GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

The Georgia Environmental Protection Division proposes to reissue the General NPDES Permit GAG550000, which authorizes treated wastewater discharges from private and institutional development (PID) water pollution control plants. The draft permit places conditions on the discharge of pollutants from the water pollution control plants to waters of the State.

Technical Contact

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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. GENERAL PERMIT INFORMATION

1.1 NPDES Permit No.: GAG550000

1.2 Eligibility for Coverage

Coverage under General NPDES Permit GAG550000 is only for existing facilities that are currently covered under the general permit. No new or expanding facilities will be covered under this permit. The general permit will not result in any increased loadings or less stringent conditions or limitations for any facility covered under this permit.

1.3 Permitted Design Capacity

Large Facilities: Greater than or equal to 0.010 MGD and up to 0.075 MGD
Small Facilities: Less than 0.010 MGD

1.4 SIC Code and Description

Various SIC Codes. Facilities eligible for coverage under GAG550000 include, but are not limited to, mobile home parks, campgrounds/camps, churches, nursing homes, motels, shopping centers, schools, and prisons.

1.5 Description of the Water Pollution Control Plants

Pond systems consist of waste stabilization ponds or multi-stage pond systems, and a disinfection system (chlorine, UV, etc.).

Mechanical systems consist of either activated sludge treatment, trickling filters, combination pond and mechanical systems, septic tank-sand filter systems, or any mechanical system, and a disinfection system (chlorine, UV, etc.).

1.6 Type of Wastewater Discharge

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

2. APPLICABLE REGULATIONS

The Federal Water Pollution Control Act (also referred to as the Clean Water Act or CWA) prohibits the discharge of any pollutants to waters of the United States from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. This includes discharges from private and institutional development (PID) facilities, which are built to treat non-municipal domestic sewage.

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	Municipal Effluent Discharge	40 CFR 122 40 CFR 125 40 CFR 133
	Non-Process Water Discharges	40 CFR 122 40 CFR 125
	Municipal Sludge Use and Disposal	40 CFR 122 40 CFR 257 40 CFR 501 & 503

3. WATER QUALITY STANDARDS & RECEIVING WATERBODY INFORMATION

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal Regulations 40 CFR 122.4(d) require that conditions in NPDES permits ensure compliance with the water quality standards which are composed of designated use classifications, numeric and or narrative water quality criteria and an antidegradation policy. The designated use classification system identifies the designated 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 designated use for each water body. The antidegradation policy represents an approach to maintain and to protect various levels of water quality and uses. Section 391-3-6-.3(5) of the GA Water Quality Control Act provide General Criteria for All Waters, commonly referred to as the narrative water quality standards, and Specific Criteria for Specific Designated Uses. In addition to the General Criteria the Specific Criteria in Section 3.1 below are deemed necessary for this waterbody and shall be required for the specific designated uses.

3.1 Receiving Waterbody Specific Designated Use:

Specific Designated Use(s) [391-3-6-.03(6)]:

***Drinking Water Supplies*:**

Those waters approved as a source for public drinking water systems permitted or to be permitted by the Environmental Protection Division. Waters classified for drinking water supplies will also support the fishing use and any other use requiring water of a lower quality.

(i) Bacteria:

1. For the months of May through October, when primary water contact recreation activities are expected to occur, culturable E. coli not to exceed a geometric mean of 126 counts 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. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 counts per 100 mL in the same 30-day interval.

2. For the months of November through April, culturable E. coli not to exceed a geometric mean of 265 counts 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. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 861 counts per 100 mL in the same 30-day interval.

3. 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.

(ii) Dissolved oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters 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 water supporting warm water species of fish.

(iii) pH: Within the range of 6.0 - 8.5.

(iv) No material or substance in such concentration that, after treatment by the public water treatment system, exceeds the maximum contaminant level established for that substance by the Environmental Protection Division pursuant to the Georgia Rules for Safe Drinking Water.

(v) 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 of natural stream temperatures.

***Recreation*:**

Primary contact recreational activities that occur year round such as swimming, diving, whitewater boating (class III and above), water skiing, and surfing, or for any other use requiring water of a lower quality, such as recreational fishing. These criteria are not to be interpreted as encouraging water contact sports in proximity to sewage or industrial waste discharges regardless of treatment requirement. Secondary contact recreation is incidental contact with the water not involving a significant risk of water ingestion such as canoeing, fishing, kayaking, motor boating, rowing, tubing, splashing, wading, and occasional swimming.

