

\*Slides 14, 17 and 18 of the February 13, 2025, presentation have been updated with revised BVGCD 'Best Estimate' simulation data. Incorrect results were represented in these slides and the results have been corrected. Slide 14 has been updated to include location reference markers.

# Brazos Valley Groundwater Conservation District

Update on  
Responses to  
Questions from the  
BVGCD  
DFC Workshop

February 13, 2025

# Outline

## Questions from the BVGCD January 23, 2025 Desired Future Conditions (DFCs) Workshop:

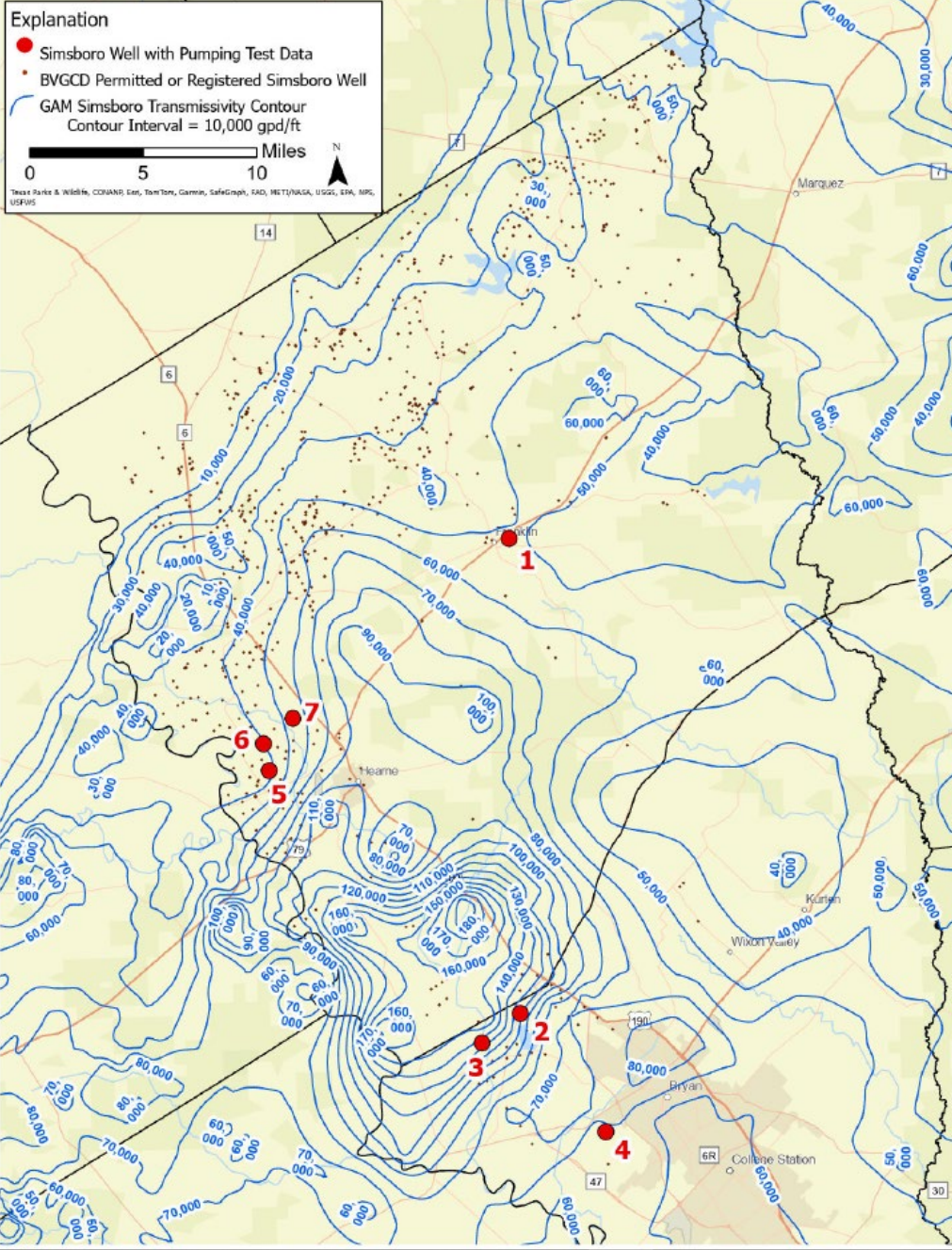
1. Simsboro Aquifer GAM Transmissivity
2. Simsboro Aquifer GAM Predictions to Date with S-19
3. S-19 Predictive Simsboro Aquifer Pumping Comparison
4. Comparison of 2000 to 2010 Start Using S-19
5. Available Drawdown
6. Relationship between Power and Lift
7. Pumping Impact to Public Supply Wells
8. Average drawdown for Robertson and Brazos Counties

# 1) Simsboro Aquifer GAM Transmissivity

#	Location	Pumping Test Transmissivity (gpd/ft)	GAM Transmissivity (gpd/ft)
1	City of Franklin Well 5	62,000	52,000
2	City of Bryan Well 18	107,500	108,000
3	City of College Station Well 8	130,000	135,000
4	Sanderson Farms Well 1	111,000	68,000

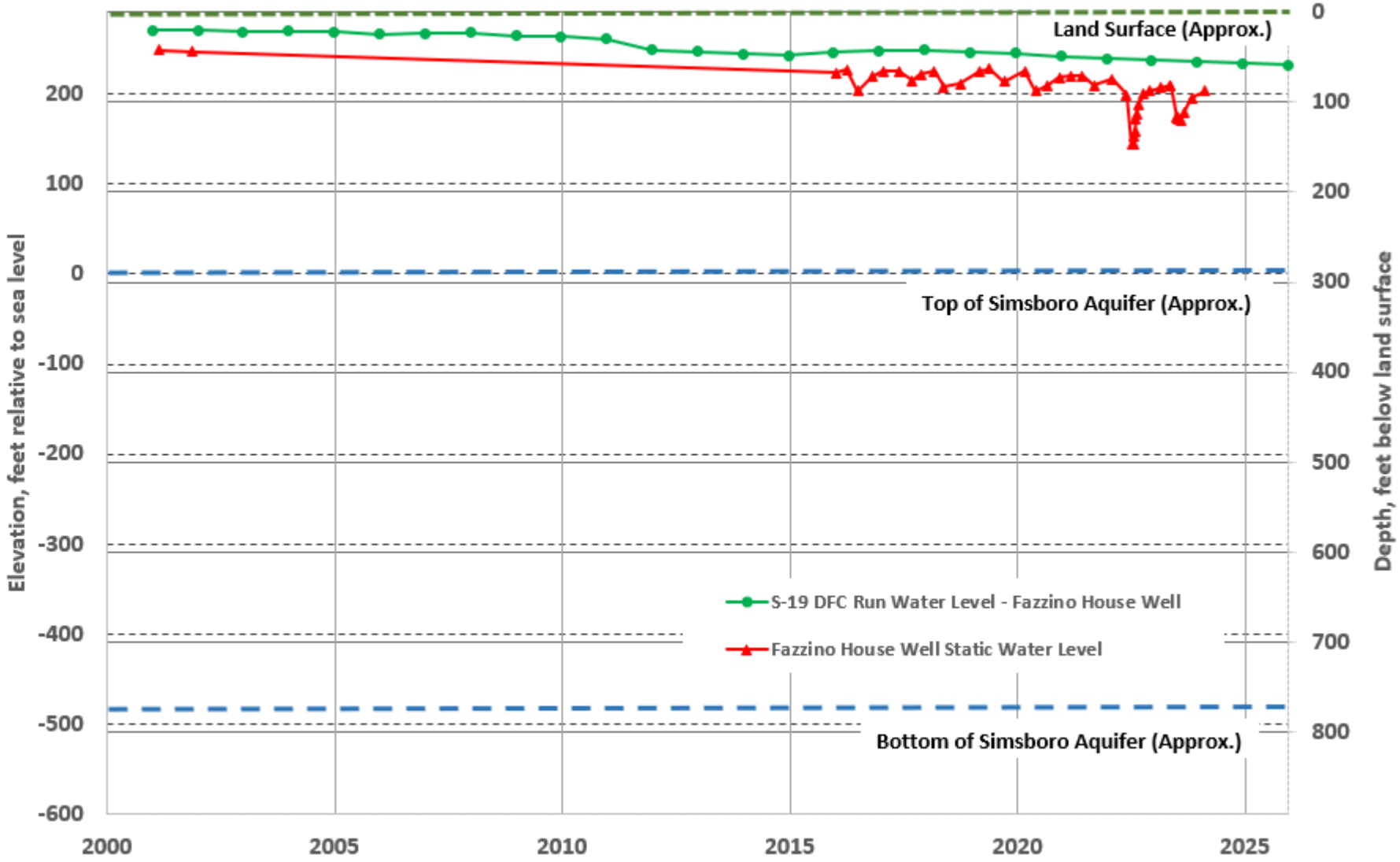
## New data Since GAM was calibrate

#	Location	Pumping Test Transmissivity (gpd/ft)	GAM Transmissivity (gpd/ft)
5	Goodland Farms - CS1	50,000	38,000
6	Goodland Farms – CS2	50,000	39,000
7	Goodland Farms – CS3	86,500	55,000

