

Alamo, Austin, and Lone Star chapters of
the Sierra Club

Bexar Audubon Society

Bexar and Travis-Austin Green Parties

Bexar Grotto

Boerne Together

Bulverde Neighborhood Alliance

Bulverde Neighbors for Clean Water

Cibolo Center for Conservation

Citizens for the Protection of Cibolo Creek

Comal County Conservation Alliance

Environment Texas

First Universalist Unitarian Church of SA

Fitzhugh Neighbors

Friends of Canyon Lake

Friends of Castroville Regional Park

Friends of Dry Comal Creek

Friends of Government Canyon

Fuerza Unida

Green Society of UTSA

Guadalupe Riverkeepers

Guadalupe River Road Alliance

Guardians of Lick Creek

Headwaters at Incarnate Word

Helotes Heritage Association

Hill Country Alliance

Kendall County Well Owners Association

Kinney County Ground Zero

Leon Springs Business Association

Native Plant Society of Texas – SA

Northwest Interstate Coalition of NA's

Pedernales River Alliance – Gillespie Co.

Preserve Castroville

Preserve Lake Dunlop Association

Preserve Our Hill Country Environment

RiverAid San Antonio

San Antonio Audubon Society

San Antonio Conservation Society

San Geronimo Valley Alliance

San Marcos Greenbelt Alliance

San Marcos River Foundation

Save Barton Creek Association

Save Our Springs Alliance

Scenic Loop/Boerne Stage Alliance

Securing a Future Environment

SEED Coalition

Signal Hill Area Alliance

Sisters of the Divine Providence

Solar San Antonio

Texas Cave Management Association

Trinity Edwards Spring Protection Assoc.

Water Aid – Texas State University

Wildlife Rescue & Rehabilitation

The Watershed Association

PO Box 15618, San Antonio, Texas 78212

October 31, 2024

Texas Commission on Environmental Quality

Office of the Chief Clerk, MC 105

P.O. Box 13087

Austin, Texas 78711-3087

Submitted electronically at <http://www14.tceq.texas.gov/epic/eComment/>

Re: Comments and Request for a Meeting and a Hearing Regarding
Lakeside Georgetown LLC. proposed Texas Land Application Permit
(TLAP) No. WQ0016499001

Please accept the amended attached comments on behalf of the sixty-
one member groups of the Greater Edwards Aquifer Alliance.

1. **Background.** Lakeside Estates Georgetown, LLC, 4126 Remington Road, Cedar Park, Texas 78613, has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit, Proposed TCEQ Permit No. WQ0016499001 to authorize the disposal of treated domestic wastewater at a daily average flow not to exceed 380,000 gallons per day via surface irrigation of 101 acres of public access residential green space.

The wastewater treatment facility and disposal site will be located approximately 1.7 miles northeast of the intersection of Cross Creek Road and Lightning Ranch Road, in Williamson County, Texas 78628. The wastewater treatment facility and disposal site will be located in the drainage basin of Lake Georgetown in Segment No. 1249 of the Brazos River Basin.

2. **Greater Edwards Aquifer Alliance (GEAA).** GEAA submits the following comments on behalf of its sixty-one member organizations and requests a public meeting and a contested case hearing, and be recognized with standing regarding this permit application. GEAA is a 501(c)(3) nonprofit organization that promotes effective broad-based advocacy for protection and preservation of the Edwards Aquifer, its springs, watersheds, and the Texas Hill Country that sustains it. GEAA has multiple members who would be adversely affected by the proposed application by Lakeside Estates Georgetown, LLC.

GEAA's members have serious concerns regarding the permit application, relating to the degradation to the North Fork San Gabriel River and Lake Georgetown, the Edwards Aquifer, and area water

wells that will likely occur with the irrigation of treated sewage in the proposed development area.

3. Specific Concerns Regarding the Permit Application. As noted in the Notice of Application and Preliminary Decision, Lakeside Estates Georgetown, LLC. is seeking the disposal of treated domestic wastewater via surface irrigation of 101 acres of public access residential green space that will serve the new residential development of Lakeside Estates

- a. Effluent Limitations: The effluent discharge levels in the application grant the Lakeside Estates Wastewater Treatment Facility (WWTF) an effluent discharge level limits of 5 mg/l biochemical oxygen demand (CBOD5) and 5 mg/l total suspended solids (TSS), with no set limits for ammonia-nitrogen (NH₃-N), dissolved oxygen (DO), and total phosphorus (TP). GEAA would request more stringent effluent treatment standards that our protective of the surrounding waterbodies and lands for the following reasons.

