

## **Summary Page**

**Name of Facility:** Columbus Water Works Combined Sewer System

**NPDES Permit No.:** GA0036838

This permit is a reissuance of a NPDES permit for Columbus Water Works Combined Sewer System. The permit allows for discharges of stormwater and domestic sewerage from the combined sewer system at designated outfalls to the Chattahoochee River. The permit expired on April 5, 2015 and was administratively continued.

The permit was placed on public notice from September 29, 2017 to February 12, 2018.

### **Please Note The Following Changes to the Proposed NPDES Permit From The Existing Permit:**

Part I.B.1. and Part I.B.2 – Uptown Park and South Commons WRFs:

- Added a daily maximum TRC limit of 0.5 mg/L in accordance EPD's *Total Residual Chlorine (TRC) Strategy*, 2010
- Added a monthly average fecal coliform bacteria limit of 200 #/100mL in accordance with 2008 TMDL requirement

Part I.B.3 – Minor Outfalls:

- Added monitoring requirements for minor Outfall No. 009.

Part I.B.4 – Instream Monitoring:

- Added instream monitoring locations: Whitewater Launch (below North Highlands Dam), 14th Street Bridge, Trade Center, and Rotary Park.

Part I.C.11.:

- Included a 24-month compliance schedule to meet the new Total Residual Chlorine (TRC) limit.

Part I.C.12:

- Included a 12-month compliance schedule to install automatic samplers at instream monitoring locations Whitewater Launch (below North Highlands Dam), 14th Street Bridge, Trade Center, and Rotary Park per permittee's request.

## **Summary Page**

### **Standard Conditions & Boilerplate Modifications in the Permit and Fact Sheet:**

The permit boilerplate includes modified language or added language consistent with other 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 fact sheet revisions.

**Richard E. Dunn, Director**

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**Watershed Protection Branch**

2 Martin Luther King, Jr. Drive  
Suite 1152, East Tower  
Atlanta, Georgia 30334  
404-463-1511

Persons who commented on  
Draft NPDES Permit No. GA0036838

11/10/2020

RE: EPD Response to Comments  
Columbus Water Works  
Combined Sewer System  
NPDES Permit No. GA0036838

Dear Sir/Madam:

Thank you for your comments regarding the permit issuance for the Columbus Water Works Combined Sewer System NPDES Permit. Attached is a summary of comments from the public and our responses to the issues raised. In addition, we have attached documents identifying the permit and fact sheet revisions documenting the changes made to the attached permit. We appreciate your interest in this matter.

After consideration of your comments, EPD has determined that the permit is protective of water quality standards and we have issued the permit.

If you have any questions, please contact Benoit Causse of my staff at 404-463-4958 or [benoit.causse@dnr.ga.gov](mailto:benoit.causse@dnr.ga.gov).

Sincerely,



Audra Dickson, Manager  
Wastewater Regulatory Program

AD/bsc  
Attachment: Response to Comments

**Public Comments and EPD Responses on Draft NPDES Permit  
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COMMENTS RECEIVED	EPD RESPONSE
<b><u>Sampling of the Minor CSS Discharges</u></b>	
<ol style="list-style-type: none"> <li>1. It was never contemplated that the minor CSS structures would be monitored and they were therefore not designed to accommodate monitoring. The outfalls of several of the structures are under water in the River and are therefore inaccessible. Monitoring inside the structures would also be impracticable for many of them, which have no power available for lighting or other purposes—such as automatic samplers—and are underground enclosed spaces that require confined space entry procedures and are designed to be fully flooded, which make them unsafe for entry by persons and equipment needed to perform sampling during rain events.</li> <li>2. Columbus understands and appreciates that additional data collected from areas in closer proximity to the CSS discharge points (i.e. “near-field”) may be beneficial to validate that water quality standards are being satisfied throughout the watershed. Accordingly, Columbus intends to propose a plan for EPD approval and incorporation into the final Permit for the collection of in-stream water quality data at various locations downstream of the CSO overflow discharges to confirm the magnitude, duration and frequency criteria of water quality standards are consistently being satisfied.</li> <li>3. Monitoring requirements for the minor outfalls should be included in the permit.</li> </ol>	<p>EPD agrees that end-of-pipe monitoring of each minor outfall may be impracticable due to access concerns. However, Outfall 009 – 7th Street, which was included in the Columbus Water Works (CWW) evaluation as part of the Long-Term Control Plan, has been retained in the permit.</p> <p>To characterize the remaining minor outfalls, EPD has incorporated stream monitoring in the permit at the following locations:</p> <ol style="list-style-type: none"> <li>1. Lake Oliver for background conditions;</li> <li>2. below North Highlands Dam to capture water quality influences from Rocky Creek and Riverside stormwater;</li> <li>3. 14th Street Bridge to capture water quality influences from 24th, 19th (Uptown Park), 16th, 15th, and 14th Street outfalls;</li> <li>4. Trade Center to capture water quality influences from 12th, 11th, 9th, 7th Street outfalls, and Mill Creek;</li> <li>5. Rotary Park to capture water quality influences from Golden Park, 5th Street, and Lumpkin Street outfalls; and</li> <li>6. Above Upatoi Creek to capture water quality influences from all CSOs, urban tributaries, WWTPs.</li> </ol> <p>The above sampling locations will provide instream water quality data and characterize the impact of the discharges from the minor combined sewer outfalls on the receiving stream. The minor outfalls are designed to only discharge during peak rainfall events and during those events 0.63” per hour will be diverted to the major facilities for treatment. Therefore, it is very unlikely that a minor outfall will discharge when one or both of the major facilities is not online. Thus, the instream sampling should capture storm events that would include any minor discharges.</p>

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COMMENTS RECEIVED	EPD RESPONSE
<b><u>2008 TMDL –Fecal Coliform Bacteria</u></b>	
<p>In the 2008 TMDL, Columbus Uptown Park and Columbus South Commons were assigned a wasteload allocation (“WLA”) for the stream segment in which the CSO discharges—i.e., “North Highland Dam to Upatoi Creek.” Specifically, the WLA was based on the CSO’s design flow and a fecal coliform concentration of 200 counts per 100 mL as a 30-day geometric mean. The WLA was never incorporated into the Columbus permit as a numeric effluent limitation. In 2014, impairment due to fecal coliform was removed from the 303(d) list for this segment because water quality standards for the pollutant were being (and continue to be) met.</p> <p>As background, the “North Highland Dam to Bull Creek” segment of the Chattahoochee River, which is the segment into which the CSS discharges, was put on the 303(d) list in 2002 because EPD concluded the segment was not meeting water quality standards for fecal coliform. EPD finalized a TMDL to address this impairment in January 2008 and revised the TMDL in November 2008. In 2014, six years after the 2008 amended TMDL was completed, the agency split the “North Highland Dam to Upatoi Creek” into two segments: “North Highland Dam to Bull Creek” (the segment into which the CSS discharges) and “Bull Creek to Upatoi Creek” (the segment immediately downstream). The agency removed fecal coliform as a cause of impairment for the “North Highland Dam to Bull Creek” segment because water quality criteria for fecal coliform had been, and continued to be, met for that segment. In other words, the segment was “delisted” with regard to fecal coliform.</p> <p>EPD simply does not have a legal basis for relying on the 2008 TMDL to incorporate an effluent limitation for fecal coliform because delisting the segment rendered the TMDL for fecal coliform, and the WLA included within it, no longer applicable.</p>	<p>In accordance with §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>E.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. EPD does not consider dilution in our analysis as we don’t believe it’s appropriate for bacteria due to its inherent ability to reproduce in the receiving stream.</p> <p>In addition to the existing reasonable potential, under CWA Section 303(d), States are required to develop lists of impaired waters. Impaired waters are those that do not meet the water quality standards set for them, even after point sources of pollution have installed the minimum required levels of pollution control technology. In 2002, Georgia’s 305(b)/303(d) listed the Chattahoochee River between N Highland Dam to Upatoi Creek as partially supporting designated uses. Criterion violated included Fecal Coliform Bacteria and Fish Consumption Guidelines.</p> <p>The law requires that those jurisdictions (GA EPD) establish priority rankings for waters on their CWA section 303(d) list and develop a Total Maximum Daily Load (TMDL) for those waters.</p> <p>In 2008, a TMDL for Fecal Coliform Bacteria was approved to restore and maintain Water Quality Standards for Fecal Coliform Bacteria. Once a TMDL is approved, it remains in place to continue water quality</p>

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COMMENTS RECEIVED	EPD RESPONSE
	<p>protection, even though the assessed waterbody's category may be revised in the future.</p> <p>The NPDES regulations at § 40 CFR 122.44(d)(1)(vii)(B) require that NPDES permits include effluent limitations developed consistent with the assumptions and requirements of the Waste Load Allocation (WLA) that has been assigned to the discharge as part of an approved TMDL. Through the NPDES permitting process if it is determined that a point source discharge has a pollutant of concern, in this case the pollutant of concern is fecal coliform bacteria, and there is reasonable potential of discharging fecal coliform bacteria from the point sources at levels that may cause or contribute to instream water quality standard violations, an effluent limit is required in the permit.</p> <p>The major CSO Control Facilities are authorized by this NPDES permit to discharge from point source outfall nos. 002 and 012 partially treated domestic sanitary wastewater containing fecal coliform bacteria. In addition to the TMDL requiring fecal coliform effluent limits, EPD reviewed and analyzed effluent discharge data from both of the outfalls and determined that those discharges have the reasonable potential for fecal coliform bacteria to be present at levels that may cause or contribute to instream water quality standard violations, hence numeric effluent limits are appropriate and included in this permit. The effluent data evaluated is included in the permit file.</p> <p>On September 29, 2017, a draft permit was placed on public notice. The effluent limits in the draft permit were expressed as a cumulative count of fecal coliform over a period of 30 days (monthly loading) and were calculated assuming a continuous discharge from Outfall nos. 002 and 012. Since the facility is designed to discharge intermittently under specific wet weather conditions, it has been determined that the fecal coliform limits in the draft permit were inappropriate and did not meet</p>

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COMMENTS RECEIVED	EPD RESPONSE
	<p>the requirements of the TMDL. EPD has updated the proposed permit to include the required fecal coliform bacteria limit allocated in the TMDL.</p> <p>Per the TMDL, the allowable loading is “flow (Q) times fecal coliform concentration of 200/100mL (30-day geometric mean).”</p> <p>The CSO facilities are engineered and designed to treat a specific volume of water based on historical and modeled data. As determined by the permittee and approved by EPD, the design storm event is defined as a rainfall event of 0.23 inches per hour with a one-hour duration.</p> <p>Discharges from any CSO facility are intermittent and variable in nature, again dependent on wet weather, hence a numeric permitted flow limit in the permit is inappropriate for the CSO facilities. Since the flow (Q) referenced in the TMDL is variable, it cannot be used in the calculation prescribed in the TMDL to determine the wasteload allocation for fecal coliform bacteria. Therefore, to implement the requirements of the TMDL a conservative limit of 200 #/100mL (30-day geometric mean) is required in the permit. This limit is also protective of the designated use of the receiving water body and of human health.</p> <p>Based upon the reasonable potential analysis and wasteload allocation in the TMDL, the permit has been revised to include a fecal coliform bacteria limit of 200 #/100mL for Outfall nos. 002 and 012.</p> <p>EPD’s implementation of the TMDL and corresponding numeric effluent limits of 200 #/100 mL has been reviewed and approved by U.S. EPA in a letter dated September 12, 2019. Refer to Appendix C of the Fact Sheet.</p>

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COMMENTS RECEIVED	EPD RESPONSE
<b><u>CSO Policy</u></b>	
<p>The “Phase II permit requirements” EPD cites as a primary reason for requiring effluent limits and additional monitoring of minor CSS outfalls refers to the requirements for the development and approval of CSO permits that are detailed in EPA’s 1994 CSO Policy... The EPD statement that the new effluent limits and monitoring of minor CSS outfalls are required for Columbus to meet the Phase II permit requirements is contrary to previous statements by EPD and with previous permit requirements that suggest EPD approved compliance by Columbus with the Policy... For EPD to change this approach at this juncture without demonstrating that the previously approved Columbus LTCP is insufficient is a repudiation of the implicit agreement between the parties that Columbus’ compliance with the CSO Policy would be sufficient to satisfy the CWA because it had been proven to meet water quality standards. As demonstrated above, ongoing monitoring has proven water quality standards are being met and even demonstrated that the receiving water is not impaired. To change the requirements now, without a compelling reason to do so appears, in light of the evidence in the record, to be an arbitrary decision that is not needed to achieve compliance, and is manifestly unfair.</p>	<p>EPD is not changing its approach in addressing Phase II Permits, however additional information is needed to verify compliance with the CSO Control Policy.</p> <p>EPD is implementing the requirements of the TMDL in accordance with 40 CFR 122.44(d)(1)(vii)(B) and the CSO Control Policy which states that where water quality standards or the receiving waters designated uses are not met, a TMDL including a wasteload allocation and load allocation should be used to apportion pollution loads. The fecal coliform bacteria effluent limits are in accordance with the TMDL.</p> <p>In addition, the CSO Control Policy states that permittees are responsible for documenting the implementation of the nine minimum controls and implementing the long-term CSO control plan. As part of the post-construction compliance monitoring program, the CSO Control Policy states that the program should include a plan to be approved by the NPDES authority that details monitoring protocols to be followed including the necessary effluent and ambient monitoring and where appropriate other monitoring protocols such as biological assessments, whole effluent toxicity testing, and sediment sampling. The monitoring program is to verify compliance with water quality standards and protection of designated uses, as well as, ascertain the effectiveness of CSO Controls. Monitoring of individual minor outfalls with the exception of Outfall 009 – 7<sup>th</sup> Street is not required at this time; however specific ambient stream monitoring sites are included in the permit to help determine and characterize instream impacts. These additional instream sampling locations proposed by the permittee provide instream water quality data collected from areas in closer proximity to the CSS discharge points.</p>



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COMMENTS RECEIVED	EPD RESPONSE
<b><u>Public Notice and Signage</u></b>	
<p>The draft permit would add the following requirement regarding public notice: The permittee shall continue to implement a public notification process to inform citizens of when and where CSO discharges occur, ...include[ing] ... signs posted in clear view at the Combined Sewer Overflow Control Facilities’ outfalls and at all public points of access to the receiving stream for at least the first half mile downstream of the Combined Sewer Overflow Control Facilities and the CSO WQCF outfalls.</p> <p>Columbus agrees it is important for the public to be aware of any potential for contact with harmful levels of bacteria and Columbus does not object to using permanent signage to inform the public that the Major CSOs are subject to discharge during certain rain events.</p> <p>Columbus believes, however, it would not be practicable to use signage—or any other form of notification—to notify the public after any <i>particular discharge</i> because, by the time the installation of the signs could be effected, the discharge will have already mixed with the river, been fully diluted, and have flowed downstream. Thus, any notification made after a discharge would be ineffective for warning the user of the River where a recent discharge may be. In other words, by the time a warning is transmitted, the contents of the discharge will be gone.</p> <p>Columbus will consider appropriate permanent signage in addition to or in lieu of what is already in place, plus other community education methods to explain to the public the impact the discharges may have on the River and its users.</p> <p>In any event, it should be understood that discharges will only occur during heavy rain events when it is less likely that people will be in the</p>	<p>EPD believes the public has the right to know where a NPDES Point Source Discharge is located. Chapter 391-3-6-.06(17) of the Georgia Rules and Regulations of the Water Quality Control Act (Rule) requires any person or entity that has been issued an NPDES permit by the Division for a point source discharge of treated process wastewater or treated domestic sewage to waters of the State to identify the outfall. Therefore, the “major” and “minor” outfalls should have a permanent sign posted to comply with the Rule.</p> <p>Part I.A.2.10 of the permit requires a public information program to inform the public of the occurrence of a combined sewer discharge consistent with the CSO Control Policy’s Nine Minimum Controls. While EPA’s guidance for the Nine Minimum Controls mentions posting temporary signs to meet this control, the draft permit does not require temporary signs to be posted when an overflow occurs. Other form of notification can be used including websites, newspaper, radio or TV announcements.</p>