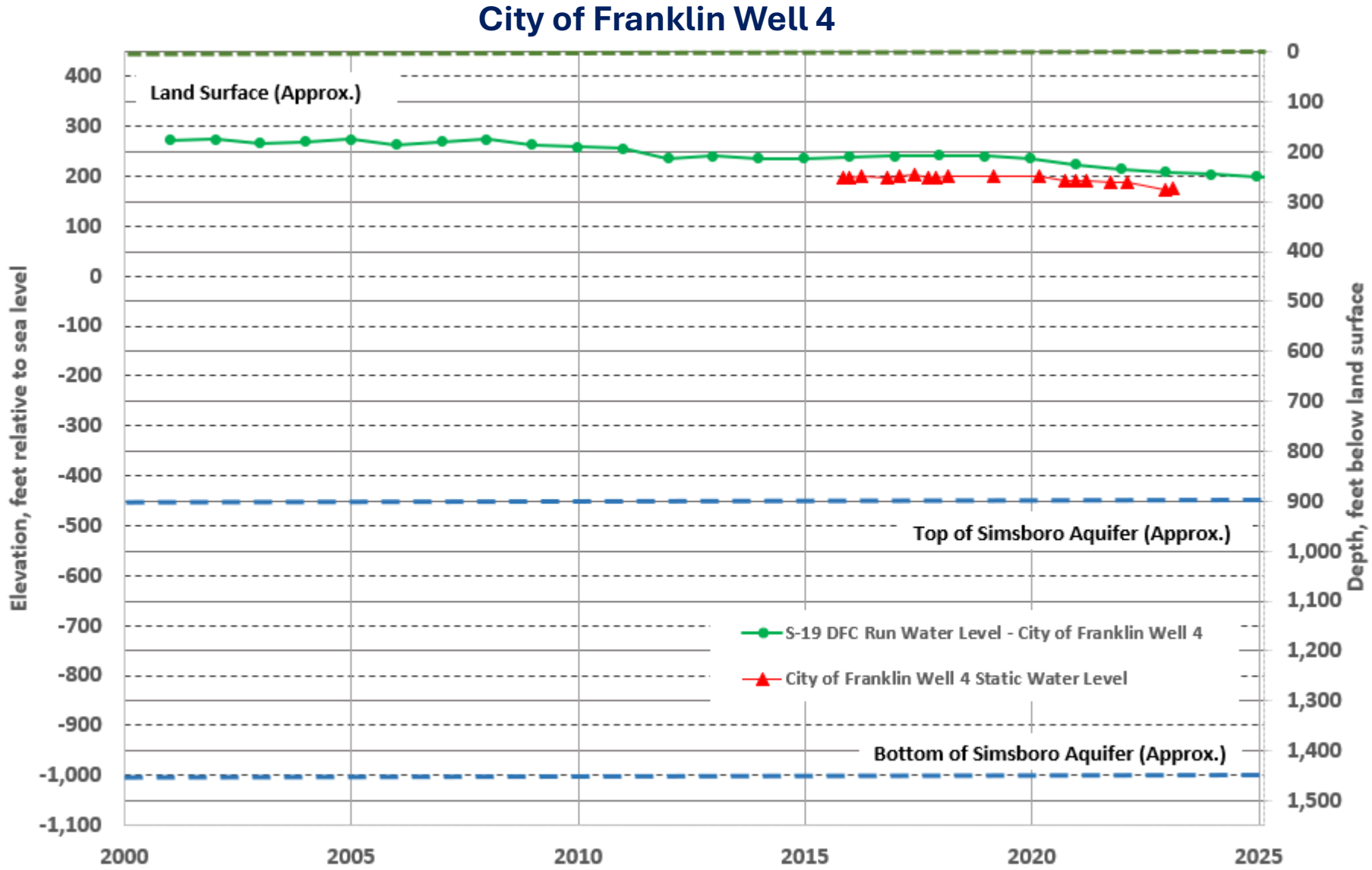


# 2) Simsboro Aquifer GAM Predictions to Date with S-19

## Fazzino House Well

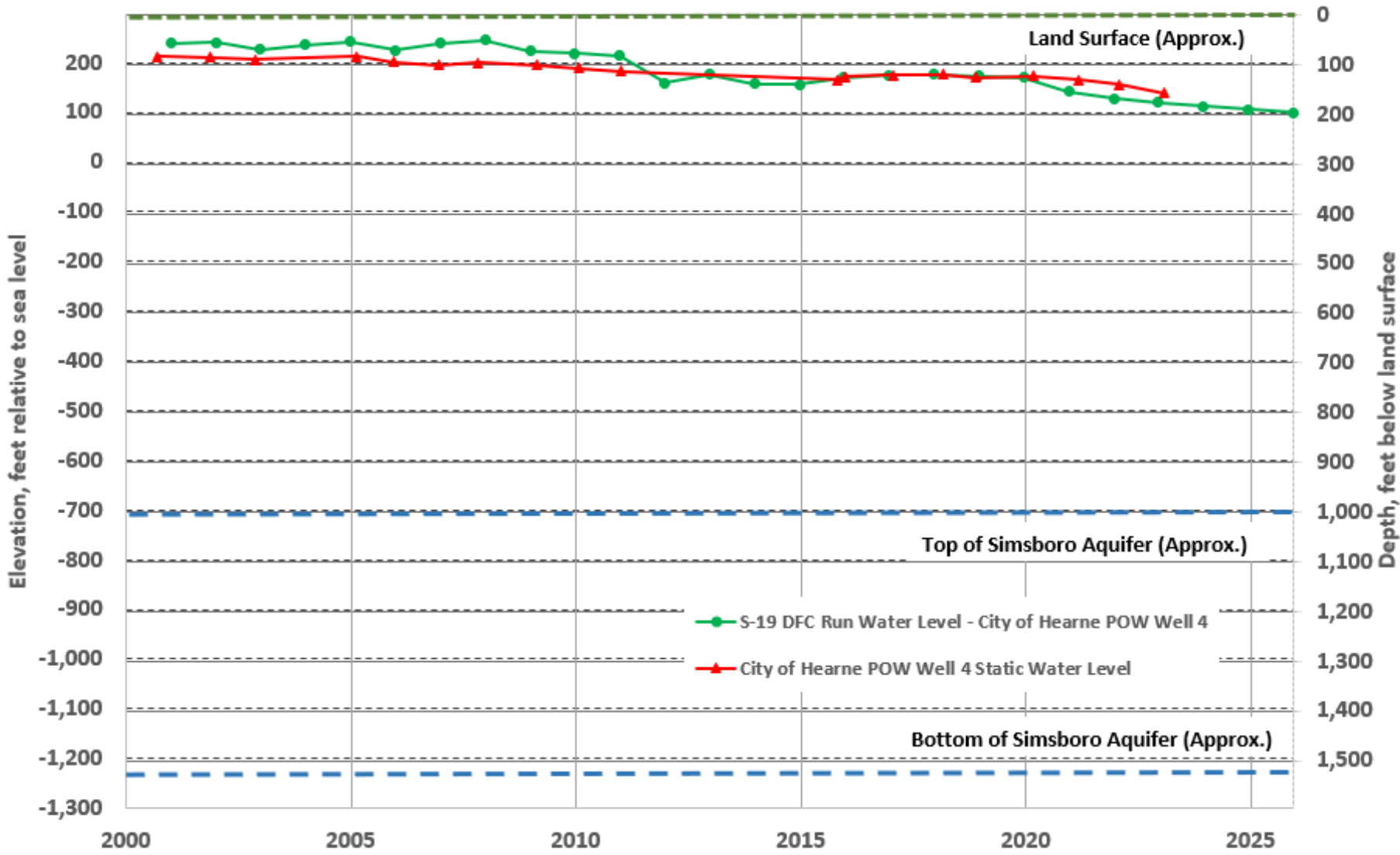


# 2) Simsboro Aquifer GAM Predictions to Date with S-19

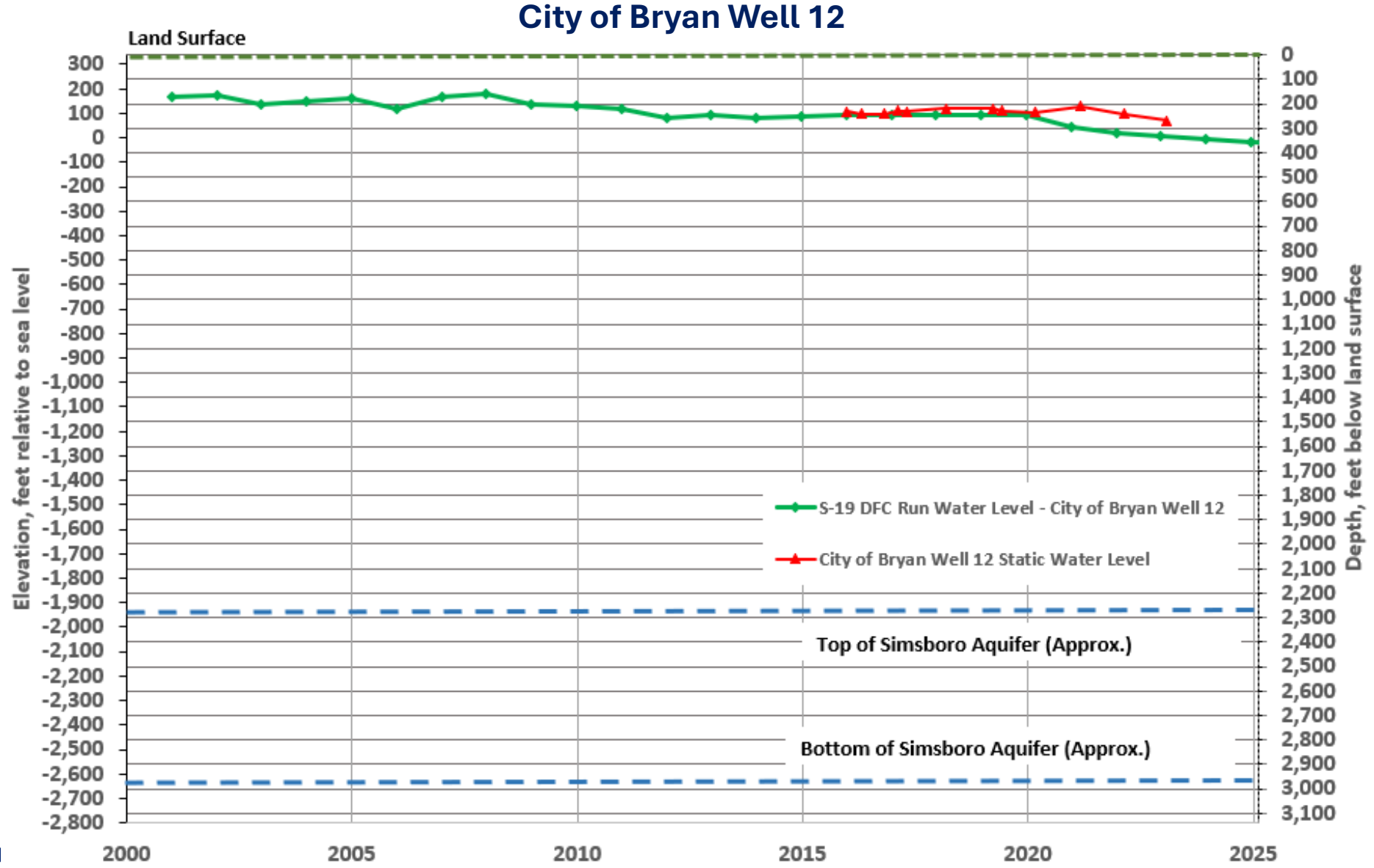


