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Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

APRIL 21,2025

Randall Stewart, Director
City of Huntsville Water Pollution Control
1802 Vermont Road
Huntsville, AL 35802

RE: Draft Permit
NPDES Permit No. AL0049531
Western Area WWTP
Madison County, Alabama

Dear Mr. Stewart:

Transmitted herein is a revised 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.G of your permit requires that you develop, implement, and maintain a Sanitary Sewer Overflow Response Plan.

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)

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.

Should you have any questions, please contact the undersigned by email at michael.simmons@adem.alabama.gov or by phone at (334) 274-4220

Sincerely,

Michael N. Simmons
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: CITY OF HUNTSVILLE WATER POLLUTION CONTROL
1802 VERMONT RD
HUNTSVILLE, AL 35802

FACILITY LOCATION: WESTERN AREA WWTP (32.5 MGD)
759 LANDESS CIRCLE
MADISON, ALABAMA
MADISON COUNTY

PERMIT NUMBER: AL0049531

RECEIVING WATERS: TENNESSEE RIVER (WHEELER LAKE)
BLACKWELL RUN (STORMWATER ONLY)

*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 0014: Industrial/Municipal Effluent Discharge

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 0014, 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	*****	*****	*****	(Report) Minimum Daily	*****	*****	mg/l	3X Weekly test	Grab	Not Seasonal
pH (00400) Effluent Gross Value	*****	*****	*****	6.0 Minimum Daily	*****	9.0 Maximum Daily	S.U.	3X Weekly test	Grab	Not Seasonal
Solids, Total Suspended (00530) Effluent Gross Value	8131 Monthly Average	12197 Weekly Average	lbs/day	*****	30.0 Monthly Average	45.0 Weekly Average	mg/l	3X Weekly test	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	3X Weekly test	24-Hr Composite	Not Seasonal
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	5421 Monthly Average	8131 Weekly Average	lbs/day	*****	20.0 Monthly Average	30.0 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
Nitrogen, Kjeldahl Total (As N) (00625) 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
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	*****	1.57 Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	NTS
Phosphorus, Total (As P) (00665) Effluent Gross Value	(Report) Monthly Average	(Report) Weekly Average	lbs/day	*****	(Report) Monthly Average	(Report) Weekly Average	mg/l	3X Weekly test	24-Hr Composite	NTW

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

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

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

See Permit Requirements for Stormwater in Part IV.F

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

NTS = Nutrient Summer (April – October)
NTW = Nutrient Winter (November - March)

(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.

1. DSN 0014 (continued): Industrial/Municipal Effluent Discharge

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 0014, 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)
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 note (3) Effluent Gross Value	*****	*****	*****	*****	*****	1.0 Maximum Daily	mg/l	3X Weekly test	Grab	Not Seasonal
E. Coli (51040) Effluent Gross Value	*****	*****	*****	*****	126 Monthly Average	235 Maximum Daily	col/100mL	3X Weekly test	Grab	Not Seasonal
BOD, Carbonaceous 05 Day, 20C (80082) Effluent Gross Value	6776 Monthly Average	10164 Weekly Average	lbs/day	*****	25.0 Monthly Average	37.5 Weekly Average	mg/l	3X Weekly test	24-Hr Composite	Not Seasonal
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	3X Weekly test	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

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

See Permit Requirements for Stormwater in Part IV.F

(2) S = Summer (April – October)
W = 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.

2. DSN 001T: Toxicity Monitoring

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 001, 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)
Toxicity, Ceriodaphnia Acute (61425) Effluent Gross Value	*****	0 Single Sample	pass=0;fail=1	*****	*****	*****	*****	See Permit Requirements	24-Hr Composite	January, April, July, October.
Toxicity, Pimephales Acute (61427) Effluent Gross Value	*****	0 Single Sample	pass=0;fail=1	*****	*****	*****	*****	See Permit Requirements	24-Hr Composite	January, April, July, October.

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

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

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

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

(3) Should results of four consecutive monitoring periods indicate the Outfall DSN001T effluent does not exhibit acute toxicity, the Permittee may request that the toxicity testing be reduced. A reduction in toxicity testing frequency will be allowed only if approved by the Department in writing.

