Primary Goals of the Program

• Groundwater Protection!
• License Qualified Drillers and Pump Installers
• Establish and Enforce MINIMUM Well Construction, Well Plugging, and Pump Installation Standards
• Administration of the Abandoned Well Notification and Enforcement Program
• Cooperation with State and Federal Agencies and Local Governments
License Requirements

• A person may not act or offer to act as a driller or pump installer in the State of Texas unless the person is licensed by TDLR.

• Offering to act - Making a written or oral proposal, contracting in writing or orally to perform well drilling or pump installing work, or advertising in any form through any medium that a person or business entity is a well driller or pump installer, or that implies in any way that a person or business entity is available to contract for, act as a driller or installer, or perform well drilling or pump installing work.
License Endorsements

- Pump Installer:
  - Single Phase (P)
  - Three Phase (K)
  - Turbine (T)
  - Windmills, pump jacks, hand pumps (L)
  - Master Installer (I) – all of the above

- Driller:
  - Water (W)
  - Monitor (M)
  - Injection (N)
  - Dewatering (D)
  - Closed Loop Geothermal (C)
  - Master Driller (A) – all of the above
Exemptions

• Any person who drills an observation well within the backfill of an underground storage tank (UST), that is no more than 20 feet in depth.

• Any person who drills an environmental hand auger soil boring that is no more than 10 feet in depth.

• Any person who drills a water well on their own property.

• Any person who drills a dewatering well to remove water for the purpose of constructing a highway, road, bridge, drainage, or underground utility project.
Unlicensed Assistants Vs. Apprentices

• Unlicensed Assistants
  • Not responsible for drilling or pump installation operations.
  • Licensee needs to be onsite at all times.
  • Can not contract, bid, advertise, or accept payment for drilling or pump installing services.

• Licensed Apprentices
  • May drill wells and install pumps that the supervising licensee authorizes.
  • Responsible for the work performed.
  • Must have registration card when performing work.
PROPER SURFACE & ANNULAR SEALING EXAMPLES
Chapter 76.100

- Minimum 12" from Ground Surface
- Surface slope to drain away from well
- Min. 10' Annular Cement
- Min. 2' Cement
- Min. 8' Bentonite
- Borehole Min. 3' Larger than Casing
- Recommended 10' annular cement or bentonite
- Screened Area
- Gravel-Sand Packing
- Good Water Zone
WELL LOCATION
Chapter 76.100(a)
Minimum Completion

- Water-Tightline Septic Tank
- Septic System Absorption Field
- Dry Litter Poultry Facility

Minimum Horizontal Distance of 50 ft.

Minimum horizontal distance of 100 ft

Minimum horizontal distance of 150 ft from any other concentrated sources of potential contamination

Property Line
Chapter 76.100 (b)(2)

**ALTERNATIVE WELL LOCATION**

- Water - Tightline Septic Tank
- Septic System Absorption Field
- Dry Litter Poultry Facility

- Minimum Horizontal Distance of 50ft.
- Minimum Horizontal distance of 60 ft. Except as noted in the rules
- Property Line

Minimum Horizontal Distance of 50ft from any other Concentrated Source of Potential Contamination
ANNULAR SEALING EXAMPLE FOR DISTANCE REDUCTION
Chapter 76.100(b)(1) & (2)
Commingling

• All wells shall be completed so that AQUIFERS OR ZONES containing waters that differ in chemical quality are not allowed to commingle through the borehole casing annulus or the filter pack and cause quality degradation of any AQUIFER OR ZONE. When AQUIFERS OR ZONES of lesser quality are overlying the production zone, the borehole annulus shall be pressure grouted with bentonite or cement from the top of the production zone back to the surface unless the formations make total grouting impossible or impractical. In this case the entire borehole annulus which is groutable shall be grouted and sealed including proper surface annular grouting and completion.
Injurious Water Overlying Fresh
Chapter 76.101(2)&(3)

- Original Ground Surface
- Min 2' Cement
- Min 8' Bentonite
- Total cement annular seal in Annular space to top of good water zone
- Injurious Water zone
- Gravel-Sand Packing or Packer (Optional)
- Screened Area or Open Borehole
- Good Water Zone

Screening and sealing are required to prevent contamination or influx of injurious water into the well or formation.
Completion for Producing Injurious Water
Chapter 76.102(b)

- Total Cement Annular Seal In Annular Space To Top Of Undesirable Water Zone
- Total Depth Of Well
- Ground Surface
- Good Water Zone
- Injurious Water
Well Construction Material

• A licensee shall use a manufacturer’s well screen, and select the correct slot size for the screen in the installation of a domestic (household use) or landscape irrigation water well to prevent sand or sediment from entering the well.

• A licensee shall adhere to manufacturers’ recommended pump sizing and wiring specifications when wiring a pump.

• A licensee shall select the proper hydraulic collapse pressure for casing.
Well Reports/Plugging Reports

• Well Report
  • Submit within 60 days of completing well.
  • GCD and well owner must also get a copy.
  • Legible and accurate.
  • Correct GPS coordinates.

• Plugging Report
  • Submit within 30 Days.
Capping Wells

• It is the responsibility of a landowner or person in possession of a well that is open at the surface, to have the well capped

• The driller of a newly drilled well shall place a cover or cap which is not easily removed over the boring or casing if the well is intended to be left unattended without a pump installed.

• It shall be the responsibility of the pump installer to place a cover or cap over the casing which is not easily removable if the well is intended to be left unattended with the pump removed.
Test Wells/Dry Holes

• A test well that is drilled for exploring for groundwater shall not be open at the surface or allowing water zones of different chemical qualities to commingle and must be completed or plugged within 6 months of drilling.

• Wells which do not encounter groundwater (dry holes) may be plugged by backfilling with drill cuttings from total depth to the surface.
Abandoned and Deteriorated Wells

- Deteriorated wells need to be repaired or plugged.
  - 180 days
- Abandoned wells need to be properly capped.
Plugging Wells

• Remove surface completion.
• Remove pump and drip pipe.
• Remove as much of the casing as possible.
• Pump cement or grout from bottom to top.
• Wells with a stuck pump need a variance to be plugged.
• Large diameter wells can be plugged with native soil.
Complaints

- https://www.tdlr.texas.gov/complaints/
TDLR - Regulatory Program Management

Water Well Driller and Pump Installer Program
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