

\*Slides 11 and 19 of the January 11, 2024 presentation have been updated due to a conversion issue with the Digital Elevation Models used to generate the Simulated Depth to Water in the Simsboro Aquifer at 2070 map (Slide 11) and the Simulated Depth to Water in the Carrizo Aquifer at 2070 map (Slide 19).

# Brazos Valley Groundwater Conservation District

## Model Simulation Results

S-19 Well file plus BVGCD  
permits issued since  
previously adopted DFCs

January 11, 2024

# Purpose of BV-Run2

- Assessing potential impacts
- GMA 12 Joint Planning - Preparation for DFC discussions

# Assumption for BV-Run2

- “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

## 2022 Simsboro Aquifer Permits:

Upwell Brazos Valley Farm, LLC

59,995 ac-ft (Total Upwell)

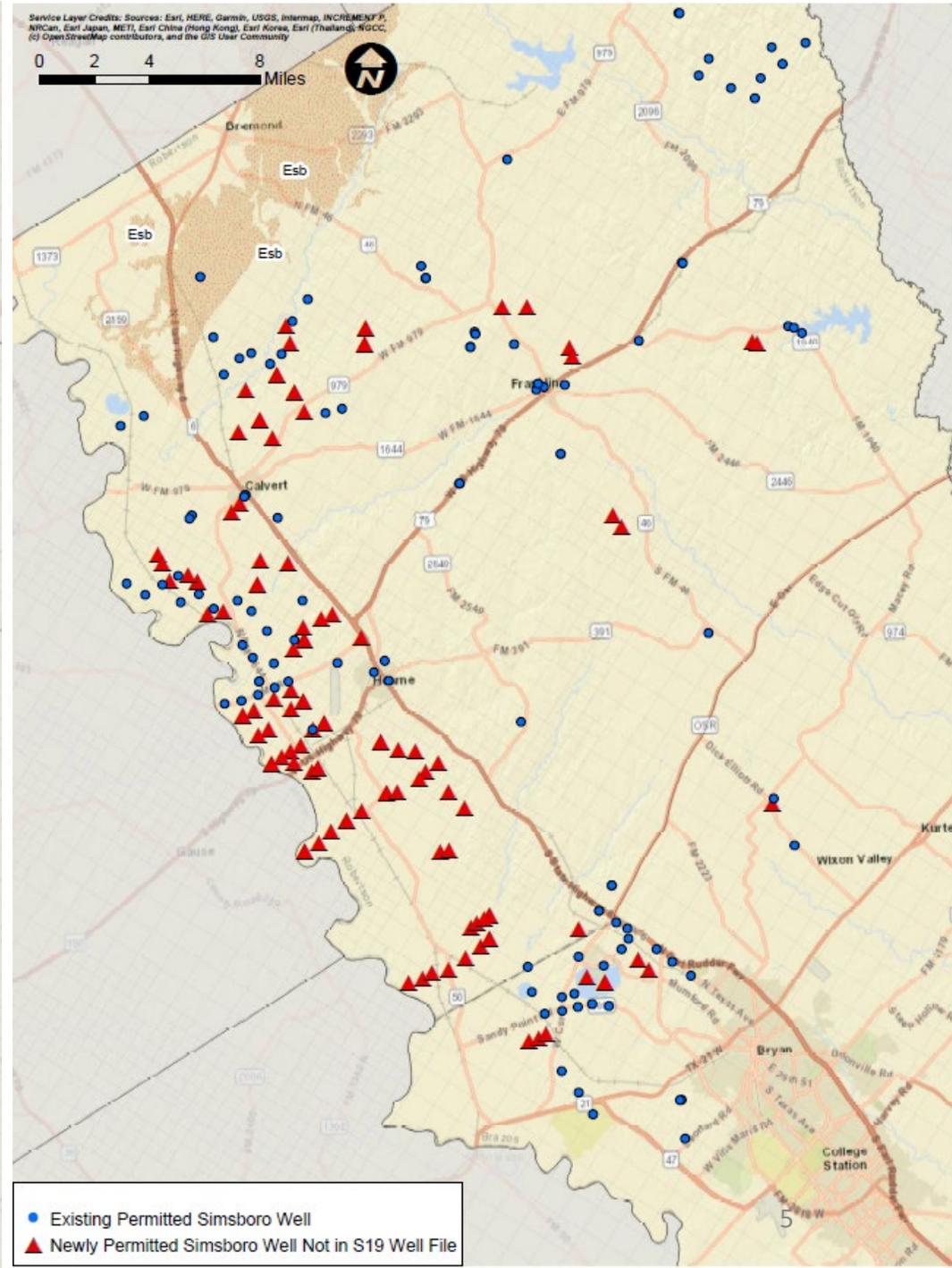
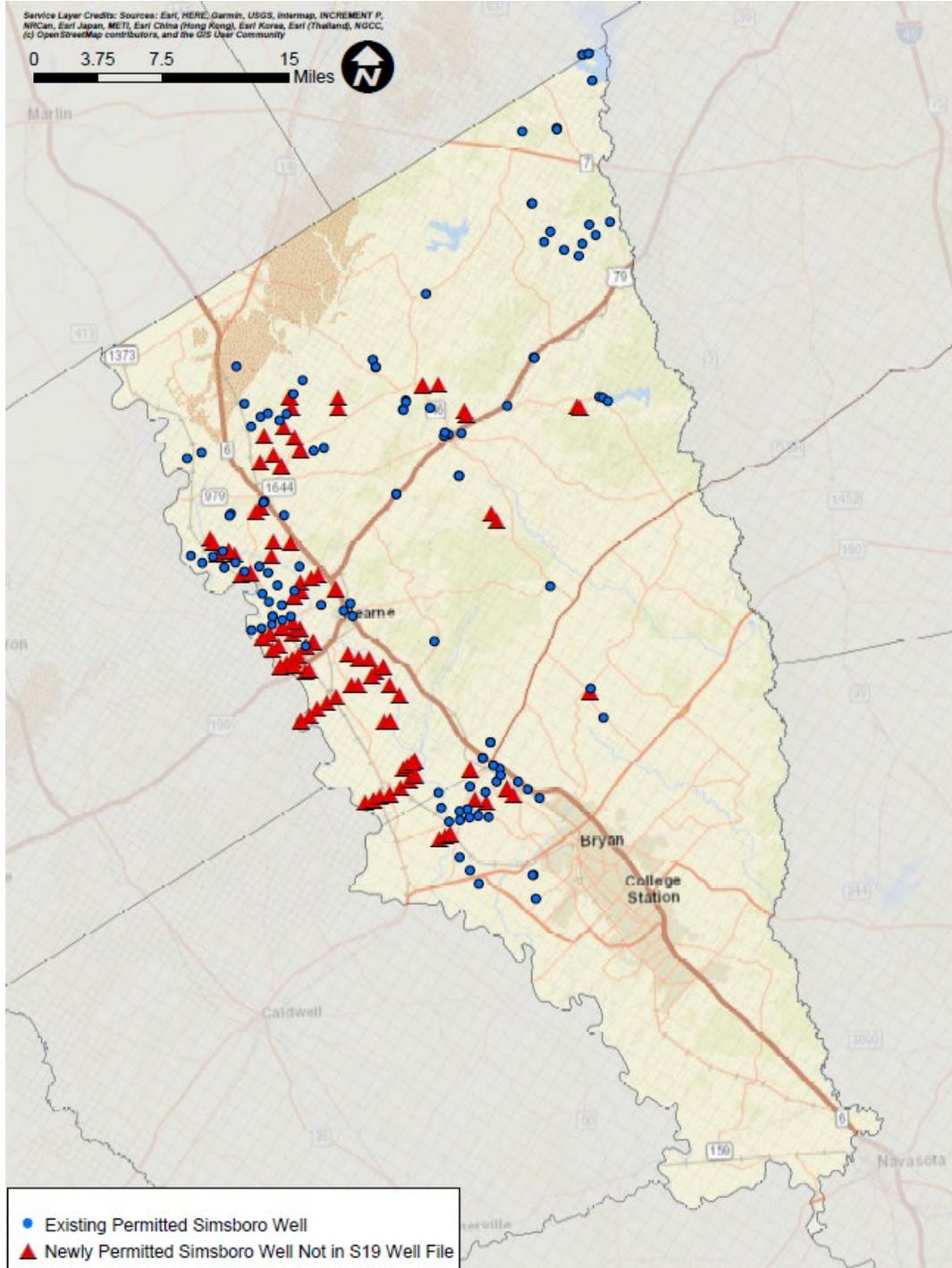
34,516 ac-ft (New Upwell)

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

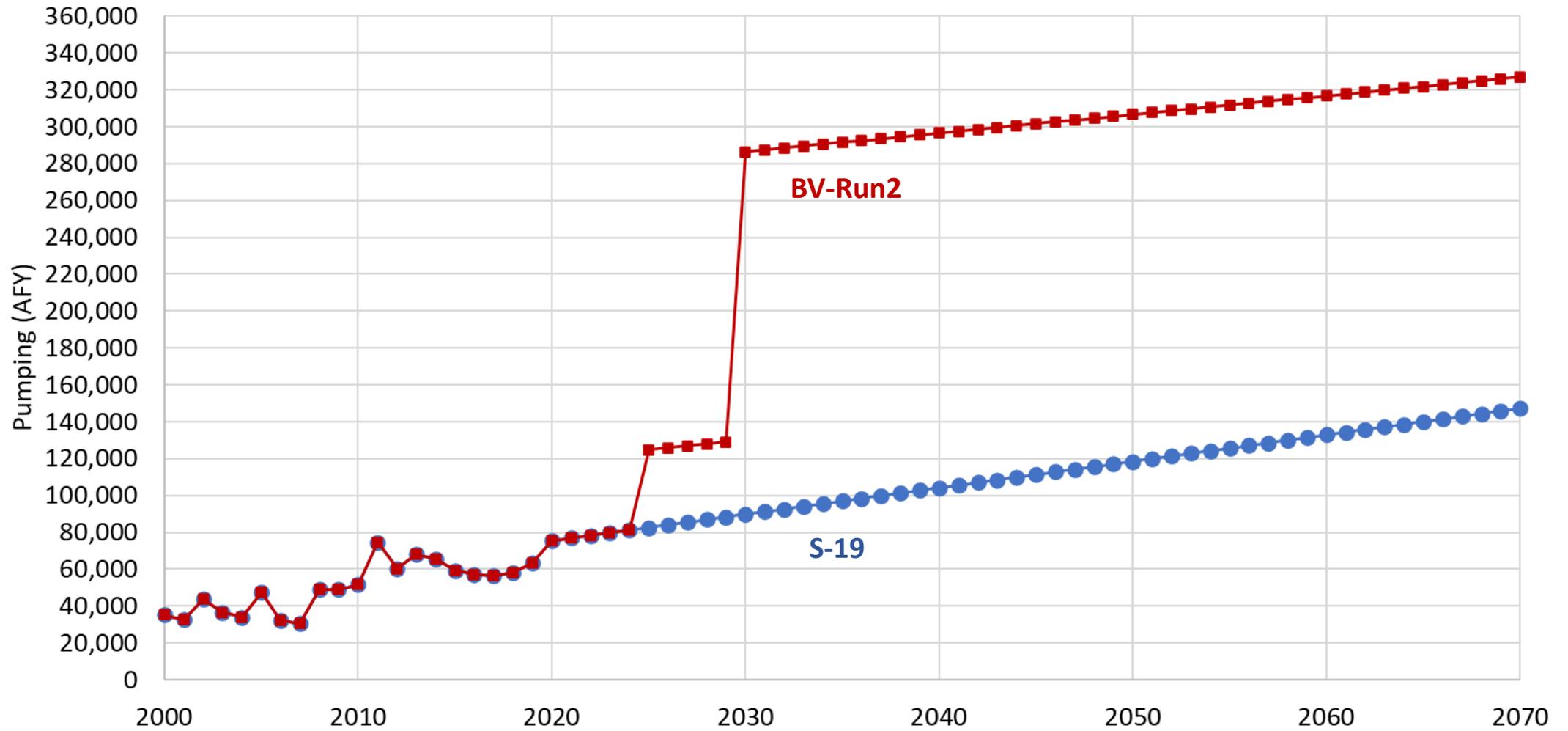
## 2023 Simsboro Aquifer Permits: 156,510 ac-ft

- 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)

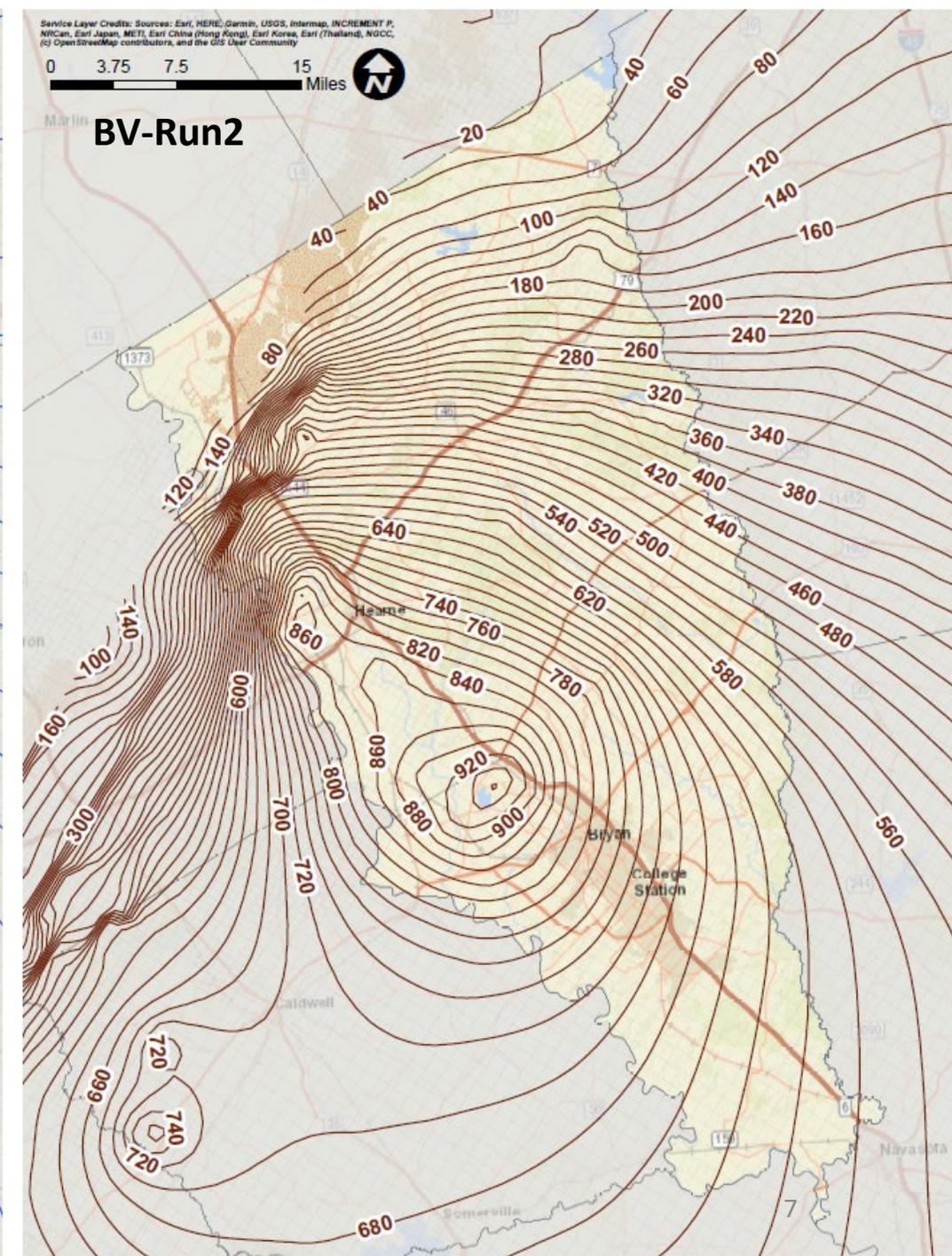
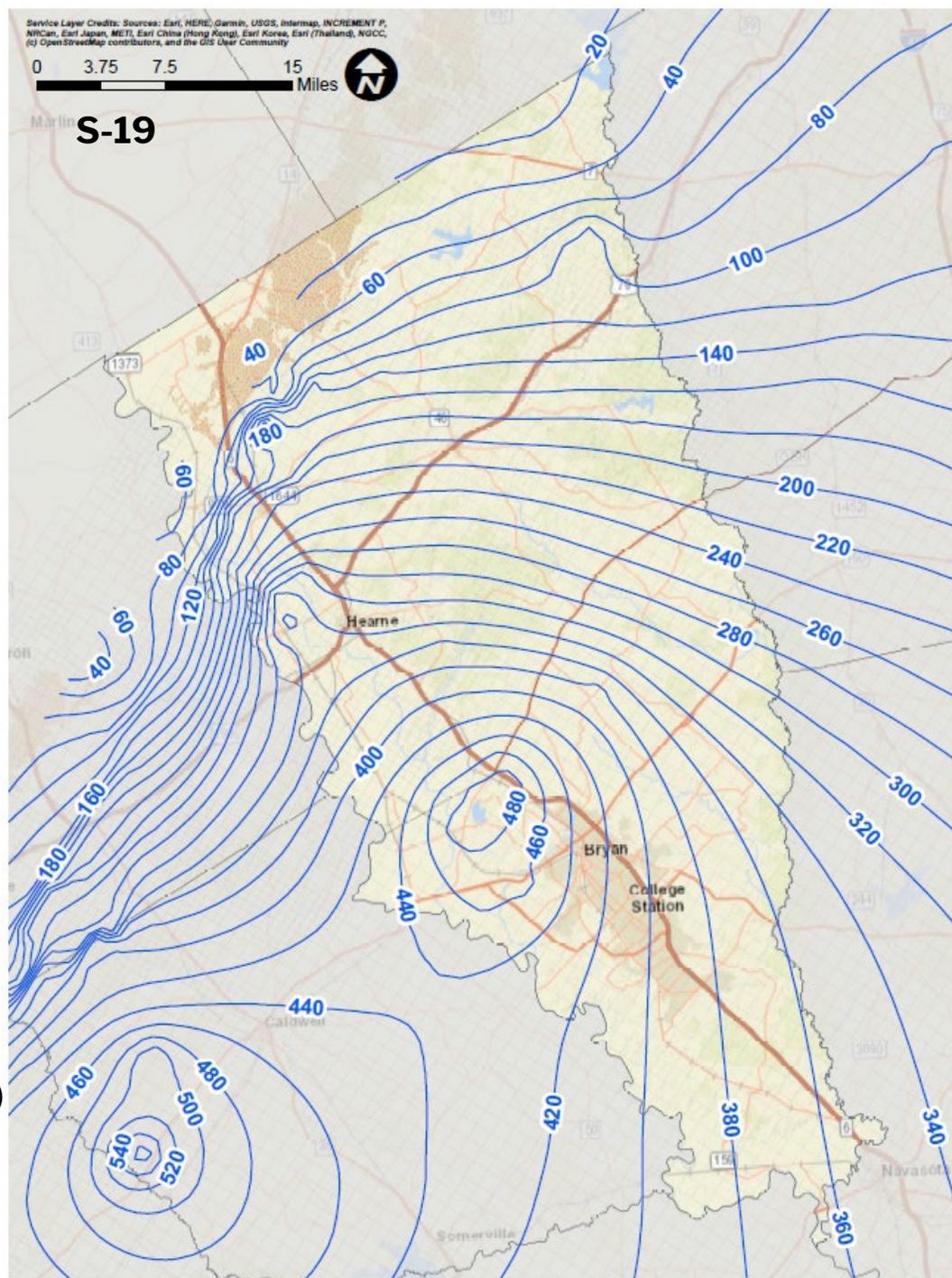
# Simulated BVGCD Simsboro Aquifer Permitted Well Locations



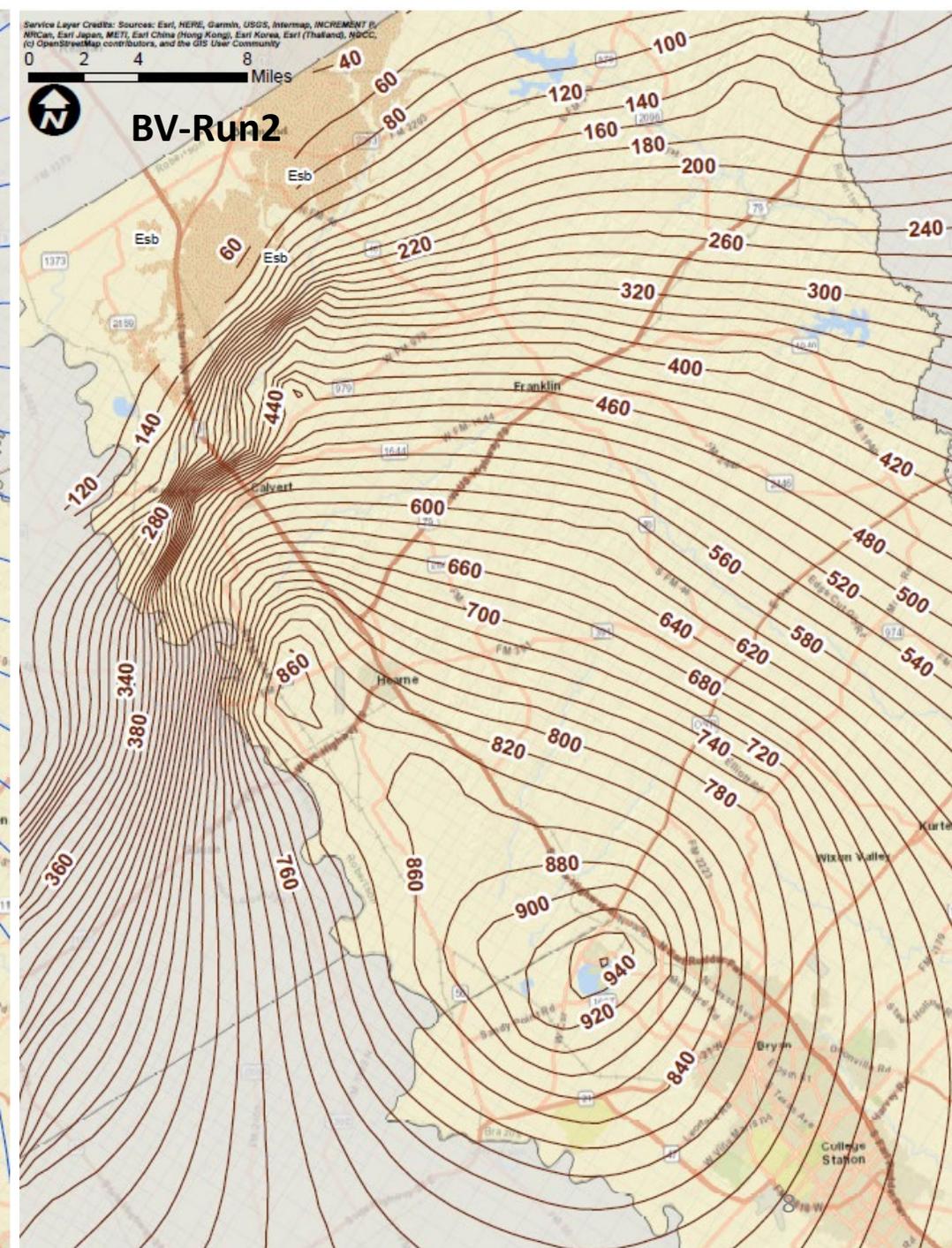
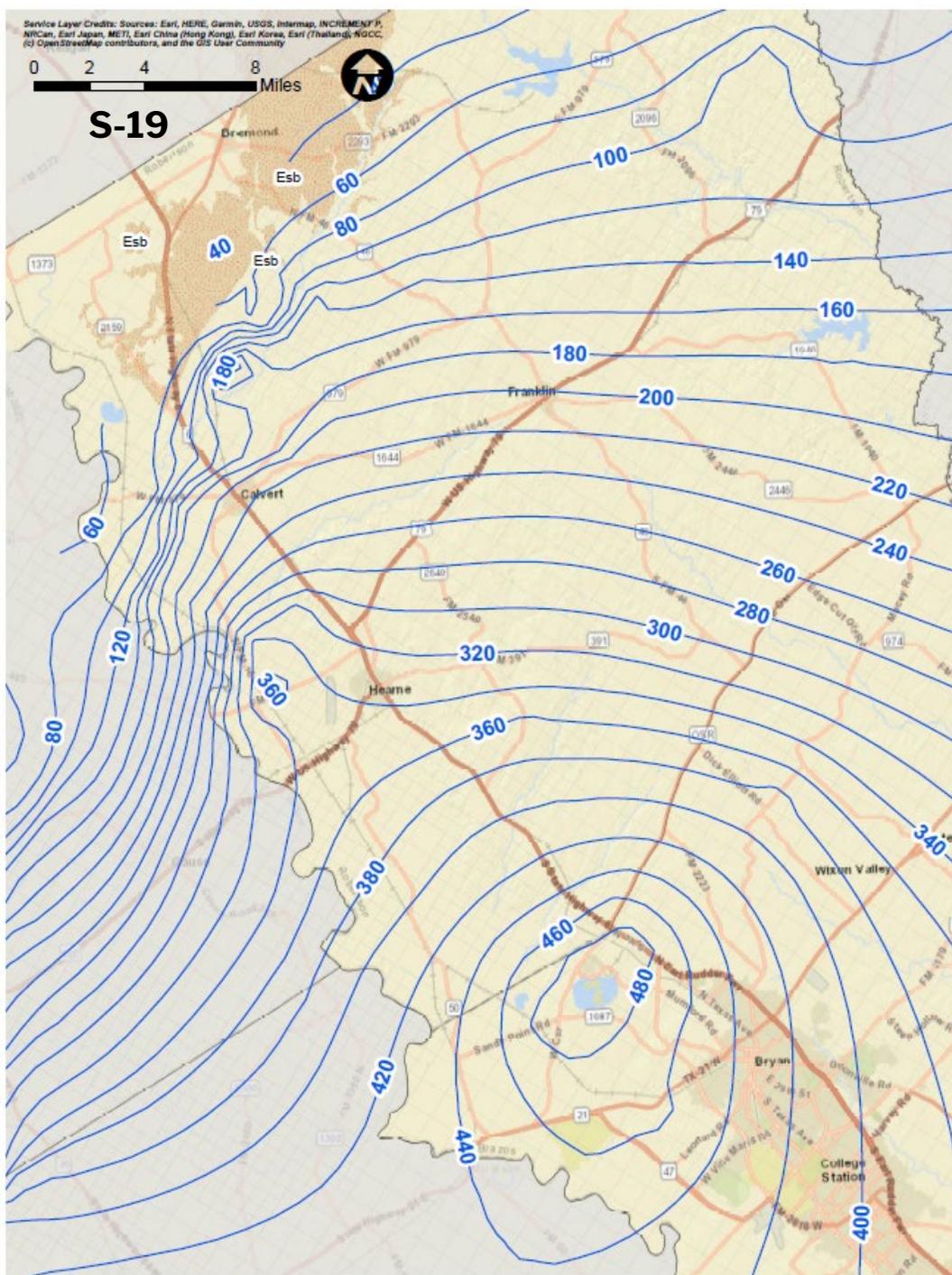
# Comparison of Simulated Pumping in Simsboro



# Simulated Simsboro Aquifer Drawdown 2000-2070 (BVGCD Overview)

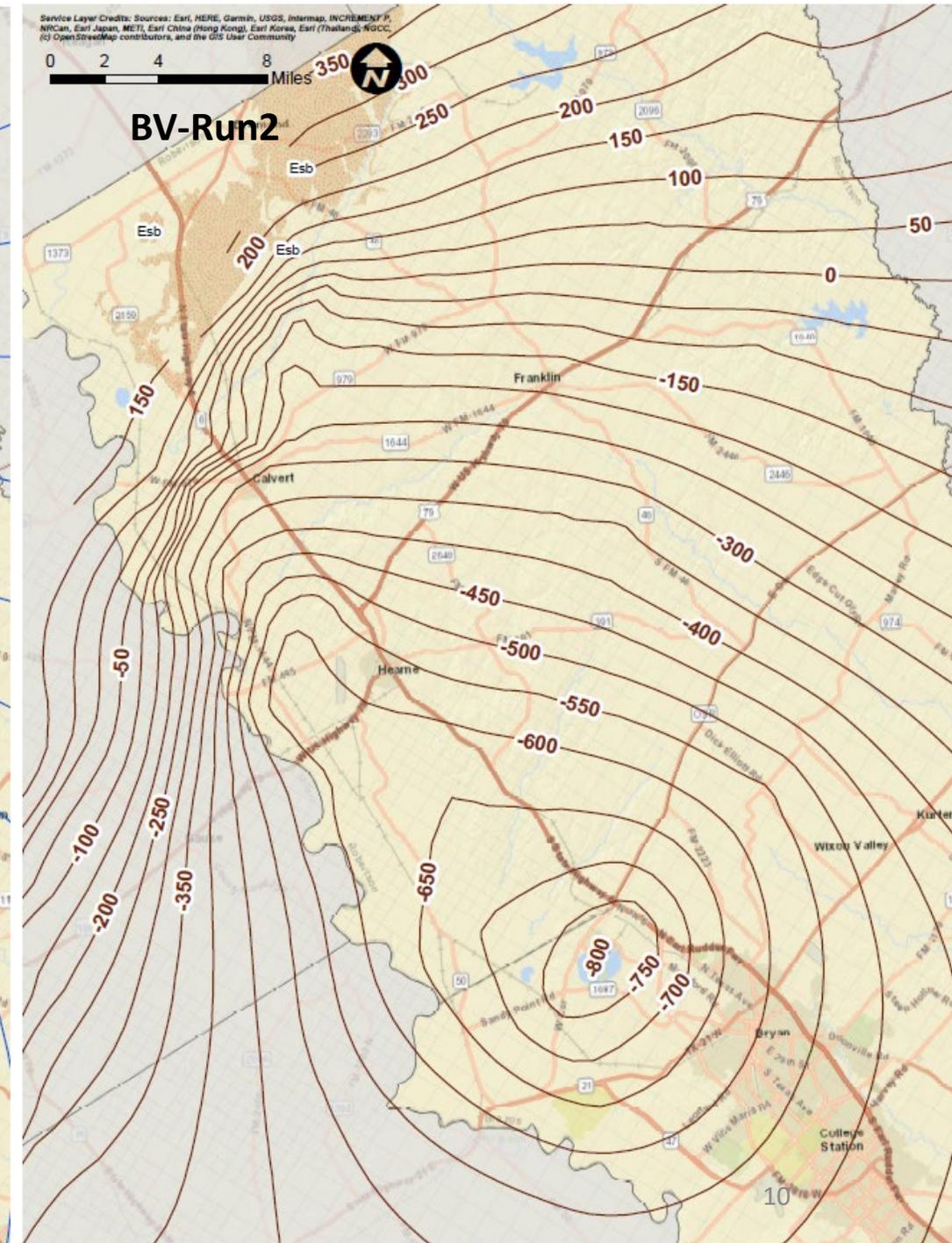
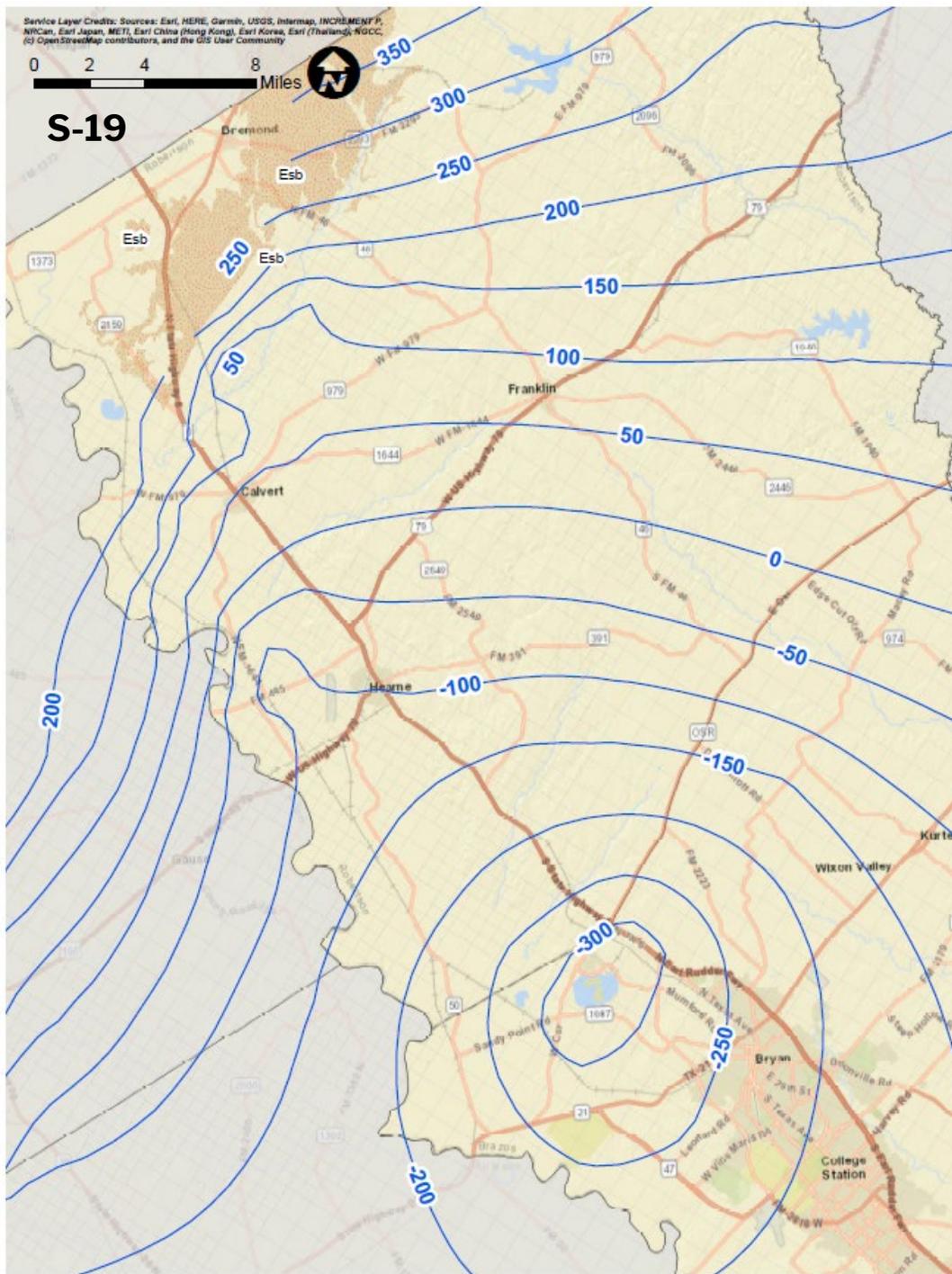


# Simulated Simsboro Aquifer Drawdown 2000-2070

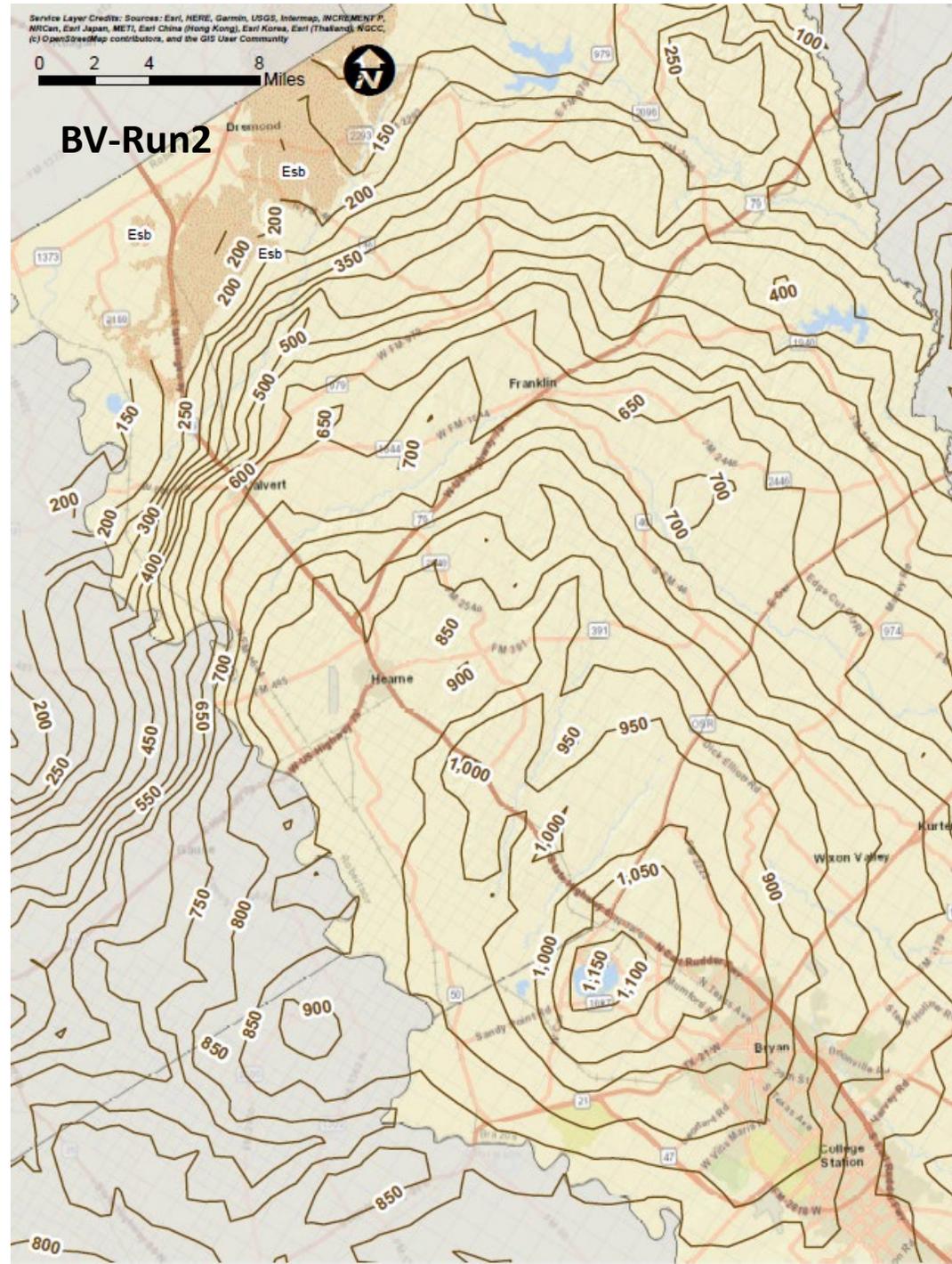




# Simulated Simsboro Aquifer Water Level /Head Elevations at 2070

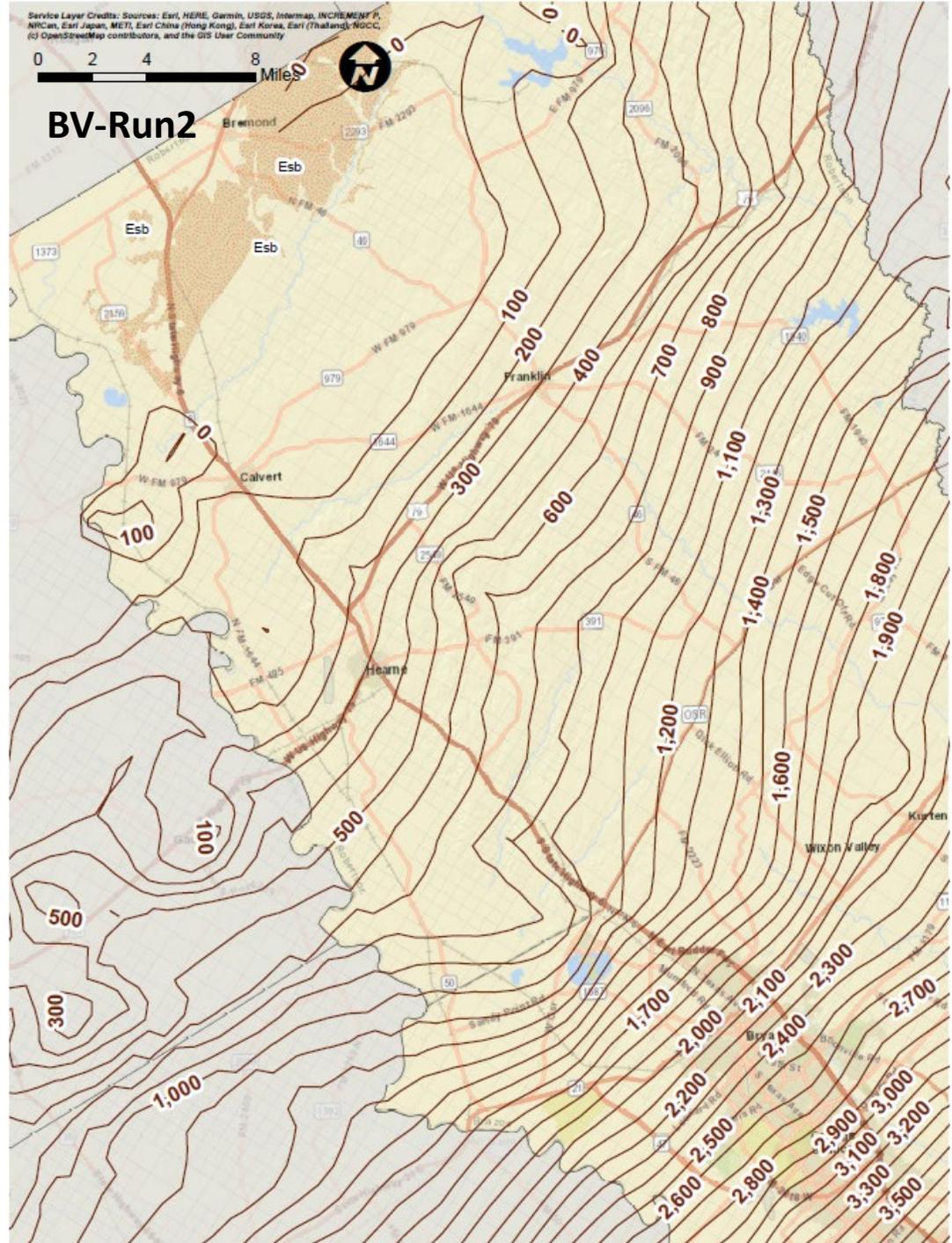


# Simulated Depth to Water in the Simsboro Aquifer at 2070



Water level Depth Contour (ft, rls)  
Contour Interval = 50 feet

# Simulated Remaining Available Drawdown above the top of the Simsboro Aquifer at 2070

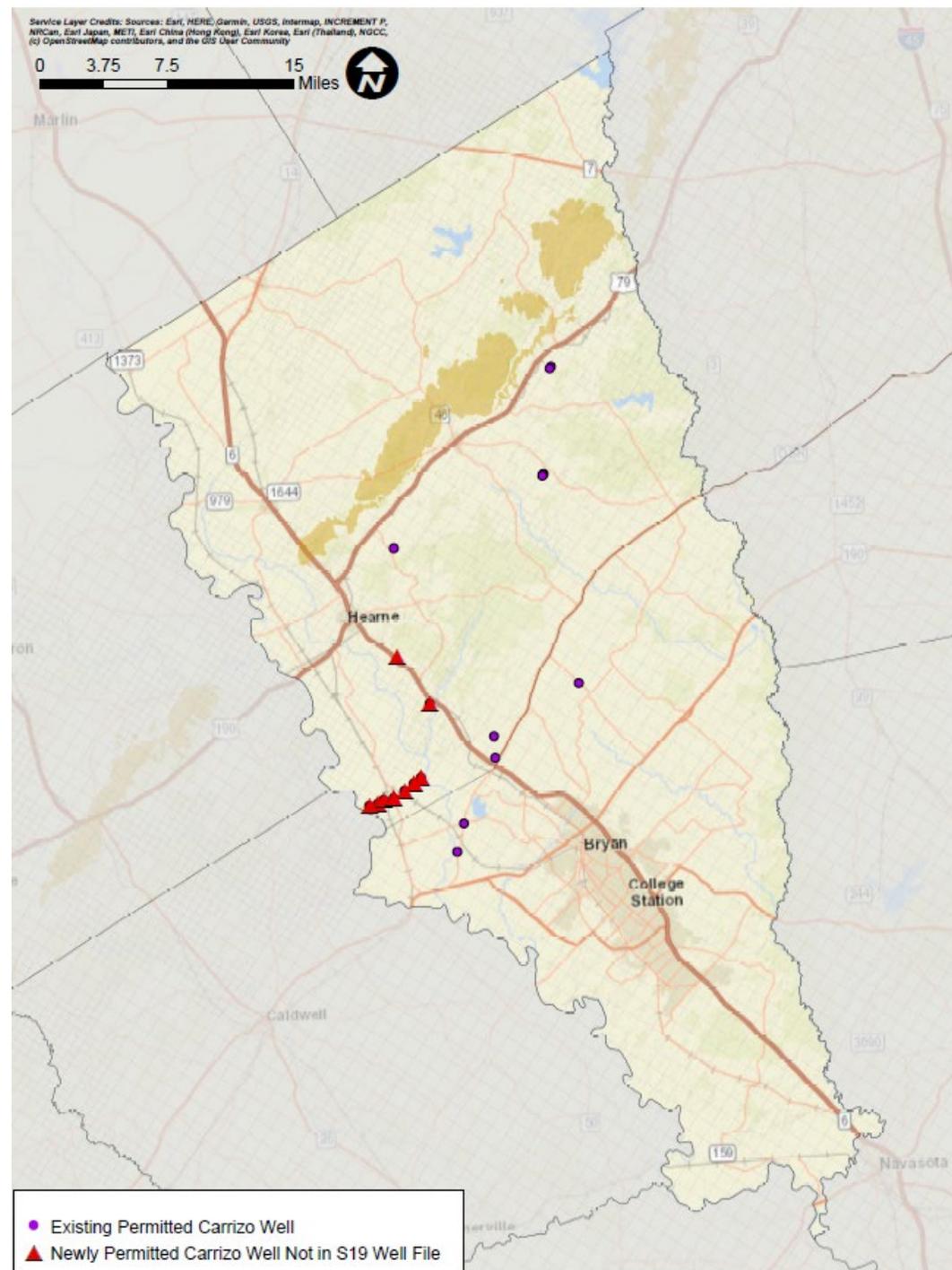


# Carrizo Aquifer Assumptions for BV-Run2

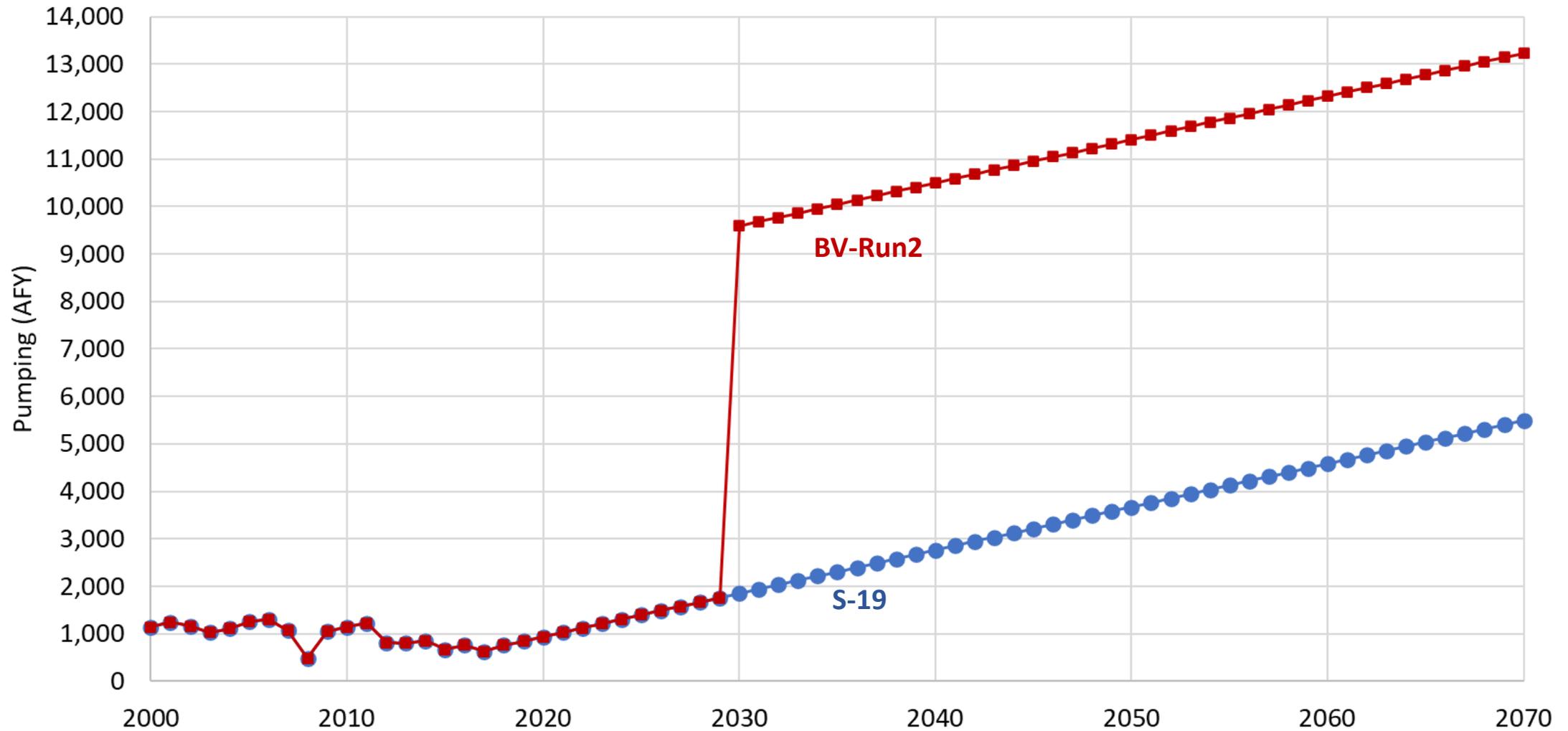
## 2023 Carrizo Aquifer Permits: 7,737 ac-ft

- DTB Investments LP (7,612 ac-ft)
- BBL Operating (25 ac-ft)
- James Johnson (100 ac-ft)

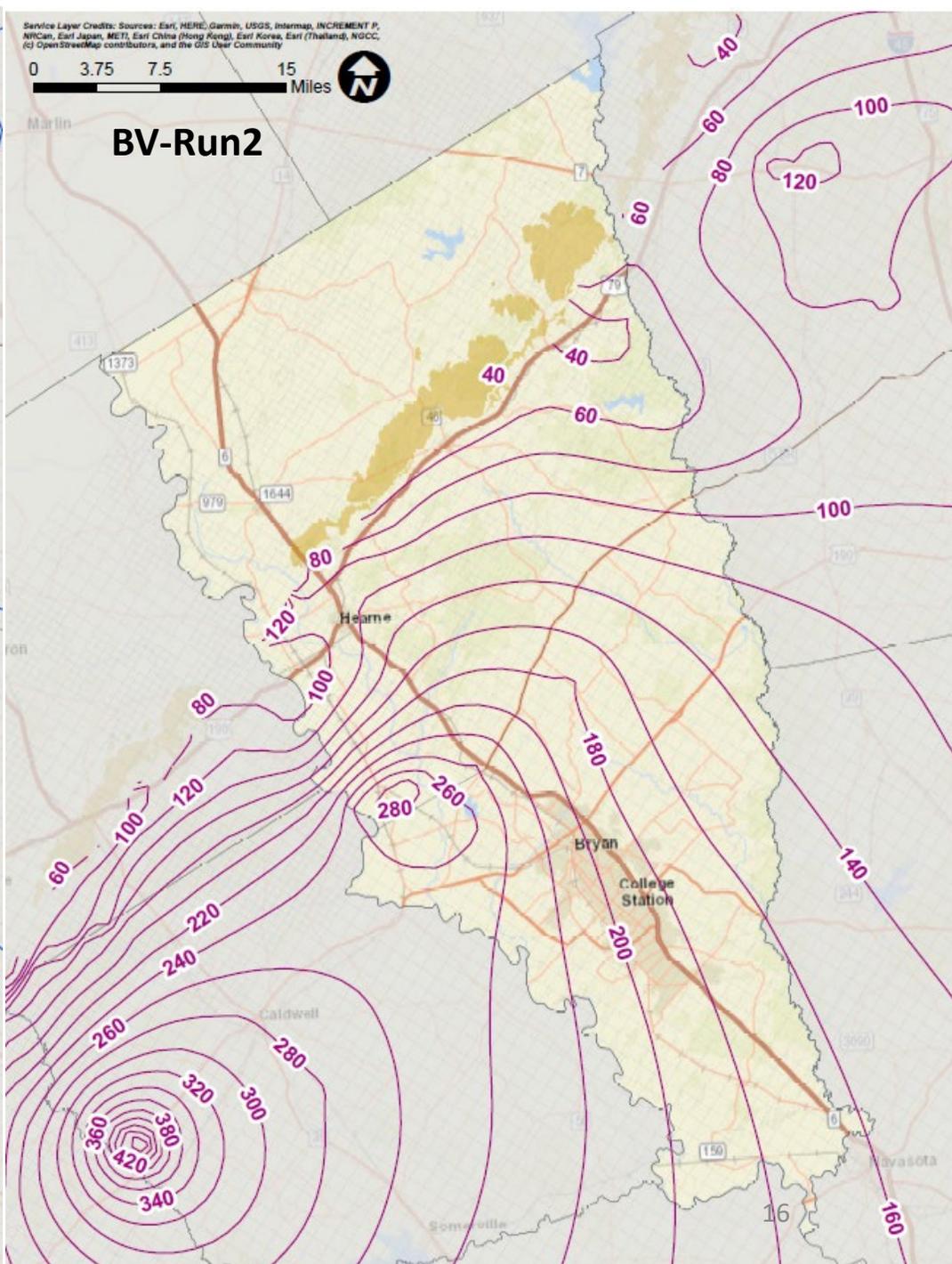
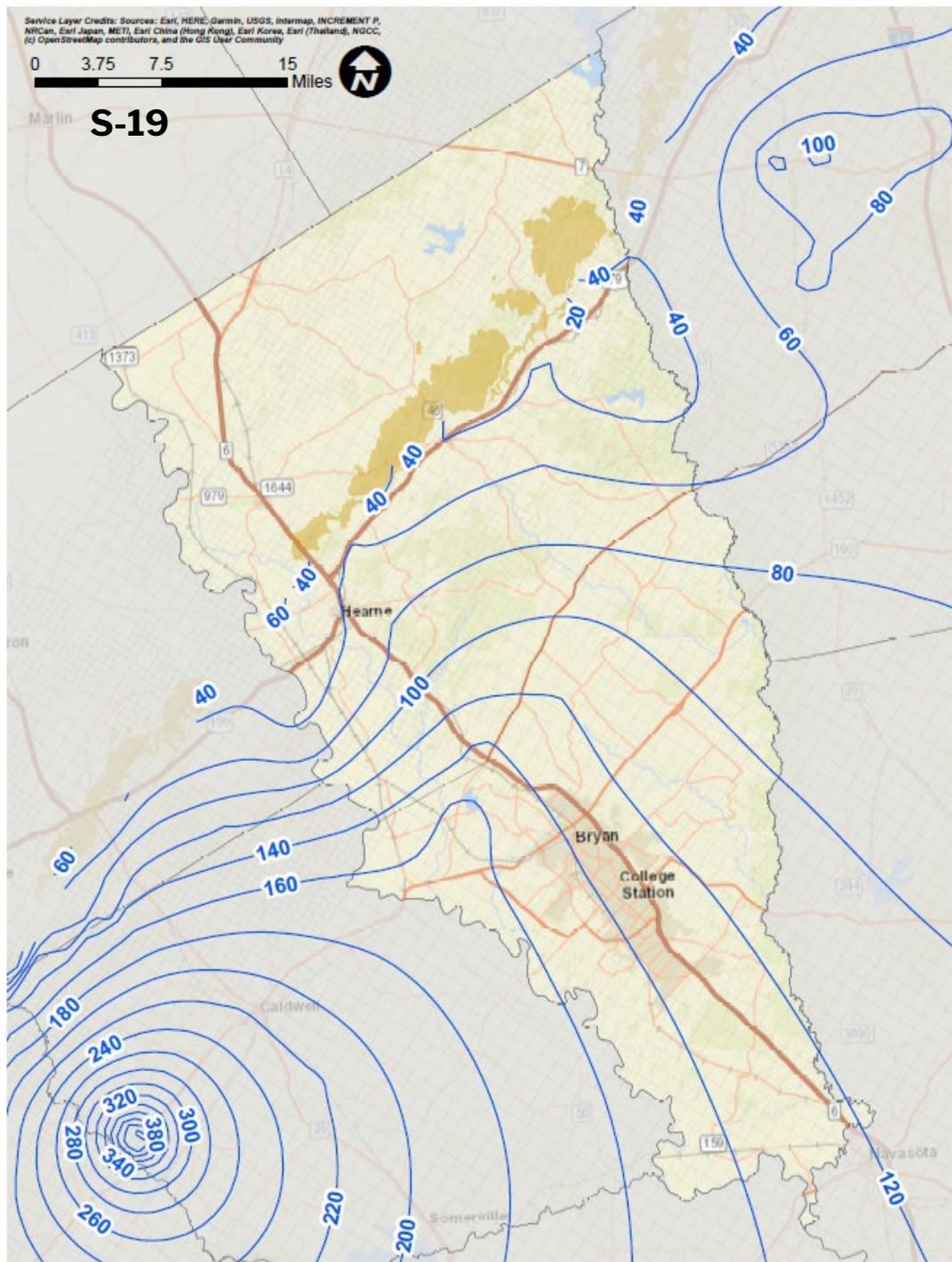
# Simulated BVGCD Carrizo Aquifer Permitted Well Locations



# Comparison of Simulated Pumping in Carrizo



# Simulated Carrizo Aquifer Drawdown 2000-2070

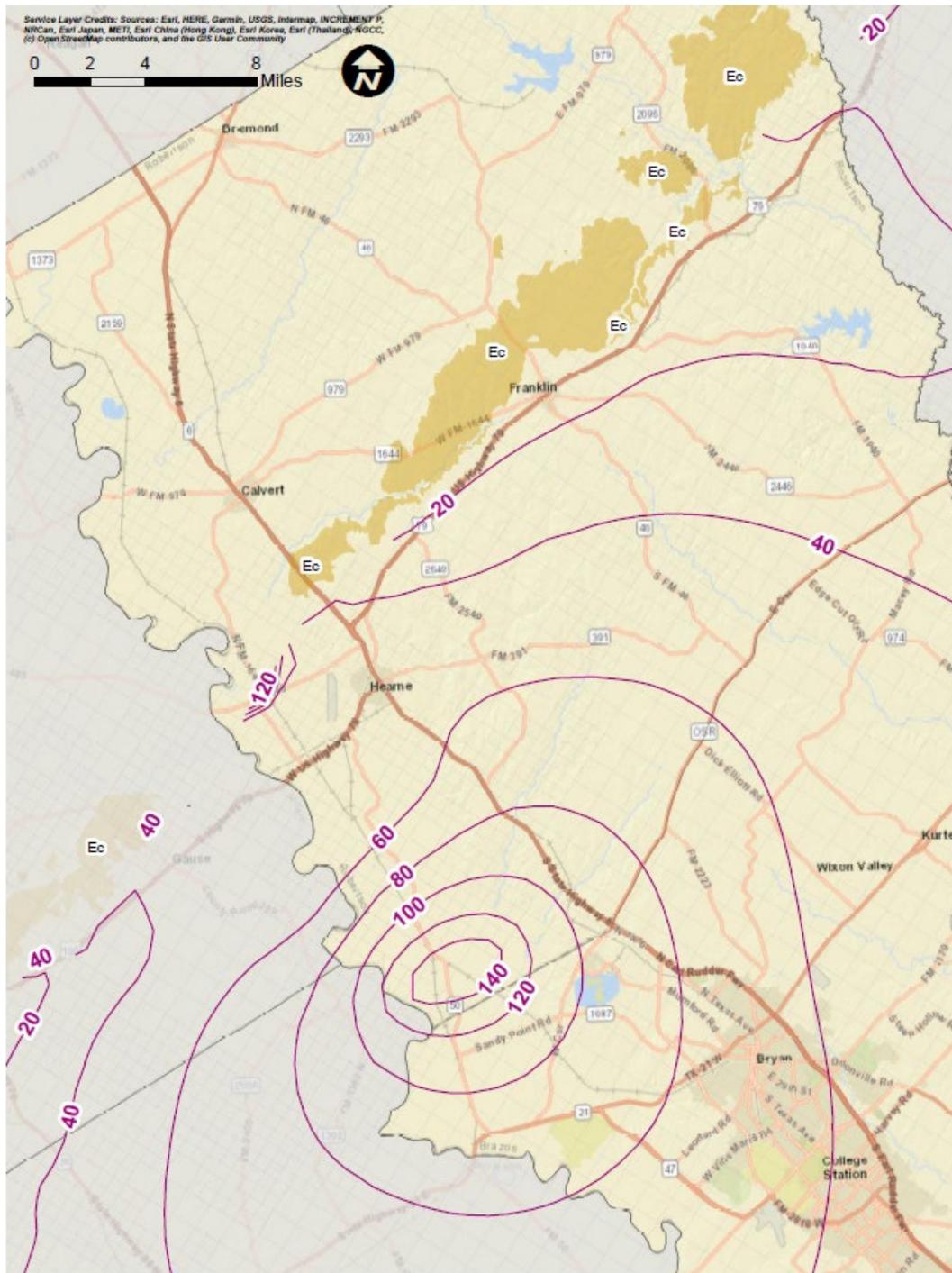


Drawdown Contour (ft)  
Contour Interval = 20 feet

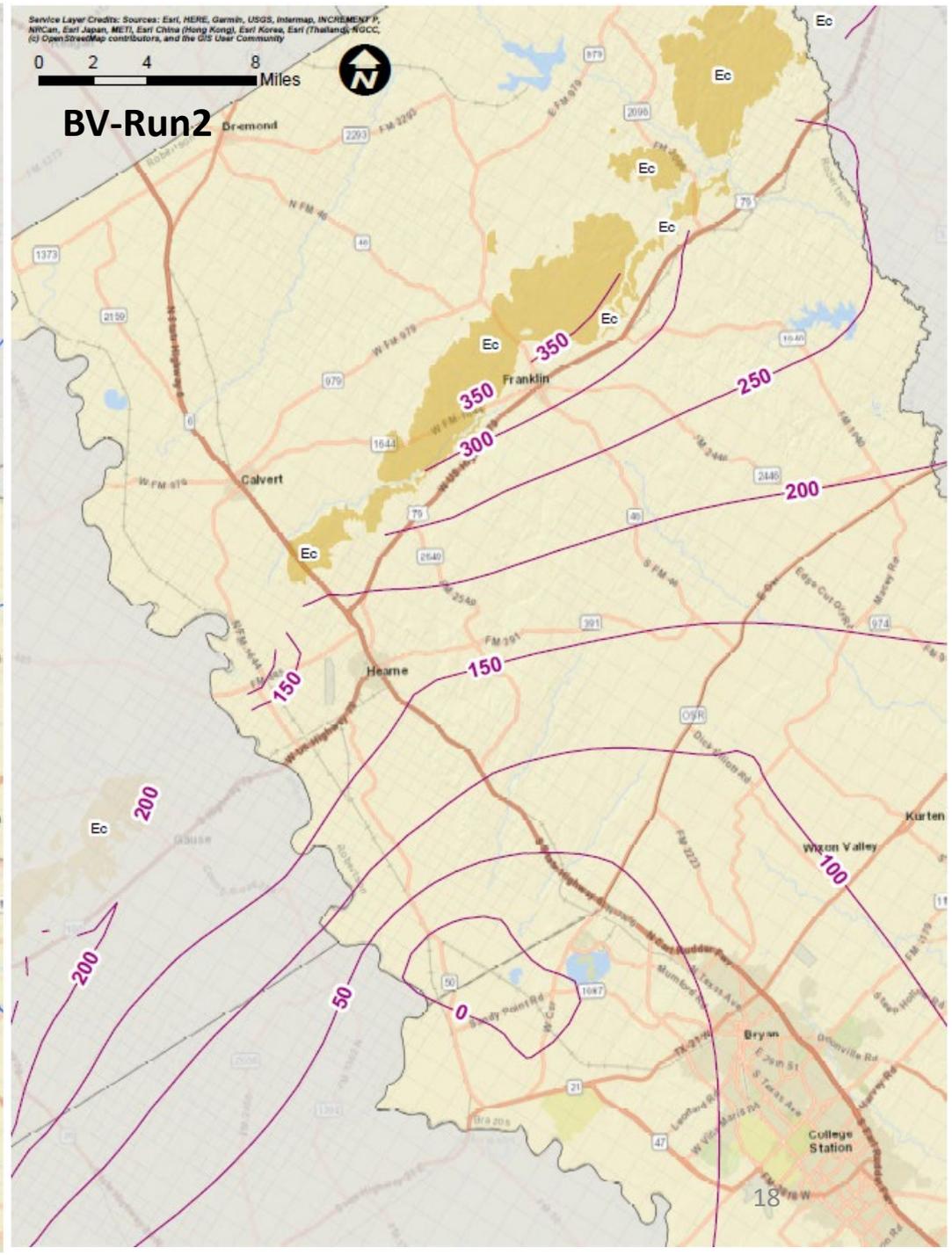
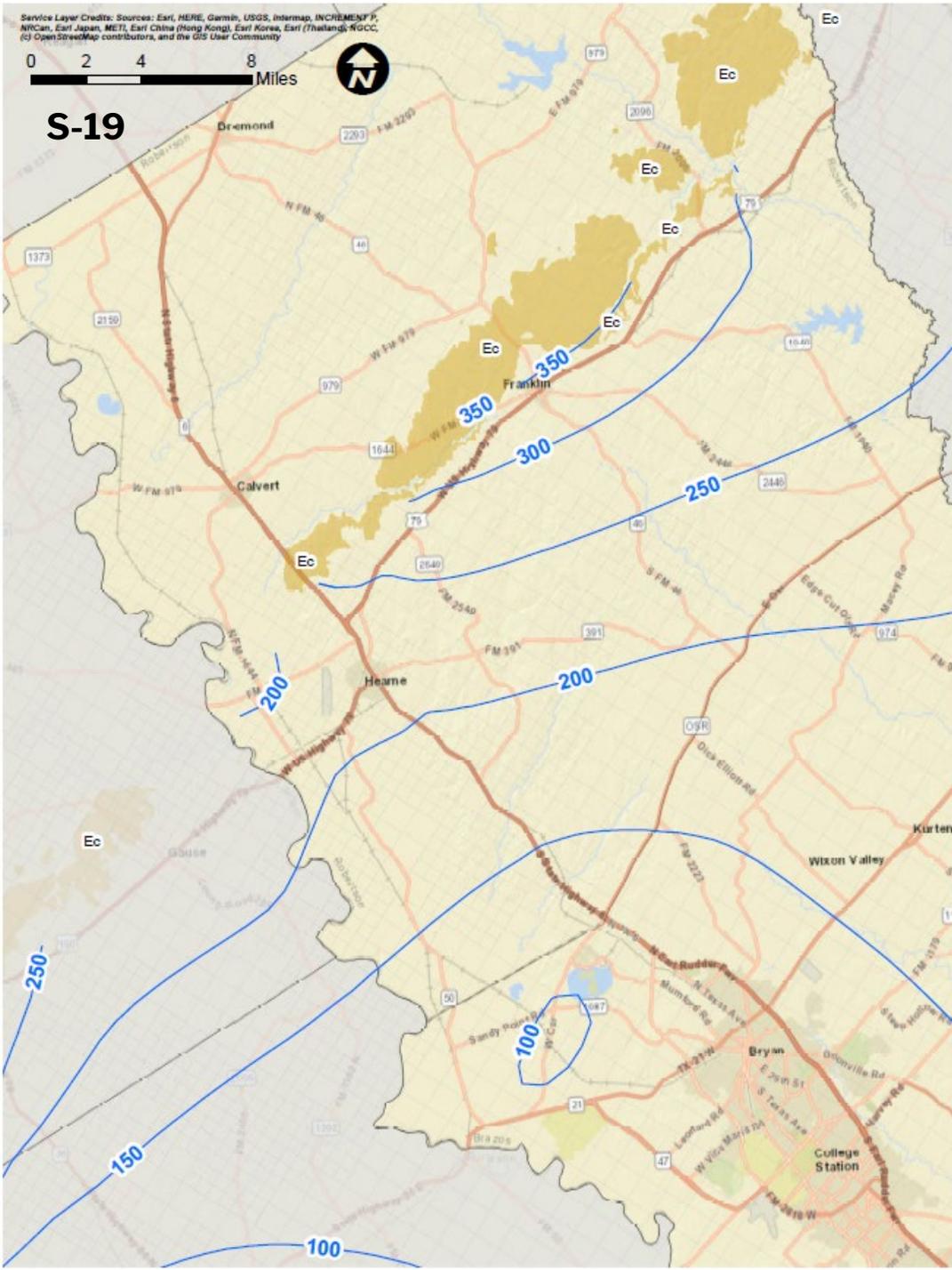
# Additional Simulated Drawdown in the Carrizo Aquifer Due to Permitted Pumping Issued Following the Development of the S-19 Well File

Additional Drawdown = S-19 minus BV-Run2

Drawdown Difference Contour (ft)  
Contour Interval = 20 feet

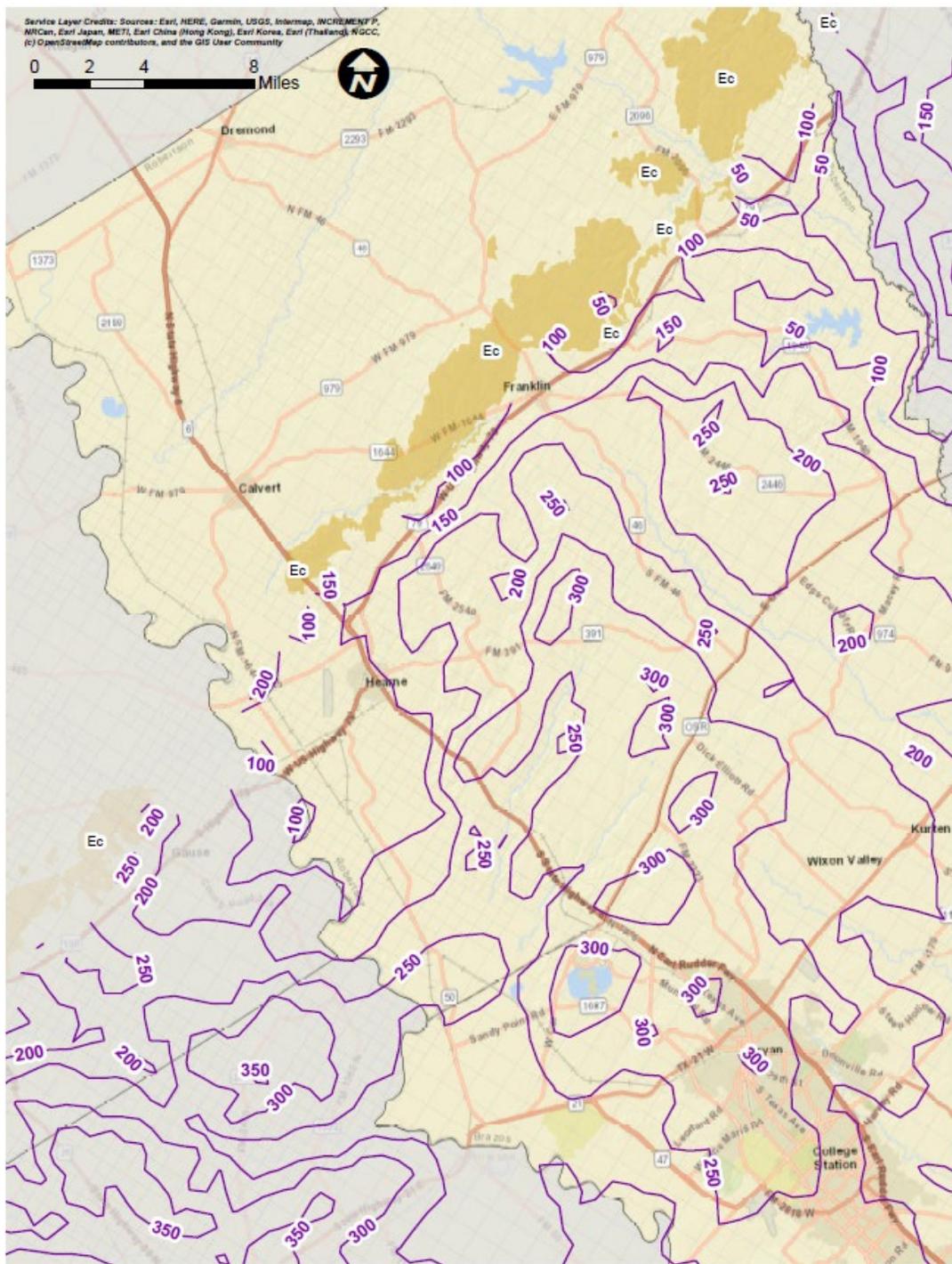


# Simulated Carrizo Aquifer Water Level /Head Elevations at 2070



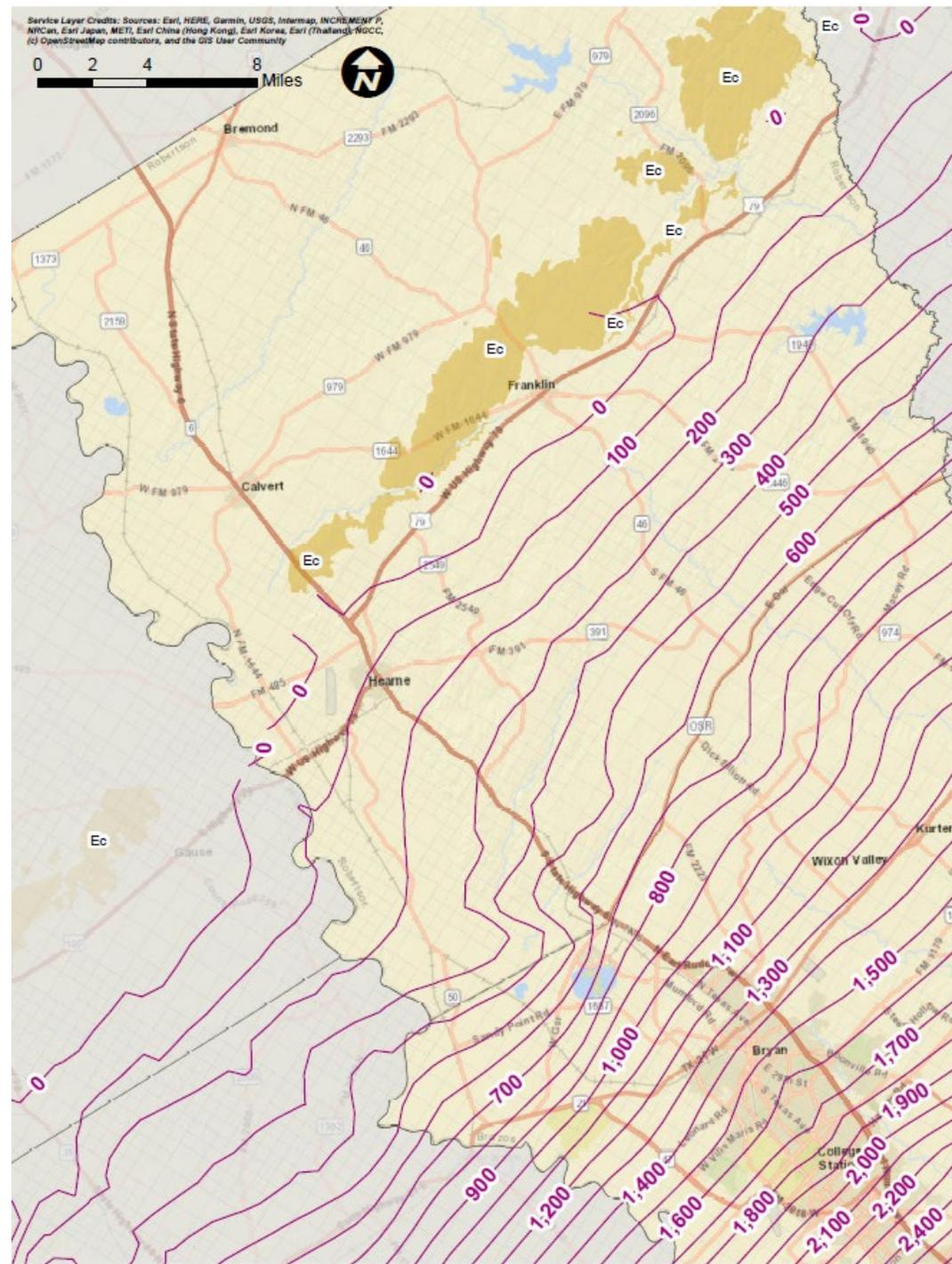
Head Contour (ft, rsl)  
Contour Interval = 50 feet

# Simulated Depth to Water in the Carrizo Aquifer at 2070

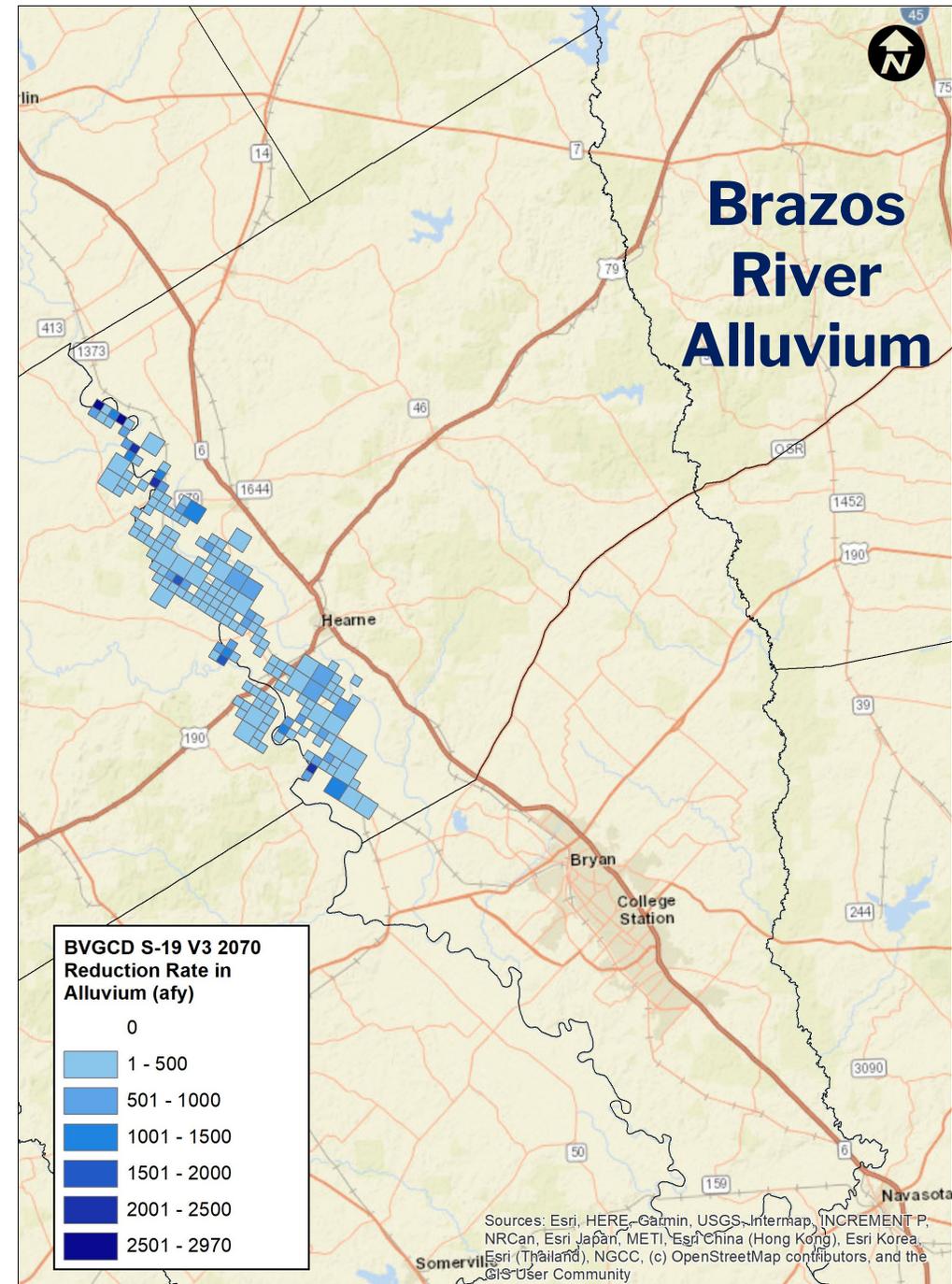
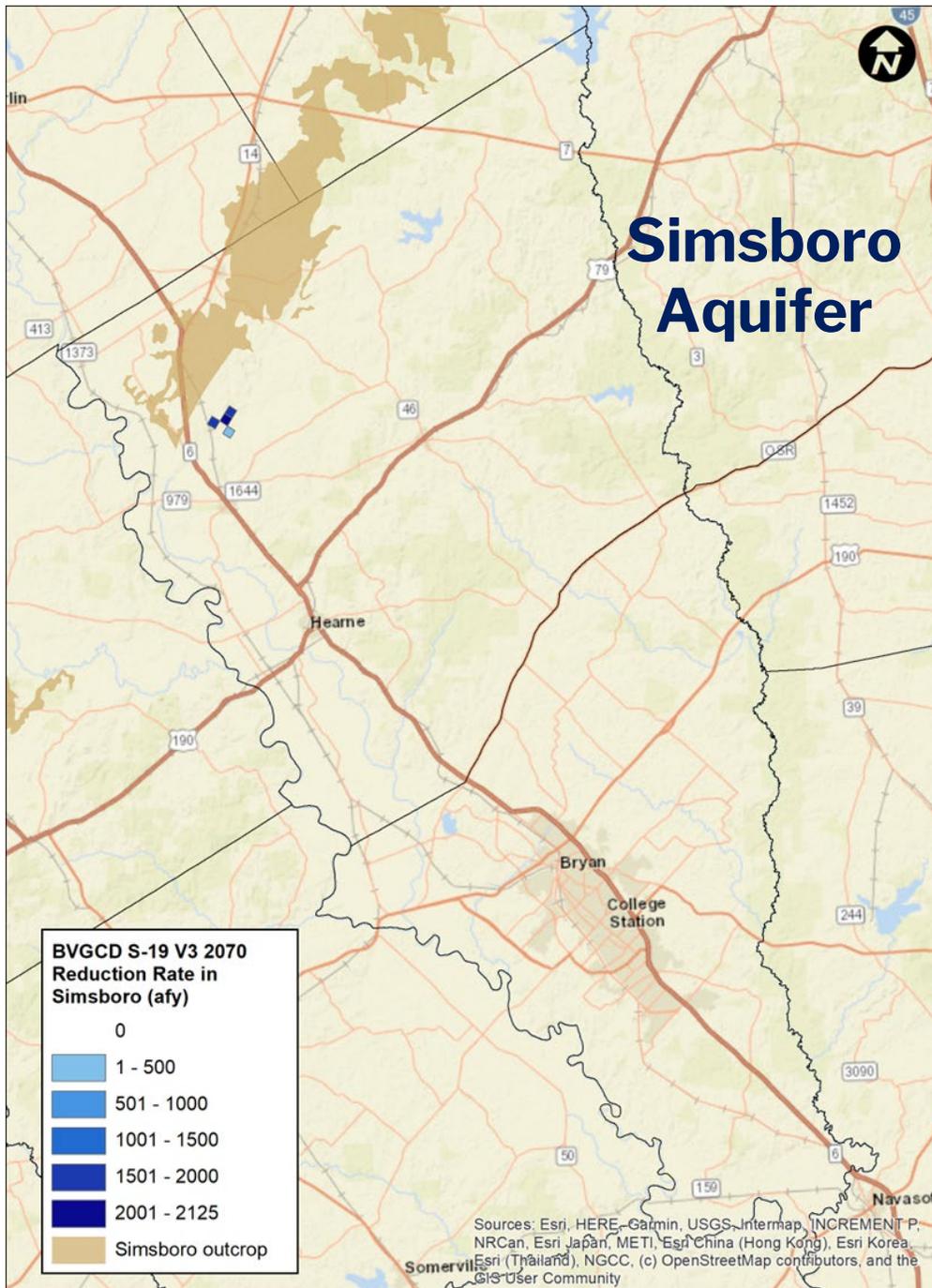


Water level Depth Contour (ft, rls)  
Contour Interval = 50 feet

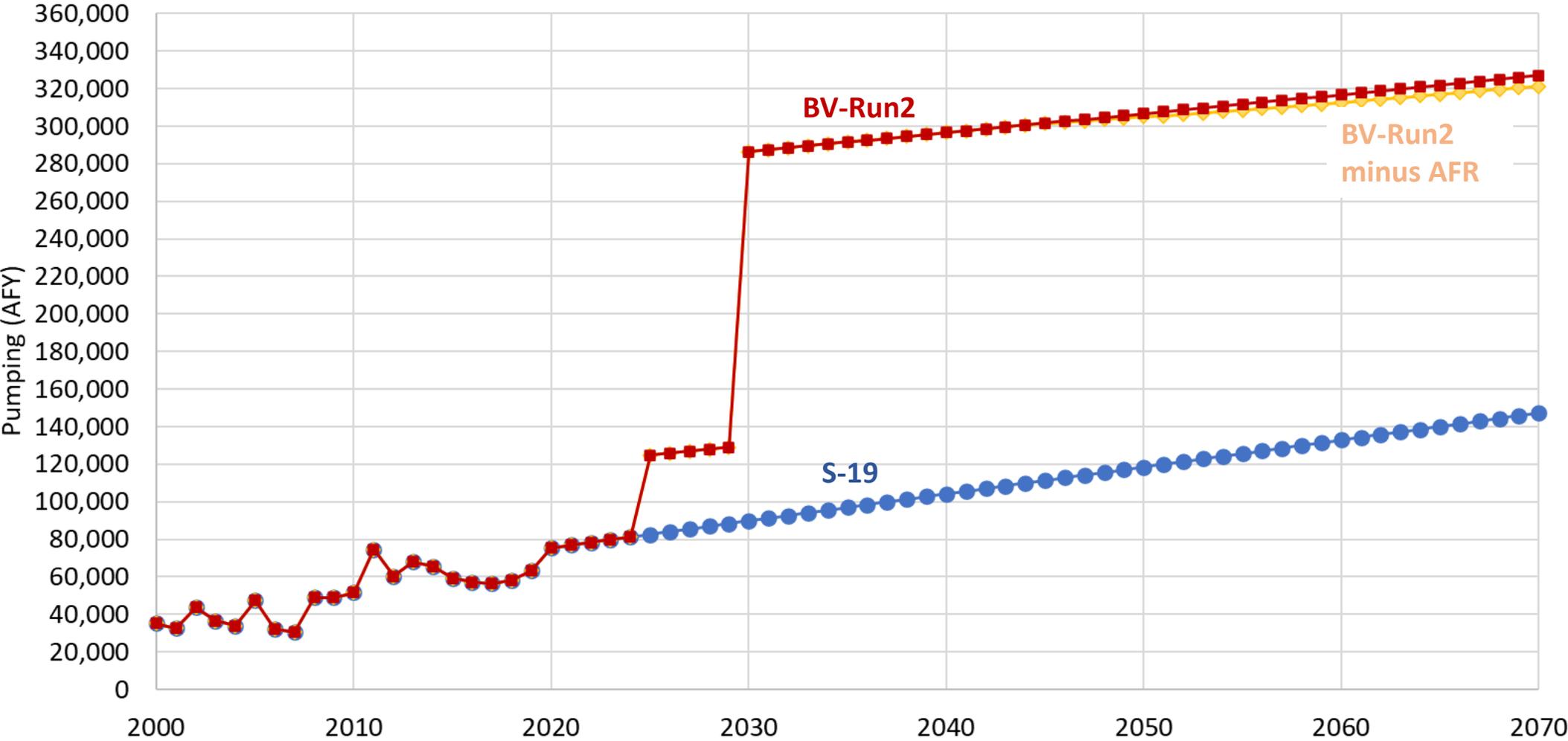
# Simulated Remaining Available Drawdown above the top of the Carrizo Aquifer at 2070



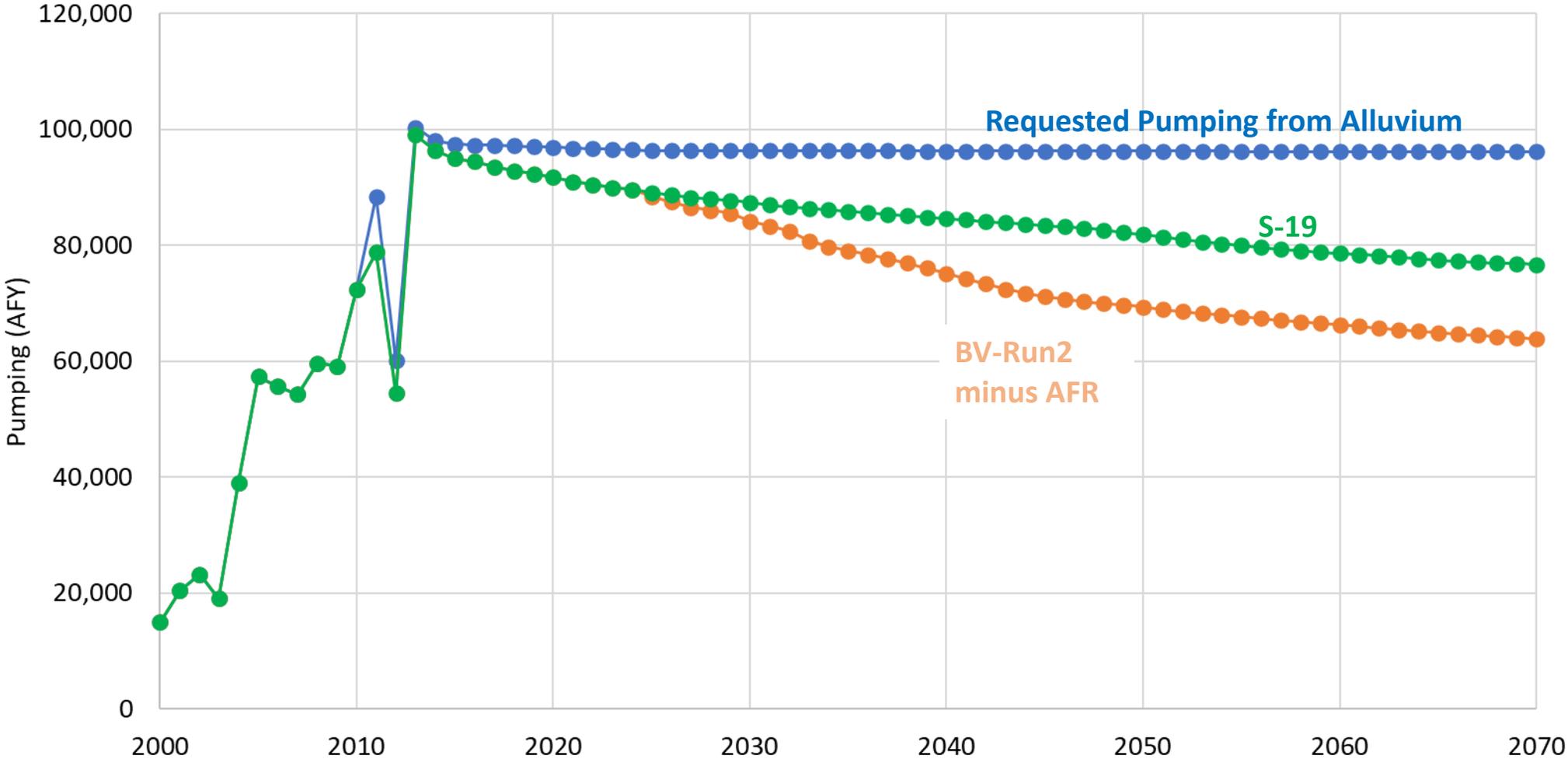
**Locations of  
MODFLOW-USG  
Auto Flow  
Reduction (AFR)  
in the  
Simsboro Aquifer  
and Brazos River  
Alluvium**



# Simulated AFR in Simsboro by MODFLOW-USG



# Simulated AFR in Brazos River Alluvium by MODFLOW-USG



# Average Simulated BVGCD Drawdown Through Time

