SYNOPSIS

General

This year is the 54th consecutive year that an Annual Operating Plans (AOP) has been prepared for the Federally-owned dams and reservoirs in the Niobrara, Lower Platte, and Kansas River Basins. The plan has been developed by the Water Operations Group in McCook, Nebraska for the 16 dams and reservoirs that are located in Colorado, Nebraska, and Kansas. These reservoirs, together with 9 diversion dams, 9 pumping plants, and 20 canal systems, serve approximately 269,532 acres of project lands in Nebraska and Kansas. In addition to irrigation and municipal water, these features serve flood control, recreation, and fish and wildlife purposes. A map at the end of this report shows the location of these features.

The reservoirs in the Niobrara and Lower Platte River Basins are operated by either irrigation or reclamation districts. The reservoirs in the Kansas River Basin are operated by either the Bureau of Reclamation (Reclamation), or the Corps of Engineers. Kirwin Irrigation District provides operational and maintenance assistance for Kirwin Dam. The diversion dams, pumping plants, and canal systems are operated by either irrigation or reclamation districts.

A Supervisory Control and Data Acquisition System (SCADA) located at McCook is used to assist in operational management of all 11 dams under Reclamation's jurisdiction that are located in the Kansas River Basin. A Hydromet system collects and stores near real-time data at selected stations in the Nebraska-Kansas Projects. The data includes water levels in streams, canals, and reservoirs and also gate openings. This data is transmitted to a satellite and downloaded to a Reclamation receiver in Boise, Idaho. The data can then be accessed by anyone interested in monitoring water levels or water usage in an irrigation system. The Nebraska-Kansas Projects currently has 110 Hydromet stations that can be accessed. The McCook Field Office has installed and maintains 56 Hydromet stations with plans to install more as time permits. When fully implemented, the projects will have a Hydromet station installed to provide real-time data on all reservoirs, most diversion dams, and most of the measuring structures in the irrigation systems. These stations can be found on the Internet by accessing Reclamation's home page at http://www.usbr.gov/gp. From the home page, select "Hydromet Data Center" under the Water Operations heading.

The Headlines 2006 that follows this synopsis is indicative of the awareness that the local people have of the natural resource development and conservation in the Niobrara, Lower Platte, and Kansas River Basins.

2006 Summary

Climatic Conditions

Precipitation at the project dams during 2006 ranged from 72 percent of normal at Virginia Smith Dam to 122 percent of normal near Davis Creek Dam. Temperatures during the first four months of the year were generally above normal throughout the projects area. Precipitation during the first four months of the year varied throughout the projects area. Precipitation totals were below normal at 13 of the 16 project dams, varying from 38 to 160 percent. Glen Elder Dam recorded zero precipitation for the month of January while six project dams recorded zero precipitation for the month of February.

Precipitation during May, June and July was generally below normal throughout the basin. All project dams recorded below normal precipitation during May, while nine project dams recorded below normal precipitation in June, and only three project dams recorded above normal precipitation in July. Merritt, Virginia Smith, and Davis Creek dams recorded the lowest precipitation total ever recorded for the month of May at the respective sites. Virginia Smith Dam recorded the lowest July precipitation total ever at the site. Average temperatures were above normal in May, June and July. August and September precipitation improved considerably with only four project dams recording below normal precipitation during August and only three dams recording below normal precipitation in September. Kiriwn Dam recorded the greatest August precipitation total ever for the month and Davis Creek Dam recorded the greatest September precipitation total at the respective sites. Temperatures in August and September were generally normal throughout the projects area.

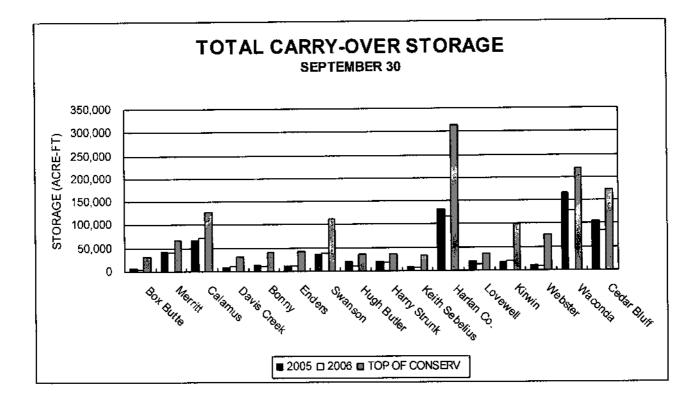
October was generally wetter than normal while November was generally drier than normal. Only five dams recorded below normal precipitation during October and all project dams recorded below normal precipitation during the month of November. Precipitation during November was only 24 percent of normal over the projects. Precipitation during December was well above normal at all project dams. December precipitation was the greatest ever recorded for the month at 13 of the 16 project dams. Temperatures were near normal in October and above normal in November and December.

Storage Reservoirs

1. Conservation Operations. The 2006 inflow was below the dry-year forecast at Box Butte, Bonny, Enders, Lovewell, and Webster Reservoirs, and Swanson, Hugh Butler, Harry Strunk, Harlan County, and Waconda Lakes. Merritt, Calamus, Davis Creek, Kirwin, and Cedar Bluff Reservoirs along with Keith Sebelius Lake had inflows between the dry- and normal-year forecasts. None of the project reservoirs had inflows above the normal-year forecast.

All project reservoirs had below average carryover storage from the 2005 water year with the exception of Box Butte Reservoir. Of the 12 project reservoirs in the Kansas River Basin, only Keith Sebelius Lake, and Lovewell and Cedar Bluff reservoirs did not record below average inflows during all 12 months of 2006. Cedar Bluff Reservoir recorded below average inflows during 11 months of 2006, and Keith Sebelius Lake recorded below average inflows during 10 of the months. Reservoir releases were made from Merritt and Virginia Smith Dams to maintain reservoir levels prior to the 2006 irrigation season. Just prior to the irrigation season, Enders, Kirwin, Webster and Box Butte Reservoirs, along with Keith Sebelius, Swanson, Hugh Butler, Harry Strunk and Harlan County Lakes, did not have sufficient storage to provide water users with a full water supply. Harry Strunk Lake and Lovewell Reservoir had some flood storage occupied prior to the irrigation season. The high irrigation demand months of July and August significantly reduced storage in those project reservoirs that had storage available for irrigation. Precipitation during late July and August was of little help in reducing the demands on project reservoirs. Storage in all the Kansas River Basin project reservoirs was below normal at the end of the irrigation season.

The following summarized graph shows a comparison of 2005 and 2006 carry-over storage conditions as compared to the top of conservation storage for all reservoirs in the Niobrara, Lower Platte, and Kansas River Basins as of September 30th



2. Flood Control Operations. Harry Strunk Lake and Lovewell Reservoir utilized flood pool storage in 2006. Flood releases were not required to reduce or maintain pool levels. The fiscal year 2006 flood control benefits accrued by the operation of Reclamation's Nebraska-Kansas Projects facilities was \$36,000 as determined by the Corps of Engineers. An additional benefit of \$7,000 was credited to Harlan County Lake. The accumulative total of flood control benefits for the years 1951 through 2006 by facilities in this report total \$1,873,595,000 (see Table 5). To date no benefits have been accrued by the operation of Box Butte, Merritt, Calamus, or Davis Creek Reservoirs.

A summary of precipitation, reservoir storage and inflows at Nebraska-Kansas Projects facilities can be found in Table 7.

Water Service

There was 266,671 acre-feet (AF) of water diverted to irrigate approximately 156,517 acres of project lands in the 12 irrigation districts (see tables 3 and 6). The project water supply was either inadequate or limited for 169,258 acres of the total project lands. This includes lands in Mirage Flats, Frenchman Valley, H&RW, Frenchman-Cambridge, Almena, Bostwick in Nebraska, Kansas Bostwick, Kirwin and Webster Irrigation Districts. The project water supplies for the other units mentioned in this report were more than adequate in 2006.

The water requirements of three municipalities, one rural water district, and two fish hatchery facilities were furnished from storage releases or natural flows.

Irrigation Production

The 2006 crop yields on lands receiving project water in the Nebraska-Kansas Projects were lower than 2005 for two of the four reporting districts. The average corn yield, the principal crop of all reporting districts, was 174 bushels per acre. This was approximately four bushels per acre less than in 2005. The average unit price of corn when harvested was higher than the previous year at approximately \$3.25/bu. The start of irrigation releases from project reservoirs varied considerably depending on storage water available. Much of the growing season was warmer and drier than normal. Most districts experienced some relief from the dry conditions during the middle part of August. Crop maturity progressed near normal during the growing season. Several irrigation districts had finished making irrigation releases by mid September. Twelve canals did not divert water in 2006 as a result of extremely short water supplies. All irrigation districts had finished delivering water by the end of September with corn harvest commencing by late October.

Fish and Wildlife and Recreation Benefits

The National Recreational Fisheries Policy declares that the Government's vested stewardship responsibilities must work in concert with the state managing agency's recreational fisheries constituency and the general public to conserve, restore, and enhance recreational fisheries and their habitats. The Nebraska-Kansas Area Office is available for meetings if requested with Nebraska, Colorado, and Kansas state management agencies to discuss the Annual Operating Plans (AOP). Information is solicited that will allow Reclamation the flexibility to enhance fisheries resources while still meeting contractual obligations with the various irrigation districts.

During the early part of the 2006 season, normal reservoir operations were favorable for recreation and fish and wildlife uses at project reservoirs with full or nearly full conservation pool levels. Lower water levels have been experienced at most reservoirs in the Kansas River Basin over the past few years somewhat limiting the recreation benefits. Normal summer drawdown due to irrigation releases did allow for some late summer shoreline revegetation.

The Calamus Fish Hatchery is located below Virginia Smith Dam and Calamus Reservoir. The hatchery consists of an office/visitor center, laboratory, 2 residences, a shop and feed storage building, 51 rearing ponds lined with VLDPE and-covering 45.5 acres, 24 concrete raceways, 2 lined effluent ponds, 8 groundwater wells, a 36-inch diameter buried pipeline from Virginia Smith Dam, a groundwater degassing tank, and a computerized monitoring and alarm system. The hatchery is operated and maintained by the Commission and produces approximately 53 million fish per year. The water supply is provided by natural flows passed through Virginia Smith Dam and from Calamus Reservoir storage through an agreement dated July 28, 1988, between the Commission and the Twin Loups Reclamation District.

2007 Outlook

Three forecast conditions have been developed for each of the reservoirs in the Niobrara, Lower Platte, and Kansas River Basins conforming with established operating criteria under various reservoir inflow conditions. These operation studies are included in table 4, sheets 1 through 16. The municipal and rural water district water supply requirements will be met under all three inflow forecast conditions for all units. Under reasonable minimum inflow forecast conditions, irrigation districts receiving storage water from the following lakes and reservoirs are expected to receive less than a full supply: Box Butte, Enders, Swanson, Hugh Butler, Harry Strunk, Keith Sebelius, Harlan County, Lovewell, Kirwin and Webster. The irrigation districts affected are Mirage Flats; Frenchman Valley and H&RW; Frenchman-Cambridge; Almena; Bostwick in Nebraska and Kansas Bostwick; Kirwin; and Webster; respectively. If 2007 is a dry year, 169,258 of the total 269,532 acres with service available to be irrigated (63 percent) will have an inadequate water supply:

Under most probable inflow conditions, it is also expected that Frenchman Valley, H&RW, Frenchman-Cambridge, Almena, Bostwick in Nebraska, Kansas Bostwick, Kirwin, Webster and Mirage Flats Irrigation Districts would experience some shortages to irrigation demands from Enders Reservoir, Hugh Butler Lake, Keith. Sebelius Lake, Harlan County Lake, Lovewell Reservoir, Kirwin Reservoir, Webster Reservoir and Box Butte Reservoir. Most irrigators in these districts plan to use water from private wells to supplement the project water supply.

Even under reasonable maximum inflow conditions, Mirage Flats, Frenchman Valley, and H&RW Irrigation Districts are expected to experience irrigation demand shortages from Box Butte and Enders Reservoirs.

Under reasonable minimum inflow conditions, the conservation pools at Merritt, Calamus and Davis Creek Reservoirs are expected to fill during 2007.

Even with low reservoir levels and inadequate water supplies for some project lands, the recommendations of various state agencies will be considered. As in the past, irrigation and reclamation districts will advise state agencies regarding aquatic weed control and canal operations. Reclamation will continue to operate the reservoirs and other facilities under its jurisdiction in the best interests of all project functions and for the optimum public benefit.

Headlines 2006

Bureau officially declares 2006 a water-short year Kansas compact

Dedication Wednesday The U.S. Bureau of Reclamation will dedicate the

new McCook Field Office at 1706 W. Third in McCook on Wednesday, A public open house is set

for 1 to 4 p.m., including tours of the new office.

Interior secretary signs Platte River agreement Want our water' NEW DIGS Public tours Bureau of Reclamation office

official: 'We

Farmers wonder: What's our water worth? Drought could mean

Water: Issue of the Decade restrictions on water

Gov. Heineman plans meetings to discuss future of Republican River Basin

Compact compliance could get more painful for irrigators in 2008

Lakes recovering, slowly State officials discuss Republican River Agreement may boost river flow Gauge sought to monitor

paid not to irrigate

. Cedar Bluff dam leak

Bureau's role

in our area

remains vital

Join us in welcoming the agency

into a new home in McCook.

CHAPTER I - INTRODUCTION

Purpose of This Report

This AOP advises water users, cooperating agencies, and other interested groups or persons of the actual operations during 2006 and serves as a guideline for the 2007 operations. This report also describes the responsibilities of Reclamation, Corps of Engineers, and the irrigation and reclamation districts in the Niobrara, Lower Platte, and Kansas River Basins.

Operational Responsibilities

Reclamation is responsible for irrigation operations at all federal reservoirs in the Nebraska-Kansas Projects. Reclamation is also responsible for the operation and maintenance (O&M), safety of the structure, and reservoir operations not specifically associated with regulation of the flood control storage at the reservoirs constructed by Reclamation. Regulation of the flood control storage is the responsibility of the Corps of Engineers. In addition to irrigation and flood control, these reservoirs provide recreation, fish and wildlife, and municipal benefits.

By contractual arrangements with Reclamation, the irrigation or reclamation districts in the Niobrara, Lower Platte, and Kansas River Basins are responsible for the O&M of the canals and irrigation distribution facilities constructed or rehabilitated by Reclamation. In addition, the appropriate irrigation or reclamation districts are responsible for operating and maintaining Box Butte, Merritt, Virginia Smith and Davis Creek Dams. The Corps of Engineers operates and maintains Harlan County Dam and Lake. The state of Colorado provides operational guidelines for Bonny Reservoir. Operational guidelines for Cedar Bluff Reservoir will be provided by the State of Kansas. Reclamation operates and maintains 11 dams and reservoirs in the Republican, Solomon, and Smoky Hill River Basins. Under a contract with Reclamation, Kirwin Irrigation District performs certain operational and maintenance functions at Kirwin Dam.

An updated Field Working Agreement was executed on July 17, 2001 between the Corps of Engineers and Reclamation regarding operation of Harlan County Dam and Lake. The agreement provides for a sharing of the decreasing water supply into Harlan County Lake. Storage capacity allocations were redefined based on the latest sediment survey (2000) and a procedure was established for sharing the reduced inflow and summer evaporation among the various lake uses.

The states of Nebraska, Colorado, and Kansas are responsible for the administration and enforcement of their state laws pertaining to the water rights and priorities of all parties concerned with the use of water. As provided by the lease agreement between Reclamation and the states, the states are responsible for administering the water surface activities and the federal lands around the reservoirs. The U.S. Fish and Wildlife Service administers the water surface activities and most of the federal lands at Kirwin Reservoir.

Reclamation cooperates with all state agencies and compact commissions to ensure that all operations are in compliance with state laws and compact requirements.

Tables and Exhibits

Records for the facilities reported in the AOP are included as tables and exhibits and are located following page 35.

Water Supply

For forecasting purposes, values of annual inflows that will be statistically equaled or exceeded 10, 50, and 90 percent of the time were selected from the probability data to be reasonable maximum (wet year), most probable (normal year), and reasonable minimum (dry year) inflow conditions, respectively.

Inflow records from 1987 through 2006 were used for the analysis of reservoirs in the Niobrara, Lower Platte and Kansas River Basins.

Reservoir Operations

All operations are scheduled for optimum benefits of the authorized project functions. Monthly, or as often as runoff and weather conditions dictate, Reclamation evaluates the carry-over storage and estimated inflow at each reservoir to determine whether excess water is anticipated. If excess inflow is apparent, controlled releases will be made to maximize the downstream benefits, including flood control.

Major Features

The Mirage Flats Project was constructed under the Water Conservation and Utilization Act and includes an irrigation storage reservoir, diversion dam, and canal system. The other features discussed in this report are all a part of the Pick-Sloan Missouri Basin Program and include single and multipurpose reservoirs, diversion dams, pump stations, and canal systems. The 16 storage facilities now in operation are listed below.

Constructed by Reclamation

1. Operated by irrigation or reclamation districts--Box Butte and Merritt Dams in the Niobrara River Basin and Virginia Smith and Davis Creek Dams in the Lower Platte River Basin.

2. Operated by Reclamation--Bonny, Trenton, Enders, Red Willow, Medicine Creek, Norton, Lovewell, Kirwin, Webster, Glen Elder, and Cedar Bluff Dams in the Kansas River Basin. A contract provides for Kirwin Irrigation District to perform certain operational and maintenance functions at Kirwin Dam.

Constructed and Operated by the Corps of Engineers

1. Harlan County Dam in the Kansas River Basin.

Irrigation and Reclamation Districts

Twelve irrigation districts and one reclamation district in the Niobrara, Lower Platte, and Kansas River Basins have contracted with Reclamation for water supply and irrigation facilities. The Twin Loups Irrigation District has contracted their O&M responsibilities to the Twin Loups Reclamation District. Bostwick Irrigation District in Nebraska has contracted their O&M responsibilities for Guide Rock Diversion Dam and the Courtland Canal between the headgates and the Nebraska-Kansas state line to Kansas Bostwick Irrigation District.

The contracted irrigation season for the Mirage Flats Irrigation District is April through September. The contracted irrigation season for Frenchman Valley, H&RW and Frenchman-Cambridge Irrigation Districts is from May 1st through October 15th or such additional period from April 1St through May 1St of each year as determined between the District and Reclamation. The contracted irrigation season for Almena, Bostwick in Nebraska, Kansas-Bostwick and Twin Loups Reclamation District is May 1st through September 30th or such additional period from April 1St through November 15th of each year as determined between the District and Reclamation. For all other districts, the contracted irrigation season is from May 1st through September 30th.

Long Term Water Service Contract Renewal

The renewal of the long-term water service contract with Ainsworth Irrigation District (AID) was completed in 2006. Negotiations to renew the long term water service contract began in May 2006 and were completed in September. A draft environmental assessment (EA) was made available for public review in May and the final EA was completed in December. The repayment contract was signed on December 26, 2006, and became effective on January 1, 2007.

Municipal Water

Three municipalities and one rural water district have executed water service contracts for full or supplemental water supplies.

Fish and Wildlife

The State of Kansas is presently using the fish hatchery facility below Cedar Bluff Reservoir for waterfowl habitat. The Calamus Fish Hatchery located below Calamus Reservoir is operated by the State of Nebraska for fish production.

State of Colorado Division of Wildlife

The Colorado Division of Wildlife provides operational guidelines for Bonny Reservoir. The entire conservation pool storage was purchased by the State of Colorado on June 24, 1982.

State of Kansas Department of Wildlife and Parks

The State of Kansas acquired the use and control of portions of the conservation capacity at Cedar Bluff Reservoir following the reformulation of the Cedar Bluff Unit in October of 1992. The City of Russell's existing water storage right and contract with the United States remained unchanged.

Power Interference Considerations

A Power Interference Agreement exists between Reclamation, the Twin Loups Reclamation District, and the Loup River Public Power District. A Subordination Agreement also exists between Reclamation, the Ainsworth Irrigation District and the Nebraska Public Power District. Provisions of these agreements will be incorporated into the 2007 operations.

Environmental Considerations

A "Statement of Operational Objectives" for Harlan County Lake sets forth the general operational objectives and the specific reservoir uses that are desirable. The operational objectives indicate that fish and wildlife interests are best served by high reservoir levels with minimum fluctuations, and regulation of the outflow in excess of the minimum desired flows. Although the statement recognizes flood control and irrigation as primary purposes, it indicates that comprehensive operational plans should be developed for maximum integration of the secondary uses.

These objectives are also considered in the operation of all Reclamation reservoirs in the Kansas River Basin, Niobrara River Basin, and the Lower Platte River Basin. The regulated outflow will also benefit farmers, ranchers, cities, and other interests below the reservoirs.

<u>Republican River Compact – Kansas v. Nebraska</u>

On May 26, 1998, Kansas filed a petition with the U. S. Supreme Court complaining that Nebraska had violated the Republican River Compact by using more than its share of the Republican River water supply. The three original parties to the Compact; Kansas, Nebraska and Colorado, became parties to the case. Because all of the major water development structures in the Republican River Basin were constructed by the Bureau of Reclamation and the Corps of Engineers, the United States was allowed to participate as an *amicus curiae*. After seventeen months of negotiations the Final Settlement Stipulation was signed by each respective governor and attorney general and was filed with the Special Master on December 16, 2002. The United States Supreme Court approved the settlement and dismissed the case on May 19, 2003.

The settlement provides for a moratorium on new groundwater wells, special rules for administration of water during water-short years, protection of storage releases, minimized flood flow effects on the accounting, recognition by Nebraska of a 1948 priority date for the Kansas-Bostwick Irrigation District, inclusion of the impacts of groundwater pumping from tableland wells in the accounting, and accounting for all reservoirs 15 acre-feet and larger within the river basin.

With the support of Kansas and Nebraska, Reclamation completed the Lower Republican River Basin Appraisal Report, which analyzed system improvement alternatives in the lower portion of the Republican River basin that would provide for more efficient use of the water supply. This report was published and distributed in January 2005. The study met requirements of the Final Settlement Stipulation by investigating system improvements in the Basin, including measures to improve the ability to utilize the water supply below Hardy, Nebraska. This study also met the responsibilities of the Republican River Compact by investigating the most efficient use of the water of the Republican River Basin for multiple purposes.

Nine alternatives were formulated using the recommended proposals provided by the Compact Commissioners. Three other alternatives were investigated for supplying water in meeting Minimum Desirable Streamflow (MDS) related needs in Kansas. The appraisal report concluded that additional water can be made available for storage in Lovewell Reservoir. The appraisal report recommends further Federal participation in a feasibility study and that such a study be undertaken to investigate solutions. Specific congressional authorization is required for Reclamation to perform a feasibility study. The purpose of a feasibility study is to identify, evaluate, and recommend to decision makers an appropriate, viable solution to the identified problems and opportunities. The States have indicated they would provide in-kind support and/or funding for the feasibility study. Both states have expressed interest in pursuing legislation for the study. Legislation for authorizing the study was introduced in 2003 but the legislation was not advanced. On February 13th, 2007, congressmen from both Nebraska and Kansas reintroduced the Lower Republican River Basin Study Act (H.R. 1025). The language in the re-introduced legislation is essentially the same as the legislation originally introduced in 2003.

The Stipulation also required that the States, in cooperation with the United States, form a Conservation Committee to develop a proposed study plan to determine the quantitative effects of non-federal reservoirs and land terracing practices on water supplies in the Republican River Basin above Hardy, Nebraska. The Study Plan supported by the three states, the Natural Resources Conservation Service, and Reclamation was completed and signed on April 28, 2004. Cooperative agreements for completing the five year study were developed between Reclamation, the University of Nebraska-Lincoln (UNL), and Kansas State University. Installation of data loggers on 35 reservoirs throughout the basin was completed in 2004. Advanced monitoring equipment for terraces and additional reservoirs was installed by UNL in 2006. Data collection and model development will continue in 2007. The study is expected to be complete in 2009.

Water-Short Year Administration will be in effect in those years in which the projected or actual irrigation supply is less than 119,000 acre feet of storage available for use from Harlan County Lake as determined by Reclamation. It was determined in 2006 that a "Water-Short Year Administration" was in effect.

Frenchman Valley Appraisal Study

In 2004, the Nebraska Department of Natural Resources (DNR) requested Reclamation prepare an Appraisal Study (AS) to examine opportunities for more efficient management of water supplies in the Frenchman River Valley including Reclamation's Enders Reservoir, a feature of the Frenchman-Cambridge Division in Nebraska. The study will focus on problems and opportunities in an area that has experienced dramatically reduced ground and surface water supplies, including reduced reservoir inflows. Pre-planning activities, including developing a Plan of Study began in 2005. Agencies participating in the study include, Reclamation, Nebraska DNR, Frenchman Valley and H&RW Irrigation Districts, Nebraska Game and Parks Commission, and the Upper and Middle Republican Natural Resources Districts. The POS is anticipated to be completed in calendar year 2007, along with model development and selection of alternatives.

Emergency Management

The Nebraska-Kansas Area Office (NKAO) continued to coordinate with local jurisdictions that could potentially be impacted by flooding from large operational releases and/or dam failure. Three tabletop exercises and two functional exercises were conducted during calendar year 2006. Orientation meetings were held for all of the NKAO dams. Tabletop exercises were held for the Norton Dam Emergency Action Plan (EAP), Virginia Smith Dam EAP, and the Davis Creek Dam EAP. Functional exercises were held for the Webster Dam EAP and Glen Elder Dam EAP. Emergency radios have been installed at all dams. These radios will be used as a backup means of communication when notifying the local emergency management officials in the event of an emergency at the dam. Both the Nebraska-Kansas Area Office and the McCook Field Office have a satellite phone that can be used in an emergency. Management and the dam operators have been trained on the use of these phones. An internal alert at Red Willow Dam continues from 2005 due to discovery of material in the outlet works stilling basin under drain system. Additional analysis of the outlet works stilling basin under drain system will continue in 2007. An internal alert at Enders Dam is still in effect until the investigation of the stability of the outlet works stilling basin and risk assessment are complete.

Five functional exercises are planned in 2007. EAP orientation meetings will be held at all other NKAO dams. Site security plans for Trenton, Lovewell, and Glen Elder Dams were finalized and published in 2006. Site security plans for the other 12 project dams are scheduled to be finalized and published in 2007.

Public Safety Reviews

The Annual Safety Training for field personnel was held at the Community College in McCook, NE in February 2006. An invitation letter was sent to all of the water users within the NKAO jurisdiction. This letter included some safety tips, an invitation to the Annual Safety Training, and promoted the utilization of assistance from Reclamation when developing or maintaining safety programs for the water districts. This training provided maintenance personnel the opportunity to renew their 10 hour certification with respect to OSHA construction standards. First Aid and CPR training was also provided to all interested NKAO personnel. The First Aid and CPR training was provided by the McCook Fire Department.

The ongoing safety reviews of project facilities continues to identify potential safety hazards to the public and operating personnel. NKAO combines the Safety Reviews of the major facilities with the Dam Safety Facility Reviews. This format provides for input from both the Area Safety Manager, and teams of Dam Safety Specialists. Some recommendations included enhanced confined space signage, expanding the public knowledge of safety issues around our facilities, and provide training to employees regarding some of the new OSHA requirements for record keeping.

Formal training for the Automatic External Defibrillators (AEDs) was provided to all NKAO employees in early 2006. The AEDs were acquired for the McCook Office, the Grand Island Office, and two field ready models. This process involved developing a protocol with the Federal Occupational and Health Services center in Denver.

An effort to focus on the NKAO Hazardous Communication Program was undertaken during 2006. Training focused on supplying employees the information and equipment to maintain a healthy and safe work environment. This program encouraged compliance with 29 CFR 1910.1200 and our own Reclamation Safety and Health Standard. The training stressed container labeling, material safety data sheets, storage of chemicals, and understanding the different terminologies and definitions. As a result of this type of training, some lead based material was removed from the McCook yard by a hazardous materials removal contractor.

In order to ensure facility accessibility, reliability and safety, achieving compliance with accessibility standards continues. Evaluations and the development of the action plans continued during 2006. The action plans identify work activities and provide estimated funding requirements for the needed accessibility retrofits at public facilities. These improvements are being coordinated with our managing partners, and are implemented as budget allows.

Attention continues with regards to issues concerning ergonomics, West Nile Virus, hazardous materials, pesticide use, arc flash hazards, extraction of injured personnel, and communications. Employees were provided safety and health training, and given information related to these and several other issues throughout the year.

Facility Reviews, Maintenance and Construction

Comprehensive Facility Reviews were conducted at Davis Creek, Medicine Creek, Red Willow Dams during 2006. Periodic Facility Reviews were conducted at Virginia Smith, Merritt, Lovewell, and Glen Elder Dams. Annual Site Inspections were conducted at the other eight NKAO dams in 2006.

Technical surveys were completed at Medicine Creek and Merritt Dams in 2006.

Video inspection of the toe drain system at Box Butte Dam was completed in April 2006. A program to examine all of our toe drain systems was initiated in 2001.

The Reclamation Dive team conducted underwater exams at Red Willow and Glen Elder stilling basins in 2006.

Security enhancements continue at NKAO dams.

CHAPTER II - NIOBRARA AND LOWER PLATTE RIVER BASINS

Mirage Flats Project in Nebraska

<u>General</u>

Flows in the Niobrara River along with Box Butte Reservoir storage provide a water supply for the 11,662 acre Mirage Flats Project. From 1997 to 2006, the project water supply averaged 11,700 AF, which is about 1.00 acre-foot per irrigable acre. Many irrigators supplement their water supply with private wells.

