

PANHANDLE WATER PLANNING GROUP

P.O. Box 9257
Phone: 806-372-3381

Amarillo, Texas 79105
Fax: 806-373-3268

C.E. Williams
*Chairman
Water Districts*

Judge Vernon Cook
*Vice-Chairman
Counties*

David Landis.
*Secretary
Municipalities*

Dr. Nolan Clark, P.E.
*Executive Committee
Environmental*

John Williams, P.E.
*Executive Committee
Water Districts*

Janet Guthrie
Public

Steve Walthour
Water Districts

Charles Cooke
Water Utilities

Jim Derington
River Districts

Kendall Harris
Agriculture

Rusty Gilmore
Small Business

Gale Henslee
Elec. Generating Utility

Grady Skaggs
Environmental

Tom Bailiff
Water Districts

Emmett Autrey
Municipalities

Bill Hallerberg
Industries

Cole Camp
Environmental

Ben Weinheimer
Agriculture

Janet Tregellas
Agriculture

Joe Baumgardner
Agriculture

Dr. John Sweeten
Higher Education

November 8, 2010

Kevin Ward

Executive Administrator

Texas Water Development Board

P.O. Box 13231

Austin, TX 78711

Dear Mr. Ward,

Panhandle Water Planning Group Membership greatly appreciates the Texas Water Development Board's Staff Review of its adopted and submitted 2011 Regional Water Plan. During this review a few minor database inconsistencies were identified. In response to TWDB Staff recommendations, we have prepared the attached errata addressing these inconsistencies in Attachment 4-1 and the appendices. The attached Errata shall be made part of the Final 2011 Panhandle Water Planning Area Water Plan.

I am available to discuss any further recommendations at your convenience.

Thanks,



C.E. Williams

Chairman

Panhandle Water Planning Group

cc: Virginia Sabia, TWDB

Kyle G. Ingham, PRPC

Simone Kiel, Freese & Nichols

RECEIVED
NOV 11 2010
TWDB

Errata for 2010 Region A Regional Water Plan

November 1, 2010

Replace Attachment 4-1 with the updated Attachment 4-1 at the end of this document.

The following statement is added to the fly sheet to Appendix A, DB 12 Summary Tables, and is incorporated into the Panhandle Water Planning Area Regional Water Plan:

There may be slight numerical differences between the TWDB online planning database and the printed regional water plan due to rounding associated with the regional water plan preparation and online data entry. In any and all instances where numbers in the regional water plan and the online planning database do not match, the data in the online planning database (DB12) shall take precedence over the associated number in the regional water plan for development of the State Water Plan."

Add or replace the following entities and corresponding data in Appendix A, DB12 Summary Tables:

Region A Water User Group Potentially Feasible Water Management Strategy Supply

WUG Name	WUG County	WUG Basin	Project Name	Source Name	Source County	Source Basin	Selected	SS2010	SS2020	SS2030	SS2040	SS2050	SS2060
COUNTY-OTHER	RANDALL	RED	VOLUNTARY TRANSFER FROM OTHER USERS	OGALLALA AQUIFER	POTTER	CANADIAN	Alternate	0	0	300	500	800	1,000
IRRIGATION	COLLINGSWORTH	RED	PRECIPITATION ENHANCEMENT	WEATHER MODIFICATION	COLLINGSWORTH	RED	Alternate	0	1,397	1,397	1,397	1,397	1,397
CACTUS	MOORE	CANADIAN	PALO DURO RESERVOIR	PALO DURO LAKE	RESERVOIR	CANADIAN	Alternate	0	0	1,744	1,744	1,744	1,740
DUMAS	MOORE	CANADIAN	PALO DURO RESERVOIR	PALO DURO LAKE	RESERVOIR	CANADIAN	Alternate	0	0	1,356	1,356	1,356	1,352

Region A Potentially Feasible Water Management Strategy Cost

WUG Name	WUG County	WUG Basin	Project Name	Source Name	Capital Cost	AC 2010	AC 2020	AC 2030	AC 2040	AC 2050	AC 2060
LEFORS	GRAY	RED	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$1,470	\$1,960	\$1,960	\$1,960	\$1,960
MEMPHIS	HALL	RED	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$6,370	\$10,780	\$10,780	\$10,780	\$10,780
GRUVER	HANSFORD	CANADIAN	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$4,900	\$7,840	\$8,330	\$8,330	\$8,330
SPEARMAN	HANSFORD	CANADIAN	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$10,780	\$19,110	\$20,090	\$20,580	\$20,580
BORGER	HUTCHINSON	CANADIAN	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$11,760	\$34,790	\$55,860	\$52,430	\$49,980
DUMAS	MOORE	CANADIAN	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$43,610	\$77,420	\$81,340	\$83,790	\$85,260
SUNRAY	MOORE	CANADIAN	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$8,820	\$16,660	\$17,640	\$18,620	\$19,110
AMARILLO	POTTER	CANADIAN	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$222,950	\$395,920	\$423,850	\$453,250	\$477,750
AMARILLO	POTTER	RED	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$159,250	\$281,750	\$301,350	\$323,400	\$343,000
AMARILLO	RANDALL	RED	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$291,550	\$524,300	\$567,910	\$615,440	\$655,130
CANYON	RANDALL	RED	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$39,200	\$86,240	\$93,590	\$101,920	\$111,230
COUNTY-OTHER	RANDALL	RED	MUNICIPAL CONSERVATION	CONSERVATION	\$0	\$0	\$49,490	\$96,530	\$113,190	\$131,320	\$146,510
COUNTY-OTHER	RANDALL	RED	VOLUNTARY TRANSFER FROM OTHER USERS	OGALLALA AQUIFER	\$3,116,400	\$0	\$0	\$561,000	\$727,100	\$704,600	\$870,700
COUNTY-OTHER	HALL	RED	DRILL ADDITIONAL GROUNDWATER WELL	OGALLALA AQUIFER	\$1,261,200	\$145,550	\$145,550	\$35,600	\$35,600	\$35,600	\$35,600

Region A Wholesale Water Provider Supplies

Source Name	Source County	Source Basin	WUG Name	Selected	SS2010	SS2020	SS2030	SS2040	SS2050	SS2060
PALO DURO LAKE/RESERVOIR	RESERVOIR	CANADIAN	PDRA - Future	Recommended	0	0	117	75	34	0

ATTACHMENT 4-1

Potentially Feasible Water Management Strategies

List of Potentially Feasible Strategies

CRMWA ACQUISITION OF WATER RIGHTS
CRMWA ROBERTS COUNTY WELL FIELD
DRILL ADDITIONAL GROUNDWATER WELL
IRRIGATION CONSERVATION
IRRIGATION CONSERVATION
MANUFACTURING CONSERVATION
MUNICIPAL CONSERVATION
PALO DURO RESERVOIR
POTTER COUNTY WELL FIELD
PRECIPITATION ENHANCEMENT
ROBERTS COUNTY WELL FIELD - AMARILLO
VOLUNTARY TRANSFER FROM OTHER USERS

**Summary of Recommended Water Management Strategies
Panhandle Water Planning Area**

Entity	County Used	Basin Used	Total Capital Cost	1st Decade Unit Cost	2010	2020	2030	2040	2050	2060	2060 Unit Cost	
Municipal Conservation												
AMARILLO	Potter and Randall	Red and Canadian	\$0	\$490	0	1,375	2,453	2,639	2,841	3,012	\$490	
BORGER	Hutchinson	Canadian	\$0	\$490	0	24	71	114	107	102	\$490	
CACTUS	Moore	Canadian	\$0	\$490	0	18	31	31	31	31	\$490	
CANYON	Randall	Red	\$0	\$490	0	80	176	191	208	227	\$490	
COUNTY-OTHER	Moore	Canadian	\$0	\$490	0	29	63	75	83	87	\$490	
COUNTY-OTHER	Potter	Canadian	\$0	\$490	0	41	85	103	124	140	\$490	
COUNTY-OTHER	Potter	Red	\$0	\$490	0	28	58	71	85	96	\$490	
COUNTY-OTHER	Randall	Red	\$0	\$490	0	101	197	231	268	299	\$490	
DUMAS	Moore	Canadian	\$0	\$490	0	89	158	166	171	174	\$490	
GRUVER	Hansford	Canadian	\$0	\$490	0	10	16	17	17	17	\$490	
LEFORS	Gray	Red	\$0	\$490	0	3	4	4	4	4	\$490	
MEMPHIS	Hall	Red	\$0	\$490	0	13	22	22	22	22	\$490	
PAMPA	Gray	Canadian	\$0	\$490	0	15	65	65	65	65	\$490	
PANHANDLE	Carson	Red	\$0	\$490	0	17	29	28	25	23	\$490	
PERRYTON	Ochiltree	Canadian	\$0	\$490	0	64	113	118	120	123	\$490	
SPARMAN	Hansford	Canadian	\$0	\$490	0	22	39	41	42	42	\$490	
SUNRAY	Moore	Canadian	\$0	\$490	0	18	34	36	38	39	\$490	
TEXLINE	Dallam	Canadian	\$0	\$490	0	7	12	12	12	11	\$490	
WHEELER	Wheeler	Red	\$0	\$490	0	9	15	15	15	15	\$490	
TOTAL			\$0	\$490	0	1,963	3,641	3,979	4,278	4,529	\$490	
Irrigation Conservation												
IRRIGATION	Armstrong	Red	\$0	\$24	0	2,170	2,251	2,397	2,478	2,558	\$25	
IRRIGATION	Carson	Canadian	\$0	\$23	0	4,096	4,247	4,520	4,672	4,824	\$25	
IRRIGATION	Carson	Red	\$0	\$23	0	13,220	13,710	14,592	15,082	15,571	\$25	
IRRIGATION	Childress	Red	\$0	\$24	0	1,640	1,704	1,819	1,883	1,946	\$26	
IRRIGATION	Collingsworth	Red	\$0	\$25	0	2,879	3,021	3,276	3,418	3,560	\$27	
IRRIGATION	Dallam	Canadian	\$0	\$19	0	59,275	108,476	121,561	122,958	122,958	\$18	
IRRIGATION	Donley	Red	\$0	\$24	0	2,910	3,031	3,249	3,370	3,490	\$26	
IRRIGATION	Gray	Canadian	\$0	\$23	0	1,310	1,359	1,446	1,494	1,542	\$25	
IRRIGATION	Gray	Red	\$0	\$23	0	3,969	4,116	4,379	4,525	4,672	\$25	
IRRIGATION	Hall	Red	\$0	\$24	0	3,220	3,354	3,595	3,728	3,862	\$26	
IRRIGATION	Hansford	Canadian	\$0	\$21	0	24,436	45,264	51,215	51,951	51,951	\$21	
IRRIGATION	Hartley	Canadian	\$0	\$19	0	53,755	98,786	110,553	111,772	111,772	\$18	
IRRIGATION	Hemphill	Canadian	\$0	\$23	0	187	194	207	213	220	\$25	
IRRIGATION	Hemphill	Red	\$0	\$24	0	41	43	46	47	48	\$26	
IRRIGATION	Hutchinson	Canadian	\$0	\$20	0	7,514	14,044	15,905	16,128	16,128	\$20	
IRRIGATION	Lipscomb	Canadian	\$0	\$23	0	2,279	2,360	2,506	2,587	2,668	\$25	
IRRIGATION	Moore	Canadian	\$0	\$20	0	31,602	58,995	66,995	67,846	67,846	\$19	
IRRIGATION	Ochiltree	Canadian	\$0	\$23	0	17,899	17,899	19,053	19,694	20,335	\$25	
IRRIGATION	Oldham	Canadian	\$0	\$24	0	626	649	692	715	739	\$25	
IRRIGATION	Oldham	Red	\$0	\$24	0	188	195	208	215	222	\$25	

**Summary of Recommended Water Management Strategies
Panhandle Water Planning Area**

Entity	County Used	Basin Used	Total Capital Cost	1st Decade Unit Cost	2010	2020	2030	2040	2050	2060	2060 Unit Cost
IRRIGATION	Potter	Canadian	\$0	\$24	0	446	464	496	513	531	\$26
IRRIGATION	Potter	Red	\$0	\$24	0	490	510	545	564	583	\$26
IRRIGATION	Randall	Red	\$0	\$23	0	18,028	18,673	19,835	20,481	21,126	\$25
IRRIGATION	Roberts	Canadian	\$0	\$24	0	2,642	2,758	2,968	3,084	3,200	\$26
IRRIGATION	Roberts	Red	\$0	\$24	0	130	135	146	152	157	\$26
IRRIGATION	Sherman	Canadian	\$0	\$20	0	41,128	77,102	86,803	87,896	87,896	\$19
IRRIGATION	Wheeler	Red	\$0	\$24	0	1,676	1,740	1,854	1,917	1,980	\$25
TOTAL			\$0	\$21	0	297,114	485,080	540,861	549,383	552,385	\$20
Irrigation Conservation - Precipitation Enhancement											
IRRIGATION	Armstrong	Red	\$0	\$6	0	785	785	785	785	785	\$6
IRRIGATION	Carson	Canadian	\$0	\$6	0	1,471	1,471	1,471	1,471	1,471	\$6
IRRIGATION	Carson	Red	\$0	\$6	0	4,750	4,750	4,750	4,750	4,750	\$6
IRRIGATION	Donley	Red	\$0	\$6	0	1,179	1,179	1,179	1,179	1,179	\$6
IRRIGATION	Gray	Canadian	\$0	\$6	0	468	468	468	468	468	\$6
IRRIGATION	Gray	Red	\$0	\$6	0	1,418	1,418	1,418	1,418	1,418	\$6
IRRIGATION	Hutchinson	Canadian	\$0	\$6	0	2,965	2,965	2,965	2,965	2,965	\$6
IRRIGATION	Potter	Canadian	\$0	\$6	0	172	172	172	172	172	\$6
IRRIGATION	Potter	Red	\$0	\$6	0	189	189	189	189	189	\$6
IRRIGATION	Roberts	Canadian	\$0	\$6	0	1,138	1,138	1,138	1,138	1,138	\$6
IRRIGATION	Roberts	Red	\$0	\$6	0	56	56	56	56	56	\$6
IRRIGATION	Wheeler	Red	\$0	\$6	0	615	615	615	615	615	\$6
TOTAL			\$0	\$6	0	15,206	15,206	15,206	15,206	15,206	\$6
New Groundwater - Ogallala Aquifer											
PANHANDLE	Carson	Red	\$3,309,300	\$736	0	0	600	600	600	600	\$255
TEXLINE	Dallam	Canadian	\$2,304,000	\$1,113	0	250	250	250	250	250	\$310
LEFORS	Gray	Red	\$1,132,500	\$1,328	0	0	100	100	100	100	\$341
PAMPA	Gray	Canadian	\$1,731,100	\$519	968	2,581	0	0	0	0	\$0
MEMPHIS	Hall	Red	\$1,042,100	\$1,212	0	100	100	100	100	100	\$303
COUNTY-OTHER	Hall	Red	\$1,261,200	\$1,456	100	100	100	100	100	100	\$356
COUNTY-OTHER	Hall	Red	\$1,261,200	\$2,911	50	50	50	100	100	100	\$356
SPEARMAN	Hansford	Canadian	\$3,862,000	\$594	0	0	900	900	900	900	\$220
GRUVER	Hansford	Canadian	\$1,968,500	\$731	0	350	350	350	350	350	\$241
FRITCH	Hutchinson	Canadian	\$4,006,900	\$1,154	200	400	400	400	400	400	\$281
COUNTY-OTHER	Moore	Canadian	\$3,114,800	\$474	0	0	500	500	1,000	1,000	\$338
DUMAS	Moore	Canadian	\$7,997,200	\$1,201	0	387	1,163	1,672	2,219	2,500	\$200
STEAMELECTRIC	Moore	Canadian	\$1,852,600	\$1,017	200	200	200	200	200	200	\$209
POWER	Moore	Canadian	\$3,121,300	\$567	0	0	800	800	800	800	\$227
SUNRAY	Moore	Canadian	\$7,087,000	\$1,214	0	0	0	0	600	1,200	\$759
PERRYTON	Ochiltree	Canadian	\$3,114,800	\$474	0	0	0	1,000	1,000	1,000	\$202
COUNTY-OTHER	Potter	Red	\$5,444,600	\$624	0	600	600	600	1,200	1,200	\$426
COUNTY-OTHER	Potter	Red	\$10,889,220	\$624	0	0	600	1,200	1,800	2,400	\$307
COUNTY-OTHER	Randall	Red	\$2,233,300	\$1,311	0	0	0	0	200	200	\$1,311
WHEELER	Wheeler	Red			0	0	0	0	200	200	\$1,311

**Summary of Recommended Water Management Strategies
Panhandle Water Planning Area**

Entity	County Used	Basin Used	Total Capital Cost	1st Decade Unit Cost	2010	2020	2030	2040	2050	2060	2060 Unit Cost
Wholesale Water Providers:											
AMARILLO (Potter Co. Wellfield)	Potter and Randall	Red and Canadian	\$128,511,300	\$1,518	0	9,467	10,292	11,182	11,141	10,831	\$293
AMARILLO (Roberts Co. wellfield)	Potter and Randall	Red and Canadian	\$287,377,200	\$1,447	0	0	0	11,210	11,210	22,420	\$889
BORGER	Hutchinson	Canadian	\$9,379,200	\$628	0	0	1,000	1,000	2,000	2,000	\$424
CACTUS	Moore	Canadian	\$10,893,400	\$537	500	1,500	1,500	3,000	3,000	3,000	\$220
CRMWA (Roberts Co. wellfield)	Multiple	Red and Canadian	\$21,824,000	\$239	0	0	15,000	15,000	15,000	15,000	\$112
GREENBELT M&IWA	Multiple	Red	\$1,865,900	\$288	0	800	800	800	800	800	\$84
TOTAL			\$526,584,620	\$892	2,018	16,785	35,205	51,064	55,070	67,451	\$459
New Groundwater - Dockum Aquifer											
CANYON	Randall	Red	\$9,528,800	\$407	700	1,400	2,100	2,800	2,800	3,800	\$188
Voluntary Transfer from Other Users (Sales/Contracts)¹											
MEMPHIS	Hall	Red	\$0	NA	0	0	100	100	100	100	NA
PAMPA	Gray	Canadian	\$0	NA					1,000	1,000	NA
MANUFACTURING	Hutchinson	Canadian	\$0	NA	0	0	664	664	1,252	1,500	NA
COUNTY OTHER	Moore	Canadian	\$0	NA	0	0	50	100	100	100	NA
MANUFACTURING	Moore	Canadian	\$0	NA	200	800	1,100	1,400	1,800	2,100	NA
MANUFACTURING	Potter	Canadian	\$0	NA	0	0	200	328	313	225	NA
MANUFACTURING	Potter	Red	\$0	NA	0	0	444	1,087	1,846	2,638	NA
TOTAL			\$0	NA	200	800	2,558	3,679	6,411	7,663	NA
Palo Duro Transmission System											
PDRA	Multiple	Canadian	\$114,730,000	\$2,976	0	0	3,875	3,833	3,792	3,750	\$408
Acquisition of Water Rights											
CRMWA			\$88,200,000	NA	0	0	0	0	0	0	NA
REGION TOTAL²			\$739,043,420		2,918	333,268	547,665	621,422	636,940	654,784	

NA- Not applicable. Purchase water costs will be determined between the buyer and seller. For purposes of this plan, annual cost for sales with no infrastructure improvements is \$0.

- Voluntary Transfer uses existing supplies or supplies developed through other water management strategies.
- Regional Total includes supplies listed under Voluntary Transfer. This may represent duplicative water and differ from the TWDB database totals.

**Summary of Alternate Water Management Strategies
Panhandle Water Planning Area**

Entity	County Used	Basin Used	Total Capital Cost	1st Decade Unit Cost	2010	2020	2030	2040	2050	2060	2060 Unit Cost	
Irrigation Conservation - Precipitation Enhancement												
IRRIGATION	Childress	Red	\$0	\$6	0	620	620	620	620	620	\$6	
IRRIGATION	Collingsworth	Red	\$0	\$6	0	1,397	1,397	1,397	1,397	1,397	\$6	
IRRIGATION	Dallam	Canadian	\$0	\$6	0	18,625	18,625	18,625	18,625	18,625	\$6	
IRRIGATION	Hall	Red	\$0	\$6	0	1,304	1,304	1,304	1,304	1,304	\$6	
IRRIGATION	Hansford	Canadian	\$0	\$6	0	9,811	9,811	9,811	9,811	9,811	\$6	
IRRIGATION	Hartley	Canadian	\$0	\$6	0	16,255	16,255	16,255	16,255	16,255	\$6	
IRRIGATION	Hemphill	Red	\$0	\$6	0	15	15	15	15	15	\$6	
IRRIGATION	Hemphill	Canadian	\$0	\$6	0	67	67	67	67	67	\$6	
IRRIGATION	Lipscomb	Canadian	\$0	\$6	0	784	784	784	784	784	\$6	
IRRIGATION	Moore	Canadian	\$0	\$6	0	11,348	11,348	11,348	11,348	11,348	\$6	
IRRIGATION	Ochiltree	Canadian	\$0	\$6	0	6,220	6,220	6,220	6,220	6,220	\$6	
IRRIGATION	Oldham	Red	\$0	\$6	0	68	68	68	68	68	\$6	
IRRIGATION	Oldham	Canadian	\$0	\$6	0	227	227	227	227	227	\$6	
IRRIGATION	Randall	Red	\$0	\$6	0	6,251	6,251	6,251	6,251	6,251	\$6	
IRRIGATION	Sherman	Canadian	\$0	\$6	0	14,566	14,566	14,566	14,566	14,566	\$6	
TOTAL			\$0	\$6	0	87,558	87,558	87,558	87,558	87,558	\$6	
Voluntary Transfer from Other Users (Sales/Contracts)												
County-Other	Randall	Red	\$3,116,400	\$1,870	0	0	300	500	800	1,000	\$871	
TOTAL			\$3,116,400	\$1,870	0	0	300	500	800	1,000	\$871	
Palo Duro Transmission System												
Dumas			\$36,695,500	\$2,737	0	0	1,356	1,356	1,356	1,352	\$378	
Gruver			\$5,127,000	\$4,303	0	0	116	116	116	116	\$458	
Spearman			\$3,482,800	\$1,366	0	0	271	271	271	271	\$246	
Sunray			\$7,692,100	\$2,879	0	0	271	271	271	271	\$407	
Cactus			\$54,842,300	\$3,155	0	0	1,744	1,744	1,744	1,740	\$413	
TOTAL¹			\$107,839,700	\$2,891	0	0	3,758	3,758	3,758	3,750	\$390	
REGION TOTAL			\$110,956,100		0	87,558	91,616	91,816	92,116	92,308		

1. Costs shown for the Palo Duro Transmission System are for informational purposes only. Total cost for the project is shown in the recommended strategies for PDRA.