
Appendix C: Estimated Historical Water Use And 2012 State Water Plan Datasets:

Colorado County Groundwater Conservation District

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GROUNDWATER MANAGEMENT PLAN DATA:

This package of water data reports (part 1 of a 2-part package of information) is being provided to groundwater conservation districts to help them meet the requirements for approval of their five-year groundwater management plan. Each report in the package addresses a specific numbered requirement in the Texas Water Development Board's groundwater management plan checklist. The checklist can be viewed and downloaded from this web address:

<http://www.twdb.texas.gov/groundwater/docs/GCD/GMPChecklist0113.pdf>

The five reports included in part 1 are:

1. Estimated Historical Water Use (checklist Item 2)
from the TWDB Historical Water Use Survey (WUS)
2. Projected Surface Water Supplies (checklist Item 6)
3. Projected Water Demands (checklist Item 7)
4. Projected Water Supply Needs (checklist Item 8)
5. Projected Water Management Strategies (checklist Item 9)
reports 2-5 are from the 2012 Texas State Water Plan (SWP)

Part 2 of the 2-part package is the groundwater availability model (GAM) report. The District should have received, or will receive, this report from the Groundwater Availability Modeling Section. Questions about the GAM can be directed to Dr. Shirley Wade, shirley.wade@twdb.texas.gov, (512) 936-0883.

DISCLAIMER:

The data presented in this report represents the most up-to-date WUS and 2012 SWP data available as of 7/11/2014. Although it does not happen frequently, neither of these datasets are static so they are subject to change pending the availability of more accurate WUS data or an amendment to the 2012 SWP. District personnel must review these datasets and correct any discrepancies in order to ensure approval of their groundwater management plan.

The WUS dataset can be verified at this web address:

<http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/>

The 2012 SWP dataset can be verified by contacting Sabrina Anderson (sabrina.anderson@twdb.texas.gov or 512-936-0886).

For additional questions regarding this data, please contact Stephen Allen (stephen.allen@twdb.texas.gov or 512-463-7317) or Rima Petrossian (rima.petrossian@twdb.texas.gov or 512-936-2420).

Appendix C1: Estimated Historical Water Use TWDB Historical Water Use Survey (WUS) Data

Groundwater and surface water historical use estimates are currently unavailable for calendar year 2012. TWDB staff anticipates the calculation and posting of these estimates at a later date.

COLORADO COUNTY

All values are in acre-foot/year

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2011	GW	3,746	849	1,038	0	50,965	583	57,181
	SW	0	0	2,144	0	163,583	874	166,601
2010	GW	3,110	844	2,543	0	46,451	595	53,543
	SW	0	0	1,620	0	103,587	893	106,100
2009	GW	3,368	840	681	0	21,311	579	26,779
	SW	0	0	2,965	0	127,689	869	131,523
2008	GW	3,249	843	2,092	0	14,179	654	21,017
	SW	0	0	15,769	0	120,541	981	137,291
2007	GW	2,885	846	1,540	0	27,117	678	33,066
	SW	0	0	14,597	0	90,000	1,017	105,614
2006	GW	3,489	846	1,540	0	22,175	609	28,659
	SW	0	0	14,597	0	90,000	914	105,511
2005	GW	3,207	945	1,537	0	22,115	660	28,464
	SW	0	0	14,472	0	94,150	989	109,611
2004	GW	3,044	913	1,467	0	18,193	494	24,111
	SW	0	0	14,393	0	101,250	1,219	116,862
2003	GW	3,200	906	1,467	0	16,944	496	23,013
	SW	0	0	14,393	0	143,200	1,224	158,817
2002	GW	3,219	1,380	1,467	0	16,256	445	22,767
	SW	0	0	14,394	0	92,118	1,100	107,612
2001	GW	3,197	1,412	1,467	0	17,388	445	23,909
	SW	0	0	14,382	0	156,399	1,100	171,881
2000	GW	3,354	1,417	1,469	0	20,616	884	27,740
	SW	0	0	16,765	0	117,889	589	135,243

Appendix C2: Projected Surface Water Supplies TWDB 2012 State Water Plan Data

COLORADO COUNTY

All values are in acre-feet/year

RWPG	WUG	WUG Basin	Source Name	2010	2020	2030	2040	2050	2060
K	IRRIGATION	BRAZOS-COLORADO	COLORADO RIVER RUN-OF-RIVER	6,340	6,331	6,331	6,331	6,331	6,331
K	IRRIGATION	BRAZOS-COLORADO	COLORADO RIVER RUN-OF-RIVER	25,143	25,143	25,143	25,143	25,143	25,143
K	IRRIGATION	COLORADO	COLORADO RIVER COMBINED RUN-OF-RIVER IRRIGATION	3,000	3,000	3,000	3,000	3,000	3,000
K	IRRIGATION	COLORADO	COLORADO RIVER RUN-OF-RIVER	3,078	3,073	3,073	3,073	3,073	3,073
K	IRRIGATION	COLORADO	COLORADO RIVER RUN-OF-RIVER	12,207	12,207	12,207	12,207	12,207	12,207
K	IRRIGATION	LAVACA	COLORADO RIVER RUN-OF-RIVER	13,553	13,534	13,534	13,534	13,534	13,534
K	IRRIGATION	LAVACA	COLORADO RIVER RUN-OF-RIVER	53,749	53,749	53,749	53,749	53,749	53,749
K	IRRIGATION	LAVACA	LAVACA RIVER COMBINED RUN-OF-RIVER IRRIGATION	4,002	4,002	4,002	4,002	4,002	4,002
K	LIVESTOCK	BRAZOS-COLORADO	LIVESTOCK LOCAL SUPPLY	39	39	39	39	39	39
K	LIVESTOCK	COLORADO	LIVESTOCK LOCAL SUPPLY	860	860	860	860	860	860
K	LIVESTOCK	LAVACA	LIVESTOCK LOCAL SUPPLY	177	177	177	177	177	177
K	MANUFACTURING	COLORADO	OTHER LOCAL SUPPLY	1,215	1,285	1,353	1,418	1,481	1,481
K	MINING	COLORADO	OTHER LOCAL SUPPLY	10,508	11,391	12,443	13,785	15,402	15,402
Sum of Projected Surface Water Supplies (acre-feet/year)				133,871	134,791	135,911	137,318	138,998	138,998

Appendix C3: Projected Water Demands

TWDB 2012 State Water Plan Data

Please note that the demand numbers presented here include the plumbing code savings found in the Regional and State Water Plans.

COLORADO COUNTY

All values are in acre-feet/year

RWPG	WUG	WUG Basin	2010	2020	2030	2040	2050	2060
K	MINING	BRAZOS-COLORADO	119	122	123	124	125	126
K	IRRIGATION	BRAZOS-COLORADO	55,427	53,120	50,889	48,729	46,629	44,619
K	LIVESTOCK	BRAZOS-COLORADO	103	103	103	103	103	103
K	EAGLE LAKE	BRAZOS-COLORADO	173	183	186	181	187	196
K	COUNTY-OTHER	BRAZOS-COLORADO	114	115	114	111	110	109
K	LIVESTOCK	COLORADO	899	899	899	899	899	899
K	IRRIGATION	COLORADO	26,910	25,791	24,707	23,659	22,639	21,663
K	MINING	COLORADO	18,958	19,316	19,515	19,704	19,885	20,044
K	EAGLE LAKE	COLORADO	400	421	428	418	432	452
K	WEIMAR	COLORADO	253	268	272	267	275	289
K	COLUMBUS	COLORADO	1,026	1,099	1,128	1,113	1,153	1,206
K	MANUFACTURING	COLORADO	176	192	205	217	227	245
K	COUNTY-OTHER	COLORADO	724	732	725	707	700	692
K	WEIMAR	LAVACA	110	115	119	115	120	125
K	COUNTY-OTHER	LAVACA	355	359	356	347	343	340
K	MINING	LAVACA	1,727	1,759	1,778	1,795	1,811	1,826
K	IRRIGATION	LAVACA	118,485	113,554	108,784	104,167	99,678	95,381
K	LIVESTOCK	LAVACA	471	471	471	471	471	471
Sum of Projected Water Demands (acre-feet/year)			226,430	218,619	210,802	203,127	195,787	188,786

Appendix C4: Projected Water Supply Needs TWDB 2012 State Water Plan Data

Negative values (in red) reflect a projected water supply need, positive values a surplus.

COLORADO COUNTY

All values are in acre-feet/year

RWPG	WUG	WUG Basin	2010	2020	2030	2040	2050	2060
K	COLUMBUS	COLORADO	324	251	222	237	197	144
K	COUNTY-OTHER	BRAZOS-COLORADO	8	7	8	11	12	13
K	COUNTY-OTHER	COLORADO	76	68	75	93	100	108
K	COUNTY-OTHER	LAVACA	-105	-109	-106	-97	-93	-90
K	EAGLE LAKE	BRAZOS-COLORADO	245	235	232	237	231	222
K	EAGLE LAKE	COLORADO	52	31	24	34	20	0
K	IRRIGATION	BRAZOS-COLORADO	-16,169	-13,871	-11,640	-9,480	-7,380	-5,370
K	IRRIGATION	COLORADO	2,566	3,680	4,764	5,812	6,832	7,808
K	IRRIGATION	LAVACA	-33,131	-28,219	-23,449	-18,832	-14,343	-10,046
K	LIVESTOCK	BRAZOS-COLORADO	1	1	1	1	1	1
K	LIVESTOCK	COLORADO	-14	-14	-14	-14	-14	-14
K	LIVESTOCK	LAVACA	-11	-11	-11	-11	-11	-11
K	MANUFACTURING	COLORADO	1,039	1,093	1,148	1,201	1,254	1,236
K	MINING	BRAZOS-COLORADO	-19	-22	-23	-24	-25	-26
K	MINING	COLORADO	-8,450	-7,925	-7,072	-5,919	-4,483	-4,642
K	MINING	LAVACA	-100	-132	-151	-168	-184	-199
K	WEIMAR	COLORADO	1,551	1,536	1,532	1,537	1,529	1,515
K	WEIMAR	LAVACA	2,009	2,004	2,000	2,004	1,999	1,994
Sum of Projected Water Supply Needs (acre-feet/year)			-57,999	-50,303	-42,466	-34,545	-26,533	-20,398

Appendix C5: Projected Water Management Strategies

COLORADO COUNTY

WUG, Basin (RWPG)

All values are in acre-feet/year

Water Management Strategy	Source Name [Origin]	2010	2020	2030	2040	2050	2060
COUNTY-OTHER, LAVACA (K)							
EXPANSION OF GULF COAST AQUIFER	GULF COAST AQUIFER [COLORADO]	105	109	106	97	93	90
IRRIGATION, BRAZOS-COLORADO (K)							
AMENDMENT TO IRRIGATION WATER RIGHTS FOR MUNICIPAL AND INDUSTRIAL NEEDS	COLORADO RIVER RUN-OF-RIVER [COLORADO]	-4,568	-7,392	-9,240	-9,240	-11,550	-19,025
COA RETURN FLOWS	INDIRECT REUSE [TRAVIS]	620	728	936	1,143	1,220	1,388
CONJUNCTIVE USE OF GROUNDWATER - INCLUDES OVERDRAFTS	GULF COAST AQUIFER [COLORADO]	0	4,886	4,886	4,886	4,886	4,886
DEVELOPMENT OF NEW RICE VARIETIES	CONSERVATION [COLORADO]	0	4,548	4,548	4,548	4,548	4,548
DOWNSTREAM RETURN FLOWS	INDIRECT REUSE [TRAVIS]	0	0	6	28	55	65
FIRM-UP RUN-OF-RIVER WITH OFF-CHANNEL RESERVOIR - LCRA/SAWS PROJECT (REGION K COMPONENT)	COLORADO RIVER RUN-OF-RIVER EXCESS FLOWS PERMIT [MATAGORDA]	0	0	0	0	0	11,220
IRRIGATION DISTRICT CONVEYANCE IMPROVEMENTS	CONSERVATION [COLORADO]	0	8,282	8,282	8,282	8,282	8,282
IRRIGATION SUPPLY REDUCTION DUE TO LSWP	COLORADO RIVER RUN-OF-RIVER [COLORADO]	0	0	0	0	0	-8,326
LCRA WMP INTERRUPTIBLE WATER SUPPLY	COLORADO RIVER COMBINED RUN-OF-RIVER INTERRUPTIBLE [TRAVIS]	24,317	22,528	16,993	10,542	0	0
ON-FARM CONSERVATION	CONSERVATION [COLORADO]	0	4,715	4,715	4,715	4,715	4,715
IRRIGATION, LAVACA (K)							
AMENDMENT TO IRRIGATION WATER RIGHTS FOR MUNICIPAL AND INDUSTRIAL NEEDS	COLORADO RIVER RUN-OF-RIVER [COLORADO]	-10,079	-15,008	-18,760	-18,760	-23,450	-38,627
COA RETURN FLOWS	INDIRECT REUSE [TRAVIS]	1,256	1,478	1,900	2,321	2,570	3,373
CONJUNCTIVE USE OF GROUNDWATER - INCLUDES OVERDRAFTS	GULF COAST AQUIFER [COLORADO]	0	9,920	9,920	9,920	9,920	9,920
DEVELOPMENT OF NEW RICE VARIETIES	CONSERVATION [COLORADO]	0	10,181	10,181	10,181	10,181	10,181
DOWNSTREAM RETURN FLOWS	INDIRECT REUSE [TRAVIS]	0	0	13	56	113	158

Estimated Historical Water Use and 2012 State Water Plan Dataset:

Colorado County Groundwater Conservation

District July 11, 2014

Page 7

Appendix C5: Projected Water Management Strategies

WUG, Basin (RWPG)

All values are in acre-feet/year

Water Management Strategy	Source Name [Origin]	2010	2020	2030	2040	2050	2060
FIRM-UP RUN-OF-RIVER WITH OFF-CHANNEL RESERVOIR - LCRA/SAWS PROJECT (REGION K COMPONENT)	COLORADO RIVER RUN-OF-RIVER EXCESS FLOWS PERMIT [MATAGORDA]	0	0	0	0	0	22,780
IRRIGATION DISTRICT CONVEYANCE IMPROVEMENTS	CONSERVATION [COLORADO]	0	14,056	14,056	14,056	14,056	14,056
IRRIGATION SUPPLY REDUCTION DUE TO LSWP	COLORADO RIVER RUN-OF-RIVER [COLORADO]	0	0	0	0	0	-17,704
LCRA WMP INTERRUPTIBLE WATER SUPPLY	COLORADO RIVER COMBINED RUN-OF-RIVER INTERRUPTIBLE [TRAVIS]	46,316	45,738	32,488	9,265	0	0
ON-FARM CONSERVATION	CONSERVATION [COLORADO]	0	9,405	9,405	9,405	9,405	9,405

LIVESTOCK, COLORADO (K)

EXPANSION OF GULF COAST AQUIFER	GULF COAST AQUIFER [COLORADO]	14	14	14	14	14	14
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LIVESTOCK, LAVACA (K)

EXPANSION OF GULF COAST AQUIFER	GULF COAST AQUIFER [COLORADO]	11	11	11	11	11	11
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MINING, BRAZOS-COLORADO (K)

EXPANSION OF GULF COAST AQUIFER	GULF COAST AQUIFER [COLORADO]	19	22	23	24	25	26
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MINING, COLORADO (K)

DEVELOPMENT OF OTHER AQUIFER	OTHER AQUIFER [COLORADO]	4,269	4,269	4,269	4,269	4,269	4,269
EXPANSION OF GULF COAST AQUIFER	GULF COAST AQUIFER [COLORADO]	3,600	3,600	2,803	1,650	214	373
EXPANSION OF GULF COAST AQUIFER	GULF COAST AQUIFER [COLORADO]	581	56	0	0	0	0

MINING, LAVACA (K)

EXPANSION OF GULF COAST AQUIFER	GULF COAST AQUIFER [COLORADO]	100	132	151	168	184	199
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Sum of Projected Water Management Strategies (acre-feet/year)		66,561	122,278	97,706	67,581	39,761	26,277
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