

# Georgia Department of Natural Resources

Environmental Protection Division • Watershed Protection Branch  
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Judson H. Turner, Director

June 1, 2015

Mr. Joe Cook, Advocacy & Communication Director  
Coosa River Basin Initiative  
408 Broad Street  
Rome, GA 30161

RE: Cherokee County Water & Sewerage Authority  
Fitzgerald Creek Water Pollution Control Plant  
NPDES Permit No. GA0050218  
(Cherokee County)

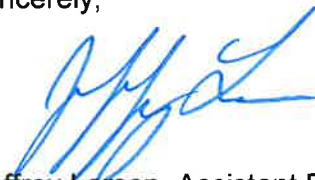
Dear Mr. Cook:

Thank you for your letter regarding the permit for the Fitzgerald Creek Water Pollution Control Plant. After consideration of your comments received on March 3, 2015, EPD has re-evaluated the ammonia limit in the permit. We have determined that the permit as revised is protective of water quality standards and we have issued the permit.

We have included an attachment, which addresses your concerns submitted during the public comment period. We appreciate your interest in this matter.

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

Sincerely,



Jeffrey Larson, Assistant Branch Chief  
Watershed Protection Branch

JL\bsc  
Attachment: Response to comments

**ATTACHMENT – Response to Comments**  
Cherokee County Water & Sewerage Authority  
Fitzgerald Creek Water Pollution Control Plant (WPCP)  
NPDES Permit No. GA0058555  
(Cherokee County)

**Comment # 1: As the watershed above Lake Allatoona continues to develop, non-point source pollution will become an increasing problem. The Total Phosphorus limits in the permit should be reduced.**

EPD Response:

The Total Phosphorus limits in the permit meets the requirement of the April 2013 Total Maximum Daily Load (TMDL) for Chlorophyll-a for Lake Allatoona. The TMDL allocates a Total Phosphorus (TP) load for the Fitzgerald Creek WPCP of 5,000 lbs/year.

**Comment # 2: The TMDL lacks specific targeted reductions for the Little River. Is there a targeted phosphorus and nitrogen reduction for the Little River? If so, what is that reduction goal and does this permit aid in reaching that goal?**

EPD Response:

The Total Phosphorus load of 5,000 lbs/year for the Fitzgerald Creek WPCP is based on the 2004 Chlorophyll a TMDL developed for the Little River Embayment in the Coosa River Basin. The wasteload allocation (WLA) given to the ConAgra Poultry Plant was reallocated when ConAgra relocated its discharge to Cherokee County Water and Sewerage Authority's Fitzgerald Creek WPCP. The average total phosphorus discharge by ConAgra Poultry Plant for 2000-2002 was 50.8 lbs/day or 18,542 lbs/year. The Fitzgerald Creek WPCP WLA represents a 73% reduction. Please note that the 2004 Little River Embayment TMDL did not provide for a WLA for Total Nitrogen.

**Comment # 3: Since there is no monitoring data available for Total Kjeldahl Nitrogen and Nitrate-Nitrite, is it possible to determine what nitrogen limits would be appropriate for achieving reductions in total nitrogen?**

EPD Response:

The 2013 Lake Allatoona Chlorophyll a TMDL allocates a Total Nitrogen (TN) load of 348,500 lbs/year to the Fitzgerald Creek WPCP, which is equivalent to an annual average TN concentration of 22.9 mg/L and 9.7 mg/L at the permitted flows of 5.0 MGD and 11.75 MGD, respectively. Lake Allatoona is a phosphorus limited system and if the limiting nutrient is controlled, reductions to the nitrogen loads are not necessary. As stated in the TMDL, "Georgia EPD will incorporate the Total Phosphorus WLAs in NPDES permits within eighteen months and permittees may be given compliance schedules. Using the adaptive management approach, the Total Nitrogen WLAs will not be implemented in permits at this time as long as the Lake Allatoona chlorophyll a and Total Nitrogen standards are met." However, Total Kjeldahl Nitrogen, organic nitrogen and nitrate-nitrite monitoring has been included in the permit.

**Comment # 4: The bacteria limits of 200 colonies/100mL on a monthly average and 400 colonies/100mL on weekly average are not acceptable.**

The limits in the permit meet the requirement of the 2009 Total Maximum Daily Load (TMDL) for fecal coliform bacteria in the Little River and the water quality standard for recreational water. The TMDL recommends that all point source facilities be given an end-of-pipe limit of 200 counts/100mL (monthly geometric mean).

**Comment # 5: A 400 colonies/100mL weekly limit is two times the State standard for recreational water. The State should not issue permits that include limits that exceed the state's own water quality standards for recreational water.**

EPD response:

There is no water quality standard for fecal coliform bacteria in recreational waters for a 7-day period; therefore, the permit is more stringent than the State Rules. The water quality standard for fecal coliform bacteria in recreational waters is 200 colonies/100mL (geometric mean) over a 30-day period.

**Comment # 6: The State's water quality standards for bacteria in recreational water should be changed.**

EPD response:

This comment has been noted.

**Comment # 7: The ammonia limits of 1.5 mg/L (monthly average) and 2.3 mg/L (weekly average) are unacceptable. The ammonia limits should not exceed U.S. Environmental Protection Agency's criteria for chronic exposure of 1.9 mg/L (at pH = 7.0 and T = 20°C)**

EPD response:

The U.S. Environmental Protection Agency's criterion for chronic exposure of 1.9 mg/L is assuming an Instream Wastewater Concentration (IWC) of 100%, which is not the case for Fitzgerald Creek WPCP.

The permitted discharge flows have been re-evaluated. Consequently, the ammonia limit in Part I.B.2 has been decreased in the final permit from 1.5 to 1.1 mg/L. Both ammonia limits in the permit meet the 2013 U.S. Environmental Protection Agency's updated water quality criteria for Ammonia.

A multiplier of 1.5 has been applied to the ammonia monthly limits to determine the weekly limits in the permit. The weekly average limits are included in the permit to ensure that the plant is operating within its expected performance range.

**Comment # 8: The pH limits should be reduced to 6.0-8.0. Ammonia toxicity increases as pH levels and water temperature levels increase. The chronic exposure criteria for Ammonia at pH = 7.9 and T = 24°C is 0.69 mg/L.**

The pH limits in the permit (6.0-8.5) are in compliance with the water quality standard for recreational waters. It has been determined that the pH of the receiving stream after mixing with the effluent will be below 8.2.

The chronic exposure criteria of 0.69 mg/L for Ammonia (at pH = 7.9 and T = 24°C) is assuming no dilution in the receiving stream, which is not representative of the actual conditions. The Ammonia limits in the permit were obtained assuming critical flows conditions and using pH and temperature of the receiving stream after mixing with the effluent. Both ammonia limits in the permit meet the 2013 U.S. Environmental Protection Agency's updated water quality criteria for Ammonia.

**Comment # 9: Does EPD plan to utilize NPDES permits to facilitate nutrient trading programs?**

EPD response:

The 2013 Lake Allatoona Chlorophyll a TMDL states "In accordance with GA EPD rules and regulations, all discharges from point source facilities are required to be in compliance with the conditions of their NPDES permit at all times. In the future, all municipal and industrial wastewater treatment facilities with the potential for nutrients to be their discharge will only be permitted if there can be an appropriate decrease in the non-point source load or another point source load. This may be allowed under a pollutant-trading program that will allow point to nonpoint source trading and/or nonpoint (agricultural) to nonpoint (urban) source trading. Wastewater treatment facilities may be able to increase their nutrient discharge if there is an appropriate reduction in the non-point source load or another point source load, and this reduction is maintained."