



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

Johnson City Environmental Field Office
2305 Silverdale Road
Johnson City, TN 37601

Phone 423-854-5400 Statewide 1-888-891-8332 Fax 423-854-5401

June 8, 2023

The Honorable William Kerr
Mayor
e-copy: baileytonmayorkerr@gmail.com
Town of Baileyton
6530 Horton Highway
Greeneville, Tennessee 37745

RE: **Performance Audit Inspection/
Sanitary Sewer Overflow Non-Sampling Inspection**
Baileyton Wastewater Treatment Plant (WWTP)
NPDES Permit TN0063932
Greene County

Dear Mayor:

On May 31-June 3, 2022, Ms. Sandra Vance, Ms. Brianne Begley, Mr. Corey Click, and Ms. Barbara Loudermilk of the Tennessee Department of Environment and Conservation, Division of Water Resources (the division), conducted performance audit and sanitary sewer overflow non-sampling inspections at the above referenced facility in order to evaluate compliance with NPDES Permit TN0063932. We thank Mr. Danny Neely and other Baileyton personnel for their time and assistance. Please see the sections below for details regarding the inspection.

I. Permit

The Baileyton WWTP NPDES Permit, TN0063932, authorizes the discharge of treated municipal wastewater from Outfall 001 to Lick Creek at mile 49.2. The NPDES permit became effective on July 1, 2020 and will expire on June 30, 2025. Evaluation of the Baileyton WWTP and sanitary sewer collection system indicates they are consistent with the description in the NPDES permit. The nature of the WWTP's discharge also appears consistent with the permitted parameters in part 1.1. of the permit.

II. Records/Reports

Laboratory records from October 2021 and April 2022; discharge monitoring reports (DMR) and monthly operation reports (MOR) from April 2019-April 2022; and pump station logs from June 2020, October 2021 and April 2022 were reviewed. Part 1.0 of the NPDES permit contains monitoring, reporting, and

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 2

documentation requirements. Also, records documenting laboratory analyses, including proper quality assurance and quality control (QA/QC), must be maintained to satisfy permit parts 1.1.3. and 2.1.4. Deficiencies in these program areas are noted in sections below. Additional records/reports comments are noted in Section VIII.2. below.

1. The October 2021 eMOR (electronic MOR) and DMR contained deficiencies, as detailed below:
 - a. The eMOR had “1.5” mg/L recorded for the monthly average total suspended solids (TSS) and the NetDMR had “2.0” mg/L recorded. The eMOR also had “1.2” recorded for the monthly geometric mean E. coli and the NetDMR had “1.0” recorded.
 - b. The October 13, 2021 influent total nitrogen was recorded as “91.1” mg/L on the eMOR and the Pace Analytical November 1, 2021 report had “12.7” mg/L. The effluent total nitrogen was recorded as “12.7” mg/L on the eMOR and the Pace Analytical November 1, 2021 report had “91.1” mg/L. Per Baileyton WWTP personnel, the lab “switched the sample bottles” and the lab was contacted.

Please verify the results in section II.1.a.-b. above and submit a revised eMOR and/or DMR through NetDMR in accordance with NPDES permit parts 1.3.4. and 1.3.1. requirements, respectively. Also, the revised eMOR must have the comment documenting the incident noted in section II.2.b.

2. The following records also contained deficiencies, as detailed below:
 - a. The October 1, 2021 effluent pH sample collection time was “9:20” and the analysis time was “8:47”. The influent pH sample collection time was “9:09” and the analysis time was “8:47”. Please ensure that documentation going forward is correct.
 - b. The small sheet used to record the grab sample collection times/readings was missing from the lab sheets for April 1, 4, 5, 7, 8, and 11-15, 2022. A notebook can be used to document the collection times/readings.
 - c. The April 2022 biochemical oxygen demand (BOD), TSS and daily lab sheets did not have the Standard Methods for the Examination of Water and Wastewater (SM) revision years for the analyses. The sheets must be updated to reflect the current method approval dates.
 - d. The April 1, 2022 effluent pH sample collection time was “0802” and the analysis time was “0818.” The April 4, 2022 effluent flow was “42680” on the lab sheet and on the eMOR was “0.045” MGD. The April 5, 2022 pH sample collection time was “0802” and the analysis time was “0833.” The holding time between sample collection and analysis for pH is 15 (fifteen) minutes per 40 CFR 136 Table II. The documentation must document the times correctly to show this requirement is met.
 - e. No sample locations for the influent and effluent composite samplers were listed on the lab sheets. The sample locations can be referenced on the sheets as in the standard operating procedures (SOPs).
 - f. The lab sheets did not have the start time for the settleable solids analysis.