The Mirage Flats Irrigation District cooperates with the Nebraska Game and Parks Commission (Commission) by operating the Box Butte Dam outlet works gate and the Dunlap Diversion Dam gates in a manner to avoid sudden large changes in the flows of the Niobrara River. A 30-year agreement was made in 1990 between the district and the Commission whereby the district would not draw the reservoir water level below elevation 3978.00 feet (2,819 AF). In return the district received an up-front payment which was used to improve the efficiency of the project's delivery system. On March 17, 2000, the district agreed to increasing the minimum reservoir level by one additional foot to elevation 3979.00 feet (3,244 AF). In return the district received an additional payment from the Commission for the 20 years left on the original agreement.

A data collection platform (DCP) was installed in May of 1992 to monitor the reservoir elevation and outflow at Box Butte Dam. A telephone (primary communication system) and a radio (backup communication system) have been installed at the outlet works for contacting the Region 23 Emergency Management Agency.

2006 Summary

The flows of the Niobrara River plus the carry-over storage in Box Butte Reservoir were not adequate to provide a full water supply for the project lands. Precipitation at the Mirage Flats Irrigation District Office totaled 14.77 inches, which is 87 percent of normal. The 2006 total inflow of 10,391 AF was below the dry-year forecast and the lowest annual computed inflow ever recorded at the reservoir.

From early July through early September, diversions of 10,423 AF to the Mirage Flats Canal provided irrigation water for approximately 11,092 acres, 95 percent of the service available acreage. The farm deliveries from the project water supply totaled 4,244 AF (0.38 acre-foot per irrigable acre), which is a delivery efficiency of 41 percent. Total reservoir storage was only 3,676 AF at the end of the irrigation season. Privately owned irrigation wells supplemented the project water supply.

An orientation meeting to review the Box Butte Dam EAP took place in April and the Annual Site Inspection of Box Butte Dam was conducted in September.

A video inspection of the toe drain system was conducted in April 2006. The inspections revealed significant sediment deposition in several elements of the toe drain system. Several recommended actions were outlined in a Report of Findings issued in November 2006 including: cleaning the remaining sediments from the toe drains and outfall drain pipes, cleaning and

measuring the sediments from the seepage monitoring weir boxes, and performing a new risk analysis during the next Comprehensive Facility Review process.

The District continued to implement water conservation measures as outlined in their Water Management Plan and their Long Range Plan. Assistance to project irrigators provided by the District include delivery sytem improvements that provide on-farm efficiency improvements, such as relocation of turnouts, burying pipe for better access, and on-farm efficiency incentives. The District continues to modify and update their computer software to improve system operations, scheduling, and accounting and continued development of their web page that allows irrigators to place water orders, review water accounts, and keep updated on district operations. In 2006, Reclamation's Water Resources Research Laboratory (WRRL) visited the District to assist with the continued development of the canal automation and remote monitoring system.

2007 Outlook

The project water supply is expected to be inadequate in 2007 as it has been since the early 1960's. In the spring, the district will inform their water users of the amount of water that will be available from storage in Box Butte Reservoir. It is anticipated that District irrigators will continue to use their privately-owned irrigation wells as a supplemental supply.

A Periodic Facility Review of Box Butte Dam is scheduled to be conducted in 2007.

The District's future water conservation plans include the automation of Dunlap Diversion Dam and the outlet works gate at Box Butte Dam. The District will again seek assistance from Reclamation's WRRL to fine tune the automation and remote monitoring system already in place. The District is also investigating the installation of an Automated Weather Data Network station that will assist district irrigators with irrigation scheduling. This station would provide real time weather data, soil moisture data and crop evapotranspiration data.

Ainsworth Unit, Sandhills Division in Nebraska

General

Within the Ainsworth Irrigation District, there are approximately 35,000 acres with available service. The project water supply is provided by storage of Snake River flows in Merritt Reservoir. The reservoir is filled to elevation 2944.0 feet each fall after the irrigation season. This level is approximately two feet below the top of conservation capacity and within the repaired area of soil cement on the upstream face of the dam. The reservoir is regulated to maintain this level until the ice clears each spring. Maintaining the reservoir at this elevation during the winter will help avoid ice damage to the older existing soil cement at lower elevations. Upon ice-out the outlet pipe is drained, inspected, and repaired as necessary. The reservoir will then be rapidly filled to elevation 2946.0 feet to reduce shoreline erosion around the reservoir and minimize sand accumulations on the face of the dam. This filling process generally takes place in April. The reservoir level is maintained until irrigation releases begin to draw on the pool around mid May. Seepage, pickup and toe drain flow normally result in flows of up to 15 cfs below Merritt Dam.

Reclamation is in the process of developing a Memorandum of Agreement (MOA) between Reclamation, the Nebraska Game and Parks Commission and the Ainsworth Irrigation District for the Development of Criteria for Releases to the Snake River below Merritt Reservoir. The purpose of this MOA is to establish the protocol that will be used to make future releases of water from Merritt Reservoir to the lower Snake River. The development of the MOA is an environmental commitment outlined in the Ainsworth Irrigation District Final Environmental Assessment (FEA) for the conversion of a Long-Term water Service Contract to a Repayment Contract (December 2006).

Release criteria will be based on the best available scientific data to determine when local conditions warrant releases to the Snake River. When it becomes necessary to release water from Merritt Reservoir, Reclamation will direct the Ainsworth Irrigation District to make the necessary releases to the river.

2006 Summary

Precipitation, as recorded near Merritt Dam, totaled 18.40 inches, which was 90 percent of normal. April and June precipitation was the highest on record for the respective months. The inflow for the year totaled 176,810 AF. This inflow was between the dry- and normal-year forecasts. The water supply was more than adequate to meet the project's irrigation requirement. There were 83,497 AF diverted from Merritt Reservoir into Ainsworth Canal, with 55,339 AF delivered to the farm headgates (delivery efficiency of 66 percent). There were 34,452 acres of land irrigated in 2006.

The district provided a total of 577 AF of irrigation water from holding ponds located within the district's service area.

An orientation meeting to review the Merritt Dam EAP took place in April 2006 and a Periodic Facility Review of Merritt Dam was conducted in October.

A technical survey of Merritt Dam was conducted in October.

The Ainsworth Irrigation District, along with Reclamation and the local Natural Resource District, continued to provide support to the University of Nebraska Extension Service for an irrigation scheduling/nitrogen management demonstration that will educate and improve irrigation management in the area. The first demonstration site included a center pivot in the District and a field day was held in the fall of 2005. In 2006 a furrow irrigated site was added to this project and another filed day was held. This project will continue in 2007.

Working with Reclamation's technical and financial assistance through a cooperative agreement, the District installed a new ramp flume on the Airport Lateral. This flume will improve district delivery operations and reduce operational waste.

2007 Outlook

During the winter months, the reservoir will be regulated to maintain elevation 2944.0 feet (2.0 feet below the top of conservation capacity). In order to alleviate erosive action to the lands around the reservoir and to maximize all benefits associated with the reservoir, releases from Merritt Reservoir will be regulated to fill the conservation capacity during the early spring. This filling generally takes place during April. The reservoir level will be maintained from the end of April until irrigation releases begin. If weather conditions or irrigation demands dictate, it may be necessary to begin filling the reservoir prior to this time. The water supply is expected to be adequate in 2007 for the irrigation of 35,000 acres.

The Ainsworth Irrigation District updated their Water Conservation Plan in the fall of 2005. Improved water measurement opportunities were identified as one of the main objectives of the District. The District is working with Reclamation on some operational measurement problems on some of the lateral turnouts and is investigating the possibility of installing some new ramp flumes to improve delivery system operations. The District plans to work with Reclamation in order to automate the Airport Lateral turnout in the spring of 2007. The District is also looking to improve measurement and automation opportunities on the Sand Draw Lateral and the B-15.0 Lateral. The District Manager plans to attend Reclamation's Modern Methods in Canal Operation and Control, a hands-on workshop for canal operation, automation, and control.

North Loup Division in Nebraska

General

The North Loup Division is located in the Loup River drainage basin. Water is diverted from both the Calamus and North Loup Rivers for the irrigation of approximately 54,900 acres of project lands. Operation of the division will also provide a sustained groundwater supply for an additional 17,000 acres. Principal features of the division include Virginia Smith Dam and Calamus Reservoir, Calamus Fish Hatchery, Kent Diversion Dam, Davis Creek Dam and Reservoir, five principal canals, one major and one small pumping plant and numerous open ditch and buried pipe laterals.

Calamus Reservoir is normally regulated at three to four feet below the top of conservation capacity during the winter months. Maintaining the reservoir at this elevation during the winter will help avoid ice damage to the soil cement on the upstream face of the dam. After the ice clears in the spring, the reservoir will be filled to conservation capacity. The North Loup Division project operation is restricted to no water diversions from the Calamus and North Loup Rivers during the months of July and August, and also during the month of September whenever sufficient water is available in storage reservoirs to deliver canal design capacity. During this time, inflows to Calamus Reservoir are required to be bypassed under the Power Interference Agreement between Reclamation, the Twin Loups Reclamation District, and the Loup River Public Power District and as required in the authorizing legislation.

Davis Creek Reservoir will be regulated near elevation 2048.0 feet following the irrigation season and through the winter months. This carry-over elevation provides a minimal recreational pool while reducing increases in groundwater storage due to reservoir seepage. The reservoir is filled via Mirdan Canal, starting in April and reaching full content by the end of June. A 160-acre recreation area adjoining the reservoir continues to be managed by the Lower Loup Natural Resources District. The area includes a boat ramp, a handicapped accessible fishing pier, a day-use area, a primitive camping area, shelter and a hiking path. Kent Diversion Dam is managed by the Nebraska Game and Parks Commission and is also open to day-use fishing with handicapped accessibility provided.

2006 Summary

Precipitation at Virginia Smith Dam was 17.80 inches which is 72 percent of normal. The inflow totaled 236,764 AF which was between the dry- and normal-year forecasts. There were 86,054 AF of water released into Mirdan Canal and 26,091 AF diverted through Kent Canal from the North Loup River. A total of 55,376 AF was diverted for district use above Davis Creek

Reservoir. The farm headgate delivery was 31,764 AF which is a delivery efficiency of 57 percent. Land irrigated in 2006 totaled 34,040 acres above Davis Creek Reservoir. Calamus Reservoir inflows were bypassed during July, August, and September as required. The reservoir elevation at the end of the year was at 2239.86 feet. The Calamus Fish Hatchery used bypassed natural flows and storage from Calamus Reservoir totaling 5,908 AF during 2006.

The precipitation of 28.50 inches near Davis Creek Dam was 122 percent of normal. Inflow to Davis Creek Reservoir totaled 50,048 AF during 2006. Beginning in mid April, Davis Creek Reservoir was filled from an elevation of approximately 2047.0 feet to a peak elevation of 2072.65 feet on June 26th using diversions from the North Loup River and Calamus Reservoir. A release of 39,878 AF was made from Davis Creek Dam into Fullerton Canal, with 21,908 AF delivered to the farm headgates (55 percent delivery efficiency). There were 20,861 acres irrigated below Davis Creek Reservoir. The reservoir elevation at the end of 2006 was near the normal wintering level at 2051.24 feet.

A tabletop exercise of the Virginia Smith Dam and Davis Creek Dam EAPs took place in September 2006. A Comprehensive Facility Review of Davis Creek Dam was conducted in May and a Periodic Facility Review of Virginia Smith Dam was conducted in October.

The Standing Operations Procedures for Davis Creek Dam were updated and republished in June 2006.

Through a cooperative agreement with Reclamation, the District began installing remote monitoring equipment at key canal sites to improve delivery system operations. In 2006 the District installed remote monitoring equipment at three sites.

2007 Outlook

Filling of Calamus Reservoir will continue through late winter and early spring. The reservoir will be allowed to fill to an elevation of 2244.0 feet (top of conservation capacity) in late March or April. This reservoir level will be maintained in order to minimize shoreline erosion until demands begin to draw on the reservoir. Bypassing of inflows will be made during July, August and September. In the fall the reservoir will be filled to an elevation of approximately 2240.0 feet, if possible.

Water will be available for all irrigable acres with service from the Mirdan, Geranium and Scotia Canals and Lateral Systems. It is estimated that approximately 34,500 acres will be irrigated from these canals. Water supplies will be sufficient to meet the full dry-year requirements.

Filling of Davis Creek Reservoir will take place this spring with flows diverted from the North Loup River at Kent Division Dam and transported through Kent and Mirdan Canals. Storage water can also be transferred from Calamus Reservoir into Davis Creek Reservoir during the summer months via Mirdan Canal. Water will be sufficient to irrigate an estimated 20,900 acres from Elba and Fullerton Canals under all inflow forecast conditions. The reservoir level will be regulated to normal winter levels at the end of the season.

The fish hatchery demand for 2007 is expected to be similar to that of the last few years with approximately 6,500 AF required for the hatchery.

On-site dam operator training is also scheduled to take place at Davis Creek Dam in 2007.

The District plans to expand their remote monitoring capabilities by installing equipment at additional wasteways and key canal measurement sites throughout their delivery system. The first of three of these installations were placed in service in 2006. The District will continue to expand their remote monitoring capabilities in 2007.

CHAPTER III - REPUBLICAN RIVER BASIN

Armel Unit, Upper Republican Division in Colorado

<u>General</u>

Normal reservoir operations for Bonny Reservoir are primarily for recreation and fish and wildlife support, although water will be available for water right administration and irrigation purposes.

Bonny Reservoir inflows from the South Fork of the Republican River and Landsman Creek are released into Hale Ditch as requested by the Colorado State Engineer. The state will make Bonny storage water available to Hale Ditch and other natural flow appropriators under short-term water service contracts. Most of the 700 acres served by Hale Ditch are now owned and operated by the Division of Wildlife, Colorado Department of Natural Resources.

The normal operation pattern of Bonny Reservoir, with a slowly rising or stable pool, enhances fish spawning in the spring and provides excellent fishing opportunities during the summer and hunting conditions each fall.

2006 Summary

The annual precipitation total of 16.41 inches at Bonny Dam was 95 percent of normal. The annual computed inflow of 6,350 AF to Bonny Reservoir was below the dry-year forecast and the second lowest ever recorded at the site. Below normal inflows were recorded during every month of the year. April inflows were the lowest on record for the month since first filling. The reservoir level was 19.0 feet below the top of conservation at the first of the year. The reservoir level gradually increased 0.65 foot to a maximum reservoir level of 3653.71 feet on April 12 th. The reservoir level gradually decreased throughout the remainder of the year. Bonny Dam recorded a maximum one day precipitation total of 1.49 inches overnight on July 9 th. A new historical low reservoir elevation of 3650.49 feet was recorded on December 14 th. The reservoir elevation at the end of the year was 21.3 feet below the top of conservation at 3650.69. The Corps of Engineers determined that \$7,000 in flood prevention benefits were realized from the operation of Bonny Reservoir during 2006.

The Colorado Water Commissioner did not direct inflows from the South Fork of the Republican River and Landsman Creek passed through Bonny Reservoir into Hale Ditch. Likewise, the Colorado Department of Natural Resources did not request storage releases for irrigation purposes into Hale Ditch.

An EAP orientation meeting and an Annual Site Inspection of Bonny Dam were conducted in June.

Concrete repairs were made on the spillway inlet apron and the crack in the transverse portion of the curved vertical wall in 2006. A large void was discovered during the concrete repairs on the right side of the inlet where the upper horizontal floor slab met the sloping floor slab. Work is planned for 2007 to core the slab and backfill with flowable fill.

2007 Outlook

Water stored in Bonny Reservoir will be available to Hale Ditch and other private irrigators under short-term water service contracts executed with the state.

Inflows will be stored during the winter until filling of the conservation pool is certain. Releases can be made during this period to maintain a constant reservoir elevation when filling of the reservoir is imminent or if icing were to become a problem.

A functional exercise of the Bonny Dam EAP is planned for 2007.

Frenchman Unit, Frenchman-Cambridge Division in Nebraska

<u>General</u>

The Culbertson Canal and the Culbertson Extension Canal systems serve 9,292 acres in the Frenchman Valley Irrigation District and 11,915 acres in the H&RW Irrigation District. The water supply for these lands is furnished by flows from Frenchman and Stinking Water Creeks and off-season storage in Enders Reservoir located on Frenchman Creek, a tributary of the Republican River in southwest Nebraska. Irrigation releases are conveyed via Frenchman Creek from Enders Reservoir to Culbertson Diversion Dam. Reclamation maintains/clears this section of Frenchman Creek prior to the irrigation season each spring.

The normal operation of Enders Reservoir, with the gradual rise in water surface during the spring months, provides desirable fish spawning conditions. Irrigation releases will normally deplete the conservation storage by late summer, thereby limiting the fishing and recreational usage.

2006 Summary

The annual precipitation total of 20.08 inches at Enders Dam was above normal (106 percent). The 2006 inflow into Enders Reservoir of 4,284 AF was below the dry-year forecast and the lowest ever recorded at the site. January and April inflows were the lowest ever recorded for the respective months. Due to extensive groundwater pumping above the reservoir, the inflow was only seven percent of the average historical reconstruction runoff at the Enders Dam site (60,700 AF from 1929-1947). This year was the 39th consecutive year with below-normal inflows in which the conservation pool did not fill. The reservoir level was 26.0 feet below the top of conservation at the first of the year. The reservoir pool gradually increased with late winter and spring inflows peaking at 3086.97 feet (25.3 feet below the top of conservation) on April 7th. Due to the extremely low water supply available, no water was released from Enders Reservoir. The greatest 24-hour precipitation total recorded during the year at Enders Dam was 3.08 inches overnight on May 23'. The end of the year reservoir level was 26.4 feet below the top of conservation.

The Frenchman Valley Irrigation District did not divert water into Culbertson Canal in 2006. In the spring of 2006, the Nebraska Department of Natural Resources entered into a Memorandum of Agreement (MOA) with the Frenchman Valley Irrigation District to purchase the district's natural flow rights for calendar year 2006. The MOA, approved by the irrigators within the district, provided that no water would be diverted into the Culbertson Canal during 2006. The H&RW Irrigation District did not divert water into Culbertson Extension Canal in 2006 due to the extremely low water supply. This was the fifth consecutive year that the district did not deliver water. H&RW Irrigation District storage water in Enders Reservoir was carried over into 2007.

In August 2004, a small depression was discovered near the outlet works stilling basin at Enders Dam. An Internal Alert remains in effect until investigation of the stability of the outlet works stilling basin and risk assessment are complete. A Safety of Dams recommendation in 2006 recommend filling the stilling basin under drain system and potential voids with low-pressure grout and backfilling the existing sinkhole with compacted material after completion of the grouting program.

An Annual Site Inspection of Enders Dam was conducted in June 2006 and an orientation meeting to review the Enders Dam EAP took place in November.

In 2006, the Frenchman Valley Irrigation District (along with Reclamation) again provided support for a Limited Irrigation Demonstration Project with the University of Nebraska Extension Service. One demonstration site was located near Benkelman and demonstrated various irrigation strategies with a very limited water supply.

2007 Outlook

The fall and early winter inflows into Enders Reservoir were below the dry-year forecast. If reasonable minimum inflow conditions prevail, the project water supply is expected to experience a shortage of about 80,600 AF. Most probable inflow conditions are expected to be inadequate by 52,400 AF and reasonable maximum inflow conditions by 18,000 AF, to irrigate the 9,292 acres in the Frenchman Valley Irrigation District and 11,915 acres in the H&RW Irrigation District.

A functional exercise of the Enders Dam EAP is planned for 2007. A Periodic Facility Review of Enders Dam is also scheduled for 2007.

The Frenchman Valley Irrigation District will continue to support the Limited Irrigation Demonstration project in 2007. The District has expressed an interest in replacement of additional open ditch laterals with buried pipe. Future piping projects are somewhat limited due to the water supply shortage. The District is also investigating remote monitoring opportunities to improve the delivery system operations. The District has identified two additional operational wasteways sites that would improve delivery systems with remote monitoring.

The Frenchman Valley Irrigation District and the H&RW Irrigation District are cooperating with Reclamation, the Nebraska Department of Natural Resources, the Upper and Middle Republican NRDs, and the Nebraska Game and Parks Commission on the Frenchman Valley Appraisal Study which will investigate possible alternatives to identify the most efficient use of the declining water supply in the basin. The Districts have also participated in discussions with DNR on the water supply issues as they relate to the Republican River Compact and the settlement.

Meeker-Driftwood, Red Willow, and Cambridge Units, Frenchman-Cambridge Division in Nebraska

<u>General</u>

During the spring months, Swanson, Hugh Butler, and Harry Strunk Lakes normally have a rising or stable pool which enhances the spawning of northern pike and walleye. These lakes provide excellent opportunities for fishing, water sports, and recreation.

Service is provided for Frenchman-Cambridge Irrigation District by Meeker-Driftwood Canal to 16,855 acres; Red Willow Canal to 4,797 acres; Bartley Canal to 6,353 acres; and Cambridge Canal to 17,644 acres. The water supply for these lands is provided by storage in Swanson, Hugh Butler, and Harry Strunk Lakes, and inflows of the Republican River and Red Willow and Medicine Creeks. The Frenchman-Cambridge Irrigation District has replaced all of the open ditch laterals which were economically feasible with buried pipe which has significantly increased both system and on-farm efficiencies. The District is currently placing the lower reaches of the open ditch Cambridge Canal into buried pipe.

2006 Summary

The annual precipitation total of 20.76 inches at Trenton Dam was 104 percent of normal. The inflow of 12,047 AF to Swanson Lake was well below the dry-year forecast and the lowest annual computed inflow ever recorded at the lake. The inflow was below normal for all twelve months. The reservoir level began the year approximately 20.6 feet below the top of conservation pool. The reservoir level gradually increased during the spring and peaked at 2733.69 feet on April 18th (approximately 18.3 feet below full). Due to the extremely low water supply available, no water was released from Swanson Lake. Irrigation diversions were not made into Meeker-Driftwood Canal. This was the fourth consecutive year that the district did not deliver water from the Meeker-Driftwood Canal. At the end of the year the reservoir level was 20.2 feet below the top of conservation at 2731.85 feet.

The annual precipitation total of 19.65 inches at Red Willow Dam was 100 percent of normal. The greatest precipitation event recorded at Red Willow Dam in 2006 was 1.91 inches overnight on July 20th. The annual inflow of 8,638 AF into Hugh Butler Lake was below the dry-year forecast and the lowest ever recorded at the site. The computed inflow for all twelve months of the year was below normal with record lows recorded during January, February, March and April. The reservoir level at the first of the year was 11.5 feet below the top of conservation. Inflows gradually increased the level of the reservoir to a peak of 2571.32 feet (10.5 feet below full) on April 8th. Irrigation releases began on June 24th and were discontinued on August 18th. Approximately 9,200 acre-feet of water was released from Hugh Butler Lake for irrigation in Bartley Canal. Irrigation diversions were not made into Red Willow Canal for the fourth consecutive year. The level of Hugh Butler Lake at the end of the year was 18.6 feet below the top of conservation, the second lowest end of year storage ever recorded.

The water supply was limited with 5,830 AF diverted to irrigate 5,722 acres served by the Bartley Canal (farm delivery efficiency was 45 percent).

The annual precipitation total of 22.88 inches at Medicine Creek Dam was 111 percent of normal. The inflow of 27,009 AF was below the dry-year forecast and the lowest annual total ever recorded. The computed inflow was below normal during all twelve months with record lows

recorded in February and April. The reservoir level at the beginning of 2006 was 5.4 feet below the top of conservation. The reservoir pool gradually increased peaking at 2366.41 feet on June 24th (0.3 foot into flood pool). Irrigation releases began on June 25th and were shut off on September 1st with nearly 23,700 AF of water released from the reservoir for irrigation. The greatest 24-hour precipitation event recorded at Medicine Creek Dam was 2.07 inches overnight on June 18th. Harry Strunk Lake was 7.7 feet below the top of conservation at the end of the year. The Corps of Engineers determined that the reservoir prevented \$15,000 in flood damages.

The water supply was limited with 19,692 AF of water diverted to irrigate 15,077 acres of land served by the Cambridge Canal (farm delivery efficiency was 47 percent).

An orientation meeting to review the Trenton, Red Willow, and the Medicine Creek Dams' EAPs took place in September 2006. An Annual Site Inspections was conducted in March at Trenton Dam. Comprehensive Facility Reviews were conducted at Medicine Creek and Red Willow Dams in June 2006.

A technical survey of Medicine Creek Dam was completed in May 2006.

In July 2005, a small quantity of fine sand was discovered near the river outlet works stilling basin drain outlet during an inspection at Red Willow Dam. Five piezometers were installed in April 2006 adjacent to the outlet works and spillway stilling basins and temporary plugs were placed in the underdrain outlets in May. An Internal Alert remains in effect until additional analysis of the underdrain system is complete.

Painting of the spillway gate and associated metal work at Trenton Dam began in 2006 but was discontinued due to winter weather. The painting contractor will complete the painting in 2007. Initial site prep work for a new storage building at Trenton Dam was completed in 2006. The building will be completed in 2007.

The District (along with Reclamation) continued to provide support for a Limited Irrigation Demonstration Project with the University of Nebraska Extension Service. The demonstration site was located just east of Arapahoe and demonstrated various irrigation strategies with a short water supply. The project received water from the Cambridge Canal and a field day was well attended.

In 2006 the District began a pipe project that will replace approximate 3 miles of the end section of Cambridge Canal with buried pipe. Reclamation is providing technical and financial assistance for this project through a cooperative agreement with the District. This project will eliminate approximately 3 miles of open ditch canal and will also provide improved delivery service to a number of project irrigators.

2007 Outlook

Forecasts show that carry-over storage, streamflow gains, plus reasonable minimum inflows for the three lakes supplying the Frenchman-Cambridge Irrigation District will be inadequate to meet the full dry-year irrigation requirement by 45,400 AF.

New Area-Capacity Tables for Harry Strunk Lake became effective on January 1, 2007. These revised tables resulted from a sedimentation survey conducted in May 2006.

A Periodic Facility Review of Trenton Dam is scheduled for 2007. On-site dam operator training is also scheduled to take place at Red Willow and Medicine Creek Dams in 2007.

The Standing Operating Procedures for Trenton Dam are being updated and are expected to be republished in 2007.

The district plans to support the limited irrigation demonstration again in 2007. The district is planning to finish the Cambridge Canal pipe project prior to the 2007 irrigation season. The district is also investigating expanding the operational capabilities of two check structures on Cambridge Canal to improve operations.

Almena Unit, Kanaska Division in Kansas

<u>General</u>

Service is available to 5,764 acres in the Almena Irrigation District. The project water supply is provided by Prairie Dog Creek flows and Keith Sebelius Lake storage.

The water service contract for the City of Norton, Kansas, provides for a maximum annual use of 1,600 AF from Keith Sebelius Lake.

2006 Summary

The annual precipitation at Norton Dam totaled 27.56 inches, which is 113 percent of normal. The total inflow of 4,329 AF was between the dry- and normal-year forecasts. The reservoir level was 17.8 feet below the top of conservation on December 31, 2005. Late winter and early spring inflows gradually increased the reservoir level to a peak elevation of 2287.27 feet on April 14th (17.0 feet below full pool). Irrigation releases were not made from the reservoir in 2006. Keith Sebelius Lake was 18.1 feet below the top of conservation (2286.22 feet) at the end of the year.

The city of Norton used 456 AF of municipal water during 2006.

An Annual Site Inspection of Norton Dam was conducted in June and a tabletop exercise of the Norton Dam EAP took place in August 2006.

A Safety of Dams recommendation was made in 2000 concerning the seepage through the left abutment and around the outlet works house at Norton Dam. Technical Service Center personnel inspected the seepage areas in June 2001 and recommended consideration of monitoring improvement and additional instrumentation. A final issue evaluation report of findings (Technical Memorandum ND-8312-2) in 2003 concluded that the assessed risks for seepage and piping through the foundation in the left abutment falls in the range of "justification to take action to reduce risk." Topographic surveys and additional instrumentation were installed near the outlet works in 2004. In December 2005, a Corrective Action Study Technical Memorandum evaluated various alternatives for risk reduction and produced two new recommendations. Design of a weighted filter drain system and a seepage stability berm was completed in 2006. Construction is scheduled to occur in 2007.

2007 Outlook

In May of 2004, the Kansas Department of Wildlife and Parks and the Almena Irrigation District entered into a Memorandum of Agreement (MOA) to maintain a minimum pool elevation in the reservoir for two years, which was later amended to include a third year (2006). The MOA was approved by the irrigators within the district and provided that no water would be released for irrigation below elevation 2288.0 feet. The District and the Kansas Department of Wildlife and Parks are continuing to negotiate a new agreement that provides financial incentives to the District for leaving irrigation storage water in Keith Sebelius Lake.

If 2007 is a dry year without significant runoff producing storms above Keith Sebelius Lake, it is anticipated that the water supply may be inadequate by as much as 20,000 AF. If normal inflow into the lake and normal rainfall over the irrigated area occur in 2007, a shortage of 12,000 AF may be experienced. Requirements for the city of Norton will be met in full in 2007.

The District continues to plan projects to replace open ditch laterals with buried pipe that will reduce seepage losses, lessen maintenance requirements, and provide improvements in on-farm efficiencies. Due to uncertainty of the District's water supply and the temporary agreements with the State to forgo irrigation releases, the District had delayed some identified delivery system improvement projects. In the spring of 2006 the District finished a pipe lateral project which eliminated approximately 2 miles of open ditch lateral S-2.5 by installing approximately 0.5 miles of buried pipe. This project will improve on-farm efficiency by improving available delivery water surface and improve center pivot opportunities. The District also replaced a portion of Lateral 7.1 with buried pipe in the fall of 2006.