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<p>River and, as Columbus has demonstrated, during these rain events, storm water from nonpoint sources impacts the water quality more than any CSO discharge.</p>	
<b><u>Consistency with Other CSOs - Effluent Limits</u></b>	
<p>It is important to the CSO program for all of the Georgia CSO permits to be consistent, at least when it comes to having effluent limits. This concept may make sense when uniformity is needed to enhance efficiency in issuing large numbers of permits for similar actions or when conditions at different permitted sites are so similar that having substantially different permit terms is indefensible. Here, however, neither is the case...For one, it [Columbus CSS] is the only system to use the demonstration approach under the CSO Policy. It also uses entirely different treatment methods for CSOs. There is simply no reason related to the design or efficacy of the Columbus system that militates in favor of it having similar permit requirements with other Georgia CSSs.</p>	<p>Comment noted. EPD also believes consistency in the CSO program is important where applicable and appropriate.</p> <p>EPD has taken into consideration CWW chose the demonstrative approach almost years 30 ago, hence permit language is site-specific and based on the permittee's demonstration. The proposed permit holds the permittee accountable for implementing CSO controls as planned and reflected in the Long-Term Control Plan.</p>
<b><u>"Vulnerability" of Permit</u></b>	
<p>Columbus stated EPA believes the Permit as currently written is vulnerable to challenges from outside groups. Vulnerability only exists when the permit is not legally defensible and environmentally appropriate for the situation. Columbus demonstrates that because the current permit is effective and has been so for 20 plus years, it is not vulnerable as it is currently issued, but that it may in fact be vulnerable if it issued as proposed because of the unnecessarily restrictive new conditions that would be added.</p>	<p>EPD agrees vulnerability exists when the permit is not legally defensible and environmentally appropriate for the situation. EPD believes the proposed permit as drafted with new restrictions will make the permit less vulnerable to challenge.</p>

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COMMENTS RECEIVED	EPD RESPONSE
<b><u>Outfall #013</u></b>	
Weracoba Creek minor outfall #013 has been eliminated and therefore should be removed. This language appears in several areas in both the draft permit and the fact sheet.	Comment noted. The permit and fact sheet have been revised and Outfall #013 has been removed.
<b><u>Treatment Facility Description</u></b>	
Description should be changed to read as follows: Flows to these minor outfalls are intercepted and transported to one of the two CSS treatment facilities by collector conduits having almost three times the capacity of the treatment facilities. The minor CSS outfalls only discharge under storm conditions greater than 0.63 inches per hour rainfall which is greater than the established design condition of a 0.23-inch, 1-hour storm.	Comment noted. The fact sheet has been updated to reflect the proposed language.
<b><u>Effluent Characteristics</u></b>	
Outfalls No. 001, 003-011, 013: Effluent Characteristics section in fact sheet should be deleted because there has been no previous requirement for monitoring of these minor outfalls and for other reasons stated in the foregoing comments.	EPD recognizes that the current permit does not include monitoring for the minor outfalls. The effluent characteristics listed in the fact sheet are a summary of what was provided in the permit application. The fact sheet has been updated to indicate no sample data was provided.
<b><u>Nine Minimum Controls (NMC)</u></b>	
NMC have been fully implemented and approved as stated in previous permit Fact Sheets.	EPD agrees the NMC are being implemented and the fact sheet requires no modification. CWW must continue to implement the NMCs.

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COMMENTS RECEIVED	EPD RESPONSE
<b><u>Long-Term Control Plan (LTCP) – Annual Report</u></b>	
<p>LTCP has been fully implemented and approved to be in compliance with the CSO Policy as stated in previous permit fact sheets and therefore no annual reports or updates should be required.</p>	<p>EPD agrees the 1997 LTCP was approved and implemented.</p> <p>The CSO Control Policy states that CSO discharges remaining after the implementation of the planned control program will not preclude the attainment of WQS or the receiving waters designated used or contribute to their impairment. Also, the CSO Control Policy states that post construction compliance monitoring needs to be included in the permit to ensure goals are met (Section II.C.9 of the CSO Control Policy). If the post construction goals are not being met, the permittee will need to evaluate the LTCP and revise it in accordance with the CSO Control Policy, including requirements to reassess CSOs in sensitive areas. Therefore, the LTCP should be evaluated to ensure the CSO Controls are meeting goals. An annual report is included in the permit to track the evaluation. Should the evaluation indicate goals are not being met; the annual status report will include a schedule for submitting a revised CSO LTCP.</p>
<b><u>Parameters – Instream Monitoring</u></b>	
<p>Why have the following instream monitoring parameters been added: Biochemical Oxygen Demand (BOD), Temperature, Ammonia, Total Residual Chlorine (TRC), Total Suspended Solids (TSS), pH, Stream Hardness, Cadmium, Lead, Zinc, Nickel, and Copper?</p>	<p>Instream monitoring for BOD, TSS, Ammonia, Cadmium, Lead, Zinc, Nickel, and Copper are not new to the permit.</p> <p>Instream Hardness monitoring has been added to evaluate the metals.</p> <p>Instream temperature and pH were included in the permit due to the varied impacts both pH and temperature have on biological and chemical processes in a waterbody.</p> <p>Instream TRC monitoring has been removed from the permit.</p>

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COMMENTS RECEIVED	EPD RESPONSE
	<p>Per the permittee’s request, several additional instream monitoring locations are included in the permit in lieu of minor outfall sampling locations due to access concerns. Monitoring of Outfall 009 – 7<sup>th</sup> Street remains in the permit to verify design assumptions.</p>
<b><u>Parameters –Outfalls</u></b>	
<p>Why have new parameters been added To B.1. (Outfall No. 002 - Uptown Park)? (Ammonia, BOD, TSS, Total Hardness, Total Recoverable Cadmium, Total Recoverable Lead, Total Recoverable Zinc, Total Recoverable Nickel, and Total Recoverable Copper.)</p> <p>Monitoring requirements for five-Day BOD and TSS are new to this permit and should therefore not be stated as “maintained.”</p> <p>Monitoring frequency for Total Recoverable Mercury has been changed from first year only in previous [proposed] drafts to now once per year [in the draft permit dated September 21, 2017].</p>	<p>Ammonia, BOD, TSS, Total Hardness, Total Recoverable Cadmium, Total Recoverable Lead, Total Recoverable Zinc, Total Recoverable Nickel, and Total Recoverable Copper are listed in the previous permit for Uptown Park (Outfall No. 002). Total Hardness is will be collected as part of the instream sampling rather than from the effluent.</p> <p>The reference in the fact sheet for BOD and TSS are maintained for Outfalls Uptown Park WRF 002 and South Commons WRF 012 only.</p> <p>The previous permit required annual Priority Pollutant Scans (Scans). Annual Scans have been maintained in the current permit. Total Recoverable Mercury is one of the parameters to be analyzed as part of the Scans and must be analyzed using EPA test method 1631E. Since Test Method 245.1 was submitted, CWW will need to submit one total recoverable mercury analysis within the first year of the permit effective date to meet the application requirements using the appropriate test method. This is in addition to the priority pollutant scans.</p>
<b><u>Typographical Errors</u></b>	
<p>1. The reference to “Appendix B” should be changed to “Attachments A and B” regarding the reasonable potential evaluation.</p>	<p>Comments noted and permit revised.</p>

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<p>2. Table of Contents does not align with actual permit sections.</p> <p>3. The approved sampling point should be corrected to 32.480430 latitude and -84.989635 longitude because this is where the Uptown Park treatment facility actually discharges to the waters of the state and where all previous effluent samples have been taken.</p> <p>4. Sample Type for all metals, priority pollutants, chloromethane, and chloroethane should be “Composite” not “Grab.”</p> <p>5. Permit Part I.B. - Footnote (1) Reference to Part I.A.1.i should be part I.A.1.j. This is referenced incorrectly throughout the permit and should be changed.</p> <p>6. Permit Part I.C.10 - This section is a repeat of the reopener clause Part I.A.8. found on page 11.</p>	
<b><u>Composite Sample</u></b>	
<p>Composite Samples shall be collected on a “time” proportional basis not a “flow” proportional basis. This will be consistent with the 30, 60, 90, 120 minute sampling requirements.</p>	<p>Time proportioned composite samples are appropriate for CSO discharges. Therefore, the definition for composite samples has been modified.</p>
<b><u>Definition Change – Permitted Discharge</u></b>	
<p>Discharges occurring above the design storm event should still be defined as “permitted” even without minimum treatment. The provision should read as follows: “Permitted Discharge: The effluent that is discharged</p>	<p>EPD has modified the definition of “Permitted Discharge” so that the term is applicable all conveyance structures within the Columbus Combined Sewer System.</p>

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from the outfall conveyance structure of a Combined Sewage Control Facility into waters of the State.”	
<b><u>City of Columbus and CWW</u></b>	
Columbus Water Works has no control authority over storm water runoff (Part I.A.2.8 of the Permit). The City of Columbus has control authority over storm water runoff. Therefore, this section should be deleted.	When the City of Columbus and Muscogee County consolidated in 1971, the Board of the Columbus Water Works was brought into the consolidated government's charter. CWW, as part of the consolidated government, should support storm water best management practices, such as public education of the combined sewer system. Therefore, the section has been maintained.
<b><u>Legitimate Water Uses</u></b>	
Request changing “legitimate water uses” to “designated water uses.”	Part I.A.3 has been revised to remove any reference to legitimate or designated water uses.
<b><u>Unsightly</u></b>	
Request subjectivity of statement be removed by removing the term “unsightly.”	Part I.A.3 has been revised to remove any reference to the term unsightly.
<b><u>Demonstrative Approach</u></b>	
Request the addition of the following wording which was included in previous drafts: The conditions of this permit are based on the permittee’s compliance with the demonstration approach as contained in the EPA CSO Control Policy dated April 1994.	Comments noted and permit revised. The LTCP states CWW uses the demonstrative approach and language in the permit is revised to include the demonstrative approach.

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COMMENTS RECEIVED	EPD RESPONSE
<b><u>Instream Wastewater Concentration</u></b>	
Part I.C.13 of the Permit: The IWC of 5.4% conflicts with the IWC defined in Section C.1 on page 20. This difference should be reconciled.	Part I.C.13 Non-Metal Monitoring, requires the permittee to conduct acute WET testing should the parameters Chloroethane and Chloromethane be detected in one of three consecutive wet weather events. The IWC provided is for establishing dilutions for chronic WET testing requirements. Due to the variable nature of the discharges that occur, acute WET testing requirements are appropriate for CSO discharges. Therefore, language has been revised to clarify definitive acute WET testing requirements.
<b><u>Spill Language</u></b>	
Part A.11.1 - This paragraph does not apply since there are no BOD or TSS limits in this permit.	EPD agrees that the draft permit does not include BOD or TSS effluent limits. However, this section is directly from Georgia Rules and Regulations for Water Quality Control Chapter 391-3-6.05 concerning the emergency actions for spills and the language in the permit will not be modified.
<b><u>Urban Watershed Model</u></b>	
Part I.B.4 Footnote (3) More information is needed about the requirement to maintain an urban watershed model.	Per the USEPA CSO Control Policy, the permittee should have in the LTCP characterization, monitoring and modeling of the Combined Sewer. The footnote references the need to maintain the model. This is the same model found in Part II.B.2.c of the current permit.



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COMMENTS RECEIVED	EPD RESPONSE
<b><u>Fecal Coliform Bacteria Calculations</u></b>	
<ol style="list-style-type: none"> <li>1. Part I.A.4.d - Regarding how the monthly average fecal coliform concentration shall be calculated, “at intervals not less than 24 hours” should be deleted because it conflicts with the sampling requirements of 30, 60, 90, and 120 minutes.</li> <li>2. The requirement to report “not applicable” if fewer than 4 samples appears to conflict with the requirement to report all values. This requires clarification.</li> </ol>	<p>EPD agrees there is some confusion concerning fecal coliform bacteria in the draft permit placed on public notice.</p> <p>Therefore, the following language replaces Part I.A.4.d:  “Grab effluent samples for Fecal Coliform Bacteria: The permittee shall collect grab sample(s) from each discharge sampling event from the Combined Sewage Control Facilities. One grab sample shall be collected at 50, 70, 90, 110, and 130 minutes following the initiation of a discharge event and once during each successive 24-hour period of continuous discharge until the discharge stops. Results for each sample shall be reported on the Operating Monitoring Report (OMR).</p> <p>Additionally, the following footnote was added to the tables in Parts I.B.1 and I.B.2:</p> <p>The monthly geometric mean limitation of 200#/100 mL is only applicable if a minimum of 6 (six) grab samples are collected over the calendar month and at least one discharge event lasts a minimum of 90 minutes during that month. The permittee is to report the appropriate No Data Indicator (NODI) code on the DMR if the limit is not applicable. The individual fecal coliform grab samples shall be reported on the OMR for all discharge events.</p>

**PERMIT REVISIONS**  
**Columbus Water Works – Combined Sewer System**  
**NPDES Permit No. GA0036838**  
**(Muscogee County)**

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

If yes, specify:

Table of Contents	Corrected Table of Contents
Part I.A.1.g	Updated Composite sample definition to read: “Composite Sample: A sample consisting of a combination of subsamples collected during a discharge sampling event. Composite samples shall be collected on a time proportional basis.”
Part I.A.2.7	Updated this section to include reference to NPDES Permit No. GA0020516.
Part I.A.3	Modified section to read: <b>“WATER QUALITY BASED EFFLUENT LIMITATIONS</b> The CSO discharge(s) from the CSO Control Facilities must be controlled to prevent discharge(s) of the following: a. Materials which will settle to form sludge deposits; b. Oil and scum; c. Floating debris; d. Materials which produce turbidity, color, or odor; and e. Toxic, corrosive, acidic, or caustic substances.”
Part I.A.4	Modified section to read: <b>“ADDITIONAL MONITORING REQUIREMENTS AND EFFLUENT LIMITATIONS FOR THE CSO CONTROL FACILITIES</b> a. The conditions of this permit are based on the permittee’s compliance with the demonstration approach as contained in the EPA CSO Control Policy dated April 19, 1994, which provides that the CSOs will not preclude the attainment of Water Quality Standards (WQS) or the receiving waters’ designated uses or contribute to their impairment. The permittee shall attain the Georgia WQS pursuant to the State Rules and Chapter 12-5-29.1 and 12-5-30.2 of the Code. b. Composite effluent samples shall be collected at the designated sampling location as specified in the Sampling Plan. Composite effluent subsamples shall be collected at 50, 70, 90, 110, and 130 minutes following the initiation of a discharge event and hourly thereafter until the discharge stops. The collection period is not to exceed 24 hours for each composite sample. A composite sample must be taken every 24 hours until the end of the discharge event. c. Grab effluent samples shall be collected at the designated sampling location as specified in the Sampling Plan. Grab samples shall be collected during the first 50 to 60 minute interval following the initiation of a discharge event and at 24-hour intervals thereafter until the discharge stops.