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 3

- g. The start time for the TSS and E. coli analyses must be recorded.
- h. The BOD lab sheet did not have the incubator temperature and sample temperature.

Part 1.2.4. of the NPDES permit requires, “For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: a. The exact place, date and time of sampling or measurements; b. The exact person(s) collecting samples or measurements; c. The dates and times the analyses were performed; d. The person(s) or laboratory who performed the analyses; e. The analytical techniques or methods used, and; f. The results of all required analyses.”

III. Facility Site Review, Self-Compliance Program, Operations & Maintenance, and Sanitary Sewer Overflows

A walk-through evaluation of the WWTP, observation of sampling, and evaluation of the collection system were performed.

A. Facility Site Review, Operations & Maintenance

Part 2.1.4. of the NPDES permit contains requirements for proper operation and maintenance of facilities and systems. WWTP observations noted during the onsite inspection are detailed in Section VIII.3. below.

B. Self-Compliance Program

Part 1.1.1. of the NPDES permit contains requirements for representative sampling. The following deficiencies were noted.

1. The following items must be addressed for the influent and effluent composite sample collection.
 - a. The influent composite sampler had no thermometer inside the refrigerated unit. The self-contained thermometer for the influent sampler read “20° C” and the thermometer for the effluent sampler could not be read because the red filling solution was maxed out. The influent sampler was not maintaining a temperature of $\leq 6^{\circ}$ C. Both samplers need to have thermometers in bottles of water. Per NPDES permit part 1.2.3.c., “Composite samples must be proportioned by flow at time of sampling. Aliquots may be collected manually or automatically. The sample aliquots must be maintained at ≤ 6 degrees Celsius during the compositing period.” Per a May 30, 2023 phone conversation with Mr. Danny Neely, a new refrigerator unit for the influent sampler is in operation and the effluent sampler is presently maintaining the correct temperature. Please provide a plan to have thermometers in bottles of water for accurate temperature measurement.
 - b. The tubing from the influent sampler to the influent channel was dirty and needed to be replaced. For a representative sample, the tubing should be periodically and regularly

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 4

replaced. Part 1.2.1. of the NPDES permit requires a representative sample of the influent wastewater.

- c. The influent sampler strainer was observed to be on the bottom of the influent basin. Per Baileyton WWTP personnel, if the strainer is in the center of the flow, a sample may not always be collected due to the influent pump intermittently pumping the flow. The sample line must be in the middle of the flow channel for a representative sample. Per NPDES permit part 1.2.1., “Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge...” The influent composite sampler tubing and strainer must be positioned in the center of the flow channel at mid depth to help ensure collection of a representative sample as required by TN0062057 part 1.2.1. Per a May 30, 2023 phone conversation with Mr. Danny Neely, the influent sample line could be relocated to the fermentation tank where the influent flow enters.
- d. The effluent sampler had pink-colored desiccant and needed to be replaced to protect the electronics from moisture. The sampler must be maintained to ensure a representative sample is collected. Please refer to the regulatory reference in III.B.1.c. above.
- e. The sample containers are rinsed with hot water and treated with bleach every two weeks. Per the United States Environmental Protection Agency *NPDES Compliance Inspection Manual* (EPA 305-K-17-001, Interim Revised Version, January 2017), appendix AM, page 782, “Wash with hot water and detergent, Rinse with tap water, then rinse three or more times with organic-free water (distilled water).”

C. Sanitary Sewer Overflows

Parts 1.3.5., 2.3.2., 2.3.3., and 2.3.6. of the NPDES permit contain requirements for the reporting of overflows and bypasses. Facility DMRs and MORs for the period of April 2019-April 2022 were reviewed, and eight (8) pump stations in the collection system and two (2) WWTP pump stations were inspected. The collection system appeared to be generally well maintained. However, the following deficiencies were noted.

1. One (1) dry weather release occurred between April 2019-April 2022. The release was reported to the division, Johnson City Environmental Field Office (JCEFO) by a private citizen. Per NPDES permit part 2.3.2. the written report was submitted to the JCEFO after Baileyton WWTP personnel were notified of the release by the division. Releases caused by improper operation or maintenance of the permittee’s collection and transmission system are prohibited per NPDES permit part 2.3.3.
2. The following items must be addressed for the pump stations.
 - a. Pump station no. 1 has a broken conduit that prevents one pump from operating. A riser was ordered for the station on June 3, 2022. Also, a control panel will be obtained. The area of the station floods during heavy rainfalls. This infiltration/inflow (I&I) source must be addressed to prevent increased flow to the WWTP. Per a May 30, 2023 phone conversation with Mr. Danny Neely, the WWTP is waiting on the delivery of the new control panel and riser.

