### April 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: <u>http://www.usbr.gov/gp</u>
- 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 inflows were below average for all reservoirs in the North Platte Basin.

	(1000 acre-feet)										
		March Inflow			Hi	March storical Infl	ow	Accumulated Inflow (October - February)			
Reservoir		W. Yr. 2008	30 Yr. Avg. ⁵	% of Avg.	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005	W. Yr. 2008	30 Yr. Avg. ⁵	% of Avg.	
Seminoe		42.9	57.5	75	100.1	42.9	40.7	168.0	194.1	87	
Pathfinder	1, 2	6.3	12.0	53	12.2	11.9	8.2	27.3	38.4	71	
Glendo	3	7.7	17.9	43	16.5	10.0	7.4	30.5	73.3	42	
Guernsey	4	1.0	1.5	67	1.0	0.8	1.0	4.4	10.1	44	

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

□Average

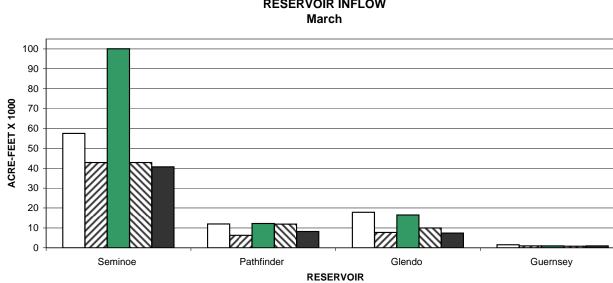
**2**008

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)



2007

2005

**2006** 

# NORTH PLATTE RIVER BASIN **RESERVOIR INFLOW**

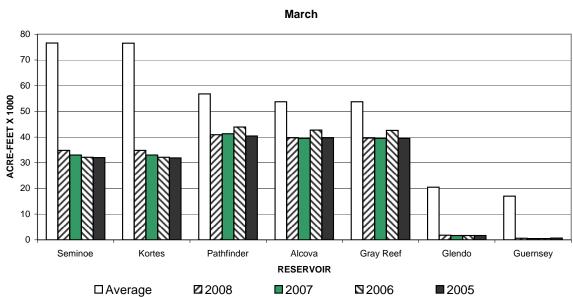
### NORTH PLATTE RIVER BASIN OUTFLOW

								(10	000 acre-feet)
	March Outflow			Hie	March	flow	Accumulated Outflow (October - January)		
		Outilow	1	Historical Outflow				Ober - Jam	uaiy)
Reservoir	W. Yr.	30 Yr.	% of	W. Yr.	W. Yr.	W. Yr.	W. Yr.	30 Yr.	% of
	2008	Avg. <sup>2</sup>	Avg.	2007	2006	2005	2008	Avg. <sup>2</sup>	Avg.
Seminoe	34.8	76.6	45	33.0	32.1	32.0	197.6	364.5	54
Kortes	34.8	76.5	45	33.0	32.1	31.9	197.6	364.4	54
Pathfinder	40.9	56.8	72	41.3	43.9	40.4	178.8	251.1	71
Alcova	39.7	53.7	74	39.5	42.7	39.7	199.2	269.8	74
Gray Reef	39.6	53.7	74	39.5	42.6	39.5	199.4	269.6	74
Glendo	1.8	20.5	9	1.7	1.7	1.7	11.2	34.1	33
Guernsey	0.6	17.0	4	0.5	0.5	0.7	1.9	32.2	6

The March outflows for all the North Platte Reservoirs were below average.

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

2 30 year average (1978-2007).



## NORTH PLATTE RIVER BASIN RESERVOIR OUTFLOW

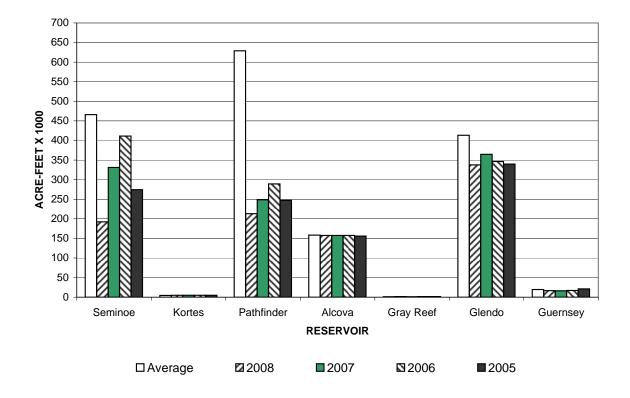
### NORTH PLATTE RIVER BASIN RESERVOIR STORAGE

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

								(1000 acre-feet)
		otal Storag	·	_	End of Marc storical Stor		Total Conservation	Percent of
Reservoir	W. Yr. 2008	30 Yr. Avg. <sup>1</sup>	% of Avg.	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005	Storage Capacity	Capacity
Seminoe	192.4	466.0	41	331.3	411.1	274.5	1017.3	19
Kortes	4.7	4.6	102	4.7	4.7	4.7	4.7	100
Pathfinder	213.1	628.8	34	248.6	289.1	247.1	1016.5	21
Alcova	157.5	158.4	99	157.8	157.6	156.1	184.4	85
Gray Reef	1.6	1.4	114	1.4	1.6	1.6	1.8	89
Glendo	337.7	413.5	82	364.6	346.3	339.9	517.5	65
Guernsey	16.9	19.4	87	16.5	17.3	21.1	45.6	37
Total	923.9	1692.1	55	1124.9	1227.7	1045.0	2787.8	33

1 Average is based on the 1978-2007 period.

# NORTH PLATTE RIVER BASIN RESERVOIR STORAGE End of March



#### NORTH PLATTE RIVER BASIN RESERVOIR STORAGE OWNERSHIP

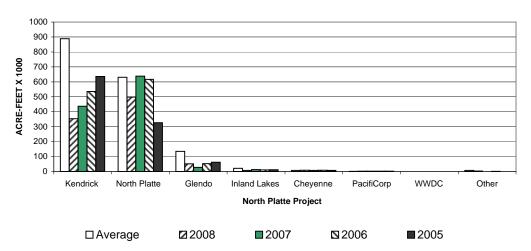
Kendrick ownership was the lowest for the end of March in the last 30 years. Glendo ownership at the end of March was the third lowest in the last 30 years.

								(1	000 acre-feet)
		01	wnership of w End of Marcl			End of Marconical Owne		Total	Percent of
Ownership		W. Yr. 2008	30 Yr. Avg. ⁵	% of Avg.	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005	Storage Capacity	Capacity
Kendrick		353.8	888.7	40	437.3	535.3	635.6	1201.7	29
North Platte	1	497.7	631.1	79	638.1	617.0	326.3	1062.1	47
Glendo		51.8	135.2	38	27.5	52.6	62.1	183.2	28
Inland Lakes	2	7.7	21.6	36	12.6	10.7	11.8	46.0	17
Cheyenne	3	8.1	7.5 <sup>6</sup>	108	7.6	8.3	7.2	10.0	81
PacifiCorp	4	1.9	1.4	136	2.0	2.0	2.0	2.0	95
WWDC	8	0.0	N/A	N/A	0.0	0.0	0.0	N/A	N/A
Other	7	3.1	7.5	41	0.0	1.6	0.0	N/A	N/A

1 This includes North Platte Guernsey and North Platte Pathfinder.

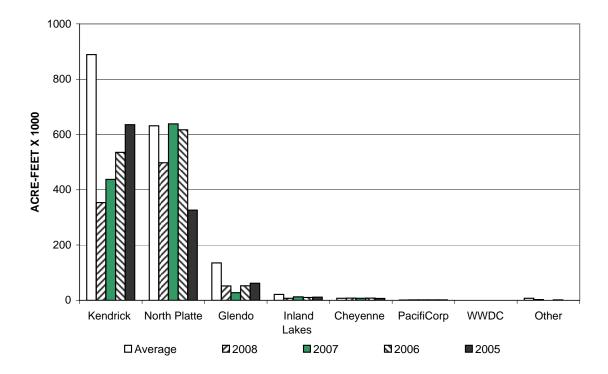
- 2 Water stored temporarily in mainstem facilities for later transfer to the Inland Lakes. This table does not reflect that water currently stored in the Inland Lakes.
- 3 The City of Cheyenne has a storage contract to store water in Seminoe Reservoir by exchange of Upper North Platte Basin water through a system of trans-basin diversions.
- 4 Pacific Power has a storage contract to store water in Glendo Reservoir for Dave Johnston Powerplant.
- 5 Average is based on the 1978-2007 period.
- 6 Average is based on the 1982-2007 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 2007 Natural Flow and Ownership Procedures, the operational account may contain up to 15,000 acre-feet. On March 31, 2008, the Operational account contained 3,116 Acre-feet and 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)
Total	30 Year	Percent of	Total
Storage	Average <sup>5</sup>	Average	Storage
End of March			Capacity
27	300	9	11,034 <sup>1</sup>
22	47 6	<sup>3</sup> 47	1,166 <sup>2</sup>
326	485	<sup>3</sup> 67	1,746 <sup>3</sup>
16,341	27,800	59	<b>58,795</b> ⁴
	Storage End of March 27 22 326	Storage End of March Average 5   27 300   22 47   326 485	Storage End of March Average 5 Average   27 300 9   22 47 6 47   326 485 6 67

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

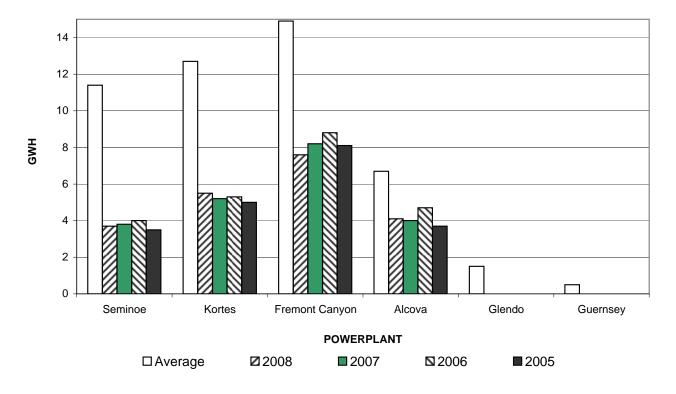
								(Energy in g	jiga-watt hours)	
	March				Marchy			Accumulated Gross Gen.		
	Gr	oss Genera	ation	Historical Generation			(00	tober - Jan	uary)	
Powerplant	W. Yr. 2008	30 Yr. Avg. ²	% of	W. Yr. 2007	W. Yr. 2006	W. Yr. 2005	W. Yr. 2008	30 Yr. Avg. ²	% of	
	2006	Avg.	Avg.	2007	2006	2005	2006	Avy.	Avg.	
Seminoe	3.7	11.4	32	3.8	4.0	3.5	22.3	55.4	40	
Kortes	5.5	12.7	43	5.2	5.3	5.0	32.6	61.0	53	
Fremont Canyon <sup>1</sup>	7.6	14.9	51	8.2	8.8	8.1	30.7	66.2	46	
Alcova	4.1	6.7	61	4.0	4.7	3.7	20.1	33.2	61	
Glendo	0.0	1.5	0	0.0	0.0	0.0	0.0	1.8	0	
Guernsey	0.0	0.5	0	0.0	0.0	0.0	0.0	1.0	0	

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

1 The powerplant for Pathfinder Dam is Fremont Canyon.

2 Average is based on the 1978-2007 period.

### NORTH PLATTE RIVER BASIN GROSS GENERATION March



### NORTH PLATTE ESTIMATED APRIL-JULY RUNOFF

The April 1, 2008, water supply forecast indicates near or below average April - July runoff can be expected as shown below.

								(1000	acre-feet)
	Apri	il 1, 2008 Fore	30 Yr.		Comparative Actual				
Forecast	Forecast of April-July Runoff			April-July	Expected		April - July Runoff		
Points	Reasonable Expected		Reasonable	Runoff	Runoff % of Avg.		W. Yr.	W. Yr.	W.Yr.
	Maximum <sup>1</sup>	Expected	Minimum <sup>1</sup>	Avg. <sup>2</sup>		2007	2006	2005	2004
Seminoe Reservoir	1000	750	500	704	107	425	546	733	277
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.

							(1000 acre-feet)		
Forecast Points	Points Chance of Exceeding								
	95%	75%	50%	% of Avg	25%	5%	Avg. <sup>1</sup>		
Seminoe Reservoir	500	648	750	107	852	1000	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 1		
		A	Comparative April 1					
		snow-water content				snow-water content		
WATERSHED	W. Yr.	30 Yr.	% of	W. Yr.	W. Yr.	W. Yr.		
	2008	Avg. <sup>2</sup>	Avg.	2007	2006	2005		
Seminoe Reservoir	21.8	21.4	102	14.9	16.7	12.1		
Pathfinder Reservoir	11.1	14.5	76	7.7	9.6	11.5		
Glendo Reservoir	11.3	12.0	94	8.3	7.8	4.9		

# Seminoe Reservoir Watershed

			SWE in inches 1
Stations		Water	30 Yr.
(Elevation)		Content	Avg. <sup>2</sup>
Cameron Pass (10,300)	3	28.0	27.2
Columbine Lodge(9,300)	3	26.7	25.0
Park View (9,200)	3	9.2	9.3
Brooklyn (10,200)	4	21.5	23.9
Fox Park (9.060)	3	7.9	7.6
North Barrett (9,400)	3	21.6	21.5
North French (10,130)	4	31.2	29.5
Old Battle (9,800)	4	33.8	32.4
Ryan Park (8,400)	3	11.4	10.8
Webber Springs (9,250)	4	26.6	26.4
Watershed Average		21.8	21.4

#### Pathfinder Reservoir Watershed

		SWE in inches 1				
Stations		Water	30 Yr.			
(Elevation)		Content	Avg. <sup>2</sup>			
South Pass (9,040)	4	14.7	16.7			
Grannier Meadows (8,860)	3	11.1	14.1			
Larsen Creek (9,020)	3	7.4	12.7			
Watershed Average		11.1	14.5			

#### Glendo Reservoir Watershed

		SWE in inches				
Stations		Water	30 Yr.			
(Elevation)		Content	Avg. <sup>2</sup>			
Casper (7,900)	4	14.4	14.6			
Laprele Creek (8,375)	4	8.4	11.0			
Reno Hill (8,500)	4	13.9	14.3			
Windy Peak (7,900)	4	8.6	8.1			
Watershed Average		11.3	12.0			

<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 .