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MARCH 3, 2025

David Denard, Director
Jefferson County Commission
716 Richard Arrington Jr. Blvd N
Suite A-300
Birmingham, AL 35203

RE: Draft Permit
NPDES Permit No. AL0023027
Cahaba River WRF
Jefferson County, Alabama

Dear Mr. Denard:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Please be aware that Parts I.C.1.c and I.C.2.e of your permit require participation in the Department's Alabama Environmental Permitting and Compliance System (AEPACS) for submittal of DMRs and SSOs upon issuance of this permit unless valid justification as to why you cannot participate is submitted in writing. SSO hotline notifications and hard copy Form 415 SSO reports may be used only with the written approval from the Department. AEPACS allows ADEM to electronically validate and acknowledge receipt of the data. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. Please note that all AEPACS users can create the electronic DMRs and SSOs; however, only AEPACS users with certifier permissions will be able to submit the electronic DMRs and SSOs to ADEM.

Our records indicate that you have utilized the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs) and sanitary sewer overflow (SSO) notifications/reports. The Department transitioned from the E2 Reporting System to the Alabama Environmental Permitting and Compliance System (AEPACS) for the submittal of DMRs and SSOs on November 15, 2021. AEPACS is an electronic system that allows facilities to apply for and maintain permits as well as submit other required applications, registrations, and certifications. In addition, the system allows facilities to submit required compliance reports or other information to the Department. The Department has used the E2 User account information to set up a similar User Profile in AEPACS based on the following criteria:

1. The user has logged in to E2 since October 1, 2019; and
2. The E2 user account is set up using a unique email address.

E2 users that met the above criteria will only need to establish an ADEM Web Portal account (https://prd.adem.alabama.gov/awp) under the same email address as their E2 account to have the same permissions in AEPACS as they did in E2. They will also automatically be linked to the same facilities they were in E2.

Please also be aware that Part IV. of your permit requires that you develop, implement, and maintain a Sanitary Sewer Overflow Response Plan.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

If you have questions regarding this permit or monitoring requirements, please contact Dustin Stokes at dastokes@adem.alabama.gov or (334) 271-7808.

Sincerely,

Dustin Stokes
Municipal Section
Water Division

Enclosure

cc: Environmental Protection Agency Email
Ms. Elaine Snyder/U.S. Fish and Wildlife Service
Ms. Elizabeth Brown/Alabama Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: JEFFERSON COUNTY COMMISSION
716 RICHARD ARRINGTON JR. BLVD N
SUITE A-300
BIRMINGHAM, AL 35203

FACILITY LOCATION: CAHABA RIVER WRF (12 MGD)
3900 VEONA DANIELS ROAD
BIRMINGHAM, ALABAMA
JEFFERSON COUNTY

PERMIT NUMBER: AL0023027

RECEIVING WATERS: CAHABA RIVER

*In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, **Code of Alabama 1975**, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, **Code of Alabama 1975**, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.*

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

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PART I: DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. DSN 0011: Treated Domestic Wastewater

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
Oxygen, Dissolved (DO) (00300) Effluent Gross Value	*****	*****	*****	7.0 Minimum Daily	*****	*****	mg/l	5X Weekly	Grab	Not Seasonal
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	8.5 Maximum Daily	S.U.	5X Weekly	Grab	Not Seasonal
Solids, Total Suspended (00530) Effluent Gross Value	3002 Monthly Average	4503 Weekly Average	lbs/day	*****	30.0 Monthly Average	45.0 Weekly Average	mg/l	5X Weekly	24-Hr Composite	Not Seasonal
Solids, Total Suspended (00530) Raw Sew/Influent	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	5X Weekly	24-Hr Composite	Not Seasonal
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	200 Monthly Average	300 Weekly Average	lbs/day	*****	2.0 Monthly Average	3.0 Weekly Average	mg/l	5X Weekly	24-Hr Composite	W
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	100 Monthly Average	150 Weekly Average	lbs/day	*****	1.0 Monthly Average	1.5 Weekly Average	mg/l	5X Weekly	24-Hr Composite	S
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	400 Monthly Average	600 Weekly Average	lbs/day	*****	4.0 Monthly Average	6.0 Weekly Average	mg/l	5X Weekly	24-Hr Composite	W
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	200 Monthly Average	300 Weekly Average	lbs/day	*****	2.0 Monthly Average	3.0 Weekly Average	mg/l	5X Weekly	24-Hr Composite	S

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

(1) Sample Frequency – See also Part I.B.2

(2) S = Summer (May – November)
W = Winter (December – April)
NTS = Nutrient Summer (April – October)
NTW = Nutrient Winter (November - March)
ECS = E. coli Summer (May - October)
ECW = E. coli Winter (November - April)

(3) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" on the monthly DMR.

(4) A measurement of TRC below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as "*B" on the monthly DMR.

(5) From the permit effective date through March 31, 2032 – Monthly average limit = 0.20 mg/l during the summer season (NTS)

(6) From April 1, 2032 forward – Monthly average limit = 0.043 mg/l during the NTS

(7) For complete schedule, see Part I.E.2.

DSN 0011 (Continued): Treated Domestic Wastewater

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	Monthly	24-Hr Composite	Not Seasonal
Phosphorus, Total (As P) (00665) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	5X Weekly	24-Hr Composite	NTW
Phosphorus, Total (As P) (00665) See notes (5, 7) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	0.20 Monthly Average	(Report) Weekly Average	mg/l	5X Weekly	24-Hr Composite	NTS
Phosphorus, Total (As P) (00665) See notes (6, 7) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	0.043 Monthly Average	(Report) Weekly Average	mg/l	5X Weekly	24-Hr Composite	NTS
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Daily	Continuous	Not Seasonal
Chlorine, Total Residual (50060) See notes (3, 4) Effluent Gross Value	*****	*****	*****	*****	0.013 Monthly Average	0.022 Maximum Daily	mg/l	5X Weekly	Grab	Not Seasonal
E. Coli (51040) Effluent Gross Value	*****	*****	*****	*****	548 Monthly Average	2507 Maximum Daily	col/100mL	5X Weekly	Grab	ECW
E. Coli (51040) Effluent Gross Value	*****	*****	*****	*****	126 Monthly Average	298 Maximum Daily	col/100mL	5X Weekly	Grab	ECS

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

(1) Sample Frequency – See also Part I.B.2

(2) S = Summer (May – November)
W = Winter (December – April)
NTS = Nutrient Summer (April – October)
NTW = Nutrient Winter (November - March)
ECS = E. coli Summer (May - October)
ECW = E. coli Winter (November - April)

(3) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" on the monthly DMR.

(4) A measurement of TRC below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as "*B" on the monthly DMR.

(5) From the permit effective date through March 31, 2032 – Monthly average limit = 0.20 mg/l during the summer season (NTS)

(6) From April 1, 2032 forward – Monthly average limit = 0.043 mg/l during the NTS

(7) For complete schedule, see Part I.E.2.

DSN 0011 (Continued): Treated Domestic Wastewater

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
BOD, Carbonaceous 05 Day, 20C (80082) Effluent Gross Value	1000 Monthly Average	1501 Weekly Average	lbs/day	*****	10.0 Monthly Average	15.0 Weekly Average	mg/l	5X Weekly	24-Hr Composite	W
BOD, Carbonaceous 05 Day, 20C (80082) Effluent Gross Value	400 Monthly Average	600 Weekly Average	lbs/day	*****	4.0 Monthly Average	6.0 Weekly Average	mg/l	5X Weekly	24-Hr Composite	S
BOD, Carbonaceous 05 Day, 20C (80082) Raw Sew/Influent	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	5X Weekly	24-Hr Composite	Not Seasonal
BOD, Carb-5 Day, 20 Deg C, Percent Remvl (80091) Percent Removal	*****	*****	*****	85.0 Monthly Average Minimum	*****	*****	%	Monthly	Calculated	Not Seasonal
Solids, Suspended Percent Removal (81011) Percent Removal	*****	*****	*****	85.0 Monthly Average Minimum	*****	*****	%	Monthly	Calculated	Not Seasonal

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

(1) Sample Frequency – See also Part I.B.2

(2) S = Summer (May – November)

W = Winter (December – April)

NTS = Nutrient Summer (April – October)

NTW = Nutrient Winter (November - March)

ECS = E. coli Summer (May - October)

ECW = E. coli Winter (November - April)

(3) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" on the monthly DMR.

(4) A measurement of TRC below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as "*B" on the monthly DMR.

(5) From the permit effective date through March 31, 2032 – Monthly average limit = 0.20 mg/l during the summer season (NTS)

(6) From April 1, 2032 forward – Monthly average limit = 0.043 mg/l during the NTS

(7) For complete schedule, see Part I.E.2.

2. DSN 001T: Toxicity

This is an administrative outfall designation. Outfall 001T is the same physical outfall as Outfall 0011. Discharge from this outfall shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
Toxicity, Ceriodaphnia Chronic (61426) Effluent Gross Value	*****	0 Single Sample	pass=0;fail=1	*****	*****	*****	*****	See Permit Requirements	24-Hr Composite	Aug
Toxicity, Pimephales Chronic (61428) Effluent Gross Value	*****	0 Single Sample	pass=0;fail=1	*****	*****	*****	*****	See Permit Requirements	24-Hr Composite	Aug

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

(1) Sample Frequency – See also Part I.B.2

(2) See Permit Requirements for Effluent Toxicity Testing in Part IV.B.

3. DSN 002S, 003S, & 004S: Storm water

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfalls 002S, 003S, & 004S, which are described more fully in the Permittee's application as storm water outfalls located at the wastewater treatment plant. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration			Units	Sample Freq See note (1)	Sample Type	Seasonal See note (2)
pH (00400) Storm Water	*****	*****	*****	(Report) Minimum Daily	*****	(Report) Maximum Daily	S.U.	Annually	Grab	Not Seasonal
Solids, Total Suspended (00530) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Oil & Grease (00556) Storm Water	*****	*****	*****	*****	*****	15 Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Nitrogen, Ammonia Total (As N) (00610) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Nitrogen, Kjeldahl Total (As N) (00625) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Phosphorus, Total (As P) (00665) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal
Flow, In Conduit or Thru Treatment Plant (50050) Storm Water	(Report) Monthly Average	(Report) Maximum Daily	MGD	*****	*****	*****	*****	Annually	Calculated	Not Seasonal
E. Coli (51040) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	col/100mL	Annually	Grab	Not Seasonal
BOD, Carbonaceous 05 Day, 20C (80082) Storm Water	*****	*****	*****	*****	*****	(Report) Maximum Daily	mg/l	Annually	Grab	Not Seasonal

See Part II.C.1. for Bypass and Part II.C.2. for Upset conditions.

(1) Sample Frequency – See also Part I.B.2

(2) See Permit Requirements for Stormwater in Part IV.G

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

Sample collection and measurement actions shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit. The effluent sampling point shall be at the nearest accessible location just prior to discharge and after final treatment, unless otherwise specified in the permit.

2. Measurement Frequency

Measurement frequency requirements found in Provision I.A. shall mean:

a. Seven days per week shall mean daily.

b. Five days per week shall mean any five days of discharge during a calendar weekly period of Sunday through Saturday.

c. Three days per week shall mean any three days of discharge during a calendar week.

d. Two days per week shall mean any two days of discharge during a calendar week

e. One day per week shall mean any day of discharge during a calendar week.

f. Two days per month shall mean any two days of discharge during the month that are no less than seven days apart. However, if discharges occur only during one seven-day period in a month, then two days per month shall mean any two days of discharge during that seven day period.

g. One day per month shall mean any day of discharge during the calendar month.

h. Quarterly shall mean any day of discharge during each calendar quarter.

i. The Permittee may increase the frequency of sampling, listed in Provisions I.B.2.a through I.B.2.h; however, all sampling results are to be reported to the Department.

3. Test Procedures

For the purpose of reporting and compliance, permittees shall use one of the following procedures:

a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" or "*B" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this permit the permittee shall use the newly approved method.

b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" or "*B" reported for values below the ML.

c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures a and b above shall be reported on the permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

4. **Recording of Results**

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The facility name and location, point source number, date, time and exact place of sampling;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used, including source of method and method number; and

f. The results of all required analyses.

5. Records Retention and Production

a. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.

b. All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

6. **Reduction, Suspension or Termination of Monitoring and/or Reporting**

a. The Director may, with respect to any point source identified in Provision I.A. of this permit, authorize the permittee to reduce, suspend or terminate the monitoring and/or reporting required by this permit upon the submission of a written request for such reduction, suspension or termination by the permittee, supported by sufficient data which demonstrates to the satisfaction of the Director that the discharge from such point source will continuously meet the discharge limitations specified in Provision I.A. of this permit.

b. It remains the responsibility of the permittee to comply with the monitoring and reporting requirements of this permit until written authorization to reduce, suspend or terminate such monitoring and/or reporting is received by the permittee from the Director.

7. **Monitoring Equipment and Instrumentation**

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. At a minimum, flow measurement devices shall be calibrated at least once every 12 months.

C. DISCHARGE REPORTING REQUIREMENTS

1. **Reporting of Monitoring Requirements**

a. The permittee shall conduct the required monitoring in accordance with the following schedule:

(1) **MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY** shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

(2) **QUARTERLY MONITORING** shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring should be reported on the last DMR due for the quarter (i.e., March, June, September and December DMRs).

(3) **SEMIANNUAL MONITORING** shall be conducted at least once during the period of January through June and at least once during the period of July through December. The permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., June and December DMRs).

(4) **ANNUAL MONITORING** shall be conducted at least once during the period of January through December. The permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be reported on the December DMR.

b. The permittee shall submit discharge monitoring reports (DMRs) in accordance with the following schedule:

(1) **REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING** shall be submitted on a monthly basis. The first report is due on the 28th day of the month following the month the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(2) **REPORTS OF QUARTERLY TESTING** shall be submitted on a quarterly basis. The first report is due on the 28th day of the month following the first complete calendar quarter the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(3) **REPORTS OF SEMIANNUAL TESTING** shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(4) **REPORTS OF ANNUAL TESTING** shall be submitted on an annual basis. Unless specified elsewhere in the permit, the first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b. electronically.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's electronic system (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b., unless otherwise directed by the Department.

If the Department's electronic system is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the Department's electronic system resuming operation, the permittee shall enter the data into the Department's electronic system, unless an alternate timeframe is approved by the Department. A comment should be included on the electronic DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date), if applicable.

(2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

(3) A permittee with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

(4) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.

(5) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.

(6) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules and Regulations, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible official" of the permittee as defined in ADEM Administrative Code Rule 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

Alabama Department of Environmental Management
Office of Water Services, Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

Alabama Department of Environmental Management
Office of Water Services, Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

Alabama Department of Environmental Management
Municipal Section, Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Municipal Section, Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

g. If this permit is a reissuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b. above.

2. **Noncompliance Notifications and Reports**

a. The Permittee shall notify the Department if, for any reason, the Permittee's discharge:

(1) Does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I.A. of this permit which is denoted by an "(X)";

(2) Potentially threatens human health or welfare;

(3) Threatens fish or aquatic life;

(4) Causes an in-stream water quality criterion to be exceeded;

(5) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);

(6) Contains a quantity of a hazardous substance that may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);

(7) Exceeds any discharge limitation for an effluent parameter listed in Part I.A. as a result of an unanticipated bypass or upset; or

(8) Is an unpermitted direct or indirect discharge of a pollutant to a water of the state. (Note that unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision.)

The Permittee shall orally or electronically provide notification of any of the above occurrences, describing the circumstances and potential effects, to the Director or Designee within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic notification, the Permittee shall submit a report to the Director or Designee, as provided in Provision I.C.2.c. or I.C.2.e., no later than five days after becoming aware of the occurrence of such discharge or occurrence.

b. If, for any reason, the Permittee's discharge does not comply with any limitation of this permit, then the Permittee shall submit a written report to the Director or Designee, as provided in Provision I.C.2.c below. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Provision I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.

c. Except for notifications and reports of notifiable SSOs which shall be submitted in accordance with the applicable Provisions of this permit, the Permittee shall submit the reports required under Provisions I.C.2.a. and b. to the Director or Designee on ADEM Form 421, available on the Department's website (http://www.adem.state.al.us/DeptForms/Form421.pdf). The completed Form must document the following information:

(1) A description of the discharge and cause of noncompliance;

(2) The period of noncompliance, including exact dates, times, and duration of the noncompliance. If the noncompliance is not corrected by the due date of the written report, then the Permittee shall provide an estimated date by which the noncompliance will be corrected; and

(3) A description of the steps taken by the Permittee and the steps planned to be taken by the Permittee to reduce or eliminate the noncompliant discharge and to prevent its recurrence.

d. Immediate notification

The Permittee shall provide notification to the Director, the public, the county health department, and any other affected entity such as public water systems, as soon as possible upon becoming aware of any notifiable sanitary sewer overflow. Notification to the Director shall be completed utilizing the Department's web-based electronic environmental SSO reporting system in accordance with Provision I.C.2.e.

e. The Department is utilizing an electronic system for notification and submittal of SSO reports. Except as noted below, the Permittee must submit all SSO reports electronically in the Department's electronic system. If requested, waivers from utilization of the electronic system shall be submitted in accordance with ADEM Admin. Code 335-6-1-.04(6). The Department's electronic reporting system shall be utilized unless a written waiver has been granted. A waiver is not effective until receipt of written approval from the Department. Utilization of verbal notifications and hard copy SSO report submittals is allowed only if approved in writing by the Department. The Permittee shall include in the SSO reports the information requested by ADEM Form 415. In addition, the Permittee shall include the latitude and longitude of the SSO in the report except when the SSO is a result of an extreme weather event (e.g., hurricane). To participate in the electronic system for SSO reports, an account may be created at https://aepacs.adem.alabama.gov/nviro/ncore/external/home. If the electronic system is down (i.e., electronic submittal of SSO data cannot be completed due to technical problems originating with the Department's system), the Permittee is not relieved of its obligation to notify the Department or submit SSO reports to the Department by the required submittal date, and the Permittee shall submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include verbal reports, reports submitted via the SSO hotline, or reports submitted via fax, e-mail, mail, or hand-delivery such that they are

received by the required reporting date. Within five calendar days of the electronic system resuming operation, the Permittee shall enter the data into the electronic system, unless an alternate timeframe is approved by the Department. For any alternate notification, records of the date, time, notification method, and person submitting the notification should be maintained by the Permittee. If a Permittee is allowed to submit SSO reports via an alternate method, the SSO report must be in a format approved by the Department and must be legible.

f. The Permittee shall maintain a record of all known wastewater discharge points that are not authorized as permitted outfalls, including but not limited to SSOs. The Permittee shall include this record in its **Municipal Water Pollution Prevention (MWPP) Annual Reports**, which shall be submitted to the Department each year by May 31st for the prior calendar year period beginning January 1st and ending December 31st. The MWPP Annual Reports shall contain a list of all known wastewater discharge points that are not authorized as permitted outfalls and any discharges that occur prior to the headworks of the wastewater treatment plant covered by this permit. The Permittee shall also provide in the MWPP Annual Reports a list of any discharges reported during the applicable time period in accordance with Provision I.C.2.a. The Permittee shall include in its MWPP Annual Reports the following information for each known unpermitted discharge that occurred:

(1) The cause of the discharge;

(2) Date, duration and volume of discharge (estimate if unknown);

(3) Description of the source (e.g., manhole, lift station);

(4) Location of the discharge, by latitude and longitude (or other appropriate method as approved by the Department);

(5) The ultimate destination of the flow (e.g., surface waterbody, municipal separate storm sewer to surface waterbody); and

(6) Corrective actions taken and/or planned to eliminate future discharges.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

a. The permittee shall inform the Director of any change in the permittee's mailing address or telephone number or in the permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the permittee shall furnish the Director with an update of any information provided in the permit application.

b. If the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

E. SCHEDULE OF COMPLIANCE

1. Compliance with discharge limits

The permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. Compliance with Total Phosphorus limits (Note: Summer Nutrient Season is April – October)

The Permittee shall achieve compliance with the discharge limitations for Total Phosphorus (TP) specified in Provision I.A according to the following schedule:

July 1, 2025 July 1, 2026 July 1, 2027 July 1, 2028 July 1, 2029 July 1, 2030 July 1, 2031	Submit report describing the Permittee's progress towards achieving compliance with TP limit of 0.043 mg/L. The report should include a discussion of the projects completed to date and a schedule for any projects that remain to be completed. The following should be included in the report, where applicable: pollution abatement program and preliminary plans; final plans, specifications, and drawings; date(s) of initiation of construction; and date(s) of attainment of operational status.
April 1, 2032	**Achieve compliance with TP limit of 0.043 mg/L (growing season monthly average)**

3. Schedule

No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II: OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices

a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.

b. The permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.

c. The permittee shall prepare, submit for approval and implement a Best Management Practices (BMP) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Certified Operator

The permittee shall not operate any wastewater treatment plant unless the competency of the operator to operate such plant has been duly certified by the Director pursuant to AWPCA, and meets the requirements specified in ADEM Administrative Code, Rule 335-10-1.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

a. The permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

(1) Enter upon the permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permits;

(3) Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

(4) Sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

a. Any bypass is prohibited except as provided in b. and c. below:

b. A bypass is not prohibited if:

(1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

(2) It enters the same receiving stream as the permitted outfall; and

(3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.

c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(3) The permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the permittee is granted such authorization, and the permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.

d. The permittee has the burden of establishing that each of the conditions of Provision II. C. 1. b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. **Upset**

a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that:

(i) An upset occurred;

(ii) The Permittee can identify the specific cause(s) of the upset;

(iii) The Permittee's facility was being properly operated at the time of the upset; and

(iv) The Permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.

b. The permittee has the burden of establishing that each of the conditions of Provision II. C. 2. a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I. A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. **Duty to Comply**

a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.

b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a permittee in an enforcement action.

c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.

d. The permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.

e. Nothing in this permit shall be construed to preclude or negate the Permittee's responsibility to apply for, obtain, or comply with other Federal, State, or Local Government permits, certifications,or licenses or to preclude from obtaining other federal, state, or local approvals, including those applicable to other ADEM programs and regulations.

2. **Removed Substances**

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. **Loss or Failure of Treatment Facilities**

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. **Compliance with Statutes and Rules**

a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel. Alabama Department of Environmental Management, 1400 Coliseum Boulevard Montgomery, Alabama 36110-2059.

b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. **Duty to Reapply or Notify of Intent to Cease Discharge**

a. If the permittee intends to continue to discharge beyond the expiration date of this permit, the permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the permittee does not intend to continue discharge beyond the expiration of this permit, the permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.

b. Failure of the permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. **Change in Discharge**

Prior to any facility expansion, process modification or any significant change in the method of operation of the permittee's treatment works, the permittee shall provide the Director with information concerning the planned expansion, modification or change. The permittee shall apply for a permit modification at least 180 days prior to any facility expansion, process modification, significant change in the method of operation of the permittee's treatment works, or other actions that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant or could result in an additional discharge point. This condition applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

3. **Transfer of Permit**

This permit may not be transferred or the name of the permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership, or control of the permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to

be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership, or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. **Permit Modification and Revocation**

a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;

(2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or

(3) If modification or revocation and reissuance is requested by the permittee and cause exists, the Director may grant the request.

b. This permit may be modified during its term for cause, including but not limited to, the following:

(1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

(2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance:

(4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;

(5) Errors in calculation of discharge limitations or typographical or clerical errors were made;

(6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

(7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;

(8) To agree with a granted variance under 301(c), 301(g), 301(h), 301(k), or 316(a) of the FWPCA or for fundamentally different factors;

(9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;

(10) When required by the reopener conditions in this permit;

(11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);

(12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;

(13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

(14) When requested by the permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules; or

5. **Termination**

This permit may be terminated during its term for cause, including but not limited to, the following:

a. Violation of any term or condition of this permit;

b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the permittee's misrepresentation of any relevant facts at any time;

c. Materially false or inaccurate statements or information in the permit application or the permit;

d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

e. The permittee's discharge threatens human life or welfare or the maintenance of water quality standards;

f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the permittee.

h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. **Suspension**

This permit may be suspended during its term for noncompliance until the permittee has taken action(s) necessary to achieve compliance.

7. **Stay**

The filing of a request by the permittee for modification, suspension, or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the permittee and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit, or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition and the permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. NOTICE TO DIRECTOR OF INDUSTRIAL USERS

1. The permittee shall not allow the introduction of wastewater, other than domestic wastewater, from a new indirect discharger prior to approval and permitting, if applicable, of the discharge by the Department.

2. The permittee shall not allow an existing indirect discharger to increase the quantity or change the character of its wastewater, other than domestic wastewater, prior to approval and permitting, if applicable, of the increased discharge by the Department.

3. The permittee shall report to the Department any adverse impact caused or believed to be caused by an indirect discharger on the treatment process, quality of discharged water or quality of sludge. Such report shall be submitted within seven days of the permittee becoming aware of the adverse impacts.

H. PROHIBITIONS

The permittee shall not allow, and shall take effective enforcement action to prevent and terminate, the introduction of any of the following into its treatment works by industrial users:

1. Pollutants which may create a fire or explosive hazard, including, but not limited to, waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;

2. Pollutants which may cause corrosive structural damage to the treatment works, but in no case discharges with a pH lower than 5.0;

3. Solid or viscous pollutants in amounts which may cause obstruction to the flow in sewers, or other interference in the treatment works;

4. Any pollutant, including oxygen demanding pollutants (BOD, etc.) of such volume or strength as to cause interference in the treatment works;

5. Heat in amounts which may inhibit biological activity in the treatment plant resulting in interference but in no case in such quantities that the temperature of the influent, at the treatment plant, exceeds 40 degrees centigrade or 104 degrees Fahrenheit;

6. Pollutants which may result in the presence of toxic gases, vapors, or fumes within the treatment works in a quantity that may cause acute worker health and safety problems;

7. Unless specifically authorized by this permit, any pollutants not generated at the facility for which this permit was issued; or

8. Petroleum oil, biodegradable cutting oil, or products of mineral oil origin in amounts that will cause pass through or interference.

PART III: ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. **Tampering**

   Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. **False Statements**

   Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. **Permit Enforcement**

   a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA and as such any terms, conditions, or limitations of the permit are enforceable under state and federal law.

   b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes:

      (1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

      (2) An action for damages;

      (3) An action for injunctive relief; or

      (4) An action for penalties.

   c. If the permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the permittee has made a timely and complete application for reissuance of the permit:

      (1) Initiate enforcement action based upon the permit which has been continued;

      (2) Issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

      (3) Reissue the new permit with appropriate conditions; or

      (4) Take other actions authorized by these rules and AWPCA.

4. **Relief from Liability**

   Except as provided in Provision II. C. 1. (Bypass) and Provision II. C. 2. (Upset), nothing in this permit shall be construed to relieve the permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.
2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility, and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.
3. Construction has begun when the owner or operator has:
   a. Begun, or caused to begin as part of a continuous on-site construction program:
      (1) Any placement, assembly, or installation of facilities or equipment; or
      (2) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which are necessary for the placement, assembly, or installation of new source facilities or equipment; or
   b. Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.
4. Final plans and specifications for a waste treatment facility at a new source or new discharger, or a modification to an existing waste treatment facility must be submitted to and examined by the Department prior to initiating construction of such treatment facility by the permittee.
5. Upon completion of construction of waste treatment facilities and prior to operation of such facilities, the permittee shall submit to the Department a certification from a registered professional engineer, licensed to practice in the State of Alabama, that the treatment facilities have been built according to plans and specifications submitted to and examined by the Department.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.
2. Compliance with permit terms and conditions notwithstanding, if the permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.
3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. **Average monthly discharge limitation** - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
2. **Average weekly discharge limitation** - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
3. **Arithmetic Mean** – means the summation of the individual values of any set of values divided by the number of individual values.
4. **AWPCA** - means the Alabama Water Pollution Control Act.
5. **BOD** – means the five-day measure of the pollutant parameter biochemical oxygen demand.
6. **Bypass** - means the intentional diversion of waste streams from any portion of a treatment facility.
7. **CBOD** – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. **Daily discharge** - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
9. **Daily maximum** - means the highest value of any individual sample result obtained during a day.
10. **Daily minimum** - means the lowest value of any individual sample result obtained during a day.
11. **Day** - means any consecutive 24-hour period.
12. **Department** - means the Alabama Department of Environmental Management.
13. **Director** - means the Director of the Department.
14. **Discharge** - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(9).
15. **Discharge Monitoring Report (DMR)** - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.
16. **DO** – means dissolved oxygen.
17. **8HC** – means 8-hour composite sample, including any of the following:
    a. The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 1 hour over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
18. **EPA** - means the United States Environmental Protection Agency.
19. **FC** – means the pollutant parameter fecal coliform.
20. **Flow** – means the total volume of discharge in a 24-hour period.
21. **FWPCA** - means the Federal Water Pollution Control Act.
22. **Geometric Mean** – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).

23. **Grab Sample** – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.

24. **Indirect Discharger** – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.

25. **Industrial User** – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.

26. **MGD** – means million gallons per day.

27. **Monthly Average** – means the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.

28. **New Discharger** – means a person, owning or operating any building, structure, facility, or installation:

    a) From which there is or may be a discharge of pollutants;

    b) That did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and

    c) Which has never received a final effective NPDES permit for dischargers at that site.

29. **NH3-N** – means the pollutant parameter ammonia, measured as nitrogen.

30. **Notifiable sanitary sewer overflow** - means an overflow, spill, release or diversion of wastewater from a sanitary sewer system that:

    a) Reaches a surface water of the State; or

    b) May imminently and substantially endanger human health based on potential for public exposure including but not limited to close proximity to public or private water supply wells or in areas where human contact would be likely to occur.

31. **Permit application** - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.

32. **Point source** - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).

33. **Pollutant** - includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.

34. **Privately Owned Treatment Works** – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

35. **Publicly Owned Treatment Works (POTW)** – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

36. **Receiving Stream** – means the "waters" receiving a "discharge" from a "point source".

37. **Severe property damage** - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

38. **Significant Source** – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.

39. **TKN** – means the pollutant parameter Total Kjeldahl Nitrogen.

40. **TON** – means the pollutant parameter Total Organic Nitrogen.

41. **TRC** – means Total Residual Chlorine.

42. **TSS** – means the pollutant parameter Total Suspended Solids.

43. **24HC** – means 24-hour composite sample, including any of the following:

    a) The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b) A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected;

    c) A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

44. **Upset** - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

45. **Waters** - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

46. **Week** - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

47. **Weekly (7-day and calendar week) Average** – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IV: SPECIFIC REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. SLUDGE MANAGEMENT PRACTICES

1. Applicability

a. Provisions of Provision IV.A. apply to a sewage sludge generated or treated in treatment works that is applied to agricultural and non-agricultural land, or that is otherwise distributed, marketed, incinerated, or disposed in landfills or surface disposal sites.

b. Provisions of Provision IV.A. do not apply to:

(1) Sewage sludge generated or treated in a privately owned treatment works operated in conjunction with industrial manufacturing and processing facilities and which receive no domestic wastewater.

(2) Sewage sludge that is stored in surface impoundments located at the treatment works prior to ultimate disposal.

2. Submitting Information

a. If applicable, the Permittee must submit annually with its Municipal Water Pollution Prevention (MWPP) report the following:

(1) Type of sludge stabilization/digestion method;

(2) Daily or annual sludge production (dry weight basis);

(3) Ultimate sludge disposal practice(s).

b. The Permittee shall provide sludge inventory data to the Director as requested. These data may include, but are not limited to, sludge quantity and quality reported in Provision IV.A.2.a as well as other specific analyses required to comply with State and Federal laws regarding solid and hazardous waste disposal.

c. The Permittee shall give prior notice to the Director of at least 30 days of any change planned in the Permittee's sludge disposal practices.

3. Reopener or Modification

a. Upon review of information provided by the Permittee as required by Provision IV.A.2. or, based on the results of an on-site inspection, the permit shall be subject to modification to incorporate appropriate requirements.

b. If an applicable "acceptable management practice" or if a numerical limitation for a pollutant in sewage sludge promulgated under Section 405 of FWPCA is more stringent than the sludge pollutant limit or acceptable management practice in this permit. This permit shall be modified or revoked or reissued to conform to requirements promulgated under Section 405. The Permittee shall comply with the limitations no later than the compliance deadline specified in applicable regulations as required by Section 405 of FWPCA.

B. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY

1. Chronic Toxicity Test

a. The permittee shall perform short-term chronic toxicity tests on the wastewater at Outfall 001.

b. The samples shall be diluted using appropriate control water to the Instream Waste Concentration (IWC) which is **95 percent effluent**. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year low flow period.

c. Any test result that shows a statistically significant reduction in survival, growth, or reproduction between the control and test samples at the 95% confidence level indicates chronic toxicity and shall constitute noncompliance with this permit.

2. General Test Requirements

a. A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests. Samples shall be collected every other day so that the laboratory receives water samples on the first, third, and fifth day of the seven-day test period. The holding time for each composite sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA

821-R-02-013 (most current edition) or another control water selected by the Permittee and approved by the Department.

b. Test results shall be deemed unacceptable and the Permittee shall rerun the tests as soon as practical within the monitoring period for the following:

(1) For testing with P. promelas: effluent toxicity tests with control survival of less than 80% or if dry weight per surviving control organism is less than 0.25 mg;

(2) For testing with C. dubia: if the number of young per surviving control organism is less than 15 or if less than 60% of surviving control females produce three broods; or

(3) If the other requirements of the EPA Test Procedure are not met.

c. In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are to be reported to the Department along with an explanation of the tests performed and the test results.

d. Toxicity tests shall be conducted for the duration of this permit in the month of **AUGUST**. Should results from the Annual Toxicity test indicate that Outfall 001T exhibits chronic toxicity, then the Permittee must conduct the follow-up testing described in Part IV.B.4.a. In addition, the Permittee may then also be required to conduct toxicity testing in the months of FEBRUARY, MAY, AUGUST, and NOVEMBER.

3. **Reporting Requirements**

a. The Permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

b. Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2 of this part, an effluent toxicity report containing the information in Sections 2 and 6 shall be included with the DMR. The test results must be submitted to the Department no later than 28 days after the month that tests were performed.

4. **Additional Testing Requirements**

a. If chronic toxicity is indicated (i.e., noncompliance with permit limit), then the Permittee must perform two additional valid chronic toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall run consecutively beginning on the first calendar week following the date that the Permittee became aware of the permit noncompliance. The results of these follow-up tests shall be submitted to the Department no later than 28 days following the month the tests were performed.

b. After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols and guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-91-003, EPA/600/R-92/081, EPA/833/B-99/022, and/or EPA/600/6-91/005F)

5. **Test Methods**

The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The Larval Survival and Growth Test, Method 1000.0, shall be used for the fathead minnow (*Pimephales promelas*) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (*Ceriodaphnia dubia*) test.

6. **Effluent Toxicity Testing Reports**

The following information shall be submitted with each DMR unless otherwise directed by the Department. The Department may at any times suspend or reinstate this requirement or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location and county

(2) Permit number

(3) Toxicity testing requirements of permit

(4) Name of receiving water body

(5) Contract laboratory information (if tests are performed under contract)

(i) Name of firm

(ii) Telephone number

(iii) Address

(6) Objective of test

b. Plant Operations

(1) Discharge Operating schedule (if other than continuous)

(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)

(3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

(1) Effluent samples

(2) Sampling point

(3) Sample collection dates and times (to include composite sample start and finish times)

(4) Sample collection method

(5) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)

(6) Lapsed time from sample collection to delivery

(7) Lapsed time from sample collection to test initiation

(8) Sample temperature when received at the laboratory

(9) Dilution Water

(10) Source

(11) Collection/preparation date(s) and time(s)

(12) Pretreatment (if applicable)

(13) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

d. Test Conditions

(1) Toxicity test method utilized

(2) End point(s) of test

(3) Deviations from referenced method, if any, and reason(s)

(4) Date and time test started

(5) Date and time test terminated

(6) Type and volume of test chambers

(7) Volume of solution per chamber

(8) Number of organisms per test chamber

(9) Number of replicate test chambers per treatment

(10) Test temperature, pH, and dissolved oxygen as recommended by the method (to include ranges)

(11) Specify if aeration was needed

(12) Feeding frequency, amount, and type of food

(13) Specify if (and how) pH control measures were implemented

(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source

(2) Date and time of most recent chronic reference toxicant test(s), raw data, and current control chart(s). (The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.)

(3) Dilution water utilized in reference toxicant test

(4) Results of reference toxicant test(s) (NOEC, IC25, etc.); report concentration-response relationship and evaluate test sensitivity

(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate

(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)

(3) Indicate statistical methods used to calculate endpoints

(4) Provide all physical and chemical data required by method

(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sublethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation.

C. TOTAL RESIDUAL CHLORINE (TRC) REQUIREMENTS

1. If chlorine is not utilized for disinfection purposes, TRC monitoring under Part I of this Permit is not required. If TRC monitoring is not required (conditional monitoring), "*9" should be reported on the DMR forms.
2. Testing for TRC shall be conducted according to either the amperometric titration method or the DPD colorimetric method as specified in Section 408(C) or (E), Standards Methods for the Examination of Water and Wastewater, 18th edition. If the analytical result is less than the detection level or a value otherwise indicated in this permit, the Permittee shall report on the DMR form "*B" or "0". The Permittee shall then be considered to be in compliance with the daily maximum concentration limit for TRC.
3. This permit contains a maximum allowable TRC level in the effluent. The Permittee is responsible for determining the minimum TRC level needed in the chlorine contact chamber to comply with E.coli limits. The effluent shall be dechlorinated if necessary to meet the maximum allowable effluent TRC level.
4. The sample collection point for effluent TRC shall be at a point downstream of the chlorine contact chamber (downstream of dechlorination, if applicable). The exact location is to be approved by the Director.

D. PLANT CLASSIFICATION

The Permittee shall report to the Director within 30 days of the effective date of this permit, the name, address and operator number of the certified wastewater operator in responsible charge of the facility. Unless specified elsewhere in this permit, this facility shall be classified in accordance with ADEM Admin. Code R. 335-10-1-.03.

E. SANITARY SEWER OVERFLOW RESPONSE PLAN

1. SSO Response Plan

Within 120 days of the effective date of this Permit, the Permittee shall develop a Sanitary Sewer Overflow (SSO) Response Plan to establish timely and effective methods for responding to notifiable sanitary sewer overflows. The SSO Response Plan shall address each of the following:

a. General Information

(1) Approximate population of City/Town, if applicable

(2) Approximate number of customers served by the Permittee

(3) Identification of any subbasins designated by the Permittee, if applicable

(4) Identification of estimated linear feet of sanitary sewers

(5) Number of Pump/Lift Stations in the collection system

b. Responsibility Information

(1) The title(s) and contact information of key position(s) who will coordinate the SSO response, including information for a backup coordinator in the event that the primary SSO coordinator is unavailable. The SSO coordinator is the person responsible for assessing the SSO and initiating a series of response actions based on the type, severity, and destination of the SSO, except for routine SSOs for which the coordinator may pre-approve written procedures. Routine SSOs are those for which the corrective action procedures are generally consistent.

(2) The title(s), and contact information of key position(s) who will respond to SSOs, including information for backup responder(s) in the event the primary responder(s) are unavailable (i.e., position(s) who provide notification to the Department, the public, the county health department, and other affected entities such as public water systems; position(s) responsible for organizing crews for response; position(s) responsible for addressing public inquiries)

c. SSO and Surface Water Assessment

(1) Identification of locations within the collection system at which an SSO is likely to occur (e.g., based upon historical SSOs, lift stations where electricity may be lost, etc.)

(2) A map of the general collection system area, including identification of surface waterbodies and the location(s) of public drinking water source(s). Mapping of all collection system piping, pump stations, etc. is not required; however, if this information is already available, it should be included.

(3) Identification of surface waterbodies within the collection system area which are classified as Swimming according to ADEM Admin. Code chap. 335-6-11. References available to assist in this requirement include the following: http://adem.alabama.gov/alEnviroRegLaws/files/Division6Vol1.pdf and http://adem.alabama.gov/wqmap.

(4) Identification of surface waterbodies within the collection system area which are not classified as Swimming as indicated in paragraph c above, but are known locally as areas where swimming occurs or as areas that are heavily recreated

d. Public Reporting of SSOs

(1) Contact information for the public to report an SSO to the Permittee, during both normal and outside of normal business hours (e.g., telephone number, website, email address, etc.)

(2) Information requested from the person reporting an SSO to assist the Permittee in identifying the SSO (e.g., date, time, location, contact information)

(3) Procedures for communication of the SSO report to the appropriate positions for follow-up investigation and response, if necessary

e. Procedures to immediately notify the Department, the county health department, and other affected entities (such as public water systems) upon becoming aware of notifiable SSOs

f. Public Notification Methods for SSOs

(1) A listing of methods that are feasible, as determined by the Permittee, for public notifications (e.g., flyers distributed to nearby residents; signs posted at the location of the SSO, where the SSO enters a water of the state, and/or at a central public location; signs posted at fishing piers, boat launches, parks, swimming waterbodies, etc.; website and/or social media notifications; local print or radio and broadcast media notifications; "opt in" email, text message, or automated phone message notifications)

(i) If signage is a feasible method for public notification, procedures for use and removal of signage (e.g., availability and maintenance of signs, appropriate duration of postings)

(2) Minimum information to be included in public notifications (e.g., identification that an SSO has occurred, date, duration if known, estimated volume if known, location of the SSO by street address or other appropriate method, initial destination of the SSO)

(3) Procedures developed by the Permittee for determining the appropriate public notification method(s) based upon the potential for public exposure to health risks associated with the SSO

g. Standard Procedures shall be developed by the Permittee and shall include, at a minimum

(1) General SSO Response Procedures (e.g., procedures for dispatching staff to assess/correct an SSO; procedures for routine SSO corrective actions such as those for sewer blockages, overflowing manholes, line breakages, pump station power failure, etc.; procedures for disinfection of affected area, if applicable);

(2) Procedures for collection and proper disposal of the SSO, if feasible.

(3) General procedures for coordinating instream water quality monitoring, including, but not limited to, procedures for mobilizing staff, collecting samples, and typical test methods should the Department or the Permittee determine monitoring is appropriate following an SSO. Identification of a contractor who will collect and analyze the sample(s) may be listed in lieu of the procedures.

(4) References to other documents (such as Standard Operating Procedures for SSO Responses) may be acceptable for this section; however, the referenced document shall be identified and shall be reviewed at a frequency of at least that required by the Administrative Procedures Section.

h. Date of the SSO Response Plan, dates of all modifications and/or reviews, the title and signature of the reviewer(s) for each date and the signature of the responsible official or the appropriate designee.

2. SSO Response Plan Implementation

Except as otherwise required by this Permit, the Permittee shall fully implement the SSO Response Plan as soon as practicable, but no later than 180 days after the effective date of this Permit.

3. Department Review of the SSO Response Plan

a. When requested by the Director or his designee, the Permittee shall make the SSO Response Plan available for review by the Department.

b. Upon review, the Director or his designee may notify the Permittee that the SSO Response Plan is deficient and require modification of the Plan.

c. Within thirty days of receipt of notification, or an alternate timeframe as approved by the Department, the Permittee shall modify any SSO Response Plan deficiency identified by the Director or his designee and shall certify to the Department that the modification has been made.

4. SSO Response Plan Administrative Procedures

a. The Permittee shall maintain a copy of the SSO Response Plan at the permitted facility or an alternate location approved by the Department in writing and shall make it available for inspection by the Department.

b. The Permittee shall make a copy of the SSO Response Plan available to the public upon written request within 30 days of such request. The Permittee may redact information which may present security issues, such as location of public water supplies, identification of specific details of vulnerabilities, employee information, etc.

c. The Permittee shall provide training for any personnel required to implement the SSO Response Plan and shall retain at the facility documentation of such training. This documentation shall be available for inspection by the Department. Training shall be provided for existing personnel prior to the date by which implementation of the SSO Response Plan is required and for new personnel as soon as possible. Should significant revisions be made to the SSO Response Plan, training regarding the revisions shall be conducted as soon as possible.

d. The Permittee shall complete a review and evaluation of the SSO Response Plan at least once every three years. Documentation of the SSO Response Plan review and evaluation shall be signed and dated by the responsible official or the appropriate designee as part of the SSO Response Plan.

F. POLLUTANT SCANS

The Permittee shall sample and analyze for the pollutants listed in 40 CFR 122 Appendix J Table 2. The Permittee shall provide data from a minimum of three samples collected within the four and one-half years prior to submitting a permit application. Samples must be representative of the seasonal variation in the discharge from each outfall.

G. MAJOR SOURCE STORMWATER REQUIREMENTS

1. Prohibitions

a. The Permittee shall not allow the discharge of non-storm water into permitted storm water outfall(s) unless said discharge is already subject to an NPDES permit.

b. Pollutants removed in the course of treatment or control shall be disposed in a manner that complies with all applicable Department rules and regulations.

2. Operational and Management Practices

The permittee shall prepare and implement a Storm Water Pollution Prevention (SWPP) Plan within one year of the effective date of this permit.

a. In the SWPP Plan, the Permittee shall:

(1) Assess the treatment plant site by developing and presenting site drainage maps, materials inventory, and best management operational practices. The plan shall also include a description of all spill or leak sources;

(2) Describe mechanisms and procedures to prevent the contact of sewage sludge, screenings, raw or partially treated wastewater, or any other waste product or pollutant with storm water discharged from the facility;

(3) Provide for daily inspection on workdays of any structures that function to prevent storm water pollution or that remove pollutants from storm water;

(4) Provide for daily inspection of the facility in general to ensure that the SWPP Plan is continually implemented and effective;

(5) Include a Best Management Practices (BMP) Plan that, as a minimum, addresses housekeeping, preventative maintenance, spill prevention and response, and non-storm water discharges;

(6) Describe mechanisms and procedures to provide sediment control sufficient to prevent or control storm water pollution storm water by particles resulting from soil or sediment migration from the site due to significant clearing, grading, or excavation activities;

(7) Designate by position or name the person or persons responsible for the day to day implementation of the SWPP Plan; and

(8) Bear the signature of an individual meeting signatory requirements as defined in ADEM Administrative Code, Rule 335-6-6-.09.

b. The Director or his designee may notify the permittee at any time that the SWPP Plan is deficient and will require correction of the deficiency. The permittee shall correct any SWPP Plan deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

c. Administrative Procedures

(1) A copy of the SWPP Plan shall be maintained at the facility and shall be available for inspection by the Department.

(2) A log of daily inspections required by Provision IV.G.2.a.(3.) of the permit shall be maintained at the facility and shall be made available for inspection by the Department upon request. The log shall contain records of all inspections performed and each daily entry shall be signed by the person performing the inspection.

(3) The Permittee shall provide training for any personnel required to implement the SWPP Plan and shall retain documentation of such training at the facility. Training records for all personnel shall be available for inspection by the Department. Training shall be performed prior to the date implementation is required.

3. Monitoring Requirements

a. Storm water discharged through each storm water outfall shall be sampled once per calendar year, using first flush grab samples (FFGS) collected during the first 30 minutes of discharge.

b. The total volume of storm water discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for the storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained in accordance with Provision I.B.5. of this permit. The volume may be measured using flow measurement devices or may be estimated using any method approved in writing by the Department.

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

FACT SHEET

APPLICATION FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE POLLUTANTS TO WATERS OF THE STATE OF ALABAMA

Date Prepared: November 1, 2024 **By:** Dustin Stokes

NPDES Permit No. AL0023027

1. **Name and Address of Applicant:**

   Jefferson County Commission
   716 Richard Arrington Jr. Blvd N
   Suite A-300
   Birmingham, AL 35203

2. **Name and Address of Facility:**

   Cahaba River WRF
   3900 Veona Daniels Road
   Birmingham, AL 35244

3. **Description of Applicant's Type of Facility and/or Activity Generating the Discharge:**

   Discharge Type(s): Surface Water
   Treatment Method(s): Mechanical (WWTP)

4. **Applicant's Receiving Waters**

Feature ID	Receiving Water	Classification
001	Cahaba River	Fish and Wildlife (F&W)
002	Cahaba River	Fish and Wildlife (F&W)
003	Cahaba River	Fish and Wildlife (F&W)
004	Cahaba River	Fish and Wildlife (F&W)

   For the Outfall latitude and longitude see the permit application.

5. **Permit Conditions:**

   See attached Rationale and Draft Permit.

6. PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

a. Comment Period

The Alabama Department of Environmental Management proposes to issue this NPDES permit subject to the limitations and special conditions outlined above. This determination is tentative.