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 5

- b. Pump station no. 2 had control panel wires that needed to be replaced for pump no. 2 to operate. Per a May 30, 2023 phone conversation with Mr. Danny Neely, both pumps are presently in operation and the control panel will be replaced.
- c. The Baileyton School pump station's pump no.1 had a ninety-degree fitting with a leak at the cutoff valve inside the tank. Also, two holes were in the side of the tank/riser that would introduce I&I into the station or would allow wastewater to flow out. This I&I source must be addressed to prevent increased flow to the WWTP. Per a May 30, 2023 phone conversation with Mr. Danny Neely, the fitting has been repaired.
- d. Pump station no. 4 had a lot of grease in the tank and on the float level switches. Excessive grease buildup may prevent proper operation of control systems and station pumps and contribute to equipment corrosion. Per a May 30, 2023 phone conversation with Mr. Danny Neely, the pump stations are cleaned on a regular basis.

Per NPDES permit part 2.1.4., 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.

Additional observations on the collection system pump stations are noted in Section VIII.4. below.

IV. Effluent/Receiving Waters

The treatment plant effluent was observed during the inspection and found to have a slight tan tint with no visible foam, solids, sheen, or odor on May 31, 2022 and with a tan tint on June 1 and 3, 2022. The treatment plant effluent at outfall 001 was observed to have a slight tan tint with no visible foam, solids, sheen, or odor on June 3, 2022. The receiving water, Lick Creek at mile 49.2 was observed during the inspection and found to have a tan color and turbidity on June 3, 2022. Please be advised per NPDES permit part 1.1., "There shall be no total suspended solids, turbidity or color in such amounts or character that will result in any objectionable appearance to the water, considering the nature and location of the water."

The outfall was accessible, and signage required by part 3.4. of the facility NPDES permit was posted. The following deficiency must be addressed:

1. The outfall 001 sign is not visible to the public from the receiving stream and was blocked by vegetation on the stream bank side. Per the NPDES permit part 3.4, "The sign(s) should be clearly visible to the public from the bank and the receiving stream." Also, the outfall sign contained outdated language that does not match the required information in part 3.4. of the permit. The sign must be updated to include, at minimum, the information listed in part 3.4. as follows:

TREATED MUNICIPAL/SANITARY WASTEWATER
Town of Baileyton

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 6

Baileyton STP
(423) 234-6911
NPDES Permit NO. TN0063932
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Johnson City

Per a May 30, 2023 phone conversation with Mr. Danny Neely, a new sign has been obtained and will be installed at the outfall.

Additional observations noted during the onsite inspection are detailed in Section VIII.3. below.

V. Flow Measurement

The influent and effluent flow measurement devices and procedures were evaluated during the inspection. The WWTP has a 3-inch influent Parshall flume and effluent v-notch weir as the primary flow measurement devices. Part 1.1. of the NPDES permit requires continuous flow measurement and proper calibration and maintenance of the flow measurement devices. Annual calibrations were done on February 24, 2020, February 16, 2021, and February 29, 2022 on the influent and effluent flow meters. The following deficiencies were noted.

1. The Labtronx February 28, 2022 influent flow meter calibration did not have the depth recorded. Also, the February 24, 2020 influent and effluent flow meter calibrations did not have the depth recorded either. The depth measurement needs to be recorded to show that the calibration was done and to determine compliance.

Additional observations noted during the onsite inspection are detailed in Section VIII.2. below.

VI. Laboratory

Laboratory analyses were observed, and laboratory SOPs and analyst demonstrations of capability (DOCs) were reviewed. A contract laboratory, Pace Analytical, performs lab analyses for total nitrogen (as N), total nitrite plus nitrate (as N), total Kjeldahl nitrogen and total phosphorus (as P). Part 1.2.3. of the NPDES permit requires pollutant analyses be performed in accordance with methods specified in Title 40 CFR part 136, and part 2.1.4. of the NPDES permit requires adequate laboratory controls and appropriate quality assurance procedures. Title 40 CFR part 136 explicitly details required laboratory QA/QC components; the most recent updates to part 136 became effective July 19, 2021. The following deficiencies must be addressed.