Franklin, Superior-Courtland, and Courtland Units, Bostwick Division in Nebraska and Kansas

<u>General</u>

Harlan County Lake storage and Republican River flows provide a project water supply for 22,454 acres in the Bostwick Irrigation District in Nebraska, and 13,378 acres in the Kansas-Bostwick Irrigation District No. 2 above Lovewell Reservoir. This storage and natural flows, together with White Rock Creek flows and Lovewell Reservoir storage, furnish a water supply for 29,122 acres below Lovewell Reservoir in the Kansas-Bostwick Irrigation District.

The lands in the Franklin and Superior-Courtland Units are in the Bostwick Irrigation District in Nebraska. The lands in the Courtland Unit downstream of the Kansas state line are in the Kansas-Bostwick Irrigation District.

In accordance with the off-season flow alternative outlined in Reclamation's final environmental assessment dated December 16, 1983, and amended on November 21, 2002, Harlan County Lake releases will be 10 cfs during the months of December, January, and February, except when the reservoir is at low levels. During water-short years releases for these three months will be either zero or 5 cfs depending on reservoir levels. At the request of the State of Nebraska, releases of 30 cfs for a maximum 5-day period may be made to relieve icing conditions in the river.

Natural gain in streamflow, plus irrigation return flows, and operational bypass at Superior-Courtland Diversion Dam will provide some flow **downstream**. The Kansas Department of Wildlife and Parks has requested that the Kansas-Bostwick Irrigation District and Reclamation maintain, when possible, a flow of 20 cfs into Lovewell Reservoir when the Courtland Canal is in operation and the conservation pool is below capacity. This recommended inflow provides excellent fishing around the canal inlet to the reservoir. The seepage below Lovewell Dam into White Rock Creek maintains a small live stream throughout the year.

2006 Summary - Bostwick Division - Harlan County Lake Operations

The annual precipitation at Harlan County Dam totaled 20.62 inches of rainfall, which is 91 percent of normal. The 2006 inflow of 30,077 AF was below the dry-year forecast and the second lowest ever recorded. The inflow was below normal for all twelve months of the year A release was not required during January, February or December in accordance to the environmental assessment and the annual operating plan.

Harlan County Lake began 2006 approximately 17.4 feet below the top of conservation pool, at 1928.31 feet. Inflows during the late winter and early spring slowly increased the reservoir pool to a peak of 1929.68 feet on May 9th (top of conservation pool is elevation 1945.73 feet). Harlan County Dam recorded 2.55 inches of rain overnight on June 16th (the greatest one day total in 2006). Irrigation releases began on June 22nd and continued until July 23rd. The reservoir level continued to decline throughout the remainder of the year. The level of Harlan County Lake at the end of 2005 was 1926.75 feet (19.0 feet below the top of conservation). Harlan County Lake prevented \$7,000 of downstream flood damages during 2006 according to the Corps of Engineers.

Approximately 5,925 acres in the Kansas Bostwick Irrigation District above Lovewell Dam were furnished a limited water supply.

A total of 19,063 AF (approximately 63 percent of total inflow) was delivered to Lovewell Reservoir through the Courtland Canal.

2006 Summary - Bostwick Division - Nebraska

Irrigation diversions were not made into Franklin, Naponee, Franklin Pump, Superior, or Courtland Canal in Nebraska in 2006. In the spring of 2006, the Nebraska Department of Natural Resources and the Bostwick Irrigation District entered into a Memorandum of Agreement (MOA) to purchase the district's water supply for the 2006 calendar year. The MOA was approved by the irrigators within the district which provided that the district relinquish the rights to use its share of natural flow and storage water for the 2006 irrigation season.

The district continued to replace open ditch laterals with buried pipe to reduce losses and improve system operations. In 2005 the District was selected for a Water 2025 Challenge Grant Project that will replace approximately 10 miles of open ditch laterals with buried pipe. Identified laterals to be placed in pipe include all or portions of Superior Laterals 9.5, 17.5, 21.2, and 27.3. These pipe projects provide delivery system improvements by eliminating seepage losses, eliminating operational wasteways, improve water measurement and accounting by utilizing water meters, and provide on-farm benefits by allowing land owners the opportunity to convert to sprinkler irrigation. Due to the rising pipe prices, the District was only able to replace 3 of the 4 planned laterals in 2006.

The District applied and was selected for a 2006 Water 2025 project that will allow the District to complete the original Water 2025 proposal. With this 2006 project, the Distict will be able to complete the Superior Lateral 27.3 pipe project.

2006 Summary - Bostwick Division - Kansas

The 2006 precipitation at Lovewell Dam totaled 23.87 inches, which was 87 percent of normal. Lovewell Reservoir began 2006 with a water surface elevation only 3.6 feet below the top of conservation. Inflows during the first four months of the year from White Rock Creek and diversion of Republican River flows via Courtland Canal slowly increased the reservoir filling the reservoir conservation pool on April 14th (elevation 1582.6 feet), and in filling the reservoir to an elevation of 1584.20 feet on May 10th. Releases were made into the lower Courtland Canal beginning on May 11th to season the canal and maintain the reservoir level. Irrigation demands reduced the pool elevation to 1576.04 feet on August 23. The greatest 24-hour precipitation total for the year occurred overnight on September 9th with 1.89 inches recorded. Diversions of Republican River natural flows into Lovewell Reservoir continued after the irrigation release had ended and were maintained throughout the remainder of December. The water surface elevation gradually increased to 1576.22 feet on December 31, 2006 (6.4 feet below the top of active conservation). Lovewell Reservoir prevented \$7,000 of downstream flood damages during 2006 according to the Corps of Engineers

The Kansas-Bostwick Irrigation District diverted a total of 38,446 AF to serve 5,925 acres above Lovewell Dam and 22,655 acres below Lovewell Dam. Farm delivery efficiency averaged 47 percent in the district.

An orientation meeting to review the Lovewell Dam EAP and a Periodic Facility Review of Lovewell Dam were conducted in November.

Initial site prep work for a new storage building at Lovewell Dam was completed in 2006. The building will be completed in 2007.

In 2006 the district continued to replace open ditch laterals with buried pipe. The district and Reclamation also provided assistance to Kansas State University (KSU) for a sprinkler irrigation demonstration located northeast of Courtland, Kansas. Courtland Canal supplies water for this demonstration and a field day was held at the site in the fall. In 2006, the District replaced open ditch Ridge lateral 5.0 and Courtland West lateral 0.3-1.3 with buried pipe. These pipe projects provide delivery system improvements by eliminating seepage losses, eliminating operational wasteways, improve water measurement and accounting by utilizing water meters, and provide onfarm benefits by allowing land owners the opportunity to convert to sprinkler irrigation. The District has identified additional laterals proposed to be replaced with buried pipe in 2007.

2007 Outlook - Bostwick Division

The storage in Harlan County Lake and Lovewell Reservoir and flows of the Republican River and White Rock Creek may be inadequate by as much as 152,800 AF in meeting the full dry-year irrigation requirement for the Bostwick lands. Under most probable inflow conditions the water supply may be inadequate by up to 39,800 AF.

Diversions from the Republican River via Courtland Canal will continue through the winter and again in early spring to insure that Lovewell Reservoir is filled prior to the irrigation season. Reclamation submitted a deviation request to the Corps of Engineers that would allow Lovewell Reservoir to be filled to elevation 1584.6 feet (2.0 feet into flood pool) prior to the irrigation season. The Corps of Engineers has approved the storing of 1.6 feet into the flood pool to elevation 1584.2 feet. The additional storage will be used for irrigation purposes due to persistent drought conditions. The Corps of Engineers allowed the reservoir to be filled to elevation 1584.2 feet prior to the irrigation season in 2006.

A functional exercise of the Lovewell Dam EAP is scheduled for 2007.

Both Districts will continue to investigate remote monitoring site installation that will provide system operations improvements. The Bostwick Irrigation District in Nebraska was selected for a Water 2025 challenge grant that would expand the District buried pipe program in 2006. Kansas Bostwick Irrigation District is also providing support to KSU for the installation of a sub-surface drip irrigation project, which was installed in late 2006 and will be operational for the 2007 irrigation season.

The Kansas Department of Agriculture submitted a Water 2025 Challenge Grant proposal which was selected for funding in 2005. Through this project, the Kansas Division of Water Resources (KDWR) will install flow meter data logging equipment and remote monitoring equipment on approximately 100 diversions in the Republican River Basin. The real time monitoring of the diversions will enhance administration of water rights, improve water management, and expand water marketing opportunities between senior and junior water rights holders. 38 sites were installed in 2006, but equipment problems delayed the project. These delays resulting in most sites not operating until the 2006 irrigation season was complete. KDWR believes that they will be close to the target of 100 sites prior to the 2007 irrigation season.

CHAPTER IV - SMOKY HILL RIVER BASIN

Kirwin Unit, Solomon Division in Kansas

General

The water supply for the 11,465 acres of land in the Kirwin Irrigation District is furnished by Kirwin Reservoir storage and inflows from the North Fork Solomon River and Bow Creek.

The operation of Kirwin Dam and Reservoir affords many opportunities for recreation, fishing, hunting, water sports, fish spawning, and preservation of waterfowl species.

The U.S. Fish and Wildlife Service (Service) has completed the Kirwin National Wildlife Refuge Comprehensive Conservation Plan (CCP). The 1997 National Refuge System Improvement Act required the Service to develop a CCP for each of its refuges. The Kirwin Refuge CCP will guide the refuge management activities through 2025.

2006 Summary

The annual precipitation total of 25.96 inches at Kirwin Dam was 111 percent of normal. The inflow of 6,269 AF was between the dry- and normal-year forecast. Kirwin Reservoir was 23.9 feet below the top of conservation pool at the first of the year. The reservoir level continued to gradually increase to a peak elevation of 1706.23 feet (23.0 feet below full) on May 31 st. Due to the extremely low water supply, no irrigation releases were made from Kirwin Reservoir. Precipitation during August (7.50 inches) was the greatest ever recorded for the month

An orientation meeting to review the Kirwin Dam EAP took place in May and an Annual Site Inspection of Kirwin Dam was conducted in August.

The Standing Operating Procedures (SOP) were updated and republished in 2006.

2007 Outlook

Carry-over storage and the forecasted inflows in the North Fork of the Solomon River are expected to be inadequate to irrigate district lands. Under dry-year forecasted inflows a shortage of about 24,000 AF may be experienced. A shortage of 6,600 AF may be expected under normal-year inflows.

A functional exercise of the Kirwin Dam EAP is scheduled for 2007.

The District continues to investigate opportunities to replace problem sections of open ditch laterals with buried pipe. Two short laterals (Laterals 26.8 and 27.1) were placed in buried pipe in 2006, along with sub lateral 19.0-0.6. Future conservation projects include the possibility of installing remote monitoring equipment at the wasteways and at the Kirwin North/South Canal split. Future conservation projects may be delayed due to the declining water supply and availability of cost-share funding.

The District and Reclamation continue to participate in the Solomon Basin Working Group meetings as part of the State of Kansas' Subbasin Water Resources Management Program. This group is designed to take a proactive approach in developing water management strategies that address declines in stream flows and groundwater levels.

Webster Unit, Solomon Division in Kansas

<u>General</u>

The Webster Irrigation District has service available to 8,537 acres. The project water supply is provided by Webster Reservoir storage and flows of the South Fork Solomon River.

2006 Summary

In 2006, the precipitation at Webster Dam was 112 percent of normal (26.33 inches). The inflow of 3,187 AF was below the dry-year forecast and the lowest annual computed inflow ever recorded. Webster Reservoir began 2006, 27.1 feet (elevation 1865.36 feet) below the top of conservation pool. The reservoir pool peaked at an elevation of 1865.39 feet on January 5th and gradually declined throughout the remainder of the year. Irrigation releases were not made from the reservoir in 2006. December precipitation (3.97 inches) was the highest total ever recorded for the month. Webster Dam received 3.87 inches of rainfall overnight on August 18th, the greatest 24-hour precipitation event during the year. The reservoir level was 28.5 feet below the top of conservation on December 31, 2006. The Corps of Engineers determined Webster Reservoir prevented \$7,000 in flood damages.

An Annual Site Inspection of Webster Dam was conducted in June and an functional exercise of the Webster Dam EAP took place in September.

Concrete repairs in the spillway chute began in 2006. Approximately 3,500 ft² of concrete was repaired in the flat portion of the spillway by NKAO personnel in 2006. Repairs to this area of the spillway will continue in 2007.

The district continued to explore opportunities to cost share with Reclamation and district irrigators for the replacement of open ditch laterals with buried pipe. In late fall of 2005 and spring of 2006, the District replaced open ditch Osborne Laterals 25.0 and 26.1 with buried pipe. Future conservation projects include the possibility of installing remote monitoring equipment at the key canal measurement sites on Osborne Canal. Future conservation projects may be delayed due to the declining water supply and availability of cost-share funding.

2007 Outlook

The carry-over storage and the flows in the South Fork Solomon River are expected to be inadequate under the dry- and normal-year forecast to irrigate the district lands in 2007. Under dry-year inflows a shortage of 35,700 AF may be experienced. A shortage of 15,900 AF may be expected under normal-year inflows.

In addition to the repairs to the flat portion of the spillway, a concrete repair specification is scheduled to be issued in the spring of 2007 for the sloped portion of the chute floor with the contract awarded and work to be completed during the summer of 2007.

The District is not planning to install any large lateral pipe projects in 2007 but will continue to solicit interest from project irrigators. Interest in investing in delivery system improvements has been hampered by the uncertainty of future water supplies. The District is investigating improvements to the water measurement structure between the 2nd and 3rd sections of Osborne Canal. Future conservation projects include the possibility of installing remote monitoring equipment at the wasteways and at the beginning of the second and third sections of Osborne Canal.

The District and Reclamation continue to participate in the Solomon Basin Working Group meetings as part of the State of Kansas' Subbasin Water Resources Management Program. This group is designed to take a proactive approach in developing water management strategies that address declines in stream flows and groundwater levels.

Glen Elder Unit, Solomon Division in Kansas

<u>General</u>

Releases from Waconda Lake will be regulated as outlined in two memorandums of understanding between the State of Kansas and Reclamation. Releases are made for the city of Beloit, the Mitchell County Rural Water District, the long-term water service contract with Glen Elder Irrigation District, and for water right administration.

The water service contract with Beloit, Kansas, provides for the annual use of up to 2,000 AF of Waconda Lake storage. Water is measured at the Glen Elder Dam river outlet works. In any year that the city's water supply is insufficient and there is surplus water in Waconda Lake, such additional water may be released for the city at a rate of \$15.00 per acre-foot.

The water service contract with the Mitchell County Rural Water District No. 2 provides for 1,009 AF of storage water as available from Waconda Lake.

The water service contract with the Glen Elder Irrigation District provides for the use of up to 18,000 AF of storage water each year. Based on the current State of Kansas Certificate of Appropriation, water usage is not to exceed 15,170 AF per calendar year. Water is released and measured through the river outlet works.

The available facilities along the shores of Waconda Lake and the large water surface area afford opportunities to thousands of people for picnics, sightseeing, recreation, water sports, hunting, and fishing.

When compatible with flood control operations, the operating criteria for Waconda Lake provide for a stable or rising pool level during the fish spawning period each spring.

When possible, Waconda Lake will be allowed to fill during the late summer and early fall to flood exposed shoreline vegetation. This flooded aquatic vegetation is very beneficial to waterfowl management.

Waconda Lake will normally be regulated at one to two feet below the top of conservation capacity during the winter months. Maintaining the lake at this level will reduce shoreline erosion, provide a buffer for spring runoff and lessen ice damage to the upstream face of Glen Elder Dam. Releases from Waconda Lake will be regulated each year to maintain a constant water surface level while the lake is ice-covered.

2006 Summary

The annual precipitation total of 21.54 inches at Glen Elder Dam was 84 percent of normal. The inflow of 27,032 AF was below the dry-year forecast and the lowest ever recorded. Waconda Lake began the year 5.1 feet below the top of conservation. The lake level peaked at elevation 1450.53 feet on January 8th (5.1 feet below the top of conservation). This was the lowest annual peak since first filling of the reservoir. Irrigation releases began on March 8th and continued through September 9th reducing the lake level to 1447.00 feet. The reservoir continued to decline throughout the remainder of the year and a historic low reservoir level of 1446.18 feet was reached on December 19th. On December 31, 2006 the lake level was 1446.51 feet (9.1 feet below full).

A total of 23,174 AF of water was released from Glen Elder Dam in 2006. Storage releases of 13,529 AF combined with natural flow releases of 2,458 AF for the irrigation of 6,693 acres in the Glen Elder Irrigation District. Storage releases totaling 754 AF were made for the City of Beloit, with an additional 5,596 AF bypassed for water quality as directed by the State Water Commissioner. Releases to the Mitchell County Rural Water District No. 2 totaled 837 AF.

A functional exercise of the Glen Elder Dam EAP took place in September 2006 and a Periodic Facility Review of Glen Elder Dam was conducted in November.

2007 Outlook

The municipal requirement of Beloit and the requirements of the Mitchell County Rural Water District No. 2 will be met in full with releases as required from Waconda Lake. It is expected that the Kansas Water Commissioner will request that inflows be passed through the lake for water right administration. The Glen Elder Irrigation District estimates that approximately 6,700 acres will be irrigated in 2007. The storage in Waconda Lake and flows in the North and South Forks of the Solomon River will furnish an adequate water supply to the district. The reservoir will be regulated to maintain a constant level during the winter months when the reservoir is ice-covered to minimize ice damage. Under normal-year conditions, the lake is expected to be maintained at about two feet below the top of the conservation pool during the winter.

The Glen Elder Irrigation District continues to try to adjust water ordering policies by adjusting the advance water ordering times in order to improve water releases, making more efficient use of the District's water supply. Some District pumping sites present problems due to river conditions at the sites. In order to minimize required reservoir releases, the District is investigating potential improvements to water pumping sites. The District and Reclamation continue to participate in the Solomon Basin Working Group meetings as part of the State of Kansas' Subbasin Water Resources Management Program. This group is designed to take a proactive approach in developing water management strategies that address declines in stream flows and groundwater levels.

The District worked with Reclamation and the Kansas Division of Water Resources to resize and finalize the Irrigation District Boundary and the final irrigable acres. Reclamation assisted the District in identifying the necessary exclusions and inclusions and the District held a hearing to finalize the revised irrigation district boundary in 2006. The new District boundary was accepted by the Kansas Department of Agriculture as stated in their April 12, 2006 letter to the District.

Cedar Bluff Unit, Smoky Hill Division in Kansas

General

Cedar Bluff Reservoir storage furnishes a maximum of 2,000 AF each year for the City of Russell, Kansas when required. Prior to 1993, Cedar Bluff Reservoir storage and Smoky Hill River flows had provided a water supply for 6,800 acres in the Cedar Bluff Irrigation District. Reformulation of the Cedar Bluff Unit in October of 1992 resulted in the dissolution of the Cedar Bluff Irrigation District with the Kansas Water Office and Kansas Department of Wildlife and Parks acquiring the use and control of portions of the reservoir conservation capacity. A "designated operating pool" was established for Cedar Bluff Reservoir and includes the following sub allocation pools: The City of Russell's existing water storage right which remained unchanged (2,700 AF); an artificial recharge pool under control of the Kansas Water Office (5,110 AF); and a fish, wildlife and recreation pool under control of the Kansas Department of Wildlife and Parks (21,061 AF). A "joint-use pool" has been established between the operating pool and the flood control pool for water supply, flood control, environmental and fish, wildlife and recreation purposes. Water rights for the "joint-use pool" are held jointly between the Kansas Department of Wildlife and Parks and the Kansas Water Office. A Contract Administration Memorandum between the United States of America, represented by Reclamation, the State of Kansas and the City of Russell was signed in November/December of 2003, establishing an accounting procedure for water storage in Cedar Bluff Reservoir. In January, 2006 a Memorandum of Understanding was signed by the State of Kansas agencies, Kansas Water Office, and Kansas Department of Wildlife and Parks. Kansas Department of Wildlife and Parks will be responsible for the joint pool releases and for the water rights.

2006 Summary

The annual precipitation total at Cedar Bluff Dam was 19.43 inches which is 92 percent of normal. Precipitation in December was the greatest precipitation total ever recorded for the month. The inflow (7,418 AF) was between the dry- and normal-year forecasts. At the beginning of the year, the level of Cedar Bluff Reservoir was 2131.66 feet (top of active conservation is 2144.00 feet). The reservoir level declined throughout the entire year and by December 31, 2006, the reservoir level had decreased to 2127.96 feet (16.0 feet below the top of active conservation).

The State of Kansas used the fish hatchery facility located below Cedar Bluff Dam for waterfowl habitat with 1 AF released to the facility. A total of 1,683 AF of water was released from Cedar Bluff Reservoir during 2006 for the City of Russell. A total of 1,368 AF of water was released from the Artificial Recharge pool at the request of the Kansas Water Office.

An Annual Site Inspection of Cedar Bluff Dam was conducted in June and an orientation meeting to review the Cedar Bluff Dam EAP took place in November 2006.

2007 Outlook

Storage in Cedar Bluff Reservoir on December 31, 2006 was within the joint use pool. The Kansas Department of Wildlife and Parks is expected to use up to 400 AF of water in the operations of the fish hatchery facility. The Kansas Water Office may request a minimal release to the river for recharge in 2007.

TABLE 1

RESERVOIR DATA - NIOBRARA, LOWER PLATTE AND KANSAS RIVER BASINS CAPACITY ALLOCATIONS 1/

LIVE CONSERVATION

RESERVOIR		DEAD	 Inactive	Active	FLOOD CONTROL
Box Butte	- Elevation Ft.	3969.0	3979.0	4007.0	
	Total Acre-feet	640	3,244	31,060	
	Net Acre-feet	640	2,604	27,816	
Merritt	- Elevation Ft.	2875.0	2896.0	2946.0	
	Total Acre-feet	774	4,662	66,726	
	Net Acre-feet	774	3,888	62,064	
Calamus	- Elevation Ft.	2185.0	2213.3	2244.0	
	Total Acre-feet	817	24,646	127,400	
	Net Acre-feet	817	23,829	102,754	
Davis Creek	- Elevation Ft.	1998.5	2003.0	2076.0	
Duris Cicck	Total Acre-feet	76	172	31,158	
	Net Acre-feet	76	96	30,986	
Bonny	- Elevation Ft.	3635.5	3638.0	3672.0	3710.0
	Total Acre-feet	1,418	2,134	41,340	170,160
	Net Acre-feet	1,418	716	39,206	128,820
Enders Swanson	- Elevation Ft.	3080.0	3082.4	3112.3	3127.0
	Total Acre-feet	7,516	8,948	42,910	72,958
	Net Acre-feet	7,516	1,432	33,962	30,048
	- Elevation Ft.	2710.0	2720.0	2752.0	2773.0
Lake	Total Acre-feet	2,118	12,430	112,214	246,291
	Net Acre-feet	2,118	10,312	99,784	134,077
Hugh Butler	- Elevation Ft.	2552.0	2558.0	2581.8	2604.9
Lake	Total Acre-feet	5,185	8,921	36,224	85,070
	Net Acre-feet	5,185	3,736	27,303	48,846
House Stands	- Elevation Ft.	2335.0	2343.0	2366.1	2386.2
Harry Strunk Lake 4/	- Elevation Ft. Total Acre-feet	2335.0 3,408	2343.0 7,897	2300.1 34,647	87,361
Lake 4/				26,750	
IZ . '41. Q . 1 1'	Net Acre-feet	3,408	4,489	2304.3	52,714
Keith Sebelius	- Elevation Ft.	2275.0	2280.4		2331.4
Lake	Total Acre-feet	1,636	3,993	34,510	133,740
Hadan Carat	Net Acre-feet	1,636	2,357	30,517	99,230
Harlan County	- Elevation Ft.	1885.0	1927.0	1945.73	1973.5
Lake 3/	Total Acre-feet	0	118,099	314,111	814,111
T. a	Net Acre-feet	0	118,099	196,012	500,000
Lovewell	- Elevation Ft.	1562.07	1571.7	1582.6	1595.3
V	Total Acre-feet	1,659	11,644	35,666	86,131
	Net Acre-feet	1,659	9,970	24,022	50,465
Kirwin	- Elevation Ft.	1693.0	1697.0	1729.25	1757.3
Welster	Total Acre-feet	4,969	8,515	98,154	313,290
	Net Acre-feet	4,969	3,546	89,639	215,136
Webster	- Elevation Ft.	1855.5	1860.0	1892.45	1923.7
	Total Acre-feet	1,256	4,231	76,157	259,510
	Net Acre-feet	1,256	2,975	71,926	183,353
Waconda Lake	- Elevation Ft.	1407.8	1428.0	1455.6	1488.3
	Total Acre-feet	248	26,237	219,420	942,408
	Net Acre-feet	248	25,989	193,183	722,988
Cedar Bluff	- Elevation Ft.	2090.0	2107.8	2144.0	2166.0
	Total Acre-feet	4,402	28,574	172,452	364,342
	Net Acre-feet	4,402	24,172	143,878	191,890
Total Storage (A.H	Total Storage (A.F.)		274,347	1,474,149	3,909,611 2/
Total Net Acre-feet		36,122 36,122	238,210	1,199,802	2,357,568

1/ Includes space for sediment storage.

2/ Includes total active storage for Box Butte, Merritt, Calamus, and Davis Creek Reservoirs.

3/ Bottom of irrigation pool for Harlan County Lake is 1932.5 feet, 164,111 AF.

4/ New Area-Capacity Tables in effect 1-1-07. Sedimentation survey conducted in May 2006.

TABLE 2 SUMMARY OF 2006 OPERATIONS MIRAGE FLATS PROJECT

		BOX BU	TTE RESER	VOIR				
					End of	MIRAGE FL	LATS CANAL	
			Gross		Month	Diversions	Delivered	
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms	
Mo	onth (AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	
Ja	an. 1,328	36	74	0.24	10,385	0	0	
F	eb. 1,248	34	99	0.47	11,500	0	0	
M	ar. 2,204	42	187	1.90	13,475	0	0	
A	pr. 1,575	42	325	0.97	14,683	0	0	
M	lay 769	46	482	1.04	14,924	0	0	
Ju	une 397	555	498	1.84	14,268	0	0	
J	uly 315	6,908	525	1.12	7,150	6,446	2,340	
	ug. 310	2,908	286	3.80	4,266	3,084	1,553	
	ep. 585	853	175	2.32	3,823	893	351	
0	Oct. 494	61	125	0.51	4,131	0	0	
N	lov. 771	60	72	0.03	4,770	0	0	
D	ec. 395	40	44	0.53	5 081	0	0	
ТС	OTAL 10,391	11,585	2,892	14.77	-	10,423	4,244	

TOTAL 10,391 11,585 2,892 14.77

NOTE - Acres irrigated 2006: Mirage Flats Canal 11,092 acres.

SANDHILLS DIVISION AINSWORTH UNIT

		MERRITT	RESERVOIF	र				
					End of	AINSWOR	TH CANAL	
			Gross		Month	Release	Delivered	
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms	
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	
Jan.	14,197	14,231	236	0.26	61,100	0	0	
Feb.	12,867	12,298	299	0.40	61,370	0	0	
Mar.	16,886	15,372	421	2.37	62,463	0	0	
Apr.	16,118	12,000	724	3.34	65,857	0	0	
May	13,962	11,792	1,301	0.47	66,726	4,739	1,215	
June	14,140	12,982	1,738	3.40	66,146	9,660	3,334	
July	14,230	36,218	1,604	0.67	42,554	36,391	26,863	
Aug.	16,111	29,147	933	2.67	28,585	29,381	22,610	
Sep.	15,815	4,175	402	2.37	39,823	3,326	1,317	
Oct.	15,054	2,460	576	0.67	51,841	0	0	
Nov.	13,064	3,669	405	0.22	60,831	0	0	
Dec.	14 366	13 785	312	1.56	61 100	0	0	
TOTAL	176,810	168,129	8,951	18.40		83,497	55,339	

NOT -Acres irrigated 2006: Ainsworth Canal 34,452 acres.

NORTH LOUP DIVISION

CALAMUS RESERVOIR ABOVE DAVIS CREEK MIRDAN CANAL End of Release to Delivered Month Calamus Release Gross to Canal Canal Use To Farms Inflow Outflow Evap. Precip. Content Fish Hatch. (AF) (AF) (AF) (AF) (AF) (Inches) (AF) (AF) (AF) Month Ó Jan. 20,455 6,329 446 0.00 114.241 361 0 124,199 326 0 0 0 Feb. 16,378 5,825 595 0.05 371 0 0 0 126,838 Mar. 20.611 16,883 1.089 2.26 Apr. 23,703 20,999 1,783 1.66 127,759 571 1,254 0 0 18,753 2,349 0.21 124,552 498 8,243 4,165 2,240 May 19,611 12,637 35,058 8,252 23,776 June 19,735 17,280 2,556 2.66 124,451 613 4,768 91,961 71,365 703 14.023 July 18,855 48,607 2,738 0.51 24,540 16,529 9,336 920 Aug 20,275 19,230 39,356 1,515 3.19 71,329 653 4,322 2,654 1,397 18,450 816 3.72 Sep. Oct. 8,118 455 82,787 366 0 0 0 20,031 1.24 18,595 6,383 621 0.00 94,378 234 0 0 0 Nov. 0 20,143 6,803 392 2.30 107,326 292 0 0 Dec. 55 376 31,764 5,908 86,054

TOTAL 236,764 214,644 15,355 17.80 NOTE -- Acres irrigated 2006: Mirdan Canal 34,040 acres.

