STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
COOKEVILLE ENVIRONMENTAL FIELD OFFICE
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April 6, 2023

Certified Mail
Return Receipt Requested
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The Honorable Luke Collins, Mayor
email: celinamayor@twlakes.net
City of Celina
P.O. Box 449
Celina, TN 38551

RE: Compliance Review Meeting, (CRM), May 18, 2023, in Celina
Compliance Evaluation Inspection (CEI), Notice of Violation (NOV)
City of Celina Sewer Treatment System, NPDES # TN0063886

Dear Mayor Collins:

The Division of Water Resources staff wishes to thank Mr. Ode Moore and Mr. Brian Burchett (Operators) for their generous time and courtesy during the recent Compliance Evaluation Inspection (CEI) on March 14, 2023, at the City of Celina's Wastewater Treatment Facility.

During this CEI, state inspector Mr. Oakley Hall discussed the following topics at the wastewater treatment facility and the collection system.

Permit

The permit was briefly reviewed prior to the site inspection. It was also reviewed in the site's laboratory. The permit became effective May 1, 2020. It will expire on April 30, 2025.

Facility Site Review, Operations & Maintenance

The site was reviewed, starting at the current construction area (new piping) where the city influent enters the wastewater treatment plant and passes through the onsite pump station to the new headworks solids removal systems. A sewer main from the industrial park also goes directly into the new headworks system. Blowers were operational.

The first pond or lagoon is reported to be 7 feet deep while the final two ponds are reportedly 5 feet in depth. The removal of solids in the ponds will likely help to improve some pH issues that are seasonally occurring at the facility. Solids removal will be needed throughout the service life of this sewer treatment works. Solids removal has been discussed in previous inspections along with preparation for the associated cost. Plans for the removal of solids were discussed as an associated plan for a bypass valve of the first pond is being considered. The bleach system was

reviewed and operational. Block work has been started in the chlorine contact chamber. The effluent was slightly green (likely algae). Final step aeration was adequate during the inspection.

Laboratory

The laboratory was briefly reviewed. It was noted that the BOD incubator was not operating properly. The temperature was high at 24 degrees Celsius. This condition can lead to in accurate BOD5 test results. The lab barometer was discussed, and it was relocated from the window to a shaded location in the lab. Quality assurance techniques need to be improved in the lab. Additional blanks and duplicates are to be performed. A temperature log for the incubators needs to be added to the lab for daily checks. Phosphate free soap was being used to clean glass wear. Standard Methods 23rd Edition was available in the laboratory.

Collection System

The collection system was discussed. The Industrial Park pump station was reviewed. It was noted that two pump stations (the Industrial Park and the In Plant pump station) were each running on a single pump. Improvements to the collection system are in process. The city is working to make repairs and to remove Inflow and Infiltration of stormwater from the sewer collection system.

NPDES Permit, TN0063886, Notice of Violation (NOV)

Celina STP NPDES Permit TN0063886

- 2.1.4. Proper Operation and Maintenance, Pages 12 and 13

    a. The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes **adequate laboratory and process controls and appropriate quality assurance procedures.**

- 2.3.1. Effect of Noncompliance, Page 15

    The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of applicable state and federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

- 1.2.2. Sampling Frequency, Page 7

    Where the permit requires sampling and monitoring of a particular effluent characteristic(s) at a frequency of less than once per day or daily, the permittee is precluded from marking the “No Discharge” block on the Discharge Monitoring Report if there has been any discharge from that particular outfall during the period which coincides with the required monitoring frequency; i.e. if the required monitoring frequency is once per month or 1/month, the monitoring period is one month, and if the discharge occurs during only one day in that period then the permittee must sample on that day and report the results of analyses accordingly.

NOV Justification:

During the inspection, it was observed that required sampling and analyses as required by the permit had not been completed. Upon further review, it was noted that over the past five (5) months, a concerning amount of the required laboratory tests had not been performed. A review of the netDMR reports (submitted electronically) did contain attached monthly operational reports (MORs). Contained within the netDMR EPA website, the December eMOR report was labeled incorrectly as the January 2023 eMOR. The "# of Ex." for portions of the netDMRs was not filled out to completion. Zero should be placed in the column if no violation occurred. If all the permit required samples were not completed, then this needs to be explained in the comment section of the netDMR.