Interested persons are invited to submit written comments on the draft permit to the following address:

Daphne Y. Lutz, Chief
ADEM-Water Division
1400 Coliseum Blvd
[Mailing Address: Post Office Box 301463; Zip 36130-1463]
Montgomery, Alabama 36110-2400
(334) 271-7823
water-permits@adem.alabama.gov

All comments received prior to the closure of the public notice period (see public notice for date) will be considered in the formulation of the final determination with regard to this permit.

b. Public Hearing

A written request for a public hearing may be filed within the public notice period and must state the nature of the issues proposed to be raised in the hearing. A request for a hearing should be filed with the Department at the following address:

Daphne Y. Lutz, Chief
ADEM-Water Division
1400 Coliseum Blvd
[Mailing Address: Post Office Box 301463; Zip 36130-1463]
Montgomery, Alabama 36110-2400
(334) 271-7823
water-permits@adem.alabama.gov

The Director shall hold a public hearing whenever it is found, on the basis of hearing requests, that there exists a significant degree of public interest in a permit application or draft permit. The Director may hold a public hearing whenever such a hearing might clarify one or more issues involved in the permit decision. Public notice of such a hearing will be made in accordance with ADEM Admin. Code r. 335-6-6-.21.

c. Issuance of the Permit

All comments received during the public comment period shall be considered in making the final permit decision. At the time that any final permit decision is issued, the Department shall prepare a response to comments in accordance with ADEM Admin. Code r. 335-6-6-.21. **The permit record, including the response to comments, will be available to the public via the eFile System** http://app.adem.alabama.gov/eFile/ **or an appointment to**

review the record may be made by writing the Permits and Services Division at the above address.

Unless a request for a stay of a permit or permit provision is granted by the Environmental Management Commission, the proposed permit contained in the Director's determination shall be issued and effective, and such issuance will be the final administrative action of the Alabama Department of Environmental Management.

d. Appeal Procedures

As allowed under ADEM Admin. Code chap. 335-2-1, any person aggrieved by the Department's final administrative action may file a request for hearing to contest such action. Such requests should be received by the Environmental Management Commission within thirty days of issuance of the permit. Requests should be filed with the Commission at the following address:

Alabama Environmental Management Commission
1400 Coliseum Blvd
[Mailing Address: Post Office Box 301463; Zip 36130-1463]
Montgomery, Alabama 36110-2400

All requests must be in writing and shall contain the information provided in ADEM Admin. Code r. 335-2-1-.04.

NPDES PERMIT RATIONALE

NPDES Permit No: **AL0023027** Date: October 29, 2024

Permit Applicant: Jefferson County Commission
716 Richard Arrington Jr. Blvd NSuite A-300
Birmingham, AL 35203

Location: **Cahaba River WRF**
3900 Veona Daniels Road
Birmingham, AL 35244

Draft Permit is:

Initial Issuance:	
Reissuance due to expiration:	X
Modification of existing permit:	
Revocation and Reissuance:	

Basis for Limitations:

Water Quality Model:	DO, NH_3-N, TKN, CBOD
Reissuance with no modification:	DO, pH, TSS, NH_3-N, TKN, TP, E. coli, CBOD, CBOD % Removal, TSS % Removal
Instream calculation at 7Q10:	95%
Toxicity based:	TRC
Secondary Treatment Levels:	TSS, TSS % Removal, CBOD % Removal
Other (described below):	pH, E. coli, TP

Design Flow in Million Gallons per Day: 12 MGD

Major: Yes

Description of Discharge:

Feature ID	Description	Receiving Water	Waterbody Use Classification	303(d)	TMDL
001	Treated Domestic Wastewater	Cahaba River	Fish and Wildlife (F&W)	No	Yes
002	Storm water	Cahaba River	Fish and Wildlife (F&W)	No	Yes
003	Storm water	Cahaba River	Fish and Wildlife (F&W)	No	Yes
004	Storm water	Cahaba River	Fish and Wildlife (F&W)	No	Yes

Discussion:

This is a permit reissuance due to expiration. Limits for Five Day Carbonaceous Biochemical Oxygen Demand (CBOD), Total Ammonia-Nitrogen (NH_3-N), Total Kjeldahl Nitrogen (TKN), and Dissolved Oxygen (DO) were developed based on a Waste Load Allocation (WLA) model that was completed by ADEM's Water Quality Branch (WQB). The monthly average limits for CBOD summer (May-November) and winter (December-April) are 4.0 mg/L and 10.0 mg/L, respectively. The monthly average limits for NH_3-N summer (May-November) and winter (December-April) are 1.0 mg/L and 2.0 mg/L, respectively.

The monthly average limits for TKN summer (May-November) and winter (December-April) are 2.0 mg/L and 4.0 mg/L, respectively. The daily minimum limit for DO is 7.0 mg/L.

This discharge is included as a point source in the Cahaba River Watershed Nutrient Total Maximum Daily Load (TMDL), which was approved by EPA in October 2006. The TMDL states that major dischargers must attain a growing season (April – October) Total Phosphorus (TP) limit of 0.043 mg/L. The Permittee was required to achieve compliance with this TP limit in accordance with the compliance schedule previously provided to the Department. The schedule requires compliance with a growing season monthly average TP limit of 0.2 mg/l through March 31, 2031, and compliance with the final growing season monthly average TP limit of 0.043 mg/l effective April 1, 2032.

The permit has a current growing season monthly average limitation of 0.20 mg/l in effect until the final effective date of the 0.043 mg/l limit.

The Permittee's May 31, 2024 Renewal of NPDES Permit Number: AL0023027 requests that the final 0.043 mg/L TP TMDL limit be extended from April 1, 2032 to April 1, 2037 and that the 0.2 mg/L TP limit remain effective until that date. The request asserts that the extension is needed for additional study of the Cahaba River's biological response to the current TP loading. The request also indicates that "the extension is...needed to allow the County to continue its planning and design of improvements which will provide for greater reliability, effectiveness, and efficiency of the treatment systems at the two water reclamation facilities. The estimated cost of the proposed work to achieve the final (TP) limit of 0.043 mg/L is approximately $45,000,000. This is a significant cost for the ratepayers of Jefferson County and will result in only a small incremental reduction in phosphorus concentrations in the Cahaba River without measurable environmental benefit." However, the Department has determined that the 2032 compliance date is appropriate at this time.

Section 6.3 (Adaptive Management) of the Cahaba River Nutrient TMDL states the following:

> It is possible during the implementation of this TMDL that further evaluation of instream conditions in the Cahaba River, including biological and chemical monitoring, will reveal trends of improvement in water quality and biological conditions. If so, any required implementation in the future may be revised according to the best available science at that time.
>
> The Department has a program to systematically collect additional nutrient data at the ecoregional reference sites used to develop the Cahaba TMDL nutrient target, in addition to other reference sites and candidate reference sites throughout Alabama. Adaptive management, in conjunction with the implementation schedule as determined by ADEM's NPDES permitting program, will allow the TMDL target to be validated or adjusted as necessary based on additional data that becomes available in the future.

The TMDL establishes a final instream TP target of 0.035 mg/L. The Department's WQB collects instream TP samples within the Cahaba River. From 2018 through 2023, the WQB collected 122 samples, of which 25 of those results showed a TP greater than 0.035 mg/L. Nine of those greater than 0.035 mg/L were collected in 2020. Since then, the number of results greater than 0.035 mg/L has declined, with only one result showing greater than 0.035 mg/L in 2022 and six in 2023.

Additionally, the TMDL endpoint to address the nutrient impairment is a growing season (April – October) TP median of 0.035 mg/L. Per the samples taken by the WQB from 2018 through 2023, all six growing season medians were less than 0.035 mg/L.

The Department's 2016 WQ monitoring plan for the Cahaba River included the following: sampling fish in May; performing a periphyton study in September; macroinvertebrate sampling in October; diurnal studies in both June and September. The summary of this study is as follows:

> Water quality sampling in 2005 and 2016 show a distinct decrease in water column total phosphorus concentrations in the Cahaba River. Annual sampling at seven locations show total phosphorus concentrations to be meeting the instream target established by the Cahaba River Watershed Nutrient TMDL, with median total phosphorus concentrations at Cahaba River stations ranging from 14 µg/L to 24 µg/L in 2016.
>
> During the 2002-2016 surveys of the Cahaba River, diatoms have consistently proved to be the most effective tool to document nutrient impacts to aquatic communities, and to link community conditions to nutrient concentrations. In the 2002-2005 surveys, the diatom community was dominated by species tolerant of nutrient enrichment. Results of the 2016 diatom community suggest that the community is responding to decreased total phosphorus concentrations with a shift to taxa intolerant of nutrient enrichment.
>
> The decreased nutrient concentrations were not generally reflected in macroinvertebrate or fish community metric results. Both communities are less sensitive to nutrient enrichment issues. Conditions within these communities may reflect other impairments to the Cahaba River, such as siltation/habitat alteration.

As indicated in ADEM Admin. Code r. 335-6-6-.16(a)(2), the Department has the authority to establish a compliance schedule within the timeframe determined by the Director for implementation of an applicable TMDL. Based upon the facts presented to the Department as discussed above, the final compliance deadline for the TMDL limit of 0.043 mg/l has been implemented in the permit for April 1, 2032.

This permit imposes monitoring for Total Nitrite plus Nitrate (NO_2+NO_3-N) and winter monitoring (November – March) for TP. Monitoring for these nutrient-related parameters is imposed so that sufficient information will be available regarding the nutrient contribution from this point source, should it be necessary at some later time to impose further nutrient limits on this discharge.

The pH daily minimum and daily maximum limits of 6.0 and 8.5 S.U. respectively, were developed to be supportive of the water-use classification of the receiving stream. The Total Residual Chlorine (TRC) limits of 0.013 mg/L (monthly average) and 0.022 mg/L (daily maximum) are based on EPA's recommended water quality values and on the current Toxicity Rationale, which considers the available dilution in the receiving stream. The increased TRC limitation is not backsliding since the increase would result in water quality standards being obtained and the revision is consistent with the Department's anti-degradation policy. In accordance with a letter dated August 11, 1998 from EPA Headquarters and a 1991 memorandum from EPA Region 4's Environmental Services Division (ESD), due to testing and method detection limitations, a Total Residual Chlorine measurement below 0.05 mg/L shall be considered below detection for compliance purposes. Monitoring for TRC is only applicable if chlorine is utilized for disinfection purposes.

The imposed E. coli limits were determined based on the water-use classification of the receiving stream. Since the segment of the Cahaba River containing the discharge is classified as Fish & Wildlife, the limits for May – October are 126 col/100ml (monthly average) and 298 col/100ml (daily maximum), while the limits for November – April are 548 col/100ml (monthly average) and 2507 col/100ml (daily maximum).

The Total Suspended Solids (TSS) and TSS % removal limits of 30.0 mg/L monthly average and 85.0%, respectively, are based on the requirements of 40 CFR part 133.102 regarding Secondary Treatment. A minimum percent removal limit of 85.0% is imposed for CBOD also in accordance with 40 CFR 133.102 regarding Secondary Treatment.

Because this is a major facility (design capacity greater than 1 MGD), chronic toxicity testing with two species (Ceriodaphnia and Pimephales) is being imposed on this permit. Toxicity testing is imposed for both survival and life-cycle impairment (i.e., growth and reproduction). Chronic toxicity at the IWC of 95 percent is required once per year during the month of August. If the toxicity tests of the effluent from Outfall 001 indicates chronic toxicity, then toxicity tests may be required to be conducted during the months of February, May, August, and November.

Because this is a major facility, the Department completed a numerical reasonable potential analysis (RPA) of the discharge based on the application data and background data from station CABS-2. The RPA indicates whether pollutants in treated effluent have potential to contribute to excursions of Alabama's in-stream water quality standards. Based on the analytical data submitted by the Permittee, it does not appear there is reasonable potential to cause an in-stream water quality criteria exceedance at this time.

The monitoring frequency for DO, pH, TSS, NH_3-N, TKN, TP, TRC, E. coli and CBOD is five times per week. The monitoring frequency for $N0_2$+$N0_3$-N is once per month. TSS % removal and CBOD % removal are to be calculated once per month. Flow is to be continuously monitored daily.

Storm water runoff monitoring is being imposed by this permit based on 40 CFR Part 122. In the permit application, the Permittee reported three storm water outfalls from the treatment plant. These are outfalls 002S, 003S, and 004S. Storm water monitoring will be required on an annual basis.

The segment of the Cahaba River in which the facility discharges is a Tier I stream and is not listed on the most recent 303(d) list. This facility is included in the Cahaba River Watershed Pathogens (E. Coli) TMDL, which was approved in August 2013 and indicated reductions in E. Coli loads from point sources were not necessary. The pathogens limits imposed in the permit are consistent with Alabama's water quality standards and this discharge should not contribute to the pathogen impairment in the Cahaba River. The facility is also included in the Cahaba River Siltation and Habitat Alteration TMDL, which was approved in August 2013. The Siltation and Habitat Alteration TMDL indicates that TSS associated with WWTPs is typically comprised primarily of organic matter and is not considered to be significantly impacting the Cahaba River with respect to sediment impairment and was not included in the WLA of the TMDL. The imposed TP limits are consistent with the Cahaba River Watershed Nutrient TMDL. The facility's storm water discharge is consistent with the assumptions in the TMDLs and are not expected to contribute to the impairments. Additionally, the facility is required to develop and implement a Storm Water Pollution Prevention Plan, which should help minimize pollutants in the storm water.

ADEM Administrative Rule 335-6-10-.12 requires applicants for new or expanded discharges to Tier II waters demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is not for a new or expanded discharge to a Tier II water body, so the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

Prepared by: Dustin Stokes

Waste Load Allocation Summary

REQUEST INFORMATION

Request Number: 1816

From: **In Branch/Section**

Date Submitted **Date Required** **FUND Code**

Date Permit application received by NPDES program

Receiving Waterbody Cahaba River

Previous Stream Name

Facility Name Jefferson Co Cahaba River WWTP (Name of Discharger-WQ will use to file)

Previous Discharger Name

River Basin Cahaba **Outfall Latitude** 33.369640 (decimal degrees)

***County** Shelby **Outfall Longitude** -86.786392 (decimal degrees)

Permit Number AL0023027 **Permit Type** CONVERSION

Permit Status Active

Type of Discharger MUNICIPAL

Do other discharges exist that may impact the model? ☑ Yes ☐ No

If yes, impacting dischargers names.
Hoover Inverness
Jefferson County Cahaba River
Hoover Riverchase
Cahaba Mobile Home Estates
Trussville

Impacting dischargers permit numbers.

Existing Discharge Design Flow MGD

Proposed Discharge Design Flow MGD

Note: The flow rates given should be those requested for modeling.

Comments included ☑ ☐

Information Verified By CPR

Year File Was Created 2010

Response ID Number 1184

Lat/Long Method GPS

12 Digit HUC Code 031502020204

Use Classification F&W

Site Visit Completed? ☑ ☐

Date of Site Visit 3/8/2010

Waterbody Impaired? ☑ ☐

Date of WLA Response 4/8/2010

Antidegradation ☐ Yes ☑ No

Approved TMDL? ☑ ☐

Waterbody Tier Level Tier I

Use Support Category 4A

Approval Date of TMDL 10/26/2006

Waste Load Allocation Information

Modeled Reach Length 105 **Miles**

Date of Allocation 3/3/2010

Name of Model Used RIV1

Allocation Type 2 Seasons

Model Completed Tetra Tech

Type of Model Used Calibrated / Verified

Allocation Developed Water Quality Branch

Waste Load Allocation Summary

Annual Effluent Limits		Conventional Parameters		Conventional Parameters		Other Parameters		Other Parameters	
Qw	MGD	Qw 12	MGD	Qw 12	MGD	Qw 12	MGD	Qw	MGD
CBOD5		Season Winter		Season Summer		Season Growing		Season	
NH3-N		From Dec		From May		From Apr		From	
TKN		Through Apr		Through Nov		Through Oct		Through	
D.O.		CBOD5 10	mg/L	CBOD5 4	mg/L	TP 0.043	mg/L	TP	
		NH3-N 2	mg/L	NH3-N 1	mg/L	TN		TN	
		TKN 4	mg/L	TKN 2	mg/L	TSS		TSS	
		D.O. 7	mg/L	D.O. 7	mg/L				

"Monitor Only" Parameters for Effluent:

Parameter	Frequency	Parameter	Frequency
NO2+NO3-N	Monthly		
TP	Monthly (Nov-Mar)		

Water Quality Characteristics Immediately Upstream of Discharge

Parameter	Summer		Winter	
CBODu		mg/l		mg/l
NH3-N		mg/l		mg/l
Temperature		°C		°C
pH		su		su

Hydrology at Discharge Location

Drainage Area Qualifier			
Exact			
Drainage	226	sq mi	
Stream 7Q10	0.71	cfs	USGS Estimate
Stream 1Q10	0.45	cfs	USGS Estimate
Stream 7Q2	4.32	cfs	USGS Estimate
Annual Average	357	cfs	USGS Estimate

Comments and/or Notations

This is a calibrated/verified model completed by Tetra Tech for DO. It employed a 3-year time frame from 1999 through 2001. Critical conditions occurred during the drought year of 2000. Nutrient TMDL completed in October 2006. The Total Phosphorus (TP) limit of 0.043 mg/L is established according to the Final Cahaba River Nutrient TMDL dated October 26, 2006 and is applied as a monthly average limit for the months of April through October. Implementation of the TP limit will be based on a compliance schedule established by ADEM's NPDES Program. Monthly TP monitoring should be conducted from Nov through March.

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

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November 1, 2024

MEMORANDUM

TO: Dustin Stokes
Industrial/Municipal Branch

FROM: Hayden Willis
Water Quality Branch

RE: Cahaba River WRF (AL0023027)

As requested, the Water Quality Branch (WQB) has calculated updated low-flow statistics for the Cahaba River at the Cahaba River WRF outfall location. The updated flows are shown in the table below.

Cahaba River WRF Discharge Location Low-Flow Estimates (cfs)	
$7Q_{10}$	1.11
$7Q_2$	3.81
$1Q_{10}$	0.83

In addition, it was requested that the WQB evaluate if there is additional flow from any upstream wastewater treatment facilities that was not included in the low-flow statistics provided above. The low-flow estimates that include the upstream WWTP (i.e., Riverview WWTP, AL0045969) flows are shown in the table below.

Cahaba River WRF Discharge Location Low-Flow Estimates with Upstream WWTP Flow (cfs)	
$7Q_{10}$ + WWTP Flow	3.40
$7Q_2$ + WWTP Flow	7.64
$1Q_{10}$ + WWTP Flow	2.55

HAW: haw

Birmingham Office
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Office
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Coastal Office
1615 South Broad Street
Mobile, AL 36605
(251) 450-3400
(251) 479-2593 (FAX)

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**Cahaba River WRF**	
NPDES Permit Number:	**AL0023027**	
Receiving Stream:	**Cahaba River**	
Facility Design Flow (Q_w):	**12.000 MGD**	
Receiving Stream $7Q_{10}$:	**1.110 cfs**	7Q10 excludes flow from from upstream discharger(s).
Receiving Stream $1Q_{10}$:	**0.830 cfs**	1Q10 excludes flow from from upstream discharger(s).
Winter Headwater Flow (WHF):	**3.81 cfs**	7Q2 excludes flow from from upstream discharger(s).
Summer Temperature for CCC:	**30 deg. Celsius**	
Winter Temperature for CCC:	**20 deg. Celsius**	
Headwater Background NH_3-N Level:	**0.110 mg/l**	
Receiving Stream pH:	**7.0 s.u.**	
Headwater Background FC Level (summer):	**N./A.**	**(Only applicable for facilities with diffusers.)**
(winter	**N./A.**	

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less.
Chronic toxicity testing is specified for all other situations requiring toxicity testing.

Chronic toxicity testing is required

Instream Waste Concentration (IWC) = $\frac{Q_w}{7Q10 + Q_w}$ = **94.36%** Note: This number will be rounded up for toxicity testing purposes

Prepared By: Dustin Stokes Date: 11/1/2024

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**Cahaba River WRF**	
NPDES Permit Number:	**AL0023027**	
Receiving Stream:	**Cahaba River**	
Facility Design Flow (Q_w):	**12.000 MGD**	
Receiving Stream $7Q_{10}$:	**3.400 cfs**	7Q10 includes flow from from upstream discharger(s).
Receiving Stream $1Q_{10}$:	**2.550 cfs**	1Q10 includes flow from from upstream discharger(s).
Winter Headwater Flow (WHF):	**7.64 cfs**	7Q2 includes flow from from upstream discharger(s).
Summer Temperature for CCC:	**30 deg. Celsius**	
Winter Temperature for CCC:	**20 deg. Celsius**	
Headwater Background NH_3-N Level:	**0.110 mg/l**	
Receiving Stream pH:	**7.0 s.u.**	
Headwater Background FC Level (summer):	**N./A.**	**(Only applicable for facilities with diffusers.)**
(winter	**N./A.**	

The Stream Dilution Ration (SDR) is calculated using the 7Q10 for all stream classifications.

$$\text{Stream Dilution Ration (SDR)} = \frac{Qw}{7Q10 + Qw} = \textbf{84.52\%}$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the *Ammonia Toxicity Protocol* and the *General Guidance for Writing Water Quality Based Toxicity Permits.*

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.
If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\text{Limiting Dilution} = \frac{Q_w}{7Q_{10} + Q_w}$$

= **84.52%** **Effluent-Dominated, CCC Applies**

Criterion Maximum Concentration (CMC): $CMC=0.411/(1+10^{(7.204-pH)}) + 58.4/(1+10^{(pH-7.204)})$

Criterion Continuous Concentration (CCC): $CCC=[0.0577/(1+10^{(7.688-pH)}) + 2.487/(1+10^{(pH-7.688)})] * Min[2.85, 1.45*10^{(0.028*(25-T))}]$

	CMC	CCC
Allowable Summer Instream NH_3-N:	**36.09 mg/l**	**2.18 mg/l**
Allowable Winter Instream NH_3-N:	**36.09 mg/l**	**4.15 mg/l**

$$\text{Summer } NH_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream } NH_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater } NH_3\text{-N}) * (7Q_{10})]}{Q_w}$$

= **2.6 mg/l NH3-N at 7Q10**

$$\text{Winter } NH_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream } NH_3\text{-N}) * (WHF + Q_w)] - [(\text{Headwater } NH_3\text{-N}) * (WHF)]}{Q_w}$$

= **5.9 mg/l NH3-N at Winter Flow**

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	DO-based NH3-N limit	Toxicity-based NH3-N limit
Summer	**1.00 mg/l NH3-N**	**2.60 mg/l NH3-N**
Winter	**2.00 mg/l NH3-N**	**5.90 mg/l NH3-N**

Summer: The DO based limit of 1.00 mg/l NH3-N applies.
Winter: The DO based limit of 2.00 mg/l NH3-N applies.

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)
Applicable Stream Classification: **Fish & Wildlife**
Disinfection Type: **Chlorination**
Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)		
Monthly limit as monthly average (November through April):	548	**548**
Monthly limit as monthly average (May through October):	126	**126**
Daily Max (November through April):	2507	**2507**
Daily Max (May through October):	298	**298**
Enterococci (applies to Coastal)		
Monthly limit as geometric mean (November through April):	Not applicable	**Not applicable**
Monthly limit as geometric mean (May through October):	Not applicable	**Not applicable**
Daily Max (November through April):	Not applicable	**Not applicable**
Daily Max (May through October):	Not applicable	**Not applicable**

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.013 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.022 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Dustin Stokes Date: 11/1/2024

Facility Name: **Cahaba River WRF**

NPDES No.: **AL0023027**

8/13/2017

$$Q_d*C_d + Q_{d2}*C_{d2} + Q_s*C_s = Q_r*C_r$$

ID	Pollutant	Carcinogen "yes"	Type	Background from upstream source (C_{d2}) Daily Max µg/L	Background from upstream source (C_{d2}) Monthly Ave µg/L	Background Instream (C_s) Daily Max µg/L	Background Instream (C_s) Monthly Ave µg/L	Enter Max Daily Discharge as reported by Applicant (C_d) Max µg/L	Enter Avg Daily Discharge as reported by Applicant (C_d) Ave µg/L	Partition Coefficient (Stream / Lake)
1	Antimony		Metals	0	0	0	0	0	0	-
2	**Arsenic*,****	YES	Metals	0	0	0	0	0	0	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0	0	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	
7	Copper**		Metals	0	0	0	0	0	0	0.388
8	Lead**		Metals	0	0	0	0	0	0	0.206
9	Mercury**		Metals	0	0	0	0	0	0	0.302
10	Nickel**		Metals	0	0	0	0	0	0	0.505
11	Selenium		Metals	0	0	0	0	0	0	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	0	0	0	0	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	0	0	-
17	Hardness (As CaCO3)		Metals	0	0	110000	105250	140000	127000	-
18	Acrolein		VOC	0	0	0	0	0	0	-
19	**Acrylonitrile***	YES	VOC	0	0	0	0	0	0	-
20	**Aldrin**	YES	VOC	0	0	0	0	0	0	-
21	**Benzene***	YES	VOC	0	0	0	0	0	0	-
22	**Bromoform***	YES	VOC	0	0	0	0	0	0	-
23	**Carbon Tetrachloride***	YES	VOC	0	0	0	0	0	0	-
24	**Chlordane**	YES	VOC	0	0	0	0	0	0	-
25	Clorobenzene		VOC	0	0	0	0	0	0	-
26	**Chlorodibrome-Methane***	YES	VOC	0	0	0	0	0	0	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-Ethylvinyl Ether		VOC	0	0	0	0	0	0	-
29	**ChloroForm***	YES	VOC	0	0	0	0	0	0	-
30	**4,4'-DDD**	YES	VOC	0	0	0	0	0	0	-
31	**4,4'-DDE**	YES	VOC	0	0	0	0	0	0	-
32	**4.4'-DDT**	YES	VOC	0	0	0	0	0	0	-
33	**Dichlorobromo-Methane***	YES	VOC	0	0	0	0	0	0	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethene***	YES	VOC	0	0	0	0	0	0	-
36	Trans-1, 2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	**1, 1-Dichloroethylene***	YES	VOC	0	0	0	0	0	0	-
38	1, 2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1, 3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	**Dieldrin**	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	**Methylene Chloride***	YES	VOC	0	0	0	0	0	0	-
45	**1, 1, 2, 2-Tetrachloro-Ethane***	YES	VOC	0	0	0	0	0	0	-
46	**Tetrachloro-Ethylene***	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	**Toxaphene**	YES	VOC	0	0	0	0	0	0	-
49	**Tributyltine (TBT)**	YES	VOC	0	0	0	0	0	0	-
50	1, 1, 1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	**1, 1, 2-Trichloroethane***	YES	VOC	0	0	0	0	0	0	-
52	**Trichloroethylene***	YES	VOC	0	0	0	0	0	0	-
53	**Vinyl Chloride***	YES	VOC	0	0	0	0	0	0	-
54	P-Chloro-M-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2, 4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2, 4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2, 4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	**4,6-Dintro-2-methylophenol**	YES	Acids	0	0	0	0	0	0	-
61	**Dioxin (2,3,7,8-TCDD)**	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	**Pentachlorophenol***	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	**2, 4, 6-Trichlorophenol***	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benzidine		Bases	0	0	0	0	0	0	-
71	**Benzo(A)Anthracene***	YES	Bases	0	0	0	0	0	0	-
72	**Benzo(A)Pyrene***	YES	Bases	0	0	0	0	0	0	-
73	3, 4 Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GHI)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	**Bis (2-Chloroethyl)-Ether***	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-
79	**Bis (2-Ethylhexyl) Phthalate***	YES	Bases	0	0	0	0	0	0	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Phthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	**Chrysene***	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	**Dibenzo(A,H)Anthracene***	YES	Bases	0	0	0	0	0	0	-
88	1, 2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1, 4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	**3, 3-Dichlorobenzidine***	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	**2, 4-Dinitrotoluene***	YES	Bases	0	0	0	0	0	0	-
95	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	**Endosulfan (alpha)**	YES	Bases	0	0	0	0	0	0	-
98	**Endosulfan (beta)**	YES	Bases	0	0	0	0	0	0	-
99	**Endosulfan sulfate**	YES	Bases	0	0	0	0	0	0	-
100	**Endrin**	YES	Bases	0	0	0	0	0	0	-
101	**Endrin Aldeyhide**	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptochlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	**Hexachlorobenzene***	YES	Bases	0	0	0	0	0	0	-
107	**Hexachlorobutadiene***	YES	Bases	0	0	0	0	0	0	-
108	**Hexachlorocyclohexan (alpa)**	YES	Bases	0	0	0	0	0	0	-
109	**Hexachlorocyclohexan (beta)**	YES	Bases	0	0	0	0	0	0	-
110	**Hexachlorocyclohexan (gamma)**	YES	Bases	0	0	0	0	0	0	-
111	HexachlorocyclоPentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	**Indeno(1, 2, 3-CK)Pyrene***	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	**N-Nitrosodi-N-Propylamine***	YES	Bases	0	0	0	0	0	0	-
118	**N-Nitrosodi-N-Methylamine***	YES	Bases	0	0	0	0	0	0	-
119	**N-Nitrosodi-N-Phenylamine***	YES	Bases	0	0	0	0	0	0	-
120	**PCB-1016**	YES	Bases	0	0	0	0	0	0	-
121	**PCB-1221**	YES	Bases	0	0	0	0	0	0	-
122	**PCB-1232**	YES	Bases	0	0	0	0	0	0	-
123	**PCB-1242**	YES	Bases	0	0	0	0	0	0	-
124	**PCB-1248**	YES	Bases	0	0	0	0	0	0	-
125	**PCB-1254**	YES	Bases	0	0	0	0	0	0	-
126	**PCB-1260**	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1, 2, 4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

12	Enter Q_d = wastewater discharge flow from facility (MGD)
18.566748	Q_d = wastewater discharge flow (cfs) (this value is calculated from the MGD)
0	Enter flow from upstream discharge Qd2 = background stream flow in MGD above point of discharge
0	Qd2 = background stream flow from upstream source (cfs)
3.4	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
2.55	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
357	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
7.64	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Edit	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
$Q_d*Qd2+Q_s$	Q_r = resultant in-stream flow, after discharge
Calculated on other	C_r = resultant in-stream pollutant concentration in µg/l in the stream (after complete mixing occurs)
105	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of Birmingham)
7.00 s.u.	Enter, Background pH above point of discharge
YES	Enter, Is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

November 1, 2024

Facility Name: Cahaba River WRF

NPDES No.: AL0023027

						Freshwater F&W classification						Freshwater Acute (µg/l) C_a = 1Q10					Freshwater Chronic (µg/l) C_a = 7Q10					Human Health Consumption Fish only (µg/l) Carcinogen C_a = Annual Average Non-Carcinogen C_a = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max	Max Daily Discharge as reported by Applicant (C_{dmax})							Water Quality Criteria (C_a)	Draft Permit Limit (C_{dmax})	20% of Draft Permit Limit	RP?	Background from upstream source (Cd2) Monthly Avg	Avg Daily Discharge as reported by Applicant (C_{davg})	Water Quality Criteria (C_a)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_a)	Draft Permit Limit (C_{davg})	20% of Draft Permit Limit	RP?
1	Antimony			0	0						0	0	-	-	-	-	0	-	-	-	-	3.73E+02	4.42E+02	8.83E+01	No
2	Arsenic		YES	0	0						0	592.334	673.687	134.737	No	0	0	261.324	309.179	61.836	No	3.03E-01	6.13E+00	1.23E+00	No
3	Beryllium			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0						0	8.947	10.176	2.035	No	0	0	1.075	1.276	0.255	No	-	-	-	-
5	Chromium/ Chromium III			0	0						0	2823.770	3211.593	642.319	No	0	0	367.314	434.578	86.916	No	-	-	-	-
6	Chromium/ Chromium VI			0	0						0	18.000	18.197	3.639	No	0	0	11.000	13.014	2.603	No	-	-	-	-
7	Copper			0	0						0	36.266	41.247	8.249	No	0	0	24.064	28.471	5.694	No	-	-	-	-
8	Lead			0	0						0	330.563	375.997	75.199	No	0	0	12.883	15.242	3.048	No	-	-	-	-
9	Mercury			0	0						0	2.400	2.730	0.546	No	0	0	0.012	0.014	0.003	No	4.24E-02	5.02E-02	1.00E-02	No
10	Nickel			0	0						0	966.272	1098.982	219.796	No	0	0	107.323	126.976	25.395	No	9.93E+02	1.17E+03	2.35E+02	No
11	Selenium			0	0						0	20.000	22.747	4.549	No	0	0	5.000	5.916	1.183	No	2.43E+03	2.88E+03	5.75E+02	No
12	Silver			0	0						0	3.496	3.979	0.796	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0						0	-	-	-	-	0	0	-	-	-	-	2.24E-01	3.24E-01	6.47E-02	No
14	Zinc			0	0						0	370.978	420.907	84.181	No	0	0	371.107	441.431	88.286	No	1.49E+04	1.76E+04	3.52E+03	No
15	Cyanide			0	0						0	22.000	26.022	5.004	No	0	0	5.200	6.152	1.230	No	9.33E+04	1.10E+04	2.21E+03	No
16	Total Phenolic Compounds			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	140000						0	-	-	-	-	0	127000	-	-	-	-	-	-	-	-
18	Acrolein			0	0						0	-	-	-	-	0	0	-	-	-	-	5.43E+00	6.42E+00	1.28E+00	No
19	Acrylonitrile		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.44E-01	2.91E+00	5.83E-01	No
20	Aldrin		YES	0	0						0	3.000	3.412	0.682	No	0	0	-	-	-	-	2.94E-05	5.95E-04	1.19E-04	No
21	Benzene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.32E+01	3.13E+02	6.26E+01	No
22	Bromoform		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	7.66E+01	1.59E+03	3.19E+02	No
23	Carbon Tetrachloride		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	9.27E-01	1.94E+01	3.87E+00	No
24	Chlordane		YES	0	0						0	2.400	2.730	0.546	No	0	0	0.0043	0.005	0.001	No	4.73E-04	9.56E-03	1.91E-03	No
25	Clorobenzene			0	0						0	-	-	-	-	0	0	-	-	-	-	3.09E+02	1.07E+03	2.14E+02	No
26	Chlorodibromo-Methane		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	7.41E+00	1.50E+02	3.00E+01	No
27	Chloroethane			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.02E+02	2.06E+03	4.13E+02	No
30	4,4' - DDD		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.81E-04	3.67E-03	7.34E-04	No
31	4,4' - DDE		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.28E-04	2.59E-03	5.18E-04	No
32	4,4' - DDT		YES	0	0						0	1.100	1.251	0.250	No	0	0	0.001	0.001	0.000	No	1.28E-04	2.59E-03	5.18E-04	No
33	Dichlorobromo-Methane		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.00E+01	2.03E+02	4.06E+01	No
34	1, 1-Dichloroethane			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	2.14E+01	4.32E+02	8.64E+01	No
36	Trans-1, 2-Dichloro-Ethylene			0	0						0	-	-	-	-	0	0	-	-	-	-	6.91E+03	6.99E+03	1.40E+03	No
37	1, 1-Dichloroethylene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	4.17E+03	8.43E+04	1.69E+04	No
38	1, 2-Dichloropropane			0	0						0	-	-	-	-	0	0	-	-	-	-	5.49E+00	1.00E+01	2.01E+00	No
39	1, 3-Dichloro-Propylene			0	0						0	-	-	-	-	0	0	-	-	-	-	1.23E+01	1.45E+01	2.91E+00	No
40	Dieldrin		YES	0	0						0	0.240	0.273	0.055	No	0	0	0.056	0.066	0.013	No	5.12E-08	6.32E-04	1.26E-04	No
41	Ethylbenzene			0	0						0	-	-	-	-	0	0	-	-	-	-	1.24E+03	1.47E+03	2.94E+02	No
42	Methyl Bromide			0	0						0	-	-	-	-	0	0	-	-	-	-	8.21E+02	1.03E+03	2.06E+02	No
43	Methyl Chloride			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	3.46E+02	6.99E+03	1.40E+03	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	2.39E+00	4.72E+01	9.44E+00	No
46	Tetrachloro-Ethylene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.92E+00	3.88E+01	7.76E+00	No
47	Toluene			0	0						0	-	-	-	-	0	0	-	-	-	-	3.72E+03	1.03E+04	2.06E+03	No
48	Toxaphene		YES	0	0						0	0.730	0.830	0.166	No	0	0	0.0002	0.000	0.000	No	1.62E-04	3.28E-03	6.55E-04	No
49	Tributyltin (TBT)		YES	0	0						0	0.460	0.523	0.105	No	0	0	0.072	0.085	0.017	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	9.10E+00	1.84E+02	3.68E+01	No
52	Trichloroethylene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.75E+01	3.53E+02	7.07E+01	No
53	Vinyl Chloride		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.42E+00	2.88E+01	5.76E+00	No
54	P-Chloro-M-Cresol			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0						0	-	-	-	-	0	0	-	-	-	-	8.21E+01	1.03E+02	2.06E+01	No
56	2, 4-Dichlorophenol			0	0						0	-	-	-	-	0	0	-	-	-	-	1.72E+02	2.03E+02	4.07E+01	No
57	2, 4-Dimethylphenol			0	0						0	-	-	-	-	0	0	-	-	-	-	4.65E+02	5.89E+02	1.18E+02	No
58	4, 6-Dinitro-O-Cresol			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0						0	-	-	-	-	0	0	-	-	-	-	3.11E+03	3.68E+03	7.36E+02	No
60	4,6-Dinitro-2-methylphenol		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.65E+02	3.35E+03	6.69E+02	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	3.07E-08	5.39E-07	1.08E-07	No
62	2-Nitrophenol			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0						0	8.725	9.921	1.984	No	0	0	8.693	7.916	1.584	No	4.77E+00	3.58E+01	7.15E+00	No
65	Phenol			0	0						0	-	-	-	-	0	0	-	-	-	-	5.00E+05	5.92E+05	1.18E+05	No
66	2, 4, 6-Trichlorophenol		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.41E+00	2.86E+01	5.72E+00	No
67	Acenaphthene			0	0						0	-	-	-	-	0	0	-	-	-	-	5.79E+02	6.84E+02	1.37E+02	No
68	Acenaphthylene			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0						0	-	-	-	-	0	0	-	-	-	-	2.30E+04	2.76E+04	5.52E+03	No
70	Benzidine			0	0						0	-	-	-	-	0	0	-	-	-	-	1.16E-04	1.37E-04	2.74E-05	No
71	Benzo(A)Anthracene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.07E-02	2.16E-01	4.31E-02	No
72	Benzo(A)Pyrene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.07E-02	2.16E-01	4.31E-02	No
73	Benzo(b)fluoranthene			0	0						0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.26E-02	2.52E-03	No
74	Benzo(GHI)Perylene			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0						0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.26E-02	2.52E-03	No
76	Bis (2-Chloroethoxy) Methane			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	3.07E-01	6.22E+00	1.24E+00	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0						0	-	-	-	-	0	0	-	-	-	-	1.78E+04	4.47E+04	8.94E+03	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.26E+00	2.59E+01	5.18E+00	No
80	4-Bromophenyl Phenyl Ether			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0						0	-	-	-	-	0	0	-	-	-	-	1.19E+03	1.33E+03	2.67E+02	No
82	2-Chloronaphthalene			0	0						0	-	-	-	-	0	0	-	-	-	-	8.24E+02	1.09E+03	2.19E+02	No
83	4-Chlorophenyl Phenyl Ether			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.07E-02	2.16E-01	4.31E-02	No
85	Di-N-Butyl Phthalate			0	0						0	-	-	-	-	0	0	-	-	-	-	2.62E+03	3.10E+03	6.20E+02	No
86	Di-N-Octyl Phthalate			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.07E-02	2.16E-01	4.31E-02	No
88	1, 2-Dichlorobenzene			0	0						0	-	-	-	-	0	0	-	-	-	-	7.89E+02	8.94E+02	1.79E+02	No
89	1, 3-Dichlorobenzene			0	0						0	-	-	-	-	0	0	-	-	-	-	5.62E+02	6.65E+02	1.33E+02	No
90	1, 4-Dichlorobenzene			0	0						0	-	-	-	-	0	0	-	-	-	-	7.12E+02	1.33E+02	2.66E+01	No
91	3, 3-Dichlorobenzidine		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	7.98E-02	3.36E-01	6.72E-02	No
92	Diethyl Phthalate			0	0						0	-	-	-	-	0	0	-	-	-	-	2.59E+04	3.03E+04	6.05E+03	No
93	Dimethyl Phthalate			0	0						0	-	-	-	-	0	0	-	-	-	-	6.48E+05	7.67E+05	1.53E+05	No
94	2, 4-Dinitrotoluene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.08E+00	4.01E+01	8.01E+00	No
95	2, 6-Dinitrotoluene			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0						0	-	-	-	-	0	0	-	-	-	-	1.37E-01	1.39E-01	2.77E-02	No
97	Endosulfan (alpha)		YES	0	0						0	0.22	0.250	0.050	No	0	0	0.056	0.066	0.013	No	8.19E+01	1.05E+03	2.10E+02	No
98	Endosulfan (beta)		YES	0	0						0	0.22	0.250	0.050	No	0	0	0.056	0.066	0.013	No	8.19E+01	1.05E+03	2.10E+02	No
99	Endosulfan sulfate		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	8.19E+01	1.05E+03	2.10E+02	No
100	Endrin		YES	0	0						0	0.086	0.098	0.020	No	0	0	0.036	0.043	0.009	No	5.83E-02	7.13E-01	1.43E-01	No
101	Endrin Aldeyhde		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.76E-01	3.57E+00	7.13E-01	No
102	Fluoranthene			0	0						0	-	-	-	-	0	0	-	-	-	-	8.12E+01	9.80E+01	1.92E+01	No
103	Fluorene			0	0						0	-	-	-	-	0	0	-	-	-	-	3.11E+03	3.68E+03	7.36E+02	No
104	Heptochlor		YES	0	0						0	0.52	0.591	0.118	No	0	0	0.0038	0.004	0.001	No	4.03E-05	9.36E-04	1.87E-04	No
105	Heptachlor Epoxide		YES	0	0						0	0.52	0.591	0.118	No	0	0	0.0038	0.004	0.001	No	2.15E-05	4.63E-04	9.26E-05	No
106	Hexachlorobenzene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.06E-04	3.39E-03	6.79E-04	No
107	Hexachlorobutadiene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.06E+01	2.18E+02	4.35E+01	No
108	Hexachlorocyclohexan (alpha)		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	2.88E-03	5.76E-02	1.15E-02	No
109	Hexachlorocyclohexan (beta)		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	9.97E-03	2.02E-01	4.03E-02	No
110	Hexachlorocyclohexan (gamma)		YES	0	0						0	0.95	1.080	0.216	No	0	0	0.08	0.095	0.019	No	1.06E+00	2.18E+01	4.36E+00	No
111	HexachlorocyclePentadiene			0	0						0	-	-	-	-	0	0	-	-	-	-	8.48E+02	7.83E+02	1.53E+02	No
112	Hexachloroethane			0	0						0	-	-	-	-	0	0	-	-	-	-	1.92E+00	2.27E+00	4.54E-01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.07E-02	2.16E-01	4.31E-02	No
114	Isophorone			0	0						0	-	-	-	-	0	0	-	-	-	-	8.41E+02	6.63E+02	1.33E+02	No
115	Naphthalene			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0						0	-	-	-	-	0	0	-	-	-	-	4.04E+02	4.78E+02	9.55E+01	No
117	N-Nitrosodi-N-Propylamine		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	2.98E-01	5.97E+00	1.19E+00	No
118	N-Nitrosodimethylamine		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	1.76E+00	3.56E+01	7.12E+00	No
119	N-Nitrosodiphenylamine		YES	0	0						0	-	-	-	-	0	0	-	-	-	-	3.50E+00	7.06E+01	1.42E+01	No
120	PCB-1016		YES	0	0						0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	7.56E-04	1.51E-04	No
121	PCB-1221		YES	0	0						0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	7.56E-04	1.51E-04	No
122	PCB-1232		YES	0	0						0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	7.56E-04	1.51E-04	No
123	PCB-1242		YES	0	0						0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	7.56E-04	1.51E-04	No
124	PCB-1248		YES	0	0						0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	7.56E-04	1.51E-04	No
125	PCB-1254		YES	0	0						0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	7.56E-04	1.51E-04	No
126	PCB-1260		YES	0	0						0	-	-	-	-	0	0	0.014	0.017	0.003	No	3.74E-05	7.56E-04	1.51E-04	No
127	Phenanthrene			0	0						0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0						0	-	-	-	-	0	0	-	-	-	-	2.33E+03	2.76E+03	5.52E+02	No
129	1, 2, 4-Trichlorobenzene			0	0						0	-	-	-	-	0	0	-	-	-	-	4.09E+01	4.84E+01	9.69E+00	No

JEFFERSON COUNTY COMMISSION

JAMES A. "JIMMIE" STEPHENS – PRESIDENT
LASHUNDA SCALES
SHEILA TYSON
STEVE AMMONS
T. JOE KNIGHT

CAL MARKERT
CHIEF EXECUTIVE OFFICER

DAVID DENARD
Director of Environmental Services Department
SUITE A300
716 Richard Arrington Jr. Blvd. N
Birmingham, Alabama 35203
Telephone (205) 325-5496
Fax (205) 325-5981

May 31, 2024
Dustin Stokes
Alabama Department of Environmental Management
Municipal Section, Water Division
1400 Coliseum Boulevard
Montgomery, AL 36110-2059

Regarding: Renewal of NPDES Permit Number: AL0023027
Cahaba River Water Reclamation Facility
Jefferson County Commission

Dear Mr. Stokes:

In compliance with the Cahaba River Nutrient TMDL's adaptive management process, Jefferson County Environmental Services Department (the County) is requesting that the schedule of compliance specified in the NPDES permit for the Cahaba River Water Reclamation Facility (WRF) for total phosphorus limitations be extended until April 1, 2037, and that the current growing season monthly average total phosphorus limit of 0.2 mg/L be maintained through that date. The Cahaba River WRF achieved this target in 2016 and has maintained compliance with that limit since that time.

The extension is necessary to allow for additional study of the Cahaba River's biological response to current phosphorus loading and resulting instream phosphorus concentrations. Water quality data collected by the Alabama Department of Environmental Management (ADEM) demonstrates that growing season median concentrations of total phosphorus in the Cahaba River have been less than the total phosphorus targets specified in the Cahaba River Nutrient TMDL since 2015 (Figure 1). The lower phosphorus concentrations in the river have reduced periphyton coverage and density and have resulted in improvements in the river's biology.

The extension is also needed to allow the County to continue its planning and design of improvements, which will provide for greater reliability, effectiveness, and efficiency of the treatment systems at the two water reclamation facilities. The estimated cost of the proposed work to achieve the final total phosphorus limit of 0.043 mg/L is approximately $45,000,000. This is a significant cost for the ratepayers of Jefferson County and will result in only a small incremental reduction in phosphorus concentrations in the Cahaba River without a measurable environmental benefit.

The adaptive management process has proven successful in reducing total phosphorus throughout the upper Cahaba River watershed as municipal wastewater treatment facilities have implemented phosphorus removal to achieve the current monthly average total phosphorus limit of 0.2 mg/L. Continuing this approach is a reasonable response to the water quality improvements adaptive management has produced so far and will support ADEM's science-based regulatory decisions regarding NPDES permits in the watershed.

Thank you for your consideration of this request. Should you have any questions, please do not hesitate to call at (205) 325-5979.