1. The following items for the biochemical oxygen demand (BOD) analysis must be addressed.
 - a. The thermometer on the side of the BOD VRW 2010 incubator was checked for the temperature. A thermometer in a container of water (distilled or tap) inside of the incubator must be used to check the temperature. Initially the temperature was 20 C° but increased after the door was opened. Having a thermometer in a container of water will maintain the temperature measurement while the door is opened. Also, the incubator needed to be cleaned.

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 7

- On June 1, 2022 the incubator was observed to be cleaned. SM 5210 B-2016 part 5.h. requires that samples be incubated at $20 \pm 1^{\circ} \text{C}$.
- b. Neither the DO saturation nor temperature of the composite samples was checked before starting the BOD analysis. SM 5210 B-2016 part 5.b. requires the sample temperature to be brought to $20 \pm 3^{\circ} \text{C}$ before making dilutions and checked to ensure that the initial DO is within the 7-9 mg/L range prior to setting up dilutions per SM 5210 B-2016 part 8.b.
 - c. Two 100% (300 mL) volume effluent dilutions were prepared. Three different dilutions need to be made. Per SM 5210 B-2016 part 5.c., make at least three dilutions of prepared sample estimated to produce, at the end of the test, at least 1 dilution that would result in a residual DO of 1.0 mg/L or more and a DO uptake of 2.0 mg/L or more after a 5-day incubation. Two dilutions are allowed if experience with a particular sample source produces at least one bottle with acceptable minimum DO depletions and residual limits. The two 100% dilutions are considered to be duplicates.
 - d. The 2% (6 mL) and 3% (9 mL) volume influent dilutions were prepared. As noted in VI.1.c. above, per SM 5210 B-2016 part 5.c., two dilutions are allowed if experience with a particular sample source produces at least one bottle with acceptable minimum DO depletions and residual limits.
 - e. The glucose-glutamic acid (GGA) QA/QC is done once every two months. A duplicate is also done every two months. Per the division's guidance, samples need to be analyzed on a 5% basis (1 for every 20 samples or once per month, whichever is more frequent). To meet the batch size requirement, the GGA and duplicates must be analyzed at least once per month. Please see the division's guidance at:

https://www.tn.gov/content/dam/tn/environment/water/ftc/wastewater-treatment-information/Biochemical%20Oxygen%20Demand%205210%20B%205-Day%20BOD%20Test%20Method%20JBB_Jan2020.pdf.
 - f. BOD bottles are rinsed with distilled water. Per SM 5210 B-2016 part 2., the bottles must be cleaned with a detergent, rinsed thoroughly, and drained before use.
2. In the calibration of both DO meters, a percent saturation of 96% was used in the calculations (DO saturation table with temperature). The source of this value was unknown. Baileyton WWTP personnel were instructed on using the barometric pressure for both DO meters and using the USGS DO table to obtain the DO from the table using temperature and barometric pressure (mmHg). The lab sheet needs to be changed to record the barometric pressure, temperature in $^{\circ}\text{C}$ and the DO. A barometer is needed to confirm the DO meter readings are valid. Please see the division's guidance for DO SM 4500 O G-2016 at: <https://www.tn.gov/environment/program-areas/wr-water-resources/fleming-training-center/ftc-redirect/course-books-and-reference-material/waste-water-information1.html>.
 3. During the pH meter calibration, the probe was not rinsed with distilled water before placing the probe in 10 pH buffer in a beaker. The meter will not calibrate to 10 if the probe is not rinsed off. The filling solution in the pH probe had not been added since it was acquired approximately 2 years ago. Baileyton WWTP personnel indicated that an outside company that checks the lab

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 8

equipment, said to not remove the cap on the probe. Per the probe's directions, the solution needs to be filled to ½ inch below the fill hole and, for quicker response time, the cap must be removed. Baileyton WWTP personnel also stated that the probe was almost 2 years old. Division personnel advised that the probe needs to be replaced yearly. The probe must be properly maintained to ensure accurate readings are obtained. On June 1, 2022, the pH probe was observed to be filled with electrolyte solution. Also, the pH probe and glass beakers need to be kept clean. It was unknown if the pH meter measured the slope. As noted in section VI.2. above, please refer to the division's guidance for pH SM 4500 H⁺ B-2011.