First, NH₃-N, ammonia-nitrogen, is a crucial nutrient in wastewater treatment as it is utilized by bacteria to make proteins needed to break down food as well as make energy. However, high concentrations of ammonia nitrogen present in wastewater can lead to adverse environmental impacts on surrounding lands, soils, and waterbodies. Elevated levels of ammonia nitrogen can disrupt the balance of nutrients in the permit area's lands and soils, potentially leading to an overabundance of nitrogen. This can negatively affect the availability of other essential nutrients, which plants need for healthy growth. Further, increase concentrations can acidify soils over time, affecting microbial activity, nutrient availability, and soil fertility. For surrounding waterbodies, water quality impacts would result during oversaturation events due to the project area's soils (see Section C) and during high rainfall events. Water quality implications for the surrounding waterbodies would include toxicity to aquatic organisms by affecting metabolism and gill function, elevated risk of eutrophication, and unpleasant odor issues.

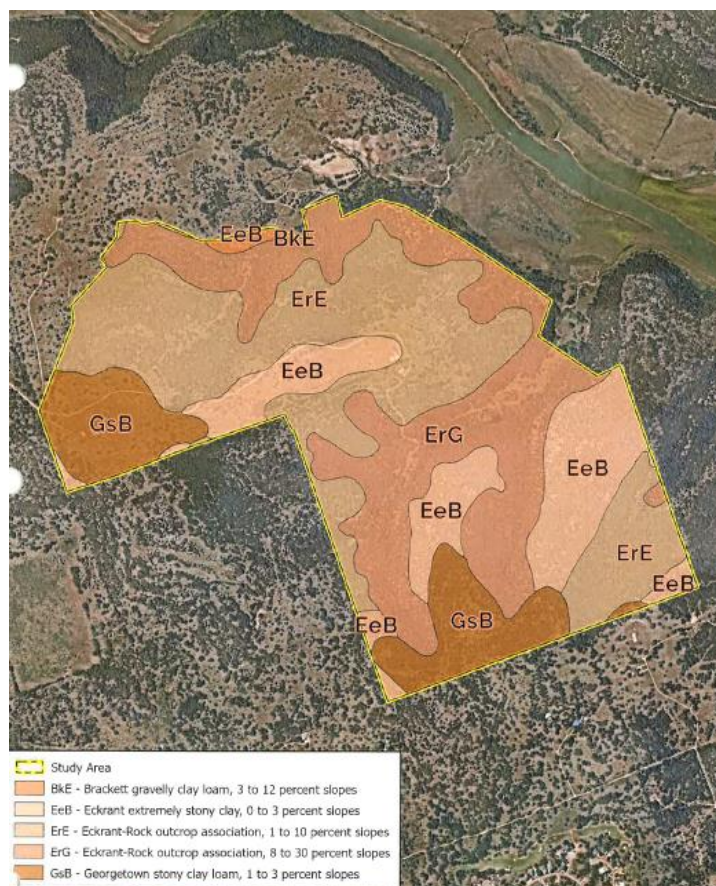
Second, DO refers to the amount of oxygen that is readily available for lands and waterbodies, and is a direct indicator of their environmental health. For lands and soils, adequate levels of dissolved oxygen are essential for root respiration, soil microorganisms, and proper soil infiltration and retention rates. Improper levels of DO can lead to root die-off, reduced nutrient availability, accumulation of undecomposed organic matter, and poor soil aggregation and porosity. For waterbodies, low dissolved oxygen levels can be indicative of nutrient overload from runoff, leading to algal blooms and subsequently oxygen depletion, affecting the waterbodies aquatic life.

Lastly, TP is a "limiting nutrient" in ecosystems, meaning the quantity of this nutrient controls the pace of algal and aquatic plant production. However, excess quantities of phosphorus, even in small amounts, can lead to nutrient imbalances in soils, soil chemistry alterations such as increase nutrient saturation and soil acidification, and eutrophication and harmful algal growth in a waterbody.

GEAA strongly encourages the adoption of a 2 mg/l ammonia-nitrogen limit, a 5 mg/l dissolved oxygen limit, and a 0.5 mg/l total phosphorus limits; **bringing the effluent discharge level to a 5mg/l CBOD5, 5mg/l TSS, 2 mg/l NH3-N .50 mg/l TP, and a 5 mg/l DO maximum effluent discharge limit.**

- b. Inclusion of *E.coli* Parameter: In addition to lax pollution limits in the application, there also is no limit in for *E. coli* bacteria, which is deeply concerning, given the potential health hazard *E. coli* represents and the fact that direct pathways exists from effluent to groundwater to drinking water wells of area residents. Lakeside Estates Georgetown, LLC. states in the application there are 37 wells found within a mile radius of the effluent irrigation fields, 8 of those wells being within half a mile radius of the effluent irrigation fields. We therefore recommend that Lakeside Estates adopt the federal recommendation of an *E.coli* limit of 126 CFUs/100 ml), with weekly testing.
- c. Soil Types and Runoff Impacts: As noted in the permit application, the soil types in the project area include: a) Eckrant-Rock outcrop (ErE), b) Eckrant-Rock outcrop (ErG), c) Eckrant extremely stony clay (EeB), d) Georgetown stony clay loam (GsB), and e) Brackett gravelly clay loam (BkE) (Figure 1)

Figure 1: Soil Type Maps for Lakeside Estates



As can be seen from Fig. 1, majority of the soils found within the Lakeside Estates area fall within the Eckrant soil family. In fact, 85.7% of the soils in Lakeside Estates are Eckrant soil types. The Eckrant soil type is classified as a “Group D” soil under the United States Department of Agriculture’s Hydrologic Soil Groups. A “Group D” soil type means the soil has a very slow infiltration rate when wetted, indicating they also have a very high runoff potential. Further, the other soil types found within the Lakeside Estates area, Brackett gravelly clay loam and Georgetown stony clay loam, have a “Group C and D” hydrologic soil type designation respectively. A “Group C” designation indicates the soil has a slow infiltration rate when wetted, indicating a high runoff potential. The types of soils found throughout the Lakeside Estates development raise concerns about runoff potential of effluent and stormwater runoff into surrounding wells, lands, and waterbodies due to increased risk of oversaturated irrigation areas across the development

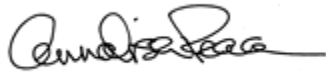
- d. Impacts on Karst Features: According to the application, 34 karst features along with 13 springs and seeps were identified across the Lakeside Estates development. Out of the 34 karst features, 8 were identified to be sensitive to recharge. The sheer number of identified karst features found in the project raises serious concerns on the difficulty to keep effluent from flowing through these sensitive karst features and directly into the Edwards Aquifer, the main water source for this area. We suggest the addition of requirements for natural buffer areas as recommended in TCEQ EAPP Chapter 5, rg348, sized based on the drainage area for the feature, for each identified sensitive karst feature. The natural buffer around a feature should extend a minimum of 50 feet in all directions. Where the boundary of the drainage area to the feature lies more than 50 feet from the feature, the buffer should extend to the boundary of the drainage area or 200 feet, whichever is less.¹
- e. Incompleteness of Application: There are several sections in the application where Lakeside Estates Georgetown, LLC. failed to provide a concise answer to key questions; answer given by the applicant was stating, “...one will be selected prior to startup.” Noted sections included: a) Summary Transmittal approval; Domestic Technical Report 1.0, Section 6, b) Facility Operator; Domestic Technical Report 1.0, Section 8, and c) Sludge Disposal Site; Domestic Technical Report 1.0, Section 9. GEAA wishes to learn the answers to these sections as soon as possible and encourages TCEQ to get clarity on these matters before deciding to grant this draft permit.

4. Conclusion. In summary, TCEQ needs to stop issuing draft TLAP permits with such lax standards, such as the Lakeside Estates WWTF draft permit. While requiring no nutrient limits assures a low-cost wastewater treatment plant for the developer, padding their bottom line, it comes at the expense of Central Texas’ water resources. Lax wastewater permits go against TCEQ’s charter and mandate to protect the quality of Texans’ water. We therefore encourage TCEQ to reject the Lakeside Estates Georgetown, LLC’s wastewater permit in its entirety.

¹ <https://www.tceq.texas.gov/downloads/publications/rg/chapter-5-rg-348.pdf>

Thank you for the opportunity to submit these comments.

Respectfully,

A handwritten signature in black ink, appearing to read "Annalisa Peace". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Annalisa Peace
Executive Director
Greater Edwards Aquifer Alliance

A handwritten signature in black ink, appearing to read "Nathan Glavy". The signature is cursive, with the first name "Nathan" being more prominent and the last name "Glavy" following in a similar style.

Nathan Glavy
Technical Director
Greater Edwards Aquifer Alliance