(i) Bacteria:

1. Coastal and estuarine waters: Culturable enterococci not to exceed a geometric mean of 35 counts 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. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 130 counts per 100 mL in the same 30-day interval.

2. All other recreational waters: Culturable E. coli not to exceed a geometric mean of 126 counts 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. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 counts per 100 mL in the same 30-day interval.

(ii) Dissolved Oxygen: A daily average of 6.0 mg/L and no less than 5.0 mg/L at all times for waters 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.

(iii) pH: Within the range of 6.0 - 8.5.

(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.

Fishing:

Propagation of Fish, Shellfish, Game and Other Aquatic Life; primary contact recreation in and on the water for the months of May – October, secondary contact recreation in and on the water for the months of November – April; 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. Estuarine waters:

   For the months of May through October, when primary water contact recreation activities are expected to occur, culturable enterococci not to exceed a geometric mean of 35 counts 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. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 130 counts per 100 mL the same 30-day interval.

   For the months of November through April, culturable enterococci not to exceed a geometric mean of 74 counts 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. There shall be no greater than a ten percent excursion frequency of an enterococci statistical threshold value (STV) of 273 counts per 100 mL in the same 30-day interval.

2. All other fishing waters:

   For the months of May through October, when primary water contact recreation activities are expected to occur, culturable E. coli not to exceed a geometric mean of 126 counts 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. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 410 counts per 100 mL in the same 30-day interval.

For the months of November through April, culturable E. coli not to exceed a geometric mean of 265 counts 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. There shall be no greater than a ten percent excursion frequency of an E. coli statistical threshold value (STV) of 861 counts per 100 mL in the same 30-day interval.

3. 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.

4. 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.

Trout Streams:

Streams designated as Primary Trout Waters are waters supporting a self-sustaining population of Rainbow, Brown or Brook Trout. Streams designated as Secondary Trout Streams are those with no evidence of natural trout reproduction, but are capable of supporting trout throughout the year. Trout streams are classified in accordance with the designations and criteria as follows:

1. There shall be no elevation of natural stream temperatures for Primary Trout Waters; 2°F or less elevation for Secondary Trout Waters.

2. No person shall construct an impoundment on Primary Trout Waters, except on streams with drainage basins less than 50 acres upstream of the impoundment. Impoundments on streams with drainage basins less than 50 acres must be approved by the Division.

3. No person shall construct an impoundment on Secondary Trout Waters without the approval of the Division.

4. PERMIT CONDITIONS AND EFFLUENT LIMITS

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

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

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

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

Mechanical Systems:

Title 40 of the Code of Federal Regulations contains secondary effluent standards for Publicly-Owned Treatment Works treating domestic wastewater. Based on best professional judgment, EPD has determined a privately-owned facility or a facility serving an institutional development and treating domestic wastewater can meet the same secondary standards. Therefore, the following technology-based limits for five-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH have been established:

Parameter	**Technology-based Effluent Limitations**	
	30-day Average	*Daily Maximum*
BOD_5	30 mg/L	45 mg/L
TSS	30 mg/L	45 mg/L
pH (Daily Minimum – Daily Maximum)	6.0-9.0 S.U.	

Pond Systems:

Title 40 of the Code of Federal Regulations contains secondary effluent standards for Publicly-Owned Treatment Works treating domestic wastewater. Based on best professional judgment, EPD has determined a privately-owned facility or a facility serving an institutional development and treating domestic wastewater can meet the same secondary standards. Therefore, the following technology-based limits for five-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH have been established:

Parameter	**Technology-based Effluent Limitations**	
	30-day Average	*Daily Maximum*
BOD_5	30 mg/L	45 mg/L
TSS [(1)]	90 mg/L	--
pH (Daily Minimum – Daily Maximum)	6.0 – 9.0 S.U.	

[(1)] Value based on adjusted secondary standard for ponds in accordance with Federal Register, Volume 49, Number 184, page 37005, September 20, 1984

4.2 Reasonable Potential Analysis (RP)

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

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 ($BOD_{5)}$, 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, *E. coli* (or Enterococci), or volatile organics.

Refer to Section 4.2 for reasonable potential analysis on effluent toxicity.

Refer to Section 4.3 for reasonable potential analysis on toxic and manmade pollutants.

4.3 Whole Effluent Toxicity (WET)

WET tests are not required for facilities with a permitted design flow less than 1.0 MGD and without an approved pre-treatment program; therefore, the draft permit does not include any WET testing requirements.

4.4 Toxics and Manmade Organic Pollutants

Expanded effluent testing data is not required for facilities with a permitted design flow less than 1.0 MGD and without an approved pre-treatment program; therefore, the draft permit does not include any monitoring requirements for toxics and manmade organic pollutants.

4.5 Conventional Pollutants

Pollutants of Concern	Basis
pH	The pH limit of 6.0-8.5 SU (daily minimum – daily maximum) is protective of the instream Water Quality Standards in Section 3.1 above.
Five-Day Biochemical Oxygen Demand (BOD_5)	The monthly average BOD_5 limit of 30 mg/L is in accordance with technology-based effluent limitations for plants treating domestic wastewater. Refer to Section 4.1 below for additional information. If instream monitoring or water quality modeling indicates the need for a higher level of treatment to meet or protect the water quality standards for dissolved oxygen, then EPD may terminate coverage under the general permit for a facility and issue an individual NPDES permit with more stringent limits.
Total Suspended Solids (TSS)	*Mechanical Systems:* The monthly average TSS limit of 30 mg/L is in accordance with technology-based effluent limitations for mechanical plants treating domestic wastewater. Refer to Section 4.1 for additional information. *Pond Systems:* The monthly average TSS limit of 90 mg/L is in accordance with technology-based effluent limitations for pond systems treating domestic wastewater. Refer to Section 4.1 for additional information.

4.5 Conventional Pollutants (Continued)

Pollutants of Concern	Basis
Bacteria (E coli & Enterococci)	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 the conventional pollutant fecal coliform, but also *Escherichia coli,* and Enterococci. EPD has determined these facilities discharge bacteria, wastewater treatment systems are designed to limit bacteria levels in the effluent, and bacteria are highly variable in the receiving stream after treatment. Furthermore, dilution is not considered in EPD's analysis as bacteria have the inherent ability to reproduce in the receiving stream. As part of the 2019 Triennial Review, approved by US EPA on August 31, 2022, EPD adopted new bacterial indicators (*E. coli* and Enterococci) for waterbodies with a designated use of fishing, coastal fishing, and drinking water to protect secondary contact recreators who may inadvertently ingest water. In accordance with EPD's *Bacteria Equivalency Strategy for Using the Optimal Indicator Organisms for WQS and NPDES Permitting,* 2022, the current fecal bacteria limits have been replaced with a monthly average Enterococci limit of 35 counts/100 mL (estuarine water) or a monthly average *E. coli* limit of 126 counts/100 mL (freshwater)

4.6 Nonconventional Pollutants

Pollutants of Concern	Basis
Total Residual Chlorine (TRC)	A daily maximum TRC limit of 0.01 mg/L has been determined using the US EPA's chronic TRC criterion of 11 µg/L (freshwater) or 7.5 µg/L (saltwater) in the receiving stream and assuming 7Q10 of 0 cfs (i.e., no dilution).
Temperature (T_Δ, F°)	An instream temperature limit of $T_\Delta \leq 0$ has been included in the draft permit for facilities that discharge to Primary Trout Waters. The instream temperature limit is protective and is in accordance with the instream Water Quality Standards in Section 3.1 above.
Ammonia (NH_3)	The current permit does not include ammonia effluent limitations. In the future, if instream monitoring or water quality modeling indicates the need for a higher level of treatment to meet or protect the water quality standards for dissolved oxygen, then EPD may terminate coverage under the general permit for the facility and issue an individual NPDES permit with more stringent limits. In accordance with EPD's *NPDES Permitting Strategy for Addressing Ammonia Toxicity*, 2017, NPDES permits that do not have ammonia limits are to be reissued with effluent ammonia monitoring. As resources allow, EPD will conduct instream monitoring upstream and downstream of the facility. If data indicates a problem with the narrative toxicity criteria for mussels then, based on a priority consideration regarding water quality impact, EPD may terminate coverage under the general permit a facility and issue an individual NPDES permit with more stringent limits.

4.6 Nonconventional Pollutants (Continued)

Pollutants of Concern	Basis
Total Phosphorus (TP), Orthophosphate	Total phosphorus measures all forms of phosphorus in a sample (orthophosphate, condensed phosphate, and organic phosphate). Orthophosphate, or reactive phosphorus is the amount of phosphorus available to chemically or biologically react in the environment. Discharges of total phosphorus directly to or within the watershed upstream from waterbodies with total phosphorus water quality standards must undergo an analysis to determine if the discharge of the pollutants has the reasonable potential to cause or contribute to instream water quality standard violations. Based on the pollutant being present in the wastestream, EPD has identified total phosphorus as a pollutant of concern for the following: POTWs, Private and Institutional Developments, CSO Control Facilities, and applicable Non POTWs. An effluent limit for total phosphorus (lake discharges only) and monitoring for orthophosphate has been included in the permit to provide information for further analyses and development of appropriate numeric or narrative effluent limits. *Facilities discharging upstream from or directly into a lake*: A monthly average limit of 5.0 mg/L has been maintained in the draft permit to control nutrient loadings to lakes. *Other facilities:* Total phosphorus monitoring has been included in the draft permit in accordance with EPD's *Strategy for Addressing Phosphorus in NPDES Permitting*, 2011.

4.6 Nonconventional Pollutants (Continued)

Pollutants of Concern	Basis
Total Nitrogen (TN), Total Kjeldahl Nitrogen (TKN), Organic Nitrogen, Nitrate-Nitrite	Discharges of total nitrogen directly to or within the watershed upstream from waterbodies with total nitrogen water quality standards must undergo an analysis to determine if the discharge has the reasonable potential to cause or contribute to instream water quality standard violations. Based on the pollutant being present in the wastestream, EPD has identified total nitrogen as a pollutant of concern for the following: POTWs, Private and Institutional Developments, CSO Control Facilities, and applicable Non POTWs. Monitoring for TKN, organic nitrogen, and nitrate-nitrite has been included in the permit to calculate total nitrogen, quantify nutrient loadings in Georgia's River Basins, and provide information for further analyses and development of appropriate numeric or narrative effluent limits. Total nitrogen is the sum of all nitrogen forms or TN = TKN + nitrite + nitrate. Organic nitrogen, as N = TKN – ammonia, as N. Ammonia, organic nitrogen, nitrate-nitrite, and TKN must be analyzed or calculated from the same sample to correctly calculate total nitrogen.

4.7 Calculations for Effluent Limits

4.7.1 Five-Day Biochemical Oxygen Demand – All Systems:

- *Daily Maximum Concentration:*

$[C]_{Max}$ = $[C]_{Monthly}$ (mg/L) x 1.5

= 30.0 x 1.5

= 45.0 mg/L

Q = Flow
C = Concentration
M = Mass

4.7.2 Total Suspended Solids:

Mechanical Systems:

- *Daily Maximum Concentration:*

$[C]_{Max}$ = $[C]_{Monthly}$ (mg/L) x 1.5

= 30 x 1.5

= 45 mg/L

Pond Systems:

$[C]_{Max}$ = $[C]_{Monthly}$ (mg/L) x 1.33

= 90 x 1.33

= 120 mg/L

4.7.3 Bacteria:

Enterococci:

- *Daily Maximum Concentration:*

$[C]_{Max}$ = $C_{Monthly}$ (#/100 mL) x 2

= 35 x 2

= 70 #/100 mL

Escherichia coli:

- *Daily Maximum Concentration:*

$[C]_{Max}$ = $C_{Monthly}$ (#/100 mL) x 2

= 126 x 2

= 252 #/100 mL

4.7.4 Total Phosphorus:

- *Daily Maximum Concentration:*

$[C]_{Max}$ = $[C]_{Monthly}$ (mg/L) x 1.5

= 5.0 x 1.5

= 7.5 mg/L

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

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

Mechanical Systems:

Parameter	WQBELS (1)	TBELS (1)
	Monthly Average	*Monthly Average*
Five-Day Biochemical Oxygen Demand (mg/L)	**None**	**30.0**
Total Suspended Solids (mg/L)	None	**30**
Total Phosphorus (mg/L) (2)	**5.0**	None
E. coli (#/100 mL) (3)	**126**	None
Enterococci (#/100 mL) (3)	**35**	None
Total Residual Chlorine (mg/L), Daily Maximum	**0.011**	None
pH, (SU), Daily Minimum – Daily Maximum)	**6.0 – 8.5**	6.0 – 9.0
Temperature Increase (°F) (4)	**$T_\Delta \leq 0$**	None

(1) Effluent limits in bold were included in the permit. Refer to Sections 3.1, 4.4, and 4.9 above for more information.

(2) Total phosphorus limit is only applicable to facilities that discharge upstream or directly to a Lake; refer to your Notice of Coverage Letter to determine if this limit applies.

(3) Refer to your Notice of Coverage Letter to determine which bacteria limit applies

(4) Temperature Increase limit is only applicable to facilities that discharge to a Primary Trout Stream; refer to your Notice of Coverage Letter to determine if this limit applies.