October 2022 Missed Samples:

A weekly BOD5 was missed for a 12-day period, while flow was available.
A weekly TSS was missed for a 12-day period, while flow was available.
TSS effluent weekly average was not completed on the MOR.
The five per week requirement for dissolved oxygen (DO) and chlorine was not met.
The two per week requirement for pH was not met.

November 2022 Missed Samples:

A weekly BOD5 was missed for a 13-day period, while flow was available. Only 3 BOD(s) were performed within the month.
A weekly TSS was missed for a 13-day period, while flow was available. Only 3 TSS were performed for the month.
TSS effluent weekly average was not completed on the MOR
The five per week requirement for dissolved oxygen (DO) and chlorine was not met.
A weekly E.Coli test was not performed. Only 3 performed for the month.
The two per week requirement for pH was not met.

December 2022 Missed Samples:

The performance of two BOD(s) extended beyond seven days. Four BOD(s) were completed.
The five per week requirement for dissolved oxygen (DO) and chlorine was not met.
One of the weekly settleable solids was not performed.
The two per week requirement for pH was not met.

January 2023 Missed Samples:

Note: Flow was being reported as intermittent due to headworks maintenance, however daily flows were frequent enough to perform all required tests.

Two weekly required BOD(s) were missed.
Two weekly required TSS tests were missed.
Two weekly required E.Coli tests were missed.

The five per week requirement for dissolved oxygen (DO) and chlorine was not met.
The two per week requirement for pH was not met.
One of the weekly settleable solids tests was not performed. Flow was available. It was observed that settleable solids is being performed greater than the required once weekly analysis.

February 2023 Missed Samples:

Note: Flow was being reported as intermittent due to headworks maintenance, however daily flows were frequent enough to perform all required tests.

Two weekly required BOD(s) were missed.
Two weekly required TSS tests were missed.
One weekly required E.Coli test was missed.
The five per week requirement for dissolved oxygen (DO) and chlorine was not met.
The two per week requirement for pH was not met.

Historically, overflows from the sewer collection system were reported at a regular frequency. Overflow points have been historically observed by the state inspector and have been posted. The City of Celina is on a self-imposed moratorium. Recent maintenance of a major nature on the sewer collection system has not been completed. In recent months, overflows have not been documented.

The operator is to submit monthly operational reports (eMORs) by way of email to the Division of Water Resources at: DWRWW.Report@tn.gov The environmental field office is to be copied on these submittals. This may be done by copying Oakley.Hall@tn.gov ; this is to be completed by the 15th of the following reporting month.

Required Actions

- ✓ Ensure that all permit required sampling and analyses are performed within the proper time frame. In the cases where sampling and the required analyses were not performed as required, ensure that reporting on the netDMR shows that sample frequency requirements have not been met, per the "No. of Ex." column. Instances where sampling was not performed as required are to be documented and a written explanation provided.
- ✓ Repair the BOD incubator so that intermittent operation is eliminated.
- ✓ Replace blower air filters per the manufacturer's recommendations with new filters.
- ✓ Report sewer collection system overflows as required by the NPDES permit.
- ✓ Determine the sludge depth in all three ponds and develop a zone map illustrating the levels. Estimate the solids volume in each pond to be removed. Develop a plan for disposal of the solids. It is understood that this plan is currently under development with your consulting engineering firm.
- ✓ Starting with the first pond, provide an updated timely plan for the removal of the solids from the three ponds.
- ✓ Complete the block work in the chlorine contact chamber.

- ✓ Maintain operable dual sewage pumps in each sewer pump station. Review any electrical issues.

Compliance Review Meeting (CRM) on Thursday, May 18, 2023, at 10:00 AM CST

The Division of Water Resources wishes to arrange the aforementioned Compliance Review Meeting (CRM). To reiterate, the meeting is currently set for Thursday, May 18, 2023, at 10:00 AM. The location (with your permission) will be at the City of Celina conference room within the City Hall. Please invite your current operators and if you wish, your current consulting engineer. Please respond to this notice by May 1, 2023, notifying Cookeville EFO staff that the current location, date, and time for the CRM is acceptable.