NORTH LOUP DIVISION (Continued)

				,		BELOW DAY	VIS CREEK	
		DAVIS CREI	EK RESERV	OIR		FULLERTO	N CANAL	
_			Gross		End of Mo.	Release	Delivered	
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms	
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	
Jan.	1	198	48	0.04	8,951	0	0	
Feb.	1	175	58	0.03	8,719	0	0	
Mar.	96	93	102	2.45	8,620	0	0	
Apr.	5,417	476	193	2.99	13,368	0	0	
May	13,301	4,090	352	0.33	22,227	2,723	140	
June	12,456	7,622	535	3.63	26,526	6,180	3040	
July	9,615	17,869	506	2.65	17,766	16,786	13,447	
Aug.	6,731	8,414	327	3.74	15,756	8,269	4,221	
Sep.	2,147	6,204	202	7.91	11,497	5,920	1,060	
Oct.	124	276	161	1.39	11,184	0	0	
Nov.	11	248	86	0.45	10,861	0	0	
Dec.	148	248	49	2.89	10_71_2	0	0	
TOTAL	50,048	45,913	2,619	28.50		39,878	21,908	

NOTE - Acres irrigated 2006: Fullerton Canal 20,861 acres.

TABLE 2 SUMMARY OF 2006 OPERATIONS

UPPER REPUBLICAN DIVISION ARMEL UNIT BONNY RESERVOIR

		BONNY R	ESERVOIR			
					End of	Outflow
			Gross		Month	To Hale
	Inflow	Outflow	Evap.	Precip.	Content	Ditch
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)
Jan.	576	307	114	0.53	12,420	0
Feb.	626	333	117	0.15	12,596	0
Mar.	808	369	174	0.54	12,861	0
Apr.	714	357	478	0.74	12,740	0
May	638	369	629	2.10	12,380	0
June	464	357	727	2.24	11,760	0
July	492	369	723	2.95	11,160	0
Aug.	286	369	558	1.17	10,519	0
Sep.	412	357	334	2.45	10,240	0
Oct.	405	369	274	1.84	10,002	0
Nov.	324	357	172	0.04	9,797	0
Dec.	605	369	98	1.66	9 935	0
TOTAL	6,350	4,282	4,398	16.41	-	

Page 3 of 5

TABLE 2 SUMMARY OF 2006 OPERATIONS

FRENCHMAN-CAMBRIDGE DIVISION FRENCHMAN UNIT

				FRENCHMA						
		ENDERS RI	ESERVOIR							
					End of	CULBERTSO	N CANAL	CULBERTSON	EXT. CANAL	
			Gross		Month	Diversions	Delivered	Diversions	Delivered	
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms	To Canal	To Farms	
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	(AF)	(AF)	
Jan.	375	184	66	0.24	11,691	0	0	0	0	
Feb.	387	167	65	0.24	11,846	0	0	0	0	
Mar.	464	184	109	0.81	12,017	0	0	0	0	
Apr.	397	179	247	0.50	11,988	0	0	0	0	
May	440	184	413	1.69	11,831	0	0	0	0	
June	315	179	452	2.82	11,515	0	0	0	0	
July	349	184	427	4.77	11,253	0	0	0	0	
Aug.	74	184	311	2.07	10,832	0	0	0	0	
Sep.	280	179	220	3.06	10,713	0	0	0	0	
Oct.	295	184	118	1.50	10,706	0	0	0	0	
Nov.	364	179	115	0.12	10,776	0	0	0	0	
Dec.	544	184	62	2.26	11074	0	0	0	0	
TOTAL	4,284	2,171	2,605	20.08	-	0	0	0	0	

 TOTAL
 4,284
 2,171
 2,605
 20.08
 0

 NOTE: Acres irrigated 2006: Culbertson Canal - 0 acres; Culbertson Extension Canal - 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued) MEEKER-DRIFTWOOD UNIT

		5	SWANSON L	AKE			
					End of M	/IEEKER-DR	IFTWOOD
			Gross		Month	Release	Delivered
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms
Month	n (AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)
Jan.	1,799	61	233	0.19	36,573	0	0
Feb.	1,705	56	236	0.13	37,986	0	0
Mar.	2,920	61	403	0.94	40,442	0	0
Apr.	1,894	60	1,125	0.20	41,151	0	0
May	841	61	1,489	1.60	40,442	0	0
June	621	60	1,684	4.12	39,519	0	0
July	240	61	1,739	1.60	37,959	0	0
Aug.	1,166	61	1,132	4.23	37,932	0	0
Sep.	204	60	815	3.22	37,261	0	0
Oct.	0	61	549	1.78	36,651	0	0
Nov.	1	60	439	0.01	36,153	0	0
Dec.	456	61	238	2.74	36 310	0	0
τοτα	L 12.047	723	10.082	20.76		0	0

 TOTAL
 12,047
 723
 10,082
 20.76

 NOTE:
 Acress irrigated 2006:
 Meeker-Driftwood Canal - 0 acress.

FRENCHMAN-CAMBRIDGE DIVISION (Continued) RED WILLOW UNIT

		HUGH BUIL	EK LAKE							
					End of	RED WILLO	DW CANAL	BARTLEY	CANAL	
			Gross		Month	Diversions	Delivered	Diversions	Delivered	
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms	To Canal	To Farms	
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	(AF)	(AF)	
Jan.	627	246	94	0.06	20,529	0	0	0	0	
Feb.	537	222	95	0.02	20,749	0	0	0	0	
Mar.	933	246	161	1.08	21,275	0	0	0	0	
Apr	725	238	464	0.69	21,298	0	0	0	0	
May	557	246	674	1.29	20,935	0	0	424	0	
June	543	787	768	3.34	19,923	0	0	349	1,478	
July	869	5,835	727	2.96	14,230	0	0	3,263	1,142	
Aug.	965	2,874	440	3.24	11,881	0	0	1,794	0	
Sep.	703	238	289	2.20	12,057	0	0	0	0	
Oct.	724	246	188	1.62	12,347	0	0	0	0	
Nov.	713	238	139	0.01	12,683	0	0	0	0	
 Dec.	742	246	74	3.14	13,105	0	0	0	0	
TOTAL	8,638	11,662	4,113	19.65	-	0	0	5,830	2,620	

NOTE - Acres irrigated 2006: Red Willow Canal - 0 acres; Bartley Canal 5,722 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued) CAMBRIDGE UNIT

CAMDINDGE	UN

				CAIVIDRIDGI			
		HARRY STR	UNK LAKE				
					End of	CAMBRID	GE CANAL
			Gross		Month	Diversions	Delivered
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)
Jan.	2,033	61	120	0.13	28,685	0	0
Feb.	2,062	56	128	0.12	30,563	0	0
Mar.	2,874	61	224	1.19	33,152	0	0
Apr.	2,618	60	735	0.64	34,975	0	0
May	1,898	61	1,015	1.24	35,797	0	0
June	1,696	1,557	1,123	4.87	34,813	1,163	125
July	2,812	14,202	996	2.44	22,427	11,593	5,826
Aug.	2,552	7,851	531	3.83	16,597	6,854	3,109
Sep.	1,717	266	332	2.48	17,716	82	118
Oct.	2,017	61	245	1.98	19,427	0	0
Nov.	2,043	60	184	0.00	21,226	0	0
Dec.	2,687	61	101	3.96	23,751	0	0
TOTAL	27,009	24,357	5,734	22.88		19,692	9,1784

 TOTAL
 27,009
 24,357
 5,734
 22.88

 NOTE -- Acres irrigated 2006: Cambridge Canal 15,077 acres.

TABLE 2 SUMMARY OF 2006 OPERATIONS

KANASKA DIVISION ALMENA UNIT

	1	KEITH SEBE	LIUS LAKE					
 		-			End of	Release	ALMENA	CANAL
			Gross		Month	To City	Diversions	Delivered
	Inflow	Outflow	Evap.	Precip.	Content	Of Norton	To Canal	To Farms
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	(AF)
Jan.	312	56	63	0.02	8,515	25	0	0
Feb.	226	44	71	0.18	8,626	16	0	0
Mar.	428	49	122	1.93	8,883	18	0	0
Apr.	567	65	441	2.11	8,944	35	0	0
May	452	85	497	2.97	8,814	54	0	0
June	637	75	631	5.52	8,745	45	0	0
July	218	103	654	1.49	8,206	73	0	0
Aug.	402	94	520	3.74	7,994	63	0	0
Sep.	146	76	312	2.18	7,752	46	0	0
Oct.	255	66	205	3.13	7,736	34	0	0
Nov.	132	58	130	0.27	7,680	28	0	0
 Dec.	554	50	69	4.02	8 115	19	0	0
TOTAL	4,329	821	3,715	27.56	-	456	0	0

TOTAL 4,329 821 3,715 27 NOTE: Acres irrigated 2006: Almena Canal - 0 acres.

BOSTWICK DIVISION FRANKLIN UNIT

 		HARLAN CO	JUNTY LAKF	ē				_		
	Dat	ta from Corps	of Engineer	.rs	End of	FRANKLIN		NAPONEE		
			Gross		Month	Release	Delivered	Release		
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms	To Canal	To Farms	
 Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	(AF)	(AF)	
Jan.	2,569	0	589	0.03	130,091	0	0	0	0	
Feb.	1,874	0	607	0.00	131,358	0	0	0	0	
Mar.	5,445	0	825	1.60	135,978	0	0	0	0	
Apr.	4,879	0	2,478	1.07	138,379	0	0	0	0	
May	2,705	0	3,367	1.17	137,717	0	0	0	0	
June	3,104	4,457	4,372	5.16	131,992	0	0	0	0	<i>i</i>
July	1,305	7,823	4,730	2.04	120,744	0	0	0	0	7
Aug.	1,732	0	4,226	3.48	118,250	0	0	0	0	
Sep.	1,291	0	3,458	2.07	116,083	0	0	0	0	<i>i</i>
Oct.	1,533	0	2,469	2.40	115,147	0	0	0	0	<i>i</i>
Nov.	1,002	0	1,722	0.39	114,427	0	0	0	0	7
 Dec.	2,638	0	766	1.21	116299	0	0	0	0	1
TOTAL	30,077	12,280	29,609	20.62	-	0	0	0	Ir	·
NOTE A	and included and and	00/ Enamplition	Canal O.a		- Canal O -					

TOTAL 30,077 12,280 29,609 20.62 -NOTE: Acres irrigated 2006: Franklin Canal - 0 acres; Naponee Canal - 0 acres.

BOSTWICK DIVISION (Continued)
SUPERIOR-COURTLAND UNIT

	SUPERIOR-COURTLAND UNIT												
					C	OURTLAND (CANAL - ABOVE LOVEWE	LL					
	FRANKLIN PUMP CA	VAL SUPI	ERIOR CANAL	_	NEBRAS	KA USE	KANSA	AS USE					
	Diverted Delivere	d Diverted	Delivered	Total		Delivered	Diversion	Delivered					
	To Canal To Farm	s To Canal	To Farms	Diversion	Total	To Farms	To Canal	To Farms					
Month	(AF) (AF) (AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)					
Jan.	0	0 0	0	0	0	0	0	0					
Feb.	0	0 0	0	0	0	0	0	0					
Mar.	0	0 0	0	0	0	0	0	0					
Apr.	0	0 0	0	0	0	0	0	0					
May	0	0 0	0	0	0	0	75	15					
June	0	0 0	0	0	0	0	2,389	274					
July	0	0 0	0	0	0	0	6,514	2,765					
Aug.	0	0 0	0	0	0	0	1,423	258					
Sep.	0	0 0	0	0	0	0	194	41					
Oct.	0	0 0	0	0	0	0	0	0					
Nov.	0	0 0	0	0	0	0	0	0					
Dec.	0	0 0	0	0	0	0	0	0					
TOTAL	0	0 0	0	0	0	0	10,595	3,353					
NOTE:	Acres irrigated 2006:	Franklin Pur	mp Canal - 0 a	cres; Superior	Canal - 0 ac	res.							
	-	Courtland C	onol Nobrocko										

Franklin Pump Canal - 0 acres; Superior Ca Courtland Canal-Nebraska use - 0 acres. Courtland Canal-Kansas use - 5,925 acres. rior Canal - 0 acres.

BOSTWICK DIVISION (Continued) COURTLAND UNIT

-	Est. Flow	Inflow					End of	COURTLAND (Below)	
	from	from	Total		Gross		Month	Release Delivered	
	White Rock	Courtland	Inflow	Outflow	Evap.	Precip.	Content	To Canal To Farms	
Month	Creek (AF)	34.8 (AF)	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF) (AF)	
Jan.	750	2,473	3,223	12	167	0.02	28,880	0 0	
Feb.	523	1,968	2,491	11	197	0.00	31,163	0 0	
Mar.	1,575	2,862	4,437	12	368	1.69	35,220	0 0	
Apr.	905	3,509	4,414	12	1,049	1.96	38,573	0 0	
May	2,646	1,004	3,650	463	1,411	2.46	40,349	492 0	
June	0	478	478	4,423	1,833	2.37	34,571	4,796 1,601	
July	1,110	1,863	2,973	13,641	1,408	3.53	22,495	13,730 7,310	
Aug.	851	91	942	9,426	821	3.11	13,190	8,833 5,699	
Sep.	1,170	399	1,569	18	501	4.26	14,240	0 0	
Oct.	520	873	1,393	18	330	1.46	15,285	0 0	
Nov.	215	1,611	1,826	18	274	0.05	16,819	0 0	
Dec.	977	1 964	2 941	12	143	2.96	19 605	0 0	
TOTAL	11,244	19,093	30,337	28,066	8,502	23.87	-	27,851 14,610	

NOTE: Acres irrigated 2006: Courtland Canal below Lovewell 22,655 acres.

TABLE 2 SUMMARY OF 2006 OPERATIONS

SOLOMON DIVISION KIRVVIN UNIT

		KIRVVIN RI	ESERVOIR				
					End of	KIRWIN	CANAL
			Gross		Month	Release	Delivered
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)
Jan.	365	0	112	0.05	19,505	0	0
Feb.	232	0	137	0.00	19,600	0	0
Mar.	815	0	224	1.61	20,191	0	0
Apr.	813	0	635	0.98	20,369	0	0
May	1,050	0	822	3.61	20,597	0	0
June	607	0	1,061	3.15	20,143	0	0
July	238	0	1,081	2.00	19,300	0	0
Aug.	1,070	0	786	7.50	19,584	0	0
Sep.	144	0	569	1.99	19,159	0	0
Oct.	124	0	327	1.67	18,956	0	0
Nov.	136	0	245	0.55	18,847	0	0
Dec.	675	0	128	2.85_	19 394	0	0
TOTAL	6,269	0	6,127	25.96		0	0

NOTE: Acres irrigated 2006: Kirwin Canal - 0 acres.

SOLOMON DIVISION (Continued) WEBSTER RESERVOIR

	V	VEBSTER R	ESERVOIR				
					End of	OSBORNE	CANAL
			Gross		Month	Diversions	Delivered
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)
Jan.	10	0	103	0.02	10,234	0	0
Feb.	18	0	112	0.00	10,140	0	0
Mar.	277	0	197	1.74	10,220	0	0
Apr.	384	0	611	1.98	9,993	0	0
May	736	0	722	1.85	10,007	0	0
June	430	0	839	4.58	9,598	0	0
July	17	0	840	0.74	8,775	0	0
Aug.	600	0	587	a 58	8,788	0	0
Sep.	99	0	437	2.29	8,450	0	0
Oct.	75	0	200	2.07	8,325	0	0
Nov	49	0	196	0.51	8,178	0	0
Dec.	492	0	108	3.97	8 562	0	0
TOTAL	3,187	0	4,952	26.33		0	0

TOTAL3,18704,95226.33NOTE: Acres irrigated 2006: Osborne Canal - 0 acres.

SOLOMON DIVISION (Continued) GLEN ELDER UNIT WACONDA LAKE

_							OUTFLC	OW TO RIVER		_
					End of	City	of Beloit	Irrig.District	Other	Release To
			Gross		Month	Storage	Quality	Storage	Controlled	Mitchell Co.
	Inflow	Outflow	Evap.	Precip.	Content	Release	Bypass	Release	Releases	RWD No. 2
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)
Jan.	1,653	982	671	0.00	161,594	0	922	0	0	60
Feb.	833	890	1,736	0.00	159,801	0	833	0	0	57
Mar.	3,252	1,184	1,373	1.93	160,496	0	801	171	149	63
Apr.	3,322	1,255	4,145	2.26	158,418	0	728	339	119	69
May	4,721	1,710	5,552	3.59	155,877	0	509	746	387	68
June	3,079	2,635	6,548	2.95	149,773	10	221	1,640	686	78
July	2,055	6,744	6,790	1.38	138,294	0	0	6,192	452	99
Aug.	2,647	4,297	5,119	2.88	131,525	0	0	3,894	315	88
Sep.	1,902	1,467	3,284	2.44	128,676	125	380	547	349	66
Oct.	169	697	2,281	1.08	125,867	282	351	0	0	64
Nov.	205	636	1,690	0.08	123,746	204	369	0	0	63
Dec.	3,194	677	642	795	in 621	133	482	0		62a
TOTAL	27,032	23,174	39,831	21.54		754	5,596	13,529	2,457	837

 TOTAL
 27,032
 23,174
 39,831
 21.54

 NOTE: Acres irrigated 2006: Glen Elder District 6,693 acres.

SMOKY HILL DIVISION ELLIS UNIT <u>CEDAR BLUFF</u> RESERVOIR

	C	CEDAR BLUI	FF RESERV	JIR				
					End of	Release to	Release	Release
			Gross		Month	City of	To Fish	to Kansas
	Inflow	Outflow	Evap.	Precip.	Content	Russell	Hatchery V	Vater Office
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	(AF)
Jan.	0	0	642	0.03	100,539	0	0	0
Feb.	0	0	865	0.00	99,674	0	0	0
Mar.	266	0	718	0.72	99,222	0	0	0
Apr.	663	0	2,098	0.92	97,787	0	0	0
May	884	0	2,693	1.09	95,978	0	0	0
June	1,426	1	3,202	3.52	94,201	0	1	0
July	905	468	3,361	1.85	91,277	0	0	468
Aug.	1,024	2,583	2,597	2.17	87,121	1683	0	900
Sep.	256	0	1,622	2.67	85,755	0	0	0
Oct.	232	0	1,107	1.61	84,880	0	0	0
Nov.	0	0	907	0.25	83,973	0	0	0
Dec.	1 762	0	378	4.60	85 357	0	0	0
TOTAL	7,418	3,052	20,190	19.43	-	1,683	1	1,368

TABLE 3

ACRES IRRIGATED IN 2006 AND ESTIMATES FOR 2007

Irrigation District and Canal	Acres With Service Available	Acres Irrigated in 2006	Estimated Acres to be Irrigated in 2007
Mirage Flats Irrigation District			
Mirage Flats Canal	11,662	11,092	11,100
Ainsworth Irrigation District	25 000	34,452	34,500
Ainsworth Canal	35,000	34,432	34,300
Twin Loups Irrigation District Above Davis Creek	34,053	34,040	34,000
Below Davis Creek	20,851	20,861	20,900
Total Twin Loups Irrigation District	54,904	54,901	54,900
Frenchman Valley Irrigation District			
Culbertson Canal	9,292	0	2,000
H & RW Irrigation District			
Culbertson Extension Canal	11,915	0	0
Frenchman-Cambridge Irrigation District	14055	0	0
Meeker-Driftwood Canal	16,855	0 0	0 0
Red Willow Canal	4,797 6,353	5,722	0
Bartley Canal Cambridge Canal	6,353 17,664	5,722 15,077	15,500
Total Frenchman-Cambridge Irrigation District	45,669	20,799	15,500
Almena Irrigation District Almena Canal	5,764	0	2,000
Bostwick Irrigation District in Nebraska	3,704	U	2,000
Franklin Canal	10,920	0	0
Naponee Canal	1,650	0	0
Franklin Pump Canal	2,090	0	0
Superior Canal	5,848	0	3,000
Courtland Canal (Nebraska)	1,946	0	0
Total Bostwick Irrigation Dist. in Nebraska	22,454	0	3,000
Kansas-Bostwick Irrigation District			
Courtland Canal above Lovewell	13,378	5,925	1,000
Courtland Canal below Lovewell	29,122	22,655	23,000
Total Kansas-Bostwick Irrigation District	42,500	28,580	24,000
Kirwin Irrigation District			
Kirwin Canal	11,465	0	8,000
Webster Irrigation District			_
Osborne Canal	8,537	0	0
Glen Elder Irrigation District	10,370	6,693	6,700
TOTAL PROJECT USES	269,532	156,517	161,700
Non-Project Uses			
Hale Ditch	700	0	700
TOTAL PROJECT AND NON-PROJECT	270,232	156,517	162,400

RESERVOIR REQUIREMENT END OF MONTH RESERVOIR RELEASE INFLOW EVAPORATION REQUIREMENT SPILL SHORTAGE ELEV CONT CHANGE MEAN 1000 MEAN 1000 1000 1000 1000 1000 1000 MONTH CFS AF INCHES AF CFS AF AF AF FT AF \mathbf{AF} **REASONABLE MINIMUM INFLOW CONDITIONS** JAN 16 1.01.2 0.1 2 0.1 0.0 0.0 3984.0 5.9 0.8 2 FEB 22 1.2 1.5 0.1 0.1 0.0 0.0 3985.6 6.9 1.0 2 MAR 28 1.7 2.5 0.1 0.1 0.0 0.03987.7 8.4 1.5 APR 25 1.5 2 9.5 4.1 0.3 0.10.00.0 3989.1 1.1 5 10.1 0.6 MAY 1.2 4.9 0.3 0.3 0.0 20 0.0 3989.8 JUN 12 0.7 6.1 0.3 119 7.1 0.00.0 3979.3 3.4 -6.7 JUL 8 0.5 7.0 0.3 226 13.9 0.0 13.5 3978.9 3.2 -0.2 11 0.7 226 AUG 6.3 0.2 13.9 0.013.4 3978.9 3.2 0.0 13 40 SEP 0.8 4.6 0.2 2.4 0.0 1,8 3978.9 3.2 0.0 2 OCT 0.1 0.8 16 1.034 0.10.0 0.0 3980.6 4.0 NOV 20 1.2 1.8 0.1 2 0.10.00.0 3982.4 5.0 1.0DEC 16 1.0 1.1 0.1 2 0.1 0.0 3983.8 5.8 0.8 0.0 TOTAL 12.5 44.5 2.2 0.7 38.3 0.028.7 MOST PROBABLE INFLOW CONDITIONS JAN 21 1.3 1.1 0.1 2 0.1 0.0 3984.5 6.2 1.1 0.0 FEB 29 1.6 2 0.1 13 0.1 0.0 0.0 3986.6 7.6 1.4 MAR 36 2.2 2.3 0.1 2 0.1 0.0 0.0 3989.2 9.6 2.0 32 1.9 APR 3.8 0.3 2 0.1 0.0 0.0 3990.9 11.1 1.5 MAY 1.5 24 4.5 0.3 3 0.2 0.0 0.0 3992.0 12.1 1.0 JUN 15 0.9 5.7 0.4 71 4.2 0.0 0.0 3987.7 8.4 -3.7 JUL 10 0.6 6.5 0.3 210 12.9 0.0 7.4 3978.9 3.2 -5.2 AUG 16 1.0 5.8 0.2 164 10.1 0.0 9.3 3978.9 3.2 0.0 SEP 17 1.0 4.2 0.1 29 1.7 0.0 3978.9 0.0 0.8 3.2 21 1.3 2 OCT 31 0.1 0.1 0.0 0.0 3981.2 4.3 1.1 NOV 27 1.6 1.7 0.1 2 0.10.00.0 3983.7 5.7 1.4 DEC 23 14 1.0 0.1 2 0.1 0.0 0.03985.6 6.9 1.2 TOTAL 16.3 41.0 2.2 29.8 0.0 175 1.8 **REASONABLE MAXIMUM INFLOW CONDITIONS** JAN 26 1.6 1.0 0.1 2 0.1 0.0 0.0 3985.0 6.5 1.4 FEB 36 2.0 12 0.1 2 0.1 0.0 0.03987.6 8.3 1.8 MAR 44 2.7 2.1 0.1 2 0.1 0.0 0.0 10.8 3990.6 2.5 APR 40 2.4 3.4 0.3 2 0.1 0.0 12.8 0.0 3992.7 2.0MAY 31 1.9 4.1 3 0.3 0.2 0.00.03994.1 14.2 1.4 JUN 18 1.1 5.2 0.4 47 2.8 0.0-2.1 0.0 3992.0 12.1 JUL 13 0.8 5.9 0.4 135 8.3 0.00.0 3981.0 4.2 -7.9 21 AUG 1.3 5.3 104 0.2 0.0 4.3 6.4 3978.9 3.2 -1.0 SEP 22 1.3 3.9 0.1 18 1.1 0.0 0.0 3979.1 33 0.1OCT 26 1.6 2.8 0.1 2 0.1 0.0 0.03981.9 4.7 1.4 NOV 34 2.0 1.5 0.1 2 0.1 0.0 0.0 3985.0 6.5 1.8 DEC 28 1.7 0.9 0.1 2 0.1 0.0 0.0 3987.2 8.0 1.5 TOTAL 20.4 37.3 2.3 19.5 0.0 4.3 2.9

BOX BUTTE RESERVOIR OPERATION ESTIMATES - 2007

TABLE 4

MERRITT RESERVOIR OPERATION ESTIMATES - 2007

	INFLOW EVAPORATION			RELEASE REQUIREMENT CANAL RIVER TOTAL				SPILL	REQUIREMENT SHORTAGE	END OF ELEV	RESERVOII CHANGE		
MONTH	MEAN CFS	1000 AF	INCHES	1000 AF	1000 AF	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				RI	EASONABL	E MINIM	UM INF	LOW C	ONDITIONS				
JAN	223	13.7	1.3	0.3	0.0	1.0	16	1.0	12.4	0.0	2944.0	61.1	0.0
FEB	245	13.7	1.5	0.4	0.0	1.0	18	1.0	12.1	0.0	2944.0	61.1	0.0
MAR	250	15.4	2.2	0.5	0.0	4.6	75	4.6	7.5	0.0	2945.0	63.9	2.8
APR	257	15.3	3.5	0.8	0.0	4.5	76	4.5	7.2	0.0	2946.0	66.7	2.8
MAY	249	15.3	4.8	1.2	3.3	4.6	128	7.9	6.2	0.0	2946.0	66.7	0.0
JUN	237	14.1	6.0	1.5	7.5	3.0	176	10.5	2.1	0.0	2946.0	66.7	0.0
JUL	237	14.6	6.8	1.4	32.9	2.0	568	34.9	0.0	0.0	2936.9	45.0	-21.7
AUG	242	14.9	6.0	0.8	30.6	2.0	530	32.6	0.0	0.0	2925.2	26.5	-18.5
SEP	240	14.3	4.8	0.5	8.4	1.0	158	9.4	0.0	0.0	2928.5	30.9	4.4
OCT	242	14.9	4.0	0.6	0.0	1.0	16	1.0	0.0	0.0	2936.5	44.2	13.3
NOV	237	14.1	2.3	0.4	0.0	1.0	17	1.0	0.0	0.0	2942.4	56.9	12.7
DEC	221	14.1	2.5	0.4	0.0	1.0	16	1.0	8.1	0.0	2942.4	61.1	4.2
DEC	221	13.0	1.5	0.5	0.0	1.0	10	1.0	0.1	0.0	2744.0	01.1	+.2
TOTAL		173.8	44.8	8.7	82.7	26.7		109.4	55.7	0.0			0.0
					MOST PRO	BABLE I	NFLOW	COND	ITIONS				
							12011	001.2					
JAN	239	14.7	1.1	0.2	0.0	1.0	16	1.0	13.5	0.0	2944.0	61.1	0.0
FEB	261	14.5	1.3	0.3	0.0	1.0	18	1.0	13.2	0.0	2944.0	61.1	0.0
MAR	270	16.6	1.9	0.4	0.0	4.6	75	4.6	8.8	0.0	2945.0	63.9	2.8
APR	276	16.4	3.2	0.8	0.0	4.5	76	4.5	8.3	0.0	2946.0	66.7	2.8
MAY	267	16.4	4.3	1.0	2.9	4.6	122	7.5	7.9	0.0	2946.0	66.7	0.0
JUN	255	15.2	5.4	1.3	6.4	3.0	158	9.4	4.5	0.0	2946.0	66.7	0.0
JUL	254	15.6	6.2	1.3	28.1	2.0	490	30.1	0.0	0.0	2939.8	50.9	-15.8
AUG	260	16.0	5.4	0.9	26.3	2.0	460	28.3	0.0	0.0	2932.9	37.7	-13.2
SEP	257	15.3	4.3	0.6	7.2	1.0	138	8.2	0.0	0.0	2936.5	44.2	6.5
OCT	260	16.0	3.6	0.6	0.0	1.0	16	1.0	0.0	0.0	2943.0	58.6	14.4
NOV	254	15.1	2.0	0.4	0.0	1.0	17	1.0	11.2	0.0	2944.0	61.1	2.5
DEC	236	14.5	1.4	0.3	0.0	1.0	16	1.0	13.2	0.0	2944.0	61.1	0.0
TOTAL		186.3	40.1	8.1	70.9	26.7		97.6	80.6	0.0			0.0
				R	EASONAB	LE MAXI	MUM IN	FLOW	CONDITION	S			
JAN	255	15.7	1.0	0.2	0.0	1.0	16	1.0	14.5	0.0	2044.0	61.1	0.0
FEB				0.2	0.0	1.0	16	1.0	14.5	0.0	2944.0	61.1	0.0
MAR	279 288	15.5 17.7	1.2 1.7	0.3	0.0	1.0	18	1.0	14.2	0.0	2944.0 2045.0	61.1	0.0
APR	200 294	17.7		0.4	0.0	4.6	75 76	4.6	9.9 0.5	0.0	2945.0	63.9	2.8
MAY	294 285	17.5	2.8 3.8	0.7	0.0	4.5	76	4.5	9.5 0.7	0.0	2946.0	66.7	2.8
JUN	285 271	17.5	3.8 4.9	0.9	2.3	4.6	112	6.9 ° 2	9.7	0.0	2946.0	66.7	0.0
JUL	271	16.7	4.9 5.4	1.2	5.2	3.0	138	8.2	6.7	0.0	2946.0	66.7	0.0
AUG	272	10.7		1.2 0.9	23.0	2.0	407	25.0	0.0	0.0	2942.5	57.2	-9.5
SEP	278 274	16.3	4.8		21.6	2.0	384	23.6	0.0	0.0	2939.2	49.8	-7.4
OCT	274	10.5	3.8	0.7	5.8	1,0	114	6.8	0.0	0.0	2943.0	58.6	8.8
NOV	278	17.1	3.1 1.8	0.7	0.0	1.0	16	1.0	12.9	0.0	2944.0	61.1	2.5
DEC	271 252	16.1 15.5	1.8 1.2	0.4 0.3	0.0 0.0	1.0 1.0	17 16	1.0 1.0	14.7 14.2	0.0 0.0	2944.0 2944.0	61.1 61.1	0.0 0.0

