

Latest on Oil and Gas Produced Wastewater Permits

Water Quality/Stormwater Seminar



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October 2025

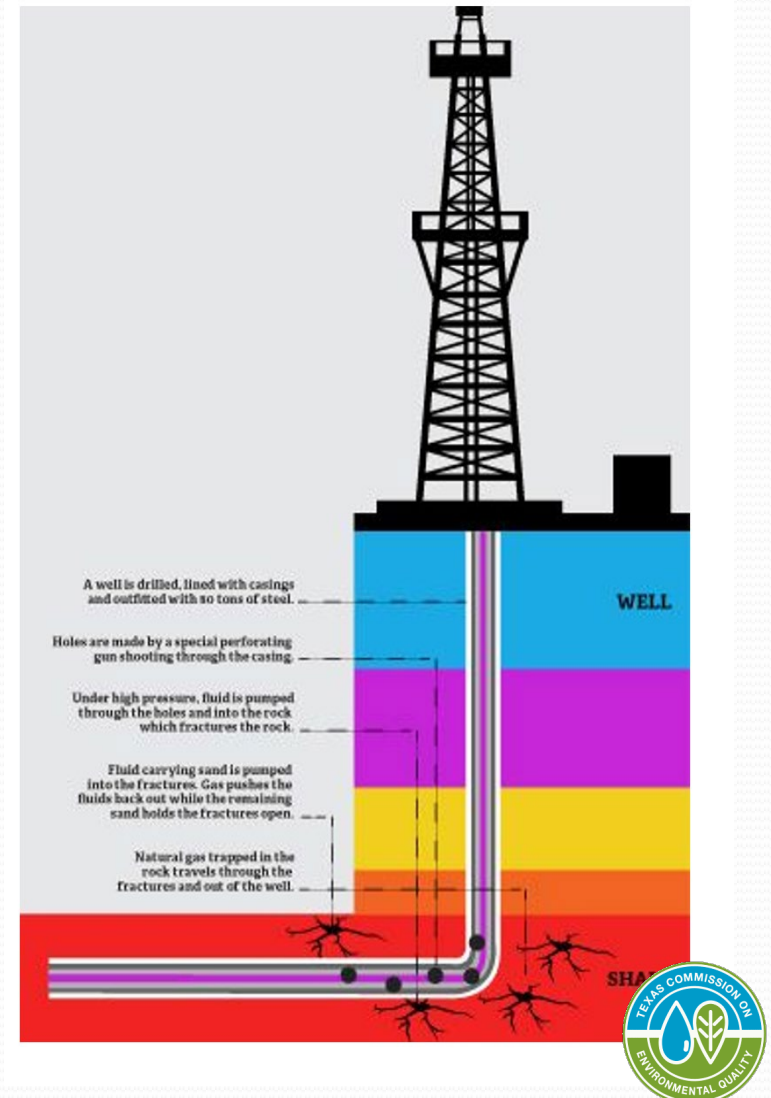
Agenda

- Overview
- Federal Regulations
- Produced Wastewater Management West of the 98th Meridian: Looking Back
- Produced Wastewater Discharge Permitting: Looking Forward
- SB1145 (HB 2584) New Legislation on Land Application of Produced Water

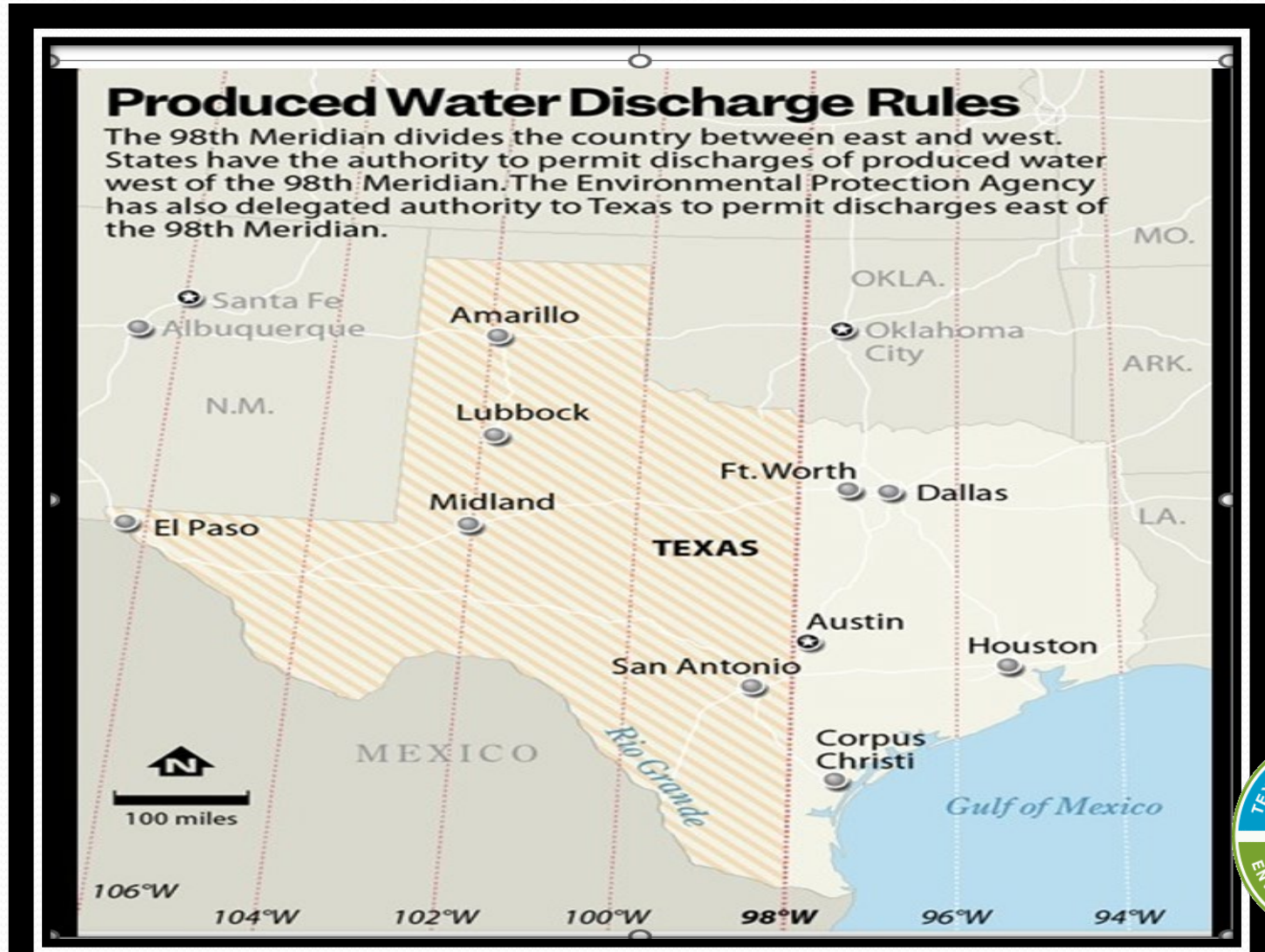


Overview: What is Produced Wastewater?

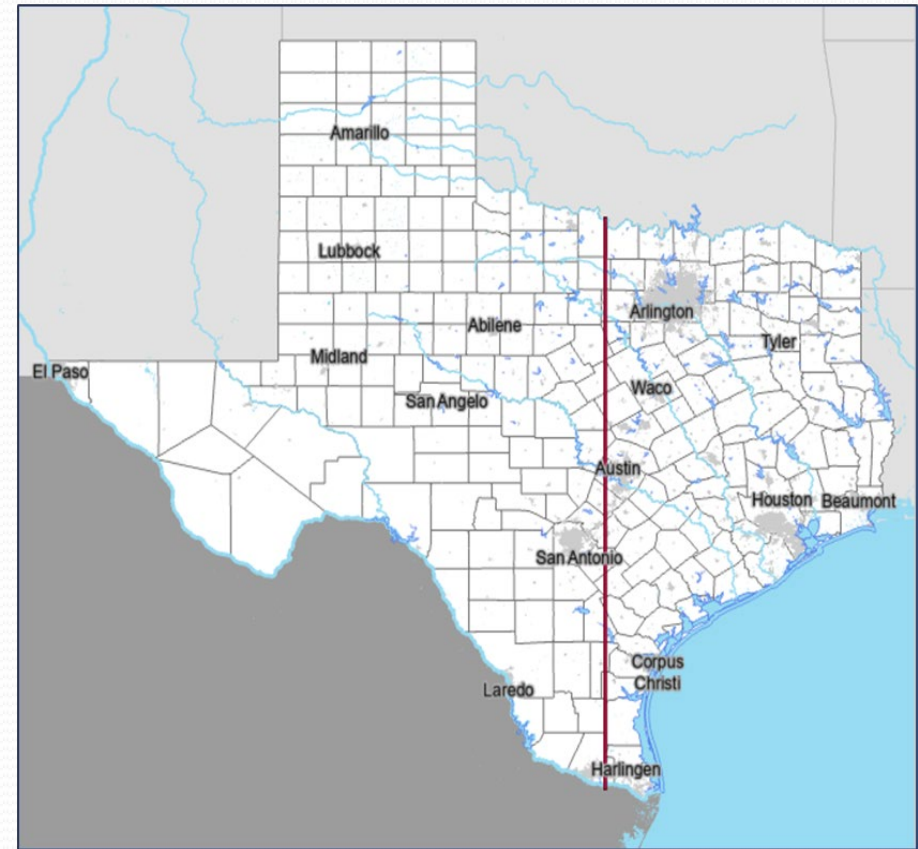
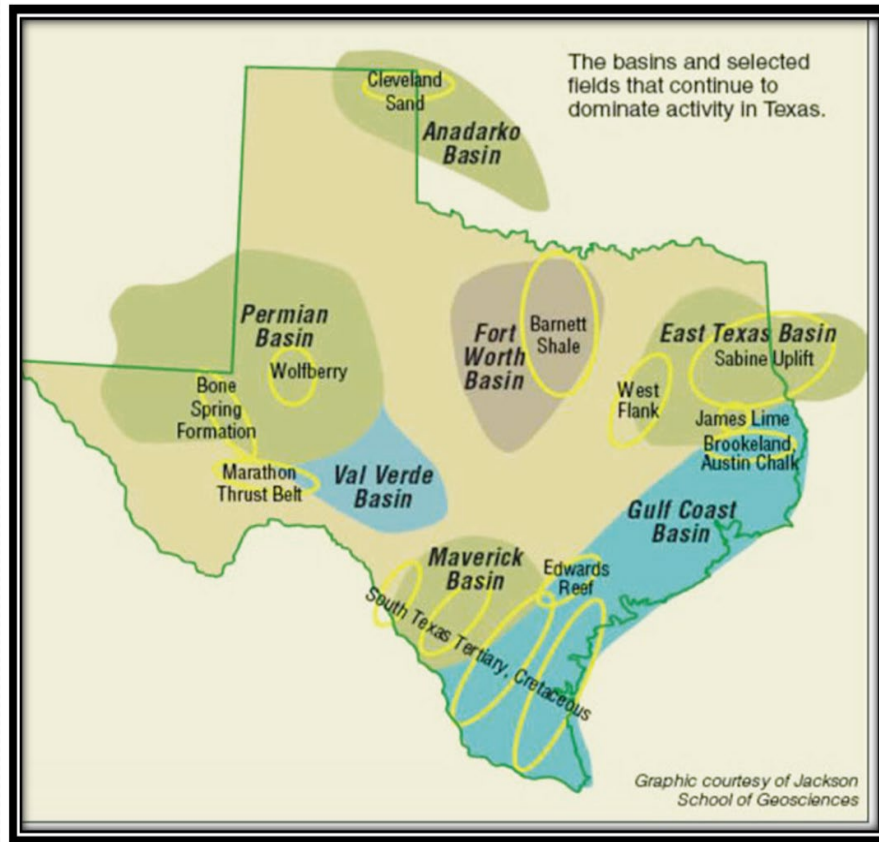
- The water (brine) brought up from the hydrocarbon-bearing strata during the extraction of oil and gas, and can include formation water, injection water, and any chemicals added downhole or during the oil/water separation process
- Excludes:
 - Drilling fluids; Well completion fluids; Well treatment fluids; and Workover fluid



Overview: The 98th Meridian Permitting Divide



Overview: Texas Oil Fields



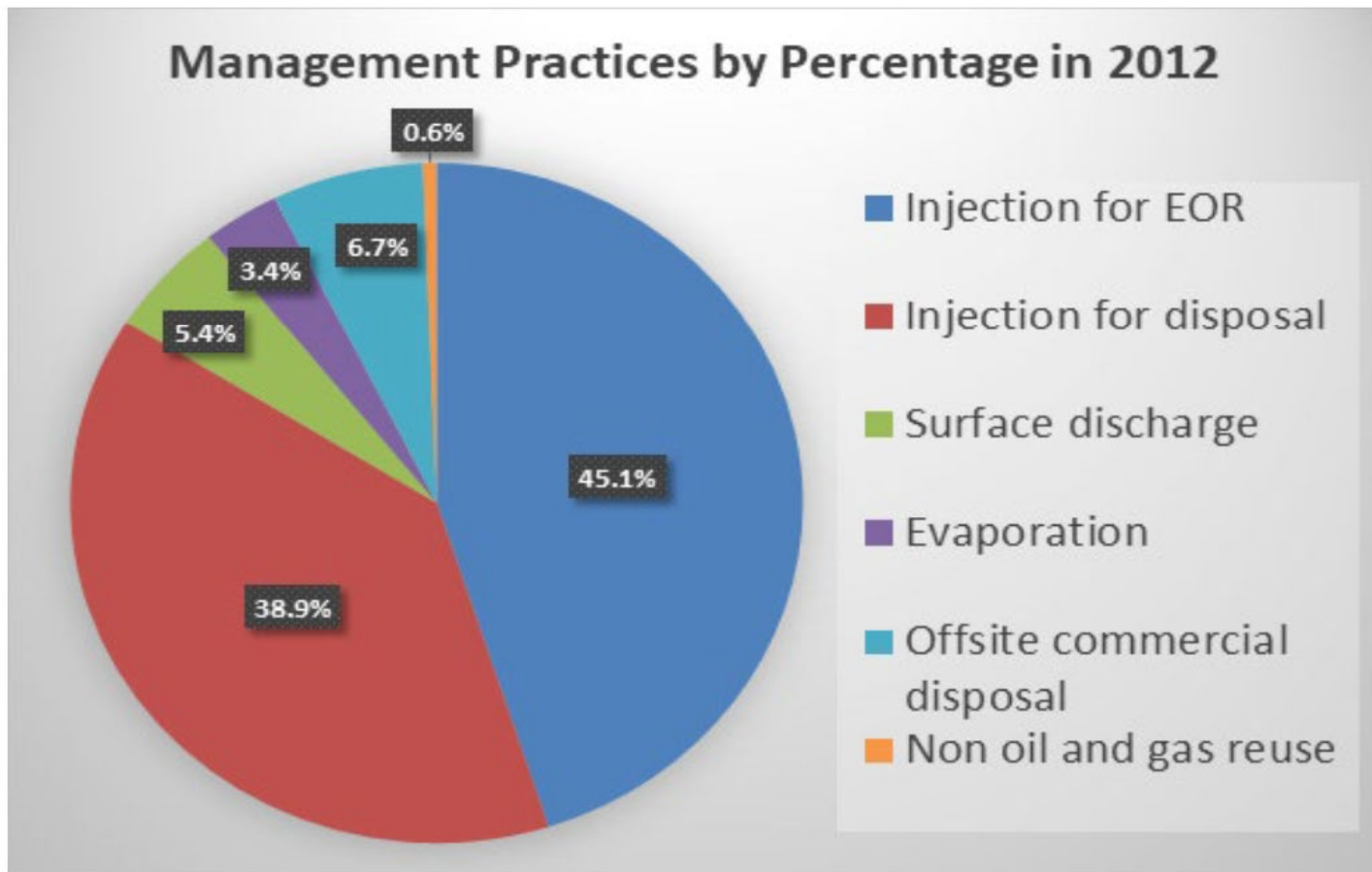
Produced Wastewater: Applicable Federal Regulations

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



Produced Wastewater Management West of the 98th Meridian: Looking Back



Management Practices of Produced Water by Percentage in 2012



Produced Wastewater Discharge Permitting West of the 98th Meridian: Looking Forward

- Development of TPDES Permitting for Produced Wastewater Discharge West of the 98th Meridian
- Permitting Process Remains the Same
- New Permit Requirements, Conditions, and Monitoring Requirements



Development of TPDES Permitting for Produced Wastewater Discharge West of the 98th Meridian

What TCEQ worked on to facilitate development of draft permits:

- Define produced wastewater
- Obtained a comprehensive list of pollutants expected to occur in produced water
- Obtained applicable analytical methods
- Obtained method detection limits and developed Minimum Analytical Limits



Development of TPDES Permitting for Produced Wastewater Discharge West of the 98th Meridian

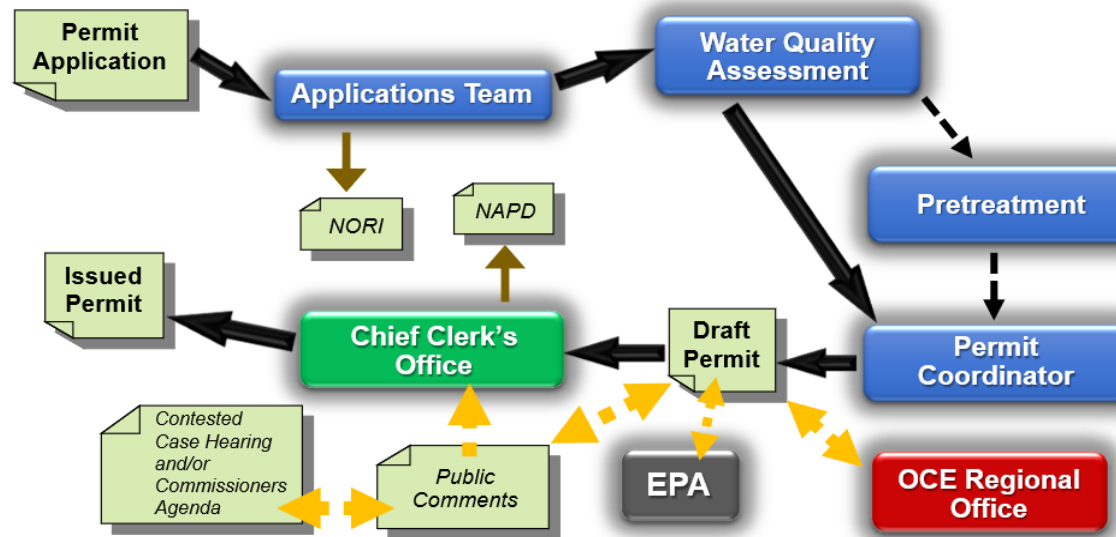
What TCEQ worked on to facilitate development of draft permits (cont'd):

- Sought updating of ICIS database to add missing pollutants
- Developed water quality thresholds for produced wastewater constituents that do not have codified water quality criteria already



Wastewater Permitting Process Flow

Wastewater Permitting Process Flow



Produced Wastewater Discharge Permitting: Looking Forward

New Permit Requirements, Conditions, and Monitoring Requirements

- Provide all pollutants that occur in produced wastewater
- Develop and require effluent limits, including Whole Effluent Toxicity (WET) limits, before start of operation
- Require phased development approach
- Require progressive scaling of authorized flow discharge based on 6 months of continuous compliance report with all limits



Produced Wastewater Discharge Permitting: Looking Forward

New Permit Requirements, Conditions, and Monitoring Requirements (Continued)

- Require provision of detailed narrative and description of the treatment technology and sufficient information showing what it is able to treat and to what levels.
- No dilution or mixing consideration
- Add persistent non-compliance reporting
- Add in-stream monitoring



SB1145 (HB 2584) New Legislation on Land Application of Produced Water

S.B. No. 1145

AN ACT

relating to the authority of the Texas Commission on Environmental Quality to issue permits for the land application of water produced from certain mining and oil and gas extraction operations.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Section 26.131, Water Code, as effective until delegation of authority under the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 6901 et seq.) to the Railroad Commission of Texas, is amended by amending Subsection (b) and adding Subsection (e) to read as follows:

(b) Except as provided by Subsections ~~[Subsection]~~ (d) and (e), the Railroad Commission of Texas may issue permits for the discharge of waste resulting from the activities described by Subsection (a), and the discharge of waste into water in this state resulting from those activities must meet the water quality standards established by the commission.

(e) The commission may issue permits for the land application of produced water resulting from activities described by Subsection (a) that has been treated for beneficial use. The commission shall adopt standards for the land application of water under this section, including standards that prevent the pollution of surface and subsurface water.

SECTION 2. Section 26.131, Water Code, as effective on delegation of authority under the Resource Conservation and

Questions



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