



Produced Wastewater Permitting

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June 2025

Agenda



**Background for
Implementing House Bill 2771**

**Management and Location
Considerations of Produced
Wastewater**

**Applicable Federal
Regulations**

Permitting Options

Overview

- House Bill (HB) 2771, 86th Legislative Session, transferal of oil and gas permitting authority to TCEQ for discharges to surface water in the state.
- Transferal of authority over land application activities to TCEQ is currently underway.



Types of Authorizations Transferred via HB 2771



Crude oil and natural
gas facilities

Hydrostatic Test
Discharges from Oil
and gas facilities

Oil and Gas Extraction
Discharges

Texas Pollutant Discharge Elimination System (TPDES)

- Federal delegation by the U.S. Environmental Protection Agency to implement the TPDES program to control discharges of pollutants to surface waters of the United States.
- TCEQ prepares TPDES permits that comply with state and federal water quality rules and regulations:
 - **general permits**
 - **individual authorizations**



What is Produced Wastewater?

The water (brine) brought up from the hydrocarbon-bearing strata during the extraction of oil and gas, and can include formation water, injection water, and any chemicals added downhole or during the oil/water separation process



Managing Produced Wastewater



Options:

- Reuse within the oil field (common)
- Disposal by underground injection (frequent)
- Treatment and disposal by discharge to surface waters (rare)

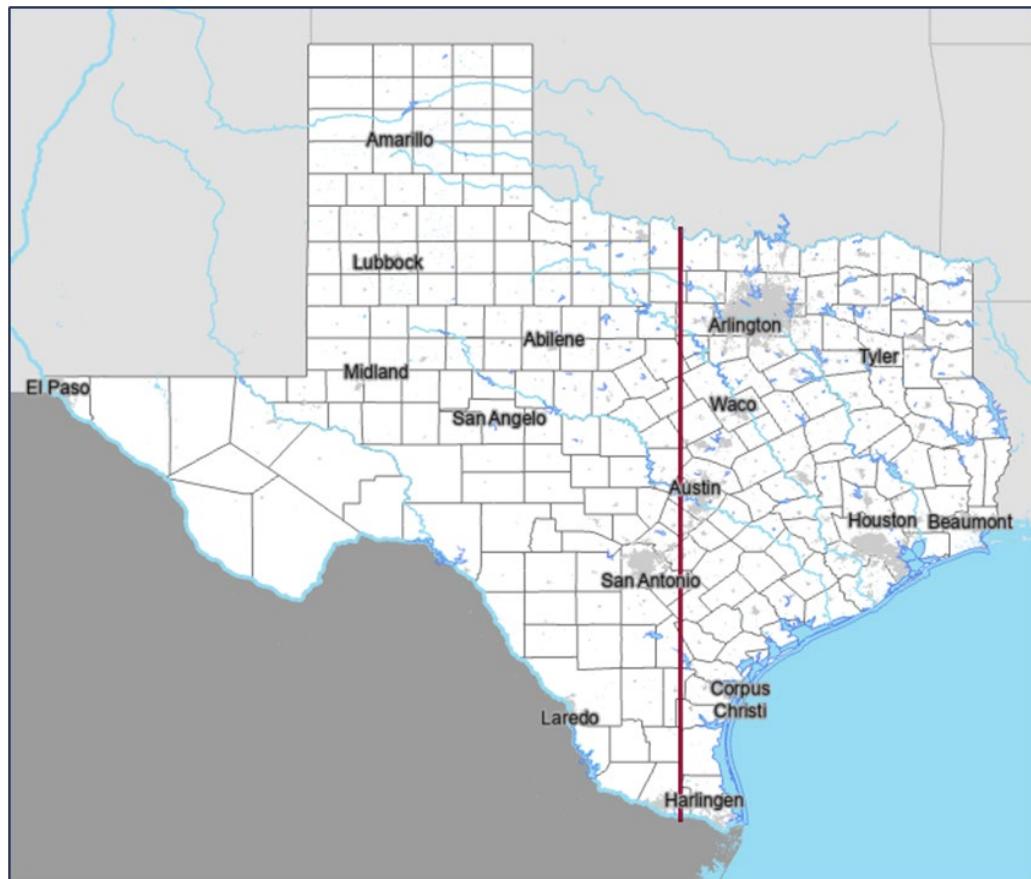
Applicable EPA Regulations (Location)

