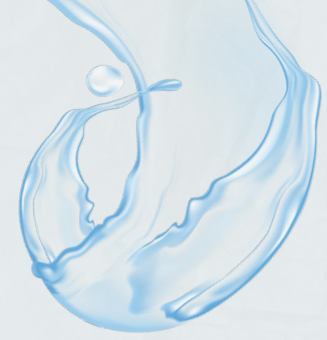




Crystal Li, P.E.
TCEQ Wastewater Engineering
& Domestic Reuse Team
crystal.li@tceq.texas.gov
512-239-1372

Domestic Use of Reclaimed Water



TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

PRESENTATION OUTLINE

Current Rules:

- 30 TAC Chapter 210 – Use of Reclaimed Water
- 30 TAC Chapter 321 Subchapter 321P – Reclaimed Water Production Facilities

Updates:

- SB 1289 Implementation Efforts
- 30 TAC Chapter 217 Reclaimed Water Facilities Changes



CHAPTER 210- CONTENTS

Subchapter A	General Provisions
Subchapter B	General Requirements for the Production, Conveyance and Use of Reclaimed Water
Subchapter C	Quality Criteria And Specific Uses for Reclaimed Water
Subchapter D	Alternative And Pre-existing Reclaimed Water Systems
Subchapter E	Special Requirements for Use of Industrial Reclaimed Water
Subchapter F	Use Of Graywater Systems



APPLICABILITY

This chapter applies to the reclaimed water producer, provider, and user.

Producer: A person or entity that produces reclaimed water by treating domestic wastewater or municipal wastewater, in accordance with a permit or other authorization of the Agency, to meet the quality criteria established in this chapter.

Provider: A person or entity that distributes reclaimed water to a user(s) of reclaimed water.

User: Person or entity utilizing reclaimed water for a beneficial use, in accordance with the requirements of this chapter.



TYPE OF AUTHORIZED USES

01



TYPE I USES

Public Exposure Possible

- Irrigation: landscape, public parks, schoolyards, athletic fields, golf courses, pastures land for milking animals, food crops
- Fire protection
- Maintenance any off channel water bodies where recreational activities, such as wading or fishing, are anticipated
- Toilet or urinal flush water

TYPE II USES

Restricted Public Exposure

- Irrigation of food crops (**not edible portion**)
- Animal feed-crop irrigation that does not involve milking operations
- Irrigation of limited access golf courses, cemeteries, and landscaped areas
- Soil compaction or dust control
- Cooling tower makeup water
- Supply to non-recreational water bodies



WATER QUALITY

02



TYPE I

- BOD/CBOD: 5 mg/L
- Turbidity: 3 NTU
- *E.coli*
 - i. 20 CFU or MPN*/100 mL geo mean
 - ii. 75 CFU or MPN/100 mL max grab

Monitoring Frequency: 2/week

Public exposure

TYPE II

- BOD: 20 mg/L
- CBOD: 15 mg/L
- *E.coli*
 - i. 200 CFU or MPN/100 mL geo mean
 - ii. 800 CFU or MPN/100 mL max grab

Monitoring Frequency: 1/week

Non-public exposure

WWTP on-site use – no notification

* Colony Forming Units (CFU) or Most Probable Number (MPN)



STORAGE REQUIREMENT

03

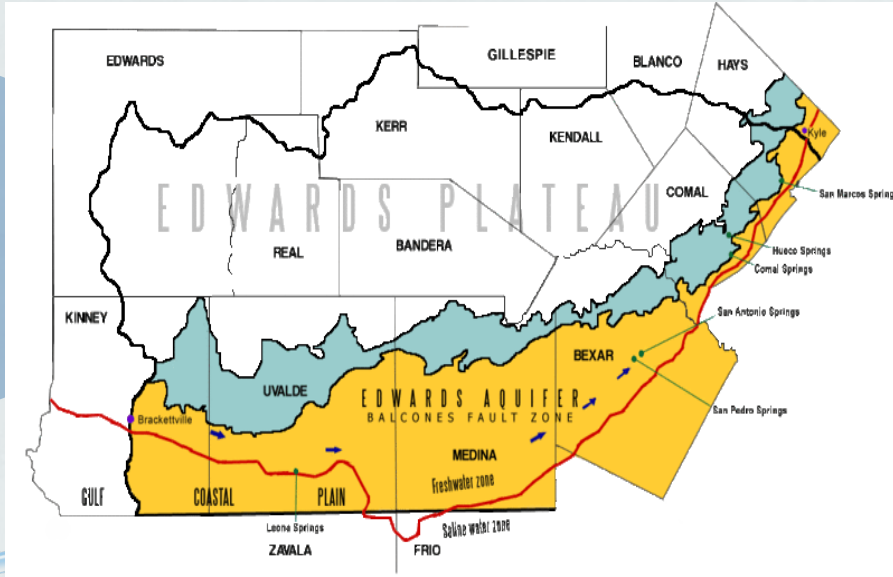


STORAGE

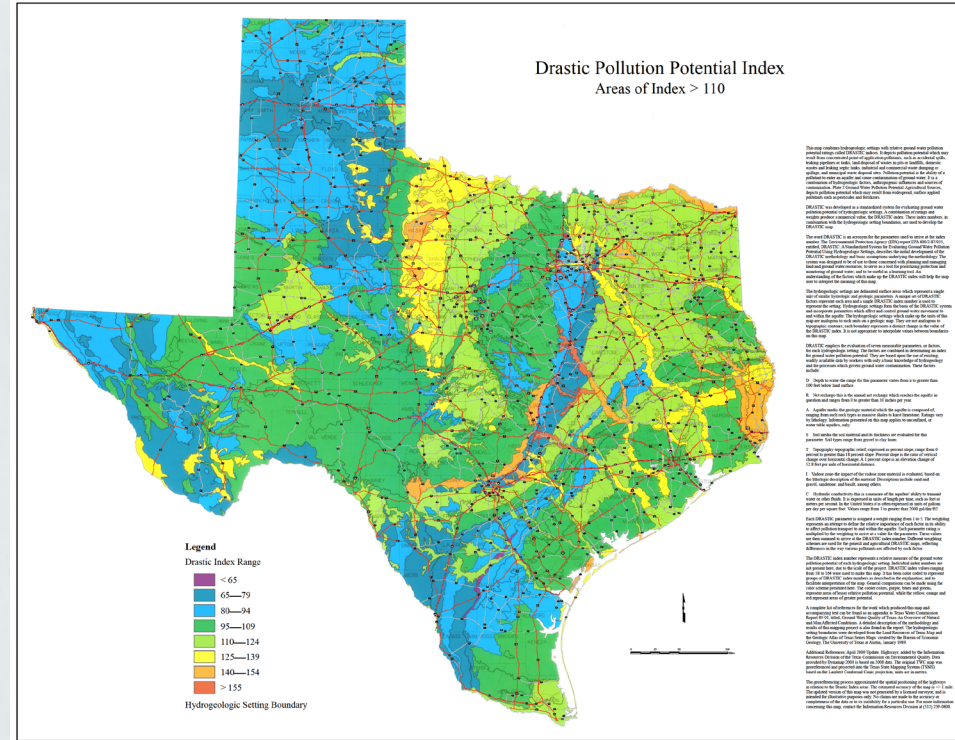
- Leak-proof fabricated tank
- Soil Liner Permeability
 - 1×10^{-7} cm/sec Edwards or DRASTIC
 - 1×10^{-4} cm/sec located outside of Edwards or DRASTIC
- Soil Liner Thickness
 - Two to three feet



EDWARD AQUIFER & DRASTIC



* More stringent requirements



SIGNAGE REQUIREMENT

04



SIGN & PURPLE PIPE

* Prevent consumption and cross connections



REPORTING REQUIREMENT

05



REPORTING

- Notify TCEQ 30 days before pumping
 - No reporting while constructing
- Monthly Effluent Reports (MER)
- Reclaimed + outfall $\leq$ permitted flow



GENERAL REQUIREMENTS

06



GENERAL REQUIREMENTS

- 1) Reuse of untreated wastewater is prohibited.
- 2) Food crops that may be consumed raw by humans shall not be spray irrigated.
- 3) There shall be no nuisance conditions resulting from the distribution, the use, and/or storage of reclaimed water.
- 4) Reclaimed water shall not be utilized in a way that degrades ground water quality to a degree adversely affecting its actual or potential uses.
- 5) Reclaimed water managed in ponds for storage must be prevented from discharge into waters in the state, except for discharges directly resulting from rainfall events or in accordance with a permit issued by the commission.
- 6) All other discharges are unauthorized.



HOW TO APPLY?

07



DOMESTIC REUSE AUTHORIZATION

- Current wastewater permit (TPDES or TLAP)
- Application on web (TCEQ-20427)

Requirements for Reclaimed Water - Texas Commission on Environmental Quality - www.tceq.texas.gov

- No charge
- No expiration



Authorization for Re-Use of Domestic Reclaimed Water

This application is for the beneficial reuse of domestic reclaimed water in accordance with 30 Texas Administrative Code (TAC) Chapter 210, Subchapters A, B, C, and D.

REASON FOR APPLICATION:

Select the reason you are submitting this application:

- ☐ New authorization
- ☐ Amendment of reuse authorization number: R

SOURCE OF THE RECLAIMED WATER:

What is the permit number for the wastewater treatment plant where the reclaimed water is produced: WQ00

What is the expiration date of the wastewater permit?

WHAT SHOULD BE INCLUDED?

The application includes:

- a description of the intended use of the reclaimed water, including quantity, quality, origin, and location and purpose of intended use;
- a clear indication of the means for compliance
- evidence in a water supply contract or other binding agreement of the provider's authority to terminate reclaimed water use that is noncompliant with this chapter; and
- an operation and maintenance plan



CHAPTER 321P

08



HISTORY OF CHAPTER 321P

Reclaimed Water Production Facilities

- 2007 – Agency received petition for new rules to allow permittee to build a wastewater treatment plant for the purpose of reuse only within their collection system
- 2008 – Commission adopted Chapter 321, Subchapter P rules
- Around 2021 – Commission started talking with groups about a petition to decouple these facilities from the permitted WWTP
- 2023 – SB 1289 was passed and required rulemaking to 30 TAC Chapters 321 and 210
- 2025 – 30 TAC 321 and 210 amended February 28, 2025, effective March 5, 2025



CHAPTER 321 P

SUBMITTAL REQUIREMENTS

- Submit as one complete package:
 - 321P application – Form TCEQ 20537
 - Plans and Specifications per Chapter 217
 - 210 Application – Form TCEQ 20427



ENHANCED BUFFER ZONE DESIGNATION

- 300 ft. to nearest property line if plant is not enclosed
- 150 ft. if plant enclosed but no odor control installed
- 50 ft. if plant enclosed and odor control installed



SB 1289

09



SB 1289 in the 88th Texas Legislature (2023)

- SB 1289 was signed by Governor Abbott on June 18, 2023, and went into effect immediately.
- SB 1289 allows the disposal of treated wastewater from a reclaimed water production facility through a collection system **without the requirement of a TPDES / TLAP permit**. Consent must be provided by the owner of the collection system and associated wastewater treatment facility.



SB 1289- Current Implementation Status

- 321P rules were amended to implement SB 1289 on March 5, 2025
- 210 rules were amended to implement SB 1289 on March 5, 2025
- New 321P application form is finalized to reflect the change and the authorization language is currently under review.



321P authorizations under the SB 1289 statute changes

- Prior to adoption of rules, under the SB 1289 statute changes, **two authorizations were issued.**
- After adoption of rules, under the SB 1289 statute changes, **one authorization is under review.**



THANKS!

Do you have any questions?

Crystal Li, P.E.

TCEQ Water Quality Division
Engineering & Domestic Reuse Team

crystal.li@tceq.texas.gov

512-239-1372

