

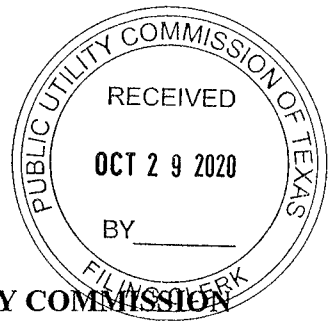


Control Number: 50943



Item Number: 13

Addendum StartPage: 0



**DOCKET NO 50943**

**APPLICATION OF QUADVEST, L.P. TO §  
AMEND ITS CERTIFICATE OF §  
CONVEINIENCE AND NECEISSTY IN §  
HARRIS COUNTY**

**PUBLIC UTILITY COMMISSION  
OF TEXAS**

Enclosed is the TCEQ approval for the water plant system.

*Yvette McNellie*  
Yvette McNellie  
Quadvest, L.P.  
26926 FM 2978  
Magnolia, TX 77354  
Telephone: 281-305-1124  
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Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Toby Baker, *Executive Director*



PWS\_1013708\_CO\_20201027\_Plan Ltr

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
*Protecting Texas by Reducing and Preventing Pollution*

October 27, 2020

Mr. Mark L. Urback, P.E.  
Quadvest, LP  
26926 FM 2978  
Magnolia, TX 77354

Re: Flagstone Water Plant - Public Water System (PWS) ID No. 1013708  
Proposed Well and PWS  
Engineer Contact Telephone: (281) 356-5347  
Plan Review Log No. P-08272020-202  
Harris County, Texas

CN602944746; RN111113882

Dear Mr. Urback:

On August 27, 2020, the Texas Commission on Environmental Quality (TCEQ) received planning material for the proposed well and PWS. Based on our review, the project generally meets the minimum requirements of Title 30 Texas Administrative Code (TAC) Chapter 290 - Rules and Regulations for Public Water Systems and is **conditionally approved for construction if the project meets the following requirement(s):**

- The well location shall comply with Chapter 290.41(c)(1)(A-F) of the Rules with regard to separation distances from pollution hazards and the provision of a recorded sanitary control easement, deed or TCEQ approved exception to same.
- The well shall be cased and pressure cemented in accordance with Chapter 290.41(c)(3)(B-C) of the Rules.
- Corrosive indices will be used to calculate corrosivity of the water from new source(s). Corrosive or aggressive water could result in aesthetic problems, increased levels of toxic metals, and deterioration of household plumbing and fixtures. **If the water appears to be corrosive**, the system will be required to conduct a study and submit an engineering report that addresses corrosivity issues or may choose to install corrosion control treatment **before use may be granted**. All changes in treatment require submittal of plans and specifications for approval by TCEQ.
- Water distribution system by separate contract.
- Certificate of Convenience and Necessity (CCN) required prior to providing service.

Texas Water Code Section 36.0015 allows for the creation of groundwater conservation districts (GCDs) as the preferred method of groundwater management. GCDs manage groundwater in many counties and are authorized to regulate production and spacing of water wells. **Public water systems drilling wells within an existing GCD are responsible for meeting the GCD's requirements.** The authorization provided in this letter does not affect GCD authority to manage groundwater or issue permits.

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**The design engineer or water system representative is required to notify the Plan Review Team in writing by fax at (512) 239-6972 or by emailing [john.lock@tceq.texas.gov](mailto:john.lock@tceq.texas.gov) and cc: [vera.poe@tceq.texas.gov](mailto:vera.poe@tceq.texas.gov) at least 48 hours before the well casing pressure cementing begins.** If pressure cementing is to begin on Monday, then they must give notification on the preceding Thursday. If pressure cementing is to begin on Tuesday, then they must give notification on the preceding Friday.

**The TCEQ does not approve this well for use as a public water supply at this time.** We have enclosed a copy of the "Public Well Completion Data Checklist for Interim Approval (Step 2)". We provide this checklist to help you in obtaining approval to use this well.

The submittal consisted of engineering drawings, technical specifications and an engineering summary. **The proposed project consists of:**

- Well No. 1 drilled to 530 feet with 485 linear feet (lf) of 6-inch id steel casing, pressure-cemented 485 lf; 45 lf of 4-inch id stainless steel screen; 20 lf of 4-inch id blank steel liner, with underream and gravel pack. The well is rated for 225 gallons per minute (gpm) with a 30 horsepower submersible pump. The design capacity of the pump is 225 gpm at 372 feet total dynamic head (tdh).
- One 100,000 gallon AWWA D103 bolted steel ground storage tank;
- One 10,000 gallon ASME welded steel pressure tank;
- Four 50 horsepower booster pumps rated at 620 gpm each at 150 feet tdh;
- Sodium hypochlorite disinfection;
- One 150 kW emergency generator;
- Intruder resistant fencing.

The authorization provided in this letter does not relieve a Public Water System from the need to comply with other applicable state and federal regulations.

