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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

APR 21 2023

IND/MUN BRANCH WATER DIVISION

IN THE MATTER OF:)
)
Jefferson County Commission)
Environmental Services Department)
Cahaba River WWTP)
Birmingham, Jefferson County, Alabama)
)
NPDES PERMIT NO. AL0023027)

Consent Order No. XX-XXX-CWP

PREAMBLE

This Special Order by Consent is made and entered into by the Alabama Department of Environmental Management (“the Department”) and the Jefferson County Commission Environmental Services Department (“the Permittee”) pursuant to the provisions of the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, the Alabama Water Pollution Control Act (“AWPCA”), Ala. Code §§ 22-22-1 to 22-22-14, as amended, and the regulations promulgated pursuant thereto.

STIPULATIONS

1. The Permittee operates a wastewater treatment plant (“WWTP”) known as the Cahaba River WWTP, located at 3900 Veona Daniels Road, in Birmingham, Jefferson County, Alabama.
2. The Department is a duly constituted department of the State of Alabama pursuant to Ala. Code §§ 22-22A-1 to 22-22A-17, as amended.
3. Pursuant to Ala. Code § 22-22A-4(n), as amended, the Department is the state agency responsible for the promulgation and enforcement of water pollution control regulations in accordance with the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 to 1388. In addition, the Department is authorized to administer and enforce the provisions of the AWPCA.

DEPARTMENT’S CONTENTIONS

4. The Department reissued National Pollutant Discharge Elimination System (“NPDES”) Permit No. AL0023027 (“the Permit”) to the Permittee on November 26, 2019, effective December 1, 2019, establishing limitations on the discharge of pollutants from a point source, designated

therein as outfall number 0011, and storm water from point sources, designated therein as outfall numbers 002S, 003S, and 004S, to the Cahaba River, a water of the state. The Permit requires that the Permittee monitor its discharges and submit periodic Discharge Monitoring Reports (“DMRs”) to the Department describing the results of the monitoring. In addition, the Permit requires that the Permittee properly operate and maintain all facilities and systems of treatment and control which are installed or used by the Permittee to achieve compliance with the conditions of the Permit.

5. ADEM Admin. Code r. 335-6-10-.06(c) requires State waters to be free from substances attributable to sewage, industrial wastes or other wastes in concentrations or combinations which are toxic or harmful to human, animal, or aquatic life to the extent commensurate with the designated usage of such waters. The Permittee’s Sanitary Sewer Overflow (“SSO”) report, for the August 29, 2022, SSO event indicates that a fish kill in an unnamed tributary (“UT”) to Patton Creek occurred as a result of the SSO event that occurred near 2530 Creekview Drive, Hoover, Alabama. The SSO report submitted to the Department by the Permittee indicated that the cause of the SSO was an upgradient flow monitor becoming dislodged and blocking the flow of sewage within the system.

6. ADEM Admin Code r. 335-6-10-.09(5)(e)7(ii) requires that instream E. coli not exceed a maximum of 298 col/100 mL during the months of May through October. The Permittee’s SSO report, for the August 29, 2022, SSO event indicates that the E. coli concentration downstream of the SSO was 1553 col/100 mL on August 30, 2022.

7. The Permittee entered into Consent Decree No. 93-G-2492-S with the Cahaba River Society, Inc and the United States of America on November 1, 1996, for this facility, among others, for unpermitted discharges from the collection system.

8. The Permittee consents to abide by the terms of this Consent Order and to pay any civil penalty assessed herein.

9. The Department has agreed to the terms of this Consent Order in an effort to resolve the violations cited herein without the unwarranted expenditure of State resources in further

prosecuting the alleged violations. The Department has determined that the terms contemplated in this Consent Order are in the best interests of the citizens of Alabama.

Pursuant to Ala. Code § 22-22A-5(18)c., as amended, in determining the amount of any penalty, the Department must give consideration to the seriousness of the violation, including any irreparable harm to the environment and any threat to the health or safety of the public; the standard of care manifested by such person; the economic benefit which delayed compliance may confer upon such person; the nature, extent, and degree of success of such person's efforts to minimize or mitigate the effects of such violation upon the environment; such person's history of previous violations; and the ability of such person to pay such penalty. Any civil penalty assessed pursuant to this authority shall not exceed \$25,000.00 for each violation, provided however, that the total penalty assessed in an order issued by the Department shall not exceed \$250,000.00. Each day that such violation continues shall constitute a separate violation. In arriving at this civil penalty (summarized in Attachment 1), the Department has considered the following:

A. **SERIOUSNESS OF THE VIOLATIONS AND BASE PENALTY:** Based on the information available to the Department, violations of the Permit, ADEM Admin. Code chap. 335-6-6, ADEM Admin. Code chap. 335-6-10, and the AWPCA were noted. The Department considered the general nature of each violation, the magnitude and duration of each non-compliant discharge, the characteristics of each pollutant discharged, the condition of the receiving waters, the violations' effects, if any, on the receiving waters, and any available evidence of irreparable harm to the environment or threat to the public.

