

Red River GCD Board Meeting

June 18, 2020

Agenda Item 10

- 💧 Consider and act upon authorizing the District's GMA 8 representative to approve participation in Groundwater Availability Model Run 11.

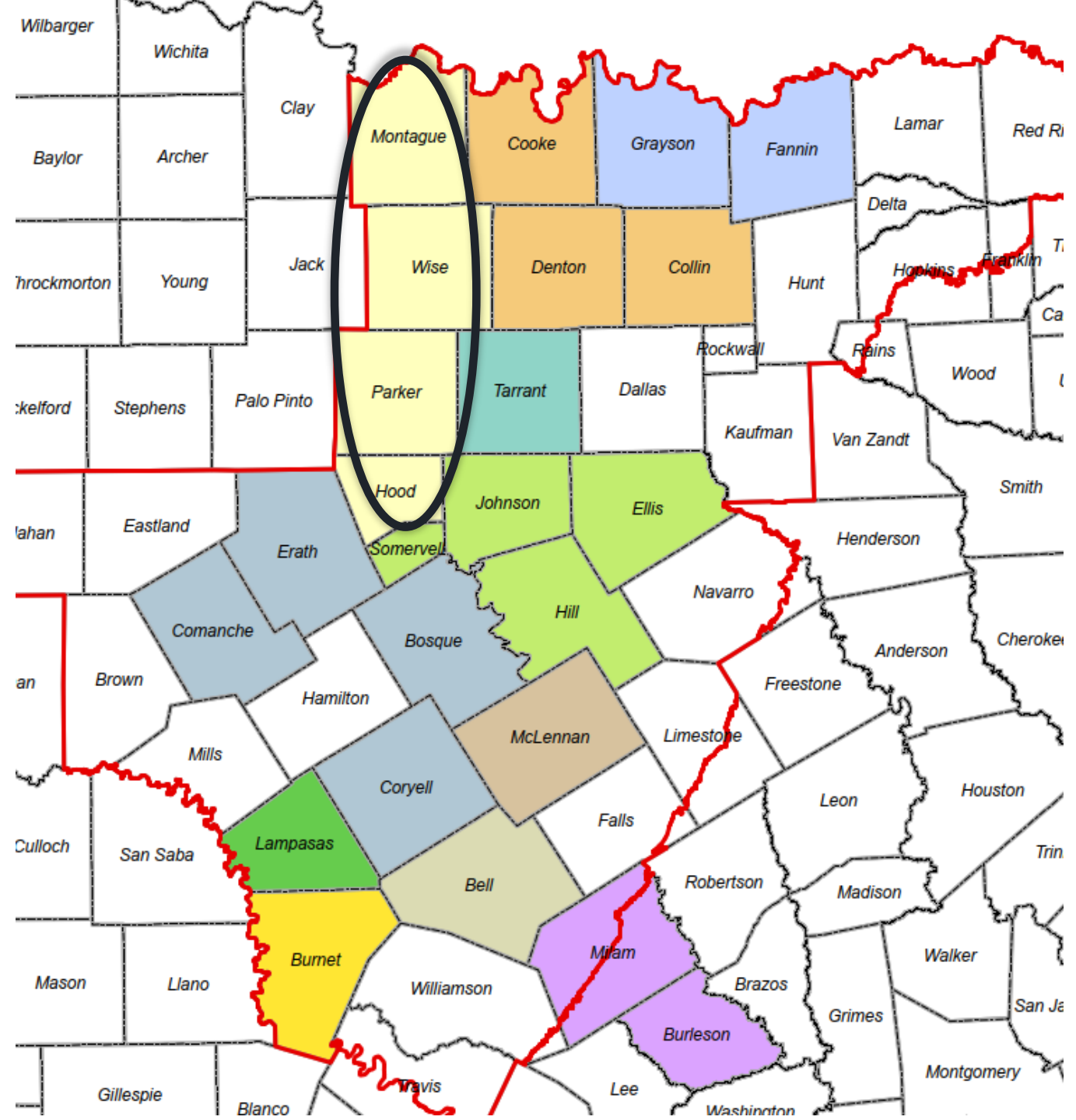
GMA 8 Schedule to Discuss Nine Factors

November 2019		
Environmental Impacts	Subsidence Impacts	Hydrological Conditions
February 2020		
Aquifer Uses or Conditions	Supply Needs & Management Strategies	Private Property Rights
May 2020		
Socioeconomic Impacts	DFC Feasibility	Other Relevant Information

Run 11 Results - DFC

- Extend Run 11 ten years to run through 2080.
- Average recharge (same as Run 10) was used from the start of the run until the end of 2077. From 2078 through end of 2080 the drought of record recharge was used.
- Pumping was altered for 4 GCDs, and two counties.

GMA 8 Changes to pumping for proposed Run 11

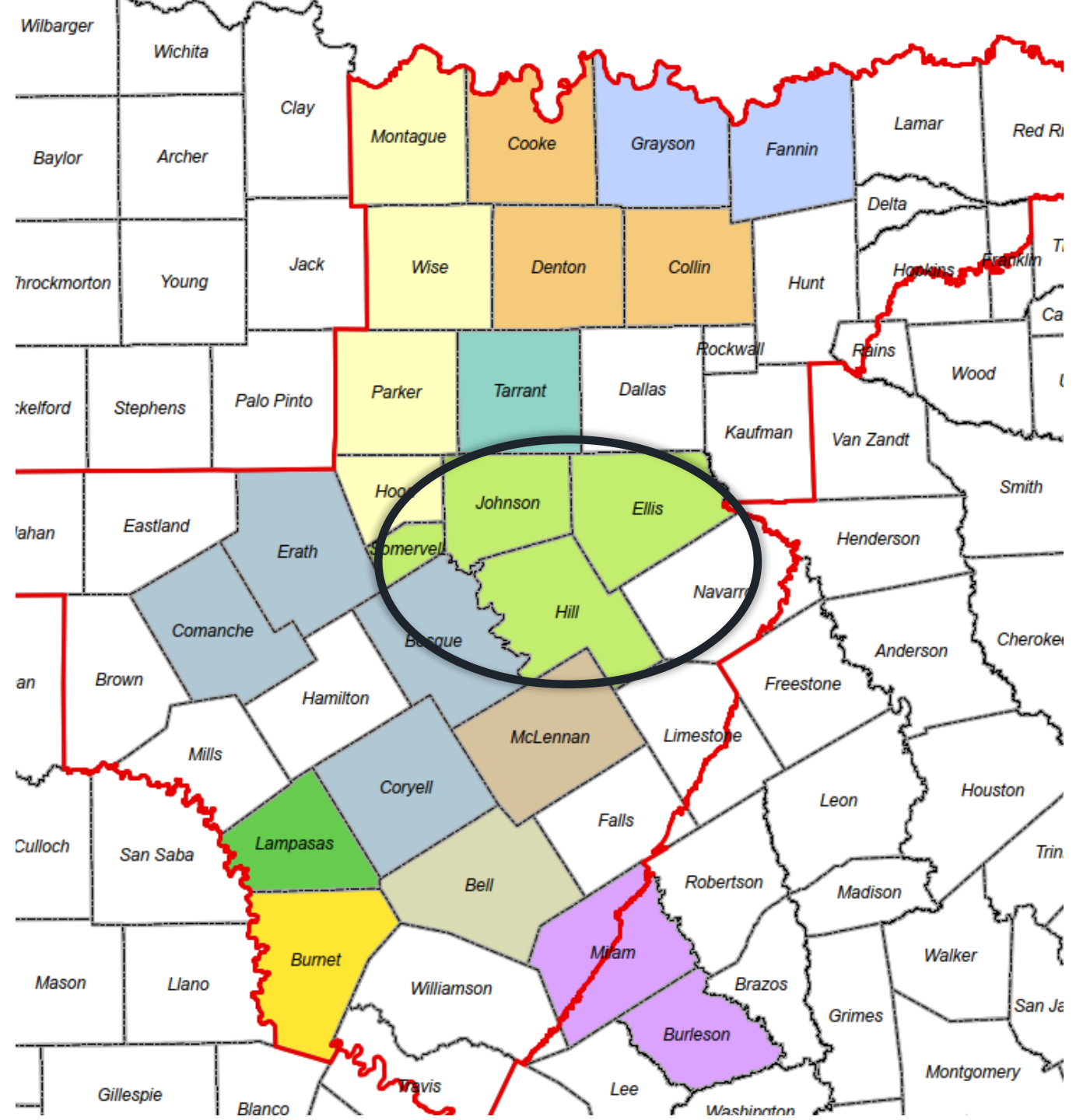


Upper Trinity GCD Pumping

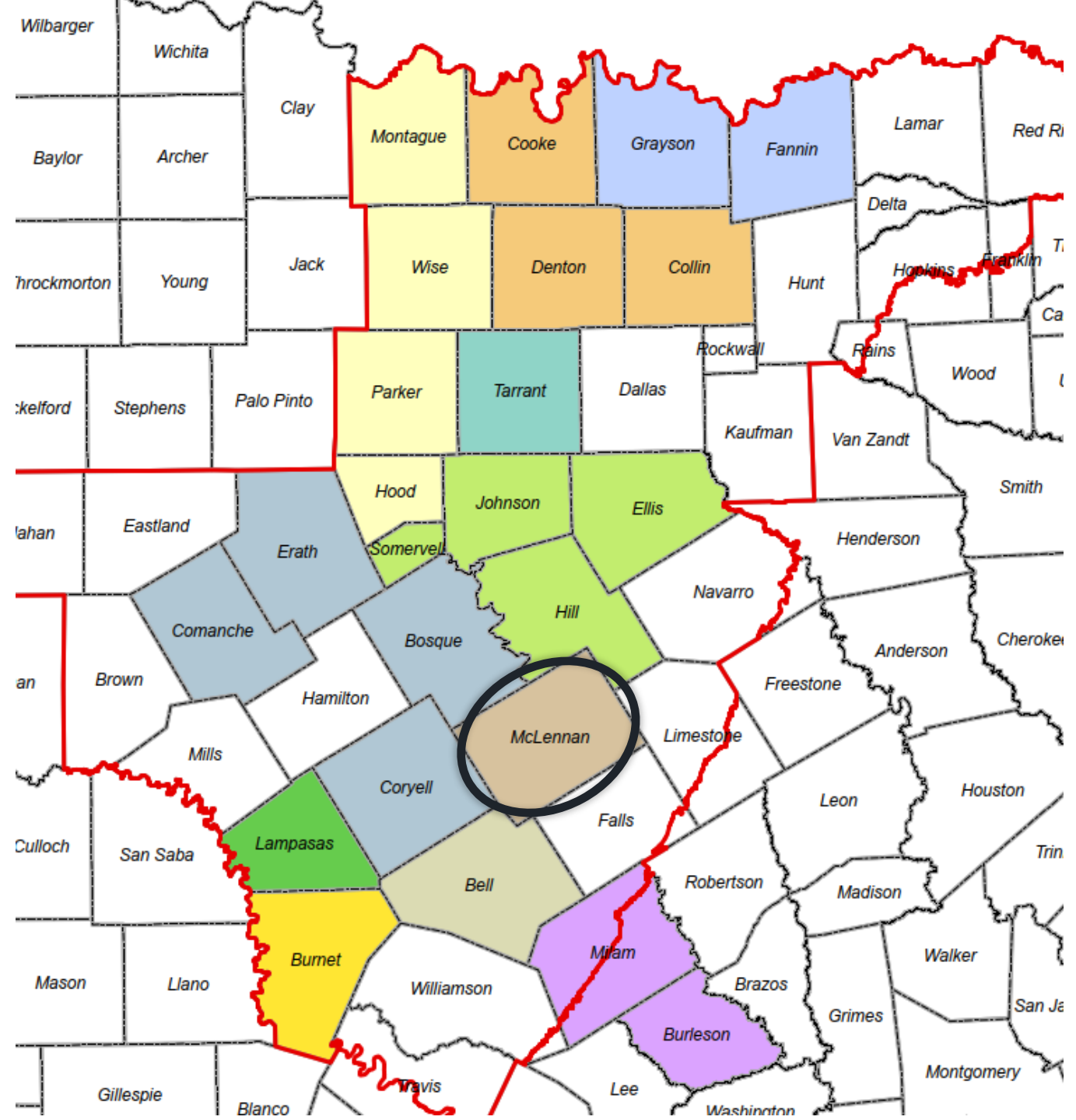
Aquifer	O/D	County	Run 10 AFY	Adjustment	Run 11 AFY
Glen Rose	Outcrop	Hood	654	138	792
Glen Rose	Downdip	Hood	103	22	125
Paluxy	Outcrop	Hood	159	0	159
Twin Mountains	Outcrop	Hood	3,674	1,351	5,025
Twin Mountains	Downdip	Hood	7,854	2,914	10,768
Antlers	Outcrop	Montague	3,878	2,236	6,114
Antlers	Downdip	Montague			
Antlers	Outcrop	Parker	2,899	6	2,905
Antlers	Downdip	Parker			
Glen Rose	Outcrop	Parker	2,290	1,394	3,684
Glen Rose	Downdip	Parker	874	532	1,406
Paluxy	Outcrop	Parker	2,609	5	2,614
Paluxy	Downdip	Parker	50	0	50
Twin Mountains	Outcrop	Parker	1,074	220	1,294
Twin Mountains	Downdip	Parker	2,083	444	2,527
Antlers	Outcrop	Wise	7,702	1,404	9,106
Antlers	Downdip	Wise	2,058	381	2,439
-	-	Total	37,961	11,048	49,009



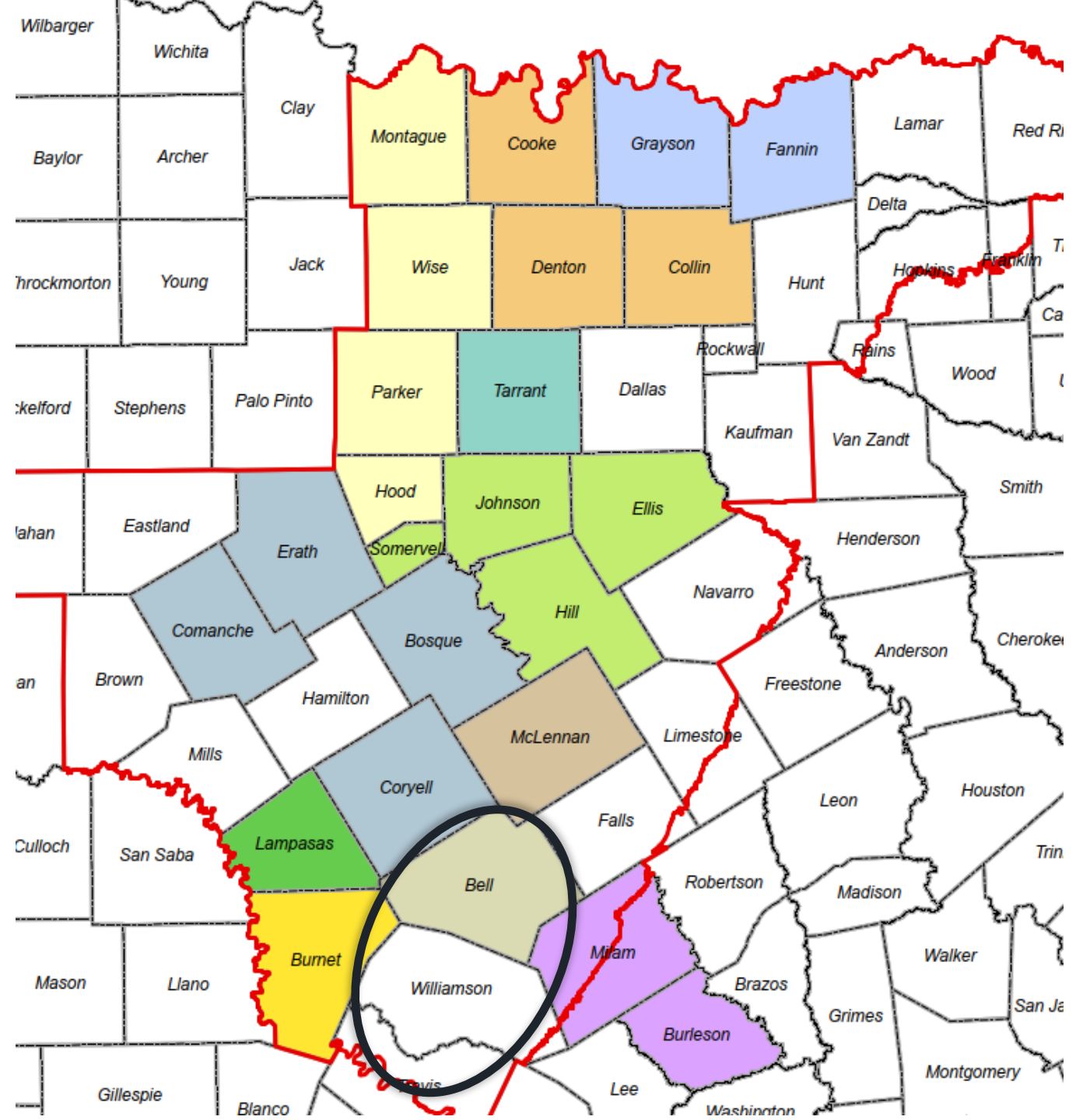
GMA 8 Changes to pumping for proposed Run 11



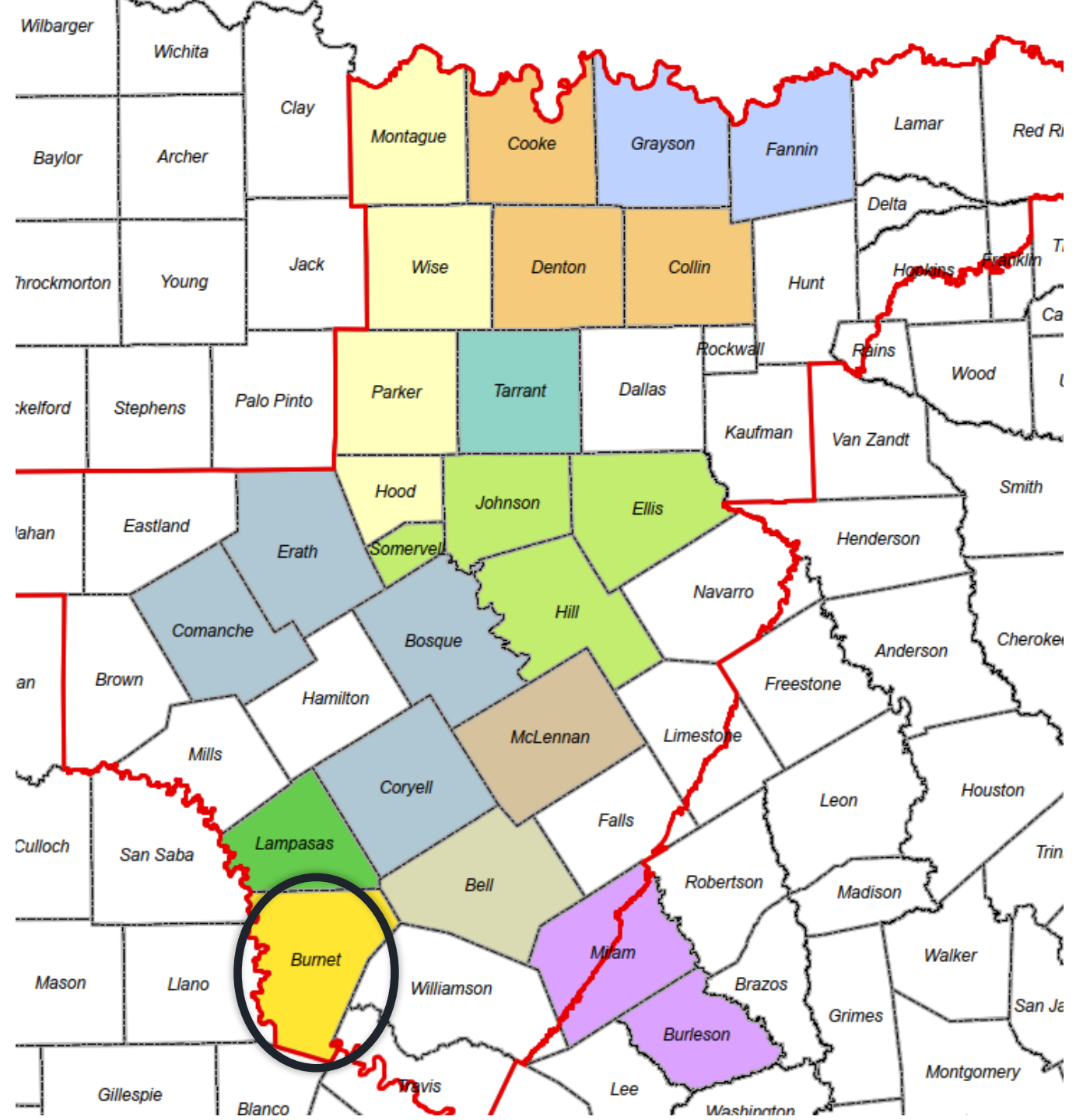
GMA 8 Changes to pumping for proposed Run 11



GMA 8 Changes to pumping for proposed Run 11



GMA 8 Changes to pumping for proposed Run 11



Difference in DFC Drawdown between Run 10 and Run 11 (feet in 2070)

County	Woodbine	Paluxy	Glen Rose	Twin Mnts	Travis Peak	Hensell	Hosston	Antlers
Bell	-	-1	-4	-	32	4	37	-
Bosque	-	0	3	-	18	8	27	-
Brown	-	0	0	-	0	0	0	0
Burnet	-	-	0	-	2	1	-1	-
Callahan	-	-	-	-	-	-	-	0
Collin	1	4	7	16	-	-	-	11
Comanche	-	0	0	-	1	0	0	0
Cooke	0	-	-	-	-	-	-	9
Coryell	-	0	0	-	6	3	8	-
Dallas	2	5	10	34	45	12	48	-
Delta	-	2	3	-	3	-	-	-
Denton	0	1	6	22	-	-	-	11
Eastland	-	-	-	-	-	-	-	0

Difference in DFC Drawdown between Run 10 and Run 11 (feet in 2070)

County	Woodbine	Paluxy	Glen Rose	Twin Mnts	Travis Peak	Hensell	Hosston	Antlers
Ellis	3	6	13	66	57	13	63	-
Erath	-	0	0	1	4	-1	2	1
Falls	-	8	15	-	33	16	34	-
Fannin	0	3	4	9	6	-	-	4
Grayson	0	3	4	10	-	-	-	5
Hamilton	-	0	0	-	1	0	2	-
Hill	1	2	9	-	55	17	64	-
Hunt	3	4	5	10	8	-	-	-
Johnson	0	1	3	23	43	-11	86	-
Kaufman	9	13	16	25	28	20	30	-
Lamar	0	1	1	-	2	-	-	2
Lampasas	-	0	0	-	0	0	0	-
Limestone	-	7	19	-	27	20	28	-

Difference in DFC Drawdown between Run 10 and Run 11 (feet in 2070)

County	Woodbine	Paluxy	Glen Rose	Twin Mnts	Travis Peak	Hensell	Hosston	Antlers
McLennan	0	3	9	-	26	15	30	-
Milam	-	-	18	-	54	20	54	-
Mills	-	0	0	-	2	0	0	-
Navarro	6	6	20	-	36	26	35	-
Red River	0	0	0	-	1	-	-	0
Rockwall	5	9	11	20	-	-	-	-
Somervell	-	-1	-1	18	11	-10	35	-
Tarrant	0	1	9	26	-	-	-	26
Taylor	-	-	-	-	-	-	-	0
Travis	-	-	0	-	68	12	69	-
Williamson	-	-	-3	-	39	10	40	-

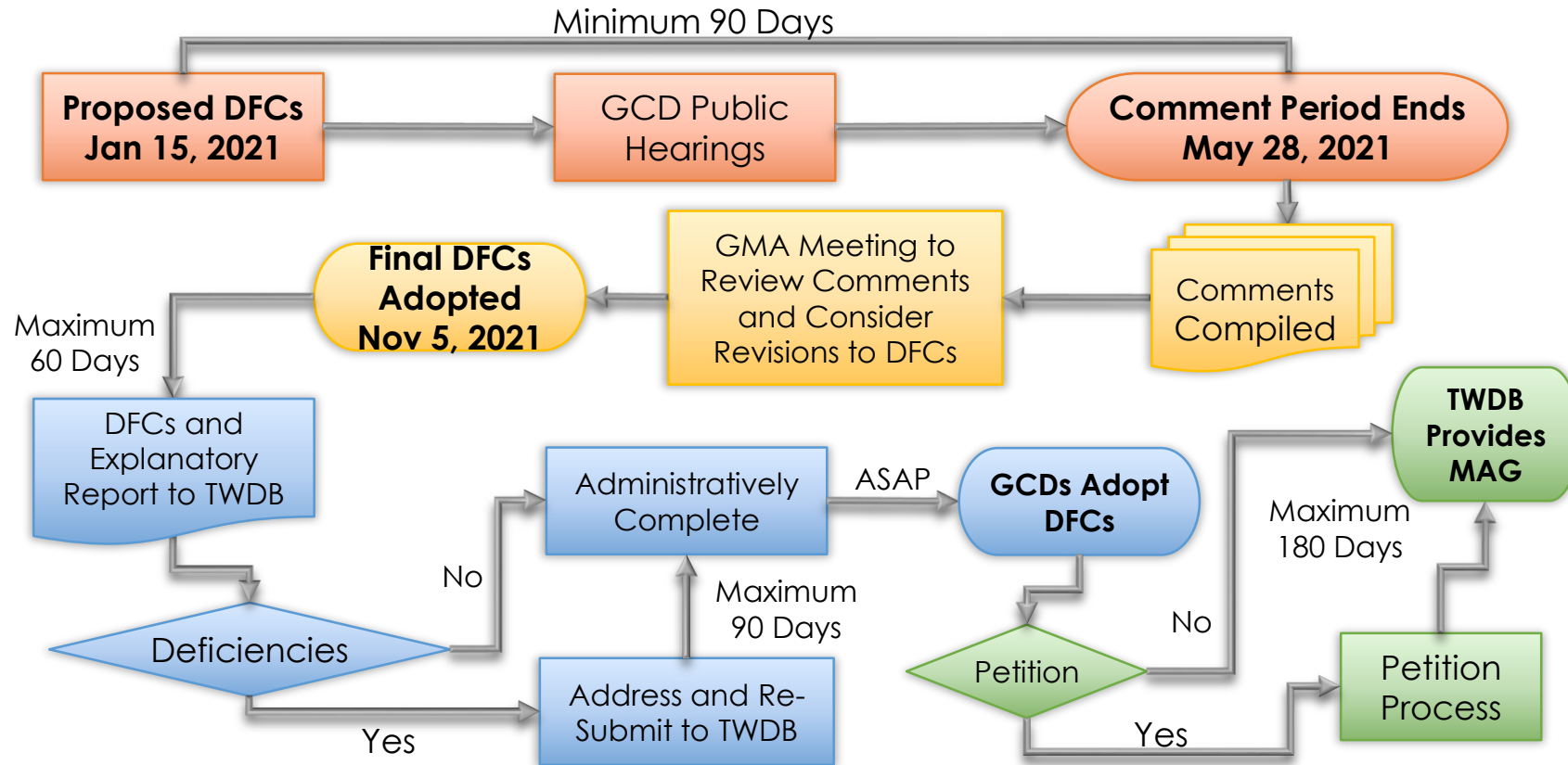
Run 11 Results – Average Drawdown Values in 2080

County	Woodbine	Paluxy	Glen Rose	Twin Mnts	Travis Peak	Hensell	Hosston	Antlers
Ellis	76	128	220	413	380	290	390	0
Erath	-	6	6	8	25	12	35	14
Falls	-	159	238	0	505	296	511	0
Fannin	259	709	305	400	291	0	0	269
Grayson	163	943	364	445	0	0	0	364
Hamilton	-	2	4	0	26	14	38	0
Hill	20	45	149	0	365	211	413	0
Hunt	631	610	326	399	350	0	0	0
Johnson	4	-57	66	184	235	120	329	0
Kaufman	242	311	305	427	372	349	345	0
Lamar	42	100	107	0	125	0	0	132
Lampasas	-	1	1	0	6	1	11	0
Limestone	-	199	301	0	433	214	445	0

GMA 8 Path Forward

- Next GMA 8 meeting is August 7, 2020
- Discussion and possible action regarding Run 11 results be the Proposed DFCs for GMA 8 for the Northern Trinity and Woodbine Aquifers
- Discussion may also include:
 - Possible minor changes
 - Appropriate statement of differences to be included with submission to TWDB
 - Other aquifers, nonrelevant aquifers, etc.
- Today: Asking that the RRGCD GMA 8 representative be able to make decisions regarding minor changes to the proposed DFCs or statements at the August 7 meeting

Anticipated Timeline for GMA 8 DFC Process



Thank you!

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