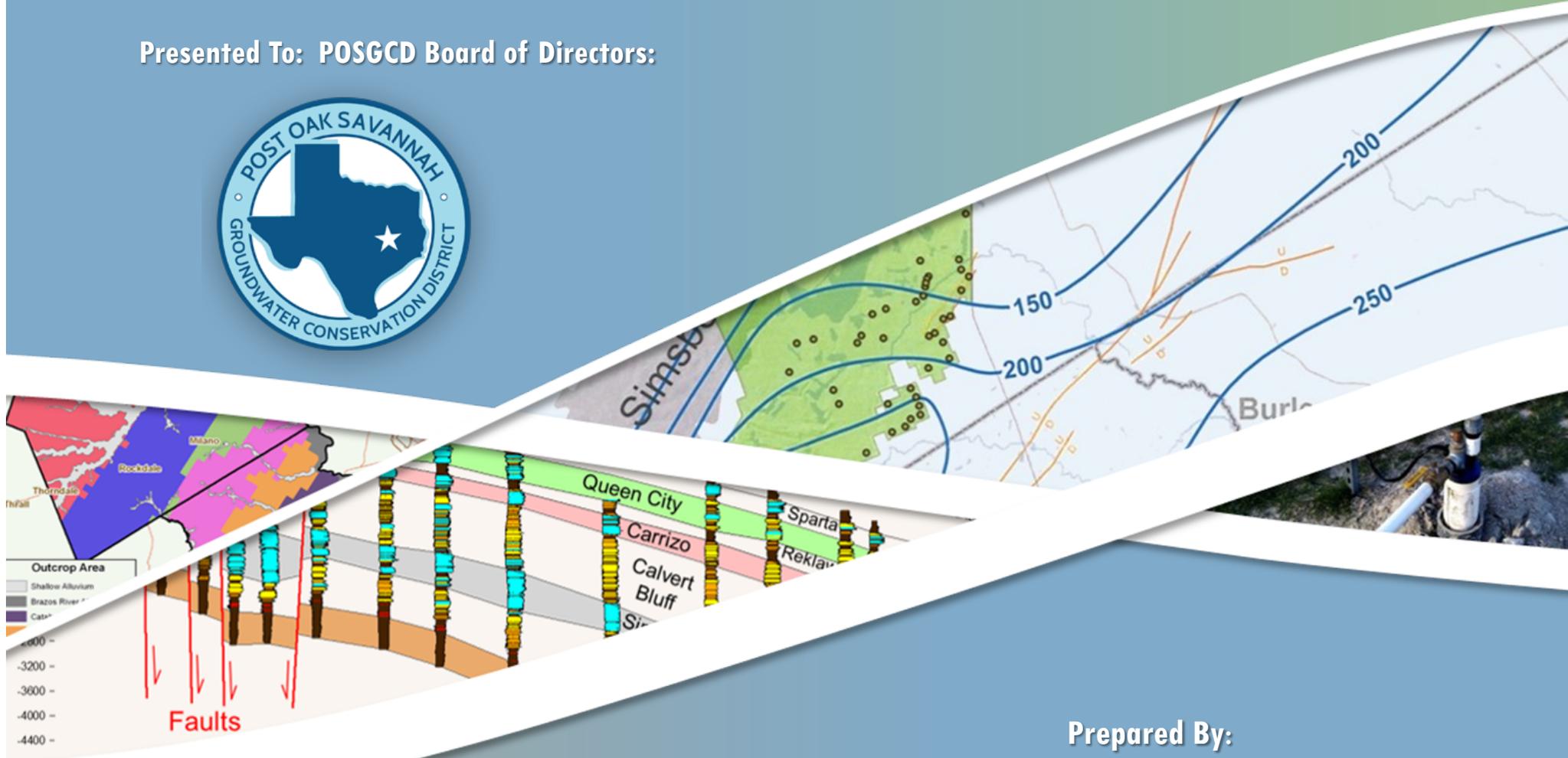


Update for GMA 12 Desired Future Conditions

Presented To: POSGCD Board of Directors:



Prepared By:

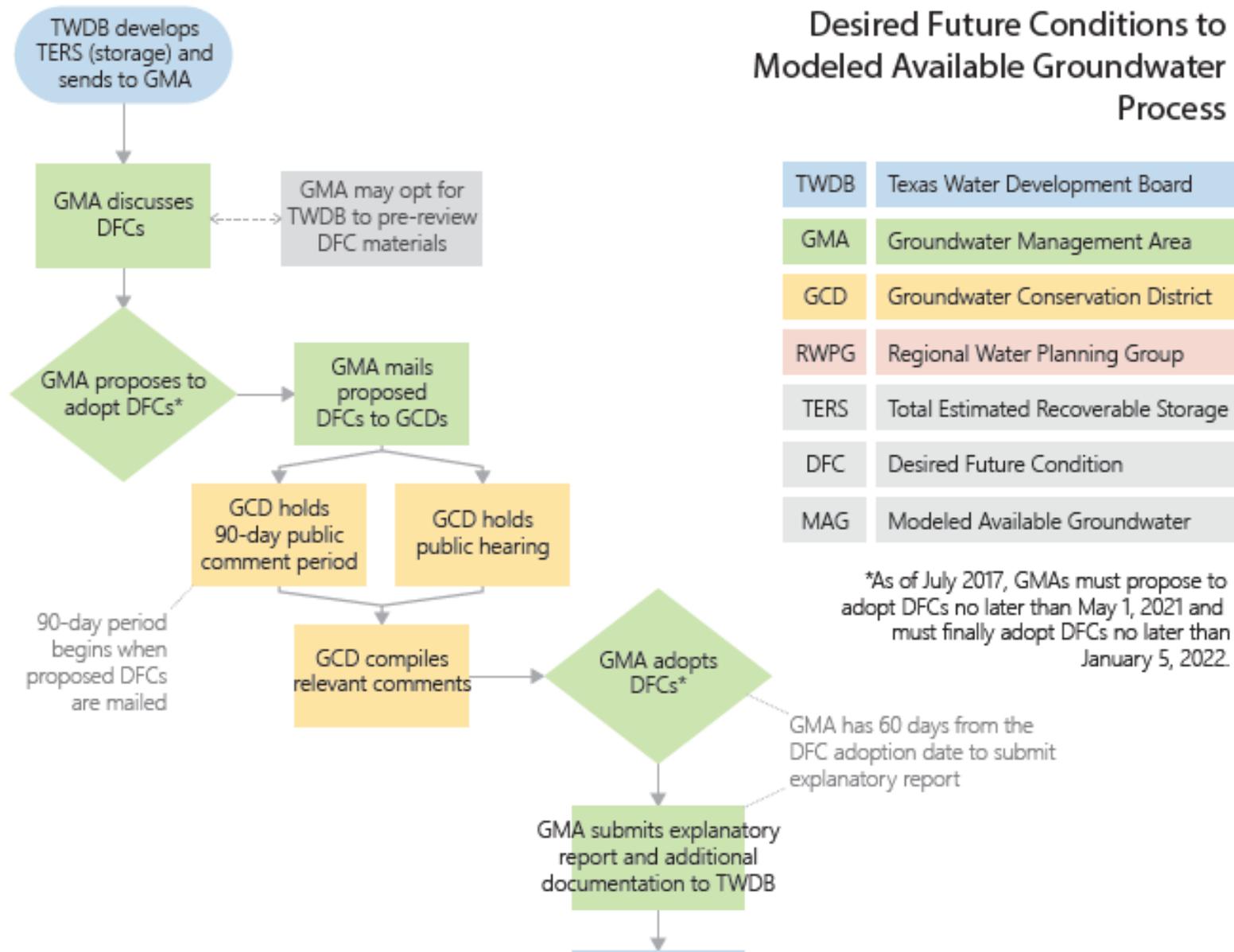


June 7, 2021

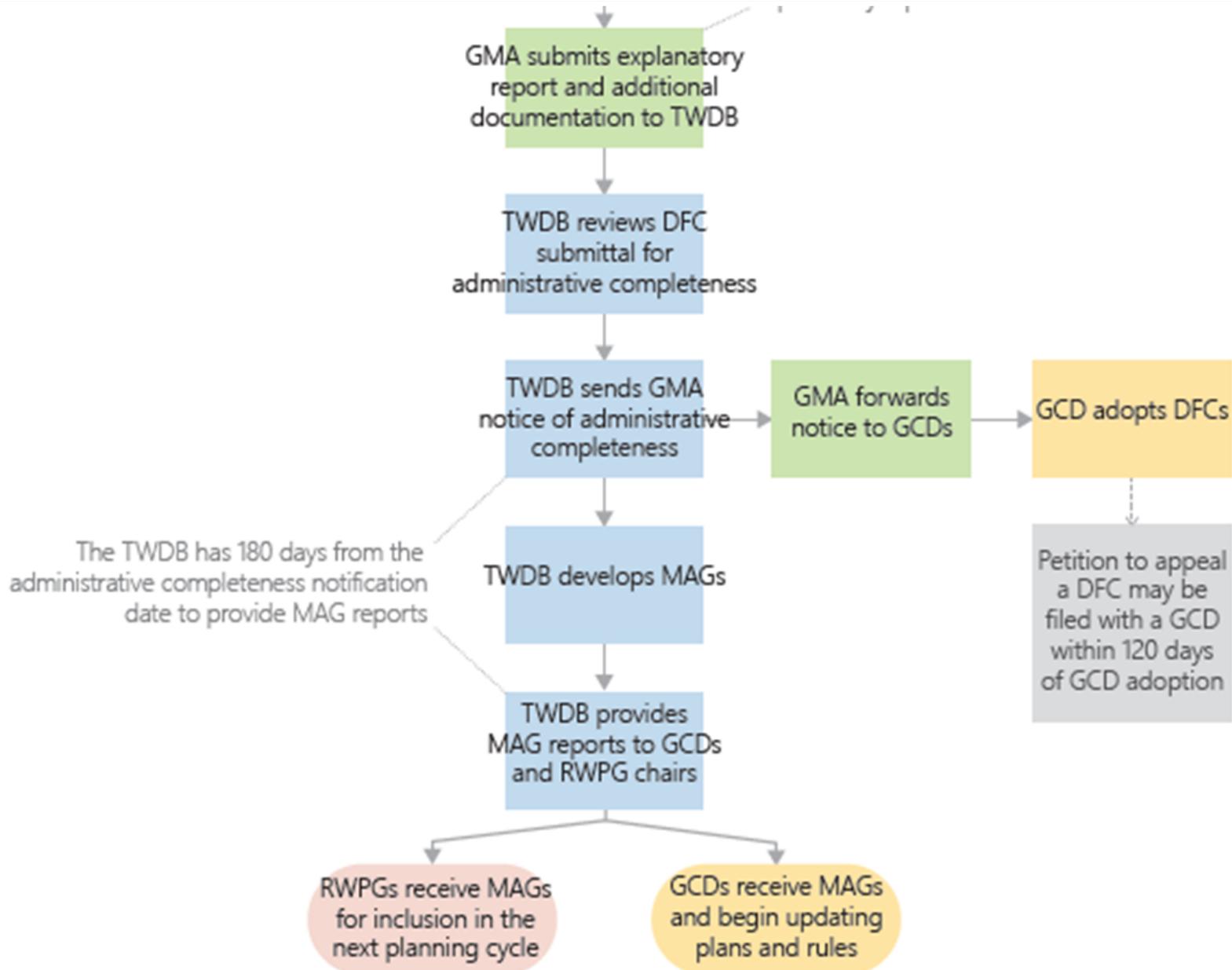
Agenda

- Review DFC Process
- POSGCD Concerns with Proposed DFCs
- Possible Topics for POSGCD Public Comments

Review of GMA Process for Adopting DFCs and MAGs



Review of GMA Process for Adopting DFCs and MAGs



Concerns with Proposed DFCs

- Proposed DFCs for Carrizo
- Justifications provided to defend POSGCD
Proposed Carrizo DFCs

Concerns with Proposed Carrizo DFC

- Carrizo DFC

- Increased from 67 ft (60 yrs) to 172 ft (50 yrs)
- Increased >250%

Aquifer	Average Drawdown		
	2010 Adopted	2015 Adopted	2020 Proposed
	Jan 2000 to Dec 2059	Jan 2000 to Dec 2069	Jan 2010 to Dec 2069
Sparta	30	28	32
Queen City	30	30	31
Carrizo	65	67	172
Calvert Bluff	140	149	179
Simsboro	300	318	336
Hooper	180	205	214

- Carrizo MAG

- Increased from 7,048 AFY to 18,206 AFY
- Increase >250%

Aquifer	Production ¹ Associated with DFC Run			Permitted Amounts ² (AFY)
	2010 Adopted	2015 Adopted	2021 Proposed	
	2059 Production	2069 Production	2069 Production	
Sparta	6,734	6,735	4,105	4,115
Queen City	502	504	7,838	1,637
Carrizo	7,059	7,058	18,206	21,641
Calvert Bluff	1,038	1,036	4,761	2,285
Simsboro	48,501	48,503	79,433	104,147
Hooper	4,422	4,422	3,126	2,080
Total	68,256	68,258	117,469	135,905

¹ production in acre-ft/year

² Permitted amount in Halff database in January 2021

Impacts of Carrizo Pumping on Estimated Number of Impacted Wells

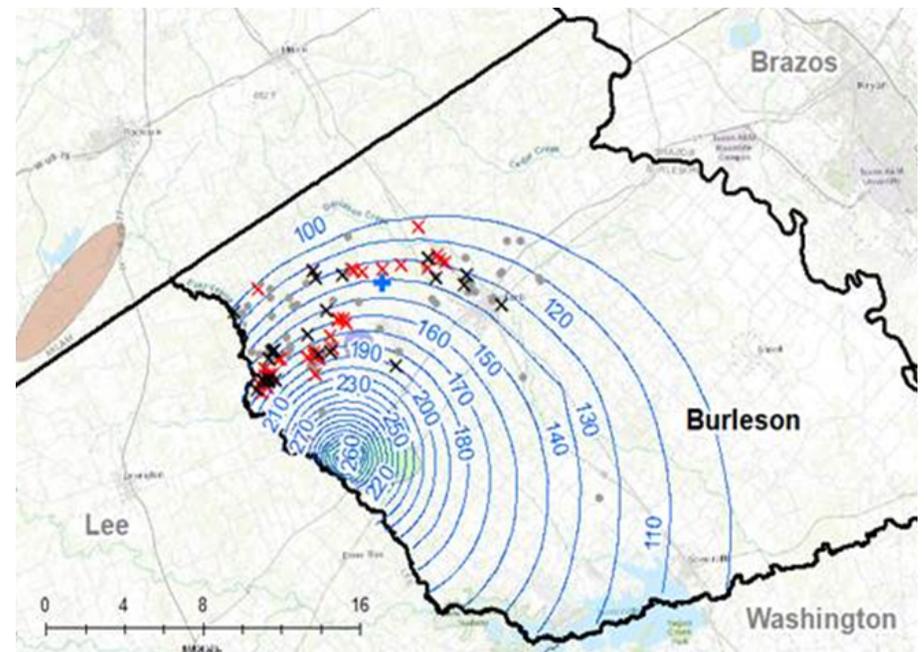
- DFC Committee

- Recommended to cap Carrizo pumping at 12,000 AFY
- Based on achieving a balance between production & impacts
- Consist with POSGCD initial estimate of ~11,200 AFY in 1st Round of Joint Planning before GMA 12 reduction
- Propose DFC for cap of 12,000 AFY is 145 ft

DFC Committee: Sensitivity of Number of Impacted Wells to POSGCD Carrizo Production

POSGCD Carrizo Production (AFY)	Impacted* Wells		
	2029	2039	2049
18,200	71	114	141
12,200	36	69	97

* Impacted define as water level drops to less than 15 feet above pump setting



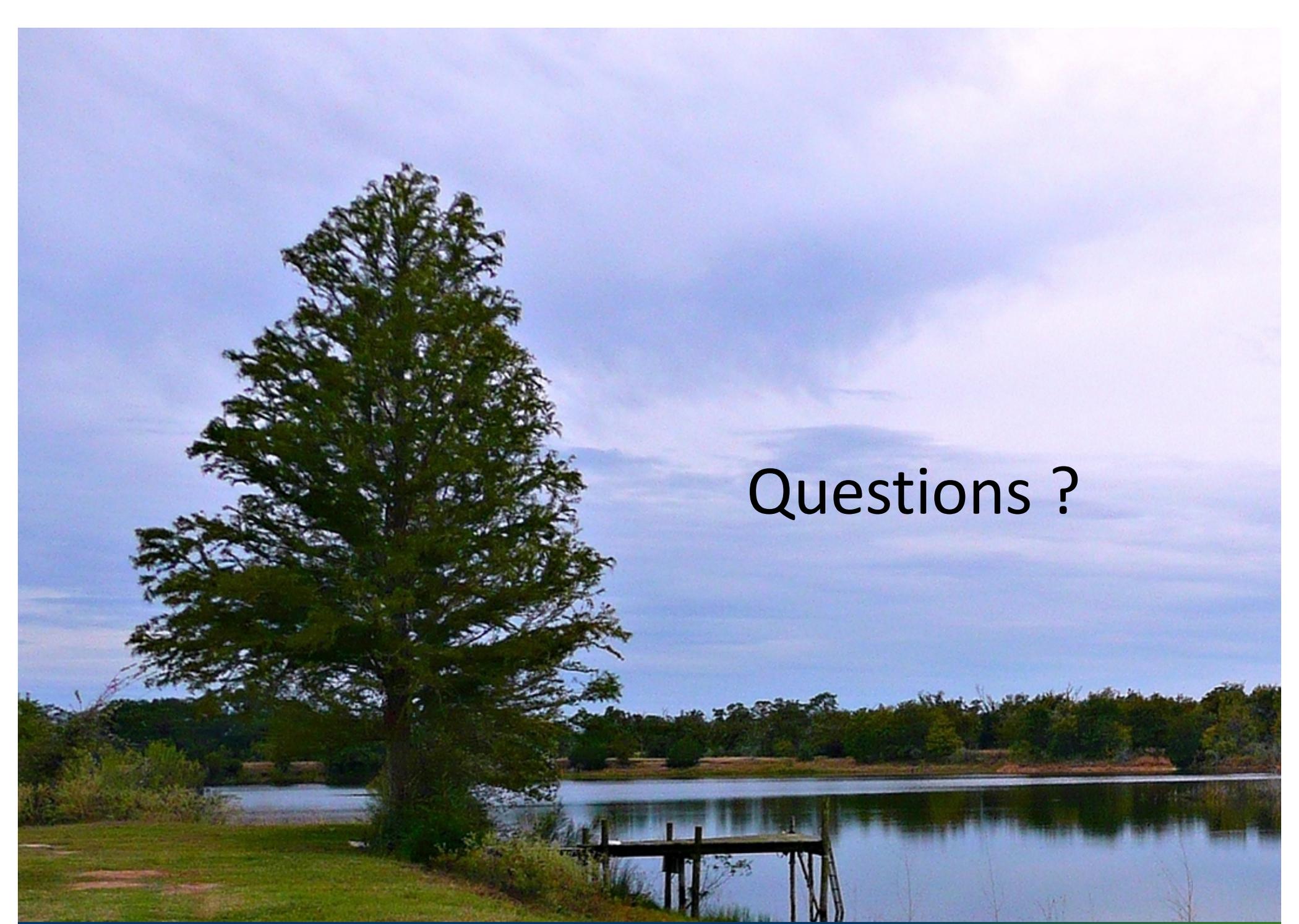
Impacts of Reduced Carrizo Pumping on Proposed DFCs

GCD	Average Drawdown (ft) in Carrizo		Difference between PS-12 and PS-13	10% Variance Allowed on DFC
	PS-12 (18,200 AFY)	PS-13 (12,000 AFY)		
Lost Pines	137	123	-14	13.7
Brazos Valley	75	70	-5	7.5
Post Oak Savannah	172	145	-27	17.2
Mid-East Texas	49	48	-1	4.9
Fayette	122	116	-6	12.2

* Based on comparison of PS-13 and PS-12

Concerns with Process

- GMA 12 did not properly consider nine factors identified in TWC §36.108(d)
- GMA 12 did not achieve TWC §36.108(d-2)
- GMA 12 is not required to account for “known pumping” in the future pumping scenario to define a DFC
- POSGCD request to not include full permitted productions or requested production by well owners is not a process change
- GMA 12 should allow GCDs to select a DFC other than for 2070 as long as the DFC can be shown to be feasible based on the GAM simulations and the variance allowance of 10%
- DFC Values based on the SP/QC/CW GAM should be for the time interval 2011 to 2070 and not 2010 to 2070



Questions ?