

April 1, 2009  
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 March inflow was average for Seminoe Reservoir and above average for Guernsey Reservoir.

(1000 acre-feet)

Reservoir	March Inflow			March Historical Inflow			Accumulated Inflow (October - March)		
	W. Yr. 2009	30 Yr. Avg. <sup>5</sup>	% of Avg.	W. Yr. 2008	W. Yr. 2007	W. Yr. 2006	W. Yr. 2009	30 Yr. Avg. <sup>5</sup>	% of Avg.
Seminoe	57.0	57.2	100	42.9	100.1	42.9	198.4	194.4	102
Pathfinder <sup>1,2</sup>	9.0	12.0	75	6.3	12.2	11.9	45.8	38.7	118
Glendo <sup>3</sup>	9.9	17.4	57	7.7	16.5	10.0	30.2	72.2	42
Guernsey <sup>4</sup>	1.7	1.5	113	1.0	1.0	0.8	8.0	9.8	82

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

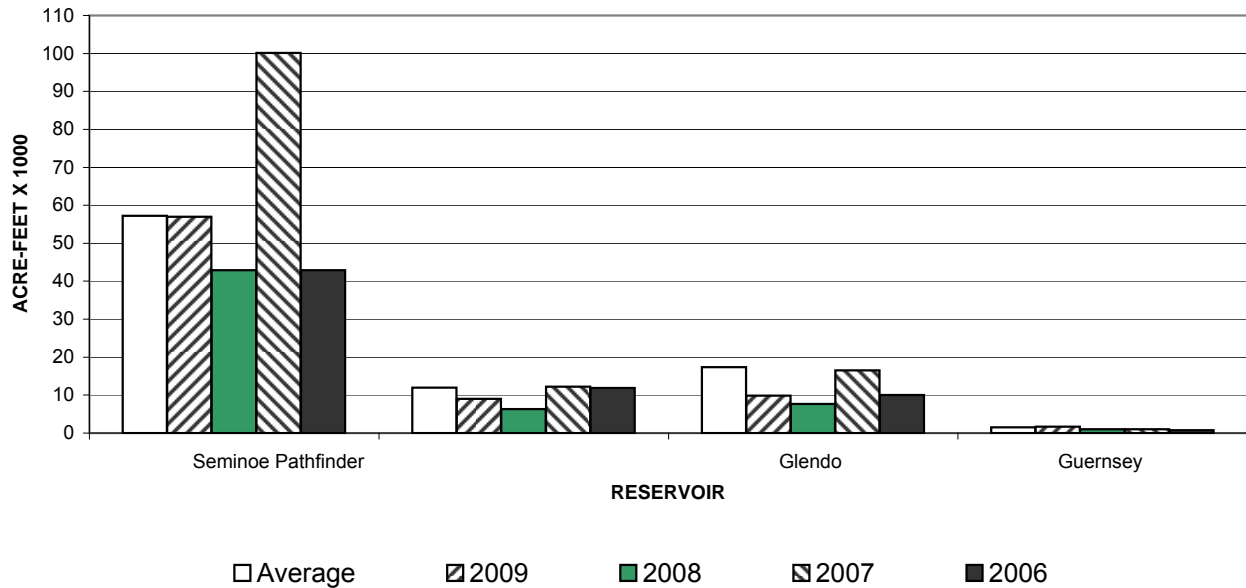
2 River gain between Kortes and Pathfinder Dams.

3 River gain between Pathfinder and Glendo Dams.

4 River gain between Glendo and Guernsey Dams.

5 30 year average. (1979-2008)

**NORTH PLATTE RIVER BASIN  
RESERVOIR INFLOW  
March**



**NORTH PLATTE RIVER BASIN OUTFLOW**

The March outflow was below average.

(1000 acre-feet)

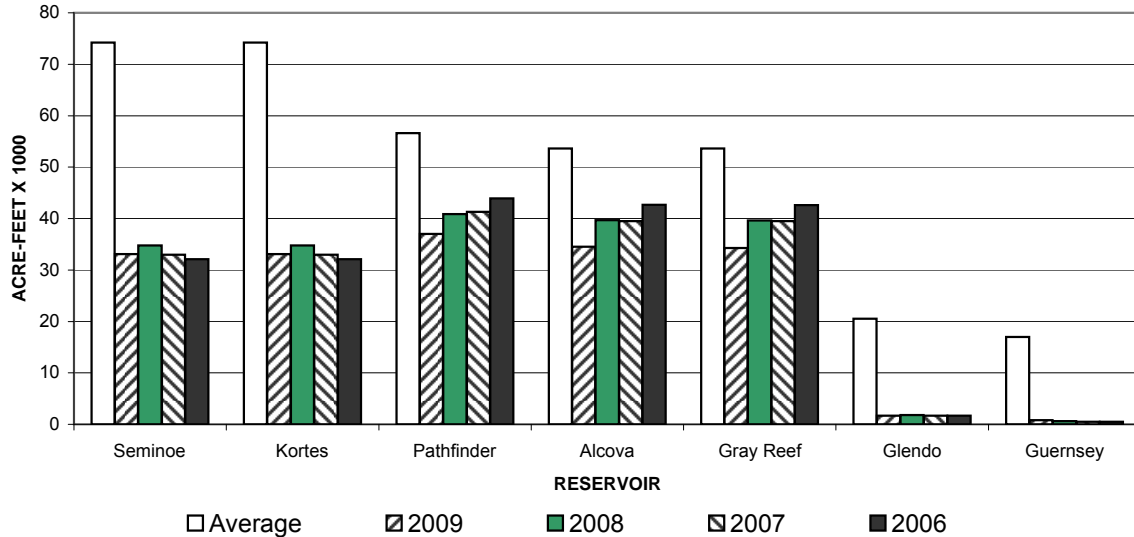
Reservoir	March Outflow			March Historical Outflow			Accumulated Outflow (October - March)		
	W. Yr. 2009	30 Yr. Avg. <sup>2</sup>	% of Avg.	W. Yr. 2008	W. Yr. 2007	W. Yr. 2006	W. Yr. 2009	30 Yr. Avg. <sup>2</sup>	% of Avg.
Seminole	33.1	74.2	45	34.8	33.0	32.1	193.9	354.3	55
Kortes	33.1	74.2	45	34.8	33.0	32.1	193.9	354.2	55
Pathfinder	37.0	56.6	65	40.9	41.3	43.9	175.0	247.9	71
Alcova	34.5	53.6	64	39.7	39.5	42.7	195.6	266.7	73
Gray Reef	34.3	53.6	64	39.6	39.5	42.6	195.4	266.6	73
Glendo <sup>1</sup>	1.7	20.5	8	1.8	1.7	1.7	10.0	35.1	28
Guernsey	0.8	17.0	5	0.6	0.5	0.5	2.6	32.2	8

<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, 15 year average (1994-2008).

<sup>2</sup> 30 year average (1979-2008).

**NORTH PLATTE RIVER BASIN  
RESERVOIR OUTFLOW**

March



**NORTH PLATTE RIVER BASIN RESERVOIR STORAGE**

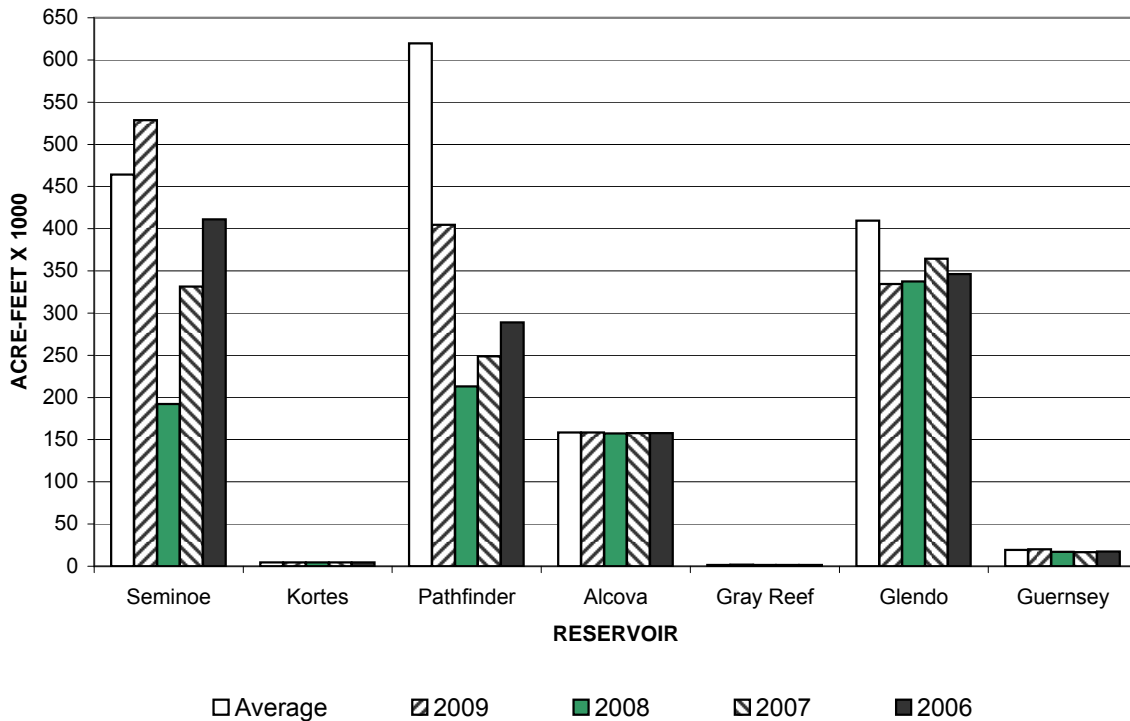
The March storage for Seminole reservoir was above average.

(1000 acre-feet)

Reservoir	Total Storage End of March			End of March Historical Storage			Total Conservation Storage Capacity	Percent of Capacity
	W. Yr. 2009	30 Yr. Avg. <sup>1</sup>	% of Avg.	W. Yr. 2008	W. Yr. 2007	W. Yr. 2006		
Seminole	528.6	464.0	114	192.4	331.3	411.1	1017.3	52
Kortes	4.7	4.6	102	4.7	4.7	4.7	4.7	100
Pathfinder	404.8	619.5	65	213.1	248.6	289.1	1016.5	40
Alcova	158.6	158.5	100	157.5	157.8	157.6	184.4	86
Gray Reef	1.8	1.4	129	1.6	1.4	1.6	1.8	100
Glendo	334.6	409.4	82	337.7	364.6	346.3	517.5	65
Guernsey	20.1	19.4	104	16.9	16.5	17.3	45.6	44
<b>Total</b>	<b>1453.2</b>	<b>1676.8</b>	<b>87</b>	<b>923.9</b>	<b>1124.9</b>	<b>1227.7</b>	<b>2787.8</b>	<b>52</b>

<sup>1</sup> Average is based on the 1979-2008 period.

**NORTH PLATTE RIVER BASIN  
RESERVOIR STORAGE  
End of March**



## NORTH PLATTE RIVER BASIN RESERVOIR STORAGE OWNERSHIP

North Platte Ownership was above average for March.

Kendrick Ownership at the end of March was the 5th lowest in the last 30 years.

(1000 acre-feet)

Ownership	Ownership of water End of March			End of March Historical Ownership			Total Storage Capacity	Percent of Capacity
	W. Yr. 2009	30 Yr. Avg. <sup>5</sup>	% of Avg.	W. Yr. 2008	W. Yr. 2007	W. Yr. 2006		
Kendrick	520.4	868.9	60	353.8	437.3	535.3	1201.7	43
North Platte <sup>1</sup>	833.3	639.1	130	497.7	638.1	617.0	1062.1	78
Glendo	83.2	131.9	63	51.8	27.5	52.6	183.2	45
Inland Lakes <sup>2</sup>	6.0	21.1	28	7.7	12.6	10.7	46.0	13
Cheyenne <sup>3</sup>	6.8	7.5 <sup>6</sup>	91	8.1	7.6	8.3	10.0	68
PacifiCorp <sup>4</sup>	2.0	1.4	143	2.0	2.0	2.0	2.0	100
WWDC <sup>8</sup>	0.0	N/A	N/A	0.0	0.0	0.0	N/A	N/A
Other <sup>7</sup>	1.5	7.6	20	3.1	0.0	1.6	N/A	N/A

1 This includes North Platte Guernsey and North Platte Pathfinder.

2 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.

3 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.

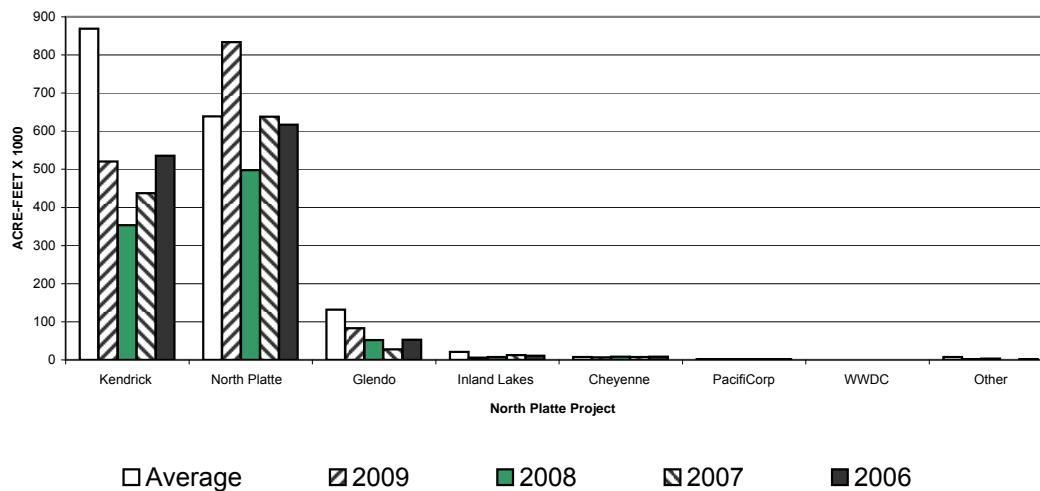
4 PacifiCorp has a storage contract to store water in Glendo Reservoir for Dave Johnston Powerplant.

5 Average is based on the 1979-2008 period.

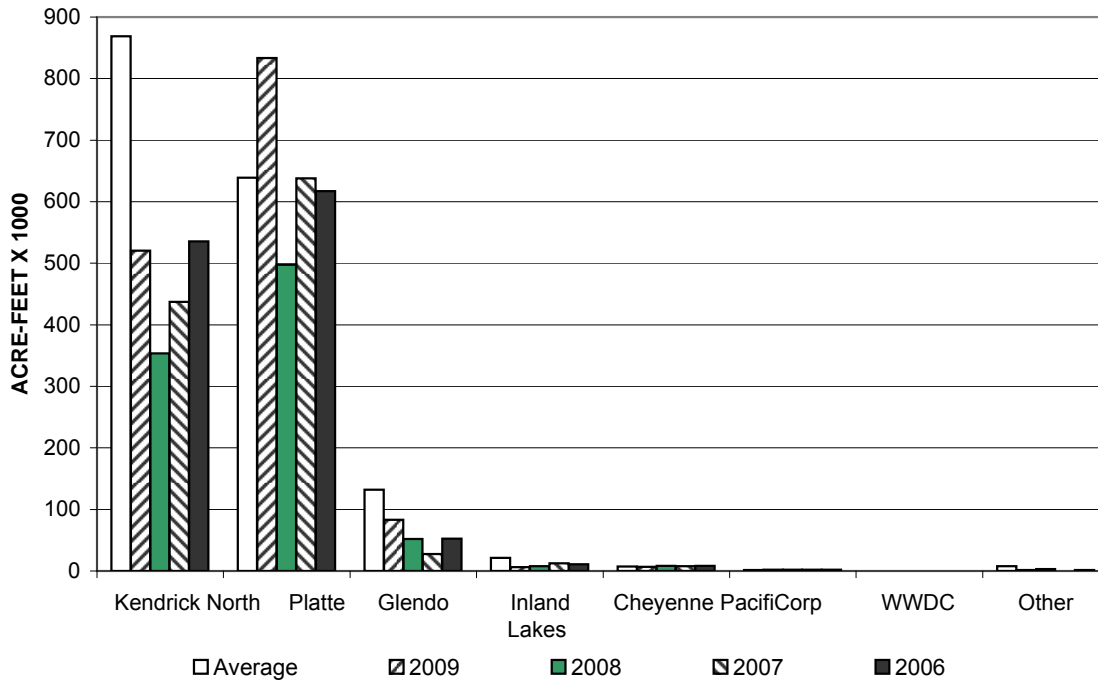
6 Average is based on the 1982-2008 period.

7 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 2008 Natural Flow and Ownership Procedures, the operational account may contain up to 15,000 acre-feet. On March 31, 2009, the Operational account contained 1,513 Acre-feet, the Re-Regulation space contained 0 Acre-feet.

## Ownership of Water



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



**INLAND LAKES RESERVOIR STORAGE**

( acre-feet)

Reservoir	Total Storage End of March	30 Year Average <sup>5</sup>	Percent of Average	Total Storage Capacity
Lake Alice	392	200	196	11,034 <sup>1</sup>
Little Lake Alice	35	45 <sup>6</sup>	78	1,166 <sup>2</sup>
Lake Winters Creek	392	477 <sup>6</sup>	82	1,746 <sup>3</sup>
Lake Minatare	34,505	27,800	124	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. (1979-2008)

6 18 year average. (1991-2008)

## NORTH PLATTE RIVER BASIN GROSS GENERATION

Power generation was below average for all power plants in the North Platte Basin.

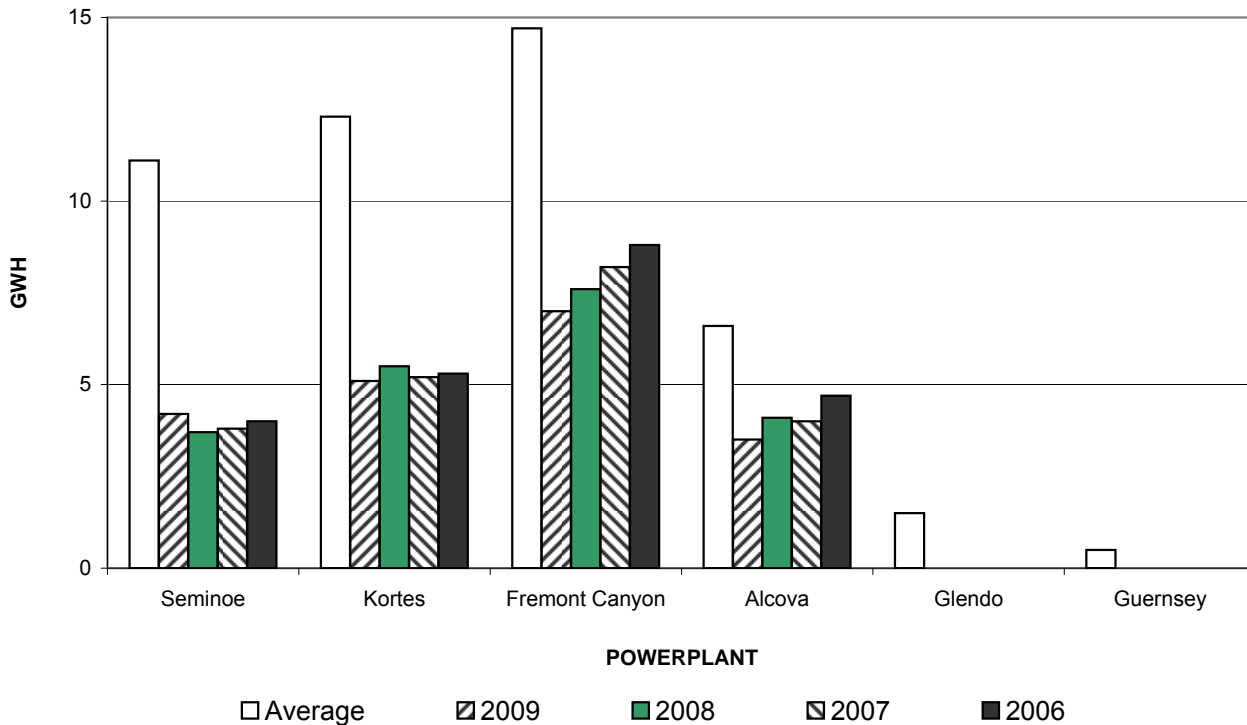
(Energy in giga-watt hours)

Powerplant	March Gross Generation			March Historical Generation			Accumulated Gross Gen. (October - March)		
	W. Yr. 2009	30 Yr. Avg. <sup>2</sup>	% of Avg.	W. Yr. 2008	W. Yr. 2007	W. Yr. 2006	W. Yr. 2009	30 Yr. Avg. <sup>2</sup>	% of Avg.
Seminole	4.2	11.1	38	3.7	3.8	4.0	26.0	53.9	48
Kortes	5.1	12.3	41	5.5	5.2	5.3	31.3	59.2	53
Fremont Canyon <sup>1</sup>	7.0	14.7	48	7.6	8.2	8.8	29.9	64.9	46
Alcova	3.5	6.6	53	4.1	4.0	4.7	17.7	32.4	55
Glendo	0.0	1.5	0	0.0	0.0	0.0	0.0	2.1	0
Guernsey	0.0	0.5	0	0.0	0.0	0.0	0.0	1.1	0

1 The powerplant for Pathfinder Dam is Fremont Canyon.

2 Average is based on the 1979-2008 period.

### NORTH PLATTE RIVER BASIN GROSS GENERATION March



**NORTH PLATTE ESTIMATED MAY-JULY RUNOFF**

The April 1, 2009, water supply forecast indicates 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	April 1, 2009 Forecast of April-July Runoff			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. 2008	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005
Seminoe Reservoir	950	700	500	704	99	956	425	546	733
Sweetwater River Above Pathfinder Reservoir	70	30	20	61	49	52	24	32	66
Alcova to Glendo	150	100	50	122	82	209	102	45	39

<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 1979-2008 period.

(1000 acre-feet)

Forecast Points	April 1, 2009 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	500	618	700	99	802	950	704
Sweetwater River Above Pathfinder Reservoir	20	26	30	49	46	70	61
Alcova to Glendo Gain	50	80	100	82	120	150	122

<sup>1</sup> Average is based on the 1979-2008 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	April 1, 2009 snow-water content			Comparative April 1 snow-water content		
	W. Yr. 2009	30 Yr. Avg. <sup>2</sup>	% of Avg.	W. Yr. 2008	W. Yr. 2007	W. Yr. 2006
Seminole Reservoir	21.3	21.1	101	21.8	15.7	20.6
Pathfinder Reservoir	8.3	14.5	57	11.1	10.1	12.8
Glendo Reservoir	11.1	11.9	93	11.3	10.2	11.9

**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>	29.4	27.2
Columbine Lodge(9,300) <sup>3</sup>	17.9	22.9
Park View (9,200) <sup>3</sup>	7.1	9.3
Brooklyn (10,200) <sup>4</sup>	23.4	23.9
Fox Park (9,060) <sup>3</sup>	6.3	7.6
North Barrett (9,400) <sup>3</sup>	22.6	21.5
North French (10,130) <sup>4</sup>	35.0	29.3
Old Battle (9,800) <sup>4</sup>	33.6	32.3
Ryan Park (8,400) <sup>3</sup>	12.4	10.8
Webber Springs (9,250) <sup>4</sup>	25.2	26.3
Watershed Average	21.3	21.1

**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>	12.0	16.7
Grannier Meadows (8,860) <sup>3</sup>	8.0	14.1
Larsen Creek (9,020) <sup>3</sup>	4.9	12.7
Watershed Average	8.3	14.5

**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>	12.2	14.4
Laprele Creek (8,375) <sup>4</sup>	9.2	10.9
Reno Hill (8,500) <sup>4</sup>	14.3	14.2
Windy Peak (7,900) <sup>4</sup>	8.7	8.1
Watershed Average	11.1	11.9

<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.