Pond Systems:

Parameter	WQBELS [1]	TBELS [1]
	Monthly Average	*Monthly Average*
Five-Day Biochemical Oxygen Demand (mg/L)	None	**30.0**
Total Suspended Solids (mg/L)	None	**90**
Total Phosphorus (mg/L) [2]	**5.0**	None
E. coli (#/100 mL) [3]	**126**	None
Enterococci (#/100 mL) [3]	**35**	None
Total Residual Chlorine (mg/L), Daily Maximum	**0.011**	None
pH, (SU), Daily Minimum – Daily Maximum)	**6.0 – 8.5**	6.0 – 9.0
Temperature Increase (°F) [4]	**$T_\Delta \leq 0$**	None

[1] Effluent limits in bold were included in the permit. Refer to Sections 3.1, 4.4, and 4.9 above for more information.
[2] Total phosphorus limit is only applicable to facilities that discharge upstream or directly to a Lake; refer to your Notice of Coverage Letter to determine if this limit applies
[3] Refer to your Notice of Coverage Letter to determine which bacteria limit applies
[4] Temperature Increase limit is only applicable to facilities that discharge to a Primary Trout Stream; refer to your Notice of Coverage Letter to determine if this limit applies.

5. OTHER PERMIT REQUIREMENTS AND CONSIDERATIONS

5.1 Continuous Discharges from Privately-Owned Facilities or institutional developments

The proposed limits are expressed as monthly average and daily maximum in accordance with 40 CFR 122.45(d)(1) and EPD permitting practice for facilities serving institutional developments.

5.2 Industrial Pre-treatment Program (IPP)

Not applicable. Facilities covered under this general permit are privately-owned or serving an institutional development.

5.3 Sludge Management Plan (SMP)

This general permit authorizes permittees to dispose of sludge in a permitted landfill or to send sludge to an off-site preparer for further treatment and ultimate disposal.

If sludge generated at a facility is not disposed of in a permitted landfill or sent to an off-site preparer/permitted third-party, then EPD may terminate coverage under the general permit for a facility and issue an individual NPDES permit. The permittee shall submit a sludge management plan to EPD for review and approval. The SMP will become part of the individual NPDES permit.

Disposing of sludge through land application is not permitted under this general permit.

5.4 Watershed Protection Plan (WPP)

Not applicable. Facilities covered under this general permit are privately-owned or serving an institutional development.

5.5 Service Delivery Strategy

Not applicable. Facilities covered under this general permit are privately-owned or serving an institutional development.

5.6 Metropolitan North Georgia Water Wastewater Plan

Not applicable. Facilities covered under this general permit are privately-owned or serving an institutional development.

5.7 Compliance Schedules

Effluent limitations are applicable immediately upon the effective date of the permit.

5.8 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.

The replacement of the fecal coliform effluent limit with either *E. coli* or Enterococci effluent limits is considered equivalently protective of the instream water quality fecal coliform criteria. The *E. coli* or Enterococci effluent limits apply water quality criteria at the "end-of-pipe" and a discharge in compliance with the effluent limits will not cause or contribute to excursions above the new water quality criteria for *E. coli* or Enterococci criteria. Therefore, EPD believes that the replacement of fecal coliform effluent limits with *E. coli* or Enterococci effluent limits is compliant with Section 303(d)(4)(A) and Section 303(d)(B) of the CWA as the existing effluent limitations are based on either a WLA or TMDL, and the water quality modeling indicates that attainment of the water quality standards is assured. EPD does not believe that the change in bacteria indicator will result in further degradation of the receiving water(s) or have any effect whatsoever regarding the protection of designated uses. Hence, changing the pathogen indicator and associated effluent limits in NPDES point source permits for fecal coliform is not considered backsliding. The inclusion of *E. coli* and Enterococci effluent limits simply use a different pathogen indicator to provide the same level of protection for the designated use of primary and secondary contact recreation as is currently required in Section 301(b)(1)(C) of the CWA and at 40 CFR 122.44(d).

6. REPORTING

6.1 Compliance Office

The compliance office will be identified in the Notice of Coverage letter.

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 General NPDES permit GAG550000 subject to the effluent limitations and special conditions outlined above. These determinations are tentative.

The Notice of Intents, draft permit, and other information are available for review at 2 Martin Luther King Jr. Drive, Suite 1470A East, Atlanta, Georgia 30334, between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday.

For additional information, you can contact Anyssa Fernandez at *anyssa.fernandez@dnr.ga.gov* or Benoit Causse at Benoit.causse@dnr.ga.gov

9.2 Public Comments

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

9.3 Public Hearing

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

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

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

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

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

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

9.4 Final Determination

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

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

9.5 Contested Hearings

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

Petitions for a contested hearing must include the following:

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