



USE OF RECLAIMED WATER

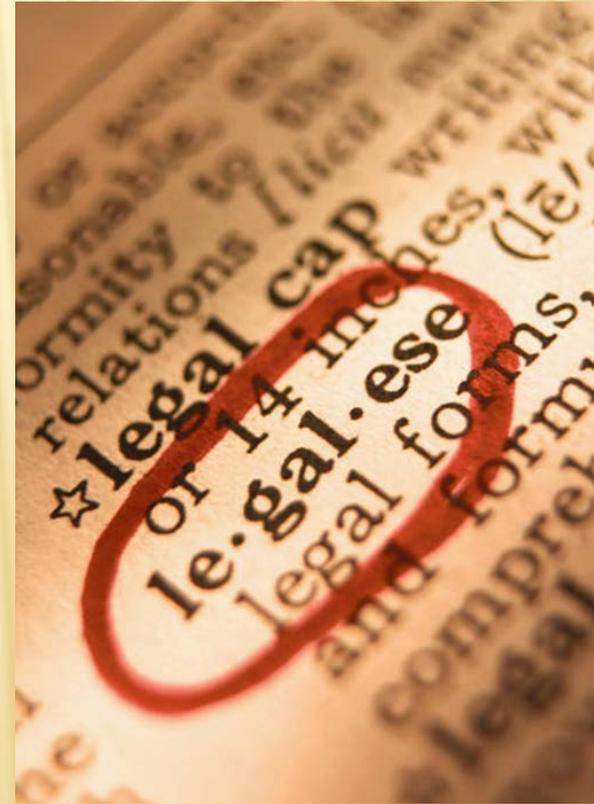
Texas Commission on Environmental Quality

CHAPTER 210

- × **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



CHAPTER 210

- × **SUBCHAPTER D**

- × ALTERNATIVE AND PRE- EXISTING RECLAIMED WATER SYSTEMS

- × **SUBCHAPTER E**

- × SPECIAL REQUIREMENTS FOR USE OF INDUSTRIAL RECLAIMED WATER

- × **SUBCHAPTER F**

- × USE OF GRAYWATER

APPLICABILITY

- ✘ This chapter applies to the reclaimed water producer, provider, and user.
- ✘ The use of reclaimed water is permissible only if the use occurs after the wastewater has been treated in accordance with the producer's wastewater permit and the permit provides for an alternative means of disposal during times when there is no demand for the use of the reclaimed water.

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. For purposes of this chapter, the reclaimed water provider may also be a reclaimed water producer

USER

- ✘ Person or entity utilizing reclaimed water for a beneficial use, in accordance with the requirements of this chapter. A reclaimed water user may also be a producer

DOMESTIC REUSE AUTHORIZATION

- Current wastewater permit
 - (TPDES or TLAP)
- Application on web (TCEQ-20427)
 - Keyword: **Reclaimed**
- No charge
- No expiration

NOTIFICATION

- × The notification include:
 - × (1) a description of the intended use of the reclaimed water, including quantity, quality, origin, and location and purpose of intended use;
 - × (2) a clear indication of the means for compliance

NOTIFICATION

- ✘ 3)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
- ✘ (4)an operation and maintenance plan

GENERAL REQUIREMENTS

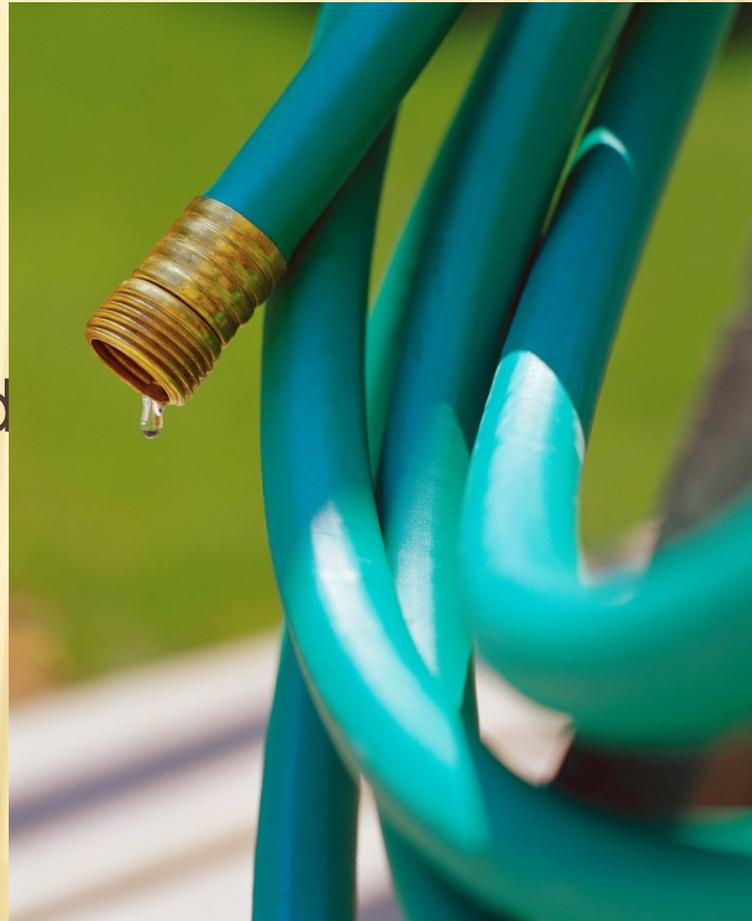
- ✘ Reuse of untreated wastewater is prohibited.
- ✘ Food crops that may be consumed raw by humans shall not be spray irrigated.
- ✘ There shall be no nuisance conditions resulting from the distribution, the use, and/or storage of reclaimed water.

GENERAL REQUIREMENTS

- ✘ Reclaimed water shall not be utilized in a way that degrades ground water quality to a degree adversely affecting its actual or potential uses.
- ✘ 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.
- ✘ **All other discharges are unauthorized.**

DOMESTIC RECLAIMED WATER

- Type I
 - Public exposed
- Type II
 - Public NOT exposed
- WWTP on-site
 - Type II quality
 - No notification



TYPE I USES

Public exposure possible

- Irrigation
 - Food crop
 - Parks, athletic fields
- Impoundments
 - Wading, boating, fishing
- Toilet flushing

TYPE II USES

Irrigation

Pond Maintenance

Construction – dust suppression, soil compaction

Industrial Processes—cooling tower, manufacturing

Public exposure limited by

location

timing

fencing

WWTP ON-SITE USE

- ✘ Recordkeeping
- ✘ 210 rules apply
- ✘ No notification





WATER QUALITY

Type I

- BOD / CBOD 5 mg/l
- Turbidity 3 NTU
- *E. coli* 20/100ml geo mean
 - 75/100ml max
- 2x week

Type II

- BOD 20 mg/l *or*
- CBOD 15 mg/l
- BOD 30 mg/l (Pond)
- *E. coli or* 200/100ml geo mean
 - 800/100 max
- 1x week

BACTERIA MEASUREMENT

- ✘ Most Probable Number (MPN)
- ✘ Colony Forming Units (CFU)
- ✘ Bacteria of choice
 - + No update to authorization required
 - + Note change on first MER
 - + Match permit
 - + Minimize cost



STRUCTURES & EQUIPMENT



- ✘ Manufactured tank
- ✘ Permeability
 - + 10^{-4} normally
 - + 10^{-7} Edwards or DRASTIC
- ✘ Rechlor *recommended*

SIGN & PURPLE PIPE



- ✘ Prevent
 - + consumption
 - + cross connections



REPORTING

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



GRAY WATER

- Private homes
- 400 gallons/day
- Irrigation
- Bypass back to sewer
- Tank with filter



210 FRACK WATER

- ✘ TCEQ jurisdiction until it loses its identity
- ✘ Storage RQs apply at drill site
- ✘ Some variances have been granted for piping



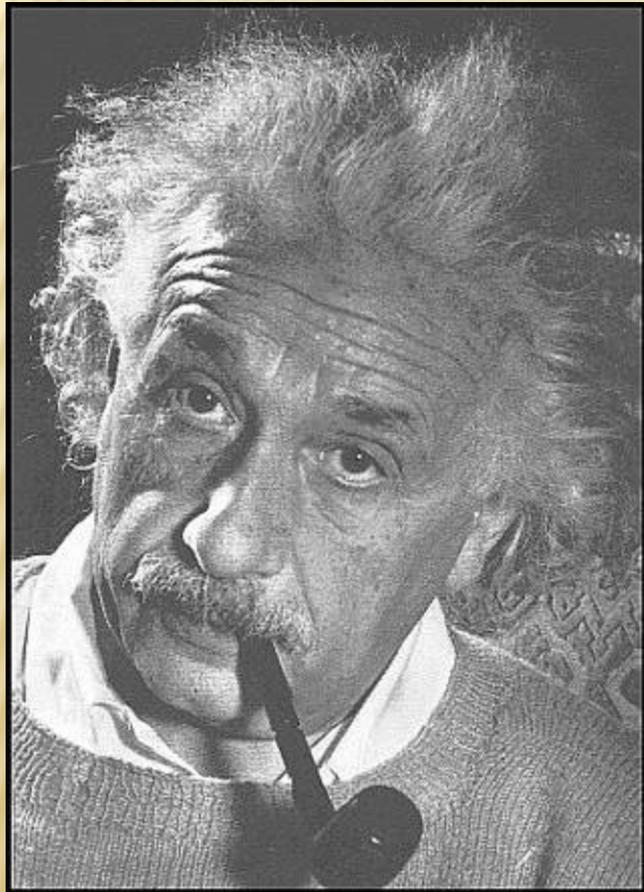
RECLAIMED WATER PRODUCTION FACILITIES

- ✘ 30 TAC 321P
- ✘ Save cost
 - + laying pipe
 - + pumping
- ✘ May be permitted without public notice
- ✘ No stinky stuff





QUESTIONS OR COMMENTS?



In life...

questions are guaranteed

answers are not

THANK YOU

- × Louis C. Herrin, III, P.E.
- × louis.herrin@tceq.texas.gov
- × 512 239-4552