

Director of Operations and Compliance Report

April 22, 2020

Plant Loading, CSO Report, and Director's Notes

Plant Loading

Biochemical Oxygen Demand, 5-Day (Avg. 34941 lbs/day)	55 percent of design
Total Suspended Solids (Avg. 30481 lbs/day)	28 percent of design
Average Daily Flow (44.57 million gallons/day)	109 percent of design
Maximum Daily Flow (82.87 million gallons/day)	66 percent of design

	Permit Limits (avg/max)	Reported Values	Violations
CBOD ₅ , mg/L	20/40	4/6	0
TSS, mg/L	25/45	7/13	0
NH ₃ -N, mg/L	1.5/3.0	0.12/0.14	0
Fecal coliform per 100mL	400* (max)	N/A	0
Chlorine Residual, mg/L	0.05* (max)	N/A	0
Dissolved Oxygen, mg/L	6.0 (min)	8.70	0
pH, S.U.	6.0/9.0 (min/max)	7.85/8.39	0
Total Nickel, mg/L	0.015 (avg.)	0.011	0
Total Zinc, mg/L	0.075/0.416	0.018/0.027	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)	2	5.6	15.8
Lincoln Park (Outfall 004)	1	4.7	3.2
McKinley Avenue (Outfall 007)	2	3.2	9.4
Seventh Ward (Outfall 008)	1	3.1	2.8

Director's Notes:

Permit Issues:

District Staff is preparing the response to the Illinois EPA's request for justification as to why additional time is needed for the District to comply with the potential new nutrient limits in the next permit.

2019 Chemical and Fuel Bids:

A request for bids for chemicals and fuels that are used at the Sanitary District was posted in the newspaper and on the District's website on or about March 10, 2020. All bids except those for 28% Liquid Urea Ammonium Nitrate (UAN) were opened and read on April 3, 2020. Due to technical

issues the bids for 28% Liquid UAN were reposted on April 8, 2020 and rescheduled to be opened on April 21, 2020.

The purchase periods offered on the chemicals (when applicable) was up to a three-year submission again this year, therefore the period included within the bid sheet covers the period May 1, 2020 – April 30, 2022. These changes to the submission periods are intended to allow the District to offset price changes caused by market variations due to various reasons. The choice to accept or deny any extended bid period remains solely with the District.

A summary of the winning bids and previous year accepted bids are as follows:

2020 Chemicals & Fuels Bid Summary

Product	Company	Year 1	Year 2	Year 3	Discription:
Fuels	Evergreen FS	\$ 0.154	\$ 0.157	\$ 0.159	Price per gal over OPIS rack
Ferrous Chloride	Kemira	\$ 0.522	\$ 0.538	\$ 0.565	Price per pound
	PVS Technologies	\$ 0.850	\$ 0.870	\$ 0.890	
Polymer Flocculant	SNF - Polydyne	\$ 1.140	\$ 1.200	\$ 1.260	Price per pound
	Solenis	\$ 1.420	\$ 1.460	\$ 1.500	
Sodium Hypochlorite	Vertex	\$ 0.820	NB	NB	Price per gallon
	JCI Jones	\$ 0.750	\$ 0.7875	\$ 0.8269	
	DPC Ent.	\$ 0.859	NB	NB	
	Olin	\$ 0.746	NB	NB	
	Alexander	\$ 0.8578	\$ 0.8843	\$ 0.9116	
	Brentagg	\$ 0.765	NB	NB	
	Rowell	\$ 1.020	NB	NB	

Notes: NB = No Bid

Highlights = Recommended Bids

Notes:

- 1) Evergreen FS has submitted three-year bids for Fuels locked in at rates that the District recommends accepting for the full three-year period.

Operations, Laboratory, and Pretreatment Activity Reports – March/April 2020

Operations Division Staffing during Covid-19 Outbreak:

The Director is currently working primarily from home and reports to the Plant on a weekly basis to inspect the operating equipment. The Director is always available to report to the plant any time it is necessary.

