

Bluebonnet Groundwater Conservation District
1903 Dove Crossing Lane Suite A, P.O. Box 269
Navasota, TX 77868
Phone: 936-825-7303 Fax: 936-825-7331
Email: BGCD@bluebonnetgroundwater.org

BGCD Well ID #: _____

NON-EXEMPT WATER WELL REGISTRATION APPLICATION

Please complete all questions. Please print or type information, or place an "x" in the appropriate space.

Drill New Well: X Register an Existing Well: _____ Replace Existing Well: _____ Increase Size of Existing Well: _____
Increase Pump Size of Existing Well: _____ Abandon/Cap/Plug Existing Well: _____ Perform Dye Trace: _____

Well Owner Quadvest, L.P. Phone 281.305.1154

Address 26926 FM 2978 Magnolia TX 77354

Fax: 832.934.8310 Email: compliancesupport@quadvest.com

Drilling Company Johnston's Water Well Service and Drilling Phone 281.351.5643

Address PO Box 370 New Waverly TX

Fax: _____ Email: marshwaterman@aol.com

Driller Mitchell Marsh License# 59570

Well Location: County Waller Well Site Address or Location: TBD

Latitude 30.025316° Longitude -95.911501°

Proposed Water Use: Public Water Supply: X Industrial: _____ Recreational: _____ Commercial: _____

Hydraulic Fracturing: _____ Transport Outside of District: _____

Proposed depth: 650 ft. Aquifer Gulf Coast Date drilling is scheduled to begin 06/01/2026

Proposed casing size: 10 in. Proposed casing depth: 590 ft. Pump depth: 483 ft. Pump size 50 hp.

Type Pump: Turbine: _____ Submersible: X Windmill: _____ Other (specify): _____

Pump fuel or power source: Electricity: X Natural Gas: _____ Wind: _____ Other (specify): _____

Pump Bowls: Size _____ # of Stages: _____ Pump Column: Inside Diameter: _____ in. Length: _____ ft.

Pump discharge pipe: Size 4 in. Rated pump horsepower: _____ Pump Discharge: 350 gpm

Water bearing formation: Gulf Coast Aquifer

Estimated Annual Water Production: _____ Acre-Feet or 70,887,000 (Increase Needed for Well 2) Gallons

If the water produced from this well will be used in whole or in part on property other than the property where the well is located, **describe the location where the water will be used.** Transportation of water produced and moved to another location may require a District Transportation Permit. See District Rules, Section 10 or contact the District office for information.

BLUEBONNET GROUNDWATER CONSERVATION DISTRICT

Permit form approved on: _____

By: _____ Zach Holland, General Manger

(Continued) NON-EXEMPT WATER WELL DRILLING PERMIT FORM (Continued)

The following documentation, attachments and fee payments must accompany this form when it is submitted for consideration by the District.

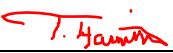
- a. Plat or map showing location of the property and location on property of well for which form is submitted.
- b. If owner and/or operator of a well is different from property owner, provide written documentation from property owner authorizing construction and operation of this well.
- c. All the information and documentation required for the type and class of well for which authorization is requested by Section 8 of the District Rules and that information and documentation required by Rule 8.5.
- d. Forms for non-exempt well authorizations must be accompanied by the information required by Rule 8.5A1:
 - a. 8.5A1(e) – a statement of the projected effect of the proposed withdrawal on the aquifer or aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users in the District;
 - b. 8.5A1(f) – the applicant’s water conservation plan or a declaration the applicant and subsequent user will comply with the District’s management plan;
 - c. 8.5A1(g)(2) – well construction diagram;
 - d. 8.5A1(g)(3) – a map showing the location of the proposed well or wells, all existing well, hydrologic features, and geologic features located within half (1/2) mile radius of the proposed well or wells site;
 - e. 8.5A1(h) – the applicant’s well closure plan or a declaration the applicant will comply with well plugging guidelines and report closure to the applicable authorities, including the District.
- e. Payment for applicable fees must accompany the form. Additional fees may apply as documented in the District’s adopted Fee Schedule.

Well Development Fee	\$75.00	
Operating Permit Application Fee	\$375.00	
Hydrogeologic Report Fee – applicable if well completed with eight (8) inches or greater inside casing diameter		
	Phase I-a Report (less than 200MG/yr)	Phase I-b Report (> 200MG/yr)
District Prepared Report	\$1,500.00	\$7,500.00
Applicant Prepared/District Review	\$500.00	\$1,500.00

- f. Forms for new non-exempt wells must be accompanied by an Operating Permit Application and, if appropriate, a Transport Permit Application.

I, the undersigned applicant, hereby agree and certify that:

- a. this well will be drilled within 30 feet of the location specified and not elsewhere;
- b. I will furnish the District with a copy of the completed driller’s log, any electric log, the well completion report, and any water quality test report within 60 days of completion of this well and prior to production of water there from (other than such production as may be necessary to the drilling and testing of such well);
- c. in using this well, I will avoid waste, achieve water conservation, protect groundwater quality and the water produced from this well will be for a beneficial use;
- d. I will comply with all District and State well plugging and capping guidelines in effect at the time of well closure;
- e. I agree to abide by the terms of the District Rules, the District Management Plan, and orders of the District Board of Directors currently in effect and as they may be modified, changed, and amended from time to time;
- f. I hereby certify that the information contained herein is true and correct to the best of my knowledge and belief.

Signature:  Date: 11/21/25

Printed Name: Taylor Hamilton Title: Staff Engineer

Bluebonnet Groundwater Conservation District

303 E. Washington Ave., P.O. Box 269

Navasota, TX 77868

Phone: 936-825-7303 Fax: 936-825-7331

Email: BGCD@bluebonnetgroundwater.org

BGCD Well ID #: _____

WELL OPERATING PERMIT APPLICATION

Please complete all questions. Please print or type information or place an "x" in the appropriate space.

Drill New Well: X Register an Existing Well: _____ Replace Existing Well: _____ Increase Size of Existing Well: _____

Increase Pump Size of Existing Well: _____ Abandon/Cap/Plug Existing Well: _____ Perform Dye Trace: _____

Well Owner Quadvest, L.P. Phone 281.305.1154Address 26926 FM 2978 Magnolia TX 77354Fax: 832.934.8310 Email: compliancesupport@quadvest.comDrilling Company Johnston's Water Well Service and Drilling Phone 281.351.5643Address PO Box 370 New Waverly TXFax: _____ Email: marshwaterman@aol.comDriller Mitchell Marsh License# 59570Well Location: County Waller 911 address of well site TBDLatitude 30.025316° Longitude -95.911501°Proposed Water Use: Public Water Supply: X Industrial: _____ Recreational: _____ Commercial: _____

Hydraulic Fracturing: _____ Transport Outside of District: _____

Status of well as of application date:

_____ Operating Well (Date drilled _____)

_____ Well Completed but not operating (Date Drilled _____)

X Well Development permit attached or awaiting approvalAuthorization to produce the following quantity of water annually from this well is: 70,887,000 (Increase Needed for Well 2) Gallons

A well operating permit is normally issued for a period of one year (12 months). If a permit for a longer period of time is requested, attach a statement detailing the reasons for a longer permit period and the period of time requested.

If the water produced from this well will be used in whole or in part on property other than the property where the well is located, **describe the location where the water will be used.** Transportation of water produced and moved to another location may require a District Transportation Permit. See District Rules, Section 10 or contact the District office for information.**BLUEBONNET GROUNDWATER CONSERVATION DISTRICT**

Permit application approved on: _____

By: _____ Zach Holland, General Manger

(Continued) WELL OPERATING PERMIT APPLICATION (Continued)

The following documentation, attachments and fee payments must accompany this application when it is submitted for consideration by the District.

- a. Plat or map showing location of the property and location on property of well for which application is submitted.
- b. If the owner and/or the operator of well is different from the property owner, provide written documentation from the property owner authorizing construction and operation of this well.
- c. All the information and documentation required for the type and class of well for which authorization is requested by Section 8 of the District Rules and in particular that information and documentation required by Rule 8.5.
- d. If this permit application is for a well completed with an inside casing diameter of eight (8) inches or greater, or for any of the conditions enumerated in District Rule 8.5 F, a current hydrogeological report (a report completed within 18 months of the date of this application is considered current) shall be submitted with this application.
- e. Payment for applicable fees must accompany application. For a non-exempt well the appropriate Operating Permit Application Fee (\$375.00 + \$750.00 if inside casing diameter is eight (8) inches or greater) must be included.
- f. The applicant's water conservation plan and if any subsequent user of the water is a municipality or entity providing retail water services, the water conservation plan of that municipality or entity shall also be provided. In lieu of a water conservation plan, a declaration that the applicant and/or a subsequent user if any subsequent user is a municipality or entity providing retail water services will comply with the District Management Plan.
- g. The applicant's Drought Contingency Plan and a copy of any subsequent user's Drought Contingency Plan or a declaration that the applicant or a subsequent user will comply with District rules, policies and Board actions in drought conditions.

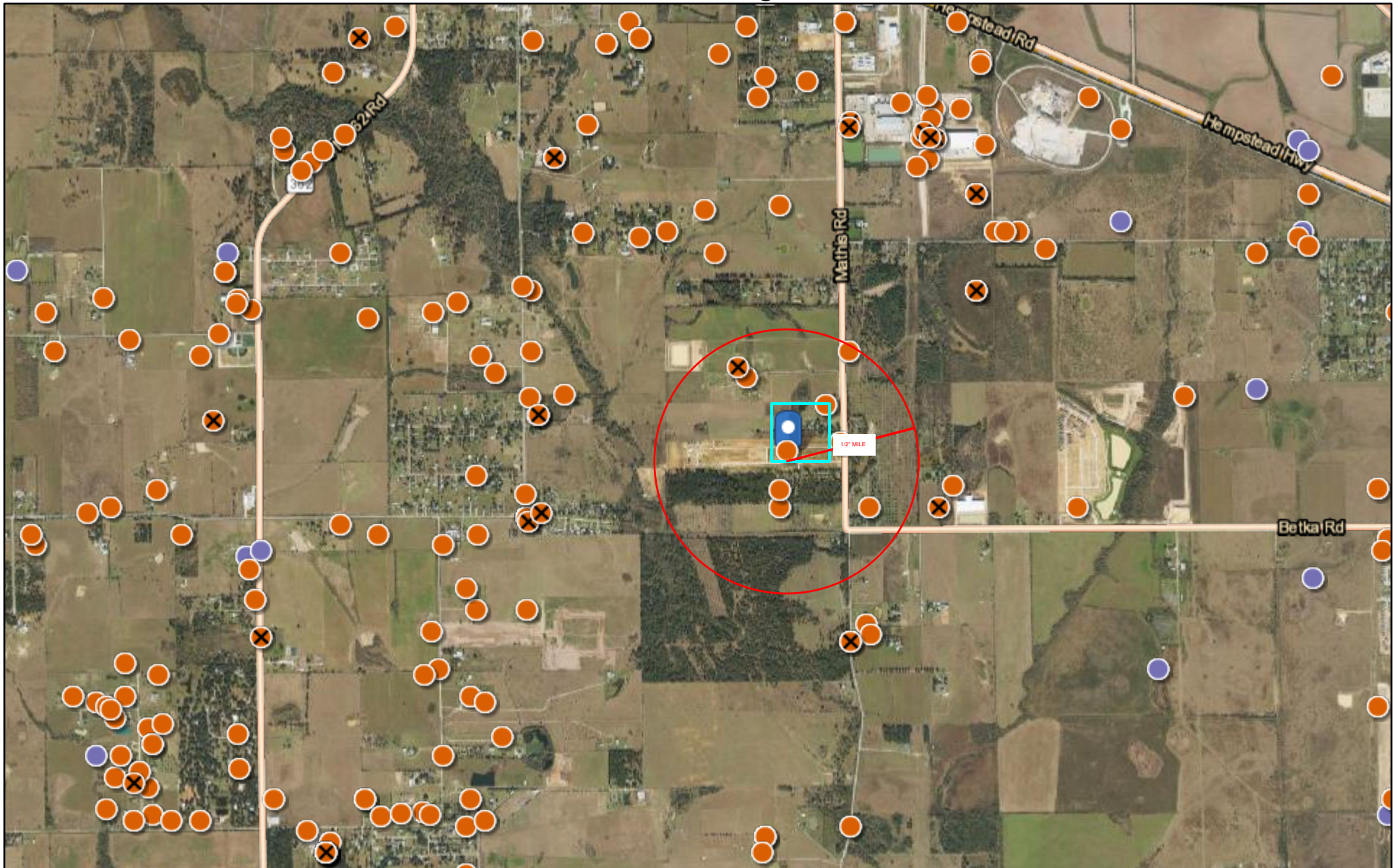
I, the undersigned applicant, hereby agree and certify that:

- a. in using this well, I will avoid waste, achieve water conservation, protect groundwater quality and the water produced from this well will be for a beneficial use;
- b. I will comply with all District and State well plugging and capping guidelines in effect at the time of well closure;
- c. I agree to abide by the terms of the District Rules, the District Management Plan and orders of the District Board of Directors currently in effect and as they may be modified, changed and amended from time to time;
- d. I hereby certify that the information contained herein is true and correct to the best of my knowledge and belief.

Signature:  Date: 11/21/25

Printed Name: Taylor Hamilton Title: Staff Engineer

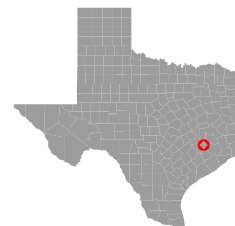
Williams Landing Well 2



**Texas Water
Development Board**

October 29, 2025

-  Plugging Reports
-  TWDB Groundwater
-  Well Reports



0 0.3 0.6 1.2 mi
0 0.47 0.95 1.9 km
1:36,112

Esri, HERE, Garmin, (c) OpenStreetMap contributors

The data in Water Data Interactive represents the best available information provided by the TWDB and third-party cooperators of the TWDB. The TWDB provides information via this web site as a public service. Neither the State of Texas nor the TWDB assumes any legal liability or responsibility or makes any guarantees or warranties as to the accuracy, completeness or suitability of the information for any particular purpose. The TWDB systematically revises or removes data discovered to be incorrect. If you find inaccurate information or have questions, please contact WDI-Support@twdb.texas.gov.

TEXAS WATER DEVELOPMENT BOARD

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December 23, 2025

Mr. Zach Holland
General Manager
Bluebonnet Groundwater Conservation District
PO Box 269
Navasota, TX 77868-0269

RE: Phase I-a Report: Quadvest Williams Landing Well 2

Dear Mr. Holland,

This letter represents the Phase I-a report for the Quadvest Williams Landing Well 2 that I received from you on November 25, 2025.

“Estimated Annual Water Production” is 70.887 million gallons per year, which is below the 200 million gallon per year threshold for Phase I of the permit application process. Therefore, the application requires the preparation of a Phase I-a analysis of potential drawdown.

Well Locations on HAGM Grid

The latitude and longitude data on the application were used to convert the location data to x- and y-coordinates in the GAM coordinate system using Surfer, a commercial gridding program. The FORTRAN program *PointRC.exe* was used to find the HAGM cell for those x- and y-coordinates. The results of this effort yielded that the both wells are in HAGM row 40, column 85. However, this cell is mostly in Harris County and is not included in the BGCD database for HAGM parameters.

Figure 1 presents the location of the well, the model grid, and the county line. Please note that, for purposes of this Phase I-a report, the data from the adjacent cell located in row 40, column 84 (which is classified as a Waller County cell) are used.

The applications noted the well depth as 650 feet, which would place the bottom of the well within the Evangeline Aquifer (HAGM layer 2). The bottom of the Chicot Aquifer at this location is estimated to be 138 feet below ground surface. As noted in the application, the geophysical log of the pilot hole should be useful in finalizing the well depth.

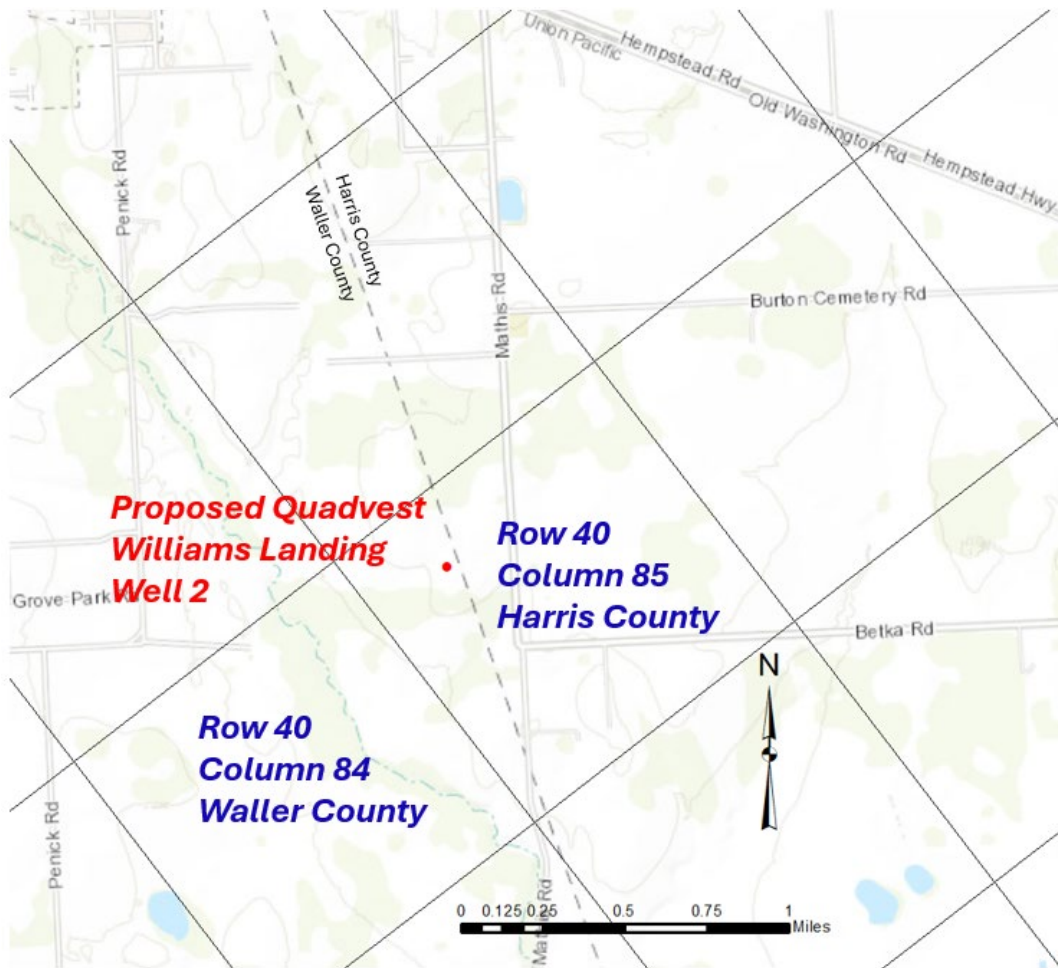


Figure 1. Quadvest Williams Landing Well 2 Location, Model Grid, and County Line

Grid Parameters, HAGM Parameters, HAGM Results, Theis Parameters

The Excel spreadsheet named *BGCD Parameters.xlsx* contains the data needed for the review and Phase I-a calculations for cells designated in the four counties of the Bluebonnet Groundwater Conservation District. The data for row 40, column 84 were copied and transposed into the spreadsheet *Quadvest Williams Landing Well 2 Phase I-a Tables.xlsx*. Results from the Chicot and Evangeline layers (except for the Theis Results) are summarized into four tables as follows:

- Table 1: Grid Parameters
- Table 2: HAGM Parameters
- Table 3: HAGM Results
- Table 4: Theis Parameters

Table 1. Grid Parameters for Quadvest Williams Landing Well 2

County Name	Waller	Waller
County Code	237	237
Outcrop Layer	1	1
Layer	1	2
Row	40	40
Column	84	84
x-coordinate (GAM-ft)	6210123	6210123
y-coordinate (GAM-ft)	19258868	19258868
Surface Elevation (ft MSL)	218	218
Cell Top Elevation (ft MSL)	218	80
Cell Bottom Elevation (ft MSL)	80	-1156
Cell Thickness (ft)	138	1236
Clay Thickness (ft)	64	530
Clay Thickness (% of Cell Thickness)	46.38	42.88

