

**STATEMENT OF BASIS/TECHNICAL SUMMARY
AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION**

DESCRIPTION OF APPLICATION

Applicant: Holy Trinity Episcopal School of Greater Houston, Inc.;
Texas Pollutant Discharge Elimination System (TPDES) Permit No.
WQ0014897001, EPA I.D. No. TX0125326

Regulated Activity: Domestic Wastewater Permit

Type of Application: Major Amendment

Request: Major Amendment, increase in flow

Authority: Federal Clean Water Act (CWA) § 402; Texas Water Code § 26.027; 30
Texas Administrative Code (TAC) Chapters 30, 305, 307, 309, 312, and
319; Commission policies; and United States Environmental Protection
Agency (EPA) guidelines.

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit includes an expiration date of **five years from the date of issuance**.

REASON FOR PROJECT PROPOSED

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment of the existing permit to authorize an increase in the discharge of treated domestic wastewater from a daily average flow not to exceed 0.025 million gallons per day (MGD) to a daily average flow not to exceed 0.075 MGD and to add an interim phase of 0.050 MGD. The existing wastewater treatment facility serves the Holy Trinity Episcopal School.

PROJECT DESCRIPTION AND LOCATION

The Holy Trinity Episcopal School Wastewater Treatment Facility is an activated sludge process plant operated in the extended aeration mode. Treatment units in the Interim I phase include a bar screen, an aeration basin, a final clarifier, and a chlorine contact chamber. Treatment units in the Interim II and Final phases will include a bar screen, an aeration basin, a final clarifier, an aerobic digester, and a chlorine contact chamber. The facility is operating in the Interim I phase.

Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-authorized land application site, Carl Miller Farms Lime Stabilization Site, Permit No. WQ0003893000, in Waller County. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

The plant site is located at 11810 Lockwood Road, in Harris County, Texas 77044.

this permit is included in the overall waste load allocation (WLA). The TMDL indicates that the water quality criteria for dissolved nickel are generally being met in the Houston Ship Channel and a specific limit for nickel is not recommended for this facility.

TMDL Project No. 72B is also available for this segment: *Eight Total Maximum Daily Loads for Indicator Bacteria in Greens Bayou Above Tidal and Tributaries*. On June 2, 2010, the TCEQ adopted *Eight Total Maximum Daily Loads for Indicator Bacteria in Greens Bayou Above Tidal and Tributaries*. The EPA approved the TMDL on August 12, 2010. The TMDL addresses elevated levels of bacteria in multiple segments and assessment units of these bayous and their tributaries. The WLA for wastewater treatment facilities was established as the permitted flow for each facility multiplied by one-half the geometric mean criterion for bacteria. Future growth from existing or new permitted sources is not limited by these TMDLs as long as the sources do not exceed the limits of one-half the bacteria geometric mean criterion for *Escherichia coli* (*E. coli*). To ensure that effluent limitations for this discharge are consistent with the WLAs provided in the TMDL, a concentration based effluent limitation for *E. coli* of 63 colony-forming units (CFU) or most probable number (MPN) per 100 ml will be continued in the draft permit.

Monitoring and reporting of total Kjeldahl nitrogen (TKN) was an original requirement of WLE-1 (*Waste Load Evaluation for the Houston Ship Channel System in the San Jacinto River Basin, 1984*). WLE-1 has since been superseded by WLE-1R, and with deterministic modeling now used to set effluent limits for all dischargers, reporting of TKN was suspended.

SUMMARY OF EFFLUENT DATA

The following is a summary of the applicant's effluent monitoring data for the period from October 2018 through October 2020. The average of Daily Average value is computed by the averaging of all 30-day average values for the reporting period for each parameter: flow, five-day carbonaceous biochemical oxygen demand (CBOD₅), total suspended solids (TSS), and ammonia nitrogen (NH₃-N). The average of Daily Average value for *E. coli* in CFU or MPN per 100 ml is calculated via geometric mean.

<u>Parameter</u>	<u>Average of Daily Average</u>
Flow, MGD	0.0013
CBOD ₅ , mg/l	2.6
TSS, mg/l	3.5
NH ₃ -N, mg/l	0.29
<i>E. coli</i> , CFU or MPN per 100 ml	1

DRAFT PERMIT CONDITIONS

The draft permit authorizes a discharge of treated domestic wastewater at an Interim I volume not to exceed a daily average flow of 0.025 MGD, an Interim II volume not to exceed a daily average flow of 0.050 MGD, and a Final volume not to exceed a daily average flow of 0.075 MGD.

The effluent limitations in all phases of the draft permit, based on a 30-day average, are 10 mg/l CBOD₅, 15 mg/l TSS, 3.0 mg/l NH₃-N, 63 CFU or MPN of *E. coli* per 100 ml, and 4.0 mg/l minimum dissolved oxygen (DO). The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes based on peak flow.

The draft permit includes a requirement for the permittee to obtain legal restrictions prohibiting residential structures within the part of the buffer zone not owned by the permittee according to 30 TAC § 309.13(e)(3).

4. The effluent limitations in the draft permit meet the requirements for secondary treatment and the requirements for disinfection according to 30 TAC Chapter 309, Subchapter A: Effluent Limitations.
5. Interoffice memoranda from the Water Quality Assessment Section of the TCEQ Water Quality Division.
6. Consistency with the Coastal Management Plan: The facility is not located in the Coastal Management Program boundary.
7. *Procedures to Implement the Texas Surface Water Quality Standards (IP)*, Texas Commission on Environmental Quality, June 2010, as approved by EPA, and the IP, January 2003, for portions of the 2010 IP not approved by EPA.
8. Texas 2018 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, September 27, 2019; approved by the EPA on December 23, 2019.
9. Texas Natural Resource Conservation Commission, Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, Document No. 98-001.000-OWR-WQ, May 1998.
10. TMDL Project No. 72B: *Eight Total Maximum Daily Loads for Indicator Bacteria in Greens Bayou Above Tidal and Tributaries* and TMDL Project No. 1: *Fourteen Total Maximum Daily Loads for Nickel in the Houston Ship Channel System*.

PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within