

## Director of Operations and Compliance Report

May 25, 2022

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

#### Plant Influent Report

Biochemical Oxygen Demand, 5-Day (Avg. 34021 lbs/day)	53 percent of design
Total Suspended Solids (Avg. 57688 lbs/day)	53 percent of design
Average Daily Flow (44.34 million gallons/day)	108 percent of design
Maximum Daily Flow (63.97 million gallons/day)	51 percent of design

#### Plant Effluent Report

Parameter	Report Frequency	Permit Limits	Reported Values	Violations
CBOD <sub>5</sub> , mg/L	Mo./Wk. Avg	20/40	2/2	0
TSS, mg/L	Mo./Wk. Avg	25/45	5/6	0
NH <sub>3</sub> -N, mg/L	Wk. Avg/Daily Max	1.5/3.0	0.12/0.12	0
DO, mg/L	Wk. Avg/Daily Min	6.25/5.0	8.72/8.53	0
pH, S.U.	Daily Min/Max	6.0/9.0	7.65/8.15	0
Total Nickel, mg/L	Mo. Avg	0.0381	0.013	0
CL <sub>2</sub> 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)	4	25.77	6.14
Lincoln Park (Outfall 004)	0	0.0	0.0
McKinley Avenue (Outfall 007)	2	20.3	7.67
Seventh Ward (Outfall 008)	1	2.2	5.94

#### Director's Notes:

##### **Program Management Items:**

- 1) Geosyntec (Geo) presented their data analysis summary to the SDD Staff including Trustee Megan Baskerville. One of the major discussion points was the initial Geosyntec recommendations for the testing locations in the Middle Sangamon Watershed, from their suggestions the SDD staff questioned the locations and suggested changes to location and even the number of sampling points. It was the inference of the SDD staff that the data collection was so important to the rest of the NARP Program and potentially to the activities

of the prospective Watershed Group that there should be no doubt as to the completeness of the data collections. Geo members will incorporate the suggestions into their plans moving forward. A follow-up meeting is scheduled for May 10, 2022.

- a) Future activities will include Geo submitting documentation for the Quality Assurance Project Plan (QAPP) for the Agency(s) approval. Then followed with deployment of the stream monitoring equipment.
- 2) On May 11, 2022, Black & Veatch conducted an introductory meeting to discuss the District's Nutrient Management Program with pretreatment stakeholders as it relates to components of their pretreatment permits. The discussion included the topic of the Phosphorus Discharge Optimization Plan (PDOP) and other potential pretreatment impacts to prepare the industries and to inform them of the timelines involved with the District's various permit requirements. Trustee Megan Baskerville also attended this meeting.

### **Pretreatment Administrative Order on Consent (AOC) Update:**

The all agreed terms for the AOC issued by the USEPA have been completed and on April 29, 2022, the District received a letter from that agency terminating the Order. It is not believed that there will be any additional activities on this issue including a presumption that there will be no fines levied regarding this matter.

It is expected that this will be the final report to the Board regarding the AOC.

### **Operations, Laboratory, and Pretreatment Activity Reports – April/May 2022**

#### **Operations Activities:**

Normal operational activities were conducted as prescribed by standard procedures or in response to conditions within the plant. These include operating, monitoring, and adjusting facility equipment, performing process control testing, records keeping, and coordination with the other departments to realize optimal performance of the Plant.

- 1) The Operations staff continues to operate the digester complex in a manner to accommodate Christy-Foltz's work.
- 2) All Operators are utilizing the new Beehive software to complete work order submissions, and for performing PMs.
- 3) Operations reports the North Abel pump continues to function in good order after the Abel repair technician visited the plant to inspect and affect repairs to that unit.
- 4) On April 28th Tim Gorden, Brent Deardorff, Matt McElroy, and David Collard attended a webinar hosted by the US EPA "Transitioning from Permit Compliance to Wastewater Excellence" which is the final installment of a four-part series of webinars that offer a combined total of 6.0hrs of CEUs at no cost to the District.
- 5) Operators worked with maintenance staff throughout the month of April to prepare for the current disinfection season which began on May 1st. All indications are that this work has been effective, and we are off to a good start of what is expected to be another successful season.
- 6) The week of April 25 David Collard, Brandi Rosenberger, Raven Durbin, and Donnie Reynolds attended the IWPC 2022 Conference in Springfield. Specifically, Brandi, Raven, and Donnie attended a half-day training course to prepare for taking the class 4 wastewater exam.
- 7) Operations staff continue to actively address PMs as time, workload, and staff levels allow.

