

**May 1, 2008**  
**WATER SUPPLY AND UTILIZATION REPORT**  
**NORTH PLATTE RIVER BASIN**  
**WYOMING AREA OFFICE**

**This report concerns the operation of Reclamation facilities in the North Platte River Basin.**

**Reclamation defines a water year as the time period of October 1 through September 30. Water year is abbreviated in this report as W. Yr.**

**Other organizations furnished information for the Water Supply and Utilization Report. Their cooperation is greatly appreciated.**

This report is available on the Internet and can be accessed by following these steps:

1. Log on to the Great Plains Home Page at: <http://www.usbr.gov/gp>
2. On left side of page Select [Water Operations](#).
3. Under Water Operations Select [Water Management Information](#).
4. Under Water Management Select [Water Supply Report](#).
5. Under North Platte River Basin, select [Current Month](#) or reports from the [previous 12 months](#).

**NORTH PLATTE RIVER BASIN INFLOW**

The April inflows were below average for Pathfinder, Glendo and Guernsey Reservoirs.

(1000 acre-feet)

Reservoir	April Inflow			April Historical Inflow			Accumulated Inflow (October - April)		
	W. Yr. 2008	30 Yr. Avg. <sup>5</sup>	% of Avg.	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005	W. Yr. 2008	30 Yr. Avg. <sup>5</sup>	% of Avg.
Seminole	104.8	102.2	103	90.4	120.4	102.5	272.8	296.3	92
Pathfinder <sup>1,2</sup>	8.7	19.9	44	8.7	15.2	15.4	36.0	58.3	62
Glendo <sup>3</sup>	14.6	36.2	40	29.9	34.1	9.3	45.1	109.5	41
Guernsey <sup>4</sup>	-0.4	3.9	N/A	-0.1	-2.0	0.8	4.0	14.0	29

1 It is assumed that there is no gain between Seminole and Kortes Dams.

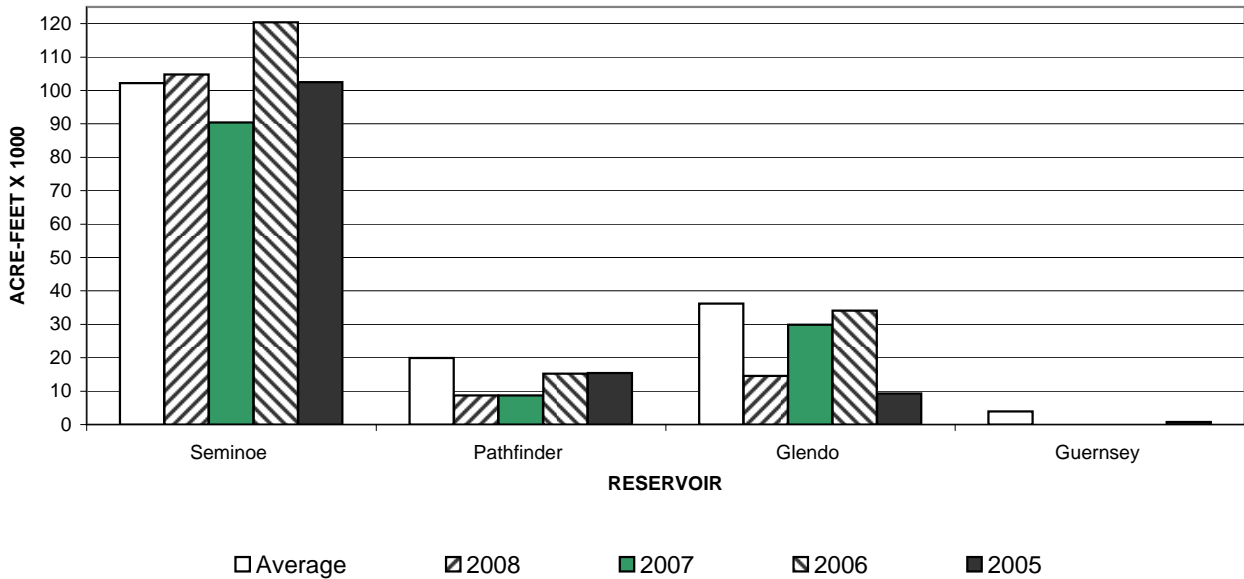
2 River gain between Kortes and Pathfinder Dams.

3 River gain between Pathfinder and Glendo Dams.

4 River gain between Glendo and Guernsey Dams.

5 30 year average. (1978-2007)

**NORTH PLATTE RIVER BASIN  
RESERVOIR INFLOW  
April**



## NORTH PLATTE RIVER BASIN OUTFLOW

The April outflows for Seminoe, Kortees, Glendo and, Guernsey Reservoirs were below average.

(1000 acre-feet)

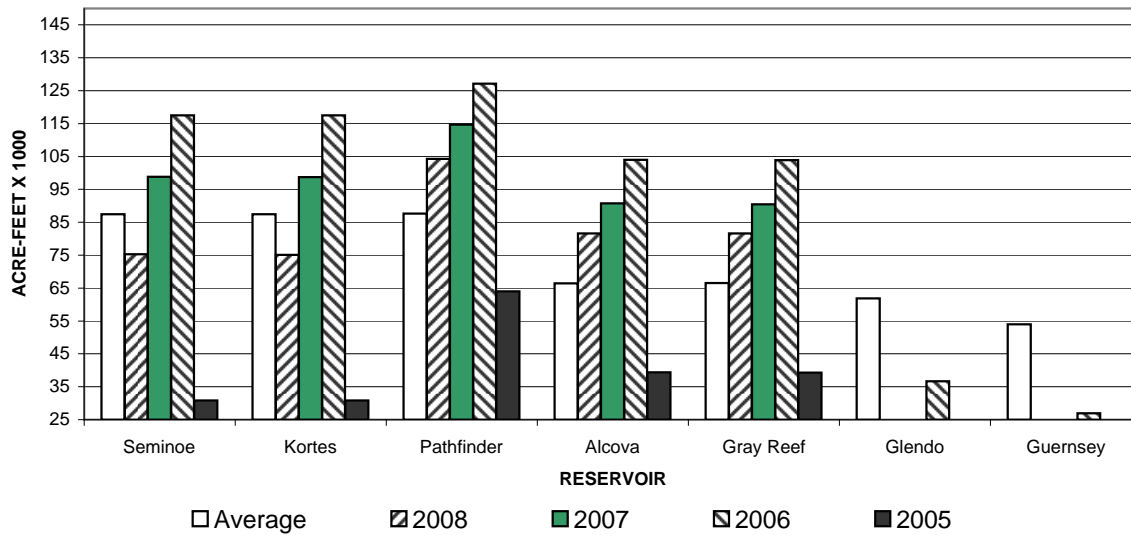
Reservoir	April Outflow			April Historical Outflow			Accumulated Outflow (October - April)		
	W. Yr. 2008	30 Yr. Avg. <sup>2</sup>	% of Avg.	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005	W. Yr. 2008	30 Yr. Avg. <sup>2</sup>	% of Avg.
Seminoe	75.3	87.5	86	98.8	117.5	30.8	272.9	452.0	60
Kortees	75.1	87.5	86	98.7	117.5	30.8	272.7	451.9	60
Pathfinder	104.3	87.6	119	114.7	127.1	64.0	283.1	338.7	84
Alcova	81.6	66.4	123	90.8	104.0	39.4	280.8	336.2	84
Gray Reef	81.6	66.5	123	90.5	103.9	39.3	281.0	336.1	84
Glendo <sup>1</sup>	23.2	61.9	37	24.9	36.7	1.9	34.4	96.0	36
Guernsey	16.6	54.0	31	17.0	26.9	0.5	18.5	86.2	21

<sup>1</sup> In 1993 an outlet was constructed at Glendo Dam which is used to provide a flow of approximately 25 cubic feet per second.

<sup>2</sup> 30 year average (1978-2007).

### NORTH PLATTE RIVER BASIN RESERVOIR OUTFLOW

April



### NORTH PLATTE RIVER BASIN RESERVOIR STORAGE

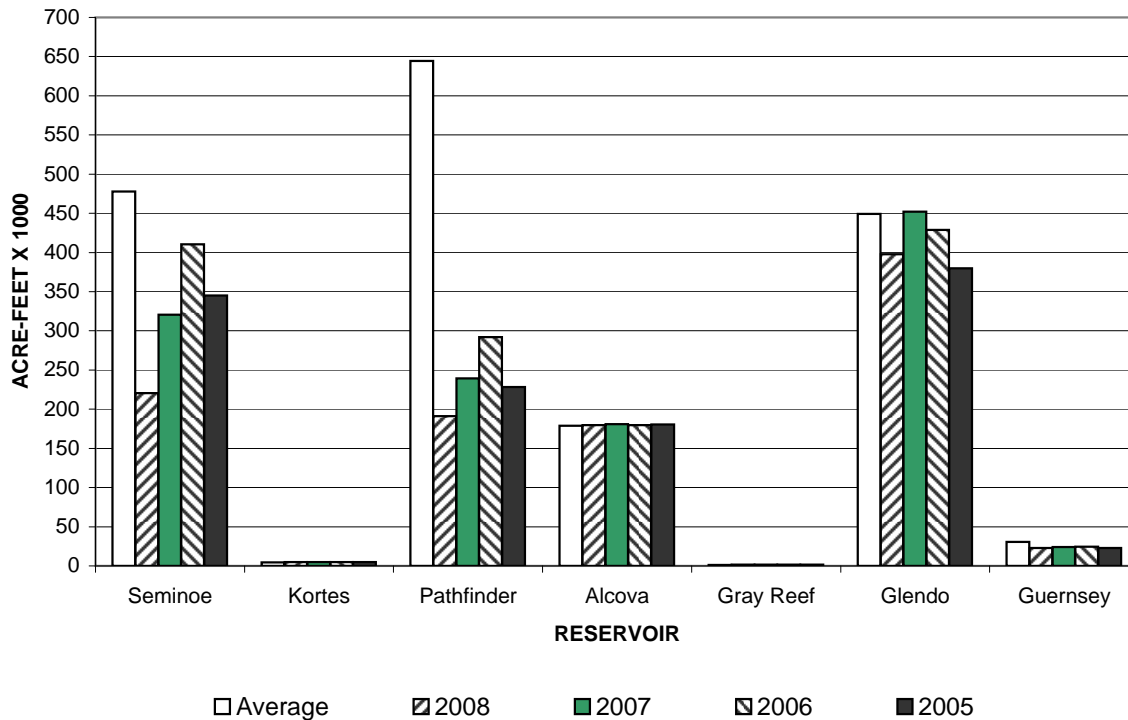
The April storage for the major reservoirs; Seminoe, Pathfinder and Glendo were below average.

(1000 acre-feet)

Reservoir	Total Storage End of April			End of April Historical Storage			Total Conservation Storage Capacity	Percent of Capacity
	W. Yr. 2008	30 Yr. Avg. <sup>1</sup>	% of Avg.	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005		
Seminoe	220.6	477.7	46	320.6	410.4	344.9	1017.3	22
Kortes	4.9	4.6	107	4.7	4.7	4.7	4.7	104
Pathfinder	191.3	644.6	30	239.5	291.9	228.2	1016.5	19
Alcova	179.7	178.9	100	181.1	179.9	180.4	184.4	97
Gray Reef	1.6	1.3	123	1.7	1.5	1.6	1.8	89
Glendo	397.9	449.3	89	452.2	428.8	380.0	517.5	77
Guernsey	22.7	30.7	74	24.0	24.3	22.9	45.6	50
<b>Total</b>	<b>1018.7</b>	<b>1787.1</b>	<b>57</b>	<b>1223.8</b>	<b>1341.5</b>	<b>1162.7</b>	<b>2787.8</b>	<b>37</b>

<sup>1</sup> Average is based on the 1978-2007 period.

### NORTH PLATTE RIVER BASIN RESERVOIR STORAGE End of April



**NORTH PLATTE RIVER BASIN RESERVOIR STORAGE OWNERSHIP**

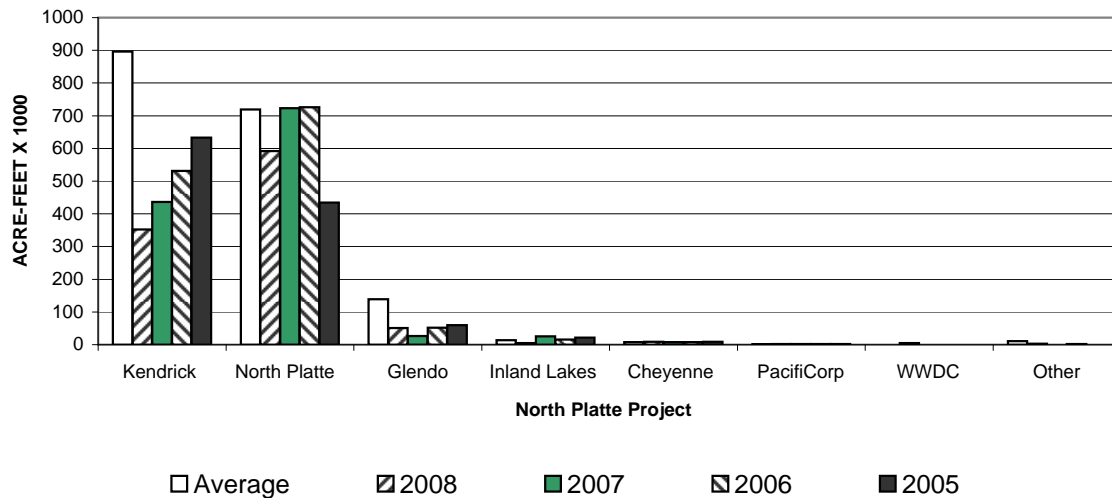
Kendrick ownership was the lowest for the end of April in the last 30 years.  
 Glendo ownership at the end of April was the fourth lowest in the last 30 years.

(1000 acre-feet)

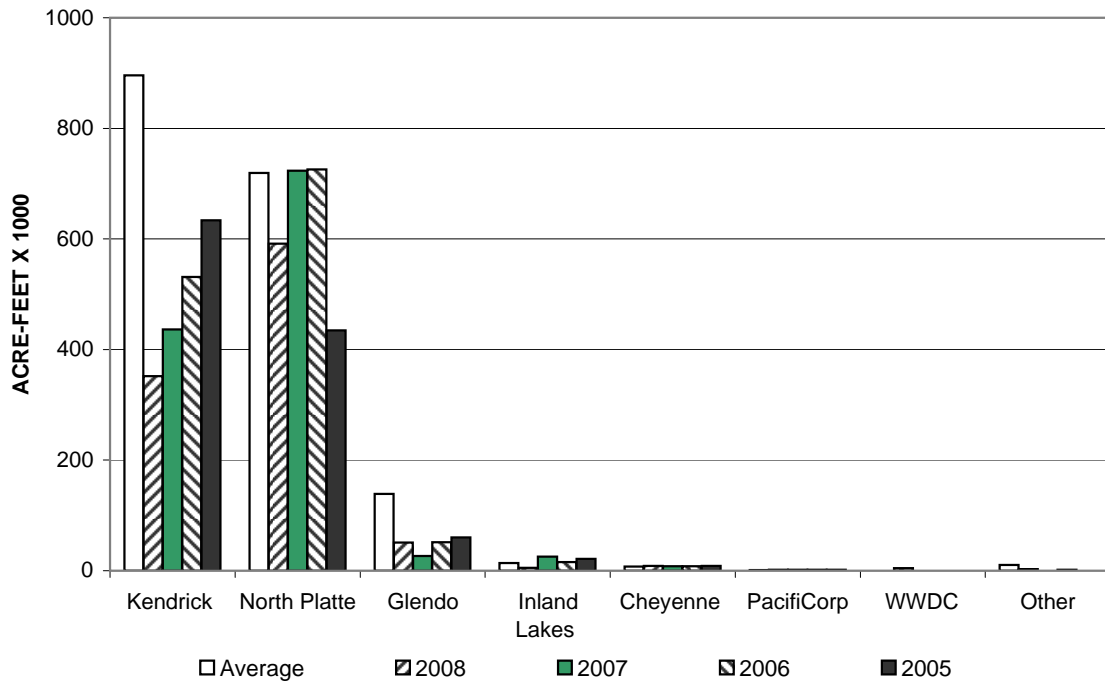
Ownership	Ownership of water End of April			End of April Historical Ownership			Total Storage Capacity	Percent of Capacity
	W. Yr. 2008	30 Yr. Avg. <sup>5</sup>	% of Avg.	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005		
Kendrick	352.0	896.0	40	436.2	531.4	633.4	1201.7	29
North Platte <sup>1</sup>	591.7	719.1	82	723.2	725.9	434.5	1062.1	56
Glendo	51.1	139.1	37	26.7	51.6	60.1	183.2	28
Inland Lakes <sup>2</sup>	5.2	13.8	38	25.6	15.5	21.3	46.0	11
Cheyenne <sup>3</sup>	8.9	7.8 <sup>6</sup>	114	8.3	8.3	8.7	10.0	89
PacifiCorp <sup>4</sup>	2.0	1.3	154	2.0	2.0	2.0	2.0	100
WWDC <sup>8</sup>	4.6	N/A	N/A	0.0	0.0	0.0	N/A	N/A
Other <sup>7</sup>	3.1	10.5	30	0.0	1.6	0.1	N/A	N/A

- This includes North Platte Guernsey and North Platte Pathfinder.
- Water stored temporarily in mainstem facilities for later transfer to the Inland Lakes. This table does not reflect that water currently stored in the Inland Lakes.
- The City of Cheyenne has a storage contract to store water in Seminoe Reservoir by exchange of Upper North Platte Basin water through a system of trans-basin diversions.
- Pacific Power has a storage contract to store water in Glendo Reservoir for Dave Johnston Powerplant.
- Average is based on the 1978-2007 period.
- Average is based on the 1982-2007 period.
- Water which is captured in the re-regulation space of Glendo in addition to storage rights, operational water account, and replacement of evaporation losses is labeled as "Re-regulation of Natural Flow" per Wyoming Board of Control Order Docket Number I-2000-3-8 in water Division Number One. In accordance with 2007 Natural Flow and Ownership Procedures, the operational account may contain up to 15,000 acre-feet. On April 30, 2008, the Operational account contained 3,103 Acre-feet and Re-Regulation space contained 17 Acre-feet.
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**Ownership of Water**



**NORTH PLATTE RIVER BASIN  
OWNERSHIP OF WATER  
End of April**



**INLAND LAKES RESERVOIR STORAGE**

( acre-feet)

Reservoir	Total Storage End of April	30 Year Average <sup>5</sup>	Percent of Average	Total Storage Capacity
Lake Alice	2,165	3,400	64	11,034 <sup>1</sup>
Little Lake Alice	317	228 <sup>6</sup>	139	1,166 <sup>2</sup>
Lake Winters Creek	323	551 <sup>6</sup>	59	1,746 <sup>3</sup>
Lake Minatare	18,164	32,500	56	58,795 <sup>4</sup>

1 At Elevation 4182.0  
2 At Elevation 4139.0  
3 At Elevation 4125.0  
4 At Elevation 4125.0  
5 30 year average. (1978-2007)  
6 17 year average. (1991-2007)

## NORTH PLATTE RIVER BASIN GROSS GENERATION

Power generation was below average for all powerplants in the North Platte Basin except Fremont Canyon and Alcova.

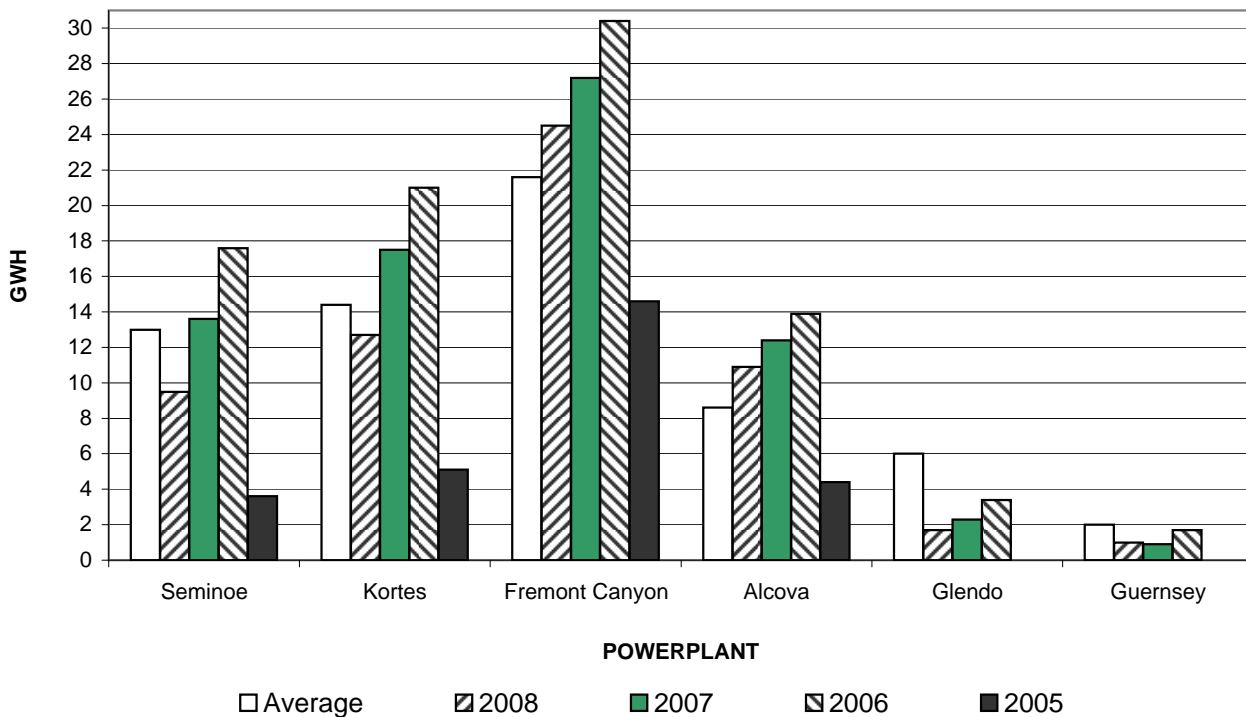
(Energy in giga-watt hours)

Powerplant	April Gross Generation			April Historical Generation			Accumulated Gross Gen. (October - April)		
	W. Yr. 2008	30 Yr. Avg. <sup>2</sup>	% of Avg.	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005	W. Yr. 2008	30 Yr. Avg. <sup>2</sup>	% of Avg.
Seminole	9.5	13.0	73	13.6	17.6	3.6	31.8	68.4	46
Kortes	12.7	14.4	88	17.5	21.0	5.1	45.3	75.4	60
Fremont Canyon <sup>1</sup>	24.5	21.6	113	27.2	30.4	14.6	55.2	87.8	63
Alcova	10.9	8.6	127	12.4	13.9	4.4	31.0	41.8	74
Glendo	1.7	6.0	28	2.3	3.4	0.0	1.7	6.0	28
Guernsey	1.0	2.0	50	0.9	1.7	0.0	1.0	2.0	50

<sup>1</sup> The powerplant for Pathfinder Dam is Fremont Canyon.

<sup>2</sup> Average is based on the 1978-2007 period.

### NORTH PLATTE RIVER BASIN GROSS GENERATION April



**NORTH PLATTE ESTIMATED MAY-JULY RUNOFF**

The May 1, 2008, water supply forecast indicates above average April - July runoff for Seminoe Reservoir and below average for the rest of the system. The forecast for the North Platte River system is shown in the two tables below.

(1000 acre-feet)

Forecast Points	May 1, 2008 Forecast of April-July Runoff <sup>3</sup>			30 Yr. April-July Runoff Avg. <sup>2</sup>	Expected % of Avg.	Comparative Actual April - July Runoff			
	Reasonable Maximum <sup>1</sup>	Expected	Reasonable Minimum <sup>1</sup>			W. Yr. 2007	W. Yr. 2006	W. Yr. 2005	W. Yr. 2004
Seminoe Reservoir	1050	850	650	704	121	425	546	732	276
Sweetwater River Above Pathfinder Reservoir	70	50	30	62	81	24	32	66	34
Alcova to Glendo	140	100	60	121	83	102	45	39	34

<sup>1</sup> The probability is estimated to be 9 chances in 10 that the actual volume will fall between the reasonable minimum and reasonable maximum.

<sup>2</sup> Average is based on the 1978-2007 period.

<sup>3</sup> Actual inflows are as follows.

April (KAF)

Seminoe Reservoir	104.8
Sweetwater River	5.3
Alcova to Glendo	14.6

(1000 acre-feet)

Forecast Points	May 1, 2008 Forecast of April-July Runoff						30 Yr. April-July Runoff Avg. <sup>1</sup>
	Chance of Exceeding						
	95%	75%	50%	% of Avg	25%	5%	
Seminoe Reservoir	650	768	850	121	932	1050	704
Sweetwater River Above Pathfinder Reservoir	30	42	50	81	58	70	62
Alcova to Glendo Gain	60	84	100	83	116	140	121

<sup>1</sup> Average is based on the 1978-2007 period.



**NORTH PLATTE SNOWPACK WATER CONTENT**

The tables shown below display the Snotel and Snow Courses used in the development of the April-July snowmelt runoff forecasts displayed on page eight of this report.

SWE in inches <sup>1</sup>

WATERSHED	May 1, 2008 snow-water content			Comparative May 1 snow-water content		
	W. Yr. 2008	30 Yr. Avg. <sup>2</sup>	% of Avg.	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005
Seminole Reservoir	22.8	21.8	105	14.1	19.8	16.4
Pathfinder Reservoir	11.6	14.5	80	5.6	11.1	16.5
Glendo Reservoir	10.8	11.0	99	5.0	6.2	6.3

**Seminole Reservoir Watershed**

SWE in inches <sup>1</sup>

Stations (Elevation)	Water Content	30 Yr. Avg. <sup>2</sup>
Cameron Pass (10,300) <sup>3</sup>	32.2	29.5
Columbine Lodge(9,300) <sup>3</sup>	22.3	19.0
Park View (9,200) <sup>3</sup>	9.9	9.3
Brooklyn (10,200) <sup>4</sup>	22.9	28.2
Fox Park (9,060) <sup>3</sup>	7.4	5.3
North Barrett (9,400) <sup>3</sup>	24.6	22.7
North French (10,130) <sup>4</sup>	33.7	34.5
Old Battle (9,800) <sup>4</sup>	37.8	36.9
Ryan Park (8,400) <sup>3</sup>	9.2	7.2
Webber Springs (9,250) <sup>4</sup>	27.6	25.1
<b>Watershed Average</b>	<b>22.8</b>	<b>21.8</b>

**Pathfinder Reservoir Watershed**

SWE in inches <sup>1</sup>

Stations (Elevation)	Water Content	30 Yr. Avg. <sup>2</sup>
South Pass (9,040) <sup>4</sup>	14.3	18.0
Grannier Meadows (8,860) <sup>3</sup>	11.5	14.6
Larsen Creek (9,020) <sup>3</sup>	8.9	10.9
<b>Watershed Average</b>	<b>11.6</b>	<b>14.5</b>

**Glendo Reservoir Watershed**

SWE in inches <sup>1</sup>

Stations (Elevation)	Water Content	30 Yr. Avg. <sup>2</sup>
Casper (7,900) <sup>4</sup>	14.7	17.1
Laprele Creek (8,375) <sup>4</sup>	6.5	7.1
Reno Hill (8,500) <sup>4</sup>	15.2	14.7
Windy Peak (7,900) <sup>4</sup>	6.8	4.9
<b>Watershed Average</b>	<b>10.8</b>	<b>11.0</b>

<sup>1</sup> SWE (Snow Water Equivalent) is the amount of water in the snowpack expressed in inches)

<sup>2</sup> Average is based on the 1971-2000 period

<sup>3</sup> Represents a Natural Resources Conservation Service (NRCS) Snow Course Site.

<sup>4</sup> Represents a NRCS Snowpack Telemetry Network (SNOTEL) Site.