

Status Report Regarding Aquifer Desired Future Conditions for the BVGCD

Presented to
BVGCD Board of Directors
By
Ground Water Consultants, LLC
January 10, 2019



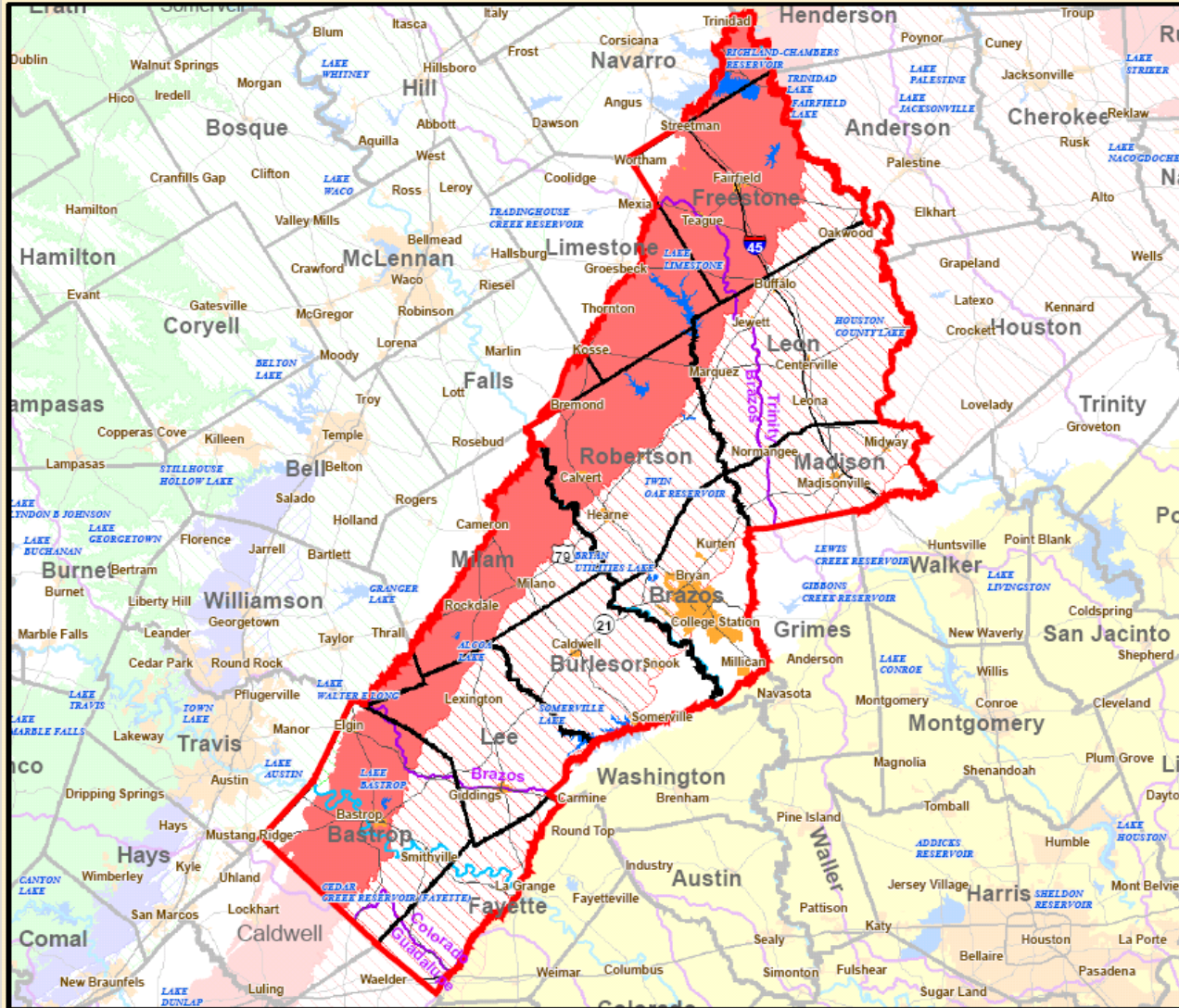
Brazos Valley

GROUNDWATER CONSERVATION DISTRICT

GROUNDWATER MANAGEMENT AREA (GMA) 12 PLANNING

- Current cycle of planning in progress with Desired Future Conditions (DFCs) to be developed by 2021.
- DFCs for 2017 Planning Cycle Developed with Previous Groundwater Availability Model (GAM).
- DFCs for 2021 Planning Cycle will be Developed with Updated GAM.

Groundwater Management Area #12



MAP LEGEND

- GMA #12
- River
- River Basin
- Reservoir
- Cities
- Counties

Major Aquifers

- Cenozoic Pecos Alluvium
- Seymour
- Gulf Coast
- Carrizo - Wilcox (outcrop)
- Carrizo - Wilcox (downdip)
- Hueco - Mesilla Bolson
- Ogallala
- Edwards - Trinity Plateau (outcrop)
- Edwards - Trinity Plateau (downdip)
- Edwards BFZ (outcrop)
- Edwards BFZ (downdip)
- Trinity (outcrop)
- Trinity (downdip)

DISCLAIMER
No claims are made to the accuracy or completeness of the data nor to its suitability for a particular use. The scale and compilation of all information shown here is approximate.
Map prepared by Mark Hayes
Texas Water Development Board
GIS Section
12/21/2015

0 7 14 21 28 miles
1 inch equals 26 miles

MODELED AVAILABLE GROUNDWATER(MAG) FOR GMA 12 2017 PLANNING CYCLE, ACRE- FEET/YEAR

GCD or County	Modeled Available Groundwater in GMA 12 for 2069						
	Sparta	Queen City	Carrizo	Calvert Bluff	Simsboro	Hooper	Total
BVGCD	9,019	1,200	5,494	1,757	96,198	2,000	115,668
FCGCD	2,802	2,708	5,474	Declared as non-relevant			10,984
LPGCD	2,392	1,315	12,052	3,984	30,304	1,255	51,302
METGCD	3,343	974	11,090	3,915	7,173	5,501	31,996
POSGCD	6,735	504	7,058	1,036	48,503	4,422	68,258
Falls	--	--	--	--	146	749	895
Limestone	--	--	--	235	10,235	1,414	11,884
Navarro	--	--	--	0	4	11	15
Williamson	--	--	--	1	2	5	8
GMA-12	24,291	6,701	41,168	10,928	192,565	15,357	291,010

BVGCD MAG FOR GMA 12 2017 PLANNING CYCLE, ACRE-FEET/YEAR

Aquifer	2010	2020	2030	2040	2050	2060	2069
Sparta	3,760	5,914	7,158	8,017	9,019	9,019	9,019
Queen City	541	1,204	1,192	1,196	1,200	1,200	1,200
Carrizo	2,083	5,425	5,422	5,450	5,491	5,494	5,494
Calvert Bluff	776	1,764	1,757	1,758	1,757	1,757	1,757
Simsboro	72,322	82,788	86,182	88,149	93,002	96,198	96,198
Hooper	836	1,447	1,884	1,942	2,000	2,000	2,000

APPROVED DFCS FROM 2017 CYCLE OF GMA 12 PLANNING

7/10/2019

GCD or County	Average Aquifer Drawdown (ft) measured from January 2000 through December 2069					
	Sparta	Queen City	Carrizo	Calvert Bluff	Simsboro	Hooper
BVGCD	12	12	61	125	295	207
FCGCD	47	64	110	Declared as non-relevant		
LPGCD	5	15	62	100	240	165
METGCD	5	2	80	90	138	125
POSGCD	28	30	67	149	318	205
Falls	--	--	--	--	-2	27
Limestone	--	--	--	11	50	50
Navarro	--	--	--	-1	3	3
Williamson	--	--	--	-11	47	69
GMA-12	16	16	75	114	228	168

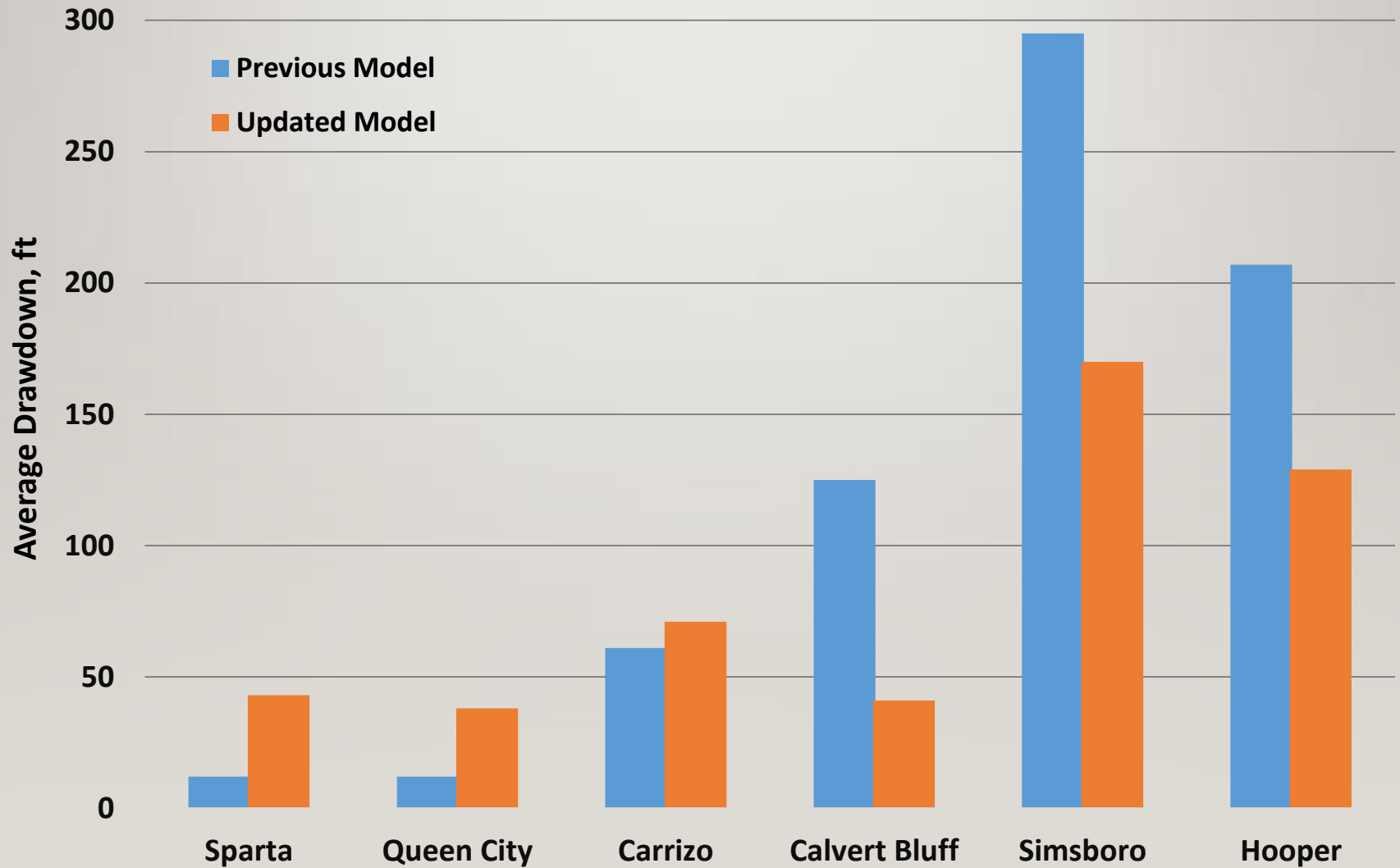
7 AVERAGE DRAWDOWN RESULTS USING UPDATED MODEL AND MAGS FOR GMA 12 2017 PLANNING CYCLE

1/10/2019

GCD or County	Average Aquifer Drawdown (ft) modeled from January 2000 through December 2069					
	Sparta	Queen City	Carrizo	Calvert Bluff	Simsboro	Hooper
BVGCD	~43	~38-43	~71-81	~91-96	~170-180	~129-139
FCGCD	~48	~76	~145	Declared as non-relevant		
LPGCD	~29	~34	~106	~92-97	~149-154	~114
METGCD	~29	~23	~43	~93	~55	~54
POSGCD	~63-68	~32-37	~111-116	~120-125	~208-218	~161
Falls	--	--	--	--	~12-17	~6
Limestone	--	--	--	~10	~10	~5
Navarro	--	--	--	~0	~0	~0
Williamson	--	--	--	~39	~30-35	~19
GMA-12	~41	~39	~86-91	~87-92	~137-142	~113

COMPARISON OF BVGCD DFCS

1/10/2019



PATH FORWARD

1/10/2019

- Assess options regarding future amounts of pumping and DFCs
 - Continue with present DFCs
 - Adjust DFCs for specific aquifers
 - Take into consideration approaches of the other GCDs in GMA 12
- Development of DFCs and MAGs for GCDs in GMA 12 will be an iterative process.

Thank You!

Questions?