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**(Muscogee County)**

	<p>d. Grab effluent samples for Fecal Coliform Bacteria: The permittee shall collect grab sample(s) from each discharge sampling event from the Combined Sewage Control Facilities. One grab sample shall be collected at 50, 70, 90, 110, and 130 minutes following the initiation of a discharge event and once during each successive 24-hour period of continuous discharge until the discharge stops. Results for each sample shall be reported on the Operating Monitoring Report (OMR).</p> <p>e. Grab effluent samples for Total Residual Chlorine: The permittee shall collect grab samples from each discharge event from the Combined Sewage Control Facilities. One grab sample shall be collected at 50, 70, 90, 110, and 130 minutes following the initiation of a discharge event and once during each successive 24-hour period of continuous discharge until the discharge stops. The permittee shall report the result of every grab sample for total residual chlorine on its Operating Monitoring Report (OMR).</p> <p>f. The permittee shall dispose of any solids and screening materials accumulated by disposal in an approved municipal solid waste landfill or by an alternative method approved by EPD.</p>
Former Part I.A.5	Removed Sampling Plan Update language.
Part I.A.5	Updated language to include long-term control plan approval date and facility construction dates.
Part I.A.6	<p>Modified section to read:</p> <p><b>LONG-TERM CONTROL PLAN ANNUAL REPORT</b></p> <p>The LTCP and Nine Minimum Controls have been implemented. The permittee must demonstrate in their post-construction sampling and the LTCP that Clean Water Act compliance is being met in accordance with the CSO Control Policy. By January 31 of each year, the permittee shall submit an annual report for events from the preceding year (January – December) that provides a summary of actions, activities, and measures taken by the permittee to comply with the terms of this permit.</p> <p>The annual report, at a minimum, shall contain the following:</p> <p>a. A summary of the frequency, duration, and volume of the CSS discharges for the past calendar year.</p> <p>b. Details of the implementation of the Nine Minimum Control’s (NMCs) and the Long Term Control Plan (LTCP) and documentation that the water quality standards are being met. Control Measures to review include proper operation and maintenance of the sewer system and CSOs, review and modification of pretreatment program to assure CSO impacts are minimized, public education, maximizing flow to the Columbus South Water Reclamation Facility, pollution prevention, control of solid and floatable materials, and other controls developed by the permittee. The</p>

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	<p>report shall also contain a summary of all the actions and steps taken to implement the NMCs and the LTCP and their effectiveness.</p> <p>c. If goals of the CSO Controls are not met in accordance with the CSO Control Policy, the permittee should include revisions to the NMC and LTCP and an implementation schedule.</p> <p>d. Summaries of any permit violations and corrective actions.</p> <p>e. A summary of monitoring data collected for the CSS outfalls.</p>
Part I.B.1	<p>Modified effluent imitations and monitoring requirements for Outfall 002 as follows:</p> <ol style="list-style-type: none"> <li>1. Corrected measurement frequency to each discharge sampling event;</li> <li>2. Corrected sample type to composite for Priority Pollutants, Chloromethane and Chloroethane;</li> <li>3. Removed metals and hardness monitoring as these parameters are included in the priority pollutants scans;</li> <li>4. Added one time sample for Total Recoverable Mercury using test method EPA 1631;</li> <li>5. Included a Fecal Coliform Bacteria effluent limitation of 200 #/100 mL</li> <li>6. Modified footnotes to correspond with corrected table information.</li> <li>7. Included language regarding the applicability of the effluent limits and monitoring requirements.</li> </ol>
Part I.B.2	<p>Modified effluent imitations and monitoring requirements for Outfall 012 as follows:</p> <ol style="list-style-type: none"> <li>1. Corrected measurement frequency to each discharge sampling event;</li> <li>2. Corrected sample type to composite for Priority Pollutants,</li> <li>3. Removed Chloromethane and Chloroethane monitoring as these pollutants were not detected in the South Commons WRF effluent and therefore are not considered pollutants of concerns.</li> <li>4. Removed metals and hardness monitoring as these parameters are included in the priority pollutants scans;</li> <li>5. Added one time sample for Total Recoverable Mercury using test method EPA 1631;</li> <li>6. Included a Fecal Coliform Bacteria effluent limitation of 200 #/100 mL</li> <li>7. Modified footnotes to correspond with corrected table information.</li> <li>8. Included language regarding the applicability of the effluent limits and monitoring requirements.</li> </ol>
Part I.B.3	<p>Modified monitoring requirements for Outfalls: 001, 003, 004, 005, 006, 007, 008, 009, 010, 011 as follows:</p> <p>Limited monitoring requirement to Outfall 009 – 7<sup>th</sup> Street only. All other outfalls are monitored through additional instream monitoring locations. Parameters to monitor are overflow volume, rainfall, and duration of discharge.</p>
Part I.B.4	<p>Revised instream monitoring requirements as follows:</p>

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	<ol style="list-style-type: none"> <li>Added sampling locations: Whitewater Launch (below North Highlands Dam), 14th Street Bridge, Trade Center, Rotary Park, and Chattahoochee River just upstream Upatoi Creek;</li> <li>Metals include reporting in µg/L;</li> <li>Hardness corrected to Total Hardness, as CaCO<sub>3</sub>;</li> <li>Sample location for stream flow is USGS Gage at 14<sup>th</sup> Street Bridge</li> </ol>
Part I.C.2	<p>Revised section to state:</p> <p><b>SAMPLING PERIOD</b></p> <ol style="list-style-type: none"> <li>Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December.</li> <li>Unless otherwise specified in this permit, semiannual samples shall be taken during the periods January-June and July-December.</li> <li>Unless otherwise specified in this permit, annual samples shall be taken during the period of January-December.</li> </ol>
Part I.C.5	<p>Revised section to state:</p> <p><b>DETECTION LIMIT REQUIREMENTS</b></p> <p>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.</p>
Formerly Part I.C.10	Removed reopener clause. This was repeated in Part I.A.8.
Part I.C.10	<p>Modified language to read:</p> <p><b>PRIORITY POLLUTANTS</b></p> <p>The permittee shall perform an annual scan of the 126 priority pollutants at Outfalls 002 and 012. Total recoverable mercury must be sampled and analyzed using EPA Method 1631E. The permittee shall take the samples as composite samples. If substances are measured at levels of concern, the permittee may be required to perform additional priority pollutant analyses or the permit may be modified to address the specific pollutant of concern.</p>
Part I.C.12	Added section to allow for a 12-month compliance schedule for the installation of automatic samplers.
Part I.C.13	<p>Modified language to read:</p> <p><b>NON-METALS MONITORING</b></p> <p>Chloroethane and chloromethane shall be monitored for three consecutive wet weather events. If these constituents are not detected, further monitoring will not be required. If chloromethane and chloroethane are detected, an acute WET Test will be required to determine toxicity.</p> <p>The Acute WET Test must include the most current U.S. Environmental Protection Agency (EPA) acute aquatic toxicity testing manuals. The referenced document is</p>

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	<p>entitled Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 5th Edition, U.S. EPA, 821-R-02-012, October 2002, or the most recently approved EPA acute aquatic toxicity testing manuals. Definitive tests must be run on the same samples concurrently using both an invertebrate species (i.e., <i>Ceriodaphnia dubia</i>) and a vertebrate species (i.e., <i>Pimephales promelas</i>). The LC50 must be greater than or equal to 100% effluent.</p> <p>EPD will evaluate the WET tests submitted to determine whether toxicity has been demonstrated. If the test results indicate effluent toxicity, the permittee may be required to perform additional WET tests, and/or to submit a toxicity reduction evaluation upon notification by the EPD and/or the permit may be reopened to incorporate acute WET effluent limitations.</p>
Part I.C.14	<p>Added following language:</p> <p><b>TOTAL RECOVERABLE MERCURY</b></p> <p>The permittee must collect one sample to be analyzed for total recoverable mercury at each major outfall within the first year of effective date of the permit. The tests must be collected during the first overflow event that occurs after the effective date of the permit. Total recoverable mercury must be analyzed using EPA Method 1631E. The sample type for total recoverable mercury must be grab samples. If mercury is measured at levels of concern, then the permittee may be required to perform additional priority pollutant analyses in accordance with Part I.C.8 of the permit and/or the permit may be modified to include effluent limitations for total recoverable mercury.</p>
Part II.B.14	<p>Modified paragraph to read:</p> <p><b>PREVIOUS PERMITS</b></p> <p>All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance 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.</p>

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**(Muscogee County)**

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

If yes, specify:

Section 1.4	Included all major and minor outfall locations in the table.
Section 1.7	Provided a more detailed description of the facilities (major & minor) and their operation
Section 1.8	Moved narrative to Section 1.7
Section 3.1	Updated description of applicable water quality standards for waters with designated use of fishing
Section 3.2	Updated section to include 2018 305(b)/303(d) listing for receiving stream. Removed categorical language.
Section 3.4	Removed Fecal Coliform Bacteria loading limitations (#/30 days) Refer to Section 4.9 to explain implementation of a concentration-based Fecal Coliform Bacteria limit (#/100 mL)
Section 4.1	Limited monitoring requirements for the minor outfalls to Outfall 009 as it is representative of all other minor outfalls.
Section 4.3	Modified section to state: “Annual Report Columbus Water Works has developed a LTCP that conforms with the CSO Control Policy. Part I.A.5 of the draft permit contains a condition that requires the permittee to comply with its LTCP developed. Part I.A.6 of the permit requires the permittee to submit annual reports that provide a summary of actions, activities and measures to meet the goals of both the NMCs and the LTCP by January 31 of each year. Data elements of the NMCs and LTCP will be tracked in accordance with 40 CFR 127 (Electronic Reporting Rule).”
Section 4.4	Updated instream monitoring requirements as follows: “ CWW has stated that the design conditions are similar for each of the minor outfalls and there are potential safety concerns to collect an effluent sample, hence the permit includes monitoring for only one outfall at this time, Outfall 009 - 7th Street (Part I.B.3 of the permit), as a representation of each of the minor outfalls. Outfall 009 will be monitored to characterize the volume and duration of the discharges.  To characterize the water quality impacts of the minor outfalls, EPD has incorporated stream monitoring in the permit. The permittee must conduct instream monitoring for biochemical oxygen demand, fecal coliform bacteria, temperature, ammonia, total suspended solids, total phosphorus, pH, stream hardness and the following metals: cadmium, lead, zinc, nickel, and copper. Sampling of the Chattahoochee River shall be performed at the following locations: 1. Lake Oliver for background conditions;



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**(Muscogee County)**

	<ol style="list-style-type: none"> <li>2. below North Highlands Dam to capture water quality influences from Rocky Creek and Riverside stormwater;</li> <li>3. 14th Street Bridge to capture water quality influences from 24th, 19th (Uptown Park), 16th, 15th, and 14th Street outfalls;</li> <li>4. Trade Center to capture water quality influences from 12th, 11th, 9th, 7th Street outfalls, and Mill Creek;</li> <li>5. Rotary Park to capture water quality influences from Golden Park, 5th Street, and Lumpkin Street outfalls; and</li> <li>6. Just above Upatoi Creek to capture water quality influences from all CSOs, urban tributaries, WWTPs.</li> </ol> <p>The additional instream locations (2–5 above) are in lieu of sampling each individual minor outfall. EPD believes monitoring one minor outfall for volume and duration and ambient monitoring of the receiving stream at the locations above will adequately characterize impacts of the minor outfall discharges on the Chattahoochee River. However, upon review of the data, additional monitoring may be required.”</p>
Section 4.5	<p>Updated monitoring requirements as follows:</p> <p>“For the major outfalls, the permittee must conduct monitoring during all discharge sampling events for the following parameters: overflow volume, ammonia, five-day biochemical oxygen demand, total suspended solids, total phosphorus, total residual chlorine, and fecal coliform bacteria. Flow has been modified to Overflow Volume as this is more representative of the nature of a CSS discharge. Discharges above the design treatment capacity of 48 MGD and 76 MGD for the two major outfalls (Outfall Nos. 002 and 012) are not subject to the effluent limitations, as EPD believes discharges above the design capacity will be dilute and not have reasonable potential to cause or contribute to the instream water quality violations as these discharges from the CSO are wet weather discharges and not occurring during low flows. However, if EPD determines that these discharges (discharges from the major outfalls above the design treatment capacity) have reasonable potential, EPD will reevaluate the permit and make appropriate changes ensuring discharges from the CSO outfalls do not have reasonable potential to violate instream water quality standards.”</p>
Section 4.6	<p>Updated monitoring requirements as follows:</p> <p>“The permittee must conduct a scan of the priority pollutants from each of the major outfalls (Outfall Nos. 002 and 012) once per year from a discharge sampling event.”</p>
Section 4.7	Moved and updated section header and associated standard language to Water Quality Based Effluent Limitations (WQBELs) & Technology Based Effluent Limits (TBELs)
Section 4.8	Moved and updated section header and associate standard language to Reasonable Potential Analysis (RPA)
Section 4.9	In accordance with §122.44(d)(1)(ii) of the federal regulations, EPD considers all



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**(Muscogee County)**

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 *E.coli*. 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. EPD does not consider dilution in our analysis as we don't believe it's appropriate for bacteria due to its inherent ability to reproduce in the receiving stream.

In addition to the existing reasonable potential, under CWA Section 303(d), States are required to develop lists of impaired waters. Impaired waters are those that do not meet the water quality standards set for them, even after point sources of pollution have installed the minimum required levels of pollution control technology. In 2002, Georgia's 305(b)/303(d) listed the Chattahoochee River between N Highland Dam to Upatoi Creek as partially supporting designated uses. Criterion violated included Fecal Coliform Bacteria and Fish Consumption Guidelines.

The law requires that those jurisdictions (GA EPD) establish priority rankings for waters on their CWA section 303(d) list and develop a Total Maximum Daily Load (TMDL) for those waters.

In 2008, a TMDL for Fecal Coliform Bacteria was approved to restore and maintain Water Quality Standards for Fecal Coliform Bacteria. Once a TMDL is approved, it remains in place to continue water quality protection, even though the assessed waterbody's category may be revised in the future.

The NPDES regulations at § 40 CFR 122.44(d)(1)(vii)(B) require that NPDES permits include effluent limitations developed consistent with the assumptions and requirements of the Waste Load Allocation (WLA) that has been assigned to the discharge as part of an approved TMDL. Through the NPDES permitting process if it is determined that a point source discharge has a pollutant of concern, in this case the pollutant of concern is fecal coliform bacteria, and there is reasonable potential of discharging fecal coliform bacteria from the point sources at levels that may cause or contribute to instream water quality standard violations, an effluent limit is required in the permit.