0.7

CALAMUS RESERVOIR OPERATION ESTIMATES - 2007

MONTH	INFL MEAN CFS	OW 1000 AF	EVAPORA INCHES	TION 1000 AF	RELEA CANAL 1000 AF	ASE REQU RIVER 1000 AF	JIREMEI TOTA MEAN CFS		RESERVOIR SPILL 1000 AF	REQUIREMENT SHORTAGE 1000 AF	END OF ELEV FT	MONTH CONT 1000 AF	RESERVOIR CHANGE 1000 AF
				1	REASONAB	LE MINI	MUM IN	FLOW (CONDITIONS				
	0.01	15 0	1.3	0.5	0.5	3.1	59	3.6	3.1	0.0	2242.0	117.4	10.1
JAN	281	17.3			0.5	2.8	59	3.3	12.8	0.0	2242.0	117.4	0.0
FEB	301	16.7	1.6 2.9	0.6	0.5	2.8	59	3.6	12.8	0.0	2242.0	117.4	0.0
MAR	335	20.6			0.5	3.1 3.0	59	3.5	5.2	0,0	2242.0	127.4	10.0
APR	346	20.6	4.6	1.9 2.0	2.7	3.0	59 94	5.8	15.8	0.0	2244.0	127.4	0.0
MAY	384	23.6	4.8 5.9	2.0	5.6	3.1	94 145	8.6	9.8	0.0	2244.0	127.4	0.0
JUN	351	20.9			5.6 35.6	20.1	906	55.7	0.0	0.0	2235.6	89.2	-38.2
JUL	327	20.1	6.7 6.9	2.6 2.1	35.0 29.0	19.0	906 781	48.0	0.0	0.0	22255.0	58.1	-31.1
aug SEP	309	19.0	5.2		29.0 6.6	19.0	402	23.9	0.0	0.0	2220.9	50.2	-7.9
	291	17.3		1.3	0.5		402 59	3.6	0.0	0.0	2224.2	63.4	13.2
OCT	289	17.8	3.9	1.0 0.6	0.5	3.1 3.0	59	3.5	0.0	0.0	2228.0	78.0	14.6
NOV	314	18.7	2.1	0.6	0.5	3.0	59	3.5	0.0	0.0	2232.0	92.7	14.7
DEC	304	18.7	1.4	0.4	0.5	2.1	29	5.0	0.0	0.0	2230.3	22.1	± • • •
TOTAL		231.3	47.1	16.7	83.0	83.7		166.7	62.5	0.0			-14.6
					MOST	PROBA	BLE IN	FLOW	CONDITIONS	3			
JAN	320	19.7	1.2	0.5	0.5	3.1	59	3.6	5.5	0.0	2242.0	117.4	10.1
FEB	340	18.9	1.4	0.6	0.5	2.8	59	3.3	15.0	0.0	2242.0	117.4	0.0
MAR	379	23.3	2.6	1.1	0.5	3.1	59	3.6	18.6	0.0	2242.0	117.4	0.0
APR	392	23.3	4.2	1.7	0.5	3.0	59	3.5	8.1	0.0	2244.0	127.4	10.0
MAY	434	26.7	4.3	1.8	2.3	3.1	88	5.4	19.5	0.0	2244.0	127.4	0.0
JUN	398	23.7	5.3	2.3	4.6	3.0	128	7.6	13.8	0.0	2244.0	127.4	0.0
JUL	371	22.8	6.0	2.4	27.6	22.8	820	50.4	0.0	0.0	2237.6	97.4	-30.0
AUG	350	21.5	6.1	2.0	19.5	21.5	667	41.0	0.0	0.0	2232.2	75.9	-21.5
SEP	331	19.7	4.7	1.4	5.7	19.7	427	25.4	0.0	0.0	2230.2	68.8	-7.1
OCT	329	20.2	3.4	1.0	0.5	3.1	59	3.6	0.0	0.0	2234.4	84.4	15.6
NOV	356	21.2	1.8	0.6	0.5	3.0	59	3.5	0.0	0.0	2238.6	101.5	17.1
DEC	345	21.2	1.0	0.4	0.5	3.1	59	3.6	10.7	0.0	2240.0	108.0	6.5
220	5 1 5	51.5			0.0								

TOTAL	262.2	42.0	15.8	63.2	91.3	154.5	91.2	0.0

REASONABLE MAXIMUM INFLOW CONDITIONS

JAN	368	22.6	1.0	0.4	0.5	3.1	59	3.6	8.5	0.0	2242.0	117.4	10.1
FEB	391	21.7	1.3	0.5	0.5	2.8	59	3.3	17.9	0.0	2242.0	117.4	0.0
MAR	437	26.9	2.3	0.9	0.5	3.1	59	3.6	22.4	0.0	2242.0	117.4	0.0
APR	452	26.9	3.7	1.5	0.5	3.0	59	3.5	11.9	0.0	2244.0	127.4	10.0
MAY	503	30.9	3.9	1.7	1.9	3.1	81	5.0	24.2	0.0	2244.0	127.4	0.0
JUN	457	27.2	4.7	2.0	3.8	3.0	114	6.8	18.4	0.0	2244.0	127.4	0.0
JUL	426	26.2	5.4	2.2	16.2	26.2	690	42.4	0.0	0.0	2240.2	109.0	-18.4
AUG	402	24.7	5.5	2.0	14.2	24.7	633	38.9	0.0	0.0	2236.5	92.8	-16.2
SEP	380	22.6	4.2	1.4	4.8	22.6	460	27.4	0.0	0.0	2235.0	86.6	-6.2
OCT	377	23.2	3.0	1.1	0.5	3.1	59	3.6	0.0	0.0	2239.4	105.1	18.5
NOV	410	24.4	1.6	0.6	0.5	3.0	59	3.5	17.4	0.0	2240.0	108.0	2.9
DEC	397	24.4	0.9	0.3	0.5	3.1	59	3.6	20.5	0.0	2240.0	108.0	0.0
TOTAL		301.7	37.5	14.6	44.4	100.8		145.2	141.2	0.0			0.7

	INF	LOW	EVAPORA	TION	RELE. REQUIRI		RESERVOIR SPILL	REQUIREMENT SHORTAGE	END OF MONTH ELEV CONT		RESERVOIR CHANGE
MONTH	MEAN CFSAF	J 1000	INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				RE	ASONABLE	MINIMU	UM INFLOW (CONDITIONS			
JAN	0	0.0	1.3	0.1	5	0.3	0.0	0.0	2050.3	10.3	-0.4
FEB	0	0.0	1.6	0.1	5	0.3	0.0	0.0	2049.6	9.9	-0.4
MAR	0	0.0	2.9	0.1	10	0.6	0.0	0.0	2048.3	9.2	-0.7
APR	145	8.6	4.6	0.2	25	1.5	0.0	0.0	2059.8	16.1	6.9
MAY	239	14.7	4.9	0.4	78	4.8	0.0	0.0	2070.8	25.6	9.5
JUN	240	14.3	6.0	0.5	138	8.2	0.0	0.0	2076.0	31.2	5.6
JUL	205	12.6	6.5	0.6	286	17.6	0.0	0.0	2070.8	25.6	-5.6
AUG	140	8.6	5.0	0.4	268	16.5	0.0	0.0	2061.3	17.3	-8.3
SEP	10	0.6	4.3	0.2	129	7.7	0.0	0.0	2049.8	10.0	-7.3
OCT	0	0.0	3.8	0.2	5	0.3	0.0	0.0	2048.8	9.5	-0.5
NOV	0	0.0	2.0	0.1	5	0.3	0.0	0.0	2048.1	9.1	-0.4
DEC	0	0.0	1.2	0.0	5	0.3	0.0	0.0	2047.5	8.8	-0.3
TOTAL		59.4	44.1	2.9		58.4	0.0	0.0			-1.9
					MOST PRO	OBABLE	INFLOW CON	NDITIONS			
JAN	0	0	1.3	0.1	5	0.3	0.0	0.0	2050.3	10.3	-0.4
FEB	0	0	1.5	0.1	5	0.3	0.0	0.0	2049.6	9.9	-0.4
MAR	0	0	2.7	0.1	10	0.6	0.0	0.0	2048.3	9.2	-0.7
APR	108	6.4	4.2	0.2	25	1.5	0.0	0.0	2056.5	13.9	4.7
MAY	239	14.7	4.5	0.3	67	4.1	0.0	0.0	2069.4	24.2	10.3
JUN	240	14.3	5.6	0.5	114	6.8	0.0	0.0	2076.0	31.2	7
JUL	138	8.5	6.1	0.5	221	13.6	0.0	0.0	2070.8	25.6	-5.6
AUG	47	2.9	4.7	0.3	205	12.6	0.0	0.0	2059.0	15.6	-10
SEP	10	0.6	4.0	0.2	101	6	0.0	0.0	2049.8	10.0	-5.6
OCT	0	0	3.5	0.1	5	0.3	0.0	0.0	2049.0	9.6	-0.4
NOV	0	0	1.9	0.1	5	0.3	0.0	0.0	2048.3	9.2	-0.4
DEC	0	0	1.2	0	5	0.3	0.0	0.0	2047.7	8.9	-0.3
TOTAL		47.4	41.2	2.5		46.7	0.0	0.0			-1.8
				R	EASONABL	E MAXII	MUM INFLOW	V CONDITIONS			
JAN	0	0.0	1.1	0.0	5	0.3	0.0	0.0	2050.5	10.4	-0.3
FEB	0	0.0	1.4	0.1	5	0.3	0.0	0.0	2049.8	10.0	-0.4
MAR	0	0.0	2.4	0.1	10	0.6	0.0	0.0	2048.5	9.3	-0.7
APR	72	4.3	4.0	0.2	25	1.5	0.0	0.0	2053.2	11.9	2.6
MAY	239	14.7	4.3	0.3	57	3.5	0.0	0.0	2067.8	22.8	10.9
JUN	240	14.3	5.3	0.5	91	5.4	0.0	0.0	2076.0	31.2	8.4
JUL	29	1.8	5.7	0.5	163	10.0	0.0	0.0	2067.5	22.5	-8.7
AUG	20	1.2	4.3	0.3	153	9.4	0.0	0.0	2056.6	14.0	-8.5
SEP	10	0.6	3.8	0.2	74	4.4	0.0	0.0	2049.8	10.0	-4.0
OCT	0	0.0	3.3	0.1	5	0.3	0.0	0.0	2049.0	9.6	-0.4
NOV	0	0.0	17	0.1	-	0.2	0.0				

DAVIS CREEK RESERVOIR OPERATION ESTIMATES - 2007

TOTAL 36.9 38.3 2.4 36.3 0.0 0.0 -1,8

0.3

0.3

0.0

0.0

0.0

0.0

2048.3

2047.7

9.2

8.9

-0.4

-0.3

5

5

0.1

0.0

1.7

1.0

NOV

DEC

0

0

0.0

0.0

TABLE 4

BONNY RESERVOIR OPERATION ESTIMATES - 2007

MONTH	INFL MEAN CFS	OW 1000 AF	EVAPORA INCHES	1000 AF	CANAL 1000 AF	RIVER 1000 AF	MEAN CFS	AL 1000 AF	RESERVOIR SPILL 1000 AF	REQUIREMENT SHORTAGE 1000 AF	END OF ELEV FT	MONTH CONT 1000 AF	RESERVOIR CHANGE 1000 AF
JAN	11	0.7	1.4	0.1	0.0	0.4	7	0.4	0.0	0.0	3650.8	10.1	0.2
FEB	11	0.6	1.4	0.1	0.0	0.4	7	0.4	0.0	0.0	3650.9	10.2	0.1
MAR	11	0.7	2.3	0.2	0.0	0.4	7	0.4	0.0	0.0	3651.1	10.3	0.1
APR	13	0.8	4.7	0.4	0.0	0.4	7	0.4	0.0	0.0	3651.1	10.3	0.0
MAY	15	0.9	6.0	0.5	0.4	0.4	13	0.8	0.0	0.0	3650.6	9.9	-0.4
JUN	13	0.8	7.6	0.6	0.3	0.4	12	0.7	0.0	0.0	3650.1	9.4	-0.5
JUL	7	0.4	8.6	0.6	1.0	0.4	23	1.4	0.0	0.0	3648.2	7.8	-1.6
AUG	5	0.3	7.4	0.5	0.6	0.4	16	1.0	0.0	0.0	3646.6	6.6	-1.2
SEP	3	0.2	6.2	0.4	0.3	0.4	12	0.7	0.0	0.0	3645,3	5.7	-0.9
OCT	7	0.4	3.9	0.2	0.2	0.4	10	0.6	0.0	0.0	3644.7	5.3	-0.4
NOV	10	0.6	2.6	0.1	0.0	0.4	7	0.4	0.0	0.0	3644.8	5.4	0.1
DEC	10	0.6	1.6	0.1	0.0	0.4	7	0.4	0.0	0.0	3645.0	5.5	0.1
TOTAL		7.0	53.8	3.8	2.8	4.8		7.6	0.0	0.0			-4.4
					MOST PRO	DBABLE	INFLOW	COND	ITIONS				
JAN	20	1.2	1.1	0.1	0.0	0.4	7	0.4	0.0	0.0	3651.4	10.6	0.7

JAN	20	1.2	1.1	0.1	0.0	0.4	/	0.4	0.0	0.0	5051.4	10.0	0.7
FEB	20	1.1	1.3	0.1	0.0	0.4	7	0.4	0.0	0.0	3652.0	11.2	0.6
MAR	21	1.3	2.0	0.2	0.0	0.4	7	0.4	0.0	0.0	3652.7	11.9	0.7
APR	25	1.5	4.3	0.4	0.0	0.4	7	0.4	0.0	0.0	3653.3	12.6	0.7
MAY	28	1.7	5.4	0.5	0.1	0.4	8	0.5	0.0	0.0	3654.0	13.3	0.7
JUN	25	1.5	6.8	0.6	0.3	0.4	12	0.7	0.0	0.0	3654.2	13.5	0.2
JUL	13	0.8	7.7	0.7	0.7	0.4	18	1.1	0.0	0.0	3653.2	12.5	-1.0
AUG	8	0.5	6.7	0.6	0.6	0.4	16	1.0	0.0	0.0	3652.2	11.4	-1.1
SEP	5	0.3	5.6	0.5	0.3	0.4	12	0.7	0.0	0.0	3651.3	10.5	-0.9
OCT	10	0.6	3.5	0.3	0.1	0.4	8	0.5	0.0	0.0	3651.1	10.3	-0.2
NOV	17	1.0	2.3	0.2	0.0	0.4	7	0.4	0.0	0.0	3651.5	10.7	0.4
DEC	16	1.0	1.4	0.1	0.0	0.4	7	0.4	0.0	0.0	3652.0	11.2	0.5
TOTAL		12.5	48.1	4.3	2.1	4.8		6.9	0.0	0.0			1.3

REASONABLE MAXIMUM INFLOW CONDITIONS

JAN	31	1.9	1.0	0.1	0.0	0.4	7	0.4	0.0	0.0	3652.1	11.3	1.4
FEB	32	1.8	1.1	0.1	0.0	0.4	7	0.4	0.0	0.0	3653.3	12.6	1.3
MAR	34	2.1	1.7	0.2	0.0	0.4	7	0.4	0.0	0.0	3654.7	14.1	1.5
APR	40	2.4	3.7	0.4	0.0	0.4	7	0.4	0.0	0.0	3656.1	15.7	1.6
MAY	42	2.6	4.9	0.5	0.2	0.4	10	0.6	0.0	0.0	3657.3	17.2	1.5
JUN	40	2.4	6.1	0.7	0.2	0.4	10	0.6	0.0	0.0	3658.1	18.3	1.1
JUL	21	1.3	6.9	0.7	0.4	0.4	13	0.8	0.0	0.0	3658.0	18.1	-0.2
AUG	13	0.8	6.0	0.6	0.4	0.4	13	0.8	0.0	0.0	3657.5	17.5	-0.6
SEP	8	0.5	5.0	0.5	0.2	0.4	10	0.6	0.0	0.0	3657.0	16.9	-0.6
OCT	16	1.0	3.1	0.3	0.2	0.4	10	0.6	0.0	0.0	3657 1	17.0	0.1
NOV	27	1.6	2.0	0.2	0.0	0.4	7	0.4	0.0	0.0	3657.9	18.0	1.0
DEC	28	1.7	1.2	0.1	0.0	0.4	7	0.4	0.0	0.0	3658.8	19.2	1.2
TOTAL		20.1	42.7	4.4	1.6	4.8		6.4	0.0	0.0			9.3

ENDERS RESERVOIR OPERATION ESTIMATES - 2007

					RELE			REQUIREMENT		F MONTH	RESERVOIR
		LOW	EVAPORA		REQUIR		SPILL	SHORTAGE	ELEV	CONT 1000	CHANGE 1000
MONTH	MEAN CFSAI		INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	AF	AF
				REAS	ONABLE M	INIMUM	INFLOW CO	NDITIONS			
JAN	8	0.5	1.0	0.1	3	0.2	0.0	0.0	3085.9	11.3	0.2
FEB	9	0.5	1.1	0.1	4	0.2	0.0	0.0	3086.2	11.5	0.2
MAR	8	0.5	1.9	0.1	3	0.2	0.0	0.0	3086.4	11.7	0.2
APR	8	0.5	4.1	0.3	3	0.2	0.0	0.0	3086.4	11.7	0.0
MAY	8	0.5	5.2	0.3	3	0.2	0.0	0.0	3086.4	11.7	0.0
JUN	8	0.5	6.6	0.4	234	13.9	0.0	11.0	3082.3	8.9	-2.8
JUL	10	0.6	72	0.4	533	32.8	0.0	32.6	3082.3	8.9	0.0
AUG	8	0.5	6.0	0.3	540	33.2	0.0	33.0	3082.3	8.9	0.0
SEP	8	0.5	4.5	0.2	72	4.3	0.0	4.0	3082.3	8.9	0.0
OCT	8	0.5	2.9	0.2	3	0.2	0.0	0.0	3082.5	9.0	0.1
NOV	8	0.5	2.1	0.1	3	0.2	0.0	0.0	3082.8	9.2	0.2
DEC	8	0.5	1.2	0.1	3	0.2	0.0	0.0	3083.1	9.4	0.2
FOTAL		6.1	43.8	2.6		85.8	0.0	80.6			-1.7
				N	IOST PROE	ABLE IN	IFLOW COND	ITIONS			
JAN	21	1.3	0.9	0.1	3	0.2	0.0	0.0	3087.0	12.1	1.0
FEB	20	1.1	1.0	0.1	4	0.2	0.0	0.0	3088.0	12.9	0.8
MAR	20	1.2	1.7	0.1	3	0.2	0.0	0.0	3089.1	13.8	0.9
APR	20	1.2	3.9	0.3	3	0.2	0.0	0.0	3090.0	14.5	0.7
MAY	21	1.3	4.9	0.4	3	0.2	0.0	0.0	3090.8	15.2	0.7
JUN	20	1.2	6.1	0.4	116	6.9	0.0	0.0	3082.6	9.1	-6.1
JUL	23	1.4	6.7	0.4	483	29.7	0.0	28.5	3082.3	8.9	-0.2
AUG	21	1.3	5.7	0.3	384	23.6	0.0	22.6	3082.3	8.9	0.0
SEP	18	1.1	4.2	0.2	37	2.2	0.0	1.3	3082.3	8.9	0.0
OCT	20	1.2	2.7	0.1	3	0.2	0.0	0.0	3083.7	9.8	0.9
NOV	20	1.2	2.0	0.1	3	0.2	0.0	0.0	3085.0	10.7	0.9
DEC	20	1.2	1.1	0.1	3	0.2	0.0	0.0	3086.3	11.6	0.9
TOTAL		14.7	40.9	2.6		64.0	0.0	52.4			0.5
				REAS	ONABLE M	AXIMUN	M INFLOW CO	NDITIONS			
JAN	36	2.2	0.8	0.1	3	0.2	0.0	0.0	3088.1	13.0	1.9
FEB	34	1.9	0.9	0.1	4	0.2	0.0	0.0	3090.1	14.6	1.6
MAR	34	2.1	1.6	0.1	3	0.2	0.0	0.0	3092.1	16.4	1.0
			1.0	V.1	5	0.4		0.0	JUJ4.1		

JAIN	30	2.2	0.8	0.1	5	0.2	0.0	0.0	3088.1	13.0	1.9
FEB	34	1.9	0.9	0.1	4	0.2	0.0	0.0	3090.1	14.6	1.6
MAR	34	2.1	1.6	0.1	3	0.2	0.0	0.0	3092.1	16.4	1.8
APR	35	2.1	3.5	0.3	3	0.2	0.0	0.0	3093.8	18.0	1.6
MAY	36	2.2	4.4	0.4	3	0.2	0.0	0.0	3095.3	19.6	1.6
JUN	35	2.1	5.6	0.5	37	2.2	0.0	0.0	3094.7	19.0	-0.6
JUL	41	2.5	6.2	0.4	296	18.2	0.0	6.0	3082.3	8.9	-10.1
AUG	36	2.2	5.1	0.3	226	13.9	0.0	12.0	3082.3	8.9	0.0
SEP	34	2.0	3.8	0.2	3	0.2	0.0	0.0	3084.7	10.5	1.6
OCT	34	2.1	2.4	0.1	3	0.2	0.0	0.0	3087.2	12.3	1.8
NOV	35	2.1	1.8	0.1	3	0.2	0.0	0.0	3089.5	14.1	1.8
DEC	33	2.0	1.0	0.1	3	0.2	0.0	0.0	3091.5	15.8	1.7
TOTAL	2_5	5.5	37.1	2.7		36.1	0.0	18.0			4.7

TABLE 4

SWANSON LAKE OPERATION ESTIMATES- 2007

	INFI	LOW	EVAPOR	ATION	RELEA CANAL	ASE REÇ RIVER		ENT DTAL	RESERVOIR SPILL	REQUIREMENT SHORTAGE	END OF ELEV	MONTH CONT	RESERVO CHANGE
MONTH	MEAN CFS		INCHES	1000 AF	1000 AF	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
					REASC	NABLE	MINIMI	M INFI	OW CONDITIO	ONS			
					HE LIOC					5110			
JAN	21	1.3	1.0	0.2	0.0	0.1	2	0.1	0,0	0.0	2732.2	37.3	1.0
FEB	34	1.9	1.1	0.2	0.0	0.1	2	0.1	0.0	0.0	2732.8	38.9	1.6
MAR	37	2.3	2.0	0.5	0.0	0.1	2	0.1	0.0	0.0	2733.4	40.6	1.7
APR	42	2.5	4.4	1.0	0.0	0.1	2	0.1	0.0	0.0	2733.9	42.0	1.4
MAY	37	2.3	5.2	1.3	0.1	0.1	3	0.2	0.0	0.0	2734.2	42.8	0.8
JUN	30	1.8	6.7	1.6	4.3	1.0	89	5.3	0.0	0.0	2732.4	37.7	-5.1
JUL	16	1.0	7.7	1.5	16.0	7.0	374	23.0	0.0	6.7	2725.0	20.9	-16.8
AUG	8	0.5	6.7	1.1	13.4	6.3	320	19.7	0.0	19.6	2724.7	20.2	-0.7
SEP	5	0.3	5.2	0.8	2.0	2.1	69	4.1	0.0	4.0	2724.3	19.6	-0.6
OCT	7	0.4	3.2	0.5	0.0	0.1	2	0.1	0.0	0.0	2724.2	19.4	-0.2
NOV	15	0.9	2.2	0.4	0.0	0.1	2	0.1	0.0	0.0	2724.5	19.8	0.4
DEC	18	1.1	1.2	0.2	0.0	0.1	2	0.1	0.0	0.0	2724.9	20.6	0.8
TOTAL		16.3	46.6	9.3	35.8	17.2		53.0	0.0	30.3			-15.7
					мо	OST PRO	BABLE I	NFLOW	CONDITIONS	3			
JAN	54	3.3	0.9	0.2	0.0	0.1	2	0.1	0.0	0.0	2732.9	39.3	3.0
FEB	85	4.7	1.0	0.2	0.0	0.1	2	0.1	0.0	0.0	2734.5	43.7	4.4
MAR	94	5.8	1.7	0.4	0.0	0.1	2	0.1	0.0	0.0	2736.2	49.0	5.3
APR	104	6.2	4.1	1.1	0.0	0.1	2	0.1	0.0	0.0	2737.8	54.0	5.0
MAY	93	5.7	4.8	1.3	0.1	0.1	3	0.2	0.0	0.0	2739.0	58.2	4.2
JUN	74	4.4	6.2	1.8	3.8	0.1	66	3.9	0.0	0.0	2738.6	56.9	-1.3
JUL	41	2.5	7.1	1.8	13.9	4.2	294	18,1	0.0	0.0	2733.0	39.5	-17.4
AUG	21	1.3	6.2	1.2	11.5	4.1	254	15.6	0.0	0.0	2726.5	24.0	-15.5
SEP	10	0.6	4.8	0.8	1.7	0.1	30	1.8	0.0	0.0	2725.6	22.0	-2.0
OCT	16	1.0	2.8	0.5	0.0	0.1	2	0.1	0.0	0.0	2725.8	22.4	0.4
NOV	39	2.3	2.0	0.3	0.0	0.1	2	0.1	0.0	0.0	2726.7	24.3	1.9
DEC	44	2.7	1.1	0.2	0.0	0.1	2	0.1	0.0	0.0	2727.8	26.7	2.4
FOTAL		40.5	42.7	9.8	31.0	9.3		40.3	0.0	0.0			-9.6
					REASC	ONABLE	MAXIM	UM INF	LOW CONDITI	ONS			
JAN	102	6.3	0.8	0.2	0.0	0.1	2	0.1	0.0	0.0	2724.0	40.2	6.0

JAN	102	6.3	0.8	0.2	0,0	0.1	2	0.1	0.0	0.0	2734.0	42 3	6.0
FEB	158	8.8	0.9	0.2	0.0	0.1	2	0.1	0.0	0.0	2736.8	50.8	8.5
MAR	179	11.0	1.6	0.4	0.0	0.1	2	0.1	0.0	0.0	2739.9	61.3	10.5
APR	197	11.7	3.7	1.1	0.0	0.1	2	0.1	0.0	0.0	2742.8	71.8	10.5
MAY	176	10.8	4.3	1.4	0.1	0.1	3	0.2	0.0	0.0	2745.1	81.0	9.2
JUN	141	8.4	5.7	2.0	3.0	0.1	52	3.1	0.0	0.0	2745.9	84.3	3.3
JUL	76	4.7	6.6	2.2	11.4	1.2	205	12.6	0.0	0.0	2743.4	74.2	-10.1
AUG	41	2.5	5.7	1.8	9.4	1.8	182	11.2	0.0	0.0	2740.6	63.7	-10.5
SEP	22	1.3	4.3	1.3	1.4	0.1	25	1.5	0.0	0.0	2740.2	62.2	-1.5
OCT	29	1.8	2.6	0.8	0.0	0.1	2	0.1	0.0	0.0	2740.4	63.1	0.9
NOV	76	4.5	1.9	0.6	0.0	0.1	2	0.1	0.0	0.0	2741.5	66.9	3.8
DEC	83	5.1	1.0	0.3	0.0	0.1	2	0.1	0.0	0.0	2742.7	71.6	4.7
TOTAL		76.9	39.1	12.3	25.3	4.0		29.3	0.0	0.0			35.3