## **Laboratory Activities:**

### **Routine:**

A total of 1,744 analyses were performed in the laboratory during the month of April 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 April 2022 for the "COVID-19 in Wastewater" study funded by the Illinois Department of Public Health. A Zoom call was held on April 1, 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 served as a poster judge for the Millikin University "Celebrations of Scholarship and Poster Symposium" on April 22, 2022. The poster symposium was an opportunity for students to present the research projects they had worked on during the school year.
- 4) Bill Cunningham retired as the Lab Chemist on April 22, 2022, after more than 32 years of dedicated service to the District. We will all miss Bill and we wish him a happy retirement.

- 5) Keith Richard attended the IWPC 2022 conference in Springfield on April 25-27, 2022. He received the 2020 WEF Laboratory Analyst Excellence Award at the IWEA Awards Banquet on the first day of the conference. He also organized and ran the Laboratory Challenge portion of the Operations Challenge event on the second day of the conference. The District is proud of and congratulates Keith for his professional accomplishments and is pleased that he represents the District as a volunteer to various organizations with whom it interacts.



## **Pretreatment Activities:**

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

- 1) Pretreatment personnel monitored seven commercial and industrial users (IU) during April 2022 and conducted two industrial site inspections.
- 2) The SDD received the final closeout document for the AOC from USEPA. The requirements for the AOC have been satisfied and the AOC has been terminated.
- 3) There are no updates to the USEPA desk audit, and there has been no final determination made on the most recent local limits submittal (required by our NPDES permit). USEPA has reached out

with questions about selenium, mercury, and calculated nickel limits. The SDD responded, and USEPA's review is ongoing.

4) Matt Nihiser attended the IWPC conference in Springfield.

**Pretreatment Ordinance - Verbal Notices:**

- 1) The SDD issued a Verbal Notice to **Primient** on April 22, 2022, for discharging wastewater that contained nickel above their permitted daily maximum limit. An investigation is ongoing. This sample caused Primient to violate their permitted nickel monthly average limit, which is a separate violation.
- 2) The SDD issued a Verbal Warning to **Primient** on April 22, 2022, for violating their dry-weather flow limit.

**Pretreatment Ordinance - Warning Notices (WN):**

The SDD issued WN 22-004 to **ADM** on April 22, 2022, for discharging wastewater containing total Fats, Oils and Grease (FOG) well above their permitted limit at the West Plant discharge point. ADM continues to investigate the causes for these exceedances. Currently, the West Plant is having a contractor monitor their wastewater discharge 24 hours a day and use a vactor truck to remove any visible grease from the discharge flume. The required 15-day response has not been received at this time.

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

No Notices of Violation were issued during April 2022.

**Pretreatment Ordinance - Executive Orders:**

The SDD issued Executive Order 22-001 to **Primient** for multiple violations stemming from various losses and process upsets. The Executive Order requires Primient to investigate the causes for the losses, determine what preventative measures should have been taken (including BMP's and process technology), and implement these measures. A preliminary report is due on June 16.

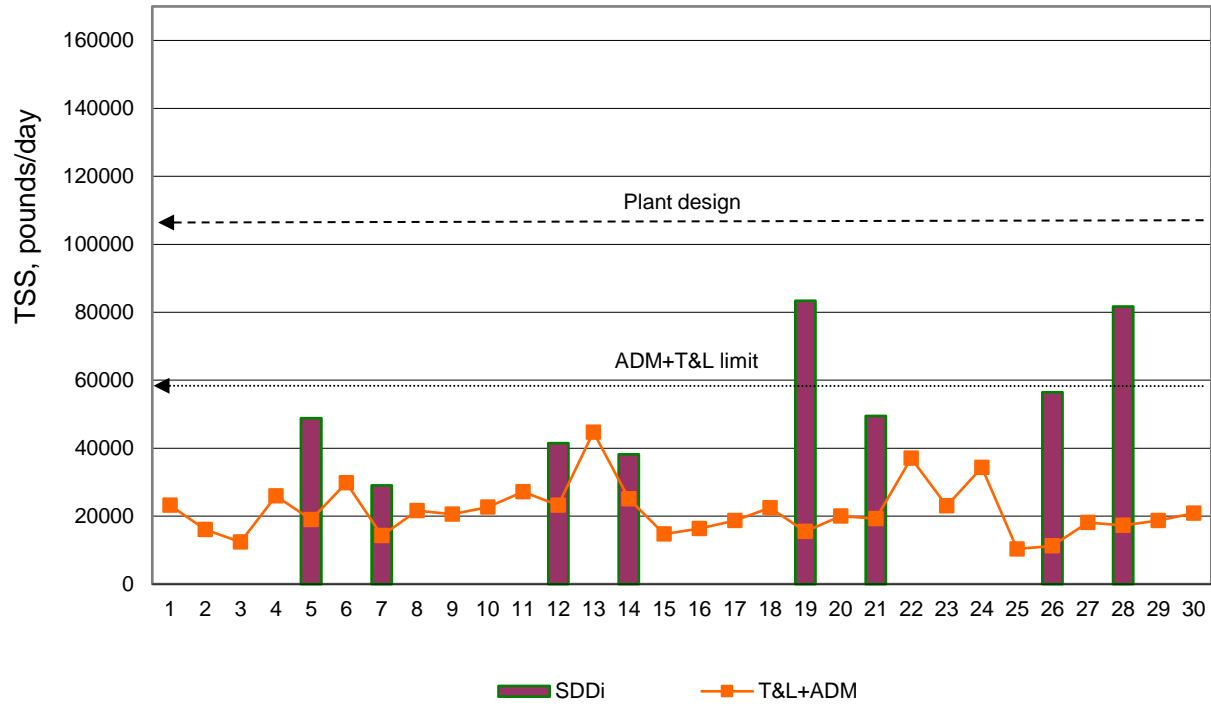
**Pretreatment Ordinance - Penalty Assessments:**

The following industrial penalties were assessed for April 2022:

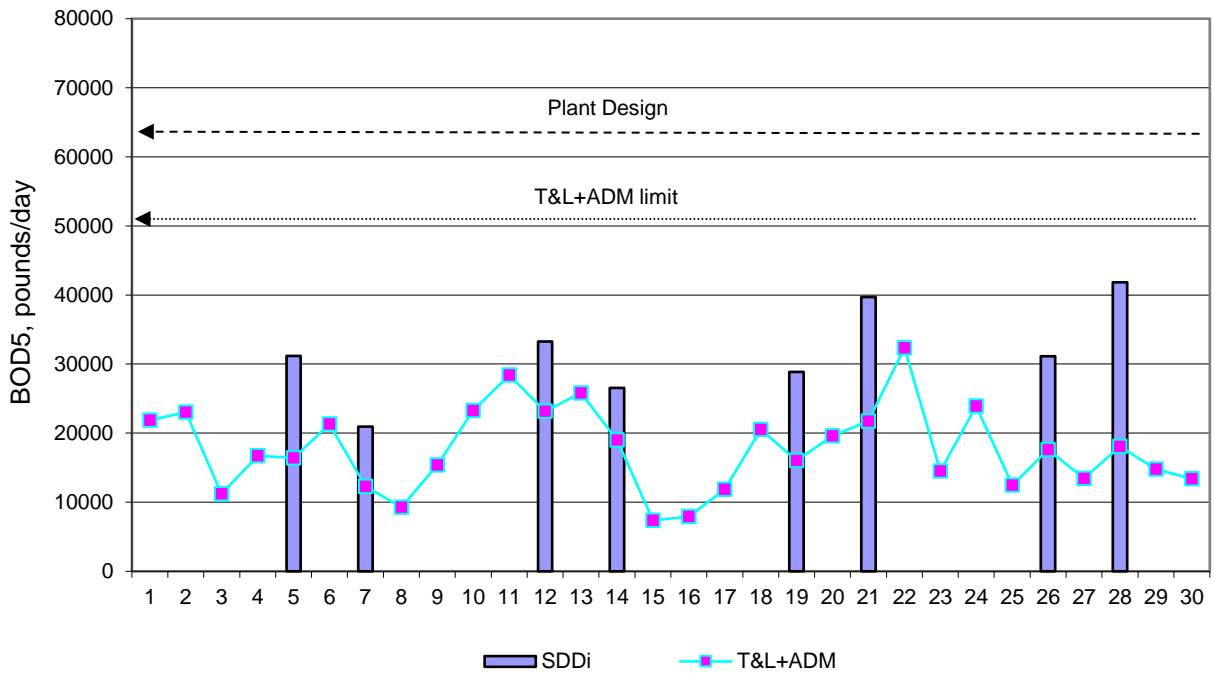
- 1) **Primient** **\$3,000**
- 2) **ADM** **\$1,000**