The major CSO Control Facilities are authorized by this NPDES permit to discharge from point source outfall nos. 002 and 012 partially treated domestic sanitary wastewater containing fecal coliform bacteria. In addition to the TMDL requiring fecal coliform effluent limits, EPD reviewed and analyzed effluent discharge data

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**(Muscogee County)**

	<p>from both of the outfalls and determined that those discharges have the reasonable potential for fecal coliform bacteria to be present at levels that may cause or contribute to instream water quality standard violations, hence numeric effluent limits are appropriate and included in this permit. The effluent data evaluated is included in the permit file.</p> <p>On September 29, 2017, a draft permit was placed on public notice. The effluent limits in the draft permit were expressed as a cumulative count of fecal coliform over a period of 30 days (monthly loading) and were calculated assuming a continuous discharge from Outfall nos. 002 and 012. Since the facility is designed to discharge intermittently under specific wet weather conditions, it has been determined that the fecal coliform limits in the draft permit were inappropriate and did not meet the requirements of the TMDL. EPD has updated the proposed permit to include the required fecal coliform bacteria limit allocated in the TMDL.</p> <p>Per the TMDL, the allowable loading is “flow (Q) times fecal coliform concentration of 200/100mL (30-day geometric mean).”</p> <p>The CSO facilities are engineered and designed to treat a specific volume of water based on historical and modeled data. As determined by the permittee and approved by EPD, the design storm event is defined as a rainfall event of 0.23 inches per hour with a one-hour duration.</p> <p>Discharges from any CSO facility are intermittent and variable in nature, again dependent on wet weather, hence a numeric permitted flow limit in the permit is inappropriate for the CSO facilities. Since the flow (Q) referenced in the TMDL is variable, it cannot be used in the calculation prescribed in the TMDL to determine the wasteload allocation for fecal coliform bacteria. Therefore, to implement the requirements of the TMDL a conservative limit of 200 #/100mL (30-day geometric mean) is required in the permit. This limit is also protective of the designated use of the receiving water body and of human health.</p> <p>Based upon the reasonable potential analysis and wasteload allocation in the TMDL, the permit has been revised to include a fecal coliform bacteria limit of 200 #/100mL for Outfall nos. 002 and 012.</p> <p>EPD’s implementation of the TMDL and corresponding numeric effluent limits of 200 #/100 mL has been reviewed and approved by U.S. EPA in a letter dated September 12, 2019. Refer to Appendix C of the Fact Sheet.</p>
Section 4.10	Included Total Phosphorus monitoring requirements.

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Section 5.1	<p>Added a new section for instream monitoring:</p> <p>The permittee has noted access and safety concerns with sampling each individual minor outfall. Therefore, instream sampling to provide water quality data and characterize the impact of the minor outfall discharges on the receiving stream have been included. Permanent automatic samplers are to be installed at Whitewater Launch (below North Highlands Dam), 14th Street Bridge, Trade Center, and Rotary Park. Stream flow and the amount of rainfall every 15 minutes will be reported from USGS gauge at the 14<sup>th</sup> Street Bridge. Samples shall be collected during discharge sampling events. The permittee will continue ambient monitoring at Lake Oliver and the Chattahoochee River just above Upatoi Creek.</p>
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**Richard E. Dunn, Director**

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

Mr. Steve Davis, President  
Columbus Water Works  
P.O. Box 1600  
Columbus, Georgia 31902

11/10/2020

RE: Permit Issuance  
Columbus Water Works  
Combined Sewer System  
NPDES Permit No. GA0036838  
Muscogee County, Chattahoochee River Basin

Dear Mr.Davis:

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, GA 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 this permit.

If you have any questions, please contact Benoit Causse at 404-463-4958 or [benoit.causse@dnr.ga.gov](mailto:benoit.causse@dnr.ga.gov).

Sincerely,



Richard E. Dunn  
Director

RED\bsc

Attachment: NPDES Permit No. GA0036838, Fact Sheet, Permit Revisions, Fact Sheet Revisions  
CC: John Peebles, Columbus Water Works ([JPeebles@cwpga.org](mailto:JPeebles@cwpga.org))  
Marzieh Shahbazaz, EPD Municipal Compliance Unit, ([Marzieh.Shahbazaz@dnr.ga.gov](mailto:Marzieh.Shahbazaz@dnr.ga.gov))  
EPA Region IV ([R4NPDESPermits@epa.gov](mailto:R4NPDESPermits@epa.gov))



# GEORGIA

DEPARTMENT OF NATURAL RESOURCES

## ENVIRONMENTAL PROTECTION DIVISION

### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

In compliance 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,

Columbus Water Works  
Post Office Box 1600  
Columbus, Georgia 31902  
Muscogee County

is authorized to discharge from combined sewer overflow points within the sewer system owned by the City of Columbus to receiving waters

Chattahoochee River  
(Major Outfall No. 002: Uptown Park Water Resource Facility (WRF) and  
No. 012: South Commons WRF  
Minor Outfall Nos. 001, 003, 004, 005, 006, 007, 008, 009, 010, and 011)  
(Chattahoochee River Basin)

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

This permit is issued in reliance upon the permit application signed on September 15, 2014 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 December 1, 2020

This permit and the authorization to discharge shall expire at midnight, November 30, 2025.



Director  
Environmental Protection Division

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## **PART I. PERMIT SPECIFIC CONDITIONS**

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. CONDITIONS**

#### **1. DEFINITIONS**

- a. Code: the Official Code of Georgia Annotated.
- b. Combined Sewage: Combined sanitary wastewater and stormwater runoff within a combined sewer system.
- c. Combined Sewage Control Facility: A facility designed and constructed to control, treat, and release combined sewage prior to discharge to waters of the State under an NPDES permit. The following facilities are the combined sewer control facilities covered by this permit: South Commons Water Resource Facility and the Uptown Park Water Resource Facility, and minor facilities located on 24<sup>th</sup> Street, 16<sup>th</sup> Street, 15<sup>th</sup> Street, 14<sup>th</sup> Street, 12<sup>th</sup> Street, 11<sup>th</sup> Street, 9<sup>th</sup> Street, 7<sup>th</sup> Street, Golden Park, 5<sup>th</sup> and Lumpkin Streets.
- d. Combined Sewer Overflow (CSO): The discharge of combined sewage from a combined sewer system into waters of the State at a point prior to receiving minimum treatment.
- e. Combined Sewer Overflow Event: The CSOs from a number of points in the combined sewer system during wet weather flow conditions from a single event. For example: If wet weather flow conditions result in overflows from several different outfalls within the CSS, this is considered one overflow event.
- f. Combined Sewer System (CSS): A wastewater collection system owned by a State or municipality (as defined by section 502(4) of the CWA) which conveys both sanitary wastewaters and stormwater through a single-pipe system to a Publicly Owned Treatment Works (POTW) as defined in 40 CFR Part 403.3(q).
- g. Composite Sample: A sample consisting of a combination of subsamples collected during a discharge sampling event. Composite samples shall be collected on a time proportional basis.
- h. Design Storm Event: The level of rainfall used to determine the design and size of the CSO conveyance and treatment systems. As determined by the permittee and approved by EPD, the design conditions are defined as a rainfall event of 0.23 inches per hour with a one hour duration.

- i. Discharge Event: any addition of any pollutant from the CSS to waters of the State.
- j. Discharge Sampling Event: A discharge event that lasts at least fifty (50) minutes, and which occurs not less than forty-eight hours since the end of the last such discharge event.
- k. Dry Weather Flow Conditions: Hydraulic flow conditions within the CSS resulting from domestic sewage, groundwater infiltration, commercial and industrial wastewaters, or a combination thereof with no contribution from stormwater.
- l. Dry Weather Overflow: A discharge from the CSS that occurs during dry weather flow conditions. Dry Weather Overflows are prohibited under this permit.
- m. EPD: The Environmental Protection Division of the Department of Natural Resources.
- n. Effluent Limitation: Any restriction imposed by the Director on quantities, discharge rates, and concentrations of pollutants which are discharged from point sources into waters of the State.
- o. Federal Act: The Clean Water Act.
- p. First Flush: The initial storm event flow from a CSO structure which contains the highest level of pollutants and solids and which may have the greatest impact on the receiving stream.
- q. Floatables Debris or Floatables: Organic and inorganic waste materials and trash that float on top of or are suspended within the water column.
- r. Grab Sample: An individual sample collected from a single location at a specific point in time.
- s. Minimum Treatment: The treatment of combined sewage, as defined in the CSO Control Policy (April 1994) which includes a minimum of primary clarification or equivalent treatment (removal of floatable and settleable solids may be achieved by any combination of treatment technologies or methods that are shown to be equivalent to primary clarification), solids or floatables disposal and disinfection of effluent, including removal of harmful disinfection chemical residuals, prior to discharge to waters of the State.
- t. Management, Operation and Maintenance (MOMs) Plans: A set of plans that at a minimum address those processes and procedures necessary to maintain and operate the combined sewage control facilities and combined sewer system in a manner developed to ensure permit compliance.



- u. Permitted Discharge: Discharge(s) that occurs at the design storm event from the outfall structure of a Combined Sewage Control Facility into waters of the State. If a discharge occurs below the design of the weir, then the discharge is unpermitted.
- v. POTW: Publicly owned treatment works as defined in 40 CFR Part 403.3(q).
- w. Sampling Location (Effluent): The point at which the Combined Sewage Control Facility discharges to waters of the State, as specified in the Sampling Plan.
- x. State Act: The Water Quality Control Act (O.C.G.A. Chapter 12-5-20, et seq.)
- y. State Rules: The Rules and Regulations for Water Quality Control (Chapter 391-3-6).
- z. Water Quality Control Facility (WQCF): A Combined Sewage Control Facility providing additional treatment to remove sediments.
- aa. Wet Weather Flow Conditions: Hydraulic flow conditions within a combined sewer system resulting from an event of greater than 0.1 inches of precipitation within a 24-hour period.

## **2. TECHNOLOGY-BASED REQUIREMENTS AND BEST MANAGEMENT PRACTICES**

The permittee shall implement best available technology economically achievable (BAT). At a minimum, BAT should include the Nine Minimum Controls (NMC) and a Long-Term Control Plan (LTCP).

The nine minimum controls are operations and procedures designed to reduce the magnitude, frequency, and duration of combined sewer overflows and their effects on receiving water quality. The permittee shall comply with the following technology-based requirements:

### **1. Proper Operation and Maintenance**

The permittee shall establish a routine maintenance program and shall continue to implement proper operation and maintenance programs for the CSS and all CSO Control Facilities to reduce the magnitude, frequency, and duration of CSO discharges. Proper operation and maintenance include: effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.

The permittee shall include any revisions to its operation and maintenance procedures in the annual Long-Term Control Plan Annual report which is required by this permit.

2. Maximize the Use of the Collection System for Storage

The permittee shall maximize the use of the sewer collection system for storage during periods of wet weather.

3. Review and Modification of Pretreatment Programs

The permittee shall review and modify, as appropriate, its existing pretreatment program to minimize CSO impacts of discharges from non-domestic users.

The permittee shall determine whether any new significant industrial users will impact the quality and quantity of CSO discharges during wet weather events and include a summary of the impacts and measures taken by the permittee to address these impacts in the Long-Term Control Plan Annual Report.

4. Maximization of Flow to the POTWs for Treatment

The permittee shall maximize the flow from the combined sewer system to the wastewater treatment facility to treat the greatest amount of flow, in accordance with the NPDES permit issued for the permittee's POTW.

5. Prohibition of CSOs during Dry Weather

The permittee shall ensure that no discharge from a CSO shall occur during dry weather. Should a dry weather overflow occur, it must be reported to the permitting authority as the permittee becomes aware of the overflow. When the permittee detects a dry weather overflow, the permittee shall begin corrective action immediately. The permittee shall inspect the dry weather overflow each subsequent day until the overflow has been eliminated.

6. Control of Solids and Floatable Materials

The permittee shall continue to implement measures to control and prevent solid and floatable materials in discharges from the Combined Sewer Overflow Control Facility.

7. Control of Industrial Discharges

The permittee shall use the approved local pretreatment program in Columbus Water Works NPDES Permit No. GA0020516 to control the wastewater discharges from industrial users to the sewer system.

8. Control of Storm Water

The permittee shall use best management practices to reduce or eliminate flow and pollutant loading from storm water runoff from the combined sewer system.

9. Pollution Prevention

The permittee shall continue to implement a pollution prevention program focused on reducing the impact of CSO discharges on the receiving waters.

10. Public Notification

The permittee shall continue to implement a public notification process to inform citizens of when and where CSO discharges occur. The process shall include the following:

- a. A public information program to inform the public of the occurrence of CSO discharges into the receiving stream; and
- b. Signs posted in clear view at the CSO Control Facilities' outfalls.

11. Monitoring the CSO Outfalls to Evaluate the Efficacy of CSO Controls

The permittee shall continue to monitor the outfalls of the CSO Control Facilities in Part I.B. of this permit in order to evaluate the efficacy of the CSO controls. This shall include collection of data that will be used to document existing baseline conditions, evaluate the efficacy of the technology based controls, and determine the baseline conditions upon which the Long Term Control Plan is based. These data shall include:

- a. Characteristics of combined sewer system including the population served by the combined portion of the system and locations of all CSO outfalls in the combined sewer system.
- b. Total number of CSO events and the frequency and duration of CSOs for a representative number of events.
- c. Locations and designated uses of water bodies.
- d. Water quality data for receiving water bodies.
- e. Water quality impacts directly related to CSOs.

**3. WATER QUALITY BASED EFFLUENT LIMITATIONS**

The CSO discharge(s) from the CSS and the Combined Sewage Outfall Facilities must adhere to the general criteria for all Waters of the State found in Chapter 391-3-6-.03(5) of the Rules.

The CSO discharge(s) from the CSO Control Facilities must be controlled to prevent discharge(s) of the following:

- a. Materials which will settle to form sludge deposits;
- b. Oil and scum;
- c. Floating debris;
- d. Materials which produce turbidity, color, or odor; and
- e. Toxic, corrosive, acidic, or caustic substances.

**4. ADDITIONAL MONITORING REQUIREMENTS AND EFFLUENT LIMITATIONS FOR THE CSO CONTROL FACILITIES**

- a. The conditions of this permit are based on the permittee's compliance with the demonstration approach as contained in the EPA CSO Control Policy dated April 19, 1994, which provides that the CSOs will not preclude the attainment of Water Quality Standards (WQS) or the receiving waters' designated uses or contribute to their impairment. The permittee shall attain the Georgia WQS pursuant to the State Rules and Chapter 12-5-29.1 and 12-5-30.2 of the Code.
- b. Composite effluent samples shall be collected at the designated sampling location as specified in the Sampling Plan. Composite effluent subsamples shall be collected at 50, 70, 90, 110, and 130 minutes following the initiation of a discharge event and hourly thereafter until the discharge stops. The collection period is not to exceed 24 hours for each composite sample. A composite sample must be taken every 24 hours until the end of the discharge event.
- c. Grab effluent samples shall be collected at the designated sampling location as specified in the Sampling Plan. Grab samples shall be collected during the first 50 to 60 minute interval following the initiation of a discharge event and at 24-hour intervals thereafter until the discharge stops.
- d. Grab effluent samples for Fecal Coliform Bacteria: The permittee shall collect grab sample(s) from each discharge sampling event from the Combined Sewage Control Facilities. One grab sample shall be collected at 50, 70, 90, 110, and 130 minutes following the initiation of a discharge event and once during each successive 24-hour period of continuous discharge until the discharge stops. Results for each sample shall be reported on the Operating Monitoring Report (OMR).

