

Director of Operations and Compliance Report

February 16, 2022

Plant Loading, CSO Report, and Director's Notes

Plant Influent Report

Biochemical Oxygen Demand, 5-Day (Avg. 35983 lbs/day)	57 percent of design
Total Suspended Solids (Avg. 47374 lbs/day)	44 percent of design
Average Daily Flow (31.04 million gallons/day)	76 percent of design
Maximum Daily Flow (41.18 million gallons/day)	33 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 ₅ , mg/L	Mo./Wk. Avg	20/40	2/2	0
TSS, mg/L	Mo./Wk. Avg	25/45	2/4	0
NH ₃ -N, mg/L	Wk. Avg/Daily Max	1.5/3.0	0.17/0.46	0
DO, mg/L	Mo. Avg/Wk. Avg/ Daily Min	6.0/4.5/4.0	9.98/9.63/9.16	0
pH, S.U.	Daily Min/Max	6.0/9.0	7.93/8.3	0
Total Nickel, mg/L	Mo. Avg	0.0381	0.018	0
CL ₂ Residual, mg/L	Daily Max	0.05*	NA	0
Fecal Coliform CFU/100mL	Daily Max	400*	NA	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 SDD issued the amended discharge permits to our Industrial users. Issuing these permits was the last action item in the AOC. Consequently, the SDD has submitted the required completion letter to USEPA and IEPA on January 31, 2022. We are now awaiting a response to that letter.

Covid-19 Update:

Covid-19 restrictions continue to impact operations staff levels during the month as in previous months and overtime continues to be utilized to offset any lost time.

Operations, Laboratory, and Pretreatment Activity Reports – January / February 2022

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 continues to operate the facilities in "Cold Weather Mode" giving more care where necessary to monitoring for effects of the extreme cold temperatures on operational equipment. Freezing conditions are often the most likely cause of "environmental" related equipment failures in wastewater facilities.
- 2) Operators are testing alternative methods to operate the sludge thickeners in an effort to improve efficiency of these units (air adjustments, drum speed, polymer feed, etc.).
- 3) Operations started a new Operator-in-training (OIT) on January 31st. The new employee is Brandi Rosenberger who is formerly an employee of Mueller Company with experience as a CNC Operator and production assembly. Training also continues with the existing OIT Donny Reynolds who continues to make good progress, he is currently training on off-shift operations.
- 4) On January 26th David Collard and Brent Deardorff attended the CIPWO Winter Meeting for the opportunity of continuing education training in Urbana IL.
- 5) On January 27th David Collard, Tim Gorden, Brent Deardorff, and Matt McElroy attended a webinar hosted by the US EPA "Optimizing Nutrient Removal in Oxidation Ditches" which is the first of a four-part series of webinars that offer a combined total of 6.0hrs of CEUs at no cost to the District.
- 6) David Collard began training courses for operators that are preparing to take exams on February 8th. Three of the operators have already attended the class. Mr. Collard is also actively attempting to secure a certified training provider status for the District with the Illinois EPA for the purposes of producing in-house training that will serve to meet some of the continuing education requirements of the District's operators.
- 7) Operations staff continue to actively address PMs as time, workload, and staff levels allow.

Laboratory Activities:

Routine:

A total of 2,057 analyses were performed in the laboratory during the month of January 2022.

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 SDD lab continued to send samples of raw influent twice a week throughout the month of January 2022 for the "COVID-19 in Wastewater" study funded by the Illinois Department of Public

Health. A Zoom call was held on January 7, 2022, with the study participants and the researchers to discuss the results of the study thus far.

- 2) The quarterly sampling of the groundwater monitoring wells was conducted at the South Sludge Lagoons and Wyckles Lagoons.
- 3) Keith Richard and David Collard attended the virtual quarterly meeting of the Heart of the Sangamon River Ecosystem Partnership on January 13, 2022. The partnership is a consortium of local government agencies and non-government organizations that are working together to ensure the continued well-being of the Upper Sangamon River Watershed.
- 4) SDD lab staff attended a webinar on January 13, 2022, that was hosted by SEAL Analytical. The webinar was focused on optimizing the software used to control our discrete analyzer to maximize instrument efficiency. That instrument is used for nutrient analysis, so it has seen an increased workload due to the additional nutrient monitoring requirements in our new NPDES permit.

