

## Director of Operations and Compliance Report

December 15, 2021

### Plant Loading, CSO Report, and Director's Notes

#### Plant Influent Report

Biochemical Oxygen Demand, 5-Day (Avg. 34643 lbs/day)	54 percent of design
Total Suspended Solids (Avg. 41031 lbs/day)	38 percent of design
Average Daily Flow (29.46 million gallons/day)	72 percent of design
Maximum Daily Flow (39.01 million gallons/day)	31 percent of design

#### Plant Effluent Report

<u>Parameter</u>	<u>Report Frequency</u>	<u>Permit Limits</u>	<u>Reported Values</u>	<u>Violations</u>
CBOD <sub>5</sub> , mg/L	Mo./Wk. Avg	20/40	2/2	0
TSS, mg/L	Mo./Wk. Avg	25/45	3/3	0
NH <sub>3</sub> -N, mg/L	Wk. Avg/Daily Max	1.5/3.0	0.18/0.39	0
DO, mg/L	Mo. Avg/Wk. Avg/ Daily Min	6.0/4.5/4.0	8.8/8.3/8.3	0
pH, S.U.	Daily Min/Max	6.0/9.0	7.95/8.15	0
Total Nickel, mg/L	Mo. Avg	0.0381	0.016	0
CL <sub>2</sub> Residual, mg/L	Daily Max	0.05*	0.011	0
Fecal Coliform CFU/100mL	Daily Max	400*	0	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)	0	0.0	0.0
Lincoln Park (Outfall 004)	0	0.0	0.0
McKinley Avenue (Outfall 007)	0	0.0	0.0
Seventh Ward (Outfall 008)	0	0.0	0.0

#### Director's Notes:

##### **Pretreatment AOC Update:**

The District continues to work with the USEPA Region 5 Staff to complete all outstanding requirements of Administrative Order of Compliance (AOC). Currently the District staff have submitted updates to the Industrial Permits. More details of these activities can be found in the Pretreatment – General Activities section of this report.

## **Covid-19 Update:**

Covid-19 restrictions continue to impact operations staff levels during the month of November. This requires that overtime is utilized to offset the lost time.

## **Operations, Laboratory, and Pretreatment Activity Reports – November/December 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) The Operations staff has assisted the maintenance staff in the winterization of all disinfection systems and returned the plant blower operations to its normal settings.
- 2) As mentioned previously the Operations department is being impacted by Covid-19 issues. Combine this with the vacation requests, and the holiday scheduling this has caused the need for an abnormal amount of overtime, but the active operators are stepping up to meet the demand. Additionally, to offer some relief when an overtime spot is left open, and the slot can be filled with the Operator-in-Training (OIT) working under the direction of a regular operator the Supervisor is using this option rather than forcing anyone to fill the open slot. Fortunately, the OIT concerned is advanced enough in his training to afford the option.
- 3) David Collard in his capacity as Information Coordinator attended the Fall Officer's Meeting of the Central Illinois Professional Wastewater Operators (CIPWO) group on December 3, 2021 via remote conferencing. This was to assist in conducting the needs of CIPWO in preparation for the group's upcoming 2022 Winter Meeting and other administrative issues.
- 4) Trustee Meghan Baskerville and David Collard attended the "Town Hall Meeting on PFAS: Decatur IL" on December 7, 2021. This was a virtual meeting which was hosted by the Faith Coalition for the Common Good group. Discussion concerned the adverse effect(s) which PFAS poses to the community and environment. Speakers included IL State Rep. Sue Scherer, Chandra Smith of the Decatur Water Department, and representatives from various NGOs.
- 5) Operations staff continue to actively address PMs as time, workload, and staff levels allow.

### **Laboratory Activities:**

#### **Routine:**

A total of 1,801 analyses were performed in the laboratory during the month of November 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) The quarterly NPDES sampling of the influent, effluent, and sludge to Wyckles was conducted during the first week of November 2021.
- 2) The SDD continued to send samples of raw influent twice a week throughout the month of November 2021 for the "COVID-19 in wastewater" study funded by the Illinois Department of Public Health. A Zoom call was held on November 5, 2021, with the study participants and the researchers to discuss the results of the study thus far.