IIICII DUTI ED I AZE ODED ATION ESTIMATES 20	7
HUGH BUTLER LAKE OPERATION ESTIMATES - 20	J/

	INFI	LOW	EVAPORA	TION	RELE. REQUIRI		RESERVOIR SPILL	REQUIREMENT SHORTAGE	END O EL EV	F MONTH CONT	RESERVOIR CHANGE
	MEAN			1000	MEAN	1000	1000	1000		1000	1000
MONTH	CFS	AF	INCHES	AF	CFS	AF	AF	AF	FT	AF	ΑF
				RI	EASONABLI	E MININ	IUM INFLOW	CONDITIONS			
JAN	11	0.7	0.9	0.1	5	0.3	0.0	0.0	2563.5	13.4	0.3
FEB	14	0.8	1.0	0.1	5	0.3	0.0	0.0	2564.0	13.8	0.4
MAR	18	1.1	1.8	0.1	5	0.3	0.0	0.0	2564.7	14.5	0.7
APR	17	1.0	5.0	0.4	5	0.3	0.0	0.0	2565.1	14.8	0.3
MAY	16	1.0	5.9	0.5	5	0.3	0.0	0.0	2565.3	15.0	0.2
JUN	17	1.0	7.3	0.6	32	1.9	0.0	0.0	2563.7	13.5	-1.5
JUL	15	0.9	8.1	0.6	76	4.7	0.0	2.1	2561.0	11.2	-2.3
AUG	15	0.9	7.2	0.5	67	4.1	0.0	3.7	2561.0	11.2	0.0
SEP	10	0.6	5.5	0.4	17	1.0	0.0	0.7	2560.9	11.1	-0.1
OCT	10	0.6	3.5	0.2	5	0.3	0.0	0.0	2561.0	11.2	0.1
NOV	12	0.7	2.1	0.1	5	0.3	0.0	0.0	2561.4	11.5	0.3
DEC	11	0.7	1.1	0.1	5	0.3	0.0	0.0	2561.7	11.8	0.3
TOTAL		10.0	49.4	3.7		14.1	0.0	6.5			-1.3
					MOST PR	OBABLI	E INFLOW CO	NDITIONS			
JAN	16	1.0	0.8	0.1	5	0.3	0.0	0.0	2563.9	13.7	0.6
FEB	22	1.2	0.9	0.1	5	0.3	0.0	0.0	2564.7	14.5	0.8
MAR	26	1.6	1.6	0.1	5	0.3	0.0	0.0	2566.0	15.7	1.2
APR	25	1.5	4.5	0.4	5	0.3	0.0	0.0	2566.8	16.5	0.8
MAY	26	1.6	5.4	0.5	5	0.3	0.0	0.0	2567.6	17.3	0.8
JUN	27	1.6	6.6	0.6	25	1.5	0.0	0.0	2567.1	16.8	-0.5
JUL	21	1.3	7.3	0.6	67	4.1	0.0	0.0	2563.5	13.4	-3.4
AUG	21	1.3	6.5	0.5	55	3.4	0.0	0.4	2561.0	11.2	-2.2
SEP	13	0.8	5.0	0.3	15	0.9	0.0	0.4	2561.0	11.2	0.0
OCT	45	0.0	2.1	0.0	-	0.2	0.0	0.0	2571 F	11.6	0.4

JAN	16	1.0	0.8	0.1	5	0.3	0.0	0.0	2563.9	13.7	0.6
FEB	22	1.2	0.9	0.1	5	0.3	0.0	0.0	2564.7	14.5	0.8
MAR	26	1.6	1.6	0.1	5	0.3	0.0	0.0	2566.0	15.7	1.2
APR	25	1.5	4.5	0.4	5	0.3	0.0	0.0	2566.8	16.5	0.8
MAY	26	1.6	5.4	0.5	5	0.3	0.0	0.0	2567.6	17.3	0.8
JUN	27	1.6	6.6	0.6	25	1.5	0.0	0.0	2567.1	16.8	-0.5
JUL	21	1.3	7.3	0.6	67	4.1	0.0	0.0	2563.5	13.4	-3.4
AUG	21	1.3	6.5	0.5	55	3.4	0.0	0.4	2561.0	11.2	-2.2
SEP	13	0.8	5.0	0.3	15	0.9	0.0	0.4	2561.0	11.2	0.0
OCT	15	0.9	3.1	0.2	5	0.3	0.0	0.0	2561.5	11.6	0.4
NOV	17	1.0	1.9	0.1	5	0.3	0.0	0.0	2562.2	12.2	0.6
DEC	16	1.0	1.0	0.1	5	0.3	0.0	0.0	2562.9	12.8	0.6
TOTAL		14.8	44.6	3.6		12.3	0.0	0.8			-0.3

REASONABLE MAXIMUM INFLOW CONDITIONS

JAN	23	1.4	0.7	0.1	5	0.3	0.0	0.0	2564.3	14.1	1.0
FEB	29	1.6	0.8	0.1	5	0.3	0.0	0.0	2565.6	15.3	1.2
MAR	34	2.1	1.5	0.1	5	0.3	0.0	0.0	2567.3	17.0	1.7
APR	35	2.1	4.0	0.4	5	0.3	0.0	0.0	2568.6	18.4	1.4
MAY	36	2.2	4.9	0.5	5	0.3	0.0	0.0	2569.9	19.8	1.4
JUN	37	2.2	6.0	0.6	20	1.2	0.0	0.0	2570.3	20.2	0.4
JUL	28	1.7	6.7	0.6	50	3.1	0.0	0.0	2568.4	18.2	-2.0
AUG	29	1.8	5.9	0.5	41	2.5	0.0	0.0	2567.3	17.0	-1.2
SEP	18	1.1	4.6	0.4	10	0.6	0.0	0.0	2567.4	17.1	0.1
OCT	21	1.3	2.8	0.2	5	0.3	0.0	0.0	2568.2	17.9	0.8
NOV	24	1.4	1.8	0.2	5	0.3	0.0	0.0	2569.0	18.8	0.9
DEC	23	1.4	0.9	0.1	5	0.3	0.0	0.0	2569.9	19.8	1.0
TOTAL		20.3	40.6	3.8		0.0	0.0	0.0			6.7'
		20.3	40.0	5.0		9.8	0.0	0.0			

Page	9	of	16
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		LOW	EVAPORA		RELE REQUIR	EMENT	SPILL	REQUIREMENT SHORTAGE	END OF ELEV	F MONTH CONT 1000	RESERVOIR CHANGE
MONTH	MEAN CFS	1000 AF	INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
L				R	EASONABL	E MINIM	IUM INFLOW	CONDITIONS			
JAN	36	2.2	0.9	0.1	2	0.1	0.0	0.0	2359.9	24.9	2.0
FEB	45	2.5	1.0	0.1	2	0.1	0.0	0.0	2361.5	27.2	2.3
MAR	47	2.9	1.8	0.2	2	0.1	0.0	0.0	2363.2	29.8	2.6
APR	47	2.8	4.9	0.7	2	0.1	0.0	0.0	2364.5	31.8	2.0
MAY	49	3.0	5.7	0.8	2	0.1	0.0	0.0	2365.7	33.9	2.1
JUN	52	3.1	7.1	1.0	87	5.2	0.0	0.0	2363.8	30.8	-3.1
JUL	49	3.0	8.0	0.8	311	19.1	0.0	0.0	2350.4	13.9	-16.9
AUG	39	2.4	6.9	0.5	262	16.1	0.0	8.2	2343.0	7.9	-6.0
SEP	25	1.5	5.4	0.3	27	1.6	0.0	0.4	2343.0	7.9	0.0
OCT	31	1.9	3.5	0.2	2	0.1	0.0	0.0	2345.2	9.5	1.6
NOV	35	2.1	2.1	0.1	2	0.1	0.0	0.0	2347.6	11.4	1.9
DEC	33	2.0	1.1	0.1	2	0.1	0.0	0.0	2349.6	13.2	1.8
TOTAL		29.4	48.4	4.9		42.8	0.0	8.6			-9.7
					MOST PI	ROBABL	E INFLOW CO	ONDITIONS			
• • • -		-									
JAN	42	2.6	0.8	0.1	2	0.1	0.0	0.0	2360.1	25.3	2.4
FEB	52	2.9	0.9	0.1	2	0.1	0.0	0.0	2362.0	28.0	2.7
MAR	55	3.4	1.6	0.2	2	0.1	0.0	0.0	2364.0	31.1	3.1
APR	55	3.3	4.4	0.6	2	0.1	0.0	0.0	2365.6	33.7	2.6
MAY	60	3.7	5.2	0.8	2	0.1	1.9	0.0	2366.1	34.6	0.9
JUN	61	3.6	6.7	1.0	72	4.3	0.0	0.0	2365.1	32.9	-1.7
JUL	57	3.5	7.5	0.9	259	15.9	0.0	0.0	2355.7	19.6	-13.3
AUG	46	2.8	6.5	0.5	220	13.5	0.0	0.0	2343.7	8.4	-11.2
SEP	30	1.8	4.9	0.3	20	1.2	0.0	0.0	2344.1	8.7	0.3
OCT	36	2.2	3.2	0.2	2	0.1	0.0	0.0	2346.6	10.6	1.9
NOV	40	2.4	1.9	0.1	2	0.1	0.0	0.0	2349.2	12.8	2.2
DEC	39	2.4	1.0	0.1	2	0.1	0.0	0.0	2351.5	15.0	2.2
TOTAL		34.6	44.6	4.9		35.7	1.9	0.0			-7.9
				R	EASONABL	E MAXIN	AUM INFLOW	CONDITIONS			
JAN	59	3.6	0.7	0.1	2	0.1	0.0	0.0	1260.0	16 2	24
JAN FEB	59 76	3.0 4.2	0.7	0.1	2 2	0.1		0.0	2360.9 2363 5	26.3 30.3	3.4
MAR	76 80	4.2 4.9	0.8 1.4	0.1	2	0.1	0.0	0.0 0.0	2363.5	30.3	4.0
APR	80 79	4.9 4.7	1.4 4.1	0.2 0.6			1.2		2365.6	33.7 34.6	3.4
APR MAY	79 85	4.7 5.2	4.1 4.8	0.6 0.7	2	0.1	3.1	0.0	2366.1	34.6	0.9
JUN	85 86	5.2 5.1	4.8 6.0	0.7 0.9	2 45	0.1 2.7	4.4	0.0	2366.1	34.6	0.0
JUL	86 80	5.1 4.9	6.0 6.8	0.9 0.9	45 177	2.7 10.9	1.5	0.0	2366.1	34.6	0.0
AUG	80 63	4.9 3.9					0.0	0.0	2361.8	27.7	-6.9
SEP	63 42	3.9 2.5	5.9 4.5	0.7 0.5	150 2	9.2 0.1	0.0	0.0	2357.4	21.7	-6.0
OCT	42 52	2.5 3.2	4.5 2.9	0.5	2	0.1	0.0	0.0	2358.9	23.6	1.9
NOV	52 57	3.2 3.4	2.9 1.7	0.3 0.2	2	0.1	0.0	0.0	2360.9	26.4	2.8
DEC	55	3.4 3.4	0.9	0.2 0.1	2 2	0.1 0.1	0.0 0.0	0.0 0.0	2363.1 2365.0	29.5 32.7	3.1 3.2
										~	<i>ي. د</i>
TOTAL		49.0	40.5	5.3		23.7	10.2	0.0			

HARRY STRUNK LAKE OPERATON ESTIMATES - 2007

	INTE	LOW	EVAPORA	TION	RELI REQUIRI	EASE EMEN'T	RESERVOIF SPILL	R REQUIREMENT SHORTAGE	END O ELEV	F MONTH CONT	RESERVOIR CHANGE
	MEAN		EVAPORA	1000	MEAN	1000	1000	1000	LILLY	1000	1000
MONTH	CFSAI		INCHES	AF	CFS	AF	AF	AF	FT	AF	AF
				REAS	ONABLE M	INIMUM	I INFLOW CO	NDITIONS			
JAN	2	0.1	1.1	0.1	2	0.1	0.0	0.0	2286.1	8.0	-0.1
FEB	4	0.2	1.3	0.1	2	0.1	0.0	0.0	2286.1	8.0	0.0
MAR	5	0.3	2.1	0.1	2	0.1	0.0	0.0	2286.2	8.1	0.1
APR	5	0.3	5.5	0.4	2	0.1	0.0	0.0	2286.0	7.9	-0.2
MAY	10	0.6	6.2	0.4	7	0.4	0.0	0.0	2285.7	7.7	-0.2
JUN	12	0.7	7.8	0.5	77	4.6	0.0	0.7	2280.4	4.0	-3.7
JUL	8	0.5	8.8	0.4	146	9.0	0.0	8.9	2280.4	4.0	0.0
AUG	8	0.5	7.8	0.4	146	9.0	0.0	8.9	2280.4	4.0	0.0
SEP	3	0.2	6.1	0.3	27	1.6	0.0	1.5	2280.1	3.8	-0.2
OCT	2	0.1	4.2	0.2	2	0.1	0.0	0.0	2279.7	3.6	-0.2
NOV	2	0.1	2.3	0.1	2	0.1	0.0	0.0	2279.5	3.5	-0.1
DEC	2	0.1	1.2	0.1	2	0.1	0.0	0.0	2279.3	3.4	-0.1
TOTAL		3.7	54.4	3.1		25.3	0.0	20.0			-4.7
				м	OST PROB	ABLE IN	IFLOW COND	ITIONS			
JAN	5	0.3	0.9	0.1	2	0.1	0.0	0.0	2286.3	8.2	0.1
FEB	7	0.4	1.1	0.1	2	0.1	0.0	0.0	2286.5	8.4	0.2
MAD	44	07	4.0	0.4	2	0.4	0.0	0.0	00074	0.0	0.5

KEITH SEBELIUS LAKE OPERATION ESTIMATES - 2007

MAR 11 0.7 1.8 0.1 2 0.1 0.0 0.0 2287.1 8.9 0.5 2 2287.4 APR 12 0.7 4.8 0.4 0.1 0.0 0.0 9.1 0.2 MAY 16 5.5 0.4 3 0.2 0.00.0 2287.8 9.5 0.4 1.0 JUN 22 1.3 6.8 0.5 47 2.8 0.00.0 2285.4 7.5 -2.0 JUL 16 1.0 7.8 0.5 138 8.5 0.0 4.5 2280.4 4.0 -35 AUG 15 0.3 112 2280.4 0.0 0.9 6.8 6.9 0.06.3 4.0 7 SEP 0.4 5.4 0.3 22 1.3 0.0 1.2 2280.4 4.0 0.0 OCT 3 0.2 0.2 2 0.1 2280.2 -0.1 3.6 0.0 0.0 3.9 NOV 5 2 0.3 2.1 0.1 0.1 2280.4 0.1 0.00.0 4.0 DEC 2 3 0.2 1.1 0.1 0.1 0.0 0.0 2280.4 4.0 0.0 TOTAL 7.4 47.7 3.1 20.4 0.0 12.0 -4.1

REASONABLE MAXIMUM INFLOW CONDITIONS

JAN	10	0.6	0.8	0.1	2	0.1	0.0	0.0	2286.7	8.5	0.4
FEB	14	0.8	0.9	0.1	2	0.1	0.0	0.0	2287.4	9.1	0.6
MAR	23	1.4	1.5	0.1	2	0.1	0.0	0.0	2288.6	10.3	1.2
APR	25	1.5	4.2	0.4	2	0.1	0.0	0.0	2289.7	11.3	1.0
MAY	39	2.4	4.8	0.4	3	0.2	0.0	0.0	2291.3	13.1	1.8
JUN	50	3.0	6.2	0.6	27	1.6	0.0	0.0	2292.0	13.9	0.8
JUL	36	2.2	7.0	0.7	72	4.4	0.0	0.0	2289.4	11.0	-2.9
AUG	33	2.0	6.2	0.5	68	4.2	0.0	0.0	2286.4	8.3	-2.7
SEP	15	0.9	4.8	0.3	15	0.9	0.0	0.0	2286.1	8.0	-0.3
OCT	7	0.4	3.2	0.2	2	0.1	0.0	0.0	2286.2	8.1	0.1
NOV	10	0.6	1.8	0.1	2	0.1	0.0	0.0	2286.7	8.5	0.4
DEC	8	0.5	0.9	0.1	2	0.1	0.0	0.0	2287.0	8.8	0.3
TOTAL		16.3	42.3	3.6		12.0	0.0	0.0			0.7

					RELE			REQUIREMENT		F MONTH	RESERVOIR
		LOW	EVAPORA		REQUIR		SPILL	SHORTAGE	ELEV	CONT	CHANGE
	MEAN			1000	MEAN	1000	1000	1000	1747	1000	1000
MONTH	CFSAI	μ,	INCHES	AF	CFS	AF	AF	AF	FT	AF	AF
				RE	ASONABLE	MINIMU	JM INFLOW C	ONDITIONS			
JAN	39	2.4	1.0	0.6	0	0.0	0.0	0.0	1927.0	118.1	1.8
FEB	61	3.4	1.1	0.7	0	0.0	0.0	0.0	1927.4	120.8	2.7
MAR	81	5.0	1.9	1.2	0	0.0	0.0	0.0	1927.9	124.6	3.8
APR	71	4.2	4.5	2.9	0	0.0	0.0	0.0	1928.0	125.9	1.3
MAY	89	5.5	5.5	3.6	0	0.0	0.0	0.0	1928.3	127.8	1.9
JUN	76	4.5	6.7	4.4	250	14.9	0.0	14.9	1928.3	127.9	0.1
JUL	75	4.6	7.6	5.1	758	46.6	0.0	46.6	1928.2	127.4	-0.5
AUG	60	3.7	6.6	4.4	610	37.5	0.0	37.5	1928.1	126.7	-0.7
SEP	30	1.8	5.2	3.4	61	3.6	0.0	3.6	1927.9	125.1	-1.6
OCT	28	1.7	3.5	2.3	0	0.0	0.0	0.0	1927.8	124.5	-0.6
NOV	37	2.2	2.2	1.5	0	0.0	0.0	0.0	1927.9	125.2	0.7
DEC	37	2.3	1.4	0.9	0	0.0	0.0	0.0	1928.1	126.6	1.4
TOTAL		41.3	47.2	31.0		102.6	0.0	102.6			10.3
					MOST PRO	OBABLE	INFLOW CON	DITIONS			
JAN	111	6.8	0.8	0.5	0	0.0	0.0	0.0	1927.6	122.6	6.3
FEB	173	9.6	0.9	0.6	0	0.0	0.0	0.0	1928.7	131.6	9.0
MAR	233	14.3	1.6	1.1	0	0.0	0.0	0.0	1930.3	144.8	13.2
APR	202	12.0	4.0	2.9	0	0.0	0.0	0.0	1931.4	153.9	9.1
MAY	254	15.6	4.9	3.7	0	0.0	0.0	0.0	1932.7	165.8	11.9
JUN	212	12.6	5.9	4.6	71	4.2	0.0	0.0	1933.1	169.6	3.8
. II II	213	13.1	67	5.0	667	41.0	0.0	0.0	1929 4	136 7	-32.9

HARLAN COUNTY LAKE OPERATION ESTIMATES - 2007

JAN	111	6.8	0.8	0.5	0	0.0	0.0	0.0	1927.6	122.6	0.3
FEB	173	9.6	0.9	0.6	0	0.0	0.0	0.0	1928.7	131.6	9.0
MAR	233	14.3	1.6	1.1	0	0.0	0.0	0.0	1930.3	144.8	13.2
APR	202	12.0	4.0	2.9	0	0.0	0.0	0.0	1931.4	153.9	9.1
MAY	254	15.6	4.9	3.7	0	0.0	0.0	0.0	1932.7	165.8	11.9
JUN	212	12.6	5.9	4.6	71	4.2	0.0	0.0	1933.1	169.6	3.8
JUL	213	13.1	6.7	5.0	667	41.0	0.0	0.0	1929.4	136.7	-32.9
AUG	172	10.6	5.8	3.9	572	35.2	0.0	24.2	1928.8	132.4	-4.3
SEP	84	5.0	4.7	3.1	37	2.2	0.0	0.3	1928.8	132.4	0.0
OCT	80	4.9	3.1	2.1	0	0.0	0.0	0.0	1929.2	135.2	2.8
NOV	106	6.3	1.9	1.3	0	0.0	0.0	0.0	1929.8	140.2	5.0
DEC	106	6.5	1.1	0.8	0	0.0	0.0	0.0	1930.5	145.9	5.7
TOTAL		117.3	41.4	29.6		82.6	0.0	24.5			29.6

REASONABLE MAXIMUM INFLOW CONDITIONS

JAN	263	16.2	0.7	0.4	0	0.0	0.0	0.0	1928.8	132.1	15.8
FEB	411	22.8	0.7	0.5	0	0.0	0.0	0.0	1931.4	154.4	22.3
MAR	553	34.0	1.3	1.0	0	0.0	0.0	0.0	1934.9	187.4	33.0
APR	477	28.4	3.5	3.1	0	0.0	0.0	0.0	1937.3	212.7	25.3
MAY	603	37.1	4.2	4.0	0	0.0	0.0	0.0	1940.3	245.8	33.1
JUN	501	29.8	5.3	5.3	39	2.3	0.0	0.0	1942.1	268.0	22.2
JUL	507	31.2	5.9	6.1	161	9.9	0.0	0.0	1943.3	283.2	15.2
AUG	408	25.1	5.1	5.4	161	9.9	0.0	0.0	1944.1	293.0	9.8
SEP	202	12.0	4.1	4.4	20	1.2	0.0	0.0	1944.6	299.4	6.4
OCT	190	11.7	2.6	2.8	0	0.0	0.0	0.0	1945.3	308.3	8.9
NOV	252	15.0	1.6	1.8	0	0.0	3.8	0.0	1946.0	317.7	9.4
DEC	249	15.3	1.0	1.1	0	0.0	14.2	0.0	1946.0	317.7	0.0
TOTAL		278.6	36.0	35.9		23.3	18.0	0.0			201.4

LOVEWELL RESERVOIR OPERATION ESTIMATES - 2007

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC TOTAL JAN FEB MAR	1000 AF 0.4 0.6 1.4 1.3 1.6 1.7 1.2 0.1 0.9 0.6 0.5 0.4	1000 AF 2.2 2.5 3.3 2.5 0.0 0.0 0.0 0.0 0.0	42 56 76 61 67 29 20	AF REA 2.6 3.1 4.7 3.6	INCHES SONABLE	AF MINIM 0.1	CFS 		AF	AF	FT	AF	AF
FEB MAR APR JUN JUL AUG SEP OCT NOV DEC TOTAL	0.6 1.4 1.3 1.6 1.7 1.2 0.1 0.9 0.6 0.5	2.5 3.3 2.5 0.0 0.0 0.0 0.0	56 76 61 67 29 20	2.6 3.1 4.7 3.6	0.8 1.0		IUM INFL	ow coi	IDITION	5			
FEB MAR APR JUN JUL AUG SEP OCT NOV DEC TOTAL	0.6 1.4 1.3 1.6 1.7 1.2 0.1 0.9 0.6 0.5	2.5 3.3 2.5 0.0 0.0 0.0 0.0	56 76 61 67 29 20	3.1 4.7 3.6	1.0	0.1							
MAR APR MAY JUN JUL AUG SEP OCT NOV DEC TOTAL	1.4 1.3 1.6 1.7 1.2 0.1 0.9 0.6 0.5	3.3 2.5 0.0 0.0 0.0 0.0	76 61 67 29 20	4.7 3.6			0	0.0	0.0	0.0	1577.4	22.1	2.5
APR MAY JUN JUL AUG SEP OCT NOV DEC TOTAL	1.3 1.6 1.7 1.2 0.1 0.9 0.6 0.5	2.3 2.5 0.0 0.0 0.0 0.0	61 67 29 20	3.6	10	0.2	0	0.0	0.0	0.0	1578.6	25.0	2.9
MAY JUN JUL AUG SEP OCT NOV DEC TOTAL	1.6 1.7 1.2 0.1 0.9 0.6 0.5	2.5 0.0 0.0 0.0 0.0	67 29 20		1.8	0.4	0	0.0	0.0	0.0	1580.3	29.3	4.3
JUN JUL AUG SEP OCT NOV DEC TOTAL JAN FEB	1.7 1.2 0.1 0.9 0.6 0.5	0.0 0.0 0.0 0.0	29 20		3.7	0.8	0	0.0	0.0	0.0	1581.4	32.1	2.8
JUL AUG SEP OCT NOV DEC TOTAL JAN FEB	1.2 0.1 0.9 0.6 0.5	0.0 0.0 0.0	20	4.1	4.7	1.1	16	1.0	0.0	0.0	1582.1	34.1	2.0
AUG SEP OCT NOV DEC TOTAL JAN FEB	0.1 0.9 0.6 0.5	0.0 0.0		1.7	6.1	1.3	188	11.2	0.0	0.0	1577.9	23.3	-10.8
SEP OCT NOV DEC TOTAL JAN FEB	0.9 0.6 0.5	0.0		1.2	6.8	1.1	566	34.8	0.0	23.0	1571.7	11.6	-11.7
OCT NOV DEC TOTAL JAN FEB	0.6 0.5		2	0.1	5.4	0.7	389	23.9	0.0	23.9	1571.3	11.0	-0.6
NOV DEC TOTAL JAN FEB	0.5	1.0	15	0.9	4.1	0.5	52	3.1	0.0	3.3	1571.7	11.6	0.6
DEC TOTAL JAN FEB		1.9	41	2.5	2.8	0.4	0	0.0	0.0	0.0	1573.0	13.7	2.1
DEC TOTAL JAN FEB	0.4	2.5	50	3.0	2.1	0.3	0	0.0	0.0	0.0	1574.6	16.4	2.7
JAN FEB		2.6	49	3.0	1.0	0.2	0	0.0	0.0	0.0	1576.0	19.2	2.8
FEB	10.7	19.8		30.5	40.3	7.1		74.0	0.0	50.2			-0.4
FEB					MOST PR	ROBABI	LE INFLO	W CONI	DITIONS				
FEB	0.9	3.8	76	4.7	0.7	0.1	0	0.0	0.0	0.0	1578.3	24.2	4.6
	1.3	4.9	112	6.2	0.9	0.2	0	0.0	0.0	0.0	1580.7	30.2	6.0
	3	4.5	122	7.5	1.6	0.4	0	0.0	0.0	0.0	1583.1	37.3	7.1
APR	2.7	0.0	45	2.7	3.2	0.8	0	0.0	0.0	0.0	1583.8	39.2	1.9
MAY	3.4	0.0	55	3.4	4.1	1.1	15	0.9	0.0	0.0	1584.2	40.6	1.4
JUN	3.8	0.0	64	3.8	5.1	1.3	155	9.2	0.0	0.0	1582.0	33.9	-6.7
JUL	2.5	5.4	128	7.9	5.7	1.1	472	29.0	0.0	0.0	1571.7	11.7	-22.2
AUG	0.3	5.8	99	6.1	4.7	0.6	324	19.9	0.0	14.3	1571.7	11.6	-0.1
SEP	2	0.0	34	2.0	3.5	0.4	44	2.6	0.0	1.0	1571.7	11.6	0.0
OCT	1.3	4.7	98	6.0	2.4	0.3	0	0.0	0.0	0.0	1575.1	17.3	5.7
NOV	1.2	4.1	89	5.3	1.8	0.3	0	0.0	0.0	0.0	1577.5	22.3	5.0
DEC	0.8	4.6	88	5.4	0.8	0.2	0	0.0	0.0	0.0	1579.6	27.5	5.2
TOTAL	23.2	37.8		61.0	34.5	6.8		61.6	0.0	15.3			7.9
				RE	ASONABLI	e maxi	IMUM INF	LOW CO	ONDITIO	NS			
JAN	2.7	0.0	44	2.7	0.6	0.1	0	0.0	0.0	0.0	1577.4	22.2	2.6
FEB	4.1	0.0	44 74	4.1	0.8	0.1	0	0.0	0.0	0.0	1577.4	26.2	4.0
MAR	4.1 9.3	0.0	151	4.1 9.3	1.3	0.1	0	0.0	0.0	0.0	1579.1	35.2	4.0 9.0
							0	0.0			1582.4	40.6	5.4
APR	8.4	0.0	141	8.4	2.8	0.7			2.3	0.0			
MAY	10.6	0.0	172	10.6	3.5	0.9	8	0.5	9.2	0.0	1584.2	40.6	0.0 0.0
JUN	11.5	0.0	193	11.5	4.4	1.2	87	5.2	5.1	0.0	1584.2	40.6	
JUL	7.8	1.2	146	9.0	4.9	1.2	265	16.3	0.0	0.0	1581.4	32.1	-8.5
AUG	0.8	1.2	33	2.0	4.0	0.8	179	11.0	0.0	0.0	1577.5	22.3	-9.8
SEP	6.2	0.6	114	6.8	3.0	0.6	24	1.4	0.0	0.0	1579.5	27.1	4.8
OCT	4.2	0.0	68	4.2	2.0	0.4	0	0.0	0.9	0.0	1580.6	30.0	2.9
NOV DEC	3.6 2.4	0.0 0.0	61 39	3.6 2.4	1.5 0.7	0.3 0.2	0 0	0.0 0.0	3.3 2.2	0.0 0.0	1580.6 1580.6	30.0 30.0	0.0 0.0

