Public Comments and EPD Responses on Draft Permit
Waterside North Water Reclamation Facility
LAS Permit No. GAJ040053

Comment	Response to Comment
The feasibility of connecting to an existing wastewater treatment system should be formally evaluated prior to establishing a new discharge or LAS. New LAS permits or direct discharge permits to watersheds impaired for nutrients should be considered only if existing alternatives are not feasible. As written, this permit application makes no feasibility assessment regarding alternatives to a new LAS permit.	Connecting to an existing system where capacity exists is sometimes required at the local level. The development served by the Waterside North Water Reclamation Facility is not in proximity of the Hall County sanitary sewer collection system and is outside of the City of Buford's city limits. A description of the different alternatives that were evaluated is provided on page 8 of the Design Development Report (DDR).

Discharge from the mechanical plant and groundwater water monitoring should include total phosphorus (TP) and ammonia (Draft Permit No. GAJ040053 Part I B.1 and Part I B.3). As written, the permit requires only limited nutrient monitoring. Additional effort and attention must be given to quantifying phosphorus contributions to tributaries to the Lake Lanier Watershed. LAS are identified as potential contributors to nutrient impairments in Lake Lanier, but data quantifying the potential magnitude of their contribution is scarce. Monitoring for phosphorous and nitrogen in LAS permits will inform efforts to quantify and address contributions Lake Lanier's Chlorophyll-a impairment.	The "Final Total Maximum Daily Load Evaluation for Lake Lanier in the Chattahoochee River Bains for Chlorophyll a" (2017) identifies LAS as possible contributors. Specifically, the TMDL identifies runoff during storm events and exceeding percolation rate as possible sources of contributions to nutrients in surface waters. The purpose of groundwater monitoring in LAS permit is meant to verify compliance with drinking water maximum contaminant levels (MCLs) in order to be protective of sources of drinking water. Groundwater monitoring for nutrients would not be representative of potential nutrient loading to surface water, nor would it help with the identification of instances of runoff or over-application. The LAS consists of a pretreatment system and below ground drip irrigation. Flow monitoring and rainfall monitoring, which are both included in the permit, are the primary mechanisms for ensuring that surfacing of wastewater does not occur. Therefore, groundwater monitoring for additional parameters is not warranted at this time.

The 5-year return monthly precipitation that was utilized as the basis of design was calculated incorrectly. In accordance with EPD drip irrigation guidelines (Section 3.7.4), the standard deviation of the 30-year historic record for each month is to be utilized to determine the 5-year return monthly precipitation rather than the standard deviation of the monthly averages for the year. The approach presented in the DDR underestimates the design monthly precipitation (5-year return) and does not allow for identification of the critical water balance month. The water balance calculations and determination of the critical water balance month serve as the basis for the storage and wetted area requirements for the irrigation system. Therefore, it is our concern that the draft permit is based upon calculations developed without proper design loading calculations and there may be inadequate wetted area within irrigation system as presented in the DDR to assimilate the effluent reuse water (including the design daily flow and 30-day storage elimination). This may lead to runoff into the waterways that feed the City of Buford's drinking water supply. We request that the draft permit be denied as submitted and water balance be revised to include the appropriate calculation of the 5-year return monthly precipitation, and subsequently provide revised calculations of the appropriate storage and wetted area requirements (included that necessary to eliminate storage) and added irrigation system design, as necessary.	Upon verification, the original DDR did include incorrect design (5-year return) precipitation values in the water balance calculations. On February 25, 2025, the permittee submitted a DDR amendment which included revised water balance calculations. The 5-year return monthly precipitation values were updated in accordance with Section 3.7.4 of EPD's *Guidelines for Land Treatment of Municipal Wastewater by Drip Irrigation*, 1996. This resulted in a total annual design (5-year return) precipitation of 81.8 inches, which was consistent with the results for other projects in the same geographical area. The revised water balance tables indicated that no water balance storage is required for the facility. Additionally, the total acreage provided for the drip irrigation zones exceeds the minimum required wetted area as determined in the DDR amendment. EPD concurred with the DDR amendment on March 6, 2025.

