

PROPOSED REDLINE

BPGCD Rule 4.3.B - Enhanced Grouting and Aquifer Isolation Standards

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B. Enhanced Grouting and Aquifer Isolation Standards

For new wells other than monitor wells, the annular space and grouting requirements under ~~16 TAG 76.1000(a)(1)~~ **is 16 Texas Administrative Code § 76.100(e), as amended, are** increased from ten feet to fifty feet (50 feet). If the top of the first potable water-bearing strata is less than fifty feet below the surface, the General Manager may grant a field approval and this fifty feet distance can be reduced to a depth just above the first potable water-bearing strata, but in no case shall be less than ten feet.

All wells shall be completed so that groundwater from different aquifers, or from water-bearing zones containing water that differs materially in chemical quality, is not allowed to commingle through the borehole, casing, annular space, gravel pack, filter pack, or open borehole in a manner that may degrade groundwater quality.

If a proposed well penetrates either the Edwards-Trinity (Plateau), Upper Glen Rose (Upper Trinity), or Marble Falls aquifers, with the intention of producing groundwater from an underlying aquifer, ~~the well shall be grouted to a depth that will prevent flow of groundwater from those aquifers into the underlying aquifers;~~ **the well shall be completed to isolate the intended production aquifer from each overlying aquifer or water-bearing zone penetrated by the well.**

For a well subject to the preceding paragraph:

- (1) A commercially manufactured, nondegradable packer, rubber strap-on packer, or equivalent mechanical isolation device approved by the General Manager shall be installed on the casing immediately above the intended production interval, or at another depth approved by the General Manager based on the aquifers and water-bearing zones encountered during drilling.
- (2) A continuous seal consisting of granular sodium bentonite, bentonite chips, or bentonite pellets shall be placed in the annular space immediately above the packer or other mechanical isolation device for a vertical distance of not less than two feet (2 feet). The bentonite shall be placed in a manner that prevents bridging and provides a continuous annular seal. The General Manager may require a longer seal interval based on site-specific geologic, hydrologic, or well-construction conditions.
- (3) The well owner or water well driller shall provide the District with documentation showing:
 - (a) the diameter and total depth of the borehole;
 - (b) the outside diameter, material, and depth of the casing;
 - (c) the depths of the aquifers and water-bearing zones encountered;
 - (d) the intended production aquifer and production interval;

- (e) the type and depth of the packer or other isolation device; and
- (f) the upper and lower depths and material used for each annular seal.

The General Manager may approve an alternative aquifer-isolation method upon a written determination that the alternative provides protection equivalent to or greater than the requirements of this Rule.