Updated Wellfile

Presented to GMA12 Consultants

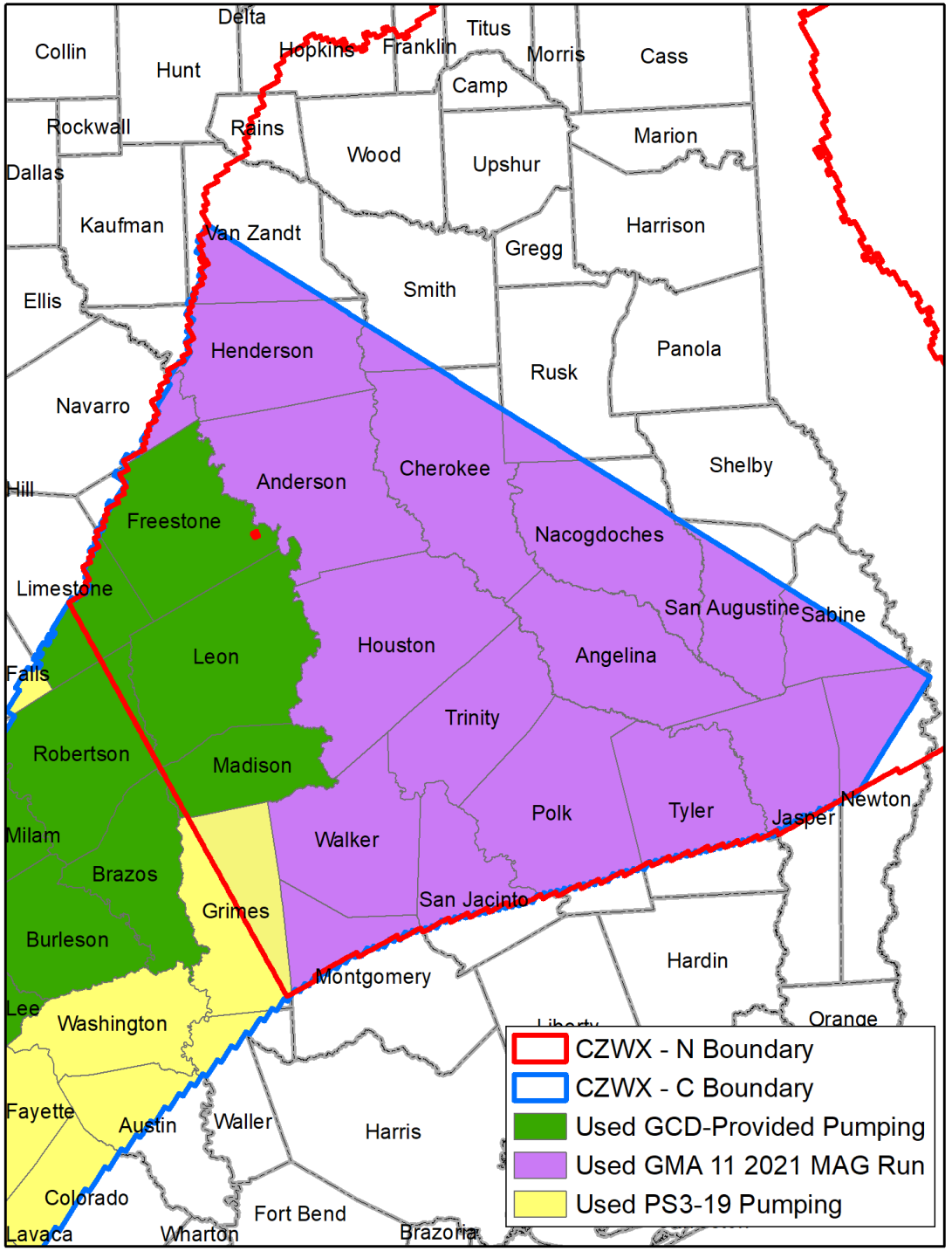
January 22nd, 2026

Translation of GMA11 2021 Joint Planning Pumping to GMA12 Model

- GMA12 = CZWX - C Model
- GMA11 = CZWX - N Model

- For each GMA11 model layer, the centroid of each node was joined to a node of the analogous aquifer in the GMA12 model

- The pumping in the GMA12 node was replaced with the pumping in the GMA11 well file
  - Note that the GMA11 well file has constant pumping from 2014 through 2080



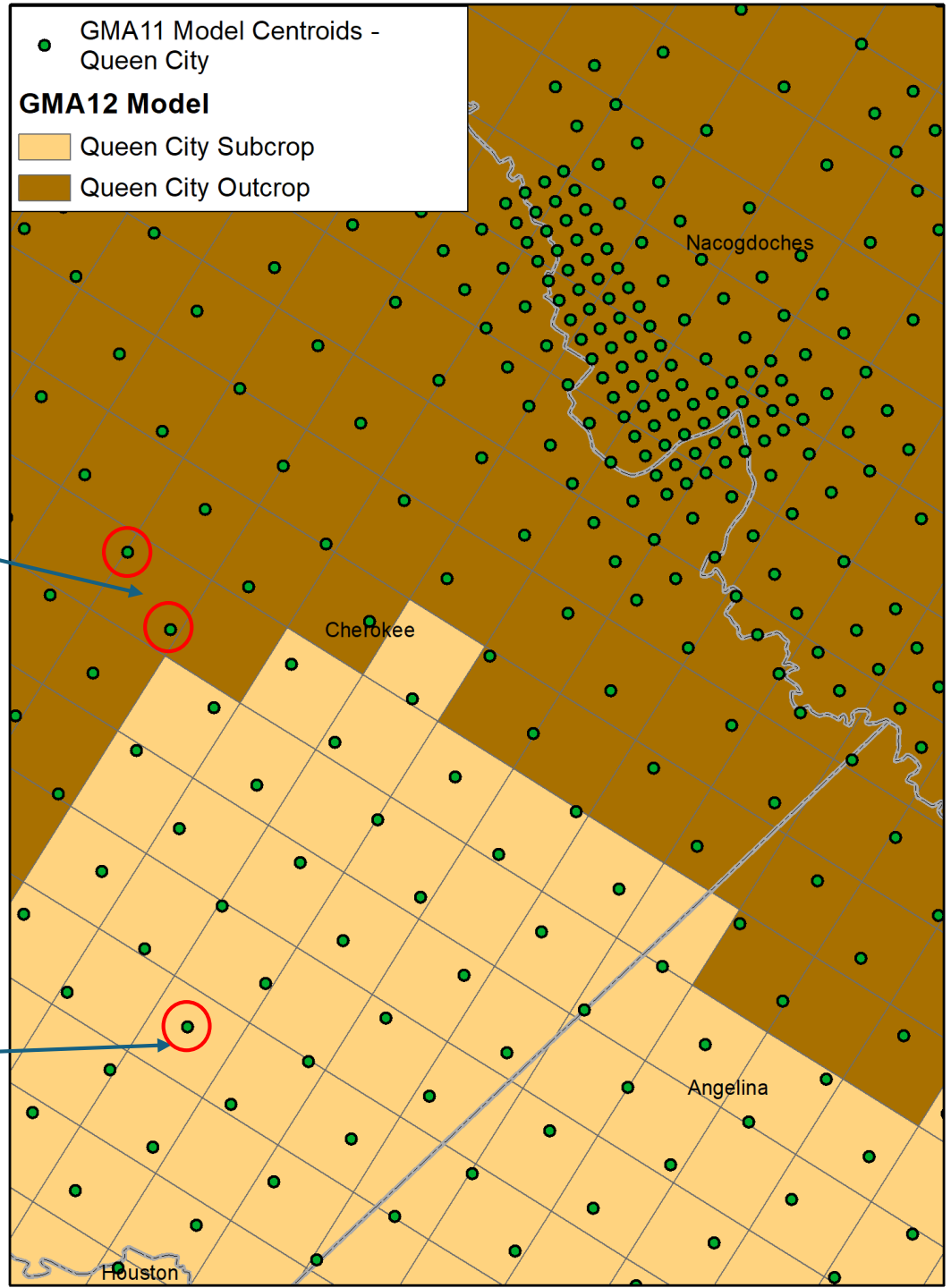
Methodology Cont.

- The GMA11 outcrop status of individual nodes were not accounted for, though pumping was applied to the GMA12 outcrop where appropriate

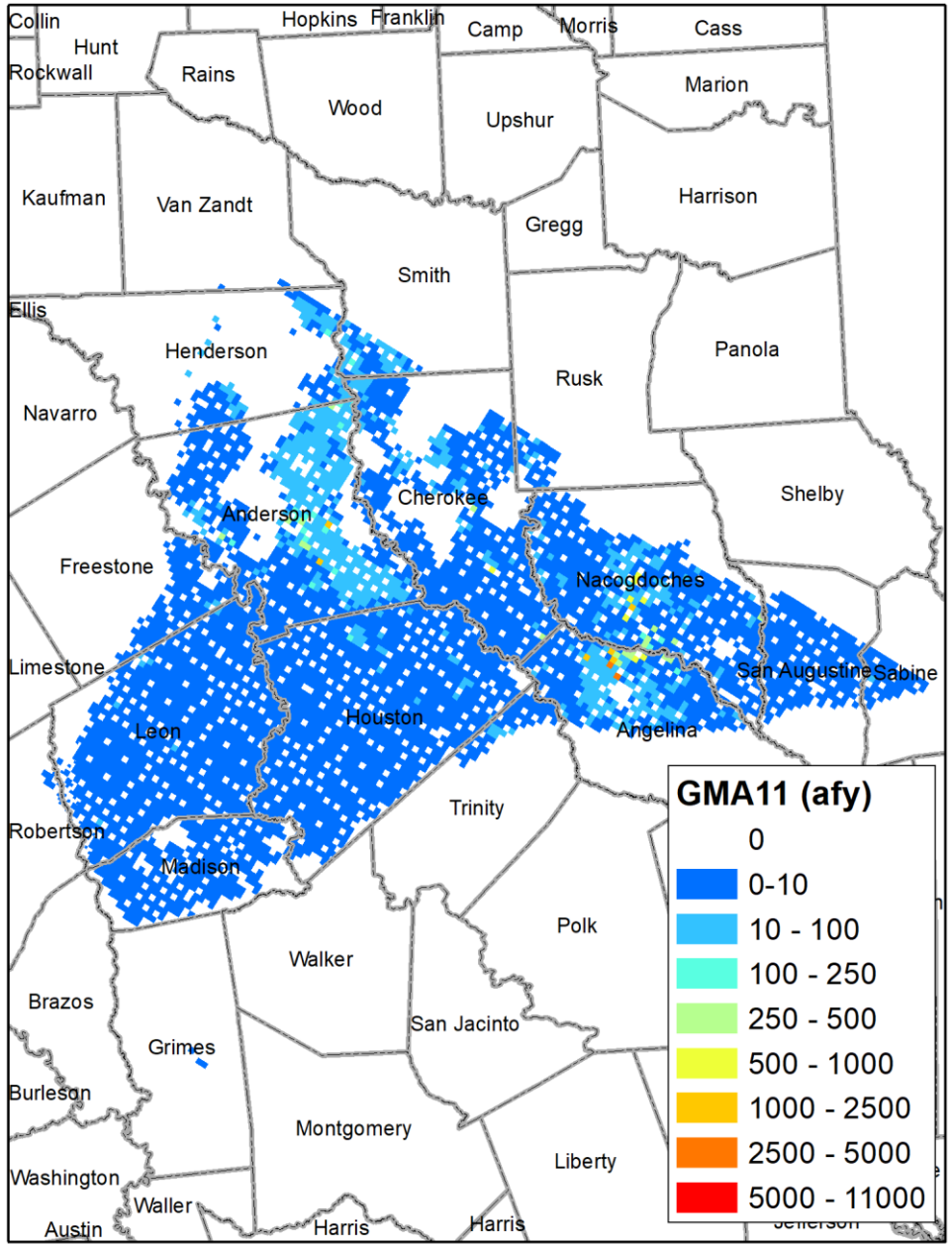
- Pumping is applied entirely to layer 2 where there is no subcrop, or split evenly between layer 2 and the subcrop where there are both

This node gets the pumping from two GMA11 nodes

This node gets the pumping from one GMA11 node



Layer 6 - Carrizo Pumping



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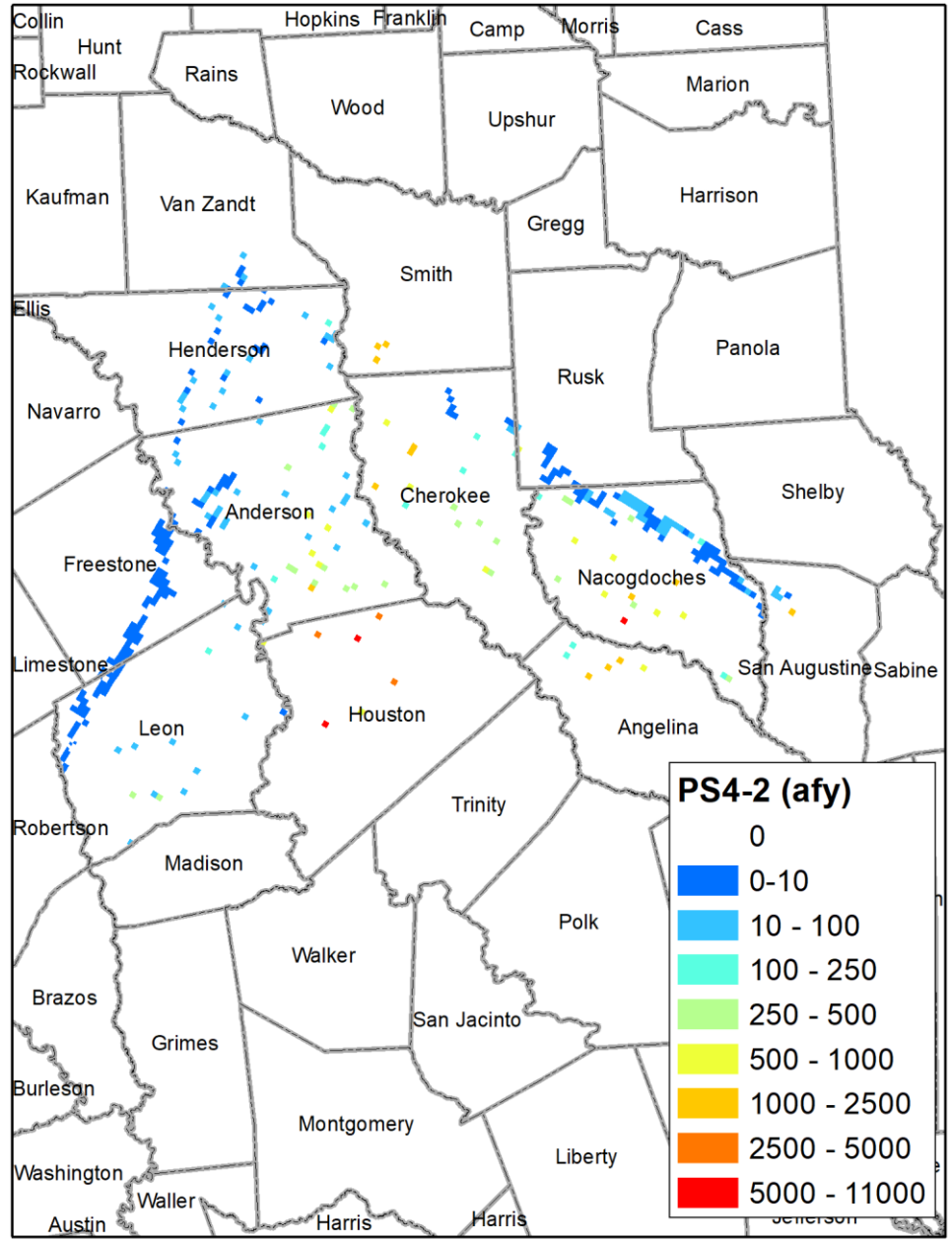
Layers 2/7 - Carrizo Pumping



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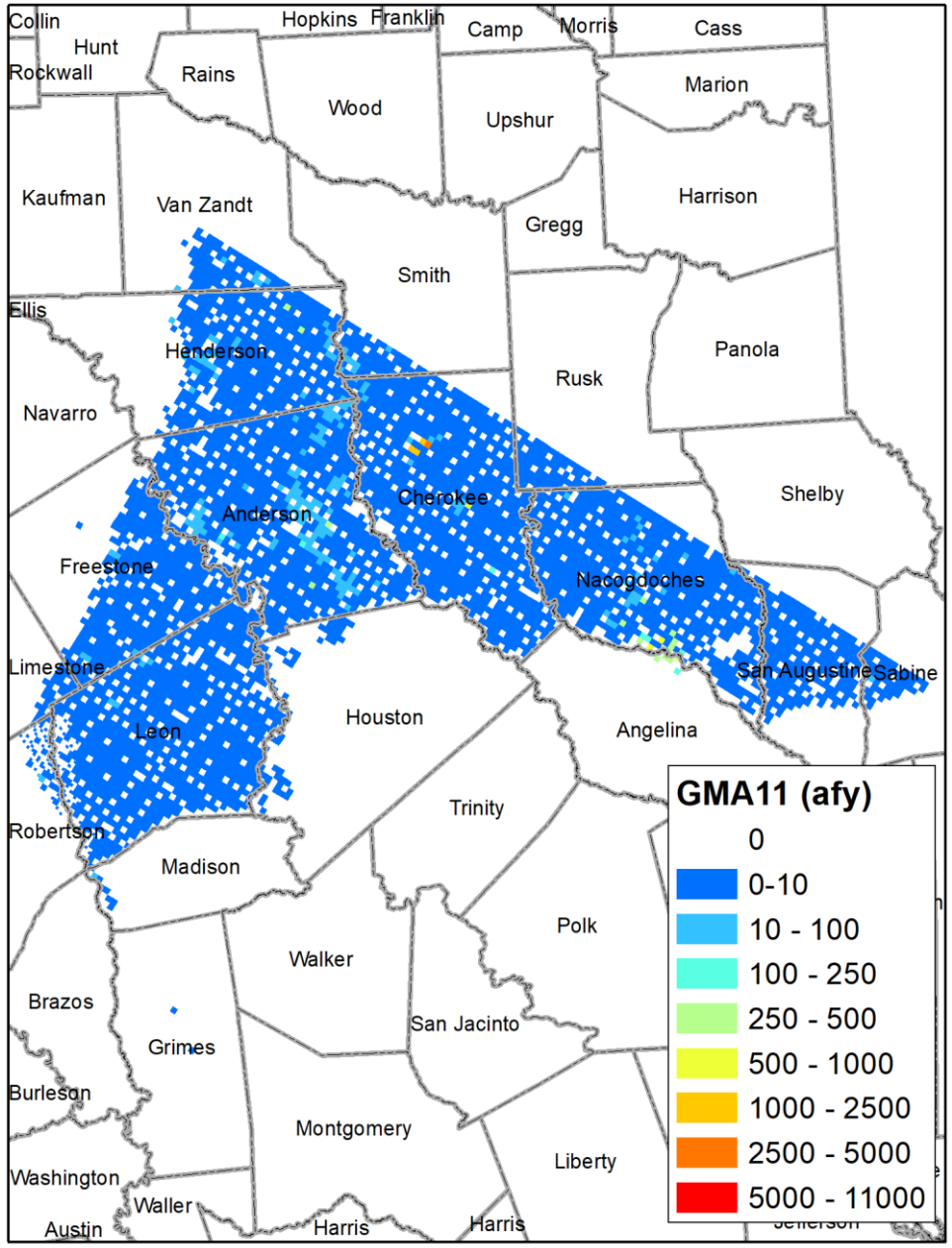
Layer 7 - Upper Wilcox Pumping



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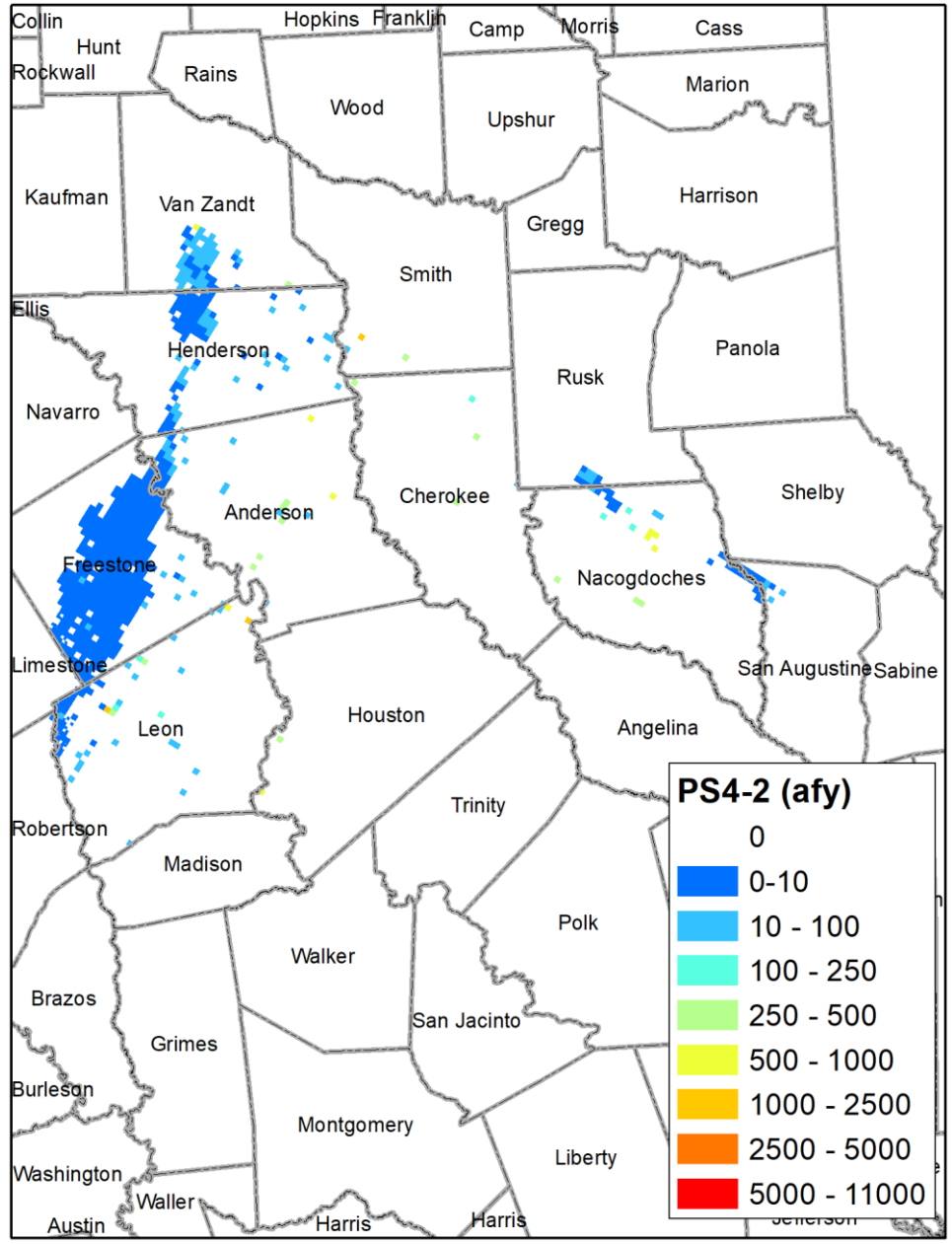
Layers 2/8 - Calvert BluffPumping



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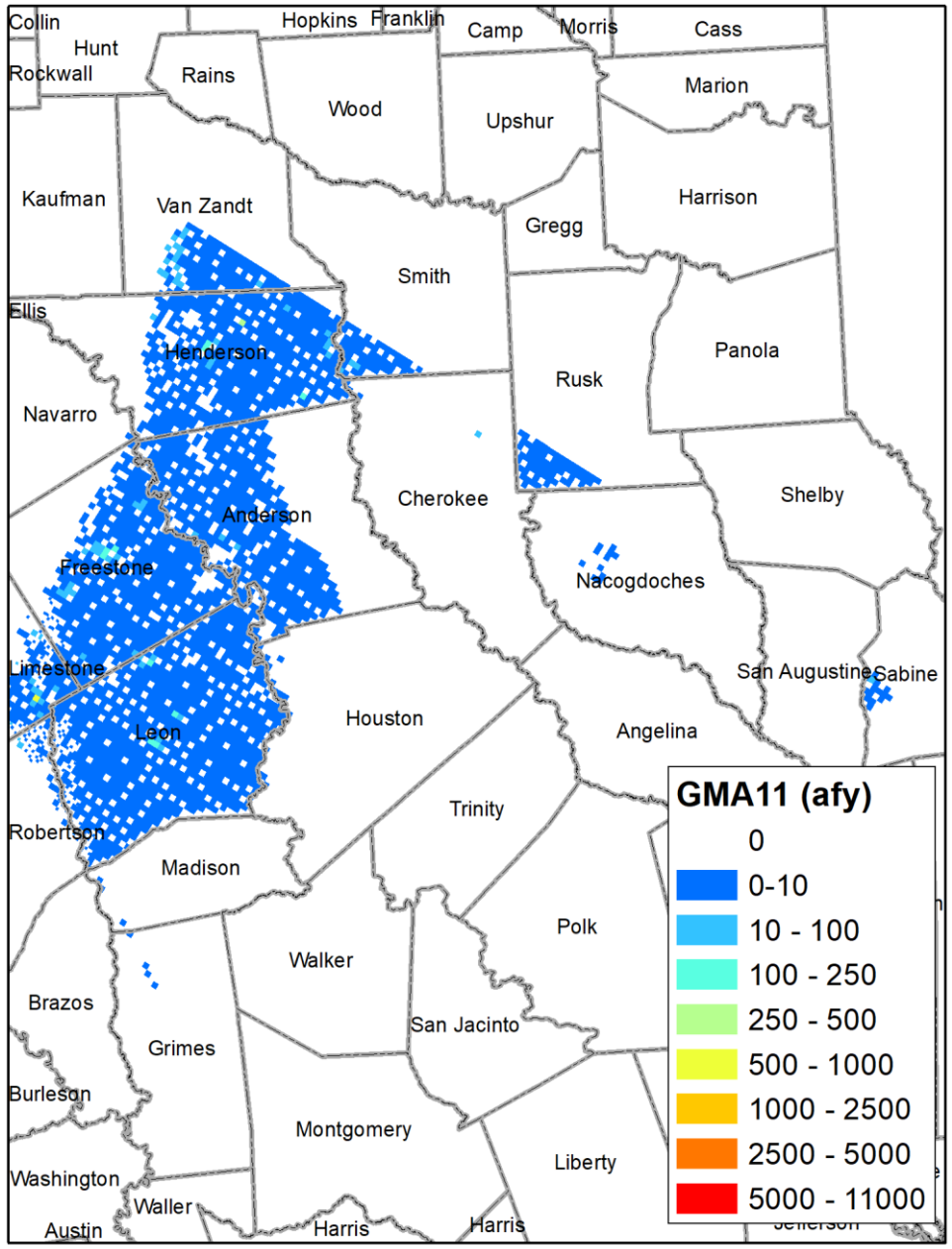
Layer 8 - Middle Wilcox Pumping



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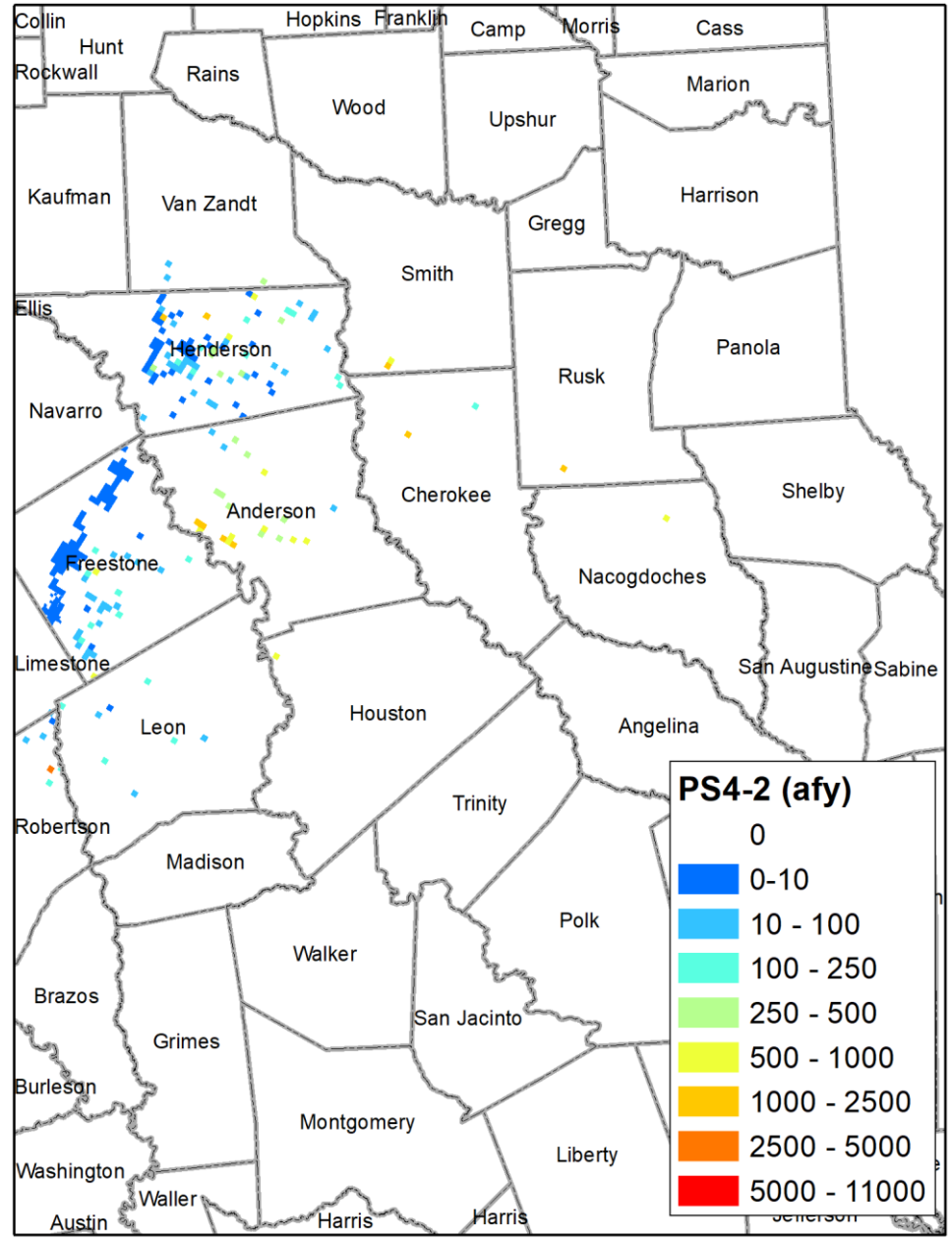
Layers 2/9 - Simsboro Pumping



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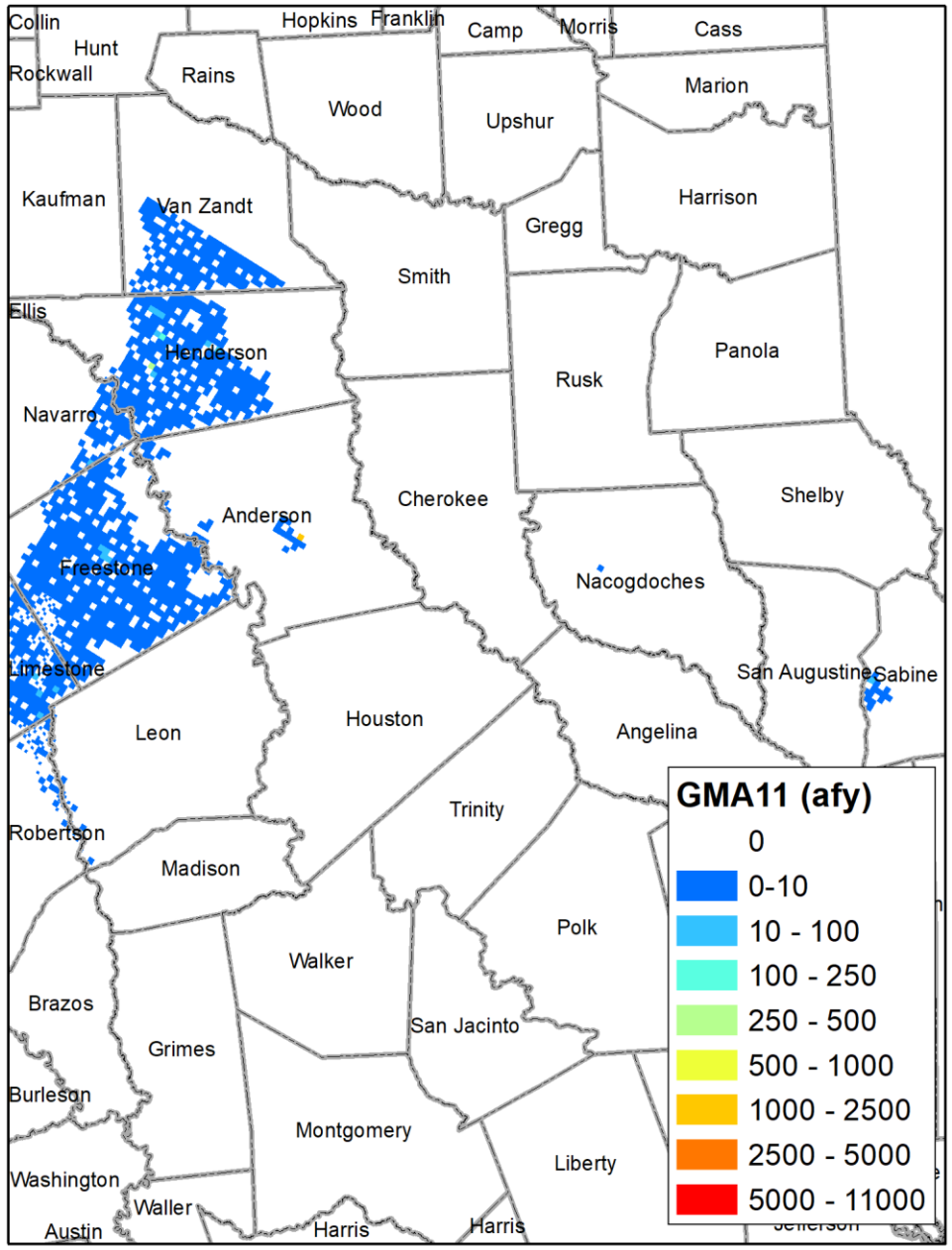
Layer 9 - Lower Wilcox Pumping



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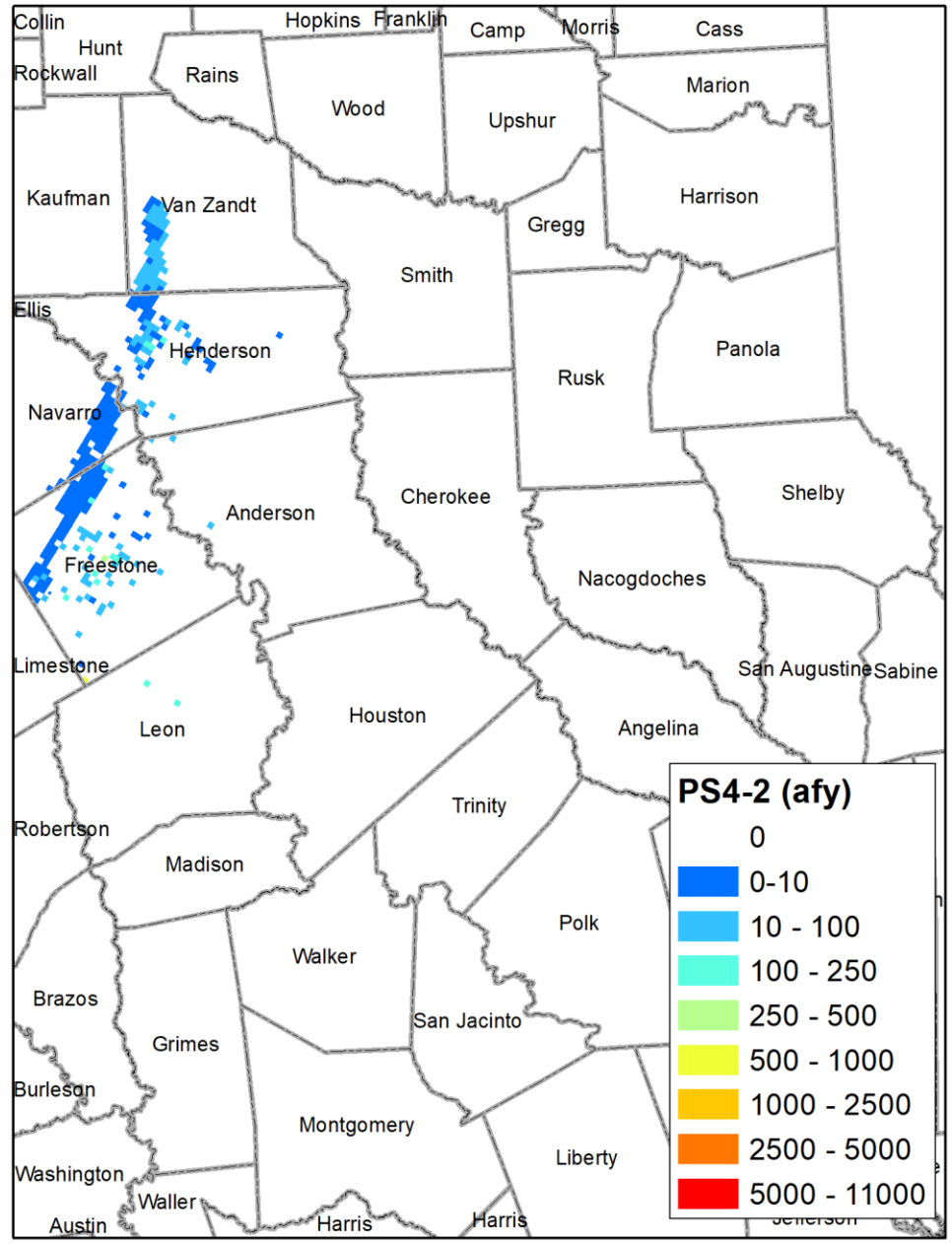
Layers 2/10 - Hooper Pumping



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Pumping Volume Comparison in 2070

- These counties *were* being assigned the flux from PS19, and are now being assigned GMA11 production
- This only accounts for volumes in the overlapping model areas

CENTRAL_AQ	CountyName	ps19_flux	gma11_flux	Difference
Queen City	Anderson	11032	16324	5292
Queen City	Angelina	0	1164	1164
Queen City	Cherokee	5435	8708	3273
Queen City	Grimes	0	0	0
Queen City	Henderson	7974	9694	1720
Queen City	Houston	1940	2106	166
Queen City	Nacogdoches	1288	2776	1488
Queen City	Rusk	22	40	18
Queen City	Smith	2545	4679	2135
Queen City	Van Zandt	48	255	207
Sparta	Anderson	78	300	222
Sparta	Angelina	202	370	168
Sparta	Cherokee	164	343	179
Sparta	Grimes	0	24	24
Sparta	Houston	1763	1472	-291
Sparta	Nacogdoches	1061	341	-720
Sparta	Rusk	6	0	-6
Sparta	Sabine	0	42	42
Sparta	San Augustine	848	156	-692
Sparta	Smith	27	0	-27
Sparta	Trinity	0	146	146

CENTRAL_AQ	CountyName	ps19_flux	gma11_flux	Difference
Calvert Bluff	Anderson	3033	5860	2828
Calvert Bluff	Angelina	0	1702	1702
Calvert Bluff	Cherokee	1204	10759	9555
Calvert Bluff	Grimes	0	5	5
Calvert Bluff	Henderson	539	2287	1748
Calvert Bluff	Houston	988	4	-985
Calvert Bluff	Nacogdoches	4766	6679	1913
Calvert Bluff	Rusk	8	119	111
Calvert Bluff	Sabine	0	121	121
Calvert Bluff	San Augustine	84	51	-33
Calvert Bluff	Smith	2540	390	-2150
Calvert Bluff	Van Zandt	1203	543	-660
Carrizo	Anderson	8876	17993	9117
Carrizo	Angelina	27572	24631	-2941
Carrizo	Cherokee	10088	4721	-5368
Carrizo	Grimes	0	6	6
Carrizo	Henderson	672	1366	695
Carrizo	Houston	24299	2302	-21997
Carrizo	Nacogdoches	17875	14854	-3021
Carrizo	Rusk	621	307	-313
Carrizo	Sabine	0	235	235
Carrizo	San Augustine	1835	93	-1742
Carrizo	Smith	6206	1189	-5017
Carrizo	Trinity	0	232	232
Carrizo	Van Zandt	74	10	-64

Pumping Volume Comparison in 2070

- These counties *were* being assigned the flux from PS19, and are now being assigned GMA11 production
- This only accounts for volumes in the overlapping model areas

CENTRAL_AQ	CountyName	ps19_flux	gma11_flux	Difference
Hooper	Anderson	79	1881	1802
Hooper	Henderson	990	1418	429
Hooper	Nacogdoches	0	1	1
Hooper	Navarro	32	97	65
Hooper	Sabine	0	86	86
Hooper	Van Zandt	168	442	274
Simsboro	Anderson	14705	399	-14306
Simsboro	Cherokee	2357	27	-2330
Simsboro	Grimes	0	13	13
Simsboro	Henderson	8404	1668	-6736
Simsboro	Houston	527	1	-526
Simsboro	Nacogdoches	748	22	-726
Simsboro	Navarro	0	1	1
Simsboro	Rusk	1196	41	-1155
Simsboro	Sabine	0	86	86
Simsboro	Smith	2593	181	-2412
Simsboro	Van Zandt	434	708	274

Aquifer	Total PS19 Flux	Total GMA11 Flux
Calvert Bluff	14,366	28,521
Carrizo	98,118	67,939
Hooper	1,269	3,926
Queen City	30,283	45,746
Reklaw	720	-
Simsboro	30,963	3,148
Sparta	4,150	3,195
Weches	452	-
Grand Total	**180,320**	**152,475**

County	Total PS19 Flux	Total GMA11 Flux
Anderson	37,948	42,757
Angelina	27,832	27,868
Cherokee	19,448	24,558
Grimes	-	48
Henderson	18,710	16,434
Houston	29,580	5,886
Nacogdoches	26,218	24,674
Navarro	32	98
Rusk	1,865	507
Sabine	-	571
San Augustine	2,803	300
Smith	13,911	6,439
Trinity	-	378
Van Zandt	1,973	1,958
Grand Total	**180,320**	**152,475**

- PS19 Total flux in all overlapping counties/aquifers (and not GCD-supplied pumping): 180,320 acrefeet

- GMA11 Total flux in all overlapping counties/aquifers (and not GCD-supplied pumping): 152,475 acrefeet

Compilation of Updated PS4-2 Run

- Pumping within GMA 12 GCD boundaries use most up-to-date pumping files provided by their respective consultants
  - This includes Limestone and Williamson Counties
- Pumping in Falls, Gonzales, Fayette, Washington, *Grimes, Austin, Colorado, and Waller counties use PS3-19
- Pumping in other counties which fall inside the GMA11 model use GMA11 pumping
- Pumping in other counties which fall inside the GMA13 model use GMA13 pumping

*Grimes county lies within both the GMA12 and GMA11 models