- e. Grab effluent samples for Total Residual Chlorine: The permittee shall collect grab samples from each discharge event from the Combined Sewage Control Facilities. One grab sample shall be collected at 50, 70, 90, 110, and 130 minutes following the initiation of a discharge event and once during each successive 24-hour period of continuous discharge until the discharge stops. The permittee shall report the result of every grab sample for total residual chlorine on its Operating Monitoring Report (OMR).
- f. The permittee shall dispose of any solids and screening materials accumulated by disposal in an approved municipal solid waste landfill or by an alternative method approved by EPD.

## **5. LONG TERM CONTROL PLAN**

The permittee shall comply with the conditions of the CSO Long Term Control Plan (LTCP) that contains conditions for the permittee's compliance with the requirements of EPA's CSO Control Policy and the Clean Water Act (CWA). The permittee developed a LTCP that conforms to the CSO Control Policy. The LTCP contains the following elements:

- a. Public Participation Plan – The LTCP outlines public hearings and newspaper articles published throughout the development of the LTCP.
- b. CSS Characterization - The LTCP outlines the combined sewer areas, water quality studies of the Chattahoochee River, characterization studies of the combined sewer conducted in 1990, the 19th Street pilot study in 1992, and the urban area watershed model using EPA's Storm Water Management Model.
- c. CSO Control Alternatives – The LTCP outlines three control alternatives developed and approved in 1992. The selected plan included centralizing treatment at two facilities and ten diversion structures. Construction was completed prior to December 31, 1995.
- d. Consideration of Sensitive Areas – The LTCP outlines investigation of sensitive areas and concluded through archeological studies conducted in 1994 that the combined sewer area did not include sensitive areas.
- e. Cost Performance Considerations – The LTCP outlines cost projections for each of the three CSO Control Alternatives identified in c. above.
- f. Post Construction Compliance Monitoring – A Sampling Plan was originally developed in 1998 and updated in 2010.

## **6. LONG TERM CONTROL PLAN ANNUAL REPORT**

The LTCP and Nine Minimum Controls have been implemented. The permittee must demonstrate in their post-construction sampling and the LTCP that Clean Water Act compliance is being met in accordance with the CSO Control Policy. By January 31 of each year, the permittee shall submit an annual report for events from the preceding year (January – December) that provides a summary of actions, activities, and measures taken by the permittee to comply with the terms of this permit.

The annual report, at a minimum, shall contain the following:

- a. A summary of the frequency, duration, and volume of the CSS discharges for the past calendar year.
- b. Details of the implementation of the Nine Minimum Control's (NMCs) and the Long-Term Control Plan (LTCP) and documentation that the water quality standards are being met. Control Measures to review include proper operation and maintenance of the sewer system and CSOs, review and modification of pretreatment program to assure CSO impacts are minimized, public education, maximizing flow to the Columbus South Water Reclamation Facility, pollution prevention, control of solid and floatable materials, and other controls developed by the permittee. The report shall also contain a summary of all the actions and steps taken to implement the NMCs and the LTCP and their effectiveness.
- c. If goals of the CSO Controls are not met in accordance with the CSO Control Policy, the permittee should include revisions to the NMC and LTCP and an implementation schedule.
- d. Summaries of any permit violations and corrective actions.
- e. A summary of monitoring data collected for the CSS outfalls.

## **8. REOPENER CLAUSE**

This permit may be modified or revoked and reissued as provided pursuant to 391-3-6.06(12) of the Rules to:

- a. Include new or revised conditions developed to comply with any State Law or regulation that addresses the CSS that is adopted or promulgated subsequent to the effective date of the permit;
- b. Include new or revised conditions if new information, not available at the time of permit issuance, indicates that the CSS controls imposed under the permit have failed to attain State water quality standards;
- c. Include new or revised conditions based on new information generated from the long-term control plan for the CSS; or
- d. The permit may be reopened to address total recoverable metals, if appropriate.

## B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

### B.1. UPTOWN PARK WRF MONITORING REQUIREMENTS

Discharge to Chattahoochee River - Outfall #002 (32.481944, -84.992778):

The permittee is authorized to discharge from the Uptown Park WRF as a result of wet weather flow conditions. There shall be no Dry Weather Overflows. The following parameters shall be limited and monitored by the permittee as specified below beginning on the effective date of the permit. Discharged flows released above the design treatment capacity (48 MGD) shall not be subject to the effluent limitations as specified below in the table, however monitoring and reporting for the parameters as specified below shall be required.

Parameter	Discharge Limitations, Monthly Average (mg/L) Unless Otherwise Specified	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Treated Volume (MG)	Report	Each Discharge Event <sup>(1)</sup>	Total/Day	Effluent
Duration of Discharge (hr)	Report	Each Discharge Event <sup>(1)</sup>	Total/Day	--
Rainfall (inches)	Report	Each Discharge Event <sup>(1)</sup>	Total/Day	--
Rainfall (inches/hour)	Report	Each Discharge Event <sup>(1)</sup>	Peak Intensity	--
Ammonia, as N	Report	Each Discharge Sampling Event <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Five-day Biochemical Oxygen Demand	Report	Each Discharge Sampling Event <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Total Suspended Solids	Report	Each Discharge Sampling Event <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Total Phosphorus, as P	Report	Each Discharge Sampling Event <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Priority Pollutants <sup>(6)</sup>	Report	One Discharge Sampling Event/Year <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Chloromethane (µg/L) <sup>(7)</sup>	Report	See Below	Composite <sup>(3)</sup>	Effluent
Chloroethane (µg/L) <sup>(7)</sup>	Report	See Below	Composite <sup>(3)</sup>	Effluent
Fecal Coliform Bacteria (#/100 mL) <sup>(8)</sup>	200 <sup>(8)</sup>	Each Discharge Sampling Event <sup>(2)</sup>	Grab <sup>(4)</sup>	Effluent
Total Residual Chlorine, Daily Maximum <sup>(9)</sup>	0.5	Each Discharge Sampling Event <sup>(2)</sup>	Grab <sup>(5)</sup>	Effluent
Total Recoverable Mercury (ng/L) <sup>(10)</sup>	Report	See Below	See Below	Effluent

- (1) The permittee shall record treated volume, date and daily duration, rainfall, and peak rainfall intensity during a discharge event as defined in Part I.A.1.i. Information shall be reported on OMR.
- (2) The permittee shall collect samples during a discharge sampling event as defined in Part I.A.1.j.
- (3) Composite samples shall be collected as described in Part I.A.4.b
- (4) Grab samples shall be collected as described in Part I.A.4.d
- (5) Grab samples shall be collected as described in Part I.A.4.e
- (6) Refer to Part I.C.10. PRIORITY POLLUTANTS.
- (7) Refer to Part I.C.13. NON-METALS MONITORING.
- (8) The monthly geometric mean limitation of 200#/100 mL is only applicable if a minimum of 6 (six) grab samples are collected over the calendar month and at least one discharge event lasts a minimum of 90 minutes during that month. The permittee is to report the appropriate No Data Indicator (NODI) code on the DMR if the limit is not applicable. The individual fecal coliform grab samples shall be reported on the OMR for all discharge events.
- (9) Refer to Part I.C.11. TOTAL RESIDUAL CHLORINE COMPLIANCE SCHEDULE.
- (10) Refer to Part I.C.14. TOTAL RECOVERABLE MERCURY.



## B.2. SOUTH COMMONS WRF MONITORING REQUIREMENTS

Discharge to Chattahoochee River - Outfall #012 (32.445833, -84.981944):

The permittee is authorized to discharge from the South Commons WRF as a result of wet weather flow conditions. There shall be no Dry Weather Overflows. The following parameters shall be limited and monitored by the permittee as specified below beginning on the effective date of the permit. Discharged flows released above the design treatment capacity (76 MGD) shall not be subject to the effluent limitations as specified below in the table, however monitoring and reporting for the parameters as specified below shall be required.

Parameter	Discharge Limitations, Monthly Average (mg/L) Unless Otherwise Specified	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Treated Volume (MG)	Report	Each Discharge Event <sup>(1)</sup>	Total/Day	Effluent
Duration of Discharge (hr)	Report	Each Discharge Event <sup>(1)</sup>	Total/Day	--
Rainfall (inches)	Report	Each Discharge Event <sup>(1)</sup>	Total/Day	--
Rainfall (inches/hour)	Report	Each Discharge Event <sup>(1)</sup>	Peak Intensity	--
Ammonia, as N	Report	Each Discharge Sampling Event <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Five-day Biochemical Oxygen Demand	Report	Each Discharge Sampling Event <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Total Suspended Solids	Report	Each Discharge Sampling Event <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Total Phosphorus, as P	Report	Each Discharge Sampling Event <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Priority Pollutants <sup>(6)</sup>	Report	One Discharge Sampling Event/Year <sup>(2)</sup>	Composite <sup>(3)</sup>	Effluent
Fecal Coliform Bacteria (#/100 mL) <sup>(7)</sup>	200 <sup>(7)</sup>	Each Discharge Sampling Event <sup>(2)</sup>	Grab <sup>(4)</sup>	Effluent
Total Residual Chlorine, Daily Maximum <sup>(8)</sup>	0.5	Each Discharge Sampling Event <sup>(2)</sup>	Grab <sup>(5)</sup>	Effluent
Total Recoverable Mercury (ng/L) <sup>(9)</sup>	Report	See Below	See Below	Effluent

- (1) The permittee shall record treated volume, date and daily duration, rainfall, and peak rainfall intensity during a discharge event as defined in Part I.A.1.i. Information shall be reported on OMR.
- (2) The permittee shall collect samples during a discharge sampling event as defined in Part I.A.1.j.
- (3) Composite samples shall be collected as described in Part I.A.4.b
- (4) Grab samples shall be collected as described in Part I.A.4.d
- (5) Grab samples shall be collected as described in Part I.A.4.e
- (6) Refer to Part I.C.10. PRIORITY POLLUTANTS.
- (7) The monthly geometric mean limitation of 200#/100 mL is only applicable if a minimum of 6 (six) grab samples are collected over the calendar month and at least one discharge event lasts a minimum of 90 minutes during that month. The permittee is to report the appropriate No Data Indicator (NODI) code on the DMR if the limit is not applicable. The individual fecal coliform grab samples shall be reported on the OMR for all discharge events.
- (8) Refer to Part I.C.11. TOTAL RESIDUAL CHLORINE COMPLIANCE SCHEDULE.
- (9) Refer to Part I.C.14. TOTAL RECOVERABLE MERCURY.

**B.3. MINOR CSOS (OUTFALLS: 001, 003, 004, 005, 006, 007, 008, 009, 010, 011)**

The permittee shall maximize flow to outfalls 002 & 012 and to the permitted WWTP. The permittee is authorized to discharge from the minor CSO outfalls as a result of wet weather flow conditions and when rainfall is equal to or greater than 0.63 inches/hour. There shall be no Dry Weather Overflows.

The minor CSS discharge locations are identified below:

Outfall No.	Location		
001	24th Street minor	32.4856526°	-84.9928755°
003	16th Street	32.4764115°	-84.9933215°
004	15th Street	32.4745720°	-84.9938121°
005	14th Street	32.4724958°	-84.9950672°
006	12th Street	32.4683674°	-84.9962156°
007	11th Street	32.4666243°	-84.9965410°
008	9th Street	32.4626276°	-84.9972764°
009	7th Street	32.4579739°	-84.9957123°
010	Golden Park	32.4510791°	-84.9922780°
011	5th and Lumpkin (RIDS)	32.4482292°	-84.9873489°

For Outfall 009 – 7<sup>th</sup> Street <sup>(3)</sup>, the following parameters shall be monitored by the permittee as specified below beginning on the effective date of the permit and continuing until the permit expiration.

Parameter	Discharge Limitations, Monthly Average (mg/L) Unless Otherwise Specified	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Location
Treated Volume (MG)	Report	Each Discharge Event <sup>(1)</sup>	Total/Day	Effluent
Duration of Discharge (hr)	Report	Each Discharge Event <sup>(1)</sup>	Total/Day	--
Rainfall (inches) <sup>(2)</sup>	Report	Each Discharge Event <sup>(1)</sup>	Total/Day	--
Rainfall (inches/hour) <sup>(2)</sup>	Report	Each Discharge Event <sup>(1)</sup>	Peak Intensity	

<sup>(1)</sup> The permittee shall record overflow volume, date and daily duration, rainfall, and peak rainfall intensity during a discharge event as defined in Part I.A.1.i. Information shall be reported on OMR.

<sup>(2)</sup> The permittee shall monitor the amount of rainfall every hour at a location or locations, which provide representative data for the combined sewer area.

#### B.4. INSTREAM SURFACE WATER QUALITY MONITORING

The permittee shall monitor the Chattahoochee River during discharge sampling events as specified below:

Parameter	Instream Monitoring	Monitoring Requirements		
		Measurement Frequency	Sample Type	Sample Locations
Stream Flow (cfs)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Continuous <sup>(6)</sup>	USGS Gage at 14 <sup>th</sup> Street
Temperature (°C)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Grab	See Below <sup>(1)</sup>
Ammonia, as N (mg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Composite <sup>(2)</sup>	See Below <sup>(1)</sup>
Fecal Coliform Bacteria (#/100 mL) <sup>(3)</sup>	Report	Each Discharge Sampling Event <sup>(5)</sup>	Grab	See Below <sup>(1)</sup>
Five-day Biochemical Oxygen Demand, (mg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Composite <sup>(2)</sup>	See Below <sup>(1)</sup>
Total Suspended Solids (mg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Composite <sup>(2)</sup>	See Below <sup>(1)</sup>
Total Phosphorus, as P (mg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Composite <sup>(2)</sup>	See Below <sup>(1)</sup>
pH (SU)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Grab	See Below <sup>(1)</sup>
Total Recoverable Cadmium (µg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Composite <sup>(2)</sup>	See Below <sup>(1)</sup>
Total Recoverable Zinc (µg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Composite <sup>(2)</sup>	See Below <sup>(1)</sup>
Total Recoverable Copper (µg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Composite <sup>(2)</sup>	See Below <sup>(1)</sup>
Total Recoverable Lead (µg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Composite <sup>(2)</sup>	See Below <sup>(1)</sup>
Total Recoverable Nickel (µg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Composite <sup>(2)</sup>	See Below <sup>(1)</sup>
Total Hardness, as CaCO <sub>3</sub> <sup>(4)</sup> (mg/L)	Report	Each Discharge Sampling Event <sup>(5)</sup>	Grab	See Below <sup>(1)</sup>

- (1) Sampling locations for instream monitoring are:
- a. Lake Oliver
  - b. Whitewater Launch (below North Highlands Dam)
  - c. 14<sup>th</sup> Street Bridge
  - d. Trade Center
  - e. Rotary Park
  - f. Chattahoochee River just upstream Upatoi Creek.