The Division of Water Resources would again like to thank you for your time and courtesy during this inspection process.

If you have any questions, you may contact Oakley Hall, TDEC Environmental Consultant by way of telephone at (931) 520-3582 or toll free at 1-(888)-891-8332. You may also use electronic mail at: Oakley.Hall@tn.gov.

Sincerely,

Mr. Brad Ulmer
Environmental Field Office Manager
Division of Water Resources
Cookeville Environmental Field Office

Enclosure: CEI Site Photographs by W. Oakley Hall

cc: EFO-CK, Clay County DWR Electronic Files: TN0063886
Ms. Jessica Murphy, Compliance and Enforcement Section, Nashville Central Office.
Mr. Robert Becker, TDEC Regional Director of External Affairs

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City of Celina Sewage Treatment Plant (TN0063886) Compliance Evaluation Inspection, Clay County.

The new influent line is pictured. It will be installed after the existing line is pipe bursted. The method of installation was discussed with the contractor. This line is coming in at the influent of the plant through the existing sewer pump station.

One of the flush heated pipe connections of the poly pipe was observed. The connection process and strength were discussed with the contractor.

The wetland area around the industrial park is pictured. It appears that a heavy flow of surface water exists. This is in close proximity to the Cumberland River.

At the industrial park, the color of the surface water was dark, possibly some tannins. A considerable amount of surface water was flowing. The quantity of water moving through the area was considerable. Impacts from historical industrial activity may be present.

The water on the surface around the industrial park area, it was dark in color. Large oil tanks were once in the area. The tanks burned several years ago. The surface water does not appear to be related to possible overflows from the Industrial Park sewer pump station. An odor of sewage or leachate was not apparent.

This is the Industrial Park sewer pump station. At the time of the photo, only one (1) pump in this pump station was operational. This station receives leachate from a privately operated landfill. A manhole just above the pump station is used to accept the landfill leachate wastewater. This area was reviewed in relation to the industrial park wetland and concerns about exfiltration from the effluent pump line. Losses from the pump line were not observed. Area industrial activity (historical) may be the cause of discoloration concerns in surface water.

The last pump station for the city wastewater supply line is pictured. Both pumps were in place. Some electrical problems persist. It was discussed that TVA or the local electrical utility should be asked to visit the facility in order to see if electrical protections can be added to the system.

Electrical service lines are buried in this area. Some landscaping is needed. The blowers were operational. The blowers' filters were recently alternated with cleaned (used) filters. It is recommended that new filters be kept in stock and be replaced when needed. Using cleaned (used) filters could prove problematic. The manufacture's required replacement filters should be kept in stock. Blowers are expensive, the cost of air filters is a fraction of what a rebuild will cost.

