

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

Bexar Audubon Society

Austin, Bexar and Travis Green Parties

Bexar Grotto

Boerne Together

Bulverde Neighborhood Alliance

Bulverde Neighbors for Clean Water

Cibola Center for Conservation

Citizens for the Protection of Cibola Creek

Comal County Conservation Alliance

Environment Texas

First Universalist Unitarian Church of SA

Friends of Canyon Lake

Friends of Dry Comal Creek

Friends of Government Canyon

Fuerza Unida

Green Society of UTSA

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
Neighborhoods

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

Wimberley Valley Watershed Association

October 21, 2022

Laurie Gharis, Chief Clerk

Office of the Chief Clerk, MC 105

Texas Commission on Environmental Quality

PO Box 13087

Austin, TX 78711-3087

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

Re: Comments and Hearing Request Regarding the Major Amendment Application
of the City of Kyle for TPDES Permit No. WQ0011041002

Please accept the attached comments on behalf of the fifty-four member groups of
the Greater Edwards Aquifer Alliance.

1. **Background.** City of Kyle, 100 West Center Street, Kyle, Texas 78640, has
applied to the Texas Commission on Environmental Quality (TCEQ) for a major
amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No.
WQ0011041002 to authorize an increase in the discharge of treated domestic
wastewater from an annual average flow limit not to exceed 4,500,000 gallons per
day to an annual average flow limit not to exceed 12,000,000 gallons per day and
the addition of an Interim II phase at an annual average flow not to exceed
9,000,000 gallons per day.

The facility is located at 941 New Bridge Drive, in Hays County, Texas 78640. The
treated effluent is discharged directly to Plum Creek in Segment No. 1810 of the
Guadalupe River Basin. The designated uses for Segment No. 1810 are primary
contact recreation, aquifer protection, and high aquatic life use.

2. **Greater Edwards Aquifer Alliance (GEAA).** GEAA submits the following
comments on behalf of our fifty-four member organizations and requests a
contested case hearing regarding this permit application. GEAA also requests that
our organization is recognized as an affected party with standing to represent our
members who are adjacent landowners. GEAA is a 501(c)(3) nonprofit organization
that promotes effective broad-based advocacy for the 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 amendment of the City of Kyle.

GEAA's members have serious concerns regarding the permit application and draft
permit, and regarding the degradation to Plum Creek that will likely occur with the
increased discharge of treated sewage into these waterways. GEAA and its
members' specific areas of concern are summarized in the following section of this
letter.

3. **Comments on the application.** As noted in the Notice of Application and Preliminary Decision for TPDES Permit for Municipal Wastewater, the discharge route is from the City of Kyle Wastewater Treatment Facility directly to Plum Creek in Segment No. 1810 of the Guadalupe River Basin. There are several areas of concern with the current application:

A. Effluent Discharge Levels: The effluent discharge levels in the application currently depict a phased approach for effluent discharge levels as the expansion of the City of Kyle Wastewater Treatment Facility (WWTF) occurs, with the applicant requesting effluent discharge level limits of 5 mg/l carbonaceous biochemical oxygen demand (CBOD₅), 15 mg/l total suspended solids (TSS), 2 mg/l ammonia-nitrogen (NH₃-N), 5 mg/l dissolved oxygen (DO), and 0.5 mg/l total phosphorus (TP).

Total suspended solids are waterborne particles that are larger than 2 microns that float or “suspend” in water. A variety of particles can be considered suspended solids, including plankton, sand, and sediment. In some instances, algae and bacteria may also be considered total suspended solids. The impact total suspended solids have on water quality is associated with a waterbody’s clarity. The higher the amount of total suspended solids present in a waterbody, the increased chance of lowering the waterbody’s natural dissolved oxygen level and increasing its water temperature. These implications would threaten the survival of the high aquatic life that is present in Plum Creek, the receiving waterbody for the City of Kyle’s WWTF’s discharged effluent. Further, the increased levels of total suspended solids could block the needed sunlight that Plum Creek utilizes for photosynthesis; decreasing the survival of plants and further decreasing the waterbody’s oxygen levels.