3. DSN 002S – 005S: Stormwater Monitoring

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 – 005S, 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)
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	*****	*****	*****	*****	*****	15.0 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) 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

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

See Permit Requirements for Stormwater in Part IV.F

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

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). Location should be shown on a USGS quad sheet or copy thereof; 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. 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 30l(c), 30l(g), 30l(h), 30l(k), or 3l6(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 direct 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 create a fire or explosion hazard in the treatment works;

2. Pollutants which will cause corrosive structural damage to the treatment works, or dischargers with a pH lower than 5.0 s.u., unless the works are specifically designed to accommodate such discharges;

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

4. Pollutants, including oxygen demanding pollutants, released in a discharge of such volume or strength as to cause interference in the treatment works;

5. Heat in amounts which will inhibit biological activity in the treatment plant resulting in interference or in such quantities that the temperature of the treatment plant influent exceeds 40 °C (104 °F) unless the treatment plant is designed to accommodate such heat;

6. Pollutants in amounts which exceed any applicable pretreatment standard under Section 307 of FWPCA or any approved revisions thereof.

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 – ACUTE DIFFUSER

1. Acute Toxicity Test

   a. The permittee shall perform 48-hour acute toxicity tests on the wastewater discharges required to be tested for acute toxicity by Part I of this permit.

   b. The samples shall be diluted using an appropriate control water, to the Instream Waste Concentration (IWC) which is **8.0 percent** effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 1-day, 10-year flow period.

   c. Any test where survival in the effluent concentration is less than 90% and statistically lower than the control indicates acute toxicity and constitutes noncompliance with this permit.

2. **General Test Requirements**

   a. A 24-hour composite sample shall be obtained for use in above biomonitoring tests. The holding time for each 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-02-012 or most current edition or another control water selected by the permittee and approved by the Department.

b. Effluent toxicity tests in which the control survival is less than 90% or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the permittee shall rerun the tests as soon as practical within the monitoring period.

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

d. Toxicity tests shall be conducted for the duration of this permit in the month of **January, April, July** and **October**. Should results from the Toxicity test indicate that **Outfall 001T** exhibits acute toxicity, then the Permittee must conduct the follow-up testing described in Part IV.B.5.a. Should the results of four consecutive quarterly testing periods indicate that outfall **001T** does not exhibit acute toxicity, the Permittee may provide a written request to reduce the sampling frequency to annually.

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 Section 2 and 7 shall be included with the DMR. The test results must be submitted to the Department no later than 28 days after the month in which the tests were performed.

4. Additional Testing Requirements

a. If acute toxicity is indicated (noncompliance with permit limit), the permittee shall perform four additional valid acute toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall be performed once per week and shall be performed during the first four calendar weeks following the date on which the permittee became aware of the permit noncompliance and the results of these tests shall be submitted no later than 28 days following the month in which 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/guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-92/081, EPA/833/B-99/022 and/or EPA/600/6-91/005F, etc.).

5. Test Methods

The tests shall be performed in accordance with the latest edition of the "EPA Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms" and shall be performed using the fathead minnow (*Pimephales promelas*) and the cladoceran (*Ceriodaphnia dubia*).

6. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate this requirement or may increase or decrease 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 date (MGD, CFS, GPM)

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

c. Source of Effluent and Dilution Water

(1) Effluent samples

(i) Sampling point

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

(iii) Sample collection method

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

(v) Sample temperature when received at the laboratory

(vi) Lapsed time from sample collection to delivery

(vii) Lapsed time from sample collection to test intiation

(2) Dilution Water Samples

(i) Source

(ii) Collection date(s) and time(s) (where applicable)

(iii) Pretreatment

(iv) Physical and chemical characteristics (pH, hardness, water temperature, alkalinity, 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) Feeding frequency, and amount and type of food

(12) Light intensity (mean)

e. Test Organisms

(1) Scientific name

(2) Life stage and age

(3) Source

(4) Disease treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source

(2) Date and time of most recent acute reference toxicant test(s), raw data, and current cusum chart(s)

(3) Dilution water utilized in reference toxicant test

(4) Results of reference toxicant test(s) (LC50, etc.), report concentration-response relationship and evaluate test sensitivity. The most recent reference toxicant test shall be conducted within 30-days of the routine.

(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: LC50, NOEC, Pass/Fail (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) (LC50, NOEC, Pass/Fail, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD).

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Action to be taken

Adapted from "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine

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 chlorine is not detected prior to actual discharge to the receiving stream using one of these methods (i.e., the analytical result is less than the detection level), 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. 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.

F. 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.F.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.

G. 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.

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: January 30, 2025 **By:** Michael Simmons

NPDES Permit No. AL0049531

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

   City of Huntsville Water Pollution Control
   1802 Vermont Rd
   Huntsville, AL 35802

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

   Western Area WWTP
   759 Landess Circle
   Madison, AL 35756

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
0014	Tennessee River (Wheeler Lake)	Swimming, Fish and Wildlife
002S	Blackwell Run	Fish and Wildlife
003S	Blackwell Run	Fish and Wildlife
004S	Blackwell Run	Fish and Wildlife
005S	Blackwell Run	Fish and Wildlife

   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: **AL0049531**

Date: February 3, 2025
Revision: April 14, 2025

Permit Applicant: City of Huntsville Water Pollution Control
1802 Vermont Rd
Huntsville, AL 35802

Location: **Western Area WWTP**
759 Landess Circle
Madison, AL 35756

Draft Permit is:

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

Basis for Limitations:

Water Quality Model:	$CBOD_5$, NH_3-N
Reissuance with no modification:	N/A
Instream calculation at 7Q10:	8% (Cormix)
Toxicity based:	TRC
Secondary Treatment Levels:	$CBOD_5$, $CBOD_5$ % Removal, TSS, TSS % Removal
Other (described below):	pH, E. Coli, TP

Design Flow in Million Gallons per Day: 32.5 MGD

Major: Yes

Description of Discharge:

Feature ID	Description	Receiving Water	WBC	303(d)	TMDL
0014	Industrial/Municipal Effluent Discharge	Tennessee River (Wheeler Lake)	Swimming, Fish and Wildlife	Yes	No
002S	Stormwater Monitoring	Blackwell Run	Fish and Wildlife	No	No
003S	Stormwater Monitoring	Blackwell Run	Fish and Wildlife	No	No
004S	Stormwater Monitoring	Blackwell Run	Fish and Wildlife	No	No
005S	Stormwater Monitoring	Blackwell Run	Fish and Wildlife	No	No

Discussion:

This is a permit reissuance due to expiration. City of Huntsville Water Pollution Control has upgraded the plant and in this reissuance the design flow is being upgraded to 32.5 MGD. Loading Limits in this reissuance are based on the 32.5 MGD design flow. Limits for Five Day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) and Total Ammonia-Nitrogen (NH_3-N) were developed based on a Waste Load Allocation (WLA) model that was completed by ADEM's Water Quality Branch (WQB) on January 10, 2024. The monthly average limits for $CBOD_5$ and NH_3-N are 25.0 mg/L and 20.0 mg/L, respectively. The daily minimum DO limit to be monitored and reported.

The pH daily minimum and daily maximum limits of 6.0 to 9.0 S.U, respectively, were developed to be supportive of the water-use classification of the receiving stream. The daily maximum Total Residual Chlorine (TRC) limit of 1.0 mg/L is based on EPA's recommended water quality values and on the current Toxicity Rationale, which considers the available dilution in the receiving stream and should be protective of both acute and chronic Water Quality Criteria.

Monitoring for TRC is only applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "9" on the monthly DMR.

The imposed E. Coli limits were determined based on the water-use classification of the receiving stream. Since this segment of the Tennessee River is classified as Swimming/Fish & Wildlife, the more stringent limits of 126 col/100mL (monthly average) and 235 col/100mL (daily maximum) for the swimming classification are applicable year round.

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 $CBOD_5$ also in accordance with 40 CFR 133.102 regarding Secondary Treatment.

The Municipal Section, in consultation with the Department's Water Quality Branch, has conducted a narrative nutrient reasonable potential analysis. Based on a review of the facility's current levels of nutrients in the discharge and current assessments of the available information, the Permittee is required to monitor and report effluent test results for Nitrite plus Nitrate (NO_2+NO_3) and Total Kjeldahl Nitrogen (TKN). 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 additional nutrient limits on this discharge.

For Outfall 0014, this Permit is implementing a monthly average limitation of 1.40 mg/L. The 1.40 mg/L limit should hold the TP loading allowed to be discharged into the Tennessee River (Wheeler Lake) to what is currently being discharged. The 1.40 mg/L limit was determined by calculating a loading limit under the design flow of 20 MGD and then calculating the concentration limit based on the proposed 32.5 MGD design flow.

Storm water runoff monitoring is being imposed by this permit based on 40 CFR Part 122. The designated outfalls for storm water runoff monitoring are 002S, 003S, 004S, and 005S. Storm water runoff is to be monitored annually. The annual monitoring required includes: $CBOD_5$, E. Coli, Flow Rate, NH_3-N, NO_2+NO_3-N, Oil and Grease, pH, TKN, TP, and TSS.

Because this is a major facility treating both municipal and industrial wastewater, the Department completed a numerical reasonable potential analysis (RPA) of the discharge based on the application data, DMR data, and background data from station TENR-349. However, there is no applicable background data for this discharge except for hardness. 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.