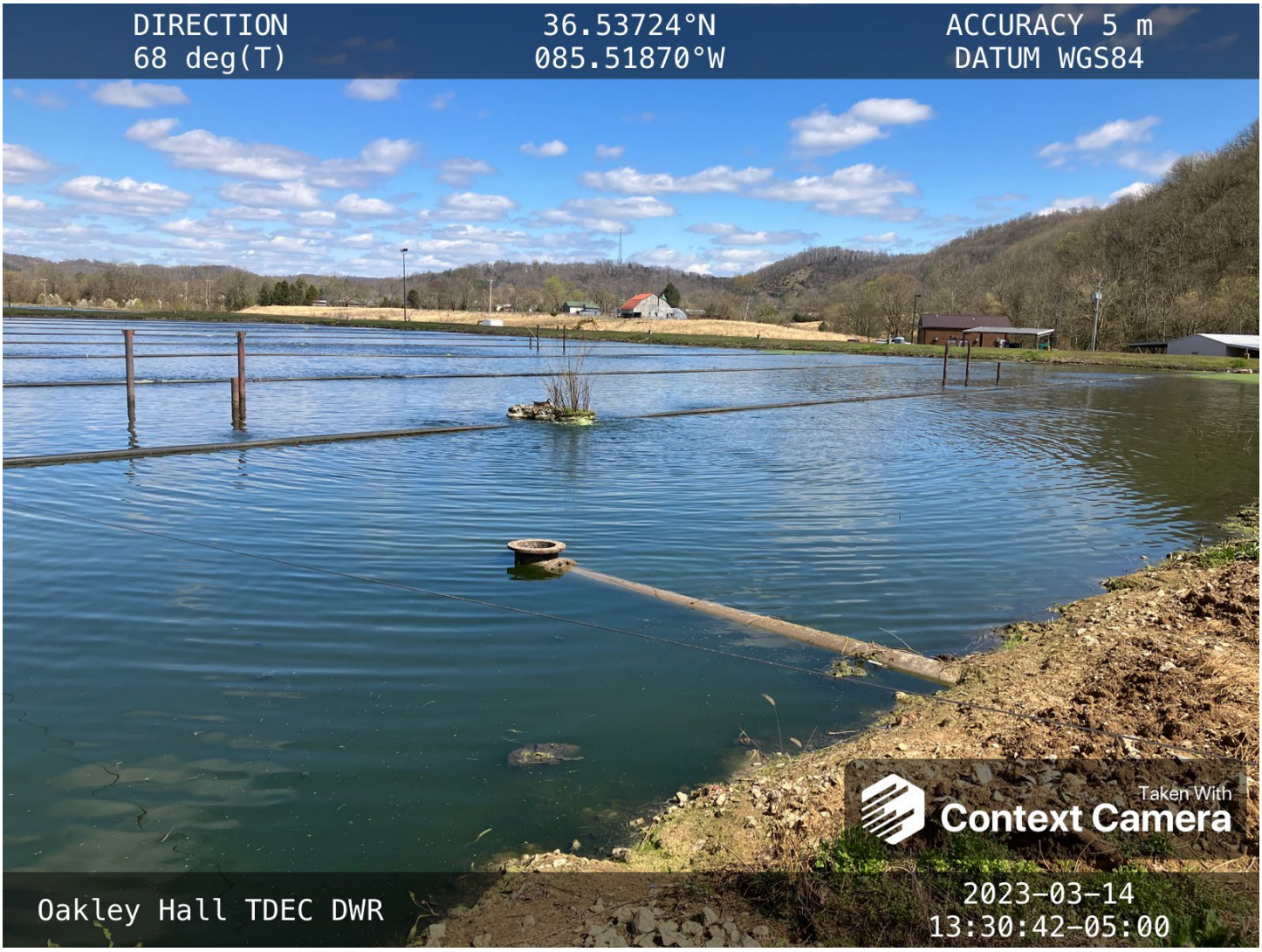
Construction of the mechanical and electrical equipment is mostly complete. The entrance road is in good condition.

The soil around the new headworks is wet. Some final landscaping is needed. Cleaning solids out of the first lagoon is the next major maintenance item to be completed.

The headworks have been completed. The ground around the headworks is soft and a dumpster could not be brought in at this time. It was recommended that a larger wheeled trashcan be used to catch the removed solids until the dumpster can be place in operation. At the time of this photograph, it would be difficult for a dump truck to maneuver a large dumpster.

Solids are being removed by the new machinery and pushed out into an undersized 7-gallon bucket.

The new headworks is in place. Some landscaping work is still in process.



