

Director of Operations and Compliance Report

April 21, 2021

Plant Loading, CSO Report, and Director's Notes

Plant Effluent Report

Biochemical Oxygen Demand, 5-Day (Avg. 36230 lbs/day)	57 percent of design
Total Suspended Solids (Avg. 61847 lbs/day)	57 percent of design
Average Daily Flow (43.88 million gallons/day)	107 percent of design
Maximum Daily Flow (97.15 million gallons/day)	78 percent of design

<u>Parameter</u>	<u>Report Frequency</u>	<u>Permit Limits</u>	<u>Reported Values</u>	<u>Violations</u>
CBOD ₅ , mg/L	Mo. Avg/Wk. Avg	20/40	2/3	0
TSS, mg/L	Mo. Avg/Wk. Avg	25/45	3/4	0
NH ₃ -N, mg/L	Wk. Avg/Daily Max	1.5/3.0	0.43/1.53	0
DO, mg/L	Daily Min	6.0	8.35	0
pH, S.U.	Daily Min/Max	6.0/9.0	7.93/8.18	0
Total Nickel, mg/L	Mo. Avg	0.015	0.011	0
Total Zinc, mg/L	Mo. Avg	0.075/0.416	0.014/0.026	0
CL ₂ Residual, mg/L	Daily Max	0.05*	0.0	0
Fecal Coliform CFU/100mL	Daily Max	400*	N/A	0

*Effluent disinfection is required May 1 through October 31.

CSO Report

Location	Events	Est. Total Duration of Discharges (hrs.)	Discharge (million gallons)
Oakland Avenue (Outfall 003)	3	27.85	12.98
Lincoln Park (Outfall 004)	1	4.8	4.0
McKinley Avenue (Outfall 007)	3	24.9	9.51
Seventh Ward (Outfall 008)	1	4.51	7.47

Director's Notes:

NPDES Permit:

Communication about permit language is continuing between SDD and IEPA.

2021 Chemical 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 February 23, 2021. All bids were opened and read on April 6, 2021.

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, 2021 – April 30, 2024. These changes to the submission periods which began in 2019 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. The District is recommending to the Board the acceptance of a three-year bid submitted this year by SNF-Polydyne for polymer.

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

2021 Tentative Winning Chemical Bids

2021 Tentative Winning Bidder	Chemical	Unit	2017	2018	2019	2020	2021	2022	2023	2024
Kemira	Ferrous Chloride	lbs	\$0.263	\$0.336	\$0.511	\$0.522	\$0.70			
Evergreen FS	Gas & Fuel	gal	\$0.1275	\$0.154	\$0.154	\$0.154	\$0.157	\$0.159		
Hydrite	Sodium Bisulfite	100 lbs	\$12.00	\$12.00	\$12.50	\$13.00	\$13.50			
Olin	Sodium Hypochlorite	gal	\$0.6888	\$0.745	\$0.760	\$0.746	\$0.746			
Evergreen FS	28% UAN	ton	\$235.00	\$235.00	\$244.00	\$209.00	\$236.25			
SNF-Polydyne	Polymer Flocculant	lbs.	\$1.05	\$1.05	\$1.05	\$1.14	\$1.30	\$1.35	\$1.40	

Notes:

- 1 Multi-year Price Locked In These bids have been accepted for multiple years.
- 2 All bids are tentative until they are approved by the District Board.
- 3 These entries indicate single year bids that are recommended to be accepted by the Board for 2021
- 4 Multi-year Price Locked In These bids are recommended to the Board to be accepted for multiple years.

Additional Notes:

- 1) Hydrite is beginning the final year of their previous three-year period.
- 2) Evergreen FS is beginning their second year of a three-year bid for fuels.

East Wyckles Cleaning Project:

J. Oros Environmental Inc. has been working on the clean-up of the East Wyckles Lagoon. To-date the liquified organic material that can be separated from the grit and plastics is being sent to the west lagoon where it will be able to be applied on local farm fields in the future. The grit and plastics are being taken to the landfill and the unseparated inorganics and solids are being sent to the land reclamation site for application there. This material still has some nutrient value and is to be applied to hay ground at that site in accordance with J. Oros Environmental’s application permit.

Operations, Laboratory, and Pretreatment Activity Reports – March/April 2021

Operations Activities:

Normal operational activities were conducted as prescribed by standard procedures or in response to conditions within the plant related to the new measures being employed due to Covid-19.

- 1) Darrick Hulva started on the 1st of March. Tim Gorden, Operations Supervisor reports that he has been training initially on the sludge processing operations, and that he is progressing well and fits in great with the Operators.
- 2) All Operations staff are currently working on maintaining PM workorders as they are received.
- 3) Operations staff are preparing the facilities to begin the disinfection season which starts on May 1, 2021. Additionally, they are working with the Maintenance staff in their efforts to have all the equipment in good operating order by the start of the season.
- 4) During the Month of March and industrial customer has had several heavy exceedance discharges which has required additional blower demand, and operations staff attention.
- 5) Operators are still dealing with the high solids in the system. They have been wasting double the normal rate of around 200GPM. With the increased wasting it has been necessary to use 2 and 3 RDT units and twice the Polymer. The high solids inventory has carried over into April.

- 6) Operations staff have taken the West Headworks down for Maintenance staff to perform necessary inspections and maintenance.
- 7) The H2S levels are starting to come back to normal levels after taking some time to catch back up from the lack of ferrous feed during the primary sludge line break last summer and fall.

Laboratory Activities:

Routine:

A total of 1,818 analyses were performed in the laboratory during the month of March 2021.

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) Extra process control testing was performed in the laboratory throughout the month of March as part of the Wyckles Lagoon cleaning project to monitor the plant loading coming from the Wyckles supernatant.
- 2) Interviews were conducted in late March to fill the vacant Laboratory Technician position. We expect to fill the position by the middle of April.
- 3) Jennifer Brand and Latishia Greve are being trained on additional test procedures as part of our ongoing lab training program. The COVID-related staff reductions had limited the amount of time available for training.

Pretreatment Activities:

General Activities:

- 1) Pretreatment personnel monitored four commercial and industrial users (IU) during March 2021 and conducted six industrial site inspections.
- 2) The SDD received a letter from the USEPA with comments on our draft ordinance, enforcement response plan, local limits evaluation, and legal authority statement. USEPA identified the deficiencies in our submittal and suggested some improvements that we could make to further clarify our ordinance. The SDD has 60 days to make the corrections and resubmit the documents to USEPA.

USEPA also indicated that they will be scheduling a meeting with IEPA and the SDD to discuss our local limits evaluation and how to incorporate interim and final phosphorus limits.

- 3) There are no updates to the USEPA desk audit.
- 4) The SDD received permit applications from **KAG Specialty Products** and **Decatur Memorial Hospital**.
- 5) **Decatur Memorial Hospital (DMH)** has requested that the SDD remove monitoring point "C" from their monitoring requirements. DMH point C contains the wastewater from the cafeteria and nearby restrooms, and approximately 31% of the facility's total flow (determined in the most recent flow study) passes through it. This request is being evaluated.

- 6) The SDD received Wastewater Hauler Permit applications from **Smith Septic, Bodine Environmental/Enviroserve,** and **H&M Trucking.**
- 7) The SDD sent out Self-Monitoring reminder letters and the associated forms to all of our Industrial Users that are required to Self-Monitor their effluent.
- 8) Work on the Pretreatment Annual Report is ongoing. All Annual Report forms from our IU's have been received.

Pretreatment Ordinance - Verbal Notices:

- 1) A Verbal Notice was issued to **KAG Specialty Products** on March 2, 2021 for failing to submit their annual report on time. The report has since been submitted.
- 2) A Verbal Notice was issued to **Septic Specialists** on March 29, 2021 for discharging wastewater at the SDD headworks that was generated outside of Macon County.
- 3) A Verbal Notice was issued to **Tate and Lyle** on March 30, 2021 for discharging wastewater that violated their daily maximum BOD limit. The high BOD was caused by a loss from their refinery building that made it to sewer. The loss was originally contained by a spill containment mat covering the area drain, but the mat was torn by a vehicle which allowed the material to leak to sewer. This violation also caused Tate and Lyle to violate their ten-day moving average BOD limit for several days.

Pretreatment Ordinance - Warning Notices:

No Warning Notices were issued during March 2021.

Pretreatment Ordinance - Notices of Violation (NOV):

No Notices of Violation were issued during March 2021.