	INF	LOW	EVAPORA	TION	RELE REQUIR		RESERVOIR SPILL	REQUIREMENT SHORTAGE	END O ELEV	F MONTH CONT	RESERVOIF CHANGE
MONTH	MEAN CFSAI	N 1000	INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				RE	ASONABLE	E MINIM	UM INFLOW (CONDITIONS			
JAN	3	0.2	0.9	0.1	0	0.0	0.0	0.0	1705.5	19.5	0.1
FEB	5	0.3	1.1	0.1	0	0.0	0.0	0.0	1705.6	19.7	0.2
MAR	10	0.6	2.0	0.3	0	0.0	0.0	0.0	1705.8	20.0	0.3
APR	10	0.6	4.4	0.6	0	0.0	0.0	0.0	1705.8	20.0	0.0
MAY	16	1.0	5.4	0.7	8	0.5	0.0	0.0	1705.7	19.8	-0.2
JUN	13	0.8	6.7	0.8	87	5.2	0.0	0.0	1702.2	14.6	-5.2
JUL	11	0.7	7.6	0.8	192	11.8	0.0	9.1	1700.0	11.8	-2.8
AUG	8	0.5	6.7	0.7	192	11.8	0.0	11.8	1699.8	11.6	-0.2
SEP	5	0.3	5.1	0.5	52	3.1	0.0	3.1	1699.6	11.4	-0.2
OCT	3	0.2	3.5	0.3	0	0.0	0.0	0.0	1699.5	11.3	-0.1
NOV	3	0.2	2.1	0.2	0	0.0	0.0	0.0	1699.5	11.3	0.0
DEC	3	0.2	1.1	0.1	0	0.0	0.0	0.0	1699.6	11.4	0.1
TOTAL		5.6	46.6	5.2		32.4	0.0	24.0			-8.0
					MOST PRO	OBABLE	INFLOW CON	DITIONS			
JAN	13	0.8	0.8	0.1	0	0.0	0.0	0.0	1705.9	20.1	0.7
FEB	20	1.1	1.1	0.2	0	0.0	0.0	0.0	1706.4	21.0	0.9
MAR	33	2.0	1.8	0.3	0	0.0	0.0	0.0	1707.4	22.7	1.7
APR	37	2.2	3.9	0.6	0	0.0	0.0	0.0	1708.3	24.3	1.6
MAY	57	3.5	4.8	0.8	7	0.4	0.0	0.0	1709.4	26.6	2.3
JUN	49	2.9	6.0	1.0	74	4.4	0.0	0.0	1708.2	24.1	-2.5
JUL	44	2.7	6.8	0.9	192	11.8	0.0	0.0	1701.8	14.1	-10.0
AUG	31	1.9	6.0	0.6	166	10.2	0.0	6.6	1700.0	11.8	-2.3
SEP	17	1.0	4.6	0.5	8	0.5	0.0	0.0	1700.0	11.8	0.0
OCT	10	0.6	3.1	0.3	0	0.0	0.0	0.0	1700.2	12.1	0.3
NOV	13	0.8	2.0	0.2	0	0.0	0.0	0.0	1700.7	12.7	0.6
DEC	11	0.7	1.0	0.1	0	0.0	0.0	0.0	1701.2	13.3	0.6
TOTAL		20.2	41.9	5.6		27.3	0.0	6.6			-6.1

KIRWIN RESERVOIR OPERATION ESTIMATES - 2007

REASONABLE MAXIMUM INFLOW CONDITIONS

JAN	46	2.8	0.7	0.1	0	0.0	0.0	0.0	1707.1	22.1	2.7
FEB	76	4.2	0.9	0.1	0	0.0	0.0	0.0	1709.3	26.2	4.1
MAR	120	7.4	1.5	0.3	0	0.0	0.0	0.0	1712.3	33.3	7.1
APR	134	8.0	3.6	0.8	0	0.0	0.0	0.0	1714.9	40.5	7.2
MAY	211	13.0	4.4	1.2	5	0.3	0.0	0.0	1718.3	52.0	11.5
JUN	175	10.4	5.4	1.6	59	3.5	0.0	0.0	1719.8	57.3	5.3
JUL	166	10.2	6.1	1.8	168	10.3	0.0	0.0	1719.3	55.4	-1.9
AUG	115	7.1	5.4	1.6	119	7.3	0.0	0.0	1718.8	53.6	-1.8
SEP	61	3.6	4.1	1.2	7	0.4	0.0	0.0	1719.4	55.6	2.0
OCT	39	2.4	2.7	0.8	0	0.0	0.0	0.0	1719.8	57.2	1.6
NOV	52	3.1	1.7	0.5	0	0.0	0.0	0.0	1720.5	59.8	2.6
DEC	41	2.5	0.9	0.3	0	0.0	0.0	0.0	1721.1	62.0	2.2
TOTAL		74.7	37.4	10.3		21.8	0.0	0.0			42.6

WEBSTER RESERVOIR OPERATION ESTIMATES - 2007

	INFL		EVAPORA'			EMENT	SPILL	R REQUIREMENT SHORTAGE 1000	END O ELEV	F MONTH CONT 1000	RESERVOIR CHANGE 1000
MONTH	MEAN CFSAI		INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	AF
L				RE	ASONABLE	MINIMU	M INFLOW (CONDITIONS			
JAN	3	0.2	0.9	0.1	0	0.0	0.0	0.0	1864.1	8.7	0.1
FEB	4	0.2	1.1	0.1	0	0.0	0.0	0.0	1864.2	8.8	0.1
MAR	7	0.4	2.0	0.2	0	0.0	0.0	0.0	1864.3	9.0	0.2
APR	8	0.5	4.5	0.5	0	0.0	0.0	0.0	1864.3	9.0	0.0
MAY	13	0.8	5.7	0.6	15	0.9	0.0	0.0	1863.8	8.3	-0.7
JUN	10	0.6	7.2	0.7	101	6.0	0.0	5.2	1863.0	7.4	-0.9
JUL	8	0.5	8.0	0.8	236	14.5	0.0	14.5	1862.8	7.1	-0.3
AUG	5	0.3	7.3	0.7	236	14.5	0.0	14.5	1862.4	6.7	-0.4
SEP	3	0.2	5.4	0.5	25	1.5	0.0	1.5	1862.1	6.4	-0.3
OCT	3	0.2	3.6	0.3	0	0.0	0.0	0.0	1862.0	6.3	-0.1
NOV	2	0.1	2.2	0.2	0	0.0	0.0	0.0	1861.9	6.2	-0.1
DEC	2	0.1	1.2	0.1	0	0.0	0.0	0.0	1861.9	6.2	0.0
TOTAL		4.1	49.1	4.8		37.4	0.0	35.7			-2.4
					MOST PRO	DBABLE	INFLOW CO	NDITIONS			
JAN	11	0.7	0.8	0.1	0	0.0	0.0	0.0	1864.5	9.2	0.6
FEB	16	0.9	1.0	0.1	0	0.0	0.0	0.0	1865.1	10.0	0.8
MAR	26	1.6	1.8	0.2	0	0.0	0.0	0.0	1866.1	11.4	1.4
APR	37	2.2	4.1	0.5	0	0.0	0.0	0.0	1867.3	13.1	1.7
MAY	54	3.3	5.2	0.7	13	0.8	0.0	0.0	1868.5	14.9	1.8
JUN	39	2.3	6.5	0.8	74	4.4	0.0	0.0	1866.6	12.0	-2.9
JUL	37	2.3	7.2	0.8	208	12.8	0.0	6.7	1863.0	7.4	-4.6
AUG	21	1.3	6.5	0.6	161	9.9	0.0	9.2	1863.0	7.4	0.0
SEP	13	0.8	4.9	0.5	5	0.3	0.0	0.0	1863.0	7.4	0.0
OCT	7	0.4	3.3	0.3	0	0.0	0.0	0.0	1863.1	7.5	0.1
NOV	10	0.6	2.0	0.2	0	0.0	0.0	0.0	1863.4	7.9	0.4
DEC	10	0.6	1.1	0.1	0	0.0	0.0	0.0	1863.8	8.4	0.5
TOTAL		17.0	44.4	4.9		28.2	0.0	15.9			-0.2
				RE	CASONABLE	MAXIM	JM INFLOW	CONDITIONS			
JAN	54	3.3	0.8	0.1	0	0.0	0.0	0.0	1866.4	11.8	3.2
FEB	79	4.4	0.9	0.1	0	0.0	0.0	0.0	1869.3	16.1	4.3
MAR	125	7.7	1.6	0.2	0	0.0	0.0	0.0	1873.6	23.6	7.5
APR	180	10.7	3.6	0.6	0	0.0	0.0	0.0	1878.4	33.7	10.1
MAY	268	16.5	4.7	1.0	7	0.4	0.0	0.0	1884.2	48.8	15.1
JUN	195	11.6	5.9	1.5	42	2.5	0.0	0.0	1886.7	56.4	7.6
JUL	182	11.2	6.5	1.7	125	7.7	0.0	0.0	1887.3	58.2	1.8
AUG	107	6.6	5.9	1.6	101	6.2	0.0	0.0	1886.9	57.0	-1.2
SEP	66	3.9	4.5	1.2	2	0.1	0.0	0.0	1887.7	59.6	2.6
OCT	36	2.2	2.9	0.8	0	0.0	0.0	0.0	1888.1	61.0	1.4
NOV	49	2.9	1.8	0.5	0	0.0	0.0	0.0	1888.9	63.4	2.4
DEC	46	2.8	1.0	0.3	0	0.0	0.0	0.0	1889.6	65.9	2.5
TOTAL		83.8	40.1	9.6		16.9	0.0	0.0			57.3

WACONDA LAKE OPERATION ESTIMATES - 2007

	INFI	LOW	EVAPORA	ATION	RELE REQUIR		SPILL	REQUIREMENT SHORTAGE	END O ELEV	F MONTH CONT	RESERVOII CHANGE
MONTH	MEAN CFSAF		INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				REAS	SONABLE N	AINIMUN	M INFLOW CO	NDITIONS			
JAN	28	1.7	0.8	0.5	8	0.5	0.0	0.0	1446.6	126.3	0.7
FEB	41	2.3	1.0	0.7	9	0.5	0.0	0.0	1446.7	127.4	1.1
MAR	80	4.9	1.9	1.3	3	0.2	0.0	0.0	1447.1	130.8	3.4
APR	82	4.9	4.8	3.4	2	0.1	0.0	0.0	1447.3	132.2	1.4
MAY	96	5.9	5.9	4.2	7	0.4	0.0	0.0	1447.4	133.5	1.3
JUN	82	4.9	7.5	5.3	42	2.5	0.0	0.0	1447.1	130.6	-2.9
JUL	133	8.2	8.9	6.1	156	9.6	0.0	0.0	1446.2	123.1	-7.5
AUG	49	3.0	7.7	5.1	124	7.6	0.0	0.0	1445.0	113.4	-9.7
SEP	37	2.2	6.0	3.8	24	1.4	0.0	0.0	1444.6	110.4	-3.0
OCT	29	1.8	3.9	2.5	3	0.2	0.0	0.0	1444.4	109.5	-0.9
NOV	34	2.0	2.1	1.3	7	0.4	0.0	0.0	1444.5	109.8	0.3
DEC	26	1.6	1.0	0.6	10	0.6	0.0	0.0	1444.5	110.2	0.4
TOTAL		43.4	51.5	34.8		24.0	0.0	0.0			-15.4
				N	iost proi	BABLE II	NFLOW COND	ITIONS			
JAN	91	5.6	0.7	0.5	3	0.2	0.0	0.0	1447.1	130.5	4.9
FEB	137	7.6	0.9	0.6	5	0.3	0.0	0.0	1447.9	137.2	6.7
MAR	257	15.8	1.7	1.3	2	0.1	0.0	0.0	1449.5	151.6	14.4
APR	269	16.0	4.3	3.5	0	0.0	0.0	0.0	1450.7	164.1	12.5
MAY	311	19.1	5.2	4.5	3	0.2	0.0	0.0	1452.1	178.5	14.4
JUN	264	15.7	6.7	6.2	32	1.9	0.0	0.0	1452.8	186.1	7.6
JUL	428	26.3	7.9	7.6	112	6.9	0.0	0.0	1453.8	197.9	11.8
AUG	158	9.7	6.8	6.6	89	5.5	0.0	0.0	1453.6	195.5	-2.4
SEP	119	7.1	5.4	5.2	17	1.0	0.0	0.0	1453.7	196.4	0.9
OCT	93	5.7	3.5	3.4	0	0.0	0.0	0.0	1453.9	198.7	2.3
NOV	106	6.3	1.9	1.9	3	0.2	7.8	0.0	1453.6	195.1	-3.6
DEC	85	5.2	0.9	0.9	5	0.3	4.0	0.0	1453.6	195.1	0.0
TOTAL		140.1	45.9	42.2		16.6	11.8	0.0			69.5
				REAS	SONABLE N	IAXIMU	M INFLOW CO	ONDITIONS			
JAN	366	22.5	0.7	0.5	0	0.0	0.0	0.0	1449.0	147.6	22.0
FEB	547	30.4	0.8	0.7	2	0.0	0.0	0.0	1452.0	177.2	29.6
MAR	1036	63.7	1.5	1.5	2	0.1	19.9	0.0	1455.6	219.4	42.2
APR	1079	64.2	3.9	4.1	2	0.1	60.0	0.0	1455.6	219.4	0.0
					-	0.1	00.0	0.0	1,00.0		0.0

7.1	7.5	70	4.3	94.1	0.0	1455.6	219.4	
6.1	6.4	57	3.5	29.0	0.0	1455.6	219.4	
4.8	5.0	10	0.6	23.1	0.0	1455.6	219.4	
3.1	3.3	2	0.1	19.7	0.0	1455.6	219.4	
1.7	1.7	0	0.0	47.9	0.0	1453.6	195.1	
0.8	0.8	2	0.1	19.9	0.0	1453.6	195.1	
41.2	42.7		10.2	440.9	0.0			

71.6

55.7

0.0

0.0

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

TOTAL

1246

1062

1722

633

482

376

425

338

76.6

63.2

105.9

38.9

28.7

23.1

25.3

20.8

563.3

4.7

6.0

4.9

6.3

2

20

0.1

1.2

219.4

219.4

0.0

0.0

0.0

0.0

0.0

0.0

-24.3

0.0

69.5

1455.6

1455.6

80.5

2126.7

-0.1

-4,9

		LOW	EVAPORA		REQUIR		SPILL	REQUIREMENT SHORTAGE	END O ELEV	F MONTH CONT	RESERVOIR CHANGE
MEAN 1000 MONTH CFS AF		INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF	
				REAS	SONABLE M	IINIMU	M INFLOW CO	NDITIONS			
JAN	2	0.1	1.1	0.4	0	0.0	0.0	0.0	2127.9	85.1	-0.3
FEB	2	0.1	1.2	0.4	0	0.0	0.0	0.0	2127.8	84.8	-0.3
MAR	3	0.2	2.1	0.7	0	0.0	0.0	0.0	2127.7	84.3	-0.5
APR	5	0.3	5.4	1.8	0	0.0	0.0	0.0	2127.3	82.8	-1.5
MAY	7	0.4	6.4	21	5	0.3	0.0	0.0	2126.8	80.8	-2.0
JUN	7	0.4	8.0	2.5	5	0.3	0.0	0.0	2126.1	78.4	-2.4
JUL	7	0.4	9.6	2.9	13	0.8	0.0	0.0	2125.2	75.1	-3.3
AUG	7	0.4	8.2	2.4	Π	0.7	0.0	0.0	2124.5	72.4	-2.7
SEP	3	0.2	7.0	2.0	5	0.3	0.0	0.0	2123.9	70.3	-2.1
OCT	2	0.1	4.9	1.4	2	0.1	0.0	0.0	2123.5	68.9	-1.4
NOV	2	0.1	2.3	0.6	2	0.1	0.0	0.0	2123.3	68.3	-0.6
DEC	2	0.1	1.3	0.4	2	0.1	0.0	0.0	2123.2	67.9	-0.4
TOTAL		2.8	57.5	17.6		2.7	0.0	0.0			-17.5
				1	MOST PROI	BABLE I	NFLOW COND	DITIONS			
JAN	7	0.4	1.0	0.3	0	0.0	0.0	0.0	2128.0	85.5	0.1
FEB	9	0.5	1.1	0.4	0	0.0	0.0	0.0	2128.0	85.6	0.1
MAR	15	0.9	2.0	0.7	0	0.0	0.0	0.0	2128.1	85.8	0.2
APR	24	1.4	5.0	1.7	0	0.0	0.0	0.0	2128.0	85.5	-0.3
MAY	34	2.1	5.8	1.9	3	0.2	0.0	0.0	2128.0	85.5	0.0
JUN	39	2.3	7.2	2.4	3	0.2	0.0	0.0	2127.9	85.2	-0.3
JUL	47	2.9	8.7	2.9	11	0.7	0.0	0.0	2127.7	84.5	-0.7
AUG	34	2.1	7.5	2.5	7	0.4	0.0	0.0	2127.5	83.7	-0.8
SEP	13	0.8	6.4	2.1	3	0.2	0.0	0.0	2127.1	82.2	-1.5
OCT	5	0.3	4.5	1.4	2	0.1	0.0	0.0	2126.8	81.0	-1.2
NOV	7	0.4	2.2	0.7	2	0.1	0.0	0.0	2126.7	80.6	-0.4

CEDAR BLUFF RESERVOIR OPERATION ESTIMATES - 2007

REASONABLE MAXIMUM INFLOW CONDITIONS

0.0

0.0

0.0

0.0

0.1

2.0

DEC

TOTAL

5

0.3

14.4

1.1

52.5

0.3

17.3

2

JAN	26	1.6	0.9	0.3	0	0.0	0.0	0.0	2128.3	86.7	1.3
FEB	36	2.0	1.0	0.3	0	0.0	0.0	0.0	2128.7	88.4	1.7
MAR	63	3.9	1.7	0.6	0	0.0	0.0	0.0	2129.5	91.7	3.3
APR	106	6.3	4.4	1.6	0	0.0	0.0	0.0	2130.6	96.4	4.7
MAY	153	9.4	5.2	2.0	3	0.2	0.0	0.0	2132.2	103.6	7.2
JUN	163	9.7	6.5	2.6	3	0.2	0.0	0.0	2133.6	110.5	6.9
JUL	208	12.8	7.8	3.4	3	0.2	0.0	0.0	2135.4	119.7	9.2
AUG	146	9.0	6.7	3.0	0	0.0	0.0	0.0	2136.5	125.7	6.0
SEP	59	3.5	5.7	2.6	2	0.1	0.0	0.0	2136.6	126.5	0.8
OCT	24	1.5	4.1	1.9	2	0.1	0.0	0.0	2136.5	126.0	-0.5
NOV	34	2.0	1.8	0.8	2	0.1	0.0	0.0	2136.7	127.1	1.1
DEC	24	1.5	1.0	0.5	2	0.1	0.0	0.0	2136.9	128.0	0.9
TOTAL		63.2	46.8	19.6		1.0	0.0	0.0			42.6

TABLE 5

RESERVOIR	DURING FY 2006	PRIOR TO 2006	ACCUMULATED TOTAL
BONNY	\$7,000	\$2,780,000	\$2,787,000
ENDERS	\$0	\$3,281,000	\$3,281,000
SWANSON	\$0	\$19,157,000	\$19,157,000
HUGH BUTLER	\$0	\$2,665,000	\$2,665,000
HARRY STRUNK	\$15,000	\$5,022,000	\$5,037,000
KEITH SEBELIUS	\$0	\$3,958,000	\$3,958,000
HARLAN COUNTY	\$7,000	\$150,554,000	\$150,561,000
LOVEWELL	\$7,000	\$146,608,000	\$146,615,000
KIRWIN	\$0	\$86,870,000	\$86,870,000
WEBSTER	\$7,000	\$110,313,000	\$110,320,000
WACONDA	\$0	\$1,213,454,000	\$1,213,454,000
CEDAR BLUFF	\$0	\$128,890,000	\$128,890,000
TOTAL	\$43,000	\$1,873,552,000	\$1,873,595,000

FLOOD DAMAGES PREVENTED BY NEBRASKA-KANSAS PROJECTS RESERVOIRS

Estimates of damages prevented are received from the Army Corps of Engineer's Kansas City District Office. The Accumulated Totals date from 1951 through 2006. Cumulative totals are revised by the Corps of Engineers in some cases to reflect data not previously included in the reporting and may not match previous cumulative totals.

Construction Cost of storage dams was \$208,954,130.

The reservoirs upstream of Harlan County Lake did not receive benefits for damages prevented from 1972 to 1993.

TABLE 6 WATER DIVERTED IN 2006 AND THE ESTIMATED DIVERSION FOR 2007 (Units - Acre-Feet)

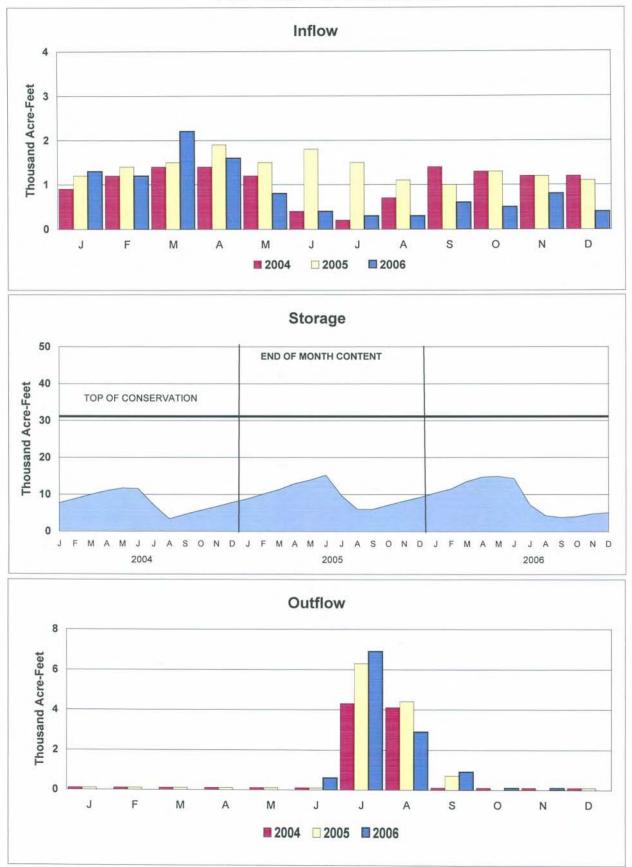
Irrigation District and Canal	2006 Irrigation Operations From To	10-Year Average Diversion (1996-2005)	2006 Diversion	Estimated Diversion in 2007	
Mirage Flats Irrigation District					
Mirage Flats Canal	7/5 9/12	11,952	10,423	10,500	
Ainsworth Irrigation District	115 7112	11,752	10,425	10,500	
Ainsworth Canal	5/14 9/15	74,842	83,497	80,000	
Twin Loups Irrigation District	5/14 5/15	74,042	05,477	00,000	
Above Davis Creek	4/21 9/15	40,984	55,376	50,000	
Below Davis Creek	5/8 9/16	38,225	39,878	40,000	
Delow Davis Creek	5/0 9/10	50,225	57,070	40,000	
Total Twin Loups Irrigation District		79,209	95,254	90,000	
Frenchman Valley Irrigation District					
Culbertson Canal	Did not run.	8,664	0	8,000	
H & RW Irrigation District		- , - * -	-	- ,	
Culbertson Extension Canal	Did not run.	6,740	0	0	
Frenchman-Cambridge Irrigation Distric		- , ~	Č.	-	
Meeker-Driftwood Canal	Did not run.	16,780	0	0	
Red Willow Canal	Did not run.	4,478	0	ů 0	
Bartley Canal	4/15 8/20	5,100	5,830	Ő	
Cambridge Canal	7/1 9/11	22,017	19,692	20,000	
			19,092	20,000	
Total Frenchman-Cambridge Irri	gation District	48,375	25,522	20,000	
Almena Irrigation District					
Almena Canal	Did not run.	4,109	0	4,000	
Bostwick Irrigation District in Nebraska		,		,	
Franklin Canal	Did not run.	23,136	0	0	
Naponee Canal	Did not run.	2,104	0	0	
Franklin Pump Canal	Did not run.	2,316	0	0	
Superior Canal	Did not run.	11,573	0	5,500	
Courtland Canal (Nebraska)	Did not run.	1,690	0	0	
Total Bostwick Irrigation Distric	t in Nebraska	40,819	0	5,500	
Kansas Rostwick Irrigation District				,	
Kansas-Bostwick Irrigation District Courtland Canal above Lovewell	5/25 0/5	21 220	10 505	2 500	
Courtland Canal above Lovewell	5/25 9/5 5/11 8/16	21,230	10,595	2,500	
Courtiand Canal Delow Lovewell	5/11 8/16	44,261	27,851	28,000	
Total Kansas-Bostwick Irrigation	n District	65,491	38,446	30,500	
Kirwin Irrigation District					
			0	17,000	
Kirwin Canal	Did not run.	18,150	0	17.000	
Kirwin Canal Webster Irrigation District	Did not run.	18,150	0	17,000	
Kirwin Canal Webster Irrigation District Osborne Canal	Did not run. Did not run.	18,150 11,806	0		
Kirwin Canal Webster Irrigation District				0 7,000	

TABLE 7NEBRASKA-KANSAS PROJECTSSummary of Precipitation, Reservoir Storage and InflowsCALENDAR YEAR 2006

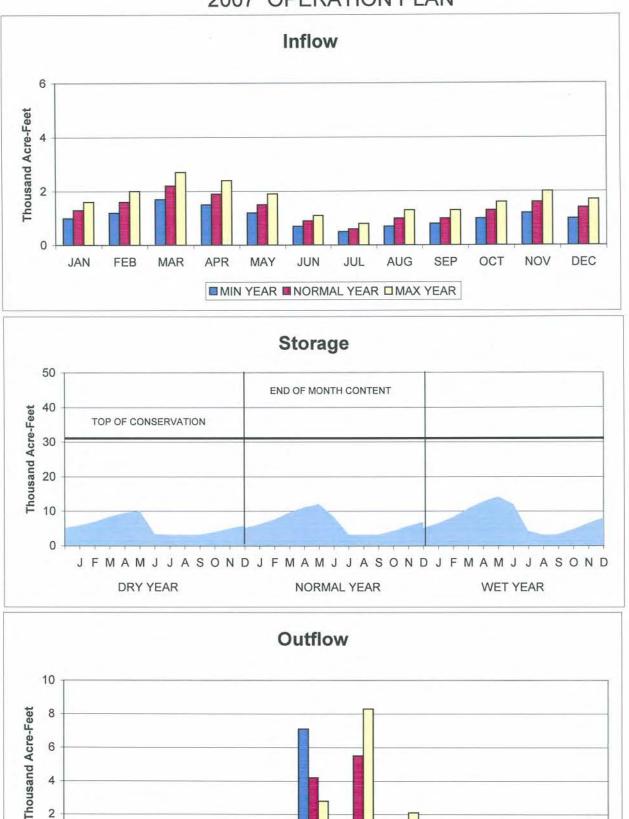
Percent

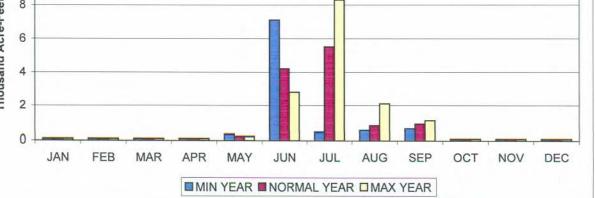
	Total Precip.	Percent Of	Storage 12-31-05	Storage 12-31-06	Gain or Loss	Maximum Content	Storage Date	Minimum Content	Storage Date	- Total Inflow	Of Most Probable	
Reservoir	Inches	Average %	AF	AF	AF	AF	Dale	AF	Dale	AF	%	
Box Butte	14.77	87	9,167	5,081	-4,086	15,094	MAY 17	3,676	SEP 11	10,391	62	
Merritt	18.40	90	61,370	61,100	-270	67,222	JUN 16	28,625	AUG 27	176,810	94	
Calamus	17.80	72	100,561	107,326	6,765	129,150	MAR 24	69,542	SEP 8	236,764	90	
Davis Creek	28.50	122	9,196	10,712	1,516	27,492	JUN 26	8,572	APR 16	50,048	102	
Bonny	16.41	95	12,265	9,935	-2,330	12,971	APR 12	9,752	DEC 14	6,350	48	
Enders	20.08	106	11,566	11,074	-492	12,100	APR 7	10,643	SEP 21	4,284	26	
Swanson	20.76	104	35,068	36,310	1,242	41,351	APR 18	35,119	JAN 1	12,047	27	
Hugh Butler	19.65	100	20,242	13,105	-7,137	21,428	APR 18	11,831	AUG 19	8,638	56	
Harry Strunk	22.88	111	26,833	23,751	-3,082	36,280	JUN 24	16,486	SEP 1	27,009	77	
Keith Sebelius	27.56	113	8,322	8,115	-207	9,005	APR 14	7,656	OCT 8	4,329	57	
Harlan County	20.62	91	128,111	116,299	-11,812	139,207	MAY 9	114,066	DEC 8	30,077	24	
Lovewell	23.87	87	25,836	19,605	-6,231	40,931	MAY 11	12,967	AUG 16	30,337	48	
Kirwin	25.96	111	19,252	19,394	142	20,597	MAY 31	18,816	DEC 5	6,269	29	
Webster	26.33	112	10,327	8,562	-1,765	10,368	JAN 5	8,117	DEC 18	3,187	17	
Waconda	21.54	84	161,594	125,621	-35,973	161,895	JAN 8	122,936	DEC 19	26,963	19	
Cedar Bluff	19.43	92	101,181	85,357	-15,824	101,135	JAN 1	83,581	DEC 19	7,418	55	

