Summary:
Alternative Predictive Simulations with GMA 14 Model in Support of the 2026 Joint Planning Process

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March 30, 2026

Outline of Report (1)

- All associated files available at:

https://drive.google.com/drive/folders/1R_nPBia6oIXMJGZueiA63m_Q3QH4Kxwy?usp=sharing

- Introduction
  - LSGCD Consultant Predictive Simulations
  - Review of LSGCD Consultant Simulations
  - Organization of Report and Associated Files
- Summary of Scenario Development
  - Baseline Scenario
  - Scenario 14.3 (B6 and E7)
  - Adjusted Scenario 14.3 (B6 and E7)

Outline of Report (2)

- Summary Results and Comparisons of Scenarios
  - Groundwater Pumping
  - Average Drawdown
  - Average Additional Subsidence
  - MPRAD and Dry Wells
  - HB 2078 Analysis
- References

Summary of Scenarios

- Baseline Scenario
  - 2018 pumping assumed constant from 2019 to 2080
- Scenario 14.3 SD E7
  - Same as LSGCD consultants Scenario 2026.14-3 (GMA 14 meeting of January 28, 2026)
- Scenario 14.3 SD B6
  - Assumed subsidence district pumping would be consistent with subsidence district regulatory plan)
- Adjusted Scenario 14.3 (E7 and B6)
  - Adjusted pumping in selected counties from Scenario 14.3
  - E7 assumed no implementation of subsidence district regulatory plan
  - B6 assumed implementation of subsidence district regulatory plan

Adjusted Pumping Counties

- Please see Table 3
  - Austin
  - Grimes
  - Jefferson
  - Liberty
  - Polk
  - San Jacinto
  - Walker
  - Washington

Table 3. Summary of Pumping: Adjusted Scenario 14.3

County	2018 GAM (AF/yr)	2023 TWDB Estimate (AF/yr)	Current 2080 MAG (AF/yr)	Scen 14.3 2080 Pumping (AF/yr)	Scen 14.3/2018 GAM	Proposed Modified Factor (CAP3.5)	Proposed Simulation Pumping (AF/yr)	Adj Scen 14.3 Factors (Applied to Scen 14.3 Pumping)
Austin	10,198	9,133	46,560	45,871	4.50	3.50	35,706	0.78
Brazoria	35,333	40,271	54,887	54,886	1.55	1.55	54,886	1.00
Chambers	8,213	2,899	22,354	22,389	2.73	2.73	22,389	1.00
FortBend	88,312	81,043	169,347	232,478	2.63	2.63	232,478	1.00
Galveston	1,706	2,814	9,181	2,631	1.54	1.54	2,631	1.00
Grimes	3,282	2,065	51,487	47,105	14.35	3.50	11,491	0.24
Hardin	14,473	11,534	37,721	37,721	2.61	2.61	37,721	1.00
Harris	242,342	194,441	228,827	287,667	1.19	1.19	287,667	1.00
Jasper	40,591	41,220	73,365	73,365	1.81	1.81	73,365	1.00
Jefferson	2,634	1,941	15,424	15,423	5.86	3.50	9,222	0.60
Liberty	10,689	10,227	71,660	71,660	6.70	3.50	37,425	0.52
Montgomery	57,364	58,721	96,873	199,069	3.47	3.47	199,069	1.00
Newton	1,519	1,420	37,508	36,539	24.05	24.05	36,539	1.00
Orange	16,330	9,545	25,205	25,206	1.54	1.54	25,206	1.00
Polk	2,102	3,588	40,746	38,245	18.19	3.50	7,360	0.19
SanJacinto	2,611	2,615	35,128	33,881	12.98	3.50	9,142	0.27
Tyler	3,277	3,510	34,390	34,384	10.49	10.49	34,384	1.00
Walker	1,649	1,409	42,503	39,858	24.17	3.50	5,774	0.14
Waller	16,062	20,534	55,533	56,238	3.50	3.50	56,238	1.00
Washington	2,710	3,173	40,397	40,210	14.84	3.50	9,489	0.24

Adjusted Scenario 14.3 SD B6 Summary Values in 2080

County	2080 Pumping (AF/yr)	Average Drawdown in 2018 to 2080 (ft)			MPRAD* in 2080 (2018 Baseline)	Dry Well % in 2080	Additional Subsidence 2018 to 2080 (ft)	
		Chicot	Evangeline	Jasper			Average	Maximum
Austin	35,706	36	37	64	82	2	0.5	1.1
Brazoria	54,886	41	40	29	83	6	0.8	1.7
Chambers	22,388	24	24	32	82	4	0.9	2.7
FortBend	174,352	73	66	59	56	11	0.9	1.7
Galveston	2,629	18	18	19	90	7	0.6	1.5
Grimes	12,555	9	20	110	75	7	0.4	2.0
Hardin	37,721	37	39	55	82	5	0.8	3.5
Harris	207,269	51	55	135	67	9	1.2	3.5
Jasper	73,365	51	44	42	72	3	0.6	4.1
Jefferson	9,222	17	17	28	88	1	0.4	1.3
Liberty	37,425	37	46	107	80	2	1.0	2.3
Montgomery	199,069	37	112	310	70	9	2.4	5.4
Newton	36,539	43	41	52	86	3	0.4	1.7
Orange	25,206	41	41	33	88	2	1.0	1.7
Polk	7,843	17	12	51	91	1	0.2	0.6
SanJacinto	9,476	14	32	132	87	3	0.8	1.9
Tyler	34,384	25	25	70	79	6	0.2	0.8
Walker	5,971	NA	8	54	70	14	0.3	2.2
Waller	56,238	39	60	121	72	7	1.2	2.3
Washington	9,518	NA	20	34	85	2	0.1	0.7

***MPRAD = Median Percentage Remaining Available Drawdown**

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