Sincerely,

David Denard, P.E.
Director
Environmental Services Department

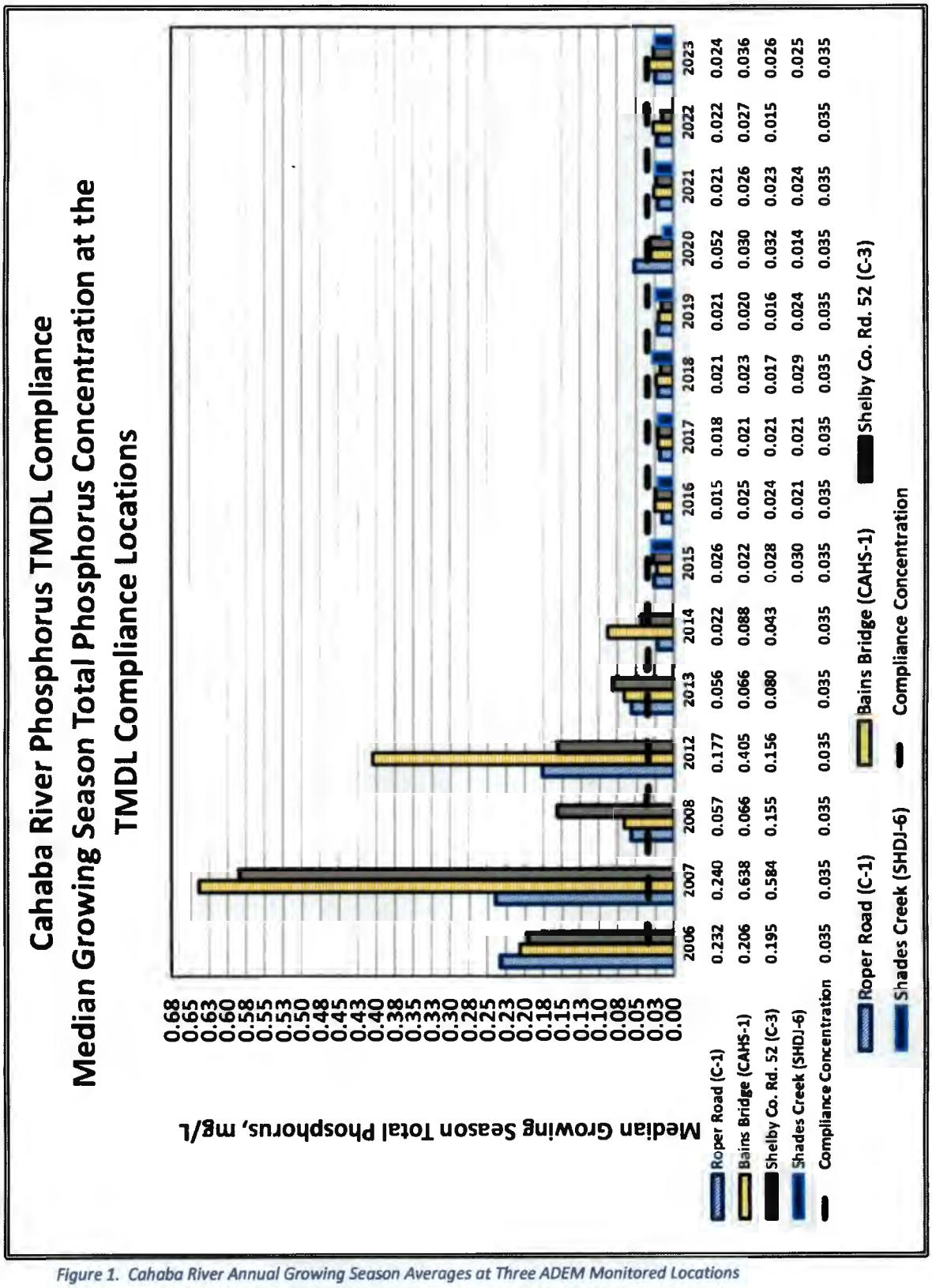

Figure 1. Cahaba River Annual Growing Season Averages at Three ADEM Monitored Locations

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

Form 2A NPDES | EPA

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater
NEW AND EXISTING PUBLICLY OWNED TREATMENT WORKS

SECTION 1. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS (40 CFR 122.21(j)(1) and (9))

Facility Information

1.1 Facility name
Cahaba River Water Reclamation Facility

Mailing address (street or P.O. box)
716 Richard Arrington Jr. Blvd N, Suie A300

City or town	State	ZIP code
Birmingham	AL	35203

Contact name (first and last)	Title	Phone number	Email address
David Denard	Director	(205) 325-5979	denardd@jccal.org

Location address (street, route number, or other specific identifier) ☐ Same as mailing address
3900 Veona Daniels Rd

City or town	State	ZIP code
Birmingham	AL	35244

1.2 Is this application for a facility that has yet to commence discharge?
☐ Yes ➔ See instructions on data submission requirements for new dischargers. ☑ No

Applicant Information

1.3 Is applicant different from entity listed under Item 1.1 above?
☑ Yes ☐ No ➔ SKIP to Item 1.4.

Applicant name
Jefferson County Commission

Applicant address (street or P.O. box)
Suite A300, 716 Richard Arrington Jr. Blvd N

City or town	State	ZIP code
Birmingham	AL	35203

Contact name (first and last)	Title	Phone number	Email address
David Denard	Director	(205) 325-5979	denardd@jccal.org

1.4 Is the applicant the facility's owner, operator, or both? (Check only one response.)
☐ Owner ☐ Operator ☑ Both

1.5 To which entity should the NPDES permitting authority send correspondence? (Check only one response.)
☐ Facility ☐ Applicant ☑ Facility and applicant (they are one and the same)

Existing Environmental Permits

1.6 Indicate below any existing environmental permits. (Check all that apply and print or type the corresponding permit number for each.)

Existing Environmental Permits		
☑ NPDES (discharges to surface water) AL0023027	☐ RCRA (hazardous waste)	☐ UIC (underground injection control)
☑ PSD (air emissions) 4-07-1075-03	☐ Nonattainment program (CAA)	☐ NESHAPs (CAA)
☐ Ocean dumping (MPRSA)	☐ Dredge or fill (CWA Section 404)	☐ Other (specify)

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WATER DIVISION

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

Collection System and Population Served

1.7 Provide the collection system information requested below for the treatment works.

Municipality Served	Population Served	Collection System Type (indicate percentage)	Ownership Status
Birmingham, Hoover	N/A	100 % separate sanitary sewer ____ % combined storm and sanitary sewer ☐ Unknown	☑ Own ☑ Maintain ☐ Own ☐ Maintain ☐ Own ☐ Maintain
Mountain Brook, Irondale	N/A	100 % separate sanitary sewer ____ % combined storm and sanitary sewer ☐ Unknown	☑ Own ☑ Maintain ☐ Own ☐ Maintain ☐ Own ☐ Maintain
Vestavia Hills	N/A	100 % separate sanitary sewer ____ % combined storm and sanitary sewer ☐ Unknown	☑ Own ☑ Maintain ☐ Own ☐ Maintain ☐ Own ☐ Maintain
Unicorporated	N/A	100 % separate sanitary sewer ____ % combined storm and sanitary sewer ☐ Unknown	☑ Own ☑ Maintain ☐ Own ☐ Maintain ☐ Own ☐ Maintain
Total Population Served	78,289 (from 2020 census)		

Total percentage of each type of sewer line (in miles)	Separate Sanitary Sewer System	Combined Storm and Sanitary Sewer
	100 %	0 %

Indian Country

1.8 Is the treatment works located in Indian Country?

☐ Yes ☑ No

1.9 Does the facility discharge to a receiving water that flows through Indian Country?

☐ Yes ☑ No

Design and Actual Flow Rates

1.10 Provide design *and* actual flow rates in the designated spaces.

Design Flow Rate
12 mgd

Annual Average Flow Rates (Actual)		
Two Years Ago	Last Year	This Year
6.8 mgd	5.7 mgd	4.3 mgd

Maximum Daily Flow Rates (Actual)		
Two Years Ago	Last Year	This Year
27.4 mgd	22.3 mgd	23.4 mgd

Discharge Points by Type

1.11 Provide the total number of effluent discharge points to waters of the United States by type.

Total Number of Effluent Discharge Points by Type				
Treated Effluent	Untreated Effluent	Combined Sewer Overflows	Bypasses	Constructed Emergency Overflows
1	0	0	0	0

Outfalls and Other Discharge or Disposal Methods

Outfalls Other Than to Waters of the United States

1.12 Does the POTW discharge wastewater to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the United States?

☐ Yes ☑ No ➔ SKIP to Item 1.14.

1.13 Provide the location of each surface impoundment and associated discharge information in the table below.

Surface Impoundment Location and Discharge Data

Location	Average Daily Volume Discharged to Surface Impoundment	Continuous or Intermittent (check one)
	gpd	☐ Continuous ☐ Intermittent
	gpd	☐ Continuous ☐ Intermittent
	gpd	☐ Continuous ☐ Intermittent

1.14 Is wastewater applied to land?

☐ Yes ☑ No ➔ SKIP to Item 1.16.

1.15 Provide the land application site and discharge data requested below.

Land Application Site and Discharge Data

Location	Size	Average Daily Volume Applied	Continuous or Intermittent (check one)
	acres	gpd	☐ Continuous ☐ Intermittent
	acres	gpd	☐ Continuous ☐ Intermittent
	acres	gpd	☐ Continuous ☐ Intermittent

1.16 Is effluent transported to another facility for treatment prior to discharge?

☐ Yes ☑ No ➔ SKIP to Item 1.21.

1.17 Describe the means by which the effluent is transported (e.g., tank truck, pipe).

*Untreated wastewater, partially treated wastewater, and waste activated sludge may be transferred to the Valley Creek WRF via the Al Seier Pump Station. Final effluent is not transported.

1.18 Is the effluent transported by a party other than the applicant?

☐ Yes ☑ No ➔ SKIP to Item 1.20.

1.19 Provide information on the transporter below.

Transporter Data

Entity name	Mailing address (street or P.O. box)	
City or town	State	ZIP code
Contact name (first and last)	Title	
Phone number	Email address	

Outfalls and Other Discharge or Disposal Methods Continued

1.20 In the table below, indicate the name, address, contact information, NPDES number, and average daily flow rate of the receiving facility.

Receiving Facility Data

Facility name	Mailing address (street or P.O. box)	
City or town	State	ZIP code
Contact name (first and last)	Title	
Phone number	Email address	
NPDES number of receiving facility (if any) ☐ None	Average daily flow rate mgd	

1.21 Is the wastewater disposed of in a manner other than those already mentioned in Items 1.14 through 1.21 that do not have outlets to waters of the United States (e.g., underground percolation, underground injection)?

☐ Yes ☑ No ➔ SKIP to Item 1.23.

1.22 Provide information in the table below on these other disposal methods.

Information on Other Disposal Methods

Disposal Method Description	Location of Disposal Site	Size of Disposal Site	Annual Average Daily Discharge Volume	Continuous or Intermittent (check one)
		acres	gpd	☐ Continuous ☐ Intermittent
		acres	gpd	☐ Continuous ☐ Intermittent
		acres	gpd	☐ Continuous ☐ Intermittent

Variance Requests

1.23 Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(n)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)

☐ Discharges into marine waters (CWA Section 301(h))

☐ Water quality related effluent limitation (CWA Section 302(b)(2))

☑ Not applicable

Contractor Information

1.24 Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?

☐ Yes ☑ No ➔SKIP to Section 2.

1.25 Provide location and contact information for each contractor in addition to a description of the contractor's operational and maintenance responsibilities.

Contractor Information

	Contractor 1	Contractor 2	Contractor 3
Contractor name (company name)			
Mailing address (street or P.O. box)			
City, state, and ZIP code			
Contact name (first and last)			
Phone number			
Email address			
Operational and maintenance responsibilities of contractor			

SECTION 2. ADDITIONAL INFORMATION (40 CFR 122.21(j)(1) and (2))

Design Flow

Outfalls to Waters of the United States

2.1 Does the treatment works have a design flow greater than or equal to 0.1 mgd?

☑ Yes ☐ No ➔ SKIP to Section 3.

Inflow and Infiltration

2.2 Provide the treatment works' current average daily volume of inflow and infiltration.

Average Daily Volume of Inflow and Infiltration
2,356,000 gpd

Indicate the steps the facility is taking to minimize inflow and infiltration.

Jefferson County has conducted extensive flow monitoring for the calibration of dynamic flow models for the Cahaba River basin. The County continues to do sewer rehabilitation, routine maintenance, TV inspection, and sewer line repairs to help reduce I/I and prevent SSO's as a part of a comprehensive CMOM program.

Topographic Map

2.3 Have you attached a topographic map to this application that contains all the required information? (See instructions for specific requirements.)

☑ Yes ☐ No

Flow Diagram

2.4 Have you attached a process flow diagram or schematic to this application that contains all the required information? (See instructions for specific requirements.)

☑ Yes ☐ No

Scheduled Improvements and Schedules of Implementation

2.5 Are improvements to the facility scheduled?

☑ Yes ☐ No ➔ SKIP to Section 3.

Briefly list and describe the scheduled improvements.

1. Phase 3 Process & Reliability Improvements (under construction) (see attachment 2A-2.5)
2.
3.
4.

2.6 Provide scheduled or actual dates of completion for improvements.

Scheduled or Actual Dates of Completion for Improvements

Scheduled Improvement (from above)	Affected Outfalls (list outfall number)	Begin Construction (MM/DD/YYYY)	End Construction (MM/DD/YYYY)	Begin Discharge (MM/DD/YYYY)	Attainment of Operational Level (MM/DD/YYYY)
1.	0011	01/31/2022	08/23/2025		
2.					
3.					
4.					

2.7 Have appropriate permits/clearances concerning other federal/state requirements been obtained? Briefly explain your response.

☑ Yes ☐ No ☐ None required or applicable

Explanation:

Air permit for plant only one needed, already obtained.

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

SECTION 3. INFORMATION ON EFFLUENT DISCHARGES (40 CFR 122.21(j)(3) to (5))

Description of Outfalls

3.1 Provide the following information for each outfall. (Attach additional sheets if you have more than three outfalls.)

	Outfall Number 0011	Outfall Number ____	Outfall Number ____
State	Alabama		
County	Jefferson		
City or town	Birmingham		
Distance from shore	N/A ft.	ft.	ft.
Depth below surface	N/A ft.	ft.	ft.
Average daily flow rate	5.7 mgd	mgd	mgd
Latitude	33° 22′ 11.3″ N	° ′ ″	° ′ ″
Longitude	86° 47′ 10.9″ W	° ′ ″	° ′ ″

Seasonal or Periodic Discharge Data

3.2 Do any of the outfalls described under Item 3.1 have seasonal or periodic discharges?

☐ Yes ☑ No → SKIP to Item 3.4.

3.3 If so, provide the following information for each applicable outfall.

	Outfall Number ____	Outfall Number ____	Outfall Number ____
Number of times per year discharge occurs			
Average duration of each discharge (specify units)			
Average flow of each discharge	mgd	mgd	mgd
Months in which discharge occurs			

Diffuser Type

3.4 Are any of the outfalls listed under Item 3.1 equipped with a diffuser?

☐ Yes ☑ No → SKIP to Item 3.6.

3.5 Briefly describe the diffuser type at each applicable outfall.

Outfall Number ____	Outfall Number ____	Outfall Number ____

Waters of the U.S.

3.6 Does the treatment works discharge or plan to discharge wastewater to waters of the United States from one or more discharge points?

☑ Yes ☐ No → SKIP to Section 6.

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Receiving Water Description

3.7 Provide the receiving water and related information (if known) for each outfall.

	Outfall Number 0011	Outfall Number ____	Outfall Number ____
Receiving water name	Cahaba River		
Name of watershed, river, or stream system	Cahaba River Watershed		
U.S. Soil Conservation Service 14-digit watershed code	03150202010073		
Name of state management/river basin	Cahaba		
U.S. Geological Survey 8-digit hydrologic cataloging unit code	03150202		
Critical low flow (acute)	N/A cfs	cfs	cfs
Critical low flow (chronic)	N/A cfs	cfs	cfs
Total hardness at critical low flow	N/A mg/L of $CaCO_3$	mg/L of $CaCO_3$	mg/L of $CaCO_3$

Treatment Description

3.8 Provide the following information describing the treatment provided for discharges from each outfall.

	Outfall Number 0011	Outfall Number ____	Outfall Number ____
Highest Level of Treatment (check all that apply per outfall)	☑ Primary ☐ Equivalent to secondary ☑ Secondary ☑ Advanced ☐ Other (specify) ____	☐ Primary ☐ Equivalent to secondary ☐ Secondary ☐ Advanced ☐ Other (specify) ____	☐ Primary ☐ Equivalent to secondary ☐ Secondary ☐ Advanced ☐ Other (specify) ____
Design Removal Rates by Outfall			
BOD_5 or $CBOD_5$	85 %	%	%
TSS	85 %	%	%
Phosphorus	☐ Not applicable 0.2 mg/L %	☐ Not applicable %	☐ Not applicable %
Nitrogen	☐ Not applicable 3.0 mg/L %	☐ Not applicable %	☐ Not applicable %
Other (specify) ____	☐ Not applicable %	☐ Not applicable %	☐ Not applicable %

Treatment Description Continued

3.9 Describe the type of disinfection used for the effluent from each outfall in the table below. If disinfection varies by season, describe below.

	Outfall Number 0011	Outfall Number _____	Outfall Number _____
Disinfection type	Ultraviolet irradiation		
Seasons used	all seasons		
Dechlorination used?	☐ Not applicable ☐ Yes ☑ No	☐ Not applicable ☐ Yes ☐ No	☐ Not applicable ☐ Yes ☐ No

Effluent Testing Data

3.10 Have you completed monitoring for all Table A parameters and attached the results to the application package?

☑ Yes ☐ No

3.11 Have you conducted any WET tests during the 4.5 years prior to the date of the application on any of the facility's discharges or on any receiving water near the discharge points?

☑ Yes ☐ No ➔ SKIP to Item 3.13.

3.12 Indicate the number of acute and chronic WET tests conducted since the last permit reissuance of the facility's discharges by outfall number or of the receiving water near the discharge points.

	Outfall Number 0011		Outfall Number _____		Outfall Number _____	
	Acute	Chronic	Acute	Chronic	Acute	Chronic
Number of tests of discharge water		4				
Number of tests of receiving water		0				

3.13 Does the treatment works have a design flow greater than or equal to 0.1 mgd?

☑ Yes ☐ No ➔ SKIP to Item 3.16.

3.14 Does the POTW use chlorine for disinfection, use chlorine elsewhere in the treatment process, or otherwise have reasonable potential to discharge chlorine in its effluent?

☐ Yes ➔ Complete Table B, including chlorine. ☑ No ➔ Complete Table B, omitting chlorine.

3.15 Have you completed monitoring for all applicable Table B pollutants and attached the results to this application package?

☑ Yes ☐ No

3.16 Does one or more of the following conditions apply?

- The facility has a design flow greater than or equal to 1 mgd.
- The POTW has an approved pretreatment program or is required to develop such a program.
- The NPDES permitting authority has informed the POTW that it must sample for the parameters in Table C, must sample other additional parameters (Table D), or submit the results of WET tests for acute or chronic toxicity for each of its discharge outfalls (Table E).

☑ Yes ➔ Complete Tables C, D, and E as applicable. ☐ No ➔ SKIP to Section 4.

3.17 Have you completed monitoring for all applicable Table C pollutants and attached the results to this application package?

☑ Yes ☐ No

3.18 Have you completed monitoring for all applicable Table D pollutants required by your NPDES permitting authority and attached the results to this application package?

☐ Yes ☑ No additional sampling required by NPDES permitting authority.

Effluent Testing Data Continued

3.19 Has the POTW conducted either (1) minimum of four quarterly WET tests for one year preceding this permit application or (2) at least four annual WET tests in the past 4.5 years?

☑ Yes ☐ No ➔ Complete tests and Table E and SKIP to Item 3.26.

3.20 Have you previously submitted the results of the above tests to your NPDES permitting authority?

☑ Yes ☐ No ➔ Provide results in Table E and SKIP to Item 3.26.

3.21 Indicate the dates the data were submitted to your NPDES permitting authority and provide a summary of the results.

Date(s) Submitted (MM/DD/YYYY)	Summary of Results
09/25/2023	9/26/19 No chronic toxicity indicated. 9/25/20 No chronic toxicity indicated. 9/27/21 No chronic toxicity indicated. 9/20/22 No chronic toxicity indicated. 9/25/23 No chronic toxicity indicated.

3.22 Regardless of how you provided your WET testing data to the NPDES permitting authority, did any of the tests result in toxicity?

☐ Yes ☑ No ➔ SKIP to Item 3.26.

3.23 Describe the cause(s) of the toxicity:

3.24 Has the treatment works conducted a toxicity reduction evaluation?

☐ Yes ☐ No ➔ SKIP to Item 3.26.

3.25 Provide details of any toxicity reduction evaluations conducted.

3.26 Have you completed Table E for all applicable outfalls and attached the results to the application package?

☐ Yes ☑ Not applicable because previously submitted information to the NPDES permitting authority.

SECTION 4. INDUSTRIAL DISCHARGES AND HAZARDOUS WASTES (40 CFR 122.21(j)(6) and (7))

Industrial Discharges and Hazardous Wastes

4.1 Does the POTW receive discharges from SIUs or NSCIUs?

☐ Yes ☑ No ➔ SKIP to Item 4.7.

4.2 Indicate the number of SIUs and NSCIUs that discharge to the POTW.

Number of SIUs	Number of NSCIUs

4.3 Does the POTW have an approved pretreatment program?

☐ Yes ☐ No

4.4 Have you submitted either of the following to the NPDES permitting authority that contains information substantially identical to that required in Table F: (1) a pretreatment program annual report submitted within one year of the application or (2) a pretreatment program?

☐ Yes ☐ No ➔ SKIP to Item 4.6.

4.5 Identify the title and date of the annual report or pretreatment program referenced in Item 4.4. SKIP to Item 4.7.

4.6 Have you completed and attached Table F to this application package?

☐ Yes ☐ No

Industrial Discharges and Hazardous Wastes Continued

4.7 Does the POTW receive, or has it been notified that it will receive, by truck, rail, or dedicated pipe, any wastes that are regulated as RCRA hazardous wastes pursuant to 40 CFR 261?

☐ Yes ☑ No ➔ SKIP to Item 4.9.

4.8 If yes, provide the following information:

Hazardous Waste Number	Waste Transport Method (check all that apply)	Annual Amount of Waste Received	Units
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		

4.9 Does the POTW receive, or has it been notified that it will receive, wastewaters that originate from remedial activities, including those undertaken pursuant to CERCLA and Sections 3004(7) or 3008(h) of RCRA?

☐ Yes ☑ No ➔ SKIP to Section 5.

4.10 Does the POTW receive (or expect to receive) less than 15 kilograms per month of non-acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e)?

☐ Yes ➔ SKIP to Section 5. ☐ No

4.11 Have you reported the following information in an attachment to this application: identification and description of the site(s) or facility(ies) at which the wastewater originates; the identities of the wastewater's hazardous constituents; and the extent of treatment, if any, the wastewater receives or will receive before entering the POTW?

☐ Yes ☐ No

SECTION 5. COMBINED SEWER OVERFLOWS (40 CFR 122.21(j)(8))

CSO Map and Diagram

5.1 Does the treatment works have a combined sewer system?

☐ Yes ☑ No ➔ SKIP to Section 6.

5.2 Have you attached a CSO system map to this application? (See instructions for map requirements.)

☐ Yes ☐ No

5.3 Have you attached a CSO system diagram to this application? (See instructions for diagram requirements.)

☐ Yes ☐ No

CSO Outfall Description	5.4	For each CSO outfall, provide the following information. (Attach additional sheets as necessary.)			
			CSO Outfall Number ____	**CSO Outfall Number ____**	**CSO Outfall Number ____**
		City or town			
		State and ZIP code			
		County			
		Latitude	° ' "	° ' "	° ' "
		Longitude	° ' "	° ' "	° ' "
		Distance from shore	ft.	ft.	ft.
		Depth below surface	ft.	ft.	ft.
CSO Monitoring	5.5	Did the POTW monitor any of the following items in the past year for its CSO outfalls?			
			CSO Outfall Number ____	**CSO Outfall Number ____**	**CSO Outfall Number ____**
		Rainfall	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
		CSO flow volume	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
		CSO pollutant concentrations	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
		Receiving water quality	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
		CSO frequency	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
		Number of storm events	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO Events in Past Year	5.6	Provide the following information for each of your CSO outfalls.			
			CSO Outfall Number ____	**CSO Outfall Number ____**	**CSO Outfall Number ____**
		Number of CSO events in the past year	events	events	events
		Average duration per event	hours ☐ Actual or ☐ Estimated	hours ☐ Actual or ☐ Estimated	hours ☐ Actual or ☐ Estimated
		Average volume per event	million gallons ☐ Actual or ☐ Estimated	million gallons ☐ Actual or ☐ Estimated	million gallons ☐ Actual or ☐ Estimated
		Minimum rainfall causing a CSO event in last year	inches of rainfall ☐ Actual or ☐ Estimated	inches of rainfall ☐ Actual or ☐ Estimated	inches of rainfall ☐ Actual or ☐ Estimated

CSO Receiving Waters

5.7 Provide the information in the table below for each of your CSO outfalls.

	CSO Outfall Number ____	CSO Outfall Number ____	CSO Outfall Number ____
Receiving water name			
Name of watershed/ stream system			
U.S. Soil Conservation Service 14-digit watershed code (if known)	☐ Unknown	☐ Unknown	☐ Unknown
Name of state management/river basin			
U.S. Geological Survey 8-Digit Hydrologic Unit Code (if known)	☐ Unknown	☐ Unknown	☐ Unknown
Description of known water quality impacts on receiving stream by CSO (see instructions for examples)			

SECTION 6. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

6.1 In Column 1 below, mark the sections of Form 2A that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.

Column 1	Column 2	
☑ Section 1: Basic Application Information for All Applicants	☐ w/ variance request(s)	☑ w/ additional attachments
☑ Section 2: Additional Information	☑ w/ topographic map ☐ w/ additional attachments	☑ w/ process flow diagram
☑ Section 3: Information on Effluent Discharges	☑ w/ Table A ☑ w/ Table B ☑ w/ Table C	☐ w/ Table D ☐ w/ Table E ☐ w/ additional attachments
☑ Section 4: Industrial Discharges and Hazardous Wastes	☐ w/ SIU and NSCIU attachments ☐ w/ additional attachments	☐ w/ Table F
☑ Section 5: Combined Sewer Overflows	☐ w/ CSO map ☐ w/ CSO system diagram	☐ w/ additional attachments
☑ Section 6: Checklist and Certification Statement	☐ w/ attachments	

6.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
David Denard	Director, Environmental Services
Signature	**Date signed**
Dan Denard	05/31/2024

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	0011

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TABLE A. EFFLUENT PARAMETERS FOR ALL POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Biochemical oxygen demand ☐ BOD_5 or ☑ $CBOD_5$ (report one)	5.7	mg/L	1.1	mg/L	237	SM5210-B	0 ☐ ML ☑ MDL
Fecal coliform	280	col/100 mL	3.4	col/100 mL	237	EPA1603 (E. coli)	1 ☐ ML ☑ MDL
Design flow rate	23.4	MGD	4.3	MGD	366		
pH (minimum)	7.5	S.U.					
pH (maximum)	8.2	S.U.					
Temperature (winter)	Not required by perr						
Temperature (summer)	Not required by perr						
Total suspended solids (TSS)	16	mg/L	0.43	mg/L	237	SM2540-D	1 ☐ ML ☑ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	0011

TABLE B. EFFLUENT PARAMETERS FOR ALL POTWS WITH A FLOW EQUAL TO OR GREATER THAN 0.1 MGD

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Ammonia (as N)	0.18	mg/L	0.01	mg/L	230	SM4500NH3-G	0.05 ☑ ML ☐ MDL
Chlorine (total residual, TRC)[2]	N/A		N/A				☐ ML ☐ MDL
Dissolved oxygen	11.9	mg/L	9.7	mg/L	230	SM4500-O.G	0.05 ☐ ML ☑ MDL
Nitrate/nitrite	7.7	mg/L	3.2	mg/L	11	SM4500NO3-F	0.05 ☑ ML ☐ MDL
Kjeldahl nitrogen	1.5	mg/L	0.52	mg/L	230	EPA351.2	0.05 ☑ ML ☐ MDL
Oil and grease	Not required by perr						☐ ML ☐ MDL
Phosphorus	0.45	mg/L	0.06	mg/L	230	SM4500-P E	0.01 ☑ ML ☐ MDL
Total dissolved solids	Not required by perr						☐ ML ☐ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

[2] Facilities that do not use chlorine for disinfection, do not use chlorine elsewhere in the treatment process, and have no reasonable potential to discharge chlorine in their effluent are not required to report data for chlorine.

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	0011

Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Metals, Cyanide, and Total Phenols							
Hardness (as $CaCO_3$)	140	ppm	127	ppm	3	2340C	4.3 ☐ ML ☑ MDL
Antimony, total recoverable	0	ppb	0	ppb	3	200.7	20 ☑ ML ☐ MDL
Arsenic, total recoverable	0	ppb	0	ppb	3	200.7	5 ☐ ML ☑ MDL
Beryllium, total recoverable	0	ppb	0	ppb	3	200.7	11 ☑ ML ☐ MDL
Cadmium, total recoverable	0	ppb	0	ppb	3	200.7	8 ☑ ML ☐ MDL
Chromium, total recoverable	0	ppb	0	ppb	3	200.7	11 ☑ ML ☐ MDL
Copper, total recoverable	0	ppb	0	ppb	3	200.7	9 ☑ ML ☐ MDL
Lead, total recoverable	0	ppb	0	ppb	3	200.7	17 ☑ ML ☐ MDL
Mercury, total recoverable	0	ppb	0	ppb	3	1631E	0.00050 ☐ ML ☑ MDL
Nickel, total recoverable	0	ppb	0	ppb	3	200.7	12 ☑ ML ☐ MDL
Selenium, total recoverable	0	ppb	0	ppb	3	200.7	13 ☑ ML ☐ MDL
Silver, total recoverable	0	ppb	0	ppb	3	200.7	7 ☑ ML ☐ MDL
Thallium, total recoverable	0	ppb	0	ppb	3	200.7	24 ☑ ML ☐ MDL
Zinc, total recoverable	0	ppb	0	ppb	3	200.7	15 ☑ ML ☐ MDL
Cyanide	0	ppm	0	ppm	3	4500-CN-E	3.4 ☐ ML ☑ MDL
Total phenolic compounds	0	ppb	0	ppb	3	9065	50 ☐ ML ☑ MDL
Volatile Organic Compounds							
Acrolein	0	ppb	0	ppb	3	624.1	20 ☐ ML ☑ MDL
Acrylonitrile	0	ppb	0	ppb	3	624.1	20 ☐ ML ☑ MDL
Benzene	0	ppb	0	ppb	3	624.1	5 ☐ ML ☑ MDL
Bromoform	0	ppb	0	ppb	3	624.1	5 ☐ ML ☑ MDL

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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Carbon tetrachloride	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Chlorobenzene	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Chlorodibromomethane	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Chloroethane	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
2-chloroethylvinyl ether	0	ppb	0	ppb	3	624.1	20 ☐ ML ☐ MDL
Chloroform	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Dichlorobromomethane	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
1,1-dichloroethane	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
1,2-dichloroethane	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
trans-1,2-dichloroethylene	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
1,1-dichloroethylene	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
1,2-dichloropropane	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
1,3-dichloropropylene	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Ethylbenzene	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Methyl bromide	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Methyl chloride	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Methylene chloride	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
1,1,2,2-tetrachloroethane	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Tetrachloroethylene	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
Toluene	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
1,1,1-trichloroethane	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL
1,1,2-trichloroethane	0	ppb	0	ppb	3	624.1	5 ☐ ML ☐ MDL

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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Trichloroethylene	0	ppb	0	ppb	3	624.1	5 ☐ ML ☑ MDL
Vinyl chloride	0	ppb	0	ppb	3	624.1	5 ☐ ML ☑ MDL
Acid-Extractable Compounds							
p-chloro-m-cresol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
2-chlorophenol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
2,4-dichlorophenol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
2,4-dimethylphenol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
4,6-dinitro-o-cresol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
2,4-dinitrophenol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
2-nitrophenol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
4-nitrophenol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Pentachlorophenol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Phenol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
2,4,6-trichlorophenol	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Base-Neutral Compounds							
Acenaphthene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Acenaphthylene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Anthracene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Benzidine	0	ppb	0	ppb	3	625.1	20 ☐ ML ☑ MDL
Benzo(a)anthracene	0	ppb	0	ppb	3	625.1	5 ☐ ML ☑ MDL
Benzo(a)pyrene	0	ppb	0	ppb	3	625.1	5 ☐ ML ☑ MDL
3,4-benzofluoranthene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL

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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Benzo(ghi)perylene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Benzo(k)fluoranthene	0	ppb	0	ppb	3	625.1	5 ☐ ML ☑ MDL
Bis (2-chloroethoxy) methane	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Bis (2-chloroethyl) ether	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Bis (2-chloroisopropyl) ether	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Bis (2-ethylhexyl) phthalate	0	ppb	0	ppb	4	625.1	10 ☐ ML ☑ MDL
4-bromophenyl phenyl ether	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Butyl benzyl phthalate	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
2-chloronaphthalene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
4-chlorophenyl phenyl ether	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Chrysene	0	ppb	0	ppb	3	625.1	5 ☐ ML ☑ MDL
di-n-butyl phthalate	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
di-n-octyl phthalate	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Dibenzo(a,h)anthracene	0	ppb	0	ppb	3	625.1	5 ☐ ML ☑ MDL
1,2-dichlorobenzene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
1,3-dichlorobenzene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
1,4-dichlorobenzene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
3,3-dichlorobenzidine	0	ppb	0	ppb	3	625.1	5 ☐ ML ☑ MDL
Diethyl phthalate	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Dimethyl phthalate	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
2,4-dinitrotoluene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
2,6-dinitrotoluene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL

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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
1,2-diphenylhydrazine	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Fluoranthene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Fluorene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Hexachlorobenzene	0	ppb	0	ppb	3	625.1	5 ☐ ML ☑ MDL
Hexachlorobutadiene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Hexachlorocyclo-pentadiene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Hexachloroethane	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Indeno(1,2,3-cd)pyrene	0	ppb	0	ppb	3	625.1	5 ☐ ML ☑ MDL
Isophorone	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Naphthalene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Nitrobenzene	0	ppb	0	ppb	3	625.1	10 ☑ ML ☑ MDL
N-nitrosodi-n-propylamine	0	ppb	0	ppb	3	625.1	10 ☑ ML ☑ MDL
N-nitrosodimethylamine	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
N-nitrosodiphenylamine	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Phenanthrene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
Pyrene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL
1,2,4-trichlorobenzene	0	ppb	0	ppb	3	625.1	10 ☐ ML ☑ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE D. ADDITIONAL POLLUTANTS AS REQUIRED BY NPDES PERMITTING AUTHORITY

Pollutant (list)	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
☑ No additional sampling is required by NPDES permitting authority.							
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
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							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

Test Information

	Test Number ____	Test Number ____	Test Number ____
Test species			
Age at initiation of test			
Outfall number			
Date sample collected			
Date test started			
Duration			
Toxicity Test Methods			
Test method number			
Manual title			
Edition number and year of publication			
Page number(s)			
Sample Type			
Check one:	☐ Grab ☐ 24-hour composite	☐ Grab ☐ 24-hour composite	☐ Grab ☐ 24-hour composite
Sample Location			
Check one:	☐ Before Disinfection ☐ After Disinfection ☐ After Dechlorination	☐ Before Disinfection ☐ After Disinfection ☐ After Dechlorination	☐ Before disinfection ☐ After disinfection ☐ After dechlorination
Point in Treatment Process			
Describe the point in the treatment process at which the sample was collected for each test.			
Toxicity Type			
Indicate for each test whether the test was performed to asses acute or chronic toxicity, or both. (Check one response.)	☐ Acute ☐ Chronic ☐ Both	☐ Acute ☐ Chronic ☐ Both	☐ Acute ☐ Chronic ☐ Both

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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number ____	Test Number ____	Test Number ____
Test Type			
Indicate the type of test performed. (Check one response.)	☐ Static ☐ Static-renewal ☐ Flow-through	☐ Static ☐ Static-renewal ☐ Flow-through	☐ Static ☐ Static-renewal ☐ Flow-through
Source of Dilution Water			
Indicate the source of dilution water. (Check one response.)	☐ Laboratory water ☐ Receiving water	☐ Laboratory water ☐ Receiving water	☐ Laboratory water ☐ Receiving water
If laboratory water, specify type.			
If receiving water, specify source.			
Type of Dilution Water			
Indicate the type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.	☐ Fresh water ☐ Salt water (specify)	☐ Fresh water ☐ Salt water (specify)	☐ Fresh water ☐ Salt water (specify)
Percentage Effluent Used			
Specify the percentage effluent used for all concentrations in the test series.			

Parameters Tested						
Check the parameters tested.	☐ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen	☐ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen	☐ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen

Acute Test Results			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% confidence interval	%	%	%
Control percent survival	%	%	%

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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number ____		Test Number ____		Test Number ____	
Acute Test Results Continued						
Other (describe)						
Chronic Test Results						
NOEC	%		%		%	
IC_{25}	%		%		%	
Control percent survival	%		%		%	
Other (describe)						
Quality Control/Quality Assurance						
Is reference toxicant data available?	☐ Yes	☐ No	☐ Yes	☐ No	☐ Yes	☐ No
Was reference toxicant test within acceptable bounds?	☐ Yes	☐ No	☐ Yes	☐ No	☐ Yes	☐ No
What date was reference toxicant test run (MM/DD/YYYY)?						
Other (describe)						

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TABLE F. INDUSTRIAL DISCHARGE INFORMATION

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU ____	SIU ____	SIU ____
Name of SIU			
Mailing address (street or P.O. box)			
City, state, and ZIP code			
Description of all industrial processes that affect or contribute to the discharge.			
List the principal products and raw materials that affect or contribute to the SIU's discharge.			
Indicate the average daily volume of wastewater discharged by the SIU.	gpd	gpd	gpd
How much of the average daily volume is attributable to process flow?	gpd	gpd	gpd
How much of the average daily volume is attributable to non-process flow?	gpd	gpd	gpd
Is the SIU subject to local limits?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Is the SIU subject to categorical standards?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

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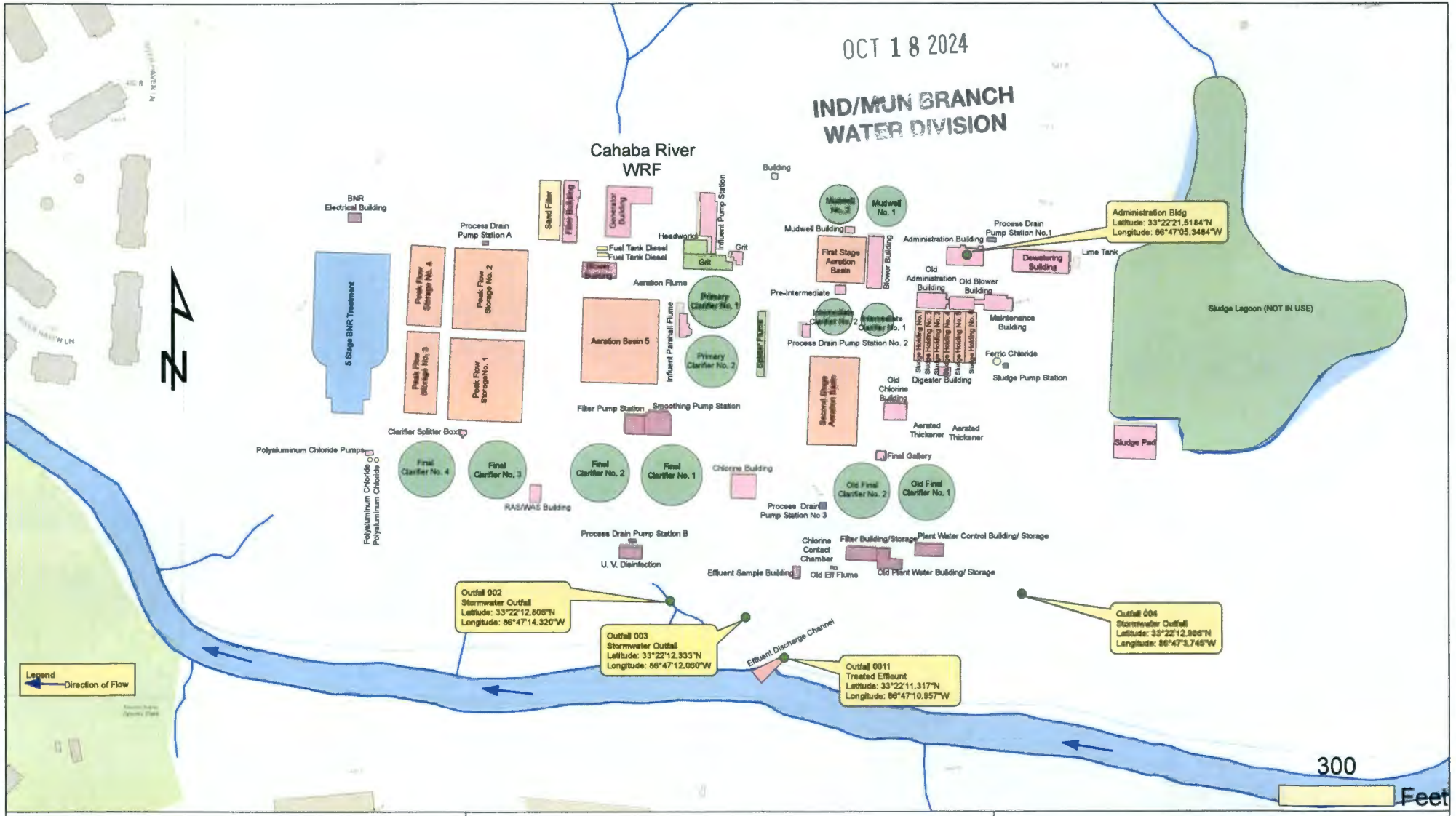
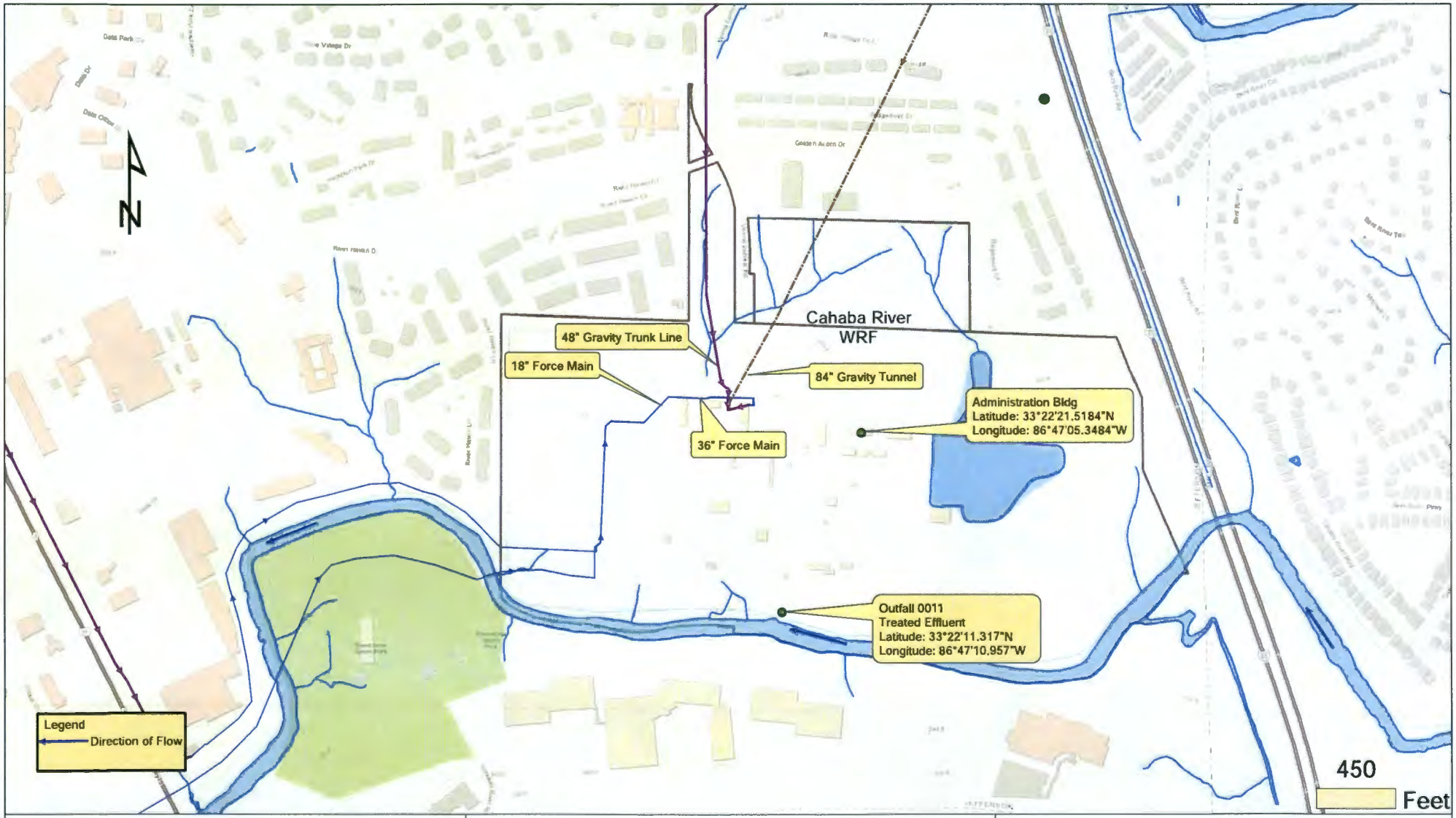
TABLE F. INDUSTRIAL DISCHARGE INFORMATION

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU ____	SIU ____	SIU ____
Under what categories and subcategories is the SIU subject?			
Has the POTW experienced problems (e.g., upsets, pass-through interferences) in the past 4.5 years that are attributable to the SIU?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
If yes, describe.			