B. **THE STANDARD OF CARE:** In consideration of the standard of care manifested by the Permittee, the Department believes the civil penalty sought in this matter is sufficient and has not enhanced the penalty based on this factor.

C. **ECONOMIC BENEFIT WHICH DELAYED COMPLIANCE MAY HAVE CONFERRED:** The Department is not aware of an economic benefit gained by the Permittee as a result of the violations referenced herein.

D. EFFORTS TO MINIMIZE OR MITIGATE THE EFFECTS OF THE VIOLATIONS UPON THE ENVIRONMENT: The Permittee indicated that efforts were taken to minimize or mitigate the effects of the violations upon the environment; however, the penalty has not been adjusted.

E. HISTORY OF PREVIOUS VIOLATIONS: The Permittee has a history of previous violations; however, the Department has not enhanced the penalty in consideration that the previous violations are not similar in nature to the violations cited herein.

F. THE ABILITY TO PAY: The Permittee has not alleged an inability to pay the civil penalty.

G. This Special Order by Consent is a negotiated settlement and, therefore, the Department has compromised the amount of the penalty the Department believes is warranted in this matter in the spirit of cooperation and desire to resolve this matter amicably, without incurring the unwarranted expense of litigation.

H. The civil penalty is summarized in Attachment 1.

I. The Department neither admits nor denies Permittee's contentions, which are set forth below. The Department has agreed to the terms of this Consent Order in an effort to resolve the violations herein without unwarranted expenditure of State resources in further prosecuting the alleged violations. The Department has determined that the terms contemplated in this Consent Order are in the best interests of the citizens of Alabama.

PERMITTEE CONTENTIONS The Permittee consents to abide by the terms of this Consent Order. As to the activities relevant to this Consent Order, the Permittee believes the following facts are material to the alleged violations:

A. Without the admission of fact or liability, the Permittee consents to abide by the terms of this Consent Order and to pay the civil penalty assessed herein. In no event shall this Consent Order be construed as an admission of liability by the Permittee and in no event shall it be introduced as evidence in any proceeding for that purpose.

B. The Jefferson County Commission, Environmental Services Department ("ESD") operates and maintains the sanitary sewer collection system for Jefferson County, Alabama, that includes over 3,200 miles of sewer lines, 178 sewage pumping stations and nine water

reclamation facilities throughout the region. ESD proactively manages the collection system using best practices for the wastewater industry that include extensive flow monitoring, dynamic system modeling as a predictive tool and to guide capital replacement, preventative line maintenance, line cleaning, a robust SSO abatement capital improvement program, and on-call reactive repair resources. ESD has expended over \$2 billion in professional services and capital upgrades to the sewer system to minimize and mitigate SSOs. These efforts include flow management structures, sewer upsizing and replacement, sewer repairs, flow modeling, infiltration and inflow (I&I) reduction projects, and major improvements for collection, pump stations, and treatment capacity.

C. **Alleged Failure to Minimize or Mitigate the Effects of the Violations upon the Environment (\$D):** ESD contends that its preventative monitoring and maintenance efforts, coupled with its considerable work in response to the SSO, materially minimized and mitigated the impact of the SSO to the environment. These activities include the following:

1. Minimization and Mitigations Efforts Prior to the SSO on August 29, 2022

Currently, ESD monitors wastewater levels and flows at approximately 235 sites distributed throughout the collection system to assess flow conditions and to predict and prevent SSOs. The flow monitoring network is professionally managed and maintained by ADS Environmental Services, a Division of ADS LLC ("ADS"). ADS is a certified ISO9001 company. The policies and standard operating procedures used by ADS are externally audited to maintain the ISO9001 certification. All flow monitoring equipment is installed and maintained by annually certified technicians following standard operating procedures (SOPs). ADS conducts onsite maintenance and inspection on each site a minimum of once a month and submits monthly summary maintenance forms to ESD for all flow monitor sites confirming the results of maintenance checks and the date they were performed. Annually, ESD expends approximately \$1.8 million ("M") and has spent approximately \$12M in the last 10 years for ADS to monitor and maintain the network to predictively manage and minimize SSOs.