# 2) Simsboro Aquifer GAM Predictions to Date with S-19

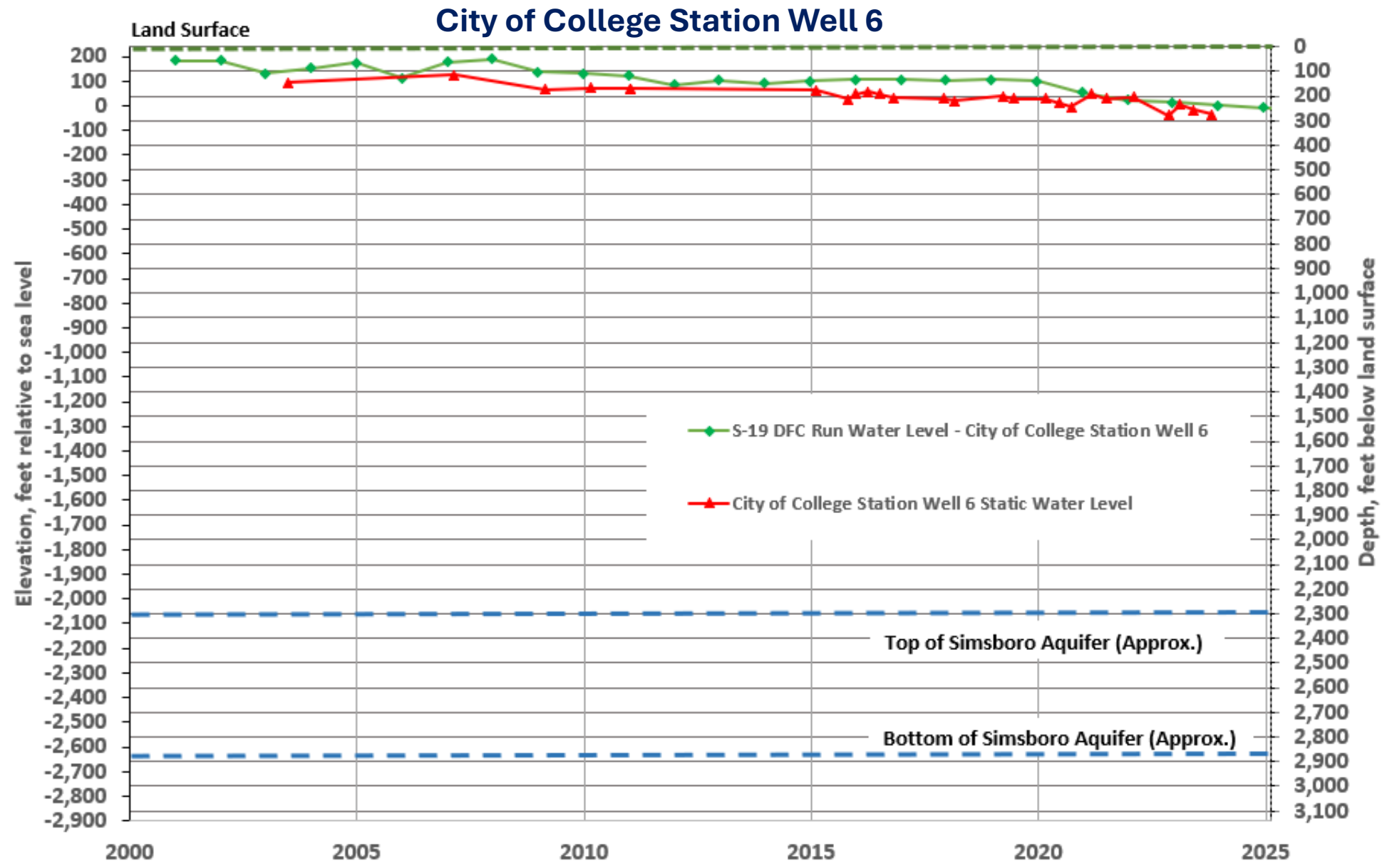
## City of Hearne POW Well 4



# 2) Simsboro Aquifer GAM Predictions to Date with S-19

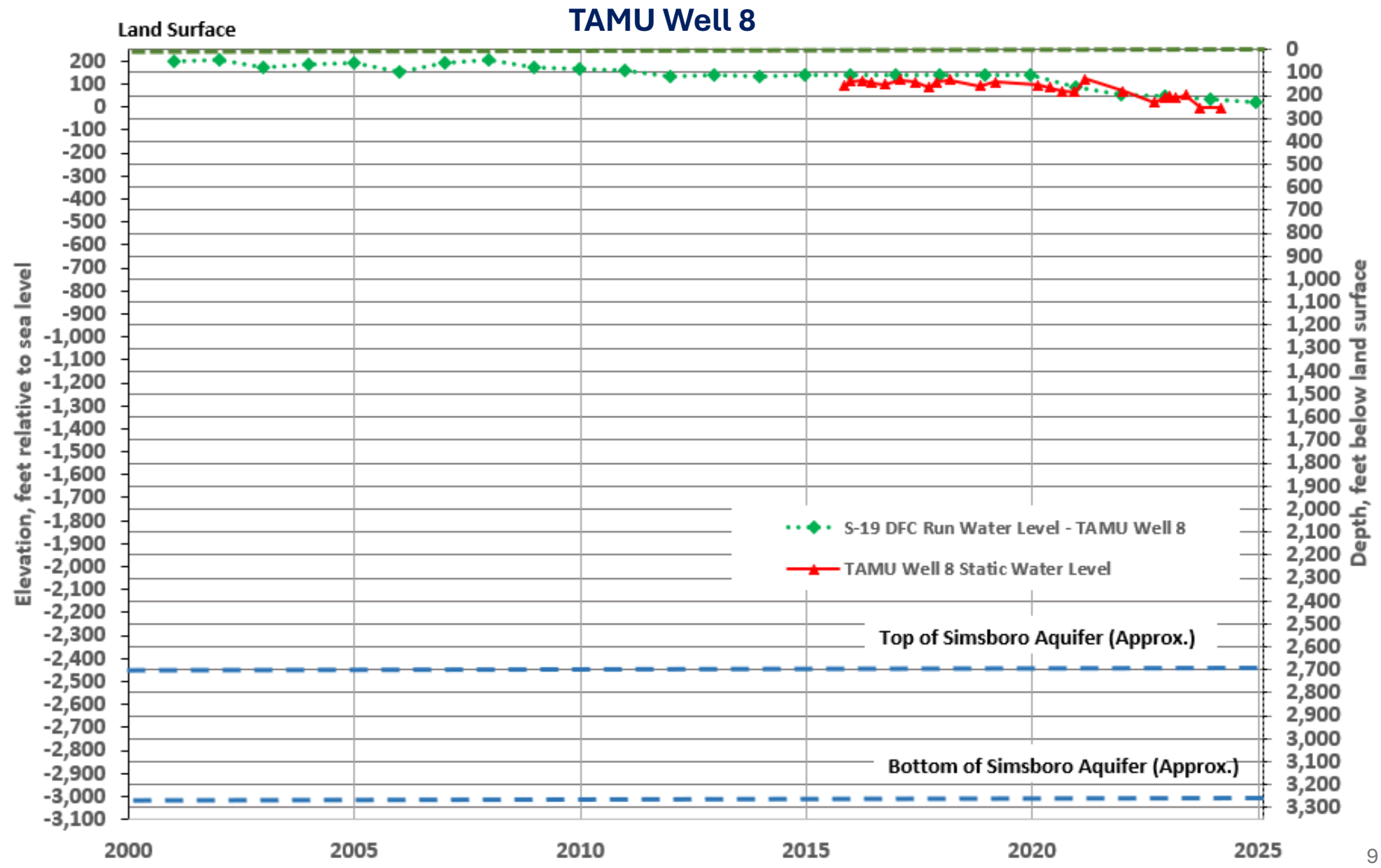


# 2) Simsboro Aquifer GAM Predictions to Date with S-19

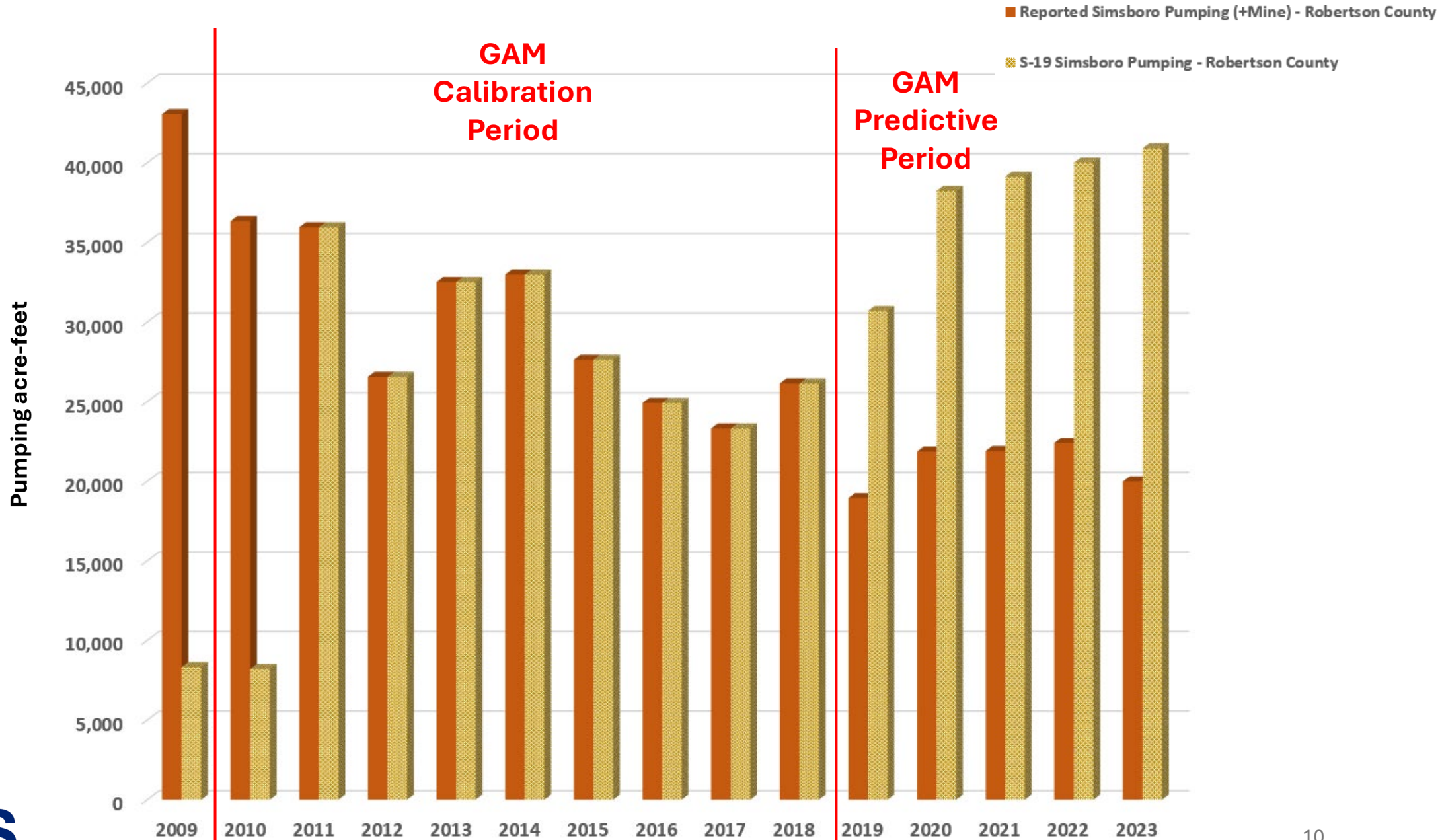




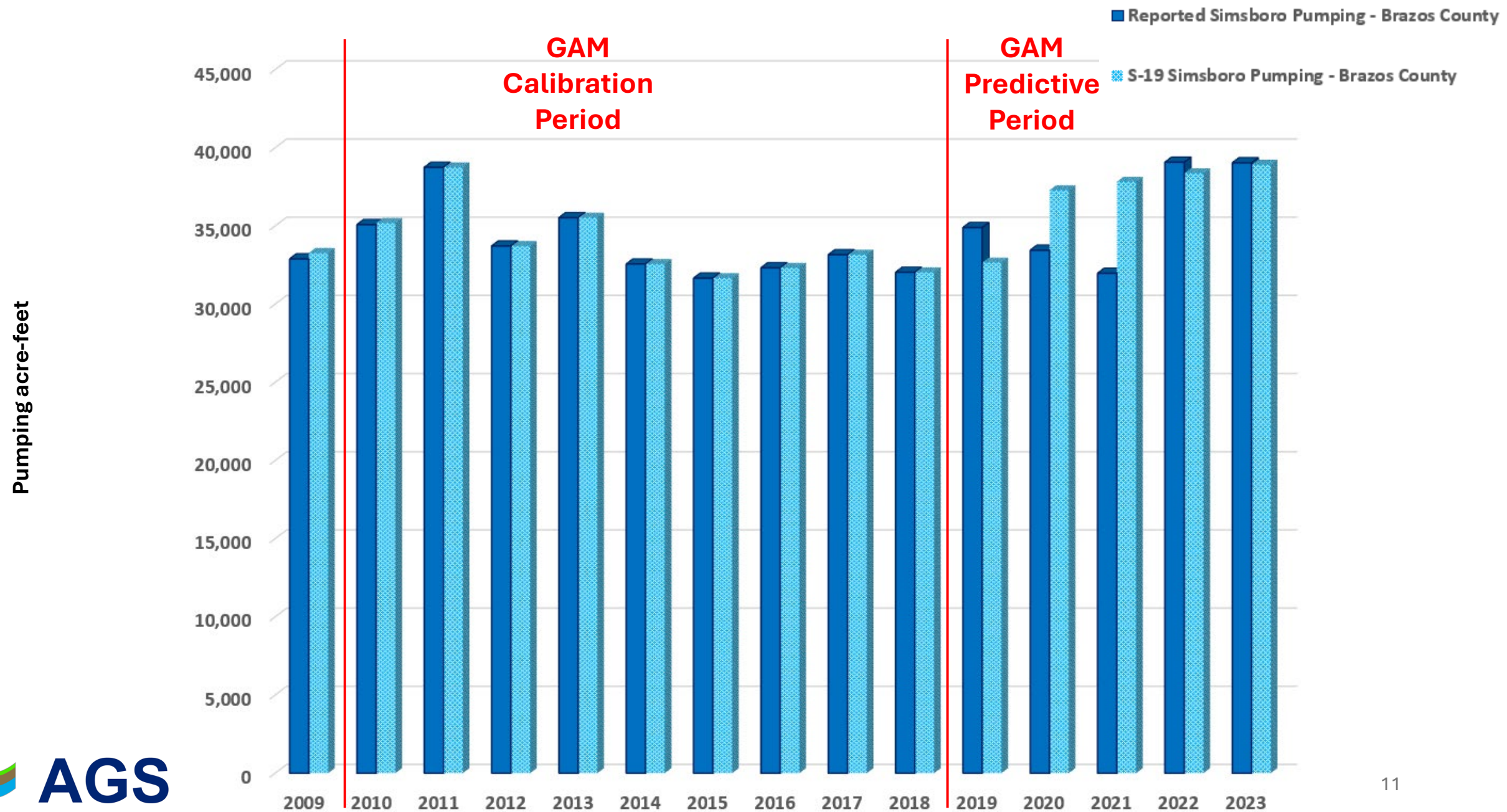