Acute toxicity applies because of the low actual IWC after complete mixing. The IWC is 8% based on a CORMIX model run by ADEM's Water Quality Branch on December 12, 2023 because the discharge employs a diffuser. Since, this is a major facility (design capacity greater than 1 MGD) treating both municipal and industrial wastewater, acute toxicity testing with two species (Ceriodaphnia and Pimephales) is being imposed on this permit. Acute is required quarterly during the months of January, April, July and October. Should results from four consecutive testing periods indicate that Outfall 001T does not exhibit acute toxicity, the Permittee may request, in writing, a reduction in the testing frequency.

The monitoring frequency for $CBOD_5$, DO, E. Coli, NH_3-N, pH, TP, TRC and TSS is three days per week. The monitoring frequency for nutrient-related parameters NO_2+NO_3-N and TKN is once per month. $CBOD_5$ % removal and TSS % removal are to be calculated once per month. Flow is to be continuously monitored daily.

This segment of the Tennessee River (Wheeler Lake) is on the most recent 303(d) list for nutrients. Referring to the previous paragraph, the 1.40 mg/L should hold the TP loading allowed to be discharged into the Tennessee River (Wheeler Lake) for the summer growing season (April – October). Nutrient monitoring is imposed in the reissuance so that sufficient information will be available regarding the nutrient contribution to this segment of the Tennessee River for the purpose of TMDL development. There are no Total Daily Maximum Daily Loads (TMDLs) affecting this discharge. Blackwell Run is a Tier II stream and is not listed on the most recent 303(d) list. There are no TMDLs affecting this discharge.

The permit language in Parts I.C.1.c and I.C.2.e has been updated to reflect the electronic discharge monitoring reporting and sanitary sewer overflow reporting requirements due to the transition to the Department's new Alabama Environmental Permitting and Compliance System (AEPACS) from the E2 Reporting System.

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.

Revision: April 14, 2025

For Outfall 0014, this Permit is implementing an updated monthly average limitation of 1.57 mg/L. The 1.57 mg/L limit should hold the TP loading allowed to be discharged into the Tennessee River (Wheeler Lake) to what is currently being discharged. The 1.57 mg/L limit was determined by calculating a loading limit under the design flow of 20 MGD and then calculating the concentration limit based on the proposed 32.5 MGD design flow.

Prepared by: Michael N. Simmons

Huntsville Western Area WWTP (AL0049531)

Total Phosphorus DMR Data

Monitor Period End Date	*Monthly Average (mg/L)*
8/31/2017	1.00
9/30/2017	1.00
10/31/2017	0.23
4/30/2018	0.32
5/31/2018	1.26
6/30/2018	1.78
7/31/2018	0.37
8/31/2018	2.27
9/30/2018	2.56
10/31/2018	0.15
4/30/2019	1.16
5/31/2019	0.36
6/30/2019	1.40
7/31/2019	1.24
8/31/2019	2.41
9/30/2019	2.42
10/31/2019	1.62
4/30/2020	1.18
5/31/2020	0.87
6/30/2020	0.44
7/31/2020	2.48
8/31/2020	0.57
9/30/2020	0.90
10/31/2020	1.29
4/30/2021	1.12
5/31/2021	1.68
6/30/2021	1.51
7/31/2021	1.87
8/31/2021	1.14
9/30/2021	0.69
10/31/2021	1.29
4/30/2022	0.74
5/31/2022	0.38
6/30/2022	0.94
7/31/2022	0.84
8/31/2022	2.34
9/30/2022	1.68
10/31/2022	1.22
4/30/2023	0.60
5/31/2023	1.76
6/30/2023	1.60
7/31/2023	0.83
8/31/2023	0.63
9/30/2023	1.39
10/31/2023	2.09
4/30/2024	0.14
5/31/2024	0.29
6/30/2024	1.86
7/31/2024	1.45
8/31/2024	0.49
9/30/2024	1.68
10/31/2024	1.01

Monthly Average (mg/L)	1.20
90th Percentile Monthly Average	2.56

Concentration Based on 32.5 MGD (mg/L) to Hold the Loading	**1.57**

Facility Name: **Western Area WWTP**

NPDES No.: **AL0049531**

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

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	5	10	-
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	25	20	0.330
15	Cyanide		Metals	0	0	0	0	9	9	-
16	Total Phenolic Compounds		Metals	0	0	0	0	0	0	-
17	Hardness (As CaCO3)		Metals	0	0	63500	80500	180000	143400	-
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	**Chlorodibromo-Methane***	YES	VOC	0	0	0	0	4	2	-
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	14	6	-
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	12	12	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethane***	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-Dinto-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-Chloroisa-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	HexachlorocycloPentadiene		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	-

32.5	Enter Q_d = wastewater discharge flow from facility (MGD)
50.2849425	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)
6679.51	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
5009.63	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
44291.27	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
11224.84	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter in LWF	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)
60.5	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

April 14, 2025

Facility Name: Western Area WWTP

NPDES No.: AL0048631

Freshwater F&W classification.					Max Daily Discharge as reported by Applicant (C_{max})	Freshwater Acute (µg/l) Q_s =1Q10				Avg Daily Discharge as reported by Applicant (C_{avg})	Freshwater Chronic (µg/l) Q_s = 7Q10				Human Health Consumption Fish only (ug/l) Carcinogen Q_s = Annual Average Non-Carcinogen Q_s = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max		Water Quality Criteria (C_t)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?	Background from upstream source (Cd2) Monthly Ave		Water Quality Criteria (C_t)	Draft Permit Limit (C_{avg})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_t)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.00E+04	9.99E+03	No
2	Arsenic		YES	0	0	[illegible]	59603.571	11920.714	No	0	0	[illegible]	34973.834	6994.767	No	3.03E-01	2.67E+02	5.34E+01	No
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	[illegible]	526.615	105.323	No	0	0	[illegible]	98.359	19.672	No	-	-	-	-
5	Chromium/ Chromium III			0	0	[illegible]	180899.856	36179.971	No	0	0	[illegible]	31297.204	6259.441	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	[illegible]	1809.998	322.000	No	0	0	[illegible]	1472.185	294.433	No	-	-	-	-
7	Copper			0	0	[illegible]	2170.771	434.154	No	0	0	[illegible]	2010.685	402.137	No	-	-	-	-
8	Lead			0	0	[illegible]	18178.993	3635.799	No	0	0	[illegible]	942.199	188.440	No	-	-	-	-
9	Mercury			0	0	[illegible]	241.500	48.300	No	0	0	[illegible]	1.606	0.321	No	4.24E-02	5.68E+00	1.14E+00	No
10	Nickel			0	0	[illegible]	60987.878	12197.576	No	0	0	[illegible]	9009.392	1801.878	No	9.93E+02	1.33E+05	2.66E+04	No
11	Selenium			0	5	[illegible]	2012.497	402.499	No	0	10	[illegible]	666.166	133.233	No	-	3.25E+05	6.51E+04	No
12	Silver			0	0	[illegible]	136.378	27.276	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.66E+01	7.32E+00	No
14	Zinc			0	25	[illegible]	23341.450	4668.290	No	0	20	[illegible]	31298.570	6259.714	No	1.49E+04	1.99E+05	3.99E+05	No
15	Cyanide			0	9	[illegible]	2213.747	442.749	No	0	9	[illegible]	695.933	139.187	No	[illegible]	1.25E+05	2.50E+05	No
16	Total Phenolic Compounds			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	180000	-	-	-	-	0	143400	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.26E+02	1.45E+02	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.27E+02	2.54E+01	No
20	Aldrin		YES	0	0	[illegible]	301.875	60.375	No	0	0	-	-	-	-	[illegible]	2.59E-02	5.18E-03	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.36E+04	2.73E+03	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.95E+04	1.39E+04	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.44E+02	1.69E+02	No
24	Chlordane		YES	0	0	[illegible]	241.500	48.300	No	0	0	[illegible]	0.575	0.115	No	[illegible]	4.17E-01	8.34E-02	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.21E+05	2.43E+04	No
26	Chlorodibromo-Methane		YES	0	4	-	-	-	-	0	2	-	-	-	-	[illegible]	6.53E+03	1.31E+03	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	14	-	-	-	-	0	6	-	-	-	-	[illegible]	8.99E+04	1.80E+04	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.80E-01	3.20E-02	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.13E-01	2.26E-02	No
32	4,4' - DDT		YES	0	0	1.100	110.687	22.137	No	0	0	0.001	0.134	0.027	No	[illegible]	1.13E-01	2.26E-02	No
33	Dichlorobromo-Methane		YES	0	12	-	-	-	-	0	12	-	-	-	-	[illegible]	8.85E+03	1.77E+03	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.86E+04	3.77E+03	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.91E+05	1.58E+05	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.67E+05	7.35E+05	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.14E+03	2.27E+02	No
39	1, 3-Dichloro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.64E+03	3.29E+02	No
40	Dieldrin		YES	0	0	[illegible]	24.150	4.830	No	0	0	[illegible]	7.495	1.499	No	[illegible]	2.75E-02	5.51E-03	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.67E+05	3.33E+04	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.17E+05	2.33E+04	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.05E+05	6.10E+04	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.05E+03	4.12E+02	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.69E+03	3.38E+02	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.17E+05	2.33E+05	No
48	Toxaphene		YES	0	0	[illegible]	73.458	14.691	No	0	0	[illegible]	0.027	0.005	No	[illegible]	1.43E-01	2.66E-02	No
49	Tributyltin (TBT)		YES	0	0	[illegible]	46.287	9.257	No	0	0	[illegible]	9.636	1.927	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.02E+03	1.60E+03	No
52	Trichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.54E+04	3.08E+03	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.26E+03	2.51E+02	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.17E+04	2.33E+03	No
56	2, 4-Dichlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.30E+04	4.60E+03	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.66E+04	1.33E+04	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.16E+05	8.33E+04	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.46E+05	2.92E+04	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.35E-05	4.70E-06	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	[illegible]	877.783	175.557	No	0	0	[illegible]	695.690	139.138	No	[illegible]	1.58E+03	3.12E+02	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.69E+07	1.34E+07	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.25E+03	2.49E+02	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.74E+04	1.55E+04	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.12E+05	6.25E+05	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.55E-02	3.10E-03	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.40E+00	1.88E+00	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.40E+00	1.88E+00	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.43E+00	2.85E-01	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.43E+00	2.85E-01	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.71E+02	5.42E+01	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.08E+05	1.01E+05	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.13E+03	2.26E+02	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.51E+05	3.02E+04	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.24E+05	2.47E+04	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.40E+00	1.88E+00	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.51E+05	7.02E+04	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.40E+00	1.88E+00	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.01E+05	2.02E+04	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.53E+04	1.51E+04	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.51E+04	3.01E+03	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.47E+01	2.93E+00	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.42E+05	6.84E+05	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.67E+07	1.73E+07	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.75E+03	3.49E+02	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.57E+01	3.14E+00	No
97	Endosulfan (alpha)		YES	0	0	[illegible]	22.137	4.427	No	0	0	[illegible]	7.495	1.499	No	[illegible]	4.57E+04	9.14E+03	No
98	Endosulfan (beta)		YES	0	0	[illegible]	22.137	4.427	No	0	0	[illegible]	7.495	1.499	No	[illegible]	4.57E+04	9.14E+03	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.57E+04	9.14E+03	No
100	Endrin		YES	0	0	[illegible]	6.654	1.731	No	0	0	[illegible]	4.618	0.964	No	[illegible]	3.11E+01	6.22E+00	No
101	Endrin Aldeyhde		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.55E+02	3.11E+01	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.09E+04	2.17E+03	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.18E+05	8.33E+04	No
104	Heptochlor		YES	0	0	[illegible]	52.325	10.465	No	0	0	[illegible]	0.509	0.102	No	[illegible]	4.08E-02	8.16E-03	No
105	Heptachlor Epoxide		YES	0	0	[illegible]	52.325	10.465	No	0	0	[illegible]	0.509	0.102	No	[illegible]	2.02E-02	4.04E-03	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.46E-01	2.96E-02	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.49E+03	1.90E+03	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.51E+00	5.02E-01	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.79E+00	1.76E+00	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	[illegible]	95.594	19.119	No	0	0	[illegible]	-	-	-	[illegible]	9.50E+02	1.90E+02	No
111	HexachlorocycloPentadiene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.63E+04	1.73E+04	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.57E+02	5.13E+01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.40E+00	1.88E+00	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.50E+04	1.50E+04	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.40E+04	1.08E+04	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.80E+02	5.20E+01	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.55E+03	3.10E+02	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.09E+03	6.18E+02	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	[illegible]	1.874	0.375	No	[illegible]	3.30E-02	6.59E-03	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	[illegible]	1.874	0.375	No	[illegible]	3.30E-02	6.59E-03	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	[illegible]	1.874	0.375	No	[illegible]	3.30E-02	6.59E-03	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	[illegible]	1.874	0.375	No	[illegible]	3.30E-02	6.59E-03	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	[illegible]	1.874	0.375	No	[illegible]	3.30E-02	6.59E-03	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	[illegible]	1.874	0.375	No	[illegible]	3.30E-02	6.59E-03	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	[illegible]	1.874	0.375	No	[illegible]	3.30E-02	6.59E-03	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.12E+05	6.25E+04	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.48E+03	1.10E+03	No

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**Western Area WWTP**	
NPDES Permit Number:	**AL0049531**	
Receiving Stream:	**Tennessee River (Wheeler Lake)**	
Facility Design Flow (Q_w):	**32.500 MGD**	
Receiving Stream $7Q_{10}$:	**6679.510 cfs**	
Receiving Stream $1Q_{10}$:	**5009.630 cfs**	
Winter Headwater Flow (WHF):	**11224.84 cfs**	
Summer Temperature for CCC:	**28 deg. Celsius**	
Winter Temperature for CCC:	**28 deg. Celsius**	
Headwater Background NH_3-N Level:	**0.29 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.

$$\text{Stream Dilution Ration (SDR)} = \frac{Qw}{7Q10 + Qw} = \textbf{0.75\%}$$

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.

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

= **0.75%** **Stream-Dominated, CMC 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**	**2.48 mg/l**
Allowable Winter Instream NH_3-N:	**36.09 mg/l**	**2.48 mg/l**

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

= **4791.7 mg/l NH3-N at 7Q10**

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

= **N./A.**

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	**20.00 mg/l NH3-N**	**4791.70 mg/l NH3-N**
Winter	**N./A.**	**N./A.**

Summer: The DO based limit of 20.00 mg/l NH3-N applies.
Winter limits are not applicable.

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.

Acute toxicity testing is required

Instream Waste Concentration (IWC) = Based on Cormix Model = **7.70%** Note: This number will be rounded up for toxicity testing purposes.

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: **Swimming, 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):	126	**126**
Monthly limit as monthly average (May through October):	126	**126**
Daily Max (November through April):	235	**235**
Daily Max (May through October):	235	**235**
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:	1.472 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	2.543 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: Michael Simmons Date: 10/10/2024

Waste Load Allocation Summary

REQUEST INFORMATION

Request Number: 3979

From:	Michael Simmons	In Branch/Section	Municipal		
Date Submitted	11/8/2023	Date Required	12/8/2023	FUND Code	605
Date Permit application received by NPDES program	12/14/2021				
Receiving Waterbody	Tennessee River (Wheeler Lake)				
Previous Stream Name					
Facility Name	Huntsville Western Area WWTP	(Name of Discharger-WQ will use to file)			
		Previous Discharger Name			
River Basin	Tennessee	Outfall Latitude	34.552700	(decimal degrees)	
*County	Madison	Outfall Longitude	-86.761300	(decimal degrees)	
Permit Number	AL0049531	Permit Type	Expansion and Permit Reissuance		
		Permit Status	Active		
		Type of Discharger	MUNICIPAL		

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

If yes, impacting dischargers names.	H'villeAldridge Creek WWTP, H'ville Spring Branch WWTP,Redstone Arsenal Central WWTP,Priceville WWTP,Madison WWTF, Decatur Dry Creek WWTP,Joe Wheeler Lagoon,Lucy Branch WWTP,TVA Brown Ferry,3M Decatur,Daikin,Indorama Ventures, Ascend	Impacting dischargers permit numbers.	AL0056855,AL0058394,AL0062863, AL0060577,AL0071897,AL0048593, AL0032387,AL0075248,AL0022080, AL0000205,AL0064351,AL0000108, AL0000116,

Existing Discharge Design Flow	20	MGD	Note: The flow rates given should be those requested for modeling.
Proposed Discharge Design Flow	32.5	MGD	

Comments included ☑ Yes ☐ No

Information Verified By: JJM

Year File Was Created: 1999

Response ID Number: 1986

Lat/Long Method: GPS

12 Digit HUC Code	060300020906		
Use Classification	S / F&W		
Site Visit Completed?	☐ Yes ☑ No	Date of Site Visit	
Waterbody Impaired?	☑ Yes ☐ No	Date of WLA Response	1/10/2024
Antidegradation	☐ Yes ☑ No	Approved TMDL?	☐ Yes ☑ No
Waterbody Tier Level	Tier I		
Use Support Category	5	Approval Date of TMDL	

Waste Load Allocation Information

Modeled Reach Length	74.1	Miles	Date of Allocation	1/10/2024	
Name of Model Used	QUAL2K		Allocation Type	Annual	
Model Completed by	James Mooney		Type of Model Used	Data-based	
Allocation Developed by	Water Quality Branch				

Waste Load Allocation Summary

Annual Effluent Limits

Qw	32.5	MGD
CBOD5	25	mg/L
NH3-N	20	mg/L
TKN		
D.O.		

Conventional Parameters

Qw	MGD	Qw	MGD
Season		Season	
From		From	
Through		Through	
CBOD5		CBOD5	
NH3-N		NH3-N	
TKN		TKN	
D.O.		D.O.	

Other Parameters

Qw	MGD	Qw	MGD
Season		Season	
From		From	
Through		Through	
TP		TP	
TN		TN	
TSS		TSS	

"Monitor Only" Parameters for Effluent:

Parameter	Frequency	Parameter	Frequency
DO	Monthly	TP	Monthly
NO2+NO3-N	Monthly		
TKN	Monthly		

Water Quality Characteristics Immediately Upstream of Discharge

Parameter	Summer		Winter	
CBODu	1.71	mg/l		mg/l
NH3-N	0.2937	mg/l		mg/l
Temperature	28	°C		°C
pH	7	su		su

Hydrology at Discharge Location

			Method Used to Calculate
Drainage Area	26090	sq mi	
Stream 7Q10	6679.51	cfs	ADEM Estimate w/TVA Data
Stream 1Q10	5009.63	cfs	ADEM Estimate w/TVA Data
Stream 7Q2	11224.84	cfs	ADEM Estimate w/TVA Data
Annual Average	44291.27	cfs	ADEM Estimate w/TVA Data

Drainage Area Qualifier: Exact

Comments and/or Notations: Proposed expansion to 32.5 MGD up from existing effluent flowrate of 20 MGD.Site visit completed on 5/2/22 for previous WLA.

Mixing Zone Analysis Summary

REQUEST INFORMATION

request number: 3979

From: (Responsible Engineer) Michael Simmons | In Branch/Section: Municipal

Date Submitted: 11/8/2023 | **Date Required:** 12/8/2023 | **FUND Code:** 605

Date Permit application received by NPDES program: 12/14/2021

Receiving Waterbody: Tennessee River (Wheeler Lake)

Previous Stream Name:

Facility Name: Huntsville Western Area WWTP (Name of Discharger-WQ will use to file)

Previous Discharger Name:

River Basin: Tennessee | **Outfall Latitude:** 34.552700 (decimal degrees)

***County:** Madison | **Outfall Longitude:** -86.761300 (decimal degrees)

Permit Number: AL0049531 | **Permit Type:** Expansion and Permit Reissuance

Permit Status: Active

Type of Discharger: MUNICIPAL

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

If yes, impacting dischargers names.	Impacting dischargers permit numbers.

Existing Discharge Design Flow: 20 MGD

Proposed Discharge Design Flow: 32.5 MGD

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

Seasonal limits requested? ☐ Yes ☑ No

If not seasonal, only the summer sections will be used

Comments included ☑ Yes ☐ No

Information Verified By: JJM | **Year File Was Started:** 1999

12 Digit HUC Code: 060300020906

Date of MZ Response: 1/10/2024

Use Classification: S / F&W

Site Visit Completed? ☐ Yes ☑ No

Date of Site Visit:

Hydrology

			Method Used to Calculate
Drainage Area	26090	sq mi	
Stream 7Q10	6679.51	cfs	ADEM Estimate w/TVA Data
Stream 1Q10	5009.63	cfs	ADEM Estimate w/TVA Data
Stream 7Q2	11224.84	cfs	ADEM Estimate w/TVA Data
Annual Average	44291.27	cfs	ADEM Estimate w/TVA Data

Date of MZ Analysis: 12/12/2023 | **Model Completed by:** James Mooney

Pollutant Category

Whole Effluent Toxicity (WET) ☑ | **Thermal** ☐ | **Pathogens** ☐

Mixing Zone Analysis Summary

WET Parameters

Summer

Acute

Ambient Streamflow	5009.63	cfs
ZID Length	11.25	Meters
ZID IWC	7.7	%

Chronic

Ambient Streamflow		cfs
Mixing Zone Length		Meters
Mixing Zone IWC		%

Winter

Acute

Ambient Streamflow		cfs
ZID Length	11.25	Meters
ZID IWC		%

Chronic

Ambient Streamflow		cfs
Mixing Zone Length		Meters
Mixing Zone IWC		%

Thermal Parameters

Summer

Ambient Streamflow		cfs
Mixing Zone Length		Meters
Max. Effluent Temp		°C

Winter

Ambient Streamflow		cfs
Mixing Zone Length		Meters
Max. Effluent Temp		°C

Pathogen Parameters

Summer

Ambient Streamflow		cfs
ZID Length		Meters
Max. Effluent Fecal Conc		Cols/100 mls
Max. Effluent E. coli Conc		Cols/100 mls
Monthly Average Effluent E. coli Conc		Cols/100 mls
Max. Effluent Enterococci Conc (for coastal waters)		Cols/100 mls

Winter

Ambient Streamflow		cfs
ZID Length		Meters
Max. Effluent Fecal Conc		Cols/100 mls
Max. Effluent E. coli Conc		Cols/100 mls
Monthly Average Effluent E. coli Conc		Cols/100 mls
Max. Effluent Enterococci Conc (for coastal waters)		Cols/100 mls

Comments and/or Notations: Proposed expansion from 20 MGD up to 32.5 MGD. ZID distance of 11.25 meters is based on the DLS criterion. Individual plumes have merged by the edge of the ZID; therefore CORMIX2 is the applicable model to evaluate mixing characteristics. Site visit completed on 5/5/2022 for previous WLA.