

Attachment 1

Wyoming Depletions Report – Water Year 2010

1. Existing Water Related Activities – Baseline No. 1

1.1. Compliance with the Modified North Platte Decree

Wyoming complied with the Modified Decree as per the intentionally irrigated acreage report submitted to the NPDC on February 25, 2011. The intentionally irrigated acreage was 203,657 acres for the sub-basin above Guernsey Reservoir. Irrigation water use in the Benchmark No. 1 sub-basins appears in *Attachment 2 – Table 2.1*.

1.2. Kendrick Project

The Kendrick Project did not exceed the acreage limitation of 24,248 acres. In a letter received on February 17, 2011 from Mr. John Lawson, Bureau of Reclamation Area Manager, he indicated that the Casper-Alcova Irrigation District reported the area irrigated as 24,248 for WY 2010.

1.3. Mitigation

No mitigation is required.

2. Existing Water Related Activities – Baseline No. 2

2.1. Annual Water Use versus Benchmarks

Irrigation water use in the Benchmark No. 2 sub-basins appears in *Attachment 2 – Table 2.2*. Since the Horse Creek sub-basin irrigation has no affect on depletions at the State Line during the irrigation season, irrigated acres in this sub-basin were not counted in WY 2010.

Attachment 2 – Table 2.4 compares the WY 2010 water use with the benchmarks. The irrigation, municipal, industrial, rural domestic, retired uses, and post-1997 new water uses are included in each respective row.

The sources of the rural domestic population data is the State of Wyoming Department of Administration and Information and the U.S. Census Bureau 2010 Census. The rural domestic use is based upon 2009 populations, which are the most current data available. The municipal population totals are based on the 2010 Census.

Attachment 2 – Table 2.4 column 5 includes water right abandonments derived from searching the Wyoming Board of Control records for permanently retired irrigation water uses between 2005 – 2008. In the Pathfinder to Guernsey sub-basin, the records were searched back to 1998.

Attachment 1 Wyoming Depletions Report – Water Year 2010

2.2. Mitigation

After the overruns and underruns are translated to the state line, the net effect is an underrun of 66,340 acre-feet for the irrigation season and 2,805 acre-feet for the non-irrigation season. No mitigation is required.

3. South Platte River Basin – Baseline No. 3

For WY 2010, the total increase in acre-feet of storage in the South Platte Basin in Wyoming is 0.12 acre-feet. The 1997 to 2009 total was 36.17 acre-feet, and with the increase from WY 2010, the post-1997 storage developed in the South Platte River basin is 36.29 acre-feet. All of these facilities are small ponds for stock, wildlife, fish propagation, or environmental purposes. The cumulative effect of these facilities does not affect flows at the Wyoming / Colorado state line during a large runoff event.

4. Proposed Changes to Benchmarks

At this point in time, Wyoming has no plans to propose changes to the benchmarks.

5. New Water Related Activities

5.1. In *Attachment 2 – Table 2.3*, Wyoming reports by sub-basin the new water related activities commencing during Water Year 2010 that are covered by existing water related Baseline No. 2 in Wyoming's Depletions Plan. *Table 2.3* also includes the total number of new water related activities implemented since 1997. This post-1997 total is integrated into Column 6 of *Table 2.4* and contributes to the overruns/underruns that occur.

The new water related activities initiated during Water Year 2010 consist of small sediment and stock ponds, as well as new or enlarged wells for expanded lodges and industrial buildings. The small ponds are non-irrigation facilities that have capacities less than 20 acre-feet. The estimated net depletion/accretion of the small ponds and new or enlarged wells are 5.62 acre-feet depletion during the irrigation season and 4.51 acre-feet depletion during the non-irrigation season. Ponds with non-hydrologic sources are not included in the report.

Our review of the baseline monitoring showed decreased depletions for industrial water users when compared to WY 2008 and WY 2009, with the exception of the Dave Johnston Power Plant and the Western Sugar Cooperative. Municipal growth for Wyoming remained steady, with the greatest increase in population occurring in Douglas and Casper areas.

Attachment 1
Wyoming Depletions Report – Water Year 2010

6. Non-hydrologically Connected Groundwater Wells

During WY 2010, there were no new groundwater well applications submitted to the SEO which requires the approval of the Groundwater Wells Subcommittee (GWSC) of the NPDC. Therefore, no new non-hydrologically connected groundwater wells were permitted in areas considered to be hydrologically connected.

Attachment 2

Wyoming Depletions Report – Water Year 2010

Table 2.1.
Existing Water Related Baseline No. 1

Decree Category	Benchmark Acreage	2010 Acreage	Difference Acreage
Irrigated Acreage-Ab. Gu.	226,000	203,657	22,343
Irrigated Acreage-Kendrick	24,248	*	
* At or less than 24,248 acres			

Table 2.2.
Existing Water Related Baseline No. 2 – Irrigation Water Use

Sub-basin	Acreage Benchmark	2010 Acreage	Overruns (Underruns)	Unit C.U.	Overruns (Underruns)
	(acres)	(acres)	(acres)	(af/acre)	(acre-feet)
Guernsey-State Line	106,221	76,122	-30,099	1.32	-39,730.68
Horse Creek	41,179	*		1.16	
Upper Laramie	91,255	69,964	-21,291	0.79	-16,819.89
Lower Laramie	85,711	60,332	-25,379	1.31	-33,246.49
Total	324,366	206,418	-76,769		-89,797.06
*Since Horse Ck. sub-basin depletions have no affect on depletions at the State Line during the irrigation season irrigated acres were not counted in WY 2010.					

Attachment 2
Wyoming Depletions Report – Water Year 2010

Table 2.3.
Total Depletions from New Water Activities – Post 1997

Sub-basin	Irrigation Season			Non-Irrigation Season		
	97 to 09	WY 2010	Total	97 to 09	WY 2010	Total
	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)	(acre-feet)
Above Pathfinder	112.55	4.94	117.49	25.98	4.07	30.05
Pathfinder to Guernsey	-7.64	0.68	-6.96	52.43	0.44	52.87
Guernsey to State Line	45.82	0.00	45.82	31.74	0.00	31.74
Horse Creek	38.22	0.00	38.22	26.11	0.00	26.11
Upper Laramie	10.75	0.00	10.75	8.65	0.00	8.65
Lower Laramie	58.73	0.00	58.73	29.27	0.00	29.27
Total	258.43	5.62	264.05	174.18	4.51	178.69

Attachment 2
Wyoming Depletions Report – Water Year 2010

Table 2.4.
Water Year 2010 Overruns / Underruns

Sub-basin	Table 2.4 - Irrigation Season - Overruns / Underruns AF							Tracking Factors Table I	Effects State Line (AF)
	Irrigation Use	Municipal Use	Industrial Use	Rural Domestic	Retired Uses	Post 1997 Activities	Total		
	1	2	3	4	5	6	7	8	9
Above Pathfinder	-----	-675.22	385.45	-200.73	-1.29	117.49	-374.30	0.90	-336.87
Pathfinder to Guernsey	-----	-1,395.81	-2,907.91	98.07	-40.90	-6.96	-4,253.51	0.98	-4,147.17
Guernsey to State Line	-39,730.68	-924.30	-10.40	-73.00	-95.64	45.82	-40,788.20	1.00	-40,788.20
Horse Creek	-----	-20.09	0.00	-25.00	-1.95	38.22	-8.82	0.00	0.00
Upper Laramie	-16,819.89	-261.04	0.00	-112.47	-0.79	10.75	-17,183.44	0.25	-4,295.86
Lower Laramie	-33,246.49	-306.22	0.00	-50.73	-0.62	58.73	-33,545.33	0.50	-16,772.67
WY 2010 Total	-89,797.06	-3,582.68	-2,532.86	-363.87	-141.19	264.05	-96,153.60		-66,340.77

Sub-basin	Table 2.4 - Non-Irrigation Season - Overruns / Underruns AF							Tracking Factors Table II	Effects State Line (AF)
	Irrigation Use	Municipal Use	Industrial Use	Rural Domestic	Retired Uses	Post 1997 Activities	Total		
	1	2	3	4	5	6	7	8	9
Above Pathfinder	-----	-208.00	447.75	-100.37	0.00	30.05	169.43	0.93	157.57
Pathfinder to Guernsey	-----	-257.59	-2,655.28	49.03	0.00	52.87	-2,810.97	1.00	-2,810.97
Guernsey to State Line	-----	-376.14	368.53	-31.50	0.00	31.74	-7.37	1.00	-7.37
Horse Creek	-----	-36.78	0.00	-12.50	0.00	26.11	-23.17	1.00	-23.17
Upper Laramie	-----	94.09	0.00	-51.23	0.00	8.65	51.51	0.50	25.75
Lower Laramie	-----	-151.13	0.00	-25.37	0.00	29.27	-147.23	1.00	-147.23
WY 2010 Total	-----	-935.55	-1,839.00	-171.93	0.00	178.69	-2,767.79		-2,805.41