JEFFERSON COUNTY, ALABAMA ENVIRONMENTAL SERVICES 716 Richard Arrington Jr. Blvd N, Suite A300 Birmingham, AL. 35203	CAHABA RIVER WATER RECLAMATION FACILITY NPDES AL0023027 **NPDES Permit Application**	**ATTACHMENT 2A-2.3a** Process Treatment Facilities Form 2A, Section 2



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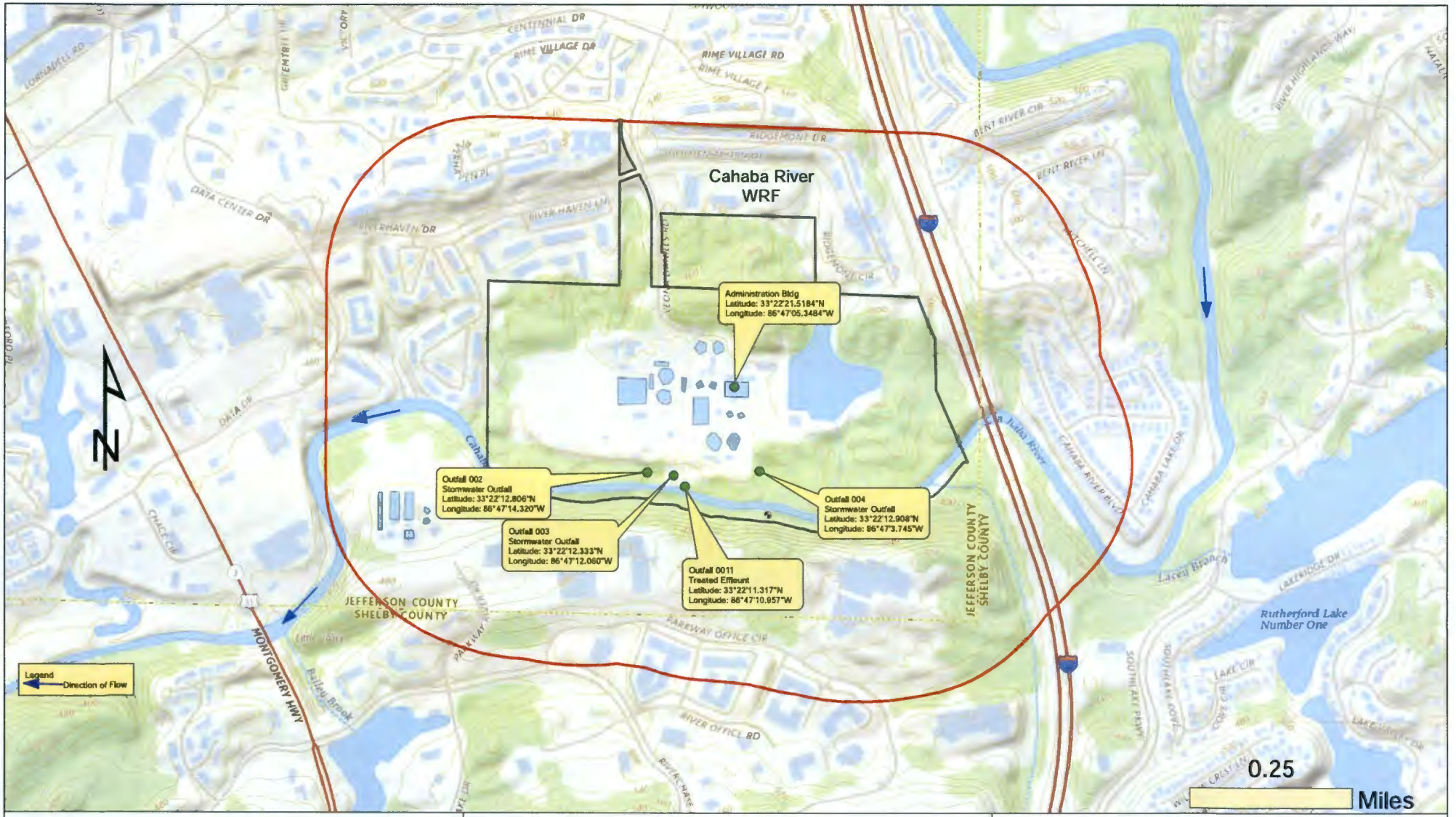
CAHABA RIVER
WATER RECLAMATION FACILITY
NPDES AL0023027
NPDES Permit Application

ATTACHMENT 2A-2.3b
Conveyance Structures
Form 2A, Section 2



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WATER RECLAMATION FACILITY
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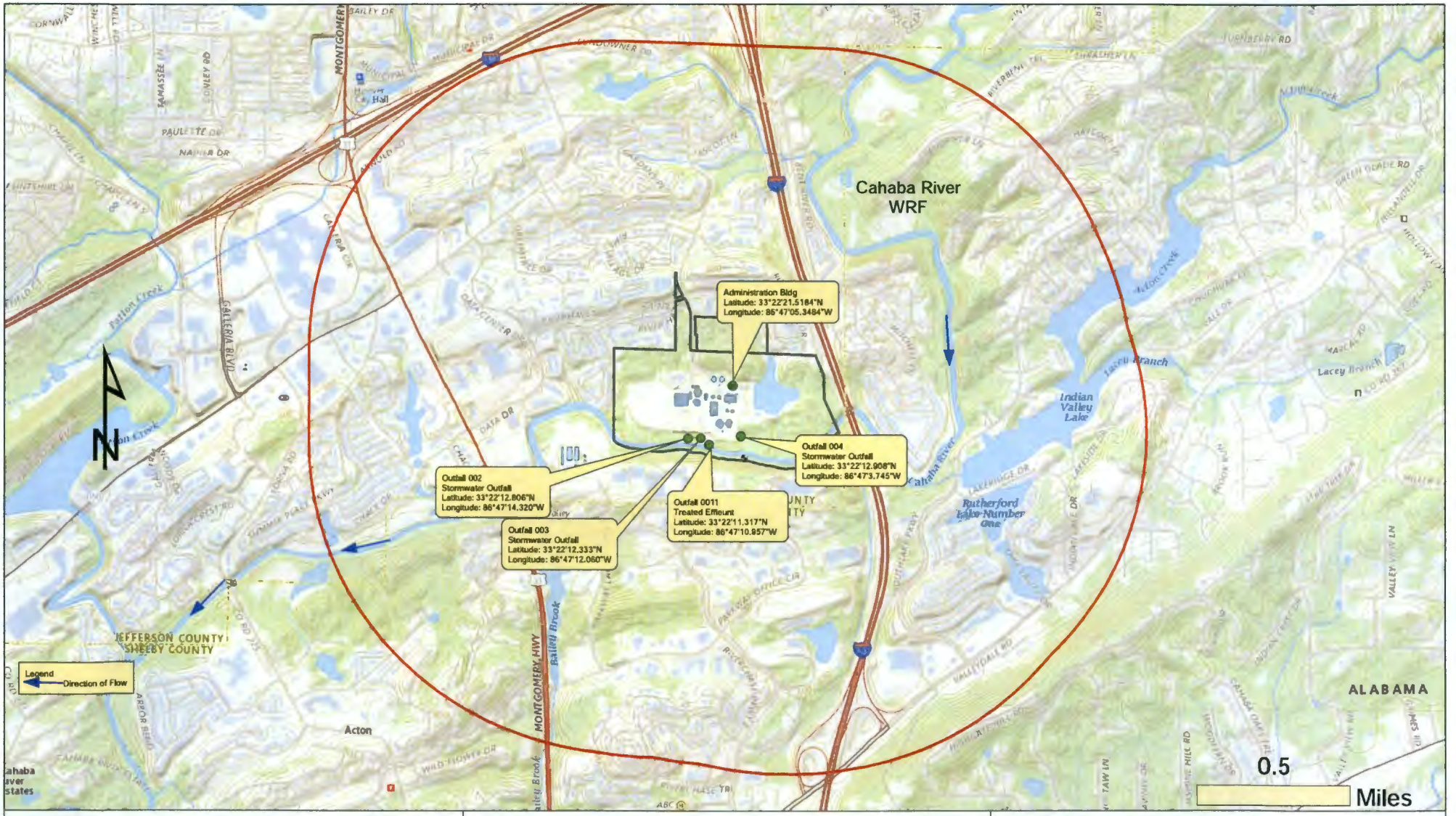
ATTACHMENT 2A-2.3c
Vicinity Water Resources (1/4 Mile Radius)
Form 2A, Section 2



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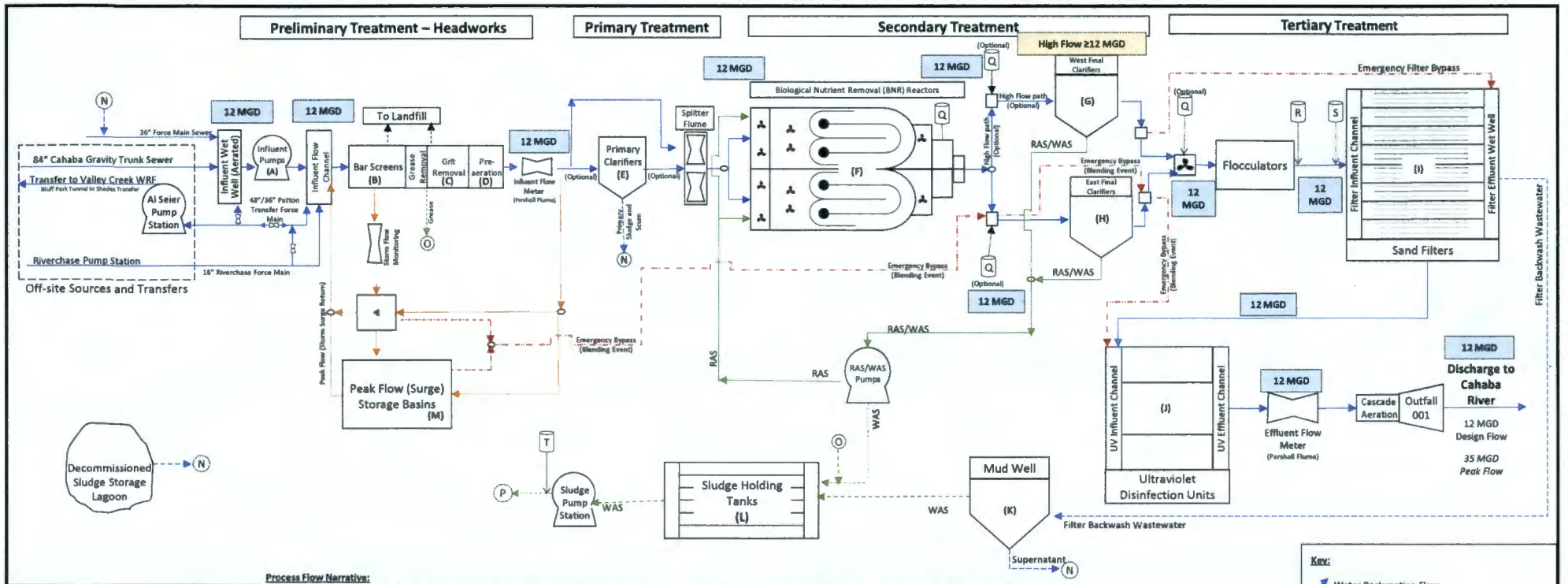
ATTACHMENT 2A-2.3d

1-Mile Radius
Form 2A, Section 2



(N) Flow connector for supernatant from the mud well, overflow from the decommissioned sludge storage lagoon, & flow from Primary Clarifier (optional peak flow holding tanks)

(O) Flow connector for grease, primary sludge and scum

(P) Sludge is pumped to the Al Seier Pump Station Wastewater Diversion and mixed with the domestic wastewater and sent to the Valley Creek WRF for treatment.

(Q) Chemical Addition - Polyaluminum Chloride

(R) Chemical Addition – Polymer *(Out of service, no plans to reinstate)*

(S) Chemical Addition – Sodium Hypochlorite

(T) Chemical Addition – Ferric Chloride

Process Flow Narrative:

Flow enters the Cahaba WWTP via 18" and 36" force mains and 84" gravity sewer. Flows are lifted by the influent pump station. The influent flow receives preliminary treatment at the headworks through coarse bar screens followed by grease and grit removal. Primary treatment through the primary clarifiers* is available, but they are not currently utilized. Flow under 12 MGD is routed to two three-stage Biological Nutrient Removal (BNR) Carrousels** for secondary treatment. The flow then receives final clarification through the final clarifiers. PAC can be introduced into the flow at a few spots prior to the Final clarifiers, and at the coagulation and flocculation wells prior to filtration, to enhance nutrient removal. The flow receives advanced treatment through deep bed sand filters and then disinfection from ultra-violet irradiation. The treated effluent flow receives cascade post aeration prior to discharge to the Cahaba River. Sodium Hypochlorite is occasionally added while backwashing the sand filters, to help clean the filter media. During normal daily operations, only the East Final Clarifiers are used; the West Final Clarifiers are only used during high flow events.

*The primary clarifiers are *only* used as holding basin during extreme high flow events, after which these clarifiers are drained back into the influent wet-well.

**The BNR Carrousels are currently only operated as three-stage, but they still have the ability to be used as five-stage if needed.

Sludge Management Practices:

WAS is stored in the Basins 5 and 6 of the sludge holding tanks until it can be pumped to the Al Seier Pump Station Wastewater Diversion and mixed with the domestic wastewater and sent to the Valley Creek WRF for treatment, via path 'P' on the above diagram. Ferric Chloride is mixed with the sludge, for odor and corrosion control purposes, when it is pumped in batches throughout the week.

Backup Power and Bypass System:

The WRF receives 1 power feed & back-up power is supplied from 5 2-megawatt diesel-powered generators.

Valving has been built into the plant piping infrastructure that can allow routing of flow directly from the peak flow storage basins to filtration and disinfection for physical treatment, and these flow trains are depicted on the above diagram. These valving options are not a part of the operational plan for the plant and have never been used, to date.

Peak flows over 12 MGD are routed to the five peak flow storage basins (21 MG total storage capacity). Flow from the peak flow basins is stored and reintroduced to the headworks as the peak flows subside. Additional storage capacity can be utilized in the Primary Clarifiers, as an optional flow path. If the WWTP's treatment and storage capacity were exceeded, the direction of flow in the Al Seier force main can be reversed and flow is siphoned from the influent pump station to the Al Seier pump station. The peak flow storage basins are also utilized during dry weather to regulate flow to the BNR process to maintain a steady flow due to the sensitivity of the process to wide variations in flow or loading.

Unit Processes

(A) 78 MGD Influent Pump Station
(B) 120 MGD Bar Screens
(C) 40 MGD Grit Removal
(D) 40 MGD *total* Pre Aeration Basins
(E) 1.38 MG *each* Primary Clarifiers (qty 2)
(F) 17.5 MGD *each* BNR Reactors (qty 2)
(G) 9.79 MGD *each* East Final Clarifiers (qty 2)
(H) 7.71 MGD *each* West Final Clarifiers (qty 2)
(I) 5 MGD *each* Deep Bed Sand Filter (qty 8)
(J) 6.66 MGD *each* UV banks (qty 6)
(K) 0.70 MG *each* Mudwell tank (qty 1)
(L) 0.31 MG *each* sludge holding tank (qty 6)
(M) 21 MG *total* Peak Flow Storage Basins (qty 5)

Key:

- Water Reclamation Flow
- Nominal Storm Surge Flow
- Emergency Bypass Flow
- Return Activated Sludge Recycle
- Biosolids Treatment and Management
- In-Plant Waste Streams Returns

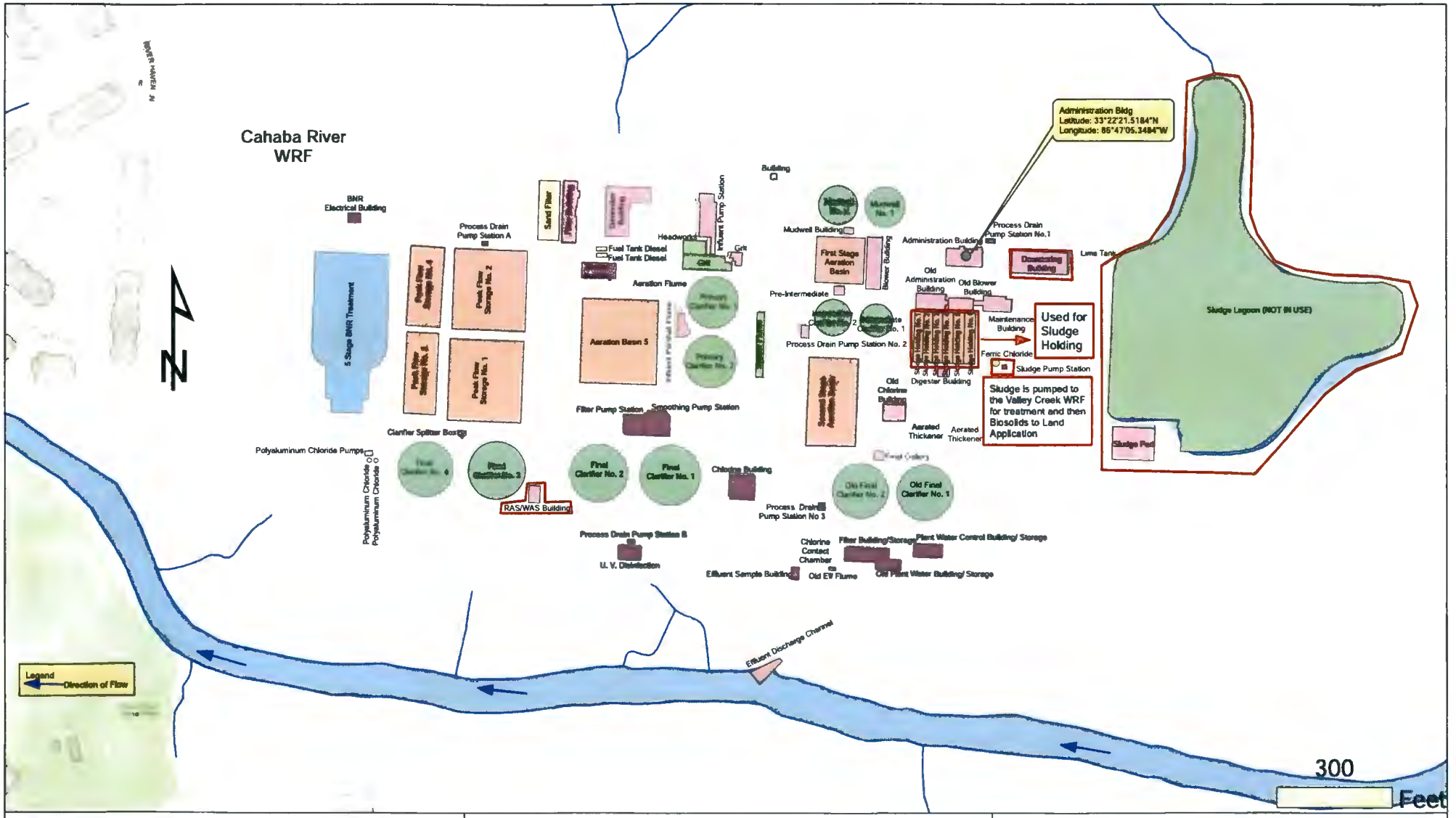
Abbreviations:
" – inches
WRF – Water Reclamation Facility
RAS – Return Activated Sludge
WAS – Waste Activated Sludge
FOG – Fats, oils, and grease
FUF – Final Underflow
MG – million gallons
MGD – million gallons per day
PAC – Polyaluminum Chloride

JEFFERSON COUNTY, ALABAMA
ENVIRONMENTAL SERVICES DEPARTMENT
716 Richard Arrington Jr. Blvd, N, Suite A300
Birmingham, AL 35203

CAHABA RIVER
WATER RECLAMATION FACILITY
AL0023027
NPDES Permit Application

ATTACHMENT 2A-2.4

WASTEWATER TREATMENT PROCESS FLOW DIAGRAM
Form 2A, Section 2



JEFFERSON COUNTY, ALABAMA ENVIRONMENTAL SERVICES 716 Richard Arrington Jr. Blvd N, Suite A300 Birmingham, AL. 35203	CAHABA RIVER WATER RECLAMATION FACILITY NPDES AL0023027 **NPDES Permit Application**	**ATTACHMENT 2A-2.3e** Sludge Management Facilities Form 2A, Section 2

Attachment 2A-2.5

Phase 3 Process & Reliability Improvements Project Description

ADEM Form 2A, Section 2

TABLE 3 – Summary of Completed and Ongoing Activities by Facility

CAHABA RIVER WRF		
Phase	**% Comp.**	**Activity**
Phase 3 Process & Reliability Improvements	Construction Phase	At the Influent Pump Station: Rehabilitation of the personnel and freight elevators; replacement of each influent pump's flexible rubber expansion joints with hard piping; replacement of the seal water system with a new packaged system at a higher elevation within the pump station; consolidation of the individual seal water operator stations into a single panel; changing of four influent pumps (1, 2, 6, and 7) to 460 volts (V) motors; and replacement of two 800 horsepower (HP) pumps (1 and 7) with 350 HP pumps, with special pipe supports for the new discharge piping.
	Construction Phase	Headworks influent channel modifications to improve accessibility for cleaning of the channel, repair the channel to acceptable structural conditions, modify the channel to reduce accumulation of rags and sediment, and add odor control and concrete protection to control future concrete damage.
	Construction Phase	Replacement of the existing bar screens and design improvements to the screenings sluice trough.
	Construction Phase	Modifications to the filter feed pumps (four 200 HP and two 100 HP), resulting in two 200 HP constant speed pumps and four 100 HP variable speed pumps.
	Construction Phase	Conversion of plant water pumps (two 100 HP and one 40 HP) at the Filter Building to variable frequency drive (VFD) control.
	Construction Phase	At the effluent flume, addition of a second flow rate readout outside the flume area to enable personnel to see the flow rate without entering the flume area, replacement of the existing open grating above the flume with planking, and modifications to improve egress from the flume area.
	Construction Phase	Replacement of the existing medium-pressure UV disinfection system with a new low-pressure, high-output UV disinfection system.
	Construction Phase	Improvements to the plant water system to address several problems with the water cannons, hose reels, and hose bibbs.
	Construction Phase	Addition of valves to the Generator Building drains to allow for verification of the presence or absence of fuels and oils prior to releasing any captured fluids to the sanitary sewer system, and installation of sensors and transmitters to alert staff when fluid has built up in the drain system.
	Construction Phase	Modifications to the air piping at the aerobic digesters to allow aeration by the positive displacement blowers at Blower Building C (Gardner Denver Blower Building) rather than the centrifugal blowers at Blower Building B (Old Blower Building).
	Construction Phase	Sitewide electrical distribution system upgrades.

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

Form 2F NPDES | EPA

U.S Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater

STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

SECTION 1. OUTFALL LOCATION (40 CFR 122.21(g)(1))

Outfall Location

1.1 Provide information on each of the facility's outfalls in the table below

Outfall Number	Receiving Water Name	Latitude	Longitude
002S	Cahaba River	33° 22′ 12.81″ N	86° 47′ 14.32″ W
003S	Cahaba River	33° 22′ 12.33″ N	86° 47′ 12.06″ W
004S	Cahaba River	33° 22′ 12.91″ N	86° 47′ 3.75″ W
		° ′ ″	° ′ ″
		° ′ ″	° ′ ″
		° ′ ″	° ′ ″

SECTION 2. IMPROVEMENTS (40 CFR 122.21(g)(6))

Improvements

2.1 Are you presently required by any federal, state, or local authority to meet an implementation schedule for constructing, upgrading, or operating wastewater treatment equipment or practices or any other environmental programs that could affect the discharges described in this application?

☑ Yes ☐ No ➔ SKIP to Section 3.

2.2 Briefly identify each applicable project in the table below.

Brief Identification and Description of Project	Affected Outfalls (list outfall numbers)	Source(s) of Discharge	Final Compliance Dates	
			Required	Projected
N/A				

2.3 Have you attached sheets describing any additional water pollution control programs (or other environmental projects that may affect your discharges) that you now have underway or planned? (Optional Item)

☐ Yes ☑ No

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
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SECTION 3. SITE DRAINAGE MAP (40 CFR 122.26(c)(1)(i)(A))

Site Drainage Map

3.1 Have you attached a site drainage map containing all required information to this application? (See instructions for specific guidance.)

☑ Yes ☐ No

SECTION 4. POLLUTANT SOURCES (40 CFR 122.26(c)(1)(i)(B))

Pollutant Sources

4.1 Provide information on the facility's pollutant sources in the table below.

Outfall Number	Impervious Surface Area (within a mile radius of the facility)		Total Surface Area Drained (within a mile radius of the facility)	
002S	6.90	specify units: acres	37.16	specify units: acres
003S	0.78	specify units: acres	1.72	specify units: acres
004S	3.04	specify units: acres	23.28	specify units: acres
		specify units		specify units
		specify units		specify units
		specify units		specify units

4.2 Provide a narrative description of the facility's significant material in the space below. (See instructions for content requirements.)

Roundup is used for weed control around fences and for edging around walks and tanks 1-2 times per year.
Diesel fuel is stored in above-ground double wall tanks.
Personnel have been trained on proper handling and cleanup of petroleum products.
Polyaluminum Chloride (PAC) is stored in outdoor fiberglass tanks, fully surrounded by a concrete enclosure.
Ferric Chloride is stored in an outdoor tank, fully surrounded by a concrete enclosure.
Sodium Hypochlorite is stored inside the sand filter building.

4.3 Provide the location and a description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff. (See instructions for specific guidance.)

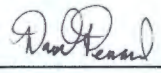
Stormwater Treatment		
Outfall Number	Control Measures and Treatment	Codes from Exhibit 2F–1 (list)
002S	Stormwater sedimentation basin	N/A
002S	PAC Tank - concrete containment	N/A
0042	Deisel Fuel - double wall tanks	N/A
004S	Ferric Chloride Tank - concrete containment	N/A
	See attachment 2F-4.3 - Waste Storage Locations	

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

SECTION 5. NON STORMWATER DISCHARGES (40 CFR 122.26(c)(1)(i)(C))

Non-Stormwater Discharges

5.1 *I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of non-stormwater discharges. Moreover, I certify that the outfalls identified as having non-stormwater discharges are described in either an accompanying NPDES Form 2C, 2D, or 2E application.*

Name (print or type first and last name)	Official title
David Denard	Director, Environmental Services
Signature	**Date signed**
	05/31/2024

5.2 Provide the testing information requested in the table below.

Outfall Number	Description of Testing Method Used	Date(s) of Testing	Onsite Drainage Points Directly Observed During Test
002S	N/A: Visual Inspection for process water contamination		
003S	N/A: Visual Inspection for process water contamination		
004S	N/A: Visual Inspection for process water contamination		

SECTION 6. SIGNIFICANT LEAKS OR SPILLS (40 CFR 122.26(c)(1)(i)(D))

Significant Leaks or Spills

6.1 Describe any significant leaks or spills of toxic or hazardous pollutants in the last three years.

N/A

SECTION 7. DISCHARGE INFORMATION (40 CFR 122.26(c)(1)(i)(E))

Discharge Information

See the instructions to determine the pollutants and parameters you are required to monitor and, in turn, the tables you must complete. Not all applicants need to complete each table.

7.1 Is this a new source or new discharge?

☐ Yes ➔ See instructions regarding submission of *estimated* data.

☑ No ➔ See instructions regarding submission of *actual* data.

Tables A, B, C, and D

7.2 Have you completed Table A for each outfall?

☑ Yes ☐ No

Discharge Information Continued

7.3	Is the facility subject to an effluent limitation guideline (ELG) or effluent limitations in an NPDES permit for its process wastewater? ☑ Yes ☐ No ➔ SKIP to Item 7.5.
7.4	Have you completed Table B by providing quantitative data for those pollutants that are (1) limited either directly or indirectly in an ELG and/or (2) subject to effluent limitations in an NPDES permit for the facility's process wastewater? ☑ Yes ☐ No
7.5	Do you know or have reason to believe any pollutants in Exhibit 2F–2 are present in the discharge? ☑ Yes ☐ No ➔ SKIP to Item 7.7.
7.6	Have you listed all pollutants in Exhibit 2F–2 that you know or have reason to believe are present in the discharge and provided quantitative data or an explanation for those pollutants in Table C? ☑ Yes ☐ No
7.7	Do you qualify for a small business exemption under the criteria specified in the Instructions? ☐ Yes ➔SKIP to Item 7.18. ☑ No
7.8	Do you know or have reason to believe any pollutants in Exhibit 2F–3 are present in the discharge? ☐ Yes ☑ No ➔ SKIP to Item 7.10.
7.9	Have you listed all pollutants in Exhibit 2F–3 that you know or have reason to believe are present in the discharge in Table C? ☐ Yes ☐ No
7.10	Do you expect any of the pollutants in Exhibit 2F–3 to be discharged in concentrations of 10 ppb or greater? ☐ Yes ☑ No ➔ SKIP to Item 7.12.
7.11	Have you provided quantitative data in Table C for those pollutants in Exhibit 2F–3 that you expect to be discharged in concentrations of 10 ppb or greater? ☐ Yes ☐ No
7.12	Do you expect acrolein, acrylonitrile, 2,4-dinitrophenol, or 2-methyl-4,6-dinitrophenol to be discharged in concentrations of 100 ppb or greater? ☐ Yes ☑ No ➔ SKIP to Item 7.14.
7.13	Have you provided quantitative data in Table C for the pollutants identified in Item 7.12 that you expect to be discharged in concentrations of 100 ppb or greater? ☐ Yes ☐ No
7.14	Have you provided quantitative data or an explanation in Table C for pollutants you expect to be present in the discharge at concentrations less than 10 ppb (or less than 100 ppb for the pollutants identified in Item 7.12)? ☑ Yes ☐ No
7.15	Do you know or have reason to believe any pollutants in Exhibit 2F–4 are present in the discharge? ☐ Yes ☑ No ➔ SKIP to Item 7.17.
7.16	Have you listed pollutants in Exhibit 2F–4 that you know or believe to be present in the discharge and provided an explanation in Table C? ☐ Yes ☐ No
7.17	Have you provided information for the storm event(s) sampled in Table D? ☑ Yes ☐ No

Discharge Information Continued

Used or Manufactured Toxics

7.18 Is any pollutant listed on Exhibits 2F–2 through 2F–4 a substance or a component of a substance used or manufactured as an intermediate or final product or byproduct?

☐ Yes ☑ No ➔ SKIP to Section 8.

7.19 List the pollutants below, including TCDD if applicable.

1.	4.	7.
2.	5.	8.
3.	6.	9.

SECTION 8. BIOLOGICAL TOXICITY TESTING DATA (40 CFR 122.21(g)(11))

Biological Toxicity Testing Data

8.1 Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last three years?

☑ Yes ☐ No ➔ SKIP to Section 9. 05/31/2024

8.2 Identify the tests and their purposes below.

Test(s)	Purpose of Test(s)	Submitted to NPDES Permitting Authority?	Date Submitted
Chronic toxicity	NPDES required	☑ Yes ☐ No	09/27/2021
Chronic toxicity	NPDES required	☑ Yes ☐ No	09/20/2022
Chronic toxicity	NPDES required	☑ Yes ☐ No	09/25/2023

SECTION 9. CONTRACT ANALYSIS INFORMATION (40 CFR 122.21(g)(12))

Contract Analysis Information

9.1 Were any of the analyses reported in Section 7 (on Tables A through C) performed by a contract laboratory or consulting firm?

☐ Yes ☑ No ➔ SKIP to Section 10.

9.2 Provide information for each contract laboratory or consulting firm below.

	Laboratory Number 1	Laboratory Number 2	Laboratory Number 3
Name of laboratory/firm			
Laboratory address			
Phone number			
Pollutant(s) analyzed			

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
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SECTION 10. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

10.1 In Column 1 below, mark the sections of Form 2F that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to complete all sections or provide attachments.

Column 1	Column 2
☑ Section 1	☐ w/ attachments (e.g., responses for additional outfalls)
☑ Section 2	☐ w/ attachments
☑ Section 3	☑ w/ site drainage map
☑ Section 4	☐ w/ attachments
☑ Section 5	☐ w/ attachments
☐ Section 6	☐ w/ attachments
☑ Section 7	☑ Table A ☐ w/ small business exemption request ☑ Table B ☑ w/ analytical results as an attachment ☑ Table C ☑ Table D
☑ Section 8	☐ w/attachments
☐ Section 9	☐ w/attachments (e.g., responses for additional contact laboratories or firms)
☑ Section 10	☐

10.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
David Denard	Director, Environmental Services
Signature	**Date signed**
	05/31/2024

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	004S

Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))[1]

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

	Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
		Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1.	Oil and grease	0 mg/L		0 mg/L		3	N/A
2.	Biochemical oxygen demand (BOD_5)	31 mg/L	N/A	12 mg/L	N/A	3	N/A
3.	Chemical oxygen demand (COD)	Not required by			N/A		
4.	Total suspended solids (TSS)	91 mg/L	N/A	37 mg/L	N/A	3	N/A
5.	Total phosphorus	0.35 mg/L	N/A	0.21 mg/L	N/A	3	N/A
6.	Total Kjeldahl nitrogen (TKN)	2.7 mg/L	N/A	1.2 mg/L	N/A	3	N/A
7.	Total nitrogen (as N)	3.4 mg/L	N/A	2.1 mg/L	N/A	3	N/A
8.	pH (minimum)	7.6 S.U.		7.9 S.U.		3	N/A
	pH (maximum)	8.2 S.U.		7.9 S.U.		3	N/A

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	004S

Form Approved 03/05/19
OMB No. 2040-0004

TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))[1]

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Total Kjeldahl Nitrogen (TKN)	2.7 mg/L	N/A	1.2 mg/L	N/A	3	N/A
Nitrogen, Ammonia Total	0.10 mg/L	N/A	0.03 mg/L	N/A	3	N/A
Nitrite plus Nitrate	1.4 mg/L	N/A	0.89 mg/L	N/A	3	N/A
E. coli	230 col/100 mL	N/A	111 col/100 mL	N/A	3	N/A

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	004S

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TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))[1]

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Nitrite plus Nitrate	1.4 mg/L	N/A	0.89 mg/L	N/A	3	N/A
E. coli	230 col/100mL	N/A	111 col/100 mL	N/A	3	N/A
Total phosphorus (as P)	0.35 mg/L	N/A	0.21 mg/L	N/A	3	N/A

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	004S

Form Approved 03/05/19
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TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
03/15/2022	21	3.0	80	0.58 MGD	N/A

Provide a description of the method of flow measurement or estimate.

Flow weighted composite not required by permit.

Method - Soil Conservation Service Method - SCS TR55

Attachment 2F-7a

Tables A-D for Stormwater Outfall 002S

ADEM Form 2F, Section 7

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	002S

Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))[1]

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

	Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
		Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1.	Oil and grease					N/A	
2.	Biochemical oxygen demand (BOD_5)					N/A	
3.	Chemical oxygen demand (COD)					N/A	
4.	Total suspended solids (TSS)					N/A	
5.	Total phosphorus					N/A	
6.	Total Kjeldahl nitrogen (TKN)					N/A	
7.	Total nitrogen (as N)					N/A	
8.	pH (minimum)					N/A	
	pH (maximum)					N/A	

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	002S

Form Approved 03/05/19
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TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))[1]

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	002S

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TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))[1]

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	002S

Form Approved 03/05/19
OMB No. 2040-0004

TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
				N/A	N/A

Provide a description of the method of flow measurement or estimate.

No discharge from Outfall no. 002S within the past 4.5 years.

Flow weighted composite not required by permit.

Method - Soil Conservation Service Method - SCS TR55

Attachment 2F-7b

Tables A-D for Stormwater Outfall 003S

ADEM Form 2F, Section 7

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	003

Form Approved 03/05/19
OMB No. 2040-0004

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))[1]

You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details and requirements.

	Pollutant or Parameter	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
		Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
1.	Oil and grease	0 mg/L		0 mg/L		3	N/A
2.	Biochemical oxygen demand (BOD_5)	9.4 mg/L	N/A	7.7 mg/L	N/A	3	N/A
3.	Chemical oxygen demand (COD)	Not required by			N/A		
4.	Total suspended solids (TSS)	170 mg/L	N/A	80 mg/L	N/A	3	N/A
5.	Total phosphorus	0.24 mg/L	N/A	0.14 mg/L	N/A	3	N/A
6.	Total Kjeldahl nitrogen (TKN)	1.5 mg/L	N/A	1.2 mg/L	N/A	3	N/A
7.	Total nitrogen (as N)	1.6 mg/L	N/A	1.3 mg/L	N/A	3	N/A
8.	pH (minimum)	7.3 S.U.		7.7 S.U.		3	N/A
	pH (maximum)	7.5 S.U.		7.7 S.U.		3	N/A

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	003

Form Approved 03/05/19
OMB No. 2040-0004

TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))[1]

List each pollutant that is limited in an effluent limitation guideline (ELG) that the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (If available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Total Kjeldahl Nitrogen (TKN)	1.5 mg/L	N/A	1.2 mg/L	N/A	3	N/A
Nitrogen, Ammonia Total	0 mg/L	N/A	0 mg/L	N/A	3	N/A
Nitrite plus Nitrate	0.21 mg/L	N/A	0.14 mg/L	N/A	3	N/A
E. coli	34000 col/100mL	N/A	11693 col/100mL	N/A	3	N/A

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	003

Form Approved 03/05/19
OMB No. 2040-0004

TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))[1]

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm Events Sampled	Source of Information (new source/new dischargers only; use codes in instructions)
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite		
Nitrite plus Nitrate	0.21 mg/L	N/A	0.14 mg/L	N/A	3	N/A
E. coli	34000 col/100mL	N/A	11693 col/100mL	N/A	3	N/A
Total phosphorus (as P)	0.24 mg/L	N/A	0.14 mg/L	N/A	3	N/A

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number
AL0023027	AL0023027	Cahaba River WRF	003

Form Approved 03/05/19
OMB No. 2040-0004

TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

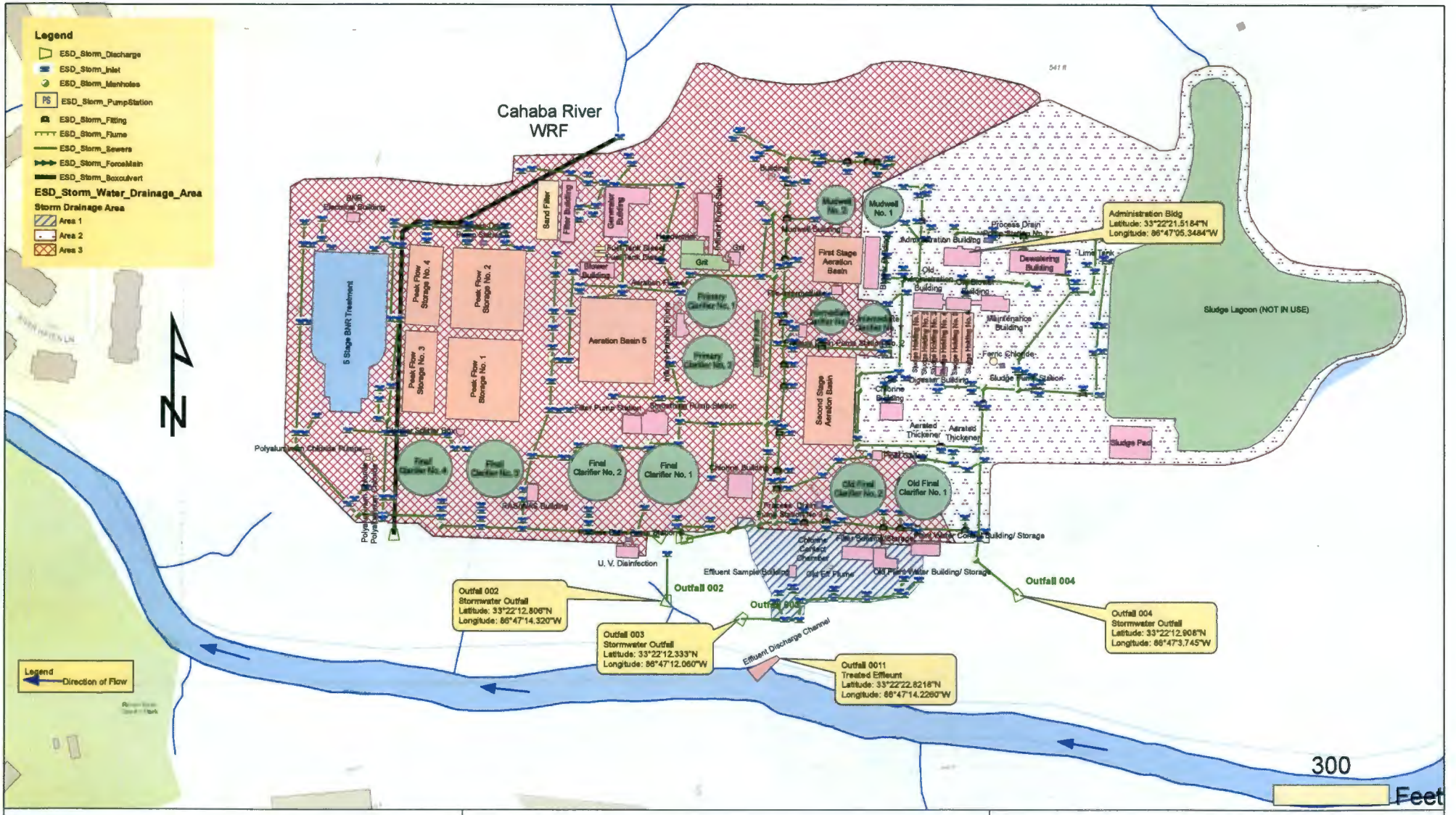
Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
03/15/2022	21	3.0	80	1.80 MGD	N/A

Provide a description of the method of flow measurement or estimate.

Flow weighted composite not required by permit.

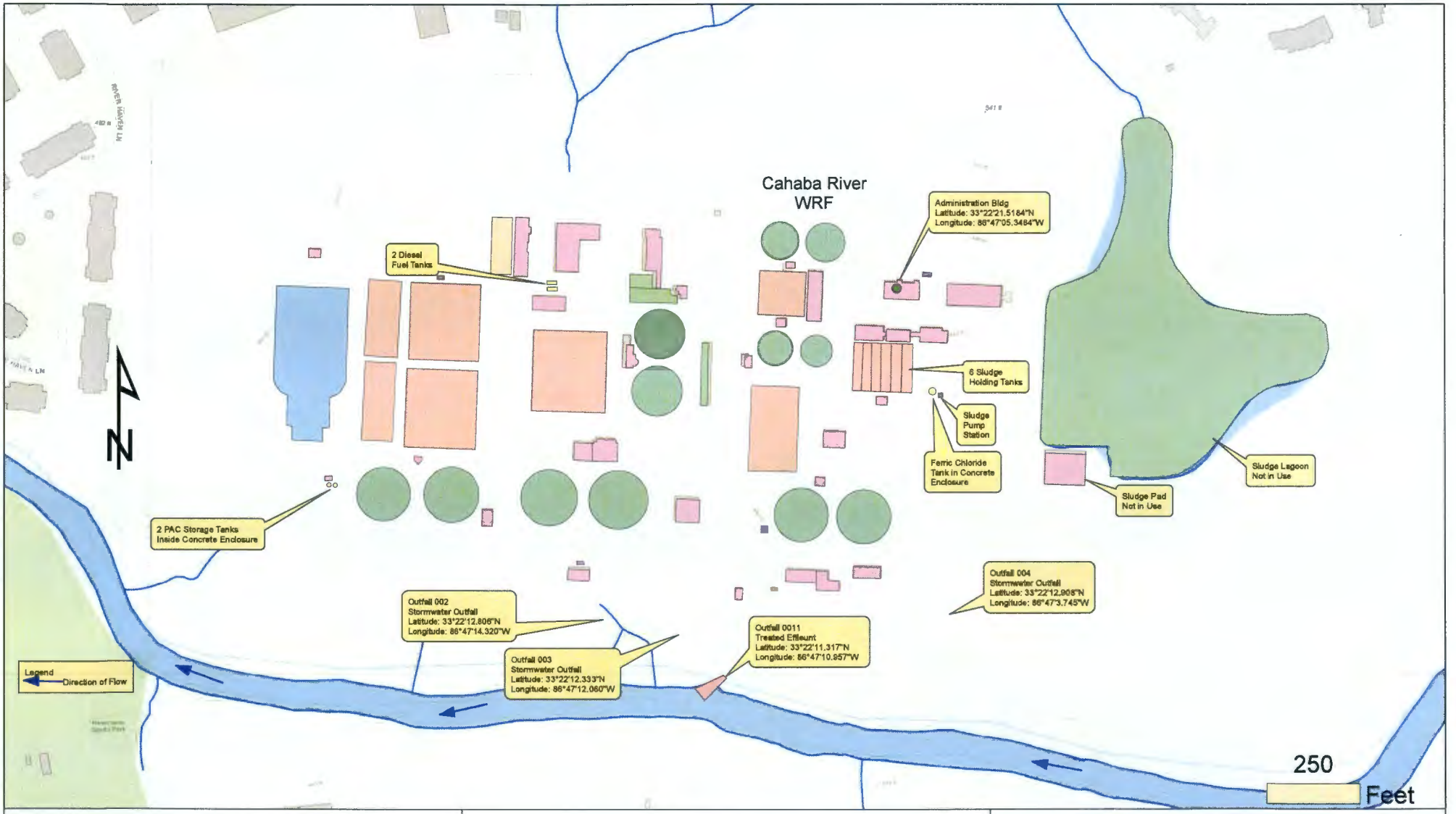
Method - Soil Conservation Service Method - SCS TR55



JEFFERSON COUNTY, ALABAMA
ENVIRONMENTAL SERVICES
716 Richard Arrington Jr. Blvd N, Suite A300
Birmingham, AL. 35203

CAHABA RIVER
WATER RECLAMATION FACILITY
NPDES AL0023027
NPDES Permit Application

ATTACHMENT 3.1
WRF Site Drainage Map
Form 2F, Section 3.1



JEFFERSON COUNTY, ALABAMA
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716 Richard Arrington Jr. Blvd N, Suite A300
Birmingham, AL. 35203

CAHABA RIVER
WATER RECLAMATION FACILITY
NPDES AL0023027
NPDES Permit Application

ATTACHMENT 4.3
Waste Storage Locations
Form 2F, Section 4.3

JEFFERSON COUNTY ENVIRONMENTAL SERVICES DEPARTMENT

Cahaba River WWTP

Storm Water Pollution Prevention (SWPP) Plan

Jeremy Creel

11/28/2023

TABLE OF CONTENTS

INTRODUCTION

OBJECTIVE

	SECTION
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Facility Drainage and Drainage Map	6
Maintenance and Inspection Procedures • Prevention Measures • Erosion Control • Inspection Schedule • Site Security • Spill Control Equipment	7
Inspection and Training Forms	8
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STORM WATER POLLUTION PREVENTION PLAN (SWPP)

INTRODUCTION

The Cahaba River WWTP Storm Water Pollution Prevention Plan (SWPP) was prepared in accordance with the requirements of Title 40, Code of Federal Regulations, Part 122. The purpose of the SWPP Plan is to prevent the contact of sewage sludge, screenings, raw or partially treated wastewater, or any other waste product or pollutant with storm water discharged from the facility.

This plan applies to the facility locations which could reasonably be expected to possibly discharge pollutants in harmful quantities into the receiving stream through storm water outfalls. The Facility Response Plan shall provide guidance to prevent any pollutant discharge from adversely affecting the receiving stream, Cahaba River.

This plan, as required by the SWPP rule, provides information on onsite storage tanks, secondary containment, equipment, a drainage map, spill prevention containment and cleanup materials, employee training and inspection records.

STORM WATER POLLUTION PREVENTION PLAN (SWPP)

OBJECTIVE

The objective of the Cahaba River WWTP SWPP Plan is to establish procedures, organization, and equipment in preparation to prevent waste products from contaminating storm water discharged from the facility. This plan has been developed to comply with Federal Regulations 40 CFR 122: The plan shall include:

- Site Drainage Maps
- Materials Inventory
- Best Management Practices
- Mechanisms and procedures to prevent storm water pollution
- Daily inspection of any structures to prevent pollution
- Daily inspection of the facility to ensure plan is implemented and effective
- Best Management Practices Plan (BMP)
- Mechanisms and procedures for sediment control
- Designated name and positions of personnel responsible for day to day implementation
- Signature of Responsible Individual

This is a site specific plan for the Cahaba River WWTP. This plan provides information for prevention, control, monitoring and reporting requirements of possible pollutants to storm water discharge locations identified in the N.P.D.E.S permit. The objective of the plan is to prevent any such discharge and provide information for containment and cleanup and reporting instructions in case of any such pollutant discharge.

STORM WATER POLLUTION PREVENTION PLAN (SWPP)

Facility Owner; Member Roster; Site Supervisors

Facility Name: Cahaba River Wastewater Treatment Plant

Location: 3900 Veona Daniels Road

Birmingham, AL 35244

Description: Municipal Wastewater Treatment Plant

Owner: Jefferson County Commission Alabama

Jefferson County Courthouse

A300 716 Richard Arrington Jr Blvd N, Birmingham, AL 35203

Responsible Official: David Denard, Director of Environmental Services

Name of receiving water: Cahaba River

Pollution Prevention Personnel

Member Roster

Director:

David Denard
Title: Director of Environmental Services

Responsibilities: Signatory Authority: Approve all stages of plan development implementation.

Phone: (205) 327-5979 Email: denardd@jccal.org

Member:

Margaret Tanner
Title: Deputy Director of Environmental Services

Responsibilities: Assists the Director in running the Environmental Services Department of Jefferson County.
Phone: (205) 325-5122 Email: tannerma@jccal.org

Member Roster (cont.)

Member:

Celeste Brown

Title: Acting Director of Barton Laboratory
Responsibilities: Responsible for maintaining permits.
Phone: (205) 238-3856 Email: brownc@jccal.org

Member:

Jeremy Creel (Site Supervisor)

Title: Wastewater Treatment Plant Manager (Site Supervisor)
Responsibilities: Responsible for day to day operations of specific site.
Phone: (205) 965-4785 Email: creelj@jccal.org

Member:

Jeff Hardisty

Title: Wastewater Treatment Plant Supervisor
Responsibilities: Assists Plant Manager in day to day operations management.
Phone: (205) 480-4668 Email: hardistyp@jccal.org

Other Wastewater Operators:

Responsibilities: Conducts inspections; implements plan; reports and corrects any deficiencies to management.

Reportable Quantity Spill Notification:

Notify Jeremy Creel at (205) 965-4785 and/or Jeff Hardisty at (205) 480-4668
He will contact: Birmingham/Jefferson County Emergency Agency at (205) 254-2039 or 911.

In case of personnel contamination call first responder:

Fire Department/ Paramedics at 911.

STORM WATER POLLUTION PREVENTION PLAN (SWPP)

Site Supervisor and Inspectors

SITE SUPERVISOR:	Jeremy Creel: (W) 205-791-3076	(C) 205-966-9617
INSPECTION SUPERVISOR:	Jeff Hardisty: (W) 205-791-3076	(C) 205-480-4668
INSPECTORS:	Michael McDonald (W) 205-791-3076	
	Zada Nygren: (W) 205-791-3076	
	Tommy Carney: (W) 205-791-3076	
	Andrew Hudson: (W) 205-791-3076	
	Derrick Brooks: (W) 205-791-3076	

Daily Inspections of site are made, and report is completed.

EMERGENCY CONTACT NUMBERS

ROCKY RIDGE FIRE DEPARTMENT: 205-822-6000; 911

HOOVER FIRE DEPARTMENT: 911

JEFFERSON COUNTY EMERGENCY MANAGEMENT AGENCY: 205-254-2039

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT: 334-394-4364; 800-843-0699

EPA Region IV: 404-562-8700

National Response Center (NRC): 1-800-424-8802

Cleanup Contractors(s):

Eagle SWS First Response: 1-877-742-4215
Hepaco: 1-800-888-7689

JEFFERSON COUNTY SHERIFFS DEPARTMENT:
Non-Emergency business hours: 205-325-5900
Non-Emergency after hours: 205-325-1450

SHERIFF: 205-325-5700
EMERGENCY: 911

DEPARTMENT OF ENVIRONMENTAL SERVICES

David Denard: Director: 205-325-5496

Margaret Tanner: Deputy Director: 205-325-5122

Jeremy Creel: WWTP Manager: 205-965-4785

Jeff Hardisty: WWTP Supervisor: 205-480-4668

BARTON LABORATORY AND COMPLIANCE DIVISION: 205-942-7404

Celeste Brown: Director: 205-238-3856

SEWER LINE MAINTENANCE: 205-942-0681
Brian Rohling: Chief Civil Engineer: 205-325-5496

SEWER LINE CONSTRUCTION: 205-942-0781
Wesley Kilgor: 205-903-2332

BIO-SOLIDS HANDLING: 205-426-3982 FUEL TRUCK: 205-521-2740
John Riley: 205-307-9246

STORM WATER POLLUTION PREVENTION (SWPP) CAHABA RIVER WWTP

SITE INFORMATION

The Cahaba River WWTP is a 12.0 MGD Wastewater Facility owned and operated by the Environmental Services Department of the Jefferson County Commission. The facility consists of an Influent Pump Station, pre-treatment headworks, biological nutrient removal, secondary and tertiary clarification, media filtration and ultraviolet disinfection.

The facilities consist of:

Influent Pump Station

- Influent Pumps
- Dispersion Ventilation System

Headworks

- Influent Sampling
- Debris Removal
- Grit Removal
- Pre-aeration
- Flow measurement
- Flow Diversion to Aerated Holding Basins

Biological Nutrient Removal

- Anaerobic Zone (mixers)
- Anoxic Zone (mixers)
- ORP monitoring
- Aerobic Carousel Zone (mixers/aerators)
- DO, MLSS monitoring
- Second Anoxic Zone (mixers)
- Re-aeration Zone (aerators)

Secondary Clarification

- Four 157ft diameter circular clarifiers
- RAS/WAS System

Media Filtration

- Rapid Mixing for chemical addition
- Flocculation
- Deep Bed Media Filtration
- Plant Water Re-use system

SITE INFORMATION (cont.)

