

# Driller Guidance Tool

A Tool to Support The District's Groundwater Well  
Assistance Program (GWAP)

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**PRESENTED BY**

**Michael Redman, Regulatory Compliance Specialist**

**Post Oak Savannah GCD**



# What is GWAP?

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The Groundwater Well Assistance Program (GWAP) was created to assist owners of water wells in Burleson and Milam Counties by identifying water wells expected to experience loss of service due to water levels dropping below the pump which is caused by aquifer wide pumping and take corrective actions to prevent that loss of service.

The GWAP also:

- > Is designed to restore service in wells which may have already lost service
- > Provides all necessary financial and technical assistance to owners of identified or affected wells
- > Is fully funded from fees collected from commercial producers and exporters of water
- > Is a stand-alone program continually monitored by the POSGCD Board to ensure its continued success



# GWAP Summary

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	2020	2021	2022	2023 to Date
Wells Serviced	20	41	39	13
Total POSGCD Spent	\$76,161	\$233,954	\$448,481	\$109,960
Total Reimbursed to POSGCD From Vista Ridge & I-130 Projects	\$17,653	\$95,025	\$72,729	\$57,825



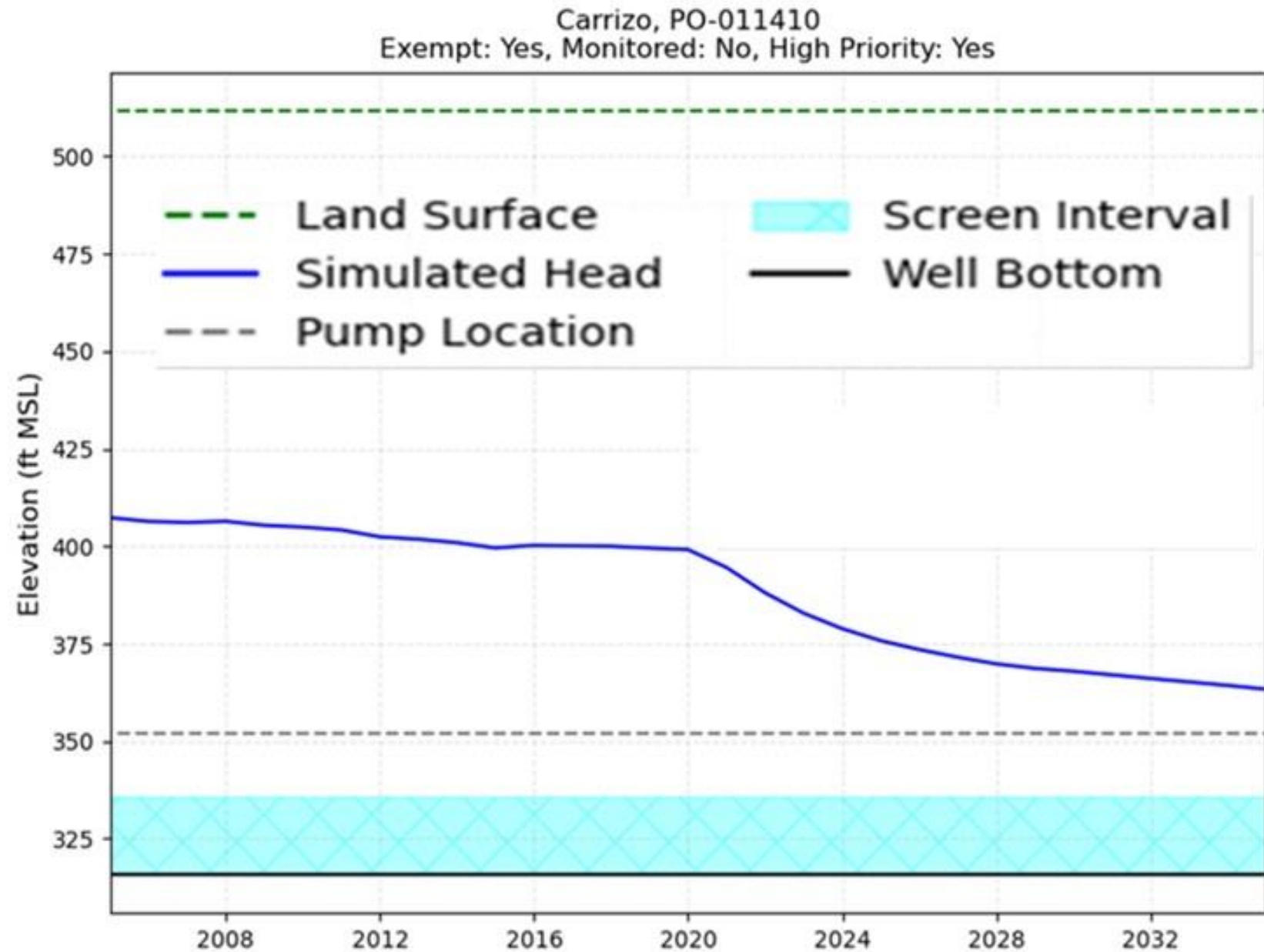
# Groundwater Assistance Program Annual Needs Assessment (GANA) 2021