On October 11, 2021, ADS informed ESD that the flow monitor in Manhole 5004-089 upgradient from the manhole (MH5004-081, SSO on August 29, 2022) had become dislodged. Rainfalls during this time period exceeded 12 inches in 5 days and caused velocities in the pipe at Manhole 504-089 to exceed 16 feet per second. The excessive forces caused by the fast-moving water caused the failure of multiple points of attachment including a meter ring (that is clamped to the interior of the sewer pipe), sensor cable attached to the manhole rungs, and anchor bolt attached to the manhole wall. The overall forces pulled the brick out of the manhole wall to which the anchor bolt and anchor line were attached. ADS personnel and ESD Line Maintenance crews investigated the area by pulling manhole lids downgradient of the flow meter manhole (MH5004-89). Given the shape/size of the monitor compared to the pipe diameter (8.5" monitor diameter vs 10" pipe), coupled with the facts that there were no observable abnormalities to the flow and no flow abnormalities were recorded by other monitors nearest to the site, it was reasonable to conclude the flow monitor continued to the 54" interceptor downgradient and ultimately to the Al Seier Pump Station wet well. Monitoring and the subsequent search for the flow meter were efforts to mitigate potential SSOs caused by the dislodged meter.

2. Minimization and Mitigations Efforts During the SSO Events

The location of the August 29, 2022 SSO is in a deep, steep-sided ravine with a total elevation drop of approximately 150 feet (upstream to downstream) over a horizontal distance of approximately 1,000 feet with several vertical drops (waterfalls) within the reach (USGS 7.5-minute Topographic Map, Birmingham South, 2020). The ravine banks are steep (15-to-30-foot drop) and treacherous and consist of loose rocks and soils, riprap, trees, brush and brambles, and debris which made approaching the location and discovery of the actual overflow difficult. Upon receipt of an odor complaint, ESD immediately dispatched crews to locate the source of the odor. Crews investigated the area and noted flow in

the downgradient portion of the sewer line (downgradient of the SSO). The crew washed the line but reported they did not find an SSO. ESD subsequently sent additional crews to the site. These crews attempted to walk the line from the downgradient side but, due to the steep unmanageable terrain (approximate 30-foot waterfall), switched to the upgradient side to complete the walk.

Upon discovery of the SSO, construction contractors were notified and a sewer bypass was setup to reroute flow from the affected section of the sewer line, stop the SSO, and minimize further risks to human health and the environment. ESD also released a public advisory through local media to protect human health. Crews worked into the night to set-up the bypass and it was completed at approximately 12:30 a.m. on August 30, 2022.

In addition to setting up bypass pumping to stop the SSO, ESD cleaned and disinfected the area impacted by sewage immediately around and downgradient of the SSO and cleaned discrete areas of the creek downstream of the SSO. Water quality monitoring locations were setup to assess the environmental impact and determine if additional cleanup would be warranted. Based on the data collected, additional intervention actions were deemed not necessary as DO levels were within acceptable ranges, pH levels were similar to upstream conditions, and E. coli levels were dropping rapidly. Crews also walked the unnamed tributary downstream to Patton Creek and walked from the confluence with the unnamed tributary to several hundred feet downstream in Patton Creek and noted healthy fish communities.

The cause of the sewer line was initially thought to be a fallen tree with the root ball exposed because one was found at the area of the SSO. However, once the line was uncovered (tree, dirt, debris removed) it was discovered that the line was intact. To determine the cause of the SSO, a video inspection crew was dispatched to investigate the line. Due to the terrain and the configuration of the sewer line,

the camera teams were unable to view the entire segment of the sewer line. However, close to and downgradient of the overflowing manhole, the subject flow meter was discovered lodged in a bend in the sewer line. The meter was removed after installation of the sewer bypass.

Total expenditures for this single event response to minimize and mitigate the effects of this SSO exceeded \$80,000. These expenses include: 4 days of bypass pumping, crew response of approximately 20 individuals (crews, supervisors, and management personnel) over 6 days, 4 days of water quality instream sampling and *E. coli* analysis (2 times per day), laboratory analysts' time, engineering efforts to identify the cause, press release preparation by the County's Public Information Officer, leadership participation, and other county resources to mitigate and minimize the SSO so as to reduce the overall environmental impact.

3. Minimization and Mitigations Efforts Currently in Planning

The week following the SSO event, ESD met to discuss the SSO, lessons learned, and next steps to help with future efforts to minimize and mitigate impacts to the environment. Discussions centered on what needed to be done with this pipe to minimize the risk that there would be a repeat event. This meeting had approximately 20 ESD employees including the ESD Director, both ESD Deputy Directors, the Laboratory Manager and staff, senior engineering staff, Line Maintenance Managers and Supervisors, and crew leads. In addition to analyzing the event, capital project investigations and planning for potential realignment of the sewer line were authorized.