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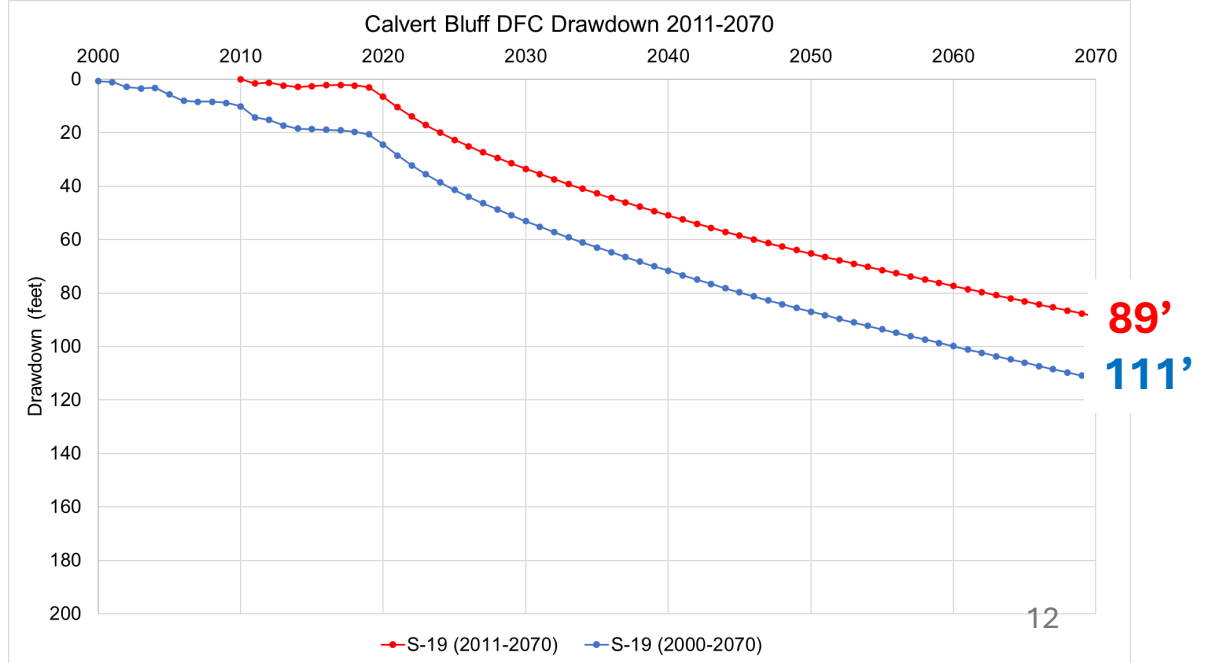
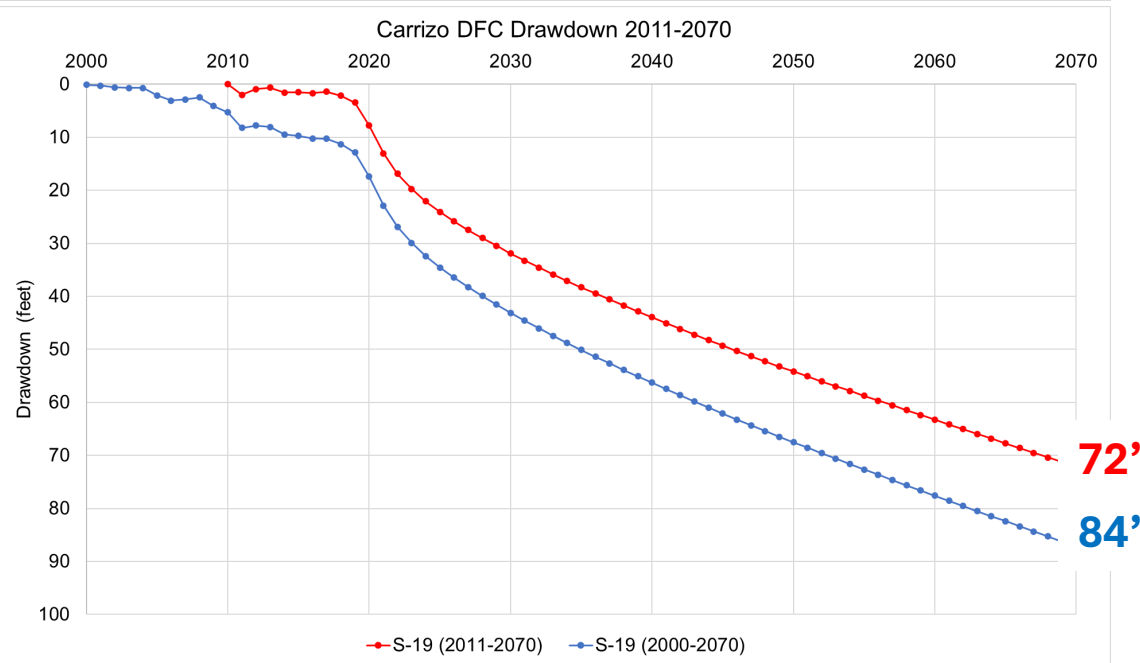
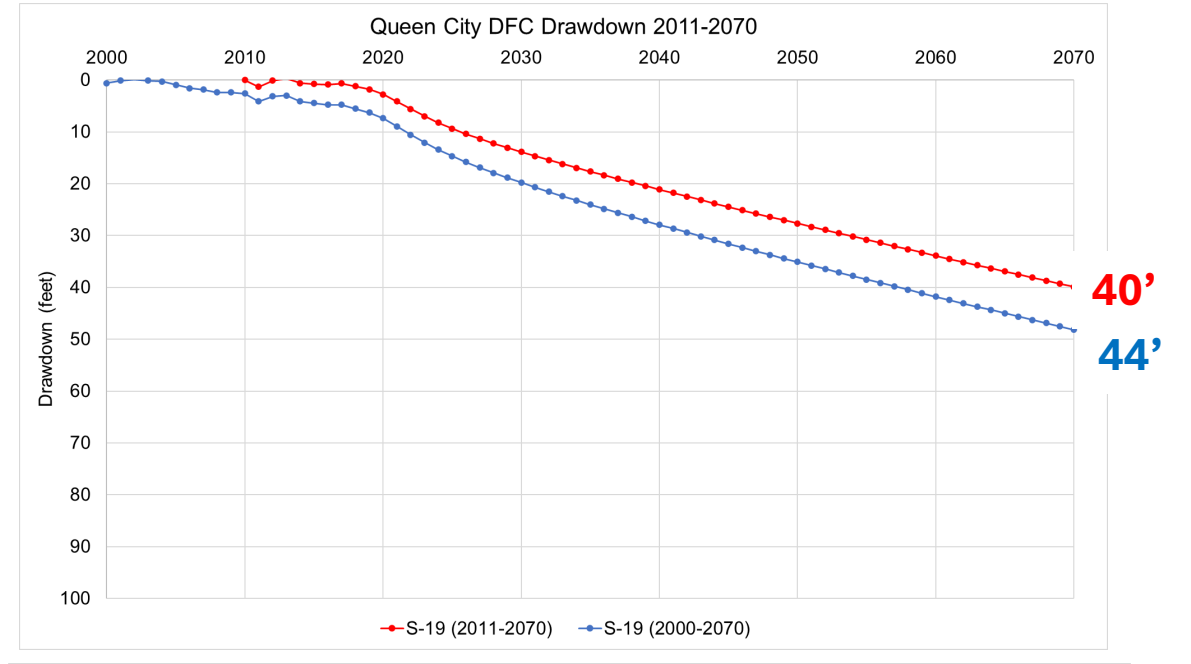
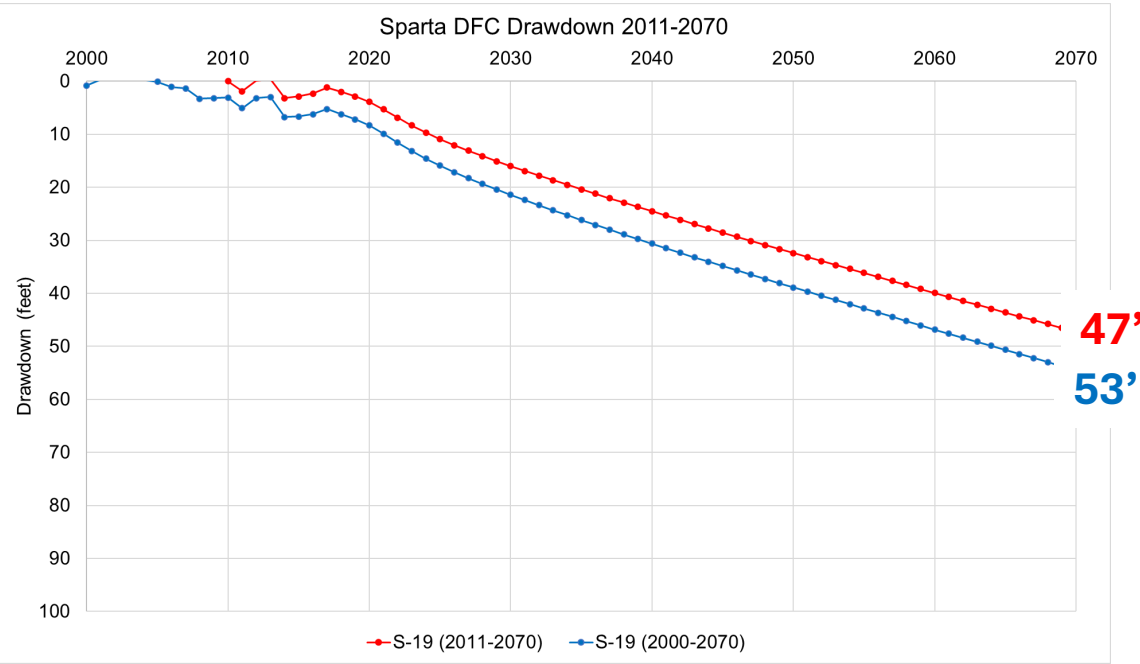
### 3) Robertson Co. S-19 Predictive Simsboro Aquifer Pumping Comparison