UV Disinfection

- Trojan Signa

Plant Effluent

- 10 foot Parshall Flume
- Effluent Flow monitoring
- Aerating Cascade
- Effluent Sampling
- Outfall 001

Chemical Addition

- Poly Aluminum Chloride
- Hypochlorite
- Ferric Chloride

Site Information

Sources of Pollutants and Management Practices

Stormwater Outfall #002- Stormwater from the East side of treatment plant is collected and discharges through this outfall point to a drainage ditch into the Cahaba River. There is a junction box on the stormwater collection line that can be closed to prevent any spill from reaching the stormwater outfall point to the Cahaba River.

Stormwater Outfall # 003 – Stormwater from the central and lower section of the treatment plant drains through this outfall point to a drainage ditch into the Cahaba River.

Stormwater Outfall # 004 – Stormwater from the Central and West part of the treatment plant is collected in a detention pond that overflows to a drainage ditch into the Cahaba River. Any spills to this area of plant would be contained in the retention pond.

Inventory for Pollution Prevention Plan and Material Management Practices

Control Measures

Treatment Works: - All aspects of the treatment works should be free of debris, leaks, and spills. Spilled material such as sludge, petroleum products, and other pollutants should be cleaned in a timely manner.

Materials Storage: - All materials considered to be potential sources of pollution (including sand and other earth products) should not be exposed to storm water. These materials should be stored indoors or under a roof overhang, stored on pallets, or covered with a tarp or plastic cloth.

Hazardous Waste Disposal: - Quantities above SARA Title III threshold levels will be reported to the Emergency Management Agency (EMA) ; all hazardous materials will be disposed of in the manner specified by State Regulations or manufacturer regulations; Site personnel will be instructed in these practices and the supervisor, the individual who manages day-to-day sit operations, will be responsible for seeing that these practices are followed.

Litter Control – litter collection and control for the entire site will be performed on a daily basis. Ditches and swales will be inspected after rain events.

Erosion and Sedimentation Controls
Stabilization Practices

Temporary Stabilization – Disturbed areas or portions of land with no vegetation will be covered with yard mulch if activity ceases for at least 14 days.

Permanent Stabilization – If there are disturbed areas that will remain inactive for a long period of time, permanent vegetative cover will be established by seeding and mulching.

Off site vehicle tracking – Gravel will be used on roadways to prevent tracking of sediment off site. Heavy buildup of mud and dirt will be removed from on-site equipment that will be traveling off-site.

Timing of Erosion Controls and Measures

Any new planned activity on the site that may result in additional soil disturbance that is not controlled by existing measures will have erosion and sediment controls implemented before the activity begins.

Any unplanned activity on the site that may result in additional soil disturbance that is not controlled by existing measures will have erosion and sediment controls implemented within 14 days of the initial disturbance.

Inventory for Spill Prevention Plan

The materials or substances listed below are expected to be present on-site during normal operations.

- Sewage Sludge
- Wastewater Screenings and Grit
- Raw or partially treated wastewater
- Gasoline
- Diesel Fuel
- Engine Oil
- Hydraulic Fluid
- Transmission Fluid
- Lubrication Grease
- Used Engine Oil

BEST MANAGEMENT PRACTICES

Storage and Containment: Spill Prevention

The following Best Management Practices will be used to reduce the risks of spills or other accidental exposure of materials and substances to storm water runoff.

Good Housekeeping for Materials:

The following good housekeeping practices will be followed on-site during normal operations.

- All materials stored above ground on-site will be stored in a neat, orderly manner in their appropriate container on a concrete surface under a roof or other enclosure.
- Products will be kept in their original containers with their original manufacturer's label.
- Substances will not be mixed with one another unless recommended by manufacturer.
- All of a product will be used up before disposing of the container in an approved manner.
- Manufacturer's recommendations for proper use and disposal of materials will be followed.
- Daily inspections will insure proper use and disposal of materials on-site.

Hazardous Products:
For housekeeping practices, the following practices will be used to reduce the risks associated with hazardous materials used on-site.

- Products will be kept in original containers unless they are not re-sealable.
- Original labels and Material Data Safety Sheets will be retained.
- If surplus product must be disposed of, the manufacturer's or Local and State regulatory recommended methods for proper disposal will be followed

Spill Control Practices

In addition to the good housekeeping and material management practices of this plan, the following practices will be followed for spill prevention and cleanup:

- All spills will be cleaned up immediately upon discovery using proper materials and procedures.
- If personnel are contaminated with hazardous material, the Fire Department should be contacted at 911.
- Oil and other petroleum product spills must be properly reported to Jefferson County EMA by WWTP Manager or WWTP Supervisor.
- Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup materials.
- Materials and equipment necessary for spill cleanup will be kept in the New Chlorine Building Inventory area. Equipment and materials will include but not be limited to brooms, mops, dust pans, gloves, absorbent material, plastic and metal trash cans just for this purpose.
- During a hazardous material spill event, the spill area must be well ventilated and personnel must wear protective clothing to prevent injury.
- Following a spill event, the spill prevention plan will be adjusted to include measures to prevent the event from recurring. A report with a description of the spill, the cause, and the cleanup measures must be completed.
- The site supervisor responsible for the day to day site operations will be the spill prevention and cleanup coordinator. The site supervisor will designate three other site personnel who will receive spill prevention and cleanup training These individuals will be responsible for spill prevention and cleanup. The names of the responsible spill personnel will be posted with the spill cleanup materials, in the Filter Building operations control area, and in the Shift Supervisors office as well as other designated areas.

Employee Training

Supervisors:

All supervisors are to be trained for inspections and all SPCC procedures. Training updates will be held once per year.

Operators:

All operators are to be trained on good housekeeping and maintenance procedures including the proper handling of petroleum products and the proper cleanup procedures for oil spills. Training updates will be held once per year.

Maintenance Personnel:

All maintenance personnel are to be trained on good housekeeping and maintenance procedures including the proper handling of petroleum products and the proper cleanup procedures for oil spills as well as the proper disposal procedures. Training updates will be held once per year.

Training Documentation:

A training log will be kept documenting each training session. The log will include a description of the training, personnel in attendance, date of session, and signature of trainer. This log must be kept with SPCC Plan.

STORM WATER POLLUTION PREVENTION PLAN

MAINTENANCE AND INSPECTION PROCEDURES

Preventive Measures:

Inspection and maintenance practices will be used to maintain the BMP, SPCC, and SWPP plans. The maintenance program for the plant should include equipment, buildings, grounds, drainage areas, and storage containers.

All plant personnel will be trained in normal day to day storm water pollution prevention. The training will emphasize good housekeeping practices with respect to normal operations, handling and storage of petroleum products, and erosion control.

The plant supervisor will select personnel who will be responsible for inspections, maintenance, and repair activities. The selected personnel will be required to complete inspection forms and maintenance reports.

Personnel selected for inspection and maintenance responsibilities will receive training. They will be trained in all inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is included in the SPCC and SWPP plan.

Inspection of equipment will be performed observing floor and ground areas should be done to maintain equipment and prevent spills that could be transported to storm water runoff. Leaking equipment should be reported in INFOR and repairs completed in a timely manner. Any leaking oil should be cleaned up by removing contaminated soil or by absorbing oil from concrete surfaces. Oil waste is required to be disposed according to ADEM contaminated waste guidelines.

Organized storage areas should be provided and maintained in an accessible and neat manner.

Waste material that is discovered that has been improperly disposed of should be placed in the proper disposal area.

Storm water conveyances should be cleared of leaves and other debris and maintained.

Cleaning of equipment or machinery with detergents or solvents directly over a storm drain is prohibited. The waste material should be disposed of in the manner specified by State regulations or the manufacturer.

STORM WATER POLLUTION PREVENTION PLAN

MAINTENANCE AND INSPECTION PROCEDURES

Erosion Control:

All control measures will be inspected daily and a detailed inspection of erosion and sediment controls will be inspected after any storm event of 0.75 inches of rainfall or greater.

All measures will be maintained in good working order, if repair is necessary it will be initiated within 24 hours of report.

Built up sediment will be removed from silt fencing when it has reached one-third of the height of the fence.

Silt fence will be inspected for depth of sediment and tears, to see if the fabric is securely attached to the fence posts and buried in the ground.

The rip rap sediment controls will be inspected for depth of sediment. The built up sediment will be removed when it reaches 10 percent of the design capacity or at the end of the job.

Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.

Inspection Schedule:

Daily Inspections: all plant works, good housekeeping, maintenance procedures, erosion and sediment controls should be inspected for sources of pollutants daily. A copy of the daily inspection form is included in this plan.

Annual Site Inspections: will be performed to verify the accuracy of pollutant source description, drainage map and controls. The drainage map will be updated on a routine basis; however, the annual inspection is an additional opportunity to verify its accuracy.

Site Security:

The Cahaba River WWTP has security cameras located in several pump stations onsite and at the Al Seier Pump Station. The entrance gate to the Cahaba plant has a camera and a code entry system. A six foot fence encloses most of the facility, open only on the end that is enclosed by the Cahaba River. The Cahaba plant equipment is monitored throughout the facility with a SCADA system. The Cahaba plant is staffed 24 hours a day, seven days a week, year round. The plant also has mast lighting.

STORM WATER POLLUTION PREVENTION PLAN

MAINTENANCE AND INSPECTION PROCEDURES

Spill Control Equipment:

The Cahaba River WWTP has equipment on site to prevent an oil spill from reaching navigable waters of this area. In designated storage areas we have access to:

- Shovels
- Brooms
- Dust pans
- Oil dry
- Loader
- Sand
- Dirt
- Oil Absorbent Socks

The Environmental Services Department has the following equipment available to the wastewater plants that may be used to assist in spill prevention or cleanup.

- Vacuum Truck
- Jet Wash Truck
- Tanker Truck

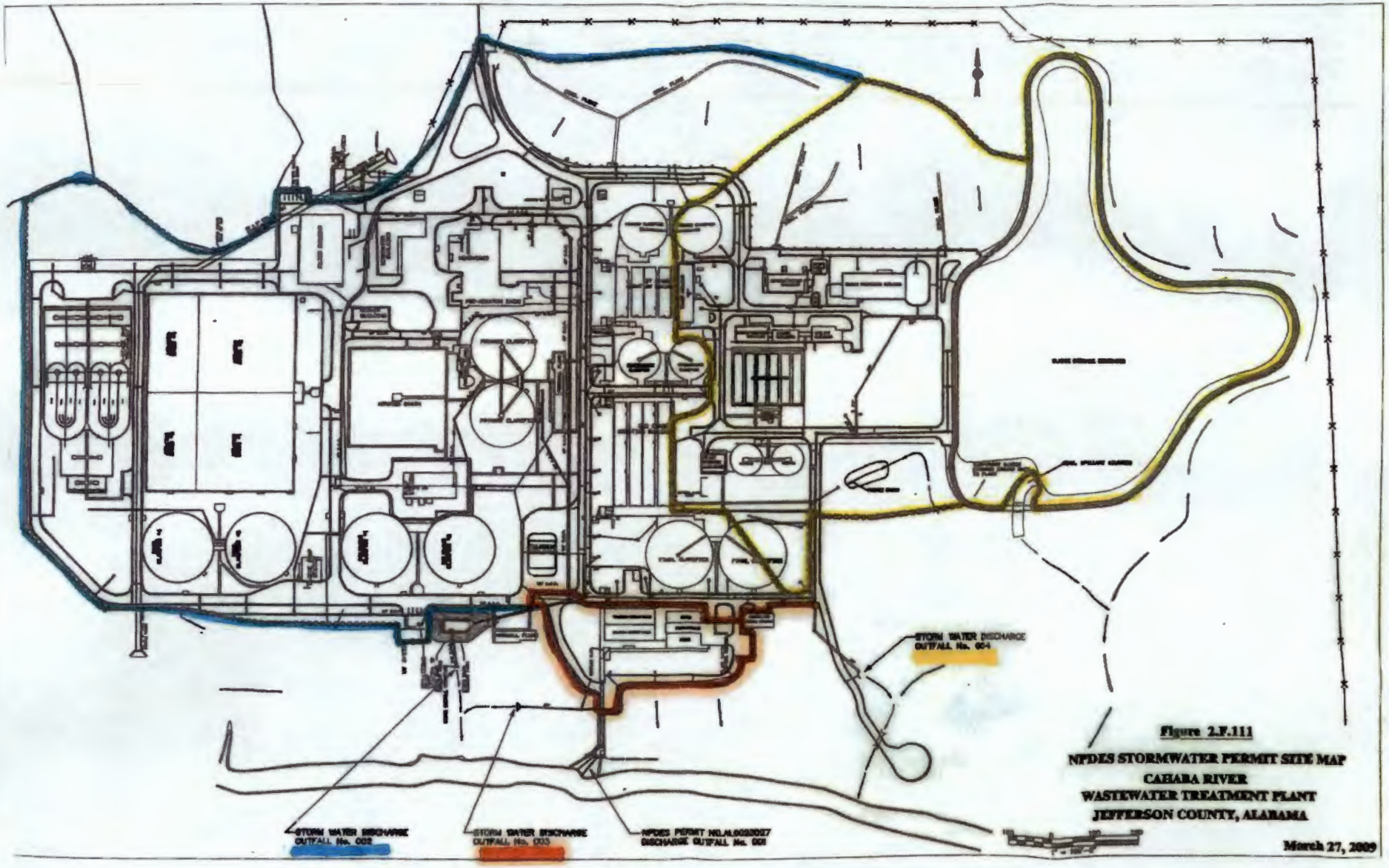
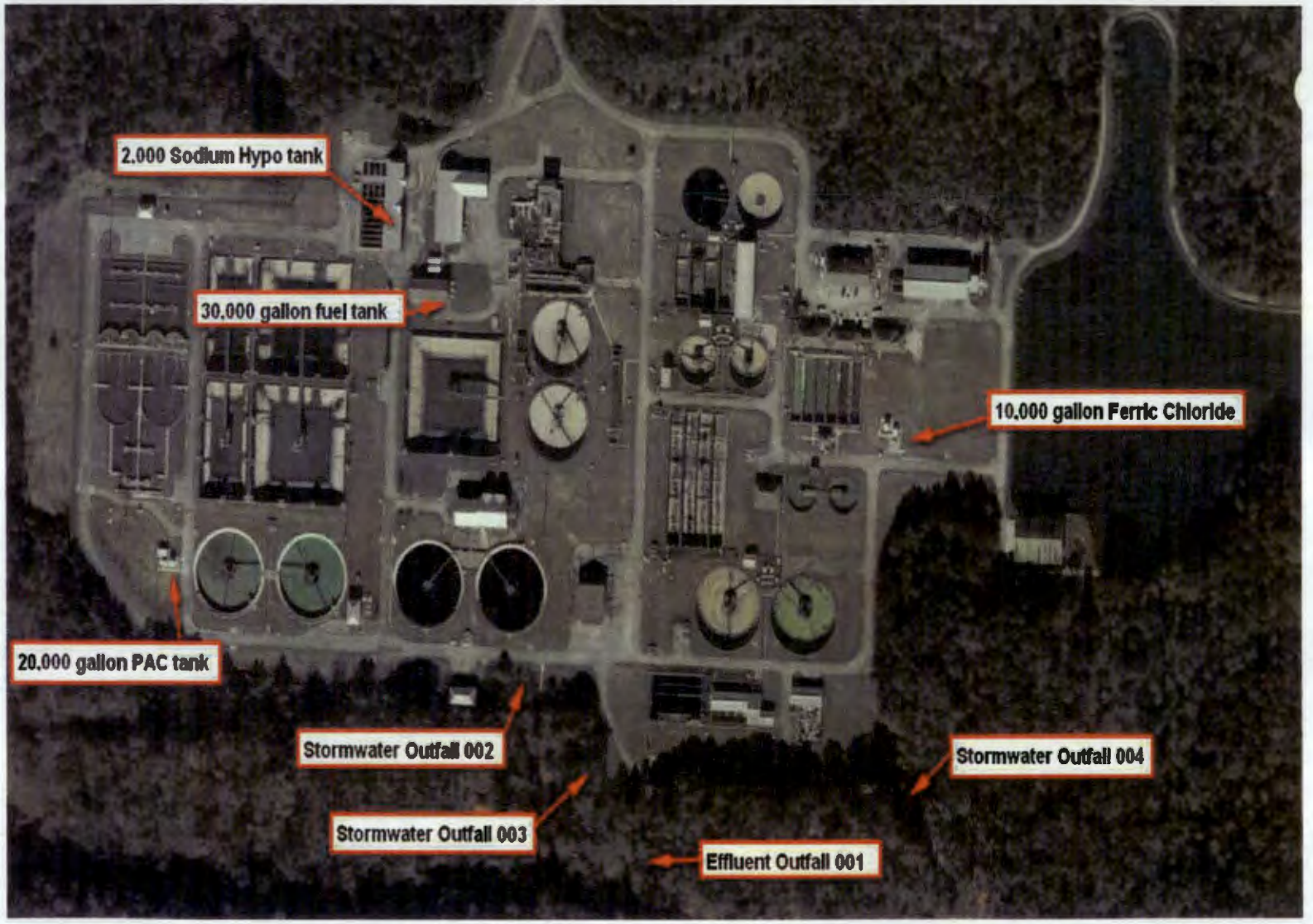


Figure 2.F.111

NPDES STORMWATER PERMIT SITE MAP
CAHABA RIVER
WASTEWATER TREATMENT PLANT
JEFFERSON COUNTY, ALABAMA

March 27, 2009


2,000 Sodium Hypo tank
30,000 gallon fuel tank
10,000 gallon Ferric Chloride
20,000 gallon PAC tank
Stormwater Outfall 002
Stormwater Outfall 004
Stormwater Outfall 003
Effluent Outfall 001

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

Form 2S NPDES | EPA

U.S Environmental Protection Agency
Application for NPDES Permit for Sewage Sludge Management
NEW AND EXISTING TREATMENT WORKS TREATING DOMESTIC SEWAGE

PRELIMINARY INFORMATION

Does your facility currently have an effective NPDES permit or have you been directed by your NPDES permitting authority to submit a full Form 2S permit application?

☑ Yes ➔ Complete Part 2 of application package (begins p. 7). ☐ No ➔ Complete Part 1 of application package (below).

PART 1 — LIMITED BACKGROUND INFORMATION (40 CFR 122.21(c)(2)(ii))

Complete this part only if you are a "sludge-only" facility (i.e., a facility that does not currently have, and is not applying for, an NPDES permit for a direct discharge to a surface body of water).

PART 1, SECTION 1. FACILITY INFORMATION (40 CFR 122.21(c)(2)(ii)(A))

Facility Information

1.1 Facility name

Mailing address (street or P.O. box)

City or town	State	ZIP code

Contact name (first and last)	Title	Phone number	Email address

Location address (street, route number, or other specific identifier) ☐ Same as mailing address

City or town	State	ZIP code

1.2 **Ownership Status**

☐ Public—federal ☐ Public—state ☐ Other public (specify)_____

☐ Private ☐ Other (specify) _____

PART 1, SECTION 2. APPLICANT INFORMATION (40 CFR 122.21(c)(2)(ii)(B))

Applicant Information

2.1 Is applicant different from entity listed under Item 1.1 above?

☐ Yes ☐ No ➔ SKIP to Item 2.3 (Part 1, Section 2).

2.2 Applicant name

Applicant address (street or P.O. box)

City or town	State	ZIP code

Contact name (first and last)	Title	Phone number	Email address

2.3 Is the applicant the facility's owner, operator, or both? (Check only one response.)

☐ Owner ☐ Operator ☐ Both

2.4 To which entity should the NPDES permitting authority send correspondence? (Check only one response.)

☐ Facility ☐ Applicant ☐ Facility and applicant (they are one and the same)

PART 1, SECTION 3. SEWAGE SLUDGE AMOUNT (40 CFR 122.21(c)(2)(ii)(D))

Sewage Sludge Amount

3.1 Provide the total dry metric tons per the latest 365-day period of sewage sludge generated, treated, used, and disposed of:

Practice	Dry Metric Tons per 365-Day Period
Amount generated at the facility	
Amount treated at the facility	
Amount used (i.e., received from off site) at the facility	
Amount disposed of at the facility	

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

PART 2 — **PERMIT APPLICATION INFORMATION (40 CFR 122.21(q))**

Complete this part if you have an effective NPDES permit or have been directed by the NPDES permitting authority to submit a full permit application. In other words, complete this part if your facility has, or is applying for, an NPDES permit.
Part 2 is divided into five sections. Section 1 pertains to all applicants. The applicability of Sections 2 to 5 depends on your facility's sewage sludge use or disposal practices. See the instructions to determine which sections you are required to complete.

PART 2, SECTION 1. GENERAL INFORMATION (40 CFR 122.21(q)(1 7) AND (q)(13))

General Information

All Part 2 applicants must complete this section.

Facility Information

1.1 Facility name
Cahaba River Water Reclamation Facility

Mailing address (street or P.O. box)
716 Richard Arrington Jr. Blvd N, Suite A300

City or town	State	ZIP code	Phone number
Birmingham	AL	35203	(205) 325-5979

Contact name (first and last)	Title	Email address
David Denard	Director, Environmental Services	denardd@jccal.org

Location address (street, route number, or other specific identifier) ☐ Same as mailing address
3900 Veona Daniels Rd

City or town	State	ZIP code
Birmingham	AL	35244

1.2 Is this facility a Class I sludge management facility?
☑ Yes ☐ No

1.3 **Facility Design Flow Rate** — 12 million gallons per day (mgd)

1.4 **Total Population Served** — 78,289 (2020 Census)

1.5 **Ownership Status**
☐ Public—federal ☐ Public—state ☑ Other public (specify) County
☐ Private ☐ Other (specify) _____

Applicant Information

1.6 Is applicant different from entity listed under Item 1.1 above?
☑ Yes ☐ No → SKIP to Item 1.8 (Part 2, Section 1).

1.7 Applicant name
Jefferson County Commission

Applicant mailing address (street or P.O. box)
716 Richard Arrington Jr. Blvd N, Suite A300

City or town	State	ZIP code
Birmingham	AL	35203

Contact name (first and last)	Title	Phone number	Email address
David Denard	Director, Environmental Se	(205) 325-5979	denardd@jccal.org

1.8 Is the applicant the facility's owner, operator, or both? (Check only one response.)
☐ Operator ☐ Owner ☑ Both

1.9 To which entity should the NPDES permitting authority send correspondence? (Check only one response.)
☐ Facility ☐ Applicant ☑ Facility and applicant (they are one and the same)

1.10	Facility's NPDES permit number ☐ Check here if you do not have an NPDES permit but are otherwise required to submit Part 2 of Form 2S.	AL0023027

1.11 Indicate all other federal, state, and local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices below.

☐ RCRA (hazardous wastes)	☐ Nonattainment program (CAA)	☐ NESHAPs (CAA)
☑ PSD (air emissions) 4-07-1075-03	☐ Dredge or fill (CWA Section 404)	☐ Other (specify)
☐ Ocean dumping (MPRSA)	☐ UIC (underground injection of fluids)	

Indian Country

1.12 Does any generation, treatment, storage, application to land, or disposal of sewage sludge from this facility occur in Indian Country?

☐ Yes ☑ No ➔ SKIP to Item 1.14 (Part 2, Section 1) below.

1.13 Provide a description of the generation, treatment, storage, land application, or disposal of sewage sludge that occurs.

Topographic Map

1.14 Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.)

☑ Yes ☐ No

Line Drawing

1.15 Have you attached a line drawing and/or a narrative description that identifies all sewage sludge practices that will be employed during the term of the permit containing all the required information to this application? (See instructions for specific requirements.)

☑ Yes ☐ No

Contractor Information

1.16 Do contractors have any operational or maintenance responsibilities related to sewage sludge generation, treatment, use, or disposal at the facility?

☐ Yes ☑ No ➔ SKIP to Item 1.18 (Part 2, Section 1) below.

1.17 Provide the following information for each contractor.

☐ Check here if you have attached additional sheets to the application package.

	Contractor 1	Contractor 2	Contractor 3
Contractor company name			
Mailing address (street or P.O. box)			
City, state, and ZIP code			
Contact name (first and last)			
Telephone number			
Email address			

General Information Continued

1.17 cont.		Contractor 1	Contractor 2	Contractor 3
	Responsibilities of contractor			

Pollutant Concentrations

Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR 503 for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than 4.5 years old.

☐ Check here if you have attached additional sheets to the application package.

1.18

Pollutant	Average Monthly Concentration (mg/kg dry weight)	Analytical Method	Detection Level
Arsenic	0	6010	10
Cadmium	0	6010	6
Chromium	N/A	N/A	
Copper	335	6010	4
Lead	6.5	6010	9
Mercury	0.86	7471	0.02
Molybdenum	7.2	6010	4
Nickel	19	6010	7
Selenium	0	6010	10
Zinc	785	6010	8

Checklist and Certification Statement

1.19 In Column 1 below, mark the sections of Form 2S, Part 2, that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing. Note that not all applicants are required to complete all sections or provide attachments. See Exhibit 2S–2 in the Instructions.

Column 1	Column 2
☑ Section 1 (General Information)	☑ w/ attachments
☑ Section 2 (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)	☑ w/ attachments
☐ Section 3 (Land Application of Bulk Sewage Sludge)	☐ w/ attachments
☐ Section 4 (Surface Disposal)	☐ w/ attachments
☐ Section 5 (Incineration)	☐ w/ attachments

1.20 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
David Denard	Director, Environmental Services
Signature	Date signed 05/31/2024
Telephone number (205) 325-5979	[redacted]

Upon the request of the NPDES permitting authority, you must submit any other information the authority deems necessary to assess sewage sludge use or disposal practices at your facility and identify appropriate permitting requirements.

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

PART 2, SECTION 2. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE (40 CFR 122.21(q)(8) THROUGH (12))

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge

2.1 Does your facility generate sewage sludge or derive a material from sewage sludge?

☑ Yes ☐ No ➔ SKIP to Part 2, Section 3.

Amount Generated Onsite

2.2 Total dry metric tons per 365-day period generated at your facility: 562.38

Amount Received from Off Site Facility

2.3 Does your facility receive sewage sludge from another facility for treatment use or disposal?

☐ Yes ☑ No ➔ SKIP to Item 2.7 (Part 2, Section 2) below.

2.4 Indicate the total number of facilities from which you receive sewage sludge for treatment, use, or disposal:

Provide the following information for each of the facilities from which you receive sewage sludge.

☐ Check here if you have attached additional sheets to the application package.

2.5

Name of facility			
Mailing address (street or P.O. box)			
City or town		State	ZIP code
Contact name (first and last)	Title	Phone number	Email address
Location address (street, route number, or other specific identifier)			☐ Same as mailing address
City or town		State	ZIP code
County		County code	☐ Not available

2.6 Indicate the amount of sewage sludge received, the applicable pathogen class and reduction alternative, and the applicable vector reduction option provided at the offsite facility.

Amount (dry metric tons)	Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
	☐ Not applicable ☐ Class A, Alternative 1 ☐ Class A, Alternative 2 ☐ Class A, Alternative 3 ☐ Class A, Alternative 4 ☐ Class A, Alternative 5 ☐ Class A, Alternative 6 ☐ Class B, Alternative 1 ☐ Class B, Alternative 2 ☐ Class B, Alternative 3 ☐ Class B, Alternative 4 ☐ Domestic septage, pH adjustment	☐ Not applicable ☐ Option 1 ☐ Option 2 ☐ Option 3 ☐ Option 4 ☐ Option 5 ☐ Option 6 ☐ Option 7 ☐ Option 8 ☐ Option 9 ☐ Option 10 ☐ Option 11

2.7 Identify the treatment process(es) that are known to occur at the offsite facility, including blending activities and treatment to reduce pathogens or vector attraction properties. (Check all that apply.)

☐ Preliminary operations (e.g., sludge grinding and degritting)	☐ Thickening (concentration)
☐ Stabilization	☐ Anaerobic digestion
☐ Composting	☐ Conditioning
☐ Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)	☐ Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
☐ Heat drying	☐ Thermal reduction
☐ Methane or biogas capture and recovery	☐ Other (specify) _____

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Treatment Provided at Your Facility

2.8 For each sewage sludge use or disposal practice, indicate the applicable pathogen class and reduction alternative and the applicable vector attraction reduction option provided at your facility. Attach additional pages, as necessary.

Use or Disposal Practice (check one)	Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Land application of bulk sewage	☑ Not applicable	☑ Not applicable
☐ Land application of biosolids (bulk)	☐ Class A, Alternative 1	☐ Option 1
☐ Land application of biosolids (bags)	☐ Class A, Alternative 2	☐ Option 2
☐ Surface disposal in a landfill	☐ Class A, Alternative 3	☐ Option 3
☐ Other surface disposal	☐ Class A, Alternative 4	☐ Option 4
☐ Incineration	☐ Class A, Alternative 5	☐ Option 5
	☐ Class A, Alternative 6	☐ Option 6
	☐ Class B, Alternative 1	☐ Option 7
	☐ Class B, Alternative 2	☐ Option 8
	☐ Class B, Alternative 3	☐ Option 9
	☐ Class B, Alternative 4	☐ Option 10
	☐ Domestic septage, pH adjustment	☐ Option 11

2.9 Identify the treatment process(es) used at your facility to reduce pathogens in sewage sludge or reduce the vector attraction properties of sewage sludge? (Check all that apply.)

- ☑ Preliminary operations (e.g., sludge grinding and degritting)
- ☐ Thickening (concentration)
- ☐ Stabilization
- ☐ Anaerobic digestion
- ☐ Composting
- ☐ Conditioning
- ☐ Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)
- ☐ Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
- ☐ Heat drying
- ☐ Thermal reduction
- ☐ Methane or biogas capture and recovery

2.10 Describe any other sewage sludge treatment or blending activities not identified in Items 2.8 and 2.9 (Part 2, Section 2) above.

☐ Check here if you have attached the description to the application package.

WAS is stored in sludge holding tanks until it can be pumped to the Al Seier Pump Station Wastewater Diversion and mixed with the domestic wastewater and sent to the Valley Creek WRF for treatment. Ferric Chloride is mixed with the sludge, for odor and corrosion control purposes, when it is pumped in batches throughout the week.

Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements, and One of Vector Attraction Reduction Options 1 to 8

2.11 Does the sewage sludge from your facility meet the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of 40 CFR 503.13, Class A pathogen reduction requirements at 40 CFR 503.32(a), *and* one of the vector attraction reduction requirements at 40 CFR 503.33(b)(1)–(8) and is it land applied?

☐ Yes ☑ No ➔ SKIP to Item 2.14 (Part 2, Section 2) below.

2.12 Total dry metric tons per 365-day period of sewage sludge subject to this subsection that is applied to the land:

2.13 Is sewage sludge subject to this subsection placed in bags or other containers for sale or give-away for application to the land?

☐ Yes ☐ No

☐ Check here once you have completed Items 2.11 to 2.13, then ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Sale or Give-Away in a Bag or Other Container for Application to the Land

2.14	Do you place sewage sludge in a bag or other container for sale or give-away for land application? ☐ Yes ☑ No ➔ SKIP to Item 2.17 (Part 2, Section 2) below.	
2.15	Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land:	
2.16	Attach a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land. ☐ Check here to indicate that you have attached all labels or notices to this application package.	

☐ Check here once you have completed Items 2.14 to 2.16, then ➔ SKIP to Part 2, Section 2, Item 2.32.

Shipment Off Site for Treatment or Blending

2.17	Does another facility provide treatment or blending of your facility's sewage sludge? (This question does not pertain to dewatered sludge sent directly to a land application or surface disposal site.) ☑ Yes ☐ No ➔ SKIP to Item 2.32 (Part 2, Section 2) below.	
2.18	Indicate the total number of facilities that provide treatment or blending of your facility's sewage sludge. Provide the information in Items 2.19 to 2.26 (Part 2, Section 2) below for each facility. ☐ Check here if you have attached additional sheets to the application package.	1

2.19 Name of receiving facility
Valley Creek Water Reclamation Facility

Mailing address (street or P.O. box)
Suite A300, 716 Richard Arrington Jr. Blvd N

City or town	State	ZIP code
Birmingham	AL	35203

Contact name (first and last)	Title	Phone number	Email address
David Denard	Director	(205) 325-5979	denardd@jccal.org

Location address (street, route number, or other specific identifier) ☐ Same as mailing address
3923 Clearwater Dr.

City or town	State	ZIP code
Bessemer	AL	53023

2.20	Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:	562.38
2.21	Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility or reduce the vector attraction properties of sewage sludge from your facility? ☑ Yes ☐ No ➔ SKIP to Item 2.24 (Part 2, Section 2) below.	

2.22 Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge at the receiving facility.

Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Not applicable	☐ Not applicable
☐ Class A, Alternative 1	☐ Option 1
☐ Class A, Alternative 2	☐ Option 2
☐ Class A, Alternative 3	☐ Option 3
☐ Class A, Alternative 4	☐ Option 4
☐ Class A, Alternative 5	☐ Option 5
☐ Class A, Alternative 6	☐ Option 6
☐ Class B, Alternative 1	☐ Option 7
☑ Class B, Alternative 2	☐ Option 8
☐ Class B, Alternative 3	☐ Option 9
☐ Class B, Alternative 4	☐ Option 10
☐ Domestic septage, pH adjustment	☑ Option 11

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

2.23 Which treatment process(es) are used at the receiving facility to reduce pathogens in sewage sludge or reduce the vector attraction properties of sewage sludge from your facility? (Check all that apply.)

- ☑ Preliminary operations (e.g., sludge grinding and degritting)
- ☐ Stabilization
- ☐ Composting
- ☐ Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)
- ☐ Heat drying
- ☐ Methane or biogas capture and recovery
- ☑ Thickening (concentration)
- ☑ Anaerobic digestion
- ☐ Conditioning
- ☑ Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
- ☐ Thermal reduction
- ☐ Other (specify) _____

2.24 Attach a copy of any information you provide the receiving facility to comply with the "notice and necessary information" requirement of 40 CFR 503.12(g).

☐ Check here to indicate that you have attached material.

2.25 Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land?

☐ Yes ☑ No ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

2.26 Attach a copy of all labels or notices that accompany the product being sold or given away.

☐ Check here to indicate that you have attached material.

☐ Check here once you have completed Items 2.17 to 2.26 (Part 2, Section 2), then ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

Land Application of Bulk Sewage Sludge

2.27 Is sewage sludge from your facility applied to the land?

☐ Yes ☐ No ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

2.28 Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: _____

2.29 Did you identify all land application sites in Part 2, Section 3 of this application?

☐ Yes ☐ No ➔ Submit a copy of the land application plan with your application.

2.30 Are any land application sites located in states other than the state where you generate sewage sludge or derive a material from sewage sludge?

☐ Yes ☐ No ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

2.31 Describe how you notify the NPDES permitting authority for the states where the land application sites are located. Attach a copy of the notification.

☐ Check here if you have attached the explanation to the application package.

☐ Check here if you have attached the notification to the application package.

Surface Disposal

2.32 Is sewage sludge from your facility placed on a surface disposal site?

☐ Yes ☑ No ➔ SKIP to Item 2.39 (Part 2, Section 2) below.

2.33 Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period: _____

2.34 Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?

☐ Yes ➔ SKIP to Item 2.39 (Part 2, Section 2) below. ☐ No

2.35 Indicate the total number of surface disposal sites to which you send your sewage sludge. _____

(Provide the information in Items 2.36 to 2.38 of Part 2, Section 2, for each facility.)

☐ Check here if you have attached additional sheets to the application package.

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

2.36	Site name or number of surface disposal site you do not own or operate			
	Mailing address (street or P.O. box)			
	City or Town		State	ZIP Code
	Contact Name (first and last)	Title	Phone Number	Email Address
2.37	Site Contact (Check all that apply.) ☐ Owner ☐ Operator			
2.38	Total dry metric tons of sewage sludge from your facility placed on this surface disposal site per 365-day period:			

Incineration

2.39	Is sewage sludge from your facility fired in a sewage sludge incinerator? ☐ Yes ☑ No ➔ SKIP to Item 2.46 (Part 2, Section 2) below.			
2.40	Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period:			
2.41	Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? ☐ Yes ➔ SKIP to Item 2.46 (Part 2, Section 2) below. ☐ No			
2.42	Indicate the total number of sewage sludge incinerators used that you do not own or operate. (Provide the information in Items 2.43 to 2.45 directly below for each facility.) ☐ Check here if you have attached additional sheets to the application package.			
2.43	Incinerator name or number			
	Mailing address (street or P.O. box)			
	City or town		State	ZIP code
	Contact name (first and last)	Title	Phone number	Email address
	Location address (street, route number, or other specific identifier) ☐ Same as mailing address			
	City or town		State	ZIP code
2.44	Contact (check all that apply) ☐ Incinerator owner ☐ Incinerator operator			
2.45	Total dry metric tons of sewage sludge from your facility fired in this sewage sludge incinerator per 365-day period:			

Disposal in a Municipal Solid Waste Landfill

2.46	Is sewage sludge from your facility placed on a municipal solid waste landfill? ☐ Yes ☑ No ➔ SKIP to Part 2, Section 3.	
2.47	Indicate the total number of municipal solid waste landfills used. (Provide the information in Items 2.48 to 2.52 directly below for each facility.) ☐ Check here if you have attached additional sheets to the application package.	

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

2.48	Name of landfill			
	Mailing address (street or P.O. box)			
	City or town		State	ZIP code
	Contact name (first and last)	Title	Phone number	Email address
	Location address (street, route number, or other specific identifier)			☐ Same as mailing address
	County	County code		☐ Not available
	City or town	State		ZIP code
2.49	Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period:			
2.50	List the numbers of all other federal, state, and local permits that regulate the operation of this municipal solid waste landfill.			
	Permit Number	**Type of Permit**		
2.51	Attach to the application information to determine whether the sewage sludge meets applicable requirements for disposal of sewage sludge in a municipal solid waste landfill (e.g., results of paint filter liquids test and TCLP test). ☐ Check here to indicate you have attached the requested information.			
2.52	Does the municipal solid waste landfill comply with applicable criteria set forth in 40 CFR 258? ☐ Yes ☐ No			

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PART 2, SECTION 3 LAND APPLICATION OF BULK SEWAGE SLUDGE (40 CFR 122.21(q)(9))

Land Application of Bulk Sewage Sludge

3.1 Does your facility apply sewage sludge to land?

☐ Yes ☑ No ➔ SKIP to Part 2, Section 4.

3.2 Do any of the following conditions apply?

- The sewage sludge meets the ceiling concentrations in Table 1 of 40 CFR 503.12, the pollutant concentrations in Table 3 of 40 CFR 503.13, Class A pathogen reduction requirements at 40 CFR 503.32(a), *and* one of the vector attraction reduction requirements at 40 CFR 503.33(b)(1)–(8);
- The sewage sludge is sold or given away in a bag or other container for application to the land; or
- You provide the sewage sludge to another facility for treatment or blending.

☐ Yes ➔ SKIP to Part 2, Section 4. ☐ No

3.3 Complete Section 3 for every site on which the sewage sludge is applied.

☐ Check here if you have attached sheets to the application package for one or more land application sites.

Identification of Land Application Site

3.4 Site name or number

Location address (street, route number, or other specific identifier) ☐ Same as mailing address

County	County code ☐ Not available

City or town	State	ZIP code

Latitude/Longitude of Land Application Site (see instructions)

Latitude	Longitude
° ′ ″	° ′ ″

Method of Determination

☐ USGS map ☐ Field survey ☐ Other (specify) _____

3.5 Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

☐ Check here to indicate you have attached a topographic map for this site.

Owner Information

3.6 Are you the owner of this land application site?

☐ Yes ➔ SKIP to Item 3.8 (Part 2, Section 3) below. ☐ No

3.7 Owner name

Mailing address (street or P.O. box)

City or town	State	ZIP code

Contact name (first and last)	Title	Phone number	Email address

Applier Information

3.8 Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?

☐ Yes ➔ SKIP to Item 3.10 (Part 2, Section 3) below. ☐ No

3.9 Applier's name

Mailing address (street or P.O. box)

City or town	State	ZIP code

Contact name (first and last)	Title	Phone number	Email address

Land Application of Bulk Sewage Sludge Continued

Site Type

3.10 Type of land application:

☐ Agricultural land ☐ Forest

☐ Reclamation site ☐ Public contact site

☐ Other (describe)

Crop or Other Vegetation Grown on Site

3.11 What type of crop or other vegetation is grown on this site?

3.12 What is the nitrogen requirement for this crop or vegetation?

Vector Attraction Reduction

3.13 Are the vector attraction reduction requirements at 40 CFR 503.33(b)(9) and (b)(10) met when sewage sludge is applied to the land application site?

☐ Yes ☐ No → SKIP to Item 3.16 (Part 2, Section 3) below.

3.14 Indicate which vector attraction reduction option is met. (Check only one response.)

☐ Option 9 (injection below land surface) ☐ Option 10 (incorporation into soil within 6 hours)

3.15 Describe any treatment processes used at the land application site to reduce vector attraction properties of sewage sludge.

☐ Check here if you have attached your description to the application package.

Cumulative Loadings and Remaining Allotments

3.16 Is the sewage sludge applied to this site since July 20, 1993, subject to the cumulative pollutant loading rates (CPLRs) in 40 CFR 503.13(b)(2)?

☐ Yes ☐ No → SKIP to Part 2, Section 4.

3.17 Have you contacted the NPDES permitting authority in the state where the bulk sewage sludge subject to CPLRs will be applied to ascertain whether bulk sewage sludge subject to CPLRs has been applied to this site on or since July 20, 1993?

☐ Yes ☐ No → Sewage sludge subject to CPLRs may not be applied to this site. SKIP to Part 2, Section 4.

3.18 Provide the following information about your NPDES permitting authority:

NPDES permitting authority name	
Contact person	
Telephone number	
Email address	

3.19 Based on your inquiry, has bulk sewage sludge subject to CPLRs been applied to this site since July 20, 1993?

☐ Yes ☐ No → SKIP to Part 2, Section 4.

3.20 Provide the following information for every facility other than yours that is sending, or has sent, bulk sewage sludge subject to CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

☐ Check here to indicate that additional pages are attached.

Facility name			
Mailing address (street or P.O. box)			
City or town		State	ZIP code
Contact name (first and last)	Title	Phone number	Email address

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
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PART 2, SECTION 4 SURFACE DISPOSAL (40 CFR 122.21(q)(10))

Surface Disposal

4.1	Do you own or operate a surface disposal site? ☐ Yes ☑ No ➔ SKIP to Part 2, Section 5.
4.2	Complete all items in Section 4 for each active sewage sludge unit that you own or operate. ☐ Check here to indicate that you have attached material to the application package for one or more active sewage sludge units.

Information on Active Sewage Sludge Units

4.3	Unit name or number			
	Mailing address (street or P.O. box)			
	City or town		State	ZIP code
	Contact name (first and last)	Title	Phone number	Email address
	Location address (street, route number, or other specific identifier)			☐ Same as mailing address
	County		County code	☐ Not available
	City or town		State	ZIP code

Latitude/Longitude of Active Sewage Sludge Unit (see instructions)

Latitude	Longitude
° ′ ″	° ′ ″

Method of Determination

☐ USGS map ☐ Field survey ☐ Other (specify) _____

4.4	Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location. ☐ Check here to indicate that you have completed and attached a topographic map.
4.5	Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period:
4.6	Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit:
4.7	Does the active sewage sludge unit have a liner with a maximum permeability of 1×10^{-7} centimeters per second (cm/sec)? ☐ Yes ☐ No ➔ SKIP to Item 4.9 (Part 2, Section 4) below.
4.8	Describe the liner. ☐ Check here to indicate that you have attached a description to the application package.
4.9	Does the active sewage sludge unit have a leachate collection system? ☐ Yes ☐ No ➔ SKIP to Item 4.11 (Part 2, Section 4) below.
4.10	Describe the leachate collection system and the method used for leachate disposal and provide the numbers of any federal, state, or local permit(s) for leachate disposal. ☐ Check here to indicate that you have attached the description to the application package.

Surface Disposal Continued

4.11	Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? ☐ Yes ☐ No ➔ SKIP to Item 4.13 (Part 2, Section 4) below.	
4.12	Provide the actual distance in meters:	meters
4.13	Remaining capacity of active sewage sludge unit in dry metric tons:	dry metric tons
4.14	Anticipated closure date for active sewage sludge unit, if known (MM/DD/YYYY):	
4.15	Attach a copy of any closure plan that has been developed for this active sewage sludge unit. ☐ Check here to indicate that you have attached a copy of the closure plan to the application package.	

Sewage Sludge from Other Facilities

4.16	Is sewage sludge sent to this active sewage sludge unit from any facilities other than your facility? ☐ Yes ☐ No ➔ SKIP to Item 4.21 (Part 2, Section 4) below.	
4.17	Indicate the total number of facilities (other than your facility) that send sewage sludge to this active sewage sludge unit. (Complete Items 4.18 to 4.20 directly below for each such facility.) ☐ Check here to indicate that you have attached responses for each facility to the application package.	

4.18 Facility name

Mailing address (street or P.O. box)

City or town		State	ZIP code
Contact name (first and last)	Title	Phone number	Email address

4.19 Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge before leaving the other facility.

Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Not applicable	☐ Not applicable
☐ Class A, Alternative 1	☐ Option 1
☐ Class A, Alternative 2	☐ Option 2
☐ Class A, Alternative 3	☐ Option 3
☐ Class A, Alternative 4	☐ Option 4
☐ Class A, Alternative 5	☐ Option 5
☐ Class A, Alternative 6	☐ Option 6
☐ Class B, Alternative 1	☐ Option 7
☐ Class B, Alternative 2	☐ Option 8
☐ Class B, Alternative 3	☐ Option 9
☐ Class B, Alternative 4	☐ Option 10
☐ Domestic septage, pH adjustment	☐ Option 11

4.20 Which treatment process(es) are used at the other facility to reduce pathogens in sewage sludge or reduce the vector attraction properties of sewage sludge before leaving the other facility? (Check all that apply.)

☐ Preliminary operations (e.g., sludge grinding and degritting)	☐ Thickening (concentration)
☐ Stabilization	☐ Anaerobic digestion
☐ Composting	☐ Conditioning
☐ Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)	☐ Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
☐ Heat drying	☐ Thermal reduction
☐ Methane or biogas capture and recovery	☐ Other (specify) _____

Surface Disposal Continued

Vector Attraction Reduction

4.21 Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?

☐ Option 9 (Injection below and surface)

☐ Option 10 (Incorporation into soil within 6 hours)

☐ Option 11 (Covering active sewage sludge unit daily)

☐ None

4.22 Describe any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge.

☐ Check here if you have attached your description to the application package.

Groundwater Monitoring

4.23 Is groundwater monitoring currently conducted at this active sewage sludge unit, or are groundwater monitoring data otherwise available for this active sewage sludge unit?

☐ Yes

☐ No ➔ SKIP to Item 4.26 (Part 2, Section 4) below.

4.24 Provide a copy of available groundwater monitoring data.

☐ Check here to indicate you have attached the monitoring data.

4.25 Describe the well locations, the approximate depth to groundwater, and the groundwater monitoring procedures used to obtain these data.

☐ Check here if you have attached your description to the application package.

4.26 Has a groundwater monitoring program been prepared for this active sewage sludge unit?

☐ Yes

☐ No ➔ SKIP to Item 4.28 (Part 2, Section 4) below.

4.27 Submit a copy of the groundwater monitoring program with this permit application.

☐ Check here to indicate you have attached the monitoring program.

4.28 Have you obtained a certification from a qualified groundwater scientist that the aquifer below the active sewage sludge unit has not been contaminated?

☐ Yes

☐ No ➔ SKIP to Item 4.30 (Part 2, Section 4) below.

4.29 Submit a copy of the certification with this permit application.

☐ Check here to indicate you have attached the certification to the application package.

Site-Specific Limits

4.30 Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?

☐ Yes

☐ No ➔ SKIP to Part 2, Section 5.

4.31 Submit information to support the request for site-specific pollutant limits with this application.

☐ Check here to indicate you have attached the requested information.

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

PART 2, SECTION 5 INCINERATION (40 CFR 122.21(q)(11))

Incineration

Incinerator Information

5.1 Do you fire sewage sludge in a sewage sludge incinerator?

☐ Yes ☑ No ➔ SKIP to END.

5.2 Indicate the total number of incinerators used at your facility. (Complete the remainder of Section 5 for each such incinerator.)

☐ Check here to indicate that you have attached information for one or more incinerators.

5.3 Incinerator name or number

Location address (street, route number, or other specific identifier)

County	County code	☐ Not available
City or town	State	ZIP code

Latitude/Longitude of Incinerator (see instructions)

Latitude	Longitude
° ' "	° ' "

Method of Determination

☐ USGS map ☐ Field survey ☐ Other (specify) _____

Amount Fired

5.4 Dry metric tons per 365-day period of sewage sludge fired in the sewage sludge incinerator:

Beryllium NESHAP

5.5 Submit information, test data, and a description of measures taken that demonstrate whether the sewage sludge incinerated is beryllium-containing waste and will continue to remain as such.