D. **Summary:** In summary, ESD has demonstrated that considerable mitigation and minimization efforts were utilized in all aspects related to this SSO to protect human health and the environment through actions and expenditures: (1) prior to the SSO (through extensive flow monitoring, modeling, capital improvement within the system); (2) during the SSO event (investigation efforts, environmental cleanup, bypass pumping, cleaning the line, inspecting the

line [CCTV], instream water quality monitoring), and (3) after the SSO event (lessons learned discussion, developing potential revisions to the Sanitary Sewer Overflow Response Plan, capital investigation/planning).

ORDER

THEREFORE, the Permittee, without admission of fact or liability, along with the Department, desire to resolve and settle the compliance issues cited above. The Department has carefully considered the facts available to it and has considered the penalty factors enumerated in Ala. Code § 22-22A-5(18)c., as amended, as well as the need for timely and effective enforcement, and the Department believes that the penalty assessed below and the following conditions are appropriate to address the violations alleged herein. Therefore, the Department and the Permittee (collectively "Parties") agree to enter into this CONSENT ORDER with the following terms and conditions:

A. The Permittee shall pay to the Department a civil penalty in the amount of \$8,000 in settlement of the violations alleged herein within forty-five days from issuance of this Consent Order. Failure to pay the civil penalty within forty-five days from issuance may result in the Department's filing a civil action in the Circuit Court of Montgomery County to recover the civil penalty.

B. All penalties due pursuant to this Consent Order shall be made payable to the Alabama Department of Environmental Management by certified or cashier's check and shall be remitted to:

Office of General Counsel
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

C. The Permittee shall prepare and submit to the Department a Report that addresses the causes of the August 29, 2022 SSO including, but not limited to, the flow monitor becoming dislodged. The Report shall also specify actions that will be taken to ensure all flow monitors currently utilized within the collection system are secured, and a plan to develop/update standard operating procedures to ensure proper installation, inspection, and operation and

maintenance of flow monitors within the collection system as necessary to prevent dislodging. The Report shall specify the number of flow monitors currently located within the collection system. The Permittee shall submit the Report so that it is received by the Department no later than 45 days after issuance of this Consent Order.

D. The Permittee shall complete implementation of the recommendations provided in the Report no later than 90 days after issuance of this Consent Order.

E. The Permittee shall comply with all terms, conditions, and limitations of the Permit immediately upon issuance of this Consent Order.

F. The Permittee shall submit a certification to the Department indicating whether the Permittee is in compliance with all requirements of this Consent Order. The Permittee shall submit such certification so that it is received by the Department no later than 120 days after issuance of this Consent Order.

G. After issuance of this Consent Order, the Permittee shall pay stipulated penalties for each day it fails to meet any of the milestone dates or satisfy any of the requirements set forth in or established by Paragraphs C and F contained herein. The stipulated civil penalties for failure to meet each milestone or any requirement date, except for *Force Majeure* acts as hereinafter defined, shall be as follows:

<u>Period of Noncompliance</u>	<u>Penalty per Day per Violation</u>
1st to 30th day	\$ 100.00
31st to 60th day	\$ 200.00
After 60 days	\$ 300.00

If the Permittee fails to meet any milestone or any assigned date ninety days after the required dates found in Paragraphs C and F, the Department reserves the right to file a new action against the Permittee.

H. Cumulative stipulated penalties described in Paragraph G above shall under no circumstances exceed \$15,000.00. Once stipulated penalties of \$15,000.00 are due to the Department, or should violations continue to occur after the final compliance date specified in

the accepted Compliance Plan, the Department reserves the right to issue additional orders or file suit against the Permittee in the Circuit Court of Montgomery County or other court of competent jurisdiction to enforce compliance with this Consent Order.

I. Payment of stipulated penalties are due for violations of milestone dates under this Consent Order not later than the 28th day of the month following the month a milestone date was not achieved. Notification to the Permittee by the Department of the assessment of any stipulated penalty is not required.

J. This Consent Order shall apply to and be binding upon both Parties, their directors, officers, and all persons or entities acting under or for them. Each signatory to this Consent Order certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Consent Order, to execute the Consent Order on behalf of the Party represented, and to legally bind such Party.

K. Subject to the terms of these presents and subject to provisions otherwise provided by statute, this Consent Order is intended to operate as a full resolution of the violations which are cited in this Consent Order.

