FACT SHEET AND EXECUTIVE DIRECTOR’S PRELIMINARY DECISION

For proposed Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXG640000 to discharge wastewater generated at water treatment facilities into or adjacent to water in the state.

Issuing Office: Texas Commission on Environmental Quality

P.O. Box 13087

Austin, TX 78711-3087

Prepared by: Shannon Gibson

Water Quality Division

Date: August 2024

Permit Action: Renewal

# I. Summary

The Texas Commission on Environmental Quality (TCEQ or commission) is proposing to renew and amend a Texas Pollutant Discharge Elimination System (TPDES) general permit authorizing the discharge of wastewater generated as a result of conventional water treatment at water treatment facilities into or adjacent to water in the state.

# II. Executive Director’s Recommendation

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

# III. Permit Applicability

1. This general permit authorizes the discharge of wastewater generated as a result of conventional water treatment at water treatment facilities into or adjacent to water in the state. The permit specifies which facilities may be authorized under this general permit and those that must be authorized by individual permit or another general permit.
2. The following discharges are not eligible for general permit coverage:
	1. Discharges of treated domestic wastewater; wastewater generated as a result of reverse osmosis, ion exchange, any other desalination process; or wastewater generated as a result of water treatment processes regulated in 30 TAC §290.42(g), except for water treatment using ultraviolet light. An individual permit is required for the discharge of these types of wastewater.
	2. Land application or disposal of water treatment residuals. This general permit does not authorize the distribution and marketing of water treatment residuals. A separate authorization is required for these activities.
	3. Discharges prohibited by 30 TAC Chapter 213, *Edwards Aquifer*, or30 TAC Chapter 311, *Watershed Protection*.
	4. Discharges into or adjacent to water in the state (e.g., land application) from facilities that are regulated by the Railroad Commission of Texas, including crude oil facilities.
	5. New sources or new discharges of the constituent(s) of concern to impaired waters are not authorized by this permit unless otherwise allowable under 30 TAC Chapter 305, *Consolidated Permits*, and applicable state law. Impaired waters are those that do not meet applicable water quality standard(s) and are listed as category 4 or 5 in the current version of the Texas Integrated Report of Surface Water Quality, and waterbodies on the Clean Water Arct (CWA) § 303(d) list. Constituents of concern are those for which the water body is listed as impaired.
	6. Discharges of the constituent(s) of concern to impaired water bodies for which there is a total maximum daily load (TMDL) implementation plan are not eligible for this general permit unless they are consistent with the approved TMDL and the implementation plan. The Executive Director may amend this general permit or develop a separate general permit for discharges to these water bodies. For discharges not eligible for coverage under this general permit, the discharger must apply for and receive an individual permit or other applicable general permit prior to discharging.
	7. Discharges that would adversely affect a listed endangered or threatened species or its critical habitat are not authorized by this permit. Federal requirements related to endangered species apply to all TPDES permitted activities, and site-specific controls may be required to ensure the protection of endangered or threatened species is achieved.
3. Facilities that dispose of wastewater by any of the following practices are not required to obtain coverage under this general permit nor an individual wastewater permit:
4. recycling of the wastewater with no resulting discharge into or adjacent to water in the state;
5. pumping and hauling of the wastewater to an authorized disposal facility;
6. discharge to a publicly owned treatment work (POTW);
7. underground injection in accordance with 30 TAC Chapter 331, *Underground Injection Control*; or
8. discharge to above ground storage tanks with no resulting discharge into or adjacent to water in the state.

# IV. Permit Conditions and Effluent Limitations

1. The following effluent limitations apply to wastewater discharged into water in the state:

| **Parameter** | **Daily Average Limitations** | **Daily Maximum Limitations** |
| --- | --- | --- |
| Flow, million gallons per day (MGD) | Report | Report |
| Total Suspended Solids (TSS) | 25 mg/l | 45 mg/l |
| pH, Standard Units (S.U.) | NA | 6.0 – 9.0 S.U. |
| Total Chlorine Residual 1 | NA | 0.1 mg/l |

**1** When chlorinating.

Monitoring Frequency and Sample Type are based on outfall Daily Average Flow, as follows:

| **Parameter** | **Daily Avg Flow < 1.0 MGD** | **Daily Avg Flow ≥ 1.0 MGD and** **< 5.0 MGD** | **Daily Avg Flow ≥ 5.0 MGD** |
| --- | --- | --- | --- |
| Flow **1** | Five/weekInstantaneous | Five/weekTotalizing Meter | Five/weekTotalizing Meter |
| TSS **1** | One/weekComposite | Two/weekComposite | Two/weekComposite |
| pH **1** | One/monthGrab | One/weekGrab | Five/weekGrab |
| Total Chlorine Residual 1 | Five/weekGrab | One/dayGrab | One/dayGrab |

**1** When discharging.

1. The general permit requires permittees to handle and dispose of water treatment residuals in accordance with 30 TAC Chapter 312 Subchapter F or 30 TAC Chapter 330, depending on the method of final disposition, and all other applicable state and federal regulations. Water treatment residuals must be analyzed for Toxicity Characteristic Leaching Procedure prior to disposal but not more than once per year.
2. Discharges adjacent to water in the state (ie. land application of wastewater) must comply with the following:
3. Land application shall not occur when the ground is frozen, the ground has standing water, the ground is saturated, during rainfall events, or within 24 hours after a rainfall event of 0.5 inch or greater during a 24-hour period.
4. Land application shall not result in runoff, ponding of effluent, contamination of ground and surface waters, or occurrence of nuisance conditions in the area.
5. Land application rates shall not exceed 1.6 acre-feet per year per acre irrigated.
6. The permittee is responsible for providing equipment to determine application rates and maintaining accurate records of the volume of wastewater applied.
7. The permittee shall annually collect a representative soil sample from each irrigation area that received wastewater application during the year. Soil samples shall be analyzed for pH, conductivity, nitrate-nitrogen, total Kjeldahl nitrogen, total nitrogen, phosphorus, and potassium.
8. The permittee shall own the land application area or maintain a long-term contract with the owner(s) of the land application area.
9. Adequate signs shall be erected stating that the irrigation water is from a non-potable water supply.
10. Spray fixtures for the irrigation system shall be of such design that they cannot be operated by unauthorized personnel.
11. Land application shall be accomplished only when the irrigation area is not in use.
12. Permanent transmission lines shall be installed from the holding pond to each tract of land to be irrigated from that pond.
13. Wastewater shall not be land applied within 150 feet of any private water well or within 500 feet of a public water supply well.
14. The permittee shall maintain actively growing vegetation in the land application area.
15. The permittee shall take all steps necessary to prevent any adverse effect to human health or safety, or to the environment. The permittee shall immediately cease land application whenever it is discovered that land application activities may endanger human health or safety, or the environment.

# V. Change From Existing General Permit

1. Added a daily maximum effluent limitation under Part III, Section A.1., that requires discharges be dechlorinated to less than 0.1 mg/L total chlorine residual prior to discharge, when chlorination is used for disinfection purposes.
2. Revised the term ‘sludge’ to ‘water treatment residuals’ or ‘residuals’ under Part III, Section C, for consistency with terms currently used in individual permits for conventional water treatment facilities. A definition for the term ‘water treatment residuals’ was also added for clarification and references 30 TAC § 312.8(105) relating to *General Definitions*.
3. Revised Part II, Section B.7, to specify home-rule municipality as established in ‘Texas statute’ instead of the specific rule to ensure flexibility to accommodate future rule and citation changes.
4. Updated Part II, Section C.5, with current contact information for the Edwards Aquifer Protection Program and corrected the counties listed in the general permit for consistency with requirements under 30 TAC Chapter 213, *Edwards Aquifer*.
5. Added a statement under Part III, Section A.1 to clarify that wastewater discharged adjacent to the water in the state (i.e., land applied) does not need to meet the effluent limitations of the section.
6. Updated Part III, Section B.8.a, to remove the option for FAX notification for consistency with 30 TAC § 305.125(9), Standard Permit Conditions.
7. Updated Part III, Section B.8.b, to clarify discharge monitoring report (DMR) submittal requirements for effluent limitation violations using the NetDMR reporting system or an approved DMR form by obtaining an electronic reporting waiver.
8. Modified Part III, Section D, item 11 to remove repeated provision language and clarify that the permittee is responsible for providing equipment to determine the application rate.
9. Revised Part III, Section C.1.d(1) to include an option for facilities to recycle excess water from the water treatment residuals lagoon(s) in a manner consistent with 30 TAC § 290.42(d)(3)(A), related to Water Treatment, instead of maintaining a minimum of two feet of freeboard.
10. Updated Part III, Section C.4 to specify TCEQ’s Waste Permits Division for submittal of the written report for water treatment residuals. The division previously listed for receipt of this report no longer exists.
11. Revised Part III, Section D, to include the following requirements (III.D.12 and III.D.13) were previously identified in the fact sheet for the issued permit but omitted from the permit itself:
* Land application rates shall not exceed 1.6 acre-feet per year per acre irrigated.
* The permittee shall annually collect a representative soil sample from each irrigation area that received wastewater application during the year. Soil samples shall be analyzed for pH [2:1 (v/v) water/soil mixture]; electrical conductivity [2:1 (v/v) water/soil mixture]; total Kjeldahl nitrogen (TKN); total nitrogen (organic-nitrogen + nitrate-nitrogen + ammonium-nitrogen); nitrate-nitrogen (from a 1 N KCl soil extract); plant-available phosphorus [Mehlich III with inductively coupled plasma], and plant-available potassium [Mehlich III]. The nutrient parameters shall be reported on a dry weight basis in mg/kg; electrical conductivity, in mmho/cm [same as deciSiemens/meter (dS/m)]; and pH, in standard units.
1. Revised Part IV.7.f to clarify reporting and signature requirements for annual tests.
2. Revised Part IV.8 to clarify signature requirements for other information requested by the executive director.
3. Other non-substantive editorial corrections and updates.

# VI. Addresses

Comments on this draft general permit should be sent to:

Office of the Chief Clerk (MC-105)

TCEQ

P.O. Box 13087

Austin, TX 78711-3087

(512) 239-3300

Questions concerning this draft general permit should be directed to:

Shannon Gibson

TCEQ, Water Quality Division (MC-148)

P.O. Box 13087

Austin, TX 78711-3087

(512) 239-4284

Supplementary information on this fact sheet is organized as follows:

VI. Legal Basis

VII. Regulatory Background

VII. Permit Coverage

IX. Technology-based Requirements

X. Water Quality-based Requirements

XI. Monitoring

XII. Procedures for Final Decision

XIII. Administrative Record

# VII. Legal Basis

Texas Water Code (TWC), § 26.121 makes it unlawful to discharge pollutants into or adjacent to water in the state except as authorized by a rule, permit, or order issued by the commission. TWC, § 26.027 authorizes the commission to issue permits and amendments to permits for the discharge of waste or pollutants into or adjacent to water in the state. TWC, § 26.040 provides the commission with the authority to develop and issue general permits.

On September 14, 1998, TCEQ received authority from the United States Environmental Protection Agency (EPA) to administer the TPDES Program. TCEQ and EPA signed a Memorandum of Agreement which authorizes the administration of the National Pollutant Discharge Elimination System (NPDES) program to TCEQ as it applies to the State of Texas.

CWA, §§ 301, 304, and 401 (33 United States Code (USC), §§ 1331, 1314, and 1341) include provisions which state that NPDES permits must include effluent limitations requiring authorized discharges to: (1) meet standards reflecting levels of technological capability; (2) comply with EPA-approved state water quality standards; and (3) comply with other state requirements adopted under authority retained by states under CWA, § 510, 33 USC § 1370.

EPA frequently adopts nationally applicable guidelines identifying the best practicable control technology (BPT), best conventional pollutant control technology (BCT), and best available technology economically achievable (BAT) standards to which specific industrial categories and subcategories are subject. Until such guidelines are published, however, CWA, § 402(a)(1) requires that appropriate BCT and BAT effluent limitations be included in permitting actions based on best professional judgment (BPJ).

# VIII. Regulatory Background

The executive director proposes to issue the draft general permit which would authorize the discharge of wastewater generated as a result of conventional water treatment at water treatment facilities into or adjacent to water in the state.

# IX. Permit Coverage

The purpose of this general permit is to regulate the discharge of wastewater from conventional water treatment facilities. Conventional water treatment is the process of treating raw water using coagulation, flocculation, clarification, filtration, and disinfection. This general permit does not authorize the discharge of domestic sewage or wastewater generated as a result of reverse osmosis, ion exchange, or any other desalination process because those wastewaters may require site-specific water quality-based effluent limitations.

1. Facilities that discharge adjacent to water in the state (i.e., exclusively use land application of wastewater) are not required to submit a Notice of Intent (NOI) to obtain authorization under this general permit. These facilities must comply with all other requirements of this general permit.
2. Facilities that discharge into water in the state shall submit a completed NOI on a form approved by the executive director. The NOI must be submitted via the online e-permitting system available through TCEQ’s website unless the applicant requests and obtains an electronic reporting waiver. Electronic reporting waivers are not transferable and expire on the same date as the authorization to discharge. The NOI shall include at a minimum the legal name and address of the owner and operator, the facility name and address, specific description of the location, wastewater design flow, outfall information, and the name of the receiving water(s).
3. Submission of an NOI is an acknowledgment that the conditions of this general permit are applicable to the proposed discharge, and that the applicant agrees to comply with the conditions of this general permit. For electronic submittal of NOIs, provisional authorization to discharge under the terms and conditions of the general permit begins immediately after TCEQ confirms receipt of the electronic NOI. For paper NOIs, provisional authorization begins 48 hours after a completed NOI is postmarked for delivery to TCEQ. The NOI shall be submitted to the address indicated on the NOI form. Following review of the NOI, the Executive Director shall either acknowledge coverage by providing an authorization number to the applicant or notify the applicant that coverage under this general permit is denied. Applicants seeking authorization to discharge to a municipal separate storm sewer system (MS4) must provide a copy of the NOI to the operator of the system at the same time an NOI is submitted to TCEQ.
4. For discharges located in areas regulated by 30 TAC Chapter 213, *Edwards Aquifer*, this authorization to discharge is separate from the requirements of the applicant’s responsibilities under that rule. Discharge may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that chapter are met. For discharges located on or within ten stream miles upstream of the Edwards Aquifer recharge zone, applicants must also submit a copy of the NOI to the appropriate TCEQ regional office.

Counties: Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, and Williamson

Contact: TCEQ Edwards Aquifer Protection Program Manager

 Austin Regional Office

 P.O. Box 13087

 Austin, TX 78711-3087

512-339-2929

1. Authorization under this general permit is not transferable. If either the owner or operator of the regulated entity changes, then both the present owner and operator must submit a Notice of Termination (NOT) and the new owner and operator must submit an NOI. The NOT and NOI must be submitted no later than 10 days before the change. Permittees discharging to a MS4 must submit a copy of the NOT to the operator of the system at the same time the NOT is submitted to TCEQ.
2. If the owner or operator becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in an NOI, the correct information must be provided to the Executive Director in a Notice of Change (NOC) within 14 days of discovery of the error. If relevant information provided in the NOI changes (e.g., permittee address, phone number, outfall information, design flow, Discharge Monitoring Report (DMR) contact, or billing contact) an NOC must be submitted within 14 days of the change. Permittees discharging to a MS4 must submit a copy of any NOC to the operator of the system at the same time the NOC is submitted to TCEQ.

# X. Technology-Based Requirements

The existing effluent limitations and conditions of the draft general permit were originally developed to comply with the technology-based standards of the CWA. There are currently no nationally applicable guidelines identifying the BPT, BCT, or BAT standards for discharges authorized by this general permit, therefore, the technology-based effluent limitations were originally based on BPJ. The existing parameters selected for BCT/BAT limits, including flow, total suspended solids, and pH are still consistent with individual permits issued to conventional water treatment plants, and have been carried forward in the draft general permit.

Wastewater discharges from conventional water treatment plants may be chlorinated for disinfection purposes. In these instances, an effluent limitation was added to the draft general permit that requires discharges be dechlorinated to less than 0.1 mg/L total chlorine residual prior to discharge.

# XI. Water Quality-Based Requirements

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 TPDES 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.

In accordance with 30 TAC §307.5 and TCEQ’s *Procedures to Implement the Texas Surface Water Quality Standards*, an antidegradation review of the general permit was performed in order to ensure that no significant degradation of any water in the state will occur and that existing uses will be maintained and protected. It has been preliminarily determined that where permit requirements are properly implemented, no significant degradation is expected and existing uses will be maintained and protected.

# XII. Monitoring and Reporting

Monitoring is required by 40 Code of Federal Regulations (CFR) § 122.44(i) for each pollutant limited in a permit to ensure compliance with the permit limits. The draft general permit has the following criteria established for monitoring.

1. Samples shall be collected, and measurements shall be taken at times and in a manner so as to be representative of the monitored discharge.

2. All samples shall be collected according to the latest edition of *Standard Methods for the Examination of Water and Wastewater* (prepared and published jointly by the American Public Health Association, the American Waterworks Association, and the Water Pollution Control Federation), or the Environmental Protection Agency’s (EPA), *Methods for Chemical Analysis of Water and Wastes* (1979), or the EPA’s, *Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents* (1973).

3. Sample containers, holding times, and preservation methods shall follow the requirements specified in 40 CFR Part 136, or the latest edition of *Standard Methods for Examination of Water and Wastewater*.

4. The permittee shall ensure that properly trained and authorized personnel monitor and sample the discharge.

5. The sampling point must be downstream of any treatment unit or treatment technique that is used to improve or otherwise alter the quality of the discharge.

6. Analytical results for determining compliance with effluent limitations shall be recorded on a DMR form (EPA No. 3320-1). Effluent sampling shall be conducted in accordance with the monitoring frequencies specified in this general permit. Analytical results for determining compliance with effluent limitations shall be submitted online using the NetDMR reporting system available through TCEQ’s website unless the permittee requests and obtains an electronic reporting waiver. Permittees that are issued an electronic reporting waiver shall submit analytical results to TCEQ’s Enforcement Division (MC-224) on an approved DMR form (EPA No. 3320-1). Effluent sampling shall be conducted in accordance with the monitoring frequencies specified in the general permit. The DMR for any given month shall be due by the 20th day of the following month. The DMR for annual tests shall be due by March 31st of the following year. The DMRs must be signed in accordance with the requirements in Part IV.8 of the general permit. If non-compliance with an effluent limitation occurs, the permittee shall provide notification according to Part III, Section B.8 of the permit.

7. Records of monitoring activities shall include:

* 1. date, time, and place of sample or measurement;
	2. identity of individual who collected the sample or made the measurement;
	3. date of laboratory analysis;
	4. identity of the individual and laboratory who performed the analysis;
	5. the technique or method of analysis; and
	6. the results of the analysis or measurement.

8. If the permittee monitors any pollutant in a discharge more frequently than required by the permit using approved analytical methods as specified in Part IV.7.c. of the general permit, all results of such monitoring shall be included in the calculation and recording of the values on the DMR. Increased frequency of sampling shall be indicated on the DMR.

# XIII. Procedures for Final Decision

* 1. The memorandum of agreement between the EPA and TCEQ provides that the EPA has no more than 90 days to comment, object, or make recommendations to the draft general permit before it is published in the *Texas Register*. According to 30 TAC Chapter 205, *General Permits for Waste Discharges*, when the draft general permit is proposed, notice shall be published in at least one newspaper of statewide or regional circulation. The commission may also publish notice in additional newspapers of statewide or regional circulation. Mailed notice shall also be provided to the following:
* the county judge of the county or counties in which the discharges under the general permit could be located;
* if applicable, state and federal agencies for which notice is required in 40 CFR § 124.10(c);
* persons on a relevant mailing list kept under 30 TAC § 39.407, relating to Mailing Lists; and
* any other person the Executive Director or Chief Clerk may elect to include.
	1. After notice of the general permit is published in the *Texas Register* and the newspaper(s), the public will have 30 days to provide public comment on the draft permit.
	2. Any person, agency, or association may make a request for a public meeting on the draft general permit to the Executive Director of TCEQ before the end of the public comment period. A public meeting will be granted when the executive director or commission determines, on the basis of requests, that a significant degree of public interest in the draft general permit exists. A public meeting is intended for the taking of public comment and is not a contested case proceeding under the Texas Administrative Procedure Act.

If the executive director calls a public meeting, the commission will give notice of the date, time, and place of the meeting, as required by commission rule. The executive director shall prepare a response to all significant public comments on the draft general permit raised during the public comment period. The Executive Director 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 with the Chief Clerk at least ten days before the commission acts on the general permit.

# XIV. Administrative Record

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

1. TPDES Permits

TPDES General Permit for Conventional Water Treatment Plants (TXG640000) effective October 21, 2020

1. 40 Code of Federal Regulations (CFR) Citations

40 CFR Parts 122, 124, 136

1. TCEQ Rules

30 TAC Chapters 39, 205, 213, 281, 290, 305, 307, 312, 319, 331, and 335

1. Letters/Memoranda/Records of Communication

TXG640000 Antidegradation Review, Interoffice Memorandum from the Standards Implementation Team dated July 9, 2024.

TXG640000 Groundwater Protection Review, Interoffice Memorandum from the Water Quality Assessment Team dated August 7, 2024.

1. Miscellaneous

TCEQ, *Implementation Procedures of the Texas Surface Water Quality Standards*, January 2010.