☐ Check here to indicate that you have attached this material to the application package.

5.6 Is the sewage sludge fired in this incinerator "beryllium-containing waste" as defined at 40 CFR 61.31?

☐ Yes ☐ No ➔ SKIP to Item 5.8 (Part 2, Section 5) below.

5.7 Submit with this application a complete report of the latest beryllium emission rate testing *and* documentation of ongoing incinerator operating parameters indicating that the NESHAP emission rate limit for beryllium has been and will continue to be met.

☐ Check here to indicate that you have attached this information.

Mercury NESHAP

5.8 Is compliance with the mercury NESHAP being demonstrated via stack testing?

☐ Yes ☐ No ➔ SKIP to Item 5.11 (Part 2, Section 5) below.

5.9 Submit a complete report of stack testing and documentation of ongoing incinerator operating parameters indicating that the incinerator has met and will continue to meet the mercury NESHAP emission rate limit.

☐ Check here to indicate that you have attached this information.

5.10 Provide copies of mercury emission rate tests for the two most recent years in which testing was conducted.

☐ Check here to indicate that you have attached this information.

5.11 Do you demonstrate compliance with the mercury NESHAP by sewage sludge sampling?

☐ Yes ☐ No ➔ SKIP to Item 5.13 (Part 2, Section 5) below.

5.12 Submit a complete report of sewage sludge sampling and documentation of ongoing incinerator operating parameters indicating that the incinerator has met and will continue to meet the mercury NESHAP emission rate limit.

☐ Check here to indicate that you have attached this information.

Incineration Continued

Dispersion Factor

5.13	Dispersion factor in micrograms/cubic meter per gram/second:	
5.14	Name and type of dispersion model:	
5.15	Submit a copy of the modeling results and supporting documentation. ☐ Check here to indicate that you have attached this information.	

Control Efficiency

5.16	Provide the control efficiency, in hundredths, for each of the pollutants listed below.	
	Pollutant	**Control Efficiency, in Hundredths**
	Arsenic	
	Cadmium	
	Chromium	
	Lead	
	Nickel	
5.17	Attach a copy of the results or performance testing and supporting documentation (including testing dates). ☐ Check here to indicate that you have attached this information.	

Risk-Specific Concentration for Chromium

5.18	Provide the risk-specific concentration (RSC) used for chromium in micrograms per cubic meter:	
5.19	Was the RSC determined via Table 2 in 40 CFR 503.43? ☐ Yes ☐ No ➔ SKIP to Item 5.21 (Part 2, Section 5) below.	
5.20	Identify the type of incinerator used as the basis. ☐ Fluidized bed with wet scrubber ☐ Other types with wet scrubber ☐ Fluidized bed with wet scrubber and wet electrostatic precipitator ☐ Other types with wet scrubber and wet electrostatic precipitator	
5.21	Was the RSC determined via Table 6 in 40 CFR 503.43 (site-specific determination)? ☐ Yes ☐ No ➔ SKIP to Item 5.23 (Part 2, Section 5) below.	
5.22	Provide the decimal fraction of hexavalent chromium concentration to total chromium concentration in stack exit gas:	
5.23	Attach the results of incinerator stack tests for hexavalent and total chromium concentrations, including the date(s) of any test(s), with this application. ☐ Check here to indicate that you have attached this information. ☐ Not applicable	

Incinerator Parameters

5.24	Do you monitor total hydrocarbons (THC) in the exit gas of the sewage sludge incinerator? ☐ Yes ☐ No	
5.25	Do you monitor carbon monoxide (CO) in the exit gas of the sewage sludge incinerator? ☐ Yes ☐ No	
5.26	Indicate the type of sewage sludge incinerator.	
5.27	Incinerator stack height in meters:	
5.28	Indicate whether the value submitted in Item 5.27 is (check only one response): ☐ Actual stack height ☐ Creditable stack height	

Incineration Continued

Performance Test Operating Parameters

5.29	Maximum performance test combustion temperature:	
5.30	Performance test sewage sludge feed rate, in dry metric tons/day	
5.31	Indicate whether value submitted in Item 5.30 is (check only one response): ☐ Average use ☐ Maximum design	
5.32	Attach supporting documents describing how the feed rate was calculated. ☐ Check here to indicate that you have attached this information.	
5.33	Submit information documenting the performance test operating parameters for the air pollution control device(s) used for this sewage sludge incinerator. ☐ Check here to indicate that you have attached this information.	

Monitoring Equipment

5.34 List the equipment in place to monitor the listed parameters.

Parameter	Equipment in Place for Monitoring
Total hydrocarbons or carbon monoxide	
Percent oxygen	
Percent moisture	
Combustion temperature	
Other (describe)	

Air Pollution Control Equipment

5.35 List all air pollution control equipment used with this sewage sludge incinerator.

☐ Check here if you have attached the list to the application package for the noted incinerator.

END of PART 2

Submit completed application package to your NPDES permitting authority.

Attachment 2S-2.22

Additional Pages for Land Application & Landfill

EPA Form, Section 2

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Sale or Give-Away in a Bag or Other Container for Application to the Land

2.14	Do you place sewage sludge in a bag or other container for sale or give-away for land application? ☐ Yes ☑ No → SKIP to Item 2.17 (Part 2, Section 2) below.	
2.15	Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land:	
2.16	Attach a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land. ☐ Check here to indicate that you have attached all labels or notices to this application package.	

☐ Check here once you have completed Items 2.14 to 2.16, then → SKIP to Part 2, Section 2, Item 2.32.

Shipment Off Site for Treatment or Blending

2.17	Does another facility provide treatment or blending of your facility's sewage sludge? (This question does not pertain to dewatered sludge sent directly to a land application or surface disposal site.) ☑ Yes ☐ No → SKIP to Item 2.32 (Part 2, Section 2) below.	
2.18	Indicate the total number of facilities that provide treatment or blending of your facility's sewage sludge. Provide the information in Items 2.19 to 2.26 (Part 2, Section 2) below for each facility. ☐ Check here if you have attached additional sheets to the application package.	1

2.19

Name of receiving facility Valley Creek Water Reclamation Facility			
Mailing address (street or P.O. box) Suite A300, 716 Richard Arrington Jr. Blvd N			
City or town Birmingham		State AL	ZIP code 35203
Contact name (first and last) David Denard	Title Director	Phone number (205) 325-5979	Email address denardd@jccal.org
Location address (street, route number, or other specific identifier) 3923 Clearwater Dr.			☐ Same as mailing address
City or town Bessemer		State AL	ZIP code 53023

2.20	Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:	562.38
2.21	Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility or reduce the vector attraction properties of sewage sludge from your facility? ☑ Yes ☐ No → SKIP to Item 2.24 (Part 2, Section 2) below.	

2.22 Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge at the receiving facility.

Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Not applicable	☐ Not applicable
☐ Class A, Alternative 1	☐ Option 1
☐ Class A, Alternative 2	☐ Option 2
☐ Class A, Alternative 3	☐ Option 3
☐ Class A, Alternative 4	☐ Option 4
☐ Class A, Alternative 5	☐ Option 5
☐ Class A, Alternative 6	☐ Option 6
☑ Class B, Alternative 1	☐ Option 7
☐ Class B, Alternative 2	☐ Option 8
☐ Class B, Alternative 3	☐ Option 9
☐ Class B, Alternative 4	☑ Option 10
☐ Domestic septage, pH adjustment	☐ Option 11

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Sale or Give-Away in a Bag or Other Container for Application to the Land

2.14	Do you place sewage sludge in a bag or other container for sale or give-away for land application? ☐ Yes ☑ No ➔ SKIP to Item 2.17 (Part 2, Section 2) below.	
2.15	Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land:	
2.16	Attach a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land. ☐ Check here to indicate that you have attached all labels or notices to this application package.	

☐ Check here once you have completed Items 2.14 to 2.16, then ➔ SKIP to Part 2, Section 2, Item 2.32.

Shipment Off Site for Treatment or Blending

2.17	Does another facility provide treatment or blending of your facility's sewage sludge? (This question does not pertain to dewatered sludge sent directly to a land application or surface disposal site.) ☑ Yes ☐ No ➔ SKIP to Item 2.32 (Part 2, Section 2) below.	
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2.22 Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge at the receiving facility.

Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Not applicable	☐ Not applicable
☐ Class A, Alternative 1	☐ Option 1
☐ Class A, Alternative 2	☐ Option 2
☐ Class A, Alternative 3	☐ Option 3
☐ Class A, Alternative 4	☐ Option 4
☐ Class A, Alternative 5	☐ Option 5
☐ Class A, Alternative 6	☐ Option 6
☑ Class B, Alternative 1	☐ Option 7
☐ Class B, Alternative 2	☐ Option 8
☐ Class B, Alternative 3	☐ Option 9
☐ Class B, Alternative 4	☐ Option 10
☐ Domestic septage, pH adjustment	☑ Option 11

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
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Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Sale or Give-Away in a Bag or Other Container for Application to the Land

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2.22	Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge at the receiving facility.	

Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Not applicable	☐ Not applicable
☐ Class A, Alternative 1	☐ Option 1
☐ Class A, Alternative 2	☐ Option 2
☐ Class A, Alternative 3	☐ Option 3
☐ Class A, Alternative 4	☐ Option 4
☐ Class A, Alternative 5	☐ Option 5
☐ Class A, Alternative 6	☐ Option 6
☐ Class B, Alternative 1	☐ Option 7
☑ Class B, Alternative 2	☐ Option 8
☐ Class B, Alternative 3	☐ Option 9
☐ Class B, Alternative 4	☑ Option 10
☐ Domestic septage, pH adjustment	☐ Option 11

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
AL0023027	AL0023027	Cahaba River WRF	

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Sale or Give-Away in a Bag or Other Container for Application to the Land

2.14	Do you place sewage sludge in a bag or other container for sale or give-away for land application? ☐ Yes ☑ No ➔ SKIP to Item 2.17 (Part 2, Section 2) below.	
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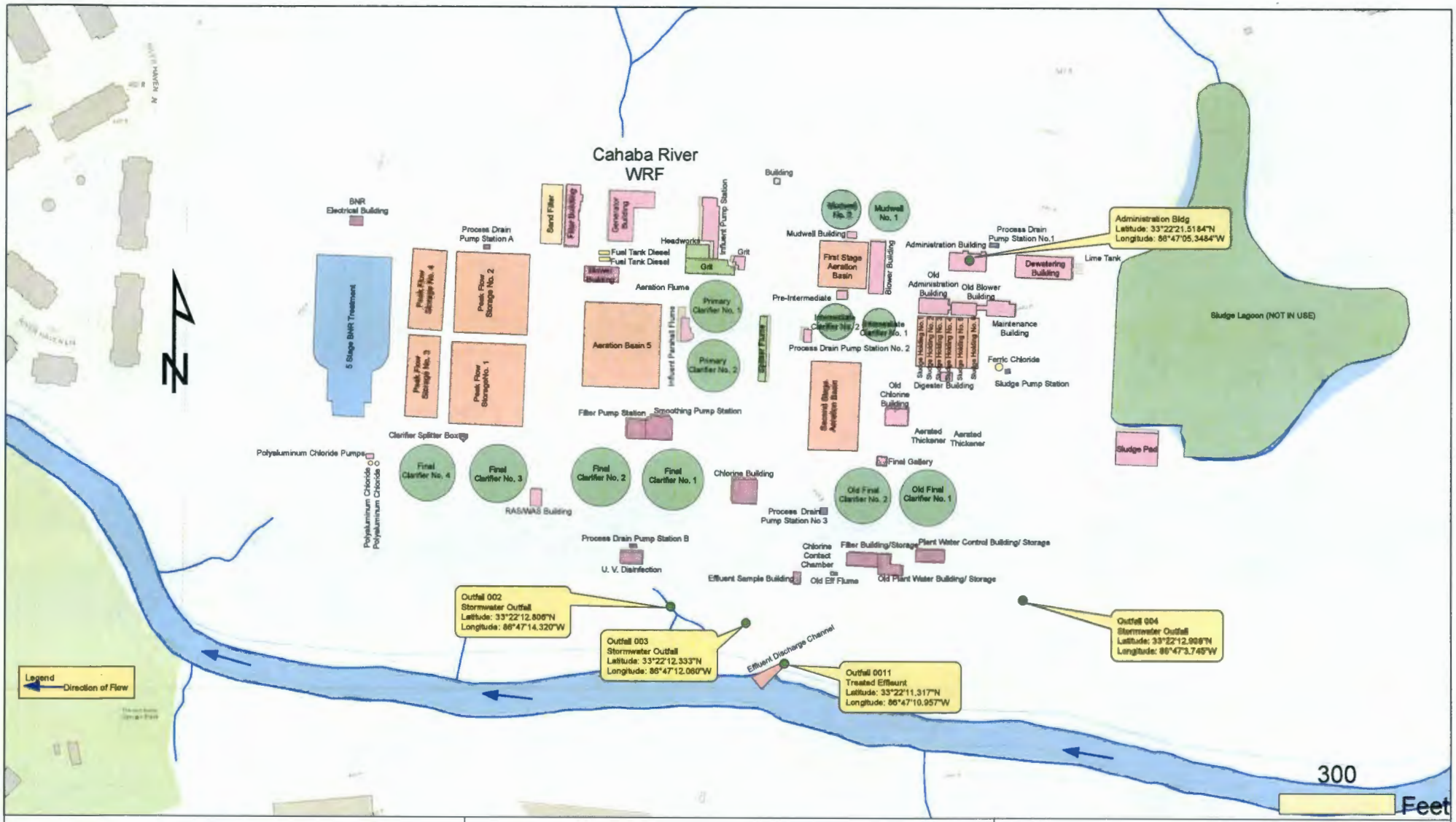
2.22 Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge at the receiving facility.

Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Not applicable	☐ Not applicable
☐ Class A, Alternative 1	☐ Option 1
☐ Class A, Alternative 2	☐ Option 2
☐ Class A, Alternative 3	☐ Option 3
☐ Class A, Alternative 4	☐ Option 4
☐ Class A, Alternative 5	☐ Option 5
☐ Class A, Alternative 6	☐ Option 6
☐ Class B, Alternative 1	☐ Option 7
☑ Class B, Alternative 2	☐ Option 8
☐ Class B, Alternative 3	☐ Option 9
☐ Class B, Alternative 4	☐ Option 10
☐ Domestic septage, pH adjustment	☑ Option 11



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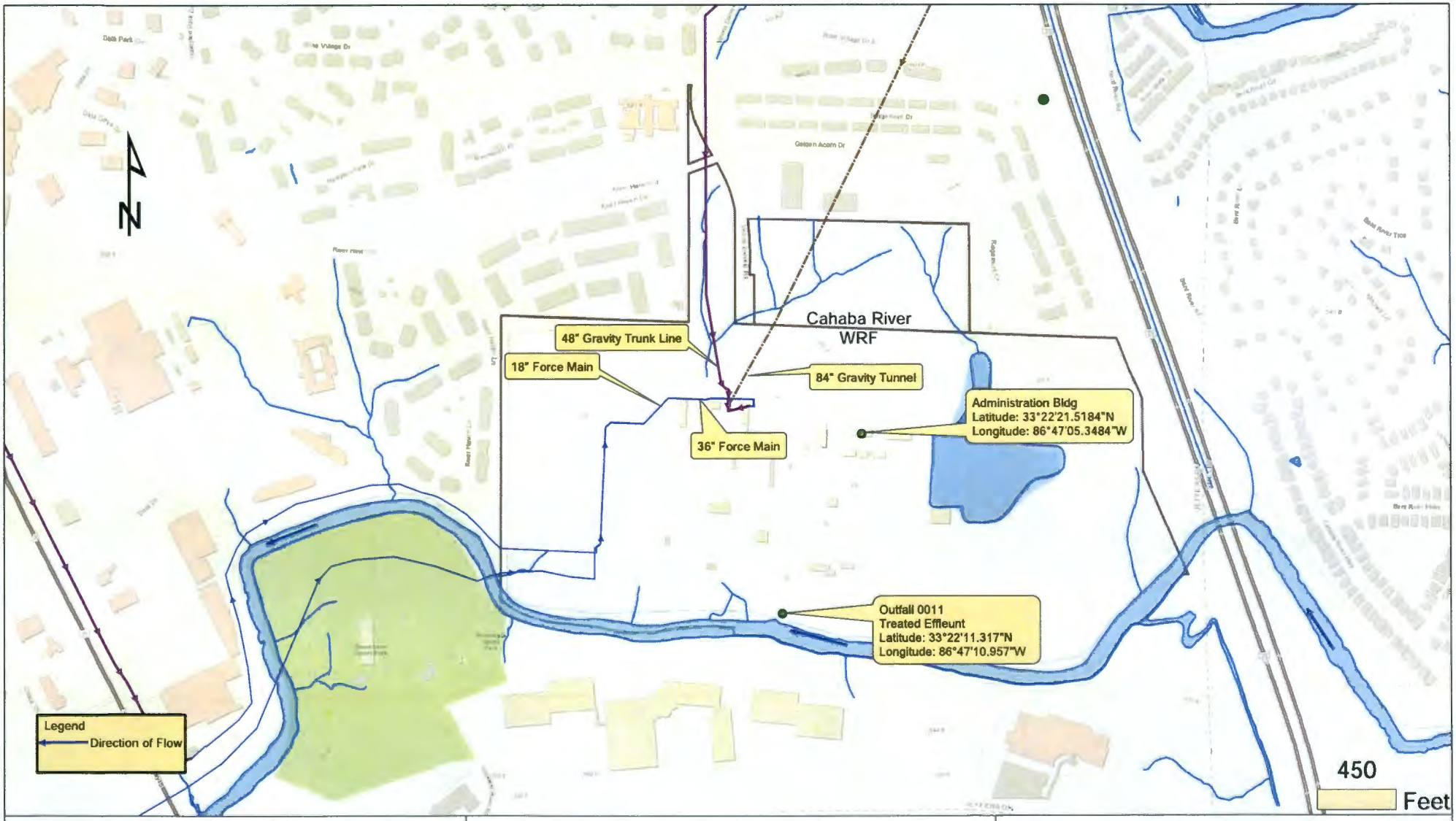
CAHABA RIVER
WATER RECLAMATION FACILITY
NPDES AL0023027
NPDES Permit Application

ATTACHMENT 2S-1.14a

Process Treatment Facilities

Form 2S, Section 1



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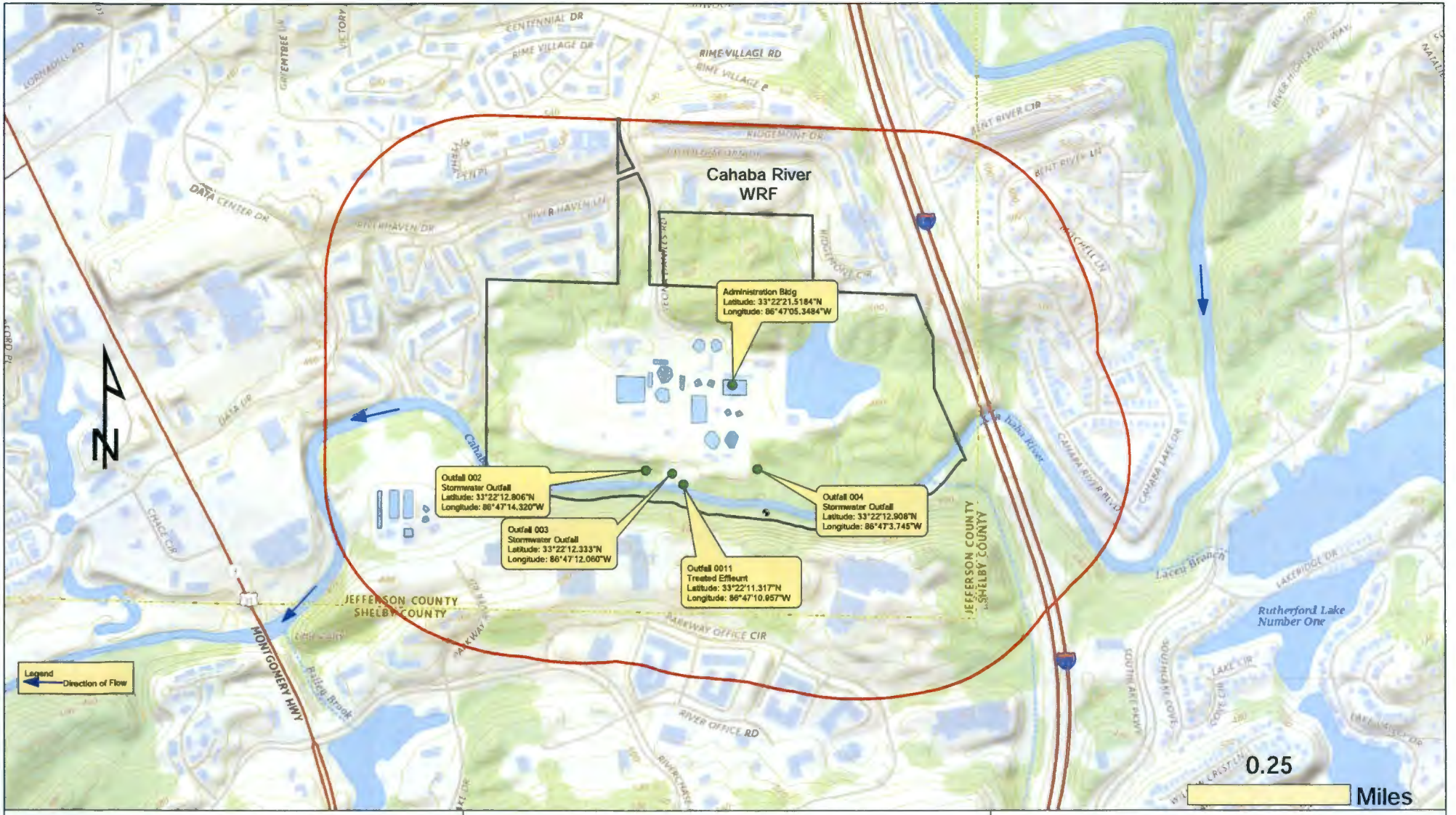
ATTACHMENT 2S-1.14b

Conveyance Structures

Form 2S, Section 1



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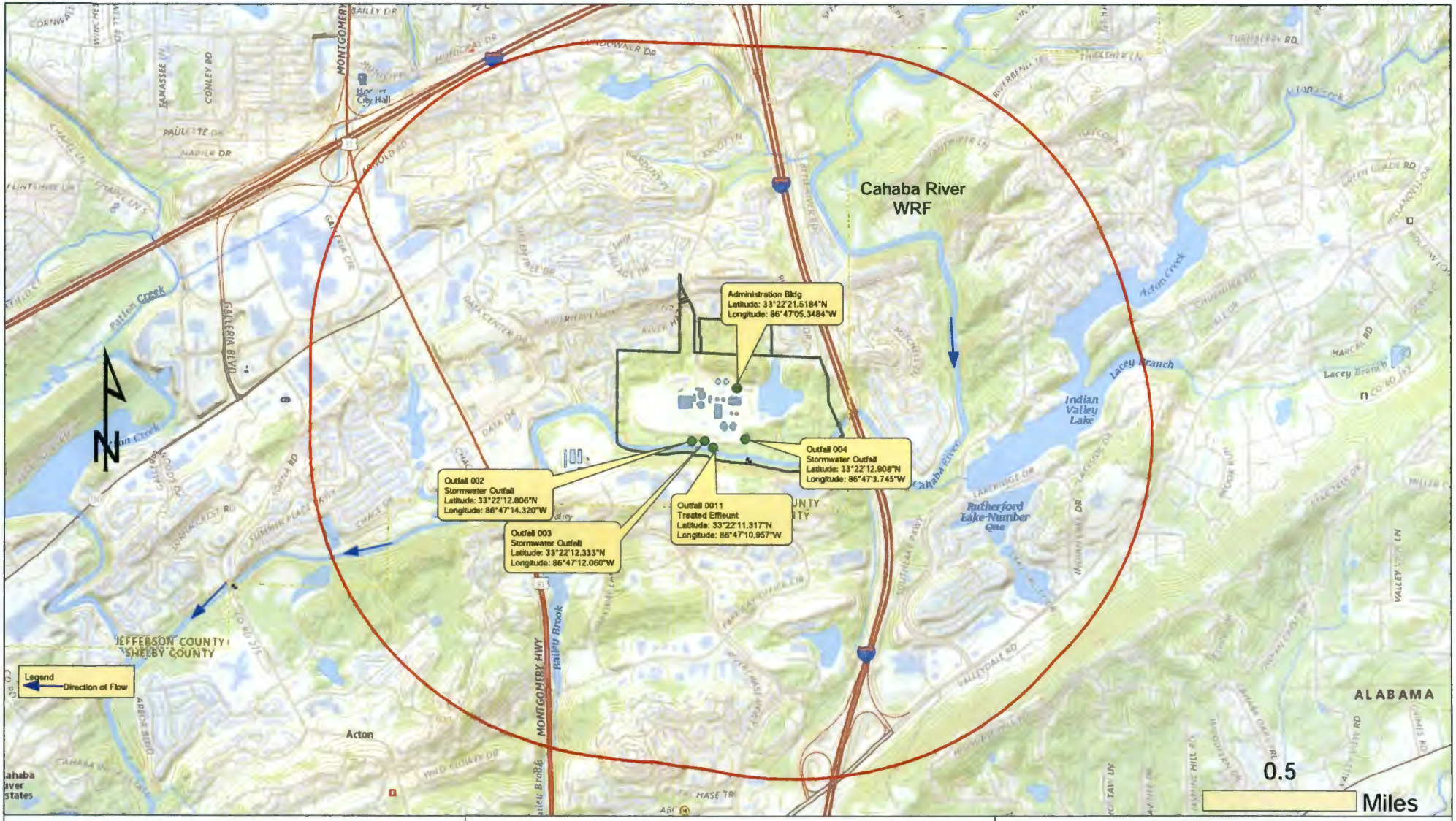
NPDES AL0023027
NPDES Permit Application

ATTACHMENT 2S-1.14c

Vicinity Water Resources (1/4 Mile Radius)

Form 2S, Section 1



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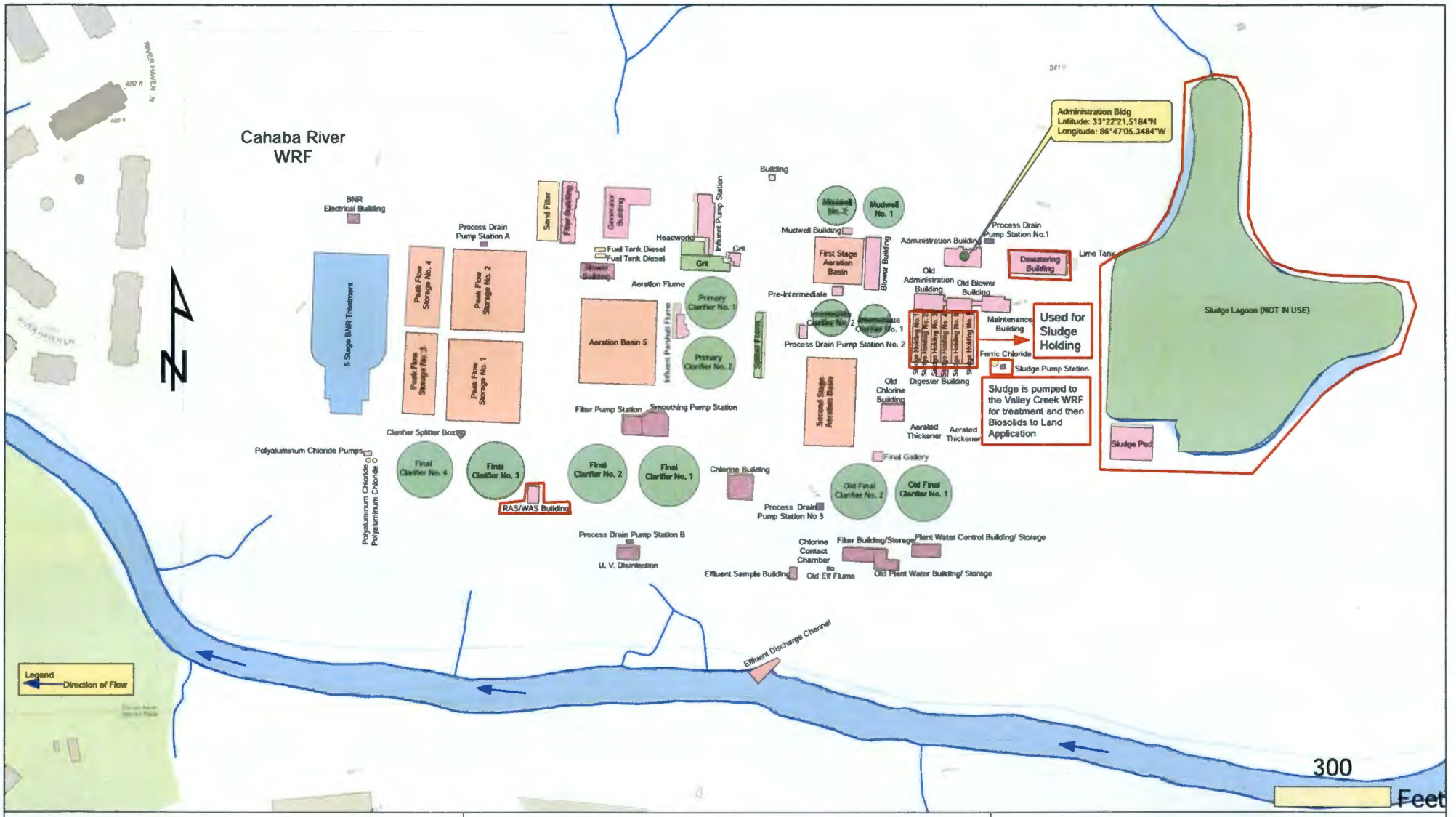
NPDES Permit Application

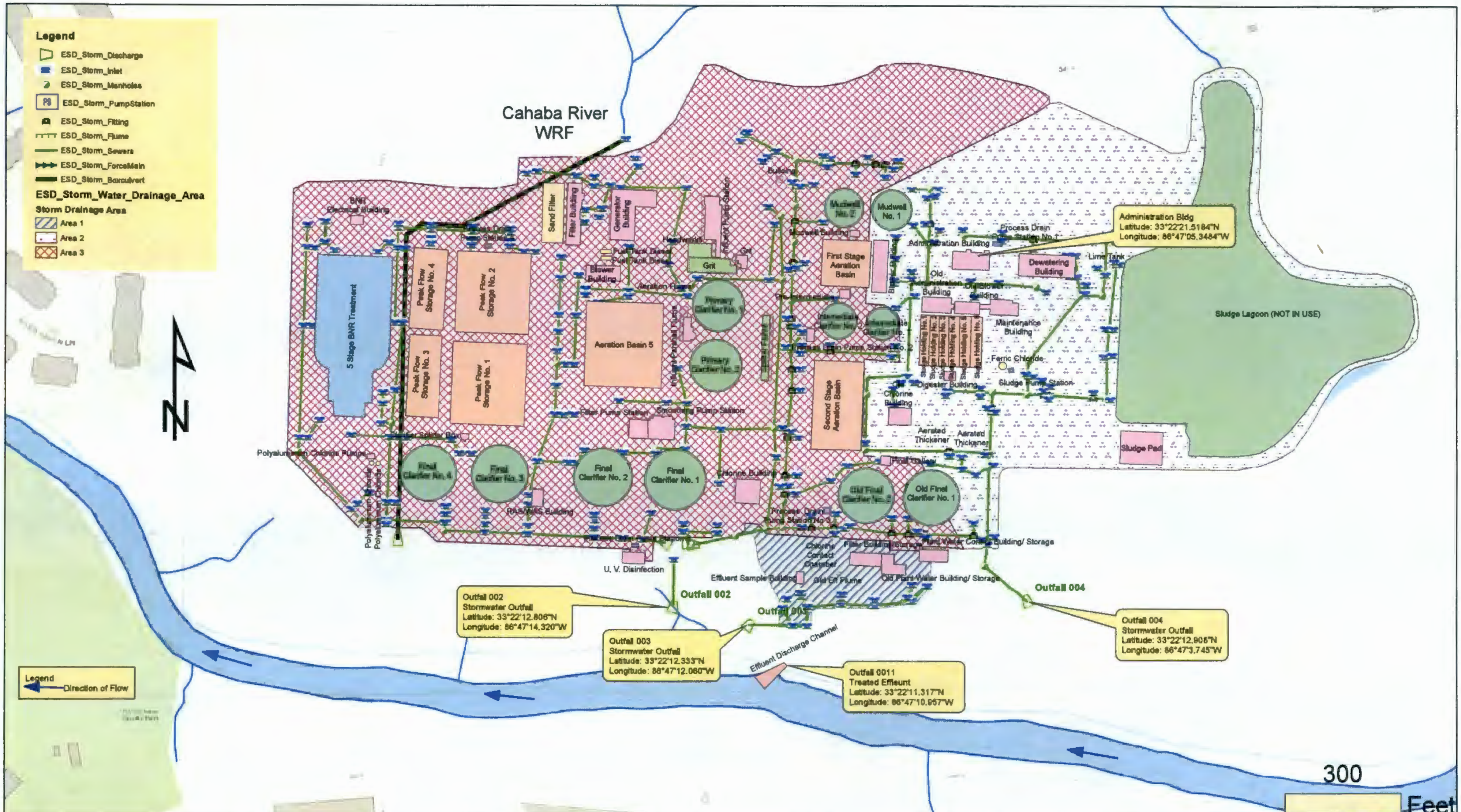
ATTACHMENT 2S-1.14d

1-Mile Radius

Form 2S, Section 1



JEFFERSON COUNTY, ALABAMA ENVIRONMENTAL SERVICES 716 Richard Arrington Jr. Blvd N, Suite A300 Birmingham, AL. 35203	CAHABA RIVER WATER RECLAMATION FACILITY NPDES AL0023027 **NPDES Permit Application**	**ATTACHMENT 2S-1.14e** Sludge Management Facilities Form 2S, Section 1



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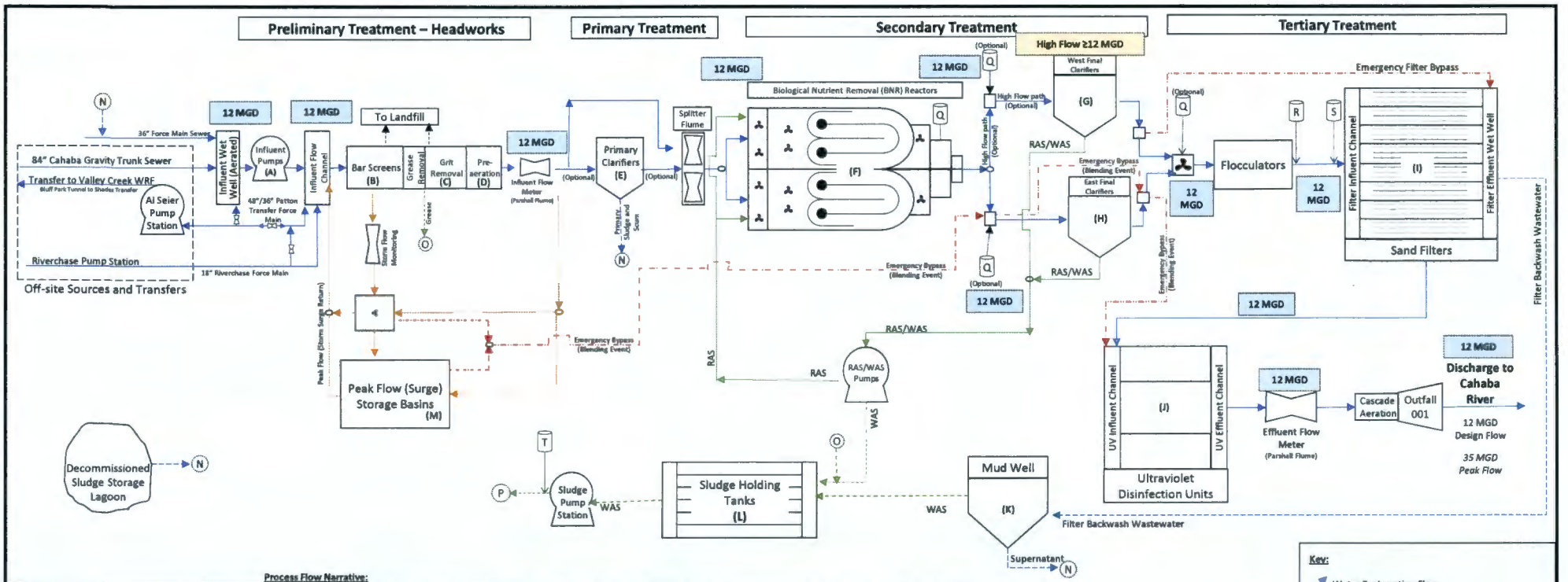
WATER RECLAMATION FACILITY
NPDES AL0023027
NPDES Permit Application

ATTACHMENT 3.1
WRF Site Drainage Map
Form 2F, Section 3.1



(N) Flow connector for supernatant from the mud well, overflow from the decommissioned sludge storage lagoon, & flow from Primary Clarifier (optional peak flow holding tanks)

(O) Flow connector for grease, primary sludge and scum

(P) Sludge is pumped to the Al Seier Pump Station Wastewater Diversion and mixed with the domestic wastewater and sent to the Valley Creek WRF for treatment.

(Q) Chemical Addition - Polyaluminum Chloride

(R) Chemical Addition – Polymer *(Out of service, no plans to reinstate)*

(S) Chemical Addition – Sodium Hypochlorite

(T) Chemical Addition – Ferric Chloride

Process Flow Narrative:

Flow enters the Cahaba WWTP via 18" and 36" force mains and 84" gravity sewer. Flows are lifted by the influent pump station. The influent flow receives preliminary treatment at the headworks through coarse bar screens followed by grease and grit removal. Primary treatment through the primary clarifiers* is available, but they are not currently utilized. Flow under 12 MGD is routed to two three-stage Biological Nutrient Removal (BNR) Carrousels** for secondary treatment. The flow then receives final clarification through the final clarifiers. PAC can be introduced into the flow at a few spots prior to the Final clarifiers, and at the coagulation and flocculation wells prior to filtration, to enhance nutrient removal. The flow receives advanced treatment through deep bed sand filters and then disinfection from ultra-violet irradiation. The treated effluent flow receives cascade post aeration prior to discharge to the Cahaba River. Sodium Hypochlorite is occasionally added while backwashing the sand filters, to help clean the filter media. During normal daily operations, only the East Final Clarifiers are used; the West Final Clarifiers are only used during high flow events.

*The primary clarifiers are *only* used as holding basin during extreme high flow events, after which these clarifiers are drained back into the influent wet-well.

**The BNR Carrousels are currently only operated as three-stage, but they still have the ability to be used as five-stage if needed.

Sludge Management Practices:

WAS is stored in the Basins 5 and 6 of the sludge holding tanks until it can be pumped to the Al Seier Pump Station Wastewater Diversion and mixed with the domestic wastewater and sent to the Valley Creek WRF for treatment, via path 'P' on the above diagram. Ferric Chloride is mixed with the sludge, for odor and corrosion control purposes, when it is pumped in batches throughout the week.

Backup Power and Bypass System:

The WRF receives 1 power feed & back-up power is supplied from 5 2-megawatt diesel-powered generators.

Valving has been built into the plant piping infrastructure that can allow routing of flow directly from the peak flow storage basins to filtration and disinfection for physical treatment, and these flow trains are depicted on the above diagram. These valving options are not a part of the operational plan for the plant and have never been used, to date.

Peak flows over 12 MGD are routed to the five peak flow storage basins (21 MG total storage capacity). Flow from the peak flow basins is stored and reintroduced to the headworks as the peak flows subside. Additional storage capacity can be utilized in the Primary Clarifiers, as an optional flow path. If the WWTP's treatment and storage capacity were exceeded, the direction of flow in the Al Seier force main can be reversed and flow is siphoned from the influent pump station to the Al Seier pump station. The peak flow storage basins are also utilized during dry weather to regulate flow to the BNR process to maintain a steady flow due to the sensitivity of the process to wide variations in flow or loading.

Unit Processes

(A) 78 MGD Influent Pump Station
(B) 120 MGD Bar Screens
(C) 40 MGD Grit Removal
(D) 40 MGD *total* Pre Aeration Basins
(E) 1.38 MG *each* Primary Clarifiers (qty 2)
(F) 17.5 MGD *each* BNR Reactors (qty 2)
(G) 9.79 MGD *each* East Final Clarifiers (qty 2)
(H) 7.71 MGD *each* West Final Clarifiers (qty 2)
(I) 5 MGD *each* Deep Bed Sand Filter (qty 8)
(J) 6.66 MGD *each* UV banks (qty 6)
(K) 0.70 MG *each* Mudwell tank (qty 1)
(L) 0.31 MG *each* sludge holding tank (qty 6)
(M) 21 MG *total* Peak Flow Storage Basins (qty 5)

Key:

- Water Reclamation Flow
- Nominal Storm Surge Flow
- Emergency Bypass Flow
- Return Activated Sludge Recycle
- Biosolids Treatment and Management
- In-Plant Waste Streams Returns

Abbreviations:
" – inches
WRF – Water Reclamation Facility
RAS – Return Activated Sludge
WAS – Waste Activated Sludge
FOG – Fats, oils, and grease
FUF – Final Underflow
MG – million gallons
MGD – million gallons per day
PAC – Polyaluminum Chloride

JEFFERSON COUNTY, ALABAMA
ENVIRONMENTAL SERVICES DEPARTMENT
716 Richard Arrington Jr. Blvd, N, Suite A300
Birmingham, AL 35203

CAHABA RIVER
WATER RECLAMATION FACILITY
AL0023027
NPDES Permit Application

ATTACHMENT 2S-1.15

WASTEWATER TREATMENT PROCESS FLOW DIAGRAM
Form 2S, Section 1

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES INDIVIDUAL PERMIT APPLICATION
SUPPLEMENTARY INFORMATION FOR PUBLICLY-OWNED TREATMENT WORKS (POTW), OTHER TREATMENT WORKS TREATING DOMESTIC SEWAGE (TWTDS), AND PUBLIC WATER SUPPLY TREATMENT PLANTS

Instructions: This form should be used to submit the required supplementary information for an application for an NPDES individual permit for Publicly Owned Treatment Works (POTW) and other Treatment Works Treating Domestic Sewage (TWTDS). The completed application should be submitted to ADEM in duplicate. If insufficient space is available to address any item, please continue on an attached sheet of paper. Please mark "N/A" in the appropriate box when an item is not applicable to the applicant. **Please type or print legibly in blue or black ink.** Mail the completed application to:

ADEM-Water Division
Municipal Section
P O Box 301463
Montgomery, AL 36130-1463

PURPOSE OF THIS APPLICATION

- ☐ Initial Permit Application for New Facility*
- ☐ Initial Permit Application for Existing Facility*
- ☐ Modification of Existing Permit
- ■ Reissuance of Existing Permit
- ☐ Revocation & Reissuance of Existing Permit

** An application for participation in the ADEM's Electronic Environmental (E2) Reporting must be submitted to allow permittee to electronically submit reports as required.*

SECTION A – GENERAL INFORMATION

1. Facility Name: Cahaba River Water Reclamation Facility Facility County: Jefferson

   a. Operator Name: Jefferson County Commission

   b. Is the operator identified in A.1.a, the owner of the facility? ☒ Yes ☐ No

   If No, provide the following information:

   Operator Name: _____

   Operator Address (Street or PO Box): _____

   City: _____ _____ Zip: _____

   Phone Number: _____ Email Address: _____

   Operator Status:

   ☐ Public-federal ☐ Public-state ☐ Public-other (please specify):
   ☐ Private ☐ Other (please specify):

   Describe the operator's scope of responsibility for the facility:

   c. Name of Permittee* if different than Operator: _____

   **Permittee will be responsible for compliance with the conditions of the permit*

2. NPDES Permit Number: AL 0023027 (Not applicable if initial permit application)

3. Facility Location (Front Gate): Latitude: N 33° 22' 26.8" Longitude: W 86° 47' 13.3"

4. Responsible Official (as described on last page of this application):

   Name and Title: David Denard, Director

   Address: Suite A300, 716 Richard Arrington Jr. Blvd N

   City: Birmingham State: AL Zip: 35203

   Phone Number: (205)325-5979 Email Address: denardd@jccal.org

5. Designated Facility/DMR Contact:

Name: David Denard Title: Director

Phone Number: (205)325-5979 Email Address: denardd@jccal.org

6. Designated Emergency Contact:

Name: Margaret Tanner Title: Deputy Director, Water Reclamation Facilities

Phone Number: (205)215-7445 Email Address: tannerm@jccal.org

7. Please complete this section if the Applicant's business entity is a Proprietorship or Limited Liability Company (LLC) with a responsible official not listed in A.4.

Name: N/A Title:

Address:

City: State: Zip:

Phone Number: Email Address:

8. Identify all Administrative Complaints, Notices of Violation, Directives, or Administrative Orders, Consent Decrees, or Litigation concerning water pollution or other permit violations, if any against the Applicant within the State of Alabama in the past five years (attach additional sheets if necessary):

Facility Name	Permit Number	Type of Action	Date of Action
Cahaba Rvier WRF	AL023027	Consent Order 23-079-CWP	June 29, 2023

SECTION B – WASTEWATER DISCHARGE INFORMATION

1. Attach a process flow schematic of the treatment process, including the size of each unit operation and sample collection locations.

2. Do you share an outfall with another facility? ☐ Yes ☒ No (If no, continue to B.3)

For each shared outfall, provide the following:

Applicant's Outfall No.	Name of Other Permittee/Facility	NPDES Permit No.	Where is sample collected by Applicant?

3. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Current:	Flow Metering	☒ Yes	☐ No	☐ N/A
	Sampling Equipment	☒ Yes	☐ No	☐ N/A
Planned:	Flow Metering	☐ Yes	☐ No	☒ N/A
	Sampling Equipment	☐ Yes	☐ No	☒ N/A

If so, please attach a schematic diagram of the sewer system indicating the present or future location of this equipment and describe the equipment below:

See Attachment 188-1. Parshall flumes with ultrasonic sensors exist at the headworks, splitter, & effluent. Strap-on magnetic flow meters exist at the influent pump discharge pipes. ISCO 6712FR auto-sampling equipment is is used for effluent sampling.

4. Are any wastewater collection or treatment modifications or expansions planned during the next three years that could alter wastewater volumes or characteristics (Note: Permit Modification may be required)? ☐ Yes ☒ No

If Yes, briefly describe these changes and any potential or anticipated effects on the wastewater quality and quantity: (Attach additional sheets if needed.)

SECTION C – WASTE STORAGE AND DISPOSAL INFORMATION

Describe the location of all sites used for the storage of solids or liquids that have any potential for accidental discharge to a water of the state, either directly or indirectly via storm sewer, municipal sewer, municipal wastewater treatment plants, or other collection or distribution systems that are located at or operated by the subject existing or proposed NPDES- permitted facility. Indicate the location of any potential release areas and provide a map or detailed narrative description of the areas of concern as an attachment to this application:

Description of Waste	Description of Storage Location
See Attachment 188-2	

***Indicate any wastes disposed at an off-site treatment facility and any wastes that are disposed on-site**

SECTION D – INDUSTRIAL INDIRECT DISCHARGE CONTRIBUTORS

1. List the existing and proposed industrial source wastewater contributions to the municipal wastewater treatment system (Attach other sheets if necessary)

Company Name	Description of Industrial Wastewater	Existing or Proposed	Flow (MGD)	Subject to SID Permit?
N/A				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No

2. Are industrial wastewater contributions regulated via a locally approved sewer use ordinance? ■ Yes ☐ No

If yes, please attach a copy of the ordinance.

SECTION E – COASTAL ZONE INFORMATION

Is the discharge(s) located within the 10-foot elevation contour and within the limits of Mobile or Baldwin County? ☐ Yes ☒ No

If yes, complete items E.1 – E.12 below:

		Yes	No
1.	Does the project require new construction?	☐	☐
2.	Will the project be a source of new air emissions?	☐	☐
3.	Does the project involve dredging and/or filling of a wetland area or water way?	☐	☐
	If Yes, has the Corps of Engineers (COE) permit been received?	☐	☐
	COE Project No. _____		
4.	Does the project involve wetlands and/or submersed grassbeds?	☐	☐
5.	Are oyster reefs located near the project site?	☐	☐
	If Yes, include a map showing project and discharge location with respect to oyster reefs		
6.	Does the project involve the site developement, construction and operation of an energy facility as defined in ADEM Admin. Code r. 335-8-1-.02(bb)?	☐	☐
7.	Does the project involve mitigation of shoreline or coastal area erosion?	☐	☐
8.	Does the project involve construction on beaches or dune areas?	☐	☐
9.	Will the project interfere with public access to coastal waters?	☐	☐
10.	Does the project lie within the 100-year floodplain?	☐	☐
11.	Does the project involve the registration, sale, use, or application of pesticides?	☐	☐
12.	Does the project propose or require construction of a new well or to alter an existing groundwater well to pump more than 50 gallons per day (GPD)?	☐	☐
	If yes, has the applicable permit for groundwater recovery or for groundwater well installation been obtained?	☐	☐

SECTION F – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR §131.12 and the ADEM Admin. Code r. 335-6-10-.04 for anti-degradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? ☐ Yes ■ No
   If yes, complete F.2 below. If no, go to Section G.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in F.1? ☐ Yes ☐ No

   If yes, do not complete this section.

