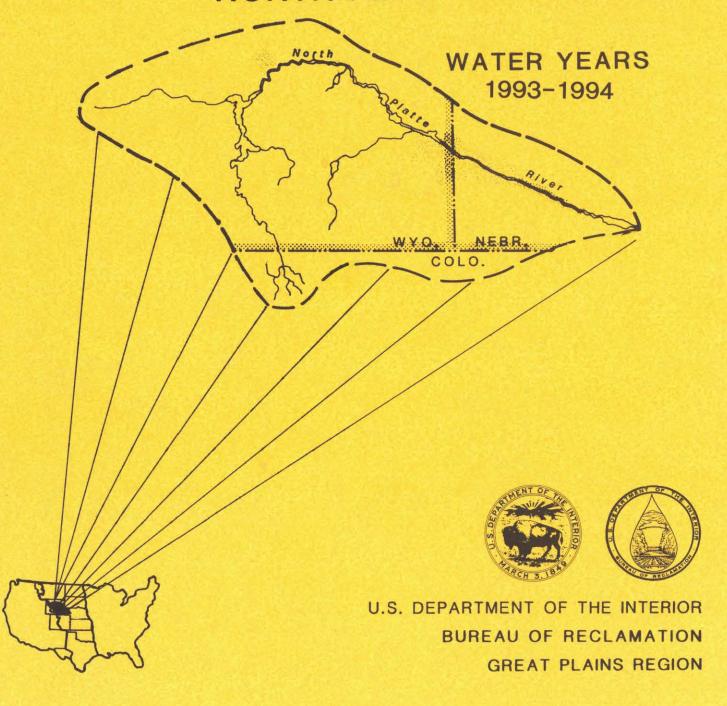
ANNUAL OPERATING PLANS

NORTH PLATTE RIVER AREA





U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
GREAT PLAINS REGION
BILLINGS, MONTANA

ANNUAL OPERATING PLANS

NORTH PLATTE RIVER AREA WYOMING

WATER YEAR--1993 OPERATIONS

WATER YEAR--1994 OUTLOOK

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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. This report is to be published in combination with other river Basin reports from the Western Division of the Pick-Sloan Missouri Basin Program in the Great Plains Region. The reader is referred to the combined report for detailed information on power generation throughout the Western Division.

All references to average in this document will refer to the average of the historical record for the years 1963-1992 unless noted otherwise. In each coming year this period will be advanced by 1 year to maintain a running 30-year average.

HIGHLIGHTS OF 1993 OPERATIONS

The water supply condition of Water Year 1993 was an improvement over prior years, however, the total water stored in all North Platte River Reservoirs was only 44 percent of capacity at the end of September. Exhibit 1 shows the unprecedented decline of total storage in North Platte River Reservoirs since 1987 and the subsequent increase in storage during water year 1993. Although the reservoirs had not completely recovered during the year, the fact that total storage improved from 50% of average at the end of 1992 to 86% of average at the end of 1993 was significant to the available water supply in the Basin. Total inflow was significantly improved for the entire Basin with the Seminoe Reservoir inflow at 108 percent of average, inflow to the Kortes to Pathfinder reach at 87 percent of average, inflow to the Alcova to Glendo reach at 118 percent of average, and inflow to the Glendo to Guernsey reach at 103 percent of average for the water year. February precipitation was the highest of record at some weather stations in the Basin. Except for March, the above average precipitation continued in the Basin above Alcova Reservoir until July. March, May, and July were below average precipitation months in the remainder of the Basin but rainfall was still substantial. Timely precipitation on the project lands helped to reduce the demand for irrigation storage water during the irrigation season.

Peak snowmelt runoff inflows to reservoirs within the Basin occurred from mid-May to mid-June and were above average for both months. The average daily inflow for Seminoe in May of 1993 was 4,880 cubic feet per second (c.f.s.) or 128 percent of the 30 year average daily May inflow of 3,819 c.f.s. The June Seminoe inflow averaged 6,083 c.f.s. or 118 percent of the 30 year average daily June inflow of 5,158 c.f.s.

All Seminoe-Kortes water releases generated power with the exception of the period June 14 through August 27 when a restriction was placed on Seminoe generation. Reconfiguration of the transmission lines by Western Area Power Administration (WAPA) eliminated the use of one Seminoe transformer during construction. A total of 169,881 acre-feet of water was released as a powerplant bypass during this interval. A bypass of 693 acre-feet occurred at the Kortes Powerplant on August 18 and another bypass of 283 acre-feet occurred at Seminoe Powerplant on September 13 to accommodate the WAPA work. The maximum daily average Seminoe turbine release of 2,628 c.f.s. occurred on June 6, 1993.

Water year precipitation totals were above average for all watersheds in the Basin. The Seminoe watershed was at 116 percent of average, the Pathfinder watershed was at 120 percent of average, the Glendo watershed was at 121 percent of average and the Guernsey watershed was at 117 percent. After February 1, 1993, snow-water accumulations for all watersheds in the Basin generally were better than they had been in the last 4 to 7 years. The upper watersheds of the North Platte River Basin, Seminoe, and Pathfinder, recorded 25.9 inches and 14.8 inches respectively of snowpack water content on May 1, 1993. This was 128 percent of average for the Seminoe watershed and 106 percent of average for the Pathfinder watershed.

North Platte Guernsey storage ownership was filled on March 8, 1993. The Inland Lakes storage right filled on April 15, 1993, to the 46,000 acre-feet of water accrual allowed under the water right. At the beginning of the water year the Glendo ownership account contained 127,778 acre-feet of water. The Glendo storage ownership was filled on May 2, 1993, at 183,238 acre-feet of water. After deliveries and evaporation 167,061 acre-feet of water remained in the Glendo accounts on September 30, to be carried over into water year 1994. The amount of water in the North Platte Pathfinder storage water ownership account peaked at 907,385 acrefeet on July 1, 1993, which was 109,122 acre-feet below maximum allowable amount of storage ownership. The Kendrick Project storage water ownership account contained 573,291 acre-feet of water on October 1, 1992. This amount is 628,387 acre-feet less than the maximum allowable amount. The Kendrick Project did not come into priority in water year 1993 and therefore there was no accrual of water to this ownership. This balance declined throughout the water year as depletion occurred due to evaporation and deliveries, leaving 482,578 acre-feet, the lowest end of September amount since 1969.

During the May 1993 through September 1993 period, Kendrick Project water users received 57,829 acre-feet of water, which is 88% of average. North Platte Project water users received 342,337 acre-feet of water from storage, 496,522 acre-feet of natural flow and 68,186 acre-feet of excess water, for a total delivery of 907,046 acre-feet. The Glendo Unit water users received 10,468 acre-feet of water from storage.

An outlet works at Glendo Dam, which provides the capability to make low flow releases, was completed this year. This corrects a design deficiency which has existed since the construction of the dam, namely that no means of release existed at the dam and that the outlet works at the power plant could not be operated at low flows without damage to the large valves. A year-round release of 25 c.f.s. was initiated in March and continued through the end of the water year to provide water for fishery and wildlife habitat purposes in the river between Glendo Dam and Guernsey Reservoir.

Reclamation continued to cooperate with the Wyoming Department of Game and Fish (WGF) and the Wyoming Flycasters Club (Flycasters) in an experimental fish hatching attempt in a hatching box at Gray Reef Dam. Two hatches were attempted in which volunteers from the Flycasters Club visited the box daily to monitor the progress of the hatch and make sure the flow of water was maintained. first effort was considered a success, however, the second attempt failed when the water supply to the box was interrupted. The hatching experiment is part of a cooperative agreement between Reclamation and WGF. In the agreement Reclamation is also participating in an eight year fish tagging effort which is underway by WGF. The fish tagging effort involves inserting a coded wire strip into the head of all fish stocked into the river system over the eight year program. The tags will allow fishery biologists to track fish movement, numbers, age, and monitor stocked versus wild trout populations. Equipment was installed to monitor water temperature at the gaging stations at Sinclair, below Kortes Dam and below Gray Reef Dam to provide WGF with daily maximum, minimum, and mean water temperature data for use in the river fishery study. By participating in the fish tagging program, assisting in the fish egg hatching experiment, and assembling and sharing river flow data, Reclamation is an active partner in the improvement and management of the fishery on the North Platte River in Wyoming.

Reclamation has cooperated with the University of Wyoming, Water Research Center on a study of Flushing Flow Requirements, WWRC Project 5-38976. The purpose of the project is to determine what magnitude, frequency, and duration of flow is required to maintain important fish spawning areas in the North Platte River below Gray Reef Dam. Sampling of sediments and other field measurements by University of Wyoming personnel were conducted in water year 1993.

Reclamation and the Wyoming State Engineer's Office completed improvements to the North Platte River measurement gage near Sinclair, Wyoming, during this water year. This was the 3rd of seven gages which are to be rehabilitated under the 1989 Cooperative Agreement No. 9-FG-60-01280. Streamgages on the Medicine Bow River and on the Sweetwater River were rehabilitated in previous years.

Power generated at the Reclamation facilities in the Basin for the water year was 544.2 GWH (68 percent of average).

DESCRIPTION OF THE NORTH PLATTE RIVER SYSTEM

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 North Platte River Projects 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 and water scheduling 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 offstream reservoirs known as the Inland Lakes in western Nebraska as shown in exhibit 11.

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. The System furnishes irrigation water to over 440,000 acres of land in Wyoming and Nebraska.

The System includes the Kendrick Project in Wyoming; the North Platte Project in Wyoming and Nebraska; and the Kortes and Glendo Units of the Pick-Sloan Missouri Basin Program in Wyoming and Nebraska. Major rivers 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 a generating capacity totaling 234.2 megawatts (MW). 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 Golden, 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. Bulk power from Reclamation Powerplants is marketed by WAPA.

SYSTEM PLANNING AND CONTROL

The North Platte River storage, power generation, and water delivery facilities are operated for irrigation, hydroelectric power production, municipal and industrial water supply, providing instream flows in the section of the river below Kortes Dam known as the Miracle Mile and also below Gray Reef Dam, 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 Water Scheduling and Hydrology Branch of the North Platte Projects Office in Mills, Wyoming. This office collects and analyzes information daily and makes the decisions necessary for successful operation of the System. The continuous 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 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). The AOP is prepared in December of each year, following the plan's review and necessary public meetings.

AOPs are prepared for reasonable maximum and reasonable minimum conditions of water supply and requirements as well as for the most probable runoff conditions. The System is operated to optimize the most probable water supply and still allow changes in operation should either reasonable maximum or reasonable minimum water supply conditions occur. This flexibility is the basis of the plan. Reclamation makes use of computer programs to revise and adjust the AOP each month to reflect changing conditions. A computerized process of forecasting the anticipated water supply also aids the revision process during late winter and early spring.

WATER YEAR 1993 OPERATIONS

Seminoe Reservoir

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 acre-feet. The powerplant contains three electrical generating units with a total installed capacity of 51 MW at a full release capability of about 4,000 c.f.s. 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 c.f.s. Two 60 inch jet flow valves provide a low level river outlet flow capacity of 3,450 c.f.s.

Seminoe Reservoir storage at the beginning of water year 1993, totaled 276,134 acre-feet, which was 39 percent of average. Release of water continued during the winter to generate power while maintaining the minimum required fishery flow of 500 c.f.s. in the Miracle Mile reach of the North Platte River. Because of the short water supply, the Seminoe and Kortes releases into the Miracle Mile were kept to the minimum of 500 c.f.s. from October through April. October through January inflow to Seminoe was 73 percent of average. Reservoir storage at the end of January was 227,629 acre-feet.

October through January precipitation on the Seminoe watershed was recorded at 109 percent of average. Precipitation each month was near or above average except for January which was 83 percent of average. Snow-water content within the Seminoe watershed was 95 percent of average at the end of January.

February precipitation in the Seminoe watershed was 166 percent of average, however, inflow was below average at 81 percent. Snow-water accumulation within the Seminoe watershed was 105 percent of average at the end of February.

March precipitation was 97 percent of average in the Seminoe watershed while the March inflow improved to 105 percent of average. April 1 snow-water content reached 102 percent of the average at 20.8 inches.

Precipitation was above average throughout the Basin during April, with the watershed above Seminoe at 159 percent of average. April inflow to Seminoe dropped to 84 percent of average. Seminoe Reservoir was at its lowest end of April content since 1982. The May 1 snow water content was 128 percent of average at 25.9 inches. Water in storage for use by the Kendrick Project was the lowest end of April content since 1970.

Precipitation within the Seminoe watershed remained above average in May at 121 percent. May inflows increased to 128 percent of average with turbine releases averaging 798 c.f.s. for the month.

June precipitation above Seminoe continued to be high at 152 percent of average and the Seminoe inflow likewise remained high at 118 percent of average. The daily inflow for June averaged about 6,080 c.f.s. Turbine releases were increased for June and averaged 2,064 c.f.s. for the month.

July turbine releases averaged 2,311 c.f.s. Total April-July inflow volume from the Seminoe watershed was 872,420 acre-feet, which was 114 percent of average. Precipitation decreased considerably in July resulting in only 28 percent of average.

Turbine releases during August averaged 2,401 c.f.s. Precipitation increased in August to 108 percent of average. The August inflows remained high at 105 percent of average.

Precipitation was good in September at 142 percent of average, inflow remained high at 119 percent of average, and turbine releases were decreased to approximately 848 c.f.s.

Gross generation for the water year at the Seminoe Powerplant totaled 79,900,000 kilo-watt hours (KWH); this was 56 percent of average.

The end of water year Seminoe reservoir storage of 608,884 acrefeet was 90,916 acre-feet below average and 332,750 acre-feet higher than the reservoir storage at the end of water year 1992. This was the highest end of September storage since 1988. The Kendrick Project ended September with the smallest amount of water in storage since 1970.

Kortes Reservoir

Completed in 1951, Kortes Dam, Reservoir, and Powerplant of the Kortes Unit (A Pick-Sloan Missouri Basin Project) are located about 2 miles below Seminoe Dam. This 4,700 acre-foot Reservoir serves as the forebay for Kortes Powerplant which has three electrical generating units with a total installed capacity of 36 MW and a release capability of 2,910 c.f.s.

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

Gross generation for the water year totaled 122,100,000 KWH, which is 78 percent of average.

Pathfinder Reservoir

Pathfinder Dam and Reservoir, a major storage facility of the North Platte Project, has a total capacity of 1,016,507 acre-feet. Construction of the dam was completed in 1909. Operationally, this structure is a bottleneck in the System with its restricted release capability of less than 6,000 c.f.s. The two jetflow gates at the dam are capable of releasing 2,800 c.f.s., and depending on the elevation of the reservoir, as much as 2,900 c.f.s. can be released through the Fremont Canyon Power conduit and discharged from the Fremont Canyon turbines at the powerplant 3 miles downstream. The uncontrolled spillway is a flat-crested weir of natural rock over the left abutment of the dam. It has an estimated capacity of 65,000 c.f.s., at water surface elevation 5858.10 feet or 8 feet above the spillway crest. Fremont Canyon Powerplant, located in the canyon below Pathfinder Dam, has been reconditioned to a capacity of 66.8 MW under full reservoir operating head.

Upon entering water year 1993, storage in Pathfinder Reservoir was 182,604 acre-feet; which was 268,396 acre-feet below average.

There were no net gains to the river between Kortes and Pathfinder for the October-January period. Losses for this reach of the North Platte River during October, December, and January negated the inflows which did occur in November. Very little release of water was made from Pathfinder Reservoir during October to allow the drawdown of Alcova Reservoir to its winter operating level. Starting in November transfer of water to Glendo Reservoir for power generation and maintenance of river flows averaged approximately 500 c.f.s. through February. Winter (October through February) release of water from Pathfinder Reservoir for restorage in Glendo was the lowest since Glendo Reservoir was constructed in 1958 to provide for restorage of winter releases.

February 1 snow-water accumulation for the Sweetwater watershed was 92 percent of average. Precipitation within the watershed was 104 percent of average during the October-January period, with the January precipitation at 83 percent of average.

Precipitation in the Sweetwater watershed during February was 73 percent of average. River gains which had been well below average during fall and early winter rose to 119 percent of average for February. March 1 snow-water content was 89 percent of average.

March precipitation remained below average at 65 percent. River gains below Kortes were 101 percent of average for March. There were no bypass releases for the month of March and turbine releases averaged 504 c.f.s. April 1 snow-water content for the Sweetwater watershed was 84 percent of average.

April precipitation improved to 112 percent of average for the Sweetwater watershed and river gains below Kortes decreased to 77

percent of average for April. The snow-water content on May 1, was 106 percent of average.

May precipitation remained good at 106 percent of average and river gains below Kortes, including the Sweetwater River inflows, continued below normal at 80 percent of average.

June precipitation was very good with the watershed receiving over 3 inches or 237 percent of average. Kortes to Pathfinder river gains improved to above average for June at 111 percent. June water releases through the Fremont Canyon Powerplant turbines averaged 1,395 c.f.s. with no bypass release of water for the month.

The Sweetwater watershed precipitation again was above average at 136 percent for the month of July. River gains between Kortes and Pathfinder decreased to 81 percent of average for July. Fremont Canyon Powerplant turbine releases for July increased to 2,592 c.f.s.

Kortes to Pathfinder river gains increased for the month of August to 128 percent of average. Precipitation remained above average for August at 190 percent for the watershed. August releases averaged 2,477 c.f.s. through the Fremont Canyon Powerplant turbines.

September precipitation was 85 percent of average. Kortes to Pathfinder river gains were 87 percent of average for September. September turbine releases averaged 689 c.f.s.

The maximum Pathfinder content for the water year was reached on September 28, 1993, at 307,207 acre-feet.

The water year ended with 305,549 acre-feet of water in storage in Pathfinder Reservoir, which is 68 percent of average. This end of September storage is 122,945 acre-feet higher than the previous year and the highest end of year storage since 1988.

Generation for the year by the Fremont Canyon Powerplant totaled 177,000,000 KWH, which was 69 percent of average.

Alcova and Gray Reef Reservoirs

Alcova Dam and Reservoir are 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 of Pathfinder Dam, was completed in 1938. Reservoir storage capacity is about 184,400 acre-feet, of which only the top 30,600 acre-feet 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 c.f.s. The spillway is a concrete lined open channel in the left abutement of the dam controlled by three 25 by 40 foot gates with a capacity of 55,000 c.f.s. at 5,500 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 October 1, 1992. The reservoir water surface elevation was lowered below 5,489.00 feet on October 25, bringing it within the winter operating range of 5488 ± 1 foot, where it remained until April 1, 1993 when the refill of Alcova Reservoir was initiated.

The water surface elevation was raised above 5,497 feet on April 25, and the Reservoir was maintained within 1 foot of elevation 5,498 throughout the summer.

Kendrick Project irrigation deliveries from Alcova Reservoir to the Casper Canal, were 76 percent of average during the May-September period. The Kendrick Project ownership account contained 573,291 acre-feet on October 1, 1992, which was the greatest amount for the water year. This was 628,387 acre-feet below maximum allowable ownership storage. No water accrued to the Kendrick Project ownership which contained 482,018 acre-feet of water at the end of the water year, and was 719,660 acre-feet less than the maximum allowable ownership storage. This was less water than the Kendrick Project ownership account has contained since the end of water year 1970.

Alcova Powerplant generated 81,600,000 KWH of energy during water year 1993. This was below average by 47,700,000 KWH.

Gray Reef Dam and Reservoir are part of the Glendo Unit, Oregon Trail Division, Pick-Sloan Missouri Basin Program. The dam is a three-zoned rock and earthfill structure located about 2.5 miles below Alcova Dam and was completed in 1961. The Reservoir has an active capacity of 1,744 acre-feet. Gray Reef Dam was constructed to provide a small reservoir to re-regulate releases from Alcova Dam. Re-regulation is required to provide flows acceptable to irrigation, municipal, industrial, and fish and wildlife interests along the 147 miles of river between Alcova and Glendo Dams.

The Gray Reef release was maintained near 500 c.f.s. from October 1, 1992, through May 21, 1993. Releases for the remainder of the water year were adjusted to meet irrigation demands below Guernsey Reservoir. The largest normal release for the water year of 2,567 c.f.s. occurred on August 15. A one time high flow of 4,000 c.f.s. was provided by Reclamation for several hours on July 15 in cooperation with a University of Wyoming study of the effects of

high flow on trout spawning gravel beds. After September 8, the Gray Reef releases were again maintained near 500 c.f.s.

Glendo Reservoir

Glendo Dam and Reservoir is the only storage facility for the Glendo Unit. The Reservoir has a storage capacity of 789,400 acre-feet, including 271,900 acre-feet allocated to flood control. Glendo Powerplant consists of 2 electrical generating units, with a total installed capacity of 38 MW at the full release capability of 3,400 c.f.s. The river outlet capacity is 6,600 c.f.s. when the powerplant is operating. If the powerplant is not operating, 13,000 c.f.s. can be released through the river outlet. The uncontrolled spillway, located on the right abutment, has a crest elevation of 4653.00 feet and discharge capacity of about 10,000 c.f.s. at approximately 4669.0 feet.

On March 24, the newly constructed outlet works at the Dam was tested and accepted. The outlet works consists of a 30 inch pipe through the right abutment of the Dam near the spillway. A butterfly valve controls the release of water. The outlet was constructed to provide year round flow below Glendo Dam for fishery purposes. Once tested, the release was set at 25 c.f.s. and was maintained at that rate for the remainder of the water year.

Reservoir storage of 74,670 acre-feet at the beginning of the water year was 7,430 acre-feet below average. Precipitation in the Glendo watershed was above normal for the winter months at 113 percent of average. Winter (October-January) gains to the river between Alcova Dam and Glendo Reservoir were 99 percent of average. Glendo Reservoir contained 246,440 acre-feet of water at the end of January, the 2nd lowest content for that time of year since the first year of operation. The year with the lowest end of January content was 1991 at 234,400 acre-feet. Snowpack water content in this part of the Basin was 124% of average on February 1.

February precipitation was well above average. The Douglas, Wyoming, weather station reached the highest February precipitation in 83 years of record. The Glendo, Wyoming, weather station recorded the highest February precipitation in 34 years.

Precipitation decreased considerably in March to 58 percent of average, however, inflow for the month was 125 percent of average. The snowpack accumulation for the month raised the snowpack water content to 99 percent of average on April 1. Water releases from Glendo Reservoir were initiated on April 15, in order to transfer water to Guernsey Reservoir for later release to the Inland Lakes. Snow water content was 174 percent of average on May 1.

May brought a decrease to 83 percent of normal precipitation, however inflow remained good at 107 percent of average.

Rainfall in June was well above normal at 200 percent of average, with the Douglas weather station recording the 3rd highest June precipitation in the last 30 years. The June inflow also was well above normal at 186 percent of average.

The Reservoir reached a maximum storage for the year of 448,145 acre-feet (elevation 4632.56 feet) on June 27.

Precipitation was above normal for August at 112 percent. The Alcova to Glendo river gains were above average at 142 percent for August and remained high at 135 percent of average for September. Likewise, precipitation was just above average for September at 108 percent.

At the end of the water year, Glendo Reservoir contained 121,163 acre-feet of water (water surface elevation 4585.22 feet). This was the highest end of September content since 1986 at 147 percent of average.

A total of 768,387 acre-feet of water was released through Glendo Powerplant resulting in gross generation of 72,800,000 KWH for the year. This was 13,400,000 KWH below average. A total of 116,939 acre-feet of water bypassed the Glendo turbines during the year. Of this amount, approximately 9,300 acre-feet of water was released through the new Glendo Dam outlet at the rate of 25 c.f.s., the remainder was seepage or irrigation release.

Guernsey Reservoir

The Reservoir, located about 25 miles below Glendo Dam, again stores and re-regulates 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 c.f.s. The windings of both units have been replaced resulting in the rating of 3.2 MW per unit and overhaul of the turbines is now being completed. The North gate, with a capacity of 50,000 c.f.s. at 4,420 feet, is utilized for irrigation releases to supplement the maximum powerplant releases. The original capacity of the Reservoir was 73,800 acrefeet, but this has been greatly reduced by deposition of silt. Utilizing data from the 1980 Sedimentation Survey of Guernsey Reservoir, the March 1982 capacity tables show about 45,600 acrefeet of available storage.

Guernsey Reservoir storage of 2,576 acre-feet at the beginning of water year 1993 was about 9,524 acre-feet below average. No water was released in October this year for transfer to the Inland Lakes in Nebraska. Storage of water totaled 4,841 acre-feet at the end of the month.

October through January gains to the river between Glendo and Guernsey Dams were below average at 68 percent. Winter precipitation in the Guernsey watershed was near average overall with less than normal moisture in October and greater than normal moisture in December. River gains between Glendo and Guernsey Dams were only 54 percent of average in February, however, there were many days of precipitation in February, ending the month with 1.76 inches compared to the average of .35 inches. The Glendo, Wyoming, weather station recorded the highest February precipitation of record in 34 years and the Guernsey, Wyoming, weather station recorded the highest February precipitation in 47 years.

A net gain of 3,300 acre-feet of water entered the river between Glendo and Guernsey Dams during March, an amount significantly above the average of 500 acre-feet. Precipitation for March decreased substantially in March with only .51 inches reported, which is 65 percent of average.

Guernsey Reservoir releases were started on April 18 to transfer water to the Inland Lakes. Gains to the river between Glendo and Guernsey in April, at 5,800 acre-feet, were well above average at 157 percent. Precipitation for the month was greatly improved at 2.13 inches for the watershed which is 121 percent of average.

The Glendo to Guernsey river gains decreased to 67 percent of average for May. Precipitation for May was 45 percent of average.

Transfer of water to the Inland Lakes was completed on May 11, but Guernsey releases were continued to deliver irrigation water.

June produced several days of rainfall in the Guernsey watershed resulting in the precipitation of 3.86 inches which was 162 percent of average for the month. The precipitation was reflected in gains to the river between Glendo and Guernsey, which was 159 percent of average for the month. Rainfall in early June reduced demand for irrigation water and Guernsey releases were stopped on June 6. Water deliveries from Guernsey were resumed on June 20, when the storage content was 44,313 acre-feet. Water releases were increased as necessary for the remainder of June as the various canals began taking water.

The annual "silt run" from the Reservoir was initiated on July 13 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 of 797 acrefeet occurred on July 23. Following the "silt run," the Reservoir was refilled to 34,926 acre-feet on July 31.

August gains between Glendo and Guernsey Dams of 1,600 acre-feet were 84 percent of average. Precipitation for the Guernsey

watershed was 1.75 inches which is 168 percent of average for the month.

The Glendo to Guernsey river gain in September was 6,400 acre-feet, which is 112 percent of average. Precipitation for the Guernsey watershed was 134 percent of average for September.

Guernsey Reservoir contained 6,151 acre-feet at the end of the irrigation season, September 30.

Gross generation for the water year totaled 10,800,000 KWH, which is 45 percent of average.

1993 Ownerships

At the end of water year 1993, the North Platte Project ownership (includes North Platte Pathfinder and North Platte Guernsey), contained 572,145 acre-feet of water which is 140 percent of average; the Kendrick ownership contained 482,018 acre-feet of water, which is 55 percent of average and the Glendo ownership contained 167,061 acre-feet of water, which is 121 percent of average.

Net evaporation charged to the Glendo Ownership Account during water year 1993 was 5,709 acre-feet which left a balance of 14,381 acre-feet remaining of the 20,090 acre-feet which were accrued to the evaporation account in 1993. The power pool contained 63,148 acre-feet and there was 89,532 acre-feet of water available for irrigation at the end of the year.

The total amount of water reported as belonging to the North Platte Project at the end of water year 1993, does not include water remaining in the four Inland Lakes in Nebraska. It should be noted 38,504 acre-feet of water remained in the lakes which is available for use in 1994, in addition to the 572,145 acre-feet of water in the mainstem reservoirs.

Flood Benefits

The Corps of Engineers, Omaha District, estimates that in Water Year 1993 flood damages of \$6,726,800 were prevented in Wyoming and Nebraska because of the existence of dams in the System. Guernsey Dam was the only North Platte River dam to which flood benefits were not assigned for the year. (Table 1) Since construction, the System has prevented flood damages totaling \$56,279,700.

PROPOSED UNIT MAINTENANCE SCHEDULE NORTH PLATTE RIVER SYSTEM OCTOBER 1993 THROUGH SEPTEMBER 1994

FACILITY AND UNIT NO.	SCHEDULED PERIOD	DESCRIPTION OF WORK
Kortes Unit #1	10-01-93 thru 11-17-93	Minor inspection and points check
Fremont Unit #1	10-04-93 thru 12-15-93	Minor inspection and other work as required
Glendo Unit #2	10-04-93 thru 02-11-94	Paint transformer KY1A
Guernsey Unit #2	10-04-93 thru 04-01-94	Turbine overhaul
Glendo Unit #1	11-01-93 thru 12-17-93	Annual inspection and maintenance
Kortes Unit #2	11-22-93 thru 02-16-94	Major inspection including cavitation repair
Fremont Unit #2	12-20-93 thru 03-02-94	Minor Inspection and other work as required
Seminoe Unit #1	01-10-94 thru 03-09-94	Major inspection including cavitation repair
Alcova Unit #1	01-18-94 thru 03-02-94	Minor inspection and other work as required
Kortes Unit #3	02-22-94 thru 04-20-94	Minor inspection and points check
Alcova Unit #2	03-07-94 thru 04-20-94	Minor inspection and other work as required
Seminoe Unit #2	03-14-94 thru 03-30-94	Minor inspection and points check
Seminoe Unit #3	04-04-94 thru 04-20-94	Minor inspection and points check

NORTH PLATTE RIVER BASIN PRECIPITATION BY WATERSHED

		INOE RSHED		INDER RSHED		NDO RSHED	GUERNSEY WATERSHED		
	Precip in	Percent of	Precip in	Percent of	Precip in	Percent of	Precip in	Percent of	
Month	Inches	Average	Inches	Average	Inches	Average	Inches	Average	
October	1.04	98	.38	37	.62	70	.41	48	
November	.85	99	1.50	192	.84	135	.59	107	
December	1.21	157	1.01	129	.82	174	.88	226	
January	.55	83	.78	83	.40	95	.36	109	
February	1.06	166	.44	73	1.03	224	1.76	503	
March	.91	97	.68	65	.46	5 8	.51	65	
April	1.88	159	1.75	112	2.37	157	2.13	121	
May	1.80	121	2.16	106	1.80	83	1.10	45	
June	1.78	152	3.03	237	3.14	200	3.86	162	
July	.37	28	1.22	136	.99	82	1.23	72	
August	1.25	108	1.27	190	.92	112	1.75	168	
September	1.51	142	.80	85	1.03	108	1.58	134	
Water Year	14.21	116	15.02	120	14.40	121	16.16	117	

APPENDIX A - TABLES

Accumulated

Total

\$13,205,500

\$5,328,100

FLOOD DAMAGE PREVENTED BY DAMS IN THE NORTH PLATTE RIVER SYSTEM 1/

Prior to

1993

\$10,032,600

\$4,792,200

Water year

1993

\$3,172,900

\$535,900

Dam

Seminoe

Pathfinder

Alcova	\$16,500	\$209,700	\$226,200
Glendo	\$3,001,500	\$34,079,400	\$37,080,900
Guernsey	0	<u>\$439,000</u>	\$439,000
Total	\$6,726,800	\$49,552,900	\$56,279,700
		my Corps of Engineer's (

through 1993 except for Glendo Dam which is 1965 through 1993.

HYDROLOGY OPERATIONS

Seminoe Reservoir Op	erati	ons		Initial	Content	276.1	Kaf							
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Total Inflow	kaf	15.7	22.3	20.6	23.8	22.2	54.3	91.8	300.1	362.0	118.6	41.3	26.5	1099.2
Total Inflow	cfs	255.	375.	335.	387.	400.	883.	1543.	4880.	6084.	1929.	672.	445.	
urbine Release	kaf	32.3	31.0	31.8	31.9	28.9	32.0	31.0	49.1	98.3	69.6	74.9	50.3	561.1
etflow Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.6	72.4	72.9	0.3	170.2
pillway 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	0.0
otal Release	kaf	32.3 525.	31.0 521.	31.8 517.	31.9 519.	28.9 520.	32.0 520.	31.0 521.	49.1	122.9 2065.	142.0	147.8	50.6 850.	731.3
vaponation	kaf	1.7	1.2	0.6	0.4	0.3	0.9	1.3	3.8	5.2	8.6	6.2	4.9	35.1
vaporation ind-month content	kaf	257.8	247.9	236.1	227.6	220.6	242.0	301.5	548.7	782.6	750.6	637.9	608.9	33.
nd-month elevation	ft	6297.4	6296.0	6294.2	6293.0	6291.9	6295.1	6303.2	6327.9	6344.2	6342.2	6334.7	6332.6	
Generation	gwh	3.8	3.8	3.9	3.8	3.3	3.6	3.5	6.5	15.4	12.1	12.2	8.0	79.9
Cortes Reservoir Ope	eratio	ons		Initial	Content	4.7	Kaf							
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Cabal Indian	le- f		71.0	71.0	71.0	20.0	72.0		•	122.0	1/2.0	1/7 9		771 7
Total Inflow	kaf	32.3	31.0	31.8	31.9	28.9	32.0	31.0	49.1	122.9	142.0	147.8	50.6	731.3
Turbine Release	kaf	32.2	31.0	31.8	31.9	28.9	32.0	31.0	49.1	122.9	142.1	147.6	50.4	730.9
Spillway Release	kaf	32.2	31.0	31.8	31.9	28.9	32.0	31.0	49.1	122.9	142.1	147.6	50.4	730.9
otal Release	kaf	524.	521.	517.	519.	520.	520.	521.	799.	2065.	2311.	2400.	847.	130.7
otal Release Generation	cfs	5.3	5.2	5.5	5.4	4.6	5.0	4.9	8.0	21.0	24.0	24.6	8.6	122.1
athfinder Reservoi	Oper	ations		Initial	Content	182.6	Kaf							
			Nov	Dec	lon	Feb	Mar	App	May	lun	Jul	Aug	Son	Total
		Oct			Jan			Apr		Jun			эер	Total
Sweetwater Inflow	kaf	2.5	3.3	2.7	3.4	3.1	5.7	9.8	25.9	28.5	9.0	5.4	3.7	103.0
Cortes-Path Gain	kaf	-4.1	-2.6	-3.5	-3.5	0.0	3.7	6.3	3.8	6.5	3.8	8.4	1.0	19.
nflow from Kortes	kaf	32.2	31.0	31.8	31.9	28.9	32.0	31.0	49.1	122.9	142.1	147.6	50.4	730.
otal Inflow	kaf	30.6	31.7	31.0	31.8	32.0	41.4	47.1	78.8	157.9	154.9	161.4	55.1	853.
otal Inflow	cfs	498.	533.	504.	517.	576.	673.	792.	1282.	2654.	2519.	2625.	926.	
urbine Release	kaf	8.4	29.3	31.4	30.7	27.9	31.0	52.8	62.6	83.0	159.4	152.3	41.0	709.
etflow 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	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	0.0
otal Release	kaf	8.4 137.	29.3	31.4 511.	30.7 499.	27.9 502.	31.0 504.	52.8 887.	62.6	83.0 1395.	159.4 2592.	152.3 2477.	41.0 689.	709.8
vaporation	kaf	1.5	1.0	0.7	0.3	0.2	0.9	1.1	2.0	2.7	4.0	3.7	2.9	21.
vaporation ind-month content	kaf	203.3	204.7	203.6	204.4	208.3	217.8	211.0	225.2	297.4	288.9	294.3	305.5	۵۱.
ind-month elevation	ft		5787.0	5786.9	5787.0	5787.6	5789.1	5788.0	5790.2	5800.0	5799.0	5799.6	5801.0	
eneration Fremont	gwh	3.1	8.3	9.5	9.1	7.1	7.5	13.0	14.7	19.6	38.2	36.3	10.6	177.
lcova Reservoir Ope	eratio	ons		Initial	Content	180.7	Kaf							
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Tota
Total Inflow	kaf	8.4	29.3	31.4	30.7	27.9	31.0	52.8	62.6	83.0	159.4	152.3	41.0	709.
Total Inflow	cfs	137.	492.	511.	499.	502.	504.	887.	1018.	1395.	2592.	2477.	689.	
urbine Release	kaf	31.7	29.9	30.7	, 30.9	27.9	30.7	29.4	52.7	72.8	136.1	136.0	32.6	641.
pillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	3.
asper Canal Releas		0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	10.4	20.3	15.5	7.8	57.
otal Release	kaf	31.7	29.9	30.7	30.9	27.9	30.7	29.4	60.1	83.2	156.4	151.5	40.4	702.
otal Release	cfs	516.	502.	499.	502.	502.	499.	494.	977.	1398.	2544.	2464.	679.	
Evaporation	kaf	0.6	0.3	0.3	0.0	0.1	0.3	0.4	0.8	0.8	1.3	1.2	0.8	6.
End-month content	kaf	156.8	155.9	156.3	156.1	156.0	156.0	179.0	180.7	179.7	181.4	181.0	180.8	
ind-month elevation	ft				5488.0	5488.0	5488.0			5498.1	5498.8	5498.6	5498.5	
Generation	gwh	4.2	3.6	3.9	3.9	2.9	3.4	3.7	7.1	9.5	17.3	17.7	4.4	81.

NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1992

Table 2

Page 2 of 4

Gray Reef Reservoir	0pera	tions		Initial	Content	1.5	Kaf							
		0ct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Total Inflow	kaf	31.7	29.9	30.7	30.9	27.9	30.7	29.4	56.4	72.8	136.1	136.0	32.6	645.1
Total Inflow	cfs	516.	502.	499.	502.	502.	499.	494.	917.	1223.	2213.	2212.	548.	043.1
Total Release	kaf	31.7	29.9	30.7	30.9	27.9	30.8	29.6	56.0	73.6	135.2	136.1	32.8	645.2
Total Release	cfs	516.	502.	499.	502.	502.	501.	497.	911.	1237.	2199.	2213.	551.	043.2
Glendo Reservoir Ope	eratio	ons		Initial	Content	74.7	Kaf							
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Alcova-Glendo Gain	kaf	16.8	10.7	10.0	15.7	10.6	27.3	50.6	90.9	61.5	-2.0	1.9	15.8	309.8
Infl from Gray Reef	kaf	31.7	29.9	30.7	30.9	27.9	30.8	29.6	56.0	73.6	135.2	136.1	32.8	645.2
Total Inflow	kaf	48.5	40.6	40.7	46.6	38.5	58.1	80.2	146.9	135.1	133.2	138.0	48.6	955.0
Total Inflow	cfs	789.	682.	662.	758.	693.	945.	1348.	2389.	2270.	2166.	2244.	817.	,,,,,,
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	25.4	151.3	30.1	216.5	234.4	110.7	768.4
Low Flow Release	kaf	0.8	0.4	0.6	0.7	0.6	1.2	2.1	1.6	2.6	1.5	1.5	2.2	15.8
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	0.0
Irrigation Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0	26.2	0.0	101.2
Total Release	kaf	0.8	0.4	0.6	0.7	0.6	1.2	27.5	152.9	32.7	293.0	262.1	112.9	885.4
Total Release	cfs	13.	7.	10.	11.	11.	20.	462.	2487.	550.	4765.	4263.	1897.	00511
Evaporation	kaf	0.7	0.6	0.5	0.4	0.4	1.0	2.3	4.5	3.1	5.1	3.2	1.3	23.1
End-month content	kaf	121.7	161.3	200.9	246.4	283.9	339.8	390.2	379.7	479.0	314.1	186.8	121.2	
End-month elevation	ft	4585.3	4593.2	4599.8	4606.4	4611.3	4617.9	4623.4	4622.3	4631.8	4615.0	4597.6	4585.2	
Generation	gwh	0.0	0.0	0.0	0.0	0.0	0.0	2.3	15.6	3.5	23.1	20.4	7.9	72.8
Guernsey Reservoir (perat	ions		Initial	Content	2.6	Kaf							
		0ct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
011- 0 01														45.8
Glendo-Guerns Gain	kaf	2.0	1.5	1.3	0.9	0.7	3.3	5.8	8.5	12.7	1.1	1.6	6.4	42.0
Inflow from Glendo	kaf kaf	2.0 0.8	1.5 0.4	1.3 0.6	0.9 0.7	0.7 0.6	3.3 1.2	5.8 27.5	8.5 152.9	12.7 32.7	1.1 293.0	1.6 262.1	6.4 112.9	885.4
Inflow from Glendo	kaf	0.8	0.4	0.6	0.7	0.6	1.2	27.5	152.9	32.7	293.0	262.1	112.9	885.4
Inflow from Glendo Total Inflow	kaf kaf	0.8 2.8	0.4 1.9	0.6 1.9	0.7 1.6	0.6 1.3	1.2 4.5	27.5 33.3	152.9 161.4	32.7 45.4	293.0 294.1	262.1 263.7	112.9 119.3	885.4
Inflow from Glendo Total Inflow Total Inflow	kaf kaf cfs	0.8 2.8 46.	0.4 1.9 32.	0.6 1.9 31.	0.7 1.6 26.	0.6 1.3 23.	1.2 4.5 73.	27.5 33.3 560.	152.9 161.4 2625.	32.7 45.4 763.	293.0 294.1 4783.	262.1 263.7 4289.	112.9 119.3 2005.	885.4 931.2
Inflow from Glendo Total Inflow Total Inflow Turbine Release	kaf kaf cfs kaf	0.8 2.8 46.	0.4 1.9 32.	0.6 1.9 31.	0.7 1.6 26.	0.6 1.3 23.	1.2 4.5 73.	27.5 33.3 560.	152.9 161.4 2625.	32.7 45.4 763.	293.0 294.1 4783. 48.1	262.1 263.7 4289.	112.9 119.3 2005.	885.4 931.2
Inflow from Glendo Total Inflow Total Inflow Turbine Release Seepage	kaf kaf cfs kaf	0.8 2.8 46. 0.0 0.5	0.4 1.9 32. 0.0 0.1	0.6 1.9 31. 0.0 0.2	0.7 1.6 26. 0.0 0.2	0.6 1.3 23. 0.0 0.2	1.2 4.5 73. 0.0 0.3	27.5 33.3 560. 0.0 0.0	152.9 161.4 2625. 0.0 0.0	32.7 45.4 763. 0.4 0.0	293.0 294.1 4783. 48.1 0.0	262.1 263.7 4289. 63.0 0.0	112.9 119.3 2005. 59.6 0.0	885.4 931.2 171.1 1.5
Inflow from Glendo Total Inflow Total Inflow Turbine Release Seepage Spillway Release	kaf kaf cfs kaf kaf	0.8 2.8 46. 0.0 0.5 0.0	0.4 1.9 32. 0.0 0.1	0.6 1.9 31. 0.0 0.2 0.0	0.7 1.6 26. 0.0 0.2 0.0	0.6 1.3 23. 0.0 0.2 0.0	1.2 4.5 73. 0.0 0.3 0.0	27.5 33.3 560. 0.0 0.0 22.7	152.9 161.4 2625. 0.0 0.0 150.2	32.7 45.4 763. 0.4 0.0 45.2	293.0 294.1 4783. 48.1 0.0 245.2	262.1 263.7 4289. 63.0 0.0 199.8	112.9 119.3 2005. 59.6 0.0 88.2	885.4 931.2 171.1 1.5 751.3
Inflow from Glendo Total Inflow Total Inflow Turbine Release Seepage Spillway Release Total Release	kaf kaf cfs kaf kaf kaf	0.8 2.8 46. 0.0 0.5 0.0	0.4 1.9 32. 0.0 0.1 0.0	0.6 1.9 31. 0.0 0.2 0.0 0.2 3.	0.7 1.6 26. 0.0 0.2 0.0	0.6 1.3 23. 0.0 0.2 0.0 0.2	1.2 4.5 73. 0.0 0.3 0.0 0.3	27.5 33.3 560. 0.0 0.0 22.7 22.7	152.9 161.4 2625. 0.0 0.0 150.2 150.2 2443.	32.7 45.4 763. 0.4 0.0 45.2 45.6	293.0 294.1 4783. 48.1 0.0 245.2 293.3	262.1 263.7 4289. 63.0 0.0 199.8 262.8	112.9 119.3 2005. 59.6 0.0 88.2 147.8	885.4 931.2 171.1 1.5 751.3
Inflow from Glendo Total Inflow Total Inflow Turbine Release Seepage Spillway Release Total Release Total Release	kaf kaf cfs kaf kaf kaf cfs	0.8 2.8 46. 0.0 0.5 0.0 0.5 8.	0.4 1.9 32. 0.0 0.1 0.0 0.1 2.	0.6 1.9 31. 0.0 0.2 0.0 0.2 3.	0.7 1.6 26. 0.0 0.2 0.0 0.2 3.	0.6 1.3 23. 0.0 0.2 0.0 0.2 4.	1.2 4.5 73. 0.0 0.3 0.0 0.3 5.	27.5 33.3 560. 0.0 0.0 22.7 22.7 381.	152.9 161.4 2625. 0.0 0.0 150.2 150.2 2443.	32.7 45.4 763. 0.4 0.0 45.2 45.6 766.	293.0 294.1 4783. 48.1 0.0 245.2 293.3 4770.	262.1 263.7 4289. 63.0 0.0 199.8 262.8 4274.	112.9 119.3 2005. 59.6 0.0 88.2 147.8 2484.	885.4 931.2 171.1 1.5 751.3 923.9
Inflow from Glendo Total Inflow Total Inflow Turbine Release Seepage Spillway Release Total Release Total Release Evaporation	kaf kaf cfs kaf kaf kaf cfs	0.8 2.8 46. 0.0 0.5 0.0 0.5 8.	0.4 1.9 32. 0.0 0.1 0.0 0.1 2.	0.6 1.9 31. 0.0 0.2 0.0 0.2 3.	0.7 1.6 26. 0.0 0.2 0.0 0.2 3.	0.6 1.3 23. 0.0 0.2 0.0 0.2 4.	1.2 4.5 73. 0.0 0.3 0.0 0.3 5.	27.5 33.3 560. 0.0 0.0 22.7 22.7 381.	152.9 161.4 2625. 0.0 0.0 150.2 150.2 2443.	32.7 45.4 763. 0.4 0.0 45.2 45.6 766.	293.0 294.1 4783. 48.1 0.0 245.2 293.3 4770.	262.1 263.7 4289. 63.0 0.0 199.8 262.8 4274.	112.9 119.3 2005. 59.6 0.0 88.2 147.8 2484.	885.4 931.2 171.1 1.5 751.3 923.9

Initial Ownership 15.8 Kaf,

OWNERSHIP OPERATIONS

North Platte Pathfinder

		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Net Accrual	kaf	17.3	22.5	18.8	21.2	22.3	65.3	109.8	255.4	370.8	0.0	0.0	0.0	903.4
Evaporation	kaf	0.5	0.4	0.4	0.2	0.2	0.4	1.1	3.6	6.4	10.0	8.7	5.5	37.4
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.5	203.1	87.1	309.7
End-month Ownership	kaf	32.6	54.7	73.1	94.1	116.2	181.1	289.8	541.6	906.0	876.5	664.7	572.1	
North Platte Guernse	y			Initial	Ownersh	ip 0.0	Kaf,							
CARL STREET	764	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Net Accrual	kaf	0.0	0.0	11.7	17.0	12.8	4.4	0.8	0.6	0.5	0.0	0.0	0.0	47.8
Evaporation/Seepage	kaf	0.0	0.0	0.0	0.1	0.1	0.3	0.6	0.6	0.7	0.8	0.0	0.0	3.2
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.6	0.0	0.0	44.6
End-month Ownership	kaf	0.0	0.0	11.7	28.6	41.3	45.4	45.6	45.6	45.4	0.0	0.0	0.0	
Inland Lakes				Initial	Ownersh	ip 0.0	Kaf,							
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
No.	had	4/ 5	11 /	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	0.0	// 5
Net Accrual	kaf	14.5	11.4	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	46.5
Evaporation/Seepage	kaf	0.1	0.0	0.0	0.0	0.0	0.0	25.0	20.8	0.0	0.0	0.0	0.0	45.
Trnsfr fm Ownership End-month Ownership	kaf kaf	14.4	25.7	25.6	25.6	25.5	25.5	20.8	0.0	0.0	0.0	0.0	0.0	45.0
Kendrick				Initial	Ouperch	ip 573.5	Vof							
				Iniciac	OWITET SIT	ip 3/3.3	Nai,							
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
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	0.0
Evaporation	kaf	3.1	1.6	1.6	0.6	0.5	1.7	2.0	4.4	3.8	5.8	4.7	4.0	33.8
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	10.4	20.3	15.5	7.8	57.7
End-month Ownership	kaf	570.4	568.8	567.2	566.6	566.1	564.4	562.4	554.3	540.1	514.0	493.8	482.0	
Glendo Unit				Initial	Ownersh	ip 130.4	Kaf,							
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	20.3	31.8	8.3	0.2	0.0	0.0	0.0	60.6
Evaporation	kaf	1.0	0.4	0.4	0.3	0.2	0.2	1.5	1.7	0.4	2.1	2.2	1.2	11.6
Deliv fm Ownership	kaf	1.3	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.7	8.3	12.3
End-month Ownership	kaf	128.1	127.7	126.7	126.4	126.2	146.3	176.6	183.2	183.0	180.5	176.6	167.1	
Excess to Ownership				Initial	Ownersh	ip 0.7	Kaf,							
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	2.1	2.4	40.7	57.5	0.0	0.0	0.0	102.7
Evaporation/Seepage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.9	0.7	0.0	0.0	2.3
End-month total	kaf	0.7	0.7	0.7	0.7	0.7	2.8	5.1	45.2	101.8	0.0	0.0	0.0	

Year	Beginning	Oct	1992

NORTH PLATTE RIVER OPERATING PLAN

IRRIGATION DELIVERY		

Kendrick (Casper Canal)	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	

0.0

0.0

0.0

0.0

0.2

0.2

0.0

0.0

3.0

3.0

0.5

0.5

kaf

kaf

kaf

kaf kaf

kaf

0.0

0.0

0.0

0.0

0.1

0.1

North Platte Reg *

Inland Lakes Reg *

Total Requirement *

Release

Glendo Rea *

Seepage

Actual

Kendrick (Casper	Canal)	Oct	Nov	Dec		Apr	May	
Requirement *	kaf	0.0	0.0	0.0	0.0	0.0	15.0	

0.0

0.0

0.0

0.0

0.2

0.2

* Requirements are Bureau of Reclamation estimates of water use under most probable runoff conditions.

May

Jul

18.0

6.0

0.0

0.0

311.0

293.3

Jun

17.0

2.0

0.0

127.0

0.0

45.6

Table 2

Aug

17.0

8.0

0.0

0.0

303.0

262.8

Page 4 of 4

Total

74.0

28.0

43.0

1.5

923.9

1081.0

Sep

7.0

175.0

12.0

0.0

187.0

147.8

0.0

0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.7 10.4 20.3 15.5 7.8 57.7 Delivered kaf Guernsey Deliveries Nov Dec Jan Feb Mar Apr May Jun Jul Total Oct Aug Sep 110.0 125.0 305.0 295.0 1010.0

0.0

0.0

0.0

0.0

0.0

0.3

0.0

0.0

40.0

40.0

0.0

22.7

0.0

0.0

0.0

110.0

150.2

0.0

0.0

0.0

0.0

0.2

0.2

TOTAL

TABLE 4

	SUMMART UP	NORTH P	LATTE KIVE	EK STSTEM	OWNERSHIP	S FUR WA	IER TEAR	1993 (ACK	(E-FEET)	
NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

655⁵

532⁵

DELIVERY 1	0	0	0	0	0	0	0	0	0	19471	203141	87059	309650
OWNERSHIP ² 15814	32587	54674	73061	94100	116195	181146	289774	541632	905982	876493	664715	572124	
KENDRICK OWNERSHIP													
ACCRUAL	0	0	0	0	0	0	0	0	0	0	0	0	0
EVAPORATION	3051	1634	1563	578	518	1675	1997	4429	3831	5754	4712	3882	33624
DELIVERY 1	0	0	0	0	0	0	0	3735	10378	20322	15540	7854	57829
OWNERSHIP 573471	570420	568786	567223	566645	566127	564452	562455	554291	540082	514006	493754	482018	
GLENDO OWNERSHIP													
ACCRUAL	0	0	0	0	0	20353	29470	10678 ³	216 ³	0	0	0	60717
EVAPORATION	1071	403	455	218	238	219	1561	1680	472	2070	2240	1143	11770
DELIVERY & LOSS 1	1287	0	564	0	0	0	0	0	11	401	1708	8348	12319
OWNERSHIP 130433	128075	127672	126653	126435	126197	146331	174240	183238	182971	180521	176573	167082	

800⁵

MONTHS

ACCRUAL

EVAPORATION

SEP

PATHFINDER OWNERSHIP

PACIFIC POWER & LIGHT

GUERNSEY OWNERSHIP

ACCRUAL

DELIVERY 1

INSTORAGE

ACCRUAL

DELIVERY

OWNERSHIP

EVAPORATION

EVAPORATION

OCT

SUMMARY OF NORTH PLATTE STORAGE OWNERSHIP FOR WATER YEAR 1993 (ACRE-FEET)

MONTHS	SEP.	ОСТ	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL	
INLAND LAKES	S OWNERS	HIP													
ACCRUAL EVAPORATION		14450 87	11464 92	0 111	0 44	0 41	0 65	20627 233	0 34	0	0	0	0	46541 707	
OWNERSHIP ²	0	14363	25735	25624	25580	25539	25474	20854	0	0	0	0	0	707	
TRANSFER		0	0	0	0	0	0	22425	20820	0	0	0	0	43245	
CITY OF CHE	YENNE														
ACCRUAL EVAPORATION		985	765 6	1143 10	2087	1264	1098 25	1302 39	35 83	563	3089 23	1071 29	1119 37	14521 268	
DELIVERY OWNERSHIP	1449	0 2425	0 3184	0 4317	0 6402	0 7664	0 8737	0 10000	5865 4087	4289 358	458 2966	0 4008	0 5090	10612	
EXCESS WATER	R														
ACCRUAL		0	0	0	0	0	2124	2396	40687	57543	0	0	0	102750	
EVAPORATION	710	17	4	4	1	1	12	62	573	960 101826	695	0	0	2329	
OWNERSHIP RELEASED	710	693 0	689 0	685 0	684 0	683 0	2795 0	5129 0	45243 0	0	101131	0	0	101131	

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

2/ In water year 1992, 2589 acre feet of Pathfinder ownership water was transferred to the Inland Lakes account. This water was returned to Pathfinder ownership on April 16, 1993 after the Inland Lakes account filled. The 2589 acre feet are not reflected in Pathfinder ownership until April when the transfer occurred. The 2589 acre feet is included in the Inland Lakes ownership for the months of October through March.

3/ In accordance with 1993 North Platte River Ownership and Natural Flow Accounting Procedures, Glendo ownership was allowed to refill water lost to evaporation from excess until the first delivery from storage was made on June 25, 1993.

4/ Pacificorp purchases of 1251 acre feet in October and 561 acre feet in December under contract #2-07-60-W0803.

5/ In accordance with 1993 North Platte River Ownership and Natural Flow Accounting Procedures, Guernsey ownership was allowed to refill water lost to evaporation from excess until the first delivery from storage was made on June 25, 1993.

NORTH PLATTE RIVER

RESERVOIR DATA

Dead	Active	Total	Normal Minimum	(Data in Acre-Feet)
Storage ¹	Storage ²	Storage	Storage	Limitation on normal minimum storage
556	1,016,717	1,017,273	31,670	Minimum elevation for power generation
151	4,588	4,739	1,666	Minimum elevation for power generation
7	1,016,500	1,016,507	31,405	Minimum elevation for power generation
91	184,314	184,405	153,802	Minimum elevation for power generation
56	1,744	1,800	56	Lowest outlet elevation
11,033	506,452	517,485 ³	63,148	Minimum elevation for power generation
0	45,612	45,612	0	Lowest outlet elevation
11,894	2,775,927	2,787,821	281,747	
	556 151 7 91 56 11,033	Storage¹ Storage² 556 1,016,717 151 4,588 7 1,016,500 91 184,314 56 1,744 11,033 506,452 0 45,612	Storage¹ Storage² Storage 556 1,016,717 1,017,273 151 4,588 4,739 7 1,016,500 1,016,507 91 184,314 184,405 56 1,744 1,800 11,033 506,452 517,485³ 0 45,612 45,612	Dead Storage¹ Active Storage² Total Storage Minimum Storage 556 1,016,717 1,017,273 31,670 151 4,588 4,739 1,666 7 1,016,500 1,016,507 31,405 91 184,314 184,405 153,802 56 1,744 1,800 56 11,033 506,452 517,485³ 63,148 0 45,612 45,612 0

 $[\]underline{1}/\mathrm{Storage}$ capacity below elevation of lowest outlet $\underline{2}/\mathrm{Total}$ storage minus dead storage $\underline{3}/\mathrm{An}$ additional 271,917 acre-feet allocated to flood control

NORTH PLATTE RIVER POWERPLANT DATA

	118	Capacity	Total	Normal operating Head (Ft)	Output at rated	30 Year	Generation (GWH)		
Powerplant	Number of Units	each Unit (KW)	installed Capacity (KW)		Head (Ft ³ /s)	Average ¹ (GWH)	Percent of average ¹	Water Year (1993)	
Seminoe	3	17,000	51,000	97-227	4,050	142.3	56%	79.9	
Kortes	3	12,000	36,000	192-204	2,910	156.8	78%	122.1	
Fremont Canyon	2	33,400	66,800	247-363	3,080	255.7	69%	177.0	
Alcova	2	18,000	36,000	153-165	-165 4,100 129.3	63%	81.6		
Glendo	2	19,000	38,000	73-156	3,400	86.2	84%	72.8	
Guernsey	2	3,200	6,400	89-91	1,340	23.9	45%	10.8	
Total	14		234,200			794.2	69%	544.2	

1/1960-1989

APPENDIX B - EXHIBITS

ANNUAL OPERATING PLAN FOR WATER YEAR 1994

Three operation studies were developed for the System to establish an AOP for water year 1994. 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. Reservoir inflow during water year 1994 has a one-in-ten chance of being less than the reasonable minimum. Statistically, inflows in 1994 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 1994 are summarized numerically in tables 3A, 3B, and 3C and graphically in exhibits 2 through 9.

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 carryover storage in mainstem reservoirs (including Kortes and Gray Reef) on the North Platte River in Wyoming, totaled 1,228,314 acre-feet at the beginning of the water year. This amount was 86 percent of average.

MOST PROBABLE CONDITION - WATER YEAR 1994

Seminoe Reservoir

October through March -- Seminoe Reservoir storage of 608,884 acrefeet, at the beginning of the water year, was 90,900 acre-feet less than the 30-year average. Planned turbine releases from Seminoe Reservoir of 500 c.f.s. in October and November and 830 c.f.s. in December through March will lower reservoir storage to about 513,000 acre-feet by March 31, the lowest end of month level for the year. These releases are projected based on a statistically estimated Seminoe inflow for the October through March period of 173,500 acre-feet. A release of at least 500 c.f.s. is required to maintain the minimum flow in the Miracle Mile reach of the river.

April through September -- Turbine releases will average approximately 1,580 c.f.s. and 1,900 c.f.s. in April and May, respectively. The total release from the Reservoir during the

April to September period will be scheduled to provide storage space for the April-July inflow and meet downstream requirements and System power demands. With most probable inflow, storage will reach a maximum of 810,000 acre-feet by the end of June. Projected carryover storage of about 600,000 acre-feet at the end of the water year would be 86 percent of average.

Pathfinder Reservoir

October through March -- At the beginning of the water year, Pathfinder Reservoir storage was 305,549 acre-feet or 68 percent of the 1963-1992 average. Fremont Canyon Powerplant releases will be reduced during October to lower Alcova Reservoir water surface level to 5488.0 ± 1.0 foot, which is the range of the normal winter operation. After the Alcova drawdown, 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 acre-feet. Pathfinder Reservoir storage is projected to be about 372,700 acre-feet by the end of January and 420,400 acre-feet at the end of March.

April through September -- Pathfinder Reservoir storage will reach a maximum of about 497,400 acre-feet by the end of June and be drawn down to a storage content of about 399,200 acre-feet by the end of the water year. River gains between Kortes and Pathfinder Reservoirs, including the Sweetwater River, is estimated at about 87,400 acre-feet 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 level of 5498 ± 1 foot.

During May through September, Fremont Canyon power releases will be scheduled to meet downstream irrigation deliveries and maintain a storage content of 177,070 to 181,940 acre-feet (5498 ± 1 foot) in Alcova Reservoir. During May, water releases will average 2,250 c.f.s. In June, July, and August Fremont Canyon turbine releases are expected to average 2,600 c.f.s.

Alcova Reservoir

October through March -- During October, Alcova Reservoir will be drawn down to the normal winter storage content between 153,800 and 158,300 of acre-feet and will be maintained at that content through March. From October through March, releases will be maintained at approximately 500 c.f.s. for production of power, maintenance, fishery flows, pollution abatement, and transfer of water to Glendo Reservoir in preparation for meeting downstream irrigation demands during the coming irrigation season.

April through September -- During April, the Reservoir will be refilled to water surface elevation 5,498 feet (179,400 acre-feet). 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 74,000 acre-feet of water are scheduled to be delivered during the May-September period to meet Kendrick Project irrigation requirements. Releases from Alcova Reservoir will be re-regulated in Gray Reef Reservoir.

Grav Reef Reservoir

October through March -- the water releases from Gray Reef Dam will be maintained at approximately 500 c.f.s during this period. This will result in a winter river level similar to last year. These below average winter flows will provide more space in Glendo Reservoir which will be used to hold spring runoff which occurs below Pathfinder Dam. The 30-year average flow below Gray Reef ranges between 810 c.f.s. and 1,100 c.f.s. for the months of October through March.

April through September -- Releases from Gray Reef Reservoir will average about 500 c.f.s. in the month of April. The May through August releases will increase to 1990 to 2300 c.f.s. and will be decreased to approximately 2,040 c.f.s. in September as project irrigation water is moved downstream.

Glendo and Guernsey Reservoirs

October through January -- Carryover storage of 121,163 acre-feet in Glendo Reservoir on September 30 was 147 percent of average. With restorage of North Platte Project water released from Alcova and with North Platte River gains below Alcova Dam estimated to be near normal (48,600 acre-feet October through January), Glendo Reservoir storage will increase to about 281,300 acre-feet by the end of January.

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

Guernsey Reservoir contained 6,151 acre-feet of water at the start of water year 1994. 5,000 acre-feet of water will be transferred to the Inland Lakes during October. Natural inflow, as well as the low flow releases from Glendo Dam, will be stored during the winter which will increase storage to 14,500 acre-feet by January 31.

February through September -- Glendo Reservoir storage will increase to about 369,700 acre-feet by the end of March. During April and May releases from Glendo Reservoir will be scheduled to refill Guernsey Reservoir. Releases from Glendo Reservoir during

the April through September period will be based upon meeting a full irrigation demand of 1,056,000 acre-feet for the North Platte Project and 28,000 acre-feet for the Glendo Unit. Maximum Glendo Reservoir storage for the water year will be 442,000 acre-feet at the end of June. At this level, it would take approximately 75,485 acre-feet of water to fill the Reservoir to the flood pool elevation of 4635.0 ft.

Guernsey Reservoir content will be maintained near 35,000 acre-feet during mid-May through 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 is drawn down to about 1,000 acre-feet in July and refilled to about 35,000 acre-feet in August. During September, releases will be scheduled to complete Glendo drawdown to about 65,000 acre-feet and to lower Guernsey Reservoir to approximately 15,000 acre-feet, anticipating moving 10,000 acre-feet to the Inland Lakes in October.

Most Probable Condition Ownerships

At the close of water year 1994 the North Platte Project storage ownership is expected to be near 438,700 acre-feet (108 percent of average); the Kendrick Project storage ownership is expected to be near 684,200 acre-feet (78 percent of average) which is 517,500 acre-feet from filling. Almost 300,000 acre-feet will accrue to Kendrick Project storage in water year 1994 under most probable inflow conditions. Glendo storage ownership is expected to be near 136,800 acre-feet (99 percent of average) under most probable runoff conditions.

REASONABLE MINIMUM INFLOW CONDITION - WATER YEAR 1994

Seminoe Reservoir

October through March -- Water releases for this period under a reasonable minimum inflow condition would be 500 c.f.s. which is the minimum required flow in the Miracle Mile reach of the river. Under this condition inflows would be expected to be 152,500 acrefeet for the period, which is 21,000 acre-feet less than in the most probable condition. The March 31 reservoir content would be expected to be approximately 570,800 acre-feet under these conditions.

April through September -- Seminoe water releases will increase from approximately 1,240 c.f.s. in April to 2,600 c.f.s. in July in order to meet irrigation requirements and provide increased power production. The releases will be decreased in August and September to average approximately 2,480 c.f.s. and 1,400 c.f.s., respectively. Under these conditions the water year will end with a Seminoe reservoir content of 200,000 acre-feet (28 percent of

average). The maximum end of month content under these conditions will be approximately 570,000 acre-feet at the end of April.

Pathfinder Reservoir

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 Reservoir, including the Sweetwater River, are expected to be 29,900 acre-feet for the period. Pathfinder Reservoir storage will reach a maximum of about 350,300 acre-feet by the end of March. Fremont Canyon Powerplant releases for the period will be scheduled to maintain 156,000 acre-feet content in Alcova Reservoir.

April through September -- River gains between Kortes Dam and Pathfinder Reservoir, including the Sweetwater River, are estimated at about 42,500 acre-feet 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 level of $5498 \text{ ft} \pm 1 \text{ foot } (179,400 \text{ acre-feet})$ 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 179,400 acre-feet in Alcova Reservoir. Summer releases will increase to 3,670 c.f.s. during July and end the year with 2,270 c.f.s. during September. If reasonable minimum runoff develops, the reservoir content at the end of the water year will be about 132,000 acre-feet or 29 percent of average.

Alcova Reservoir

October through March -- Operation of Alcova Reservoir would be the same as under the most probable condition. Alcova Reservoir will remain at the normal winter operating level through March.

April through September -- During April, the Reservoir will be refilled to water surface elevation 5498 feet (179,400 acre-feet). This level will be maintained within \pm 1 foot to provide the necessary head for making irrigation deliveries to Casper Canal and for recreational purposes. About 84,000 acre-feet of water are scheduled to be delivered during the May-September period to meet Kendrick Project irrigation requirements.

Gray Reef Reservoir

October through March -- Operation of Gray Reef Reservoir would be the same as under the most probable condition.

April through September -- Releases from Gray Reef Reservoir will average approximately 500 c.f.s. in April, increasing to 2,300 c.f.s. in May. Releases from Gray Reef Dam during June, July, and August will average 2,900 c.f.s., 3,320 c.f.s, and 3,230 c.f.s., respectively. September releases will average 2,100 c.f.s. These predicted flows may be redistributed as the irrigators adjust their use of water from storage.

Glendo and Guernsey Reservoirs

October through January -- Guernsey Reservoir contained 6,151 acrefeet of water at the start of water year 1994.
5,000 acre-feet of water will be transferred to the Inland Lakes during October this year. 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 14,000 acre-feet by January 31. Glendo Reservoir content will increase from the carryover storage of 121,163 acre-feet to a January 31 content of 271,600 acre-feet.

February through September -- Glendo Reservoir storage will increase to about 350,200 acre-feet by the end of March, which is the largest end of month content for the year. At this level, it would take approximately 167,285 acre-feet of water to fill the Reservoir to the flood pool elevation of 4,635 ft. During April and May releases from Glendo Reservoir will be scheduled to refill Guernsey Reservoir.

The operation of Glendo and Guernsey Reservoirs will be based upon making full irrigation deliveries to the Glendo Unit and the North Platte Project. The total combined North Platte System reservoir storage would be approximately 667,200 acre-feet less by the end of the water year under reasonable minimum water supply conditions than under the most probable conditions.

Guernsey Reservoir content will be maintained near 35,000 acre-feet 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 is drawn down to about 1,000 acre-feet in July and refilled in August. September, releases will be made to meet irrigation requirements leaving 65,000 acre-feet of water in Glendo Reservoir at years end. Guernsey Reservoir content on September 30 will be 15,000 acre-feet under minimum conditions.

Reasonable Minimum Condition Ownerships

The North Platte Project storage ownership is expected to be approximately 101,900 acre-feet at the close of the water year compared to 438,700 acre-feet with the most probable runoff conditions. The Kendrick Project storage ownership is expected to be near 359,400 acre-feet which is 41 percent of average and

842,300 acre-feet from filling. Glendo storage ownership is expected to be near 131,200 acre-feet (95 percent of average) at the close of water year 1994 under the reasonable minimum runoff conditions. No water accrues to the Kendrick or Glendo ownership accounts under minimum conditions.

REASONABLE MAXIMUM INFLOW CONDITION - WATER YEAR 1994

Seminoe Reservoir

October through March -- Water releases for this period under a reasonable maximum inflow condition would increase from 500 c.f.s. in October and November to 1,750 c.f.s. in March as water is moved downstream to generate power and make room in Seminoe Reservoir for spring runoff. Although inflows to Seminoe Reservoir would be higher under these conditions actual changes in winter operations would be made gradually until it was evident that the inflow quantities being experienced were showing a trend towards the reasonable maximum inflows for the water year. October through March inflows under this condition will be 205,400 acre-feet, which is 31,900 acre-feet more than the most probable runoff condition. The reservoir content would decrease from 610,200 acre-feet in November to 435,300 acre-feet in March under these conditions.

April through September -- Seminoe Reservoir release for the month of April will be set at an average of 2,060 c.f.s. and increased to an average of 2,580 c.f.s. for May. Releases through the powerplant in June and July will be 3,040 c.f.s. and 2,850 c.f.s. respectively. Inflows for the April through July period will be 1,366,600 acre-feet, which is 586,500 acre-feet more than the most probable runoff condition. Seminoe Reservoir will reach its maximum content of 1,017,273 acre-feet during June and remain full through August, forcing a release through the jetflow gate of 1,360 c.f.s. in June and 560 c.f.s. in July. This plan of operation would result in an end of year carryover storage of 1,015,000 acre-feet, which would be 145 percent of the 1963-1992 average.

Pathfinder Reservoir

October through March -- Water releases for this period under a reasonable maximum inflow condition would be the same as in the most probable condition. Under this condition, gains between Kortes Dam and Pathfinder Reservoir would be expected to be 30,200 acre-feet for the period, which is 8,600 acre-feet more than in the most probable condition. Pathfinder Reservoir content increases through this period from 335,700 acre-feet at the end of November to 538,200 acre-feet at the end of March as releases from Seminoe Reservoir are increased to generate power during the winter.

April through September -- Pathfinder Reservoir would fill to its maximum allowable content of 1,016,507 acre-feet during June and

remain full through the end of August, requiring a bypass of 880 c.f.s. during July.

In April, water releases from Fremont Canyon Powerplant will be increased from 500 c.f.s. to 900 c.f.s. as Alcova Reservoir is filled. The rate of release will be increased through the summer as excess water is moved downstream. July releases will be about 3,480 c.f.s. and then decreased to approximately 850 c.f.s. in August and 600 c.f.s. in September. The Pathfinder Reservoir end of year storage content is projected to be about 1,009,000 acrefeet, which will be 202 percent of average.

Alcova Reservoir

October through March -- Operation of Alcova Reservoir would be the same as under the most probable condition.

April through September -- During April the Reservoir will be refilled to water surface elevation 5498 feet (179,400 acre-feet). This level will be maintained within \pm 1 foot to provide the necessary head for making irrigation deliveries to Casper Canal and for recreational purposes. Water delivered through the Casper Canal to the Kendrick Project for irrigation is estimated to be 64,000 acre-feet for the irrigation season.

Gray Reef Reservoir

October through March -- Operation of Gray Reef Reservoir would be the same as under the most probable condition.

April through September -- Releases are expected to be increased from 500 c.f.s. in May to 3,190 c.f.s. in July. August and September releases are scheduled to be 580 c.f.s. and 500 c.f.s., respectively.

Glendo and Guernsey Reservoirs

October through March -- Guernsey Reservoir contained 6,151 acrefeet of water at the start of water year 1994. 5,000 acre-feet of water will be transferred to the Inland Lakes in October. Under the reasonable maximum inflow conditions, the natural inflow as well as the 25 c.f.s. river maintenance release from Glendo will be stored during the winter, which will increase the reservoir content to 18,400 acre-feet by March 31. Glendo Reservoir content is expected to increase from the starting content of 121,163 acre-feet to an end of March content of 360,700 acre-feet.

April through September -- Guernsey Reservoir content reaches 45,612 acre-feet, the maximum allowable, during May and remains full through June. Glendo Reservoir also fills in May, reaching maximum storage of 517,485 acre-feet during the month and remaining at that content through 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 is drawn down to about 1,000 acre-feet in July and refilled in August. During September releases will be scheduled to lower Guernsey Reservoir to approximately 15,000 acre-feet anticipating moving 10,000 acre-feet to the Inland Lakes in October.

In the case of an extreme runoff event, the use of the flood pool would be dictated by the pattern and magnitude of flow conditions that develop below Guernsey Reservoir. However, the use of the Glendo flood pool is restricted to regulating unforecasted rainfall floods. The planned use of the flood pool for regulation of the anticipated snowmelt runoff is not permitted. The operating plan shown assumes no downstream flow restrictions and normal irrigation deliveries. Glendo storage is projected to decrease to about 440,600 acre-feet by the end of July and will be about 91,500 acre-feet by the end of September. This end of year Glendo storage would be 111 percent of average and the total System storage of 2,309,900 acre-feet (excluding about 6,600 acre-feet of storage in Kortes and Gray Reef Reservoirs) would be 162 percent of average for the major reservoirs on the North Platte River.

Reasonable Maximum Condition Ownerships

All storage water ownerships in the North Platte River System will fill during the water year including Glendo ownership, which reaches the 100,000 acre-feet allowed in the irrigation account during April. About 65,600 acre-feet of water, which is excess to the North Platte System ownerships, will be released from the System if the reasonable maximum runoff develops in the pattern that was assumed. Irrigation deliveries of 991,000 acre-feet are projected for the North Platte River Project during April through September and irrigation deliveries of 23,000 acre-feet are projected for the Glendo Unit.

GLOSSARY

Acre-Foot - 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 (c.f.s.) - 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 acre-feet, 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 riverflow exiting the lower end of the reach the net gain is negative (loss of water in the reach).

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.

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

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 Soil Conservation Service 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 and also the four Nebraska reservoirs referred to as the Inland Lakes.

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NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

HYDROLOGY OPERATIONS

Seminoe Reservoir Ope	erati	ons		Initial	content	608.9	CaT .						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	28.9	27.3	23.1	19.9	21.7	52.6	117.1	241.9	322.4	98.7	37.1	22.2
Total Inflow	cfs	470.	459.	376.	324.	391.	855.	1968.	3934.	5418.	1605.	603.	373.
Turbine Release	kaf	30.9	29.8	51.0	50.9	46.0	51.0	94.3	117.0	153.5	150.0	110.3	87.5
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	30.9	29.8	51.0	50.9	46.0	51.0	94.3	117.0	153.5	150.0	110.3	87.5
Total Release	cfs	503.	501.	829.	828.	828.	829.	1585.	1903.	2580.	2440.	1794.	1470
Evaporation	kaf	3.8	2.0	1.0	1.0	1.0	2.1	3.9	4.2	8.0	9.3	7.4	5.0
End-month content	kaf	601.9	597.7#	569.2	537.7	513.0	513.0*	532.0*	650.0*	810.0*	750.0*	670.0*	600.
End-month elevation	ft	6332.0	6331.7	6329.5	6327.0	6324.9		6326.5		6345.9	6342.2	6336.9	6331.
Kortes Reservoir Ope	ratio	ns		Initial	Content	4.7	Kaf						
		Oct	New	Doc	lan	Eab	Man	Ann	May	lum	hal	Aug	Sou
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Se
Total Inflow	kaf	30.9	29.8	51.0	50.9	46.0	51.0	94.3	117.0	153.5	150.0	110.3	87.
Total Inflow	cfs	503.	501.	829.	828.	828.	829.	1585.	1903.	2580.	2440.	1794.	1470
Turbine Release	kaf	30.8	29.8	51.0	50.9	46.0	51.0	94.3	117.0	153.5	150.0	110.3	87.
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.
Total Release	kaf	30.8	29.8	51.0	50.9	46.0	51.0	94.3	117.0	153.5	150.0	110.3	87.
Total Release	cfs	501.	501.	829.	828.	828.	829.	1585.	1903.	2580.	2440.	1794.	1470
Pathfinder Reservoir	0per	ations		Initial	Content	305.5	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Se
Sweetwater Inflow	kaf	3.3	3.5	3.1	3.6	3.4	4.4	11.6	19.1	21.6	6.2	2.8	1.
Kortes-Path Gain	kaf	0.4	-0.6	-1.7	-2.4	0.1	4.5	8.0	9.1	5.3	6.5	5.2	1.
Inflow from Kortes	kaf	30.8	29.8	51.0	50.9	46.0	51.0	94.3	117.0	153.5	150.0	110.3	87.
Total Inflow	kaf	34.5	32.7	52.4	52.1	49.5	59.9	113.9	145.2	180.4	162.7	118.3	89.
Total Inflow	cfs	561.	550.	852.	847.	891.	974.	1914.	2361.	3032.	2646.	1924.	1511
Turkira Dalassa	leaf.	77	70.1	70.0	70.0	29.0	31.1	5/ 2	170 7	15/ 7	150 4	150.0	120
Turbine Release	kaf	7.3	30.1	30.9	30.9	28.0		54.2	138.3	154.3	159.6	159.9	129.
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.
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	130
Total Release Total Release	kaf	7.3	30.1 506.	30.9 503.	30.9 503.	28.0 504.	31.1 506.	54.2 911.	138.3	154.3 2593.	159.6 2596.	159.9 2601.	129.
Funnantian	kaf	2.4	1.3	0.8	0.8	0.8	1.8	3.7		7.2	0.1	40	
Evaporation	kaf kaf	330.3	331.6	352.3	372.7	393.4	420.4	476.4	4.8	497.4	8.1	6.9	399.
End-month content End-month elevation	ft	5803.9	5804.1	5806.4	5808.5	5810.6	5813.2		5818.3	5819.9	5819.5	5815.4	5811.
Alcova Reservoir Ope	ratio	ons		Initial	Content	180.8	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Se
Total Inflow	kaf	7.3	30.1	30.9	30.9	28.0	31.1	54.2	138.3	154.3	159.6	159.9	129.
Total Inflow	cfs	119.	506.	503.	503.	504.	506.	911.	2249.	2593.	2596.	2601.	2181
Turbine Release	kaf	31.5	29.8	30.7	30.7	27.8	30.7	29.9	122.3	135.9	140.0	141.5	121.
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.
Casper Canal Release		0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	17.0	18.0	17.0	7.
Total Release	kaf	31.5	29.8	30.7	30.7	27.8	30.7	29.9	137.3	152.9	158.0	158.5	128
Total Release	cfs	512.	501.	499.	499.	501.	499.	502.	2233.	2570.	2570.	2578.	2163
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.
End-month content	kaf	155.9*						179.4*		179.4*	179.4*	179.4*	179
End-month elevation	ft	F/07 0	5487.9	F/07 0	5487.9	F/07 0	F/07 0	F/00 0	F/00 0				

Based	on	OCTOBER	1993	MOS	Probable	Inflow	Estimates
							NORTH DI

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Evaporation

End-month content

kaf

kaf

0.2

6.2#

0.2

9.4

0.2

12.1

0.2

14.5

0.2

16.2#

End-month elevation ft 4396.2 4399.7 4402.1 4403.9 4405.1 4406.3 4410.4 4415.3 4415.3 4415.3 4404.3

0.3

18.0*

0.5

25.0*

0.7

35.0*

1.2

35.0*

1.3

35.0*

1.1

35.0*

0.7

15.0*

NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

Table 3A

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		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	31.5	29.8	30.7	30.7	27.8	30.7	29.9	122.3	135.9	140.0	141.5	121.7
Total Inflow	cfs	512.	501.	499.	499.	501.	499.	502.	1989.	2284.	2277.	2301.	2045.
Total Release	kaf	30.7	29.8	30.7	30.7	27.8	30.7	29.8	122.2	135.8	139.9	141.4	121.6
Total Release	cfs	499.	501.	499.	499.	501.	499.	501.	1987.	2282.	2275.	2300.	2044.
Glendo Reservoir Ope	ratio	ns		Initial	Content	121.2	Kaf	*					
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Alcova-Glendo Gain	kaf	16.7	15.1	8.0	8.8	19.2	21.2	45.3	61.3	11.2	-1.1	-4.5	11.5
Infl from Gray Reef	kaf	30.7	29.8	30.7	30.7	27.8	30.7	29.8	122.2	135.8	139.9	141.4	121.6
Total Inflow	kaf	47.4	44.9	38.7	39.5	47.0	51.9	75.1	183.5	147.0	138.8	136.9	133.1
Total Inflow	cfs	771.	755.	629.	642.	846.	844.	1262.	2984.	2470.	2257.	2226.	2237.
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	4.8	83.0	110.7	122.6	224.5	217.3	161.1
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	83.0	84.6	0.0
Total Release	kaf	1.5	1.5	1.5	1.5	1.5	6.3	84.5	112.2	124.1	309.0	303.4	162.6
Total Release	cfs	24.	25.	24.	24.	27.	102.	1420.	1825.	2086.	5025.	4934.	2733.
Evaporation	kaf	1.1	0.8	0.8	0.7	0.8	1.7	2.8	4.2	6.1	6.0	3.5	1.6
End-month content	kaf	165.4	207.8#	244.1	281.3	325.9	369.7	357.4#	425.0*	442.0*	266.0*	96.0*	65.0
End-month elevation	ft	4593.9	4600.8	4606.1	4611.0	4616.4	4621.2	4619.9	4626.8	4628.4	4609.0	4579.3	4570.6
Guernsey Reservoir O	perat	ions		Initial	Content	6.1	Kaf						
3773		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
		7.0		1 7	1.5	0.7	0.3	2 /	0.5		7.7		
Glendo-Guerns Gain	kaf	3.8	2.1	1.7	1.5	0.7	0.2	2.4	8.5	4.1	3.3	0.7	5.1
Inflow from Glendo	kaf	1.5	1.5	1.5	1.5	1.5	6.3	84.5	112.2	124.1	309.0	303.4	162.6
Total Inflow	kaf	5.3	3.6	3.2	3.0	2.2		86.9	120.7	128.2	312.3	304.1	167.7
Total Inflow	cfs	86.	60.	52.	49.	40.	106.	1460.	1963.	2154.	5079.	4946.	2818.
Turbine Release	kaf	4.7	0.0	0.0	0.0	0.0	4.1	53.4	53.3	50.9	52.6	52.6	52.3
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	25.6	55.5	73.1	255.3	247.9	132.6
Total Release	kaf	5.0	0.2	0.3	0.4	0.3	4.4	79.4	110.0	127.0	311.0	303.0	187.0
Total Release	cfs	81.	3.	5.	7.	5.	72.	1334.	1789.	2134.	5058.	4928.	3143.

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NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

OWNERSHIP OPERATIONS

No	rth Platte Pathfin	der			Initial	Ownershi	p 572.1	Kaf,	Accrued t	his wate	r year:	0.0 Ka	af	
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Ne	t Accrual	kaf	28.8	28.0	23.1	19.7	23.7	58.4	130.7	132.0	0.0	0.0	0.0	0.0
Ev	aporation	kaf	3.8	2.2	1.4	1.4	1.5	3.1	6.0	8.4	13.7	13.4	10.0	5.4
De	liv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	147.8	253.7	133.8
En	nd-month Ownership	kaf	600.9	628.9	652.0	671.7	695.4	753.8	884.5	1016.5	1002.8	841.6	577.9	438.7
P	latte Guernsey			Init	ial Owne	rship (0.0 Kaf,	Accru	ed this w	ater yea	r: 0.0	0 Kaf		
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Ne	et Accrual	kaf	0.0	0.0	9.4	9.9	19.6	6.7	0.0	0.0	0.0	0.0	0.0	0.0
EV	aporation/Seepage	kaf	0.0	0.0	0.3	0.4	0.3	0.2	0.4	0.4	0.6	0.6	0.0	0.0
De	eliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.6	0.0	0.0
Er	nd-month Ownership	kaf	0.0	0.0	9.4	19.3	38.9	45.6	45.2	44.8	44.2	0.0	0.0	0.0
Ir	nland Lakes				Initial	Ownershi	ip 0.0	Kaf,	Accrued t	his wate	r year:	0.0 K	af	
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Ne	et Accrual	kaf	20.5	16.9	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0
EN	aporation/Seepage	kaf	0.0	0.3	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0
	nsfr fm Ownership	kaf	5.0	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0
Er	nd-month Ownership	kaf	15.5	32.4	32.3	32.2	32.1	31.9	0.0	0.0	0.0	0.0	0.0	0.0
Ke	endrick				Initial	Ownersh	ip 482.0	Kaf,	Accrued t	his wate	r year:	0.0 K	af	
	6.1		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Ne	et Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.0	213.3	0.0	0.0	0.0
	aporation	kaf	3.3	1.7	1.1	1.0	1.0	2.1	3.8	4.5	7.3	10.1	8.5	6.5
	eliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	18.0	17.0	7.0
	nd-month Ownership	kaf	478.7	477.0	475.9	474.9	473.9	471.8	468.0	538.0	751.3	723.2	697.7	684.2
GI	lendo Unit				Initial	Ownersh	ip 167.1	Kaf,	Accrued t	his wate	r year:	0.0 K	af	
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
A	crual	kaf	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	0.0
	vaporation	kaf	1.2	0.6	0.4	0.4	0.4	0.7		1.6	2.3	2.3	1.8	1.4
	eliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	6.0	8.0	12.0
	nd-month Ownership	kaf	165.9	165.3	164.9	164.5	164.1	173.5	172.2	170.6	168.3	160.0	150.2	136.8
Ci	ity of Cheyenne				Initial	Ownersh	ip 5.1	Kaf,						
	on the second		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1.	nflow	kaf	0.0	0.3	0.4	0.5	0.6	0.5	0.1	0.0	0.0	0.6	0.6	0.3
11	vaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0		0.1	0.1	0.0	0.1	0.0
F														
	elease	kaf	1.2	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.9	0.0	0.0	0.0

Based on	OCTOBER	1993	MOS Probabl	e Inflow	w Estimates	
					NORTH PLATTE RIVER OPERATING PLAN	

Pacificorp				Initial	Ownership	p 2.0	Kaf,						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2	0.2	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	
Release	kaf	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	
Ownership	kaf	1.4	1.2	1.1	1.0	0.9	0.8	0.7	1.2	1.4	1.6	1.6	
Other				Initial	Ownership	p 0.0	Kaf,						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
Inflow	kaf	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	
Release	kaf	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	

Year Beginning Oct 1993

Liaboracion	Kui	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
Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0
Excess to Ownership				Initial	Ownership	0.0	Kaf, A
		Oct	Nov	Dec	Jan	Feb	Mar
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	4.4

0.0

0.0

0.0

Nov

0.0

0.0

Nov

0.0

0.0

Nov

0.0

0.0

0.0

0.0

0.2

0.2

0.0

0.0

0.0

0.0

Dec

0.0

0.0

Dec

0.0

0.0

Dec

0.0

0.0

0.0

0.0

0.3

0.3

0.0

0.0

0.0

0.0

Jan

0.0

0.0

Jan

0.0

0.0

Jan

0.0

0.0

0.0

0.0

0.4

0.4

0.0

0.0

0.0

0.0

Feb

0.0

0.0

Feb

0.0

0.0

Feb

0.0

0.0

0.0

0.0

0.3

0.3

0.0

0.0

4.4

0.0

Mar

0.0

0.0

Mar

0.0

0.0

Mar

0.0

0.0

0.0

0.0

0.3

4.4

0.0

0.0

0.0

Oct

0.0

0.0

Oct

0.0

0.0

Oct

0.0

0.0

5.0

5.0

0.3

5.0

0.0

kaf

Evaporation/Seepage

IRRIGATION DELIVERY

Kendrick (Casper Canal)

End-month total

Release

Requested

Delivered

Requested

Delivered

Glendo Req

Seepage Actual Release

Waste

Kendrick (River)

Guernsey Deliveries

North Platte Req

Inland Lakes Req

Total Requirement

Run: 21-DEC-93 08:43:22

NPRAOP V1.1 15-Dec-1993

Accrued this water year:

May

0.0

0.0

0.0

0.0

May

15.0

15.0

May

0.0

0.0

May

0.0

0.0

1.2

0.0

110.0

110.0

110.0

Jun

0.0

0.0

0.0

0.0

Jun

17.0

17.0

Jun

0.0

0.0

Jun

2.0

0.0

125.0

127.0

127.0

3.0

0.0

Apr

38.9

38.9

0.0

Apr

0.0

0.0

Apr

0.0

0.0

Apr

0.0

0.0

40.5

40.5

0.4

79.4

38.9

0.0

0.0 Kaf

Aug

0.0

0.0

0.0

0.0

Aug

17.0

17.0

Aug

0.0

0.0

Aug

8.0

0.0

2.5

0.0

295.0

303.0

303.0

Jul

0.0

0.0

0.0

0.0

Jul

18.0

18.0

Jul

0.0

0.0

Jul

6.0

0.0

305.0

311.0

311.0

3.1

0.0

Table 3A

	ua	
Λ	110	

Sep

Page 4 of 4

0.1

0.0 0.0 1.7

Sep 0.0 0.0 0.0 0.0

Sep

0.0

0.0

0.0

0.0

Sep

7.0

7.0

Sep

0.0

0.0

Sep

175.0

12.0

187.0

187.0

0.0

2.1

0.0

NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

HYDROLOGY OPERATIONS

Seminoe Reservoir Op	erati	ons		Initial	Content	608.9	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	24.7	23.1	21.0	17.7	21.2	44.8	77.0	119.5	129.9	33.8	20.3	13.6
Total Inflow	cfs	402.	388.	342.	288.	382.	729.	1294.	1943.	2183.	550.	330.	229.
Turbine Release	kaf	30.9	29.8	30.8	30.8	27.8	30.8	73.8	117.8	147.6	160.2	152.7	83.5
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 Total Release	kaf	30.9 503.	29.8 501.	30.8 501.	30.8 501.	27.8 501.	30.8 501.	73.8 1240.	117.8 1916.	147.6 2481.	160.2 2605.	152.7 2483.	83.5 1403.
Evaporation	kaf	3.7	2.0	1.0	1.0	1.0	2.1	4.1	4.0	6.4	6.2	4.2	2.4
End-month content	kaf	597.8	589.4	579.0	565.4	558.4	570.8#		565.0*		408.0*	272.0*	
End-month elevation	ft	6331.7	6331.1	6330.3	6329.2	6328.7	6329.7		6329.2	6327.2		6299.3	
Kortes Reservoir Ope	ratio	ons		Initial	Content	4.7	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
		70.0		70.0	70.0								
Total Inflow	kaf	30.9	29.8	30.8	30.8	27.8	30.8	73.8	117.8	147.6	160.2	152.7	83.5
Total Inflow	cfs	503.	501.	501.	501.	501.	501.	1240.	1916.	2481.	2605.	2483.	1403.
Turbine Release	kaf	30.8	29.8	30.8	30.8	27.8	30.8	73.8	117.8	147.6	160.2	152.7	83.5
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 Total Release	kaf cfs	30.8 501.	29.8 501.	30.8 501.	30.8 501.	27.8 501.	30.8 501.	73.8 1240.	117.8 1916.	147.6	160.2 2605.	152.7 2483.	83.5 1403.
Pathfinder Reservoir	Oper	ations		Initial	Content	305.5	Kaf						
A = 1, 15 M (Aug. 1		Oct	Nov	Dec	Jan	Feb	Mar	App	May	lus	lul.	Aug	Con
								Apr	May	Jun	Jul	Aug	Sep
Sweetwater Inflow	kaf	2.6	2.7	3.2	3.7	3.9	4.1	8.7	5.7	4.1	1.7	1.2	0.9
Kortes-Path Gain	kaf	2.7	1.3	1.4	-0.2	0.1	4.4	3.7	4.9	6.0	7.7	7.8	3.1
Inflow from Kortes	kaf	30.8	29.8	30.8	30.8	27.8	30.8	73.8	117.8	147.6	160.2	152.7	83.5
Total Inflow	kaf	36.1	33.8	35.4	34.3	31.8	39.3	86.2	128.4	157.7	169.6	161.7	87.5
Total Inflow	cfs	587.	568.	576.	558.	573.	639.	1449.	2088.	2650.	2758.	2630.	1470.
Turbine Release	kaf	7.3	30.1	30.9	30.9	28.0	31.1	54.2	159.2	154.7	159.9	158.0	135.0
Jetflow Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.4	65.8	61.3	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	7.3	30.1	30.9	30.9	28.0	31.1	54.2	159.2	193.1	225.7	219.3	135.0
Total Release	cfs	119.	506.	503.	503.	504.	506.	911.	2589.	3245.	3671.	3567.	2269.
Evaporation	kaf	2.4	1.3	0.8	0.7	0.8	1.6	3.1	3:7	5.1	4.9	3.7	2.4
End-month content	kaf	331.9	334.3	338.0	340.7	343.7	350.3	379.2	344.7	304.2	243.2	181.9	132.0
End-month elevation	ft	5804.1	5804.4	5804.8	5805.1	5805.4	5806.2	5809.2	5805.5	5800.9	5792.8	5783.3	5774.0
Alcova Reservoir Ope	ratio	ons		Initial	Content	180.8	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	7.3	30.1	30.9	30.9	28.0	31.1	54.2	159.2	193.1	225.7	219.3	135.0
Total Inflow	cfs	119.	506.	503.	503.	504.	506.	911.	2589.	3245.	3671.	3567.	
Turbine Release	kaf	31.5	29.8	30.7	30.7	27.8	30.7	29.9	141.2	172.7	204.1	198.9	2269. 124.9
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		0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	19.0	20.0	19.0	9.0
Total Release	kaf	31.5	29.8	30.7	30.7	27.8	30.7	29.9	158.2	191.7	224.1	217.9	133.9
Total Release	cfs	512.	501.	499.	499.	501.	499.	502.	2573.	3222.	3645.	3544.	2250.
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*											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

Run: 21-DEC-93 08:40:44

Based on OCTOBER 1993 MIN Probable Inflow Estimates

cfs

kaf

kaf

ft

kaf

kaf

kaf

cfs

kaf

kaf

kaf

kaf

cfs

kaf

kaf

ft

24.

1.1

161.4#

Oct

3.0

1.5

4.5

73.

4.7

0.3

0.0

5.0

81.

0.2

5.4#

4395.1 4398.9

4593.2 4599.7

NPRAOP V1.1 15-Dec-1993

Total Release

End-month content

End-month elevation

Glendo-Guerns Gain

Inflow from Glendo

Total Inflow

Total Inflow

Seepage

Turbine Release

Spillway Release

End-month content

End-month elevation

Total Release

Total Release

Evaporation

Guernsey Reservoir Operations

Evaporation

Gray Reef Reservoir Operations

Table 3B

Jul

204.1

3319.

204.0

3318.

Jul

-10.3

204.0

193.7

3150.

221.4

1.5

0.0

85.9

308.8

5022.

5.1

Jul

-2.5

308.8

306.3

4981.

52.6

3.1

249.3

305.0

4960.

1.3

35.0*

210.0*

4601.2

May

141.2

2296.

141.1

2295.

May

12.2

141.1

153.3

2493.

153.9

1.5

0.0

0.0

3.8

May

0.3

155.4

155.7

2532.

53.3

1.2

90.5

145.0

2358.

0.7

35.0*

4405.3 4406.8 4410.4 4415.3 4415.3 4415.3 4415.3 4404.3

342.0*

4618.8 4618.2 4616.8

155.4

2527.

657.

2.7

347.4#

Apr

0.3

39.1

39.4

662.

32.3

0.4

0.0

32.7

550.

0.5

25.0*

24.

1.5

Mar

1.4

1.5

2.9

47.

0.0

0.3

0.0

0.3

5.

0.3

18.8#

350.2

4619.1

Jun

172.7

2902.

172.6

2901.

Jun

-3.0

172.6

169.6

2850.

175.2

1.5

0.0

0.0

176.7

2970.

5.1

Jun

-2.5

176.7

174.2

2928.

50.9

119.1

173.0

2907.

1.2

35.0*

3.0

330.0*

Sep

124.9

2099.

124.8

2097.

Sep

10.9

124.8

135.7

2281.

157.8

1.5

0.0

0.0

159.3

2677.

1.5

65.0*

Sep

3.4

159.3

162.7

2734.

52.3

127.6

182.0

3059.

0.7

15.0*

2.1

Aug

198.9

3235.

198.8

3233.

Aug

-2.5

198.8

196.3

3193.

212.7

1.5

0.0

99.0

313.2

5094.

3.1

90.0*

Aug

-0.1

313.2

313.1

5092.

52.6

2.5

256.9

312.0

5074.

1.1

35.0*

4577.8

Page 2 of 4

Year E	Beginning	Oct 1993	
Initial Cont	ent 1.	.1 Kaf	

		Oct	Nov	Dec	Jan	Feb	Mar	Apr
Total Inflow	kaf	31.5	29.8	30.7	30.7	27.8	30.7	29.9
Total Inflow	cfs	512.	501.	499.	499.	501.	499.	502.
Total Release	kaf	30.7	29.8	30.7	30.7	27.8	30.7	29.8
Total Release	cfs	499.	501.	499.	499.	501.	499.	501.
Glendo Reservoir Ope	eratio	ns		Initial	Content	121.2	Kaf	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr
Alcova-Glendo Gain	kaf	12.7	11.3	7.4	7.4	9.9	15.7	9.3
Infl from Gray Reef	kaf	30.7	29.8	30.7	30.7	27.8	30.7	29.8
Total Inflow	kaf	43.4	41.1	38.1	38.1	37.7	46.4	39.1
Total Inflow	cfs	706.	691.	620.	620.	679.	755.	657.
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	37.6
Low Flow Release	kaf	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
Irrigation Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	39.1
	THE STREET OF	THE RESERVE TO SHARE THE PARTY OF THE PARTY		THE RESERVE OF THE PARTY OF THE		the second second second	William A to the last	Marie Committee (Co.)

25.

0.7

Nov

2.1

1.5

3.6

60.

0.0

0.2

0.0

0.2

3.

0.2

8.6

200.1

24.

0.8

Dec

2.0

1.5

3.5

57.

0.0

0.3

0.0

0.3

5.

0.2

11.6

4401.7

235.8

4604.9

24.

0.7

Jan

1.5

1.5

3.0

49.

0.0

0.4

0.0

0.4

7.

0.2

14.0

4403.6

271.6

4609.7

Initial Content

27.

0.8

Feb

1.5

1.5

3.0

54.

0.0

0.3

0.0

0.3

0.2

16.5#

5.

6.1 Kaf

306.9

4614.1

NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

OWNERSHIP OPERATIONS

North Platte Pathfin	nder			Initial	Ownershi	ip 572.1	Kaf,	Accrued th	nis water	year:	0.0 Ka	af	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Net Accrual	kaf	26.2	25.0	24.2	19.8	23.8	50.4	83.7	0.0	0.0	0.0	0.0	0.0
Evaporation	kaf	3.8	2.1	1.4	1.4	1.4	2.9	5.7	7.3	10.7	11.1	6.7	2.6
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	263.5	278.3	143.1
End-month Ownership	kaf	598.3	623.3	647.5	667.3	691.1	741.5	825.2	817.9	807.2	532.6	247.6	101.9
North Platte Guernse	y			Initial	Ownersh	ip 0.0	Kaf,	Accrued th	nis water	year:	0.0 K	af	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Net Accrual	kaf	0.0	0.0	9.1	8.5	11.1	16.7	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.0	0.0	0.3	0.4	0.3	0.4		0.4	0.5	0.1	0.0	0.0
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0		2.4	35.5	6.1	0.0	0.0
End-month Ownership	kaf	0.0	0.0	9.1	17.6	28.7	45.4		42.2	6.2	0.0	0.0	0.0
Inland Lakes				Initial	Ownersh	ip 0.0	Kaf,	Accrued th	nis water	year:	0.0 K	af	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Net Accrual	kaf	15.7	13.1	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.0	0.3	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Trnsfr fm Ownership	kaf	5.0	0.0	0.0	0.0	0.0	0.0	32.7	0.0	0.0	0.0	0.0	0.0
End-month Ownership	kaf	10.7	23.8	23.7	23.6	23.5	23.3	0.0	0.0	0.0	0.0	0.0	0.0
Kendrick				Initial	Ownersh	ip 482.0	Kaf,	Accrued the	his water	year:	0.0 K	af	
		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	3.2	1.7	1.1	1.0	1.1	2.0	The second secon	4.1	5.9	5.8	5.0	4.0
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0		17.0	19.0	20.0	19.0	9.0
End-month Ownership	kaf	478.8	477.1	476.0	475.0	473.9	471.9	468.2	447.1	422.2	396.4	372.4	359.4
Glendo Unit				Initial	Ownersh	ip 167.1	Kaf,	Accrued t	his water	year:	0.0 K	af	
		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	kaf	1.2	0.6	0.4	0.3	0.4	0.7		1.4	2.1	2.2	1.8	1.5
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0		0.0	3.0	5.0	7.0	7.0
End-month Ownership	kaf	165.9	165.3	164.9	164.6	164.2	163.5		160.8	155.7	148.5	139.7	131.2
City of Cheyenne				Initial	Ownersh	ip 5.1	Kaf,						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
7(1			0.7		0.5	0 /							0.7
Inflow	kaf	0.0	0.3	0.4	0.5	0.6	0.5		0.0	0.0	0.6	0.6	0.3
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0		0.1	0.1	0.0	0.1	0.1
Release	kaf kaf	1.2	0.0	0.0	0.0	0.0 5.7	6.2		2.7 3.5	0.9	0.0 3.1	0.0 3.6	0.0 3.8
Ownership	Kal	3.9	4.2	4.0	3.1	5.1	0.2	. 0.3	3.5	2.5	3.1	3.0	5.0

NPRAOP V1.1 15-Dec-1993 Run: 21-DEC-93 08:40:44
Based on OCTOBER 1993 MIN Probable Inflow Estimates

NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

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	0.5	0.2	0.2	0.0	0.1
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	1.2	1.4	1.6	1.6	1.7
Other				Initial	Ownership	0.0	Kaf,						
		Oct	Nov	Dec	Jan	Feb	Mar	Ann	May	lun	lud.	Aug	Con
					Jan			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
Excess to Ownership				Initial	Ownership	0.0	Kaf, A	ccrued th	his wate	r year:	0.0 K	af	
497 (14		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
IRRIGATION DELIVERY													
Kendrick (Casper Car	nal)	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	17.0	19.0	20.0	19.0	9.0
Delivered	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	19.0	20.0	19.0	9.0
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	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	3.0	5.0	7.0	7.0
Inland Lakes Req	kaf	5.0	0.0	0.0	0.0	0.0	0.0	32.7	0.0	0.0	0.0	0.0	0.0
Table Daminania		F C	0.0	0.0	0.0	0.0	0.0	72.7	1/5 0	177 0	705.0	712.0	400.0
Total Requirement	kaf	5.0	0.0	0.0	0.0	0.0	0.0	32.7	145.0	173.0	305.0	312.0	182.0
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	5.0	0.2	0.3	0.4	0.3	0.3	32.7	145.0	173.0	305.0	312.0	182.0

NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

HYDROLOGY OPERATIONS

Seminoe Reservoir Ope	erati	ons		Initial	Content	608.9	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	36.2	32.6	27.1	25.3	27.2	57.0	161.5	408.2	575.9	221.0	63.2	35.6
Total Inflow	cfs	589.	548.	441.	411.	490.	927.	2714.	6639.	9678.	3594.	1028.	598.
Turbine Release	kaf	30.9	29.8	50.7	66.3	84.3	107.3	122.4	158.8	180.9	175.2	53.9	31.0
Jetflow Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.1	34.9	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	30.9	29.8	50.7	66.3	84.3	107.3	122.4	158.8	262.0	210.1	53.9	31.0
Total Release	cfs	503.	501.	825.	1078.	1518.	1745.	2057.	2583.	4403.	3417.	877.	521.
Evaporation	kaf	3.8	2.1	1.0	1.0	1.0	1.9	3.5	4.2	9.2	11.5	9.9	7.2
End-month content	kaf	609.2	610.2#	586.0*	544.5*	487.0*	435.3*	471.0*	713.5*	1017.3#	1017.3	1017.3	1015.0
End-month elevation	ft	6332.6	6332.7	6330.8	6327.6	6322.7	6317.9	6321.2	6339.9	6357.0	6357.0	6357.0	6356.9
Kortes Reservoir Oper	ratio	ns		Initial	Content	4.7	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	30.9	29.8	50.7	66.3	84.3	107.3	122.4	158.8	262.0	210.1	53.9	31.0
Total Inflow	cfs	503.	501.	825.	1078.	1518.	1745.	2057.	2583.	4403.	3417.	877.	521.
Turbine Release	kaf	30.8	29.8	50.7	66.3	84.3	107.3	122.4	158.8	155.3	160.5	53.9	31.0
Spillway Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	106.7	49.6	0.0	0.0
Total Release	kaf	30.8	29.8	50.7	66.3	84.3	107.3	122.4	158.8	262.0#	210.1#	53.9	31.0
Total Release	cfs	501.	501.	825.	1078.	1518.	1745.	2057.	2583.	4403.	3417.	877.	521.
Pathfinder Reservoir	Oper	ations		Initial	Content	305.5	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Sweetwater Inflow	kaf	3.7	3.9	2.7	2.0	2.5	5.4	19.1	50.3	42.8	11.5	4.6	3.1
		3.3				1.7	4.9						
Kortes-Path Gain	kaf		-0.1	-0.4 50.7	0.6	84.3	107.3	8.4	18.7	4.3	6.9	6.5	4.2
Inflow from Kortes	kaf	30.8	29.8		66.3			122.4	158.8	262.0	210.1	53.9	31.0
Total Inflow	kaf	37.8	33.6	53.0	68.9	88.5	117.6	149.9	227.8	309.1	228.5	65.0	38.3
Total Inflow	cfs	615.	565.	862.	1121.	1594.	1913.	2519.	3705.	5195.	3716.	1057.	644.
Turbine Release	kaf	7.3	30.1	30.9	30.9	28.0	31.1	54.2	44.8	86.0	159.9	52.2	36.0
Jetflow Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.2	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	7.3	30.1	30.9	30.9	28.0	31.1	54.2	44.8	86.0	214.1	52.2	36.0
Total Release	cfs	119.	506.	503.	503.	504.	506.	911.	729.	1445.	3482.	849.	605.
Evaporation	kaf	2.4	1.4	0.8	0.8	0.9	2.1	4.7	6.8	12.0	14.4	12.8	9.8
End-month content	kaf	333.6	335.7	357.0	394.2	453.8	538.2	629.2	805.4	1016.5	1016.5	1016.5	1009.0
End-month elevation	ft	5804.3	5804.5	5806.9	5810.7	5816.2	5823.0	5829.4	5839.8	5850.1	5850.1	5850.1	5849.8
Alcova Reservoir Ope	ratio	ns		Initial	Content	180.8	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Inflow	kaf	7.3	30.1	30.9	30.9	28.0	31.1	54.2	44.8	86.0	21/, 1	52.2	
Total Inflow	cfs	119.	506.	503.	503.	504.	506.	911.	729.		214.1	52.2	36.0
		31.5	29.8	30.7		27.8				1445.	3482.	849.	605.
Turbine Release	kaf				30.7		30.7	29.9	30.8	69.6	196.5	35.8	29.9
Spillway Release Casper Canal 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
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	15.0	16.0	15.0	5.0
Total Release Total Release	kaf	31.5 512.	29.8 501.	30.7	30.7 499.	27.8 501.	30.7 499.	29.9 502.	43.8 712.	84.6	212.5 3456.	50.8 826.	34.9 587.
Evenonation	ke4												
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*						Supplied States	
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

kaf

Oct

31.5

Run: 21-DEC-93 08:45:55

Nov

29.8

NPRAOP V1.1 15-Dec-1993

Total Inflow

Spillway Release

End-month content

End-month elevation

Total Release

Total Release

Evaporation

kaf

kaf

cfs

kaf

kaf

0.0

5.0

81.

0.2

ft 4396.0 4399.4

6.1#

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0.2

3.

0.2

9.1

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0.3

5.

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11.6

4401.7

0.0

0.4

7.

0.2

14.5

4403.9

0.0

0.3

5.

0.2

17.0

4405.7

0.0

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5.

0.3

18.4#

0.0

40.5

681.

0.5

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4406.6 4415.3 4420.0

64.9

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1917.

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45.6

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161.7

2717.

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45.6

4420.0

239.1

294.0

4781.

1.4

35.0*

4415.3 4415.3

228.9

284.0

4619.

1.1

35.0*

121.6

176.0

2958.

0.7

15.0*

Gray Reef Reservoir Operations

NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

1.1 Kaf

Mar

30.7

Apr

29.9

May

30.8

Jun

69.6

Feb

27.8

Initial Content

Jan

30.7

Dec

30.7

Table 3C

Jul

196.5

Page 2 of 4

Sep

29.9

Aug

35.8

. o cat till ton	1101		-/.0		2011			-/./	20.0	07.0	1,0.0	33.0	L/ . /
Total Inflow	cfs	512.	501.	499.	499.	501.	499.	502.	501.	1170.	3196.	582.	502.
Total Release	kaf	30.7	29.8	30.7	30.7	27.8	30.7	29.8	30.7	69.5	196.4	35.7	29.8
Total Release	cfs	499.	501.	499.	499.	501.	499.	501.	499.	1168.	3194.	581.	501.
Glendo Reservoir Ope	eratio	ons		Initial	Content	121.2	Kaf						
		••											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Alcova-Glendo Gain	kaf	14.5	13.4	4.4	13.2	12.5	17.0	49.4	202.1	73.4	8.6	9.7	18.3
Infl from Gray Reef	kaf	30.7	29.8	30.7	30.7	27.8	30.7	29.8	30.7	69.5	196.4	35.7	29.8
Total Inflow	kaf	45.2	43.2	35.1	43.9	40.3	47.7	79.2	232.8	142.9	205.0	45.4	48.1
Total Inflow	cfs	735.	726.	571.	714.	726.	776.	1331.	3786.	2402.	3334.	738.	808.
Turbine Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	47.9	97.3	134.4	237.1	221.4	149.8
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	35.9	61.3	0.0
Total Release	kaf	1.5	1.5	1.5	1.5	1.5	1.5	49.4	98.8	135.9	274.5	284.2	151.3
Total Release	cfs	24.	25.	24.	24.	27.	24.	830.	1607.	2284.	4464.	4622.	2543.
Evaporation	kaf	1.1	0.8	0.8	0.7	0.8	1.5	2.8	4.6	7.2	7.6	5.0	2.2
End-month content	kaf	163.2	203.9#	236.6	278.2	316.1	360.7#	387.6	517.5#	517.5#		196.8#	91.5#
End-month elevation	ft	4593.6	4600.3	4605.0	4610.6	4615.2	4620.3	4623.1	4635.0	4635.0	4628.3	4599.2	4578.1
Guernsey Reservoir C	perat	tions		Initial	Content	6.1	Kaf						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Glendo-Guerns Gain	kaf	3.7	1.9	1.5	2.0	1.5	0.5	8.2	30.6	27.1	10.3	0.9	5.4
Inflow from Glendo	kaf	1.5	1.5	1.5	1.5	1.5	1.5	49.4	98.8	135.9	274.5	284.2	151.3
Total Inflow	kaf	5.2	3.4	3.0	3.5	3.0	2.0	57.6	129.4	163.0	284.8	285.1	156.7
Total Inflow	cfs	85.	57.	49.	57.	54.	33.	968.	2104.	2739.	4632.	4637.	2633.
Turbine Release	kaf	4.7	0.0	0.0	0.0	0.0	0.0	40.1	51.8	49.4	51.8	52.6	52.3
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
CONTRACTOR OF THE PARTY OF THE	Total Control	THE RESERVE THE PARTY OF THE PA	STATE OF THE PARTY	The second secon	The second secon	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.		The second secon		THE RESERVE OF THE PARTY OF THE	The state of the s		

Oct

0.0

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1.2

3.9

kaf

kaf

kaf

kaf

Nov

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4.2

Dec

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0.0

0.0

4.6

Jan

0.5

0.0

0.0

5.1

Feb

0.6

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0.0

5.7

Mar

0.5

0.0

0.0

6.2

Apr

0.1

0.1

0.0

6.2

May

0.0

0.1

2.7

3.4

Jul

0.6

0.0

0.0

3.0

Jun

0.0

0.1

0.9

2.4

Aug

0.6

0.1

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NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

|--|

Inflow

Release

Ownership

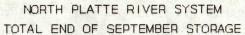
Evaporation

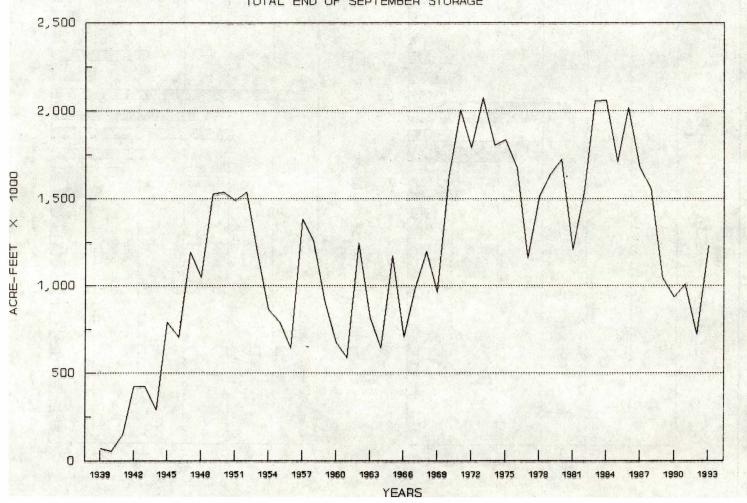
North Platte Pathfin	rth Platte Pathfinder			Initial	Ownersh	ip 572.1	Kaf,	Accrued t	his wate	r year:	0.0 K	af	
•		Oot	Nov	Dec	Jan	Feb	Mar	Ann	May	lun	Jul	Aug	Con
		Oct	NOV	Dec	Jan	reb	Mai	Apr	May	Jun	Jut	Aug	Sep
Net Accrual	kaf	39.4	34.1	27.9	26.4	29.9	64.1	1 182.5	40.1	0.0	0.0	0.0	0.0
Evaporation	kaf	3.8	2.3	1.5	1.5	1.5	3.2	6.5	10.1	14.0	13.2	11.1	8.4
Deliv fm 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
End-month Ownership	kaf	611.5	645.6	673.5	699.9	729.8	793.9	976.4	1016.5	1002.5	989.3	978.2	969.8
North Platte Guernse	У			Initial	Ownersh	ip 0.0	Kaf,	Accrued t	this wate	r year:	0.0 K	af	
	•												
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Net Accrual	kaf	0.0	0.0	5.6	14.8	13.7	11.5	0.0	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.0	0.0	0.3	0.4	0.3	0.4	4 0.3	0.4	0.6	0.6	0.5	0.4
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	10.8
End-month Ownership	kaf	0.0	0.0	5.6	20.4	34.1	45.6	6 45.3	44.9	44.3	43.7	43.2	32.0
Inland Lakes				Initial	Ownersh	ip 0.0	Kaf,	Accrued	this wate	r year:	0.0 K	af	
		Oct	Nov	Dec	Jan	Feb	Mai	r Apr	May	Jun	Jul	Aug	Sep
Net Accrual	kaf	18.2	15.0	0.0	0.0	0.0	0.0	0 12.8	0.0	0.0	0.0	0.0	0.0
Evaporation/Seepage	kaf	0.0	0.3	0.1	0.1	0.1	0.2		0.0	0.0	0.0	0.0	0.0
Trnsfr fm Ownership	kaf	5.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
End-month Ownership	kaf	13.2	28.2	28.1	28.0	27.9	27.	Control of the Vine of the Control o	0.0	0.0	0.0	0.0	0.0
Kendrick				Initial	Ownersh	ip 482.0	Kaf,	Accrued	this wate	r year:	0.0 K	af	
		Oct	Nov	Dec	Jan	Feb	Ma	r Apr	May	Jun	Jul	Aug	Sep
Net Accrual	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	422.2	324.7	0.0	0.0	0.0
Evaporation	kaf	3.3	1.8	1.1	1.0	1.1	2.1	0 3.9	4.8	12.1	15.8	13.3	10.1
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.1	0.0	13.0	0.0	0.0	0.0	5.0
End-month Ownership	kaf	478.7	476.9	475.8	474.8	473.7	471.	7 467.8	877.0	1201.7	1185.9	1172.6	1157.5
Glendo Unit				Initial	Ownersh	ip 167.1	Kaf,	Accrued	this wate	er year:	0.0 k	af	
		Oct	Nov	Dec	Jan	Feb	Ma	r Apr	May	Jun	Jul	Aug	Sep
	10-6	0.0	0.0	0.0	0.0	0.0		4 / 5	0.0	0.0			
Accrual	kaf	0.0	0.0	0.0	0.0	0.0	5.		0.0	0.0	0.0	0.0	0.0
Evaporation	kaf	1.2	0.6	0.3	0.3	0.4	0.		1.8	2.3	2.2	1.9	1.4
Deliv fm Ownership	kaf	0.0	0.0	0.0	0.0	0.0	0.		0.0	0.0	0.0	0.0	11.0
End-month Ownership	kaf	165.9	165.3	165.0	164.7	164.3	169.	2 172.3	170.5	168.2	166.0	164.1	151.7
City of Cheyenne				Initial	Ownersh	nip 5.	1 Kaf,						

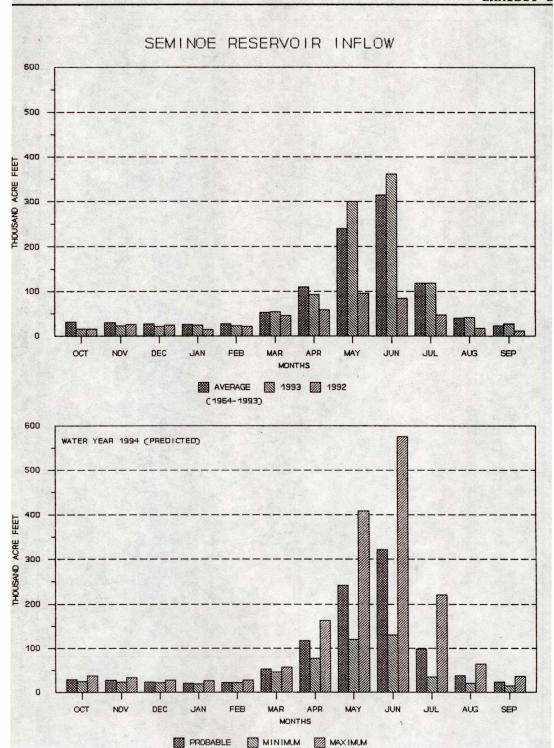
NPRAOP V1.1 15-Dec-1993 Run: 21-DEC-93 08:45:55
Based on OCTOBER 1993 MAX Probable Inflow Estimates

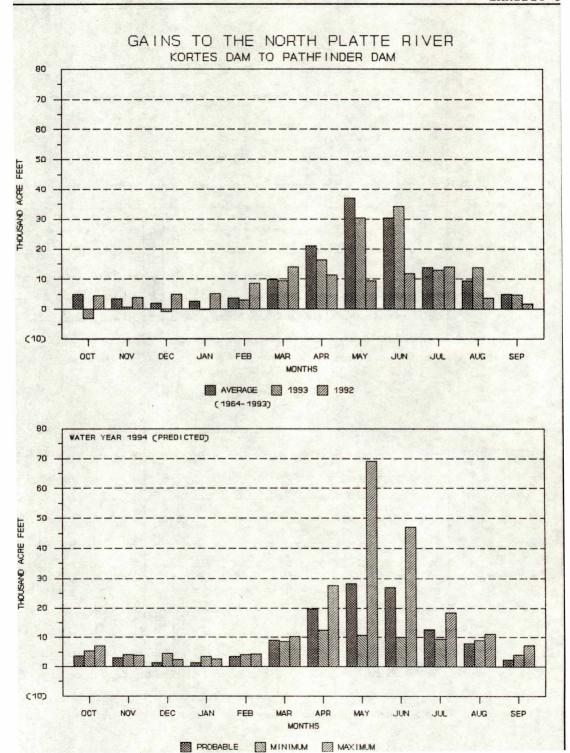
NORTH PLATTE RIVER OPERATING PLAN Year Beginning Oct 1993

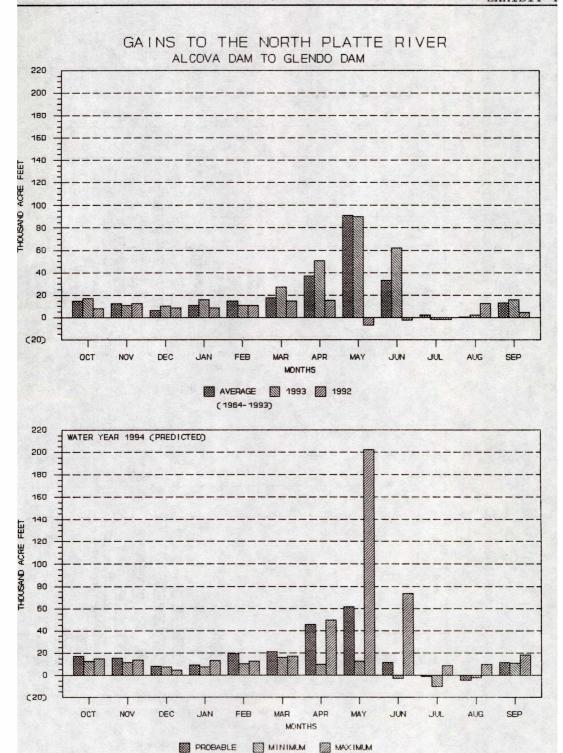
Pacificorp				Initial	Ownership	2.0	Kaf,						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Inflow	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2	0.2	0.0	0.1
Evaporation	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Release	kaf	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Ownership	kaf	1.4	1.2	1.1	1.0	0.9	0.8	0.7	1.2	1.4	1.6	1.6	1.7
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
Excess to Ownership				Initial	Ownership	0.0	Kaf, Ac	crued t	his wate	r year:	0.0 K	af	
		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	40.1	170.4	386.7	258.3	84.9	0.0
Evaporation/Seepage	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.1	4.8	3.4	0.8
Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.6	176.7	310.0	299.0	87.6
End-month total	kaf	0.0	0.0	0.0	0.0	0.0	0.0	40.1	154.5	362.4	305.9	88.4	0.0
IRRIGATION DELIVERY													
Kendrick (Casper Car	nal)	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	13.0	15.0	16.0	15.0	5.0
Delivered	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	15.0	16.0	15.0	5.0
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 Reg	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	110.0	290.0	280.0	165.0
Glendo Reg	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	4.0	4.0	11.0
Inland Lakes Req	kaf	5.0	0.0	0.0	0.0	0.0	0.0	40.5	0.0	0.0	0.0	0.0	0.0
Total Requirement	kaf	5.0	0.0	0.0	0.0	0.0	0.0	40.5	102.0	112.0	294.0	284.0	176.0
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	5.0	0.2	0.3	0.4	0.3	0.3	40.5	117.9	161.7	294.0	284.0	176.0
			The second secon										

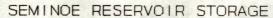


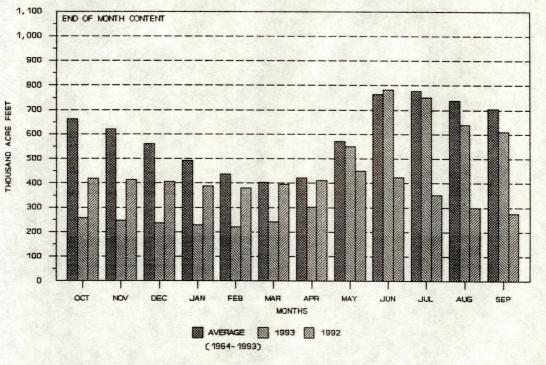


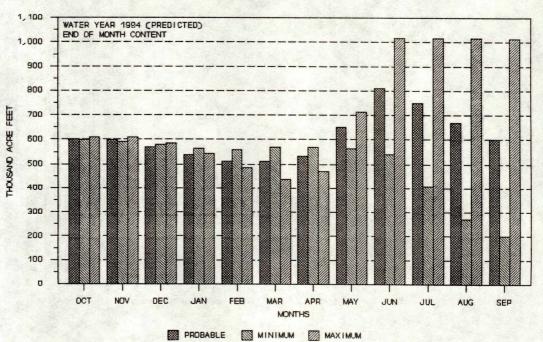




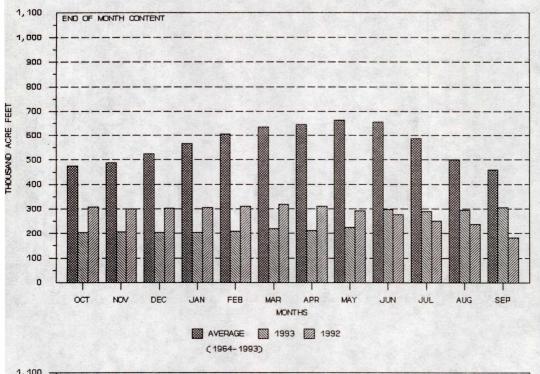


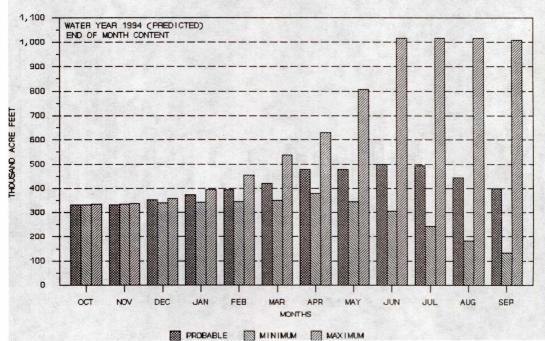






PATHFINDER RESERVOIR STORAGE





ALCOVA RESERVOIR STORAGE