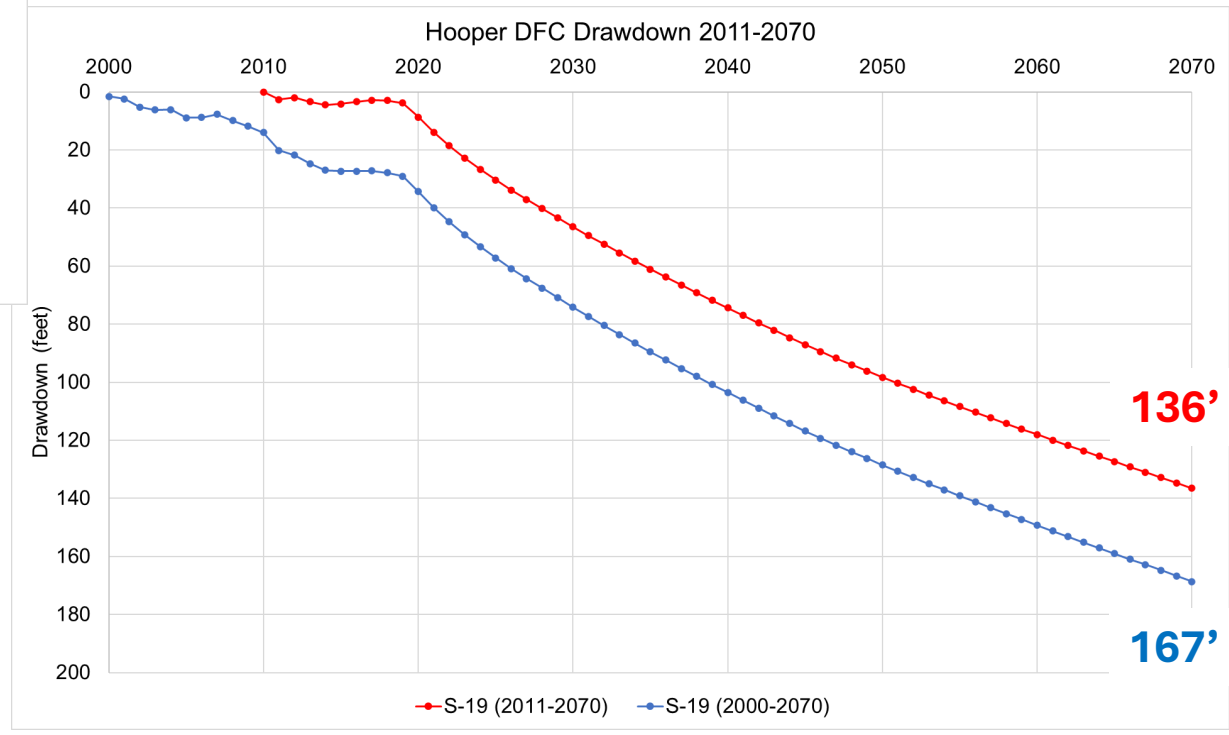
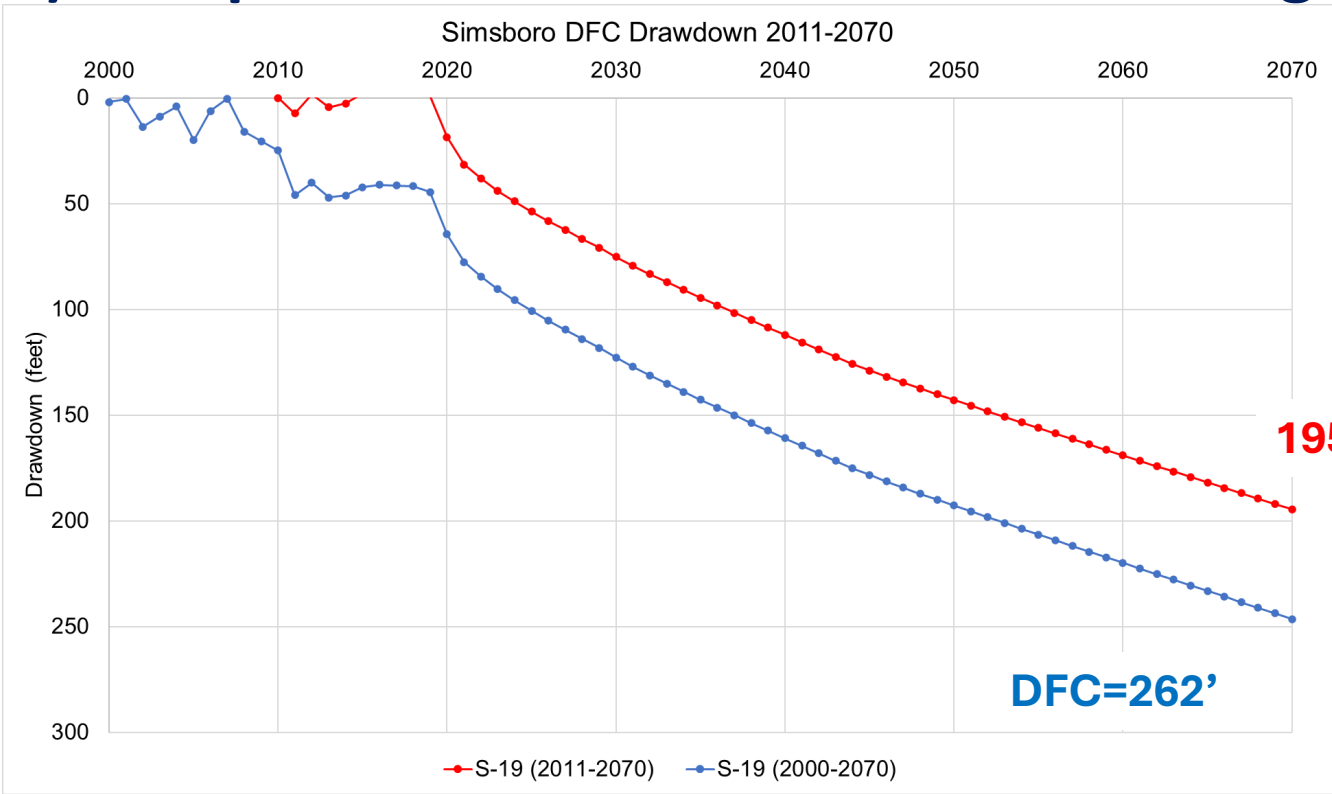
### 3) Brazos Co. S-19 Predictive Simsboro Aquifer Pumping Comparison



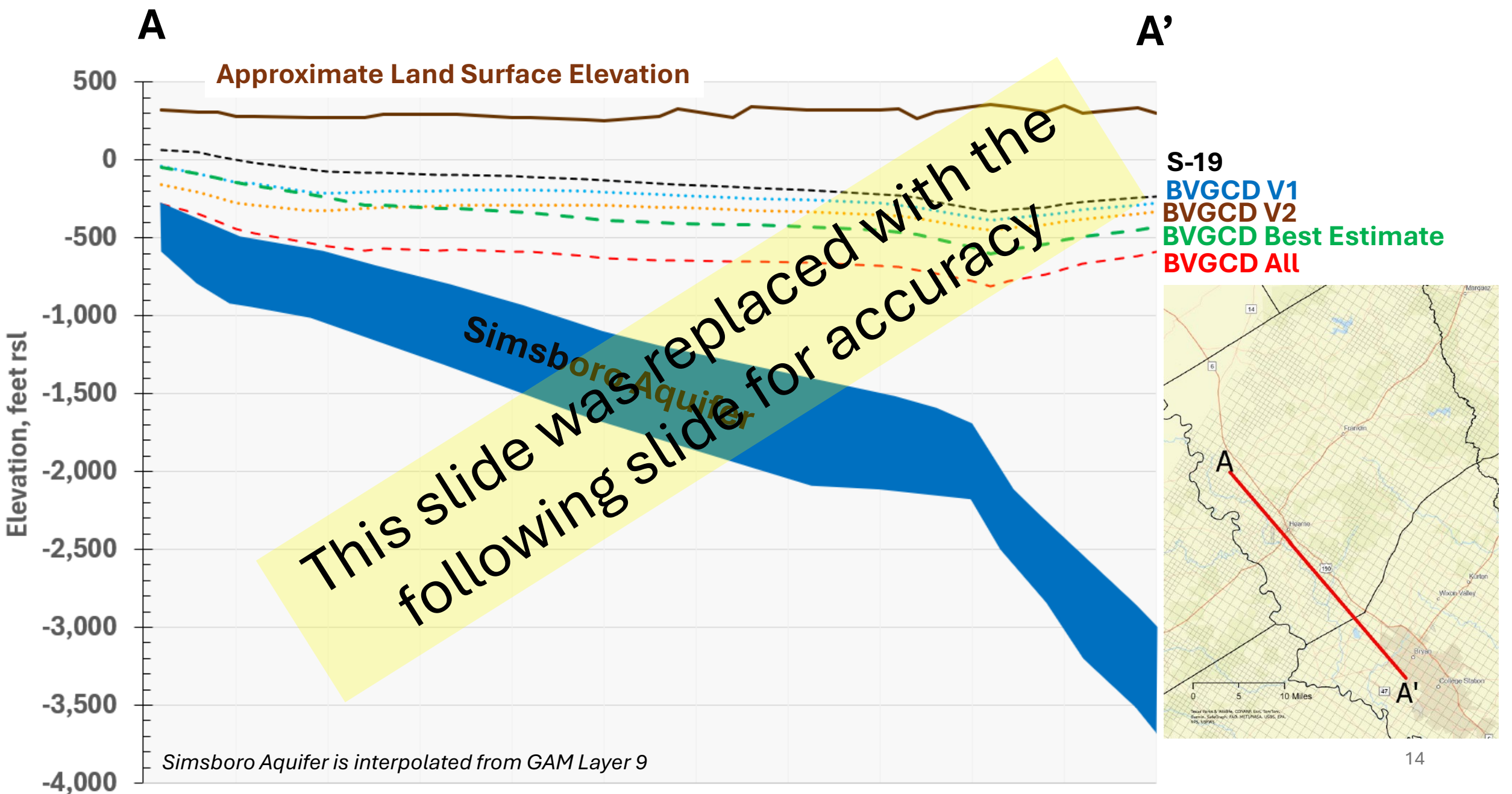
# 4) Comparison of 2000 to 2010 Start Using S-19



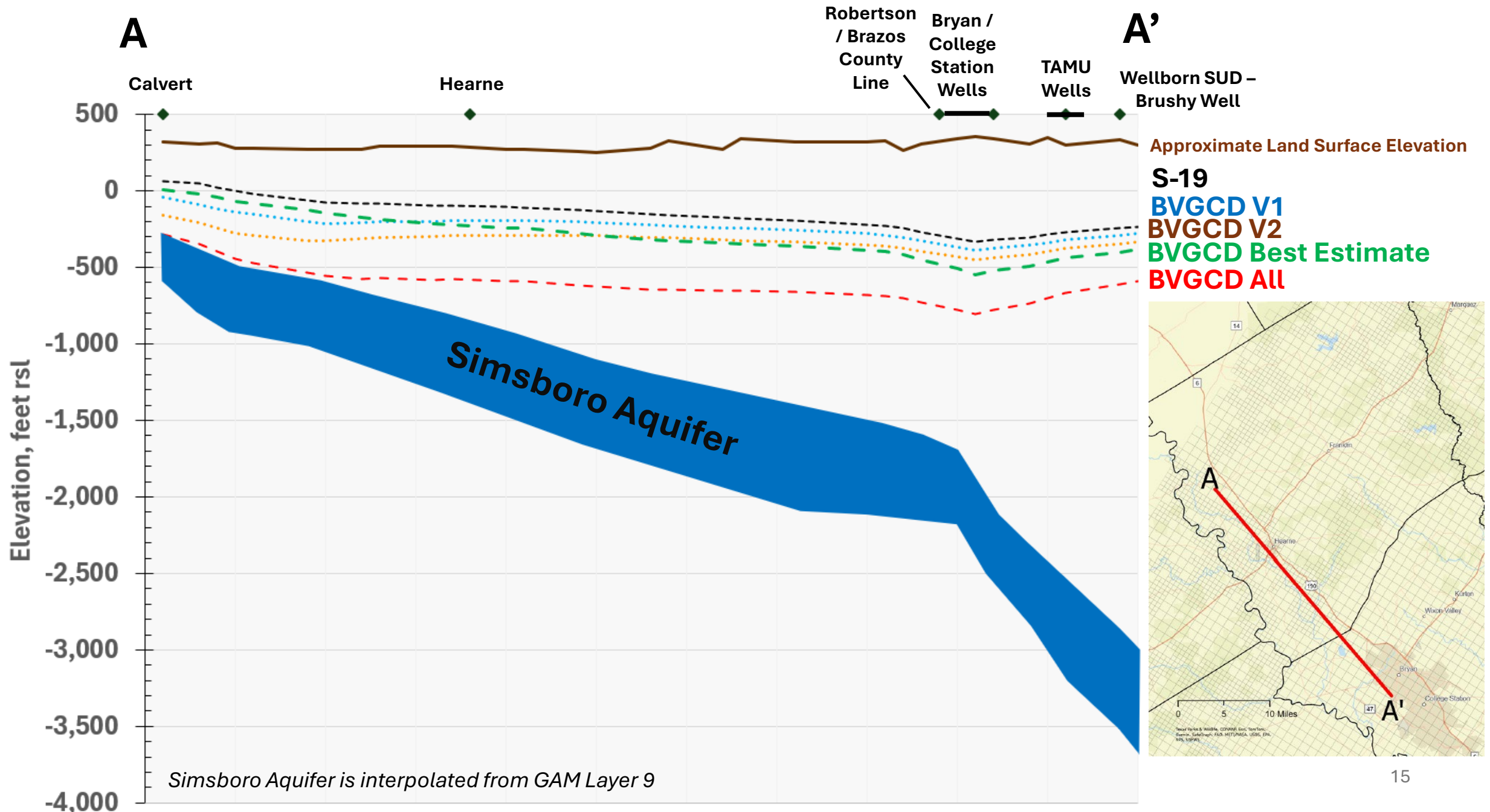
# 4) Comparison of 2000 to 2010 Start Using S-19



# 5) Simulated Available Drawdown at 2070

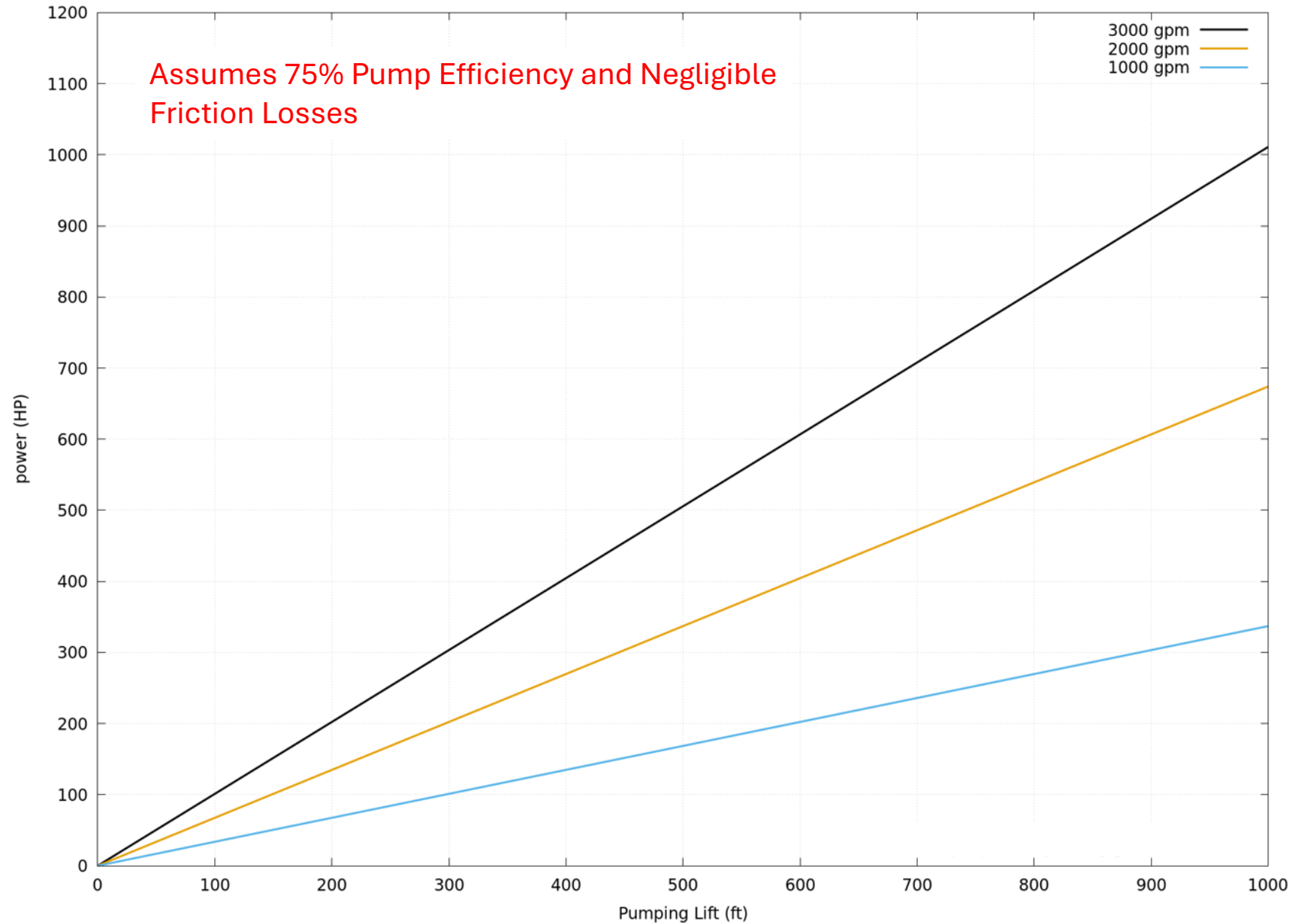


# 5) Simulated Available Drawdown at 2070



# 6) Relationship between Power and Lift

Comparison of Required Horsepower at Various Pumping Rates



- **Chart shows relationship between pumping lift and power (HP)**
- **Does not address practical limits on pumping lifts**
- **Working to gather information on the experience of others who have had pump lifts reach 800 to 1,000 feet.**

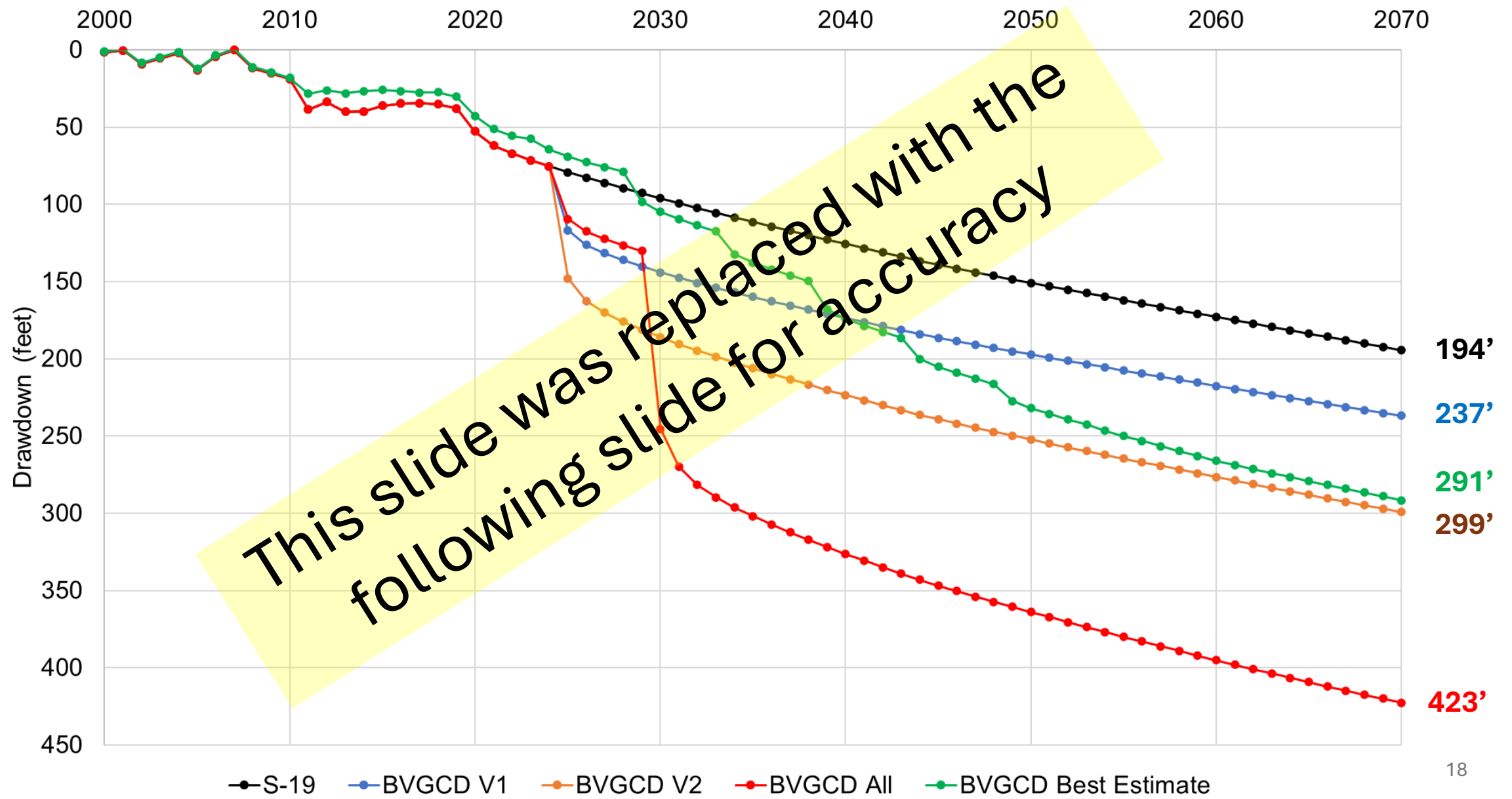


## 7) Pumping Impact to Public Supply Wells

- In Progress – No Results at this time

# 8) Average drawdown calculated for Robertson County only

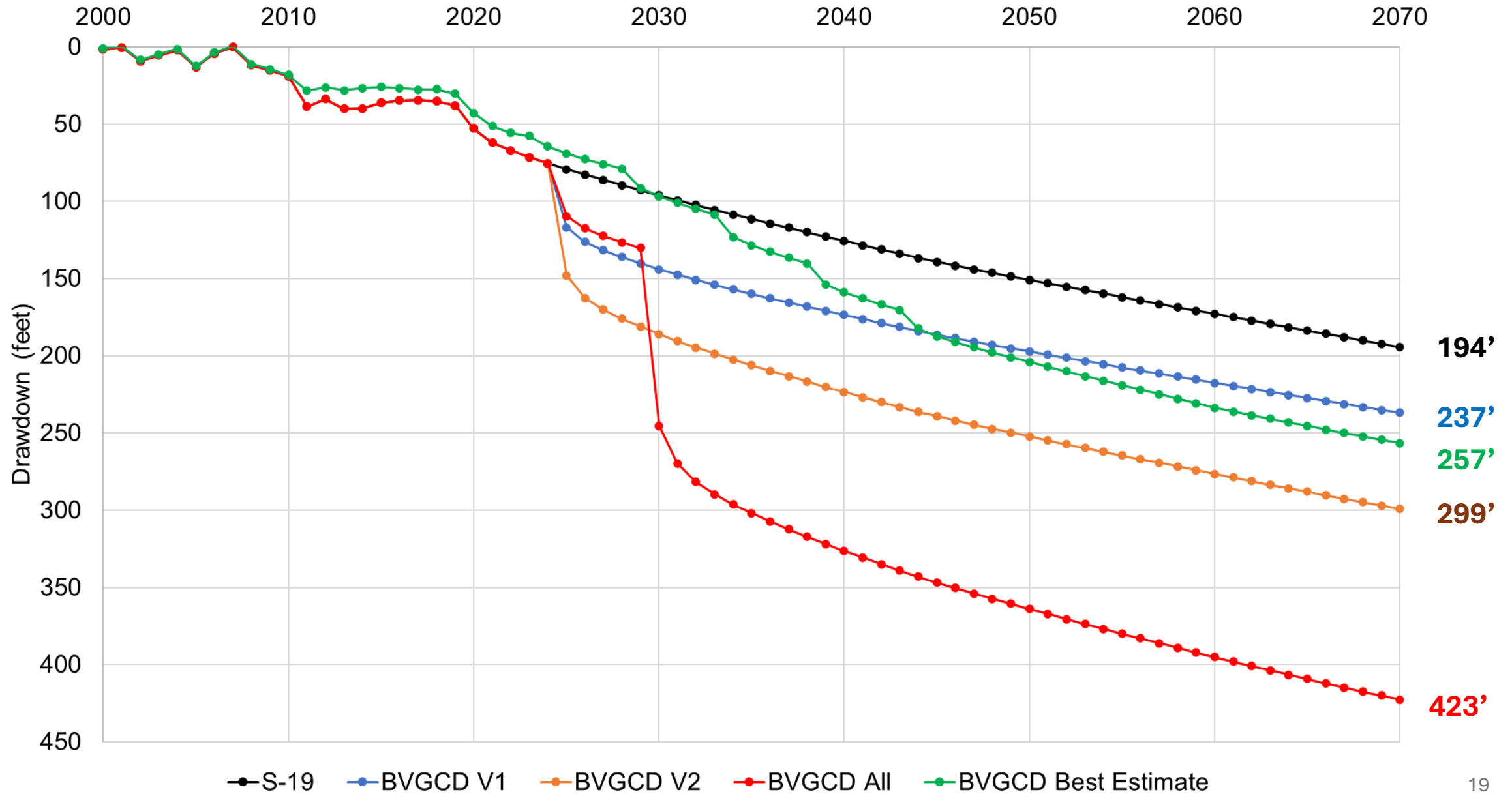
Simsboro DFC Drawdown 2000-2070



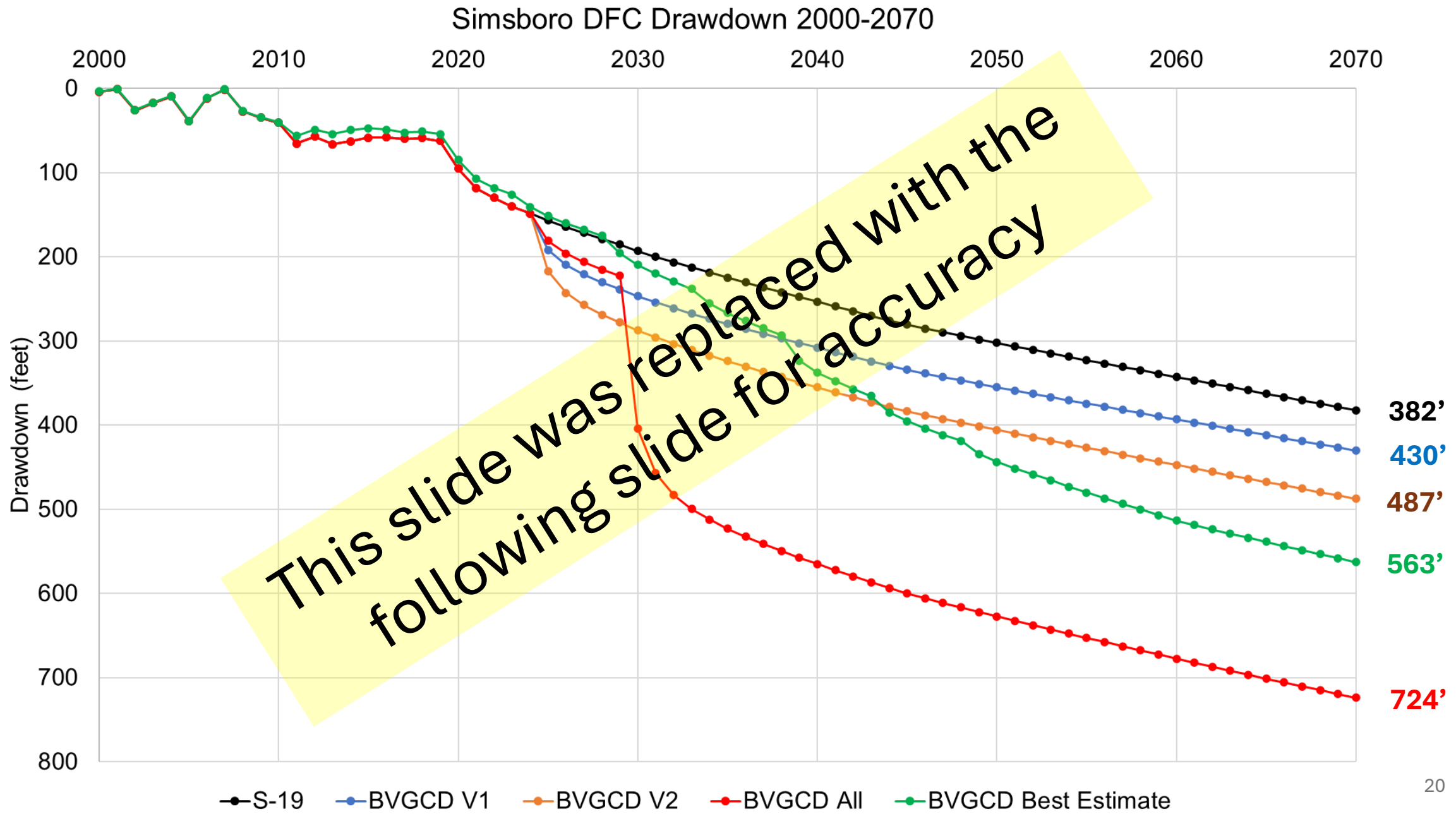
# 8) Average drawdown calculated for Robertson County only

\* Slide Updated 02/26/25

## Simsboro DFC Drawdown 2000-2070

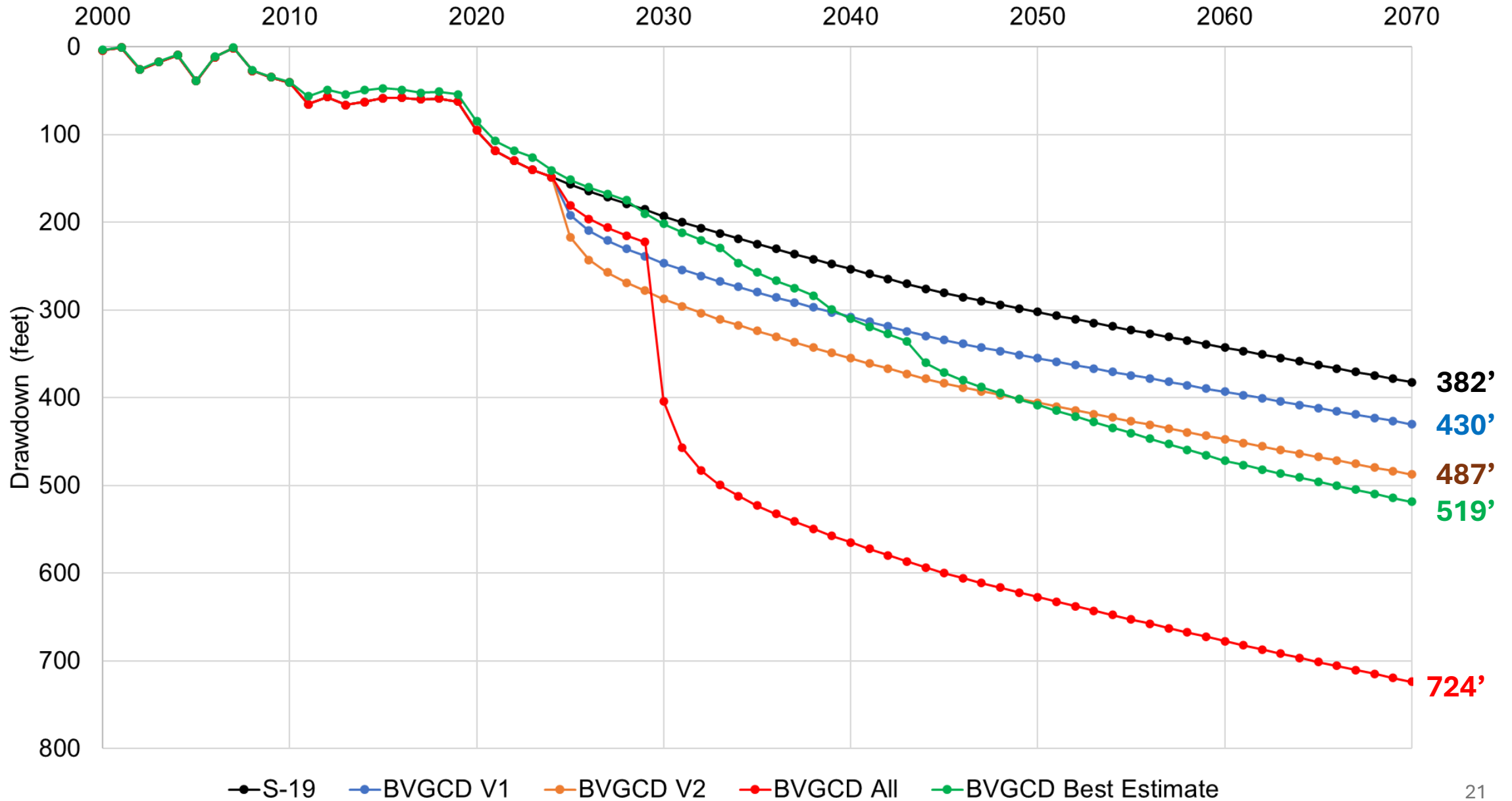


# 8) Average drawdown calculated for Brazos County only



# 8) Average drawdown calculated for Brazos County only

## Simsboro DFC Drawdown 2000-2070



# Clarification / Disclaimer

- GCDs in GMA 12 will determine DFCs, not the hydrogeologic consultant.
- Chapter 36 of the Texas Water Code contains concepts that blend legal and technical issues. AGS is not a law firm and we do not provide legal advice. Any statements relating to regulatory or legal issues shall not be considered legal advice.
- AGS may provide commentary based on our experience working with groundwater conservation districts, permitting, joint groundwater planning, GCD rules and management plans, water supply entities, and our general understanding of industry practices.

# Assumption for Simulation (V1)

- “S-19” well file used as base pumping with GAM V3.02
- No other changes to pumping in GMA 12
- For BVGCD permits approved since S-19, the full permit volume was produced starting in 2025
- Permits included:
  - Updated Upwell
  - Trey Skiles
  - James Brien
  - Robertson County WSC
  - Wickson Creek SUD – Well 9
  - City of Calvert

# Assumption for Simulation (V2)

- “S-19” well file used as base pumping with GAM V3.02
- No other changes to pumping in GMA 12
- For BVGCD permits approved since S-19, the full permit volume was produced starting in 2025
- Permits included:
  - Updated Upwell
  - Trey Skiles
  - James Brien
  - Robertson County WSC
  - Wickson Creek SUD – Well 9
  - City of Calvert
  - Corpora Farms
  - Badgerjack Resource Holdings, L.P.
  - High Timber Resources, L.P.



# Simsboro Assumptions for BV-Run2 (BVGCD ALL)

- “S-19” well file used as base pumping with GAM V3.02
- No other changes to pumping in GMA 12
- For BVGCD permits approved since S-19
  - Well file updates related to Upwell Brazos Valley Farm LLC, pumping begin in 2025
  - Permits issued in 2023 starting pumping at full amount in 2030

# Simsboro Assumptions for BV-Run2 (BVGCD ALL)

## 2022 Simsboro Aquifer Permits:

Upwell Brazos Valley Farm, LLC

59,995 ac-ft (Total Upwell)

34,516 ac-ft (New Upwell)

49,999 ac-ft (Upwell Total without Historical Wells)

## 2023 Simsboro Aquifer Permits: 156,510 ac-ft

- Trey Skiles (3,400 ac-ft)
- James Brien (4,115 ac-ft)
- Robertson County WSC (518 ac-ft)
- Wickson Creek SUD – Well 9 (1,879 ac-ft)
- City of Calvert (325 ac-ft)
- City of Hearne (325 ac-ft)
- High Timber Resources, L.P. (11,870 ac-ft)
- Badgerjack Resource Holdings, L.P. (16,421 ac-ft)
- Corpora Farms (21,257 ac-ft)
- City of Bryan (14,204 ac-ft)
- City of College Station (5,065 ac-ft)
- Burnside Investments, Inc. (9,189 ac-ft)
- Corpora Farms – Mumford (1,940 ac-ft)
- Cula d’Brazos LLC (12,000 ac-ft)
- DTB Investments LP (15,227 ac-ft)
- Ely Family Partnership (13,873 ac-ft)
- Fazzino Investments LP (10,348 ac-ft)
- L. Wiese Moore LLC (4,452 ac-ft)
- RH2O LLC (8,130 ac-ft)
- Wellborn SUD (1,972 ac-ft)

## Assumptions

- S-19G3 is the Base Run
- Upwell-Georgetown Ramp up based on Georgetown letter dated June 17, 2024 (up to 50,000 afy maximum)
- No curtailments are Implemented

# Assumptions for the S-19G3 Well File

- **Upwell Brazos Valley Farm**
  - 5,000 afy is divided evenly between 12 agricultural wells beginning in 2011 and held mostly constant through 2070
  - All other Upwell permitted production is set to 0 from 2029 to 2070
    - Allowing for transport pumping to be added in subsequent runs
- **Municipal Production based on 2070 Water Demand in the 2022 State Water Plan**
  - Current permitted production is the maximum amount
  - Permits greater than 2070 demand ramp up to 2070
  - Permits less than 2070 demand ramp up to 2060
    - held constant from 2060 through 2070
  - Municipal permits issued after S-19 are included in S-19G3 with pumping starting in 2029
- **Vista Ridge Well Field**
  - Simsboro pumping added to bring total combined Carrizo and Simsboro production to 50,000 afy from 2022 to 2070
    - Decrease Carrizo Pumping from 15,000 ac-ft to 9,100 ac-ft in 2024
    - Increase Simsboro Pumping from 35,000 ac-ft to 41,000 ac-ft in 2024

## Fault Update to GAM V3.02