   If no and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete F.2.A – F.2.F below, ADEM Form 311-Alternatives Analysis, and either ADEM Form 312 or ADEM Form 313- Calculation of Total Annualized Project Costs (Public-Sector or Private-Sector Projects, whichever is applicable). ADEM Form 312 or ADEM Form 313, whichever is applicable, must be provided for **each** treatment discharge alternative considered technically viable. ADEM forms can be found on the Department's website at http://adem.alabama.gov/DeptForms/.

   Information required for new or increased discharges to high quality waters:

   A. What environmental or public health problem will the discharger be correcting?

B. How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?

C. How much reduction in employment will the discharger be avoiding?

D. How much additional state or local taxes will the discharger be paying?

E. What public service to the community will the discharger be providing?

F. What economic or social benefit will the discharger be providing to the community?

SECTION G – EPA Application Forms

All Applicants must submit certain EPA permit application forms. More than one application form may be required from a POTW or other TWTDS depending on the number and types of discharges or outfalls. The EPA application forms are found on the Department's website at http://adem.alabama.gov/programs/water/waterforms.cnt. The EPA application forms must be submitted in duplicate as follows:

1. Applicants for new or existing discharges of sanitary wastewater from Publicly-Owned Treatment Works (POTW) and Other Treatment Works Treating Domestic Sewage (TWTDS) must submit Form 2A. If the facility design capacity is equal to or greater than 1 MGD, Form 2F is also required.
2. Applicants for new or existing land application of sanitary wastewater must submit Form 2A and Form 2F.
3. Applicants for new and existing discharges of process wastewater from water treatment facilities (i.e. public water supply treatment plants) must submit Form 1 and Form 2C.
4. Applicants that generate sewage sludge, derive a material from sewage sludge, or dispose of sewage sludge must submit Part 2 of Form 2S.

SECTION H– ENGINEERING REPORT/BMP PLAN REQUIREMENTS

See ADEM 335-6-6-.08(i) & (j).

SECTION I– RECEIVING WATERS

Outfall No.	Receiving Water(s)	303(d) Segment?	Included in TMDL?*
0011	Cahaba River	☐ Yes ☒ No	☒ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No

*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:

(1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);

(2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);

(3) Requested interim limitations, if applicable;

(4) Date of final compliance with the TMDL limitations; and,

(5) Any other additional information available to support requested compliance schedule.

SECTION J – APPLICATION CERTIFICATION

The information contained in this form must be certified by a responsible official as defined in ADEM Administrative Code r. 335-6-6-.09 "signatories to permit applications and reports" (see below).

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Signature of Responsible Official: _____ Date Signed: 5/31/2024

Name: David Denard Title: Director

If the Responsible Official signing this application is <u>not</u> identified in Section A.4 or A.7, provide the following information:

Mailing Address: Suite A300, 716 Richard Arrington Jr. Blvd N

City: Birmingham State: AL Zip: 35173

Phone Number: (205)325-5979 Email Address: denardd@jccal.org

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:

(a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;

(b) In the case of a partnership, by a general partner;

(c) In the case of a sole proprietorship, by the proprietor; or

(d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.

NPDES Individual Permit - Modification/Reissuance - Municipal (Form 188)

version 1.11

(Submission #: HQ4-1NWH-JYCT3, version 1)

Details

Submission ID HQ4-1NWH-JYCT3

Form Input

General Instructions

NPDES Individual Permit Modification and Reissuance Form ◆ Publicly-Owned Treatment Works (POTW), Other Treatment Works Treating Domestic Sewage (TWTDS), and Public Water Supply Treatment Plants

IF YOU ARE APPLYING FOR A PERMIT MODIFICATION, PLEASE CONTACT YOUR ASSIGNED PERMIT CONTACT TO DISCUSS THE TYPE OF MODIFICATION YOU SHOULD APPLY FOR BEFORE COMPLETING THIS FORM.

This form should be used to submit the following permit requests for permitted Publicly-Owned Treatment Works (POTW), Other Treatment Works Treating Domestic Sewage (TWTDS), and Public Water Supply Treatment Plants:

(1) Permit Transfers
(2) Permittee/Facility Name Changes
(3) Minor Modifications
This modification may not be used for changes that would result in changes to permit conditions
(4) Major Modifications (No Effluent Limit Change)
(5) Major Modifications (Effluent Limit Change)
(6) Reissuances
Reissuance of a permit due to approaching expiration
Revocation and Reissuance of permit prior to its scheduled expiration

Please complete all questions and attach all necessary documentation as prompted throughout the application process. Incomplete or incorrect information will delay processing.

Applicable Fees:

Permit Transfers and/or Permittee/Facility Name Changes
$800
Minor Modifications
$800
Major Modifications (No Effluent Limit Change)
$3,140 (Major Sources)
$2,250 (Minor Sources or Public Water Supply Treatment Plants)
Major Modifications (Effluent Limit Change)
$7,060 (Major Sources)
$4,290 (Minor Sources or Public Water Supply Treatment Plants)
Reissuances
$7,060 (Major Sources)
$4,290 (Minor Sources or Public Water Supply Treatment Plants)
For assistance, please click here to determine the permit engineer responsible for the site or call (334) 271-7810.

Processing Information

Purpose of Application
Reissuance of Permit Due to Approaching Expiration

Please indicate if the Permittee is applying for a permit transfer and/or name change in addition to permit modification or reissuance:
None

Action Type
Reissuance

Briefly describe any planned changes at the facility that are included in this reissuance application:
No major changes anticipated. Request for Cahaba River Total Phosphorus TMDL Implementation Schedule Modification included.

Do you have additional contacts associated with this site?
No

Permit Information

Permit Number
AL0023027

Current Permittee Name
Jefferson County Commission Environmental Services Department

Permittee

Permittee Name
Jefferson County Commission Environmental Services Department

Mailing Address

716 Richard Arrington Jr. Blvd N

Suite A-300

Birmingham, AL 35203

Is the Operator the same as the Permittee?
Yes

Has the Operator's scope of responsibility changed?
No

Responsible Official

Prefix
Mr.

First Name	Last Name
David	*Denard*

Title
Director

Organization Name
Jefferson County Commission Environmental Services Department

Phone Type	Number	Extension
Business	2053255979	

Email
denardd@jccal.org

Mailing Address

716 Richard Arrington Jr. Blvd N

Suite A-300

Birmingham, AL 35203

Existing Permit Contacts

Affiliation Type	Contact Information	Remove?
Responsible Official,DMR Contact,Notification Recipient	David Denard	NONE PROVIDED
Permittee	Jefferson County Commission Environmental Services Department	NONE PROVIDED
Emergency Contact	Margaret Tanner	NONE PROVIDED

Facility/Site Information

Facility/Site Name
Cahaba River WRF

Organization/Ownership Type
County Government/Commission

The Facility/Site Address is the physical location of the treatment plant. Do not enter a PO Box. Do not enter the address of the office of the Permittee if different from the treatment plant.

Facility/Site Physical Location Address

3900 Veona Daniels Road
Birmingham, AL 35244

Facility/Site County
Jefferson

Facility/Site Contact

Prefix
Mr.

First Name **Last Name**
Jeremy *Creel*

Title
WRF Manager

Organization Name
Cahaba River Water Reclamation Facility

Phone Type **Number** **Extension**
Business 2059870648

Email
creelj@jccal.org

Note

Detailed directions should be included if a street address is not available.

Detailed Directions to the Facility/Site
From U.S. Highway 31 South, turn left onto Lorna Road. In 0.9 miles, Turn right onto Rocky Ridge Ranch Road. In 0.5 miles, Rocky Ridge ranch Road becomes Veona Daniels Road. Continue 0.7 miles on Veona Daniels Road to facility front gate.

Please refer to the link below for Lat/Long map instruction help.
Map Instruction Help

Facility/Site Front Gate Latitude and Longitude
33.37434400000000,-86.78701400000000

3900 Veona Daniels Road, Birmingham, AL

Primary SIC Code
4952-Sewerage Systems

Primary NAICS Code
221320-Sewage Treatment Facilities

Emergency Contact

Prefix
Ms.

First Name	Last Name
Margaret	*Tanner*

Title
Deputy Director

Phone Type	Number	Extension
Business	2052157445	

Email
tannerma@jccal.org

Does the facility have a designated Environmental Contact who is different than the Facility Contact or Emergency Contact listed above?
No

Enforcement History

Has the applicant been issued any Notices of Violation, Orders (Consent or Administrative/Unilateral), or Judicial Actions (Complaint, Settlement Agreement, Consent Decree, or Court Order) concerning water pollution or other permit violations within the State of Alabama in the past five years?
Yes

Identify all Notices of Violation, Orders (Consent or Administrative/Unilateral), or Judicial Actions (Complaint, Settlement Agreement, Consent Decree, or Court Order) concerning water pollution or other permit violations, if any, against the Applicant within the State of Alabama in the past five years.

Facility/Site Name	Permit Number	Type of Action	Date of Action
Cahaba River WRF	AL0023027	Consent Order	06/29/2023

Wastewater Treatment & Discharge Information

Please indicate which type of operations occur at this facility:
Treatment Works Treating Domestic Sewage

What treatment type is used at this facility:
Mechanical (WWTP)

What discharge options are used at this facility:
Surface Water

What is the Total Design Flow (in millions of gallons per day, MGD) for this facility?
12

What is the facility's total 2-Year Actual Average Flow (in millions of gallons per day, MGD)?
5.0

Does this facility have any current or proposed stormwater outfalls from the treatment facility?
Yes

Process Flow Schematic
Attachment_188-1_-_Cahaba_WRF_Treatment_Process_Flow_Diagram[1].pdf - 05/31/2024 03:33 PM
Comment
NONE PROVIDED

Do you share an outfall with another facility?
No

Indicate if automatic sampling equipment or continuous wastewater flow metering equipment is being operated at this facility:

Current	Yes/No
Continuous Wastewater Flow Metering Equipment	Yes
Automatic Sampling Equipment	Yes

Indicate if installation of automatic sampling equipment or continuous wastewater flow metering equipment is planned at this facility:

Planned	Yes/No
Continuous Wastewater Flow Metering Equipment	N/A
Automatic Sampling Equipment	N/A

Schematic Diagram
Attachment_188-1_-_Cahaba_WRF_Treatment_Process_Flow_Diagram[1].pdf - 05/31/2024 03:36 PM
Comment
NONE PROVIDED

Are any wastewater collection or treatment modifications or expansions planned during the next three years that could alter wastewater volumes or characteristics (Note: Permit Modification may be required)?
No

Treatment Methods (TWTDS)

Treatment Level
Preliminary Treatment (e.g., grit removal, flow equalization, screening)
Primary Treatment (e.g., primary clarification, chemically-enhanced primary treatment)
Secondary Treatment [e.g., suspended growth biological treatment; attached growth and combined biological treatment].
Advanced Phosphorus Removal Treatment
Advanced Nitrogen Removal Treatment

Wastewater Disinfection Technology Information
Ultraviolet Light Disinfection

Please select all POTW Treatment Categories that apply.
Activated Sludge Process & Modifications
Aeration
Clarification
Disinfection
Equalization
Media Filter
Nitrogen Control (Biological)
Nitrogen Removal (Biological)
Phosphorus Removal (Biological)
Phosphorus Removal (Chemical)

Please select all unit operations that apply for Activated Sludge Process & Modifications:
Activated Sludge, Anaerobic/Anoxic/Oxic

Please select all unit operations that apply for Aeration:
Aeration (post-treatment)
Aeration (pre-treatment)
Aeration (general)

Please select all unit operations that apply for Clarification:
Clarification, Secondary

Please select all unit operations that apply for Disinfection:
Disinfection, Ultraviolet

Please select all unit operations that apply for Equalization:
Equalization, At POTW

Please select all unit operations that apply for Media Filter:
Filtration Basins And Sand Filters

Please select all unit operations that apply for Nitrogen Control (Biological):
Nitrification, Biological (Combined and BOD Reduction)

Please select all unit operations that apply for Phosphorus Removal (Biological):
Phosphorus Removal, Biological (Modified Bardenpho)

Please select all unit operations that apply for Phosphorus Removal (Chemical):
Chemical Addition (Alum), Secondary

Please select all unit operations that apply for Preliminary Treatment:
Grit Removal
Screen, Bar

Waste Storage & Disposal Information

Any storage of solids or liquids at the facility that have any potential for accidental discharge to a water of the state?
Yes

Describe the location of all sites used for the storage of solids or liquids that have any potential for accidental discharge to a water of the state, either directly or indirectly via storm sewer, municipal sewer, municipal wastewater treatment plants, or other collection or distribution systems that are located at or operated by the subject existing or proposed NPDES- permitted facility. Indicate the location of any potential release areas and provide a map or detailed narrative description of the areas of concern as an attachment to this app

Description of Waste	Description of Storage Location	Disposal Location
Diesel Fuel	2 - 10,000 gallon - double walled tanks	On-site
Polyaluminum Chloride	2 - 10,000 gallon - double containment tanks	On-site

Collection System Information

Collection Systems

Collection System ID	Collection System Name	Owner Type of Collection System	Population of Collection System
AL0023027	Cahaba River Sewershed	Publicly owned (Owned by State, municipality, or Tribal government. This includes a district association or other public body created by or pursuant to State law and having jurisdiction over the disposal of sewage).	95,000

Industrial Indirect Discharge Contributors

Does this wastewater treatment system receive or plan to receive industrial source wastewater contributions?
No

Coastal Zone Information

Is the discharge(s) located within the 10-foot elevation contour and within the limits of Mobile or Baldwin County?
No

Anti-Degradation Evaluation

Does this modification/reissuance include a new or increased discharge that began after April 3, 1991?
No

Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced above?
No

EPA Application Forms

All Applicants must submit certain EPA permit application forms. More than one application form may be required from a POTW or other TWTDS depending on the number and types of discharges or outfalls.

The EPA application forms must be submitted as follows:
1. Applicants for new or existing discharges of sanitary wastewater from Publicly-Owned Treatment Works (POTW) and Other Treatment Works Treating Domestic Sewage (TWTDS) must submit Form 2A. If the facility design capacity is equal to or greater than 1 MGD, Form 2F is also required.
2. Applicants for new or existing land application of sanitary wastewater must submit Form 2A and Form 2F.
3. Applicants for new and existing discharges of process wastewater from water treatment facilities (i.e. public water supply treatment plants) must submit Form 1 and Form 2C.
4. Applicants that generate sewage sludge, derive a material from sewage sludge, or dispose of sewage sludge must submit Part 2 of Form 2S.
The EPA application forms are found on the Department's website here.

EPA Form 2A
Form_2A_-_Cahaba_River_WRF_AL0023027[1].pdf - 05/31/2024 04:01 PM
Comment
NONE PROVIDED

EPA Form 2F
Form_2F_-_Cahaba_River_WRF_AL0023027[1].pdf - 05/31/2024 04:04 PM
Comment
NONE PROVIDED

EPA form 2S
Form_2S_-_Cahaba_River_WRF_AL0023027[1].pdf - 05/31/2024 04:05 PM
Comment
NONE PROVIDED

Other attachments (as needed)
Form_188_-_Cahaba_River_WRF_AL0023027[1].pdf - 05/31/2024 04:08 PM
Comment
NONE PROVIDED

Topographic Map

Attach topographic map here.
Attachment_188-4_-_Cahaba_WRF_Topographic_Maps[1].pdf - 05/31/2024 04:12 PM
Comment
NONE PROVIDED

Engineering Report/BMP Plan Requirements

Engineering Report/BMP Plan Requirements
Attachment_188-5_-_Cahaba_WRF_SWPP_BMP[1].pdf - 05/31/2024 04:12 PM
Comment
NONE PROVIDED

Outfalls (1 of 1)

Outfall: 001

Do you want to remove this outfall from the modified/reissued permit?
No

Outfall Identifier
001

Is this Outfall equipped with a diffuser?
No

What is this Outfall's 2-Year Average Flow (in millions of gallons per day, MGD)?
5.0

Receiving Water
Cahaba River

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Please refer to the link below for Lat/Long map instruction help.
Map Instruction Help

Location of Outfall or Discharge Point/Receiving Water
33.36964000000000, -86.78639000000000

A list of the 303(d) impaired waters can be found here.

303(d) Segment?
Yes

A list of waters subject to a TMDL can be found here.

TMDL Segment?
Yes

NOTE

If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation: (1) Justification for the requested Compliance Schedule (e.g., time for design and installation of control equipment, etc.); (2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, and MDL/ML, etc. should be submitted as available); (3) Requested interim limitations, if applicable; (4) Date of final compliance with the TMDL limitations; and (5) Any other additional information available to support the requested compliance schedule.

TMDL Attachments

2024_Cahaba_River_WRF_Permit_Application_TMDL_Extension_Request_Signed[1].pdf - 05/31/2024 04:14 PM

Comment
Request for extension for the Cahaba River Nutrient TMDL (total phosphorus) implementation schedule to April 1, 2037, attached.

Stormwater Outfall(s) (1 of 3)

Stormwater Outfall: 002

Do you want to remove this outfall from the modified/reissued permit?
No

Stormwater Outfall Identifier
002

Receiving Water
Cahaba River

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Please refer to the link below for Lat/Long map instruction help.
Map Instruction Help

Location of Outfall or Discharge Point/Receiving Water
33.37044400000000, -86.78736100000000

303(d) Segment?
Yes

TMDL Segment?
Yes

Stormwater Outfall(s) (2 of 3)

Stormwater Outfall: 003

Do you want to remove this outfall from the modified/reissued permit?
No

Stormwater Outfall Identifier
003

Receiving Water
Cahaba River

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Please refer to the link below for Lat/Long map instruction help.
Map Instruction Help

Location of Outfall or Discharge Point/Receiving Water
33.37005600000000, -86.78691700000000

303(d) Segment?
Yes

TMDL Segment?
Yes

Stormwater Outfall(s) (3 of 3)

Stormwater Outfall: 004

Do you want to remove this outfall from the modified/reissued permit?
No

Stormwater Outfall Identifier
004

Receiving Water
Cahaba River

Does the discharge enter the named receiving water via an unnamed tributary?
NONE PROVIDED

Please refer to the link below for Lat/Long map instruction help.
Map Instruction Help

Location of Outfall or Discharge Point/Receiving Water
33.37038900000000, -86.78452800000000

303(d) Segment?
Yes

TMDL Segment?
Yes

Fee

Fee
7060

Note: Additional Fees may be assessed after the review of the application is complete. These fees may include any of the following:

Modeling with Data Collection (10 Stations) - $60,390
Modeling with Data Collection (5 Stations) - $49,315
Modeling - desktop - $4,855
Review of Model Performed by Others - $2,705
Seasonal Limits - $4,855/additional season
Biomonitoring & Toxicity Limits - $1,015

Please contact your area engineer if you have any questions about which additional fees may be assessed for this application.

Application Preparer

Application Preparer

Prefix
Ms.

First Name	Last Name
Margaret	*Tanner*

Title
Deputy Director

Organization Name
Jefferson County Commission

Phone Type	Number	Extension
Business	2052157445	

Email
tannerma@jccal.org

Address
716 Richard Arrington Jr. Blvd North
Suite A-300
Birmingham, AL 35203

Agreements and Signature(s)

SUBMISSION AGREEMENTS

- ☑ I am the owner of the account used to perform the electronic submission and signature.
- ☑ I have the authority to submit the data on behalf of the facility I am representing.
- ☑ I agree that providing the account credentials to sign the submission document constitutes an electronic signature equivalent to my written signature.
- ☑ I have reviewed the electronic form being submitted in its entirety, and agree to the validity and accuracy of the information contained within it to the best of my knowledge.

The information contained in this form must be certified by a responsible official as defined in ADEM Administrative Code r. 335-6-6-.09 "signatories to permit applications and reports" (see below).

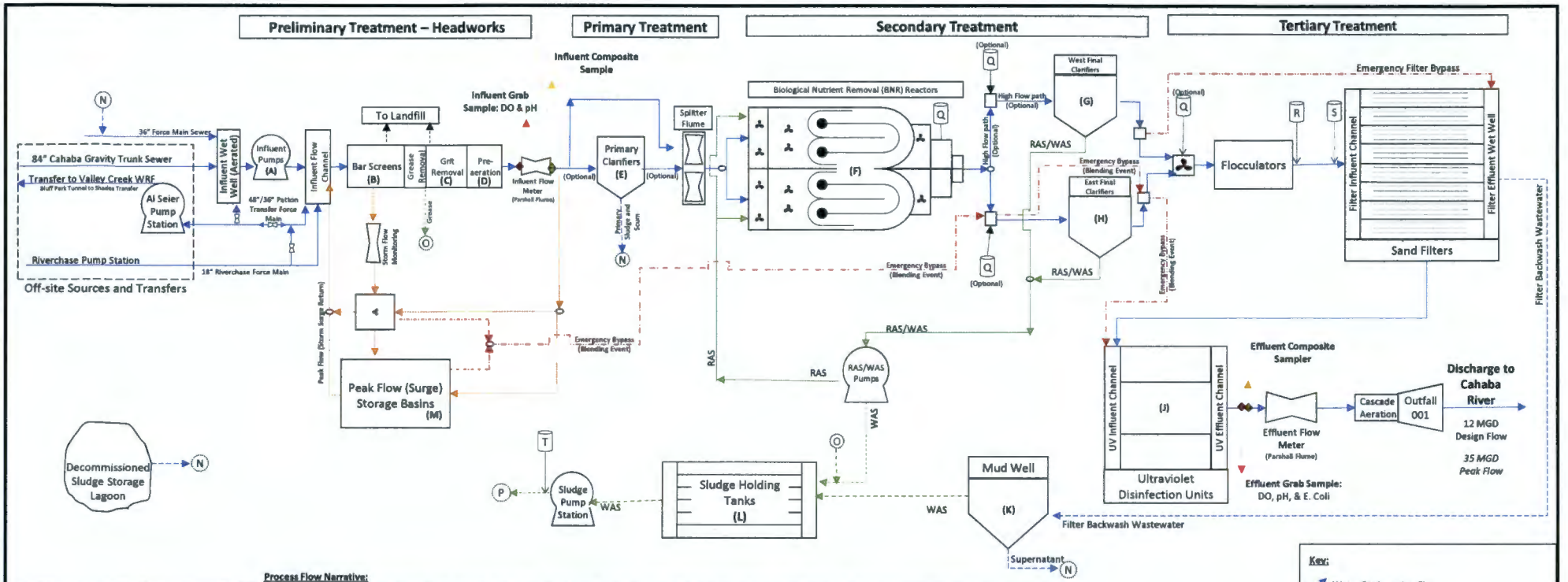
I certify under penalty of lawthat this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below.

(a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
(b) In the case of a partnership, by a general partner;
(c) In the case of a sole proprietorship, by the proprietor; or
(d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.

Signed By David Denard on 06/03/2024 at 9:39 AM



(N) Flow connector for supernatant from the mud well, overflow from the decommissioned sludge storage lagoon, & flow from Primary Clarifier (optional peak flow holding tanks)

(O) Flow connector for grease, primary sludge and scum

(P) Sludge is pumped to the Al Seier Pump Station Wastewater Diversion and mixed with the domestic wastewater and sent to the Valley Creek WRF for treatment.

(Q) Chemical Addition - Polyaluminum Chloride

(R) Chemical Addition – Polymer *(Out of service, no plans to reinstate)*

(S) Chemical Addition – Sodium Hypochlorite

(T) Chemical Addition – Ferric Chloride

Process Flow Narrative:

Flow enters the Cahaba WWTP via 18" and 36" force mains and 84" gravity sewer. Flows are lifted by the influent pump station. The influent flow receives preliminary treatment at the headworks through coarse bar screens followed by grease and grit removal. Primary treatment through the primary clarifiers* is available, but they are not currently utilized. Flow under 12 MGD is routed to two three-stage Biological Nutrient Removal (BNR) Carrousels** for secondary treatment. The flow then receives final clarification through the final clarifiers. PAC can be introduced into the flow at a few spots prior to the Final clarifiers, and at the coagulation and flocculation wells prior to filtration, to enhance nutrient removal. The flow receives advanced treatment through deep bed sand filters and then disinfection from ultra-violet irradiation. The treated effluent flow receives cascade post aeration prior to discharge to the Cahaba River. Sodium Hypochlorite is occasionally added while backwashing the sand filters, to help clean the filter media. During normal daily operations, only the East Final Clarifiers are used; the West Final Clarifiers are only used during high flow events.

*The primary clarifiers are *only* used as holding basin during extreme high flow events, after which these clarifiers are drained back into the influent wet-well.

**The BNR Carrousels are currently only operated as three-stage, but they still have the ability to be used as five-stage if needed.

Sludge Management Practices:

WAS is stored in the Basins 5 and 6 of the sludge holding tanks until it can be pumped to the Al Seier Pump Station Wastewater Diversion and mixed with the domestic wastewater and sent to the Valley Creek WRF for treatment, via path 'P' on the above diagram. Ferric Chloride is mixed with the sludge, for odor and corrosion control purposes, when it is pumped in batches throughout the week.

Backup Power and Bypass System:

The WRF receives 1 power feed & back-up power is supplied from 5 2-megawatt diesel-powered generators.

Valving has been built into the plant piping infrastructure that can allow routing of flow directly from the peak flow storage basins to filtration and disinfection for physical treatment, and these flow trains are depicted on the above diagram. These valving options are not a part of the operational plan for the plant and have never been used, to date.

Peak flows over 12 MGD are routed to the five peak flow storage basins (21 MG total storage capacity). Flow from the peak flow basins is stored and reintroduced to the headworks as the peak flows subside. Additional storage capacity can be utilized in the Primary Clarifiers, as an optional flow path. If the WWTP's treatment and storage capacity were exceeded, the direction of flow in the Al Seier force main can be reversed and flow is siphoned from the influent pump station to the Al Seier pump station. The peak flow storage basins are also utilized during dry weather to regulate flow to the BNR process to maintain a steady flow due to the sensitivity of the process to wide variations in flow or loading.

Unit Processes

(A) 78 MGD Influent Pump Station
(B) 120 MGD Bar Screens
(C) 40 MGD Grit Removal
(D) 40 MGD *total* Pre Aeration Basins
(E) 1.38 MG *each* Primary Clarifiers (qty 2)
(F) 17.5 MGD *each* BNR Reactors (qty 2)
(G) 9.79 MGD *each* East Final Clarifiers (qty 2)
(H) 7.71 MGD *each* West Final Clarifiers (qty 2)
(I) 5 MGD *each* Deep Bed Sand Filter (qty 8)
(J) 6.66 MGD *each* UV banks (qty 6)
(K) 0.70 MG *each* Mudwell tank (qty 1)
(L) 0.31 MG *each* sludge holding tank (qty 6)
(M) 21 MG *total* Peak Flow Storage Basins (qty 5)

Key:

- Water Reclamation Flow
- Nominal Storm Surge Flow
- Emergency Bypass Flow
- Return Activated Sludge Recycle
- Biosolids Treatment and Management
- In-Plant Waste Streams Returns
- Composite Samplers
- Grab Samples

Abbreviations:
" – inches
WRF – Water Reclamation Facility
RAS – Return Activated Sludge
WAS – Waste Activated Sludge
FOG – Fats, oils, and grease
FUF – Final Underflow
MG – million gallons
MGD – million gallons per day
PAC – Polyaluminum Chloride

JEFFERSON COUNTY, ALABAMA
ENVIRONMENTAL SERVICES DEPARTMENT
716 Richard Arrington Jr. Blvd, N, Suite A300
Birmingham, AL 35203

CAHABA RIVER
WATER RECLAMATION FACILITY
AL0023027
NPDES Permit Application

ATTACHMENT 188-1

WASTEWATER TREATMENT PROCESS FLOW DIAGRAM
Form 188, Section B

Attachment 188-3

County Sewer Use Ordinance

ADEM Form 188, Section D.2

JEFFERSON COUNTY
SEWER USE ADMINISTRATIVE ORDINANCE
ADOPTED NOVEMBER 6, 2012

This document is provided as a convenience to the public. The official ordinance and amendments thereto are contained in the office of the Minute Clerk of Jefferson County in Minute Book 164, pages 38 to 81. In the event of a discrepancy between any words or figures contained in this document and those contained in the official minutes of the Jefferson County Commission, the words and figures reflected in the official minutes shall govern.

JEFFERSON COUNTY
SEWER USE ADMINISTRATIVE ORDINANCE

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ARTICLE I. GENERAL PROVISIONS

A. Purpose and Policy

This Ordinance sets forth uniform requirements for all users of the wastewater collection and treatment system for Jefferson County, Alabama, and enables the County to comply with all applicable State and Federal laws required by the Clean Water Act of 1972 and the general Pretreatment Regulations (40 CFR, Part 403), and with the requirements of the Consent Decree.

The objectives of this Ordinance are:

a) to prevent the introduction of pollutants into the Sewer System that may interfere with the operation of the System or contaminate the resulting sludge;
b) to prevent the introduction of pollutants into the Sewer System that will pass through the System inadequately treated into receiving waters or the atmosphere or otherwise be incompatible with the Sewer System;
c) to improve the opportunity to recycle and reclaim wastewaters and sludge from the Sewer System;
d) to minimize the quantities of infiltration/inflow that enters the Sewer System; and,
e) to minimize the possibility of sanitary sewer overflows; and,
f) to comply with the objectives of the Consent Decree.

This ordinance provides for the regulation of all contributors to the System through the issuance of permits and through enforcement of general requirements requiring monitoring, compliance and reporting.

This ordinance shall apply to all sewer users in Jefferson County and to persons outside the County who are, by contract or agreement with the County, users of the System. Except as otherwise provided herein, the Environmental Services Department shall administer, interpret, implement, and enforce the provisions of this ordinance. Where not specifically provided herein, the provisions of this ordinance shall be enforced and interpreted consistent with the "Jefferson County Sewer Use Charge Ordinance."

B. National Categorical Pretreatment Standards

Certain Industrial Users (as defined by the EPA in the General Pretreatment Regulations published in the June 26, 1978 Federal Register, titled Part 403 General Pretreatment Regulations and any revision thereof) are, or hereafter shall become, subject to National Categorical Pretreatment Standards promulgated by the EPA specifying quantities or concentrations of pollutants or pollutant properties which may be discharged into the System. All Industrial Users subject to a National Categorical Pretreatment Standard shall comply with all requirements of such standard and shall also comply with any additional or more stringent limitations contained in this Ordinance. Compliance with

National Categorical Pretreatment Standards for existing sources subject to such standards or for existing sources which hereafter become subject to such standards shall be required within three (3) years following promulgation of the standards unless a shorter compliance time is specified in the standard. Compliance with National Categorical Pretreatment Standards for new sources shall be required upon promulgation of the Standard. Except where expressly authorized by an applicable National Categorical Pretreatment Standard, no Industrial User shall increase the use of process water or in any way attempt to dilute a discharge as a partial or complete substitution for adequate treatment to achieve compliance with such standard.

C. Definitions

Unless the context specifically indicates otherwise, the meaning of terms used in this Ordinance shall be as follows:

1) "ADEM" shall mean the Alabama Department of Environmental Management or its duly authorized deputy, agent, or representative.

2) "Act", "The Act", or "CWA" shall mean the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. § 1251, *et seq.*

3) "All contributors" denotes any Person or Owner contributing wastewater to the System.

4) "Alternative grease removal technology" shall mean an automatically operated mechanical device specifically designed to remove grease from the waste stream.

5) "ASTM" shall mean the American Society for Testing and Materials.

6) "Authorized Representative of an Industrial User" shall mean any one of the following: (1) a principal executive officer of at least the level of Vice-President, if the industrial user is a corporation; (2) a general partner or proprietor if the industrial user is a partner or proprietorship, respectively; or (3) a duly authorized representative of the individual above if such representative is responsible for the overall operation of the facilities from which the discharge originates.

7) "Best Management Practices" shall mean any program, process, operating method or measure that controls, prevents, removes or reduces discharge of FOG.

8) "BOD_5" or "BOD" (biochemical oxygen demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five days at 20 degrees C, expressed in milligrams per liter by weight. BOD shall be determined by standard methods as hereinafter defined.

9) "Categorical Standards" shall mean the National Categorical Pretreatment Standards or Pretreatment Standard.

10) "CFR" denotes the Code of Federal Regulations.

11) "COD" shall mean chemical oxygen demand as determined by standard test methods.

12) "Charge(s)" shall mean all applicable charges, fees, assessments, costs or penalties levied under the "Jefferson County Sewer Use Charge Ordinance," as adopted.

13) "Composite Sample" shall mean the makeup of a number of individual samples, so taken as to represent the nature of wastewater or industrial wastes.

14) "Condensate" shall mean liquid water resulting from the change of water vapor to liquid by the use of traditional air conditioner units or water heaters.

15) "Consent Decree" shall mean the Consent Decree entered on December 9, 1996 in the consolidated cases R. Allen Kipp, Jr. et al. v. Jefferson County, Alabama, et al. (United States District Court for the Northern District of Alabama, Civil Action No. 93-G-2492-S) and United States v. Jefferson County, Alabama, et al. (United States District Court for the Northern District of Alabama, Civil Action No. 94-G-2947-S).

16) "Constituents" shall mean the combination of particles, chemicals or conditions existing in the wastewater.

17) "Consumption" shall mean the metering of domestic water at a given unit of measure.

18) "Cooling Water" shall mean the water discharged from commercial air conditioning, cooling or refrigeration sources such as chillers and cooling towers.

19) "Cu. Ft." denotes cubic feet.

20) "County" shall mean the Jefferson County Commission or its employees, duly authorized agents or representatives.

21) "Direct Discharge" shall mean the discharge of treated or untreated wastewater directly to the waters of the State of Alabama, as interpreted by ADEM.

22) "Director" shall mean the Director of the Environmental Services Department or his designee.

23) "Effluent" shall mean the discharge of flow from an industry or a treatment plant facility.

24) "Environmental Services Department" or "ESD" shall mean the County department that has direct responsibility for the maintenance, management and operations of the Sewer System.

25) "EPA" shall mean the U.S. Environmental Protection Agency, or where appropriate, the term may also be used as a designation for the Regional Administrator or other duly authorized official of said agency.

26) "Explosive Liquid" shall mean any liquid which produces two successive readings on an explosion hazard meter, at the point of discharge into the system, of five percent (5%) or greater or any single reading over ten percent (10%) of the lower explosive limit of the meter.

27) "Flammable Liquid" shall mean any liquid having a flash point below 100°F and having a vapor pressure not exceeding 40 psia absolute pressure at 100°F .

28) "FOG" shall mean fats, oils, and grease.

29) "Food" shall mean any raw, cooked or processed edible substance, ice, beverage or ingredient intended for human consumption.

30) "Food Service Facility" shall mean any facility engaged in the preparation of food for human consumption and/or serving of meals, short orders, sandwiches, frozen desserts or other edible products. The term includes restaurants, coffee shops, cafeterias, short order cafes, luncheonettes, taverns, lunchrooms, places which manufacture retail sandwiches, soda fountains, institutional cafeterias, catering establishments and similar facilities by whatever name called.

31) "Fryer Oil" shall mean oil that is used and/or reused in fryers for the preparation of foods.

32) "Grab Sample" shall mean a sample, which is taken from a waste stream on a one-time basis without regard to the total flow in the waste stream.

33) "Grease" shall mean fats, oils and grease used for the purpose of preparing food or resulting from food preparation and includes all elements of FOG. Grease is also generated from washing and cleaning operations such as pot washing, dishwashers, trenches and floor drains. The terms grease and FOG may be used interchangeably.

34) "Grease Control Device" shall mean any grease interceptor, grease trap or other approved mechanism, device or process, which attaches to, or is applied to, wastewater plumbing fixtures and lines, the purpose of which is to trap or collect or treat FOG prior to the balance of the liquid waste being discharged into the System.

35) "Grease Interceptor" shall mean an indoor device located in a food service facility or under a sink designed to collect, contain and remove food wastes and grease from the waste stream while allowing the balance of the liquid waste to discharge to the System by gravity.

36) "Grease Permit" or "Food Service Facility Grease Control Program Permit (FSFGCPP)" shall mean the license/authorization to discharge wastewater/liquid waste into the System granted to the Owner of a Food Service Facility or his/her authorized agent.

37) "Grease Trap" shall mean an outdoor device located underground and outside of a food service facility designed to collect, contain and remove food wastes and grease from the waste stream while allowing the balance of the liquid waste to discharge to the System by gravity.

38) "Hazardous Waste" shall mean any material or wastes identified by the EPA Hazardous Waste Resolution, Part 261, including all wastes identified in Subpart D thereof, regardless of the quantity of material stored or generated.

39) "Health Department" shall mean the State Board of Health as constituted in accordance with Ala. Code § 22-2-1 *et seq.*, and includes the Committee of Public Health or State Health Officer when acting as the Board. The Health Department is not affiliated with the Jefferson County Commission.

40) "Holding Tank Waste" shall mean any waste from holding tanks such as vessels, campers, chemical toilets, trailers, septic tanks, and vacuum pump trucks.

41) "Impact Fee" shall mean the charge assessed to any sewer user prior to connection with, or access to, the System.

42) "Indirect Discharge" shall mean the discharge or introduction into the System of non-domestic pollutants from any source regulated under Section 307(b) or (c) of the Act (including holding tank waste discharged into the System).

43) "Infiltration/Inflow" or "I/I" shall mean the total quantity of water from both infiltration and inflow without distinguishing the source. Infiltration shall mean the water entering a sewer system and service connections from the ground, through sources such as broken or cracked pipe, defective pipe joints, improper connections, manhole walls, etc. Inflow shall mean direct surface or rainwater discharged into the sewer system, including through service connections, from sources such as roof leaders, cellars, yard and area drains, foundation drains, cooling water discharges, drains from springs and swamp areas, cross connections from storm sewers, surface runoff, etc.

44) "Industrial User" shall mean any industry producing liquid waste discharging either with or without pretreatment into the System.

45) "Industrial Sewer Connection Application" shall mean the application required to be filed by all industrial contributors or potential industrial contributors who intend to connect to the System. This request shall be on forms provided by the County, which specify the quantity, strengths, and any special qualities of their industrial waste.

46) "Influent" shall mean the wastewater arriving at a County wastewater treatment plant for treatment.

47) "Interference" shall mean the inhibition, unreasonable degradation or disruption of treatment processes, treatment and/or collection operations, or sewer system operations which contributes to a violation of any requirements of the County's NPDES permits, including sanitary sewer system overflows either within the collection system or at any treatment plant due to infiltration/inflow or a lack of treatment of wastewaters containing infiltration/inflow. This term includes the prevention of sewage biosolids use or disposal by the County in accordance with Section 405 of the Clean Water Act, or any criteria, guidelines or regulations developed pursuant to the Solid Waste Disposal Act (SWDA), the Clean Water Act, the Toxic Substances Control Act, or more stringent State criteria (including those contained in any State biosolids management regulation pursuant to title IV of the SWDA) applicable to the method of biosolid disposal or use employed by the County.

48) "l" denotes liter.

49) "Master Plumber" shall mean any person in continuous and responsible charge of the installation, alteration, repair or renovation of plumbing work and who possesses a current, valid and unrevoked Certificate of Competency issued by the Alabama Plumbers and Gas Fitters Examining Board as a Master Plumber.

50) "MBAS" denotes methylene-blue-active substance.

51) "mg/l" denotes milligrams per liter and shall mean ratio by weight.

52) "Mobile food unit" shall mean a self-propelled or vehicle mounted unit intended to be used as a food service facility.

53) "National Pollution Discharge Elimination System Permit" or "NPDES Permit" shall mean a permit issued pursuant to Section 402 of the Act (33 U.S.C. § 1342).

54) "National Categorical Pretreatment Standards" shall mean any regulation containing pollutant discharge limits promulgated by the EPA in accordance with Section 307(b) and (c) of the Act which applies to Industrial Users.

55) "Natural Outlet" shall mean any outlet used to dispose of liquid waste, which ultimately flows or leads into a watercourse, pond, ditch, lake, or other body of surface or ground water.

56) "New Source" shall mean any industrial source, in which the construction is commenced after the publication of proposed regulations prescribing a Section 307(c) National Categorical Pretreatment Standard which will be applicable to such source, if such standard is thereafter promulgated within 120 days of proposal in the

Federal Register. Where the Standard is promulgated later than 120 days after proposal, a New Source shall mean any source, the construction of which is commended after the date of promulgation of the standard.

57) "pH" shall mean the logarithm of the reciprocal of the concentration of the hydrogen ion. "pH" shall be determined by standard methods as hereinafter defined.

58) "Person" or "Owner" shall mean any natural person, individual, firm, company, joint stock company, association, society, corporation, group, partnership, co-partnership, trust, estate, governmental or legal entity, or their assigned representatives, agents or assigns.

59) "Pollutant" shall mean any dredged spoil, solid waste, incinerator residue, sewage garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials, excess heat, wrecked or discarded equipment, rock, sand, and industrial, municipal, and agricultural waste discharged into water; and shall include any pollutant identified in a National Categorical Pretreatment Standard or any incompatible waste identified in Article II of this Ordinance.

60) "Pretreatment" shall mean the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into the System. The reduction or alteration may be obtained by physical, chemical, or biological processes, process changes, or other means except as prohibited by 40 CFR Section 403.6(d).

61) "Pretreatment Requirement" shall mean any substantive or procedural requirement related to pretreatment, other than a National Pretreatment Standard imposed on an industrial user.

62) "Pretreatment Standard" shall mean either a National Categorical Pretreatment Standard or a pretreatment standard imposed as a result of the User's discharging any incompatible wastewater regulated by Article II of this Ordinance.

63) "Public Water System" shall mean a system for the provision to the public of piped water for human consumption.

64) "Receiving Waters" shall mean those waters into which the County's NPDES permitted effluent is discharged.

65) "Restaurant" shall mean an establishment which serves food and/or beverages for human consumption.

66) "SWDA" denotes the Solid Waste Disposal Act, 42 U.S.C. § 6901, et seq.

67) "Sampling Vault/Port" shall mean the structure downstream of a grease trap, interceptor or alternative grease control device that is specially constructed to allow inspection and sampling prior to discharge of effluent into the System.

68) "Sanitary Sewer" shall mean a sewer, which carries wastewater, and from which storm, surface, and ground waters are intended to be excluded.

69) "Sewer" or "main sewer" shall mean a pipe or conduit eight (8) inches in diameter or larger intended for carrying wastewater and generally located in public right-of-way or easement.

70) "Sewer Connection Permit" shall mean the license to proceed with work on a sewer service line, either as new construction or for the repair of an existing line.

71) "Sewer Service Line" shall mean any sanitary sewer line or conduit located outside the building structure which connects the building's plumbing from the outside building wall to the main sewer. The sewer service line is usually four (4) inches in diameter, sometimes six (6) inches in diameter, and in special cases eight (8) inches in diameter or larger. The County does not maintain the sewer service line from the outside building wall to the main sewer.

72) "Sewer System" or "System" shall mean a publicly-owned treatment works (POTW), as defined by Section 212 of the Act (33 U.S.C. § 1292), owned by the County. The term shall mean any wastewater treatment facility, any sanitary sewer that conveys wastewater to such treatment facility and any wastewater pumping facility.

73) "Shall" is mandatory; "may" is permissive.

74) "Significant Industrial User" shall mean any Industrial User of the System that is subject to Categorical Pretreatment Standards and/or who has a discharge flow of 25,000 gallons or more per average work day, or has a flow greater than 5% of the flow in the County wastewater treatment facility providing treatment, or has in its wastewater toxic pollutants as defined herein or within the Act, or is found by the County, ADEM, or the EPA to have significant impact, either singly or in combination with other contributing industries, on the System, the quality of sludge, or effluent quality.

75) "Standard Industrial Classification" or "SIC" shall mean the classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget, 1972.

76) "Standard Methods" shall mean those sampling and analysis procedures established by and in accordance with EPA pursuant to Section 304(g) of the Act and contained in 40 CFR, Part 136, as amended, or the "Standard Methods for the Examination of Water and Sewer" as prepared, approved, and published jointly by the American Public Health Association, the American Water Works Association, and the Water

Environment Federation. In cases where procedures vary, the EPA methodologies shall supersede.

77) "SID Permit" shall mean a State Indirect Discharge permit issued by ADEM. Such permits may be issued to dischargers of non-domestic pollutants from any source, including, but not limited to, those regulated under Section 307(b) or (c) of the Act.

78) "Storm Sewer" or "Storm Drain" shall mean a sewer which carries storm and surface waters and drainage, but excludes wastewater and polluted industrial wastes.

79) "Suspended Solids" shall mean solids that either float on the surface, or are in suspension in water, wastewater, or liquid as defined by standard methods.

80) "Temporary food service facility" shall mean a food service facility that is not permanently connected to the System nor operates at the same location for a period of time exceeding 14 days in conjunction with a single event, such as a fair, carnival, circus, exhibition or similar temporary gathering. Temporary food service facilities are not regulated by the Grease Control Program.

81) "TOC" shall mean total organic carbon as determined by standard methods.

82) "TSS" shall mean total suspended solids as determined by standard methods.

83) "Total Solids" shall mean total weight expressed in mg/l of all solids: dissolved, undissolved, organic, or inorganic.

84) "Toxic" shall mean detrimental to or adversely affecting the organisms or other processes involved in wastewater treatment.

85) "Toxic Pollutant" shall include but not be limited to any pollutant identified pursuant to Section 307(a) of the Act.

86) "County Treatment Plant" or "County Plant" shall mean that portion of the County's sewer system designed to provide wastewater treatment.

87) "U.S.C." denotes Unites States Code.

88) "User" shall mean the occupant and/or the owner(s) of property from which wastewater is discharged into the System and any individual or entity, including any municipality, that contributes, causes, or permits the contribution of wastewater into the System.

89) "Watercourse" shall mean a channel in which a flow of water occurs, either continuously or intermittently.

90) "Wastewater" shall mean any solids, liquids, gas, or radiological substance originating from residences, business buildings, institutions, and industrial establishments together with any ground water, surface water, and storm water that may be present, whether treated or untreated, which is contributed into or permitted to enter the System.

91) "WEF" shall mean the Water Environment Federation.

Terms for which definitions are not specifically provided herein or in the "Jefferson County Sewer Use Charge Ordinance" shall be interpreted as defined in the Glossary of the current edition of "Design of Municipal Wastewater Treatment Plants, Volume 3" (MOP 8) published by the WEF and the American Society of Civil Engineers.

ARTICLE II. DISCHARGE PROHIBITIONS

A. General Discharge Prohibitions

No user shall contribute or cause to be contributed, directly, or indirectly, any pollutant or wastewater which will interfere with the operation or performance of the System. These general prohibitions apply to all such users of the System whether or not the user is subject to National Categorical Pretreatment Standards or any other National, State, or Local Pretreatment Standards or Requirements. A user may not contribute the following substances to the System:

1) Any wastewater containing quantities of flammable or explosive liquids, or any liquids, solids, or gases which by reason of their nature or quality are, or may be, sufficient alone or by interaction with other substances to cause fire or explosion or be an interference in any way to the System or to the operation of the System. Prohibited materials include, but are not limited to: alcohols, aldehydes, benzene, bromates, carbides, chlorates, commercial solvents, ethers, fuel oil, gasoline, any hydrocarbon derivatives, hydrides, kerosene, ketones, mineral spirits, motor oils, naphtha, perchlorates, peroxides, sulfides, toluene, xylene and any other substances which the County, the State, or EPA has notified the User is a flame or explosion hazard to the System.

2) Any pollutants which will cause corrosive structural damage to the System (in no case with a pH less than 5.0 or higher than 10.5) or wastewater having other corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel of the sewer system or which may be damaging to the operation of the System.

3) Solid or viscous substances in amounts which may cause obstruction to the flow in the System or other interference with the operation of the System such as, but not limited to: garbage with particles greater than 1/2 inch, ashes, cinders, animal guts or tissues, paunch, manure, offal, bones, hair, hides or fleshings, entrails, whole bloods, beer or distillery slops, milk residue, ice cream, sugar syrups, feathers, sand, lime residues, stone or marble dust, metal, glass, straw, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, fiberglass, paint or ink residues, gas, tar, asphalt residues, chemical residues, residues from refining or processing of fuel or lubricating facilities, cannery waste, mud, grinding waste, and polishing waste.

4) Any wastewater which contains fats, oils, or grease, any non-polar material or any wastewater which contains a substance that will solidify or become viscous within the collection system or at the treatment plant or otherwise interfere with the operations of the System.

5) Any uncontrolled wastewater containing spent oils, lubricants, or fuel from vehicles or machinery.

6) Any pollutants released at a flow and/or pollutant concentration which will cause interference to the System.

7) Any wastewater having a temperature, which will inhibit biological activity in the System resulting in interference, but in no case wastewater with a temperature at the introduction into wastewater treatment plant which exceeds 40 degrees C (104 degrees F). No user shall discharge into any sewer line, or appurtenance of the sewer system, wastewater with a temperature exceeding 65.5 degrees C (150 degrees F). More stringent limitations may be required if it is determined the Sewer System is adversely affected by lower temperatures.