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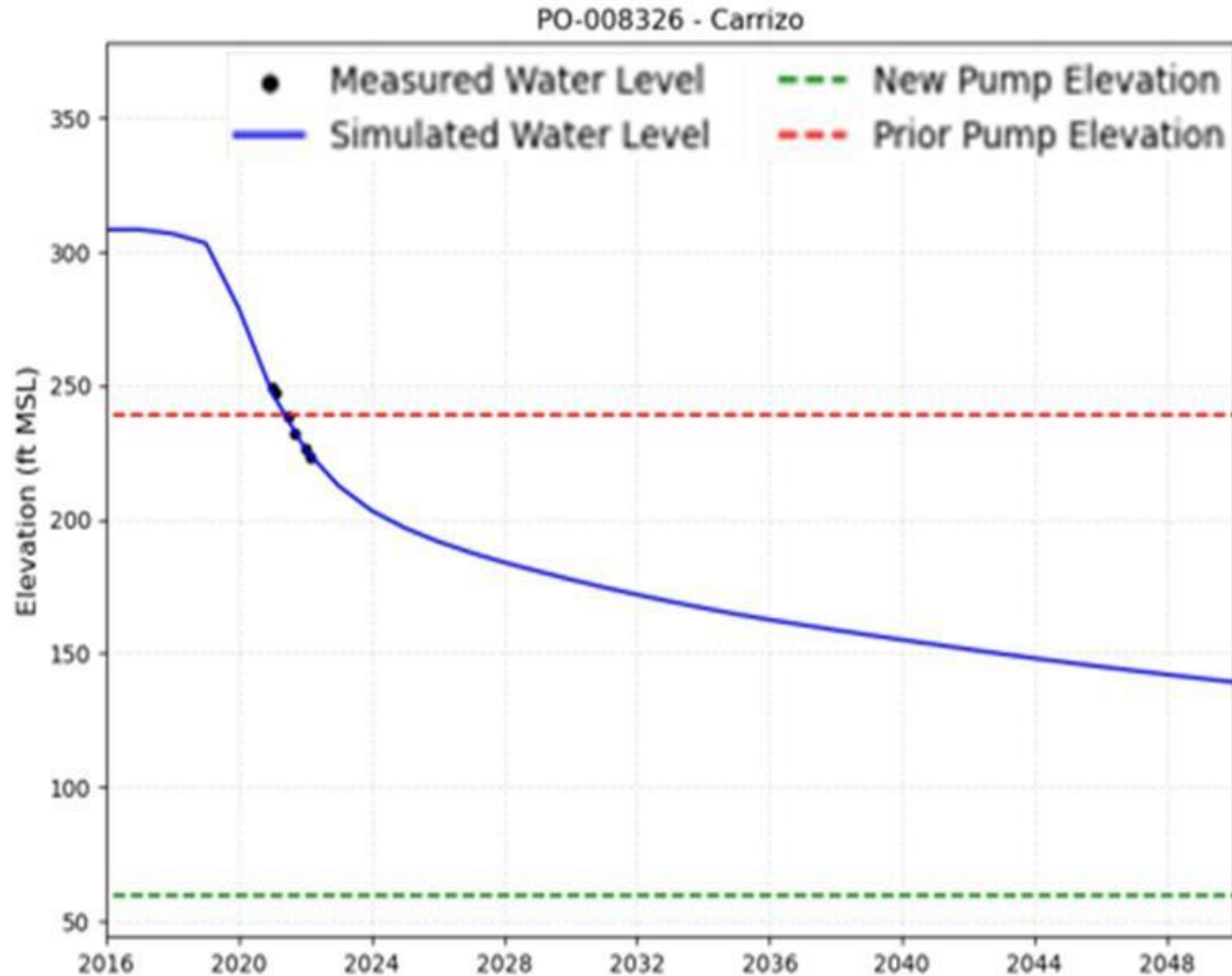
- Evaluate risk of water level dropping below pump location within next ten years
  - Future pumping projection is based on a version of the GAM 12 Desired Future Condition Run
  - Simplified assumptions for the hydraulic boundary conditions, such as recharge
- Limitations
  - Well construction information
  - Unregistered wells
  - Pumping rates of all Producers



# Example Hydrograph from GANA Report



# Example Hydrograph from GANA Report (GWAP)





# Spatial Location of High-Priority Wells



**X** WL > 15 ft above pump in 2032 (n=70)

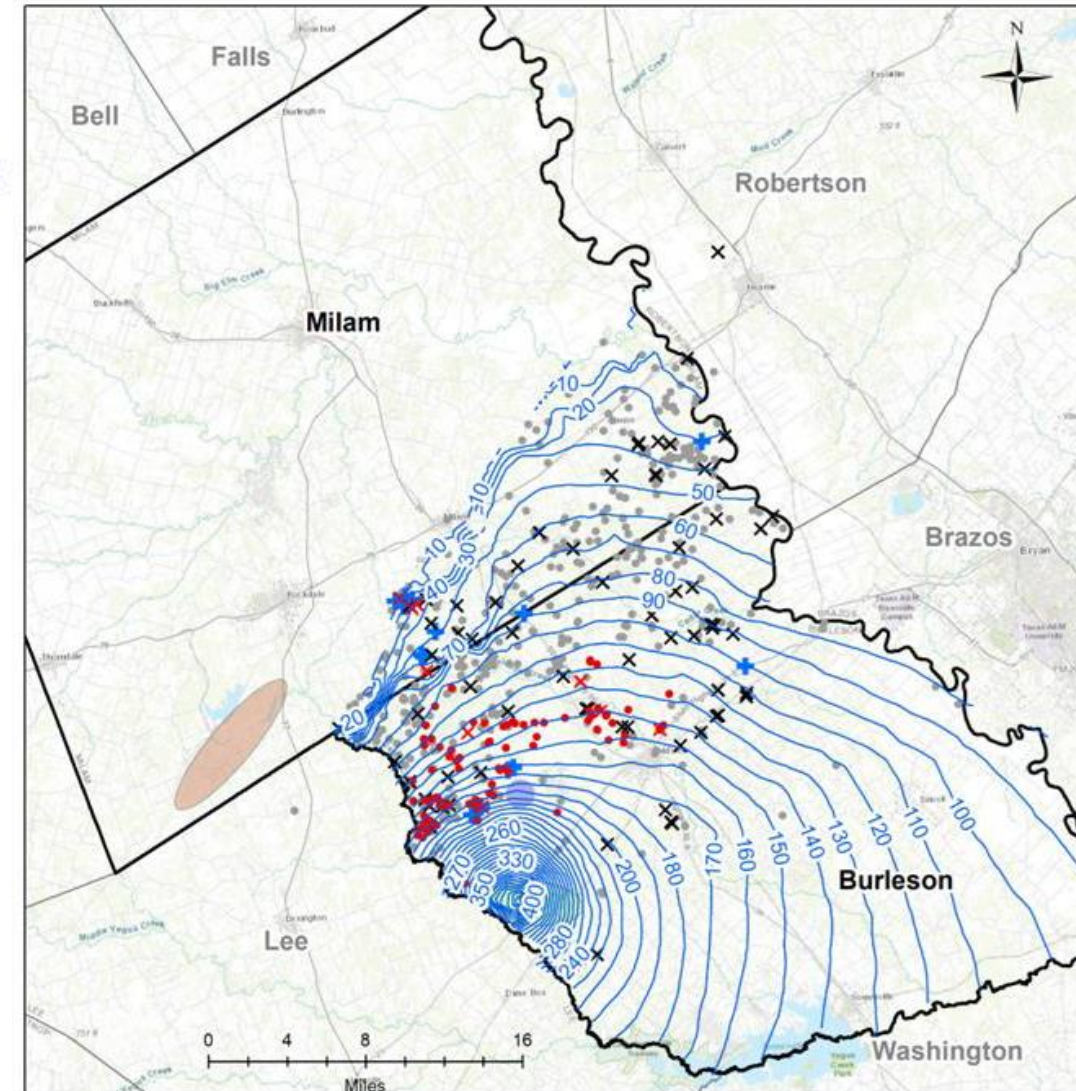
**X** WL < 15 ft above pump in 2032 (n=9)

**+** Eligible without pump depth (n=16)

- Eligible without pump depth (n=427)

- GWAP Well (n=90)

- 10-year Drawdown (2022-2032)



# Future GWAP Statistics

Aquifer	Number of Wells		
	High-Priority	Moderate-Priority	Total
Sparta	3	0	3
Queen City	1	0	1
Carrizo	9	44	53
Calvert Bluff	7	1	8
Simsboro	3	0	3
Hooper	3	0	3
<b>TOTAL</b>	<b>26</b>	<b>45</b>	<b>71</b>



# What is The Driller Guidance Tool?

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The Driller Guidance Tool takes the GAM Model, based on the last round of the DFC process, and 30-year water level predictions to help Drillers and Property Owners make better informed decisions when drilling a well on a property. If recommendations are followed, the well will meet the requirements of GWAP.

Limitations:

- Can only be used for wells that produce under 50 gpm
- Only predicts water levels for the Carrizo, Calvert Bluff, Simsboro and Hooper formations (Looking to expand to other aquifers in the future)



# How To Use The Driller Guidance Tool

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[Public Web Map \(halff.com\)](http://halff.com)



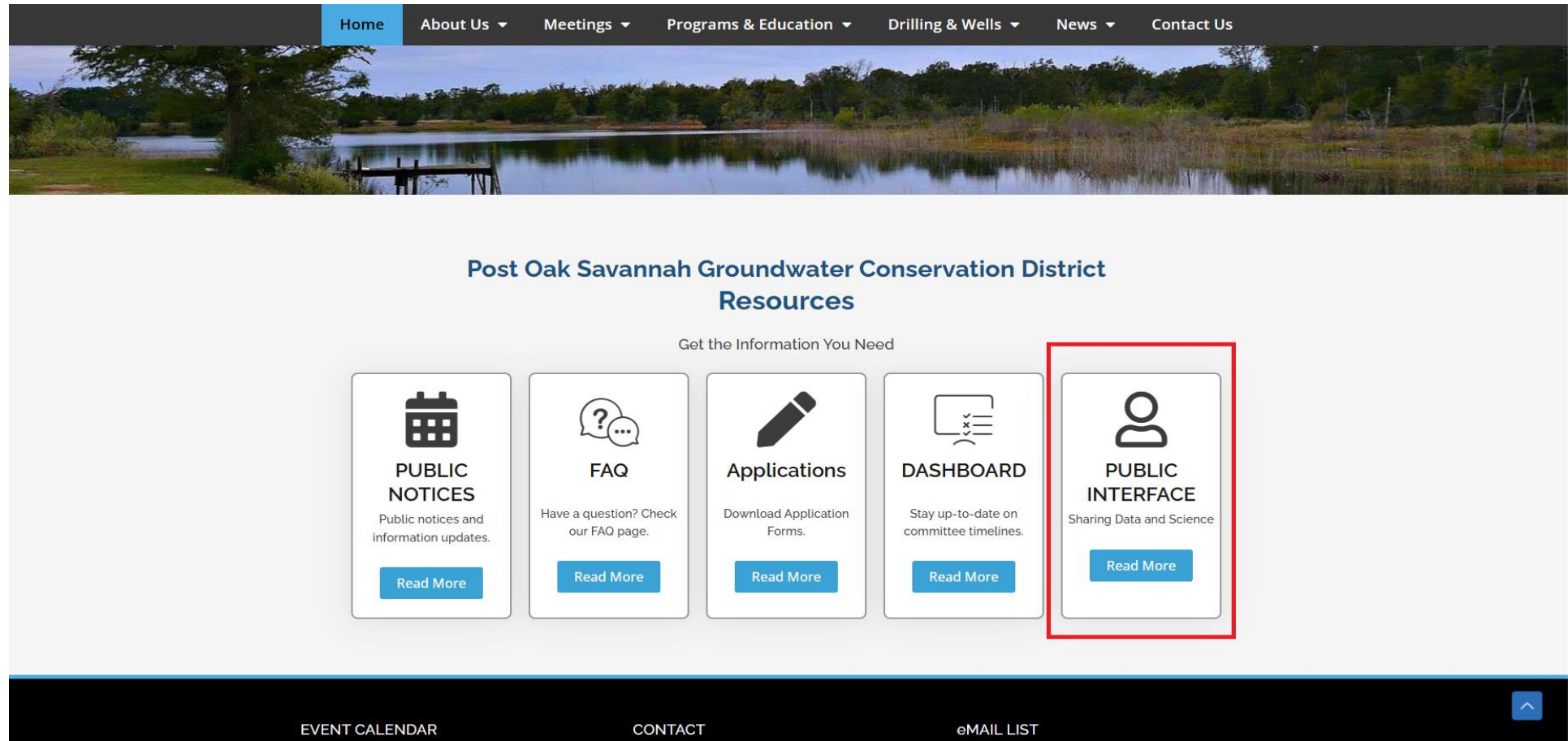
# How To Use The Driller Guidance Tool



Go to the Post Oak Savannah GCD website: <https://posgcd.org/>



# How To Use The Driller Guidance Tool



**Scroll down and click to access the Public Interface icon**



# How To Use The Driller Guidance Tool

[Home](#) [About Us](#) [Meetings](#) [Programs & Education](#) [Drilling & Wells](#) [News](#) [Contact Us](#)

## PUBLIC INTERFACE

Welcome to our NEW Public Interface. This is an exciting new addition to our website that allows you, the public, to see the wells, water levels, aquifer information etc of all the wells we have in our system.

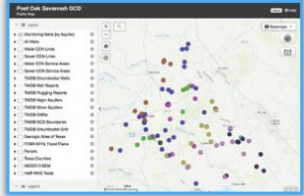
To get started we suggest that you watch our "Public Interface Introduction" video in the Tutorial section. Simply click here, "[View Tutorials](#)", to learn more.

We have several videos for you to watch so you can learn how to take advantage of this powerful tool the POSGCD Board wanted to make available to the citizens of our district.


There is a button on the Tutorial page to bring you back here to our interface page.

### Drilling & Wells

- Public Interface
- Monitoring Network
- Monitoring Maps
- Applications
- Prospective Well Drillers
- Current Well Owners



Public Maps

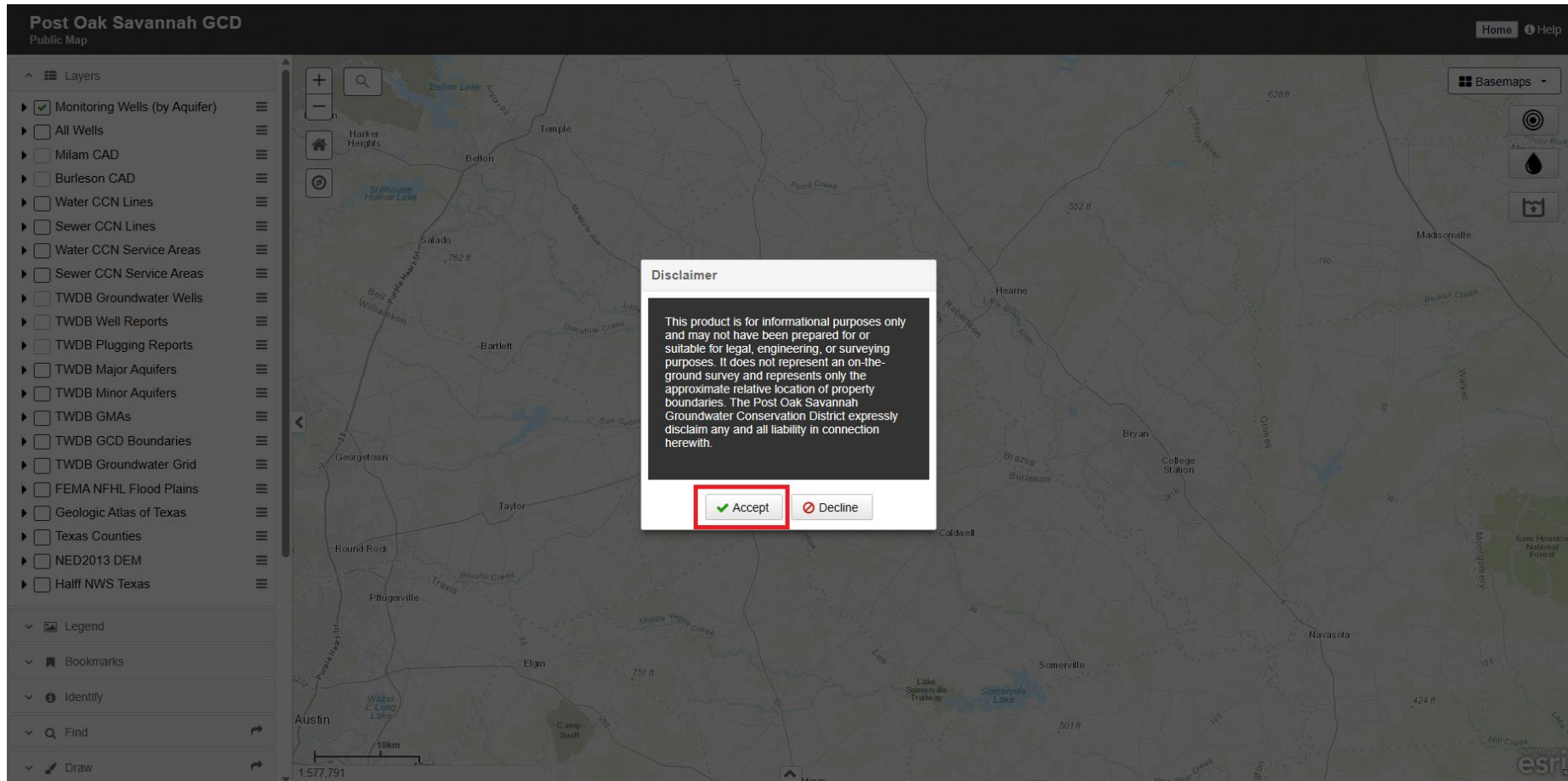


Dashboard

**Scroll down to the Public Maps icon and click**

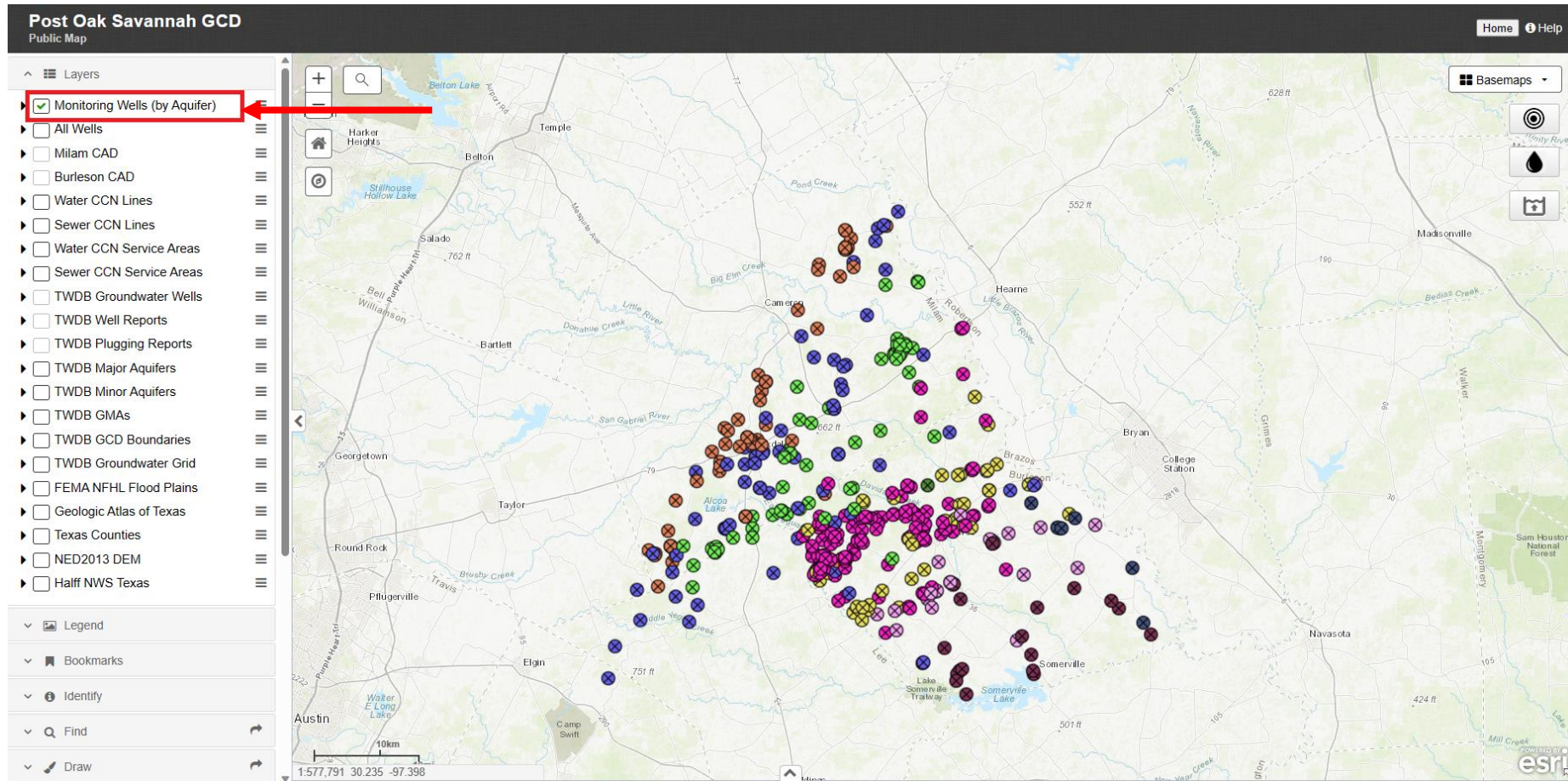


# How To Use The Driller Guidance Tool



**Read the Disclaimer and click accept**

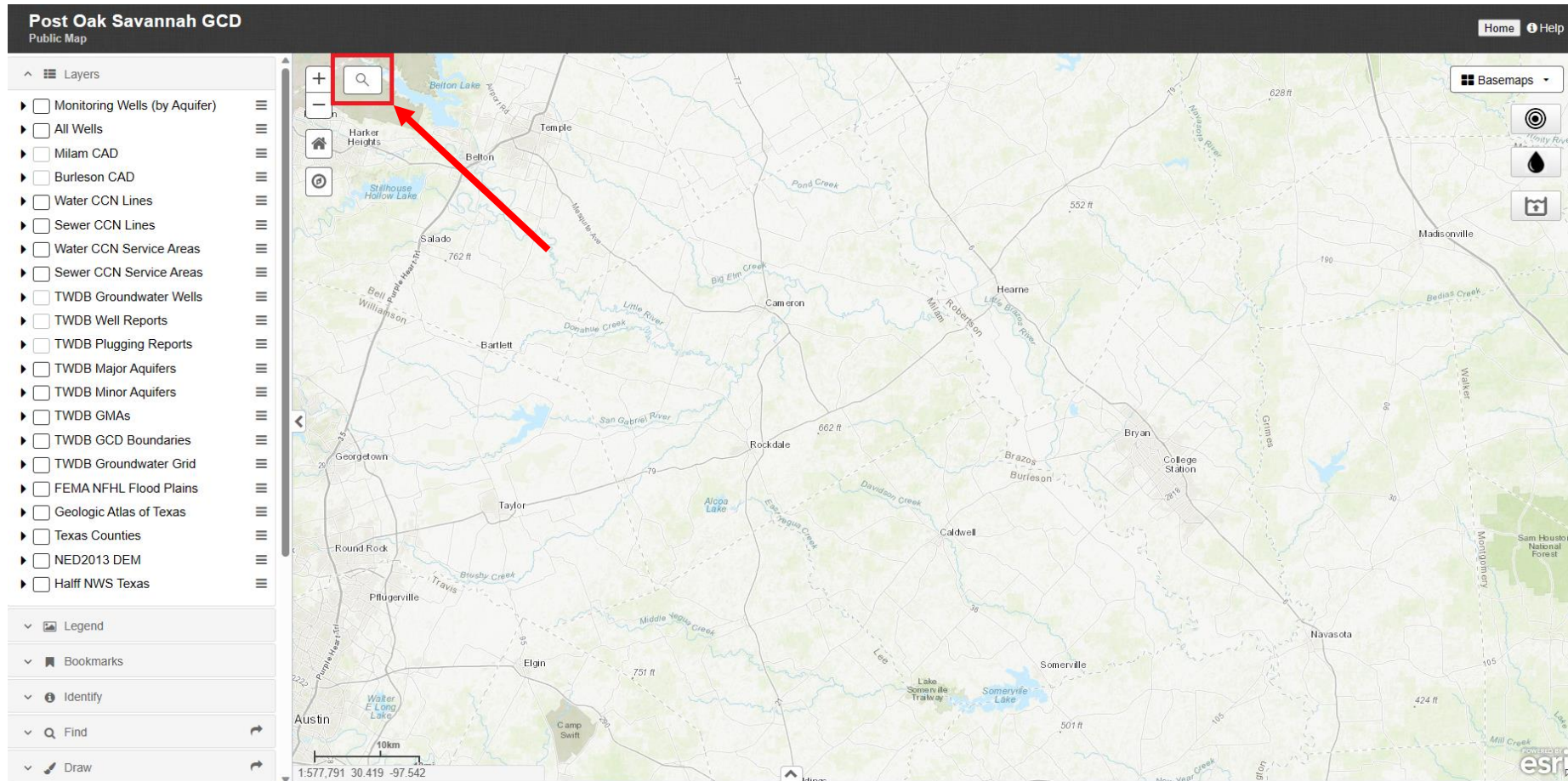
# How To Use The Driller Guidance Tool



**Uncheck the Monitoring Wells Layer**



# How To Use The Driller Guidance Tool



**Use Search Bar in Upper Left Corner of Map to Locate Property**

# How To Use The Driller Guidance Tool



**Click on Basemap In Upper Right-Hand Corner to switch to Hybrid; Then Click the Water Droplet Icon To Activate Driller Guidance Tool; Click on map where proposed well will be located**



# How To Use The Driller Guidance Tool

Post Oak Savannah GCD

Public Map

Layers

☐ Monitoring Wells (by Aquifer)

☐ All Wells

☐ Milam CAD

☐ Burleson CAD

☐ Water CCN Lines

☐ Sewer CCN Lines

☐ Water CCN Service Areas

☐ Sewer CCN Service Areas

☐ TWDB Groundwater Wells

☐ TWDB Well Reports

☐ TWDB Plugging Reports

☐ TWDB Major Aquifers

☐ TWDB Minor Aquifers

☐ TWDB GMAs

☐ TWDB GCD Boundaries

☐ TWDB Groundwater Grid

☐ FEMA NFHL Flood Plains

☐ Geologic Atlas of Texas

☐ Texas Counties

☐ NED2013 DEM

☐ Half NWS Texas

Legend

Bookmarks

Identify

Find

Draw


Driller Guidance Tool

Date: 6/2/2023

Latitude: 30.388310

Longitude: -96.771984

Surface Elevation (ft): 312.43



Top Elev. (ft)	Bottom Elev. (ft)	Depth to Formation (ft)*	Formation Thickness (ft)*	Formation (Geologic Unit)
312.43	-100.46	0.00	412.89	Cook Mountain
-100.46	-333.17	412.89	232.72	Sparta
-333.17	-380.36	645.60	47.18	Weches
-380.36	-877.53	692.79	497.17	Queen City
-877.53	-962.08	1189.96	84.55	Reklaw
-962.08	-1360.39	1274.51	398.31	Carrizo
-1360.39	-2338.65	1672.82	978.26	Calvert Bluff
-2338.65	-2910.48	2651.08	571.83	Simsboro
-2910.48	-4007.37	3222.91	1096.89	Hooper

\*Depths / Thicknesses are not to scale

Proposed Depth (ft):

Calculate

Targeted formation:

Suggested depth:

Top of screen:

Pump depth:

\*\* To use this driller guidance tool, enter a proposed depth for a well in feet. The tool will calculate suggested pump depth, top of screen depth, and drilling depth. Clicking in the space outside the popup window will close the form and disable the tool. The tool is mainly intended to target the Carrizo, Calvert Bluff, Simsboro, and Hooper formations. If the proposed depth is outside of those formations, the pump depth might not be able to be calculated.

\*\*\* The Virtual Driller's Guidance Tool was developed in accordance with applicable professional standards but is not suitable for legal, engineering, or other purposes. The tool was designed to support POSGCD's Groundwater Assistance Program (GWAP) with the primary purpose to provide maximum elevation of pump intakes for wells in the Carrizo, Calvert Bluff, Simsboro, or Hooper geologic units at a specific well location. The depths and thickness of the geologic units are based on information from the Texas Water Development Board (TWDB) Groundwater Availability Model (GAM). POSGCD is currently in the process of reviewing the geological representations in the GAM through a stratigraphic analysis of geophysical logs. The information provided in the tool is subject to change as the model develops over time. If the well will produce over 50 gallons per minute, please contact the District for further assistance.

Download Guidance Document

Print Page

Home

Help


Basemaps

Driller Guidance Active

Click a location in the district to use the guidance tool.

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\* Location, Depths of Formations, Geologic Unit



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Public Map

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Proposed Depth (ft):

Targeted formation: Carrizo  
Suggested depth: 1662.82  
Top of screen: 1468.67  
Pump depth: 364.02

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Home


Help

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Basemaps





POWERED BY 

Type in Proposed Depth and click Calculate; Recommendations on how to construct well



# Questions?

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**Michael Redman, Regulatory Compliance Specialist**

**Post Oak Savannah GCD**

**[mredman@posgcd.org](mailto:mredman@posgcd.org) 512-455-9900**

