

Brackish Groundwater Production Zones



Amendment guidance meeting for stakeholder feedback

March 22, 2023

Thank you for signing in early.

This meeting will be recorded.

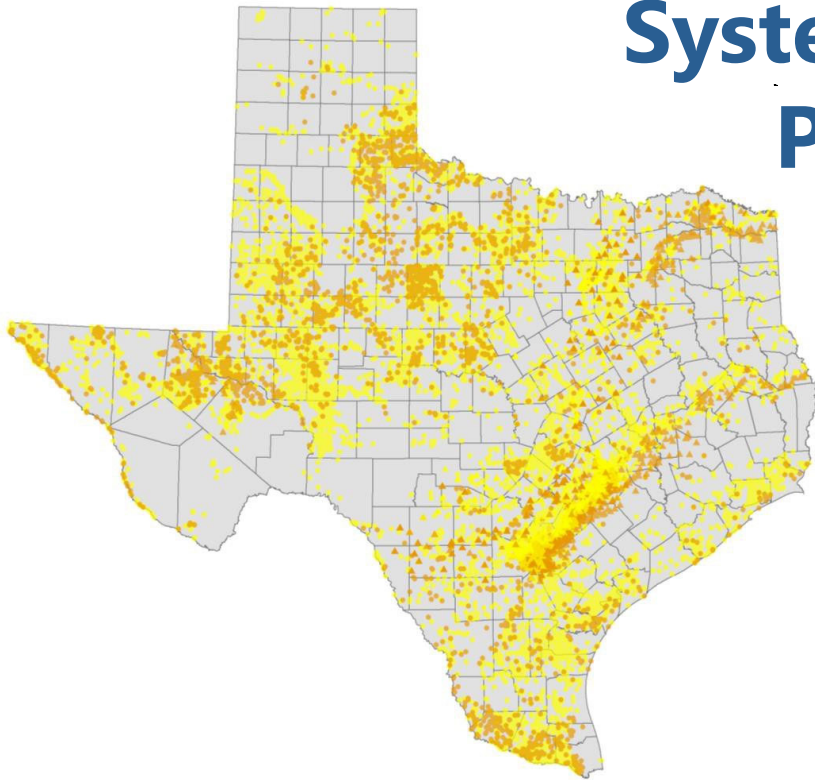
The meeting will begin at 10:00 am, Central Standard Time

Please stay muted during the meeting and use the chat box to submit questions.

We will use the Teams polling function during this meeting.



Texas Water Development Board (TWDB) Brackish Resources Aquifer Characterization System (BRACS) Program



Kristie Laughlin, PG
BRACS Program Manager
Texas Water Development Board

Agenda

- Overview of:
 - Texas Water Development Board (TWDB)
 - Brackish Resources Characterization System (BRACS) Program
 - Brackish groundwater production zones (BGPZ)s
- General amendment guidance
- Previous poll feedback results from June 2022
- New poll question: major BGPZ amendment decision time
- New web content: Suggest FAQs for BGPZ web page
- Other questions



What is the Texas Water Development Board?



We are not a regulatory agency like the Texas Commission on Environmental Quality or the Railroad Commission of Texas.



Science: We focus on groundwater, surface water, innovative water technology, conservation, flooding, and groundwater-surface water interaction.



Planning: We assist with regional water, flood, and drought planning, which are all incorporated into the State Water Plan.



Funding: We assist the implementation of numerous flood, water infrastructure, and conservation projects with funding.



BRACS Program



Aim: To map groundwater salinity zones and estimate the in-place storage volumes in brackish aquifers.



Purpose: We provide stakeholders basic information about brackish groundwater resources, such as production zones and volume estimates.



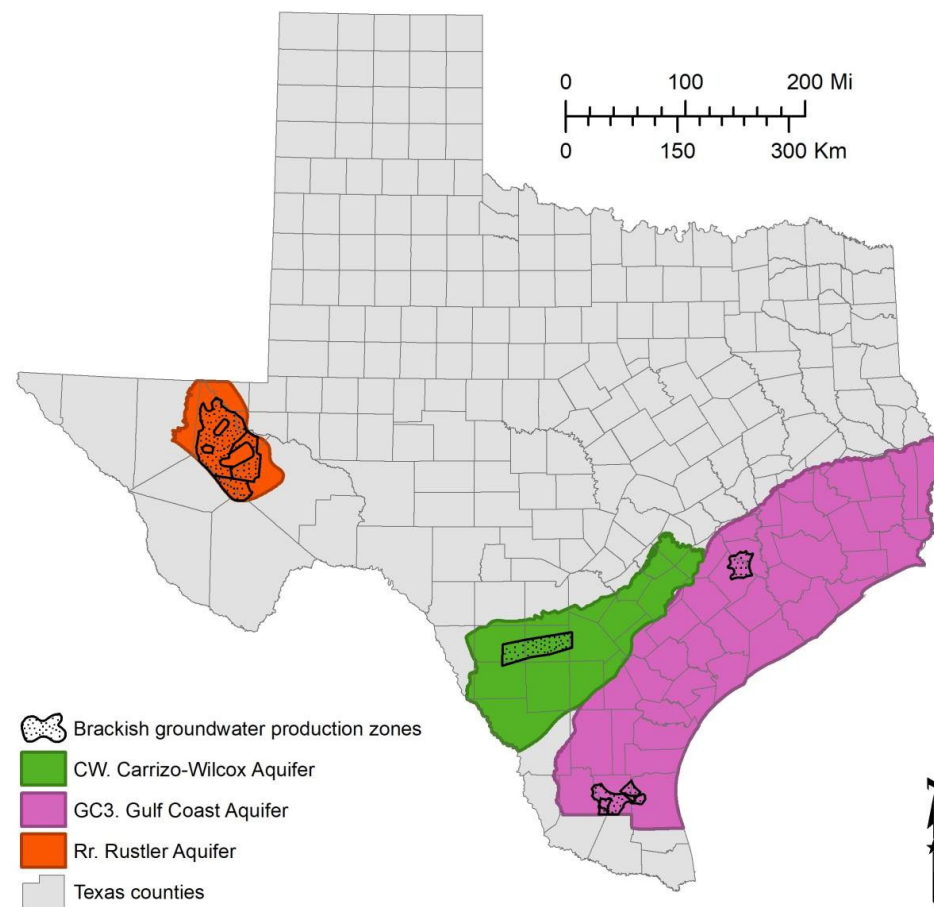
Public process: We solicit data from stakeholders for our studies and solicit input for guidance documents.



Mapping: Our data is publicly-available. Reports, project GIS data, and the BRACS database are available for download from our BRACS webpages.

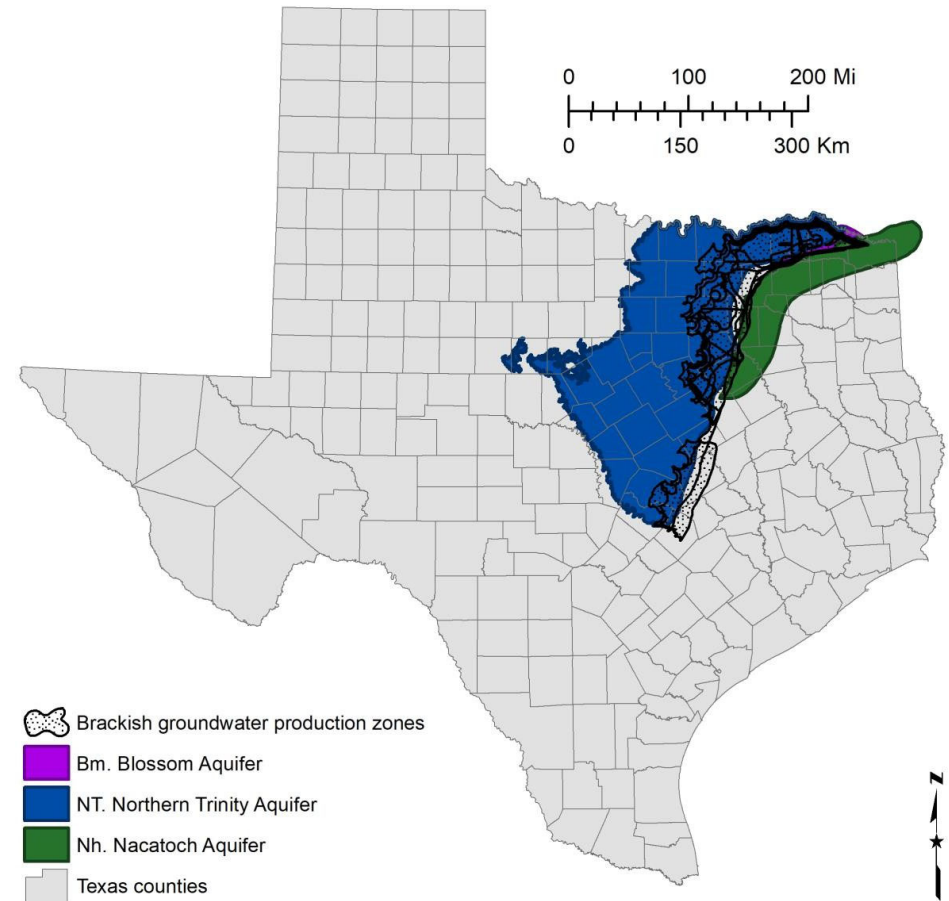
Background on BGPZs

- 84th Texas Legislature passed House Bill 30 (2015)
 - Directed TWDB to identify and designate BGPZs
 - Statutory mapping criteria established
- 2016: Four contracted studies completed and eight BGPZs designated by the TWDB
 - in 3 aquifers (Carrizo-Wilcox), Gulf Coast (Lagarto), and the Rustler)



Background on BGPZs

- 2019: 23 BGPZs designated by the TWDB
 - in 3 aquifers (Blossom, Nacatoch, and Northern Trinity (Upper, Middle and Lower))
- 86th Texas Legislature passed Senate Bill 1041 and House Bill 722 (2019)
 - SB 1041: extended mapping deadline to December 1, 2032
 - HB 722: established GCD permitting framework for developing water supplies from BGPZs



What is a BGPZ?

A brackish groundwater production zone:

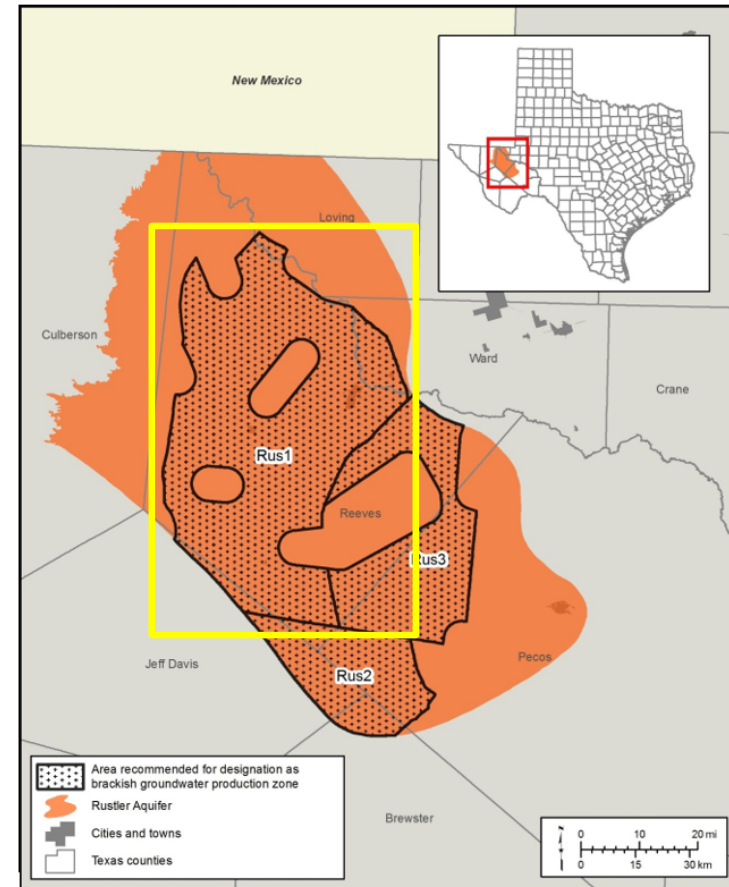
- Has the potential for moderate to high-volume production in areas that meet HB30 statutory criteria
- Has defined boundaries (footprint and depth)
- Has an annual production volume

Example:

- Rus1 (from the 2016 study)
- Magenta and Culebra Dolomites, and the Los Medaños limestones of the Rustler Aquifer within the BGPZ footprint
- 2,513 acre-feet per year
- The Rus1 shapefile with elevation, depth, and thickness attributes per grid cell is available on the BRACS BGPZ webpage

<https://www.twdb.texas.gov/groundwater/bracs/HB30.asp>

Formation	Member
Dewey Lake	
Rustler	Forty-niner
	Magenta Dolomite
	Tamarisk
	Culebra Dolomite
	Los Medaños
Salado	
Castile	



Modified from
Lupton and others (2016).

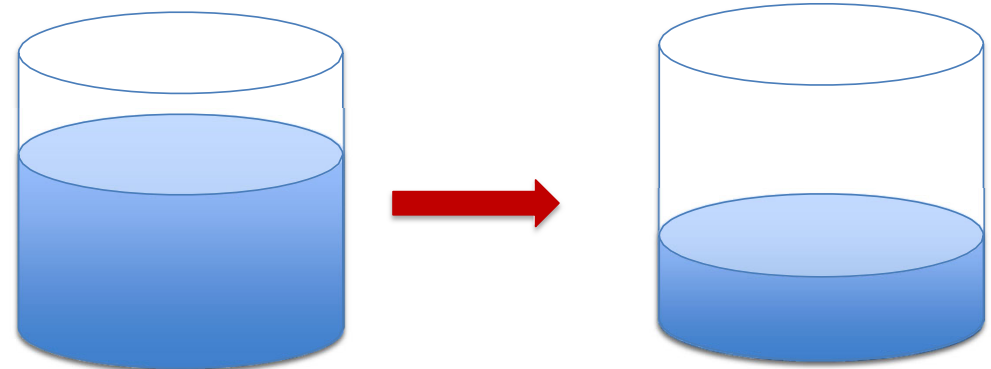
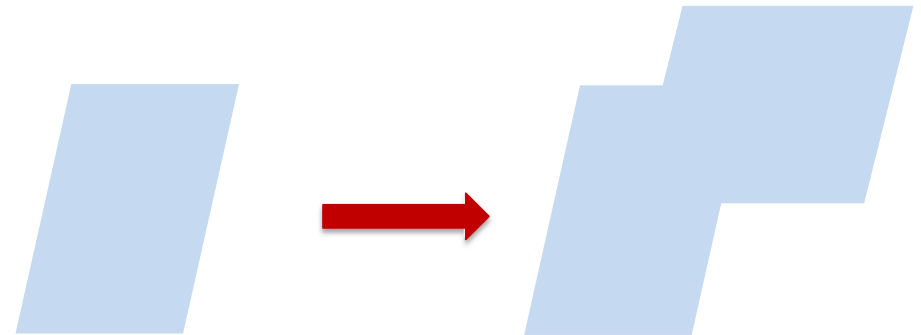
BGPZ amendments

- TWDB rule (31 TAC § 356.70(d))
 - allows the TWDB to initiate amendments to BGPZs with full disclosure of justification and outreach for stakeholder input
 - allows GCDs to request amendments to BGPZs which shall include a justification and documentation supporting the requested amendment
 - states that the Agency will publish guidance discussing the timing for considering amendments
- We would like to revisit stakeholder input today regarding the timing for amendment decisions



WHAT is a BGPZ amendment?

- Changes to the boundary
 - footprint and/or depths
 - zone could become larger or smaller
- Changes to the annual production volume
 - annual volumes could become larger or smaller
- Any amendment is subject to the statutory criteria established by HB30



WHO may request a BGPZ amendment?

- A GCD
- A group of GCDs
- An individual, driller, or any other entity *working through a GCD*
- For BGPZs that span multiple districts, we will require documented consensus of the request from all associated GCDs.
- This applies to most of the designated BGPZs.
- Exceptions are the Blossom and Nacatoch aquifers (no GCDs).



Examples: **WHY** a BGPZ may need to be amended

- Newly available aquifer data
- Agricultural, domestic, or municipal wells not identified prior to the designation of the BGPZ
- Additional injection or disposal well data permitted under Texas Water Code Chapter 27
- Injection zone buffer radius change
- Data showing insufficient hydrogeologic barrier to freshwater
- Improved models to estimate brackish groundwater production



WHAT documentation should be submitted?

- Well construction information
- Water quality analyses
- Water level measurements
- Geophysical logs
- Pump test results
- Groundwater models, and
- Any other non-proprietary data that supports the amendment request



WHAT documentation should be submitted?

- Documentation must support reason for request
- Supporting documentation should be non-confidential

STATE OF TEXAS WELL REPORT for Tracking #110539			
Owner:	Dan McGough	Owner Well #:	No Data
Address:	1534 Shady Grove Road Weatherford, TX 76088	Grid #:	32-26-9
Well Location:	Corner of Little Road & Hickory Ct. Granbury, TX 76048	Latitude:	32° 31' 57" N
		Longitude:	097° 45' 58" W

Lithology:		Casing:	
DESCRIPTION & COLOR OF FORMATION MATERIAL		BLANK PIPE & WELL SCREEN DATA	
From (ft)	To (ft)	Description	Setting From/To (ft.)
0-1		Top Soil	
1-16		Yellow Clay Sandy Clay Shale	
16-125		Gray Clay Shale and Limestone	
125-135		Gray Blue Sandy Clay and Clay	
135-141		Sand	
141-220		Gray Blue Sndy Clay Streak of Sndstone and Sand	
220-274		Sandy Tiny Gravel Coal and Pea Gravel	
274-279		Blue Sandy Tiny Gravel and Limestone	

Di. (in.)	New/Used	Type	Setting From/To (ft.)
4	New	Blank, PVC 0 239 Sch40	
4	New	0.020" PVC Screen 239 279 Sch40	

Any questions before we
move on to poll results?



Previous Poll Question 1 (from June 2022)

Are you a GCD that anticipates requesting an amendment or someone who works for a GCD that will request an amendment?

-yes

-no



Previous Poll Question 2 (from June 2022)

- **Do you want amendments to be decided by TWDB Board Member action?**
 - yes
 - no

TWDB Board action

- BGPZs initially designated by the TWDB Board
- less flexible timelines

Executive Administrator action

- BGPZs not designated by the EA
- likely more flexible timelines

Previous Poll Question 3 (from June 2022)

- **Do you prefer Option A or Option B?**

Option A	Option B	Neither
<ul style="list-style-type: none">• Major/minor amendments• GCD may submit request at any time	<ul style="list-style-type: none">• Structured timeframes• No major/minor split• 5-year cycle	<ul style="list-style-type: none">• Please provide feedback! <p>Public-Comment@twdb.texas.gov</p>

Previous Poll Question 4 (from June 2022)

Do you like the proposed timeframes for Option A?

- Major/minor amendment distinction
- 6-months for a minor amendment request decision after complete data obtained
- 2-years for a major amendment request decision after complete data obtained
 - Yes
 - No, too long
 - No, too short
 - I do not like this option



Previous Poll Question 5 (from June 2022)

Do you like the proposed timeframes for Option B?

- 5-year review cycle
 - First two years focused on obtaining complete data
 - Amendment decisions delivered at end of cycle
- Yes
-No, too long
-No, too short
-I do not like this option



Previous Poll Results (from June 2022)

- *Question 1: Are you a GCD that anticipates requesting an amendment or someone who works for a GCD that will request an amendment?*
79% No 21% Yes
No action
- *Question 2: Do you want amendments to be decided by TWDB Board Member action?*
69% No 31% Yes
The amendment will not require Board approval; it will be an Executive Administrator action (addendum to the BGPZ designation).
- *Question 3: Do you prefer Option A (major or minor amendment review) or Option B (five-year review cycle)?*
83% Option A 8% Option B 8% Neither option
BRACS incorporated Option A, with the major and minor amendment designations.
- *Question 4: Do you like the proposed timeframes for Option A?*
50% No, too long 33% Yes 17% I do not like this option
BRACS incorporated a maximum two-year turnaround time for major amendments, and a six-month turnaround time for minor amendments.
- *Question 5: Do you like the proposed timeframes for Option B?*
50% No, too long 33% I do not like this option 17% Yes
Not applicable



Considerations for major and minor amendment timeframes

For Question 4, we retained the 6-month and 2-year decision time windows for minor and major amendments:

- 1) to err conservatively,
- 2) to be sure we have adequate time to address all impacts, and
- 3) to stay on track with our existing workload.

However, we would also like to get your input for consideration before we finalize the guidance document.



Any questions about the poll results?



Major and Minor Amendment Examples

- An example of a **minor amendment** would be a relatively insignificant footprint change due to agricultural, domestic, or municipal wells not identified prior to the designation of the BGPZ (no modeling required).
- An example of a **major amendment** would be newly available data (water levels, pump tests, or porosity from geophysical logs) that would significantly change the modeled production volume (modeling required to quantify the impact to production).



New Poll Question 1

What is a reasonable TWDB decision timeframe for a minor BGPZ amendment request?

The clock for this decision window would start once the request is considered complete. It can take up to 60 days to be considered complete if not all supporting data is submitted in a timely manner).

(you may choose more than one)

- 2 months
- 4 months
- 6 months

New Poll Question 2

What is a reasonable TWDB decision timeframe for a major BGPZ amendment request?

The clock for this decision window would start once the request is considered complete. It can take up to 60 days to be considered complete if not all supporting data is submitted in a timely manner).

(you may choose more than one)

- One year
- One year, plus an option for one 6-month extension
- Two years

Request for input: BGPZ FAQs web page content

- Several questions came up after this meeting was announced
- Goal: Compile questions into a BGPZ FAQs section on our webpage

If you have any questions re: BGPZs please submit them to us!

You can use the chat box or email them to:

- Public-Comment@twdb.texas.gov
and include “BGPZs” in the subject line



Any additional questions?



Next steps

- Please provide feedback and comments by April 5, 2023 to Public-Comment@twdb.texas.gov include “BGPZs” in the subject line
- We will consider your feedback for the final guidance document and the proposed BGPZ FAQs for our webpage



Thank you for attending!

The guidance document is available to review here and should be final by June 22, 2023.

www.twdb.texas.gov/groundwater/bracs/HB30.asp



Please provide feedback and comments by April 5, 2023

Public-Comment@twdb.texas.gov

please include “BGPZs” in the subject line

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