GMA 12

S-15 Model Results

by

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LPGCD Simsboro DFC

- Current drawdown in S-12 for the Simsboro is 313 feet
- LPGCD Board wants to keep the Simsboro DFC at 240 feet or less
- Modified S-12 to reduce the LPGCD average Simsboro drawdown to ~240 feet

Pumpage Modifications

- Removed Gatehouse permitted pumpage
- Reduced remaining Simsboro pumpage equally by an additional 15%
- LPGCD Simsboro pumpage = 82,839 ac-ft/yr

“S-15” Results

	Sparta	Queen City	Carrizo	Calvert Bluff	Simsboro	Hooper
LPGCD	22	26	126	129	239	137
POSGCD	32	30	161	155	277	178
BVGCD	47	40	72	89	195	136
METGCD	25	21	48	57	76	69
FCGCD	39	63	115	NA	NA	NA

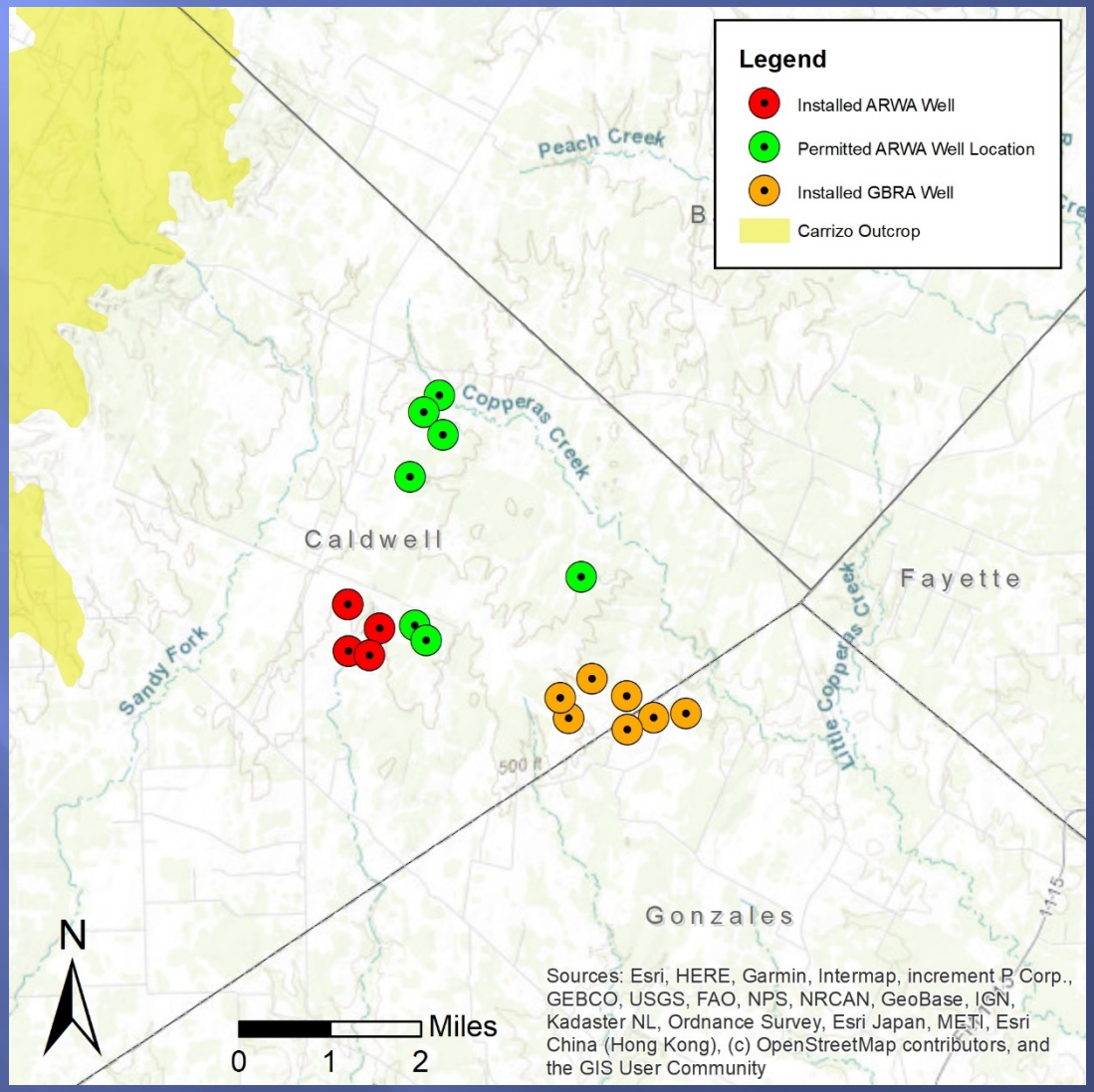
“S-15” Differences

	Sparta	Queen City	Carrizo	Calvert Bluff	Simsboro	Hooper
LPGCD	<1	2	12	27	74	37
POSGCD	<1	<1	11	25	61	39
BVGCD	1	1	4	9	21	17
METGCD	<1	<1	2	3	6	5
FCGCD	1	3	8	0	0	0

Inclusion of GBRA/ARWA Carrizo Aquifer Pumpage

- Pumpage for GBRA and ARWA projects in Gonzales and Caldwell Counties are not included in GMA 12 simulations
- 31,320 ac-ft/yr between these two projects
- Central GAM significantly underestimates the transmissivity of the Carrizo in the project area and therefore overestimates pumping effects; Southern GAM has similar issues (revisions to the Southern GAM in progress)

GBRA/ARWA


Legend
Installed ARWA Well
Permitted ARWA Well Location
Installed GBRA Well
Carrizo Outcrop
Peach Creek
Copperas Creek
Caldwell
Fayette
Sandy Fork
Little Copperas Creek
Gonzales
N
0
1
2
Miles
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Impact of GBRA/ARWA Carrizo Aquifer Pumpage

- Including all of the pumpage results in an increase in the average Carrizo drawdown for FCGCD (49 feet), LPGCD (15 feet), and POSGCD (3 feet)
- Including half of the pumpage reduces the additional drawdown by 50%
- More investigation is needed to determine how much pumpage to include in simulation to produce an appropriate boundary condition

QUESTIONS?