Operations

Operations has adjusted the staff worksites and in some cases the schedules to minimize the number of personnel present at the plant at any one time to employ social distancing while still completing the core functions of the department. Currently there are two operators at the plant on day shift Monday – Friday and two working from home. On second shift we have one operator working at the plant with one operator-in-training (OIT) at the plant and an operator and OIT working from home. Third shift has one operator working at the plant and the other working from home. The Operators that are working from home maintain contact with and assist the operator at the plant and are provided tablet computers to be able to monitor the plant SCADA System and check district emails, etc. All at-home operators are also assigned duties of reviewing and updating

the operations SOP's while working from home. The department has also shifted some of the duties normally done on day shift to second shift to free up day shift operators for other tasks. Operators have also been instructed to write detailed log entries, stagger breaks, use separate vehicles, practice social distancing and disinfect everything before and after using it as additional safeguards against the spread of the COVID-19. The Operations Supervisor has been working at the plant primarily but can work from home at any time.

Laboratory

Staffing changes has also begun in the laboratory to reduce the number of lab employees working on site to reduce the chances of transmitting the virus. Two employees will work at the plant and two employees will work from home. Each week they will rotate which employees are on site and which are working from home. The employees working from home will work on reviewing and revising lab procedures and job safety analysis documents. The Lab Supervisor will continue to work primarily at the plant to supervise lab operations.

Pretreatment

The District's Monitoring Technician is working from the plant to collect the necessary samples to allow for the minimum required testing of the industries. He is asked to maintain social distancing at the facilities where he collects the samples, and at the plant when he delivers them to the lab. Beyond this he will work from home as much as possible during the emergency. While at home he is working on updating the District's sample point information sheets, which detail the specific point at each industry that allow the collection of representative samples for lab analysis. The Pretreatment Coordinator is primarily working on site during regular hours to administer the Pretreatment Program.

Operations Activities:

Normal operational activities were conducted as proscribed by standard procedures or in response to conditions within the plant and the Operators participated in the weekly safety training sessions with allowances related to the new measures being employed due to Covid-19.

- 1) Operations staff completed 298 PMs during the month of March totaling 209 hours of work which equaled 0.40 FTE.
- 2) Operations staff have been concentrating work efforts on issues related to preparations for the disinfection season; mainly in assisting maintenance staff during the installation/repair of appurtenant equipment.
- 3) Operators also worked with maintenance staff on the repairs to the effluent, and plant service water pumps. And operators continue to work on issues dealing with grease and grit at the head of the plant, and other issues as they arise.

Laboratory Activities:

Routine:

A total of 1,916 analyses were performed in the laboratory during the month of March 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) Preparations were started in the lab during March 2020 to address the COVID-19 pandemic. A priority list was created for the analyses conducted in the lab to determine which analyses could be delayed or eliminated in extreme staff shortages. A hand sanitizer dispenser was installed at the main entrance of the lab to encourage routine hand sanitizing.
- 2) The river study with Eastern Illinois University was suspended in March 2020. The graduate students that normally collect the river samples were instructed not to leave campus due to the COVID-19 pandemic, so they were unable to collect the monthly river samples.

Pretreatment Activities:

Pretreatment - General Activities:

- 1) Pretreatment personnel monitored twelve industrial users and performed three industrial user inspections during March 2020.
- 2) Routine/Non-Emergency site inspections have been suspended due to the COVID-19 outbreak. We are continuing with routine sampling; however, we are postponing sampling that requires us to enter the industry and interact with them face to face. Since we are beginning a new quarter, we have until the end of June to complete all the required monitoring for the IU's we monitor quarterly.
- 3) USEPA requested a redline/strikeout version of our updated pretreatment ordinance. We provided them with a copy. Our USEPA case manager indicated that they were in the process of approving our draft IU permits, however we will have to wait until the new ordinance is approved before we can issue them.
- 4) A corrected permit application was received from **H&M Trucking**.
- 5) An amended discharge permit was issued to **Caterpillar**. The SDD increased their flow limit to 500,000 GPD daily max and 250,000 GPD monthly average. The increase in demand for products manufactured in Decatur has doubled their employee headcount, making a flow limit increase necessary.

Pretreatment Ordinance - Verbal Notices:

- 1) A Verbal Notice was issued to **Decatur Foundry** on March 1, 2020 because they had not yet submitted their yearly zero-discharge certification, which was due on January 31st. Decatur Foundry quickly submitted the report.
- 2) A Verbal Notice was issued to **Stripmasters** on March 4, 2020 because they submitted their annual report late.
- 3) A Verbal Notice was issued to **Tate and Lyle** on March 11, 2020 because they discharged wastewater with a dissolved sulfide concentration higher than their permitted limit.
- 4) A Verbal Notice was issued to **ADM** on March 17, 2020 because they discharged wastewater to the SDD with a pH below 6.0.
- 5) A Verbal Notice was issued to **ADM** on March 23, 2020 because they failed to correctly label their wastewater samples.
- 6) A Verbal Notice was issued to **Prairie Farms** on March 31, 2020 because they exceeded their total FOG limit.