- 3) A new microscope was installed in the lab on November 9, 2021. This microscope replaced the previous microscope that had been in service in the lab for over 30 years. Some features of the new microscope include LED lighting, improved optics, a high-resolution digital camera, and data acquisition software to capture high quality photos and video. The microscope is used for weekly evaluation of the microbiological health of the treatment system. This new microscope has made that evaluation easier since the view through the microscope can be projected onto the computer monitor for better viewing. Below is an example photo of a free-swimming ciliate taken with the new microscope at 400 times magnification. The hair-like cilia that cover the body of the organism could not be seen with the previous microscope but are clearly seen now.



- 4) Keith Richard, Matt Nihiser, and David Collard attended the virtual Nutrient Loss Reduction Strategy (NLRS) Conference on November 10, 2021. The conference was hosted by the Illinois EPA. The purpose of the conference was to update the attendees on the current state of the NLRS and highlight the successes of the past year.

### **Pretreatment Activities:**

#### **Pretreatment - General Activities:**

- 1) Pretreatment personnel monitored twelve commercial and industrial users (IU) during November 2021 and conducted eight industrial site inspections.
- 2) The SDD submitted updated draft industrial wastewater discharge permits to the USEPA for all of our permitted industries. These permits include the new local limits and updated ordinance language. USEPA has reviewed the submittal and responded with a few minor corrections. The SDD is working to amend the draft permits to reflect the corrections and will resubmit them to the USEPA for final approval. Once the USEPA formally approves the drafts, the new permits will be presented to the Board for approval. After these permits are issued, the AOC will be complete.
- 3) There are no updates to the USEPA desk audit.
- 4) The SDD issued a discharge permit to **Macs Convenience Store dba Circle K** and sent an application package to **Bulkmatic**.
- 5) A draft sampling schedule for 2022 has been circulated to the laboratory for comments.

**Pretreatment Ordinance - Verbal Notices:**

A Verbal Notice was issued to **Tate and Lyle** for a reporting violation. Tate and Lyle did not submit the response to Warning Notice 21-007 within 15 days of receipt. Tate and Lyle has since submitted the response.

**Pretreatment Ordinance - Warning Notices:**

No Warning Notices were issued during November 2021.

**Pretreatment Ordinance - Notices of Violation (NOV):**

The SDD issued NOV 21-002 to **Tate and Lyle** for continued BOD violations in October. Tate and Lyle was issued WN 21-007 for multiple exceedances of their discharge permit in late September and early October. After the Warning Notice was issued, Tate and Lyle exceeded their BOD limit on October 14<sup>th</sup>, 24<sup>th</sup> and November 12<sup>th</sup>. A compliance meeting has been scheduled with Tate and Lyle on December 9<sup>th</sup>.

**Pretreatment Ordinance - Executive Orders:**

No Executive Orders were issued during November 2021.

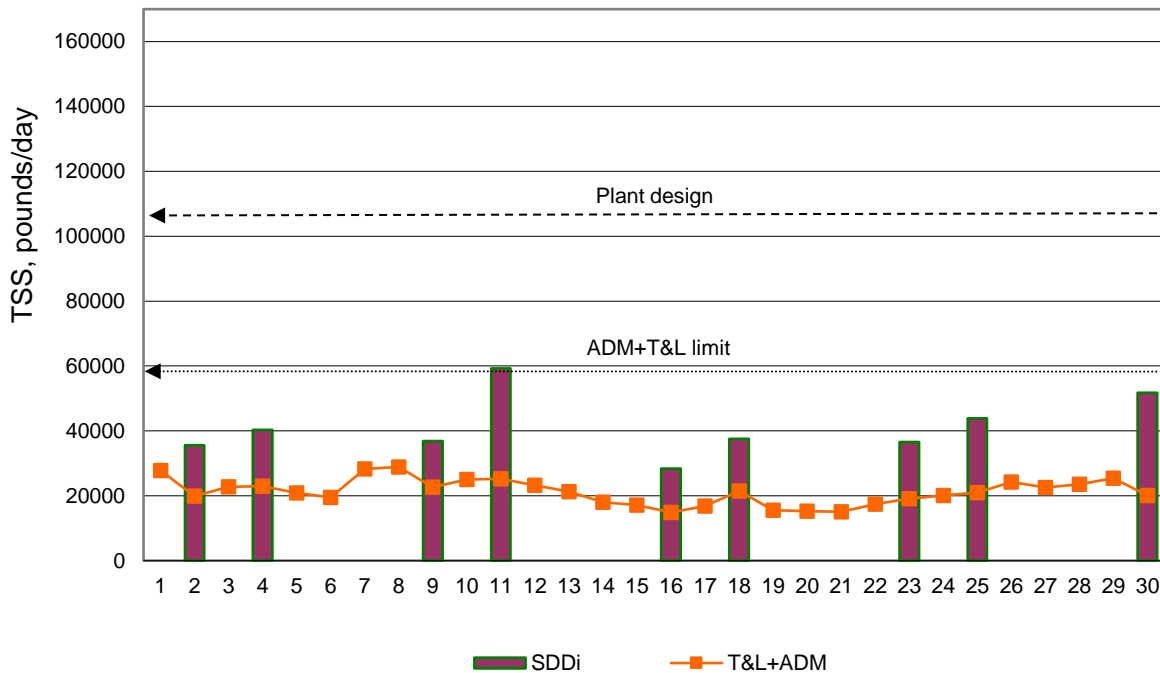
**Pretreatment Ordinance - Penalty Assessments:**

The following industrial penalties were assessed for November 2021:

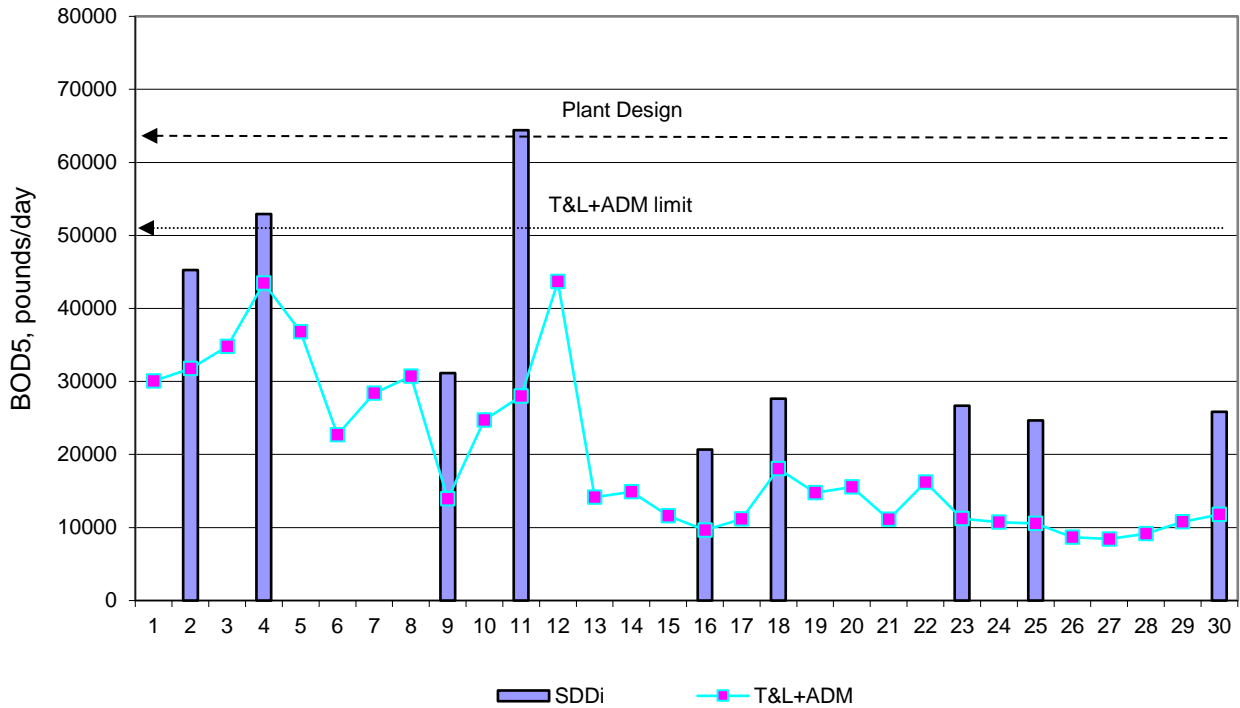
- 1) **Tate and Lyle** **\$1,000**

**Plant Operating Graphs:**

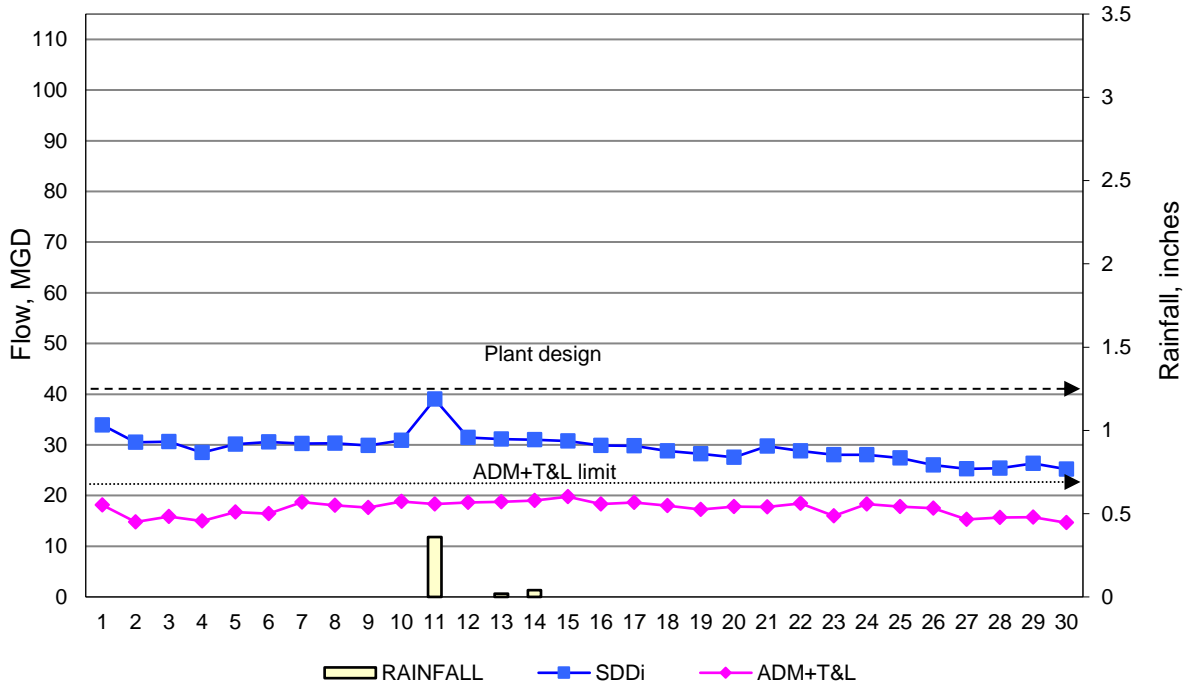
**TSS Comparison: SDD Inf T&L+ADM Discharges**



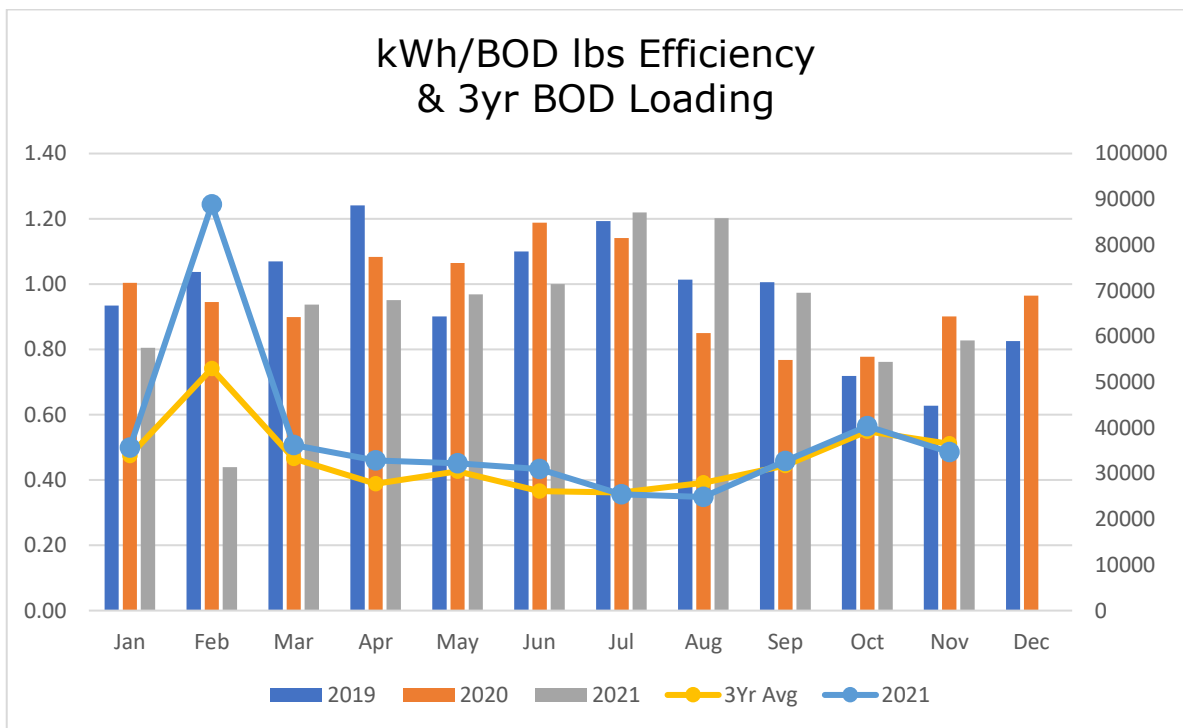
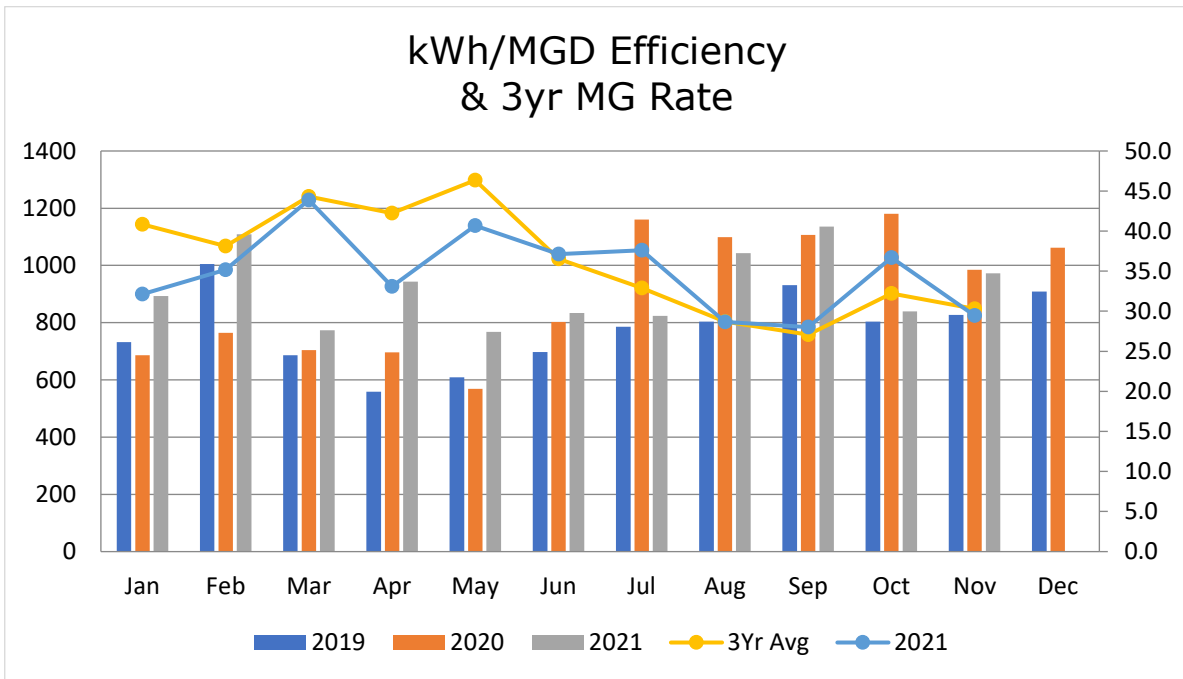
**BOD Comparison: BOD Inf vs. T&L + ADM Discharges**



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



**Plant Efficiency Graphs:**



**Phosphorus Tracking Graphs:**