Each of the sample locations identified above (b. – e.) shall be equipped with a permanent automatic sampler. Refer to Part I.C.12. INSTREAM MONITORING COMPLIANCE SCHEDULE.

- (2) Composite instream samples shall be collected at the designated sampling location. Composite instream subsamples shall be collected at 50, 90, and 120 minutes following the initiation of a discharge event and hourly thereafter until the discharge stops.
- (3) An urban area watershed model shall be maintained which evaluates a full range of rainfall events and river flows to produce a family of “expected value curves” for instream fecal coliform concentrations due to urban area wet weather watershed run-off.
- (4) Hardness samples must be taken concurrently of the total recoverable metals and sampled downstream of the discharge event.
- (5) The permittee shall collect samples during a discharge sampling event as defined in Part I.A.1.j.
- (6) Daily stream flow must be monitored continuously over the course of the discharge event.

## **C. MONITORING AND REPORTING**

### **1. 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, 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.

EPD will specify the requirements and methodologies for performing any of these tests or studies, or consider for approval, the methodologies submitted by the permittee. Unless other concentrations are specified by the Division, the critical concentration used to determine toxicity in the biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the flow of the CSO discharge during the first flush and the design storm event flow, as defined in Part I.A.1.h. If residual chlorine is present in the final effluent from a treatment and/or disinfection process, a prechlorinated or dechlorinated sample shall also be tested. 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 EPD with data and evidence to confirm toxicity elimination. When approved by EPD, all study plans and TRE plans will become part of the requirements of this permit.

### **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 procedures listed in 40 CFR Part 136 or as approved by EPD in the approved Sampling Plan. The analytical method used shall be sufficiently sensitive. The methods used must be applicable to the concentration ranges of the effluent 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 time proportioned composite samples, this shall include the time and volume of each sample aliquot, and other information relevant to document time 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. DETECTION LIMIT REQUIREMENTS**

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.

### **6. REPRESENTATIVE SAMPLING**

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

### **7. 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 Combined Sewer Overflow Monitoring Report forms. The permittee shall indicate the monitoring frequency on the report. EPD may require in writing more frequent monitoring or monitoring of other pollutants not specified in this permit.

## **8. RECORDS RETENTION**

The permittee shall retain the following records:

- a. All laboratory analyses performed including sample data, quality control data, standard curves;
- b. Calibration and maintenance records of laboratory instruments;
- c. CSO DMR monitoring records and associated upstream and downstream monitoring records;
- d. Sewer system operation and maintenance records;
- e. Facility operation and maintenance records;
- f. Copies of all reports required by this permit; and
- g. All data and information used to complete the application for this permit.

These records shall be maintained for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by EPD written notification.

## **9. 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.

## **10. PRIORITY POLLUTANTS**

The permittee shall perform an annual scan of the 126 priority pollutants at Outfalls 002 and 012. Total recoverable mercury must be sampled and analyzed using EPA Method 1631E. The permittee shall take the samples as composite samples. If substances are measured at levels of concern, the permittee may be required to perform additional priority pollutant analyses or the permit may be modified to address the specific pollutant of concern.



## **11. TOTAL RESIDUAL CHLORINE COMPLIANCE SCHEDULE**

The permittee shall achieve compliance with the Total Residual Chlorine (TRC) limitation specified in Parts I.B.1 and I.B.2 of this permit in accordance with the following schedule:

- a. Beginning on the effective date of the permit, the permittee shall monitor for TRC at the effluent as a grab sample during each discharge sampling event. The results shall be reported on the Discharge Monitoring Reports submitted by the permittee.
- b. Within 6 months of the effective date of the permit, the permittee shall submit a design development report (DDR) to EPD for any modifications needed at each facility that will allow it to meet the TRC limits.
- c. Within 12 months of the effective date of the permit, the permittee shall submit plans and specifications for any modifications needed at each facility that will allow it to meet the TRC limits.
- d. Within 18 months of the effective date of the permit, the permittee is to submit a report to EPD regarding the progress made towards completing construction of the facility modifications. The report is to include an estimate of what percentage of the construction is complete and is to describe what work has been completed and what work remains to be completed.
- e. The permittee shall attain compliance with the TRC limitations in Part I.B.1 and Part I.B.2 of the permit within 24 months of the effective date of the permit.

If at any time during the 24-month compliance schedule the permittee believes that each facility will be able to consistently meet the TRC limits without having to make any facility modifications, then the permittee may choose to write a letter to EPD stating this. The letter needs to include TRC data supporting the permittee's position. Upon written notification by EPD, the permittee may be excused from completing any remaining items in the above compliance schedule. However, the permittee will also become subject to the TRC limits from the date of EPD's letter and any future exceedance of the TRC limits will be considered a permit violation. If the permittee does not receive written notification from EPD releasing it from the compliance schedule, then the permittee is required to complete all items in the schedule by the dates indicated and will be required to attain compliance with the TRC limits within 24 months of the effective date of the permit.

## **12. INSTREAM MONITORING COMPLIANCE SCHEDULE**

- a. Beginning of the effective date of the permit, the permittee shall conduct instream monitoring at Lake Oliver and Upatoi Creek for the parameters listed in Part I.B.4 of this permit.
- b. Within 6 months of the effective date of the permit, the permittee is to submit a report to EPD regarding the progress made towards completing installation of the automatic samplers at Whitewater Launch (below North Highlands Dam), 14<sup>th</sup> Street Bridge, Trade Center, and Rotary Park. The report is to include a description of what work has been completed and of what work remains to be completed.
- c. The permittee shall attain compliance with the instream monitoring requirements in Part I.B.4 of the permit within 12 months of the effective date of the permit.

## **13. NON-METALS MONITORING**

Chloroethane and chloromethane shall be monitored for three consecutive wet weather events. If these constituents are not detected, further monitoring will not be required. If chloromethane and chloroethane are detected, an acute WET Test will be required to determine toxicity.

The Acute WET Test must include the most current U.S. Environmental Protection Agency (EPA) acute aquatic toxicity testing manuals. The referenced document is entitled Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 5<sup>th</sup> Edition, U.S. EPA, 821-R-02-012, October 2002, or the most recently approved EPA acute aquatic toxicity testing manuals. 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 LC50 must be greater than or equal to 100% effluent.

EPD will evaluate the WET tests submitted to determine whether toxicity has been demonstrated. If the test results indicate effluent toxicity, the permittee may be required to perform additional WET tests, and/or to submit a toxicity reduction evaluation upon notification by the EPD and/or the permit may be reopened to incorporate acute WET effluent limitations.

## **14. TOTAL RECOVERABLE MERCURY**

The permittee must collect one sample to be analyzed for total recoverable mercury at each major outfall within the first year of effective date of the permit. The tests must be collected during the first overflow event that occurs after the effective date of the permit. Total recoverable mercury must be analyzed using EPA Method 1631E. The sample type for total recoverable mercury must be grab samples. If mercury is measured at levels of concern, then the permittee may be required to perform additional priority pollutant analyses in accordance with Part I.C.1 of the permit and/or the permit may be modified to include effluent limitations for total recoverable mercury.

#### **D. REPORTING REQUIREMENTS**

1. The permittee must electronically report the Discharge Monitoring Report (DMR), Operational Monitoring Report (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, 2020**, 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

All reports or information submitted in compliance with this permit or requested by EPD must be signed by a principal executive officer, elected official, or other authorized representative. Required analytical results obtained by the permittee shall be summarized on an approved Combined Sewer Overflow Monitoring Report form and any additional Division specified forms. Monitoring results shall be submitted to EPD postmarked no later than the 15th day of the month following the end of the reporting period. EPD may require in writing that additional monitoring results be reported.

#### **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. GENERAL CONDITIONS**

### **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 III 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 five (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 location 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. If the permittee determines that any relevant facts were not included in a permit application or that incorrect information was submitted in a permit application or in any report to the EPD, the permittee shall promptly submit the additional or corrected information.

## **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 without written authorization from the EPD. To receive this authorization, 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 by the issuance 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.



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:**

Benoit Causse  
*Benoit.causse@dnr.ga.gov*  
404-463-4958

**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

**1. FACILITY INFORMATION**

**1.1 NPDES Permit No.:** GA0036838

**1.2 Name and Address of Owner/Applicant**

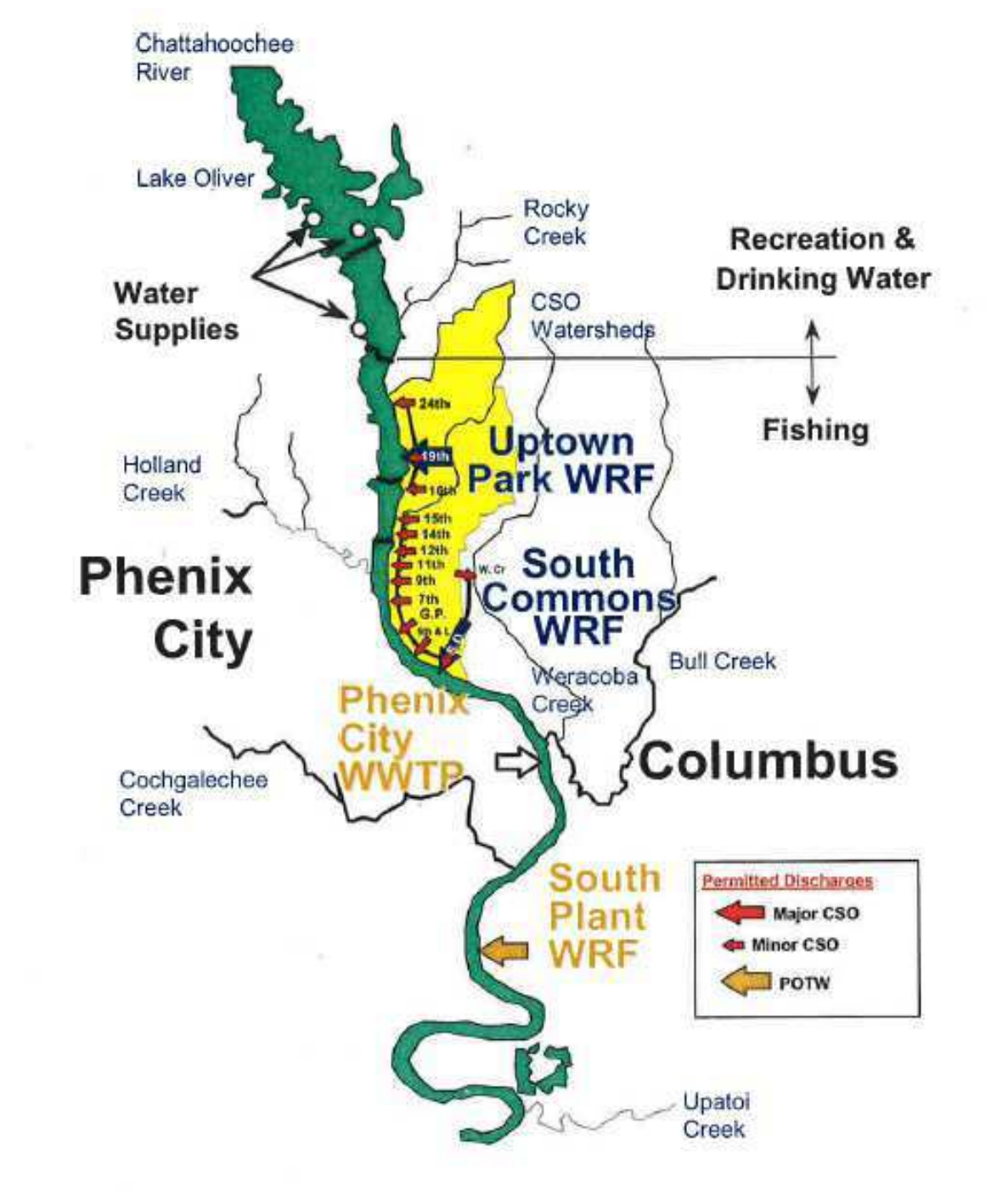
Columbus Water Works  
Post Office Box 1600  
Columbus, Georgia 31902-1600

**1.3 Name and Address of Facility**

South Commons Water Resource Facility  
500 Lumpkin Boulevard  
Columbus, Georgia 31902

Uptown Park Water Resource Facility  
275 18<sup>th</sup> Street  
Columbus, Georgia 31902

The facility locations are shown below:



Source: Columbus Water Works permit renewal application dated 9/10/2014 (Figure G1)

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

<b>Outfall #</b>	<b>Latitude (°)</b>	<b>Longitude (°)</b>	<b>Receiving Waterbody</b>
001	32.4856526	-84.9928755	Chattahoochee River
002	32.481944	-84.992778	Chattahoochee River
003	32.4764115	-84.9933215	Chattahoochee River
004	32.4745720	-84.9938121	Chattahoochee River
005	32.4724958	-84.9950672	Chattahoochee River
006	32.4683674	-84.9962156	Chattahoochee River
007	32.4666243	-84.9965410	Chattahoochee River
008	32.4626276	-84.9972764	Chattahoochee River
009	32.4579739	-84.9957123	Chattahoochee River
010	32.4510791	-84.9922780	Chattahoochee River
011	32.4482292	-84.9873489	Chattahoochee River
012	32.445833	-84.981944	Chattahoochee River

Sampling locations specified in the Sampling Plan may be different than the outfall locations.

**1.5 Permitted Capacity****a. South Commons Water Resource Facility**

The South Commons Water Resource Facility (WRF) is designated as outfall 012 and is permitted to collect and treat up to 76.0 MGD of combined storm and sanitary sewer wastewater.

**b. Uptown Park Water Resource Facility**

The Uptown Park Water Resource Facility (WRF) is designated as outfall 002 and is permitted to collect and treat up to 48.0 MGD of combined storm and sanitary sewer wastewater.

c. Minor CSS Facilities

The minor CSS facilities are designated as:

001 - 24th Street	007 - 11th Street
003 - 16th Street	008 - 9th Street
004 - 15th Street	009 - 7th Street
005 - 14th Street	010 - Golden Park Street
006 - 12th Street	011 - 5 <sup>th</sup> and Lumpkin Streets

## **1.6 SIC Code & 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:**

The original combined sewer system (CSS) in Columbus covered an area of approximately 5,000 acres located in the original (downtown) area of town adjacent to the Chattahoochee River. Portions of the sanitary sewers were separated from the combined system reducing the current CSS area to 2,612 acres. The current control system, as delineated in the approved 1994 Long-Term Control Plan (LTCP), has been operating since December 31, 1995 and consists of 10 minor diversion structures which direct flow to two major combined sewer treatment facilities: the Uptown Park Water Resource Facility (WRF) and the South Commons WRF.

During dry weather, the entire flow from the combined sewer area is transported to the South Columbus WRF for treatment (NPDES Permit No. GA0020516). During wet weather storm events, the two major CSS treatment facilities come online to treat the combined flow while at the same time flow to the South Columbus WRF is maximized. Approximately 18% of the annual combined sewer volume is intercepted and transported to the South Columbus WRF for treatment.

The two major CSS treatment facilities were designed using the best available technology (BAT) to treat the combined sewer flows prior to discharge to the Chattahoochee River. Both these facilities have flow diversion, screening, vortex separation of solids, grit removal, and disinfection. The Uptown Park WRF (outfall 002) serves the northern portion (approximately 40%) of the CSS to collect and treat up to 48 MGD of combined storm water and sanitary sewer wastewater. The South Commons WRF (outfall 012) serves the southern portion (approximately 60%) of the CSS to collect and treat up to 76 MGD of combined storm water and sanitary sewer wastewater.

Based on CSO monitoring data collected prior to design and the analysis of 42 years of historic rainfall records, a design condition of a 0.23-inch, 1-hour storm for Columbus' CSS was established. This design condition was estimated to ensure treatment of CSO events resulting from approximately 90% of all rain hours and while capturing the first flush of storm events which contain the highest pollutant load.



CWW has stated that the ten minor CSO facilities, Outfall Nos. 001 and 003-011 (refer to section 1.5.c above) only discharge during high rainfall intensity events and intercept and transport flows to one of the two major CSS treatment facilities by collector conduits sized to carry a 0.63-inch per hour rainfall event which equates to approximately three times the permitted flow rate of the two major CSS treatment facilities. This design condition will ensure transport of CSO events resulting from approximately 97% of all rain hours. Each of the minor facilities has a passive flow regulating device that helps to maximize the flow and floatables control. The floatables control consists of a skimming vortex valve and baffled weir.

### 1.8 Type of Wastewater Discharge

- ☐ Process wastewater
 ☒ Stormwater  
☒ Domestic wastewater
 ☒ Combined  
☐ Other (Describe)

### 1.9 Characterization of Effluent Discharge (as reported by applicant)

#### Outfall No. 002:

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value*	Average Daily Value
Flow (MGD)	35.0	8.2
Five-Day Biochemical Oxygen Demand (mg/L)	26.0	15.0
Total Suspended Solids (mg/L)	188	88
Fecal Coliform Bacteria (#/100mL)	110	22

\* These are maximum values as reported in the permit application.

#### Outfall No. 012:

Effluent Characteristics (as Reported by Applicant)	Maximum Daily Value*	Average Daily Value
Flow (MGD)	51.3	32.3
Five-Day Biochemical Oxygen Demand (mg/L)	28.0	16.0
Total Suspended Solids (mg/L)	125.0	76.0
Fecal Coliform Bacteria (#/100mL)	600	200

\* These are maximum values as reported in the permit application.

**Minor Outfalls:**

There were no reported values for the minor outfalls (001 and 003-011) in the permit application. The minor outfalls discharge when the storm conditions have rainfall intensity greater than 0.63 inches per hour. Monitoring of the individual minor outfalls was not a requirement in the previously issued permits.

**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	Combined Sewer Overflow Discharges	40 CFR 122 40 CFR 125

**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: Chattahoochee 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 Georgia 305(b)/303(d) List Documents

Chattahoochee River	North Highland Dam to Bull Creek	Chattahoochee	Not Supporting	FCG(PCBs)	5	4a	TMDLs completed FC 2003 (revised 2008) & FCG(PCBs) 2003
GAR031300030115	Muscogee	Fishing	1,38	UR	Miles		

The CSS facilities discharge to the Chattahoochee River between North Highland Dam and Bull Creek. This stretch of the Chattahoochee River is listed on Georgia's 2018 Integrated 305(b)/303(d) list as impaired for PCBs.

### 3.4 Total Maximum Daily Loads (TMDLs)

Total Maximum Daily Loads (TMDLs) are required for impaired waters on a State's Section 303(d) list according to Section 303(d) of the Federal Clean Water Act (CWA) and implementing regulation, 40 CFR 130. A TMDL establishes the maximum amount of a pollutant a waterbody can assimilate without exceeding the applicable water quality standard. The TMDL then allocates the total allowable load to individual sources or categories of sources through wasteload allocations (WLAs) for facilities regulated by the National Pollutant Discharge Elimination System (NPDES) program and through load allocations (LAs) for all other sources.

*a) Fecal Coliform*

In 2008, the Georgia EPD prepared a “Total Maximum Daily Load Evaluation for Seventy-Nine Stream Segments in the Chattahoochee River Basin for Fecal Coliform” (TMDL). Fifty (50) permitted municipal wastewater treatment facilities were evaluated as possible contributors to the fecal coliform impairment, including the Columbus Combined Sewer System (CSS). The TMDL provides required wasteload allocations for fecal coliform bacteria for each of these permitted facilities. All municipal wastewater treatment facilities with the potential for fecal coliform in their discharge were given effluent limitations equivalent to the water quality standard of 200 counts/100 mL or less.

Please refer to Section 4.9. concerning Fecal Coliform Bacteria in the permit.

*b) Polychlorinated Biphenyls (PCBs) in Fish Tissue*

In 2003, the Georgia EPD prepared a “Total Maximum Daily Load Evaluation for Seven Segments of the Chattahoochee River in the Chattahoochee River Basin for PCBs in Fish Tissue” (TMDL). The TMDL noted that there are no permitted point source facilities associated with any existing allocations of PCBs, and that the use and discharge of PCBs is not permitted. It requires that facilities monitor for PCBs and perform a Reasonable Potential (RP) analysis to determine if effluent limitations for PCBs are necessary. PCB’s were not detected in the Priority Pollutant Scans submitted with the permit application; therefore, no PCB effluent limitations were included in the permit.

## **4. EFFLUENT LIMITS AND PERMIT CONDITIONS**

### **4.1 CSO Long-Term Control Plan (LTCP)**

Municipalities that have combined sewer systems must develop CSO Long-Term Control Plans to provide for full compliance with the Clean Water Act and to meet water quality standards.

Effluent limitations and permit requirements have been established in accordance with the State Rules for Water Quality Control Chapter 391-3-6, the Official Georgia Code Annotated, the Federal Code of Regulations and the April 19, 1994 U.S. EPA CSO Control Policy (CSO Control Policy).

EPD approved Columbus Water Works Long-Term Control Plan in 1997. Columbus Water Works utilized the demonstrative approach to develop its Long-Term Control Plan (LTCP) and demonstrate compliance with water quality-based requirements. The draft permit includes the post construction CSO requirements.

### **4.2. Technology-Based Requirements and Nine Minimum Controls (NMCs)**

The CSO Policy requires all combined sewer systems implement the best available technology economically achievable (BAT) which at a minimum shall include the following Nine Minimum Controls (NMC): proper operation and regular maintenance programs; maximize the use of the collection system for storage; review pretreatment

requirements to minimize CSO impacts; maximize flow to the water reclamation center for treatment; eliminate overflows during dry weather; provide control for solids and floatable materials; implement pollution prevention measures; ensure adequate public notification of overflows and their impacts; and, monitor the CSO impacts and control measures.

Part I.A.2 of the permit requires the permittee must continue to comply with the NMC and proper operation and implementation of the CSO controls. Part I.A.2 of the draft permit contains requirements for the permittee to implement best available technology and meet the NMCs which are outlined in the permit. This is also in accordance with the CSO Control Policy.

#### **4.3. Annual Report**

Columbus Water Works has developed a LTCP that conforms with the CSO Control Policy. The draft permit contains a condition that requires the permittee to comply with its LTCP developed. The permit requires the permittee to submit annual reports that provide a summary of actions, activities and measures to meet the goals of both the NMCs and the LTCP by January 31 of each year. Data elements of the NMCs and LTCP will be tracked in accordance with 40 CFR 127 (Electronic Reporting Rule).

#### **4.4 Minor Outfall and Instream Monitoring - Chattahoochee River**

CWW has stated that the design conditions are similar for each of the minor outfalls and there are potential safety concerns to collect an effluent sample from them, hence the permit includes monitoring for only one outfall at this time, Outfall 009 - 7th Street, as a representation of each of the minor outfalls. Outfall 009 will be monitored to characterize the volume and duration of discharges from the minor outfalls.

To characterize the water quality impacts of the minor outfalls, EPD has incorporated stream monitoring in the permit. The permittee must conduct instream monitoring for biochemical oxygen demand, fecal coliform bacteria, temperature, ammonia, total suspended solids, total phosphorus, pH, stream hardness and the following metals: cadmium, lead, zinc, nickel, and copper. Sampling of the Chattahoochee River shall be performed at the following locations:

1. Lake Oliver for background conditions;
2. below North Highlands Dam to capture water quality influences from Rocky Creek and Riverside stormwater;
3. 14th Street Bridge to capture water quality influences from 24th, 19th (Uptown Park), 16th, 15th, and 14th Street outfalls;
4. Trade Center to capture water quality influences from 12th, 11th, 9th, 7th Street outfalls, and Mill Creek;
5. Rotary Park to capture water quality influences from Golden Park, 5th Street, and Lumpkin Street outfalls; and
6. Just above Upatoi Creek to capture water quality influences from all CSOs, urban tributaries, WWTPs.

The additional instream locations (2–5 above) are in lieu of sampling each individual minor outfall. Based on information at this time, EPD believes monitoring of the one minor outfall (Outfall 009) for the discharge volume, duration, and ambient monitoring of the receiving stream at the locations above will adequately characterize impacts of the minor

outfall discharges on the Chattahoochee River. However, upon review of the data, additional monitoring and or effluent limits may be required.

#### **4.5. Monitoring Requirements**

For the major outfalls, the permittee must conduct monitoring during all discharge sampling events for the following parameters: volume treated, ammonia, five-day biochemical oxygen demand, total suspended solids, total phosphorus, total residual chlorine, and fecal coliform bacteria. Flow has been modified to “Volume Treated” as this is more representative of the nature of a CSS discharge. Discharges above the design treatment capacity of 48 MGD and 76 MGD for the two major outfalls (Outfall Nos. 002 and 012) are not subject to the effluent limitations, as EPD believes discharges above the design capacity will be dilute and not have reasonable potential to cause or contribute to the instream water quality violations as these discharges from the CSO are wet weather discharges and not occurring during low flows. However, if EPD determines that these discharges (discharges from the major outfalls above the design treatment capacity) have reasonable potential, EPD will reevaluate the permit and make appropriate changes ensuring discharges from the CSO outfalls do not have reasonable potential to violate instream water quality standards.

#### **4.6. Priority Pollutants**

The permittee must conduct a scan of the priority pollutants from each of the major outfalls (Outfall Nos. 002 and 012) once per year from a discharge sampling event.

#### **4.7. 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

#### **4.8 Reasonable Potential Analysis (RPA)**

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.



#### 4.9 Conventional Pollutants

Pollutants of Concern	Basis
Five-Day Biochemical Oxygen Demand (BOD <sub>5</sub> )	Monitoring requirements have been maintained for the Uptown Park WRF (Outfall 002) and South Commons (Outfall 012).
Total Suspended Solids (TSS)	Monitoring requirements have been maintained for the Uptown Park WRF (Outfall 002) and South Commons (Outfall 012).

In accordance with §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 *E.coli*. 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. EPD does not consider dilution in our analysis as we don't believe it's appropriate for bacteria due to its inherent ability to reproduce in the receiving stream.

#### Fecal Coliform

In addition to the existing reasonable potential, under CWA Section 303(d), States are required to develop lists of impaired waters. Impaired waters are those that do not meet the water quality standards set for them, even after point sources of pollution have installed the minimum required levels of pollution control technology. In 2002, Georgia's 305(b)/303(d) listed the Chattahoochee River between N Highland Dam to Upatoi Creek as partially supporting designated uses. Criterion violated included Fecal Coliform Bacteria and Fish Consumption Guidelines.

The law requires that those jurisdictions (GA EPD) establish priority rankings for waters on their CWA section 303(d) list and develop a Total Maximum Daily Load (TMDL) for those waters.

In 2008, a TMDL for Fecal Coliform Bacteria was approved to restore and maintain Water Quality Standards for Fecal Coliform Bacteria. Once a TMDL is approved, it remains in place to continue water quality protection, even though the assessed waterbody's category may be revised in the future.

The NPDES regulations at § 40 CFR 122.44(d)(1)(vii)(B) require that NPDES permits include effluent limitations

Pollutants of Concern	Basis
	<p>developed consistent with the assumptions and requirements of the Waste Load Allocation (WLA) that has been assigned to the discharge as part of an approved TMDL. Through the NPDES permitting process if it is determined that a point source discharge has a pollutant of concern, in this case the pollutant of concern is fecal coliform bacteria, and there is reasonable potential of discharging fecal coliform bacteria from the point sources at levels that may cause or contribute to instream water quality standard violations, an effluent limit is required in the permit.</p> <p>The major CSO Control Facilities are authorized by this NPDES permit to discharge from point source outfall nos. 002 and 012 partially treated domestic sanitary wastewater containing fecal coliform bacteria. In addition to the TMDL requiring fecal coliform effluent limits, EPD reviewed and analyzed effluent discharge data from both of the outfalls and determined that those discharges have the reasonable potential for fecal coliform bacteria to be present at levels that may cause or contribute to instream water quality standard violations, hence numeric effluent limits are appropriate and included in this permit. The effluent data evaluated is included in the permit file.</p> <p>On September 29, 2017, a draft permit was placed on public notice. The effluent limits in the draft permit were expressed as a cumulative count of fecal coliform over a period of 30 days (monthly loading) and were calculated assuming a continuous discharge from Outfall nos. 002 and 012. Since the facility is designed to discharge intermittently under specific wet weather conditions, it has been determined that the fecal coliform limits in the draft permit were inappropriate and did not meet the requirements of the TMDL. EPD has updated the proposed permit to include the required fecal coliform bacteria limit allocated in the TMDL.</p> <p>Per the TMDL, the allowable loading is “flow (Q) times fecal coliform concentration of 200/100mL (30-day geometric mean).”</p> <p>The CSO facilities are engineered and designed to treat a specific volume of water based on historical and modeled data. As determined by the permittee and approved by EPD, the design storm event is defined as a rainfall event of 0.23 inches per hour with a one-hour duration.</p> <p>Discharges from any CSO facility are intermittent and variable in nature, again dependent on wet weather, hence a numeric permitted flow limit in the permit is inappropriate for the CSO</p>

## FACT SHEET

Pollutants of Concern	Basis
	<p>facilities. Since the flow (Q) referenced in the TMDL is variable, it cannot be used in the calculation prescribed in the TMDL to determine the wasteload allocation for fecal coliform bacteria. Therefore, to implement the requirements of the TMDL a conservative limit of 200 #/100mL (30-day geometric mean) is required in the permit. This limit is also protective of the designated use of the receiving water body and of human health.</p> <p>Based upon the reasonable potential analysis and wasteload allocation in the TMDL, the permit has been revised to include a fecal coliform bacteria limit of 200 #/100mL for Outfall nos. 002 and 012.</p> <p>EPD's implementation of the TMDL and corresponding numeric effluent limits of 200 #/100 mL has been reviewed and approved by U.S. EPA in a letter dated September 12, 2019. Refer to Appendix C of the Fact Sheet.</p>
Total Residual Chlorine	<p>Both Uptown Park WRF (Outfall 002) and South Commons (Outfall 012) uses chlorine for disinfection. While the Uptown Park facility dechlorinates, the South Commons facility currently does not. A total residual chlorine limit has been included in the permit for both WRFs (Outfall 002 and 012). The TRC limit is equal to the maximum technology-based limit of 0.5 mg/L in accordance with EPD's Total Residual Chlorine Strategy. Since Columbus CSS did not previously have a total residual chlorine limit, a compliance schedule has also been included.</p>

**4.10 Nonconventional Pollutants**

Pollutants of Concern	Basis
Ammonia (NH <sub>3</sub> )	Monitoring requirements have been maintained for the Uptown Park WRF (Outfall 002) and South Commons (Outfall 012).
Total Phosphorus	Monitoring requirements have been maintained for the Uptown Park WRF (Outfall 002) and South Commons (Outfall 012).

**4.11 Toxics & Manmade Organic Compounds**

The permittee submitted the results of one priority pollutant scan with the permit application for each major outfall (Outfall Nos. 002 and 012). All parameters were “below reporting limit (BRL)” except for total recoverable zinc, total recoverable copper, total recoverable lead, chloroform, chloroethane, chloromethane, and toluene.

Zinc, copper, and lead were evaluated and the instream concentrations were found to be less than 50% of the instream standard; therefore, in accordance with EPD reasonable potential procedures, these constituents are not considered to be present at levels of concern. However, since discharges from the CSO are episodic based on rainfall events, the permittee will continue to monitor for metals as part of the annual priority pollutant scan.

At the South Commons WRF, nonmetals instream concentrations were found to be less than half the instream criteria concentration; therefore, in accordance with EPD reasonable potential procedures, these constituents are not considered to be present at levels of concern.

At the Uptown Park WRF, the instream concentrations of chloroform and toluene were found to be less than half the instream criteria concentration; therefore, monitoring for chloroform and toluene is not included in this permit. Chloroethane and chloromethane do not have specific water quality instream criteria. As a result, EPD will require monitoring of chloroethane and chloromethane for three discharge sampling events. If chloromethane or chloroethane are detected in any one of the samples, an acute whole effluent toxicity test will be required to determine toxicity of the discharge(s).

Refer to Section 4.9, 4.10, 4.10, and *Appendices A and B* for pollutant specific reasonable potential evaluations.

**5. OTHER PERMIT REQUIREMENTS AND CONSIDERATIONS****5.1 Instream Monitoring**

The permittee has noted access and safety concerns with sampling each individual minor outfall. Therefore, instream sampling to provide water quality data and characterize the impact of the minor outfall discharges on the receiving stream have been included. Permanent automatic samplers are to be installed at Whitewater Launch (below North

Highlands Dam), 14th Street Bridge, Trade Center, and Rotary Park. Stream flow and the amount of rainfall every 15 minutes will be reported from USGS gauge at the 14<sup>th</sup> Street Bridge. Samples shall be collected during discharge sampling events. The permittee will continue ambient monitoring at Lake Oliver and the Chattahoochee River just above Upatoi Creek. See Section 4.4 of the Fact Sheet for further discussion.

## **5.2 Service Delivery Strategy**

The City of Columbus is in compliance with the Department of Community Affairs approved Service Delivery Strategy.

## **5.3 Metropolitan North Georgia Water Planning District**

The City of Columbus, in Muscogee County, is located outside of the Metropolitan North Georgia Water Planning District.

## **5.4 Compliance Schedules**

A 24-month compliance schedule for total residual chlorine has been included in the draft permit. The permit includes a 12-month schedule to install samplers at the instream monitoring locations at Whitewater Launch (below North Highlands Dam), 14th Street Bridge, Trade Center, and Rotary Park. Other effluent limitations are effective immediately upon issuance of the permit.

## **5.5 Anti-Backsliding**

The limits in this permit are in compliance with the 40 C.F.R. 122.44(l), which requires a reissued permit to be as stringent as the previous 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](mailto: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.

## **Appendix A**



## Appendix A

### Columbus CSO - Uptown Park WRF NPDES Permit No. GA0036838

#### Stream Data (upstream of the discharge):

TSS:	23	mg/L
7Q10:	1,150.00	ft <sup>3</sup> /s
1Q10:	518.00	ft <sup>3</sup> /s
Mean flow:	6,709.00	ft <sup>3</sup> /s

#### Effluent Data:

TSS:	88.0	mg/L
Flow:	48,000,000	gal/day
Flow:	74.27	ft <sup>3</sup> /s

#### Stream data (downstream of the discharge):

Hardness (at 7Q10):	20.0	mg/L		
TSS (at 7Q10):	26.94	mg/L		
Dilution factor (at average flow):	91.3		IWC (at average flow):	1.1
Dilution factor (at 7Q10):	16.48		IWC (at 7Q10):	6.1
Dilution factor (at 1Q10):	7.97		IWC (at 1Q10):	12.5

#### Acute Water Quality Criteria (WQC<sub>Acute</sub>) - Metals:

Metal	K <sub>PO</sub>	α	f <sub>D</sub>	Maximum effluent C <sub>T</sub> (μg/L)	Instream C <sub>D</sub> (μg/L)	WQC <sub>Acute</sub> (μg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	0.0	0.0	340.00	no
Cadmium	4.00.E+06	-1.131	0.000	0.0	0.0	0.42	no
Chromium III	3.36.E+06	-0.930	0.00	0.0	0.0	152.49	no
Chromium VI	3.36.E+06	-0.930	0.00	0.0	0.0	16.00	no
Copper	1.04.E+06	-0.744	0.29	8.9	0.33	2.95	no
Lead	2.80.E+06	-0.800	0.16	4.8	0.1	10.79	no
Mercury				0.0	0.0000	1.40	no
Nickel	4.90.E+05	-0.572	0.00	0.0	0.0	119.99	no
Zinc	1.25.E+06	-0.704	0.23	57.0	1.66	29.97	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{instream} (mg/L)^{(1+\alpha)} \times 10^{-6}} \quad \text{Instream } C_D = \frac{\text{Effluent } C_T (mg/L) \times f_D}{DF} \quad mg/L$$

$$\text{Dilution Factor} = \frac{Q_{Stream} (ft^3/sec) + Q_{Effluent} (ft^3/sec)}{Q_{Effluent} (ft^3/sec)}$$

## Appendix A

### Columbus CSO - Uptown Park WRF NPDES Permit No. GA0036838

#### Chronic Water Quality Criteria (WQC<sub>Chronic</sub>) - Metals:

Metal	K <sub>PO</sub>	$\alpha$	$f_D$	Average effluent C <sub>T</sub> (µg/L)	Instream C <sub>D</sub> (µg/L)	WQC <sub>Chronic</sub> (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	0.0	0.0	150.00	no
Cadmium	4.00.E+06	-1.131	0.000	0.0	0.0	0.08	no
Chromium III	3.36.E+06	-0.930	0.00	0.0	0.0	19.84	no
Chromium VI	3.36.E+06	-0.930	0.00	0.0	0.0	11.00	no
Copper	1.04.E+06	-0.744	0.29	8.9	0.16	2.26	no
Lead	2.80.E+06	-0.800	0.16	4.8	0.0	0.42	no
Mercury				0.0	0.00	0.012	no
Nickel	4.90.E+05	-0.572	0.00	0.0	0.0	13.33	no
Zinc	1.25.E+06	-0.704	0.23	57.0	0.80	30.21	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{Instream} (mg/L)^{(1+\alpha)} \times 10^{-6}}$$

$$Instream C_D = \frac{Effluent C_T (mg/L) \times f_D}{DF} \quad mg/L$$

#### Water Quality Criteria (WQC) - Non Metals:

Pollutant	Effluent C <sub>T</sub> (µg/L)	Instream Concentration (µg/L)	WQC (µg/L)	WQC/2 (µg/L)	Action needed?
Chloroform	78.0	0.85	470.0	235.0	no
Chloroethane	24.0	0.26	**		
Chloromethane	53.0	0.58	**		
Toluene	16.0	0.18	5980.00	2,990.0	no

\*\* these constituents do not have instream WQC

#### NOTES:

- Water Quality Criteria (WQC) from State of Georgia Rules and Regulations 391-3-6-.03.
- If the calculated instream concentration is less than 50% of the instream water quality criteria, then the constituent will be considered not to be present at levels of concern.
- If the calculated instream concentration is greater than 50% of the instream water quality criteria, then additional monitoring may be required or a permit limit for that constituent may be included in the permit.

## Appendix B

### Columbus CSO - South Commons WRF NPDES Permit No. GA0036838

#### Stream Data (upstream of the discharge):

TSS:	23	mg/L
7Q10:	1,150.00	ft <sup>3</sup> /s
1Q10:	518.00	ft <sup>3</sup> /s
Mean flow:	6,709.00	ft <sup>3</sup> /s

#### Effluent Data:

TSS:	88.0	mg/L
Flow:	76,000,000	gal/day
Flow:	117.60	ft <sup>3</sup> /s

#### Stream data (downstream of the discharge):

Hardness (at 7Q10):	20.0	mg/L		
TSS (at 7Q10):	29.03	mg/L		
Dilution factor (at average flow):	58.1		IWC (at average flow):	1.7
Dilution factor (at 7Q10):	10.78		IWC (at 7Q10):	9.3
Dilution factor (at 1Q10):	5.40		IWC (at 1Q10):	18.5

#### Acute Water Quality Criteria (WQC<sub>Acute</sub>) - Metals:

Metal	K <sub>PO</sub>	α	f <sub>D</sub>	Maximum effluent C <sub>T</sub> (μg/L)	Instream C <sub>D</sub> (μg/L)	WQC <sub>Acute</sub> (μg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	0.0	0.0	340.00	no
Cadmium	4.00.E+06	-1.131	0.000	0.0	0.0	0.42	no
Chromium III	3.36.E+06	-0.930	0.00	0.0	0.0	152.49	no
Chromium VI	3.36.E+06	-0.930	0.00	0.0	0.0	16.00	no
Copper	1.04.E+06	-0.744	0.29	15.4	0.08	2.95	no
Lead	2.80.E+06	-0.800	0.15	20.2	0.05	10.79	no
Mercury				0.0	0.00	1.40	no
Nickel	4.90.E+05	-0.572	0.00	0.0	0.00	119.99	no
Zinc	1.25.E+06	-0.704	0.23	81.6	0.32	29.97	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{instream} (mg/L)^{(1+\alpha)} \times 10^{-6}} \quad \text{Instream } C_D = \frac{\text{Effluent } C_T (mg/L) \times f_D}{DF} \quad mg/L$$

$$\text{Dilution Factor} = \frac{Q_{stream} (ft^3/sec) + Q_{effluent} (ft^3/sec)}{Q_{effluent} (ft^3/sec)}$$

## Appendix B

### Columbus CSO - South Commons WRF NPDES Permit No. GA0036838

#### Chronic Water Quality Criteria (WQC<sub>Chronic</sub>) - Metals:

Metal	K <sub>PO</sub>	a	f <sub>D</sub>	Average effluent C <sub>T</sub> (µg/L)	Instream C <sub>D</sub> (µg/L)	WQC <sub>Chronic</sub> (µg/L)	Action needed?
Arsenic	4.80.E+05	-0.729	0.00	0.0	0.0	150.00	no
Cadmium	4.00.E+06	-1.131	0.000	0.0	0.0	0.08	no
Chromium III	3.36.E+06	-0.930	0.00	0.0	0.0	19.84	no
Chromium VI	3.36.E+06	-0.930	0.00	0.0	0.0	11.00	no
Copper	1.04.E+06	-0.744	0.29	15.4	0.08	2.26	no
Lead	2.80.E+06	-0.800	0.15	20.2	0.05	0.42	no
Mercury				0.0	0.00	0.012	no
Nickel	4.90.E+05	-0.572	0.00	0.0	0.0	13.33	no
Zinc	1.25.E+06	-0.704	0.23	81.6	0.32	30.21	no

$$f_D = \frac{1}{1 + K_{PO} \times TSS_{instream} (mg/L)^{(1+a)} \times 10^{-6}}$$

$$Instream C_D = \frac{Effluent C_T (mg/L) \times f_D}{DF} \quad mg/L$$

#### Water Quality Criteria (WQC) - Non Metals:

Pollutant	Effluent C <sub>T</sub> (µg/L)	Instream Concentration (µg/L)	WQC (µg/L)	WQC/2 (µg/L)	Action needed?
Chloroform	9.2	0.16	470.0	235.0	no

#### NOTES:

- Water Quality Criteria (WQC) from State of Georgia Rules and Regulations 391-3-6-.03.
- If the calculated instream concentration is less than 50% of the instream water quality criteria, then the constituent will be considered not to be present at levels of concern.
- If the calculated instream concentration is greater than 50% of the instream water quality criteria, then additional monitoring may be required or a permit limit for that constituent may be included in the permit.

## **Appendix C**

Columbus Water Works Combined Sewer Overflow  
Letter from U.S. EPA, Region 4 (September 12, 2019)



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

SEP 12 2019

FILE COPY

Mr. James A. (Jac) Capp  
Director  
Georgia Department of Natural Resources  
Environmental Protection Division  
Watershed Protection Branch  
2 Martin Luther King Jr. Dr., Suite 1152 East Tower  
Atlanta, Georgia 30334

RE: NPDES Permit GA0036838 Columbus Water Works Combined Sewer Overflow Bacteria Permitting

Dear Mr. Capp:

In a July 26, 2019 email correspondence to Jeaneanne Gettle, Water Division Director for the U.S. Environmental Protection Agency (EPA) Region 4, you requested the EPA to provide confirmation regarding the Georgia Environmental Protection Division's (EPD's) proposed fecal coliform bacteria limit be included in the forthcoming reissuance of the City of Columbus's Combined Sewer Overflow (CSO) permit (NPDES GA0036838). You noted that the EPA has previously approved a Total Maximum Daily Load (TMDL) for fecal coliform bacteria for the Chattahoochee River (between North Highlands Dam to Upatoi Creek) dated November 2008 that includes a specific wasteload allocation for the Columbus CSO discharges. The wasteload allocation prescribed in the TMDL is based on an "end-of-pipe" fecal coliform bacteria loading limit of no more than 200 counts/100mL as a 30-day geometric mean. This approach for deriving the wasteload allocation is consistent with the EPA guidance "*Protocol for Developing Pathogen TMDLs*" (January 2001) and is "necessary, reasonable, protective, and consistent with the TMDL requirements" for permitting purposes.

The EPA concurs with EPD's proposed bacteria limits for permitting purposes. NPDES permits are required to contain limits that consider applicable wasteload allocations including those prescribed by TMDLs when necessary to achieve water quality standards. In 40 CFR § 122.44(d)(1)(vii)(B) it states that "Effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by the EPA pursuant to 40 CFR § 130.7".

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If you have any questions, please have your staff contact Mr. Craig Hesterlee of my staff via email [hesterlee.craig@epa.gov](mailto:hesterlee.craig@epa.gov) or (404) 562-9749.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris B. Thomas".

Christopher B. Thomas, Chief  
Permitting and Grants Branch  
Water Division