GEAA strongly encourages the adoption of a Total Suspended Solids limit of 5 mg/l; **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. Water Quality and Quantity Impacts: As stated in the amendment application, the discharged effluent will flow directly into Plum Creek, Segment No. 1810 of the Guadalupe River Basin at a maximum rate of 12,000,000 gallons per day. Since 2008, Plum Creek has been actively following strategies found in a United States Environmental Protection Agency (USEPA) sponsored watershed protection plan (WPP) to restore and protect the water quality of Plum Creek. According to the Plum Creek WPP¹, water quality data dating back to 1998 indicated *E. coli* levels were not meeting Texas water quality standards for recreation use. Further, a 2022 Plum Creek WPP update² revealed that the upper, middle, and lower reaches of Plum Creek are still not meeting water quality standards for *E. coli*, and are listed in the Texas Commission on Environmental Quality’s (TCEQ) Integrated Report; a biannual report indicating the water quality status of Texas’ natural waters.

The 2022 Plum Creek WPP update also showed that Plum Creek is currently receiving treated wastewater discharge from 23 outfalls that are associated with 18 different TPDES permits across the watershed area (with three permits still pending). From these outfalls, prior to the potential approval of this major amendment, Plum Creek has the potential to receive an approximate range of 9.8 – 19.8 million gallons of treated effluent. With the potential increase of treated effluent entering Plum Creek

¹Berg, Matt, et al. Plum Creek Watershed Partnership, College Station, TX, 2008, pp. 1–170, Plum Creek Watershed Protection Plan.

²Plum Creek Watershed Partnership. Plum Creek Watershed Partnership, College Station, TX, 2022, pp. 1–83, *2022 Update to The Plum Creek Watershed Protection Plan*.

resulting from the City of Kyle WWTF's major amendment application, GEAA would have serious concerns about the overall environmental integrity of stability of Plum Creek and threatened the success of meeting the implementation goals of the Plum Creek WPP.

C. City of Kyle WWTF Violations: A 2020 report developed by the Save Barton Creek Association (SBCA)³, a GEAA member organization, examined 48 wastewater treatment plants that had TPDES permits across 17 counties that made up the Texas Hill Country. Examining the pollutant monitoring data, a requirement for all TPDES permit holders to keep and submit data records to TCEQ, from January 2017 – June 2020, SBCA examined two key statistics:

1. The number of effluent exceedances that a WWTF reported during this study period, and
2. The number of days with exceedances a WWTF experienced.

When examining the City of Kyle's WWTF pollutant monitoring data, it was reported this WWTF experienced 65 instances of discharged effluent exceedances totaling a number of 833 days. SBCA ultimately gave the City of Kyle's WWTF a letter grade of "F" based on the number of days with effluent exceedances during the study period; A = 0 days, B = 1-50 days, C = 51-500 days; F = more than 500 days. With this report's findings, GEAA has serious concerns regarding the WWTF's capability of ensuring compliance and protecting the water quality and quantity of Plum Creek.

D. Incorporation of Beneficial Reuse: Examining the application paperwork, the City of Kyle WWTF application does not include any capacity to conduct beneficial reuse, which would reduce the risk of promoting environmental harm to Plum Creek and the surrounding watershed areas. Accordingly, GEAA urges the City of Kyle Company to utilize a "One Water" approach for their wastewater treatment system, incorporating beneficial reuse of effluent (to the extent possible), thereby eliminating the need to discharge effluent into Plum Creek. In the event the City of Kyle is unable to reuse all the wastewater generated, it is GEAA's recommendation that the remaining amounts be land applied, with the City of Kyle purchasing the necessary land for such and obtaining the requisite Texas Land Application Permit (TLAP) from TCEQ.

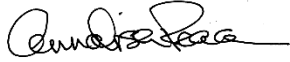
GEAA understands the need to support the local Kyle, TX community as this area continues to grow and becomes more urbanized. Further, we understand the costs associated with these environmentally-friendly solutions to wastewater discharge. We would encourage the City of Kyle to examine external funding opportunities to fund such solutions. Some funding opportunities that could assist in implementing these strategies include funding programs offered by the Texas Water Development Board (TWDB), and the new infrastructure funding from the Federal Government.

The TCEQ has previously stated that in evaluating wastewater permits, they consider baseline conditions in the receiving stream, the physical and hydrological characteristics of the stream, waterbody uses, and the associated water quality standards that protect those uses. We trust that the TCEQ will consider the stated factors when implementing the City of Kyle's major amendment TPDES application and will adopt standards that are in line with others in Central Texas.

³ Zabcik, Brian. Save Barton Creek Association, Austin, TX, 2022, pp. 1–41, *Pristine to Polluted: Sewage Problems & Solutions in the Texas Hill Country*.

Thank you for the opportunity to submit these comments.

Sincerely,

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 and elegant, with a long horizontal stroke extending to the right.

Nathan Glavy
Technical Director
Greater Edwards Aquifer Alliance