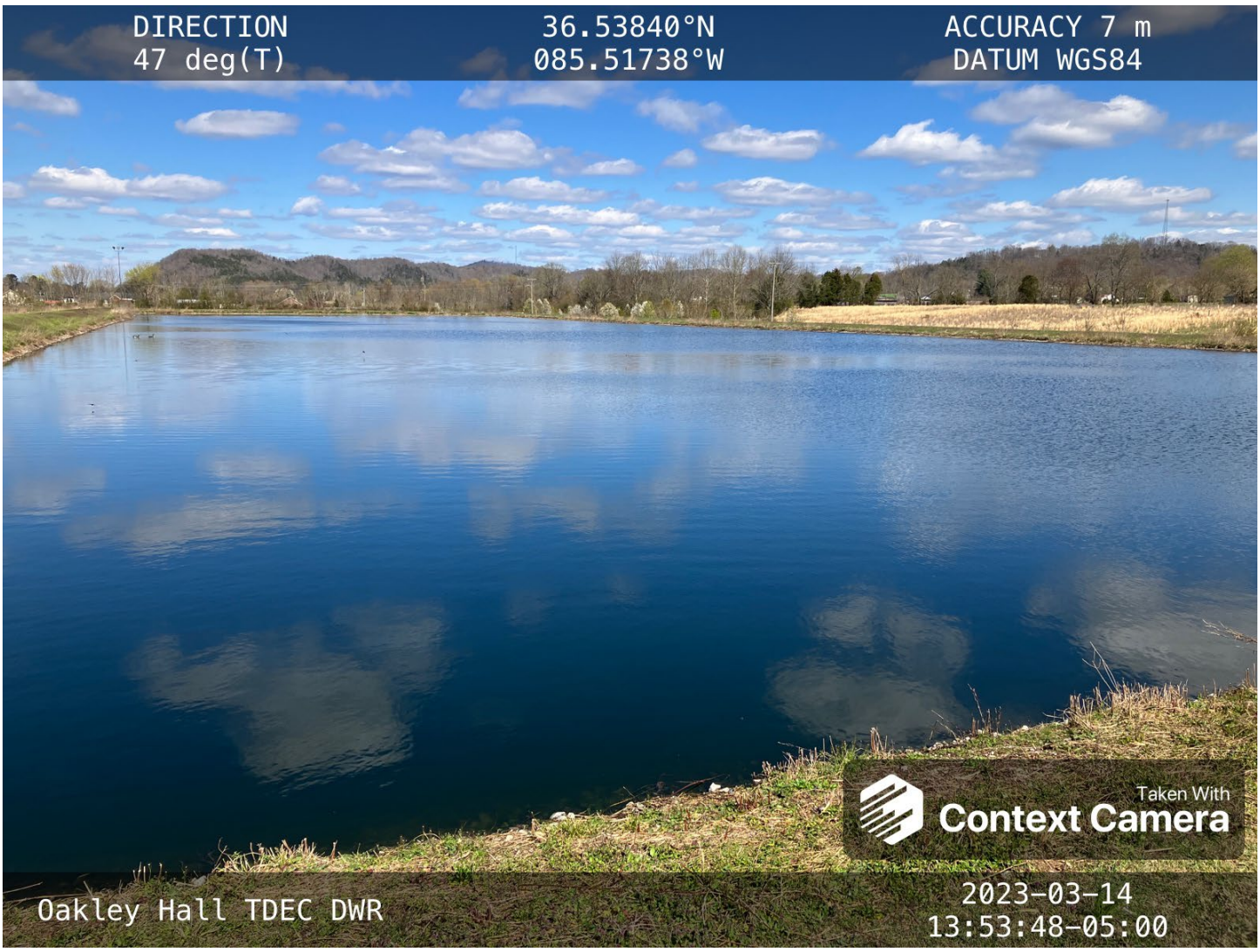
The discharge from the headworks to the first lagoon is pictured. It is entering the lagoon through the bottom of the pipe.

A pipe is configured to add wastewater into the system. This port is after flow measurement and cannot be used to except septage waste brought in from offsite, e.g., marina or septic tank waste. This port should be capped.

The screens were operable. This was an important improvement to the system.

Aeration is pictured across the first lagoon. The aeration is to be inspected and improved when the sludge/solids are removed from this pond.

The second of the three ponds in a series is pictured. It is to be inspected for the solids level. Solids are to be removed to improve the effluent discharge of the system.



The third lagoon of the three in the series is pictured. Various wild birds were using the lagoon. Algae was present in the water column. This lagoon is to be inspected for sludge/solids depth.

Operators have started the block work on the chorine contact chamber. Mortar has only been tested on a few of the block.

Pipe bursting is to begin on the influent line from the city. The joining of the plastic pipeline was reviewed. The line is in place, being staged for installation.

The bleach tanks and dosing pump were reviewed and found to be in operation.

Block work is being prepared for the Chlorine Contact Chamber. Some block has been laid, most with no mortar This was explained by the operator so to see how the process is going to work out.

The effluent outfall to the Cumberland River is pictured.

The effluent aeration steps are pictured (just above the outfall). A slight green color from algae was observed.

The effluent outfall is pictured. It is entering the Cumberland River. A color contrast was not observed in the river. Foam was not present in the outfall into the Cumberland River.