In the Detailed Soils Report conducted by Geosciences Engineering (Appendix J of the original DDR, dated October 2023), p. 14, section 3.0 Adverse Site Conditions: "If necessary, areas that were cut and filled in the past .... will be reevaluated at a later stage of this development when the fill is removed and the site has reached the final grade." The DDR Addendum also states that "drip irrigation systems perform best in locations with undisturbed, medium textured soils and gentle to moderate slopes" and that "the geotechnical engineer shall monitor grading activities to confirm suitability ... " Furthermore, the October 2023 DDR and the DDR Addendum (dated September 6, 2024), pp. 9 of 14, states that "If the results are greater than 10% less than the existing soil investigation, the soil capacity will need to be reassessed." Therefore, it is our objection that the draft permit is based upon calculations developed without proper soils testing conducted post disturbance, which may vary from the actual permeability of the soils, leading to runoff into the waterways and affecting the City of Buford's drinking water supply. We request that the draft permit be denied as submitted and updated soils investigation conducted in the proposed drip fields post disturbance be included as a special condition of the any new application to ensure that the soils can perform adequate infiltration of the effluent reuse water, and we be provided with all data in order to determine its feasibility.	On February 25, 2025, the permittee submitted a DDR amendment which specified that confirmation testing of the vertical permeability of the soil will be conducted after the site has been cleared and root grubbed. EPD concurred with the DDR amendment on March 6, 2025 and requested that the test results be submitted as soon as they become available. Upon review of the results, EPD will re-evaluate the capacity of the drip fields as determined in the DDR amendment if the soil permeability test results are more than 10% less than values from previous soil investigations. A permit modification to reduce the application rate may be needed. The permittee will not be given authorization to operate under the LAS Permit until confirmation testing has been provided and evaluated by EPD, and a permit modification, if necessary, has been completed .
Runoff will be exacerbated with the steep slopes of the fields and the chances of runoff increasing. Per EPD drip irrigation guidelines section 3 .1.2, "Maximum grades for wastewater drip fields should be limited to between 20 and 25% .... Because subsoils may become saturated at times, lateral subsurface flows could potentially emerge on the slopes or produce slides on unprotected slopes". As stated in the DDR Addendum, some of the finished grade slopes will exceed 25% with the crop being Bermuda grass. If a field becomes trenched and rutted and runoff is occurring due to steep slopes and wet soils, we request that the field be removed from the LAS. Therefore, we object that there are not adequate reserve fields available for backup in the likely case of failure.	On February 25, 2025, the permittee submitted a DDR amendment which included a revision to the layout of the proposed dripfields. All existing slopes within Zone A & B of the drip field have been reduced as to not exceed a maximum slope of 25%. EPD concurred with the DDR amendment on March 6, 2025.

The storage basins are located within sixty feet of an unnamed tributary. If the storage basins reach capacity and overflow, there is not much time or distance before it runs into the stream. The City requests that the draft permit be denied as submitted and that any new application that EPD require a greater buffer between storage units and the unnamed stream.	The proposed buffer between the storage tanks and the unnamed tributary is in accordance with applicable State and County undisturbed buffer requirements.
The City of Buford requests that it be provided with physical access to all monitoring stations, as well as access to the monitoring data and advanced notification of any spills.	Requests for property access or advanced notification should be made directly to the property owner. Monitoring data and noncompliance notifications will be reported to EPD in accordance with Parts I.A.3 and II.A.2-4 of the permit. The City of Buford may access all monitoring data and notices of noncompliance submitted to EPD via open records request by contacting: GORArequest.Water@dnr.ga.gov.
EPD should require the most stringent controls and safety measures to ensure that sewage effluent from the proposed system neither degrades the quality of the lake's water nor poses an environmental hazard in the event of heavy rainfall or flooding.	The proposed wastewater treatment system has been designed in accordance with EPD's *Guidelines for Land Treatment of Municipal Wastewater by Drip Irrigation*, 1996 and meet standards for reuse as described in EPD's *Guidelines for Water Reclamation and Urban Water Reuse*, 2022.