4. The following items for the TSS analysis must be addressed.
 - a. The glass-fiber filters were not washed prior to starting the analysis. Since the blank filter for the analysis weighed 1.3878 g, this indicated that the filter pads are not being rinsed. Either filter pads must be washed per TSS SM 2540 D-2015, 3.a., *Preparation of glass-fiber filter disk* or commercially prepared glass-fiber filters may be used if the manufacturer certifies that the prepared filters meet the method's requirements. Also, per SM 2540 D-2015, adequate filter preparation is demonstrated by negligible weight loss or gain for method blanks.
 - b. During the analysis only a quick rinse of the filter was performed. Ensure the filter is washed with three successive 10-ml volumes of reagent-grade water, allowing complete draining between washings during the analysis. Ensuring analyses are done per SM 2540 D-2015 is a necessary part of the QA/QC program for the lab.
 - c. The glass-fiber filter was not checked to ensure the filter was wrinkle side up on the base of the filter apparatus. Per SM 2540 D-2015, 3.a., *Preparation of glass-fiber filter disk*, the filter must be inserted with the wrinkled side up in the filtration apparatus.
5. The following items for the *E. coli* analysis must be addressed.
 - a. The m-ColiBlue 24 HACH broth had expired in April 2022. To ensure an accurate analysis, reagents must be unexpired.
 - b. Glassware must be covered with aluminum foil prior to placing in the autoclave for the analysis. If the foil remains over the openings the glassware will remain sterile. The glassware (graduated cylinders) remained uncovered until used during the analysis.
 - c. During the analysis, the filtration apparatus was rinsed with hot tap water between filtrations. Dilution water must be used to rinse the apparatus. Using tap water to rinse between filtrations is not sterile.
 - d. The analysis dilution water and m-ColiBlue 24 media were stored in a refrigerator with food. A separate, dedicated refrigerator for chemical storage is needed.
 - e. During the analysis, the 50 mL dilution took over 20 minutes to filter before washing the filter and the 100 mL dilution was reduced to 25 mL for better filtration and rinsing.

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 9

The *E. coli* Hach Method 10029 – m-ColiBlue 24 must be followed to ensure the analysis is accurate. Please refer to the regulatory references in the introductory paragraph to this section and to the division guidance in VI.2. above.

6. The following QA/QC must be performed in accordance with 40 CFR 136.7: demonstration of capabilities (DOCs), continuing calibration verification for pH and DO, and completion of the SOPs for the lab. Again, please refer to the regulatory references in the introductory paragraph to this section above. Per a May 30, 2023 phone conversation with Mr. Danny Neely, the DOCs are being done once per year.

Additional observations noted during the onsite inspection are detailed in Section VIII.2. below.

VII. Sludge Handling/Disposal (or Biosolids Handling/Disposal)

Part 3.3. of the NPDES permit contains requirements for sludge and/or biosolids use or disposal. The WWTP has a notice of coverage (tracking no. TNB063932) for the General State Operating Permit for the Land Application of Non-Exceptional Quality Biosolids that became effective on September 23, 2019 and will expire on August 15, 2024. Please be advised that if the sludge handling practices change, this EFO must be notified. Additional observations noted during the onsite inspection are detailed in Section VIII.2. below. No deficiencies were noted in these program areas.

VIII. Additional Comments and Recommendations

Additional comments and recommendations are noted below. Please be advised that these comments and recommendations are not NPDES permit requirements. However, addressing the noted issues could help prevent NPDES permit violations. The WWTP and collection system observations are included to document the status of both at the time of the inspections.

1. Per a May 30, 2023 phone conversation with Mr. Danny Neely, he plans to retire during the fall of 2023. The Town is advised that the WWTP and collection system must be operated under the supervision of a certified operator licensed in the State of Tennessee. Per NPDES permit part 3.1., “The waste treatment facilities shall be operated under the supervision of a certified wastewater treatment operator and the collection system shall be operated under the supervision of a certified collection system operator in accordance with the Water Environmental Health Act of 1984.”
2. The following comments were made of the records/reports and laboratory practices.
 - a. The WWTP currently has the 22nd edition of Standard Methods. However, the 23rd edition is needed.
 - b. During the TSS analysis, the effluent sample proved too heavy in solids to filter. Baileyton WWTP personnel were advised that the sample volume filtered could be changed. Per SM 2540 D (20) 3.b., “If filtration takes more than 10 min to complete, increase filter size or decrease sample volume.”

