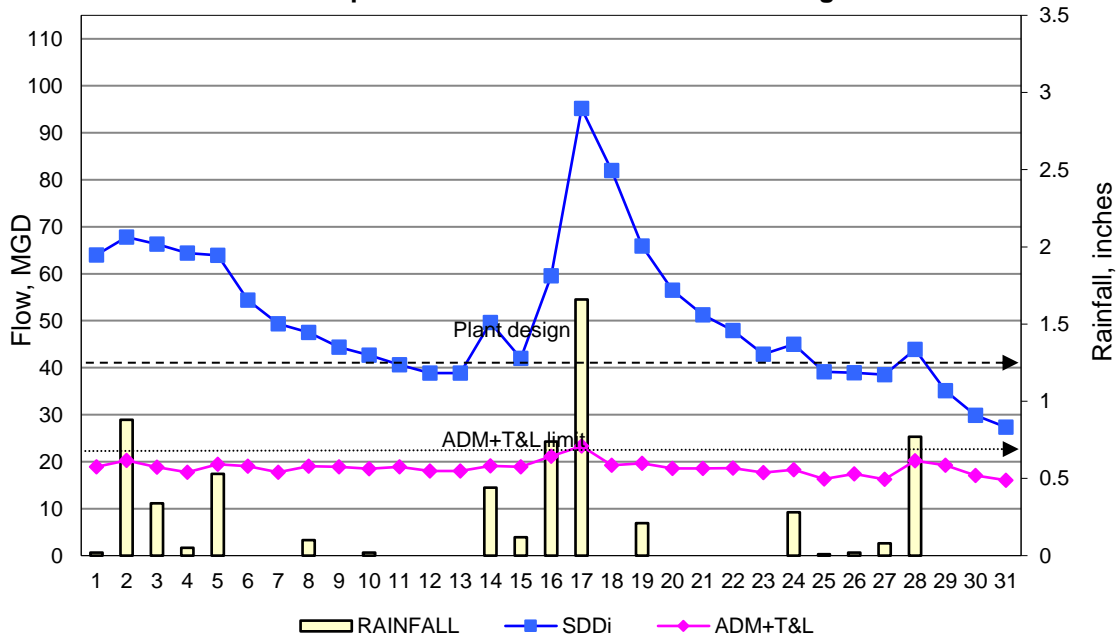
Plant Operating Graphs:



BOD Comparison: BOD Inf vs. T&L + ADM Discharges



Flow Comparison: SDD vs. ADM + T&L Discharges and Rainfall



Plant Efficiency Graphs:

