

SUMMARY PAGE

Name of Facility: Newton County Water & Sewerage Authority – A. Scott Emmons WRF at Little River

NPDES Permit No.: GA0050304

This is an issuance of a new NPDES permit for the A. Scott Emmons WRF at Little River. Up to 1.25 MGD (monthly average) of treated domestic wastewater will be discharged to Little River in the Oconee River Basin.

The permit was placed on public notice from June 30, 2021 to July 30, 2021.

Standard Conditions and Boilerplate Modifications:

The permit boilerplate includes modified language or added language consistent with current NPDES permits.

Final Permit Determinations and Public Comments:

- ☐ Final issued permit did not change from the draft permit placed on public notice.
- ☒ Public comments were received during public notice period.
- ☐ Public hearing was held on
- ☒ Final permit includes changes from the draft permit placed on public notice. See attached permit revisions and/or permit fact sheet revisions.



Richard E. Dunn, Director

EPD Director's Office
2 Martin Luther King, Jr. Drive
Suite 1456, East Tower
Atlanta, Georgia 30334
404-656-4713

Mr. Mike Hopkins, Executive Director
Newton County Water & Sewerage Authority
11325 Brown Bridge Road
Covington, Georgia 30016

08/25/2021

RE: Permit Issuance
A. Scott Emmons Water Reclamation Facility
at Little River
NPDES Permit No. GA0050304
Newton County, Oconee River Basin

Dear Mr. Hopkins:

Pursuant to the Georgia Water Quality Control Act, as amended; the Federal Water Pollution Control Act, as amended; and the Rules and Regulations promulgated thereunder, we have today issued the attached National Pollutant Discharge Elimination System (NPDES) permit for the referenced wastewater treatment facility.

Your facility has been assigned to the following EPD office for reporting and compliance:

Georgia Environmental Protection Division
Watershed Compliance Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

Please be advised that on and after the effective date indicated in the attached NPDES permit, the permittee must comply with all the terms, conditions, and limitations of the permit.

If you have any questions, please contact August Lutkehus at 470-524-0733 or august.lutkehus@dnr.ga.gov.

Sincerely,

Richard E. Dunn
Director

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Attachments: Response to Comments, Permit Revisions, Fact Sheet Revisions, NPDES Permit No. GA0050304, Fact Sheet

cc: Mr. Wayne Haynie, Newton County Water & Sewerage Authority (wh@ncwsa.us)
Mr. Burke Murph, GWES, LLC (burke.murph@gwesllc.com)
Mr. Casey Piper, GWES, LLC (casey.piper@gwesllc.com)
Mr. Marzieh Shahbazaz, EPD Municipal Compliance Unit (marzieh.shahbazaz@dnr.ga.gov)
Mr. Craig Hesterlee, EPA Region IV (hesterlee.craig@epa.gov)
EPA Region IV Mailbox (R4NPDESPermits@epa.gov)
Mr. Josh Welte, EPD Water Quality Modeling Unit (josh.welte@dnr.ga.gov)
Mr. Tyler Parsons, EPD TMDL Modeling & Development Unit (tyler.parsons@dnr.ga.gov)

Public Comments and EPD Responses on Draft Permit
Newton County Water & Sewerage Authority – A. Scott Emmons Water Reclamation Facility at Little River
NPDES Permit No. GA0050304

Comment	Response to Comment
NCWSA requests that the permit be addressed to Mr. Mike Hopkins, Executive Director.	Comment noted and the permit file has been updated.
Update the description of the solids processing in the fact sheet to reflect that rotary presses are used instead of centrifuges.	Section 1.7 of the proposed permit fact sheet has been updated to reflect the description of the solids processing in the fact sheet.
The fact sheet states that Newton County Water & Sewer Authority (NCWSA) does not have an approved Industrial Pretreatment Program (IPP). NCWSA does have an approved IPP.	<p>Language in the fact sheet and permit has been revised to clarify that the Authority's approved Industrial Pretreatment Program (IPP) does not include the A. Scott Emmons WRF and that a modification of the Authority's IPP must be completed before language for an approved IPP can be included in this proposed permit.</p> <p>Please contact Whitney Fenwick, Manager of the Industrial Permitting Unit at whitney.fenwick@dnr.ga.gov and/or (470) 607-3078 for any questions regarding the modification of the Authority's IPP. Once the modification of the IPP is completed, the permit can be modified to include language for an approved IPP.</p>

Comment	Response to Comment
<p>NCWSA is concerned about meeting 85% BOD5 and TSS removal requirement in the permit. Due to NCWSA's IPP, industrial flow, which makes up approximately 85% of the influent wastewater chemistry, is pretreated to BOD5 and TSS levels below 100 mg/L. Typical wastewater streams have greater than 250 mg/L of BOD₅ and TSS. NCWSA is concerned that the effluent limits in the permit for both BOD5 and TSS will be met, but it may not result in 85% removal from the influent levels. We'd like to revisit the language in the permit so NCWSA isn't held to a higher standard of treatment beyond meeting the effluent limits.</p>	<p>In accordance with 40 CFR §133.103(d), a lower percent removal requirement may only be substituted provided that the permittee satisfactorily demonstrates that: (1) The treatment works is consistently meeting, or will consistently meet, its permit effluent concentration limits but its percent removal requirements cannot be met due to less concentrated influent wastewater, (2) to meet the percent removal requirements, the treatment works would have to achieve significantly more stringent limitations than would otherwise be required by the concentration-based standards, and (3) the less concentrated influent wastewater is not the result of excessive I/I.</p> <p>As indicated in the Design Development Report (DDR) concurred with on September 27, 2018, the proposed plant will be equipped with tertiary filtration. The facility is being designed to produce a monthly average effluent of 5 mg/L or less for TSS and BOD₅.</p> <p>Based on these effluent concentrations, the monthly average influent TSS and BOD₅ would have to be less than 33 mg/L for the facility not to be able to meet 85% TSS and BOD₅ removal requirements. Based on the influent flow composition and wastewater strength information submitted in the comment, such low influent concentrations are not expected; therefore, the percent removal requirements in the proposed permit remain unchanged.</p>



PERMIT REVISIONS

**Newton County Water & Sewerage Authority
A. Scott Emmons Water Reclamation Facility at Little River
NPDES Permit No. GA0050304
(Newton County)**

Were there any revisions between the draft and the final permit? ☒ Yes ☐ No

If yes, specify:

Part III. Updated language to reflect that the Authority's approved industrial pretreatment program (IPP) does not include the A. Scott Emmons WRF and that a modification of the Authority's IPP must be completed before language for an approved IPP can be included in NPDES Permit No. GA0050304.



FACT SHEET REVISIONS

**Newton County Water & Sewerage Authority
A. Scott Emmons Water Reclamation Facility at Little River
NPDES Permit No. GA0050304
(Newton County)**

Were there any revisions between the draft and the final fact sheet? ☒ Yes ☐ No

If yes, specify:

Section 5.4 Updated language to reflect that the Authority's approved industrial pretreatment program (IPP) does not include the A. Scott Emmons WRF and that a modification of the Authority's IPP must be completed before language for an approved IPP can be included in NPDES Permit No. GA0050304.



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

In accordance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Newton County Water & Sewerage Authority
11325 Brown Bridge Road
Covington, Georgia 30016

is authorized to discharge from a facility located at

A. Scott Emmons Water
Reclamation Facility at Little River
10902 Shire Parkway
Social Circle, Georgia 30025
(Newton County)

to receiving waters

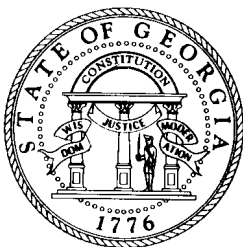
Little River
(Oconee River Basin)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit.

This permit is issued in reliance upon the permit application signed on April 22, 2020, any other applications upon which this permit is based, supporting data entered therein or attached thereto, and any subsequent submittal of supporting data.

This permit shall become effective on September 1, 2021.

This permit and the authorization to discharge shall expire at midnight, August 31, 2026.



Director,
Environmental Protection Division

PART I

EPD is the Environmental Protection Division of the Department of Natural Resources.

The Federal Act referred to is The Clean Water Act.

The State Act referred to is The Water Quality Control Act (Act No. 870).

The State Rules referred to are The Rules and Regulations for Water Quality Control (Chapter 391-3-6).

A. SPECIAL CONDITIONS

1. SLUDGE DISPOSAL REQUIREMENTS

Sludge shall be disposed of according to the regulations and guidelines established by the EPD and the Federal Act section 405(d) and (e), and the Resource Conservation and Recovery Act (RCRA). In land applying nonhazardous municipal sewage sludge, the permittee shall comply with the general criteria outlined in the most current version of the EPD "Guidelines for Land Application of Sewage Sludge (Biosolids) at Agronomic Rates" and with the State Rules, Chapter 391-3-6-.17. Before disposing of municipal sewage sludge by land application or any method other than co-disposal in a permitted sanitary landfill, the permittee shall submit a sludge management plan to EPD for written approval. This plan will become a part of the NPDES Permit after approval and modification of the permit. The permittee shall notify the EPD of any changes planned in an approved sludge management plan.

If an applicable management practice or numerical limitation for pollutants in sewage sludge is promulgated under Section 405(d) of the Federal Act after approval of the plan, then the plan shall be modified to conform with the new regulations.

2. SLUDGE MONITORING REQUIREMENTS

The permittee shall develop and implement procedures to ensure adequate year-round sludge disposal. The permittee shall monitor and maintain records documenting the quantity of sludge removed from the facility. Records shall be maintained documenting that the quantity of solids removed from the facility equals the solids generated on an average day. The total quantity of sludge removed from the facility during the reporting period shall be reported each month with the Discharge Monitoring Reports as required under Part I.D.1. of this permit. The quantity shall be reported on a dry weight basis (dry tons).

3. INTRODUCTION OF POLLUTANTS INTO THE PUBLICLY OWNED TREATMENT WORKS (POTW)

The permittee must notify EPD of:

- a. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the Federal Act if the pollutants were directly discharged to a receiving stream; and

- b. Any substantial change in the volume or character of pollutants from a source that existed when the permit was issued.

This notice shall include information on the quality and quantity of the indirect discharge introduced and any anticipated impact on the quantity or quality of effluent to be discharged from the POTW.

4. EFFLUENT TOXICITY AND BIOMONITORING REQUIREMENTS

The permittee shall comply with effluent standards or prohibitions established by section 307(a) of the Federal Act and with Chapter 391-3-6-.03(5)(e) of the State Rules and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

If toxicity is suspected in the effluent, the EPD may require the permittee to perform any of the following actions:

- a. Acute biomonitoring tests;
- b. Chronic biomonitoring tests;
- c. Stream studies;
- d. Priority pollutant analyses;
- e. Toxicity reduction evaluations (TRE); or
- f. Any other appropriate study.

The EPD will specify the requirements and methodologies for performing any of these tests or studies. Unless other concentrations are specified by the EPD, the critical concentration used to determine toxicity in biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the permitted monthly average flow of the facility and the critical low flow of the receiving stream (7Q10). The endpoints that will be reported are the effluent concentration that is lethal to 50% of the test organisms (LC50) if the test is for acute toxicity and the no observed effect concentration (NOEC) of effluent if the test is for chronic toxicity.

The permittee must eliminate effluent toxicity and supply the EPD with data and evidence to confirm toxicity elimination.

B.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Discharge to Little River - Outfall #001 (33.5833093°, -83.6911241°):

- a. The discharge from the water reclamation facility shall be limited and monitored by the permittee as specified below starting on the date EPD provides approval of construction completion and written authorization to operate:

Parameters	Discharge limitations in mg/L (kg/day) unless otherwise specified		Monitoring Requirements		
	Monthly Average	Weekly Average	Measurement Frequency	Sample Type	Sample Location
Flow (MGD)	1.25	1.56	Seven Days/Week	Continuous Recording	Effluent
Five-Day Biochemical Oxygen Demand (⁽¹⁾)	5.0 (24)	7.5 (30)	Three Days/Week	Composite	Influent & Effluent
Total Suspended Solids (⁽¹⁾)	10 (47)	15 (59)	Three Days/Week	Composite	Influent & Effluent
Ammonia, as N (⁽²⁾)	1.5 (7.1)	2.3 (8.9)	Three Days/Week	Composite	Effluent
Total Phosphorus, as P (⁽³⁾)	0.43 (2.0)	0.65 (2.5)	Three Days/Week	Composite	Effluent
Fecal Coliform Bacteria (#/100 mL)	200	400	Two Days/Week	Grab	Effluent

(⁽¹⁾) Numeric limits only apply to the effluent.

(⁽²⁾) Ammonia, organic nitrogen, nitrate-nitrite, and total Kjeldahl nitrogen (TKN) must be analyzed or calculated from the same sample. Organic nitrogen, as N = TKN – ammonia, as N.

(⁽³⁾) Total phosphorus and orthophosphate must be analyzed from the same sample.

(Effluent limitations continued on the next page)

B.1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

(CONTINUED)

Discharge to Little River - Outfall #001 (33.5833093°, -83.6911241°):

Parameters	Discharge limitations in mg/L unless otherwise specified	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Five-Day Biochemical Oxygen Demand Removal, Minimum (%) ⁽¹⁾	85	See Below	See Below	See Below
Total Suspended Solids Removal, Minimum (%) ⁽¹⁾	85	See Below	See Below	See Below
pH, Daily Minimum – Daily Maximum (Standard Unit)	6.0 – 8.5	Seven Days/Week	Grab	Effluent
Total Residual Chlorine, Daily Maximum ⁽²⁾	0.012	Seven Days/Week	Grab	Effluent
Dissolved Oxygen, Daily Minimum	6.0	Seven Days/Week	Grab	Effluent
Orthophosphate, as P ⁽³⁾	Report	One Day/Month	Composite	Effluent
Organic Nitrogen, as N ⁽⁴⁾	Report	One Day/Month	Composite	Effluent
Nitrate-Nitrite, as N ⁽⁴⁾	Report	One Day/Month	Composite	Effluent
Total Kjeldahl Nitrogen, as N ⁽⁴⁾	Report	One Day/Month	Composite	Effluent
Chronic Whole Effluent Toxicity (%) ⁽⁵⁾	Report NOEC	See Below	Composite	Effluent
Priority Pollutants ⁽⁶⁾	Report	See Below	Composite	Effluent
Long-Term Biochemical Oxygen Demand ⁽⁷⁾	Report	See Below	Composite	Effluent
Effluent Testing Data ⁽⁸⁾	Report	See Below	Composite	Effluent

⁽¹⁾ Percent removal shall be calculated from monthly average influent and effluent concentrations. Influent and effluent samples shall be collected at approximately the same time.

⁽²⁾ Monitoring requirements and the effluent limitation for Total Residual Chlorine (TRC) only apply when chlorine is in use at the facility. The permittee must use the appropriate No Data indicator (NODI) code on the Discharge Monitoring Reports when TRC monitoring is not required.

⁽³⁾ Total phosphorus and orthophosphate must be analyzed from the same sample.

⁽⁴⁾ Ammonia, organic nitrogen, nitrate-nitrite, and total Kjeldahl nitrogen (TKN) must be analyzed or calculated from the same sample. Organic nitrogen, as N = TKN – ammonia, as N

⁽⁵⁾ Refer to Part I.C.9. CHRONIC WHOLE EFFLUENT TOXICITY.

⁽⁶⁾ Refer to Part I.C.10. PRIORITY POLLUTANTS.

⁽⁷⁾ Refer to Part I.C.11. LONG-TERM BIOCHEMICAL OXYGEN DEMAND.

⁽⁸⁾ Refer to Part I.C.12. EFFLUENT TESTING DATA.

- b. The monthly average, other than for fecal coliform bacteria, is the arithmetic mean of values obtained for samples collected during a calendar month.
- c. The weekly average, other than for fecal coliform bacteria, is the arithmetic mean of values obtained for samples collected during a 7-day period. The week begins 12:00 midnight Saturday and ends at 12:00 midnight the following Saturday. To define a different starting time for the sampling period, the permittee must notify the EPD in writing. For reporting required by Part I.D.1. of this permit, a week that starts in one month and ends in another month shall be considered part of the second month. The permittee may calculate and report the weekly average as a 7-day moving average.
- d. Fecal coliform bacteria will be reported as the geometric mean of the values for the samples collected during the time periods in I.B.1.b. and I.B.1.c.
- e. Influent monitoring: Unless otherwise specified, influent samples shall be collected before any return or recycle flows. These flows include returned activated sludge, supernatants, centrates, filtrates, and backwash.
- f. Effluent monitoring: Unless otherwise specified, effluent samples shall be collected after the final treatment process and before discharge to receiving waters.
- g. A composite sample shall consist of a minimum of 5 subsamples collected at least once every 2 hours for at least 8 hours and shall be composited proportionately to flow.
- h. Flow measurements shall be conducted using the flow measuring device(s) in accordance with the approved design of the facility. If instantaneous measurements are required, then the permittee shall have a primary flow measuring device that is correctly installed and maintained. If continuous recording measurements are required, then flow measurements must be made using continuous recording equipment. Calibration shall be maintained of the continuous recording instrumentation to $\pm 10\%$ of the actual flow.

Flow shall be measured manually to check the flow meter calibration at a frequency of once a month. If secondary flow instruments are in use and malfunction or fail to maintain calibration as required, the flow shall be computed from manual measurements or by other method(s) approved by EPD until such time as the secondary flow instrument is repaired. For facilities which utilize alternate technologies for measuring flow, the flow measurement device must be calibrated semi-annually by qualified personnel.

Records of the calibration checks shall be maintained.

- i. If secondary flow instruments malfunction or fail to maintain calibration as required in I.B.1.h., the flow shall be computed from manual measurements taken at the times specified for the collection of composite samples.
- j. Some parameters will be reported as "not detected" when they are below the detection limit and will then be considered in compliance with the effluent limit. The detection limit will also be reported.

B.2. INSTREAM SURFACE WATER QUALITY MONITORING

Little River:

The receiving stream shall be monitored by the permittee as specified below:

Parameters	Instream Surface Water Quality Monitoring	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location ⁽¹⁾
Dissolved Oxygen (mg/L)	Report Monthly Minimum	One Day/Week	Grab	Upstream and Downstream
pH (standard unit)	Report Monthly Minimum & Monthly Maximum	One Day/Week	Grab	Upstream and Downstream
Temperature (°F)	Report Monthly Minimum & Monthly Maximum	One Day/Week	Grab	Upstream and Downstream
Conductivity, (µmhos/cm)	Report Monthly Minimum & Monthly Maximum	One Day/Week	Grab	Upstream and Downstream

⁽¹⁾ Upstream sampling location refers to the crossing of Little River with GA Highway 278.
Downstream sampling location refers to the crossing of Little River with Sewell Road.

C. MONITORING AND REPORTING

1. REPRESENTATIVE SAMPLING

Samples and measurements of the monitored waste shall represent the volume and nature of the waste stream. The permittee shall maintain a written sampling and monitoring schedule.

2. SAMPLING PERIOD

- a. Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December.
- b. Unless otherwise specified in this permit, semiannual samples shall be taken during the periods January-June and July-December.
- c. Unless otherwise specified in this permit, annual samples shall be taken during the period of January-December.

3. MONITORING PROCEDURES

All analytical methods, sample containers, sample preservation techniques, and sample holding times must be consistent with the techniques and methods listed in 40 CFR Part 136. The analytical method used shall be sufficiently sensitive. EPA-approved methods must be applicable to the concentration ranges of the NPDES permit samples.

4. RECORDING OF RESULTS

For each required parameter analyzed, the permittee shall record:

- a. The exact place, date, and time of sampling, and the person(s) collecting the sample. For flow proportioned composite samples, this shall include the instantaneous flow and the corresponding volume of each sample aliquot, and other information relevant to document flow proportioning of composite samples;
- b. The dates and times the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical procedures or methods used; and
- e. The results of all required analyses.

5. ADDITIONAL MONITORING BY PERMITTEE

If the permittee monitors required parameters at the locations designated in I.B. more frequently than required, the permittee shall analyze all samples using approved analytical methods specified in I.C.3. The results of this additional monitoring shall be included in calculating and reporting the values on the Discharge Monitoring Report forms. The permittee shall indicate the monitoring frequency on the report. The EPD may require in writing more frequent monitoring, or monitoring of other pollutants not specified in this permit.

6. RECORDS RETENTION

The permittee shall retain records of:

- a. All laboratory analyses performed including sample data, quality control data, and standard curves;
- b. Calibration and maintenance records of laboratory instruments;
- c. Calibration and maintenance records and recordings from continuous recording instruments;
- d. Process control monitoring records;
- e. Facility operation and maintenance records;
- f. Copies of all reports required by this permit;
- g. All data and information used to complete the permit application; and
- h. All monitoring data related to sludge use and disposal.

These records shall be kept for at least three years. Sludge handling records must be kept for at least five years. Either period may be extended by EPD written notification.

7. PENALTIES

Both the Federal and State Acts provide that any person who falsifies or tampers with any monitoring device or method required under this permit, or who makes any false statement, representation, or certification in any record submitted or required by this permit shall, if convicted, be punished by a fine or by imprisonment or by both. The Acts include procedures for imposing civil penalties for violations or for negligent or intentional failure or refusal to comply with any final or emergency order of the Director of the EPD.

8. WATERSHED PROTECTION PLAN

Prior to receiving authorization to operate under Part I.B.1, the permittee must conduct a Watershed Assessment and develop a Watershed Protection Plan for all the watersheds that are contained within the permittee's Assessment Area. The Assessment Area is defined as all basins or subbasins that are served by the facility. The Watershed Assessment should include a study to document baseline water quality and identify stressors which affect the quality of the water resources in the area. The scope of the work for the Watershed Protection Plan must include defining what steps will be necessary to improve and ultimately meet water quality standards.

a. Watershed Assessment

At a minimum, the watershed assessment should include the following:

- i. Develop a plan for the monitoring and assessment of all streams in the Assessment Area. This should include parameters to be monitored, monitoring frequencies, and other data to be collected.
- ii. Determine methods for identifying waters not supporting designated water uses.
- iii. Identify water resource concerns and priority issues for the Assessment Area.

b. Watershed Protection Plan

The permittee must develop a Watershed Protection Plan that reflects the findings of the Watershed Assessment.

The Watershed Protection Plan will provide for the following:

- i. The Watershed Protection Plan will apply to the Assessment Area as defined above. The plan will utilize the information generated in the permittee's watershed assessment to establish a baseline of watershed conditions and to provide ongoing long-term monitoring according to the approved plan to either verify that the plan is effective or to modify the plan such that water quality standards will be achieved.
- ii. The Watershed Protection Plan must include a schedule for correcting current water quality problems that are causing water quality standards violations. The permittee shall provide ongoing monitoring to verify that the actions taken to correct the water quality problems are effective.
- iii. The permittee shall develop and put in place best management practices (BMPs) to prevent future water quality standards violations.
- iv. The permittee shall provide ongoing monitoring to verify that the BMPs are working or to provide the information necessary to modify the BMPs to achieve water quality standards.

c. Compliance Schedule

- i. Submit a Watershed Monitoring Plan for conducting the Watershed Assessment within 3 months of the effective date of this permit.
- ii. Beginning 6 months from the effective date of the permit and every 6 months thereafter until EPD approves the permittee's Watershed Protection Plan, the permittee is to submit a report to EPD regarding the progress it has made towards completing its Watershed Assessment and developing its Watershed Protection Plan. After EPD approval of the Watershed Monitoring Plan, the progress reports should include a summary of what stream data has been collected the previous 6 months. This data should be sent in the form of an electronic spreadsheet developed in coordination with EPD. The report should also estimate what percentage of the Watershed Assessment or Watershed Protection Plan is complete.
- iii. Prior to authorization to operate the facility under Part I.B (1.25 MGD) effluent limitations, the permittee must have developed a Watershed Protection Plan and receive EPD approval for the Plan. The permittee's approved Watershed Protection Plan shall be enforceable through this permit.

d. Annual Report

Once the Watershed Protection Plan is approved, each June 30th the permittee is to submit the following to EPD:

- i. An annual certification statement documenting that the plan is being implemented as approved. The certification statement shall read as follows: "I certify, under penalty of law, that the watershed protection plan is being implemented. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- ii. All watershed plan data collected during the previous year in an electronic format. This data shall be archived using a digital format such as a spreadsheet developed in coordination with EPD. All archived records, data, and information pertaining to the watershed protection plan shall be maintained permanently.
- iii. A progress report that provides a summary of the BMPs that have been implemented and documented water quality improvements. The progress report shall also include any necessary changes to the watershed protection plan.

The report and other information shall be submitted to EPD at the address below:

Environmental Protection Division
Watershed Planning and Monitoring Program
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

9. CHRONIC WHOLE EFFLUENT TOXICITY (WET)

The permittee shall conduct one chronic whole effluent toxicity (WET) test for four consecutive quarters after receiving EPD written authorization to commence operation under Part I.B effluent limitations (1.25 MGD), with the first test conducted within 90 days of the authorization. The testing must be conducted in accordance with the most current U.S. Environmental Protection Agency (EPA) chronic aquatic toxicity testing manuals. The referenced document is entitled Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4th Edition, U.S. EPA, 821-R-02-013, October 2002. Definitive tests must be run on the same samples concurrently using both an invertebrate species (i.e., *Ceriodaphnia dubia*) and a vertebrate species (i.e., *Pimephales promelas*). The testing must include a dilution equal to the facility's instream wastewater concentration (IWC) of 95%.

EPD will evaluate the WET tests submitted to determine whether toxicity has been demonstrated. An effluent discharge will not be considered toxic if the No Observed Effect Concentration (NOEC) is greater than or equal to the Instream Wastewater Concentration (IWC) of 95%. The results of the tests shall be submitted to EPD with the permittee's monthly Discharge Monitoring Reports.

Within fifteen months of receiving authorization to operate under Part I.B effluent limitations (1.25 MGD), the permittee shall submit a report to EPD that includes a summary of the effluent data collected as well as copies of all the analytical laboratory reports. The report shall be submitted to EPD at the address below:

Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

Upon receipt of the report, EPD will evaluate the results. If the test results indicate effluent toxicity, the permittee may be required to perform additional tests or studies in accordance with Part I.C.5 of the permit and/or the permit may be modified to include a chronic WET limit.

10. PRIORITY POLLUTANTS

The permittee must conduct one scan of the priority pollutants for three consecutive quarters after receiving EPD written authorization to commence operation under Part I.B effluent limitations (1.25 MGD), with the first scan conducted within 90 days of the authorization. The priority pollutant scans must represent seasonal variation. Total recoverable mercury must be sampled and analyzed using EPA Method 1631E. The results of the tests shall be submitted to EPD with the permittee's monthly Discharge Monitoring Reports.

Within fifteen months of receiving authorization to operate under Part I.B effluent limitations (1.25 MGD), the permittee shall submit a report to EPD that includes a summary of the effluent data collected as well as copies of all the analytical laboratory reports. The report shall be submitted to EPD at the address below:

Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

Upon receipt of the report, EPD will conduct a reasonable potential evaluation. If substances are measured at levels of concern, then the permittee may be required to perform additional priority pollutant analyses in accordance with Part I.C.5 or the permit may be modified to include effluent limitations for priority pollutants.

11. LONG-TERM BIOCHEMICAL OXYGEN DEMAND TESTING

The permittee shall perform a 120-day Long-Term BOD test once during the permit cycle. The test should be performed on an effluent sample collected during the critical period from June 1 through September 30. The results of this test shall be submitted to EPD at least 180 days prior to the permit expiration date to the following address:

Environmental Protection Division
Watershed Planning and Monitoring Program
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

12. EFFLUENT TESTING

The permittee shall complete Table A, Table B, and Table C of the NPDES Application Form 2A (EPA Form 3510 – 2A) no later than 24 months from receiving authorization to operate from EPD. The tests should contain a minimum of 3 samples with seasonal variability. The test results shall be submitted to EPD to the following address:

Environmental Protection Division
Wastewater Regulatory Program
2 Martin Luther King Jr. Drive SE
Suite 1152 East
Atlanta, Georgia 30334

D. REPORTING REQUIREMENTS

1. The permittee must electronically report the DMR, OMR and additional monitoring data using the web based electronic NetDMR reporting system, unless a waiver is granted by EPD.
 - a. The permittee must comply with the Federal National Pollutant Discharge Elimination System Electronic Reporting regulations in 40 CFR §127. The permittee must electronically report the DMR, OMR, and additional monitoring data using the web based electronic NetDMR reporting system online at: <https://netdmr.epa.gov/netdmr/public/home.htm>
 - b. Monitoring results obtained during the calendar month shall be summarized for each month and reported on the DMR. The results of each sampling event shall be reported on the OMR and submitted as an attachment to the DMR.
 - c. The permittee shall submit the DMR, OMR and additional monitoring data no later than 11:59 p.m. on the 15th day of the month following the sampling period.
 - d. All other reports required herein, unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.
2. **No later than December 21, 2025,** the permittee must electronically report the following compliance monitoring data and reports using the online web based electronic system approved by EPD, unless a waiver is granted by EPD:
 - a. Sewage Sludge/Biosolids Annual Program Reports provided that the permittee has an approved Sewage Sludge (Biosolids) Plan;
 - b. Pretreatment Program Reports provided that the permittee has an approved Industrial Pretreatment Program in this permit;
 - c. Sewer Overflow/Bypass Event Reports;
 - d. Noncompliance Notification;

- e. Other noncompliance; and
- f. Bypass

3. OTHER REPORTS

All other reports required in this permit not listed above in Part I.D.2 or unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.

4. OTHER NONCOMPLIANCE

All instances of noncompliance not reported under Part I.B. and Part II. A. shall be reported to EPD at the time the monitoring report is submitted.

5. SIGNATORY REQUIREMENTS

All reports, certifications, data or information submitted in compliance with this permit or requested by EPD must be signed and certified as follows:

- a. Any State or NPDES Permit Application form submitted to the EPD shall be signed as follows in accordance with the Federal Regulations, 40 C.F.R. 122.22:
 - 1. For a corporation, by a responsible corporate officer. A responsible corporate officer means:
 - i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or
 - ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - 2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
 - 3. For a municipality, State, Federal, or other public facility, by either a principal executive officer or ranking elected official.
- b. All other reports or requests for information required by the permit issuing authority shall be signed by a person designated in (a) above or a duly authorized representative of such person, if:

1. The representative so authorized is responsible for the overall operation of the facility from which the discharge originates, e.g., a plant manager, superintendent or person of equivalent responsibility;
 2. The authorization is made in writing by the person designated under (a) above; and
 3. The written authorization is submitted to the Director.
- c. Any changes in written authorization submitted to the permitting authority under (b) above which occur after the issuance of a permit shall be reported to the permitting authority by submitting a copy of a new written authorization which meets the requirements of (b) and (b.1) and (b.2) above.
- d. Any person signing any document under (a) or (b) above shall make 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 the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

PART II

A. MANAGEMENT REQUIREMENTS

1. PROPER OPERATION AND MAINTENANCE

The permittee shall properly maintain and operate efficiently all treatment or control facilities and related equipment installed or used by the permittee to achieve compliance with this permit. Efficient operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. Back-up or auxiliary facilities or similar systems shall be operated only when necessary to achieve permit compliance.

2. PLANNED CHANGE

Any anticipated facility expansions, or process modifications which will result in new, different, or increased discharges of pollutants requires the submission of a new NPDES permit application. If the changes will not violate the permit effluent limitations, the permittee may notify EPD without submitting an application. The permit may then be modified to specify and limit any pollutants not previously limited.

3. TWENTY-FOUR HOUR REPORTING

If, for any reason the permittee does not comply with, or will be unable to comply with any effluent limitations specified in the permittee's NPDES permit, the permittee shall provide EPD with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

- a. A description of the noncompliance and its cause; and
- b. The period of noncompliance, including the exact date and times; or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- c. The steps taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

4. ANTICIPATED NONCOMPLIANCE NOTIFICATION

The permittee shall give written notice to the EPD at least 10 days before:

- a. Any planned changes in the permitted facility; or
- b. Any activity which may result in noncompliance with the permit.

5. OTHER NONCOMPLIANCE

The permittee must report all instances of noncompliance not reported under other specific reporting requirements, at the time monitoring reports are submitted. The reports shall contain the information required under conditions of twenty-four hour reporting.

6. OPERATOR CERTIFICATION REQUIREMENTS

The person responsible for the daily operation of the facility must be a Class II Certified Operator in compliance with the Georgia State Board of Examiners for Certification of Water and Wastewater Plant Operators and Laboratory Analysts Act, as amended, and as specified by Subparagraph 391-3-6-.12 of the Rules and Regulations for Water Quality Control. All other operators must have the minimum certification required by this Act.

7. LABORATORY ANALYST CERTIFICATION REQUIREMENTS

Laboratory Analysts must be certified in compliance with the Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts Act, as amended.

8. BYPASSING

Any diversion of wastewater from or bypassing of wastewater around the permitted treatment works is prohibited, except if:

- a. Bypassing is unavoidable to prevent loss of life, personal injury, or severe property damage;
- b. There are no feasible alternatives to bypassing; and
- c. The permittee notifies the EPD at least 10 days before the date of the bypass.

Feasible alternatives to bypassing include use of auxiliary treatment facilities and retention of untreated waste. The permittee must take all possible measures to prevent bypassing during routine preventative maintenance by installing adequate back-up equipment.

The permittee shall operate the facility and the sewer system to minimize discharge of pollutants from combined sewer overflows or bypasses and may be required by the EPD to submit a plan and schedule to reduce bypasses, overflows, and infiltration.

Any unplanned bypass must be reported following the requirements for noncompliance notification specified in II.A.3. The permittee may be liable for any water quality violations that occur as a result of bypassing the facility.

9. POWER FAILURES

If the primary source of power to this water pollution control facility is reduced or lost, the permittee shall use an alternative source of power to reduce or control all discharges to maintain permit compliance.

10. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge disposal which might adversely affect human health or the environment.

11. NOTICE CONCERNING ENDANGERING WATERS OF THE STATE

Whenever, because of an accident or otherwise, any toxic or taste and color producing substance, or any other substance which would endanger downstream users of the waters of the State or would damage property, is discharged into such waters, or is so placed that it might flow, be washed, or fall into them, it shall be the duty of the person in charge of such substances at the time to forthwith notify EPD in person or by telephone of the location and nature of the danger, and it shall be such person's further duty to immediately take all reasonable and necessary steps to prevent injury to property and downstream users of said water.

Spills and Major Spills:

A "spill" is any discharge of raw sewage by a Publicly Owned Treatment Works (POTW) to the waters of the State.

A "major spill" means:

1. The discharge of pollutants into waters of the State by a POTW that exceeds the weekly average permitted effluent limit for biochemical oxygen demand (5-day) or total suspended solids by 50 percent or greater in one day, provided that the effluent discharge concentration is equal to or greater than 25 mg/L for biochemical oxygen demand or total suspended solids.
2. Any discharge of raw sewage that 1) exceeds 10,000 gallons or 2) results in water quality violations in the waters of the State.

"Consistently exceeding effluent limitation" means a POTW exceeding the 30 day average limit for biochemical oxygen demand or total suspended solids for at least five days out of each seven day period during a total period of 180 consecutive days.

The following specific requirements shall apply to POTW's. If a spill or major spill occurs, the owner of a POTW shall immediately:

- a. Notify EPD, in person or by telephone, when a spill or major spill occurs in the system.
- b. Report the incident to the local health department(s) for the area affected by the incident.

The report at a minimum shall include the following:

1. Date of the spill or major spill;
 2. Location and cause of the spill or major spill;
 3. Estimated volume discharged and name of receiving waters; and
 4. Corrective action taken to mitigate or reduce the adverse effects of the spill or major spill.
- c. Post a notice as close as possible to where the spill or major spill occurred and where the spill entered State waters and also post additional notices along portions of the waterway affected by the incident (i.e. bridge crossings, boat ramps, recreational areas, and other points of public access to the affected waterway). The notice at a minimum shall include the same information required in 11(b)(1-4) above. These notices shall remain in place for a minimum of seven days after the spill or major spill has ceased.
- d. Within 24 hours of becoming aware of a spill or major spill, the owner of a POTW shall report the incident to the local media (television, radio, and print media). The report shall include the same information required in 11(b)(1-4) above.
- e. Within 5 days (of the date of the spill or major spill), the owner of a POTW shall submit to EPD a written report which includes the same information required in 11(b)(1-4) above.
- f. Within 7 days (after the date of a major spill), the owner of a POTW responsible for the major spill, shall publish a notice in the largest legal organ of the County where the incident occurred. The notice shall include the same information required in 11(b)(1-4) above.
- g. The owner of a POTW shall immediately establish a monitoring program of the receiving waters affected by a major spill or by consistently exceeding an effluent limit, with such monitoring being at the expense of the POTW for at least one year. The monitoring program shall include an upstream sampling point as well as sufficient downstream locations to accurately characterize the impact of the major spill or the consistent exceedence of effluent limitations described in the definition of “Consistently exceeding effluent limitation” above. As a minimum, the following parameters shall be monitored in the receiving stream:
1. Dissolved Oxygen;
 2. Fecal Coliform Bacteria;
 3. pH;
 4. Temperature; and
 5. Other parameters required by the EPD.

The monitoring and reporting frequency as well as the need to monitor additional parameters, will be determined by EPD. The results of the monitoring will be provided by the POTW owner to EPD and all downstream public agencies using the affected waters as a source of a public water supply.

- h. Within 24 hours of becoming aware of a major spill, the owner of a POTW shall provide notice of a major spill to every county, municipality, or other public agency whose public water supply is within a distance of 20 miles downstream and to any others which could be potentially affected by the major spill.

12. UPSET PROVISION

Provision under 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

B. RESPONSIBILITIES

1. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance is a violation of the Federal Clean Water Act, State Act, and the State Rules, and is grounds for:

- a. Enforcement action;
- b. Permit termination, revocation and reissuance, or modification; or
- c. Denial of a permit renewal application.

2. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense of the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit.

3. INSPECTION AND ENTRY

The permittee shall allow the Director of the EPD, the Regional Administrator of EPA, and their authorized representatives, agents, or employees after they present credentials to:

- a. Enter the permittee's premises where a regulated activity or facility is located, or where any records required by this permit are kept;
- b. Review and copy any records required by this permit;
- c. Inspect any facilities, equipment, practices, or operations regulated or required by this permit; and
- d. Sample any substance or parameter at any location.

4. DUTY TO PROVIDE INFORMATION

The permittee shall furnish any information required by the EPD to determine whether cause exists to modify, revoke and reissue, or terminate this permit or to determine compliance with this permit. The permittee shall also furnish the EPD with requested copies of records required by this permit.

5. TRANSFER OF OWNERSHIP

A permit may be transferred to another person by a permittee if:

- a. The permittee notifies the Director in writing at least 30 days in advance of the proposed transfer;
- b. An agreement is written containing a specific date for transfer of permit responsibility including acknowledgment that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on. This agreement must be submitted to the Director at least 30 days in advance of the proposed transfer; and
- c. The Director does not notify the current permittee and the new permittee within 30 days of EPD intent to modify, revoke and reissue, or terminate the permit. The Director may require that a new application be filed instead of agreeing to the transfer of the permit.

6. AVAILABILITY OF REPORTS

Except for data determined to be confidential by the Director of EPD under O.C.G.A. 12-5-26 or by the Regional Administrator of EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared to comply with this permit shall be available for public inspection at an EPD office. Effluent data, permit applications, permittees' names and addresses, and permits shall not be considered confidential.

7. PERMIT ACTIONS

This permit may be modified, terminated, or revoked and reissued in whole or in part during its term for causes including, but not limited to:

- a. Permit violations;
- b. Obtaining this permit by misrepresentation or by failure to disclose all relevant facts;
- c. Changing any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- d. Changes in effluent characteristics; and
- e. Violations of water quality standards.

The filing of a request by the permittee for permit modification, termination, revocation and reissuance, or notification of planned changes or anticipated noncompliance does not negate any permit condition.

8. CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

9. PROPERTY RIGHTS

The issuance of this permit does not convey any property rights of either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, or any infringement of Federal, State or local laws or regulations.

10. DUTY TO REAPPLY

The permittee shall submit an application for permit reissuance at least 180 days before the expiration date of this permit. The permittee shall not discharge after the permit expiration date. To receive authorization to discharge beyond the expiration date, the permittee shall submit the information, forms, and fees required by the EPD no later than 180 days before the expiration date.

11. CONTESTED HEARINGS

Any person aggrieved or adversely affected by any action of the Director of the EPD shall petition the Director for a hearing within 30 days of notice of the action.

12. SEVERABILITY

The provisions of this permit are severable. If any permit provision or the application of any permit provision to any circumstance is held invalid, the provision does not affect other circumstances or the remainder of this permit.

13. OTHER INFORMATION

Where 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 form to the Director, it shall promptly submit such facts or information.

14. PREVIOUS PERMITS

All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked on the effective date of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

PART III

INDUSTRIAL PRETREATMENT PROGRAM FOR PUBLICLY OWNED TREATMENT WORKS (POTW)

1. The permittee's approved industrial pretreatment program does not include the A. Scott Emmons WRF at Little River. The permittee may request a modification of their industrial pretreatment program to include the new facility.
2. If the EPD determines that the permittee is required to develop a local industrial pretreatment program, the permittee will be notified in writing. The permittee shall immediately begin development of an industrial pretreatment program and shall submit it to the EPD for approval no later than one year after the notification.
3. During the interim period between determination that a program is needed and approval of the program, all industrial pretreatment permits shall be issued by the EPD.
4. The permittee shall notify the EPD of all industrial users connected to the system or proposing to connect to the system from the date of issuance of this permit.
5. Implementation of the Pretreatment Program developed by the State can be delegated to the permittee following the fulfillment of requirements detailed in 391-3-6-.09 of the Rules and Regulations for Water Quality Control.



The Georgia Environmental Protection Division proposes to issue an NPDES permit to the applicant identified below. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the State.

Technical Contact:

August Lutkehus, Environmental Engineer
august.lutkehus@dnr.ga.gov
470-524-0733

Draft permit:

- ☒ First issuance
- ☐ Reissuance with no or minor modifications from previous permit
- ☐ Reissuance with substantial modifications from previous permit
- ☐ Modification of existing permit
- ☒ Requires EPA review
- ☒ Designated as a major (≥ 1 MGD or approved industrial pre-treatment program)

1. FACILITY INFORMATION

1.1 NPDES Permit No.: GA0050304

1.2 Name and Address of Owner/Applicant

Newton County Water & Sewerage Authority
11325 Brown Bridge Road
Covington, Georgia 30016

1.3 Name and Address of Facility

A. Scott Emmons Water Reclamation Facility (WRF) at Little River
10902 Shire Parkway
Social Circle, Georgia 30025

1.4 Location and Description of the Discharge (as reported by applicant)

Outfall #	Latitude (°)	Longitude (°)	Receiving Waterbody
001	33.5833093	-83.6911241	Little River

1.5 Permitted Design Capacity

Part I.B. (Phase I): 1.25 MGD

1.6 SIC Code and Description

SIC Code 4952 – Sewerage systems: Establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system, including such treatment processes as may be provided.

1.7 Description of the Water Pollution Control Plant

Wastewater treatment:

The treatment process will consist of screening, biological treatment (sequencing batch reactors with decanters), chemical addition for phosphorus removal and pH/alkalinity control, post-equalization, tertiary filtration, UV disinfection, and post-aeration. Treated effluent will be then discharged to Little River.

Solids processing:

Sludge will be held in aerobic tanks, dewatered using rotary presses, and then will be transported to a landfill (Newton County Municipal Solid Waste Landfill, 205 Lower River Road, Covington, GA 30016).

1.8 Type of Wastewater Discharge

- | | | | |
|-------------------------------------|---------------------|--------------------------|---------------------|
| <input type="checkbox"/> | Process wastewater | <input type="checkbox"/> | Stormwater |
| <input checked="" type="checkbox"/> | Domestic wastewater | <input type="checkbox"/> | Combined (Describe) |
| <input type="checkbox"/> | Other (Describe) | | |

1.9 Characterization of Effluent Discharge (as reported by applicant)

This is the first issuance of the permit; therefore, no effluent data is available at this time. The Authority is required to submit actual data no later than 24 months after the facility receives authorization to operate.

2. APPLICABLE REGULATIONS**2.1 State Regulations**

Chapter 391-3-6 of the Georgia Rules and Regulations for Water Quality Control

2.2 Federal Regulations

Source	Activity	Applicable Regulation
Municipal/Domestic/POTW	Municipal/Domestic Effluent Discharge	40 CFR 122
		40 CFR 125
		40 CFR 127
		40 CFR 133
		40 CFR 136
	Non-Process Water Discharges	40 CFR 122
		40 CFR 125
		40 CFR 127
		40 CFR 136
	Municipal/Domestic Sludge Use and Disposal	40 CFR 122
		40 CFR 127
		40 CFR 136
		40 CFR 257
		40 CFR 501 & 503

3. WATER QUALITY STANDARDS & RECEIVING WATERBODY INFORMATION

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal Regulations 40 CFR 122.4(d) require that conditions in NPDES permits ensure compliance with the water quality standards which are composed of use classifications, numeric and or narrative water quality criteria and an anti-degradation policy. The use classification system designates the beneficial uses that each waterbody is expected to achieve, such as drinking water, fishing, or recreation. The numeric and narrative water quality criteria are deemed necessary to support the beneficial use classification for each water body. The antidegradation policy represents an approach to maintain and to protect various levels of water quality and uses.

3.1 Receiving Waterbody Classification and Information – Little River:

Specific Water Quality Criteria for Classified Water Usage [391-3-6-.03(6)]:

Fishing: Propagation of Fish, Shellfish, Game and Other Aquatic Life; secondary contact recreation in and on the water; or for any other use requiring water of a lower quality.

- (i) Dissolved Oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for water designated as trout streams by the Wildlife Resources Division. A daily average of 5.0 mg/L and no less than 4.0 mg/L at all times for waters supporting warm water species of fish.
- (ii) pH: Within the range of 6.0 - 8.5.

(iii) Bacteria:

1. For the months of May through October, when water contact recreation activities are expected to occur, fecal coliform not to exceed a geometric mean of 200 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours. Should water quality and sanitary studies show fecal coliform levels from non-human sources exceed 200/100 mL (geometric mean) occasionally, then the allowable geometric mean fecal coliform shall not exceed 300 per 100 mL in lakes and reservoirs and 500 per 100 mL in free flowing freshwater streams. For the months of November through April, fecal coliform not to exceed a geometric mean of 1,000 per 100 mL based on at least four samples collected from a given sampling site over a 30-day period at intervals not less than 24 hours and not to exceed a maximum of 4,000 per 100 mL for any sample. The State does not encourage swimming in these surface waters since a number of factors which are beyond the control of any State regulatory agency contribute to elevated levels of bacteria.
2. For waters designated as shellfish growing areas by the Georgia DNR Coastal Resources Division, the requirements will be consistent with those established by the State and Federal agencies responsible for the National Shellfish Sanitation Program. The requirements are found in National Shellfish Sanitation Program Guide for the Control of Molluscan Shellfish, 2007 Revision (or most recent version), Interstate Shellfish Sanitation Conference, U.S. Food and Drug Administration.

- (iv) Temperature: Not to exceed 90°F. At no time is the temperature of the receiving waters to be increased more than 5°F above intake temperature except that in estuarine waters the increase will not be more than 1.5°F. In streams designated as primary trout or smallmouth bass waters by the Wildlife Resources Division, there shall be no elevation of natural stream temperatures. In streams designated as secondary trout waters, there shall be no elevation exceeding 2°F natural stream temperatures.

3.2 Ambient Information

Outfall ID	30Q3 (cfs)	7Q10 (cfs)	1Q10 (cfs)	Annual Average Flow (cfs)	Hardness (mg CaCO ₃ /L)	Upstream Total Suspended Solids (mg/L)
001	1.32	0.11	0.07	17.7	14.7	10 ⁽¹⁾

⁽¹⁾ Not available. A conservative value of 10 mg/L will be used for the reasonable potential analysis calculations.

3.3 Georgia 305(b)/303(d) List Documents

The section of Little River where the discharge occurs is not listed on the 2020 305(b)/303(d) list. However, a downstream section of Little River from Shoal Creek to Gap Creek (GAR030701011401) is listed on the 2020 305(b)/303(d) list as not supporting its designated use (fishing) but TMDLs have been completed for the impacted parameters (fecal coliform bacteria).

3.4 Total Maximum Daily Loads (TMDLs)

Sediments:

The U.S. Environmental Protection Agency completed a Total Maximum Daily Load (TMDL) for sediment in the Oconee River Basin in 2002. The TMDL recommended a maximum sediment loading of 0.62 tons/acres/year. Based on source assessment, loading to the Little River was only 0.4 tons/acres/year. An additional sediment load of 39,800 tons/year could be discharged to Little River before the TMDL recommendation of 0.62 ton/acre/year is exceeded. The proposed total suspended solids limit of 10 mg/L is equivalent to 19 tons/year, which is significantly less than 39,800 tons/year; therefore, the TSS limit in the draft permit are in accordance with the TMDL requirements.

Fecal Coliform Bacteria:

The Georgia Environmental Protection Division completed a TMDL for fecal coliform bacteria for 72 stream segments in the Oconee River Basin in 2007. The TMDL required that all future municipal and industrial wastewater treatment facilities with the potential for the occurrence of fecal coliform in their discharge will give end-of-pipe limits equivalent to the water quality standard of 200 counts/100mL. The fecal coliform bacteria limits in the draft permit are in accordance with the TMDL requirements.

3.5 Wasteload Allocation (WLA)

WLA for reissuance was issued on November 9, 2017. Refer to *Appendix A* of the Fact Sheet for a copy of the WLA.

4. PERMIT CONDITIONS AND EFFLUENT LIMITATIONS

4.1 Water Quality Based Effluent Limitations (WQBELs) & Technology Based Effluent Limits (TBELs)

When drafting a National Pollutant Discharge Elimination System (NPDES) permit, a permit writer must consider the impact of the proposed pollutants in a discharge on the quality of the receiving water. Water quality goals for a waterbody are defined by state water quality criteria or standards. By analyzing the effect of a pollutant in the discharge on the receiving water, a permit writer could find that technology-based effluent limitations (TBELs) alone will not achieve the applicable water quality standards or protect downstream users. In such cases, the Clean Water Act (CWA) and its implementing regulations require development of water quality-based effluent limitations (WQBELs). WQBELs help meet the CWA objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters and the goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water (fishable/swimmable).

WQBELs are designed to protect water quality by ensuring water quality standards are met in the receiving water and the designated use and downstream uses are protected. On the basis of the requirements of 40 C.F.R. §125.3(a), additional or more stringent effluent limitations and conditions, such as WQBELs, are imposed when TBELs are not sufficient to protect water quality.

TBELs aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the State. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and WQBELs. The NPDES regulations at 40 C.F.R. §125.3(a) require NPDES permit writers to develop technology-based treatment requirements, consistent with CWA section 301(b), that represent the minimum level of control that must be imposed in a permit. The regulation also requires permit writers to include in permits additional or more stringent effluent limitations and conditions, including those necessary to protect water quality.

40 CFR Part §122.44(a)(1) requires that NPDES permits include applicable technology-based limitations and standards, while regulations at § 125.3(a)(1) state that TBELs for publicly owned treatment works must be based on secondary treatment standards and the “equivalent to secondary treatment standards” (40 CFR Part 133). The regulation applies to all POTWs and identifies the technology-based performance standards achievable based on secondary treatment for five-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), and pH.

The table below shows the secondary treatment standards:

Parameter	Secondary Treatment Standards	
	30-day Average	7-day Average
BOD ₅	30 mg/L	45 mg/L
TSS	30 mg/L	45 mg/L
BOD ₅ and TSS removal (concentration)	≥ 85%	--
pH (Daily Minimum – Daily Maximum)	6.0-9.0 S.U.	

4.2 Reasonable Potential Analysis (RP)

EPA regulations at 40 C.F.R. §122.44(d)(1)(i) state, “Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will *cause*, have the *reasonable potential to cause*, or *contribute* to an excursion above any [s]tate water quality standard, including [s]tate narrative criteria for water quality.” [emphasis added]

EPA regulations at 40 C.F.R. §122.44(d)(1)(ii) require States to develop procedures for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criterion within a state water. If such reasonable potential is determined to exist, the NPDES permit must contain pollutant effluent limits and/or effluent limits for whole effluent toxicity. Georgia has reasonable potential procedures, based upon the specific category of pollutants and/or specific pollutant of concern. Chemical specific and biomonitoring data and other pertinent information in EPD’s files will be considered in accordance with the review procedures specified in the GA Rules and Regulations for Water Quality Control, Chapter 391-3-6 in the evaluation of a permit application and in the evaluation of the reasonable potential for a discharge to cause an exceedance in the numeric or narrative criteria.

The term “pollutant” is defined in CWA section 502(6) and 40 C.F.R. §122.2. Pollutants are grouped into three categories under the NPDES program: conventional, toxic, and nonconventional. Conventional pollutants are those defined in CWA section 304(a)(4) and 40 C.F.R. §401.16 (five day-biochemical oxygen demand (BOD₅), total suspended solids (TSS), fecal coliform, pH, and oil and grease). Toxic (priority) pollutants are those defined in CWA section 307(a)(1) and include 126 metals and manmade organic compounds. Nonconventional pollutants are those that do not fall under either of the above categories (conventional or toxic pollutants) and include parameters such as, but not limited to, chlorine, ammonia, nitrogen, phosphorus, chemical oxygen demand (COD), and whole effluent toxicity (WET).

EPD evaluates the data provided in the application and supporting documents. If a pollutant is listed in the following sections of this fact sheet below, the permit writer determined the pollutant is a pollutant of concern and there may be a reasonable potential to cause or contribute to an instream violation of the Georgia water quality standards. If a pollutant is not listed below, EPD determined the pollutant is not a pollutant of concern or has determined, based on the data provided in the application, there is no reasonable potential to cause or contribute to an instream violation of the Georgia water quality standards. An example may be if the applicant reported “not detect” or “below detection limit”.

Upon identification of a pollutant of concern by the permit writer, in accordance with 40 C.F.R. §122.44(d)(1)(ii), the permit writer must then perform a reasonable potential analysis using a procedure which has accounted for any combination of the following criteria: existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water to determine if the pollutant and its discharge has the reasonable potential to cause, or contribute to an in-stream excursion above the allowable ambient concentration of a state narrative or numeric criteria within the state’s water quality standard for an individual pollutant.

In accordance with 40 C.F.R. §122.44(d)(1)(iii), if the permit writer has determined, using a reasonable potential procedure the pollutant of concern in the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a state numeric or narrative criteria within a state water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant. If the permit writer has determined there is insufficient data, the permit writer might also consider monitoring requirements to collect the additional data related to the presence or absence of a specific pollutant to provide information for further analyses for the development of appropriate numeric or narrative standard .

The conventional, nonconventional, and toxic pollutants listed in the following sections have been identified by the permit writer as pollutants of concern and the permit writer has determined through current practices and procedures one of the following: no additional monitoring or numeric and/or narrative effluent limits are needed; additional monitoring is required; or numeric and/or narrative effluent limits are necessary to protect the receiving water body and its downstream users and those limits have been included in the permit.

The monitoring and sampling locations are prescribed in the permit and determined by the permit writer after considering, at a minimum, the following: type of discharge, specific pollutant, discharge frequency, location of the discharge, receiving waterbody, downstream users, etc.

The sample type, grab vs. composite, is prescribed in the permit and determined by the permit writer after considering, at a minimum, the analytical method required in 40 C.F.R. §136, the type of pollutant, retention time, etc. Grab samples are required for the analysis of pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform (including *E. coli*), or volatile organics.

4.3 Whole Effluent Toxicity (WET)

This is the first issuance of the permit. The facility has not been constructed yet; therefore, there is no effluent data available.

The permittee must conduct one whole effluent toxicity (WET) test for four consecutive quarters during the first year after receiving EPD written authorization to commence operation under Part I.B. (1.25 MGD) effluent limitations, with the first test being conducted within 90 days of this authorization.

EPD will evaluate the WET tests submitted to determine whether toxicity has been demonstrated. If the test results indicate effluent toxicity or if the tests are invalid, the permittee may be required to perform additional WET tests in accordance with Part I.C.5 of the permit and/or the permit may be modified to include a chronic WET limit.

4.4 Conventional Pollutants

Pollutants of Concern	Basis
pH	The instream wastewater concentration (IWC) is 95%. When the IWC is greater than 50%, there is reasonable potential for pH to cause or contribute to violations of the instream Georgia Water Quality Standard; therefore, pH limits of 6.0-8.5 SU (daily minimum-daily maximum) were included in the draft permit.
Five-Day Biochemical Oxygen Demand (BOD ₅)	According to the steady-state dissolved oxygen Georgia DOSAG model, a monthly average BOD ₅ limit of 5.0 mg/L, when combined with the ammonia limit (refer to Section 4.5.1 below), is protective of the instream Water Quality Standard for dissolved oxygen described in Section 3.1 above. Refer to the WLA in <i>Appendix A</i> for model inputs.
Total Suspended Solids (TSS)	The monthly average TSS limit of 10 mg/L is in accordance with EPD's <i>Guidelines for Establishing Technology-Based Total Suspended Solids (TSS) Limits in Domestic Wastewater NPDES Permits</i> , 2020 for mechanical plants.
Fecal Coliform Bacteria (FCB)	<p>In accordance with 40 C.F.R. §122.44(d)(1)(ii) of the federal regulations, EPD considers all POTWs, Private and Institutional Developments, and CSO Control Facilities, discharging all or a portion of domestic sanitary wastewater, to have the reasonable potential to cause or contribute to instream water quality standard violations for bacteria, including fecal coliform and <i>Escherichia coli</i>. EPD has determined these facilities discharge the conventional pollutant fecal coliform bacteria, wastewater treatment systems are consistently designed to treat fecal coliform bacteria, and fecal coliform bacterium are highly variable in the receiving stream after treatment. Furthermore, dilution is not considered in EPD's analysis as bacteria have the inherent ability to reproduce in the receiving stream.</p> <p>The monthly average FCB limit of 200 #/100mL is in accordance with the instream Water Quality Standards in Section 3.1 above</p>

4.5 Nonconventional Pollutants

Pollutants of Concern	Basis
Total Residual Chlorine (TRC)	<p>A daily maximum TRC limit of 0.012 mg/L has been determined using the US EPA's chronic TRC criterion of 11 µg/L in the receiving stream after dilution. Refer to Section 4.7.6 below for calculations.</p> <p>Facility is equipped with a UV disinfection system; therefore, monitoring requirements and effluent limitations only apply when chlorine is in use at the facility.</p>
Dissolved Oxygen (DO)	<p>According to the steady-state dissolved oxygen Georgia DOSAG model, a minimum effluent DO of 6.0 mg/L is protective of the instream Water Quality Standard for dissolved oxygen described in Section 3.1 above.</p>
Total Phosphorus (TP)	<p>The facility has been designed for 0.43 mg/L; therefore, a monthly average limit of 0.43 mg/L has been included in the draft permit.</p> <p>The proposed TP limit is in accordance with EPD's <i>Strategy for Addressing Phosphorus in NPDES Permitting</i>, 2011 for point source discharges above lakes.</p>
Orthophosphate, Total Kjeldahl Nitrogen (TKN), Organic Nitrogen, Nitrate-Nitrite	<p>Orthophosphate, TKN, organic nitrogen, and nitrate-nitrite monitoring has been included in the draft permit. The data will be used to determine nutrient speciation and to quantify nutrient loadings in the Oconee River Basin.</p>
Ammonia (NH ₃)	<p>A monthly average ammonia limit of 1.5 mg/L is in accordance with EPD's <i>NPDES Permitting Strategy for Addressing Ammonia Toxicity</i>, 2017.</p> <p>According to the steady-state dissolved oxygen Georgia DOSAG model, a monthly average ammonia limit of 1.5 mg/L, when combined with the BOD₅ and dissolved oxygen limit, is also protective of the instream Water Quality Standard for dissolved oxygen described in Section 3.1 above.</p>

4.6 Toxics & Manmade Organic Compounds

This is the first issuance of the permit. The facility has not been constructed yet; therefore, there is no effluent data available.

The permittee must conduct one scan of the priority pollutants for three consecutive quarters after receiving EPD written authorization to commence operation under Part I.B.1 effluent limitations (1.25 MGD), with the first scan conducted within 90 days of the authorization. The priority pollutant scans must represent seasonal variation. Total recoverable mercury must be sampled and analyzed using EPA Method 1631E.

If substances are measured at levels of concern, then the permittee may be required to perform additional priority pollutant analyses in accordance with Part I.C.5 or the permit may be modified to include effluent limitations for priority pollutants.

4.7 Calculations for Effluent Limits

4.7.1 Instream Waste Concentration (IWC):

$$\begin{aligned} \text{IWC} &= \frac{Q_{\text{Effluent}} (\text{ft}^3/\text{sec})}{Q_{\text{Effluent}} (\text{ft}^3/\text{sec}) + 7Q_{10} (\text{ft}^3/\text{sec})} \% \\ &= \frac{1.94}{1.94 + 0.11} \\ &= 95 \% \end{aligned}$$

Q = Flow
C = Concentration
M = Mass

4.7.2 Flow:

- Weekly Average Flow:

$$\begin{aligned} Q_{\text{Weekly}} &= Q_{\text{Monthly}} (\text{MGD}) \times 1.25 \\ &= 1.25 \times 1.25 \\ &= 1.56 \text{ MGD} \end{aligned}$$

4.7.3 Five-Day Biochemical Oxygen Demand:

- Weekly Average Concentration:

$$\begin{aligned} [C]_{\text{Weekly}} &= [C]_{\text{Monthly}} (\text{mg/L}) \times 1.5 \\ &= 5.0 \times 1.5 \\ &= 7.5 \text{ mg/L} \end{aligned}$$

- *Monthly Average Mass Loading:*

$$\begin{aligned}
 M_{\text{Monthly}} &= \frac{Q_{\text{Monthly}} (\text{MGD}) \times [C]_{\text{Monthly}} (\text{mg/L or ppm}) \times 8.34 (\text{lbs/gal})}{2.2 (\text{lbs/Kg})} \\
 &= \frac{1.25 \times 5.0 \times 8.34}{2.2} \\
 &= 24 \text{ kg/day}
 \end{aligned}$$

- *Weekly Average Mass Loading:*

$$\begin{aligned}
 M_{\text{Weekly}} &= \frac{Q_{\text{Weekly}} (\text{MGD}) \times [C]_{\text{Weekly}} (\text{mg/L or ppm}) \times 8.34 (\text{lbs/gal})}{2.2 (\text{lbs/Kg})} \\
 &= \frac{1.56 \times 5.0 \times 8.34}{2.2} \\
 &= 30 \text{ kg/day}
 \end{aligned}$$

4.7.4 Total Suspended Solids:

- *Weekly Average Concentration:*

$$\begin{aligned}
 [C]_{\text{Weekly}} &= [C]_{\text{Monthly}} (\text{mg/L}) \times 1.5 \\
 &= 10 \times 1.5 \\
 &= 15 \text{ mg/L}
 \end{aligned}$$

- *Monthly Average Mass Loading:*

$$\begin{aligned}
 M_{\text{Monthly}} &= \frac{Q_{\text{Monthly}} (\text{MGD}) \times [C]_{\text{Monthly}} (\text{mg/L or ppm}) \times 8.34 (\text{lbs/gal})}{2.2 (\text{lbs/Kg})} \\
 &= \frac{1.25 \times 10 \times 8.34}{2.2} \\
 &= 47 \text{ kg/day}
 \end{aligned}$$

- *Weekly Average Mass Loading:*

$$\begin{aligned}
 M_{\text{Weekly}} &= \frac{Q_{\text{Weekly}} (\text{MGD}) \times [C]_{\text{Monthly}} (\text{mg/L or ppm}) \times 8.34 (\text{lbs/gal})}{2.2 (\text{lbs/Kg})} \\
 &= \frac{1.56 \times 10 \times 8.34}{2.2} \\
 &= 59 \text{ kg/day}
 \end{aligned}$$

4.7.5 *Fecal Coliform Bacteria:*

- *Weekly Average Concentration:*

$$\begin{aligned}
 C_{\text{Weekly}} &= C_{\text{Monthly}} (\text{\#/100 mL}) \times 2 \\
 &= 200 \times 2 \\
 &= 400 \text{ \#/100 mL}
 \end{aligned}$$

4.7.6 *Total Residual Chlorine (TRC):*

- *Daily Maximum Concentration:*

$$\begin{aligned}
 [\text{TRC}]_{\text{Effluent}} &= \frac{[Q_{\text{Effluent}} (\text{ft}^3/\text{sec}) + 7Q_{10} (\text{ft}^3/\text{sec})] \times [\text{TRC}]_{\text{Stream}} (\text{mg/L})}{Q_{\text{Effluent}} (\text{ft}^3/\text{sec})} \\
 &= \frac{(1.93 + 0.11) \times 0.011}{1.93} \\
 &= 0.012 \text{ mg/L}
 \end{aligned}$$

4.7.7 *Ammonia:*

- *Toxicity Analysis:*

The chronic criterion based on *Villosa iris* (rainbow mussel) is determined as follows:

$$\text{CCC} = 0.8876 \times \left(\frac{0.0278}{1 + 10^{7.688 - \text{pH}}} + \frac{1.1994}{1 + 10^{\text{pH} - 7.688}} \right) \times 2.126 \times 10^{0.028 \times (20 - \text{MAX}(T, 7))} \text{ mg/L}$$

Where: pH : pH of receiving stream and discharge
 T : Temperature of receiving stream
 CCC : Chronic Continuous Concentration

The ammonia effluent limit (monthly average) is then calculated as follows:

$$[\text{NH}_3]_{\text{Effluent}} =$$

$$\frac{(Q_{\text{Effluent}} (\text{ft}^3/\text{sec}) + 30Q3 (\text{ft}^3/\text{sec})) \times \text{CCC} (\text{mg/L}) - 30Q3 (\text{ft}^3/\text{sec}) \times [\text{NH}_3]_{\text{Stream Background}} (\text{mg/L})}{Q_{\text{Effluent}} (\text{ft}^3/\text{sec})}$$

Refer to *Appendix C* for detailed calculations.

- *Weekly Average Concentration:*

$$\begin{aligned} [\text{C}]_{\text{Weekly}} &= [\text{C}]_{\text{Monthly}} (\text{mg/L}) \times 1.5 \\ &= 1.5 \times 1.5 \\ &= 2.3 \text{ mg/L} \end{aligned}$$

- *Monthly Average Mass Loading:*

$$\begin{aligned} M_{\text{Monthly}} &= \frac{Q_{\text{Monthly}} (\text{MGD}) \times [\text{C}]_{\text{Monthly}} (\text{mg/L or ppm}) \times 8.34 (\text{lbs/gal})}{2.2 (\text{lbs/Kg})} \\ &= \frac{1.25 \times 1.5 \times 8.34}{2.2} \\ &= 7.1 \text{ kg/day} \end{aligned}$$

- *Weekly Average Mass Loading:*

$$\begin{aligned} M_{\text{Weekly}} &= \frac{Q_{\text{Weekly}} (\text{MGD}) \times [\text{C}]_{\text{Monthly}} (\text{mg/L or ppm}) \times 8.34 (\text{lbs/gal})}{2.2 (\text{lbs/Kg})} \\ &= \frac{1.56 \times 1.5 \times 8.34}{2.2} \\ &= 8.9 \text{ kg/day} \end{aligned}$$

4.7.8 Total Phosphorus:

- *Weekly Average Concentration:*

$$\begin{aligned} [\text{C}]_{\text{Weekly}} &= [\text{C}]_{\text{Monthly}} (\text{mg/L}) \times 1.5 \\ &= 0.43 \times 1.5 \\ &= 0.65 \text{ mg/L} \end{aligned}$$

- *Monthly Average Mass Loading:*

$$\begin{aligned}M_{\text{Monthly}} &= \frac{Q_{\text{Monthly}} (\text{MGD}) \times [C]_{\text{Monthly}} (\text{mg/L or ppm}) \times 8.34 (\text{lbs/gal})}{2.2 (\text{lbs/Kg})} \\&= \frac{1.25 \times 0.43 \times 8.34}{2.2} \\&= 2.0 \text{ kg/day}\end{aligned}$$

- *Weekly Average Mass Loading:*

$$\begin{aligned}M_{\text{Weekly}} &= \frac{Q_{\text{Weekly}} (\text{MGD}) \times [C]_{\text{Monthly}} (\text{mg/L or ppm}) \times 8.34 (\text{lbs/gal})}{2.2 (\text{lbs/Kg})} \\&= \frac{1.56 \times 0.43 \times 8.34}{2.2} \\&= 2.5 \text{ kg/day}\end{aligned}$$

4.7.9 Metals

Not applicable

4.8 Comparison & Summary of Water Quality vs. Technology Based Effluent Limits

After determining applicable technology-based effluent limitations and water quality-based effluent limitations, the most stringent limits are applied in the permit:

Parameter	WQBELS ⁽¹⁾	TBELS ⁽¹⁾
	<i>Monthly Average</i>	<i>Monthly Average</i>
Five-Day Biochemical Oxygen Demand (mg/L)	5.0	30.0
Total Suspended Solids (mg/L)	10	30
Total Phosphorus (mg/L)	0.43	None
Ammonia (mg/L)	1.5	None
Fecal Coliform Bacteria (#/100 mL)	200	None
Dissolved Oxygen (mg/L), Daily Minimum	6.0	None
pH (S.U.), Daily Minimum – Daily Maximum	6.0 – 8.5	6.0 – 9.0
Total Residual Chlorine (mg/L), Daily Maximum	0.012	None

⁽¹⁾ Effluent limits in bold were included in the permit. Refer to Sections 4.5, 4.6, 4.7, and 4.8 above for more information.

5. OTHER PERMIT REQUIREMENTS AND CONSIDERATIONS

5.1 New Discharge of 1.25 MGD

5.1.1 Antidegradation Review

On October 12, 2017, EPD concurred with Newton County Water & Sewerage Authority's Anti-Degradation Analysis report (Report) for a new discharge flow of 1.25 MGD to Little River. The Authority has provided population projections based on census data, as well as flow projections based on zoning, annual growth rates, and water resource studies. These projections justify the proposed volume of wastewater treatment required for future economic development.

The Report discusses reasonable alternatives stating that a) the service area will feature many new sewers with low infiltration rates; b) there are no reuse customers that are large enough to accept reuse flow that are near the site; and, c) discharge via a land application system (LAS) would require a higher cost than that of the selected discharge alternative.

The Authority has also documented the financial impacts of the referenced alternatives in the Report. The capital costs and present worth values provided for the direct discharge alternative are less than that of a new land treatment system or reuse system primarily due to land acquisition costs.

Based on the information provided, EPD determined that the report adequately illustrates that the discharge of treated wastewater to surface waters is necessary to accommodate future growth and is the most economically achievable alternative. Therefore, EPD concurs with the Report's conclusion that requiring a no discharge alternative system for 1.25 MGD of domestic wastewater would not be reasonable or practicable.

5.1.2 Permitting Milestones

- Antidegradation Review (ADR): Concurred with on October 12, 2017.
- Environmental Information Document (EID): Concurred with on December 18, 2017.
- Design Development Report (DDR): Concurred with on September 27, 2018.

5.2 Instream Monitoring

Instream monitoring of dissolved oxygen, temperature, pH, and conductivity has been included in the draft permit. Upstream monitoring will take place at the crossing of Little River and GA Highway 278 and downstream monitoring will take place at the crossing of Little River and Sewell Road.

5.3 Long-Term BOD (LTBOD) Test

For facilities with a capacity of 1.0 MGD or greater, a 120-day long-term BOD test should be performed on an effluent sample collected during the critical period from June 1 through September 30; a requirement for long term BOD testing has been included in the draft permit.

5.4 Industrial Pretreatment Program (IPP)

Newton County Water & Sewerage Authority's approved IPP does not include the A. Scott Emmons WRF at Little River. The permittee may request a modification of their IPP to include the new facility.

5.5 Sludge Management Plan (SMP)

Sludge will be disposed of in a landfill (Newton County Municipal Solid Waste Landfill, 205 Lower River Road, Covington, GA 30016); therefore, a SMP is not required.

5.6 Watershed Protection Plan (WPP)

New or expanding treatment facilities are required to develop and implement a Watershed Protection Plan (WPP). Requirements to develop and implement a WPP have been included in the draft permit. The Authority will not be authorized to start operation of the new plant without an approved WPP.

5.7 Service Delivery Strategy

Newton County Water & Sewerage Authority is in compliance with the Department of Community Affairs approved Service Delivery Strategy for Newton County.

5.8 Compliance Schedules

Effluent limitations will be applicable immediately upon receiving EPD approval of construction completion and written authorization to operate.

5.9 Anti-Backsliding

Not applicable (new permit).

6. REPORTING

6.1 Compliance Office

The facility has been assigned to the following EPD office for reporting, compliance and enforcement:

Georgia Environmental Protection Division
Watershed Compliance Program
2 Martin Luther King Jr. Drive
Suite 1152 East
Atlanta, Georgia 30334

6.2 E-Reporting

The permittee is required to electronically submit documents in accordance with 40 CFR Part 127.

7. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

Not applicable

8. PERMIT EXPIRATION

The permit will expire five years from the effective date.

9. PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

9.1 Comment Period

The Georgia Environmental Protection Division (EPD) proposes to issue a permit to this applicant subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

The permit application, draft permit, and other information are available for review at 2 Martin Luther King Jr. Drive, Suite 1152 East, Atlanta, Georgia 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday and on EPD's website accessible through the publicly available Georgia EPD Online System (GEOS) at: <https://geos.epd.georgia.gov/GA/GEOS/Public/GovEnt/Shared/Pages/Main/Login.aspx>. For additional information, you can contact 404-463-1511.

9.2 Public Comments

Persons wishing to comment upon or object to the proposed determinations are invited to submit same in writing to the EPD address above, or via e-mail at EPDcomments@dnr.ga.gov within 30 days of the initiation of the public comment period. All comments received prior to that date will be considered in the formulation of final determinations regarding the application. The permit number should be placed on the top of the first page of comments to ensure that your comments will be forwarded to the appropriate staff.

9.3 Public Hearing

Any applicant, affected state or interstate agency, the Regional Administrator of the U.S. Environmental Protection Agency (EPA) or any other interested agency, person or group of persons may request a public hearing with respect to an NPDES permit application if such request is filed within thirty (30) days following the date of the public notice for such application. Such request must indicate the interest of the party filing the request, the reasons why a hearing is requested, and those specific portions of the application or other NPDES form or information to be considered at the public hearing.

The Director shall hold a hearing if he determines that there is sufficient public interest in holding such a hearing. If a public hearing is held, notice of same shall be provided at least thirty (30) days in advance of the hearing date.

In the event that a public hearing is held, both oral and written comments will be accepted; however, for the accuracy of the record, written comments are encouraged. The Director or a designee reserves the right to fix reasonable limits on the time allowed for oral statements and such other procedural requirements, as deemed appropriate.

Following a public hearing, the Director, unless it is decided to deny the permit, may make such modifications in the terms and conditions of the proposed permit as may be appropriate and shall issue the permit.

If no public hearing is held, and, after review of the written comments received, the Director determines that a permit should be issued and that the determinations as set forth in the proposed permit are substantially unchanged, the permit will be issued and will become final in the absence of a request for a contested hearing. Notice of issuance or denial will be made available to all interested persons and those persons that submitted written comments to the Director on the proposed permit.

If no public hearing is held, but the Director determines, after a review of the written comments received, that a permit should be issued but that substantial changes in the proposed permit are warranted, public notice of the revised determinations will be given and written comments accepted in the same manner as the initial notice of application was given and written comments accepted pursuant to EPD Rules, Water Quality Control, subparagraph 391-3-6-.06(7)(b). The Director shall provide an opportunity for public hearing on the revised determinations. Such opportunity for public hearing and the issuance or denial of a permit thereafter shall be in accordance with the procedures as are set forth above.

9.4 Final Determination

At the time that any final permit decision is made, the Director shall issue a response to comments. The issued permit and responses to comments can be found at the following address:

<http://epd.georgia.gov/watershed-protection-branch-permit-and-public-comments-clearinghouse-0>

9.5 Contested Hearings

Any person who is aggrieved or adversely affected by the issuance or denial of a permit by the Director of EPD may petition the Director for a hearing if such petition is filed in the office of the Director within thirty (30) days from the date of notice of such permit issuance or denial. Such hearing shall be held in accordance with the EPD Rules, Water Quality Control, subparagraph 391-3-6-.01.

Petitions for a contested hearing must include the following:

1. The name and address of the petitioner;
2. The grounds under which petitioner alleges to be aggrieved or adversely affected by the issuance or denial of a permit;
3. The reason or reasons why petitioner takes issue with the action of the Director;
4. All other matters asserted by petitioner which are relevant to the action in question.

FACT SHEET

Appendix A

A. Scott Emmons Water Reclamation Facility at Little River NPDES Permit No. GA0050304

Waste Load Allocation (WLA)

National Pollutant Discharge Elimination System Wasteload Allocation Form

Part I: Background Information

WLA Request Type: Reissuance ☐ Expansion ☐ Relocation ☐ New Discharge ☒
 Facility Name: **Newton County WSA-Little River WPCP** County: **Newton** WQMU: **0308**
 NPDES Permit No.: Expiration Date: **N/A** Outfall Number: **001**
 Receiving Water: **Little River** River Basin: **Oconee** 10-Digit HUC: **0307010114**
 Discharge Type: Domestic ☒ Industrial ☐ Both ☐ Proportion (D:I): Flow(s) Requested (MGD): **1.25, 2.5 & 3.75 MGD**
 Industrial Contributions Type(s):
 Treatment Process Description:
 Additional Information: (history, special conditions, other facilities): **This request is for a separate WLA for Newton County, not to be combined with Social Circle as previously proposed in 2007. The proposed facility will be built in phases.**
 Requested by: **Hwan Cho** Title: **EE** Program: **WRP**
 Telephone: **404-463-0665** Date: **August 24, 2017**

Part II: Receiving Water Information

Receiving Water: **Little River** Designated Use Classification: **Fishing**
 Integrated 305(b)/303(d) List: Yes ☐ No ☒ Partial Support: ☐ Not Support: ☐ Criteria:
 Total Maximum Daily Load: Yes ☒ No ☐ Parameter(s) **Sediment** WLA Complies with TMDL Yes ☒ No ☐
 In 2002, U.S. EPA developed a TMDL for sediment in the Little River. No load reduction was required from the existing facilities at the time the TMDL was developed

Part III: Water Quality Model Review Information

Model Type: Uncalibrated ☐ Calibrated ☒ Verified ☐ Cannot be Modeled ☐ Model Length (mi): **41.1**
 Field Data: None ☐ Fair ☐ Good ☒ Excellent ☐
 Model and Field Data Description: **Steady state dissolved oxygen Georgia DOSAG model for the State Water Plan. The following parameters are for the mainstem Little River downstream of the discharge location.**
 Critical Water Temperature (°C): **28** Drainage Area (mi²): **21.1** Mean annual streamflow at discharge (cfs): **17.7**
 7Q10 Yield (cfs/mi²): **0.007-0.008** Velocity (range fps): **0.2 -1.4** 7Q10 streamflow at discharge (cfs): **0.11**
 Effluent Flow Rate (cfs): **1.94, 3.87 and 5.81** IWC (%): **59-81** 1Q10 streamflow at discharge (cfs): **0.07**
 Slope (range - fpm): **3.0 - 10.2** K1: **0.15** K3: **0.1** K2 (range): **1.2-21.3** 3Q10 streamflow at discharge (cfs): **1.32**
 SOD: **0.1 - 0.2** Escape Coef. (ft-1): **0.08-0.11** f-Ratio (BOD_u/BOD₅): **3** Background Hardness (mg/L as CaCO₃): **14.7**
 The minimum DO concentration is predicted to be 6.2 mg/L, occurring 27 miles downstream from the proposed 1.25 MGD discharge.
 The minimum DO concentration is predicted to be 6.3 mg/L, occurring 27 miles downstream from the proposed 2.5 MGD discharge.
 The minimum DO concentration is predicted to be 5.9 mg/L, occurring 27 miles downstream from the proposed 3.75 MGD discharge.

Part IV: Recommended Permit Limitations and Conditions (mg/L as a monthly average except as noted)

Rationale:	Same as current <input type="checkbox"/> Revised <input type="checkbox"/> New <input checked="" type="checkbox"/>									
Location:	Little River, just downstream of the confluence with Dennis Creek									
Effluent Flow Rate (MGD)	BOD ₅	NH ₃ -N	DO (min.)	TSS	Fecal Coliform (No./100ml)	1 st TRC (daily max)	pH (std. units)	Total Phosphorus	Ortho Phosphorus	TKN, Nitrate-Nitrite, Organic Nitrogen
1.25	5.0	1.5	6.0	20	200	0.019	6.0-8.5	0.43	Monitor	Monitor
2.5	5.0	1.0	6.0	20	200	0.015	6.0-8.5	0.21	Monitor	Monitor
3.75	5.0	0.8	6.0	20	200	0.014	6.0-8.5	0.14	Monitor	Monitor

Additional Comments: **Priority pollutant permit limits and aquatic toxicity testing requirements are to be determined by WRP.**

¹If the facility uses ultraviolet light or ozone system to treat fecal coliform, this limit will not be applied.

- Monthly effluent monitoring for Total-P, Ortho-P and Nitrogen species (TKN, Nitrate-Nitrite, and Organic Nitrogen) is recommended in order to quantify and management nutrient loadings to Lake Sinclair. TKN, ammonia, nitrate-nitrite, and organic nitrogen should be analyzed from the same effluent sample. Total Phosphorus and Ortho-Phosphorus should be analyzed from the same effluent sample.
- Watershed Assessment (WA) and a Watershed Protection Plan (WPP) is required for new discharges. The WA and WPP must be conducted for the service area within applicant's jurisdiction and approved by the GAEPD prior to receiving permit at the proposed effluent flow rate.
- For a facility with a capacity of 1.0 MGD or greater, EPD recommends that a 120-day long-term biochemical oxygen demand test be performed once during the permit period prior to renewal. The test should be performed on an effluent sample collected during the critical period from June 1 to September 30. It should be done once per permit cycle.
- Instream monitoring of DO, temperature, pH and conductivity are recommended once per week at Highway 278 and Sewell Road.
- The Ammonia limit meets the 2013 EPA's Aquatic Life Ambient Water Quality Criteria for Ammonia-Freshwater; with estimated 30Q3 flow of 1.32 cfs, calculated from the USGS's StreamStats program and an updated 7Q10 at the USGS gage 002220900 for Little River at Eatonton, Ga.
- Lake standards are being established for Lakes Oconee and Sinclair. It is anticipated that a general TP limit of 4.17 lb/day will be needed to meet the lake criteria. The TP limits specified above are approximately equivalent to this limit with the proposed effluent limit adjusted by future Year-2050 load demand for both Lake Sinclair and Lake Oconee.
- Hardness value has been updated.

Prepared by: **William Wang** Date: **10/24/2017** Reviewed by: **Josh Welte** *JW* Date: **10/24/2017**

Part V: Program Manager Comments

Elizabeth Booth *Elizabeth A. Booth*

Date: **11/9/17**

FACT SHEET

Appendix B

A. Scott Emmons Water Reclamation Facility at Little River NPDES Permit No. GA0050304

Ammonia Toxicity Calculations

Ammonia Toxicity Analysis for Wasteload Allocation Development

Date: 9/28/2017

Facility: Newton Co. New discharge

NPDES Permit Number:

Receiving Stream: Little River- close to Dennis Creek

Engineer: William Wang

Comments: Critical condition based on model temp of 28° C, with flow of 0.0 cfs

Stream and Facility Data:

Background Stream pH (standard units): 7.0

Effluent pH (standard units): 8.5

Final Stream pH (standard units): 7.37

Stream Temperature (Celsius): 28.0

30Q3 Streamflow (cfs): 1.320

Stream background concentration (Total NH3-N, mg/L): 0.03

Facility Discharge (MGD/cfs): 1.25 1.93

Total Combined Flow (cfs): 3.25

Effluent concentration (Total NH3-N, mg/L) = 1.5

If 1.5 is greater than 17.4 mg/L, use 17.4 mg/L in WLA modeling.

Chronic Criterion based on Villosa iris (Rainbow mussel):

Instream CCC = criterion continuous concentration (chronic criterion):

$$CCC = 0.8876 \times (0.0278 / (1 + 10^{(7.688 - pH)})) + 1.1994 / (1 + 10^{(pH - 7.688)}) \times (2.126 \times 10^{0.028 \times (20 - \text{MAX}(T, 7))})$$

Allowable instream concentration CCC (Total NH3-N, mg/l) = 0.92

Based on National Criterion For Ammonia In Fresh Water As Revised In Year 2013

Source: Aquatic Life Ambient Water Quality Criteria for Ammonia - Freshwater 2013, U.S. Environmental Protection Agency, Office of Water, Office of Science and Technology, EPA-822-R-13-001. April 2013. Washington, D.C.