Table 2. HAGM Parameters for Quadvest Williams Landing Well 2

County Name	Waller	Waller
County Code	237	237
Outcrop Layer	1	1
Layer	1	2
Row	40	40
Column	84	84
Hydraulic Conductivity (ft/day)	17.79	2.00
Transmissivity (gpd/ft)	18,363	18,491
Leakage (1/day)	1.70E-05	5.00E-07
Storativity (dimensionless)	1.00E-01	3.60E-04
Elastic Storativity (dimensionless)	7.41E-05	9.94E-05
Inelastic Storativity (dimensionless)	7.41E-03	9.94E-03

Table 3. HAGM Results for Quadvest Williams Landing Well 2

County Name	Waller	Waller
County Code	237	237
Outcrop Layer	1	1
Layer	1	2
Row	40	40
Column	84	84
Groundwater Elevation in 2009 (ft MSL)	135	121
Groundwater Elevation in 2080 (ft MSL)	92	67
DFC Drawdown (ft)	43	53
Artesian Head (ft)	-83	41
Subsidence in 2009 (ft)	0.48	0.48
Subsidence in 2080 (ft)	1.39	1.39
Subsidence from 2009 to 2080 (ft)	0.91	0.91
Cell Pumping in 2009 (AF/yr)	0	50.69
Cell Pumping in 2080 (AF/yr)	0	35.37

Table 4. Theis Parameters for Quadvest Williams Landing Well 2

County Name	Waller
County Code	237
Outcrop Layer	1
Layer	2
Row	40
Column	84
Drawdown in Production Well at 100 gpm for 36 hours	11.37
Drawdown 1/2 mile from Production Well at 100 gpm for 36 hours	0.85
Drawdown 1/2 miles from Production Well at 100 gpm for 1 year	4.15
Drawdown-Pumping Ratio for Production Well for 36 hours	0.11369
Drawdown-Pumping Ratio for 1/2 mile from Production Well for 36 hours	0.00846
Drawdown-Pumping Ratio for 1/2 mile from Production Well for 1 yr	0.04149

Theis Equation Calculations

Groundwater production data from the permit applications were used along with the drawdown-pumping ratios contained in Table 4 to develop three estimates of drawdown for each well:

- Scenario 1: drawdown in the production well after 36-hours of pumping at three times the average annual pumping rate
- Scenario 2: drawdown in a well ½ mile from the production well after 36 hours of pumping at three times the annual pumping rate
- Scenario 3: drawdown in a well ½ mile from the production well after one year at the average pumping rate.

Results of these calculations are presented in Table 5.

Table 5. Theis Results for Quadvest Jasek Farms Wells 1 and 2

Production Summary	Value
Annual Permit Production Limit (gallons)	70,887,000
Annual Permit Production Limit (acre-feet)	218
Average Pumping Rate (gpm)	135
Average Pumping Rate (cfd)	25,964
3X Average Pumping Rate (gpm)	405
Permit Capacity Rate (gpm)	350

Evangeline		
Drawdown Calculations	Drawdown- Pumping Ratios	Calculated Drawdown (ft)
Production Well - 36 hours (3X avg pumping)	0.11369	46.00
1/2 mile from Production Well - 36 hours (3X avg pumping)	0.00846	3.42
1/2 mile from Production Well - one year (avg pumping)	0.04149	5.60

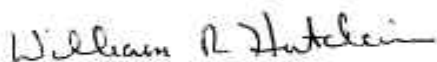
These data represent the best integrated data of the area from a regional perspective. The local-scale data will be developed as part of the Phase II investigation. This will include more site-specific information and data on aquifer depth, clay content, and aquifer parameters calculated from the 36-hour pumping test.

Recommendation

Based on the results of the Phase I-a report, the applications should be approved, and the Phase II investigation should proceed to verify the Phase I-a estimates related to the aquifer (e.g. clay content) and related to aquifer performance (e.g. drawdown at the end of the 36-hour pumping test and aquifer transmissivity) for each well.

I appreciate the opportunity to work with you on this effort. Please call me at 512-745-0599 or email me at billhutch@texasgw.com if you have any questions.

Sincerely,



William R. Hutchison, Ph.D., P.E., P.G.