8) Any wastewater containing toxic pollutants which either singly or by interaction with other pollutants, would injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the sewer system, or exceed the limitations set forth in a Categorical Pretreatment Standard.

9) Any noxious or malodorous liquids, gases, or solids which whether singly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for their maintenance and repair.

10) Any substance which may cause the System wastewater treatment plant effluent or any other product of the System wastewater treatment plant such as residues, biosolids, or scum, to be unsuitable for reclamation and reuse or to interfere with the reclamation process where the County is pursuing a reuse and reclamation program. In no case shall a substance discharged to the System cause the County to be in non-compliance with biosolids use or disposal criteria, guidelines, or regulations developed under Section 503 of the Act; any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, or State criteria applicable to the biosolids management method being used.

11) Any substance which will cause the County to violate its NPDES and/or State Disposal System Permit or the receiving water quality standards.

12) Any wastewater with color that cannot be removed by any County wastewater treatment plant.

13) Any liquid or wastewater containing quantities of radioactive waste in excess of presently existing or subsequently accepted limits for drinking water as established by applicable State or Federal regulations.

14) Any substance that is introduced to the System in a negligent or vandalistic manner including, but not limited to, cloth, metal, wood, plastic, concrete, rock, glass, leaves, and grass.

15) Any non-permitted liquid leachate from a landfill, drain field, or any type of soil drainage system.

16) Any discharge generated from pools, ponds, or fountains.

B. Prohibitions on Stormwater and Ground Water

Storm water, ground water, rain water, street drainage, roof top drainage, basement drainage, sump pumpings, sub-surface drainage, or yard drainage shall not be discharged through direct or indirect connections to the System. All users of the System are prohibited from discharging stormwater, groundwater, any drainage waters or any waters which may cause or contribute to infiltration/inflow.

C. Maximum Discharge Concentrations

Following herewith are maximum discharge concentrations for any User of the System. The limits are subject to change by the EPA, ADEM, and/or the County. Such change may occur through changes imposed by National Categorical Pretreatment Standards or by the County's determination that an interference exists in the System by reason of any limit set forth herein or by case-specific considerations.

MAXIMUM DISCHARGE CONCENTRATIONS

POLLUTANT	DAILY MAXIMUM, mg/l
Aluminum, dissolved	50.0
Cadmium, total	0.3
Chromium +6	0.2
Chromium, total	5.0
Copper, total	1.0
Cyanide, as CN or HCN	1.0
Iron, total	20.0
Lead, total	0.5
Nickel, total	1.0
Silver, total	0.5
Tin, total	10.0
Zinc, total	3.6
Arsenic	0.10
Ammonia	25.0
Barium	1.0
Chlorides	200.0
Fluorides	1.50
Mercury	0.01
Molybdenum	0.10
Phenol	1.00
Phosphate	30.00
Selenium	0.10

D. Cooling Water

Cooling water discharge may be considered on a case by case basis. Permission to discharge will be granted at the sole discretion of the Director. If permission is denied, all cooling water must be discharged under an NPDES permit issued by ADEM, as applicable.

E. State Requirements

State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or the County's requirements and limitations on discharges described in this Ordinance.

F. Excessive Discharge

No user shall increase the use of process water or in any way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the National Categorical Pretreatment Standards, or in any other pollutant specific limitation developed by the County or State without prior written approval by the County. Where necessary in the opinion of the County, flow equalization facilities may be required to eliminate peak flow concentration conditions which could overload the System. Equalization units shall have a capacity judged by the County to allow controlled discharge of the flow at such a rate which will eliminate peak flow conditions. Detailed flow equalization plans, facility plans, specifications and operating procedures shall be submitted to the County for review and recommendations in a specified format. However, the County shall not approve the submittal for performance.

G. Possible Inhibitory Discharges

If any waters or wastes are proposed to be discharged to the System which contain the substances or possess the characteristics either enumerated or not enumerated in this Article, and which in the judgment of the County and/or the State and Federal agencies having jurisdiction may cause an interference with the System, the biosolids or receiving waters, or which may otherwise create a hazard to life or constitute a public nuisance, the County may:

1) reject the wastes in accordance with Article III of this Ordinance;

2) for industries affected by the National Categorical Pretreatment Standards, require pretreatment to an acceptable condition for discharge to the System and state a compliance date which in no case shall exceed three (3) years but may be sooner if so stated in the National Categorical Pretreatment Standards;

3) require control over the quantities and rates of discharge;

4) require payment to cover the added cost of collecting, transporting, handling and

treating the wastewater not covered by standard Charges.

If the County or ADEM requires or permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment may be reviewed by the County, ADEM, and Federal Agencies having jurisdiction. In any case, the design and installation shall be subject to the requirements of all applicable codes, resolutions, and laws.

H. Accidental Discharges

1. General

Each industrial user shall provide protection from accidental discharge of prohibited materials or other substances regulated by this Ordinance. Facilities to prevent accidental discharge or prohibited materials shall be provided and maintained at the owner's or user's own cost and expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the County for review and comment. However, the County's review and comment shall in no way be interpreted as a performance approval of such facilities. All existing industrial users shall complete such a plan at the time the industry begins production. No new industrial users who commence this contribution to the sewer system after the effective date of this Ordinance shall be permitted to introduce pollutants into the system until accidental discharge procedures have been reviewed and approved by the County and ADEM and implemented by the Owner or user. Review of such plans and operating procedures shall not relieve the industrial user from the responsibility to modify the user's facility as necessary to meet the requirements of this Ordinance. In the case of an accidental discharge, it is the responsibility of the user to immediately telephone 205-942-0681 and notify County personnel of the incident. The notification shall include:

1) time of discharge
2) location of discharge
3) type of waste
4) concentration and volume
5) corrective action being taken
6) company name
7) contact official
8) phone number

2. Written Notice

Within five (5) days following an accidental discharge, the user shall submit to the County and ADEM a detailed written report which shall include:

1) company name
2) contact official
3) date, time, and type of material discharged
4) corrective actions taken at the time of the discharge and degree of success

5) a determination that the cause of the discharge was of mechanical or human nature
6) a detailed description of new or modified actions which will be instituted to prevent such an occurrence from happening again
7) a timetable for implementing the corrective actions

Such notification shall not relieve the user of any expense, loss, damage or other liability which may be incurred by the County as a result of damage to the system, fish kills, or any other damage to person or property, nor shall such notification relieve the user of any fines, civil penalties, or other liability which may be imposed by this Ordinance or other applicable law.

3. Notice to Employees

A notice shall be permanently placed on the user's bulletin board or other prominent place advising employees whom to call in the event of a prohibited discharge. Employers shall insure that all employees who may cause or suffer an occurrence of such a discharge are advised of the emergency notification procedure.

I. Hazardous Wastes

It is a violation of this Ordinance to discharge or cause to be discharged any material categorized as a hazardous waste.

ARTICLE III. ENFORCEMENT AND ABATEMENT

A. Violation

Discharge of wastewater in any manner in violation of this Ordinance or of any condition of an SID permit shall be corrected and abated as provided for specifically in this Article or elsewhere in the Ordinance.

B. Violation Notification

Whenever the County determines or has reasonable cause to believe that a discharge of wastewater has occurred in violation of the provisions of this Ordinance, an SID permit, or any other applicable law or regulation, the County shall notify ADEM and the User of such violation. Failure of the County to provide such notice shall not in any way relieve the User from consequences of a wrongful or illegal discharge.

C. Conciliation Meetings

The County and ADEM may, but shall not be required to, invite the User to a conciliatory meeting to discuss the violation and methods of correcting the cause of the violation. If the County, ADEM, and the User agree to appropriate remedial and preventative measures, they shall commit such agreement in writing with provisions for a reasonable compliance schedule and the same shall be incorporated as a supplemental condition of the User's SID permit.

D. Show Cause Hearing

ADEM may issue a show cause notice to the User at a specified date and time to show cause why the User's SID Permit should not be modified, suspended, or revoked for a violation of this Ordinance, or other applicable law or regulation, or conditions in the SID permit of the User. If the County seeks to modify the User's SID permit to establish wastewater characteristic limitations or other control techniques to prevent future violations, it shall notify the User of the general nature of the recommended modifications.

E. Referral to Attorney General

ADEM or the County may refer a case to the State of Alabama Attorney General's office for action for a User's violation of a Categorical Standard or the conditions of the User's SID Permit.

F. Injunctive Relief

ADEM or the County may file civil suits for injunction, damages, or other appropriate relief to enforce the provisions of this Ordinance or other applicable law or regulation.

G. Assessment of Damages to Others

When any unauthorized discharge to the System (including vandalism) results in an obstruction, damage, or any other impairment to the System or to property or person of others, or results in any expense of whatever character or nature to the County, the County may assess the expense to the responsible party.

H. Petition for Federal or State Enforcement

In addition to other remedies of enforcement provided herein, the County may petition the EPA to exercise such methods or remedies as shall be available to such government entities to seek criminal or civil penalties, injunctive relief, or such other remedies as may be provided by applicable Federal or State laws to insure compliance by Industrial Users with applicable pretreatment standards, to prevent the introduction of toxic pollutants or other regulated pollutants into the sewer system, or to prevent such other water pollution as may be regulated by State or Federal law.

I. Emergency Termination of Service

In the event of an actual or threatened discharge to the System of any pollutant which in the opinion of the County, presents or may present substantial danger to the health or welfare of persons, or causes an interference or degradation to the System, the County shall immediately notify ADEM of the nature of the emergency. The County shall also attempt to notify the User or other person causing the emergency and request their assistance in abating the discharge. The County may also temporarily terminate the service of such User or Users as necessary to abate the condition. Sewer service may be restored by the County at the User's expense when the adverse discharge has been abated or corrected.

J. Termination of Service

The County may disconnect a User from the System when:

1) EPA or ADEM informs the County that the effluent from the wastewater treatment plant is no longer of a quality permitted for discharge to a watercourse, and it is determined that the User is delivering wastewater to the System that cannot be sufficiently treated or requires treatment that is not provided by the County as normal domestic wastewater treatment, or
2) the User:
   a) discharges industrial waste or wastewater that is in violation of the SID Permit issued, or
   b) discharges any substance to the sewer defined in Article II as being prohibited, or
   c) discharges any wastewater at an uncontrolled, variable rate in sufficient quantity to cause an interference in the System, or
   d) fails to pay Charges for sanitary sewer service when due, or
   e) repeats a discharge of prohibited constituents to the System, or
   f) fails to allow entry to the User's premises to inspect or repair the sanitary

sewer system.

If the service is discontinued pursuant to this Section, the County may disconnect the User at the User's expense, or continue disconnection until such time as the violation is abated. Reconnection shall be at the discretion of the County and at the User's expense.

K. Other Remedies

For violations of this Ordinance and any rules and regulations of the County respecting the System, the County may pursue any remedy or enforcement authority provided to it by law. These remedies may include directing the public water system provider to discontinue the water supply to the property and the recording of liens.

ARTICLE IV. STATE INDIRECT DISCHARGE PERMITS, DISCHARGE REPORTS, AND ADMINISTRATION

A. Applicability

The provisions of this Article are applicable to Industrial Users, as defined by ADEM, or any Industrial User specified by the County. Any permits issued hereunder to Industrial Users who are subject to or become subject to a "National Categorical Pretreatment Standard" as that term is defined in 40 CFR 403.3(i) shall be conditioned upon the Industrial User's also complying with all applicable substantive and procedural requirements promulgated by the EPA and ADEM under the "National Categorical Pretreatment Standards" or any other pollutants identified as "priority pollutants."

B. Application and Permit Requirements for Industrial Users

Prior to discharging non-domestic wastewater into the System, all Significant Industrial Users, as defined by ADEM, and any Industrial User, shall simultaneously submit an application and engineering report to Jefferson County and to ADEM for the purpose of obtaining an SID permit. The original and one copy of said package shall be submitted to ADEM while an additional two (2) copies shall be submitted to Jefferson County. The engineering report shall contain the information specified in Article IV.C. All original application packages shall also include a site plan, floor plan, mechanical and plumbing plans with sufficient detail to show all sewers and appurtenances in the Industrial User's premises by size, location, and elevation, and the Industrial User shall submit to the County and ADEM revised plans whenever alterations or additions to the Industrial User's premises affect said plans. Any currently connected User discharging wastewater other than domestic wastewater who has not heretofore filed such a report shall file same with the County and ADEM within ninety (90) calendar days of receiving notice from the County.

C. Report Requirements

The report required by Section B above or other provisions of this Article for all Industrial Users shall contain, in units and terms appropriate for evaluation, the information listed in sub-sections (1) through (9) below. Industrial Users subject to National Categorical Pretreatment Standards shall submit to the County and ADEM a report which contains the information listed in sub-sections (1) through (9) below within one hundred and eighty (180) calendar days after the promulgation by the EPA of a National Categorical Pretreatment Standard under Section 307(b) or (c) (33 U.S.C. 1317(b) or (c) of the Act).

Industrial Users who are unable to achieve a discharge limit set forth in Article II hereof without improved operation and maintenance procedures or pretreatment shall submit a report which contains the information listed in sub-sections (1) through (9) below. Said report shall be certified by a Professional Engineer registered in the State of Alabama and contain all or applicable portions of the following:

1) General information including name and affiliation of company, number of employees, product(s) to be manufactured, including rate of production and SIC number(s), hours of operation, and water supply and disposition.
2) A map showing location of manufacturing plant (with section, township, range, latitude and longitude), treatment facilities and drainage, and locations of each discharge point. In case of indirect discharges, the location of sewer and point of industry connection should be shown.
3) A narrative account of manufacturing operation(s) explaining and/or defining raw materials, processes and products. Blockline or schematic diagrams indicating points of wastewater origin and its collection and disposition should be included.
4) The average and maximum total flow of each discharge from such Industrial User to the System, in gallons per day.
5) The average and maximum of both quantity and quality of the wastewater discharge from each regulated process from such Industrial User and identification of any applicable Pretreatment Standards and Requirements. The concentration shall be reported as a maximum or average level as provided for in the applicable Pretreatment Standard. If an equivalent concentration limit has been calculated in accordance with a Pretreatment Standard, this adjusted concentration limit shall also be submitted to ADEM for approval.
6) Description of existing wastewater treatment facilities including design basis, pretreatment measures, and recovery systems. Means of handling cooling water, storm drainage, and sanitary wastes should be described. Containment systems for product storage areas, loading and intermediate, or raw material handling areas, process areas, and other areas with spill potential should be described. Where applicable, the availability of a Spill Prevention Control and Containment (SPCC) Plan should be indicated.
7) When treatment sludges are generated, dewatering and handling methods and location of disposal should be indicated. Quantity and analysis information should also be furnished.
8) A statement reviewed and signed by an authorized representative of the Industrial User indicating whether Pretreatment Standards are met on a consistent basis and, if not, whether additional operation and maintenance procedures or additional pretreatment is required for the Industrial User to meet the Pretreatment Standards and Requirements.
9) If additional pretreatment or operation and maintenance procedures will be required to meet the Pretreatment Standards, then the report shall contain the shortest schedule by which the Industrial User will provide such additional pretreatment. The completion date in this schedule shall not be later than the completion date established for the applicable Pretreatment Standards.

D. Incomplete Applications

Industrial Users who have filed incomplete applications will be notified by the County that the application is deficient and the nature of such deficiency. If the deficiency is not corrected within thirty (30) days or within such extended period as allowed by the County, the County shall submit the application for a permit to ADEM with a recommendation that it be denied and notify the applicant in writing of such action.

E. Evaluation of Application

Upon receipt of the County's recommendation, ADEM shall conduct its final evaluation of the completed applications and propose such special permit conditions as it deems advisable. All SID permits shall be expressly subject to all provisions of this Ordinance and all other applicable laws and regulations. Based on the County's recommendation, ADEM may also propose that the SID permit be subject to one or more special conditions in regard to any of the following:

1) Pretreatment Requirements;
2) The average and maximum wastewater constituents and characteristics;
3) Limits on rate and time of discharge or requirements for flow regulation and equalization;
4) Requirements for installation of inspection and sampling facilities;
5) Specifications for monitoring programs, which may include sampling locations, frequency and method of sampling, number, types, and standards for tests and reporting schedule;
6) Requirements for submission of technical reports or discharge reports;
7) Requirements for maintaining records relating to wastewater discharge;
8) Monthly average and daily maximum discharge concentrations, or other appropriate limits when incompatible pollutants (as set forth in Article II) are proposed or present in the Industrial User's wastewater discharge;
9) Other conditions as deemed appropriate by the County to insure compliance with this Ordinance, or other applicable law or regulation. The County reserves the right to require more stringent discharge limits or conditions if it so chooses.
10) A reasonable compliance schedule as may be required by applicable law or regulation to insure the Industrial User's compliance with pretreatment requirements or improved methods of operation and maintenance;
11) Requirements for the installation of facilities to prevent and control accidental discharges or spills at the Industrial User's premises.

F. Applicant's Notification of Draft SID Permit and Right to Object

Upon completion of its evaluation, ADEM shall issue a draft SID Permit with special conditions to be included. The applicant shall have thirty (30) days from receipt of ADEM draft SID Permit to review same and mail a registered letter stating any objections to the County and ADEM. ADEM may, but shall not be required to, schedule a meeting with the County and applicant's authorized representative within fifteen days following receipt of the applicant's objections, and attempt to resolve disputed issues concerning the draft SID Permit. If applicant files no objection to the draft SID Permit or a subsequent agreement is reached concerning same, ADEM shall issue a SID Permit to applicant with such special conditions incorporated therein.

G. Industrial Impact Permit

In addition to the SID Permit application, the Industrial User shall obtain an impact

permit. Upon determination that the available capacity of the existing System is sufficient to accommodate applicant's wastewater and upon the Industrial User's receipt of an ADEM-issued SID permit, the County shall issue the applicant a permit authorizing such connection and permitting applicant to discharge wastewater from such premises to the System at the rate and in quantities stated therein.

H. Compliance Scheduling and Reporting Requirements

The Industrial User shall comply with the following conditions and requirements pertaining to reporting and compliance scheduling:

1) The schedule shall contain certain increments of progress in the form of calendar dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment requirements for the Industrial User to meet the applicable Pretreatment Standards (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.).
2) No increment referred to in Article IV.H.1 shall exceed nine (9) months.
3) Not later than fourteen (14) days following each date in the schedule and the final date for compliance, the Industrial User shall submit a progress report to the County and ADEM including, as a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for the delay, and steps being taken by the Industrial User to return the construction to the schedule established. In no event shall more than nine (9) months elapse between such progress reports to the County and ADEM.
4) Within ninety (90) days following the date for final compliance with applicable Pretreatment Standards or, in the case of a New Source, prior to commencement of the introduction of wastewater into the System, any Industrial User subject to Pretreatment Standards and Requirements shall submit to the County and ADEM a report indicating the nature and concentration of all pollutants in the discharge from the regulated process which are limited by Pretreatment Standards and Requirements and the average and maximum daily flow for those process units which are regulated by such Pretreatment Standards or Requirements. The report shall state whether the applicable Pretreatment Standards or Requirements are being met on a consistent basis and, if not, what additional operation and maintenance procedure or pretreatment is necessary to bring the Industrial User into compliance with the applicable Pretreatment Standards or Requirements. This statement shall be signed by an authorized representative of the Industrial User and certified to by a Professional Engineer registered in the State of Alabama.
5) Any Industrial User subject to a Pretreatment Standard, after the compliance date of such Pretreatment Standard, or, in the case of a New Source, after commencement of the discharge into the System, shall submit to the County and ADEM, at such times and intervals as specified in the respective permit, a report indicating the nature and concentration of pollutants in the effluent which are

limited by such Pretreatment Standard. In addition, this report shall include a record of all daily flows which, during the reporting period, exceeded the average daily flow reported in Section C(4) of this Article. At the discretion of the County and ADEM and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the County and ADEM may agree to a specific schedule for report submission.

6) The County and ADEM, as applicable, may impose mass limitations on Industrial Users where the imposition of mass limitations are appropriate. In such cases, the report required by Article IV.B. shall indicate the mass of pollutants regulated by Pretreatment Standards in the effluent of the Industrial User. Where mass limitations are imposed on Industrial Users, matching concentration limits may be imposed on Industrial Users.
7) The Industrial User shall immediately notify the County of any prohibited discharge under Article II.A.
8) The reports required in this Article shall contain the results of sampling and analysis of the discharge, including the flow rate and the nature and concentration, or production and mass limits where requested by the County and ADEM, of pollutants contained herein which are limited by the applicable Pretreatment Standards. The frequency of monitoring shall be prescribed in the applicable Pretreatment Standard. All analyses shall be performed in accordance with procedures established by the EPA under the provisions of Section 304(h) of the Act (33 U.S.C. § 1314(h)) and contained in 40 CFR Part 136 and amendments thereto, or with any other test procedures approved by the EPA or ADEM. Sampling shall be performed in accordance with the techniques approved by the EPA.

I. Maintenance of Records

Any Industrial User subject to the report requirements established in this Article shall maintain records of all information resulting from any required monitoring activities. Such records shall include for all samples:

1) the date, exact place, method, and time of sampling, preservation techniques, and the names of the persons taking the samples;
2) the date analyses were performed;
3) who performed the analyses;
4) the analytical techniques/methods used; and
5) the results of such analyses.

J. Retention of Records

Any Industrial User subject to the reporting requirement established in this Article shall be required to retain for a minimum of five (5) years any records of monitoring activities and results (whether or not such monitoring activities are required by this Article) and shall make such records available for inspection and copying by the County, ADEM or the EPA. This period of retention shall be extended during the course of any unresolved litigation involving the Industrial User or when requested by the County, ADEM, or the

EPA.

K. Permit Duration

ADEM will issue SID Permits for a period of five (5) years. Notwithstanding the foregoing, Industrial Users becoming subject to a National Pretreatment Standard shall apply for new permits on the effective date of such National Pretreatment Standards. The County shall notify in writing any User whom it has cause to believe is subject to a National Categorical Pretreatment Standard of the promulgation of such federal regulations, but any failure of the County in this regard shall not relieve the User of the duty of complying with such National Pretreatment Standards. A User must apply in writing to the County and ADEM for a renewal permit within one hundred eighty (180) days prior to expiration of the current permit. Limitations or conditions of a permit are subject to modification or change as such changes may become necessary due to revisions in applicable water quality standards, changes in the County's NPDES permit, changes in Article II of this Ordinance, changes in other applicable law or regulation, or for other just cause. Users shall be notified of any proposed changes in their permit by the County and ADEM at least thirty (30) days prior to the effective date of the change. Any change or new condition in a permit shall include a provision for a reasonable time to achieve for compliance. The user may appeal the decision of ADEM in regard to any changed permit conditions as otherwise provided in this Ordinance.

L. Permit Transfer

SID Permits are issued to a specific Industrial User for a specific operation and facility. An SID Permit shall not be reassigned or sold to a new User or different premises. An SID Permit may be transferred when the facility ownership changes, but ADEM and the County reserve the right to issue a new or modified permit.

M. Permit Revocation

Any permit issued under the provisions of this Article is subject to be modified, suspended, or revoked in whole or in part during its term for cause, including, without limitation, the following:

1) Violation of any terms or conditions of the wastewater discharge permit or other applicable law or regulation;
2) Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; or
3) A change in any permit condition that requires either a temporary or permanent reduction or elimination of the regulated discharge.

ARTICLE V. INSPECTION, MONITORING AND ENTRY

A. General

Whenever required to carry out the objective of this Ordinance, including but not limited to, (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition, or effluent standard, pretreatment standard, standard of performance, or permit condition under this Ordinance; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, pretreatment standard, standard of performance, permit condition or any requirement established under this Ordinance.

1) The County and ADEM shall require any Industrial User or any other User including residential and non-residential Users, if deemed necessary, to comply with the requirements this Ordinance, including:
   (a) establish and maintain such records as required by Article IV of the Ordinance;
   (b) make such reports as required;
   (c) install, use and maintain such monitoring equipment and methods (including, where appropriate, biological monitoring methods) as required;
   (d) sample such effluent (in accordance with such methods, at such locations, at such intervals, and in such manner as the County and ADEM shall prescribe);
   (e) provide the County, ADEM or EPA with access to the User's premises; and
   (f) provide such other information as the County or ADEM may reasonably require.
2) The authorized representative of the County, ADEM, or EPA, upon presentation of his credentials:
   (a) shall, within thirty (30) minutes of presenting proper credentials, have a right of entry to all properties for purposes of inspection, observation, measurement, sampling and testing in accordance with the provisions of this Ordinance; and
   (b) may at any time have access to and copy any records, inspect any monitoring equipment or method required under clause (1), and sample any effluents where the owner or operator of such source is required to sample under such clause.
3) Where, in the opinion of the County, construction, repair, or maintenance of any portion of the System is needed, the County, its employees or contractors shall be permitted to enter property and perform such work as may be necessary. The County shall have the right to disconnect illicit or unpermitted sources from the System. The responsibility for payment of the cost and expense of any such activities shall be determined by the County and billed to the user as appropriate.
4) Where, in the opinion of the County, construction, repair or maintenance of any portion of the System carrying wastewater, storm water, or surface water is needed, and said portion lies outside of a public easement, the owner thereof shall be advised by the County of the needed construction, repair or maintenance and

be given a reasonable time as determined by the County to complete such work. Upon the owner's refusal or failure to complete such work as aforesaid, the County may, with consent of the owner, perform such work at the expense of the owner. Upon the failure of the owner to perform such work or consent to such work at the owner's expense, the County may disconnect said portion from the System.

B. Requirements

Specific requirements under the provisions of Article V.A shall be established by the County and ADEM for each Industrial User and such requirements shall be included as a condition of the Industrial User's SID permit. The nature or degree of any requirements under this provision shall depend upon the nature of the Industrial User's discharge, the impact of the discharge and economic reasonableness of any such requirement imposed. The Industrial User shall be required to design any necessary facility, and to submit detailed design plans and operating procedures to the County and ADEM for review in accordance with accepted engineering practices. However, the County shall not approve such a submittal for performance.

C. Denied Right of Entry

In the event any User denies the County, ADEM, or EPA, or their authorized representatives, the right of entry to or upon the User's premises for purposes of inspection, sampling effluents, inspecting and copying records, or performing such other duties as shall be imposed upon the User under this Ordinance, the County, ADEM, or EPA shall use such means as shall be advisable and reasonably necessary to discharge its duties under this Ordinance to obtain entry.

D. Denied Duty

Any User failing or refusing to discharge any duty imposed upon him under the provisions of this Article, or who denies the County and ADEM or the EPA the right to enter upon the User's premises for purposes of inspection, sampling effluents, inspecting and copying records, or such other duties as may be imposed upon him under this Ordinance, shall be deemed to have violated the conditions of his SID permit, as applicable, and such permit shall be subject to modification, suspension, or revocation under the procedure established in Article III of this Ordinance.

E. Sampling Structure and Equipment

1. General

All industrial waste connections shall have a sampling structure which will meet the requirements of this Ordinance. The Industrial User shall supply and maintain at its expense such equipment as may be necessary to enable the County to take refrigerated continuous flow proportional samples of the wastewater discharges. If, after initial

sampling and monitoring by the County, it is determined that the structure and equipment are inadequate to obtain data of sufficient quality, the County may require changes or modifications in the structure and equipment as it deems necessary. It shall be the Industrial User's responsibility to maintain such structure and equipment. Any damage or loss which necessitates repair or replacement of the County's sampling equipment shall be assessed and charged to the Industrial User on an actual cost basis.

2. Suggested Sampling Structures

Documents are available to assist the User in constructing the aforementioned sampling structure. These documents are available upon request by contacting the Industrial Pretreatment Office at 205-238-3833.

ARTICLE VI. INDIRECT DISCHARGES

A. Hauled Wastewater

No person may discharge hauled wastewater into the System except in the manner and at such locations as may be designated by the County.

B. Certification of Haulers

Any person engaged in the hauling of wastewater to the System must hold a current valid certificate of competency from the Jefferson County Health Department and a license from the Alabama Onsite Wastewater Board. The discharge of hauled wastewater to the System will not be permitted without evidence of such certification.

C. Wastewater Limitations

The discharge of hauled wastewater shall generally be limited to the following:

1) Contents of residential household septic tanks (septage)
2) Food Service Facility grease traps/interceptors

The County reserves the right to refuse any hauled wastewater when, in the absolute discretion of the County, it appears that the discharge of hauled wastewater may interfere with the effective operation of the System.

D. Discharge Locations

The County shall designate the locations and times where hauled wastewater may be discharged. Locations and times of operation are subject to change without notice.

Current locations accepting discharge of hauled wastewater are as follows:

1) Septage Discharge Facility near the Birmingham Municipal Airport at 1701 40th Street North
2) Valley Creek Wastewater Treatment Plant in West Bessemer
3) Village Creek Wastewater Treatment Plant in Ensley (facility accepts grease trap discharge)
4) Such other places as may be designated by the Director of Environmental Services

E. Monitoring of Discharge

The County may collect samples of each load of hauled wastewater to ensure compliance with this Ordinance. The County may also require the wastewater hauler to provide an analysis of the wastewater of any load prior to discharge.

F. Grease Waste

Grease trap waste shall not be combined with septic tank waste and transported to the disposal site as part of a mixed load. Discharge of mixed septage and waste grease loads are prohibited.

Grease manifests shall accompany all grease interceptor and trap waste to the disposal site. The grease hauler shall complete the middle portion of the grease disposal manifest and deliver the manifest to the disposal site for completion.

Only grease collected in Jefferson County or from Users of the System may be discharged at ESD Facilities. Grease disposal manifests shall accompany all grease interceptor and trap waste and be delivered to the grease disposal site.

G. Other Waste

Other hauled wastewater or liquid waste may, at the discretion of the County, be accepted for discharge at an approved location provided that:

1) Wastewater contains no industrial waste or sludges (refer to SID permit and/or Jefferson County Pretreatment Office);
2) Wastewater contains no hazardous waste; and
3) Wastewater is not otherwise limited by this Ordinance.

Sampling and analysis of such non-domestic septage or grease waste shall be provided. Additional Charges for the discharge of such waste may apply as determined by the County.

ARTICLE VII. BUILDINGS, SEWERS, AND CONNECTIONS

A. User Responsibility

All costs and expenses related to the installation and/or connection of the sewer service line shall be borne by the User. The User shall indemnify the County from any loss or damage that may directly or indirectly be occasioned by the installation of the sewer service line.

B. Number of Sewers per Building

A separate and independent sewer service line shall be provided for every building. Variances to this rule are subject to approval by the Sewer Permitting and Inspections Office (716 Richard Arrington Jr. Blvd. North, Suite A300, Birmingham, Alabama).

C. Construction Standards

The size, slope, alignment, materials or construction of a sewer service line, and the methods to be used in excavating, placing of pipe, jointing, testing, and backfilling the trench, shall all conform to the requirements of the ESD Standard Specifications for Sanitary Sewer Service Lines and Connections, the ESD Standards for Construction of Commercial and Residential Sanitary Sewer Systems, all applicable plumbing codes, and other applicable rules and regulations of the County.

D. Sewer Elevation

Whenever possible, a building's sewer service line shall be designed to operate by gravity flow. In limited circumstances, a private lift station may be approved by the Sewer Permitting and Inspections Office.

E. Connection Standards

The connection of the sewer service line into the public sewer shall conform to the requirements of the building and plumbing codes or other applicable rules and regulations of the County. In the absence of specific code provisions, the materials and use provided in applicable specifications of ASTM and WPCF Manual of Practice No. 9 shall apply. All such connections shall be made gastight and watertight. The County reserves the right to deny connections.

F. On-Site Requirements

All excavations for sewer service line installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a satisfactory manner.

G. Interceptors

Grease, oil and sand interceptors shall be provided by the Owner when, in the opinion of the County, they are necessary for the proper handling of liquid wastes as provided for in Article II.A. Interceptors shall not be required for individual private living quarters or dwelling units. Prior to installation, all interceptor plans and specifications shall be approved by the County and shall be readily and easily accessible for cleaning and inspection.

H. Facility Maintenance

Where primary treatment or flow-equalizing facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his expense.

I. Cross-Connection

Any cross-connection between potable water supply and a sanitary sewer is prohibited.

J. Right of Way Limitations

No private sewer may be extended more than fifty (50) feet in the public right of way. At no time shall a permanent structure be located over a sewer main or sewer service line.

K. Sewer Impact Permits

All persons or entities who intend to connect to the System or modify, expand, or change an existing connection to the System shall obtain an impact permit for plumbing fixtures. Commencement of work prior to obtaining a permit is prohibited and subject to penalty.

Impact permits shall be obtained by the User or a designated agent of the User before a building or plumbing permit will be issued for any residential, commercial, or industrial facilities whose wastewater is treated in the System. The following is required of an applicant in order to secure an impact permit:

1) Applicants shall provide a building, site utility and plumbing drawings to the Sewer Permitting and Inspections Office (716 Richard Arrington Jr. Blvd. North, Suite A300, Birmingham, Alabama). Site utility plans are required for Non-Residential Users. It is the responsibility of the applicant to determine the number of fixtures.

2) Upon payment of applicable Charges, the applicant shall receive two copies of the impact permit. The applicant shall retain one copy for his or its personal records, and submit one copy to the governing municipal jurisdiction for a building permit, if required.

3) A building permit shall not be issued prior to the issuance of an impact permit as outlined in 2) and in accordance with the Unification Agreement.

4) The County shall inspect the premise to determine compliance with the impact permit. It shall be the responsibility of the applicant and/or the Owner, or Owner's representative to notify the County of completion of construction. For any plumbing fixtures which were not included in the impact permit, Charges shall be paid in full before a certificate of occupancy is issued.

L. Alternate Waste Systems Conversion Prohibition

All persons, firms or entities owning or occupying any home, mobile home, commercial building or industry currently connected to the System shall not disconnect from the System for the purposes of connection to an alternate waste treatment system. The System shall be deemed the primary source of waste disposal.

M. Sewer Connection Permits

All persons or entities who wish to connect a new service line to the System, or to modify, change, or repair an existing service line or connection to the System, shall obtain a sewer connection or sewer repair permit from the Sewer Permitting and Inspections Office (716 Richard Arrington Jr. Blvd. North, Suite A300, Birmingham, Alabama).

All sewer connection permits shall be obtained prior to starting any excavation for the installation or repair of a sewer service line or connection. Plumbers may also be required to secure excavation permits from other jurisdictions when entering road rights of way. The Sewer Connection Permit shall be obtained by the Owner's plumber from the Sewer Permitting and Inspection Office. The sewer connection permit shall be obtained and signed by a Master Plumber or his duly authorized representative. The plumbing company shall have a current bond with the Jefferson County Commission, and be licensed by the State of Alabama Plumbing and Gas Fitters Board.

ARTICLE VIII. GREASE CONTROL

A. Application and Permit Requirements

All Food Service Facilities having the potential to discharge Fats, Oils and Grease (FOG) into the Sewer System shall obtain a Grease Control Program Permit. On all new construction, a sewer impact permit must be obtained from the Sewer Permitting and Inspection Office (716 Richard Arrington, Jr. Blvd. North, Suite A300, Birmingham, Alabama, prior to the issuance of a Grease Control Program Permit.

1. Procedures

Grease Control Program Permits shall be obtained by the Owner or his designated agent. A Grease Control Program Permit must be obtained before (1) a sewer connection permit is issued for new construction or (2) an impact permit is issued for remodels on existing structures for any food service facility whose wastewater is treated in the System. The following describes the process required by an applicant securing a grease permit.

a) The Owner shall submit an application for permit to the Grease Control Program Office (1290 Oak Grove Road, Homewood, AL 35209). The Owner shall include a site utility plan and/or plumbing plans with details, size and location of the grease control device and sampling vault inclusive of locations for all sinks, dishwashers, restrooms, sewer connections, etc. (as deemed necessary) along with a recent copy of the water bill for the facility in question. All grease interceptors and traps located at a facility and operated by the same Owner must be included in the permit application, each grease control device shall be identified individually on said application. All information contained in the Food Service Facility Grease Control Program Permit Application shall be certified by the applicant as true and complete prior to the County's review for approval.
b) Upon submittal and payment, the County will review the permit application for acceptance.
c) Permit acceptance conditions may include, but are not limited to, the following:
    i. permit duration,
    ii. permit fee,
    iii. permit transfer prohibition,
    iv. frequency of inspections,
    v. maintenance requirements,
    vi. compliance schedule,
    vii. requirements for retaining records,
    viii. statement of permission for the County to enter upon the User's property without prior notifications for the purpose of inspection, observation, photography, records examination and copying, measurement, sampling or testing, and
    ix. other conditions deemed by the County necessary to ensure compliance with this program and other applicable ordinances, laws and regulations.
d) A Food Service Facility may apply for a Permit Exemption if the Food Service Facility does not discharge significant amounts of FOG to the System. Such

facilities shall engage only in the reheating, hot holding or assembly of ready to eat food products, and as a result, there is no wastewater discharge containing a significant amount of FOG. Food Service Facilities which are granted an exemption from the permit requirement are subject to inspection by ESD inspectors and are required to notify the County if changes are made where grease waste is generated. A permit exemption shall be subject to a single exemption Charge. The exemption will be in effect until there is a change in food service operations that generates FOG or if the facility is linked to a sewer blockage or sanitary sewer overflow.

e) Permit Denial: The applicant will be advised in writing of the specific cause for the denial within sixty (60) calendar days of the decision to deny the permit application. If the applicant is denied a permit under this program, he shall have the right to appeal such denial to the Director. The appeal shall be filed within fifteen (15) business days of receipt of the notice of denial.

2. Grease Control Device Requirements

All new Food Service Facilities that discharge FOG into the System shall install, operate, and maintain properly sized grease control devices provided in this Ordinance and in accordance with all regulatory authorities having jurisdiction. New construction shall include remodels where plumbing is being re-worked, excavation is being performed on-site, or when there is a change in size or type of food preparation equipment. Existing FSFs may be required to modify existing grease control devices, or to install new or additional grease control devices.

a) Grease Traps (Outdoor Applications)
Grease traps shall be required for each new and existing Food Service Facility if the service provided by the establishment includes food preparation, operation of a food grinder or an automatic dishwasher.
   i. Grease traps shall have a capacity of not less than two (2) 1,000 gallon traps installed in series for a total capacity of 2,000 gallons;
   ii. The Director may approve the use of a single 1,000 gallon trap where site conditions prevent the installation of two 1,000 gallon traps in series; and
   iii. The Director may approve the use of a single 1,000 gallon trap for food service facilities if a Food Service Facility demonstrates that a single 1,000 gallon trap can accommodate the nature of the food service provided.

   Contact the Grease Control Program at 238-3878 for grease trap specifications. If additional Food Service Facilities are added to an existing trap, a professional engineer must certify that the existing trap can properly function with the additional FOG loading.

b) Grease Interceptors (Indoor Applications)
Grease interceptors may be approved for use by the County for indoor installations if site conditions prevent the installation of outdoor grease traps, if the Food Service Facility operates infrequently, or if the facility is replacing an

existing grease interceptor provided that the Food Service Facility is not equipped with a dishwasher or a food waste grinder.

Grease interceptors shall be sized in accordance with Plumbing and Drainage Institute Standard PDI-G101, Testing and Rating Procedure for Grease Interceptor with Appendix of Sizing and Installation Data.

Discharge of the following materials to an indoor grease interceptor is prohibited:

i. Wastewater with a temperature higher than 140 degrees F,
ii. Wastewater discharged from a dishwasher
iii. Acidic or caustic cleaners, or
iv. Wastewater discharged from a food waste grinder (disposal).

c) Alternative Grease Removal Technologies

Alternative grease removal technologies may be approved by the County for the purpose of controlling FOG discharge into the sewer system in lieu of a standard grease interceptor or trap if ESD determines the device employing such technology shall be at least as effective as a standard grease interceptor or trap. The approved device shall be wired directly to a circuit breaker and shall contain audio and visual alarms that can only be reset by opening and servicing the device.

The User shall provide the following information to ESD for the evaluation of the proposed technology:

i. A design that is specific to the Food Service Facility submitting the information prepared and certified by a professional engineer. The County will not consider a general proposal.
ii. Complete information regarding the performance of the technology and proof of effectiveness in removing FOG from the waste stream.
iii. Specifications for maintenance service and frequency.
iv. The manufacturer's installation and operation manuals.

If the alternative technology is approved, the User shall install and maintain the device in accordance with the manufacturer's installation and operation specifications. Maintenance shall be performed at least as often as stipulated in the permit, even if the manufacturer specifies less frequent maintenance.

d) Sampling Location

Grease control device sampling vaults or ports shall be required at all new Food Service Facilities. Existing Food Service Facilities may be required to provide a sampling vault/port if two or more failures have occurred and it has determined that the Existing Food Service Facility is a contributor to the downstream blockage.

3. Action Plan

If it is determined by the ESD that an existing grease interceptor or grease trap does not meet the capacity and/or functionality requirements as set forth in this Ordinance, the Owner shall submit a detailed Action Plan within 30 days of notification. The Action Plan shall clearly identify the method which will be used to address the deficient grease interceptor or trap. Options to address the deficient grease interceptor or trap include the following:

Option 1 – Install a grease interceptor or trap (grease control device) of proper size and install a sampling vault/port. The Action Plan shall identify the location and size of the existing grease interceptor or trap, the location and size of the proposed grease interceptor or trap and sampling vault/port, and the date by which the proposed grease interceptor or trap will be in service. ESD will review the proposed location, size and installation schedule and either approve the Action Plan or request modifications and resubmittal of the Action Plan.

Option 2 – Install one or more additional grease interceptors or traps (grease control devices) in series with the existing interceptor or trap to provide the required capacity and install a sampling vault/port. The Action Plan shall identify the location and size of the existing grease interceptor or trap, the location and size of the proposed grease interceptor or trap and the sampling vault, and the date by which the proposed grease interceptor or trap and sampling vault/port will be in service. ESD will review the proposed location, size and installation schedule and either approve the Action Plan or request modifications and resubmittal of the Action Plan.

Option 3 – Install a grease control device employing alternative technology. The device can be a standalone device or may be used in combination with a conventional passive grease interceptor or trap. The Action Plan shall include manufacturer's information on the specific device to be installed and a drawing showing the Food Service Facility plumbing, the proposed location of the device, and the location of the sampling vault/port.

B. Grease Permit Violations

The Director may revoke a permit or approval in the event that any part of the construction, installation or maintenance of the grease control device is in violation of, or not in compliance with, the provisions of this Ordinance.

Installation, modifications, repairs or replacement of grease control devices shall be inspected by the County. Any work completed without prior approval by the County shall be subject to a non-compliance Charge.

C. Maintenance Requirements for Grease Control Devices

Maintenance shall be performed for grease control devices as determined by inspections, sampling and the application of the 25 Percent Rule, or at intervals specified in the Permit, whichever is more frequent, but no less than every 90 days for outdoor grease

traps and every 14 days for indoor grease interceptors. Maintenance of all grease control devices shall be performed as frequently as necessary to protect the sanitary sewer system against the accumulation of FOG. If multiple grease control devices are installed, all systems in the series must be pumped according to the maintenance schedule.

The 25 Percent Rule requires that the depth of oil and grease (floating and settled) in a trap shall be less than 25 percent of the total operating depth of the trap. The operating depth of a trap is determined by measuring the internal depth from the outlet water elevation to the bottom of the trap.

Food Service Facilities which operate infrequently or only for special events may request a modification to the maintenance schedule specified above. The County may authorize a maintenance frequency related to the operation of the Food Service Facility. The User shall submit a request, in writing, for a modified maintenance schedule which includes all details of operation to the County for review.

The User shall be responsible for the proper removal and disposal of the grease interceptor or trap waste. All waste removed from each grease interceptor or trap must be disposed of properly at an appropriate facility designed to receive grease interceptor or trap waste. All grease waste generated within the System shall be disposed of at designated County facilities.

Maintenance shall include the complete removal of all grease waste from the interceptor or trap including floatable materials, wastewater, sludges, and solids. Grease interceptors and traps shall be operated in accordance with the manufacturer's specifications and/or in accordance with generally accepted engineering standards and practices.

Grease trap maintenance shall include the following minimum services:

1) Complete removal of all grease interceptor or trap contents rather than skimming the top grease layer,
2) Thorough cleaning of the grease interceptor or trap to remove grease and scum from inner walls and baffles,
3) Filling cleaned interceptor or trap with cold potable water, and
4) Completion of middle section of the grease disposal manifest form and delivery to waste disposal site along with the grease interceptor or trap waste.

Top skimming, decanting or back flushing of the grease interceptor or trap or its contents for the purpose of reducing the volume of waste to be hauled is prohibited. Vehicles capable of separating water from grease shall not discharge separated water into the grease trap or into the wastewater collection system.

The User shall be responsible for retaining records of the maintenance of all grease control devices including manifests, permits, permit applications, correspondence, sampling data and any other documentation that may be requested by ESD. These records shall include the dates of service, volume of waste removed, waste hauler, and disposal site of waste. These records shall be kept on-site at the location of the grease

control device for a period of three (3) years and are subject to review without prior notification.

D. Grease Control Program Inspections and Compliance

Grease interceptors and traps shall be subject to inspection a minimum of once per year to determine compliance. Frequency of inspections may be increased in order to protect the System against the accumulation of grease. Compliance shall be evaluated based on any of the following criteria:

1) Implementation of Best Management Practices (BMPs),
2) Grease control device(s) kept in compliance with 25 Percent Rule,
3) Regularly scheduled maintenance of grease control device(s),
4) Documentation of maintenance and proper disposal,
5) Employee education and training and documentation thereof
6) Completion of approved action plans, and
7) Absence of fryer oil.

Failure to comply with any of these requirements may result in a non-compliance Charge.

If a grease interceptor or trap fails an inspection, the inspector shall notify the User that maintenance must be performed on the grease device within seven (7) calendar days. The inspector will return within 14 calendar days to re-inspect the grease device, and the FSF shall be subject to a re-inspection Charge per grease interceptor or trap. If the grease interceptor or trap is determined to be in compliance, annual inspections shall resume the subsequent year.

If the grease interceptor or trap fails a re-inspection, a notice of non-compliance shall be issued and maintenance must be performed on the grease interceptor or trap immediately. A second re-inspection will be scheduled within 24 hours. The User shall be subject to the re-inspection Charge for each re-inspection.

Any grease interceptor or trap receiving three (3) notices of non-compliance within a 24-month period shall be deemed a nuisance by the County and shall require corrective actions as determined by the County to cure the nuisance, including, if deemed necessary, termination of all discharges to the System

Any alternative technology grease control device found in non-compliance shall be deemed a nuisance by the County. If the user is unable to cure the nuisance, installation of a conventional passive grease trap shall be required.

E. Prohibitions

The following activities are specifically prohibited:

1) Introduction of chemical elements directly into the grease control device or any section of the plumbing system.
2) Disposal of fryer oil to the System.

F. Grease Haulers

All grease haulers shall be licensed by the Jefferson County Department of Health and hold a Septic Tank Haulers Permit. Grease trap waste shall not be combined with septic tank waste and transported to the disposal site as part of a mixed load. Discharge of mixed septage and waste grease loads are prohibited.

Grease manifests shall accompany all grease interceptor and trap waste to the disposal site. The grease hauler shall complete the middle portion of the grease disposal manifest and deliver the manifest to the disposal site for completion.

Only grease collected in Jefferson County may be discharged at ESD Facilities. Grease collected outside of Jefferson County shall not be accepted for disposal at any ESD Facility. Grease disposal manifests shall accompany all grease interceptor and trap waste and be delivered to the grease disposal site.

ARTICLE IX. GENERAL PROVISIONS

A. Damage to Sewer System

No person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any portion of the Sewer System.

B. Validity

All resolutions, ordinances, parts of resolutions, or parts of ordinances in conflict herewith are hereby repealed.

C. Severability

The provisions of this Ordinance are severable. If any provision, section, paragraph, sentence or part thereof, or the application thereof to any individual or entity, shall be held unconstitutional or invalid, such decision shall not affect or impair the remainder of this Ordinance, it being the Commission's legislative intent to ordain and enact each provision, section, paragraph, sentence and part thereof separately and independently of each other.

D. Penalties

Violation of any provision of this Ordinance may subject the violator to fine and/or other enforcement remedies available to the County and to ADEM. Each day on which a violation shall occur or continue shall be deemed a separate and distinct offense. In addition to any such fines or enforcement remedies, the County shall be allowed to recover reasonable attorney's fees, interest, penalties, court costs, court reporter's fees and any other expenses of litigation or collections from any person or entity in violation of this Ordinance or the orders, rules, regulation and permits issued hereunder.

ARTICLE X. ORDINANCE IN FORCE

A. Date Effective

This ordinance shall be in full force and effect on the date of adoption by the Jefferson County Commission.

B. Date Adopted

Passed and adopted by the Jefferson County Commission on the 6th day of November, 2012. Approved this 6th day of November, 2012.

by W.D. Carrington, President – Jefferson County Commission

Attest:

Diane Townes
Minute Clerk of the Jefferson County Commission
Approved as to correctness: