CHALFONT-NEW BRITAIN TOWNSHIP JOINT SEWAGE AUTHORITY

BOARD MEETING MINUTES

May 28, 2024

The meeting of the Chalfont-New Britain Township Joint Sewage Authority Board was held on May 28, 2024 in the Authority's meeting room.

Present: William Evans, Chairman; Donald Cameron, Vice Chairman; Lawrence Nuesch, Secretary; Timothy Hagey, Treasurer; Preston Campbell, Assistant Secretary; Michael Sullivan, Assistant Treasurer. Also present: John Larson, Executive Director; Matthew Warfel, Engineer; Joseph Bagley, Solicitor; Tom Hauser, Plant Superintendent and Rich Heverly, Collection System Supervisor.

Mr. Joshua Fox was also present.

The Chairman opened the meeting at 5:00 p.m.

PUBLIC COMMENT

There was no public comment.

REPORTS OF OFFICERS

No reports of Officers were presented.

COMMITTEE REPORTS

Mr. Evans recommended that the Facilities Committee do a walk-through of the Plant with Mr. Larson.

COLLECTION SYSTEM SUPERVISOR AND SUPERINTENDENT

Mr. Evans asked Mr. Heverly and Mr. Hauser if everything was proceeding smoothly at the Plant and in the System. They responded that there was nothing to report.

EXECUTIVE DIRECTOR'S REPORT- John Larson

HRG PRESENTATION

Mr. Fox presented a multi-page report from HRG. He stated that the purposes were to determine if the Authority's planned Project was necessary and whether something else, in terms of planned improvements, was necessary. Mr. Fox outlined the planned improvements for approximately 10.1 Million Dollars. HRG reviewed 17 documents, held several meetings with staff and focused on addressing the Consent Order and Agreement with DEP. Mr. Fox stated that every plant in Pennsylvania experiences daily flow and, separately, high flow events. The goal of HRG's study and recommendations are to optimize operation of the Plant. Mr. Fox reviewed the layout of the existing Plant facilities, the primary violations recognized by DEP (TSS-89 violations, CBOD-26 violations, etc…), and he and his team inspected the Plant during a high flow event on April 4 (18.16 MG). They compared the SCADA system as it operated versus what it was designed for by the manufacturers, including Siemens. He noted that internal mixed liquor recycling was not used for a long time. He further noted that while the orbal design is easier to build, it does not provide for a lot of operational control. He stated that historically, efforts to take off discs when to control

oxygen input means a loss of control. He presented a chart of oxidation in the rings located in the oxidation ditch and stated that Rings 2 and 3 are below desired DO per the O & M Manual. He stated that the anoxic tanks are in an anerobic state. ARRO proposes to add an additional clarifier. HRG proposes to decouple mixing from aeration and gain operational control. HRG proposes a diffused aeration system which decouples aeration and mixing. Such a system would allow each ring to have an independent DO setpoint. It would also result in lower electricity usage.

Mr. Fox fielded questions during his presentation. In the event of a system failure, the proposed decoupling results in an easier process to get the system back up and running as opposed to the current system which requires the ditch to be drained down and a crane to be maneuvered. Mr. Fox proposed that if retrievable racks were practical, they could be installed and used for ease of maintenance with shut off valves also installed.

Mr. Fox reported that Biowin [software] Modelling would be used. The model would start with the manufacturer's modelling (possibly Evoqua) and data would then be input to populate the modelling and the data would subsequently be refined.

Mr. Hagey suggested that in June 2023 the Superintendent was still reporting problems with aeration, so he suggested that data from the latter parts of 2023 only should be used.

There was a question raised about the proposal to add another clarifier against the background of when on April 4 the high flow of 18 MG was processed by the Plant. Mr. Fox stated that the Permit allowed for 20 MG and Mr. Larson stated that 18 MG seemed to be the highest flow experienced by the Plant back to 2015.

Mr. Fox recommended that the internal mechanisms of the rectangular clarifier were in need of being replaced and minor redwood baffling added.

A question was asked about whether the Phosphorus violations have their origin in the current aeration process. Mr. Fox stated that he did not know at this time. He did state that looking at the Table of violations, most of the Phosphorous violations correlated to the TSS violations.

Mr. Fox stated that the Plant has adequate clarifier capacity already. The theoretical clarifier capacity is 16.4 MGD. While the Plant experienced 18 MG on April 4, it was able to meet all of the DMR treatment requirements at that flow. Mr. Fox recommended a splitter box in order to make adjustments between the circular clarifier and the rectangular clarifier.

Mr. Fox noted that there was not a lot of consistency between the UV doses and the violations. He recommended more UV transmittance probes be installed and an upgrade of the UV control panel. There was a discussion about limiting ferric chloride and alternatives to use of it.

The existing aeration system could be left as a backup, but it would increase maintenance costs and time.

There was a question raised about an alkalinity credit. Mr. Fox stated that he did not see that the Plant has a problem with alkalinity.

There was discussion about a potential filtration system. Mr. Fox recommended a $10,000 study to determine what to do with filters in the future and where to locate them if they ever became necessary because of increased limits, for example. Filtration gives the option of addressing a lower phosphorous limit.

A question was asked about where filtration would fit in. Mr. Fox responded that filtration fits in it after clarification, but before discharge to the Creek.

Mr. Fox provided specifics about redwood baffling, improvements to the mechanicals of the rectangular clarifier, and the installation of a splitter box. Mr. Hauser commented on some of the inadequacies of the existing clarifier mechanicals (drive sprockets and gear boxes are original; skimmer tracks don't work at all; some equipment is 40 years old; one valve cannot be shut).

Mr. Larson stated that some Plant projects could be undertaken by Plant personnel, but some could be undertaken by outside contractors while the Project is underway.

Mr. Sullivan commented that most of the costs would be associated with operational efficiency and providing options for operators. He stated that this is a great opportunity for operational efficiency. The operators can "operate" the Plant.

A question was asked about whether Mr. Fox would put in a diffused air system if building the plant today. Mr. Fox stated that he would.

Mr. Hagey commented that he is not a fan of retrofitting. Is there confidence that a diffused air system can run in the orbal ditch? Mr. Larson stated that he was confident that it could.

Mr. Larson discussed a path forward. He will ask Mr. Fox to prepare a similar report for DEP but broaden the scope. Mr. Larson suggested meeting with DEP accompanied by Mr. Fox.

When asked, Mr Fox stated that modelling, preparation of timelines and design would take approximately 8 months.

Mr. Evans asked for time to digest all of this information received. Mr. Evans suggested discussing it at the Board meeting next week.

SOLICITOR'S REPORT- Joseph Bagley

Mr. Bagley reported that the documents for the DiCola Project have been completed and forwarded to Mr. Larson. After execution and notarization, such documents would be listed on an upcoming Board agenda, including an easement for the Authority to accept.

OTHER BUSINESS

Mr. Evans announced that it was likely that the second meeting in June would be held.

ADJOURNMENT

MOTION: It was **MOVED** by Mr. Hagey and **SECONDED** by Mr. Sullivan to adjourn the meeting. The Motion was unanimously adopted.

The meeting was adjourned at approximately 6:31 PM

Respectfully submitted,

Joseph M. Bagley, Solicitor
and Recording Secretary