Pretreatment Activities:

Pretreatment - General Activities:

- 1) Pretreatment personnel monitored seven commercial and industrial users (IU) during January 2022 and conducted three industrial site inspections.
- 2) The SDD was notified by representatives of **Prairie Farms** that the Decatur Ice Cream Plant (SDD Permit #105) has closed permanently, and all raw materials are being removed from the site. The SDD will conduct a closeout inspection and cancel the discharge permit.
- 3) There are no updates to the USEPA desk audit.
- 4) The SDD received a permit application package from **Decatur Correctional Center**.
- 5) Sampling for the local limits survey required in our NPDES permit was completed in January. Results indicate that very little has changed with our domestic loading since our last evaluation. Our industrial loading will need to be reevaluated since Prairie Farms has closed their Decatur Plant. These calculations are ongoing.

Pretreatment Ordinance - Verbal Notices:

- 1) A Verbal Notice was issued to **Prairie Farms** on January 14, 2022, because they discharged wastewater containing total FOG above their discharge limit. This was a self-reported violation, likely due to improper cleaning procedures in their mix tanks.
- 2) A Verbal Notice was issued to **H&M Trucking** on January 5, 2022, because they discharged Non-Polar FOG above their permitted limit at the SDD's high strength waste wet-well. **H&M** found that a leaky yard truck was the culprit, and subsequent sampling has shown that they are back in compliance.
- 3) A Verbal Notice was issued to **ADM** on January 31, 2022, because they discharged wastewater with a pH below 6.0 for more than 45 minutes from the **ADM** Front Pump Station. Upon investigation, they found that a valve from the Cogen Plant's neutralization tank was opened in error. This valve should have been in manual and locked out. **ADM** is investigating why it was not.

Pretreatment Ordinance - Warning Notices:

- 1) Warning Notice 22-001 was issued to **Tate and Lyle** on January 26, 2022, for multiple BOD, pH, and dissolved sulfide violations. **Tate and Lyle** lost power to a large portion of their facility in December, which led to high strength discharges from their refinery area. Ten day moving average

violations continued from this event until mid-January. The SDD has not yet received a response to this Warning Notice.

- 2) Warning Notice 22-002 was issued to **ADM** on January 17, 2022, for discharging wastewater that contained an extremely high level of FOG to the temporary Lake Shore Drive Pump Station wet well. This discharge interfered with the operation of level sensors in the wet well. **ADM's** West Plant is investigating the source of the illicit discharge and have found a sanitary waste line from an extraction facility that is the likely culprit. This line has been plugged. A response to the Warning Notice has not yet been received.

Pretreatment Ordinance - Notices of Violation (NOV):

No Notices of Violation were issued during January 2022.

Pretreatment Ordinance - Executive Orders:

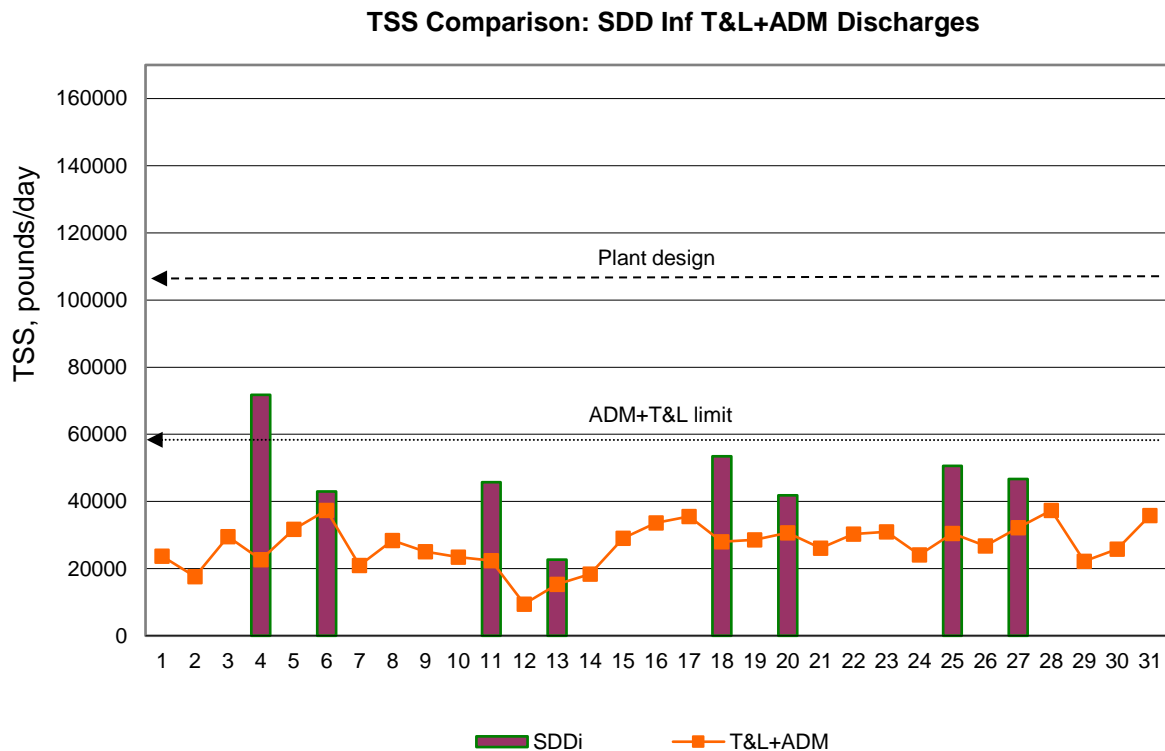
No Executive Orders were issued during January 2022.

Pretreatment Ordinance - Penalty Assessments:

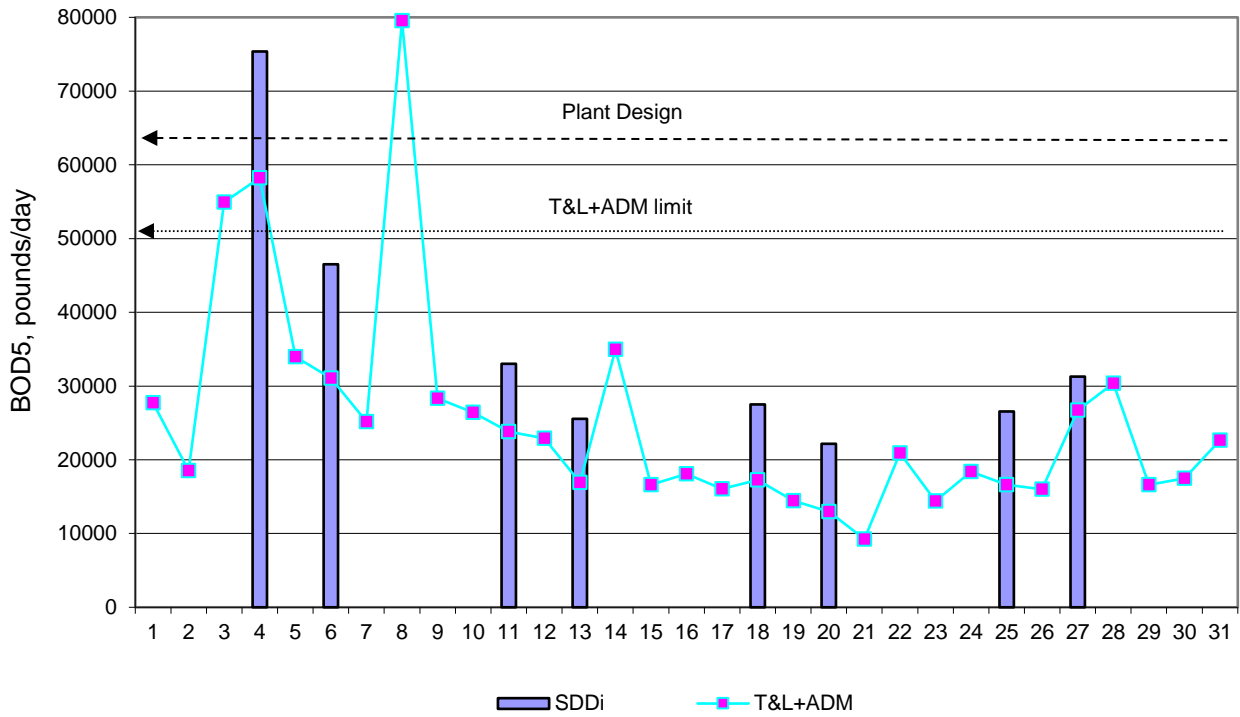
The following industrial penalties were assessed for January 2022:

- | | |
|-------------------------|------------------|
| 1) Tate and Lyle | \$309,500 |
| 2) Prairie Farms | \$1,000 |
| 3) ADM | \$4,000 |

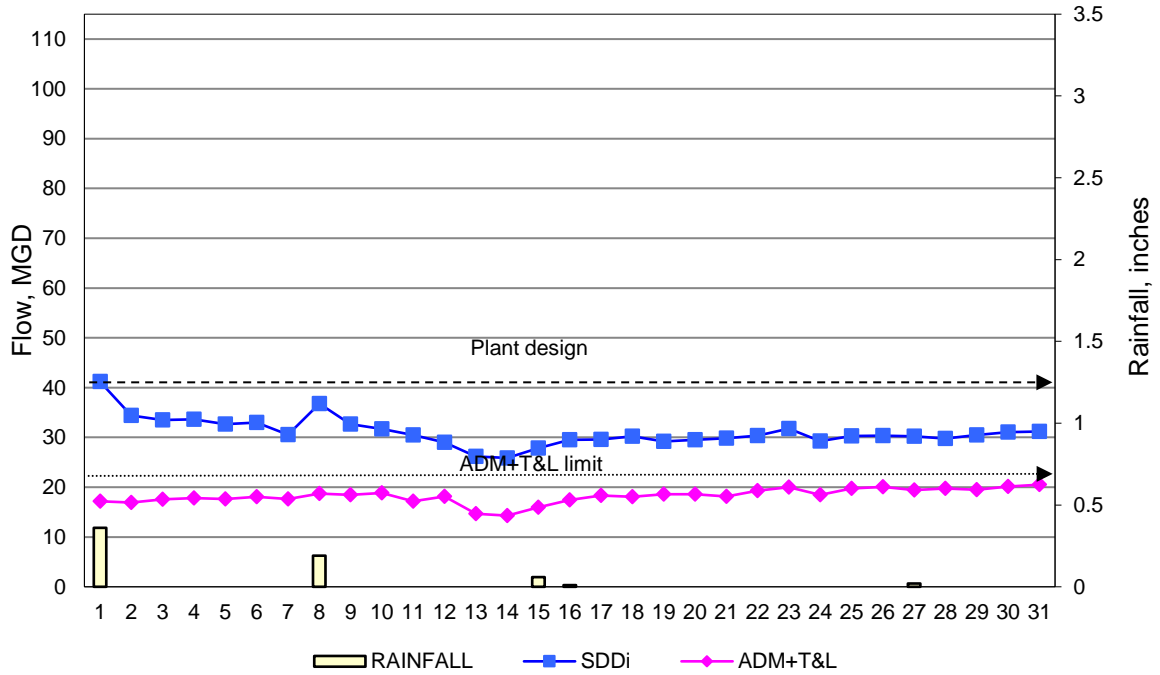
Plant Operating Graphs:



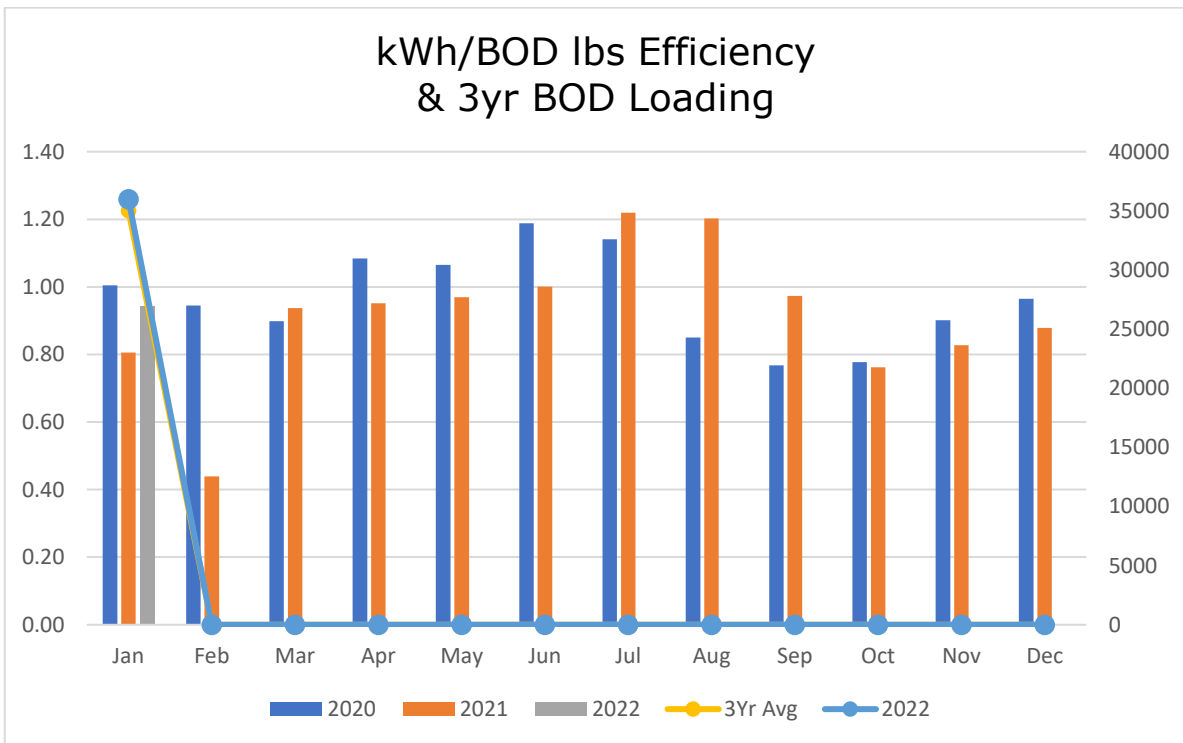
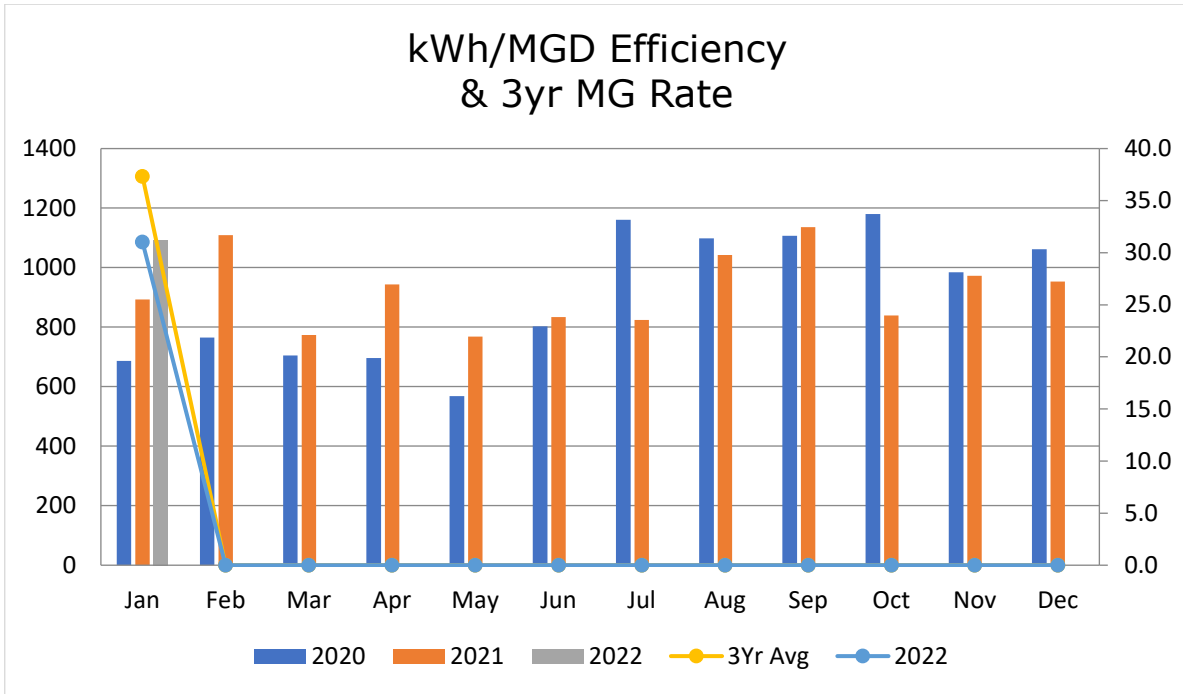
BOD Comparison: BOD Inf vs. T&L + ADM Discharges



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



Plant Efficiency Graphs:



Phosphorus Tracking Graphs:

