

## PREFACE

This report concerns the operation of all Bureau of Reclamation (Reclamation) facilities in the North Platte River Drainage Basin above and including Guernsey Dam as well as the four Inland Lakes near Scottsbluff, Nebraska. This area of the North Platte River Drainage Basin is simply referred to in this report as the Basin.

References to average in this document will refer to the average of the historical record for the years 1976-2005, except for water year 2007 information which uses the years 1977-2006. In each coming year this period will be advanced by one year to maintain a running 30-year average.

## INTRODUCTION

The System of dams, reservoirs, and powerplants on the North Platte River (referred to as the "System" in this text) is monitored and in most cases operated and managed from the Wyoming Area Office in Mills, Wyoming. The operation and management of the System is aided by the use of a Programmable Master Supervisory Control, computerized accounting process, extensive Hydromet stations, control crest measurement weirs at gaging stations, SNOTEL stations, and a snowmelt runoff forecasting procedure which is used by the Water Management Branch. The System consists of a number of individual water resource projects that were planned and constructed by Reclamation. The individual projects and features are operated as an integrated system to achieve efficiency and to produce increased multipurpose benefits. The drainage basin which affects the System covers an area from northern Colorado to southeastern Wyoming, encompassing 16,224 square miles. Storage reservoirs affected by the System include four off stream reservoirs known as the Inland Lakes in western Nebraska as shown in figure 21.

Approximately 70 to 80 percent of the annual North Platte River streamflow above Seminoe Dam occurs from snowmelt runoff during the April-July period. Primary water demand is irrigation, and the period of delivery of irrigation water normally extends from May through September. Figure 20 represents historical watershed runoff above Pathfinder Reservoir from 1906 through 2006. The System furnishes irrigation water to over 440,000 acres of land in Wyoming and Nebraska.

The System includes the Kendrick Project (formerly Casper-Alcova) in Wyoming; with major features of the project being Seminoe Dam and Powerplant, Alcova Dam and Powerplant, and Casper Canal. Project lands lie in an irregular pattern on the northwest side of the North Platte River between Alcova Reservoir and Casper, Wyoming. The North Platte Project in Wyoming and Nebraska consists of Pathfinder Dam and Reservoir, Guernsey Dam, Reservoir and Powerplant, Whalen Dam, Northport, Fort Laramie and Interstate canals and four off stream inland reservoirs on the Interstate Canal. The Kortes Unit of the Pick-Sloan Missouri Basin Program (PS-MBP) consists of Kortes Dam, Reservoir, and Powerplant, in a narrow gorge of the North Platte River 2 miles below Seminoe Dam. The Glendo Unit of the PS-MBP is a multiple-purpose natural resource development. It consists of Glendo Dam, Reservoir, and Powerplant, Fremont Canyon Powerplant, and Gray Reef Dam and Reservoir which is a re-regulating reservoir.

Major rivers which affect the water supply in the System are the North Platte River in Colorado and Wyoming, and the Medicine Bow, and Sweetwater Rivers in Wyoming.

The System has seven main stem reservoirs, six of which have powerplants with generating capacities totaling 237,200 kilowatts (kw). Table 11 depicts a breakdown of generating units and their capacity for each North Platte Powerplant. Table 1 below depicts North Platte River Reservoir Data.

The Department of Energy, by Executive Order dated October 1, 1977, assumed the responsibility of marketing power from Federal resources and operation and maintenance of federal transmission facilities.

Western Area Power Administration (WAPA) of the Department of Energy, headquartered in Lakewood, Colorado, now operates and maintains the nearly 3,500 miles of interconnected electrical transmission lines within the System. The power generating facilities are also interconnected with other Federal, public and private power facilities. Power from Reclamation Powerplants is marketed by WAPA.

Table 1 North Platte River Reservoir Data

Reservoir	Dead Storage <sup>1</sup> Acre-feet (AF)	Active Storage <sup>2</sup> (AF)	Total Storage (AF)	Minimum Storage (AF)	Minimum Elevation (feet)
Seminole	556	1,016,717	1,017,273	31,670 <sup>4</sup>	6239.00 <sup>4</sup>
Kortes	151	4,588	4,739	1,666 <sup>4</sup>	6092.00 <sup>4</sup>
Pathfinder	7	1,016,500	1,016,507	31,405 <sup>4</sup>	5746.00 <sup>4</sup>
Alcova	91	184,314	184,405	137,610 <sup>5</sup>	5479.50 <sup>5</sup>
Gray Reef	56	1,744	1,800	56 <sup>6</sup>	5312.00 <sup>6</sup>
Glendo	11,033	778,369	789,402 <sup>3</sup>	63,148	4570.00 <sup>7</sup>
Guernsey	0	45,612	45,612	0	4370.00 <sup>8</sup>
<b>Total</b>	<b>11,894</b>	<b>3,047,844</b>	<b>3,059,738</b>	<b>265,555</b>	

- <sup>1</sup> Storage capacity below elevation of lowest outlet
- <sup>2</sup> Total storage minus dead storage
- <sup>3</sup> Top of Conservation capacity 517,485 AF (Elevation 4635.00 ft) with an additional 271,917 AF allocated to Flood Control (elevation 4653.00 ft)
- Minimum water surface elevation and capacity required for power generation
- <sup>4</sup> This level is the top of inactive capacity
- <sup>5</sup> Content and minimum elevation required for power generation, however water cannot be delivered to Casper Canal when reservoir level is below 5487.00 ft (153,802 AF), the elevation of the Casper Canal Gate sill.
- <sup>6</sup> Top of dead capacity — spillway crest
- <sup>7</sup> Minimum water surface elevation for power generation
- <sup>8</sup> Elevation of the North Spillway Crest

## SYSTEM PLANNING AND CONTROL

The North Platte River storage, power generation, and water delivery facilities are operated for irrigation, hydroelectric power production, and municipal and industrial water supply. The facilities provide year round flows in the river below each North Platte Dam except for Guernsey Dam. The facilities also provide flood control, recreation, fish and wildlife preservation, and other purposes. Each project of the System must be operated under the purposes for which it was authorized and constructed. The objective of an integrated system is to obtain optimum benefits from the individual projects.

The System's integrated operation is planned and coordinated by Reclamation's Wyoming Area Office in Mills, Wyoming. This office collects and analyzes information daily and makes the decisions necessary for successful operation of the System. The water management function involves coordination between Reclamation, the Department of Energy, and many other local, state, and Federal agencies. When water levels rise into the exclusive flood control pool at Glendo Reservoir, the flood control operation of Glendo Dam is directed by the U.S. Army Corps of Engineers, Omaha District, Omaha, Nebraska.

Experience has proven that proper utilization of the available water resource in a system such as this can be achieved only through careful budgeting of the anticipated water supply. The technical end product of this budgeting process is an Annual Operating Plan (AOP).

The System is operated on a water year basis (October 1 through September 30). Early in the water year an AOP is prepared, reviewed, and presented to the public. The AOP consists of three operation studies using reasonable minimum, reasonable maximum, and most probable inflow conditions determined from statistical analysis of historical inflow conditions. The AOP, as developed and reflected in the three operation studies, provides the flexibility to adjust operations as conditions change during the water year. Reclamation makes use of computer programs to revise and adjust the operating plan each month to reflect changing conditions. A computerized process of forecasting the anticipated water supply also aids the revision process during the months of February, March, April and May. Figure 1 depicts North Platte Reservoirs Total Storage end of September content for water years 1912 through 2006. Table 2 depicts A Summary of Reservoir Storage Content for water year 2006 (end of month). Table 9 depicts the Actual Reservoir Operations for water year 2006.

Table 2 Summary of Reservoir Storage Content for water year 2006 (end of month)

Seminoe Reservoir			Pathfinder Reservoir			Alcova Reservoir		
Month	Storage	Record'	Month	Storage	Record'	Month	Storage	Record'
October	428,576		October	263,626	8 <sup>al</sup> lowest	October	159,486	3
November	421,463		November	270,652	5 <sup>th</sup> lowest	November	156,944	
December	412,046		December	276,208	5 <sup>th</sup> lowest	December	156,651	
January	408,086		January	283,413	5 <sup>th</sup> lowest	January	156,290	
February	401,517		February	290,043	5 <sup>dl</sup> lowest	February	156,718	
March	411,054		March	289,089	4 <sup>th</sup> lowest	March	157,622	
April	410,360		April	291,879	5 <sup>th</sup> lowest	April	179,888	
May	460,150		May	301,268	5 <sup>th</sup> lowest	May	179,595	
June	441,703	4 <sup>h</sup> lowest	June	296,384	4 <sup>th</sup> lowest	June	179,888	
July	334,941	2 <sup>nd</sup> lowest	July	271,635	4 <sup>th</sup> lowest	July	180,523	
August	280,430	lowest	August	209,234	2 <sup>rd</sup> lowest	August	180,107	
September	267,825	lowest	September	202,746	3 <sup>rd</sup> lowest	September	179,839	
Glendo Reservoir			Guernsey Reservoir			Total System 2		
Month	Storage	Record'	Month	Storage	Record'	Month	Storage	Record'
October	173,702		October	6,981	5 <sup>th</sup> highest	October	1,038,726	
November	204,719		November	9,241	7 <sup>th</sup> highest	November	1,069,296	
December	236,246		December	11,578	7 <sup>th</sup> highest	December	1,098,979	
January	269,570		January	13,547		January	1,137,145	
February	297,688		February	15,372		February	1,167,526	
March	346,286		March	17,278		March	1,227,557	
April	428,824		April	24,338		April	1,341,532	
May	423,305		May	27,788	lowest	May	1,398,106	
June	430,395		June	27,965	2 <sup>nd</sup> lowest	June	1,382,207	3 <sup>rd</sup> lowest
July	265,048		July	26,874		July	1,085,324	3 <sup>rd</sup> lowest
August	110,943		August	13,600	4 <sup>th</sup> lowest	August	800,560	2 <sup>nd</sup> lowest
September	145,320		September	3,851		September	805,913	4 <sup>th</sup> lowest <sup>1</sup>

<sup>1</sup> Record is the 30 year period from 1976-2005

<sup>2</sup> Total North Platte system includes storage in Seminoe, Kortes, Pathfinder, Alcova, Gray Reef, Glendo and Guernsey Reservoirs

<sup>3</sup> Alcova Reservoir is normally maintained within either a winter operating range (between contents of 153,802 AF to 158,302 AF) or a summer operating range (between contents 177,070 AF to 181,943 AF)

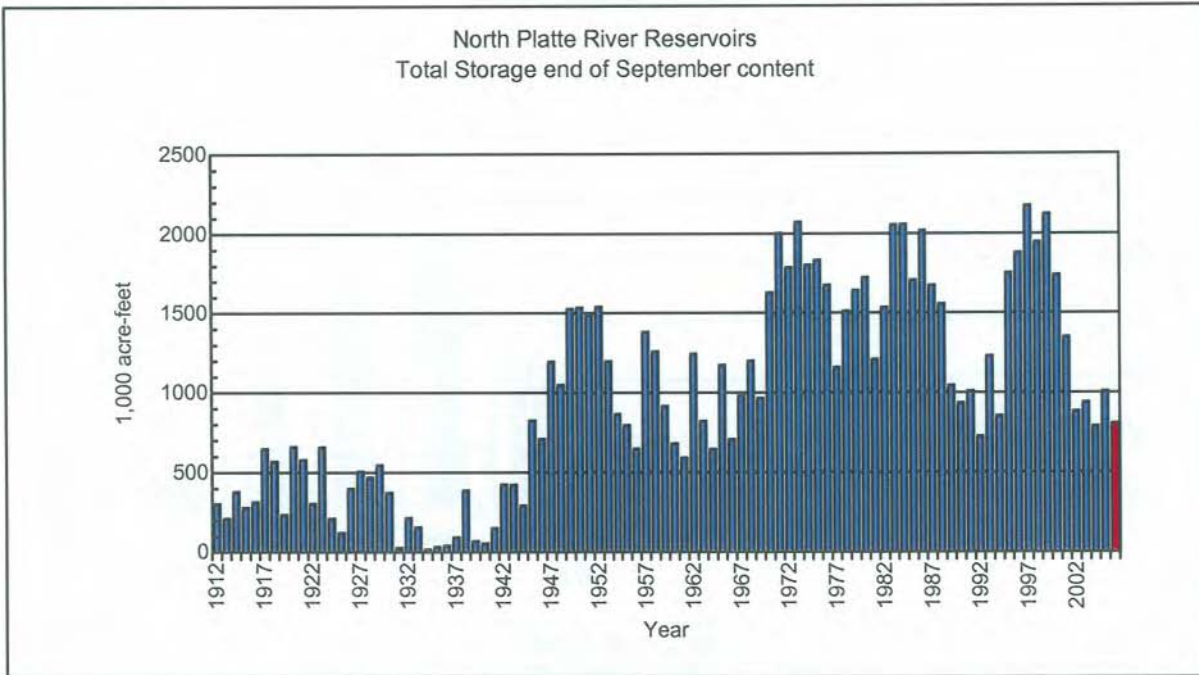


Figure 1 North Platte River Reservoirs Total Storage end of September content (1912-2006)

### SYSTEM OPERATIONS WATER YEAR 2006 Seminole Reservoir Inflow

Seminole Reservoir inflows were below or near average for most of the water year with only two months being above average. A total of 751,700 AF or 80 percent of the 30 year average entered the system above Seminole Reservoir during the water year. The monthly inflows ranged from a high of 119 percent of average in April 2006 to a low of 49 percent in July 2006. The August inflow into Seminole Reservoir was the 6th lowest in the last 30 years. The actual April through July inflow totaled 546,100 AF, which was 78 percent of the 30 year average of 700,100 AF. The Seminole computed inflow peaked for the water year on May 24, 2006, at 6,658 cubic feet per second (cfs) compared to 9,324 cfs in water year 2005. Figure 2 depicts a comparison of average, water year 2006 and water year 2005 monthly inflow.

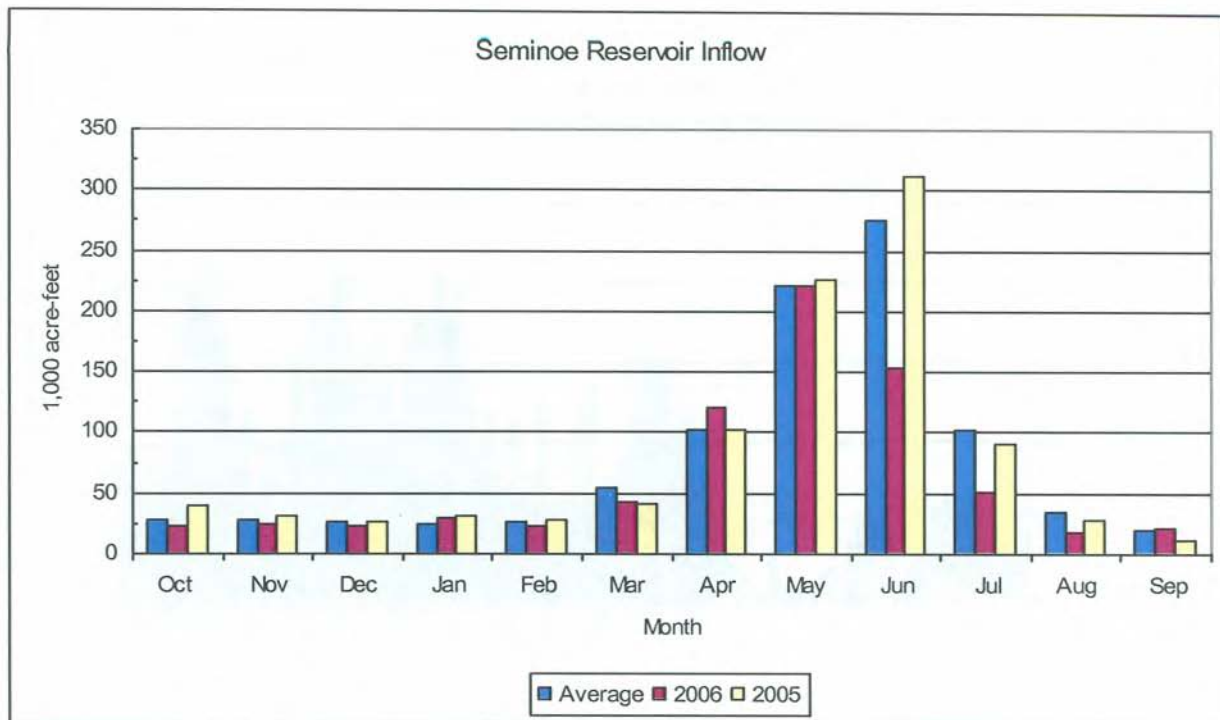


Figure 2 Seminoe Reservoir Inflow

### Seminoe Reservoir Storage and Releases

Seminoe Dam and Reservoir, on the North Platte River, is the main storage facility for the Kendrick Project. Construction of the dam was completed in 1939, providing a storage capacity of 1,017,273 AF. The powerplant contains three electrical generating units with a total capacity of 51 MW at a full release capability of about 4,050 cfs.

The spillway consists of a concrete-lined tunnel through the right abutment controlled by three fixed-wheel gates with a release capability of close to 48,000 cfs. Two 60 inch jet flow valves provide a low level river outlet with a flow capacity of 3,420 cfs.

At the start of water year 2006, Seminoe Reservoir had a storage content of 428,576 AF, which was 67 percent of average and 42 percent of capacity. Seminoe storage content remained below average for the entire water year. The maximum Seminoe Reservoir content was reached on June 15, 2006, at 484,221 AF. At the end of water year 2006, Seminoe Reservoir storage content was 267,825 AF, which was 40 percent of average and 26 percent of capacity. See Figure 3 for a comparison of average, water year 2005 and water year 2006 monthly storage.

Releases from Seminoe Dam averaged approximately 520 cfs from October 2005, through March 2006. Releases were increased to approximately 2,650 cfs by the end of April and increased to approximately 2,800 cfs by the end of June. The flows decreased to 2,400 cfs by mid July and then decreased again to approximately 1,500 cfs by the end of July. The water release was reduced to approximately 530 cfs on August 21, 2006 which would be the flow for the winter.

Table 3 depicts a summary of Seminoe Reservoir information for water year 2006.

**Table 3** Seminole Reservoir Hydrologic Data for water year 2006

Reservoir Allocations	Elevation (FT)	Storage (AF)	Storage Allocation (AF)			
Top of Inactive and Dead	6239.00	31,670	31,670			
Top of Active Conservation	6357.00	1,017,273	985,603			
Crest of Dam (without Camber)	6361.00					
<b>Storage-Elevation Data</b>						
Storage-Elevation Data	Elevation (FT)	Storage (AF)	Date			
Beginning of water year	6318.19	438,576	Oct 1, 2005 <sup>2</sup>			
End of water year	6298.76	267,825	Sep 30, 2006			
Annual Low	6298.76	267,825	Sep 30, 2006			
Historic Low <sup>1</sup>	6253.30	56,390	Apr 20, 1961			
Annual High	6322.42	484,221	Jun 15, 2006			
Historic High <sup>1</sup>	6359.29	1,073,050	Jun 20, 1949			
<sup>1</sup> The daily records for this table are only available from water year 1946.						
<sup>2</sup> Represents 0001 hours on October 1						
<b>Inflow-Outflow Data</b>						
Inflow-Outflow Data	Inflow <sup>3</sup>	Date	Outflow	Date		
Annual Total (AF)	751,700	Oct' 05 - Sep' 06	895,500	Oct' 05 - Sep' 06		
Daily Peak (CFS)	6,658	May 24, 2006	2,900 <sup>4</sup>	Jun 26, 2006		
Daily Minimum (CFS)	18	Dec 27, 2005	456 <sup>4</sup>	Sep 18, 2006		
Peak Jet Flow Valve (CFS)						
Total Jet Flow Valve (CFS)						
<sup>3</sup> Inflows are a computed number.						
<sup>4</sup> Daily peak and minimum are releases to the river.						
Month	Inflow		Outflow		Content <sup>6</sup>	
	KAF	% of Avg. <sup>5</sup>	KAF	% of Avg. <sup>5</sup>	KAF	% of Avg. <sup>5</sup>
October	23.5	84	32.1	61	428.6	66
November	25.5	88	30.9	55	421.5	68
December	22.8	88	31.8	48	412.0	71
January	28.9	116	32.1	47	408.1	76
February	22.8	84	28.9	46	401.5	80
March	42.9	77	32.1	41	411.1	86
April	120.4	119	117.5	141	410.4	84
May	221.0	100	168.5	187	460.2	75
June	153.8	55	168.3	132	441.7	58
July	50.9	49	152.5	141	334.9	45
August	18.1	50	69.0	92	280.4	40
September	21.1	108	31.8	67	267.8	40
Annual	751.7	79	895.5	98		

<sup>5</sup> The 30 year average is the period (1976-2005)

<sup>6</sup> End of month

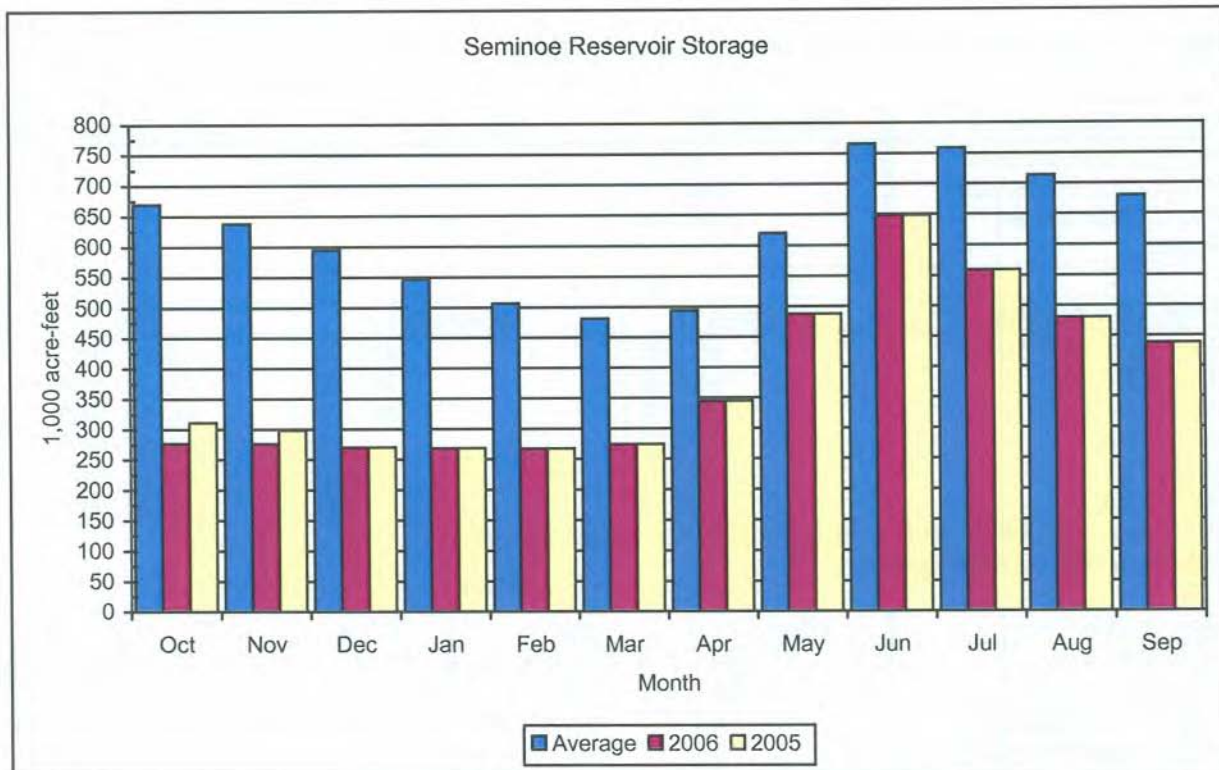


Figure 3 Seminoe Reservoir Storage

### Kortes Reservoir Storage and Releases

Completed in 1951, Kortes Dam, Reservoir, and Powerplant of the Kortes Unit (Pick-Sloan Missouri Basin Project) are located about 2 miles below Seminoe Dam. It was the first unit initiated by the Bureau of Reclamation under the Missouri River Basin Project. Kortes Reservoir provides a maximum storage capacity of 4,739 AF at elevation 6165.7 feet. Kortes Powerplant has three electrical generating units with a total capacity of 36 MW and a release capability of approximately 3,000 cfs. Water released from Seminoe Dam to Pathfinder Reservoir passes through the Kortes turbines to generate power. Maximum benefits are obtained when Kortes Reservoir remains full and the power releases are coordinated with those from Seminoe powerplant to maintain a full reservoir.

The spillway on the right abutment consists of an uncontrolled crest with a concrete-lined tunnel and has a capacity of 50,000 cfs.

Senate Bill 2553 which was passed in the 90th Congress authorized the modification of the operation of Kortes Dam and Powerplant to provide a minimum streamflow of 500 cfs in the North Platte River between Kortes Reservoir and the normal headwaters of Pathfinder Reservoir. The minimum flow permits maintenance of a fishery in a stretch of the North Platte River commonly referred to as the "Miracle Mile".



Kortes releases averaged approximately 520 cfs from October 2005 through April 2006. Releases were increased to approximately 2,650 cfs by the end of April and increased to approximately 2,800 cfs by the end of June. The flows decreased to 2,400 cfs by mid July and then decreased again to approximately 1,500 cfs by the end of July. The water release was reduced to approximately 530 cfs on August 21, 2006 which would be the flow for the winter. In water year 2006 most releases were made through the Kortes Powerplant, except for eight occasions, when testing or maintenance required bypass releases.

#### Gains to the North Platte River from Kortes Dam to Pathfinder Dam

Kortes Dam to Pathfinder Dam river gains were below average for October and then near or above average from November 2005 through February 2006, with the remaining months during the water year being below average. The Kortes Dam to Pathfinder Dam river gains ranged from 116 percent in January 2006 to 11 percent of average in September 2006. The Kortes to Pathfinder river gains for September 2006, was the lowest in the last 30 years. The actual April through July river gains were 19,400 AF, which is 16 percent of the 30 year average of 118,300 AF. Figure 4 depicts a comparison of average, water year 2005 and water year 2006 monthly river gains.

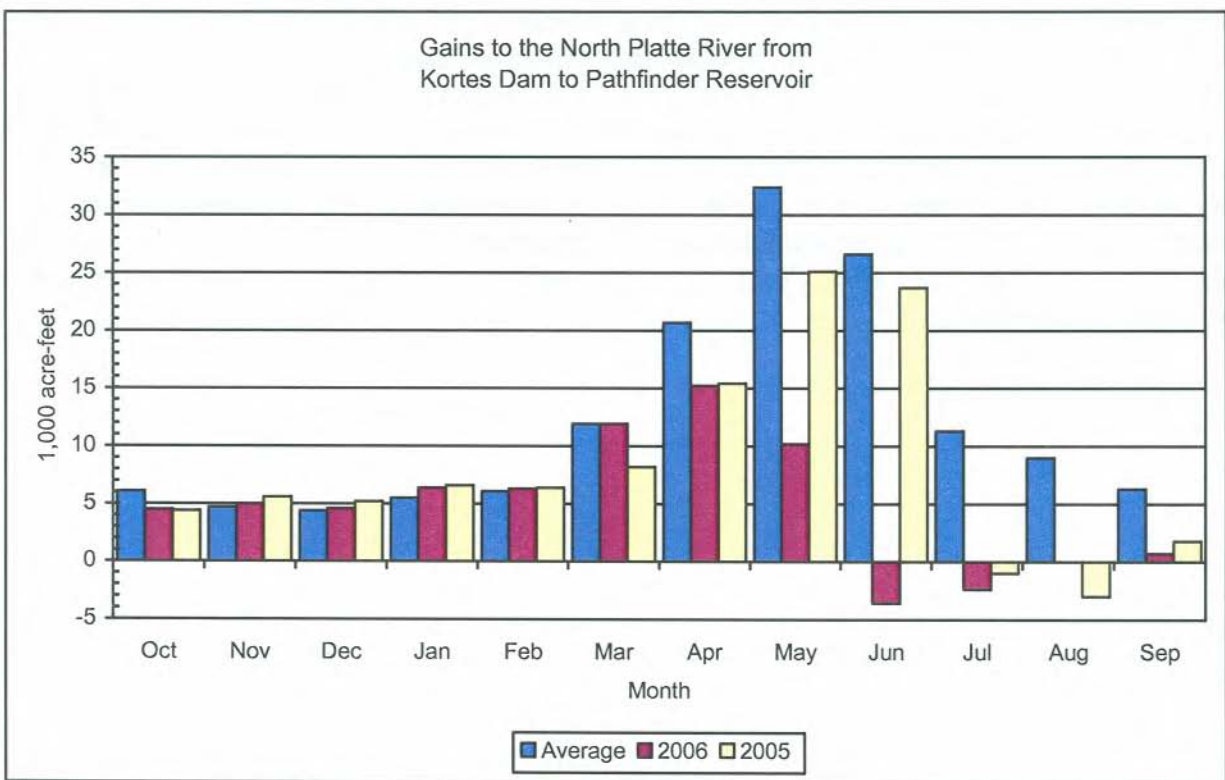


Figure 4 Gains to the North Platte River from Kortes Dam to Pathfinder Reservoir

## Pathfinder Reservoir Storage and Releases

Pathfinder Dam and Reservoir, a major storage facility of the North Platte Project, has a total capacity of 1,016,507 AF at elevation 5850.10 feet. Construction of the dam was completed in 1909. Operationally, this structure is a bottleneck in the System with its restricted release capability of approximately 6,000 cfs. The rated capacity of the left abutment outlet works through the two 60-inch jet flow gates is 2,928 cfs at elevation 5850.10 feet. The flow capacity range of the 30-inch jet flow gate is from approximately 50 to 450 cfs. Depending on the elevation of the reservoir, as much as 2,900 cfs can be released through the Fremont Canyon Power conduit and discharged from the Fremont Canyon turbines at the powerplant 3 miles downstream. Fremont Canyon Powerplant has been reconditioned to a generation capacity of 66.8 MWs under full reservoir operating head. The uncontrolled spillway is a flat-crested weir of natural rock over the left abutment of the dam and any time the reservoir water surface exceeds 5850.10 feet a spill occurs. The calculated discharge capacity of the spillway is 33,940 cfs at reservoir elevation 5858.10 feet.

At the start of water year 2006, storage in Pathfinder Reservoir was 238,911 AF, which was 48 percent of average and only 24 percent of capacity. Pathfinder storage remained below average for the entire water year. (See figure 5). The maximum Pathfinder Reservoir content for the water year was reached on June 5, 2006, at 302,581 AF which was only 28 percent of capacity. The water year ended with 202,746 AF of water in storage in Pathfinder Reservoir, which was 41 percent of average and 20 percent of capacity. A continual release of water from Pathfinder Reservoir during October was maintained during the gradual drawdown of Alcova Reservoir to its winter operating range. At the request of the Wyoming Game and Fish Department a year round flow of 75 cfs was provided through the Pathfinder Reservoir 30 inch Jet-Flow Valve to the river below Pathfinder Dam. Table 4 depicts a summary of Pathfinder Reservoir information for water year 2006.

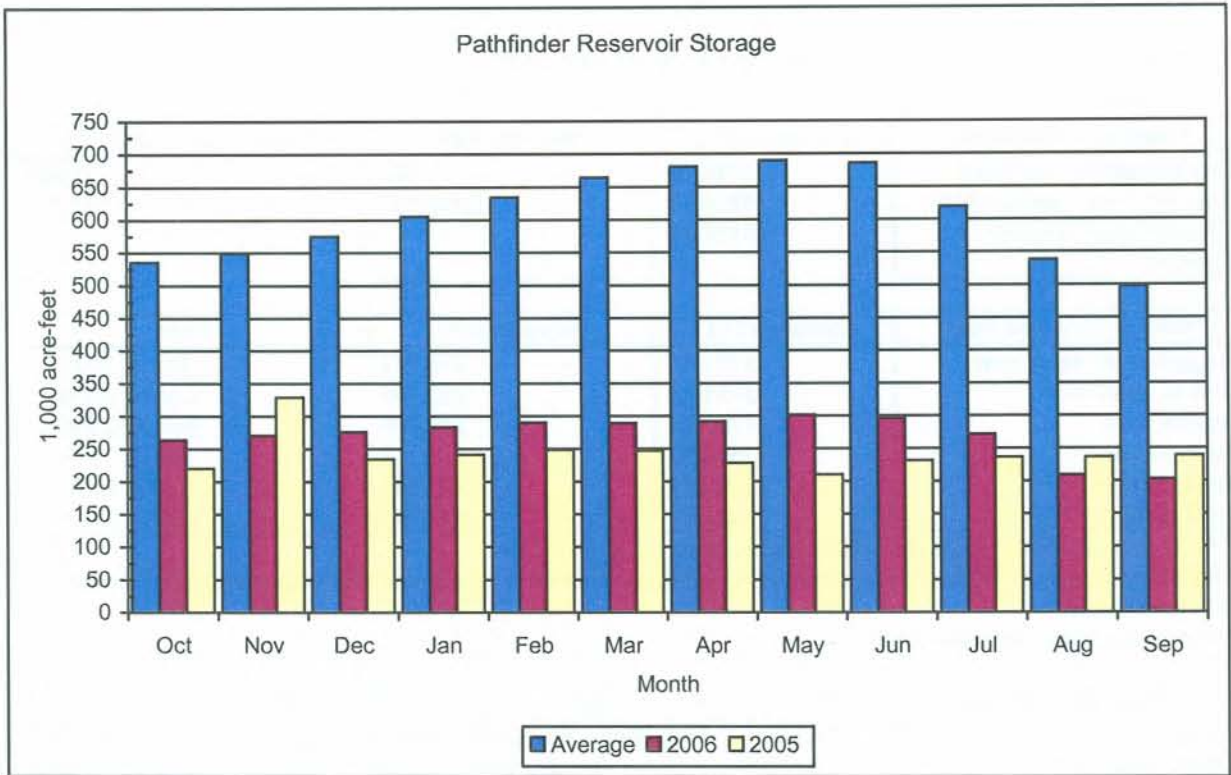


Figure 5 Pathfinder Reservoir Storage

Table 4 Pathfinder Reservoir Hydrologic Data for water year 2006

Reservoir Allocations	Elevation (FT)	Storage (AF)	Storage Allocation (AF)					
Top of Inactive and Dead	5746.00	31,405	31,405					
Top of Active Conservation	5850.10	1,016,507	985,102					
Crest of Dam (without Camber)	5858.10							
<b>Storage-Elevation Data</b>								
Storage-Elevation Data	Elevation (FT)	Storage (AF)	Date					
Beginning of water year	5792.21	238,911	Oct 1, 2005 <sup>3</sup>					
End of water year	5786.73	202,746	Sep 30, 2006					
Annual Low <sup>2</sup>	5786.73	202,746	Sep 30, 2006					
Historic Low <sup>3</sup>	5690.00	0	Sep 9, 1958					
Annual High	5800.65	302,581	Jun 5, 2006					
Historic High <sup>1</sup>	5853.11	1,083,755	Jul 7, 1983					
<sup>1</sup> Daily records for this table are only available from water year 1946								
<sup>2</sup> From September 1958 through January 1959, Pathfinder Reservoir was drained for construction of Fremont Canyon tunnel.								
<sup>3</sup> Represents 0001 hours on October 1.								
<b>Inflow-Outflow Data</b>								
Inflow-Outflow Data	Inflow	Date	Outflow	Date				
Annual Total (AF)	954,100	Oct, 2005 - Sep, 2006	967,900	Oct, 2005 - Sep, 2006				
Daily Peak (CFS)	4,168	Apr 27, 2006	3,063	Apr 27, 2006				
Daily Minimum (CFS)	276	Dec 2, 2005	10	Oct 3, 2005				
Peak Jet Flow Valve (CFS)			108 <sup>4</sup>	Jul 5, 2006				
Total Jet Flow Valve (AF)			54,409	Oct, 2005 - Sep, 2006				
<sup>4</sup> At the request of the Wyoming Game and Fish Department a yearly flow of 75 cfs will be provided through the Pathfinder Reservoir 30 inch Jet-Flow Valve to the river below Pathfinder Dam.								
Month	Gain from Kortès		Inflow <sup>6</sup>		Outflow		Content <sup>8</sup>	
	KAF	% of Avg. <sup>5</sup>	KAF	% of Avg. <sup>5</sup>	KAF	% of Avg. <sup>5</sup>	KAF	% of Avg. <sup>5</sup>
October	4.5	74	36.6	63	10.6	32	263.6	49
November	5.0	106	35.9	59	27.6	61	270.7	49
December	4.6	105	36.5	52	30.6	71	276.2	48
January	6.4	116	38.4	52	30.6	71	283.4	47
February	6.3	103	35.2	51	28.3	72	290.0	46
March	11.9	100	44.0	49	43.9	76	289.1	44
April	15.2	73	132.7	128	127.1	152	291.9	43
May	10.2	31	178.7	146	167.1	157	301.3	44
June	-3.6	NA <sup>7</sup>	164.7	107	166.6	112	296.4	43
July	-2.4	NA <sup>7</sup>	150.1	126	170.3	97	271.6	44
August	0.0	11	68.9	82	128.0	81	209.2	39
September	0.7		32.4	60	37.2	42	202.7	41
Annual	58.8	42	954.1	90	967.9	94		

<sup>5</sup> 30 year average is the period (1976-2005)

<sup>6</sup> The inflow include the gain from Kortès Dam to Pathfmdr Dam.

<sup>7</sup> Represents a negative number that makes the percentage meaningless.

<sup>8</sup> End of Month

## Alcova and Gray Reef Reservoirs Storage and Releases

Alcova Dam and Reservoir is part of the Kendrick Project. The dam serves as a diversion dam for the Casper Canal and the reservoir as a forebay for the Alcova Powerplant. The dam, located about 10 miles downstream from Pathfinder Dam, was completed in 1938. Reservoir storage capacity is about 184,405 AF at elevation 5500 feet, of which only the top 30,600 AF is active capacity available for irrigation of the Kendrick Project. The powerplant consists of two electrical generating units with a total installed capacity of 36 MW at a full release capability of about 4,100 cfs. The spillway is a concrete lined open channel in the left abutment of the dam controlled by three 25 by 40 foot gates with a capacity of 55,000 cfs at a reservoir level of 5500 feet. The reservoir is operated within a 2 foot range during summer and winter but at levels 10 feet apart. A higher operating level is maintained during the summer months to provide adequate head on the Casper Canal and accommodate recreation use, while the lower winter operating level reduces the potential for ice damage to the canal gate and boat docks.

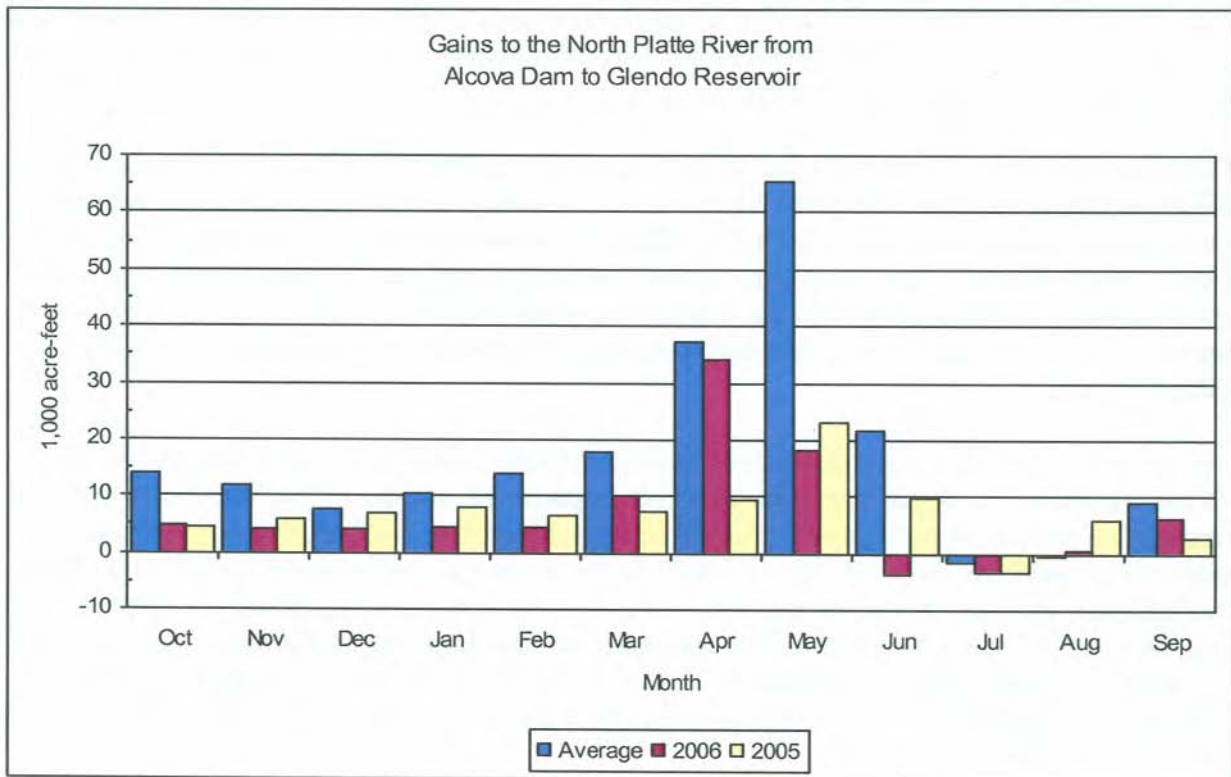
The annual drawdown of Alcova Reservoir began on October 1, 2005, and continued through October 31, 2005, when the reservoir reached its normal winter operating range of 5488 + one foot. The refill of Alcova Reservoir was initiated on April 1, 2006. The water surface elevation was raised above 5497 feet on April 25, 2006, and the reservoir was maintained within 1 foot of elevation 5498 throughout the summer.

Gray Reef Dam and Reservoir is part of the Glendo Unit, Oregon Trail Division, Pick-Sloan Missouri Basin Program. The dam which was completed in 1961, is a three-zoned rock and earthfill structure located about 2.5 miles below Alcova Dam. The reservoir has an active capacity of 1,744 AF. Gray Reef Reservoir is operated to reregulate widely fluctuating water releases from the Alcova Powerplant, and provide stable flow for irrigation, municipal, industrial, and fish and wildlife interests along the 147 miles of river between Alcova and Glendo Dams.

The Gray Reef releases were maintained at 500 cfs from October 2005 until March 20, 2006. At the request of the Wyoming Game and Fish Department, a series of flushing flows were initiated on March 20, 2006, and continued through March 24, 2006, during which the flows were varied each day from 500 cfs to 4,000 cfs, for the purpose of flushing silt from spawning gravels used by trout. At the completion of the flushing flows, releases from Gray Reef were again set at 500 cfs until April 3, 2006. Releases for the remainder of the water year were adjusted to manage upstream inflows from snowmelt runoff and to meet irrigation demands below Guernsey Reservoir. The largest release of water for the water year occurred on May 14, 2006 at 2,654 cfs.

## Gains to the North Platte River from Alcova Dam to Glendo Reservoir

River gains from Alcova Dam to Glendo Reservoir were below average for the entire water year except for August which was above average. The Alcova Dam to Glendo Reservoir river gains ranged from a high of only 92 percent in April 2006 to 29 percent of average in May 2006. The Alcova to Glendo river gains for October and November 2005, were the 3<sup>rd</sup> and 2<sup>nd</sup> lowest river gains in the last 30 years respectively. The Alcova to Glendo river gains for January and February 2006, were the 4<sup>th</sup> and 1<sup>st</sup> lowest river gains of record since the construction of Glendo Dam in 1958. The actual April through July gain was 45,400 AF, which was only 37 percent of average. The Alcova to Glendo river gains for July 2006 was the 5<sup>th</sup> lowest river gains in the last 30 years. During the months of June, July, and August the net river gain between Alcova Dam and Glendo Reservoir was a negative value. The maximum computed daily river gain of 1,155 cfs occurred on April 15, 2006 and the daily computed Glendo Reservoir inflow peaked on July 10, 2006, at 3,166 cfs. Figure 6 depicts a comparison of average, water year 2006 and water year 2005 monthly river gains.



**Figure 6** Gains to the North Platte River from Alcova Dam to Glendo Reservoir

## Glendo Reservoir Storage and Releases

Glendo Dam and Reservoir is the only storage facility for the Glendo Unit. The reservoir has a storage capacity of 789,402 AF, including 271,917 AF allocated to flood control. Glendo Powerplant consists of 2 electrical generating units, with a total installed capacity of 38 MW. With both generating units operating at capacity and the reservoir water surface at elevation 4635.0 feet, approximately 3,920 cfs can be released through Glendo Powerplant. The reinforced concrete spillway has an ungated ogee crest. The spillway capacity at elevation 4669.0 feet, (6 feet below the crest of the dam), is 10,335 cfs.

The outlet works from Glendo Dam consist of the primary outlet works which discharge at the powerplant, and the low-flow outlet which discharges to the river immediately below the dam. The three primary outlet gates can release a combined discharge of 13,000 cfs with the powerplant shut down. During normal operation when the reservoir elevation is below the top of conservation storage (4635 feet), outlet works discharges should typically remain below 5,500 cfs. This precautionary practice is to minimize the potential for damage to the stilling basin and training walls. The low-flow outlet works are operated to maintain a continuous release of approximately 25 cfs. This provides a reliable water source for the downstream wetland area and results in associated fish and wildlife benefits.

Glendo Reservoir storage was 138,417 AF at the beginning of water year 2006, which was 131 percent of average but only 27 percent of active conservation of 517,485 AF. Water releases from Glendo Reservoir were initiated on April 13, 2006, in order to refill Guernsey Reservoir in preparation for irrigation releases. The reservoir reached a maximum storage for the year of 478,887 AF (elevation 4631.76 feet) on June 18, 2006. At the end of the water year, Glendo Reservoir contained 145,320 AF of water (water surface elevation 4590.21 feet) which was 138 percent of average and only 28 percent of active conservation of 517,485 AF. Figure 7 depicts water year 2006 and water year 2005 end of month reservoir storage compared to average. Table 5 depicts a summary of Glendo Reservoir information for water year 2006.

Table 5 Glendo Reservoir Hydrologic Data for water year 2006

Reservoir Allocations	Elevation (FT)	Storage (AF)	Storage Allocation (AF)
Top of Inactive and Dead	4570.00	63,148	63,148
Top of Active Conservation	4635.00	517,485	454,337
Top of Exclusive Flood Control	4653.00	789,402	271,917
Maximum water surface(surcharge)	4669.00	1,118,653	329,251
Crest of Dam (without Camber)	4675.00		

Storage-Elevation Data	Elevation (FT)	Storage (AF)	Date
Beginning of water year	4588.84	138,417	Oct 1, 2005 I
End of water year	4590.21	145,320	Sep 30, 2006
Annual Low	4582.59	109,524	Aug 29, 2006
Historic Low	4548.10	15,140	Sep 28, 1966
Annual High	4633.94	504,535	Jun 20, 2006
Historic High	4650.94	758,830	May 28, 1973

<sup>1</sup> Represents 0001 hours on October 1.

Inflow-Outflow Data	Inflow	Date	Outflow <sup>2</sup>	Date
Annual Total (AF)	944,600	Oct, 2005 - Sep, 2006	907,600	Oct, 2005 - Sep, 2006
Daily Peak (CFS)	3,166	Jul 10, 2006	7,501	Jul 26, 2006
Daily Minimum (CFS)	137	Dec 8, 2006	18 <sup>3</sup>	Dec 13, 2005
Peak Bypass Release (CFS)			5,914	Jul 24, 2006
Total Bypass Release (AF)			185,483 <sup>3</sup>	Oct, 2005 - Sep, 2006

<sup>2</sup> Includes the average daily release of approximately 25 cfs from the low flow outlet works.  
<sup>3</sup> A low flow outlet works was completed in 1993 and an average release of 25 cfs is maintained all year.

Month	Gain from Alcova		Inflow /		Outflow		Content	
	KAF	% of Avg. <sup>5</sup>	KAF	% of Avg. <sup>5</sup>	KAF	% of Avg. <sup>5</sup>	KAF	% of Avg. <sup>5</sup>
October	4.7	34	37.9	53	1.6	62 <sup>b</sup>	173.7	103
November	4.1	35	33.4	57	1.7	106 <sup>6</sup>	204.7	91
December	4.1	54	33.7	66	1.9	100 <sup>6</sup>	236.2	86
January	4.4	42	35.9	68	1.7	85 <sup>6</sup>	269.6	83
February	4.5	32	31.0	60	2.2	100 <sup>6</sup>	297.7	80
March	10.0	56	51.0	71	1.7	9 <sup>6</sup>	346.3	82
April	34.1	91	123.1	125	36.7	58	428.8	95
May	18.3	28	163.8	104	164.8	136	423.3	87
June	-3.8	NA <sup>4</sup>	136.7	90	122.8	74 <sup>8</sup>	430.4	93
July	-3.2	NA <sup>4</sup>	146.9	95	306.1	98	265.0	88
August	0.4	NA <sup>4</sup>	112.9	81	263.9	90	110.9	78
September	6.2	69	38.3	42	2.5	2 <sup>8</sup>	145.3	138
Annual	83.8	40	944.6	82	907.6	81		

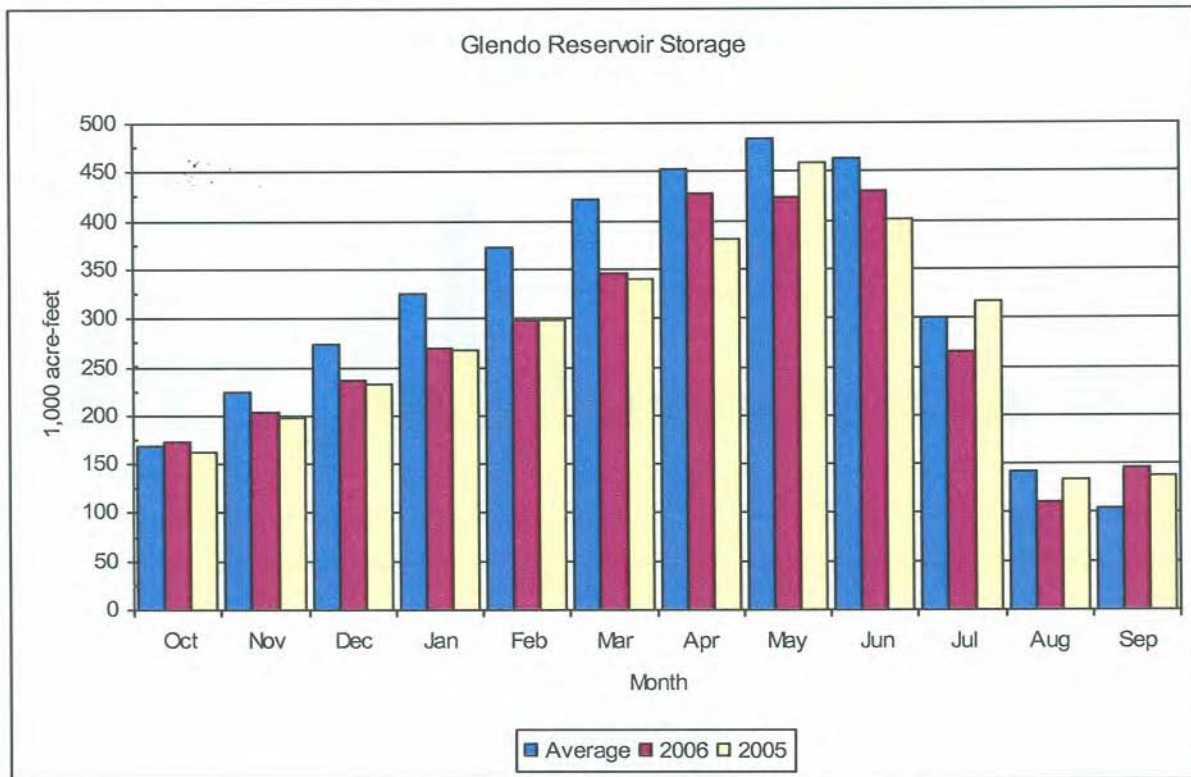
<sup>4</sup> Represents a negative number that makes the percentage meaningless.

<sup>5</sup> 30 year average is the period (1976-2005)

<sup>6</sup> 11 year average is the period (1994-2005) In 1994 a low flow valve was installed at Glendo Dam which allowed the release 25 cfs during the non irrigation season. Therefore, a 11 year average is used for the months of October through March. The March average is skewed high do to evacuation of space in the upper system to allow for snow melt run off. The higher March average caused the percent of average to be lower than normal. Inflow include the gain from Alcova Dam to Glendo Dam. Irrigation districts after discovering that the snow melt runoff was not going to be as high as the April-July forecast projected, discontinued their irrigation deliveries from June 7 through June 17 and stopped deliveries in early September.

<sup>9</sup> End of month

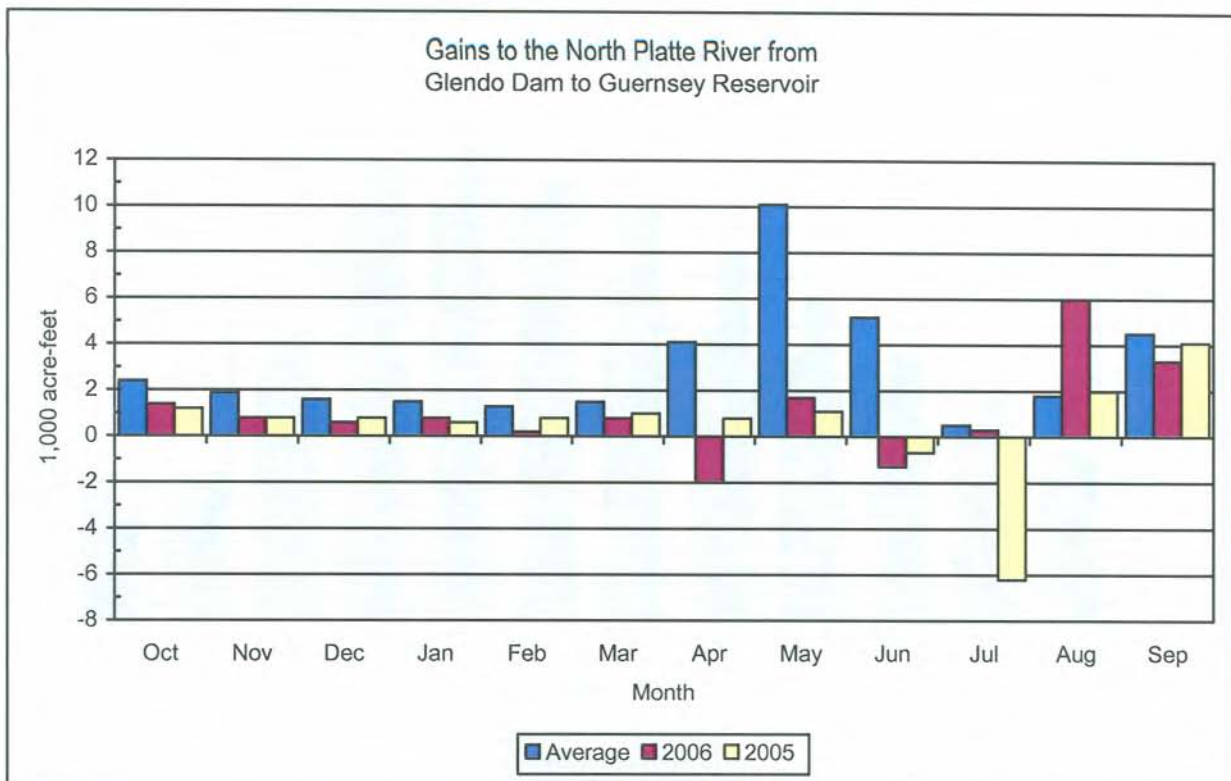




**Figure 7** Glendo Reservoir Storage

#### Gains to the North Platte River from Glendo Dam to Guernsey Reservoir

The river gains between Glendo Dam and Guernsey Dam during water year 2006 were below average for eleven months with only the month of August 2006 being above average. The Glendo Dam to Guernsey Reservoir river gains ranged from a high of 333 percent in August 2006 to only 13 percent of average in February 2006, with the months of April and June having a negative value making a percentage value meaningless. The Glendo to Guernsey river gains for November and December 2005, were tied for the lowest and the lowest river gains in the last 30 years respectively. The Glendo to Guernsey river gains for February 2006, was the 2nd lowest February river gain in the last 30 years. On July 25, 2006, daily computed inflow to Guernsey Reservoir peaked at 7,974 cfs. Figure 8 depicts a comparison of average, water year 2006 and water year 2005 monthly river gains.



**Figure 8** Gains to the North Platte River from Glendo Dam to Guernsey Reservoir

### Guernsey Reservoir Storage and Releases

Guernsey Dam located about 25 miles below Glendo Dam, again stores and reregulates the flow of the river prior to delivery of storage water to project lands of the North Platte Project and Glendo Unit. Guernsey Powerplant, located on the right abutment of the dam, has two 3.2 MW electrical generating units with a combined release capability of about 1,340 cfs. The windings of both units have been replaced resulting in the rating of 3.2 MW per unit. The north spillway gate, with a capacity of 50,000 cfs at a reservoir level of 4420 feet, is utilized for irrigation releases to supplement the maximum powerplant releases.

The original capacity of the reservoir was 73,800 AF, but this has been greatly reduced by deposition of silt. Utilizing data from the 1980 Sedimentation Survey of Guernsey Reservoir, the March 1982 - Area Capacity Tables and Curves shows about 45,600 AF of available storage.

At the beginning of water year 2006, storage in Guernsey Reservoir was at 4,185 AF. Releases from Guernsey Reservoir were started on April 17, 2006, as water was moved into the Inland Lakes. The annual "silt run" from the reservoir was initiated on July 10 and continued for 14 days. Reservoir storage was reduced to initiate the "silt run" and was maintained at a low level throughout the period. The minimum reservoir content during the "silt run" of 752 AF occurred on July 23, 2006. Following the "silt run," the reservoir was refilled to 27,029 AF by July 29, 2006 again making the reservoir suitable for recreation. At the end of the irrigation season, September 30, 2006, Guernsey Reservoir contained 3,851 AF. See Figure 9 for water year 2006 and water year 2005 storage compared to average.

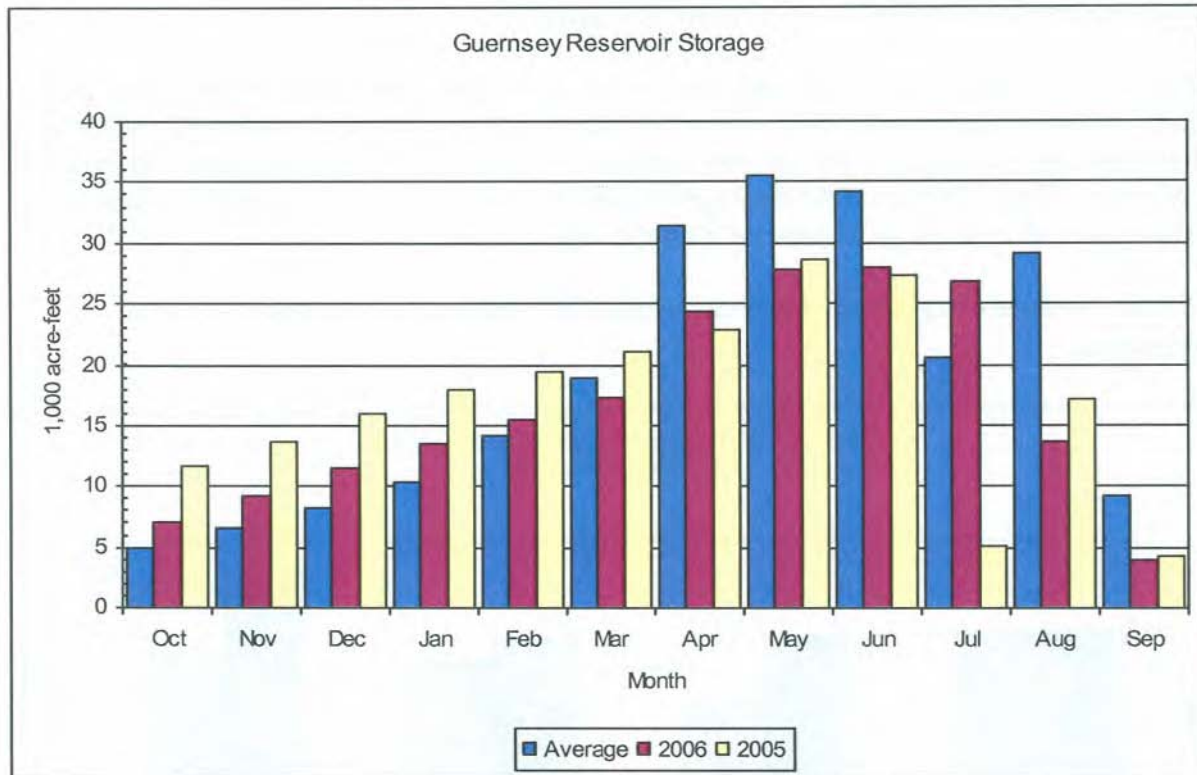


Figure 9 Guernsey Reservoir Storage

### Precipitation summary for water year 2006

Although the precipitation was quite variable from month to month throughout the North Platte River Basin, all watersheds had below average total precipitation for the water year except for the Seminoe Watershed which had average total precipitation for the water year. Watershed precipitation is an average of the precipitation readings using several stations as indicators for each watershed.

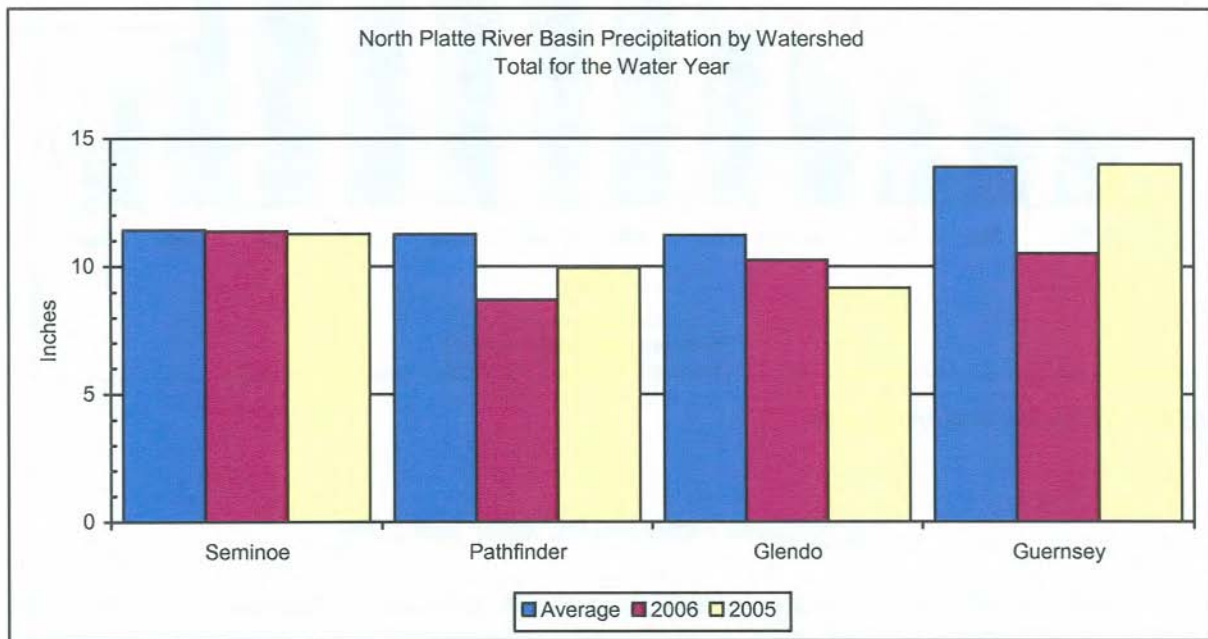
In the Seminoe watershed, precipitation at the Elk Mountain, Wyoming, Saratoga, Wyoming, and Walden, Colorado weather stations recorded the second highest, third highest, and third highest November precipitation respectively in the last 30 years. The Seminoe watershed precipitation data recorded second highest November precipitation combining for an average of 168 percent for the month of November.

In the Pathfinder watershed, precipitation at the Lander, Wyoming, weather stations recorded the lowest May and June precipitation in the last 30 years. In the Pathfinder watershed, precipitation at the Pathfinder, Wyoming, weather stations recorded the highest July precipitation in the last 30 years. The Pathfinder watershed precipitation data recorded second lowest May precipitation combining for an average of 33 percent for the month of May.

In the Glendo watershed, precipitation at the Pathfinder Dam, Wyoming, weather station had the highest November and July precipitation in the last 30 years. The Glendo watershed precipitation data recorded second highest January precipitation combining for an average of 215 percent for the month of January. The Pathfinder Dam weather station is used as an indicator in both the Pathfinder and Glendo watersheds.

In the Guernsey watershed, precipitation at the Guernsey Dam, Wyoming, weather station had the third lowest June precipitation in the last 30 years. In the Guernsey watershed, precipitation at the Glendo, Wyoming, weather station tied for the third lowest December precipitation in the last 30 years. The Guernsey watershed precipitation data recorded lowest June precipitation combining for an average of 13 percent for the month of June.

See Figure 10 for a comparison of average, water year 2006, and water year 2005 total precipitation.



**Figure 10** North Platte River Basin Precipitation by Watershed Total for water year

## Snow pack summary for water year 2006

Reclamation relies on the Natural Resources Conservation Service (NRCS) to provide snow water equivalent (SWE) information for the three drainage areas in which Reclamation forecasts snowmelt runoff. The watershed area above Seminoe Reservoir and the watershed between Alcova Dam and Glendo Reservoir were above average for the February, March, and April, but were below average for May. The Sweetwater River watershed into Pathfinder Reservoir was above average for February but below average for March, April, and May. Table 6 shows a summary of snowpack for water year 2006.

Snow pack SWE for February was above average at 126 percent for the watershed above Seminoe Reservoir; average at 100 percent for the Sweetwater River watershed which flows into Pathfinder Reservoir and above average at 111 percent for the Alcova to Glendo watershed.

Snow pack on March 1, 2006 had dropped slightly, with SWE at 113 percent of average for the watershed above Seminoe Reservoir; at 93 percent of average for the Sweetwater River watershed which flows into Pathfinder Reservoir and increased to 113 percent of average for the Alcova to Glendo watershed.

Snow pack for April 1, 2006 continued to decline slightly with SWE at 105 percent of average for the watershed above Seminoe Reservoir, at 103 percent of average for the Alcova to Glendo watershed; and improving to 94 percent of average for the Sweetwater River watershed which flows into Pathfinder Reservoir.

Snow pack for May 1, 2006 declined with SWE at 92 percent of average for the watershed above Seminoe Reservoir; 77 percent average for the Sweetwater River watershed which flows into Pathfinder Reservoir; and a dramatic drop to 56 percent of average for the Alcova to Glendo watershed.

**Table 6** North Platte Snowpack Water Content for 2006

Watershed	Feb 1		Mar 1		Apr 1		May 1	
	SWEI	% of Avg.2	SWEI	% of Avg.2	SWEI	% of Avg.2	SWEI	% of Avg.2
Seminole Reservoir	16.4	126	19.4	113	22.3	105	19.8	92
Pathfinder Reservoir	9.6	100	11.4	93	13.7	94	11.1	77
Glendo Reservoir	9.2	111	10.3	113	12.4	103	6.2	56

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.

#### Allocation for water year 2006

For the fifth year in a row, because of low carryover storage, and continued drought conditions, an allocation of storage water was required. The allocation, which was put into effect on June 18, 2006, applied to the four Government Districts; Pathfinder Irrigation District (ID), Goshen ID, Gering-Fort Laramie ID and Northport ID and to the nine Warren Act Contractors; Farmers ID, Gering ID, Lingle Water Users Assoc., Hill ID, Rock Ranch ID, Central ID, Chimney Rock ID, Browns Creek ID, and Beerline Irrigation Canal Co. In an effort to conserve water and improve carryover storage, all releases from Guernsey Reservoir for allocation districts were discontinued by midnight, on September 7, 2006. On September 30, 2006, the North Platte ownership contained 328,588 AF for use in water year 2007, which was the second largest carryover since water year 2000. The most consecutive allocation years historically are 1953, 54, 55, 56, and 1957 and now 2002, 03, 04, 05, and 2006.

#### Ownerships for water year 2006

Stored water which is held in accounts for various entities is referred to as their ownership. At the beginning of water year 2006, the North Platte Project ownership (includes North Platte Pathfinder and North Platte Guernsey), contained only 402,055 AF of water, which is 103 percent of average. The Kendrick ownership contained 542,546 AF of water, which is 58 percent of average; and the Glendo ownership contained 53,981 AF of water, which is 41 percent of average. No ownership filled to its permitted amount during water year 2006.

The total amount of water stored at the end of water year 2005 in the mainstem reservoirs for use in water year 2006 was 1,006,540 AF which was 68 percent of average. This total does not include 16,532 AF of water remaining in the four Inland Lakes in Nebraska.

At the end of water year 2006, the North Platte Project ownership (includes North Platte Pathfinder and North Platte Guernsey), contained 328,588 AF of water which is 84 percent of average. The Glendo ownership contained 29,597 AF of water which is 22 percent of average. The Kendrick ownership contained 442,693 AF, which is 48 percent of average and the operational/re-regulation water account contained 0 AF. Also stored in the North Platte storage system was 3,035 AF for the City of Cheyenne and 2,000 AF for Pacific Power. See Figure 11 for the last two water years ownership carryover compared with average. Table 8 shows a summary of ownership for water year 2006.

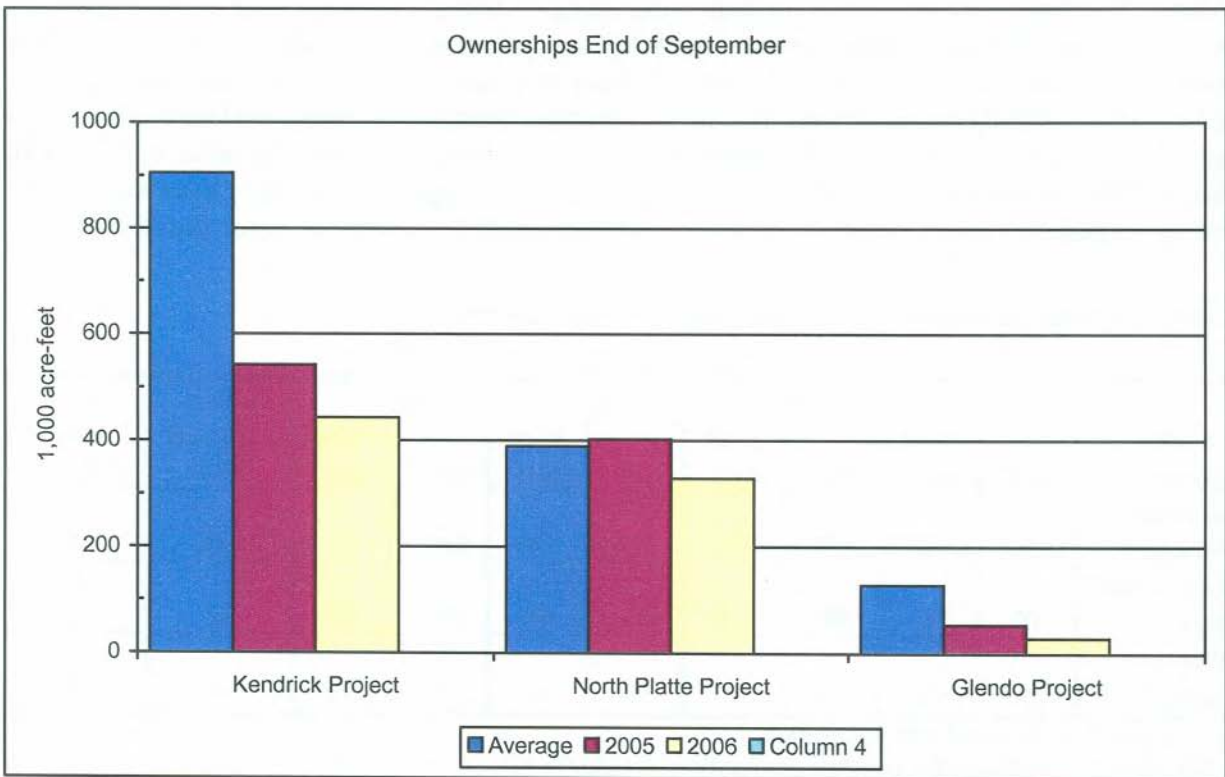


Figure 11 Ownership End of September

## North Platte River Forecast 2006

Reservoir inflow forecasts are prepared at the first of February, March, April and May to estimate the inflows expected for the April through July runoff period.

Runoff forecasts for the Seminole Reservoir watershed, the Sweetwater River above Pathfinder Reservoir, and the North Platte River from Alcova Dam to Glendo Reservoir are based on snow telemetry (SNOTEL) and/or snow course sites, precipitation sites, and calculated November inflow. Reclamation maintains a database consisting of historic monthly data for reservoir inflows, snow and precipitation stations. WYAO staff coordinates with NRCS Portland Office staff to exchange forecasted numbers. Reclamation forecasts and NRCS forecasts are then reviewed by WYAO management. All the information available is considered and judgement is applied to result in a final forecast of reservoir inflow. The forecasted information is then made available to the public through a news release and is used in updating monthly reservoir operating plans. Table 7 depicts a summary of the monthly forecasts for water year 2006.

**Table 7** Summary of Forecasts of April-July runoff for water year 2006

Forecast Points	Feb 1		Mar 1		Apr 1		May 1		Actual April-July KAF	% of Apr-Jul Avg. <sup>1</sup>
	KAF	% of Avg.	KAF	% of Avg.	KAF	% of Avg.	KAF	% of Avg.		
Seminole Reservoir	950	135	875	125	875	125	570 <sup>2</sup>	81	546	78
Sweetwater River	70	111	65	103	65	103	50 <sup>3</sup>	79	32	50
Alcova to Glendo	130	106	100	81	90	73	60 <sup>4</sup>	49	45	37

<sup>1</sup> Average is based on the 1976-2005 period.

<sup>2</sup> The May 1 forecast includes an actual April inflow of 120,000 AF.

<sup>3</sup> The May 1 forecast includes an actual April inflow of 11,000 AF.

<sup>4</sup> The May 1 forecast includes an actual April inflow of 34,000 AF.



**Table 8** Summary of North Platte River System Ownership for water year 2006

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**SUMMARY OF NORTH PLATTE RIVER SYSTEM OWNERSHIPS FOR WATER YEAR 2006 (Acre-feed)**

MONTHS	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
<b>PATHFINDER OWNERSHIP</b>														
ACCRUAL <sup>1</sup>	29,571	29,796	26,075	35,586	27,206	51,172	115,107	124,036	96,687	0	0	11,521	546,757	
EVAPORATION	1,969	2,071	529	1,107	552	1,911	5,500	5,016	8,012	10,305	6,065	2,302	45,339	
DELIVERY <sub>2</sub>	0	0	0	0	0	0	206	7,568	69,426	250,420	253,939	0	581,559	
OWNERSHIP	402,055	429,657	457,382	482,928	517,407	544,061	593,322	702,723	814,175	833,424	572,699	312,695	321,914	
<b>KENDRICK OWNERSHIP</b>														
ACCRUAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EVAPORATION	1,674	2,038	515	970	466	1,549	3,890	3,020	3,814	5,896	4,577	2,439	30,848	
DELIVERY <sub>2</sub>	0	0	0	0	0	0	0	12,095	17,905	17,459	14,714	6,832	69,005	
OWNERSHIP	542,546	540,872	538,834	538,319	537,349	536,883	535,334	531,444	516,329	494,610	471,255	451,964	442,693	
<b>GLENDO OWNERSHIP</b>														
ACCRUAL	0	0	0	0	0	0	0	0	0	0	8	0	0	8
EVAPORATION	355	188	-5	454 <sup>f</sup>	480	-111	1,031	2,240	3,201	2,165	1,652	891	12,541	
DELIVERY & LOSS <sub>2</sub>	0	0	0	0	0	0	18	67	644	5,790	4,456	876	11,851	
OWNERSHIP	53,981	53,626	53,438	53,443	52,989	52,509	52,620	51,571	49,264	45,419	37,472	31,364	29,597	
<b>PACIFIC POWER &amp; LIGHT</b>														
ACCRUAL	0	0	0	0	0	0	0	66	31	34	32	25	188	
DELIVERY <sub>2</sub>	0	0	0	0	0	0	0	0	0	0	0	0	0	
EVAPORATION	13	6	0	4	3	2	17	21	31	34	32	25	188	
IN STORAGE	2,000	1,987	1,981	1,981	1,977	1,974	1,972	1,955	2,000	2,000	2,000	2,000	2,000	
<b>GUERNSEY 1E ille</b>														
ACCRUAL	0	0	7,515	5,140	7,025	10,474	197	242	86	0	0	6,779	37,458	
EVAPORATION	0	0	3	107	91	132	682	663	402	0	0	105	2,185	
DELIVERY <sub>2</sub>	0	0	2,997	290	2,738	155	0	13,451	8,968	0	0	0	28,599	
OWNERSHIP	0	0	4,515	9,258	13,454	23,641	23,156	9,284	0	0	0	6,674		

Table 8 (continued) Summary of North Platte River System Ownership for water year 2006  
Page 2 of 3

**SUMMARY OF NORTH PLATTE RIVER SYSTEM OWNERSHIPS FOR WATER YEAR 2006 (Acre-feet)**

MONTHS	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
<b>INLAND LAKES OWNERSHIP</b>														
ACCUAL		6,017	4,765	8	0	0	0	4,996	0	0	0	0	0	15,786
EVAPORATION		16	26	0	23	15	11	185	0	0	0	0	0	276
TRANSFER <sup>3</sup>		0	0	0	0	0	0	0	15,510	0	0	0	0	15,510
OWNERSHIP	0	6,001	10,740	10,748	10,725	10,710	10,699	15,510	0	0	0	0	0	
<b>CITY OF CHEYENNE</b>														
ACCUAL		712	656	445	638	646	2,063	937	318	1,221	655	909	1,021	10,221
EVAPORATION		12	17	1	7	1	19	72	38	0	10	23	16	216
DELIVERY <sup>2</sup>		68	297	320	232	148	8	936	8,102	712	385	53	0	11,261
OWNERSHIP	4,291	4,923	5,265	5,389	5,788	6,285	8,321	8,250	428	937	1,197	2,030	3,035	
<b>OPERATIONAL</b>														
ACCUAL		0	0	0	0	0	0	0	0	0	0	0	0	0
EVAPORATION		7	4	0	4	2	2	16	19	22	1	0	0	77
RELEASED		0	0	0	0	0	0	0	117	543	930	0	0	1,590
OWNERSHIP	1,667	1,660	1,656	1,656	1,652	1,650	1,648	1,632	1,496	931	0	0	0	
<b>RE-REGULATION</b>														
ACCUAL		0	0	0	0	0	0	6 <sup>4</sup>	0	0	0	0	0	6
EVAPORATION		0	0	0	0	0	0	0	0	0	0	0	0	0
RELEASED		0	0	0	0	0	0	0	6 <sup>4</sup>	0	0	0	0	6
OWNERSHIP	0	0	0	0	0	0	0	6	0	0	0	0	0	
<b>WWDC Water (In Glendo)</b>														
TRANSFERRED <sup>5</sup>		0	0	0	0	0	0	5,310	0	0	0	0	0	5,310
EVAPORATION		0	0	0	0	0	0	25	56	74	27	3	0	185
RELEASED		0	0	0	0	0	0	0	99	170	4,158	191	507 <sup>6</sup>	5,125
OWNERSHIP	0	0	0	0	0	0	0	5,285	5,130	4,886	701	507	0	

Table 8 (continued) Summary of North Platte River System Ownership for water year 2006  
Page 3 of 3

**SUMMARY OF NORTH PLATTE RIVER SYSTEM OWNERSHIPS FOR WATER YEAR 2006 (Acre-feet)**

MONTHS	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
<b>WWDC Water (In Seminoel)</b>														
<b>TRANSFERRED</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>EVAPORATION</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>RELEASED</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>OWNERSHIP</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0

<sup>1</sup> In 1992 the Wyoming State Engineer granted an exchange which allows Pacific Power to exchange direct flows in the winter months (Oct-Apr) for direct flow in the summer months.

During the winter months some direct flows which are available for storage under Pathfinder's storage right are not stored but instead are allowed to pass downstream for use by Pacific Power. In exchange starting on May 1 Pacific Power allows some of its available direct flow to pass downstream to Glendo Reservoir to be stored as Pathfinder ownership.

The exchange water was returned to Pathfinder at a rate of 26 AF daily starting on May 1, 2005 until June 18, 2005, when the last 15 AF of the exchange water was returned.

<sup>2</sup> Amounts shown as delivery are storage water only. Natural flow which was delivered is not shown in this table.

<sup>3</sup> Transfer refers to Inland Lakes ownership water which was delivered from storage in Glendo or Guernsey Reservoirs. In May 15,510 AF was transferred to the Inland Lakes.

<sup>4</sup> Water diverted under temporary Glendo contact by exchange from Glendo Reservoir shall comply with the November 13, 2001, modified North Platte Decree, Article 17d., which provides that for each 2 AF of Glendo storage water diverted above Glendo Reservoir 1 additional AF shall be contracted at the same time for release from Glendo Reservoir and passed through Guernsey Reservoir to the North Platte River.

<sup>5</sup> Wyoming Water Development Commission (WWDC) contracted with the Bureau of Reclamation for storage space of 5,310 AF in Glendo Reservoir for a one water year period to store non-project water for irrigation purposes.

<sup>6</sup> On September 30, 2006 the water remaining in the WWDC account was 477 AF in Glendo Reservoir, of which 6 AF was used by the WWDC and 471 AF was returned to the City of Cheyenne.

Table 9 Actual Reservoir Operations for water year 2006

NORTH PLATTE RIVER ACTUAL RESERVOIR OPERATIONS  
Year Beginning Oct 2006

HYDROLOGY OPERATIONS

Seminoe Reservoir Operations		Initial Content 438.6 Kaf						Operating Limits: Max			1017.3 Kaf, 6357.00 Ft.			
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep
Total Inflow	kaf	23.5	25.5	22.8	28.9	22.8	42.9	120.4	221.0	153.8	50.9	18.1	21.1	
Total Inflow	cfs	381.	429.	371.	471.	410.	698.	2023.	3594.	2585.	827.	294.	354.	
Turbine Release	kaf	32.1	30.9	31.8	32.1	28.9	32.1	117.5	168.5	168.3	152.5	69.0	31.8	
Jetflow Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Release	kaf	32.1	30.9	31.8	32.1	28.9	32.1	117.5	168.5	168.3	152.5	69.0	31.8	
Total Release	cfs	522.	519.	517.	522.	521.	522.	1975.	2740.	2829.	2480.	1122.	535.	
Evaporation	kaf	1.4	1.7	0.4	0.8	0.4	1.3	3.5	2.7	3.9	5.1	3.6	1.8	
End-month content	kaf	428.6	421.5	412.0	408.1	401.5	411.1	410.4	460.2	<b>441.7</b>	334.9	280.4	267.8	
End-month elevation	ft	6317.2	6316.5	6315.6	6315.2	6314.5	6315.5	6315.4	6320.2	6318.5	6307.2	6300.5	6298.8	
Kortes Reservoir Operations		Initial Content 4.7 Kaf						Operating Limits: Max			4.8 Kaf, 6142.73 Ft.			
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep
Total Inflow	kaf	32.1	30.9	31.8	32.1	28.9	32.1	117.5	168.5	168.3	152.5	69.0	31.8	
Total Inflow	cfs	522.	519.	517.	522.	521.	522.	1975.	2740.	2829.	2480.	1122.	535.	
Turbine Release	kaf	32.1	30.9	31.8	32.1	28.9	33.1	117.5	168.5	168.3	152.5	69.0	31.8	
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Release	kaf	32.1	30.9	31.8	32.1	29.0	32.1	117.5	168.5	168.3	152.5	69.0	31.8	
Total Release	cfs	522.	519.	518.	521.	521.	522.	1974.	2741.	2828.	2479.	1121.	534.	
Pathfinder Reservoir Operations		Initial Content 238.9 Kaf						Operating Limits: Max			1016.5 Kaf, 5850.10 Ft.			
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep
Sweetwater Inflow	kaf	2.6	3.6	2.2	2.5	2.8	4.6	11.0	14.0	5.3	1.2	0.9	0.9	
Kortes-Path Gain	kaf	1.9	1.4	<b>2.4</b>	3.9	3.5	7.3	4.2	-3.8	-8.9	-3.6	-0.9	-0.2	
Inflow from Kortes	kaf	32.1	30.9	31.8	32.1	29.0	32.1	117.5	168.5	168.3	152.5	68.9	31.8	
Total Inflow	kaf	36.6	35.9	36.5	38.5	35.3	44.0	132.7	178.7	164.7	150.1	68.9	32.5	
Total Inflow	cfs	595.	604.	593.	625.	634.	715.	2230.	2906.	2769.	2440.	1120.	545.	
Turbine Release	kaf	6.1	23.1	26.0	25.8	24.2	39.5	122.7	162.3	162.1	165.6	123.3	32.8	
Jetflow Release	kaf	4.5	4.5	4.6	4.8	4.1	4.4	<b>4.4</b>	4.8	4.5	<b>4.7</b>	<b>4.7</b>	<b>4.4</b>	
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Release	kaf	10.6	27.6	30.6	30.6	28.3	43.9	127.1	167.1	166.6	170.3	128.0	37.2	
Total Release	cfs	173.	464.	497.	498.	509.	713.	2136.	2718.	2799.	2769.	2081.	626.	
Evaporation	kaf	1.2	1.3	0.3	0.6	0.3	1.1	2.8	2.2	3.1	4.5	3.3	1.7	
End-month content	kaf	263.6	270.7	276.2	283.4	290.0	289.1	291.9	301.3	296.4	271.6	209.2	202.7	
End-month elevation	ft	5795.7	5796.6	5797.3	5798.3	5799.1	5799.0	5799.3	5800.5	5799.9	5796.7	5787.8	5786.7	
Alcova Reservoir Operations		Initial Content 180.3 Kaf						Operating Limits: Max			184.4 Kaf, 5500.00 Ft.			
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep
Total Inflow	kaf	10.6	27.6	30.6	30.6	28.3	43.9	127.1	167.1	166.6	170.3	128.0	37.2	
Total Inflow	cfs	173.	464.	497.	498.	509.	713.	2136.	2718.	2799.	2769.	2081.	626.	
Turbine Release	kaf	31.0	29.7	30.8	30.8	27.7	42.7	104.0	154.7	147.4	150.8	112.5	29.9	
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Casper Canal Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	17.9	17.5	14.7	7.0	
Total Release	kaf	31.0	29.7	30.8	30.8	27.7	42.7	104.0	154.7	147.4	150.8	112.5	29.9	
Total Release	cfs	504.	500.	500.	500.	499.	694.	<b>1747.</b>	2515.	2478.	2452.	1829.	502.	
Evaporation	kaf	0.4	0.4	0.1	0.2	0.1	0.3	0.8	0.7	0.9	1.4	1.2	0.7	
End-month content	kaf	159.5	156.9	156.7	156.3	156.7	157.6	179.9	179.6	179.9	180.5	180.1	179.8	
End-month elevation	ft	5489.5	5488.4	5488.3	5488.1	5488.3	5488.7	5498.2	5498.0	5498.2	5498.4	5498.3	5498.1	

**Table 9 (Continued) Actual Reservoir Operations for water year 2006**

NORTH PLATTE RIVER ACTUAL RESERVOIR OPERATIONS															
Year Beginning Oct 2006															
Gray Reef Reservoir Operations		Initial Content					1.5 Kaf			Operating Limits:		Max		1.1 Kaf, 5327.42 Ft.	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep	
Total Inflow	kaf	31.0	29.7	30.8	30.8	27.7	42.7	104.0	154.7	147.4	150.8	112.5	29.9		
Total Inflow	cfs	504.	500.	500.	500.	499.	694.	1747.	2515.	2478.	2452.	1829.	502.		
Total Release	kaf	30.8	29.8	30.8	30.8	27.8	42.6	104.0	154.7	147.5	150.3	112.5	29.8		
Total Release	cfs	501.	500.	500.	500.	500.	693.	1747.	2518.	2479.	2444.	1829.	500.		
Glendo Reservoir Operations		Initial Content					138.4 Kaf			Operating Limits:		Max		789.4 Kaf, 4653.00 Ft.	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep	
Alcova-Glendo Gain	kaf	4.7	3.6	3.0	5.1	3.2	10.3	35.4	18.6	-2.9	-3.4	0.0	6.2		
Infl from Gray Reef	kaf	33.2	29.8	30.7	30.8	27.8	40.7	87.7	145.2	139.6	150.3	112.9	32.1		
Total Inflow	kaf	37.9	33.4	33.7	35.9	31.0	51.0	123.1	163.8	136.7	146.9	112.9	38.3		
Total Inflow	cfs	617.	561.	548.	583.	557.	830.	2069.	2664.	2298.	2389.	1836.	644.		
Turbine Release	kaf	0.4	0.3	0.8	0.2	0.7	0.2	34.9	163.2	108.6	218.8	196.6	0.0		
Low Flow Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Irrigation Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.3	67.1	2.5		
Total Release	kaf	1.6	1.7	1.9	1.7	2.2	1.7	36.7	164.8	122.8	306.1	263.9	2.5		
Total Release	cfs	26.	29.	31.	28.	39.	28.	616.	2680.	2063.	4979.	4292.	43.		
Evaporation	kaf	1.2	0.8	0.7	0.7	0.8	1.6	2.9	4.4	6.1	5.9	3.6	2.1		
End-month content	kaf	173.7	204.7	236.2	269.6	297.7	346.3	428.8	423.3	430.4	265.0	110.9	145.3		
End-month elevation	ft	4595.4	4600.4	4605.0	4609.5	4613.0	4618.7	4627.2	4626.6	4627.3	4608.9	4582.9	4590.2		
Guernsey Reservoir Operations		Initial Content					4.2 Kaf			Operating Limits:		Max		45.6 Kaf, 4419.99 Ft.	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep	
Glendo-Guerns Gain	kaf	1.4	0.8	0.6	0.8	0.2	0.8	-2.0	1.7	-1.3	0.3	6.0	3.		
Inflow from Glendo	kaf	1.6	1.7	1.9	1.7	2.1	1.7	36.7	164.8	122.8	306.1	263.9	2.5		
Total Inflow	kaf	3.0	2.5	2.5	2.5	2.3	2.5	34.7	166.5	121.5	306.4	269.9	5.8		
Total Inflow	cfs	50.	42.	41.	41.	42.	41.	583.	2708.	2042.	4983.	4390.	98.		
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	26.6	61.7	39.7	33.2	65.1	12.0		
Seepage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Spillway Release	kaf	0.1	0.1	0.1	0.4	0.4	0.5	0.3	100.5	80.4	273.7	217.1	3.4		
Total Release	kaf	0.1	0.1	0.1	0.4	0.4	0.5	26.9	162.2	120.1	306.9	282.2	15.4		
Total Release	cfs	2.	2.	2.	6.	7.	8.	453.	2638.	2018.	4991.	4590.	259.		
Evaporation	kaf	0.1	0.1	0.0	0.2	0.1	0.1	0.7	0.9	1.2	0.6	1.0	0.1		
End-month content	kaf	7.0	9.2	11.6	13.5	15.4	17.3	24.3	27.8	28.0	26.9	13.6	3.9		
End-month elevation	ft	4397.1	4399.6	4401.7	4403.2	4404.6	4405.8	4410.0	4411.8	4411.9	4411.3	4403.3	4392.5		

## Flood Benefits for water year 2006

Because of the existence of dams on the North Platte River, The Corps of Engineers, Omaha District, estimates that in water year 2006 flood damages of \$3,710,400 were prevented. Table 10 is a breakdown of flood damage prevented by Dams.

**Table 10** Flood Damage Prevented by Dams for water year 2006 (on the North Platte River Basin System)

DAMS	WATER YEAR 2006	PRIOR TO 2006 <sup>2</sup>	ACCUMULATED TOTAL <sup>1</sup>
SEMINOE	\$0	\$30,081,200	\$30,081,200
PATHFINDER	\$0	\$8,871,300	\$8,871,300
ALCOVA	\$0	\$545,000	\$545,000
GLENDO	\$3,710,400	\$75,420,100	\$79,130,500
GUERNSEY	\$0	\$434,000	\$434,000
TOTAL	\$3,710,400	\$115,351,600	\$119,062,000

<sup>1</sup> This data is received from the Army Corps of Engineers Omaha District Office and is revised every October.

<sup>2</sup> The period of assessment is 1970 through 2005 except for Glendo Dam, which is 1965 through 2005.

## Generation for water year 2006

Power generation was well below average for all powerplants on the North Platte River Basin in water year 2006. See Table 11 for a breakdown of generation by powerplant.

**Table 11** Power Generation water year 2006

Powerplant	Gross generation <sup>1</sup> (GWh)	Percent of Average <sup>2</sup>
Seminole	124.1	94
Kortes	151.4	108
Fremont Canyon	214.7	90
Alcova	115.2	98
Glendo	69.5	87
Guernsey	15.5	80
Total Basin	690.4	95

<sup>1</sup> Generation is reported in giga-watt hours (GWh).

<sup>2</sup> 30 year average (1976-2005)

The number of generation units at each powerplant, their capacity and output at rated head is shown in Table 12.

**Table 12** North Platte River Powerplant Data

Powerplant	Number of Units	Capacity Each Unit (kw)	Total <sup>2</sup> Installed Capacity (kw)	Normal Operating Head (feet)	Output At rated Head (cfs)	30 year Average <sup>1</sup> (GWh)
Seminole	3	17,000	51,000	97-227	4,050	132.6
Kortes	3	12,000	36,000	192-204	2,910	140.5
Fremont Canyon	2	33,400	66,800	247-363	3,080	239.6
Alcova	2	19,500	39,000	153-165	4,100	118.1
Glendo	2	19,000	38,000	73-156	3,400	80.1
Guernsey	2	3,200	6,400	89-91	1,340	19.4
Total	14	---	237,200	---	---	730.3

<sup>1</sup> 1976-2005

<sup>2</sup> Installed capacity from Monthly Report of Power Operations-Powerplant (Form PO&M 59)

## PROPOSED OPERATIONS FOR WATER YEAR 2007

Three operation studies were developed for the System to establish an AOP for water year 2007. Each of the studies conformed to the established operating criteria but used different inflow conditions and different demand conditions.

The three inflow conditions were determined from a statistical analysis of historic inflows and were labeled reasonable minimum, reasonable maximum and most probable inflow estimates. Reservoir inflow during water year 2007 has a one-in-ten chance of being less than the reasonable minimum. Statistically, inflows in 2007 will have an eight-in-ten chance of falling between the two extremes. The most probable inflow is based on long-term averages and approximates a 50 percent chance of occurrence. The three studies for water year 2007 are summarized numerically in tables 15, 16, and 17.

The AOP, as developed and reflected in the three studies, provides the flexibility to adjust operations as conditions change during the water year. Forecasts of the April-July reservoir inflow will be made at the beginning of each month for February through May. Projected operating schedules will be adjusted, as required, throughout the water year as changes occur in the forecasted inflows, irrigation demands, maintenance schedules, and power loads.

The total storage in mainstem reservoirs on the North Platte River in Wyoming (including Kortes Reservoir and Gray Reef Reservoir) was 805,913 AF at the beginning of the water year 2007. This amount was 68 percent of the 30 year average (1976-2005) and only 36 percent of capacity.



## Seminole Reservoir

### Most Probable Condition - 2007

October through March -- Seminole Reservoir storage of 267,825 AF, at the beginning of the water year, is 41 percent of the 30-year average and only 26 percent of capacity. Planned turbine releases from Seminole Reservoir are approximately 530 cfs for October through March. Reservoir storage will decrease to about 251,200 AF by March 31. These releases are projected based on an estimated Seminole inflow for the October through March period of 178,100 AF. The planned Kortes release of 530 cfs for October through March is required to maintain a minimum flow of at least 500 cfs in the Miracle Mile reach of the river.

April through September -- Turbine releases are expected to average approximately 1,200 cfs in April; 2,000 cfs in May and 2,400 cfs in June, July and August. The releases will then be decreased to 2,000 cfs by September. The total release from the reservoir during the April to September period will be scheduled through the power generators to meet downstream requirements. With most probable inflow, storage will reach a maximum of 567,900 AF by the end of June. Projected carryover storage of about 285,900 AF at the end of the water year would be 44 percent of average and only 28 percent of capacity.

### Reasonable Minimum Condition - 2007

October through March -- Planned water release for this period under a reasonable minimum inflow condition will be the same as in the most probable condition at approximately 530 cfs. A release of at least 500 cfs is required to maintain the minimum flow in the Miracle Mile reach of the river. Under this condition, inflows are predicted to be 149,600 AF for the period, which is 28,500 AF less than in the most probable condition. The March 31 reservoir content is expected to be approximately 225,100 AF under these conditions.

April through September -- Seminole water releases will remain at 530 cfs for April and then be increased to approximately 1700 cfs for May, June, and July in order to meet irrigation requirements and provide increased power production. Releases will be decreased to 1,000 cfs in August and again decreased to approximately 530 cfs for September. Under a minimum conditions the June content will be approximately 293,500 AF the highest for the year, and end the water year with a content of 156,400 AF which is 24 percent of average and only 15 percent of capacity.

### Reasonable Maximum Condition - 2007

October through March -- Planned water releases for this period under a reasonable maximum inflow condition are similar to the most probable condition as water is moved downstream to generate power and make room in Seminole Reservoir for spring runoff. Although inflows to Seminole Reservoir are higher under these conditions, actual changes in winter operations are made gradually until it is evident that the inflow quantities being experienced are showing a trend towards the reasonable maximum inflows for the water year. October through March inflows under this condition would be 212,500 AF, which is 34,400 AF more than the most probable runoff condition. The reservoir content would increase from 288,000 AF at the end of March to 800,000 AF by the end of September under these conditions.

April through September -- Seminole Reservoir release for April, May, June, and July will be 2,600 cfs, Releases will be decrease to about 1,900 cfs in August and September. Inflows for the April through July period will be 1,314,000 AF, which is 552,600 AF more than the most probable runoff condition. Seminole Reservoir will reach its maximum end of month content for the year in July with approximately 946,200 AF in storage. This plan of operation would result in an end of year carryover storage of 800,000 AF, which would be 124 percent of average. Figure 12 depicts a comparison of Minimum, Most Probable, and Maximum Seminole Inflows. Figure 13 depicts a comparison of Minimum, Most Probable, and Maximum Seminole Storage.

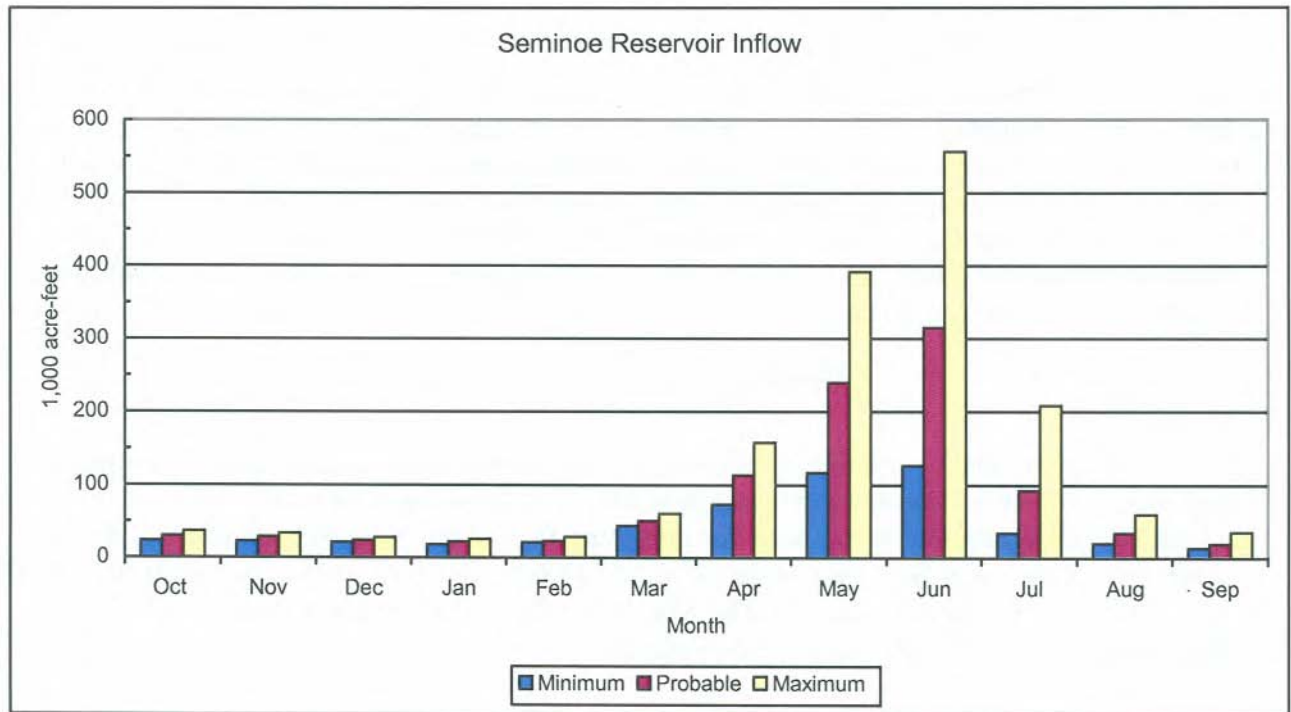


Figure 12 Seminole Reservoir Inflow (predicted for water year 2007)

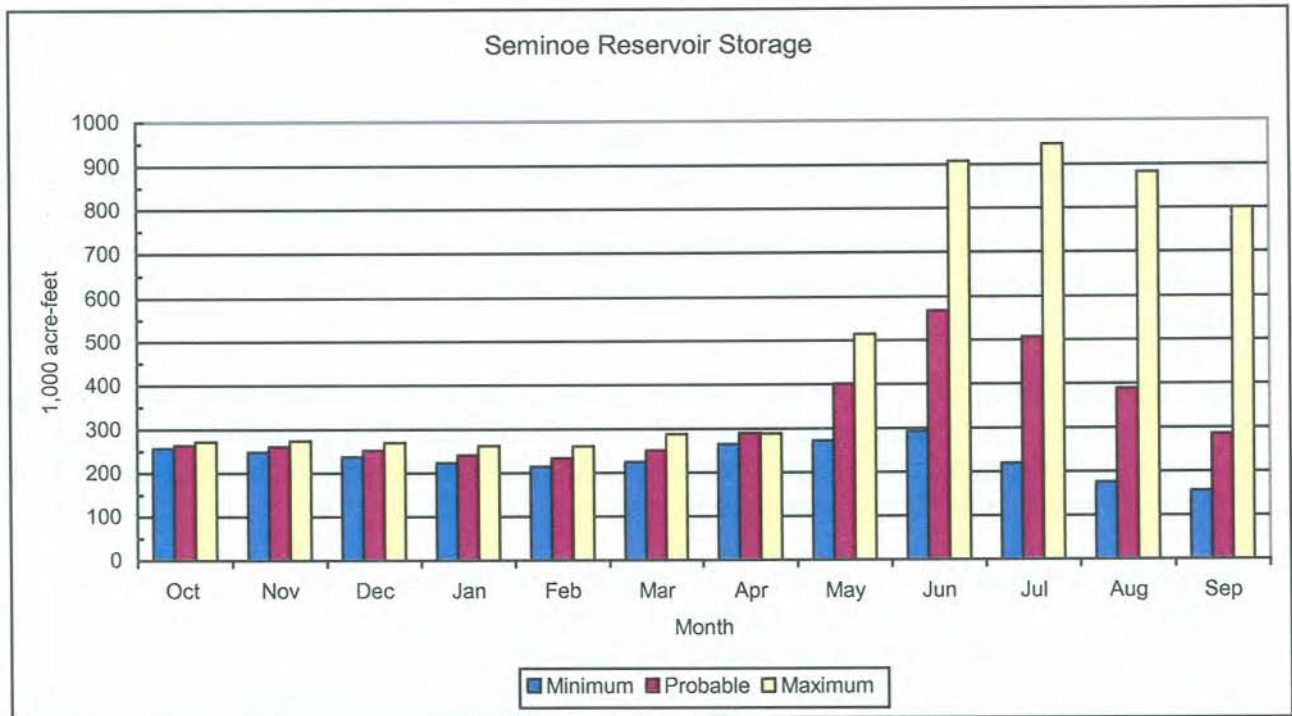


Figure 13 Seminoe Reservoir Storage (predicted for water year 2007)

### Pathfinder Reservoir

#### Most Probable Condition - 2007

October through March -- At the end of the water year, Pathfinder Reservoir storage is 202,746 AF or 41 percent of the 1976-2005 average. Fremont Canyon Powerplant releases will be reduced during October to allow Alcova Reservoir water surface level to be lowered to 5488.0 + 1.0 foot, which is the normal elevation range for winter operation. After the Alcova winter operating range is reached, releases from Pathfinder Reservoir will be adjusted to meet Gray Reef Reservoir releases and maintain the Alcova Reservoir content between 153,800 and 158,300 AF. Pathfinder Reservoir storage is projected to be about 249,300 AF at the end of March.

April through September -- Pathfinder Reservoir storage will reach a maximum content of about 258,700 AF by the end of February and be drawn down to a storage content of about 219,900 AF by the end of the water year, which would be 45 percent of average. River gain between Kortes and Pathfinder Reservoirs, including the Sweetwater River, is estimated at about 82,100 AF for the April-July period under most probable inflow conditions. In April, Fremont Canyon Powerplant releases will be coordinated with Alcova releases to refill Alcova Reservoir to its normal summer operating range of 5498 + 1 foot.

During May through September, Fremont Canyon power releases will be scheduled to meet downstream irrigation deliveries and maintain Alcova Reservoir within the summer operating range. Water releases will be increased in May to approximately 1,650 cfs and then be increased to approximately 2,400 cfs for May, 2,600 cfs for June, July, and August. Releases will be reduced in September to approximately 2,290 cfs.

### Reasonable Minimum Condition - 2007

October through March -- Water releases for this period under a reasonable minimum inflow condition would be the same as in the most probable condition. Under this condition, gains to the river between Kortes Dam and Pathfinder Dam, including the Sweetwater River, are expected to be 16,400 AF for the October-March period under the minimum inflow conditions. Pathfinder Reservoir storage will reach about 246,300 AF by the end of March. Fremont Canyon Powerplant releases for the period will be scheduled to maintain approximately 156,000 AF of water in Alcova Reservoir.

April through September -- River gains between Kortes Dam and Pathfinder Reservoir, including the Sweetwater River, are estimated at about 37,500 AF for the April-July period under reasonable minimum inflow conditions. In April, releases will be coordinated with Alcova releases to refill Alcova Reservoir to its normal summer operating range of 5498 ft + 1 foot by the end of April.

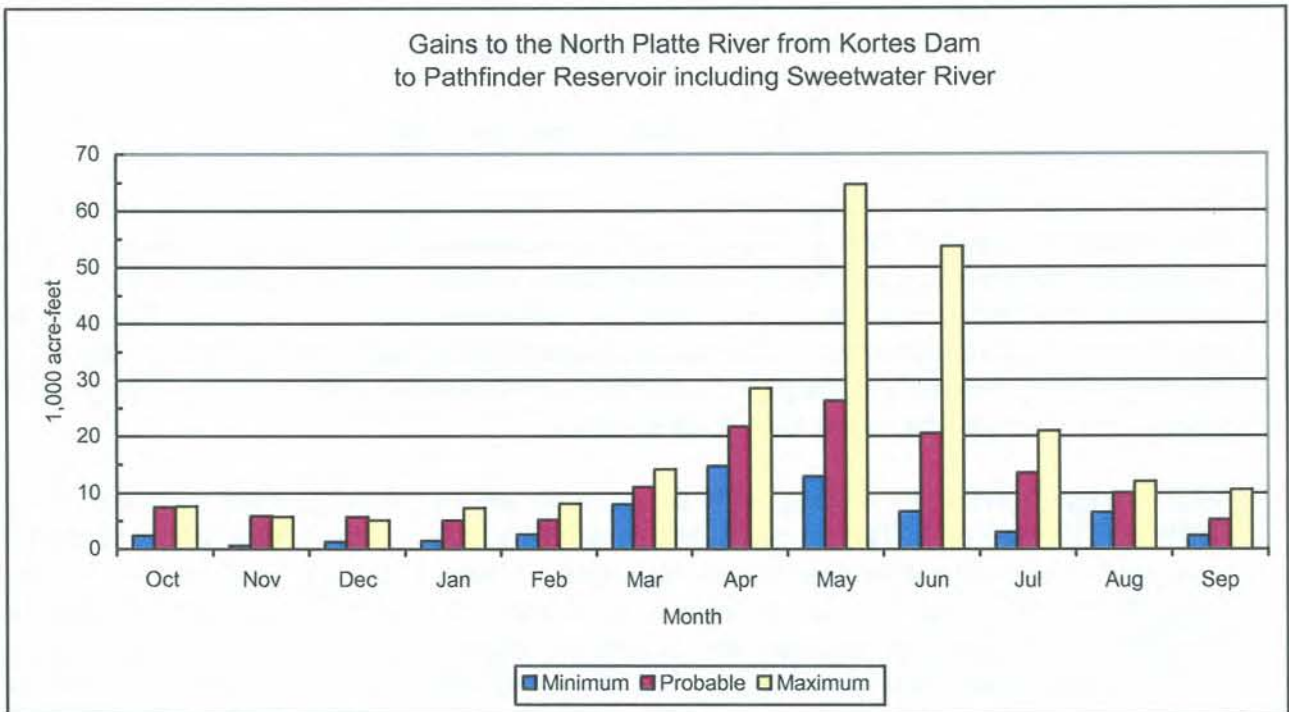
During April through September, Fremont Canyon power releases will be scheduled to meet Kendrick Project and downstream irrigation deliveries and maintain a storage content of approximately 179,400 AF in Alcova Reservoir. Summer releases will be at their highest, approximately 2,265 cfs, during July, then be reduced as irrigation demands drop off to end the water year at approximately 640 cfs during September. If reasonable minimum runoff develops, the reservoir content at the end of the water year will be about 146,500 AF or 30 percent of average and only 14 percent of capacity.

### Reasonable Maximum Condition - 2007

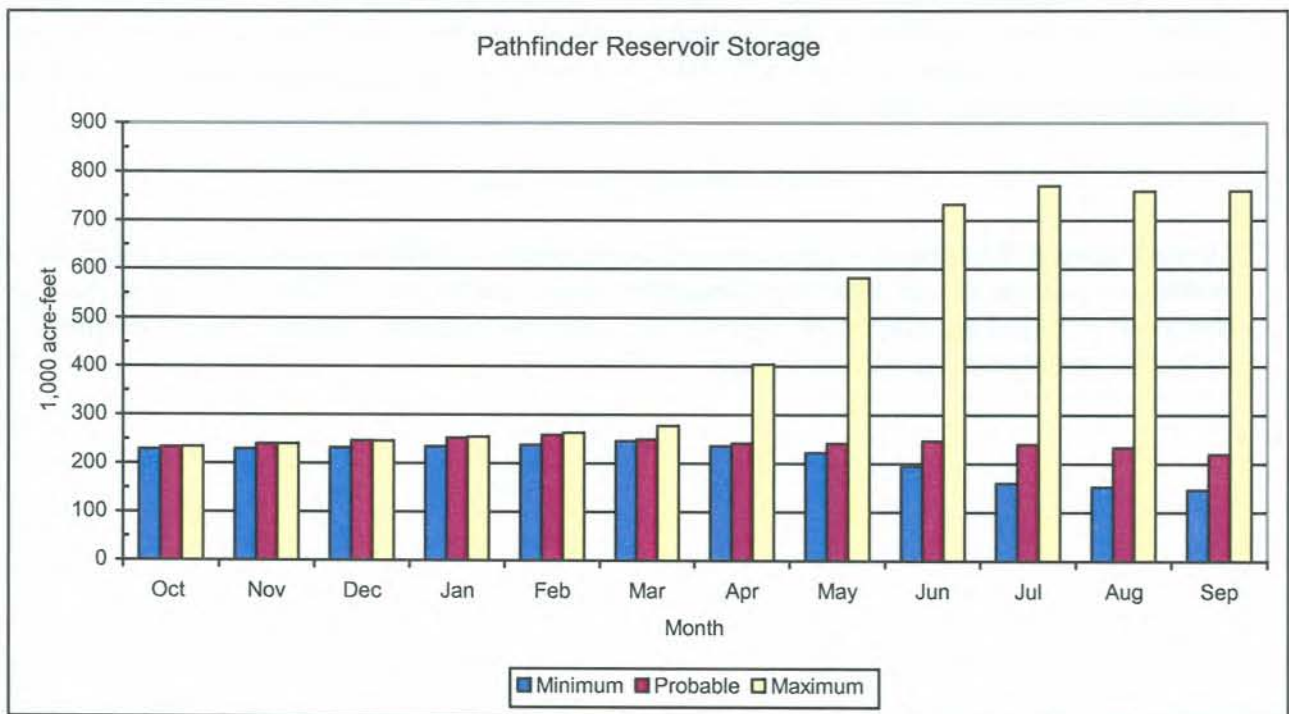
October through March -- Water releases for this period under a reasonable maximum inflow condition would be similar to the most probable condition. Under this condition, gains between Kortes Dam and Pathfinder Dam would be expected to be 48,000 AF for the period. Pathfinder Reservoir content increases through this period from 233,900 AF at the end of October to 277,500 AF by the end of March.

April through September -- In April, water releases from Fremont Canyon Powerplant will be increased as Alcova Reservoir is refilled to water surface elevation 5498 + 1 foot. The rate of release will be increased through the summer as needed to meet downstream irrigation demands. Pathfinder Reservoir would reach a maximum content of 770,800 AF during July while releases are increased to approximately 2,100 cfs in June and July and then decreased to 1,920 cfs in September. The Pathfinder Reservoir end of year storage content is projected to be about 760,200 AF, which would be 156 percent of average. Under all three possible inflow conditions a constant release of 75 cfs is planned from the Pathfinder Dam outlet works which will provide the necessary water to maintain a year round fishery in the North Platte River below Pathfinder Reservoir.

Figure 14 depicts a comparison of Minimum, Most Probable, and Maximum river gains from Kortes Dam to Pathfinder Reservoir. Figure 15 depicts a comparison of Minimum, Most Probable, and Maximum Pathfinder Storage.



**Figure 14** Gains to the North Platte River from Kortes Dam to Pathfinder Reservoir (predicted for water year 2007)



**Figure 15** Pathfinder Reservoir Storage (predicted for water year 2007)

## Alcova Reservoir

### Most Probable Condition - 2007

October through March -- During October, Alcova Reservoir will be drawn down to the normal winter operating range of 5488.0 + 1 foot and will be maintained there through March. October through February releases will be maintained at approximately 500 cfs for production of power, maintenance of fishery flows, pollution abatement, and transfer of water to Glendo Reservoir in preparation for meeting downstream irrigation demands during the coming irrigation season. Provisions have been made in the plan to increase the releases from Alcova during the first part of March for a flushing flow below Gray Reef Reservoir.

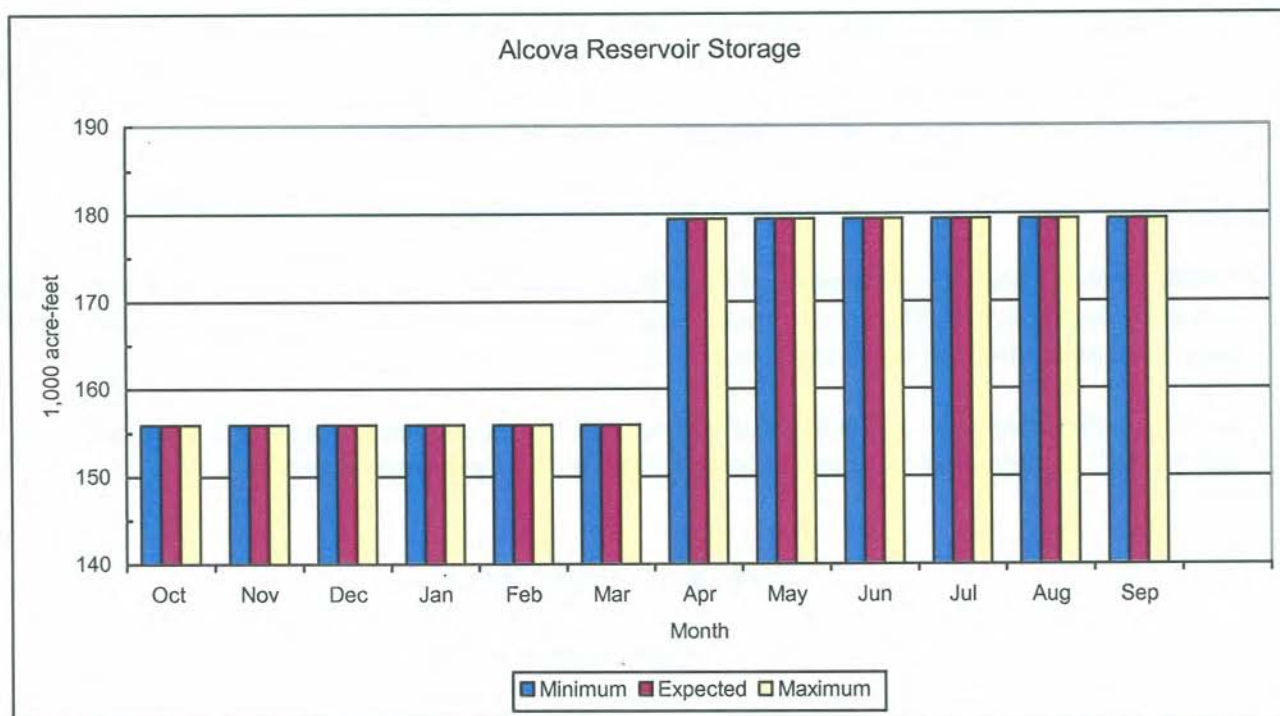
April through September -- During April, the reservoir will be refilled to water surface elevation 5,498 feet (179,400 AF). This level will be maintained within + 1 foot to provide the necessary water surface elevation to make irrigation deliveries to Casper Canal and for recreational purposes. About 70,000 AF of water are scheduled to be delivered during the May-September period to meet Kendrick Project irrigation requirements. In addition May-September releases to the river from Alcova Reservoir will total approximately 752,800 AF which will be re-regulated in Gray Reef Reservoir.

### Reasonable Minimum Condition - 2007

October through September -- Operation of Alcova Reservoir would be the same as under the most probable condition, except that May-September releases to the North Platte River from Alcova Reservoir will total approximately 502,500 AF. Water released from Alcova Reservoir will be re-regulated in Gray Reef Reservoir.

### Reasonable Maximum Condition - 2007

October through September -- Operation of Alcova Reservoir would be the same as under the most probable condition, except that May-September releases to the North Platte River from Alcova Reservoir will total approximately 456,600 AF. Figure 16 depicts a comparison of Minimum, Most Probable, and Maximum Alcova Storage.



**Figure 16** Alcova Reservoir Storage (predicted for water year 2007)

### Gray Reef Reservoir

#### Most Probable Condition - 2007

October through March -- Releases October through February from Gray Reef Dam will be maintained at approximately 500 cfs. This will result in a winter river level the same as last year. Provisions are made in the plan to increase the releases from Gray Reef during part of March to account for a request from Wyoming Game and Fish Department for a series of fluctuating flows to flush the North Platte River downstream of Gray Reef Dam. Should river conditions not be favorable because of climatic events the series of flushing flows will be cancelled and operating plans will be adjusted. The 30-year average flow below Gray Reef ranges between 675 cfs and 880 cfs for the months of October through March.

April through September -- Releases from Gray Reef Reservoir will average about 1,255 cfs in the month of April. The May through September releases are expected to be approximately 2,200 cfs in May; 2,300 cfs in June; July; and August and then decreased to 2,150 cfs in September as project irrigation water is moved downstream.

#### Reasonable Minimum Condition - 2007

October through March -- Operation of Gray Reef Reservoir would be the same as under the most probable condition through March. Upon completion of the fluctuating flushing flows, releases from Gray Reef Reservoir will be returned to 500 cfs.

April through September -- Releases from Gray Reef Reservoir will average approximately 500 cfs in April; increasing to 1,914 cfs in May, June, and July. The releases will be decreased in August to average 864 cfs and then decreased to 500 cfs in September. These predicted flows may be redistributed as the irrigators adjust their use of water from storage.

#### Reasonable Maximum Condition - 2007

October through March -- Operation of Gray Reef Reservoir would be the same as under the most probable condition through March. Upon completion of the fluctuating flushing flows, releases from Gray Reef Reservoir will be returned to 500 cfs.

April through September -- A release of 500 cfs will be maintained during April, May and June. Release will be increased to approximately 1,784 cfs in July through September.

#### Glendo and Guernsey Reservoirs

##### Most Probable Condition - 2007

October through March -- Carryover storage of 145,320 AF in Glendo Reservoir on September 30, 2006 was 134 percent of average but only 28 percent of capacity. With restorage of North Platte Project water released from Alcova and with North Platte River gains below Alcova Dam estimated to be below normal, Glendo Reservoir storage will increase to about 387,000 AF by the end of March, which will be 92 percent of average and 75 percent of capacity.

A constant release of 25 cfs is planned for the Glendo Dam outlet works which will provide the necessary water to maintain a year round flow in the North Platte River between Glendo Dam and Guernsey Reservoir. The water released will be restored in Guernsey Reservoir.

Guernsey Reservoir contained 3,851 AF of water at the end of water year 2006. Natural inflow, as well as the low flow releases from Glendo Dam, will be stored during the winter which will increase storage to 20,500 AF by March 31.

April through September -- During April, releases from Glendo Reservoir will be scheduled to refill Guernsey Reservoir. Maximum Glendo Reservoir storage will be about 504,800 AF by the end of May which is approximately 1.04 feet below a full reservoir at elevation of 4633.96 ft. Releases from Glendo Reservoir during the May through September period will be based upon meeting irrigation demand.

Guernsey Reservoir content will be maintained near 28,000 AF during May and June. Provision is made in the plan for a possible silt run in July, which will require close coordination of Glendo and Guernsey release schedules as Guernsey Reservoir is drawn down to about 1,000 AF in July during the silt run and refilled to about 28,000 AF following the silt run. During September, releases for delivery of irrigation water to draw down Glendo Reservoir to about 100,000 AF. During September Guernsey Reservoir will be lowered to approximately 1,000 AF.



### Reasonable Minimum Condition - 2007

October through March -- Guernsey Reservoir contained 3,851 AF of water at the end of water year 2006. Under the reasonable minimum inflow conditions, the natural inflow will be stored during the winter, as well as the low flow release from Glendo Dam, which will increase the Guernsey Reservoir content to 20,800 AF by March 31. Glendo Reservoir content will increase from the carryover storage of 145,320 AF to a March 31 content of 349,300 AF.

April through September -- During May releases from Glendo Reservoir will be scheduled to refill Guernsey Reservoir. Glendo Reservoir storage will increase to about 502,900 AF by the end of June, which will be the largest end of month content for the year. At this level, it would take approximately 14,585 AF of water to bring Glendo to a full Reservoir at elevation of 4635 ft.

The operation of Glendo and Guernsey Reservoirs will be based upon making less than full irrigation deliveries to the Glendo Unit and only approximately 63 percent of normal deliveries to North Platte Project. The total combined North Platte System reservoir storage would be approximately 195,900 AF lower than most probable conditions by the end of the water year under reasonable minimum water supply conditions.

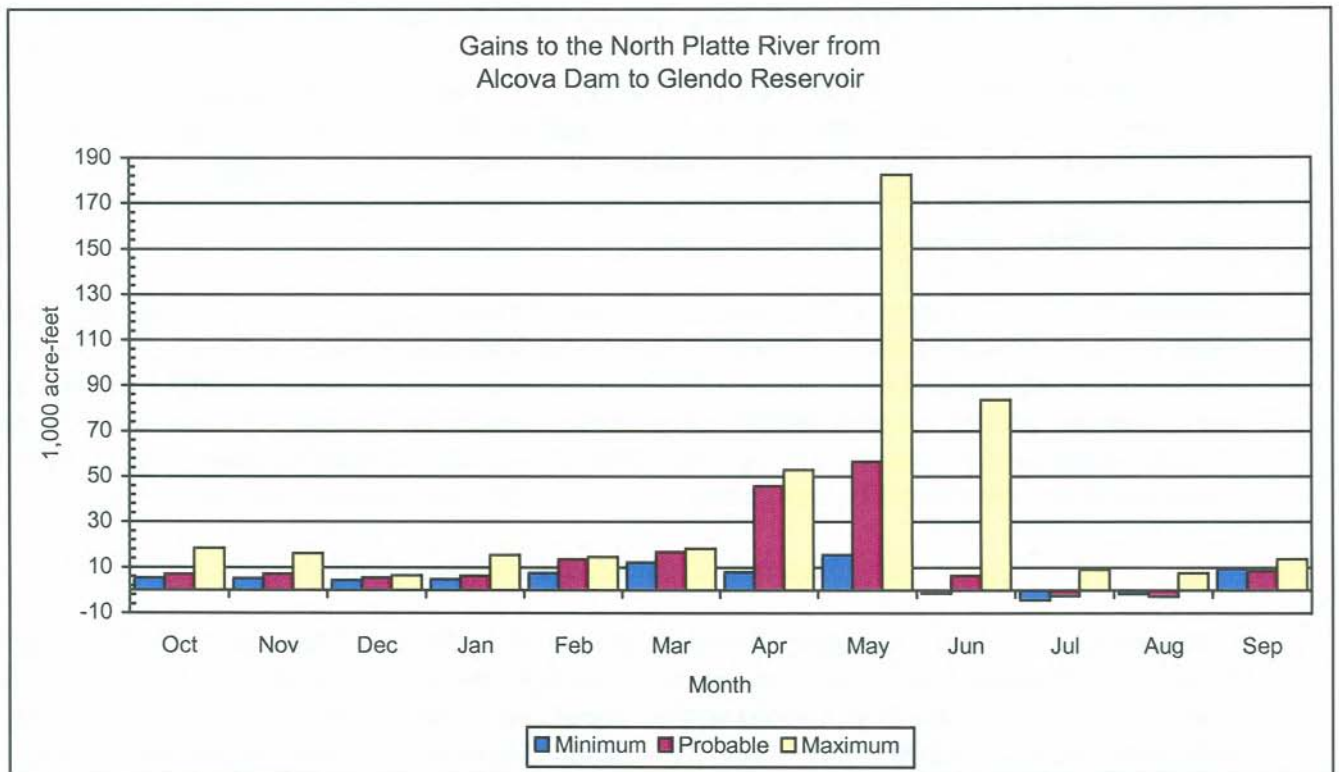
Guernsey Reservoir content will be maintained near 28,000 AF during May and June. Provision is made in the plan for a possible silt run in July, which will require close coordination of Glendo and Guernsey release schedules as Guernsey Reservoir is drawn down to about 1,000 AF in July during the silt run and refilled to about 28,000 AF following the silt run. September releases will be made to meet irrigation requirements leaving 108,500 AF of water in Glendo Reservoir at years end. Guernsey Reservoir content on September 30 will be 1,000 AF under minimum conditions.

### Reasonable Maximum Condition - 2007

October through March -- Guernsey Reservoir contained 3,851 AF of water at the end of water year 2006. Under the reasonable maximum inflow conditions, the natural inflow as well as the 25 cfs river maintenance release from Glendo will be stored during the winter, which will increase the reservoir content to 19,600 AF by March 31. Glendo Reservoir content is expected to increase from the starting content of 145,320 AF to an end of March content of 398,400 AF.

April through September -- Under maximum conditions, Re-regulation water would be released as natural flow to meet irrigation demands until the supply is used as required. A total of 1,121,600 AF of water would be released from the system starting April 2007. Guernsey Reservoir content would reach a maximum end of month content of 30,000 AF in May through June. Under reasonable maximum conditions Glendo Reservoir will reach near conservation capacity of 517,500 AF during May and June. Provision is made in the plan for a possible silt run in July, which will require close coordination of Glendo and Guernsey release schedules as Guernsey Reservoir is drawn down to about 1,000 AF and refilled to 28,000 AF by the end of the month. During September, releases will be scheduled to lower Guernsey Reservoir to approximately 1,000 AF.

The operating plan shown assumes no downstream flow restrictions and normal irrigation deliveries. Glendo storage is projected to decrease to about 346,600 AF by the end of July and will be about 100,000 AF by the end of September. This end of year Glendo storage would be 92 percent of average and the total System storage at the end of the water year would be 1,846,800 AF, 129 percent of average which includes about 6,200 AF of storage in Kortes and Gray Reef Reservoirs. Figure 17 depicts a comparison of Minimum, Most Probable, and Maximum river gains from Alcova Dam to Glendo Reservoir. Figure 18 depicts a comparison of Minimum, Most Probable, and Maximum Glendo Reservoir Storage.



**Figure 17** Gains to North Platte River from Alcova Dam to Glendo Reservoir (predicted for water year 2007)

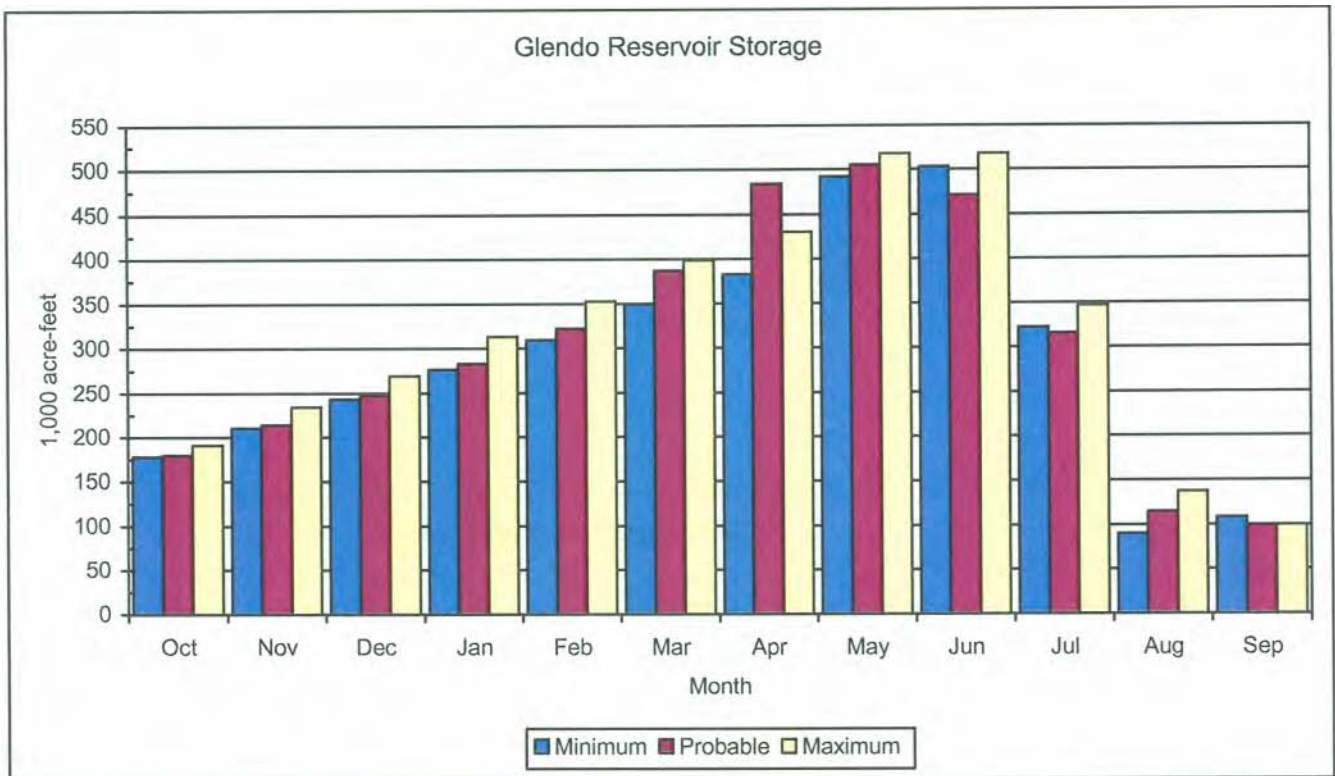


Figure 18 Glendo Reservoir Storage (predicted for water year 2007)

### Ownerships

#### Most Probable Condition - 2007

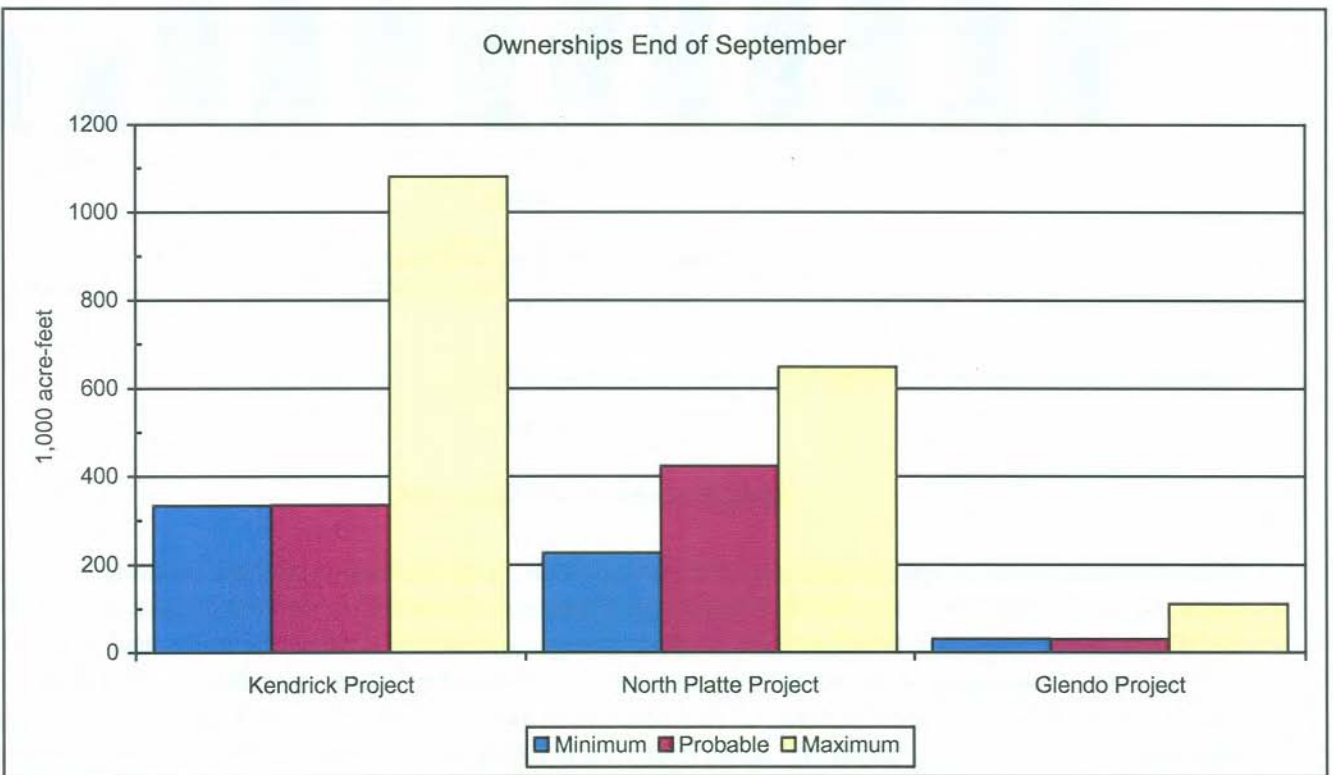
Stored water which is held in accounts for various entities is referred to as their ownership. At the close of water year 2007, the North Platte Project storage ownership is expected to be at 423,300 AF (109 percent of average); the Kendrick Project storage ownership is expected to be near 334,900 AF (37 percent of average). Glendo storage ownership at the end of water year 2007 is expected to have an end-of-season content of 29,500 AF (23 percent of average). The Kendrick Project ownership will not accrue any water under the Most Probable conditions. Two ownerships will fill under most probable conditions; North Platte Guernsey, and North Platte Inland Lakes. No water will be retained as operational water at the end of the water year in the operation/re-regulation water account.

#### Reasonable Minimum Condition - 2007

The North Platte Project storage ownership is expected to be at 227,400 AF (58 percent of average) at the close of the water year. The North Platte Project ownership will not fill under minimum conditions. The Kendrick Project storage ownership is expected to be near 333,400 AF which is 37 percent of average at the close of the water year. The Kendrick Project ownership will not accrue any water under the reasonable minimum conditions. Glendo storage ownership is expected to be near 30,700 AF (24 percent of average) at the close of water year 2007 under the reasonable minimum runoff conditions. The Glendo Unit ownership will not accrue any water during the water year.

### Reasonable Maximum Condition - 2007

Under reasonable maximum conditions all storage water ownerships in the North Platte River System will fill during the water year 2007. About 55,200 AF will be captured in the reservoirs as re-regulation water in the North Platte System under maximum condition. The water in the operational/re-regulation water account will be released from the System as natural flow to meet irrigation demands. Figure 19 depicts a comparison of Minimum, Most Probable, and Maximum Kendrick, North Platte Project and Glendo Project Ownership.



**Figure 19** Ownerships at the end of September (predicted for water year 2007)

## Most Probable Generation water year 2007

The most probable power generation for water year 2007 will be near or above average for all powerplants on the North Platte River Basin. See Table 13 for a breakdown of generation by powerplant.

Table 13 Most Probable Power Generation water year 2007

Powerplant	Gross generation <sup>1</sup> (GWh)	Percent of Average <sup>2</sup>
Seminole	136.2	103
Kortes	162.3	115
Fremont Canyon	233.7	101
Alcova	133.3	114
Glendo	93.4	117
Guernsey	19.4	102
Total Basin	778.3	107

<sup>1</sup> Gross generation is based on October 2006 storage and most probable inflow.

Gross generation is reported in giga-watt hours (GWh).

<sup>2</sup> 30 year average (1977-2006)

The Operation and Maintenance Division (O&M) creates a schedule of maintenance for all generating units. See table 14 for the maintenance schedule for water year 2007. The O&M maintenance schedule is updated throughout the water year but only the October schedule is used for publication.

**Table 14** Proposed Generating Unit Maintenance Schedule (October 2006 through September 2007)

Facility and Unit No.	Scheduled Period	Description of Work
Seminole Unit #1	01-22-07 through 02-23-07	Annual Maintenance
Seminole Unit #2	09-21-06 through 02-09-07	Annual Maintenance - Overhaul Ring Seal Gate
Seminole Unit #3	02-26-07 through 04-12-07	Annual Maintenance
Kortes Unit #1	09-25-06 through 03-23-07	Annual Maintenance - Overhaul Ring Seal Gate
Kortes Unit #2	02-15-07 through 02-23-07	Replace CO2
Kortes Unit #2	04-02-07 through 04-13-07	Annual Maintenance
Kortes Unit #3	02-05-07 through 02-23-07	Annual Maintenance
Kortes Unit #3	03-19-07 through 03-22-07	Annual Maintenance
Fremont Unit #1	10-10-06 through 10-27-06	Annual Maintenance
Fremont Unit #2	10-02-06 through 03-15-07	Annual Maintenance
Alcova Unit #1	01-08-07 through 02-16-07	Annual Maintenance
Alcova Unit #2	11-20-06 through 12-22-06	Annual Maintenance
Alcova Unit #2	02-19-07 through 03-09-07	Annual Maintenance
Glendo Unit #1	10-19-06 through 10-20-06	Annual Maintenance
Glendo Unit #1	01-08-07 through 02-15-07	Annual Maintenance - Transformer Cables
Glendo Unit #1	03-26-07 through 03-29-07	Transformer Cables
Glendo Unit #2	09-25-06 through 09-28-06	Transformer Cables
Glendo Unit #2	01-08-07 through 01-19-07	Replace CO2
Glendo Unit #2	02-12-07 through 02-22-07	Replace Piping
Glendo Unit #2	02-26-07 through 03-15-07	Annual Maintenance Transformer Cables
Guernsey Unit #1	09-25-06 through 09-28-07	Transformer Cables
Guernsey Unit #1	10-16-06 through 11-09-06	Annual Maintenance
Guernsey Unit #2	09-25-06 through 09-28-06	Annual Maintenance
Guernsey Unit #2	11-06-06 through 12-21-06	Annual Maintenance

Table 15 Most Probable Operating Water Plan for water year 2007

NPRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 18:33  
 Based on October 2006 Most Probable Inflow Estimates (April-July 761,400 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
 Year Beginning Oct 2006

HYDROLOGY OPERATIONS

Seminole Reservoir Operations		Initial Content 267.8 Kaf						Operating Limits: Max 1017.3 Kaf, 6357.00 Ft. Min 31.7 Kaf, 6239.02 Ft.					
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	30.0	28.4	23.9	22.0	22.8	51.0	113.4	239.5	315.4	93.1	34.2	19.2
Total Inflow	cfs	488.	477.	389.	358.	411.	829.	1906.	3895.	5300.	1514.	556.	323.
Turbine Release	kaf	32.6	31.5	32.6	32.6	29.4	32.5	71.7	123.0	142.8	147.5	147.6	119.7
Jetflow Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Release	kaf	32.6	31.5	32.6	32.6	29.4	32.5	71.7	123.0	142.8	147.5	147.6	119.7
Total Release	cfs	530.	529.	530.	530.	529.	529.	1205.	2000.	2400.	2399.	2400.	2012.
Evaporation	kaf	2.1	1.1	0.6	0.6	0.6	1.2	2.4	2.8	5.7	6.8	5.2	3.1
End-month content	kaf	264.2	261.3	252.3	241.1	233.9	251.2*	290.5*	401.5*	567.9	507.2	389.2*	285.9*
End-month elevation	ft	6298.3	6297.9	6296.6	6295.0	6293.9	6296.5	6301.8	6314.5	6329.4	6324.4	6313.2	6301.2
Kortes Reservoir Operations		Initial Content 4.7 Kaf						Operating Limits: Max 4.8 Kaf, 6142.73 Ft. Min 1.7 Kaf, 6092.73 Ft.					
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	32.6	31.5	32.6	32.6	29.4	32.5	71.7	123.0	142.8	147.5	147.6	119.7
Total Inflow	cfs	530.	529.	530.	530.	529.	529.	1205.	2000.	2400.	2399.	2400.	2012.
Turbine Release	kaf	32.5	31.5	32.6	32.6	29.4	32.5	71.7	123.0	142.8	147.5	147.6	119.7
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Release	kaf	32.5	31.5	32.6	32.6	29.4	32.5	71.7	123.0	142.8	147.5	147.6	119.7
Total Release	cfs	529.	529.	530.	530.	529.	529.	1205.	2000.	2400.	2399.	2400.	2012.
Pathfinder Reservoir Operations		Initial Content 202.7 Kaf						Operating Limits: Max 1016.5 Kaf, 5850.10 Ft. Min 31.4 Kaf, 5746.00 Ft.					
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Sweetwater Inflow	kaf	3.4	3.6	3.3	3.5	3.9	4.8	14.0	19.0	15.9	4.9	2.3	1.2
Kortes-Path Gain	kaf	4.1	2.3	2.4	1.6	1.3	6.3	7.7	7.3	4.6	8.7	7.8	4.0
Inflow from Kortes	kaf	32.5	31.5	32.6	32.6	29.4	32.5	71.7	123.0	142.8	147.5	147.6	119.7
Total Inflow	kaf	40.0	37.4	38.3	37.7	34.6	43.6	93.4	149.3	163.3	161.1	157.7	124.9
Total Inflow	cfs	651.	629.	623.	613.	623.	709.	1570.	2428.	2744.	2620.	2565.	2099.
Turbine Release	kaf	2.5	25.6	26.4	26.4	23.9	47.2	94.5	141.7	149.8	158.5	155.2	131.3
Jetflow Release	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Release	kaf	7.1	30.1	31.0	31.0	28.1	51.8	99.0	146.3	154.3	163.1	159.8	135.8
Total Release	cfs	115.	506.	504.	504.	506.	842.	1664.	2379.	2593.	2653.	2599.	2282.
Evaporation	kaf	1.8	1.1	0.6	0.6	0.6	1.2	2.3	2.8	4.1	4.6	4.0	3.0
End-month content	kaf	233.8	240.0	246.7	252.8	258.7	249.3	241.4	241.6	246.5	239.9	233.8	219.9
End-month elevation	ft	5791.5	5792.4	5793.3	5794.2	5795.0	5793.7	5792.6	5792.6	5793.3	5792.4	5791.5	5789.4
Alcova Reservoir Operations		Initial Content 179.8 Kaf						Operating Limits: Max 184.4 Kaf, 5500.00 Ft. Min 145.3 Kaf, 5483.12 Ft.					
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	7.1	30.1	31.0	31.0	28.1	51.8	99.0	146.3	154.3	163.1	159.8	135.8
Total Inflow	cfs	115.	506.	504.	504.	506.	842.	1664.	2379.	2593.	2653.	2599.	2282.
Turbine Release	kaf	30.3	29.8	30.8	30.8	27.9	51.4	74.7	135.3	136.9	141.5	141.4	127.7
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Casper Canal Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0
Total Release	kaf	30.3	29.8	30.8	30.8	27.9	51.4	74.7	145.3	152.9	161.5	158.4	134.7
Total Release	cfs	493.	501.	501.	501.	502.	836.	1255.	2363.	2570.	2627.	2576.	2264.
Evaporation	kaf	0.7	0.3	0.2	0.2	0.2	0.4	0.8	1.0	1.4	1.6	1.4	1.1
End-month content	kaf	155.9*	155.9*	155.9*	155.9*	155.9*	155.9*	179.4*	179.4*	179.4*	179.4*	179.4*	179.4*
End-month elevation	ft	5487.9	5487.9	5487.9	5487.9	5487.9	5487.9	5498.0	5498.0	5498.0	5498.0	5498.0	5498.0

**Table 15 (continued) Most Probable Operating Plan for water year 2007**

NPRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 18:33

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Based on October 2006 Most Probable Inflow Estimates (April-July 761,400 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
Year Beginning Oct 2006

Gray Reef Reservoir Operations		Initial Content						1.6 Kaf		Operating Limits:			Max	1.1 Kaf, 5327.42 Ft.	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	0.0 Kaf, 5306.00 Ft.	Jul	Aug	Sep
Total Inflow	kaf	30.3	29.8	30.8	30.8	27.9	51.4	74.7	135.3	136.9	141.5	141.4	127.7		
Total Inflow	cfs	493.	501.	501.	501.	502.	836.	1255.	2200.	2301.	2301.	2300.	2146.		
Total Release	kaf	30.8	29.8	30.8	30.8	27.9	51.4	<b>74.7</b>	135.3	136.8	141.4	141.3	127.6		
Total Release	cfs	501.	501.	501.	501.	502.	836.	1255.	2200.	2299.	2300.	2298.	2144.		
Glendo Reservoir Operations		Initial Content						145.3 Kaf		Operating Limits:			Max	789.4 Kaf, 4653.00 Ft.	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	63.2 Kaf, 4570.02 Ft.	Jul	Aug	Sep
Alcova-Glendo Gain	kaf	7.0	7.1	5.5	6.3	13.6	16.8	45.8	56.6	6.5	-2.4	-2.7	8.6		
Infl from Gray Reef	kaf	30.8	29.8	30.8	30.8	27.9	51.4	<b>74.7</b>	135.3	136.8	141.4	141.3	127.6		
Total Inflow	kaf	37.8	36.9	36.3	37.1	41.5	68.2	120.5	191.9	143.3	139.0	138.6	136.2		
Total Inflow	cfs	615.	620.	590.	603.	747.	1109.	2025.	3121.	2408.	2261.	2254.	2289.		
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	18.7	164.7	168.4	228.5	221.4	148.0		
Low Flow Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Irrigation Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.2	112.2	0.0		
Total Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	20.2	166.2	169.9	288.2	335.1	149.5		
Total Release	cfs	24.	25.	24.	24.	27.	24.	339.	2703.	2855.	4687.	5450.	2512.		
Evaporation	kaf	1.2	0.8	0.7	0.7	0.8	1.7	3.1	5.1	6.8	6.5	4.0	1.9		
End-month content	kaf	179.8	214.2	248.2	283.0	322.1*	387.0*	484.1*	504.8*	471.4	315.7	115.2*	100.0*		
End-month elevation	ft	4596.4	4601.8	4606.6	4611.2	4615.9	4623.0	4632.2	4634.0	4631.1	4615.2	4583.9	4580.3		
Guernsey Reservoir Operations		Initial Content						3.9 Kaf		Operating Limits:			Max	45.6 Kaf, 4419.99 Ft.	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	0.0 Kaf, 4370.00 Ft.	Jul	Aug	Sep
Glendo-Guerns Gain	kaf	3.5	2.1	1.8	1.3	1.3	0.7	4.6	8.1	3.1	1.9	1.8	5.0		
Inflow from Glendo	kaf	1.5	1.5	1.5	1.5	1.5	1.5	20.2	166.2	169.9	288.2	335.1	149.5		
Total Inflow	kaf	5.0	3.6	3.3	2.8	2.8	2.2	24.8	174.3	173.0	290.1	336.9	154.5		
Total Inflow	cfs	81.	60.	54.	46.	50.	36.	417.	2835.	2907.	4718.	5479.	2596.		
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	19.4	53.8	51.8	56.5	56.5	56.0		
Seepage	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	0.4	3.0	3.1	0.0	0.2		
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	116.4	117.2	249.4	259.5	124.8		
Total Release	kaf	0.3	0.2	0.3	0.4	0.3	0.3	19.8	170.6	172.0	309.0	316.0	181.0		
Total Release	cfs	5.	3.	5.	7.	5.	5.	333.	2775.	2891.	5025.	5139.	3042.		
Evaporation	kaf	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.7	1.0	1.1	0.9	0.5		
End-month content	kaf	8.4	11.6#	14.4	16.6	18.9#	20.5#	25.0*	28.0*	28.0*	8.0*	28.0*	1.0*		
End-month elevation	ft	4398.7	4401.7	4403.9	4405.4	4406.9	4407.8	4410.4	4411.9	4411.9	4398.3	4411.9	4384.1		



**Table 15 (continued) Most Probable Operating Plan for water year 2007**

NFRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 18:33

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Based on October 2006 Most Probable Inflow Estimates (April-July 761,400 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
Year Beginning Oct 2006

OWNERSHIP OPERATIONS

		Initial Ownership 321.9 Kaf, Accrued this water year: 0.0 Kaf											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
North Platte Pathfinder													
Net Accrual	kaf	35.1	32.8	28.6	26.1	26.9	59.8	130.6	178.8	161.7	0.0	0.0	0.0
Evaporation	kaf	2.4	1.5	1.0	1.0	1.1	2.3	4.5	6.7	11.8	13.9	10.4	5.8
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	150.3	261.6	137.0
End-month Ownership	kaf	357.0	389.8	418.4	444.5	471.4	531.2	661.8	840.6	1002.3	838.1	566.1	423.3
North Platte Guernsey		Initial Ownership 6.6 Kaf, Accrued this water year: 0.0 Kaf											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Net Accrual	kaf	0.0	0.0	7.0	7.2	14.6	10.3	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.1	0.0	0.3	0.4	0.3	0.5	0.4	0.5	0.6	0.6	0.0	0.0
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.5	0.0	0.0
End-month Ownership	kaf	6.5	6.5	13.5	20.7	35.3	45.6	45.2	44.7	44.1	0.0	0.0	0.0
Inland Lakes		Initial Ownership 0.0 Kaf, Accrued this water year: 0.0 Kaf											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Net Accrual	kaf	10.2	8.9	0.0	0.0	0.0	0.0	26.9	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0
Trnsfr fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	19.8	25.6	0.0	0.0	0.0	0.0
End-month Ownership	kaf	10.2	19.1	19.0	18.9	18.8	18.7	25.8	0.0	0.0	0.0	0.0	0.0
Kendrick		Initial Ownership 442.7 Kaf, Accrued this water year: 0.0 Ref											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Net Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation	kaf	3.3	1.8	1.1	1.1	1.1	2.1	3.7	4.3	5.8	5.4	4.6	3.5
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0
End-month Ownership	kaf	439.4	437.6	436.5	435.4	434.3	432.2	428.5	414.2	392.4	367.0	345.4	334.9
Glenda Unit		Initial Ownership 29.6 Kaf, Accrued this water year: 0.0 Kaf											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	6.7	23.4	0.0	0.0	0.0	0.0	0.0
Evaporation	kaf	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.6	0.8	0.8	0.6	0.4
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	11.0	6.0
End-month Ownership	kaf	29.4	29.3	29.2	29.1	29.0	35.6	58.7	58.1	57.3	47.5	35.9	29.5
Re-regulation		Initial Ownership 0.0 Kaf, Accrued this water year: 0.0 Kaf											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
End-month total	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 15 (continued) Most Probable Operating Plan for water year 2007

NPRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 18:33

Based on October 2006 Most Probable Inflow Estimates (April-July 761,400 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
Year Beginning Oct 2006

City of Cheyenne		Initial Ownership 3.0 Kaf,											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	1.1	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.3
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.5	0.0	0.0	0.0
Ownership	kaf	4.1	5.4	5.7	5.7	5.7	5.7	5.6	2.8	2.2	2.7	3.3	3.6
PacifiCorp		Initial Ownership 2.0 Kaf,											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Release	kaf	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Ownership	kaf	1.4	1.2	1.1	1.0	0.9	0.8	0.7	0.8	0.8	0.8	0.8	0.8
Other		Initial Ownership 0.0 Kaf,											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IRRIGATION DELIVERY													
Kendrick (Casper Canal)		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Requested	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0
Delivered	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0
Kendrick (River)		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Delivered	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Guernsey Deliveries		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
North Platte Req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	145.0	170.0	300.0	305.0	175.0
Glendo Req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	9.0	11.0	6.0
Inland Lakes Req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	19.8	25.6	0.0	0.0	0.0	0.0
Total Requirement	kaf	0.0	0.0	0.0	0.0	0.0	0.0	19.8	170.6	172.0	309.0	316.0	181.0
Seepage	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	0.4	3.0	3.1	0.0	0.2
Actual Release	kaf	0.3	0.2	0.3	0.4	0.3	0.3	19.8	170.6	172.0	309.0	316.0	181.0

Table 15 (continued) Most Probable Operating Plan for water year 2007

NPRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 18:33

Based on October 2006 Most Probable Inflow Estimates (April-July 761,400 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
Year Beginning Oct 2006

POWER GENERATION

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Seminoe Power Plant													
Turbine Release	kaf	32.6	31.5	32.6	32.6	29.4	32.5	71.7	123.0	142.8	147.5	147.6	119.7
Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	15.918	15.326	15.695	13.202	6.388	15.349	20.246	26.402	28.526	30.449	28.788	25.331
Actual generation	gwh	4.306	<b>4.144</b>	4.250	4.211	3.771	4.185	9.506	17.357	22.007	23.368	22.352	16.789
Percent max generation		27.	27.	27.	32.	59.	27.	<b>47.</b>	66.	77.	77.	78.	66.
Average kwh/af		132.	132.	130.	129.	128.	129.	133.	141.	154.	158.	151.	140.
Kortes Power Plant													
Turbine Release	kaf	32.5	31.5	32.6	32.6	29.4	32.5	71.7	123.0	142.8	147.5	147.6	119.7
Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	20.124	17.819	18.404	18.404	16.632	18.404	26.712	27.606	26.712	27.606	27.606	26.712
Actual generation	gwh	5.590	5.418	5.607	5.607	5.057	5.590	12.332	21.156	24.562	25.370	25.387	20.588
Percent max generation		28.	30.	30.	30.	30.	30.	46.	77.	92.	92.	92.	77.
Average kwh/af		172.	172.	172.	172.	172.	172.	172.	172.	172.	172.	172.	172.
Fremont Canyon													
Turbine Release	kaf	2.5	25.6	26.4	26.4	23.9	47.2	94.5	141.7	149.8	158.5	155.2	131.3
Bypass	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5
Maximum generation	gwh	22.822	20.965	20.117	37.780	36.583	40.483	38.994	40.214	38.964	40.254	40.104	34.845
Actual generation	gwh	0.586	6.071	6.285	6.309	5.726	11.300	22.524	33.698	35.677	37.731	36.807	30.955
Percent max generation		3.	29.	31.	17.	16.	28.	58.	84.	92.	94.	92.	89.
Average kwh/af		234.	237.	238.	239.	240.	239.	238.	238.	238.	238.	237.	236.
Alcove Power Plant													
Turbine Release	kaf	30.3	29.8	30.8	30.8	27.9	51.4	74.7	135.3	136.9	141.5	141.4	127.7
Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	27.165	26.588	27.472	23.079	13.654	13.736	26.275	27.552	26.656	27.552	27.552	26.656
Actual generation	gwh	4.182	4.053	4.189	4.189	3.794	6.990	10.309	18.942	19.166	19.810	19.796	17.878
Percent max generation		15.	15.	15.	18.	28.	51.	39.	69.	72.	72.	72.	67.
Average kwh/af		138.	136.	136.	136.	136.	136.	138.	140.	140.	140.	140.	140.
Glendo Power Plant													
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	18.7	164.7	168.4	228.5	221.4	148.0
Bypass	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	59.7	113.7	1.5
Maximum generation	gwh	16.165	17.603	19.721	20.769	19.767	23.419	24.892	27.471	26.403	24.515	19.230	12.583
Actual generation	gwh	0.000	0.000	0.000	0.000	0.000	0.000	2.067	18.955	19.298	24.515	19.230	9.368
Percent max generation		0.	0.	0.	0.	0.	0.	8.	69.	73.	100.	100.	<b>74.</b>
Average kwh/af		0.	0.	0.	0.	0.	0.	111.	115.	115.	107.	87.	63.
Guernsey Power Plant													
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	19.4	53.8	51.8	56.5	56.5	56.0
Bypass	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	116.8	120.2	252.5	259.5	125.0
Maximum generation	gwh	3.101	3.226	3.446	3.530	3.258	3.673	3.579	3.761	3.667	3.616	3.616	3.388
Actual generation	gwh	0.000	0.000	0.000	0.000	0.000	0.000	1.312	3.761	3.667	3.616	3.616	3.388
Percent max generation		0.	0.	0.	0.	0.	0.	37.	100.	100.	100.	100.	100.
Average kwh/af		0.	0.	0.	0.	0.	0.	68.	70.	71.	64.	<b>64.</b>	61.

Table 16 Reasonable Minimum Operating Plan for water year 2007

NPRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 15:37  
 Based on October 2006 Reasonable MINIMUM Estimates (April-July 351,600 acre-feet)

NORTH PLATE RIVER OPERATING PLAN  
 Year Beginning Oct 2006

HYDROLOGY OPERATIONS

Seminoe Reservoir Operations		Initial Content						267.8 Kaf			Operating Limits:			Max	1017.3 Kaf, 6357.00 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep	31.7 Kaf,	6239.02 Ft.	
Total Inflow	kaf	23.3	22.2	21.2	18.0	20.9	44.0	73.8	116.9	126.6	34.3	20.0	13.6				
Total Inflow	cfs	379.	373.	345.	293.	376.	716.	1240.	1901.	2128.	558.	325.	229.				
Turbine Release	kaf	32.6	31.5	32.6	32.6	29.4	32.6	31.5	104.5	101.1	104.5	61.5	31.5				
Jetflow Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Total Release	kaf	32.6	31.5	32.6	32.6	29.4	32.6	31.5	104.5	101.1	104.5	61.5	31.5				
Total Release	cfs	530.	529.	530.	530.	529.	530.	529.	1700.	1699.	1700.	1000.	529.				
Evaporation	kaf	2.0	1.1	0.6	0.5	0.5	1.1	2.3	2.4	3.9	4.1	2.9	1.9				
End-month content	kaf	257.6	248.5	237.9	223.7	214.7	225.1	265.2*	272.8	293.5	219.7*	175.9*	156.4*				
End-month elevation	ft	6297.4	6296.1	6294.5	6292.4	6291.0	6292.6	6298.4	6299.4	6302.2	6291.7	6284.3	6280.6				
Kortea Reservoir Operations		Initial Content						4.7 Kaf			Operating Limits:			Max	4.8 Kaf, 6142.73 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep	1.7 Kaf,	6092.73 Ft.	
Total Inflow	kaf	32.6	31.5	32.6	32.6	29.4	32.6	31.5	104.5	101.1	104.5	61.5	31.5				
Total Inflow	cfs	530.	529.	530.	530.	529.	530.	529.	1700.	1699.	1700.	1000.	529.				
Turbine Release	kaf	32.5	31.5	32.6	32.6	29.4	32.6	31.5	104.5	101.1	104.5	61.5	31.5				
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Total Release	kaf	32.5	31.5	32.6	32.6	29.4	32.6	31.5	104.5	101.1	104.5	61.5	31.5				
Total Release	cfs	529.	529.	530.	530.	529.	530.	529.	1700.	1699.	1700.	1000.	529.				
Pathfinder Reservoir Operations		Initial Content						202.7 Kaf			Operating Limits:			Max	1016.5 Kaf, 5850.10 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep	31.4 Kaf,	5746.00 Ft.	
Sweetwater Inflow	kaf	2.0	2.2	2.1	2.0	1.9	3.7	9.8	5.4	3.9	1.4	0.9	0.8				
Kortea-Path Gain	kaf	0.4	-1.6	-0.8	-0.5	0.7	4.3	5.0	7.6	2.8	1.6	5.6	1.6				
Inflow from Kortea	kaf	32.5	31.5	32.6	32.6	29.4	32.6	31.5	104.5	101.1	104.5	61.5	31.5				
Total Inflow	kaf	34.9	32.1	33.9	34.1	32.0	40.6	46.3	117.5	107.8	107.5	68.0	33.9				
Total Inflow	cfs	568.	539.	551.	555.	576.	660.	778.	1911.	1812.	1748.	1106.	570.				
Turbine Release	kaf	2.5	25.6	26.4	26.3	23.8	26.5	49.6	124.1	126.9	134.7	67.0	33.5				
Jetflow Release	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5				
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Total Release	kaf	7.1	30.1	31.0	30.9	28.0	31.1	54.1	128.7	131.4	139.3	71.6	38.0				
Total Release	cfs	115.	506.	504.	503.	504.	506.	909.	2093.	2208.	2265.	1164.	639.				
Evaporation	kaf	1.8	1.0	0.6	0.6	0.6	1.2	2.2	2.7	3.7	3.7	3.1	2.3				
End-month content	kaf	228.7	229.7	232.0	234.6	238.0	246.3	236.3	222.4	195.1	159.6	152.9	146.5				
End-month elevation	ft	5790.7	5790.9	5791.2	5791.6	5792.1	5793.3	5791.8	5789.8	5785.5	5779.3	5778.1	5776.8				
Alcovca Reservoir Operations		Initial Content						179.8 Kaf			Operating Limits:			Max	184.4 Kaf, 5500.00 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	Jul	Aug	Sep	145.3 Kaf,	5483.12 Ft.	
Total Inflow	kaf	7.1	30.1	31.0	30.9	28.0	31.1	54.1	128.7	131.4	139.3	71.6	38.0				
Total Inflow	cfs	115.	506.	504.	503.	504.	506.	909.	2093.	2208.	2265.	1164.	639.				
Turbine Release	kaf	30.3	29.8	30.8	30.7	27.8	30.7	29.8	117.7	114.0	117.7	53.2	29.9				
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Casper Canal Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0				
Total Release	kaf	30.3	29.8	30.8	30.7	27.8	30.7	29.8	127.7	130.0	137.7	70.2	36.9				
Total Release	cfs	493.	501.	501.	499.	501.	499.	501.	2077.	2185.	2239.	1142.	620.				
Evaporation	kaf	0.7	0.3	0.2	0.2	0.2	0.4	0.8	1.0	1.4	1.6	1.4	1.1				
End-month content	kaf	155.9*	155.9*	155.9*	155.9*	155.9*	155.9*	179.4*	179.4*	179.4*	179.4*	179.4*	179.4*				
End-month elevation	ft	5487.9	5487.9	5487.9	5487.9	5487.9	5487.9	5498.0	5498.0	5498.0	5498.0	5498.0	5498.0				

**Table 16 (Continued) Reasonable Minimum Operating Plan for water year 2007**

NPRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 15:37  
 Based on October 2006 Reasonable MINIMUM Estimates (April-July 351,600 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
 Year Beginning Oct 2006

Gray Reef Reservoir Operations		Initial Content					1.6 Kaf			Operating Limits:			Max	1.1 Kaf, 5327.42 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	0.0 Kaf, 5306.00 Ft.		Jul	Aug	Sep
Total Inflow	kaf	30.3	29.8	30.8	30.7	27.8	30.7	29.8	117.7	114.0	117.7	53.2	29.9			
Total Inflow	cfs	493.	501.	501.	499.	501.	499.	501.	1914.	1916.	1914.	865.	502.			
Total Release	kaf	30.8	29.8	30.8	30.7	27.8	30.7	29.8	117.7	113.9	117.6	53.1	29.8			
Total Release	cfs	501.	501.	501.	499.	501.	499.	501.	1914.	1914.	1913.	864.	501.			
Glendo Reservoir Operations		Initial Content					145.3 Kaf			Operating Limits:			Max	789.4 Kaf, 4653.00 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	63.2 Rat, 4570.02 Ft.		Jul	Aug	Sep
Alcova-Glendo Gain	kaf	5.3	5.2	4.3	4.8	7.6	12.2	8.0	15.6	-1.3	-4.3	-1.5	9.6			
Infl from Gray Reef	kaf	30.8	29.8	30.8	30.7	27.8	30.7	29.8	117.7	113.9	117.6	53.1	29.8			
Total Inflow	kaf	36.1	35.0	35.1	35.5	35.4	42.9	37.8	133.3	112.6	113.3	51.6	39.4			
Total Inflow	cfs	587.	588.	571.	577.	637.	698.	635.	2168.	1892.	1843.	839.	662.			
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	93.3	230.4	220.9	17.6			
Low Flow Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5			
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Irrigation Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.7	57.2	0.0			
Total Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	19.7	94.8	287.6	279.6	19.1			
Total Release	cfs	24.	25.	24.	24.	27.	24.	25.	320.	1593.	4677.	4547.	321.			
Evaporation	kaf	1.2	0.8	0.7	0.7	0.8	1.6	2.8	4.4	6.9	6.7	3.9	1.8			
End-month content	kaf	178.1	210.6	243.4	276.6	309.6	349.3	382.7*	492.0	502.9	321.9*	90.0*	108.5#			
End-month elevation	ft	4596.1	4601.3	4606.0	4610.4	4614.4	4619.0	4622.6	4632.9	4633.8	4615.9	4577.8	4582.4			
Guernsey Reservoir Operations		Initial Content					3.9 Kaf			Operating Limits:			Max	45.6 Kaf, 4419.99 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	0.0 Kaf, 4370.00 Ft.		Jul	Aug	Sep
Glendo-Guerns Gain	kaf	2.8	2.1	1.7	1.3	1.6	1.5	0.9	1.7	-1.3	-4.0	-1.7	2.3			
Inflow from Glendo	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	19.7	94.8	287.6	279.6	19.1			
Total Inflow	kaf	4.3	3.6	3.2	2.8	3.1	3.0	2.4	21.4	93.5	283.6	277.9	21.4			
Total Inflow	cfs	70.	60.	52.	46.	56.	49.	40.	348.	1571.	4612.	4520.	360.			
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.8	51.8	56.5	56.5	47.6			
Seepage	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	1.2	3.0	3.1	2.5	0.3			
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.7	242.9	198.0	0.0			
Total Release	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	15.0	92.5	302.5	257.0	47.9			
Total Release	cfs	5.	3.	5.	7.	5.	5.	7.	244.	1555.	4920.	4180.	805.			
Evaporation	kaf	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.7	1.0	1.1	0.9	0.5			
End-month content	kaf	7.7	10.9	13.6	15.8	18.4#	20.8#	22.30	28.0*	28.0*	8.0*	28.0*	1.0*			
End-month elevation	ft	4398.0	4401.1	4403.3	4404.9	4406.6	4408.0	4408.9	4411.9	4411.9	4398.3	4411.9	4384.1			

Table 16 (Continued) Reasonable Minimum Operating Plan for water year 2007

NPRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 15:37

Based on October 2006 Reasonable MINIMUM Estimates (April-July 351,600 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
Year Beginning Oct 2006

OWNERSHIP OPERATIONS

		Initial Ownership 321.9 Kaf, Accrued this water year: 0.0 Kaf											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
North Platte Pathfinder													
Net Accrual	kaf	23.3	21.4	21.5	18.6	22.5	49.9	84.5	124.1	36.1	0.0	0.0	0.0
Evaporation	kaf	2.4	1.4	1.0	0.9	1.0	2.1	4.1	5.8	9.7	10.4	6.7	3.0
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	226.6	229.7	20.0
End-month Ownership	kaf	345.2	366.6	388.1	406.7	429.2	479.1	563.6	687.7	723.8	486.8	250.4	227.4
North Platte Guernsey		Initial Ownership 6.6 Kaf, Accrued this water year: 0.0 Kaf											
Net Accrual	kaf	0.0	0.0	5.7	5.7	8.9	13.2	0.0	5.9	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.1	0.0	0.3	0.4	0.3	0.5	0.3	0.4	0.6	0.6	0.0	0.0
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0
End-month Ownership	kaf	6.5	6.5	12.2	17.9	26.8	40.0	39.7	45.6	45.0	0.0	0.0	0.0
Inland Lakes		Initial Ownership 0.0 Kaf, Accrued this water year: 0.0 Kaf											
Net Accrual	kaf	7.8	7.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.3	0.3	0.0	0.1	0.1	0.1	0.5	0.2	0.1	0.0	0.0	0.0
Trnsfr fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	7.6	0.0	0.0	0.0
End-month Ownership	kaf	7.8	14.8	14.8	14.7	14.6	14.5	22.9	7.7	0.0	0.0	0.0	0.0
Kendrick		Initial Ownership 442.7 Kaf, Accrued this water year: 0.0 Kaf											
Net Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation	kaf	3.2	1.8	1.2	1.1	1.1	2.1	3.7	4.4	5.9	5.6	5.0	4.2
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0
End-month Ownership	kaf	439.5	437.7	436.5	435.4	434.3	432.2	428.5	414.1	392.2	366.6	344.6	333.4
Glendo Unit		Initial Ownership 29.6 Kaf, Accrued this water year: 0.0 Kaf											
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0
Evaporation	kaf	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.6	0.6	0.5	0.4
Deliv Ea Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.0	0.0
End-month Ownership	kaf	29.4	29.3	29.2	29.1	29.0	28.9	28.6	39.3	38.7	35.6	31.1	30.7
Re-regulation		Initial Ownership 0.0 Kaf, Accrued this water year: 0.0 Kaf											
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
End-month total	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 16 (Continued) Reasonable Minimum Operating Plan for water year 2007

NPRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 15:37

Based on October 2006 Reasonable MINIMUM Estimates (April-July 351,600 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
Year Beginning Oct 2006

City of Cheyenne		Initial Ownership 3.0 Kat,											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	1.1	1.3	1.4	0.9	0.0	0.1	0.1	0.3	0.0	0.5	0.6	0.3
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.9	0.0	0.0	0.0
Ownership	kaf	4.1	5.4	6.8	7.7	7.7	7.8	7.8	5.3	4.3	4.7	5.2	5.4
Pacificorp		Initial Ownership 2.0 Kaf,											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Release	kaf	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Ownership	kaf	1.4	1.2	1.1	1.0	0.9	0.8	0.7	0.8	0.8	0.8	0.8	0.8
Other		Initial Ownership 0.0 Kaf,											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IRRIGATION DELIVERY													
Kendrick (Casper Canal)		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Requested	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0
Delivered	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0
Kendrick (River)		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Requested	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delivered	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Guernsey Deliveries		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
North Platte Req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84.9	300.0	253.0	47.9
Glendo Req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.0	0.0
Inland Lakes Req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	7.6	0.0	0.0	0.0
Total Requirement	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	92.5	302.5	257.0	47.9
Seepage	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	1.2	3.0	3.1	2.5	0.3
Actual Release	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	15.0	92.5	302.5	257.0	47.9

**Table 16 (Continued) Reasonable Minimum Operating Plan for water year 2007**

NPRAOP V1.1K 21-Mar-2003 Run: 10-Oct-2006 15:37  
 Based on October 2006 Reasonable MINIMUM Estimates (April-July 351,600 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
 Year Beginning Oct 2006

POWER GENERATION

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Seminoe Power Plant													
Turbine Release	kaf	32.6	31.5	32.6	32.6	29.4	32.6	31.5	104.5	101.1	104.5	61.5	31.5
Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	16.600	21.911	23.035	22.586	8.789	14.975	22.360	23.978	23.711	23.523	21.137	13.354
Actual generation	gwh	4.288	4.089	4.200	4.160	3.702	4.109	4.064	13.836	13.528	13.618	7.544	3.667
Percent max generation		26.	19.	18.	18.	42.	27.	18.	58.	57.	58.	36.	27.
Average kwh/af		132.	130.	129.	128.	126.	126.	129.	132.	134.	130.	123.	116.
Kortes Power Plant													
Turbine Release	kaf	32.5	31.5	32.6	32.6	29.4	32.6	31.5	104.5	101.1	104.5	61.5	31.5
Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	18.903	17.234	18.404	18.404	15.016	21.672	21.964	26.110	26.712	27.606	27.606	18.679
Actual generation	gwh	5.590	5.418	5.607	5.607	5.057	5.607	5.418	17.974	17.389	17.974	10.578	5.418
Percent max generation		30.	31.	30.	30.	34.	26.	25.	69.	65.	65.	38.	29.
Average kwh/af		172.	172.	172.	172.	172.	172.	172.	172.	172.	172.	172.	172.
Fremont Canyon													
Turbine Release	kaf	2.5	25.6	26.4	26.3	23.8	26.5	49.6	124.1	126.9	134.7	67.0	33.5
Bypass	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5
Maximum generation	gwh	19.579	20.563	20.631	40.020	32.694	40.229	38.901	39.926	37.433	36.544	35.124	30.323
Actual generation	gwh	0.585	6.044	6.239	6.224	5.643	6.304	11.794	29.301	29.596	30.823	15.134	7.536
Percent max generation		3.	29.	30.	16.	17.	16.	30.	73.	79.	84.	43.	25.
Average kwh/af		234.	236.	236.	237.	237.	238.	238.	236.	233.	229.	226.	225.
Alcova Power Plant													
Turbine Release	kaf	30.3	29.8	30.8	30.7	27.8	30.7	29.8	117.7	114.0	117.7	53.2	29.9
Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	27.165	25.745	27.472	15.531	14.022	18.605	26.275	27.552	26.656	27.552	27.552	25.802
Actual generation	gwh	4.182	4.053	4.189	4.175	3.781	4.175	4.112	16.478	15.960	16.478	7.448	4.186
Percent max generation		15.	16.	15.	27.	27.	22.	16.	60.	60.	60.	27.	16.
Average kwh/af		138.	136.	136.	136.	136.	136.	138.	140.	140.	140.	140.	140.
Glendo Power Plant													
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	93.3	230.4	220.9	17.6
Bypass	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	57.2	58.7	1.5
Maximum generation	gwh	14.292	8.448	19.275	20.598	17.614	19.064	22.966	25.775	26.673	25.054	18.729	11.728
Actual generation	gwh	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.014	10.759	25.054	18.729	1.082
Percent max generation		0.	0.	0.	0.	0.	0.	0.	8.	40.	100.	100.	9.
Average kwh/af		0.	0.	0.	0.	0.	0.	0.	111.	115.	109.	85.	61.
Guernsey Power Plant													
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.8	51.8	56.5	56.5	47.6
Bypass	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	1.2	40.7	246.0	200.5	0.3
Maximum generation	gwh	3.080	3.079	2.866	2.713	2.928	3.667	3.574	3.731	3.667	3.616	3.616	3.279
Actual generation	gwh	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.953	3.667	3.616	3.616	2.880
Percent max generation		0.	0.	0.	0.	0.	0.	0.	26.	100.	100.	100.	88.
Average kwh/af		0.	0.	0.	0.	0.	0.	0.	69.	71.	64.	64.	61.



Table 17 Reasonable Maximum Operating Plan for water year 2007

NPRAOP V1.1K 21-Mar-2003 Run: 11-Oct-2006 10:38

Based on October 2006 Reasonable MAXIMUM Estimates (April-July 1,314,000 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
Year Beginning Oct 2006

HYDROLOGY OPERATIONS

Seminoe Reservoir Operations		Initial Content 267.8 Kaf						Operating Limits:				Max	1017.3	Kaf, 6357.00 Ft.
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	31.7	Kaf, 6239.02 Ft.	
Total Inflow	kaf	36.6	33.2	27.7	25.5	28.5	61.0	157.7	391.5	556.4	208.4	60.2	35.7	
Total Inflow	cfs	595.	558.	450.	415.	513.	992.	2650.	6367.	9351.	3389.	979.	600.	
Turbine Release	kaf	32.5	31.5	32.5	32.5	29.4	32.5	154.4	159.8	154.7	159.8	115.7	112.0	
Jetflow Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Release	kaf	32.5	31.5	32.5	32.5	29.4	32.5	154.7	159.8	154.7	159.8	115.7	112.0	
Total Release	cfs	529.	529.	529.	529.	529.	529.	2600.	2599.	2600.	2599.	1882.	1882.	
Evaporation	kaf	2.1	1.1	0.6	0.6	0.6	1.3	2.5	3.1	7.8	10.7	9.1	6.2	
End-month content	kaf	271.9	273.8	269.8	262.2	260.7	288.0*	288.6	514.8	907.8	946.2*	882.2	800.0*	
End-month elevation	ft	6299.3	6299.6	6299.0	6298.0	6297.8	6301.4	6301.5	6325.1	6351.4	6353.4	6350.0	6345.3	
Kortes Reservoir Operations		Initial Content 4.7 Kaf						Operating Limits:				Max	4.8 Kaf, 6142.73 Ft.	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	1.7 Kaf, 6092.73 Ft.		
Total Inflow	kaf	32.5	31.5	32.5	32.5	29.4	32.5	154.7	159.8	154.7	159.8	115.7	112.0	
Total Inflow	cfs	529.	529.	529.	529.	529.	529.	2600.	2599.	2600.	2599.	1882.	1882.	
Turbine Release	kaf	32.4	31.5	32.5	32.5	29.4	32.5	154.7	159.8	154.7	159.8	115.7	112.0	
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Release	kaf	32.4	31.5	32.5	32.5	29.4	32.5	154.7	159.8	154.7	159.8	115.7	112.0	
Total Release	cfs	527.	529.	529.	529.	529.	529.	2600.	2599.	2600.	2599.	1882.	1882.	
Pathfinder Reservoir Operations		Initial Content 202.7 Kaf						Operating Limits:				Max	1016.5 Kaf, 5850.10 Ft.	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	31.4 Kaf, 5746.00 Ft.		
Sweetwater Inflow	kaf	3.4	3.4	2.7	2.4	2.5	6.1	16.8	47.6	42.9	12.2	4.7	3.2	
Kortes-Path Gain	kaf	4.2	2.3	2.4	4.9	5.6	8.1	11.7	17.1	10.8	8.7	7.4	7.4	
Inflow from Kortes	kaf	32.4	31.5	32.5	32.5	29.4	32.5	154.7	159.8	154.7	159.8	115.7	112.0	
Total Inflow	kaf	40.0	37.2	37.6	39.8	37.5	46.7	183.2	224.5	208.4	180.7	127.8	122.6	
Total Inflow	cfs	651.	625.	612.	647.	675.	760.	3079.	3651.	3502.	2939.	2078.	2060.	
Turbine Release	kaf	2.4	25.6	26.3	26.3	23.8	26.5	49.6	37.2	42.9	126.8	123.6	109.8	
Jetflow Release	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5	
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Release	kaf	7.0	30.1	30.9	30.9	28.0	31.1	54.1	41.8	47.4	131.4	128.2	114.3	
Total Release	cfs	114.	506.	503.	503.	504.	506.	909.	680.	797.	2137.	2085.	1921.	
Evaporation	kaf	1.8	1.1	0.6	0.6	0.6	1.3	2.9	4.9	9.4	11.6	10.5	8.0	
End-month content	kaf	233.9	239.9	246.0	254.3	263.2	277.5	403.7	581.5	733.1	770.8	759.9	760.2	
End-month elevation	ft	5791.5	5792.4	5793.2	5794.4	5795.6	5797.5	5811.6	5826.2	5835.8	5837.9	5837.3	5837.3	
Alcova Reservoir Operations		Initial Content 179.8 Kaf						Operating Limits:				Max	184.4 Kaf, 5500.00 Ft.	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Min	100.0 Kaf, 5459.92 Ft.		
Total Inflow	kaf	7.0	30.1	30.9	30.9	28.0	31.1	54.1	41.8	47.4	131.4	128.2	114.3	
Total Inflow	cfs	114.	506.	503.	503.	504.	506.	909.	680.	797.	2137.	2085.	1921.	
Turbine Release	kaf	30.2	29.8	30.7	30.7	27.8	30.7	29.8	30.8	30.0	109.8	109.8	106.2	
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Casper Canal Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0	
Total Release	kaf	30.2	29.8	30.7	30.7	27.8	30.7	29.8	40.8	46.0	129.8	126.8	113.2	
Total Release	cfs	491.	501.	499.	499.	501.	499.	501.	664.	773.	2111.	2062.	1902.	
Evaporation	kaf	0.7	0.3	0.2	0.2	0.2	0.4	0.8	1.0	1.4	1.6	1.4	1.1	
End-month content	kaf	155.9*	155.9*	155.9*	155.9*	155.9*	155.9*	179.4*	179.4*	179.4*	179.4*	179.4*	179.4*	
End-month elevation	ft	5487.9	5487.9	5487.9	5487.9	5487.9	5487.9	5498.0	5498.0	5498.0	5498.0	5498.0	5498.0	

**Table 17 (Continued) Reasonable Maximum Operating Plan for water year 2007**

NPRAOP V1.1K 21-Mar-2003 Run: 11-Oct-2006 10:38

Based on October 2006 Reasonable MAXIMUM Estimates (April-July 1,314,000 acre-feet)

**NORTH PLATTE RIVER OPERATING PLAN**  
Year Beginning Oct 2006

Gray Reef Reservoir Operations		Initial Content						1.6 Kaf			Operating Limits: Max Min			1.1 Kaf, 5327.42 Ft. 0.0 Kaf, 5306.00 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
Total Inflow	kaf	30.2	29.8	30.7	30.7	27.8	30.7	29.8	30.8	30.0	109.8	109.8	106.2			
Total Inflow	cfs	491.	501.	499.	499.	501.	499.	501.	501.	504.	1786.	1786.	1785.			
Total Release	kaf	30.7	29.8	30.7	30.7	27.8	30.7	29.8	30.8	29.9	109.7	109.7	106.1			
Total Release	cfs	499.	501.	499.	499.	501.	499.	501.	501.	502.	1784.	1784.	1783.			
Glendo Reservoir Operations		Initial Content						145.3 Ref			Operating Limits: Max Min			789.4 Kaf, 4653.00 Ft. 63.2 Kaf, 4570.02 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
Alcova-Glendo Gain	kaf	18.4	16.1	6.5	15.4	14.6	18.3	53.0	182.2	83.6	9.1	7.5	13.8			
Infl from Gray Reef	kaf	30.7	29.8	30.7	30.7	27.8	30.7	29.8	30.8	29.9	109.7	109.7	106.1			
Total Inflow	kaf	49.1	45.9	37.2	46.1	42.4	49.0	82.8	213.0	113.5	118.8	117.2	119.9			
Total Inflow	cfs	799.	771.	605.	750.	763.	797.	1392.	3464.	1907.	1932.	1906.	2015.			
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	45.8	120.0	104.8	232.4	221.4	153.7			
Low Flow Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5			
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Irrigation Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.9	99.3	0.0			
Total Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	47.3	121.5	106.3	282.8	322.2	155.2			
Total Release	cfs	24.	25.	24.	24.	27.	24.	795.	1976.	1786.	4599.	5240.	2608.			
Evaporation	kaf	1.3	0.8	0.7	0.7	1.0	1.9	3.1	4.8	7.2	6.9	4.3	2.0			
End-month content	kaf	191.0	234.4	269.3	313.1	352.9#	398.4#	430.7#	517.5*	517.5*	346.6	137.3	100.0*			
End-month elevation	ft	4598.2	4604.7	4609.4	4614.9	4619.4	4624.2	4627.4	4635.0	4635.0	4618.7	4588.6	4580.3			
Guernsey Reservoir Operations		Initial Content						3.9 Kaf			Operating Limits: Max Min			45.6 Kaf, 4419.99 Ft. 0.0 Kaf, 4370.00 Ft.		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep			
Glendo-Guerns Gain	kaf	3.1	1.8	1.5	1.8	1.1	0.5	7.1	27.3	21.9	6.6	1.7	5.3			
Inflow from Glendo	kaf	1.5	1.5	1.5	1.5	1.5	1.5	47.3	121.5	106.3	282.8	322.2	155.2			
Total Inflow	kaf	4.6	3.3	3.0	3.3	2.6	2.0	54.4	148.8	128.2	289.4	323.9	160.5			
Total Inflow	cfs	75.	55.	49.	54.	47.	33.	914.	2420.	2154.	4707.	5268.	2697.			
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	45.1	53.4	51.6	56.1	56.5	54.2			
Seepage	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	1.2	3.0	3.1	2.5	2.1			
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.5	72.6	251.8	244.0	130.7			
Total Release	kaf	0.3	0.2	0.3	0.4	0.3	0.3	45.5	146.1	127.2	311.0	303.0	187.0			
Total Release	cfs	5.	3.	5.	7.	5.	5.	765.	2376.	2138.	5058.	4928.	3143.			
Evaporation	kaf	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.7	1.0	0.4	0.9	0.5			
End-month content	kaf	8.0	10.9	13.4	16.1	18.2#	19.6#	28.0*	30.0*	30.0*	8.0*	28.0*	1.0*			
End-month elevation	ft	4398.3	4401.1	4403.1	4405.1	4406.4	4407.3	4411.9	4412.9	4412.9	4398.3	4411.9	4384.1			

**Table 17 (Continued) Reasonable Maximum Operating Plan for water year 2007**

NPRAOP V1.1K 21-Mar-2003 Run: 11-Oct-2006 10:38

Based on October 2006 Reasonable MAXIMUM Estimates (April-July 1,314,000 acre-feet)

**NORTH PLATTE RIVER OPERATING PLAN**  
Year Beginning Oct 2006

**OWNERSHIP OPERATIONS**

		Initial Ownership 321.9 Kaf, Accrued this water year: 0.0 Kaf											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
North Platte Pathfinder													
Net Accrual	kaf	41.8	37.5	31.8	31.7	35.4	72.7	181.3	262.4	0.0	0.0	0.0	0.0
Evaporation	kaf	2.4	1.4	1.0	1.1	1.2	2.5	4.9	8.2	15.0	13.2	11.6	6.8
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	211.6	109.6
End-month Ownership	kaf	363.7	401.2	433.0	464.7	500.1	572.8	754.1	1016.5	1001.5	988.3	765.1	648.7
North Platte Guernsey													
Net Accrual	kaf	0.0	0.0	7.7	16.8	14.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.1	0.0	0.3	0.4	0.4	0.5	0.4	0.5	0.6	0.6	0.0	0.0
Trnsfr fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.1	1.9	0.0
End-month Ownership	kaf	6.5	6.5	14.2	31.0	45.6	45.1	44.7	44.2	43.6	1.9	0.0	0.0
Inland Lakes													
Net Accrual	kaf	21.2	17.5	0.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.3	0.4	0.1	0.1	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.0
Trnsfr fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	0.0	0.0	0.0
End-month Ownership	kaf	21.2	38.7	38.6	38.5	38.4	38.2	0.0	0.0	0.0	0.0	0.0	0.0
Kendrick													
Net Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	171.0	563.8	0.0	0.0	0.0
Evaporation	kaf	3.4	1.8	1.1	1.0	1.1	2.1	3.7	4.6	8.8	15.3	13.1	9.9
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	17.0	7.0
End-month Ownership	kaf	439.3	437.5	436.4	435.4	434.3	432.2	428.5	599.5	1163.3	1128.0	1097.9	1081.0
Glendo Unit													
Accrual	kaf	0.0	0.0	0.0	0.0	0.7	18.3	52.5	44.3	0.0	0.0	0.0	0.0
Evaporation	kaf	0.2	0.1	0.1	0.1	0.1	0.1	0.4	1.1	2.1	1.9	1.5	1.1
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	8.0	12.0
End-month Ownership	kaf	29.4	29.3	29.2	29.1	29.7	47.9	100.0	143.2	141.1	133.2	123.7	110.6
Re-regulation													
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.5	0.0	55.2	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	0.2	18.9	0.0	0.0
End-month total	kaf	0.0	0.0	0.0	0.0	0.0	0.5	0.5	19.6	19.1	0.0	0.0	0.0

Table 17 (Continued) Reasonable Maximum Operating Plan for water year 2007

NPRAOP V1.1K 21-Mar-2003 Run: 11-Oct-2006 10:38

Based on October 2006 Reasonable MAXIMUM Estimates (April-July 1,314,000 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN													
Year Beginning Oct 2006													
City of Cheyenne		Initial Ownership 3.0 Kaf,											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	2.1	1.3	1.4	0.0	0.0	0.1	0.1	0.3	0.0	0.5	0.6	0.3
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.9	0.0	0.0	0.0
Ownership	kaf	5.1	6.4	7.8	7.8	7.8	7.8	7.8	5.3	4.3	4.7	5.2	5.4
Pacificorp		Initial Ownership 2.0 Kaf,											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Release	kaf	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Ownership	kaf	1.4	1.2	1.1	1.0	0.9	0.8	0.7	0.8	0.8	0.8	0.8	0.8
Other		Initial Ownership 0.0 Kaf,											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IRRIGATION DELIVERY													
Kendrick (Casper Canal)		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Requested	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0
Delivered	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	16.0	20.0	17.0	7.0
Kendrick (River)		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Requested	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delivered	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Guernsey Deliveries		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
North Platte Req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.0	125.0	305.0	295.0	175.0
Glendo Req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	6.0	8.0	12.0
Inland Lakes Req	kaf	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	0.0	0.0	0.0
Total Requirement	kaf	0.0	0.0	0.0	0.0	0.0	0.0	45.5	110.0	127.0	311.0	303.0	187.0
Seepage	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	1.2	3.0	3.1	2.5	2.1
Actual Release	kaf	0.3	0.2	0.3	0.4	0.3	0.3	45.5	146.1	127.2	311.0	303.0	187.0
Waste	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	0.2	0.0	0.0	0.0

Table 17 (Continued) Reasonable Maximum Operating Plan for water year 2007

NPRAOP V1.1K 21-Mar-2003 Run: 11-Oct-2006 10:38

Based on October 2006 Reasonable MAXIMUM Estimates (April-July 1,314,000 acre-feet)

NORTH PLATTE RIVER OPERATING PLAN  
Year Beginning Oct 2006

POWER GENERATION

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Seminole Power Plant</b>													
Turbine Release	kaf	32.5	31.5	32.5	32.5	29.4	32.5	154.4	159.8	154.7	159.8	115.7	112.0
Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	16.017	15.576	16.068	13.606	6.643	16.125	20.789	27.909	32.400	32.614	32.610	32.113
Actual generation	gwh	4.306	4.183	4.312	4.293	3.860	4.320	20.789	23.449	26.270	28.604	20.595	19.675
Percent max generation		27.	27.	27.	32.	58.	27.	100.	84.	81.	88.	63.	61.
Average kwh/af		132.	133.	133.	132.	131.	133.	135.	147.	170.	179.	178.	176.
<b>Kortea Power Plant</b>													
Turbine Release	kaf	32.4	31.5	32.5	32.5	29.4	32.5	154.7	159.8	154.7	159.8	115.7	112.0
Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	20.124	17.819	18.404	18.404	16.632	18.404	26.712	27.606	26.712	27.606	27.606	26.712
Actual generation	gwh	5.573	5.418	5.590	5.590	5.057	5.590	26.608	27.486	26.608	27.486	19.900	19.264
Percent max generation		28.	30.	30.	30.	30.	30.	100.	100.	100.	100.	72.	72.
Average kwh/af		172.	172.	172.	172.	172.	172.	172.	172.	172.	172.	172.	172.
<b>Fremont Canyon</b>													
Turbine Release	kaf	2.4	25.6	26.3	26.3	23.8	26.5	49.6	37.2	42.9	126.8	123.6	109.8
Bypass	kaf	4.6	4.5	4.6	4.6	4.2	4.6	4.5	4.6	4.5	4.6	4.6	4.5
Maximum generation	gwh	22.823	20.965	20.112	37.788	36.629	40.759	40.583	43.963	44.399	46.746	46.866	45.296
Actual generation	gwh	0.563	6.071	6.260	6.286	5.709	6.387	12.304	9.671	11.643	35.052	34.256	30.400
Percent max generation		2.	29.	31.	17.	16.	16.	30.	22.	26.	75.	73.	67.
Average kwh/af		235.	237.	238.	239.	240.	241.	248.	260.	271.	276.	277.	277.
<b>Alcova Power Plant</b>													
Turbine Release	kaf	30.2	29.8	30.7	30.7	27.8	30.7	29.8	30.8	30.0	109.8	109.8	106.2
Bypass	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum generation	gwh	27.165	26.588	27.472	23.079	13.654	13.736	26.275	27.552	26.656	27.552	27.552	26.656
Actual generation	gwh	4.169	4.053	4.175	4.175	3.781	4.175	4.112	4.312	4.200	15.372	15.372	14.868
Percent max generation		15.	15.	15.	18.	28.	30.	16.	16.	16.	56.	56.	56.
Average kwh/af		138.	136.	136.	136.	136.	136.	138.	140.	140.	140.	140.	140.
<b>Glendo Power Plant</b>													
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	45.8	120.0	104.8	232.4	221.4	153.7
Bypass	kaf	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	50.4	100.8	1.5
Maximum generation	gwh	14.628	8.945	20.019	21.548	18.612	20.142	24.308	26.857	27.265	25.625	20.049	12.789
Actual generation	gwh	0.000	0.000	0.000	0.000	0.000	0.000	4.988	13.622	12.248	25.625	20.049	10.101
Percent max generation		0.	0.	0.	0.	0.	0.	21.	51.	45.	100.	100.	79.
Average kwh/af		0.	0.	0.	0.	0.	0.	109.	114.	117.	110.	91.	66.
<b>Guernsey Power Plant</b>													
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	45.1	53.4	51.6	56.1	56.5	54.2
Bypass	kaf	0.3	0.2	0.3	0.4	0.3	0.3	0.4	92.7	75.6	254.9	246.5	132.8
Maximum generation	gwh	3.090	3.085	2.867	2.716	2.924	3.647	3.585	3.813	3.715	3.647	3.616	3.279
Actual generation	gwh	0.000	0.000	0.000	0.000	0.000	0.000	3.079	3.813	3.715	3.647	3.616	3.279
Percent max generation		0.	0.	0.	0.	0.	0.	86.	100.	100.	100.	100.	100.
Average kwh/af		0.	0.	0.	0.	0.	0.	68.	71.	72.	65.	64.	60.

## Glossary

Annual Operating Plan (AOP) - An annual publication which is prepared, reviewed, and presented to the public, with a summary of the actual operations and outlook for the coming Water year.

Acre-Foot (AF) - A measure of volume of water equal to an area of 1 acre covered with water 1 foot deep. (43,560 cubic feet)

Basin - The watershed from which overland runoff flows into the North Platte River. When used alone in this report it refers to the North Platte River Drainage Basin upstream of Guernsey Dam.

Bypass - That amount of water released from a reservoir other than through the powerplant for those reservoirs which have a powerplant connected to them.

Cubic foot per second (cfs) - The rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute. The volume of water represented by a flow of 1 cubic foot per second for 24 hours is equivalent to 86,400 cubic feet, approximately 1.983 AF, or 646,272 gallons.

Evaporation pool - A volume of water set aside in the accounting process from which reservoir evaporation is subtracted as it occurs. (Used in Glendo storage accounting).

Flood pool - A physical space in the reservoir which is to be occupied only by water from flood events. In Glendo Reservoir, the volume between reservoir elevations 4635.0 feet and 4653.0 feet is reserved exclusively for flood control.

Gains - Water which enters a river in a defined reach from a source other than an upstream release. When flow released into a reach is greater than the river flow exiting the lower end of the reach, the net gain is negative (loss of water in the reach).

Giga Watt hour (GWh) - A unit of power equal to one billion watt hours.

Head - The difference in elevation between the reservoir water surface and the power generating turbines at a powerplant which is connected to a reservoir.

Hydromet - Computer software designed for the acquisition, processing, storage and retrieval of hydrological and meteorological data which is gathered via satellite from remote sites.

Inflow - As used in this report is any water which enters a reservoir irrespective of whether it originated in the reach or was released from an upstream storage reservoir.

## Glossary (continued)

Inland Lakes - A series of four off-stream storage reservoirs on the Interstate Canal system in Nebraska which are used to store and re-release irrigation water. (Lake Alice, Lake Minatare, Little Lake Alice, and Lake Winters Creek)

Megawatt (MW) – A unit of power equal to one million watts.

Natural flow - River flow which has originated from a source other than reservoir storage.

NRCS. – The Natural Resources Conservation Service which is a government agency under the Department of Agriculture.

Power pool - That space in a reservoir which must be full in order to efficiently generate electrical power through an associated turbine generator

Precipitation - A deposit on the earth of hail, mist, rain, sleet, or snow.

Runoff - That part of precipitation on the Basin which appears as flow in the North Platte River.

Silt Run - The name given to the practice of flushing silt from Guernsey Reservoir into the North Platte River downstream where the silt laden water is diverted by irrigators. The silt tends to settle in the slower moving water of canals and laterals helping to seal the wetted perimeter and reduce seepage losses.

SNOTEL - Snowpack telemetry network. A network of NRCS automated sites which continually monitor snowpack and weather conditions and transmit data to a data retrieval center in Portland, Oregon.

System - As used in the report the System includes all storage, delivery, and power generating facilities on the mainstem of the North Platte River in Wyoming.

SWE – Snow Water Equivient is the amount of water in the snowpack expressed in inches.

Water year - October 1 through September 30

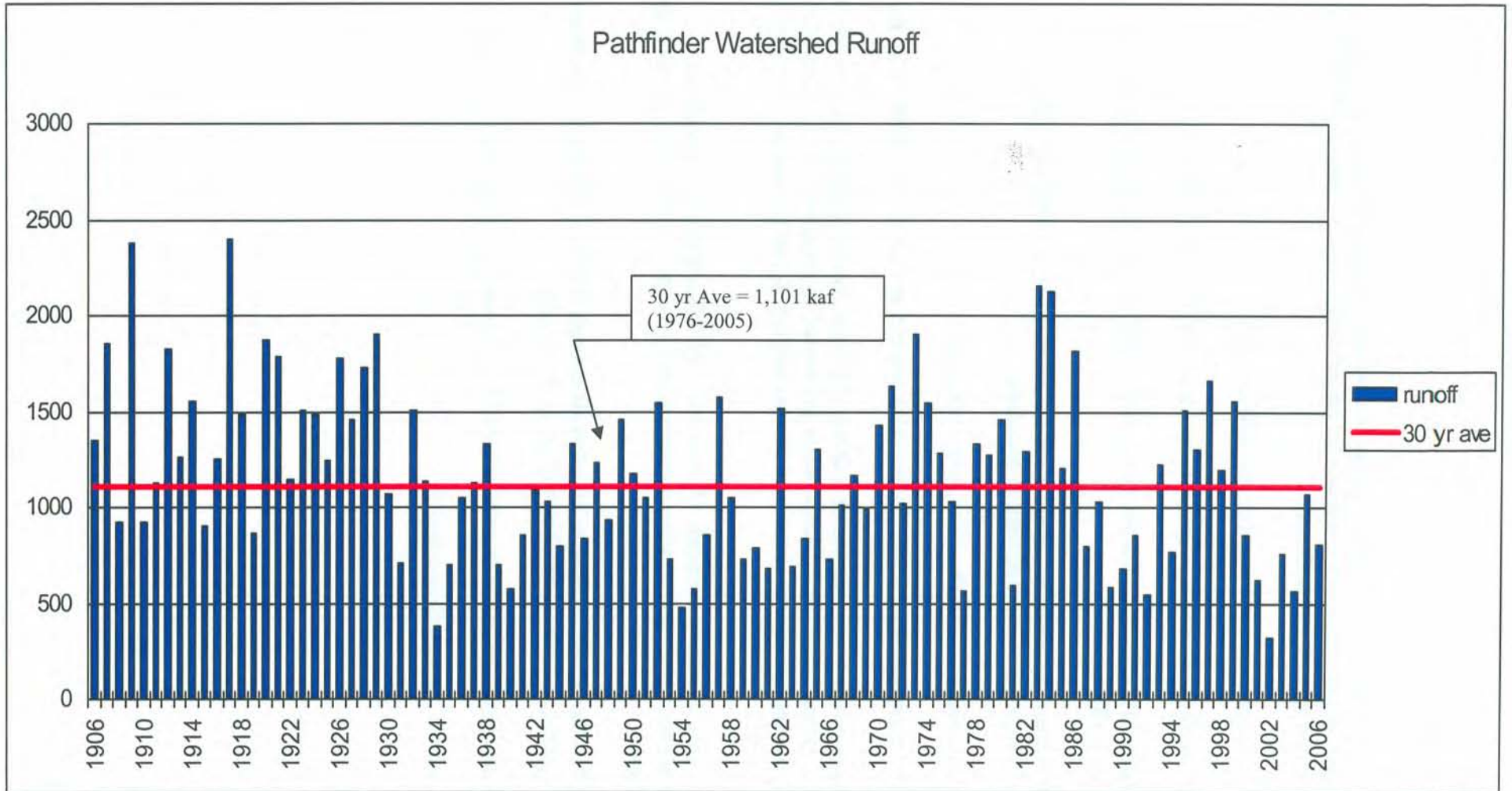


Figure 20 Pathfinder Watershed Runoff 1906-2006



## Reservoir Data Definitions Sheets

### A. General:

Dam design and reservoir operation utilize reservoir capacity and water surface elevation data. To insure uniformity in the establishment, use, and publication of these data the following standard definitions of water surface elevations and reservoir capacities shall be used.

### B. Water Surface Elevation Definitions:

Maximum Water Surface - the highest acceptable water surface elevation with all factors affecting the safety of the structure considered. Normally it is the highest water surface elevation resulting from a computed routing of the inflow design flood through the reservoir on the basis of established operating criteria. It is the top of surcharge capacity.

Top of Exclusive Flood Control Capacity - the reservoir water surface elevation at the top of the reservoir capacity allocated to exclusive use for the regulating of flood inflows to reduce damage downstream.

Maximum Controllable Water Surface Elevation - the highest reservoir water surface elevation at which gravity flows from the reservoir can be completely shut off.

Top of Joint Use Capacity - the reservoir water surface elevation at the top of the reservoir capacity allocated to joint use, i.e., flood control and conservation purposes.

Top of Active Conservation Capacity - the reservoir water surface elevation at the top of the capacity allocated to the storage of water for conservation purposes only.

Top of Inactive Capacity - the reservoir water surface elevation below which the reservoir will not be evacuated under normal conditions.

Top of Dead Capacity - the lowest elevation in the reservoir from which water can be drawn by gravity.

Streambed at the Dam Axis - the elevation of the lowest point in the streambed at the axis of the dam prior to construction. This elevation normally defines the zero for the area-capacity tables.

### C. Capacity Definitions:

Surcharge Capacity - the reservoir capacity provided for use in passing the inflow design flood through the reservoir. It is the reservoir capacity between the maximum water surface elevation and the highest of the following elevations:

- a) Top of exclusive flood control capacity
- b) Top of joint use capacity
- c) Top of active conservation capacity

Total Capacity - the reservoir capacity below the highest of the elevations representing the top of exclusive flood control capacity, the top of joint use capacity, or the top of active conservation capacity. In the case of a natural lake which has been enlarged, the total capacity includes the dead capacity of the lake. Total capacity is used to express the total quantity of water which can be impounded and is exclusive of surcharge capacity.

Live Capacity - the part of the total capacity from which water can be withdrawn by gravity. It is equal to the total capacity less the dead capacity.

Active Capacity - the reservoir capacity normally usable for storage and regulation of reservoir inflows to meet established reservoir operating requirements. Active capacity extends from the highest of the top of exclusive flood control capacity, the top of joint use capacity, or the top of active conservation capacity to the top of inactive capacity. It is the total capacity less the sum of the inactive and dead capacities.

Exclusive Flood Control Capacity - the reservoir capacity assigned to the sole purpose of regulating flood inflows to reduce flood damage downstream.

Joint Use Capacity - the reservoir capacity assigned to flood control purposes during certain periods of the year and to conservation purposes during other periods of the year.

Active Conservation Capacity - the reservoir capacity assigned to regulate reservoir inflow for irrigation, power, municipal, and industrial, fish and wildlife, navigation, recreation, water quality, and other purposes. It does not include exclusive flood control or joint use capacity. The active conservation capacity extends from the top of the active conservation capacity to the top of the inactive capacity.