



GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Watershed Protection Branch

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Suite 1152, East Tower
Atlanta, Georgia 30334
404-463-1511

SEP 29 2017

Honorable Willis NeSmith, Mayor
City of Lyons
161 NE Broad Street
Lyons, GA 30436

RE: CW2016-005
North WPCP Expansion to 1.5 MGD
Design Development Report (DDR)
NPDES Permit No. GA0033391
EPD # 2016-245
(Toombs County)

Dear Mayor NeSmith:

We have completed our review of the Design Development Report (DDR) for the above-referenced project and have no comments. We hereby concur with the document.

A description of the project appears in the attachment. Please verify that the description is correct. Do not hesitate to contact me at 404-463-4958 or benoit.causse@dnr.ga.gov if any changes are necessary.

Sincerely,

Benoit Causse
Municipal Permitting Unit
Wastewater Regulatory Program

Attachment(s): Project Description

cc: Mr. John Fry, P.E., Hofstadter & Associates, Inc. (john.hofstadter@gmail.com)
Ms. Charlotte Neville, EPD Coastal District Office (charlotte.neville@dnr.ga.gov)
Mr. Jason Hall, City of Lyons (jhall@lyonsga.org)

Chemical feed system for phosphorus removal

- Two 545-gal tanks for Alum storage
- Four metering pumps delivering 12 gal/hr each

Biological treatment:

- Provide one new 1.1-MGD treatment train as follows:
 - Anaerobic tank: 144,000 gal (3 cells)
 - Anoxic tank: 182,300 gal (2 cells)
 - Aeration tank: 1,046,000 gal
 - Post-anoxic tank: 319,100 gal
 - Re-aeration tank: 35,900 gal
 - Internal Recycle (IR) from aeration tank to anoxic tank
 - Return Activated Sludge (RAS) from clarifier to anaerobic tank
- Re-rate existing treatment train to 0.4 MGD and reconfigure as follows:
 - Anaerobic zone: 52,300 gal (3 cells)
 - Pre-anoxic zone: 66,000 gal (2 cells)
 - Aerobic zone: 379,900 gal
 - Post-anoxic zone: 116,000 gal
 - Post-aerobic zone: 13,200 gal
 - Internal Recycle (IR) from aeration tank to anoxic tank
 - Return Activated Sludge (RAS) from clarifier to anaerobic tank
- Four blowers providing 900 SCFM each
- Fine bubbles air diffuser system

Secondary clarifiers:

- One 62 ft (Dia.) x 16 ft (SWD) clarifier
- One 45 ft (Dia.) x 13 ft (SWD) clarifier

Filtration

- Two disk filters providing 430 ft² of effective filtration area each

Disinfection

- One channel, two banks (3.0-MGD peak capacity)
- UV dose to meet fecal coliform limit of 200 CFU/100mL at 65% transmittance and TSS ≤ 30 mg/L

Post aeration

- One 12-ft cascade aerator

Solids stabilization

- Two 750,000-gal aerobic digesters
- Coarse bubble diffused air system
- Five blowers providing 1,500 SCFM each

Solids dewatering

- One 2.0-meter belt press, 300 gpm feed rate
- Dewatered sludge to be disposed of in a landfill