40 CFR Part 435

- Subpart A – Offshore Subcategory
- Subpart C – Onshore Subcategory
- Subpart D – Coastal Subcategory
- Subpart E – Agricultural & Wildlife Water Use Subcategory
- Subpart F – Stripper Subcategory
- Subpart G – General Provisions



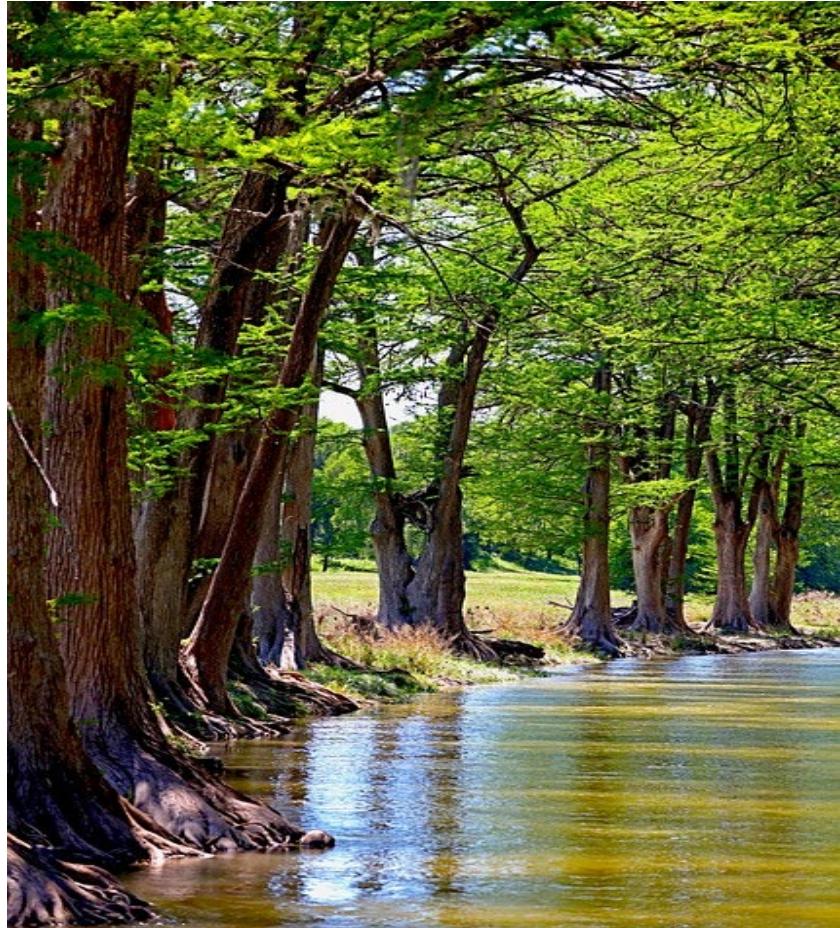
West of the 98th Meridian



An individual permit is needed west of the 98th Meridian for discharge of produced wastewater.

Produced wastewater discharge is **prohibited** except if put to beneficial use for agriculture or wildlife purposes.

General Permits and Individual Permits



- General wastewater permits
 - Typically, statewide*
 - Simplified application process
 - Permitting process is approximately 30 - 60 days
- Individual TPDES permits:
 - Site-specific considerations
 - Requires a detailed permit application
 - Permitting process is approximately one year