**Plant Operating Graphs:**

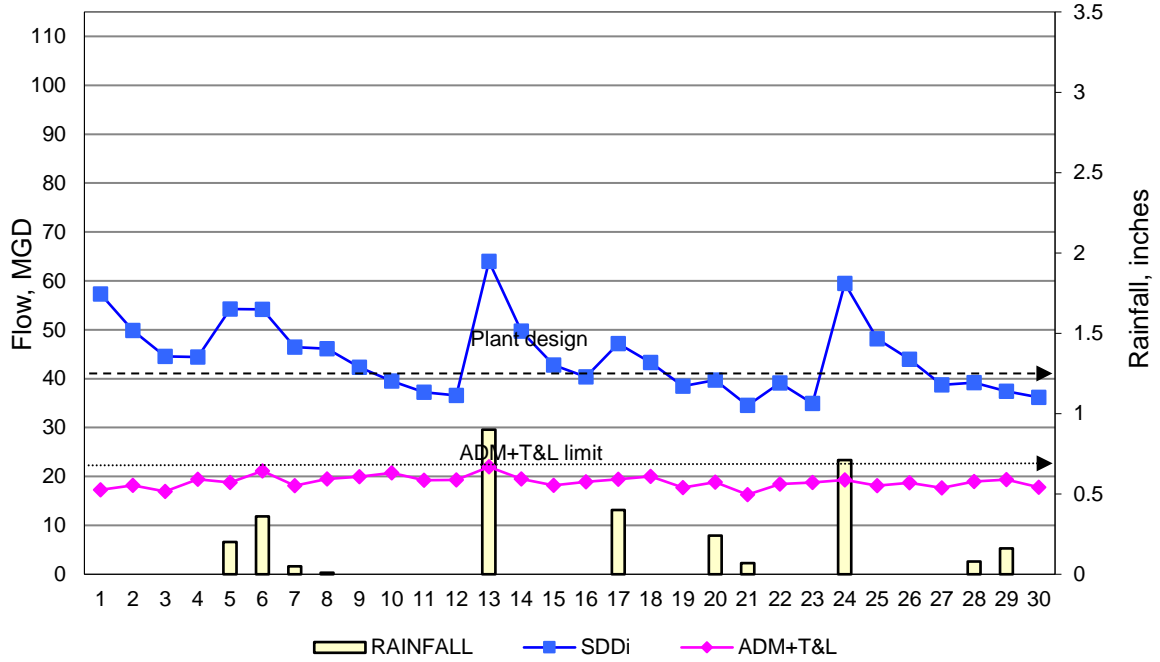
**TSS Comparison: SDD Inf T&L+ADM Discharges**



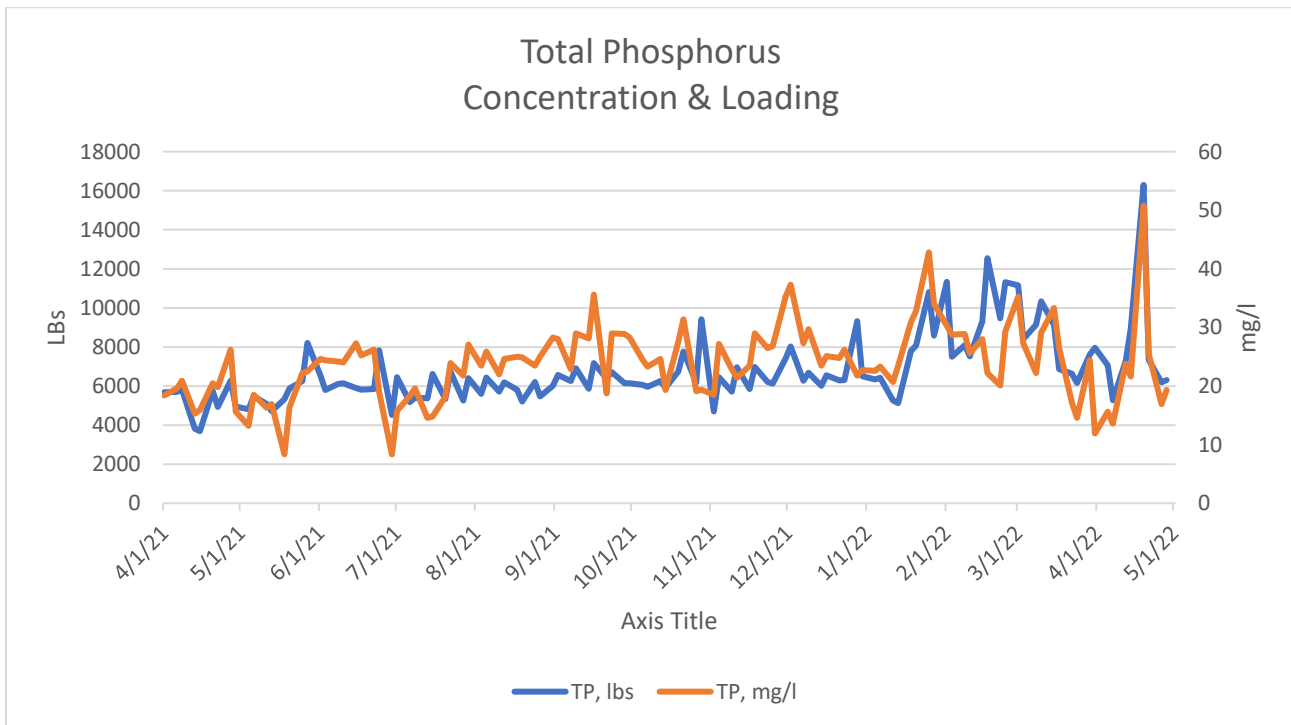
**BOD Comparison: BOD Inf vs. T&L + ADM Discharges**



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



**Phosphorus Tracking Graph:**



**Plant Efficiency Graphs:**