This approval is for the construction of the above listed items only. Any wastewater components contained in this design were not considered. The authorization provided in this letter does not relieve a Public Water System from the need to comply with other applicable state and federal regulations.

The Flagstone Water Plant public water system provides water treatment.

The project is located near the intersection of EM 1960 and Cypresswood Dr. in Harris County.

An appointed engineer must notify the TCEQ's Region 12 Office in Houston at (713) 767-3582 when construction will start. Please keep in mind that upon completion of the water works project, the engineer or owner will notify the commission's Water Supply Division, in writing, as to its completion and attest to the fact that the completed work is substantially in accordance with the plans and change orders on file with the commission as required in 30 TAC §290.39(h)(3).

Please refer to the Plan Review Team's Log No. **P-08272020-202** in all correspondence for this project.

Please complete a copy of the most current Public Water System Plan Review Submittal form for any future submittals to TCEQ. Every blank on the form must be completed to minimize any delays in the review of your project. The document is available on TCEQ's website at the address shown below. You can also download the most current plan submittal checklists and forms from the same address.

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<https://www.tceq.texas.gov/drinkingwater/udpubs.html>

For future reference, you can review part of the Plan Review Team's database to see if we have received your project. This is available on TCEQ's website at the following address:

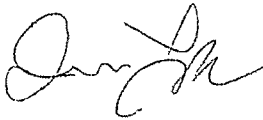
<https://www.tceq.texas.gov/drinkingwater/planrev.html/#status>

You can download the latest revision of 30 TAC Chapter 290 - Rules and Regulations for Public Water Systems from this site.

If you have any questions, please contact John Lock at (512)239-4710 or by email at [john.lock@tceq.texas.gov](mailto:john.lock@tceq.texas.gov) or by correspondence at the following address:

Plan Review Team, MC-159  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Sincerely,



John Lock, P.E.  
Plan Review Team  
Plan and Technical Review Section  
Water Supply Division  
Texas Commission on Environmental Quality



Vera Poe, P.E., Team Leader  
Plan Review Team  
Plan and Technical Review Section  
Water Supply Division  
Texas Commission on Environmental Quality

VP/JL/av

Enclosure: "Public Well Completion Data Checklist for Interim Approval (Step 2)"

Mr. Mark L. Urback, P.E.  
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bcc: TCEQ Central Records PWS File 1013708 (P-08272020-202/Flagstone)  
TCEQ Region No. 12 Office - Houston  
TCEQ PWSINV, MC-155

## Public Well Completion Data Checklist for Approval to Use (Step 2)

Texas Commission on Environmental Quality  
Water Supply Division  
Plan Review Team MC-159  
P.O. Box 13087, Austin, Texas 78711-3087

Public Water System I.D. No. \_\_\_\_\_  
TCEQ Log No. P- \_\_\_\_\_

The following list is a brief outline of the "Rules for Public Water Systems", 30 TAC Chapter 290 regarding proposed Water Supply Well Completion. Failure to submit the following items may delay project approval. Copies of the rules may be obtained from Texas Register, 1019 Brazos St, Austin, TX, 78701-2413, Phone: (512) 463-5561 or downloaded from the website: <http://www.tceq.texas.gov/rules/indxpdf.html>

Any well proposed as a source of water for a public water supply must have plans approved for construction by TCEQ. Please include the well construction approval letter with your submittal of well completion data listed below for TCEQ evaluation. Based on review of this submitted data, approval may be given for use of the well.

1. ☐ Site map(s) at appropriate scales showing the following: [§290.41(c)(3)(A)]
  - ☐ (i) Final location of the well with coordinates;
  - ☐ (ii) Named roadways;
  - ☐ (iii) All property boundaries within 150 feet of the final well location and the property owners' names;
  - ☐ (iv) Concentric circles with the final well location as the center point with radii of 10 feet, 50 feet, 150 feet, and ¼ mile;
  - ☐ (v) Any site improvements and existing buildings;
  - ☐ (vi) Any existing or potential pollution hazards; and
  - ☐ (vii) Map must be scalable with a north arrow.
2. ☐ A copy of the recorded deed of the property on which the well is located showing the Public Water System (PWS) as the landowner, and/or any of the following:  
[§290.41(c)(1)(F)(iv)]
  - ☐ (i) Sanitary control easements (filed at the county courthouse and bearing the county clerk's stamp) covering all land within 150 feet of the well not owned by the PWS (for a sample easement see TCEQ Form 20698);
  - ☐ (ii) For a political subdivision, a copy of an ordinance or land use restriction adopted and enforced by the political subdivision which provides an equivalent or higher level of sanitary protection to the well as a sanitary control easement; and/or
  - ☐ (iii) A copy of a letter granting an exception to the sanitary control easement rule issued by TCEQ's Technical Review and Oversight Team.
3. ☐ Construction data on the completed well: [§290.41(c)(3)(A)]
  - ☐ (i) Final installed pump data including capacity in gallons per minute (gpm), total dynamic head (tdh) in feet, motor horsepower, and setting depth;
  - ☐ (ii) Bore hole diameter(s) (must be 3" larger than casing OD) and total well depth;
  - ☐ (iii) Casing size, length, and material (e.g. 200 lf of 12" PVC ASTM F480 SDR-17);
  - ☐ (iv) Length and material of any screens, blanks, and/or gravel packs utilized;
  - ☐ (v) Cementing depth and pressure method (one of the methods in latest revision of AWWA Standard A-100, Appendix C, excluding the dump bailer and tremie methods);
  - ☐ (vi) Driller's geologic log of strata penetrated during the drilling of the well;
  - ☐ (vii) Cementing certificate; and

## Public Well Completion Data Checklist for Approval to Use (Step 2)

- ☐ (viii) Copy of the official State of Texas Well Report (some of the preceding data is included on the Well Report).
4. ☐ A U.S. Geological Survey 7.5-minute topographic quadrangle map (include quadrangle name and number) or a legible copy showing the location of the completed well; [§290.41(c)(3)(A)]
5. ☐ Record of a 36-hour continuous pump test on the well showing stable production at the well's rated capacity. Include the following: [§290.41(c)(3)(G)]
- ☐ (i) Test pump capacity in gpm, tdh in feet, and horsepower of the pump motor;
  - ☐ (ii) Test pump setting depth;
  - ☐ (iii) Static water level (in feet); and
  - ☐ (iv) Draw down (in feet).
6. ☐ Three bacteriological analysis reports for samples collected on three successive days showing raw well water to be free of coliform organisms. Reports must be for samples of raw (untreated) water from the disinfected well and submitted to a laboratory accredited by TCEQ, accredited to perform these test; and [§290.41(c)(3)(F)(i)]
7. ☐ Chemical analysis reports for well water samples showing the water to be of acceptable quality for the most problematic contaminants listed below. Reports must come from a laboratory accredited by TCEQ; accredited to perform these tests. Maximum contaminant level (MCL) and secondary constituent level (SCL) units are in milligrams per liter (except arsenic which is in micrograms per liter). [§290.41(c)(3)(G) and §290.104 and §290.105]

**Table 1: Primary Constituents with Maximum Contaminant Level (MCL)**

PRIMARY	MCL
Nitrate	10 (as N)
Nitrite	1 (as N)
Arsenic	10
Fluoride	4.0

**Table 2: Secondary Constituents with Secondary Contaminant Level (SCL)**

SECONDARY	SCL
Aluminum	0.2
Copper	1.0
Iron	0.3
Manganese	0.05
Zinc	5.0
Total Dissolved Solids	1,000
Fluoride	2.0
Sulfate	300
Chloride	300
pH	> 7.0



# Public Well Completion Data Checklist for Approval to Use (Step 2)

**Table 3: Water Quality Parameters**

PARAMETER	UNITS
Alkalinity as CaCO <sub>3</sub>	mg/L
Calcium as CaCO <sub>3</sub>	mg/L
Sodium	mg/L
Lead*	mg/L

Lead is regulated by the lead and copper rule. This analyte is to document the amount of lead in the source water. The level shall be less than 0.010 mg/L for approval to use.

All systems located in a high-risk county (see page 3) shall submit radiological analysis reports for water samples showing the water to be of acceptable quality for the contaminants listed below. Reports must come from a TCEQ accredited laboratory for approval to use of the well.

**Table 4: Radionuclides with Maximum Contaminant Level (MCL)**

CONTAMINANT	MCL
Gross alpha	15 pCi/L
Radium-226/228	5 pCi/L
Beta particle	50 pCi/L
Uranium	30 µg/L

WHERE: pCi/L = pico curies per liter, µg/L = micrograms per liter

Please be aware when you review your radiological data that if the report has gross alpha over 15 pCi/L and individual uranium isotopes are not reported, you will have to resample or reanalyze and resubmit radionuclide results. If you see gross alpha plus radium-228 over 5 pCi/L, and don't have radium-226, you will have to resample or reanalyze and resubmit complete results.

## List of Counties Where Radionuclide Testing Is required

Please be aware that we have added the requirement for analysis for radionuclides for high risk counties. For elevated levels of any contaminants found in a test well, treatment or blending may be required.

**Table 5: List of Counties where Radionuclide Testing is required**

COUNTY				
Atascosa	Bandera	Bexar	Bosque	Brazoria
Brewster	Burnet	Concho	Culberson	Dallam
Dawson	Erath	Fort Bend	Frio	Garza
Gillespie	Gray	Grayson	Harris	Hudspeth
Irion	Jeff Davis	Jim Wells	Kendall	Kent
Kerr	Kleberg	Liberty	Llano	Lubbock
McCulloch	Mason	Matagorda	Medina	Midland
Montgomery	Moore	Parker	Pecos	Polk
Presidio	Refugio	San Jacinto	San Saba	Tarrant
Travis	Tyler	Upton	Val Verde	Victoria
Walker	Washington	Wichita	Williamson	Zavala