Pretreatment Ordinance - Executive Orders:

The SDD issued Executive Order 21-001 (EO 21-001) on March 29, 2021 to **Tate and Lyle** for violations of their discharge permit and our Pretreatment Ordinance. EO 21-001 was issued in response to the massive loss Tate and Lyle had in February. The loss was attributed to the extremely cold temperatures the area experienced in mid-February, which froze the cooling water line to the compressor building. EO 21-001 requires Tate and Lyle to investigate the issue and determine how to prevent recurrence. A report on the investigation and all solutions will be submitted to the SDD. A compliance meeting will take place with Tate and Lyle in April.

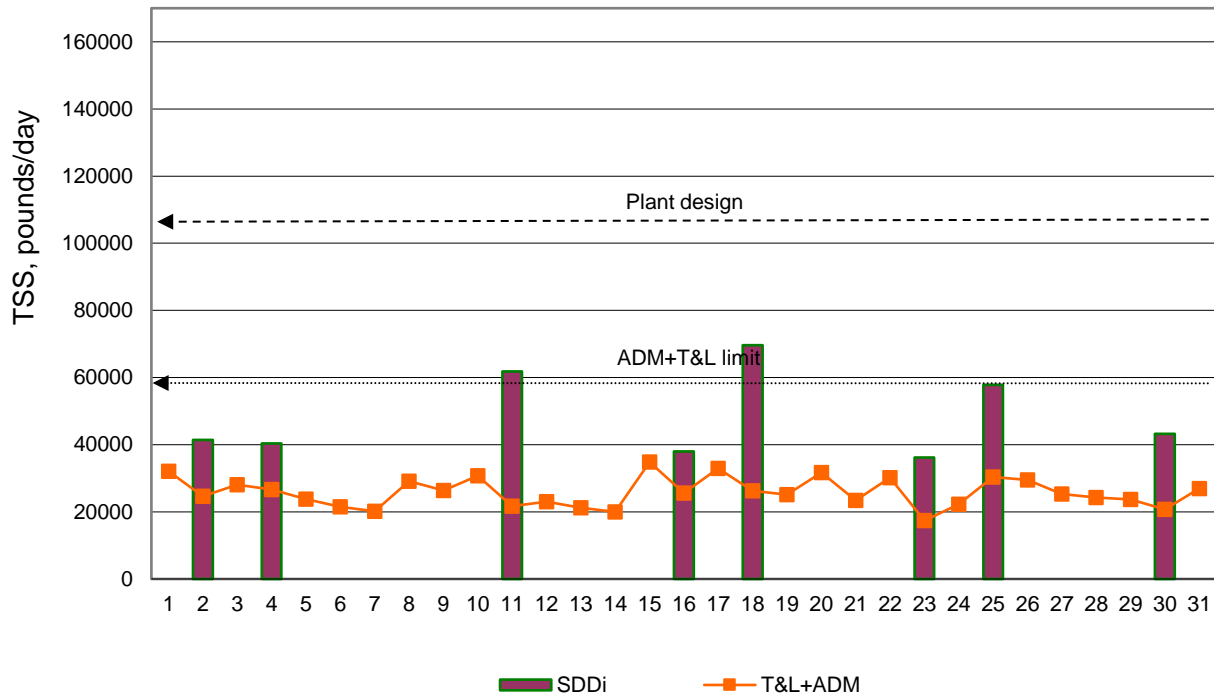
Pretreatment Ordinance - Penalty Assessments:

The following industrial penalties were assessed for March 2021:

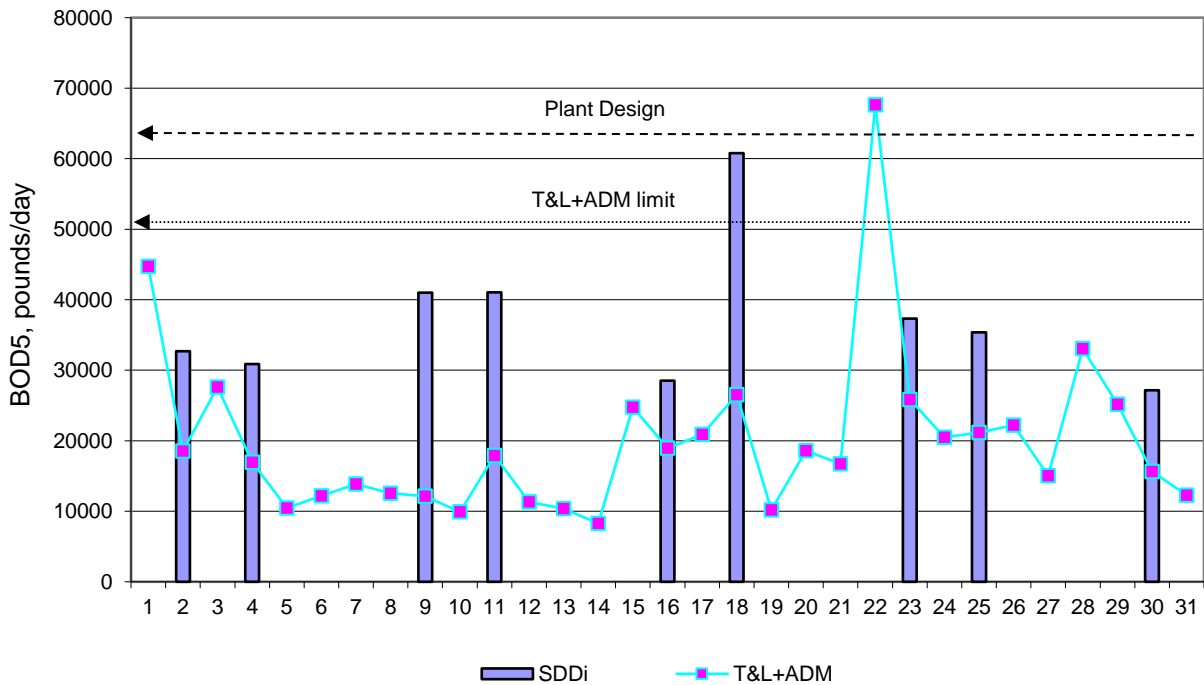
- 1) **Tate and Lyle** **\$227,000**

Plant Operating Graphs:

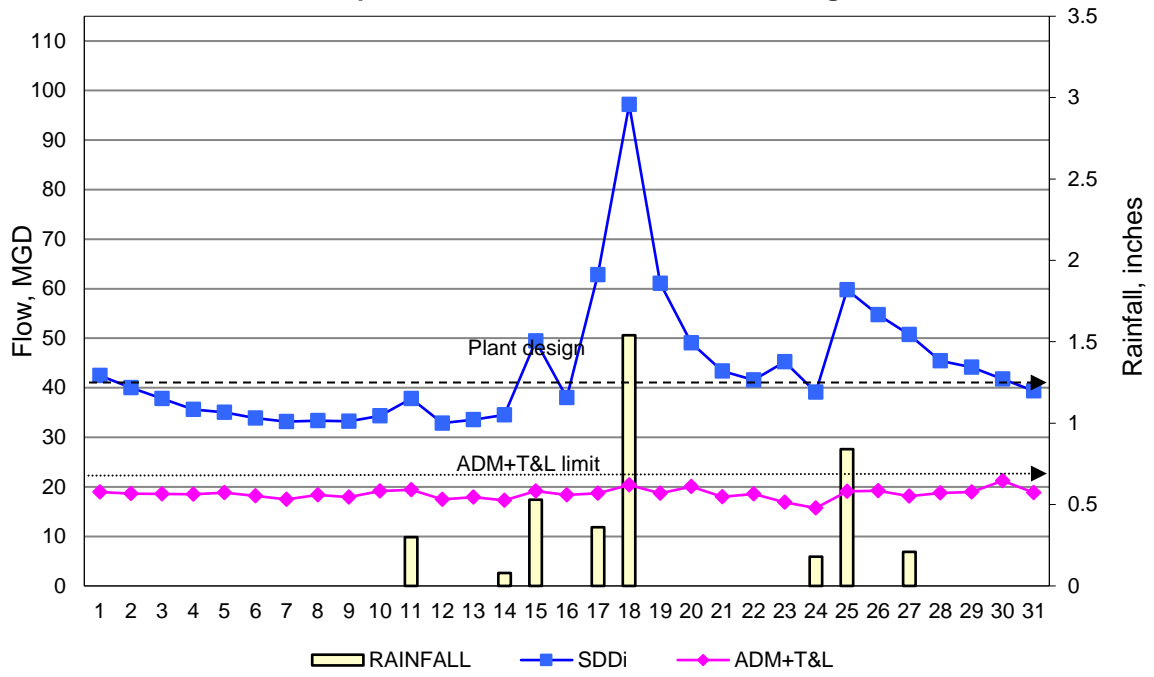
TSS Comparison: SDD Inf T&L+ADM Discharges



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



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



Plant Efficiency Graphs:

