Agenda Item: #13
Public Hearing
City of Temple Application

Staff Report Application for Drilling Permit N3-23-004P



Applicant/Owner: City of Temple

c/o Dr. Neil Deeds, Principal Water Resources Engineer, INTERA Inc.

3210 E. Avenue H Bldg. A Suite 130,

Temple, TX 7650

Location of Well:

45.33-acre tract located at 4331 Tower Rd., Temple, Texas, Latitude 31.0582°/Longitude -97.3005°

Proposed Annual Withdrawal:	Proposed Use	Aquifer:	Nearest Existing Wells:
Initial Rate: 800-gpm Column Pipe: 8-inch	Industrial Use Permit Proposed for the	Hosston Layer of the Trinity Aquifer	3 @ 1/2 mile
Withdrawal:	Rowan Green Data Center	Eastern Management Zone	Note: No wells within
Proposed annual quantity not to exceed 239 acre-feet or 77,822,380 gallons per year.		as described in Rule 7.1	½ mile are completed in the Hosston Layer of the Trinity Aquifer

General Information

The City of Temple has applied to Clearwater Underground Conservation District for a drilling permit for a non-exempt well. The proposed well is to supply an industrial user in an area located in the southeast portion of Temple. INTERA has been hired by the City to help support this process and provided the cover letter to partially meet the requirements of the application. The described proposed beneficial use of the groundwater and specifically identify the anticipated needs for the City's industrial partner, Rowan Green Data. The facility being constructed is for a data center with specific water use requirements.

The applicant's representative also stated that "The timeline for completion of this expansion is on the order of 2029/2030 at a cost of over 30million dollars. While the City may have sufficient overall water supply to meet Rowan's needs, the timeline over which an industrial capacity supply will be brought to that area cannot meet Rowan's schedule. The City of Temple is almost finished with bringing potable water and wastewater infrastructure to the site, but the small potable water supply will mostly be used for facilities (drinking and bathrooms)."

The applicant's representative also stated that "the proposed groundwater use is for cooling and will be recycled "three to four times" before the remaining water is discharged per the applicant's application cover letter." Dr. Deeds states that Rowan has a strong commitment to environmental stewardship and recognizes the value of water reuse and water conservation. Their proposed use of the groundwater meets the standard for beneficial use as defined in District rules (Rule 1.1 Definition of Terms).

Per Rules 6.9 and 6.10

In deciding whether or not to issue a permit, the Board must consider the following:

1. Does the application contain all the information requested, and is the application accurate? Does it meet spacing and production limitations identified by District Rules, and does it conform to all application requirements which include public notification and accompanied by the prescribed fees? (Rule 6.10.24(a)(b), TWC 36.116(a)(1), TWC 36.113(d)(1) and Rule 6.9.1(b)(1)(2)

The application is complete—all requested information has been provided. The application conforms to said rules with all required application fees. In addition, the applicant has met all notification requirements in a proper manner per District Rules.

2) Is the proposed use of water dedicated to a beneficial use? (TWC 36.113(d)(3) and District Rule 6.10.24 (d).

The groundwater produced from this well is for industrial use per District Rules and Chapter 36. The applicants also indicated that the well could be retrofitted as a future ASR injection and/or ASR recovery well. Applicant and/or Applicants representatives are encouraged to testify to this and explain the process afforded by TCEQ laid out in form TCEQ-20772. https://www.tceq.texas.gov/permitting/asr-applicaton-form.docx

3) Has the applicant agreed to avoid waste and achieve water conservation? (TWC 36.113(d)(6) and Rule 6.10.24(f)

The applicant should testify they understand per District Rules and that by signing the application form the applicant and applicant's representatives agree to stating compliance with the District's Groundwater Management Plan.

The applicant should testify to the process of water conservation measures stated in the application letter referencing that they will recycle three to four times before water is discharged in the proposed data center and explain the reuse process stated in the application. The discharge location of the reused groundwater will also need to be explained during testimony.

4) Has the applicant agreed that reasonable diligence will be used to protect groundwater quality and that the applicant will follow well plugging guidelines at the time of well closure? (TWC 36.113(d)(7) and Rule 6.10.24(g))

The applicant (by signing the application form) and should offer testimony that if the well deteriorates over time or becomes damaged in such a way that the well is inoperable that state law and district rules require such a well to be plugged before a replacement well can be drilled.

5) Will the proposed water well comply with spacing and production limitations identified in our rules? (TWC 36.116(a)(1) and Rule 6.10.24(b)) and Rule 9.5.2

The proposed well is in the "Eastern Management Zone" of Bell County. The applicant states they need a maximum column pipe size of 8-inch and a range of 576-gpm to



800-gpm is needed for the facilities anticipated average use and peak usage needs per the submitted needs assessment. Based on this column pipe size, a minimum size tract of 40-acres is required, with a 5280-foot spacing requirement from other wells. The well must be located 150-feet from the property line. Testimony from the applicant that they will continue to adhere to all spacing requirements per District Rule 9.5 Spacing Requirements.

The District rules do not impose production limitations other than those determined applicable in the review of the today's drilling permit request for a well to conduct the study the prescribed Well Completion Report per District Rule 6.9.2 (f)(1)-(8).

The applicant and their representative must understand that future operating permit for production provide evidence that the permit must not cause any unacceptable level of decline in water quality of the aquifer, or as may be necessary to prevent waste and achieve water conservation, minimize as far as practicable the drawdown of the water table or the reduction of artesian pressure, lessen interference between wells, or control and prevent subsidence.

These issues are considered in Items 6 & 7 below and with staff recommendations to address potential concerns of adjacent property owners.

6) Will the proposed use of water unreasonably affect existing groundwater and surface water resources or existing permit holders?

Based upon our best available information, there are 4 wells as defined for domestic use completed, from shallow formations and not from major aquifers as defined by TWDB.

3 wells are within 1/2 mile (No wells are completed in the Lower Trinity)
1 well active and completed in the Ozan, 2 wells are inactive and completed in the Austin Chalk.

Mike Keester, RW Harden & Associates, has reviewed the application and has projected anticipated drawdown and has provided the *attached MK report*.

His conclusions and recommendations are on page 4. Because we are a needs-based District, we recommend the applicant provide additional information with a future operating permit application to substantiate the projected water use of 239 acre-feet per year that also accounts for the stated reuse strategy of "three to four times" in the application letter.

Additionally, the District, to the extent possible, must issue permits up to the point the total volume of exempt and permitted groundwater production will achieve the applicable Desired Future Condition (DFC) per TWC 36.1132(a)(b) and Rule 6.10.25(a)(b)(c)(d)(e).

7) Is the proposed use of water is consistent with the District's Groundwater Water Management Plan (GMP) related to the approved DFC and the defined available groundwater for permitting?

The District's current Groundwater Management Plan reflects a groundwater availability figure in the Lower Trinity Aquifer of 7193 ac-ft/year Modeled Available Groundwater (minus the reserve 178 ac-ft/year for exempt well use) thus 7015 ac-ft/year is the Managed Available Groundwater for permitting. For the record the actual MAG, per GMA8-Round 3, will increase to 7900 ac-ft/year, once the District amends the current GMP.

The Board, per the District Management Plan, has evaluated groundwater available for permitting the Lower Trinity Aquifer and evaluated the available groundwater for permitting (consistent with the current management plan as stated on pages 9-10).

The requested permit amount relative to the current modeled available groundwater MAG determined by the Texas Water Development Board (TWDB) based on the desired future conditions (DFCs) established by the District for the Lower Trinity Aquifer was set by CUWCD based on 330-ft of drawdown over 60-yrs. This was reviewed and again approved by the board in January 2019. To achieve this DFC, the TWDB used a model that indicated the MAG was equal to 7193 acre-feet per year from the Lower Trinity.

A summary of YTD 2023 permit production, HEUP & OP Permit Analysis, pending applications, and *Exempt Well Reservations for the Lower Trinity, per District Report illustrates current Lower Trinity Aquifer permits total 4390.661 ac-ft/year. Currently, the District has a pending permit of 0.38 ac-ft/year, thus available for permitting is only 2624.339 acre-feet/year. (see attached Lower Trinity Aquifer Status Report, June 2023).

8) What are the Modeled Available Groundwater calculations determined by the Executive Administrator of the Texas Water Development Board?

The current modeled available groundwater MAG determined by the Executive Administrator with the Texas Water Development Board (TWDB) based on the desired future conditions (DFCs) established by Joint Planning in GMA8 (Round-2) the District for the Lower Trinity Aquifer was determined based on 330-ft of drawdown over 60 yrs. This was reviewed and again approved by the board in January 2019. To achieve this DFC, the TWDB used a model that indicated the MAG was equal to 7193 acre-feet per year from the Lower Trinity.

The modeled available groundwater will not be exceeded by granting this permit. (see attached Trinity Aquifer Status Report, June 2023).

9) What has the Executive Administrator of the Texas Water Development Board's estimate of the current and projected amount of groundwater produced under the exemptions in District Rule 8.3?

Refer to #7 above. Reservation of Modeled available groundwater for **exempt well** use will not be exceeded by granting this permit. 178 ac-ft/year vs 59 ac-ft estimated to be used annually in the Lower Trinity. (see 2022 district exempt use report)

10) What is the amount of groundwater authorized under permits previously issued by the District?

Refer to #7 above. Existing permits do not exceed the managed available groundwater (modeled available groundwater – exempt well use = Managed Available Groundwater) for the Lower Trinity Aquifer which is 4390.661 ac-ft per year.

11) What is the reasonable estimate of the amount of groundwater that is produced annually under existing non-exempt permits issued by the District?

The total permitted amounts for non-exempt wells in the Lower Trinity Aquifer in 2022 was 4390.61 ac-feet/yr. and the actual production in 2022 was 1842.71 ac-ft/yr (42%) of the permitted amount. (Figures are based upon monthly production reports submitted to Clearwater by the permit holders in 2022).

12) Yearly precipitation and production patterns.

Clearwater is currently in no drought management stage based on the PDI system (average running total annual rainfall) over the Aquifer in the District, is currently at **28.932** inches of rain received in the last 365 days (6-23-2023) thus 87.67% of annual expected rainfall of 33 inches. The Lower Trinity permit holders in all of 2022 have used 42% of the total permitted amounts in the Aquifer. Permit holders did not exceed their total permitted amounts in 2020, 2021, and 2022.

The gravity of the current drought is reminiscent of the epic drought of 2011-2013, the significant drought in 2018, 2020, and again in 2022-23. The current drought trends do necessitate the need for all permit applications to be evaluated based on conservative needs and usage that are not contradicted by the current voluntary drought contingency plan stage.

Conclusions and Recommendations:

- 1) District GM recommends that the Board only approve drilling permit per Rule 6.7.1 and per Rule 6.9.2(f) must provide the Well Completion Report, when the applicant returns to the District for an Operating Permit per Rule 6.6.1within 30-days of completion of the well and per Rule 6.6.3 preparation of the required well completion report.
- 2) The applicant's representative should pursue TCEQ input on the well design prior to drilling so that it can be engineered in such manner that the TCEQ would approve the well for future ASR Injection and ASR Recovery well.
- 3) District GM recommends the Applicant's representatives provide more clarification on the stated reuse of the groundwater production and account for that in the final operating permit application needs assessment.
- 4) District GM recommends the Applicant's representative per application letter determine the future needs of groundwater based on the declaration that enhance surface water delivery will be attained by year 2029.
- 5) District GM concurs with Keester that the well completion report will aid the Board's understanding of anticipated impacts over and above our current understanding of the system.
- 6) District GM recommends that the well be equipped with a meter for monthly recording of production in accordance with District Rule.
- 7) District should require the well owner to participate in the Districts continuous water level recorder program with a device provided and maintained by the District Staff.

Attachments are as follows:

Keester PG Technical Memorandum06/05/2023CUWCD Aquifer Status Report06/13/2023CUWCD 2022 Exempt Well Estimate of Use Report12/31/2022CUWCD Site MapSee AttachedApplications, fees and Notification AffidavitSee Attached

Mike Keester, PG RW Harden & Associates July 5, 2023 Hydrogeologic Evaluation

TECHNICAL MEMORANDUM

To: Dirk Aaron, General Manager – Clearwater Underground Water Conservation

District

From: Michael R. Keester, PG – R. W. Harden & Associates, Inc.

Date: July 5, 2023

Subject: Hydrogeologic Evaluation of the City of Temple Well (N3-23-004P) Drilling Permit

Application

Proposed Well ID: N3-23-004P Well Owner Name: City of Temple

Tract Size: 45.34 Acres **Column Pipe Size:** Max 8 inches

Aquifer: Lower Trinity **Proposed Annual Production:** 239 Acre-Feet per Year

Proposed Instantaneous Pumping Rate: 800 Gallons per Minute

According to information provided by the applicant's consultants, the proposed well is intended to supply water for industrial use to a data center located in the southeast portion of Temple. Projected annual water demand for the data center is 77,822,380 gallons or approximately 239 acre-feet. To meet peak demand, the anticipated capacity of the well is 800 gallons per minute from the Lower Trinity Aquifer in the Eastern Management Zone.

According to the CUWCD geologic model, the top of the Lower Trinity is about 2,400 feet below ground level and about 500 feet thick at the proposed well location. Site specific conditions encountered while drilling will determine the final depth of the well and completion interval. To meet the requirements of District Rule 6.9.2(f), the applicant will need to collect lithology samples and conduct geophysical logging of the open borehole while will also support delineation of the subsurface geologic units.

The groundwater availability model (Kelley and others, 2014) indicates the Lower Trinity Aquifer transmissivity is about 3,250 gallons per day per foot (gpd/ft) with a storage coefficient of 0.00011. Aquifer testing conducted in collaboration with the District has resulted in revision of the model transmissivity for the Lower Trinity Aquifer. According to the CUWCD updated model datasets, the transmissivity of the Lower Trinity Aquifer at the proposed well site is about 45,750 gpd/ft (Keester and Konetchy, 2016; Konetchy and Beach, 2020). Testing conducted following completion of the well will provide the site specific aquifer hydraulic conditions. However, for our analysis of effects due to the proposed production, we used the higher transmissivity estimate and the storativity value from the groundwater availability model to assess the potential drawdown at the proposed well and at the existing wells located within five miles from the proposed well (Figure 1).

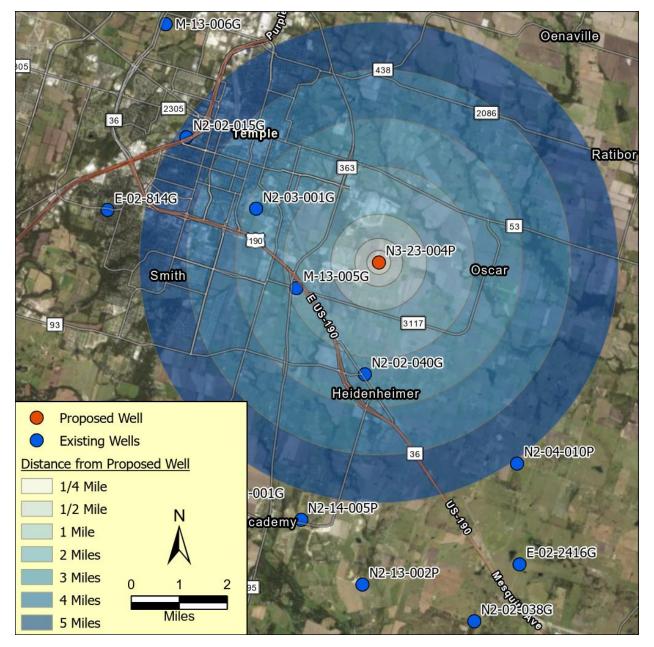


Figure 1. The proposed well and existing CUWCD Lower Trinity wells. Detailed information for each well shown is available through the District's website (https://cuwcd.org/).

The potential effects of the proposed production on local water levels in the aquifer are calculated using the Theis equation (Theis, 1935), which relates water-level decline (that is, drawdown) to the pumping rate of a well and properties of the aquifer. While the equation does not account for aquifer conditions which may affect the calculation of long-term water level declines (for example: aquifer recharge, faulting, or changes in aquifer structure), it does provide a very good, reliable, and straightforward method for estimating relatively short-term drawdown in and near a well due to pumping. As the duration of pumping and distance from the well increase, the uncertainty in the calculated drawdown also increases.

Table 1 presents the range in calculated drawdown based on an annual production rate of 239 acre-feet per year. For 1-Day Drawdown, we applied the proposed instantaneous pumping rate of 800 gpm for a period

of 24 hours. For *1-Month Drawdown*, we used the data provided by the applicant's consultant which indicated 17,320,764 gallons (53.2 acre-feet) in July. For the *1-Year Drawdown*, we used the total proposed annual production amount.

Table 1. Calculated drawdown at the proposed well and other wells within five miles completed in the Lower Trinity Aquifer based on annual production rate of 239 acre-feet. Values less than one foot are reported as Negligible.

CUWCD Well ID	Distance from Proposed Well (mile)	1-Day Drawdown (feet)	1-Month Drawdown (feet)	1-Year Drawdown (feet)
N3-23-004P (City of Temple)	_	38	22	9
M-13-005G	1.8	2	4	2
N2-02-040G	2.4	Negligible	3	2
N2-03-001G	2.8	Negligible	3	2
N2-02-015G	4.8	Negligible	2	2

The predicted drawdown amounts are based on our current understanding of the aquifer hydraulic properties and the estimated production from the proposed well. The predicted drawdown values presented do not include the effects from other wells pumping near the proposed well. Predicted drawdown of less than one foot is considered negligible for analysis purposes due to inherent uncertainty in the aquifer hydraulic characteristics.

As shown on Figure 1 and in Table 1, the nearest Lower Trinity well is District monitoring well M-13-005G. Since 2014, the District has regularly obtained water level measurements from the well. Based on these measurements, water levels in the Lower Trinity are declining at a rate of about 4.3 feet per year in the area (Keester and Pedrazas, 2020). The most recent water level measurement reports the depth to water at 384.5 feet below ground level (May 1, 2023). With the top of the aquifer at 2,400 feet below ground level, groundwater rises more than 2,000 feet above the top of the aquifer.

