

**Estimated Impacts of Baseline Pumping Compared to GMA-12 PS runs on
Desired Future Conditions (DFC) and Modeled Available Groundwater (MAG)**

Estimated Impact of Pumping on Desired Future Conditions

GMA-12 DFC Review

Estimated Impacts of Pumping on Modeled Available Groundwater

GMA-12 DFC Review

A. Aquifer	Adopted Desired Future Conditions (DFC) Average drawdown in feet.			LPGCD 2070	
	Bastrop County	Lee County	District	PS4	
Sparta	7	7	7	7	7
Queen City	10	15	13	13	13
Carrizo	30	60	47	47	47
Calvert Bluff	65	135	99	99	99
Simsboro	145	345	237	237	237
Hooper	90	180	129	129	129

Desired Future Conditions (DFC) from 2013 LPGCD Management Plan

Permitted pumping through 12/31/14

G. Aquifer	MAG from Adopted Desired Future Conditions (DFC) in ac-ft/yr.		LPGCD 2070	
	2010	2060	PS4	
Sparta	2,405	1,877	1,877	1,877
Queen City	1,315	1,133	1,133	1,133
Carrizo	6,610	12,052	12,052	12,052
Calvert Bluff	1,785	3,985	3,985	3,985
Simsboro	29,556	37,249	37,249	37,249
Hooper	1,174	2,592	2,592	2,592
TOTAL	42,845	58,888	58,888	58,888

Modeled Available Groundwater (MAG) from 2013 LPGCD Management Plan

Using 2060 MAG

MAG is the TWDB's estimate from the DFC adopted by LPGCD/GMA-12

B. Aquifer	Drawdown Estimated from Baseline Pumping of Simsboro Aquifer			LPGCD 2070	
	Bastrop County	Lee County	District	PS4	
Sparta				56	
Queen City				19	
Carrizo	50	68	60	79	
Calvert Bluff	60	140	99	137	
Simsboro	147	349	241	340	
Hooper	88	195	137	217	

LPGCD 2013, sum of simulated pumping from Simsboro Aquifer in Bastrop and Lee counties in 2060, MODFLOW input file run 50.wel (See Rice Report, February 2015)

Total permitted pumping as of April 2013 was 53,564 so "baseline" pumping does not cover about 13,594 ac-ft/yr of permitted pumping.

The impact of drawdowns in the Carrizo, Calvert Bluff and Hooper aquifers on MAG are not estimated (Table H) due to the complexity, though certainly expected.

NA = Not Available

Data obtained after request to LPGCD/GMA-12

PS4 (Pumping File Tables from Donnelly Spreadsheet)

H. Aquifer	Decrease in volume from Simsboro Aquifer Baseline Pumping (ac-ft/yr)				LPGCD 2070	
	2010	% of MAG	2060	% of MAG	PS4	% of MAG
Sparta					570	30%
Queen City					1,095	97%
Carrizo	NA		NA		11,643	97%
Calvert Bluff	NA		NA		3,952	99%
Simsboro	40,370	137%	40,370	108%	63,245	170%
Hooper	NA		NA		680	26%
TOTAL					81,185	138%

% of 2060 MAG

C. Aquifer	Drawdown Variance from DFC from Baseline Pumping (ft)			LPGCD 2070	
	Bastrop County	Lee County	District	PS4	
Sparta				-49	
Queen City				-6	
Carrizo	-20	-8	-13	-32	
Calvert Bluff	5	-5	0	-38	
Simsboro	-2	-4	-4	-103	
Hooper	2	-15	-8	-88	

Adopted drawdown in A minus drawdown in B; (A-B = C)

(###) indicates drawdown in excess of adopted DFC

I. Aquifer	Variance from MAG from Baseline Pumping of Simsboro Aquifer (ac-ft/yr)		LPGCD 2070	
	2010	2060	PS4	
Sparta			1,307	
Queen City			38	
Carrizo			409	
Calvert Bluff			33	
Simsboro	-10,814	-3,121	-25,996	
Hooper			1,912	
TOTAL			-22,297	

Adopted MAG in G minus Pumping in H; (G-H = I)

(###) indicates withdrawal in excess of MAG