

## **FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION**

For proposed Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXG530000 to discharge to waters in the state.

Issuing Office: Texas Commission on Environmental Quality  
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Permit Action: Renewal of General Permit TXG530000

### **I. Summary**

The Texas Commission on Environmental Quality (TCEQ) is proposing to renew a TPDES General Permit authorizing discharges from on-site wastewater treatment systems from single family residences located within the San Jacinto River Basin in Harris County in the State of Texas.

### **II. Executive Director's Recommendation**

The Executive Director has made a preliminary decision that this permit, if reissued, meets all statutory and regulatory requirements. It is proposed that the permit be issued to expire five years from date of issuance in accordance with the requirements of 30 Texas Administrative Code (TAC) §205.5(a).

### **III. Permit Applicability**

This general permit authorizes discharges from single-family on-site sewage facilities (OSSFs) located within the following segments of the San Jacinto River Basin in Harris County: 1001 (San Jacinto River Tidal); 1002 (Lake Houston); 1003 (East Fork San Jacinto River); 1004 (West Fork San Jacinto River); 1005 Houston Ship Channel/San Jacinto River Tidal); 1006 (Houston Ship Channel Tidal); 1007 (Houston Ship Channel/Buffalo Bayou Tidal); 1008 (Spring Creek); 1009 (Cypress Creek); 1010 (Caney Creek); 1013 (Buffalo Bayou Tidal); and 1014 (Buffalo Bayou above Tidal). The property must have been subdivided, and developed, before January 1, 1979 and the property size must be insufficient to accommodate on-site disposal of a wastewater under Chapter 366 of the Texas Health and Safety Code and 30 TAC Chapter 285. The residence must be unable to obtain service from a regional or area wide waste collection/treatment system to be eligible for coverage under this general permit.

### **IV. Permit Limitations**

1. As proposed, facilities regulated under this general permit are authorized to discharge wastewater that meets the following effluent limitations. Monitoring shall be conducted at the prescribed frequencies when discharge occurs:

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<u>Parameter</u>	<u>Daily Average</u>	<u>Single Grab</u>	<u>Sample Type</u>	<u>Monitoring Frequency</u>
Total Suspended Solids	15 mg/L	60 mg/L	Grab	once per six months
pH (standard units (SU))	6 - 9 SU	6 - 9 SU	Grab	once per six months
Carbonaceous Biochemical Oxygen Demand-5 day	10 mg/L	35 mg/L	Grab	once per six months
Fecal Coliform Bacteria* colonies per 100 ml	200 mg/L	400 mg/L	Grab	once per six months
Ammonia Nitrogen	3 mg/L	15 mg/L	Grab	once per six months

\* Fecal Coliform Bacteria daily average is a geometric mean of the values for the effluent samples collected in a 24 month reporting period.

2. The monthly average discharge (flow) of effluent shall not exceed 500 gallons per day (gpd).
3. There shall be no discharge of floating solids or visible foam other than in trace amounts, and no discharge of visible oil.

**V. Amendments to the Existing General Permit**

1. Removed the language which required the applicant to construct the treatment works prior to the submittal of the NOI. The Texas Water Code (TWC) §26.027 and the Health and Safety Code §366.051 both require an applicant to hold a permit prior to construction of a treatment facility.
2. To meet state and federal regulations and to be consistent with other TPDES general permits, the following limitations were included in Part I. Section B. Limitations on Coverage:
  - a. The Executive Director shall deny an application that will not maintain existing uses of the receiving waters and may deny authorization to discharge based on noncompliance with permit provisions.
  - b. New sources or new discharges of the constituents of concern to impaired waters are not authorized by this permit unless otherwise allowed under applicable state law or 30 TAC, Chapter 305.
  - c. Discharges of constituents to impaired water bodies for which there is a total maximum daily load (TMDL) implementation plan are not eligible for this permit unless they are consistent with the approved TMDL and the implementation plan.
  - d. Discharges that would adversely affect a listed endangered or threatened species or its critical habitat are not authorized by this general permit.

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3. The limitation from Part I, Section B. *Limitations on Coverage* which requires additional authorizations for discharges located in the Clear Lake Watershed was removed. Discharges into the Clear Lake Watershed (Segments 1101 Clear Creek Tidal, 1102 Clear Creek Above Tidal, and 2425 Clear Lake) is not authorized by this permit, therefore this limitation is unnecessary.

**VI. Addresses**

Questions concerning this draft general permit should be directed to:

Ms. Yvonna Pierce  
Wastewater Permitting Section (MC-148)  
TCEQ  
P.O. Box 13087  
Austin, TX 78711-3087  
(512) 239- 4671

Comments regarding this general permit should be sent to:

Chief Clerk's Office (MC-105)  
TCEQ  
P.O. Box 13087  
Austin, TX 78711-3087

Supplementary information on this Fact Sheet is organized as follows:

- VII. Legal Basis
- VIII. Regulatory Background
- IX. Permit Coverage
- X. Technology-Based Requirements
- XI. Water Quality-based Requirements
- XII. Procedures for Final Decision
- XIII. Administrative Record

**VII. Legal Basis**

Section 26.121 of the Texas Water Code (TWC) makes it unlawful to discharge pollutants into or adjacent to water in the state without a permit. The commission is authorized to issue permits and amendments to permits for the discharge of waste or pollutants into or adjacent to water in the state by TWC §26.027.

**VIII. Regulatory Background**

The commission was given authority to issue general permits in place of authorizations by rule through legislation, HB 1542, passed during the 75th legislative session. Further clarification of this general permit authority was provided in subsequent legislation, HB 1283, passed during the 76th legislative session.

House Bill (HB) 1574, which was passed during the 76th legislative session, requires the commission to adopt a general permit to regulate discharges from on-site wastewater treatment facilities (OSSF) from single family residences that are located in counties with a population greater than 2.8 million and are located on property

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that was subdivided and developed prior to January 1, 1979. HB 1574 also requires that the property size must be insufficient to accommodate on-site disposal of all wastewater as required by Chapter 366 of the Texas Health and Safety Code and 30 Texas Administrative Code (TAC) Chapter 285.

**IX. Permit Coverage**

1. To obtain coverage under this general permit, the discharger must submit a Notice of Intent (NOI) on a form approved by the executive director. The NOI shall include, at a minimum, the legal name and address of the owner and operator, the location of the discharge (as described by latitude and longitude), description of the effluent discharge route from the facility for a minimum distance of three miles, and the date the proposed discharge will commence. The discharger shall submit the NOI at least 30 days before discharging into or adjacent to water in the state.
2. The NOI must be submitted to the executive director or authorized agent by certified mail, return receipt requested. The applicant must also submit with the NOI, copies of the maintenance agreement and the county deed record for the property. The NOI shall be signed according to 30 TAC § 305.44 (relating to Signatories to Application).
3. The authorized agent or the executive director shall either confirm coverage by providing a notification and an authorization number to the applicant or notify the applicant that coverage under this general permit is denied.
4. The executive director or authorized agent may deny a NOI and may require the discharger to apply for and obtain an individual TPDES permit. Denial of an NOI or suspension of a discharger's authorization under this general permit shall also be conducted according to 30 TAC §205.4.

**X. Technology-Based Requirements**

The limitations and conditions of the general permit have been developed to comply with the technology-based standards of the Clean Water Act. The permit limitations included in the general permit are more stringent than the secondary treatment limits for CBOD<sub>5</sub> (25 mg/L) and suspended solids (ss) (30 mg/L) located in Code of Federal Regulations (CFR) 40, Part 133.102. The pH limitation of within 6 to 9 standard units is continued from the existing permit.

The required wastewater treatment facility design for this permit must meet effluent limits for enhanced secondary treatment levels with nitrification and the treatment must include primary settling, aerobic treatment, addition of chlorine, chlorine contact/settling, and discharge to a subsurface rock filter trench. The effluent limitations for enhanced secondary treatment with nitrification located in 30 TAC 309 Subchapter A (*Domestic Wastewater Effluent Limitations*) and 30 TAC § 311 Subchapter D (*Water Quality Management Within Lake Houston Watershed*) are included in the draft permit and are as follows:

<u>Parameter</u>	<u>Daily Average</u>	<u>Single Grab</u>
TSS	15 mg/L	60 mg/L
CBOD <sub>5</sub>	10 mg/L	35 mg/L
Ammonia Nitrogen	3 mg/L	15 mg/L
pH	6 – 9 S.U.	6 - 9 S.U.

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**XI. Water Quality-Based Requirements**

The Texas Surface Water Quality Standards found at 30 TAC §307 state that “surface waters will not be toxic to man, or to terrestrial or aquatic life.” The methodology outlined in the “Procedures to Implement the Texas Surface Water Quality Standards” is designed to insure compliance with 30 TAC §307. Specifically, the methodology is designed to insure that no source will be allowed to discharge any wastewater which: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity data bases to determine the adequacy of technology-based permit limits and the need for additional water-quality based controls.

The original Waste Load Evaluation for the Houston Ship Channel System in the San Jacinto River Basin WLE-1 (1984) specifies the following recommendation: All new permits and permit amendments will be issued to ensure that effluent water quality concentrations of 10 mg/L CBOD<sub>5</sub>, 3 mg/L ammonia nitrogen, and 4 mg/L dissolved oxygen are achieved. The QUAL-TX dissolved oxygen modeling used in the technical basis for the recommendation was documented and reiterated in the updated Waste Load Evaluation WLE-1R for the Houston Ship Channel System (2006). Water quality based effluent limits for fecal coliform are continued from the existing permit.

A review by the TCEQ's Water Quality Standards Team preliminarily determined that if the current permit requirements are properly implemented, no significant degradation is expected and existing uses should be maintained and protected.

**XII. Procedures for Final Decision**

EPA has 90 days to comment, object, or make recommendations to the general permit before the general permit is published in the *Texas Register*. When the draft general permit is ready for proposal, a notice is prepared and sent to the Office of the Chief Clerk of the TCEQ. This notice is mailed to county judges in counties which the dischargers under the general permit could be located, state and federal agencies for which notice is required in [40 CFR § 124.10(c)], persons on a relevant mailing list in accordance with 30 TAC § 39.407, and any other person the executive director or Chief Clerk may elect to include. The TCEQ will publish the notice of the draft general permit in a newspaper of general circulation in the areas affected by the proposed general permit and in the *Texas Register*.

Any interested person may submit written comments on the draft permit or may request a public meeting within 30 days after newspaper notice publication. A public meeting is intended for the taking of public comment, and is not a contested case proceeding under the Administrative Procedure Act. The executive director may call and conduct public meetings in response to public comment. If the executive director calls a public meeting then notice of the date, time, and place will be issued in accordance with commission rules. The executive director shall prepare a response to all timely, relevant and material, or significant public comment on the draft general permit raised during the comment period and shall make the response available to the public. The general permit will then be filed with the commission to consider final authorization of the permit. The executive director's response to public comment shall be made available to the public and filed

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with the chief clerk at least ten days before the commission acts on the general permit.

**XIII. Administrative Record**

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. 40 CFR Citation

40 CFR 122.28, Subpart C - 122.41-122.50, and 133.102

B. Texas Water Code

Chapter 26.0405

C. TCEQ Regulations

30 TAC Chapter 305, 205, 309, 311

D. Miscellaneous

Quality Criteria for Water (1986), EPA 440/5-86-001, 5/1/86.

Texas Surface Water Quality Standards, 30 TAC Sections §§ 307.1 - 307.10, effective April 30, 1997, and Appendix E, effective February 27, 2002.

"Procedures to Implement the Texas Water Quality Standards", Texas Commission on Environmental Quality, January 2003.

Existing General Permit: TPDES General Permit No. TXG530000 issued April 30, 2004.

Memo from the Water Quality Standards Team of the TCEQ.