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 10

- c. The composite samplers tubing is replaced monthly. The division recommends documenting the replacement and checking to ensure at least 100 mL volume is obtained per each sampling aliquot as stated in the permit.
 - d. The division recommends that monthly calibration checks be done on the influent and effluent flow meters using a staff gauge.
 - e. For the BOD analysis, store bought distilled water is used. The division recommends acquiring a certificate of analysis for the water to determine its quality and how it might affect the analyses using it.
 - f. Both 7 and 10 pH buffers were used to calibrate the pH meter. Baileyton WWTP personnel were advised to obtain some 4-pH buffer if the meter reads below 7.0. Also, since the pH meter (Hanna Instrument pH 200) appears to no longer be manufactured, a newer instrument should be obtained. Per a May 30, 2023 phone conversation with Mr. Danny Neely, a new pH meter will be obtained.
3. The following observations were made of the WWTP.
- a. The UV disinfection unused bank channel had vegetative growth. On June 1, 2022 Baileyton WWTP personnel indicated the bank channel would be pressure washed within two weeks. The UV circuit board has been replaced 5-6 times in a year due to power surges. Resolving the power surge/UV circuit board issue would ensure continual operation of the UV disinfection and compliance with the NPDES permit. Resources currently used on multiple circuit boards could be used elsewhere for the WWTP's operation and maintenance. Per a May 30, 2023 phone conversation with Mr. Danny Neely, the unused bank channel is pressure washed every three months.
 - b. The effluent post aeration tank had lots of foam and brown/tan coloration. These conditions were not observed in the influent to the WWTP. The source of the foam and brown/tan coloration is unknown. Please refer to the regulatory reference in section IV.1. above.
 - c. The solids/green building where the belt filter press was located only has 25 pounds of water pressure. There was insufficient water pressure to operate the belt filter press properly. The inoperable press was removed from the WWTP.
4. The following observations were made of the pump stations.
- a. The North Greene High School pump station had similar debris in the tank and on the ground near the lid and beside a drainage way. The school grease traps/holding septic tanks upgradient of the station are cleaned out by a contractor. Puddled water with a gray tint was observed downgradient from the pump station. No wastewater odor was observed. Stormwater runoff from the school greenhouse flows near the station. Per a May 30, 2023 phone conversation with Mr. Danny Neely, the source of the debris was from the school grease traps/holding septic tanks.
 - b. Pump station no. 3's tank wall needs cleaning inside of it. Also, the tank concrete wall showed signs of erosion.

Performance Audit Inspection

Baileyton WWTP

June 8, 2023

Page 11

- c. The TA (David Crockett) truck stop pump station had one pump with a high-pitched “whine” sound when it was turned on. Per a May 30, 2023 phone conversation with Mr. Danny Neely, both pumps have been replaced.
- d. The WWTP influent pump station has a lot of trash on the wastewater’s surface. Also, the station has no screen on the vent pipe for the tank (wet well). Per a May 30, 2023 phone conversation with Mr. Danny Neely, an outside contractor pumps the station tank twice per year. As designed, influent flow comes into the station tank at the bottom and thus, cleaning the tank is the only method available to control the trash.
- e. The WWTP effluent pump station had an air relief valve that had wastewater shooting up when a pump was turned on. The valve was in a separate tank beside the station. Also, it was unknown where a drain in the separate pump tank goes. Per a May 30, 2023 phone conversation with Mr. Danny Neely, the air relief valve is in normal operation and the valve drains back into the station.

IX. Conclusion

Compliance with NPDES TN0063932 requirements helps ensure discharges that are protective of downstream fish and aquatic life and water quality. The division requests that you develop and submit, by July 8, 2023 a detailed action plan and proposed implementation schedule addressing the numbered points discussed in sections I. through VI. above. Thank you for your efforts to ensure permit compliance and to protect state water quality. If I may be of assistance in matters concerning this report, please contact me via telephone at (423) 218-5876 or via email at Sandra.Vance@tn.gov.

Sincerely,



Sandra K. Vance
Environmental Protection Specialist
Division of Water Resources
Johnson City EFO

cc: Mr. Danny Neely, Certified Operator, Baileyton WWTP, (via email)
Mr. William Parks, DWR Program Coordinator, Johnson City (via email)
Ms. Brienne Begley, DWR Johnson City EFO (via email)
Mr. Corey Click, DWR Johnson City EFO (via email)
Ms. Barbara Loudermilk, DWR Nashville (via email)
Ms. Maybelle Sparks, P.E., Water-Based Systems, DWR, Nashville (via e-mail)
Ms. Sarah Elias, DWR Compliance and Enforcement Unit, Nashville (via email)
File Copy, DWR, Johnson City EFO
WaterLog database