Predicted drawdown after one year of production is only about two feet at other wells within five miles of the proposed well. With water rising over 2,000 feet above the top of the aquifer in the well, the predicted drawdown and regional water level decline will not inhibit the ability to produce groundwater from existing wells in the foreseeable future.

As part of the well drilling and completion process, the applicant will conduct a minimum 24-hour pumping test and collect water samples for lab analysis. Based on the projected affect on M-13-005G, we recommend the District set monitoring equipment to record water levels in the well at 10 minute intervals for five days before and after the pumping test. Results of the pumping test and sampling will be beneficial in the analysis of the potential effects of production associated with the anticipated future operating permit application.

The District's adopted desired future condition (DFC) for the Lower Trinity Aquifer is 375 feet of average drawdown from 2010 through 2080. This adopted DFC results in a modeled available groundwater (MAG) value of 7,900 acre-feet per year (Shi and Harding, 2022). Based on monitoring data, the District is currently below the adopted DFC (Keester and Pedrazas, 2020) and District reporting indicates there is more than 2,000 acre-feet available for permitting from the Lower Trinity Aquifer (CUWCD, 2023).

Conclusions and Recommendations

Based on our current understanding of the local aquifer conditions, the proposed well will not inhibit the ability of other users to access groundwater from the Lower Trinity. In addition, the proposed production associated with a future operating permit is less than the volume reported as available for permitting. Based on our current understanding of the system, the nearest known Lower Trinity well is estimated to experience approximately two feet of drawdown from the annual production after one year. Data provided in association with the well completion report (Rule 6.9.2(f)) will aid the Board's consideration of the anticipated operating permit.

References

- CUWCD, 2023, Aquifer Status & Production Reports, https://cuwcd.org/wp-content/uploads/2023/06/Aquifer-Status-Production-Reports.pdf, accessed July 2023.
- Keester, M. and Konetchy, B., 2016, February 5, Results of Northern Trinity / Woodbine Groundwater Availability Model Simulations using a Modified Lower Trinity Transmissivity Distribution: Technical Memorandum.
- Keester, M. and Pedrazas, M., 2020, User Guide for CUWCD DFC Compliance Assessment Tool: Technical Memorandum to Dirk Aaron, General Manager Clearwater Underground Water Conservation District for Update and Revisions to the District DFC Compliance Assessment Tool, 11 p.
- Kelley, V.A., Ewing, J., Jones, T.L., Young, S.C., Deeds, N., and Hamlin, S., eds., 2014, Updated Groundwater Availability Model of the Northern Trinity and Woodbine Aquifers: Vol 1, Austin, Texas, Intera, 990 p.
- Konetchy, B. and Beach, J., 2020, Update of the Modified CUWCD NTWGAM: Draft Technical Memo to Dirk Aaron, General Manager of Clearwater UWCD dated May 7, 2020, 16 p.
- Shi, J. and Harding, J., 2022, GAM Run 21-013 MAG: Modeled Available Groundwater for the Aquifers in Groundwater Management Area 8: TWDB GAM Run, 92 p, http://www.twdb.texas.gov/groundwater/docs/GAMruns/GR21-013_MAG.pdf?d=13878.
- Theis, C.V., 1935, The Relation Between the Lowering of the Piezometric Surface and the Rate and Duration of Discharge of a Well Using Ground-Water Storage: American Geophysical Union Transactions, v. 16, p. 519-524.

Geoscientist Seal

The signature and seal appearing on this document was authorized by Michael R. Keester, P.G. on July 5, 2023. R.W. Harden & Associates Texas Board of Professional Geoscientist Firm Registration Number 50033.



CUWCD Aquifer Status Report

	FC Analysis Ove (2000-Presen Iodeled Available Grou	nt)	HEUP and OP Permit Analysis Relative to the Modeled Available Groundwater		2023 YTD Total Prod. Jan - May 674.56 ac-ft 13.51%		<u>Pendinq</u> <u>Applications</u>		Exempt Well Reservations			
Trinity Aquifer (by layer)	DFC Adopted * Average Drawdown (by layer)	MAG ** Ac-ft Current	HEUP Ac-ft (by layer)	OP Ac-ft (by layer)	Total Permitted Ac-ft (by layer)	2022 YTD Prod. (by layer)	2023 YTD Prod. (by layer)	Available for Permitting Ac-ft (by layer)	Pending Applications Ac-ft (by layer)	Exempt Well Reserve Ac-ft (by layer)	2022 Exempt Well Use Estimate Ac-ft (by layer)	Available Exempt Use Ac-ft (by layer)
Pawluxy	NA	0	0	0	0	0	0	0	0			0
Glen Rose (upper)	-1.38 ft/yr -83 ft/60 yrs	974	61.9	72.73	134.63	23.79	7.64	146.37	0	693	189	504
Hensell (middle)	-2.28 ft/yr -137 ft/60 yrs	1099	259.3	207.77	467.07	67.06	16.66	73.23	***23.00	548	527	21
Hosston (lower)	-5.50 ft/yr -330 ft/60 yrs	7193	1181.4	3209.261	4390.661	1842.71	650.26	2624.339	0.38	178	59	119
Total		9266	1502.6	3489.71	4992.361	1933.56 (40.77%)	674.56 (13.51%)	2843.939	23.38	1419	793	626

^{*}Desired Future Conditions (DFC) is the description of how the aquifer should look in the future (60 years).

<u>Big Elm RV Resort N2-22-003P (23.00 ac-ft/yr)</u> <u>Ken Baumgardner N3-23-003P (0.38 ac-ft/yr)</u>

^{**}The Modeled Available Groundwater (MAG) is the estimated amount of water available for permitting assigned to Clearwater UWCD by the Executive Administrator of TWDB.

^{***}Pending applications

CUWCD Exempt Well Estimate of Use Report



CUWCD Exempt Well Use Summary

Aquifer	Total Active Registered Exempt Wells ³	Registered Domestic Wells	Estimated Domestic Use Gallons/Day ^{1,2}	Estimated Domestic Use Ac- ft/Year ^{1,2}	Registered Stock Wells	Estimated Stock Use Gallons/Day ⁴	Estimated Stock Use Ac-ft/Year ⁴	Total Estimated Use Gallons/Day ⁷	Total Estimated Exempt Well Use Ac-ft/Year ⁷	MAG Reserved Exmpt
Glen Rose (Upper Trinity)	426	349	102,103	114	77	66,528	75	168,631	189	Well Use
Hensell (Middle Trinity)	972	911	417,446	468	61	52,704	59	470,150	527	Well God
Hosston (Lower Trinity)	159	148	43,299	49	11	9,504	11	52,803	59	
Trinity (Total) ⁶	1,557	1,408	562,848	630	149	128,736	144	691,584	775	1,419
Edwards BFZ	846	715	209,180	234	131	113,184	127	322,364	361	825
Edwards Equivalent	485	386	112,928	126	99	85,536	96	198,464	222	
Buda	28	15	4,388	5	13	11,232	13	15,620	17	
Lake Waco	8	3	878	1	5	4,320	5	5,198	6	
Austin Chalk	226	141	41,251	46	85	73,440	82	114,691	128	
Ozan	161	114	33,352	37	47	40,608	45	73,960	83	
Pecan Gap	67	44	12,873	14	23	19,872	22	32,745	37	
Kemp	15	11	3,218	4	4	3,456	4	6,674	7	
Alluvium	584	377	110,295	124	207	178,848	200	289,143	324	
Other ⁵	1,574	1,091	319,183	358	483	417,312	467	736,495	825	
CUWCD Total Active	3,977	3,214	1,091,212	1,222	763	659,232	738	1,750,444	1,961	

- 1. Domestic use estimate assumes 106 gallons/person per day (USGS estimate of domestic use outside of a municipal water system) and 2.76 persons/household (U.S. Census Bureau, Population Estimates Program (PEP) July 1, 2019)
- 2. Benjamin G. Wherley, Ph.D. Associate Professor- Turfgrass Science & Ecology Dept. of Soil and Crop Sciences Texas A&M University estimate of 2,000ft² warm season turfgrass requires 38,855gal/yr/lawn or 106gal/day/lawn; "Ranchette" Avg. lawn size is 13,042ft², 6.5X larger; 6.5 X 106gal/day/lawn= 689gal/day/lawn; ~217 "Ranchette" Middle Trinity Wells; 689 X 217=an additional 150,924gal/day/lawn; 490ac-ft/yr or an 89% increase in Middle Trinity exempt well use from the 2018 estimate of 258ac-ft/yr.
- 3. Exempt well use estimate factors out all plugged, capped, monitor and inactive wells in the database.
- 4. Source of stock water estimates is Texas Agrillife Extension @ 18 gallons water per day per cow. Livestock water use estimates are based on the 2017 Census of Agriculture, USDA National Agricultural Statistics Service. 36,868 cows / 771 stock wells= 48 cows/stock well; 48* 18gpd= 846 gal/day/stock well, 747ac-ft/yr or a 34% increase in annual stock use from the 2018 estimate of 556ac-ft/yr.
- 5. The "Other" designation is the total of minor aquifer and alluvium source designation of the exempt wells.
- 6. Trinity Aquifer wells registered with unknown depth are assigned to the Middle Trinity per Board decision.
- 7. All estimates of groundwater use by exempt well owners is based on assumptions and scientific data, but by no means are they to be interpreted as recommended practices by CUWCD.