Pretreatment Ordinance - Warning Notices:

Warning Notice 20-002 was issued to **Tate and Lyle** on March 9, 2020 for numerous BOD and TSS violations.

Pretreatment Ordinance - Notices of Violation (NOV):

No Notices of Violation were issued during March 2020.

Pretreatment Ordinance - Executive Orders:

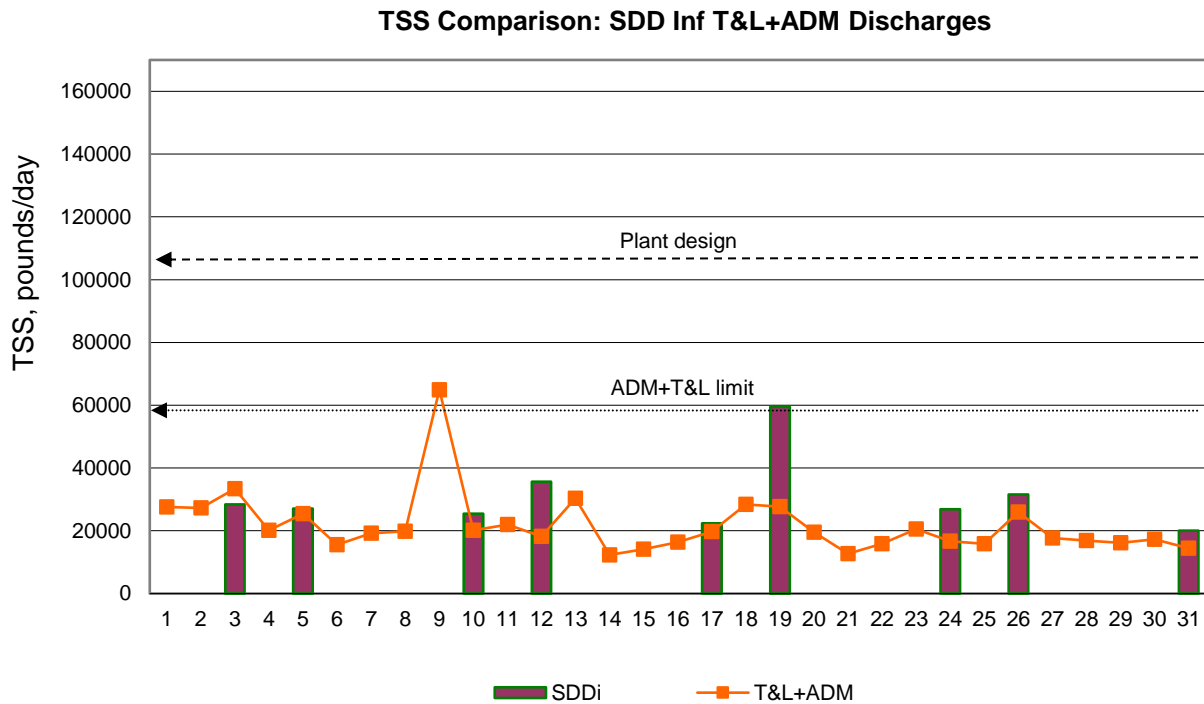
No Executive Orders were issued during March 2020.

Pretreatment Ordinance - Penalty Assessments:

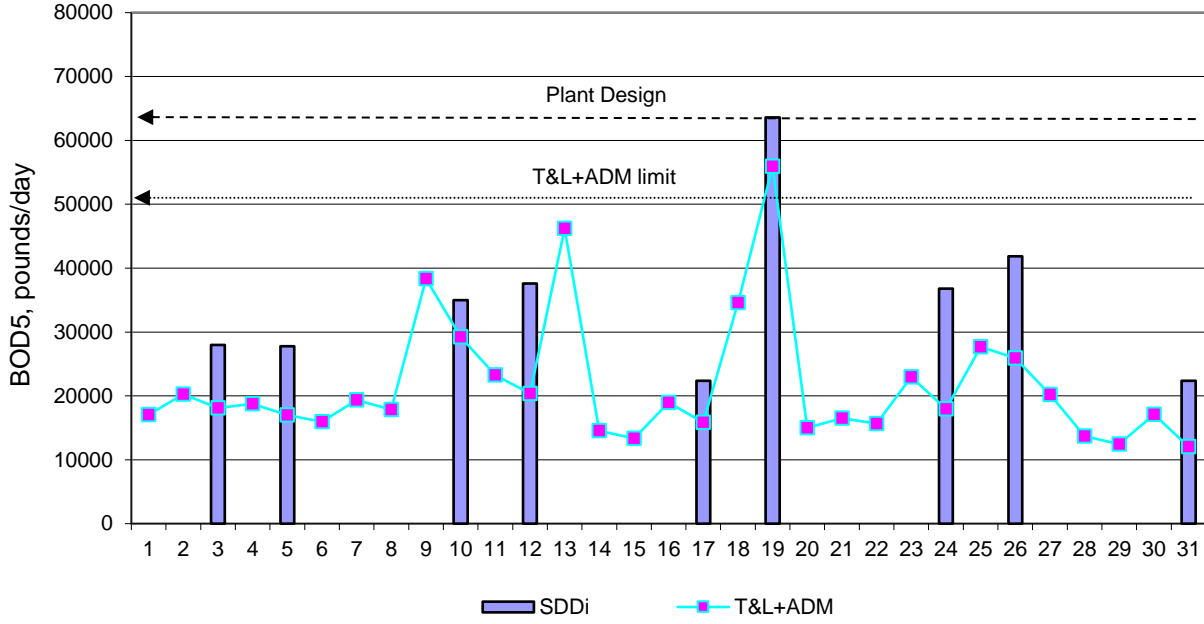
The following industrial penalties were assessed for March 2020:

- 1) **Tate and Lyle** **\$69,500**
- 2) **ADM** **\$1,000**
- 3) **Prairie Farms** **\$1,000**

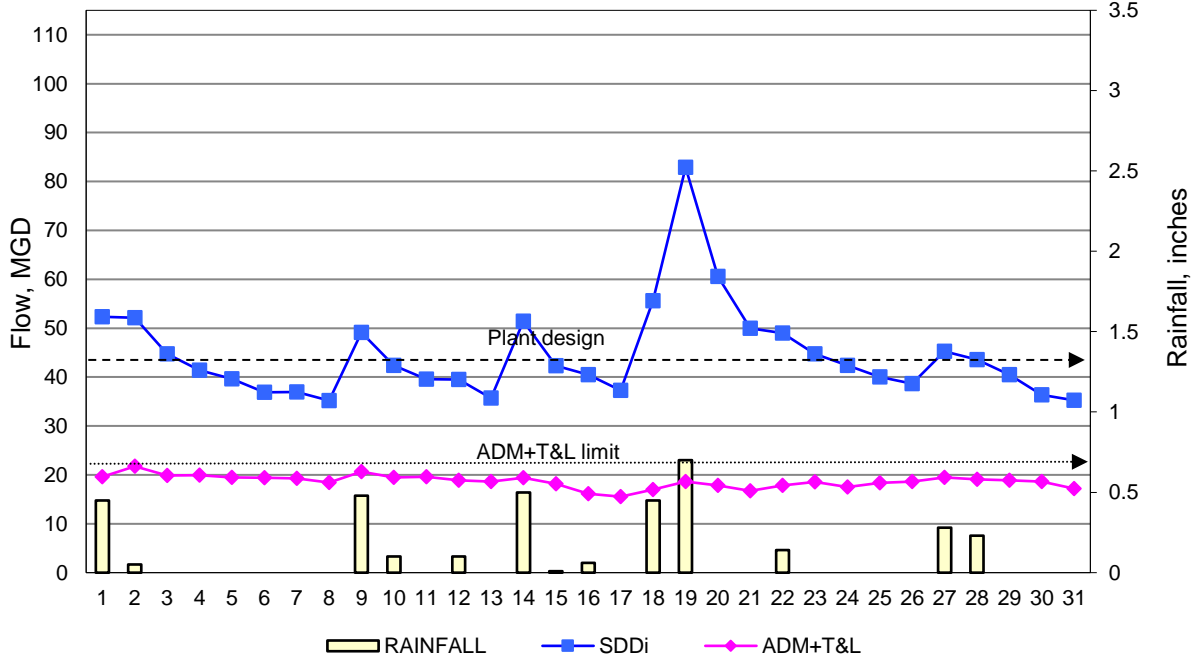
Plant Operating Graphs:



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



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



Plant Efficiency Graphs:

