

# ASSUMPTIONS

- Pumping file construction
  - Baseline S-19
  - Starting in 2025
    - Removed pumping above 100 af/yr from cells in Layers 3 - 10
    - Replaced pumping rates in cells with values of current permits
  - Allowed auto-flow reduction
- Used publicly available codes for final post-processing
  - Hutchison, 2023 -> GMA12 Post-Processor
  - Hutchison, 2024 -> Percent Remaining Artesian Head

# COMPARISON OF POST-PROCESSING SCRIPTS

|               | 2022<br>DFCs | S-19<br>LRE Script | S-19<br>WH Script<br>“Official” | S-19<br>WH Script<br>“gcdfmd” | S-19<br>WH Script<br>“gcdoa” | Variance |
|---------------|--------------|--------------------|---------------------------------|-------------------------------|------------------------------|----------|
| Sparta        | 22           | 24                 | 25                              | 23                            | 25                           | 14%      |
| Queen City    | 28           | 28                 | 28                              | 27                            | 28                           | 3.7%     |
| Carrizo       | 134          | 141                | 141                             | 142                           | 141                          | 6.0%     |
| Calvert Bluff | 132          | 138                | 137                             | 138                           | 137                          | 4.5%     |
| Simsboro      | 240          | 248                | 246                             | 247                           | 246                          | 3.3%     |
| Hooper        | 138          | 139                | 135                             | 136                           | 135                          | 3.0%     |

# PS4-1 DRAWDOWN BY DISTRICT AND LAYER

| ft in Outcrop* | Sparta | Queen City | Carrizo | Calvert Bluff | Sims-boro | Hooper |
|----------------|--------|------------|---------|---------------|-----------|--------|
| BVGCD          | 7      | 55         | 21      | 5             | 2         | 5      |
| FCGCD          | 162    | -          | -       | -             | -         | -      |
| LPGCD          | 5      | 45         | 19      | 10            | 4         | 8      |
| METGCD         | 1      | 2          | 3       | 2             | 2         | 2      |
| POSGCD         | 9      | 41         | 56      | 13            | 3         | 6      |

| ft in Subcrop^ | Sparta | Queen City | Carrizo | Calvert Bluff | Sims-boro | Hooper |
|----------------|--------|------------|---------|---------------|-----------|--------|
| BVGCD          | 60     | 51         | 118     | 203           | 451       | 287    |
| FCGCD          | 43     | 76         | 154     | 210           | 370       | 209    |
| LPGCD          | 30     | 37         | 206     | 231           | 453       | 252    |
| METGCD&        | 6      | 12         | 9       | 28            | 97        | 63     |
| POSGCD         | 66     | 34         | 181     | 317           | 632       | 377    |

Hutchison's GMA12 Post-Processor: ^Official Aquifer Area by GCD and model layer  
 \*Official Aquifer Area by GCD and outcrop area  
 &Full Model Domain by GCD and model layer