City of Temple c/o INTERA Application Documentation





June 5, 2023

Mr. Dirk Aaron General Manager Clearwater Underground Conservation District 700 Kennedy Court Belton Texas 76513

Re: Application for Non-Exempt Well: Drilling Permit

Dear Mr. Aaron,

The City of Temple [City] is applying to Clearwater Underground Conservation District [District] for a drilling permit for a non-exempt well. This well is to supply an industrial user in an area located in the southeast portion of Temple (Figure 1). INTERA has been hired by the City to help support this process, and provides this cover letter to partially meet the requirements of the application. The purpose is to describe the proposed beneficial use of the groundwater and specifically identify the anticipated needs.

An industrial partner, Rowan Green Data, is constructing a data center with specific water use requirements. The water will be used for the purposes of cooling, and will be recycled three to four times before the remaining water is discharged. Rowan has a strong commitment to environmental stewardship and recognizes the value of water reuse and water conservation. We believe that their proposed use of the groundwater meets the standard for beneficial use as defined in District rules (Rule 1.1 Definition of Terms).

The City is a large water supplier, and currently provides treated surface water for municipal and industrial needs in the City. The City is rapidly expanding its infrastructure to meet growing needs for both the municipal and industrial sectors. However, the location of Rowan's data center is beyond the current reach of the City's larger water infrastructure. The City does have plans to extend industrial supplies to that area. KPA Engineers performed a study for the City to provide approximate budget and timelines for water supply expansions to meet the needs of several "South Temple Water Supply Projects". The timeline for completion of this expansion is on the order of 2029/2030 at a cost of over 30 million dollars. While the City may have sufficient overall water supply to meet Rowan's needs, the timeline over which an industrial capacity supply will be brought to that area cannot meet Rowan's schedule. The City of Temple is almost finished with bringing potable water and wastewater infrastructure to the site, but the small potable water supply will mostly be used for facilities (drinking and bathrooms).

The City views this addition of groundwater to its water portfolio as a small, but important diversification. They recognize that groundwater is a limited resource, and are asking only the amount of water required to meet the specific demands of the data center. Rowan's engineers have estimated the annual cooling water requirement to be 77,822,380 gallons, and the peak demand to be 829,512 gallons per day. This converts to an annual requirement of 239 acre-feet per year, and a peak daily production

rate of 576 gpm (in the permit, we note a peak potential withdrawal rate of 800 gpm, which represents peak instantaneous production). Rowan's backup calculations for annual use are available to the District upon request.

The proposed well location is in the District's Lower Trinity Eastern management zone. The proposed column pipe diameter is 8 inches. Figure 2 shows the nearest two existing Lower Trinity wells, each located at a distance much greater than the District's required 2,640 feet, meeting the spacing rules. The property upon which the well is located (Figure 1) is 45.3 acres, meeting the requirements for property size for an 8 inch column.

Please don't hesitate to contact me 512-506-1230 with any questions you may have about this permit application.

Sincerely,

Neil Deeds, PhD, PE, PG Principal Water Resources Engineer

CC: jbilleck@templetx.gov

Enclosure: N3_Application_rev239.pdf

TEDC Authorization for COT to build well.pdf





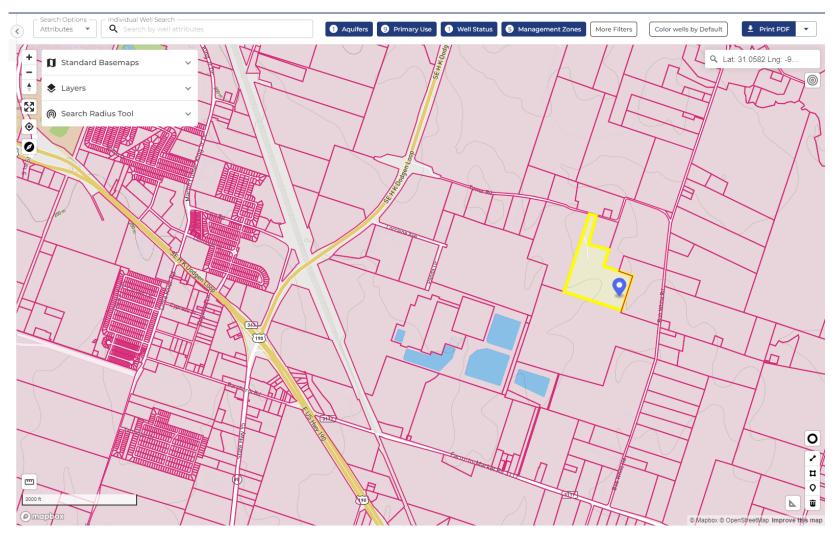


Figure 1. Proposed well location on Bell CAD Property ID# 91503, about one mile east-northeast of the Panda Temple II Power plant. The property area is 45 acres.



Figure 2. Proposed well location (dark blue pin) shown with nearest two Lower Trinity wells (blue symbols), both at a distance much greater than 2,640 feet.

Authorization Temple EDC to City of Temple

Authorization for Underground Well

Temple Economic Development Corporation (TEDC), a Texas non-profit corporation, is the owner of land described as 45.33-acres situated in the MAXIMO MORENO SURVEY, ABSTRACT 14, Bell County, Texas, embracing all of a called 45-acre tract conveyed to William K. Payne and William Michael Payne, Trustees, in Volume 3565, Page 36, Official Public Records of Real Property, Bell County, Texas and described by metes and bounds and conveyed in a Deed to Temple Economic Development Corporation, Document Number 2021064234, Official Public Records of Real Property, Bell County, Texas. The property is addressed as 4331 Tower Road, Temple, Texas and has Bell County Tax Appraisal District ID Number 91503 (Property).

TEDC agrees that it is necessary to drill and construct an underground water well on the Property in order to provide water to industrial complexes in the vicinity of the Property.

TEDC grants the City of Temple, Texas, a home-rule municipality, (City) permission to drill and construct a well on the Property.

TEDC authorizes the City to act on its behalf to apply for all permits required by Clearwater Underground Water Conservation District (CUWCD) for drilling and construction of the well.

TEDC authorizes the City to directly communicate with CUWCD regarding this Property, the well, and all necessary applications, permits, and any other required documentation for the well.

TEMPLE ECONOMIC DEVELOPMENT CORPORATION, a Texas non-profit corporation

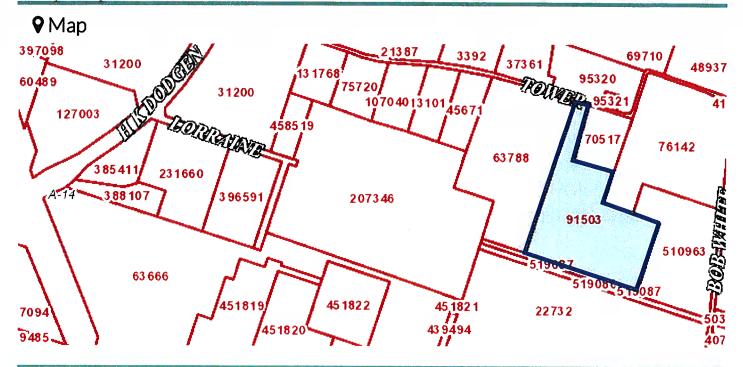
Adrian Cannady

President

Date: //lay 30, 62

Tax Appraisal District G. Bell County Property Search

Property ID: 91503 For Year 2023



■ Property Details

Account

Property ID: 91503 **Geographic ID:** 0458650000

Type: Real Zoning:

Location

Situs Address: 4331 TOWER RD TEMPLE, TX 76501

Map ID: 49A01 A31 Mapsco:

Legal Description: A0014BC M MORENO, 276 & 276-1, ACRES 45.33, SN1 NOT FOUND; LABEL#

NOT FOUND

Abstract/Subdivision: A0014BC - M MORENO

Neighborhood: RTEMRUTRES

Owner

Owner ID: 106734

Name: TEMPLE ECONOMIC DEVELOPMENT CORPORATION

Agent:

Mailing Address: 201 W AVENUE A STE 103

TEMPLE, TX 76501-7603

% Ownership: 100.0%

CUWCD Application Form N3 Classification Drilling Permit for Hosston Layer



Application for Non-Exempt Well Classification 3

Check one of the following: COMBINATION PERMIT	Answer the following: Is this for a New Well?	Yes	No
DRILLING PERMIT	Is this for a Replacement Well?	Yes	No
OPERATING PERMIT	Do you plan to Export Water Outside District?		No
PERMIT AMENDMENT	• 1	Yes	No
FERIVIII AWIEMDIVIENI	Are you modifying a Drilling Permit?		
	Are you modifying an Operating Permit?	Yes	No
1. Owner Information			
	Email:		
Contact Person (if other than owner	e, ZIP):	Tolenhone:	
If ownership of Well has changed, na	nme the previous owner:St	ate Well #:	
The well is located in Management Acreage: Bell CAD P 3. Well Description (Submit if State of a. Proposed use of well and estimate *Domestic; ** Public Supply; *Total number of houses to be ser ** Applicant is required to give no water or wastewater service with which be Estimated distance, in feet, from the N / S Property Line; N / S Property Line; River, Stream, or Lake	Ad amount of water, in acre-feet, to be used for each purp Livestock/Poultry; Agricult Industrial Other Eviced by the well Ottice to TCEQ to obtain or modify a Certificate of Convewater obtained pursuant to the requested permit.	Longitude:Longitude: ose: ural/Irrigation; nience and Necess Existing Septic Livestock Enclo	sity to provide Leach Field osure;
c. Estimated Rate of Withdrawal (d. Is the Property subject to floodie. Is there another well on the projf. Is the well part of a multi-well a	(GPM): ng? perty? ; If YES, how many wells?		
REQUIRED BY LAW: Pump Inst	taller / Well Driller Information		
Name:			
TDLR Pump Installer License #:			
TDLR Well Driller License #:			
Email: Name of Consultant preparing Appli Con. Phone: Con	cation (if applicable):		

Pr	coposed Total Depth of Well:	ft;			
Во	orehole Diameter (Dia):	inches (in) from	to	;	
Di	a (2) in from	to;			
Ca	asing Material:	; Inside Dian	neter (ID):	in;	
	reen Type:				ckers:
Pι	ımp Type:	; Power:	; Horsepov	ver Rating:	;
Pu	ımp Depth:	; Column Pipe ID:	in.		
Da	ate Completed:				
Pr	oposed Water Bearing Forn	nation:	; M	lanagement Zone:	
•	TD				
	perating Permit				
	umber of contiguous acres own		-		
	otal annual production requeste				
<u>If</u>	exporting water, what is the ar				
				% of total pumpage:	
<u>If</u>	modifying an operating permi	-	_		
		requested amount of ar	nual production	:	ac-ft
	ttachments				
	clude a statement/documentati		-		
<u>If</u>	amending an existing permit,	explain the requested a	mendment and th	ne reason for the amendn	nent in a signed and
	ted letter, attached to this appl				
<u>If</u>	requesting operating permits of	or permit renewals for n	<u>nultiple wells</u> , pl	ease attach a separate sh	eet with the
int	formation requested in Section	<u>5</u> for each well.			
<u>If</u>	applicant plans to export wate	r outside the District, a	ddress the follow	ring in an attachment and	l provide
do	cuments relevant to these issu	es:			
	• The availability of water	in the District and in th	e proposed recei	iving area during the peri	iod requested
	• The projected effect of the	ne proposed export on a	quifer condition	s, depletion, subsidence,	or effects on
	existing permit holders o	r other groundwater us	ers within the Di	strict	
	 How the proposed expor 	t is consistent with the	approved regiona	al water plan and certifie	d District
	Management Plan			1	
Fo	or more attachments that may be	be needed, please see th	e Full Summary	of the Permit Applicatio	n Process
	ocument.	<i>,</i> 1	,	J II	
	ertification				
	nereby certify that the informat	tion contained herein is	true and correc	t to the best of my knowl	edge and belief. I
	rtify to abide by the terms of th			<i>v v</i>	O U
	irectors. I agree to comply with			·	•
Ту	ped Name of the Owner or Do	esignee:			
Si	onature.			Date:	

4.	Completion Information			
	Provide the following information	to the extent known an	d available at the time of a	pplication:
	Proposed Total Depth of Well: 2		•	•
	Borehole Diameter (Dia): 20	_inches (in) from 0	to <u>2900;</u>	
	Dia (2) in from			
	Casing Material: Steel	; Inside Diamet	er (ID): <u>14</u> i	n;
	Screen Type: SS Wire Wrap			
	Pump Type: Turbine			
	Pump Depth: 750	_; Column Pipe ID:8	in.	
	Date Completed: TBD			
	Proposed Water Bearing Format	tion: Lower Trinity	; Management	Zone: Eastern
	-			
5.	Operating Permit			
	Number of contiguous acres owned	d or leased on which wa	ater is to be produced: 45.3	acres
	Total annual production requested	with this operating peri	mit: <u>239</u>	acre-feet
	If exporting water, what is the annu	ual volume requested for	or export out of the District	:: N/A Gallons
	What is the anr	nual volume requested t	for export as a % of total pr	umpage:%
	If modifying an operating permit, v	what is the current, perr	nitted annual production: N	√Aac-ft
	What is the re-	quested amount of annu	ual production:	ac-ft
6.	Attachments		_	
	Include a statement/documentation	explaining your reques	sted production.	
	If amending an existing permit, exp	plain the requested ame	endment and the reason for	the amendment in a signed and
	dated letter, attached to this applica	ation.		
	If requesting operating permits or p	permit renewals for mu	<u>ltiple wells,</u> please attach a	separate sheet with the
	information requested in Section 5	for each well.		
	If applicant plans to export water o	utside the District, add	ress the following in an atta	achment and provide
	documents relevant to these issues:			
	 The availability of water in 	the District and in the	proposed receiving area du	ring the period requested
	 The projected effect of the 	proposed export on aqu	ifer conditions, depletion,	subsidence, or effects on
	existing permit holders or o	ther groundwater users	within the District	
	 How the proposed export is 	consistent with the app	proved regional water plan	and certified District
	Management Plan			
	For more attachments that may be	needed, please see the	Full Summary of the Permi	t Application Process
	document.			
7.	Certification			
	I hereby certify that the information	n contained herein is tr	rue and correct to the best o	of my knowledge and belief. I
	certify to abide by the terms of the	District Rules, the Dist	rict Management Plan, and	d orders of the Board of
	Directors. I agree to comply with a	ıll District well pluggin	g and capping guidelines a	is stated in the District Rules.
	Typed Name of the Owner or Designation	gnee: Neil Deeds		
		Digitally signed	1 by Neil Deeds	
	Neil Deeds	DN: cn=Neil Do	eeds, o=INTERA, ou, email=ndeeds@intera.com	6/5/23
	Signature:	Date: 2023.06.	05 14:30:06 -05'00'	Date:

Permit Fee Schedule
Drilling Permit
239 ac-ft from Hosston Layer
Trinity Aquifer

Clearwater Underground Water Conservation

PO Box 1989 Belton, TX 76513

Invoice

Invoice #: 193

Invoice Date: 6/19/2023 **Due Date:** 6/19/2023

Project:

P.O. Number:

Bill To:

City of Temple Attn: James Billeck

Date	Description	Amount
6/19/2023	Permit Application Fee N3-23-004P	3,017.50
		·

Total	\$3,017.50
Payments/Credits	\$0.00
Balance Due	\$3,017.50

Permit Fee Schedule



Title	Annual Withdrawal (ac-ft)	Withdrawal Limit Condition	1	Drilling rmit Base Fee	Drilling Permit ogressive Fee	Progressive Fee Unit	Operating ermit Base Fee	P	erating ermit gressive Fee	Progressive Fee Unit
Level It	0	Up to and including 1 ac-ft	\$	150.00	\$ The State of the		\$	\$	affici ear	
Level II	1	Up to but not including 5 ac-ft	\$	150.00	\$ 210.00	per ac-ft	\$	\$	W. M. Carl	LW LO
Level III	5	Up to but not including 130 ac-ft	\$	400.00	\$ 15.00	per ac-ft	\$ 600.00	\$	20.00	per ac-ft
Level IV	130	Equal to or Greater than 130 ac-ft	\$	2,200.00	\$ 7.50	per ac-ft	\$ 3,300.00	\$	10.00	per ac-ft

[†] Level I and Level II use a Combination Permit, the Combination Permit fees are listed under Drilling Fees

Enter Your Proposed Withdrawal in ac-ft:

How do I use this tool?

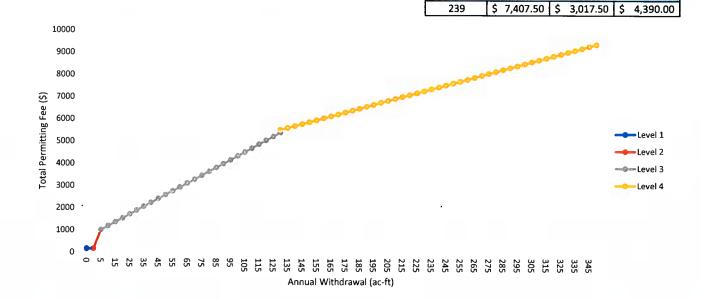
239

The above amount requires a

Two-Step Permit **

- *A Combination Permit covers both drilling and operating a well
- **A Two-Step Permit requires 1 drilling permit and 1 operating permit

n/a		Table	of Fees	
<u>· </u>	ac-ft	Combined Fee	Drilling Fee	Operating Fee
Maximum	0.5	\$ 150.00	-	-
\$ 3,017,50 \$ 7,500.00	1	\$ 150.00	-	-
\$ 4,390,00 \$ 10,000.00	2	\$ 360.00	-	-
\$ 7,407,50 \$ 17,500.00	3	\$ 570.00	-	-
	4	\$ 780.00	-	-
	5	\$ 1,000.00	\$ 400.00	\$ 600.00
in the	30	\$ 1,875.00	\$ 750.00	\$ 1,125.00
	55	\$ 2,750.00	\$ 1,100.00	\$ 1,650.00
ount	80	\$ 3,625.00	\$ 1,450.00	\$ 2,175.00
mit	105	\$ 4,500.00	\$ 1,800.00	\$ 2,700.00
permit for your	130	\$ 5,500.00	\$ 2,200.00	\$ 3,300.00
e cost maximum	155	\$ 5,937.50	\$ 2,375.00	\$ 3,562.50
	180	\$ 6,375.00	\$ 2,550.00	\$ 3,825.00
e of Fees, shows the	205	\$ 6,812.50	\$ 2,725.00	\$ 4,087.50
lied	230	\$ 7,250.00	\$ 2,900.00	\$ 4,350.00
schedule of fees		You	r Fee	10,200,745
	Maximum \$ 3,017,50 \$ 7,500.00 \$ 4,390.00 \$ 10,000.00 \$ 7,407,50 \$ 17,500.00 in the ount mit permit for your e cost maximum e of Fees, shows the lied	Maximum 0.5	Ac-ft Combined Fee	Ac-ft Combined Fee Drilling Fee Fee



Rowan Digital Infrastructure Quantifiable Needs Accessment



6/16/2023

Mr. Dirk Aaron General Manager Clearwater Underground Water Conservation District P.O. Box 1989 Belton, Texas 76513 254.933.0120

RE: Synergy Well Application - Quantifiable Needs Assessment

Dear Mr. Aaron,

In response to your email correspondence dated June 8, 2023, Rowan has evaluated the anticipated water demand for the Synergy Well on an annualized basis. A daily water demand report has been prepared and is attached for your review and use. Estimated water demand values are based on engineering design requirements for the Moriah I project and operational experience at similar facilities. Key water demand criteria are summarized in the table below:

Synergy Well Water Demand Technical Needs As	sessment
Total annual demand (gallons/year)	77,822,380
Average day demand (gallons/day)	676,716
Days per year when no water is used (days)	115
Peak day demand (gallons/day)	829,512
Peak hour demand (gallons/day)	66,725
Peak minute demand (gallons/minute)	1,200

Additional information will be provided to you concerning the infrastructure and public water concerns voiced in your June 8, 2023, email that will be supplied by the City of Temple in a separate correspondence.

Should you have any questions concerning the attached report, I can be reached by email or by cell phone.

Best, regards,

Kyle Hoover, P.E., P.G. (P.E. - NC, VA; P.G. - NC, TN)

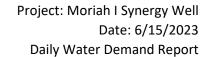
ROWAN GREEN DATA LLC

Senior Manager - Civil Engineering

(m) 704.898-1636

(e) khoover@rowan.digital

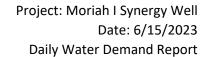
Attachments: Moriah I Daily Water Demand Report.pdf





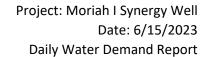
Day - Month	Estimated Daily Water Usage (Gallons)
1-Jan	0
2-Jan	70,465
3-Jan	0
4-Jan	0
5-Jan	0
6-Jan	0
7-Jan	0
8-Jan	0
9-Jan	0
10-Jan	0
11-Jan	0
12-Jan	0
13-Jan	0
14-Jan	0
15-Jan	0
16-Jan	0
17-Jan	0
18-Jan	0
19-Jan	0
20-Jan	0
21-Jan	0
22-Jan	0
23-Jan	0
24-Jan	0
25-Jan	0
26-Jan	25,137
27-Jan	0
28-Jan	0
29-Jan	0
30-Jan	0
31-Jan	0
1-Feb	0
2-Feb	0
3-Feb	0
4-Feb	0
5-Feb	0
6-Feb	0
7-Feb	0
8-Feb	0
9-Feb	0
10-Feb	59,230
,	/

Rowan Green Data, LLC 1 of 10





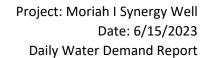
Rowan Green Data, LLC 2 of 10





Day - Month	Estimated Daily Water Usage (Gallons)
24-Mar	39,584
25-Mar	41,693
26-Mar	123,370
27-Mar	0
28-Mar	0
29-Mar	0
30-Mar	0
31-Mar	0
1-Apr	30,087
2-Apr	20,082
3-Apr	158,364
4-Apr	153,979
5-Apr	0
6-Apr	0
7-Apr	102,451
8-Apr	234,555
9-Apr	226,022
10-Apr	89,273
11-Apr	105,452
12-Apr	199,761
13-Apr	149,062
14-Apr	351,250
15-Apr	253,820
16-Apr	144,842
17-Apr	85,336
18-Apr	118,259
19-Apr	172,668
20-Apr	103,021
21-Apr	106,782
22-Apr	215,013
23-Apr	155,974
24-Apr	99,470
25-Apr	318,423
26-Apr	234,399
27-Apr	415,191
28-Apr	137,073
29-Apr	276,637
30-Apr	322,927
1-May	106,728
2-May	126,790
3-May	73,453

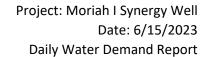
Rowan Green Data, LLC 3 of 10





	Estimated Daily Water Usage
Day - Month	(Gallons)
4-May	146,377
5-May	236,241
6-May	320,433
7-May	259,050
8-May	0
9-May	155,185
10-May	272,882
11-May	255,580
12-May	204,624
13-May	316,234
14-May	236,131
15-May	364,963
16-May	100,126
17-May	252,814
18-May	298,899
19-May	314,238
20-May	346,938
21-May	580,689
22-May	581,541
23-May	478,670
24-May	469,035
25-May	448,601
26-May	299,910
27-May	408,266
28-May	323,590
29-May	192,909
30-May	231,608
31-May	343,325
1-Jun	571,262
2-Jun	378,750
3-Jun	428,205
4-Jun	404,318
5-Jun	147,918
6-Jun	275,637
7-Jun	398,694
8-Jun	385,147
9-Jun	450,567
10-Jun	336,370
11-Jun	497,862
12-Jun	484,912
13-Jun	252,071

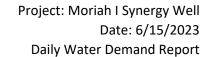
Rowan Green Data, LLC 4 of 10





Estimated Daily Water Usage
(Gallons)
321,317
175,186
366,913
372,824
413,067
475,161
464,941
467,299
513,289
526,700
448,867
529,027
405,371
451,418
485,192
476,772
523,027
422,341
372,046
432,074
449,685
333,166
260,402
447,001
600,120
630,531
676,214
665,930
739,251
585,583
437,945
490,340
564,111
631,380
669,535
666,372
666,971
545,177
625,892
634,499
673,884

Rowan Green Data, LLC 5 of 10

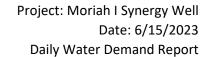




Day - Month	Estimated Daily Water Usage (Gallons)				
25-Jul	624,527				
26-Jul	718,295				
27-Jul	729,904				
28-Jul	829,512				
29-Jul	541,067				
30-Jul	378,018				
31-Jul	278,991				
1-Aug	441,953				
2-Aug	468,678				
3-Aug	508,947				
4-Aug	482,673				
5-Aug	613,199				
6-Aug	396,070				
7-Aug	447,215				
8-Aug	439,324				
9-Aug	489,914				
10-Aug	401,909				
11-Aug	394,554				
12-Aug	403,142				
13-Aug	393,022				
14-Aug	408,139				
15-Aug	421,032				
16-Aug	456,594				
17-Aug	444,102				
18-Aug	327,467				
19-Aug	491,912				
20-Aug	511,691				
21-Aug	190,316				
22-Aug	192,251				
23-Aug	337,881				
24-Aug	454,071				
25-Aug	516,390				
26-Aug	603,788				
27-Aug	532,821				
28-Aug	316,078				
29-Aug	333,669				
30-Aug	453,346				
31-Aug	492,257				
1-Sep	235,998				
2-Sep	240,056				
3-Sep	441,646				

Peak Day Demand

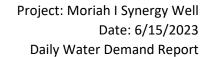
Rowan Green Data, LLC 6 of 10





	Estimated Daily Water Usage
Day - Month	(Gallons)
4-Sep	532,667
5-Sep	520,315
6-Sep	610,218
7-Sep	504,091
8-Sep	164,262
9-Sep	188,001
10-Sep	275,382
11-Sep	199,823
12-Sep	206,836
13-Sep	257,709
14-Sep	153,372
15-Sep	234,776
16-Sep	410,722
17-Sep	603,241
18-Sep	480,907
19-Sep	441,263
20-Sep	397,799
21-Sep	348,163
22-Sep	21,172
23-Sep	278,863
24-Sep	224,071
25-Sep	364,563
26-Sep	480,606
27-Sep	412,495
28-Sep	472,504
29-Sep	508,736
30-Sep	327,920
1-Oct	383,001
2-Oct	220,677
3-Oct	356,391
4-Oct	366,890
5-Oct	373,151
6-Oct	0
7-Oct	257,974
8-Oct	232,649
9-Oct	177,087
10-Oct	159,000
11-Oct	189,190
12-Oct	201,267
13-Oct	184,142
14-Oct	155,015

Rowan Green Data, LLC 7 of 10





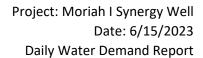
Day - Month	Estimated Daily Water Usage (Gallons)
15-Oct	200,189
16-Oct	208,490
17-Oct	14,896
18-Oct	0
19-Oct	0
20-Oct	0
21-Oct	0
22-Oct	0
23-Oct	0
24-Oct	0
25-Oct	106,517
26-Oct	126,555
27-Oct	33,282
28-Oct	71,681
29-Oct	133,303
30-Oct	93,430
31-Oct	112,371
1-Nov	0
2-Nov	180,953
3-Nov	267,744
4-Nov	230,820
5-Nov	0
6-Nov	0
7-Nov	122,399
8-Nov	197,093
9-Nov	29,036
10-Nov	0
11-Nov	0
12-Nov	0
13-Nov	139,550
14-Nov	119,674
15-Nov	0
16-Nov	0
17-Nov	0
18-Nov	0
19-Nov	101,386
20-Nov	138,641
21-Nov	97,287
22-Nov	0
23-Nov	0
24-Nov	0

Rowan Green Data, LLC 8 of 10



Day - Month	Estimated Daily Water Usage
•	(Gallons)
25-Nov	55,465
26-Nov	210,848
27-Nov	236,867
28-Nov	0
29-Nov	0
30-Nov	0
1-Dec	0
2-Dec	0
3-Dec	0
4-Dec	0
5-Dec	0
6-Dec	145,585
7-Dec	0
8-Dec	0
9-Dec	0
10-Dec	107,783
11-Dec	66,518
12-Dec	139,275
13-Dec	39,425
14-Dec	93,944
15-Dec	0
16-Dec	0
17-Dec	0
18-Dec	0
19-Dec	0
20-Dec	0
21-Dec	25,931
22-Dec	55,820
23-Dec	118,944
24-Dec	0
25-Dec	0
26-Dec	0
27-Dec	0
28-Dec	0
29-Dec	177,145
30-Dec	0
31-Dec	0
	1

Rowan Green Data, LLC 9 of 10

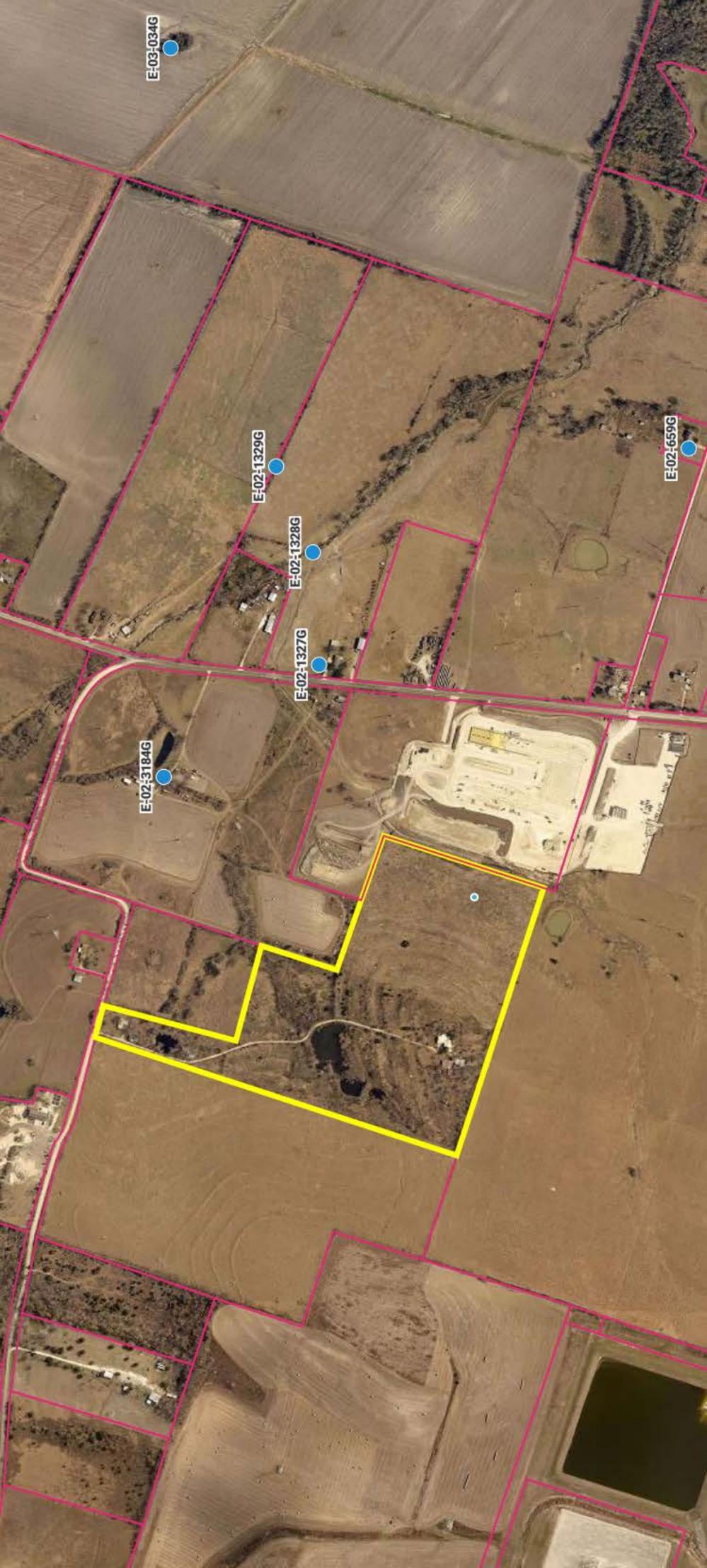


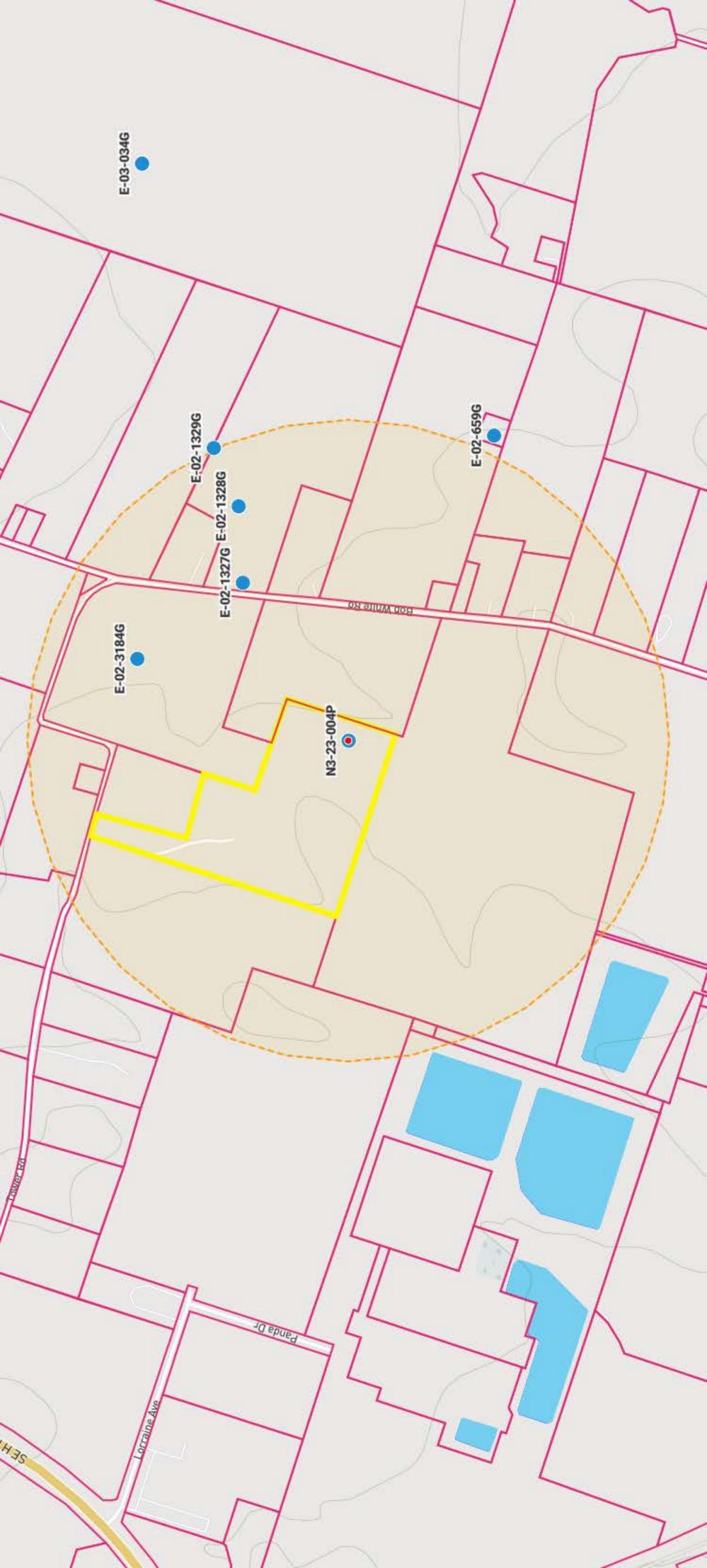


Technical Needs Assessment				
Total annual demand	77,822,380			
Average day demand	676,716			
Days per year when no water is us	115			
Peak day demand	829,512			
Peak hour demand	66,725			
Peak minute demand	1,200			

Rowan Green Data, LLC 10 of 10

Radius Map Tract Size of 45.33-acres





Notification Language Well Owners Ajacent Property Owners

NOTICE OF APPLICATION FOR A DRILLING PERMIT FROM CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

Neil Deeds, Ph.D., PE, PG, has submitted an application, on behalf of The City of Temple, to the Clearwater Underground Water Conservation District (CUWCD) on June 5, 2023, for a drilling permit to authorize drilling for a proposed new well.

This permit will authorize the drilling and completion of the well (#N3-23-004P) in the Eastern Management Zone described in District Rule 7.1. The proposed well is to be completed in the Lower Trinity Aquifer (Hosston Layer), with a maximum 8-inch column pipe on a 45.33-acre tract located at 4331 Tower Rd., Temple, Texas, Latitude 31.0582°/Longitude -97.3005°, to produce groundwater for industrial use at a proposed annual quantity not to exceed 239 acre-feet or 77,822,380 gallons per year total at a maximum pumping rate not-to-exceed 800 gallons per minute.

This application will be set for hearing before the CUWCD Board upon notice posted at the Bell County Clerk's Office and at the CUWCD Office. If you would like to support, protest, or provide comments on this application, you must appear at the hearing and comply with District Rule 6.10. For additional information about this application or the permitting process, please contact the CUWCD at 700 Kennedy Court, Belton, Texas 76513, 254-933-0120. The applicant may be contacted at 3210 E. Avenue H Bldg. A, Suite 130, Temple, TX 76501, or by phone at 254-298-5660. The applicant's representative, Dr. Neil Deeds, can be contacted at 512-506-1230.

Publisher's Affidavit

State of Texas County of Bell

Before Me, The Undersigned Authority, this day personally appeared <u>Jane Moon</u> after being by me duly sworn, says that she is the <u>Classified Manager Inside Sales</u> of the Temple Daily Telegram, a newspaper published in Bell County, Texas and that the stated advertisement was published in said newspaper on the following date(s):

June 23, 2023

For: Neil Deeds, Ph.D., PE, PG/

City of Temple Ad #: 16685586 Cost: \$136.30

Times Published: 1

Jane Moon

Classified Manager Inside Sales

Subscribed and sworn to before me, this day: June 23, 2023

Notary Public in and for Bell County, Texas

(Seal)



NOTICE OF APPLICATION FOR A DRILLING PERMIT FROM CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

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E-Edition FROM CLEARWATER UNDERGROUND WAT CONSERVATION DISTRICT → Share □ Save Details for notice of application for a drilling permit from CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT 8 hrs ago NOTICE OF APPLICATION FOR A DRILLING PERMIT FROM CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT B Neil Deeds, Ph.D., PE, PG, has submitted an application, on behalf of The City of Temple, to the Clearwater Underground Water Conservation District (CUWCD) on June 5, 2023, for a drilling permit to authorize drilling for a proposed new well. This permit will authorize the drilling and completion of the well (#N3-23-004P) in the Eastern Management Zone described in District Rule 7.1. The proposed well is to be completed in the Lower Trinity Aquifer (Hosston Layer), with a maximum 8-inch column pipe on a 45.33acre tract located at 4331 Tower Rd., Temple, Texas, Latitude 31.0582/Longitude -97.3005, to produce groundwater for industrial use at a proposed annual quantity not to exceed 239 acre-feet or 77,822,380 gallons per year total at a maximum pumping rate not-to-exceed 800 gallons per minute. This application will be set for hearing before the CUWCD Board upon notice posted at the Bell County Clerks Office and at the CUWCD Office. If you would like to support, protest, or provide comments on this application, you must appear at the hearing and comply with District Rule 6.10. For additional information about this application or the permitting process, please contact the CUWCD at 700 Kennedy Court, Belton, Texas 76513, 254-933-0120. The applicant may be contacted at 3210 E. Avenue H Bldg. A, Suite 130, Temple, TX 76501, or by phone at 254-298-5660. The applicants representative, Dr. Neil Deeds, can be contacted at 512-506-1230.

June 19, 2023

NOTICE OF APPLICATION FOR DRILLING PERMIT

Name Address City, TX Zip VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED

RE: Application for a Drilling Permit

To Whom It May Concern:

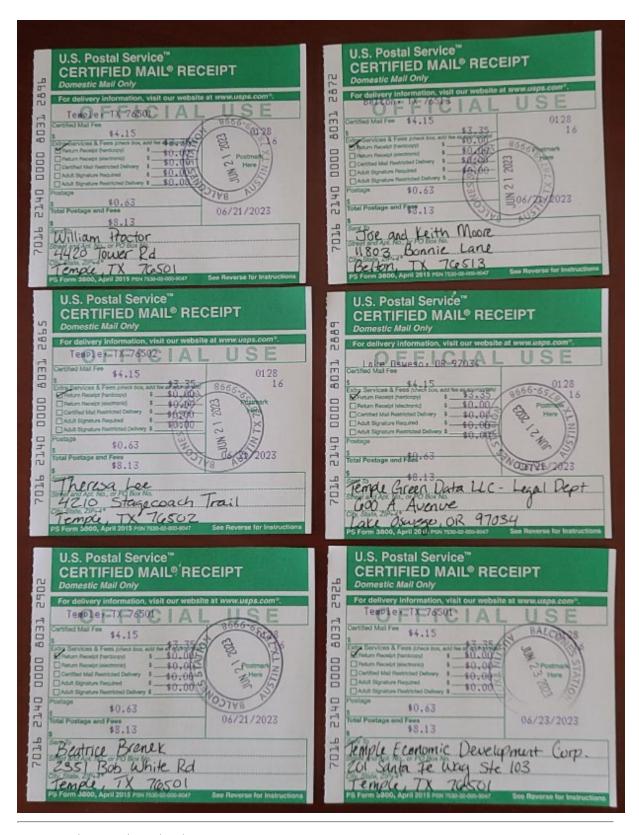
I, Neil Deeds, Ph.D., PE, PG, have submitted an application, on behalf of The City of Temple, to the Clearwater Underground Water Conservation District (CUWCD) on June 5, 2023, for a drilling permit to authorize drilling for a proposed new well.

This permit will authorize the drilling and completion of a well (#N3-23-004P) in the Eastern Management Zone described in District Rule 7.1. The proposed well is to be completed in the Lower Trinity Aquifer (Hosston Layer), with a maximum 8-inch column pipe on a 45.33-acre tract located at 4331 Tower Rd., Temple, Texas, Latitude 31.0582°/Longitude -97.3005°, to produce groundwater for industrial use at a proposed annual quantity not to exceed 239 acre-feet or 77,822,380 gallons per year total at a maximum pumping rate not-to-exceed 800 gallons per minute.

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Sincerely,

Neil Deeds, Ph.D., PE, PG Principal Water Resources Engineer INTERA Inc.



From: Neil E. Deeds <ndeeds@intera.com>
Sent: Thursday, June 22, 2023 9:33 AM
To: Tristin Smith <tsmith@cuwcd.org>
Cc: Dirk Aaron <daaron@cuwcd.org>

Subject: Re: Letters and Newspaper Ad for Permit Application

Name	Address	City	State	Zip
Joe Moore & Keith Moore	11803 Bonnie Lane	Belton	TX	76513
City of Temple	PO Box 987	Temple	TX	76501
Thresea Lee	4210 Stagecoach Trail	Temple	TX	76502
Temple Economic Development Corporation	201 W Ave A Ste 103	Temple	TX	76501
Temple Green Data LLC ATTN: Legal Department	600 A Ave	Lake Oswego	OR	97034
William Proctor	4420 Tower Rd	Temple	TX	76501
Beatrice Brenek	2351 Bob White Rd	Temple	TX	76501

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N3-23-004P Contact List

Wells 1/2 Mile

Prop ID	<u>Name</u>	<u>Address</u>	<u>City</u>	<u>State</u>	<u>Zip</u>	Well#	<u>Status</u>	<u>Depth</u>	<u>Aquifer</u>	<u>Use</u>	Distance
76142	Joe Moore & Keith Moore	11803 Bonnie Lane	Belton	TX	76513	E-02-3184G	Active	18	Ozan	Livestock/Poultry	1,852 ft
12894	Beatrice Brenek	2351 Bob White Rd	Temple	TX	76501	E-02-1327G	Inactive	unknown	Austin Chalk	Not Used	1,563 ft
12894	Beatrice Brenek	2351 Bob White Rd	Temple	TX	76501	E-02-1328G	Inactive	unknown	Austin Chalk	Not Used	2,120 ft

Adjacent Property

76142	Joe Moore & Keith Moore	11803 Bonnie Lane	Belton	TX	76513
70517	City of Temple	PO Box 987	Temple	TX	76501
53788	Thresea Lee	4210 Stagecoach Trail	Temple	TX	76502
22732	Temple Economic Development Corporation	201 W Ave A Ste 103	Temple	ΤX	76501
510963	Temple Green Data LLC ATTN: Legal Department	600 A Ave	Lake Oswego	OR	97034
95320	William Proctor	4420 Tower Rd	Temple	TX	76501