L. The Permittee is not relieved from any liability if it fails to comply with any provision of this Consent Order.

M. For purposes of this Consent Order only, the Department may properly bring an action to compel compliance with the terms and conditions contained herein in the Circuit Court of Montgomery County. In any action brought by the Department to compel compliance with the terms of this Agreement, the Permittee shall be limited to the defenses of *Force Majeure*, compliance with this Agreement and physical impossibility. A *Force Majeure* is defined as any event arising from causes that are not foreseeable and are beyond the reasonable control of the Permittee, including its contractors and consultants, which could not be overcome by due diligence (i.e., causes which could have been overcome or avoided by the exercise of due diligence will not be considered to have been beyond the reasonable control of the Permittee) and which delays or prevents performance by a date required by the Consent Order. Events such as unanticipated or increased costs of performance, changed economic circumstances, normal

precipitation events, or failure to obtain federal, state, or local permits shall not constitute *Force Majeure*. Any request for a modification of a deadline shall be accompanied by the reasons (including documentation) for each extension and the proposed extension time. The Permittee shall submit this information so that it is received by the Department a minimum of ten working days prior to the original anticipated completion date. If the Department, after review of the extension request, finds the work was delayed because of conditions beyond the control and without the fault of the Permittee, the Department may extend the time as justified by the circumstances. The Department may also grant any other additional time extension as justified by the circumstances, but it is not obligated to do so.

N. The sole purpose of this Consent Order is to resolve and dispose of all allegations and contentions stated herein concerning the factual circumstances referenced herein. Should additional facts and circumstances be discovered in the future concerning the Cahaba River WWTP which would constitute possible violations not addressed in this Consent Order, then such future violations may be addressed in other orders as may be issued by the Director, by litigation initiated by the Department, or by such other enforcement action as may be appropriate. The Permittee shall not object to such future orders, litigation, or enforcement action based on the issuance of this Consent Order if such future orders, litigation, or other enforcement action addresses new matters not raised in this Consent Order.

O. This Consent Order shall be considered final and effective immediately upon signature of all Parties. This Consent Order shall not be appealable, and the Permittee does hereby waive any hearing on the terms and conditions of same.

P. This Consent Order shall not affect the Permittee's obligation to comply with any Federal, State, or local laws or regulations.

Q. Final approval and entry into this Consent Order are subject to the requirements that the Department provide notice of proposed orders to the public, and that the public have at least thirty days within which to comment on the proposed Consent Order.

R. Should any provision of this Consent Order be declared by a court of competent jurisdiction or the Environmental Management Commission to be inconsistent with Federal or

State law and therefore unenforceable, the remaining provisions hereof shall remain in full force and effect.

S. Any modification of this Consent Order shall be agreed to in writing and signed by both Parties.

T. Except as otherwise set forth herein, this Consent Order is not and shall not be interpreted to be a permit or modification of an existing permit under Federal, State, or local law, and shall not be construed to waive or relieve the Permittee of its obligations to comply in the future with any permit.

Executed in duplicate, with each part being an original.

**JEFFERSON COUNTY COMMISSION
ENVIRONMENTAL SERVICES DEPARTMENT**

**ALABAMA DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT**

EXECUTED AND ISSUED:

By: T. Joe Knight
Its: Commission President Pro-Tem

By: _____
Its: _____

Date: 4/20/2023

Date: _____

Attachment 1

Jefferson County Commission Environmental Services Department
 Cahaba River WWTP
 Birmingham, Jefferson County, Alabama
 NPDES Permit No. AL0023027

Violation*	Number of Violations*	(A)	(B)	(C)
		Seriousness of Violation*	Standard of Care*	History of Previous Violations*
Fish Kill / Water Quality Standard (Free from Toxics / Harmful Substances)	1	\$ 10,000.00	\$ -	\$ -
Instream E. coli Water Quality Criteria Violation	1	\$ 1,500.00	\$ -	\$ -
		\$11,500.00	\$0.00	\$0.00
		Total (A)	Total (B)	Total (C)
Additional Adjustments due to negotiations, receipt of additional information, or public comment		Base Penalty Total [Total (A) + Total (B) + Total (C)]		\$11,500.00
Mitigating Factors (-)		Mitigating Factors (-)		
Economic Benefit (+)		Economic Benefit (+)		
Ability to Pay (-)		Ability to Pay (-)		
Other Factors (+/-)		Other Factors (+/-)		
Other Factors (+/-)	-\$3,500.00	INITIAL PENALTY		\$11,500.00
Total Adjustments (+/-)	-\$3,500.00	Total Adjustments (+/-)		-\$3,500.00
		FINAL PENALTY		\$8,000.00

Footnotes

*See the "Stipulations" portion of the Order for a detailed description of each violation and the penalty factors