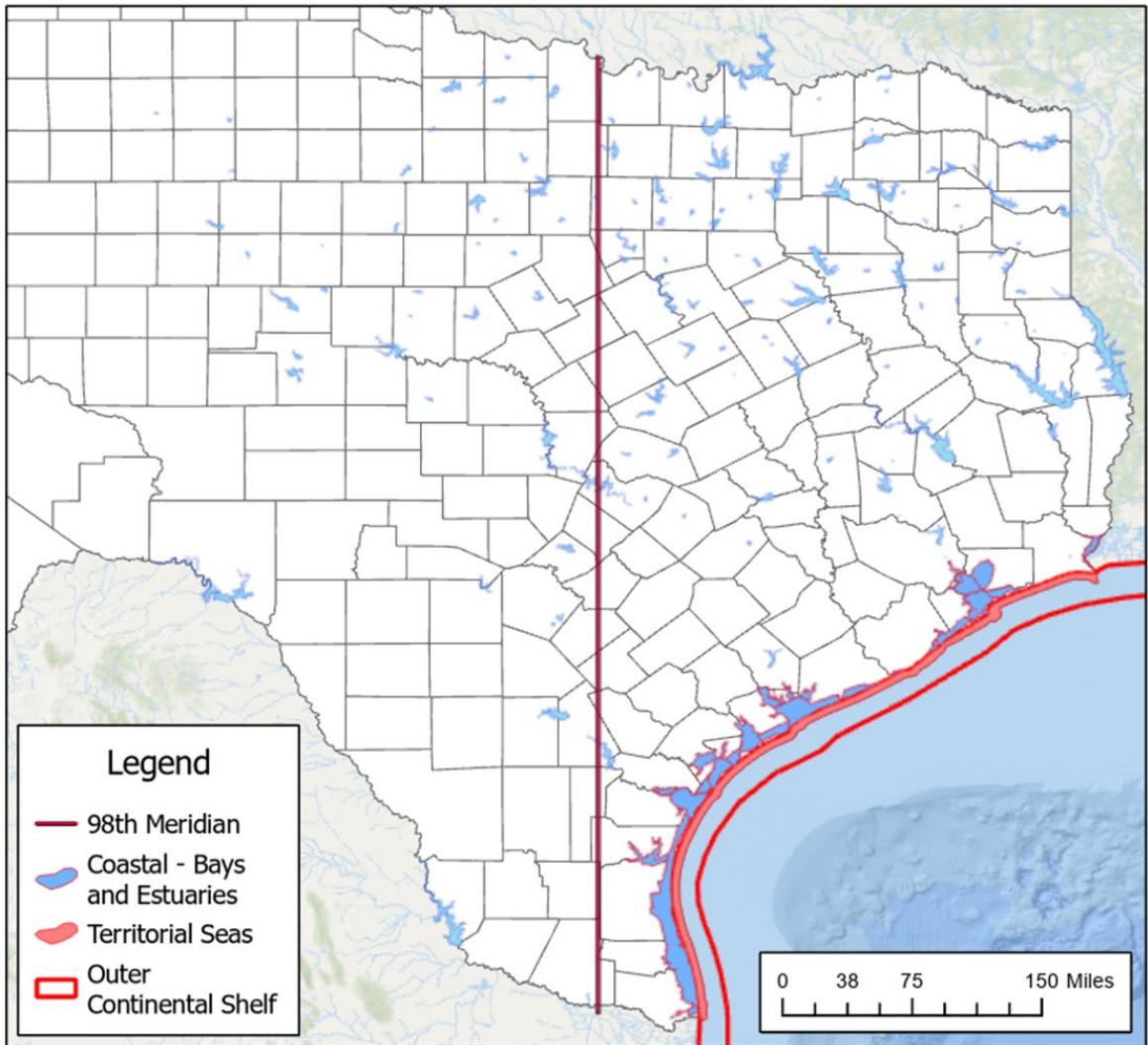
TXG310000 - Onshore Stripper Well Facilities, Coastal Facilities, and Territorial Seas Facilities (within 3-miles of the Texas Coastline)



- Combines and replaces NPDES General Permit Nos. TXG260000 and TXG330000, as well as individual permit authorizations required by the Railroad Commission.
- Approved by the Commission on January 10, 2024.
- \$800 application fee and \$100 annual water quality fee.

Onshore Stripper Well Facilities

TXG310000



- Authorize discharge to surface waters**
 - produced wastewater
 - well treatment (not hydraulic fracturing fluids)
 - workover fluids
- Prohibition of discharge to surface waters**
 - drilling fluids
 - drill cuttings
 - produced sand
 - dewatering effluent
 - formation test fluids
 - well completion fluids
 - hydrate control fluids
 - domestic waste
 - sanitary waste
 - contaminated miscellaneous discharges and uncontaminated miscellaneous discharges
 - contaminated stormwater

Onshore Stripper Well Facilities

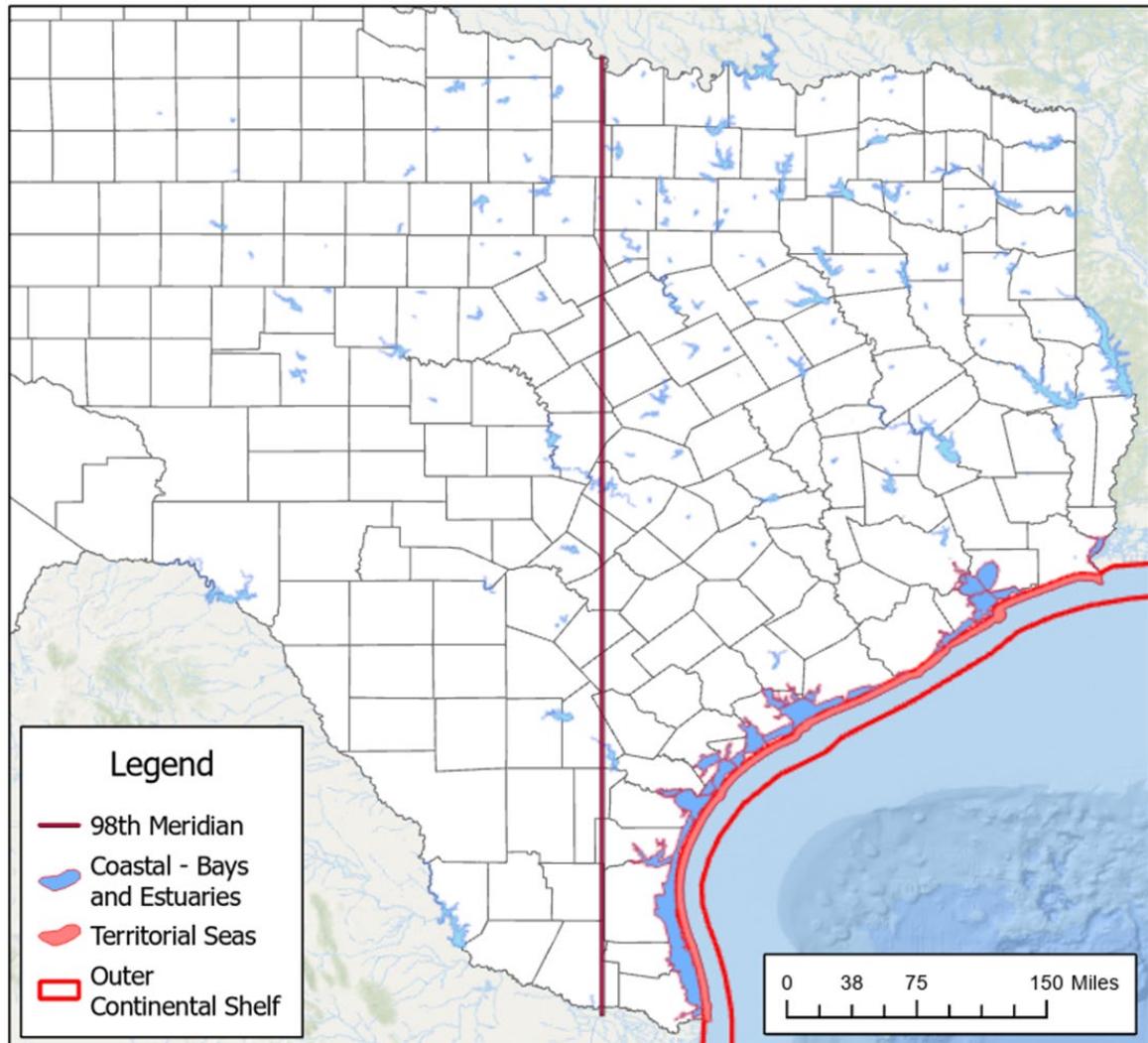
TXG310000

Effluent Limitations and Monitoring Requirements:

Parameter	Daily Maximum Limitations	Daily Average Limitations	Sample Type	Monitoring Frequency
Flow	Report, MGD	N/A	Estimate	Once/month
Total Dissolved Solids	3000 mg/L	N/A	Grab	Once/year
Oil & Grease	35 mg/L	25 mg/L	Grab	Once/month
pH	6.0 - 9.0 standard units	N/A	Grab	Once/month
Lethal Whole Effluent Toxicity (WET) limit > 100% <i>Daphnia pulex</i> (24-hour acute LC50 ¹)	≥ 100%	≥ 100%	Grab	Once/six months ²
Lethal WET limit > 100% <i>Pimephales promelas</i> (24-hour acute LC50 ¹)	≥ 100%	≥ 100%	Grab	Once/six months ²

Territorial Seas Facilities

TXG310000



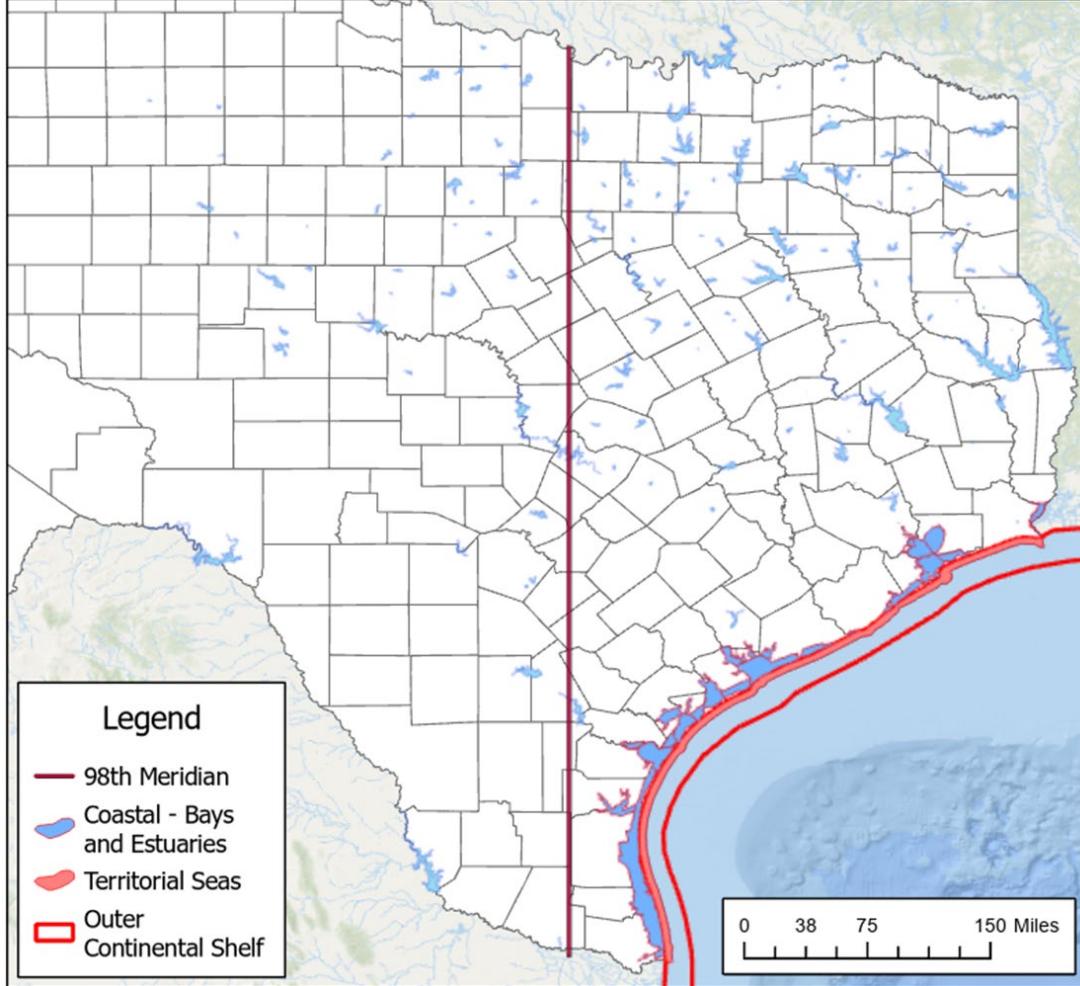
- **Authorize discharge to surface waters**
 - Produced wastewater
 - Hydrate control fluids
 - Well treatment, completion, and workover fluids
 - Deck drainage
 - Domestic waste
- **Prohibition of discharge to surface waters**
 - hydrate control fluids
 - domestic waste
 - sanitary waste
 - contaminated miscellaneous discharges and uncontaminated miscellaneous discharges
 - contaminated stormwater

WQG280000 - State-Only Outer Continental Shelf (3 – 10.357 miles from Texas Coastline)

- Developed to replace individual RRC permit authorizations.
- Approved by the Commission on January 10, 2024, and is available for coverage.
- \$800 application fee and \$100 annual water quality fee.
- Requires separate authorization from EPA.
 - Either under NPDES GP GMG290000 or an individual NPDES permit.



WQG280000 - State-Only Outer Continental Shelf (3 – 10.357 miles from Texas Coastline)



- **Authorize discharge to surface waters**
 - Produced wastewater
 - Hydrate control fluids
 - Well treatment, completion, and workover fluids
 - Deck drainage
 - Domestic waste
 - Uncontaminated miscellaneous discharges
- **Prohibition of discharge to surface waters**
 - Non-aqueous drilling fluids
 - Produced sand
 - Dewatering effluent
 - Formation test fluids



<https://www.tceq.texas.gov/permitting/wastewater/general/index.html>



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Water Quality General Permits

State-wide permits authorizing the discharge of wastewater and/or stormwater. Obtain information about pending renewals and amendments (including those currently accepting comments from the public), recently issued general permits, and a complete list of general permits.

The discharge of wastewater and certain types of stormwater into or adjacent to **water in the state** must be authorized by an individual permit or a general permit. Seeking the ability to discharge under a general permit is less time-consuming and usually requires fewer resources.

Updates on renewal or amendment of general permits are provided at Water Quality Advisory Working Group meetings. Meetings occur quarterly and are

Questions or Comments:
wqap@tceq.texas.gov

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- [Occupational Licensing](#)
- [State 401 Certification of Federal 404 Dredge and Fill Permits](#)
- [Advisory Groups](#)
- [Water Quality Management Plan](#)



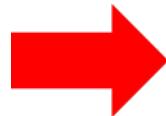
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

<https://www.tceq.texas.gov/permitting/wastewater/general/index.html>

Recently Issued

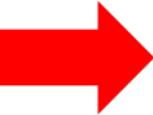
**HOT UPDATE Hydrostatic Test Water General Permit
(TXG670000)**

**HOT UPDATE Quarries in Certain Water Quality Protection
Areas General Permit (TXG500000)**

 **NEW Oil and Gas Outer Continental Shelf General Permit
(WQG280000)**

 **NEW Oil and Gas Extraction TPDES General Permit
(TXG310000)**

<https://www.tceq.texas.gov/permitting/wastewater/general/index.html>

 **Step 1.**

Read the General Permit **WQG280000** and the **Fact Sheet** to make sure it applies to your situation. NOTE: This general permit does not apply to discharges adjacent to water in the state (e.g., land application or evaporation) for wastes transported onshore from oil and gas extraction activities that are regulated by the Railroad Commission of Texas.

- If the general permit does not apply, you might need to obtain an **individual permit**.
- If the general permit does apply, continue with Step 2.

 **Step 2.**

Review your facility's **compliance history ranking**.

- If your facility has a ranking of "high performer", "satisfactory performer", or "inadequate information", continue to Step 3.
- If the compliance history ranking is "unsatisfactory performer," then your facility is not eligible for coverage under a general permit. You must apply for an **individual permit** instead.

<https://www.tceq.texas.gov/permitting/wastewater/general/index.html>



Step 3.

To apply for coverage under this general permit, submit a notification package, which includes:

- A **Notice of Intent (NOI)**
- A **Core Data Form** (TCEQ-10400) - **Instructions**
- Mail the completed package to:
Industrial Permit Team MC 148
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087
- Submit an application fee (\$800) :
Pay online by **ePay**

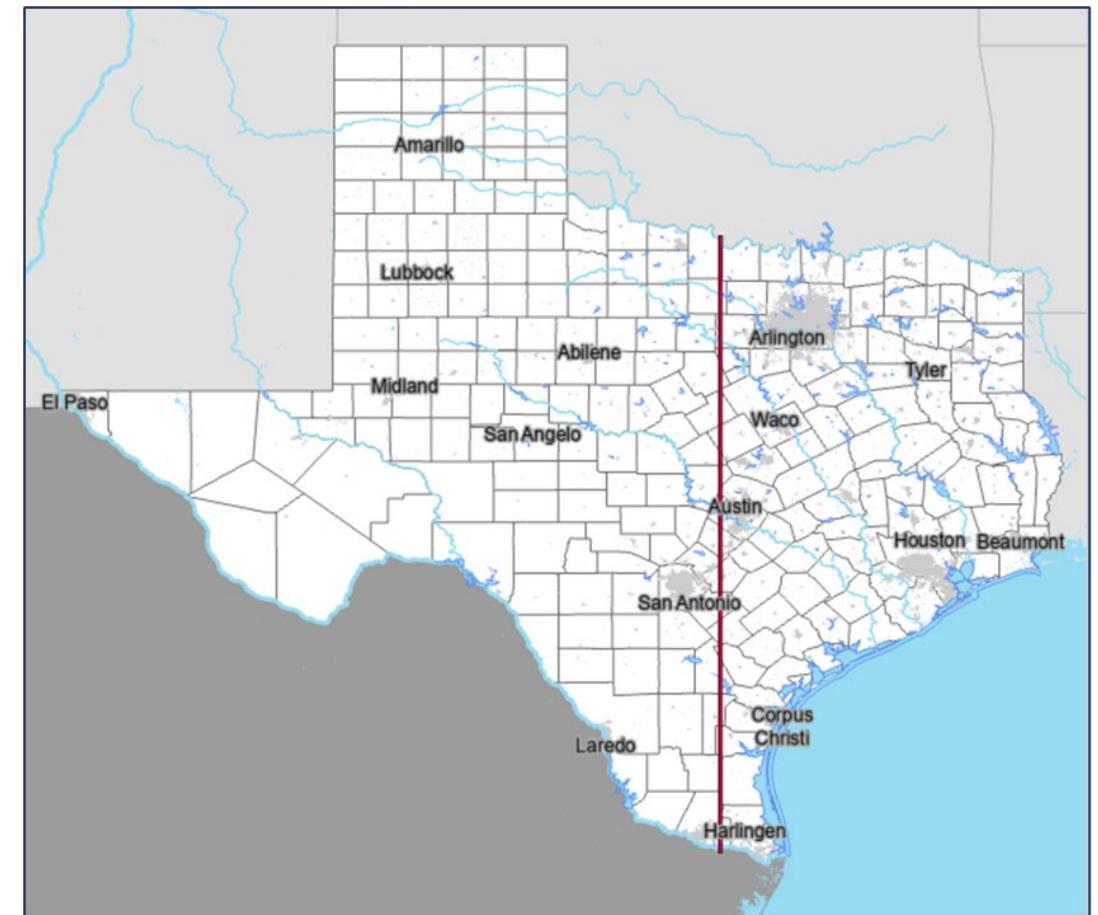
Or

Mail to:

Financial Administrative Division, Revenue Section MC 214
Texas Commission on Environmental Quality
P.O. Box 13088
Austin TX 78711-3088

Individual Permits – West of 98th Meridian

- EPA did not develop a NPDES general permit for discharges West of the 98th Meridian for oil and gas extraction
- Modified industrial wastewater permit application specific for discharge of produced wastewater
- Site specific review to establish effluent limitations and other conditions to protect specific receiving waters
- Subject to 40 CFR 435, Subpart E



Implementation Procedures (IPs)

Procedures to Implement the Texas Surface Water Quality Standards (Regulatory Guidance, RG-194)

- The Texas Surface Water Quality Standards are implemented when issuing permits for wastewater discharges to surface waters of the state.
- Surface water quality assessment and impairment status are considered, as provided in the Texas Integrated Report.

Texas Surface Water Quality Standards

30 TAC Chapter 307

Appendix C:

- Classified Segment location descriptions

Appendix A:

- Associated water quality uses
- Numeric criteria to protect uses

2309 Devils River - from a point 0.6 km (0.4 mi) downstream of the confluence of Little Satan Creek in Val Verde County to the confluence of Dry Devils River in Sutton County

2310 Lower Pecos River - from a point 0.7 km (0.4 mi) downstream of the confluence of Painted Canyon in Val Verde County to a point immediately upstream of the confluence of Independence Creek in Crockett/Terrell County

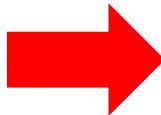
2311 Upper Pecos River - from a point immediately upstream of the confluence of Independence Creek in Crockett/Terrell County to Red Bluff Dam in Loving/Reeves County

Rio Grande Basin Designated Uses and Numeric Criteria

Segment No.	Rio Grande Basin Segment Names	Recreation Use	Aquatic Life Use	Domestic Water Supply Use	Other Uses	Cl ¹ (mg/L)	SO ₄ ² (mg/L)	TDS (mg/L)	Dissolved Oxygen (mg/L)	pH Range (SU)	Indicator Bacteria ¹ #/100 mL	Temperature (degrees F)
2301	Rio Grande Tidal	PCR1	E						5.0	6.5-9.0	35	95
2302	Rio Grande Below Falcon Reservoir	PCR1	H	PS		270	350	880	5.0	6.5-9.0	126	90
2303	International Falcon Reservoir	PCR1	H	PS		200	300	1,000	5.0	6.5-9.0	126	93
2304	Rio Grande Below Amistad Reservoir	PCR1	H	PS		200	300	1,000	5.0	6.5-9.0	126	95
2305	International Amistad Reservoir	PCR1	H	PS		150	270	800	5.0	6.5-9.0	126	88
2306	Rio Grande Above Amistad Reservoir	PCR1	H	PS		200	450	1,400	5.0	6.5-9.0	126	93
2307	Rio Grande Below Riverside Diversion Dam	PCR1	H	PS		300	550	1,500	5.0	6.5-9.0	126	93
2308	Rio Grande Below International Dam	NCR	L			250	450	1,400	3.0	6.5-9.0	605	95
2309	Devils River ²	PCR1	E	PS		50	50	300	6.0	6.5-9.0	126	90
2310	Lower Pecos River	PCR1	H	PS		1,700	1,000	4,000	5.0	6.5-9.0	126	92
2311	Upper Pecos River	PCR1	L			7,000	3,500	15,000	5.0 ³	6.5-9.0	33	92

Additional Sources for Requirements

- **NPDES+ List**
 - Commonly occurring contaminants in produced wastewater developed by the New Mexico Produced Water Research Consortium.
- **PW GPs:**
 - TXG310000
 - WQG280000
- **Oil & Gas Related GPs:**
 - TXG340000 - Petroleum Bulk Stations and Terminals
 - TXG830000 - Petroleum Contaminated Water
- **Downhole Chemical List**
 - Provided by permittee



https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html



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Industrial Wastewater Discharges: The Permit Process

Industrial Wastewater Discharges: The Permit Process

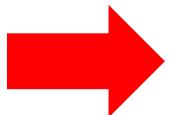
This page contains a brief description of the industrial wastewater permitting process for Texas Pollutant Discharge Elimination System (TPDES) permits and Texas Land Application permits (TLAPs).

If you must obtain an individual permit to discharge industrial wastewater into or adjacent to "[waters in the state](#)," take these steps to begin the permitting process:

- **Contact TCEQ staff well before you apply for the permit.** This is not a requirement but is highly recommended. Our staff will help you determine if a permit is needed, the type of permit needed, as well as the information to provide in a permit application package.

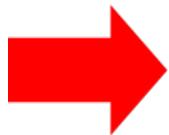


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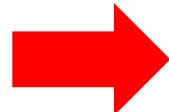


- **Oil & gas exploration and production wastewater permits:**

- [**Administrative Report for Oil & Gas Exploration and Production Wastewater**](#)
 - Complete applicable sections and the checklist. Include the appropriate signatures. Submit the appropriate fees. The report must be in the same format and page numbering sequence in order for the application to be processed. Instructions to be followed for the administrative report are in the following document: [**Completing the Administrative Report for Oil and Gas Exploration and Production Wastewater**](#)
- [**Industrial Wastewater Technical Report.**](#)
 - Complete applicable sections and worksheets. They will become the main body of your application. Submit the entire Technical Report in your application package. The report must be in the same format and page numbering sequence in order for the application to be processed. Oil & gas exploration and production wastewater is included in this report. Instructions to be followed for the technical report are in the following document: [**Completing the Industrial Wastewater Permit Application \(Instructions\)**](#)



https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html



- **Complete and submit a permit application package at least 330 days before the proposed discharge begins or as soon as possible:**
 - Applicants are encouraged to submit an industrial application through the State of Texas Environmental Electronic Reporting System (STEERS). Please visit this **help** page for guides on creating an account and electronically submitting an application for the ePermits Water Quality Individual Permit program (EPR_WQIP).
 - Alternatively, applicants may submit a completed physical application (i.e., paper copy) and submit an electronic copy of the application via TCEQ's file transfer protocol (FTP) server. If a completed physical application is submitted, an electronic copy of the application must be uploaded via TCEQ's FTP server for the application to be considered complete.

Produced Wastewater

West vs East

West of 98 th Meridian	East of 98 th Meridian
Discharge allowed in an individual permit IF put to beneficial use for agriculture or wildlife purposes.	Discharge prohibited in an individual permit.
	Discharge prohibited from coastal facilities.
	Discharge allowed from stripper wells facilities.
	Discharge allowed from territorial seas facilities.
	Discharge allowed from outer continental shelf facilities.

Federal regulations limit discharges of produced water from oil and gas extraction operations based on location. Federal regulations also prohibit moving effluent generated in one area to another area for discharge under less stringent requirements.

Contact Us

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Questions?