BOX BUTTE RESERVOIR ACTUAL OPERATION

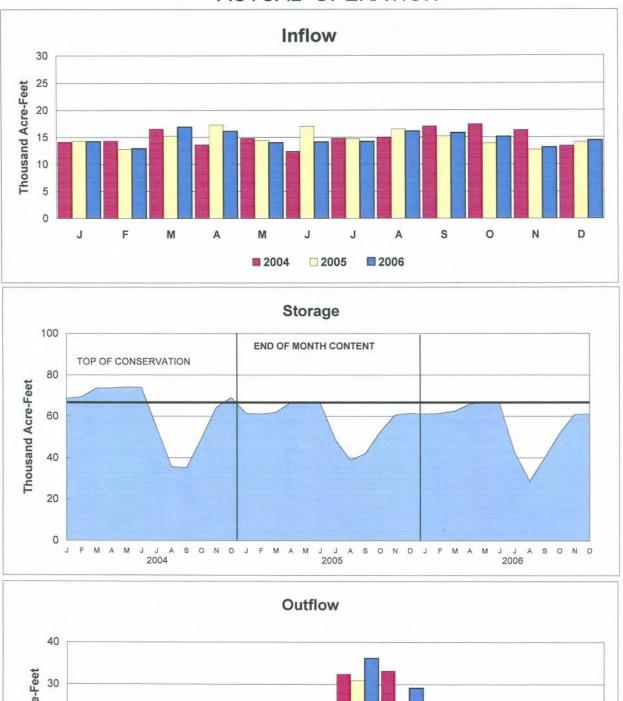


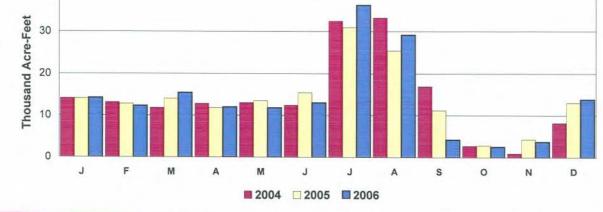
BOX BUTTE RESERVOIR 2007 OPERATION PLAN





MERRITT RESERVOIR ACTUAL OPERATION





MERRITT RESERVOIR 2007 OPERATION PLAN

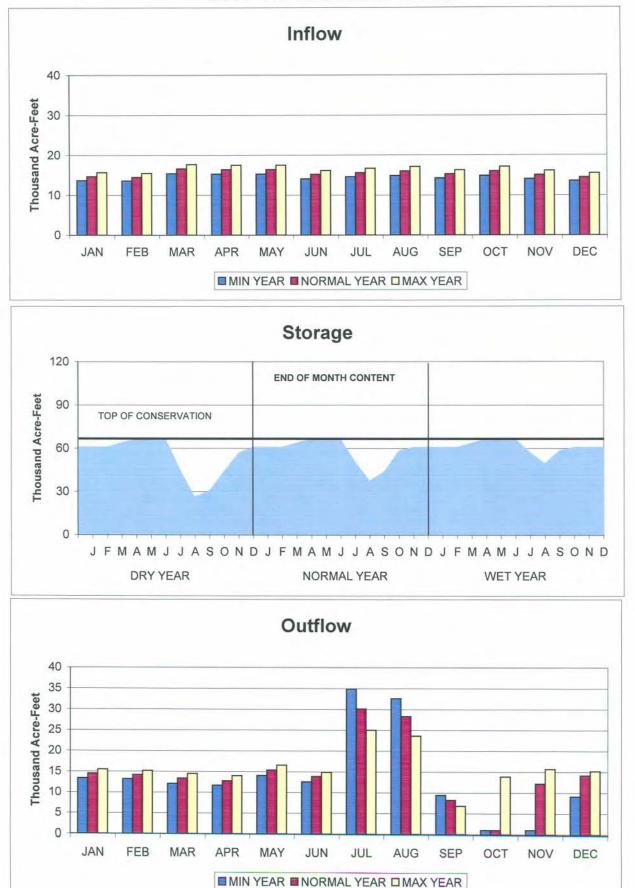
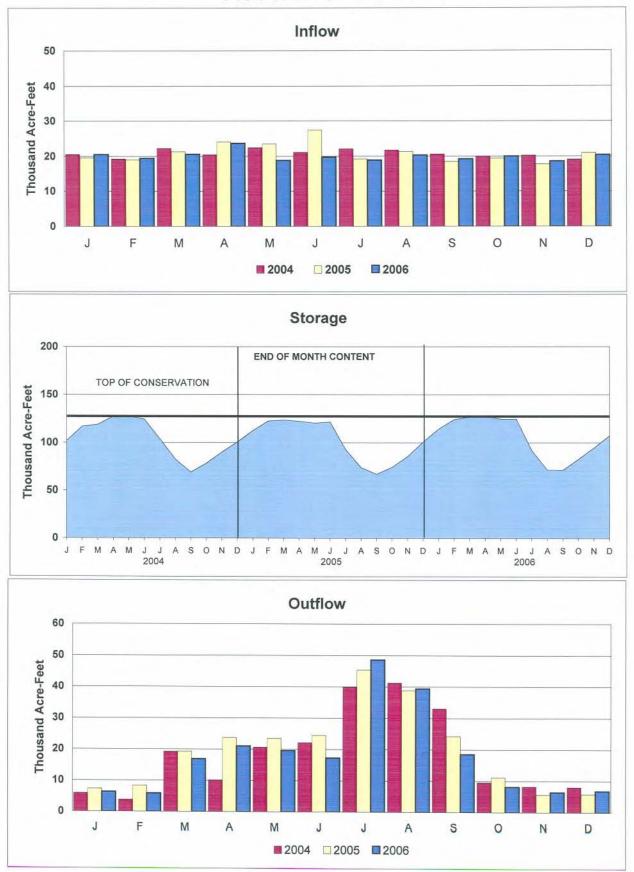
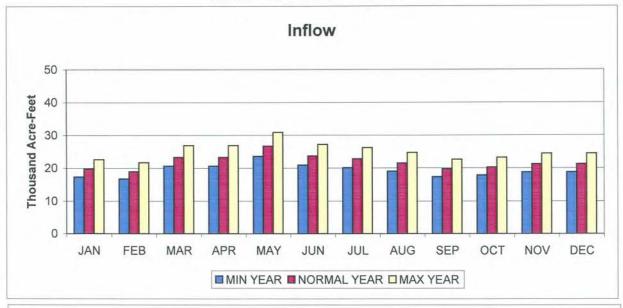


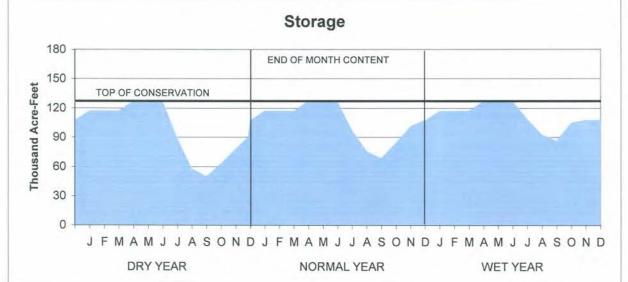
EXHIBIT 3A

CALAMUS RESERVOIR ACTUAL OPERATION



2007 OPERATION PLAN

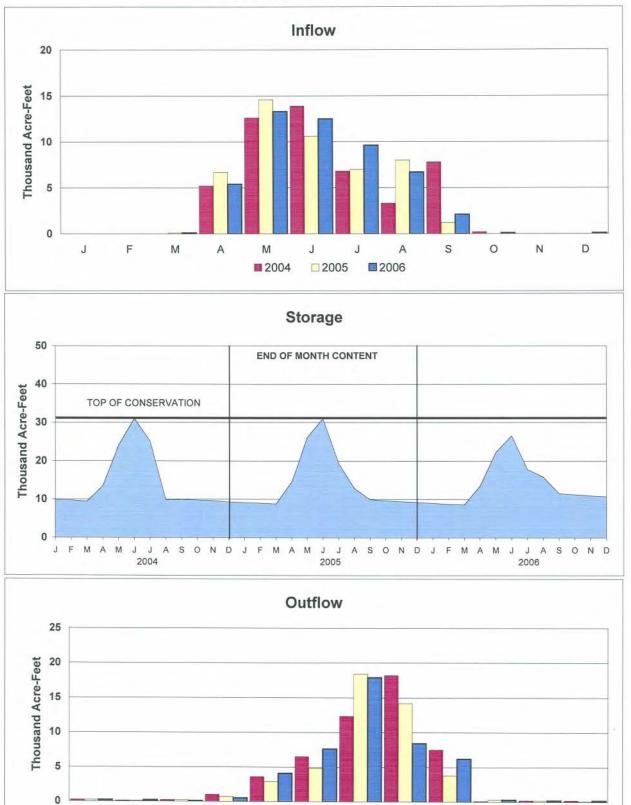




Outflow



DAVIS CREEK RESERVOIR ACTUAL OPERATION



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DAVIS CREEK RESERVOIR 2007 OPERATION PLAN

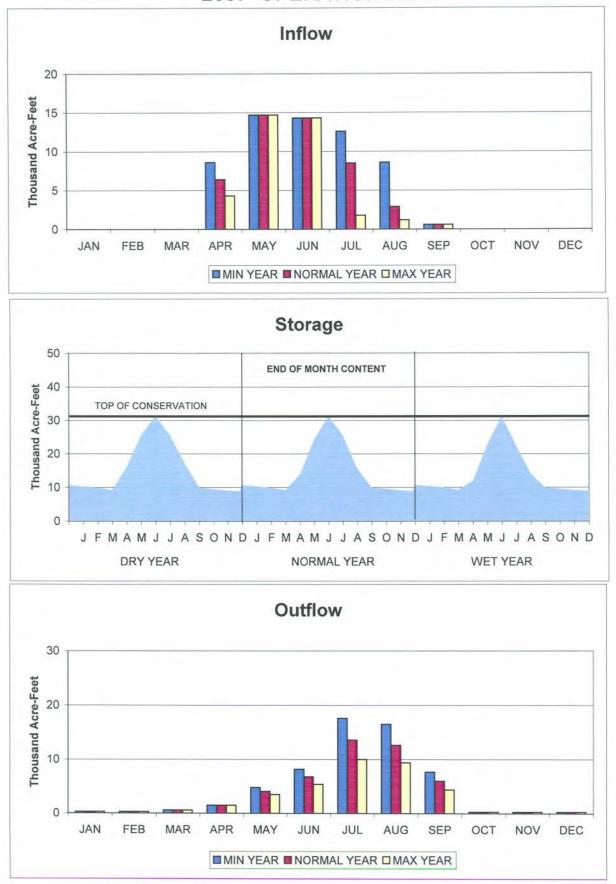
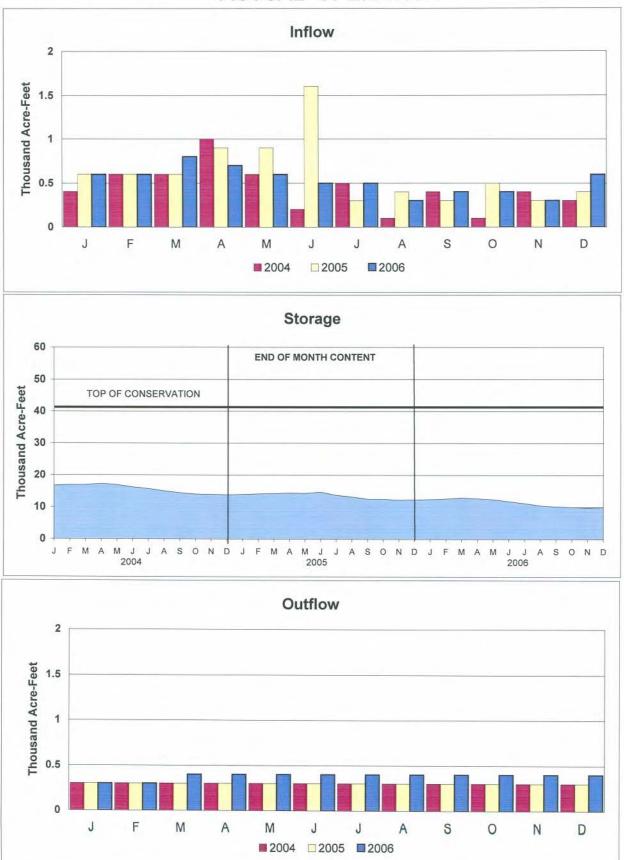
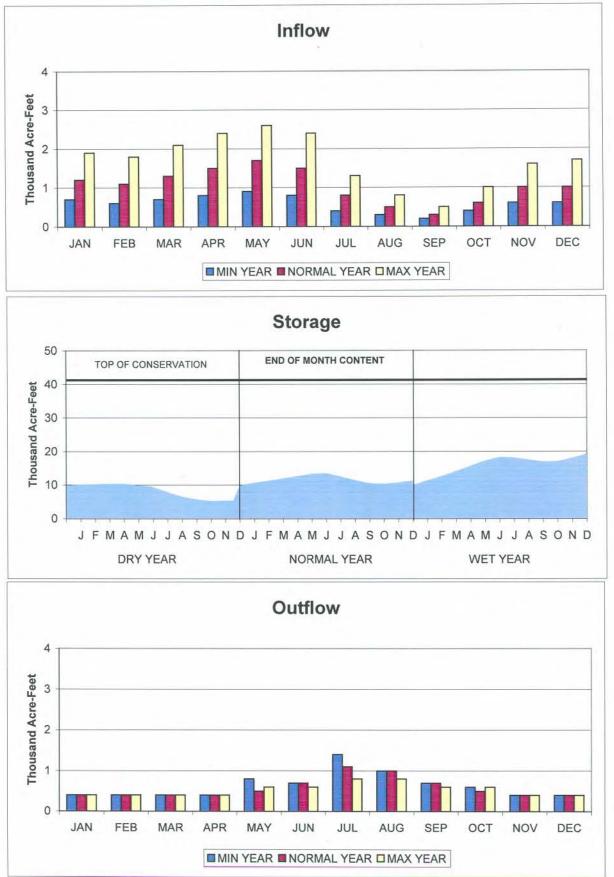


EXHIBIT 5A

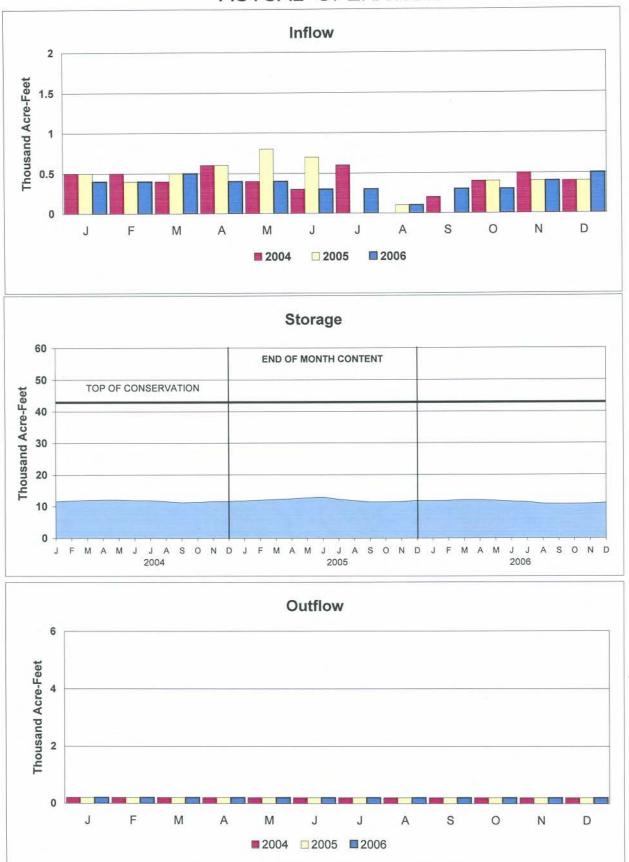
BONNY RESERVOIR ACTUAL OPERATION



BONNY RESERVOIR 2007 OPERATION PLAN



ENDERS RESERVOIR ACTUAL OPERATION



2007 OPERATION PLAN

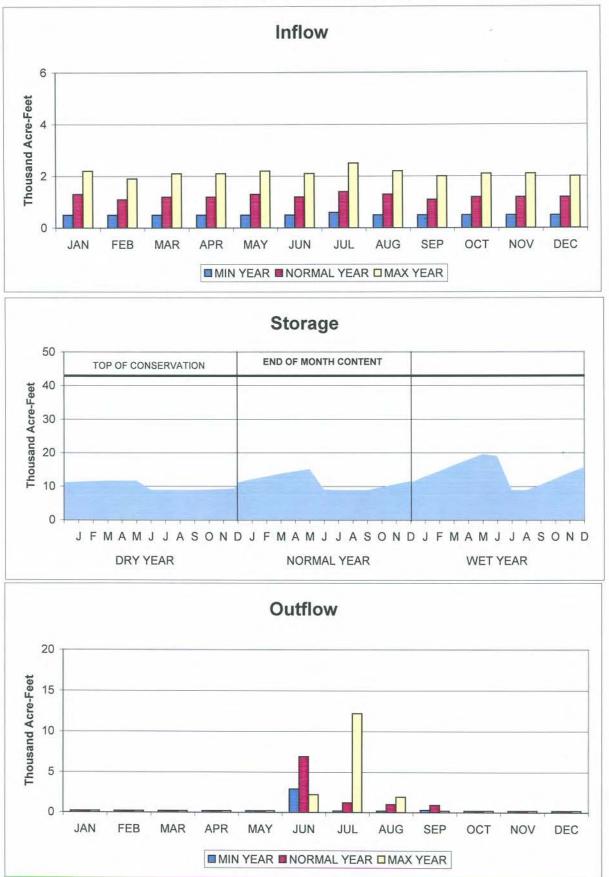
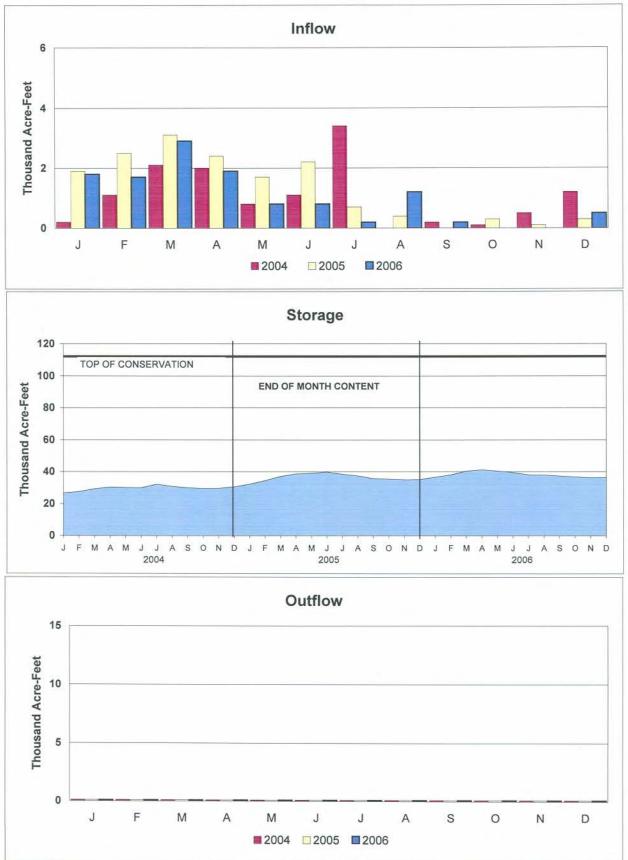
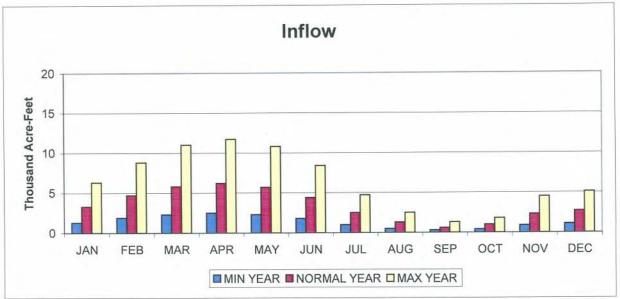


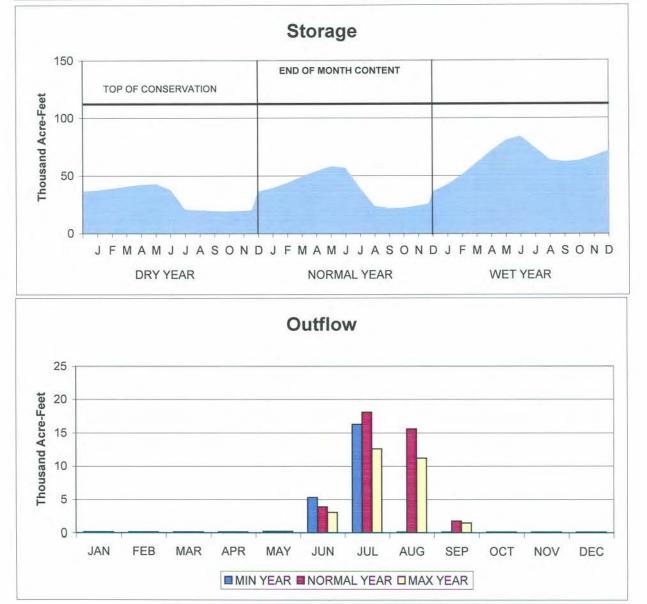
EXHIBIT 7A

SWANSON LAKE ACTUAL OPERATION

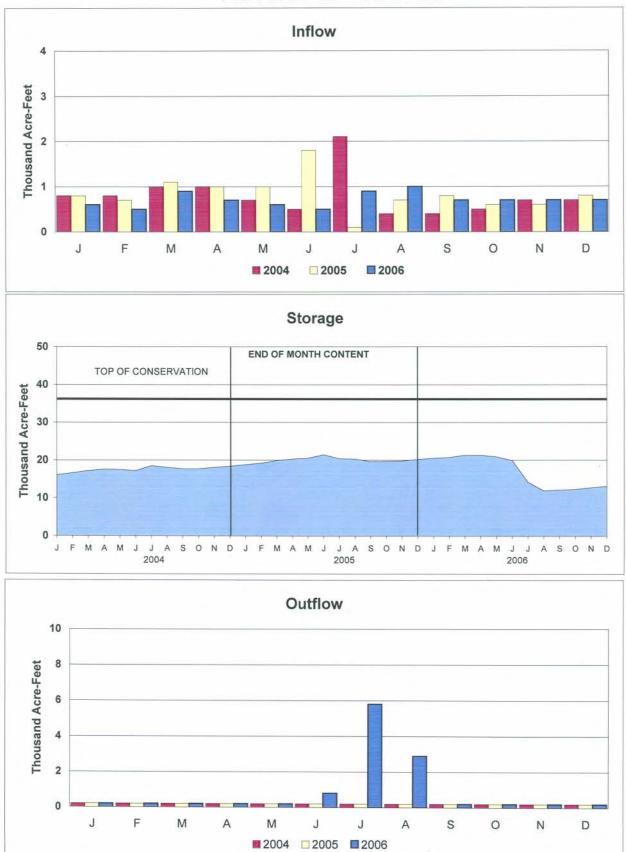


SWANSON LAKE 2007 OPERATION PLAN

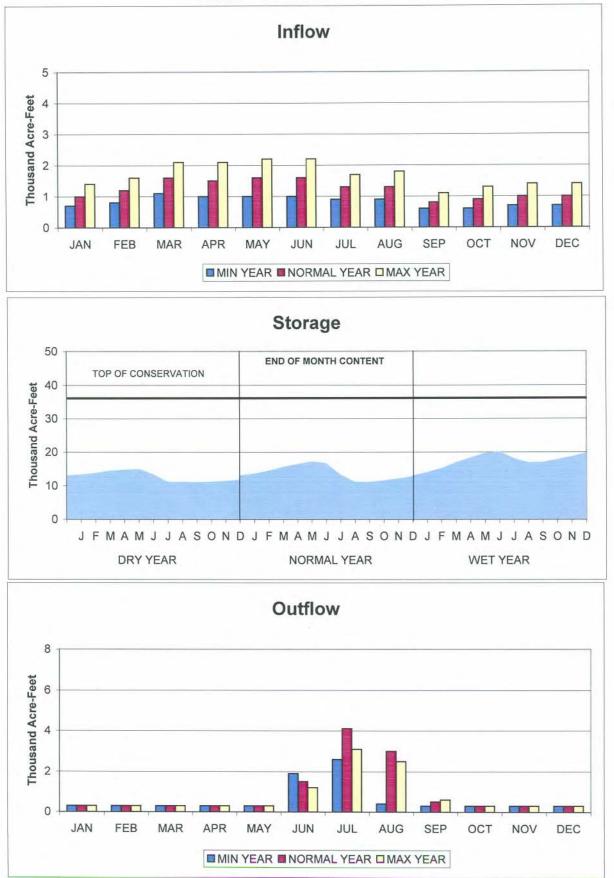




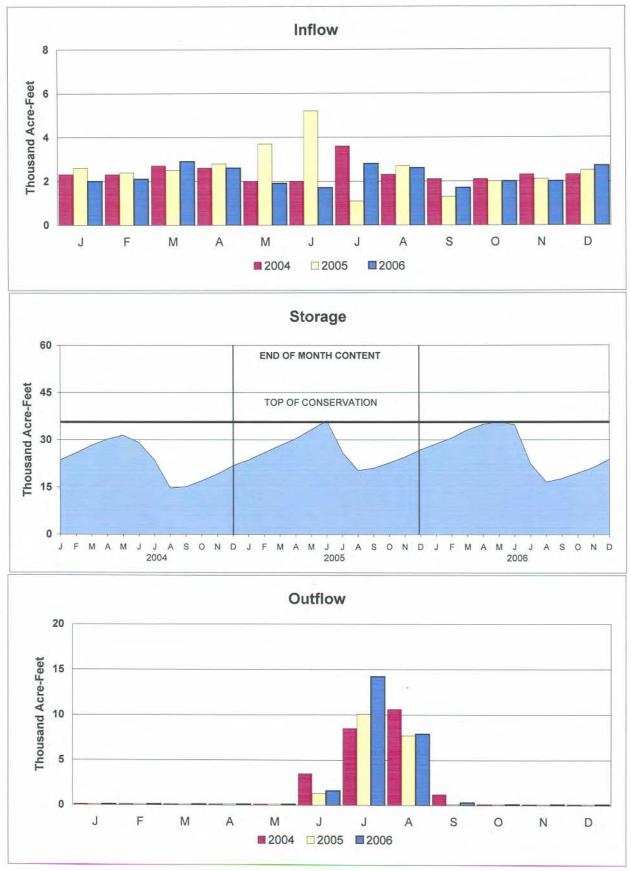
HUGH BUTLER LAKE ACTUAL OPERATION



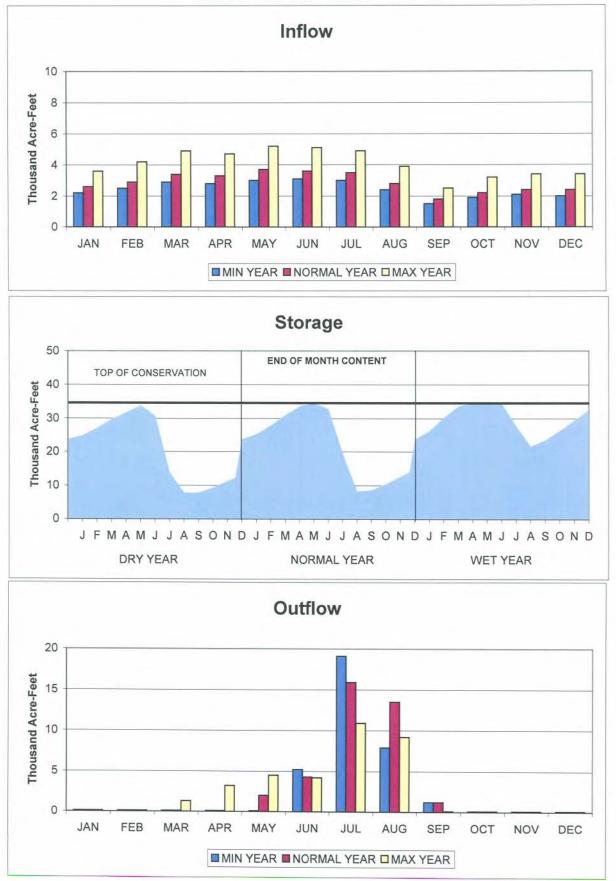
HUGH BUTLER LAKE 2007 OPERATION PLAN



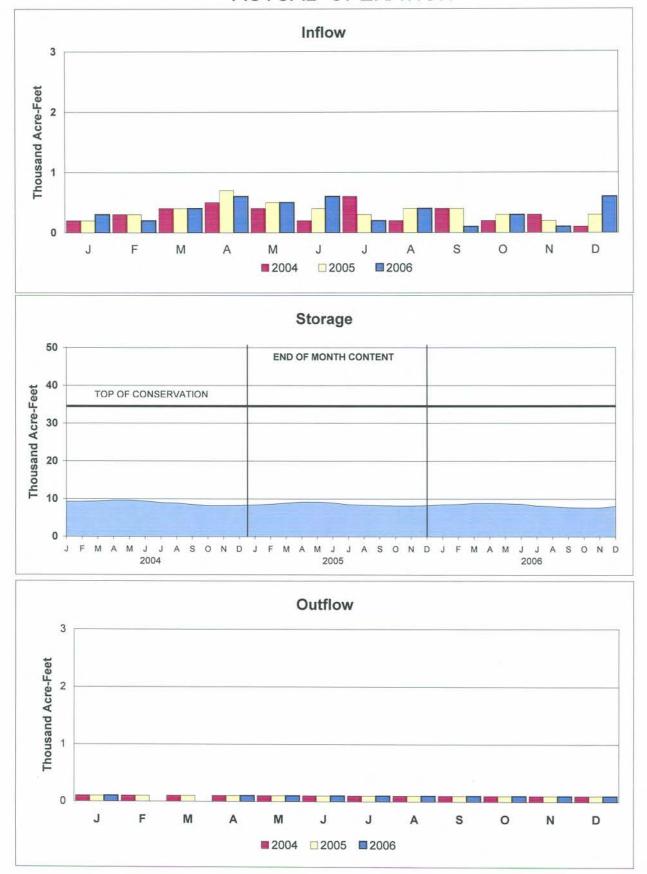
HARRY STRUNK LAKE



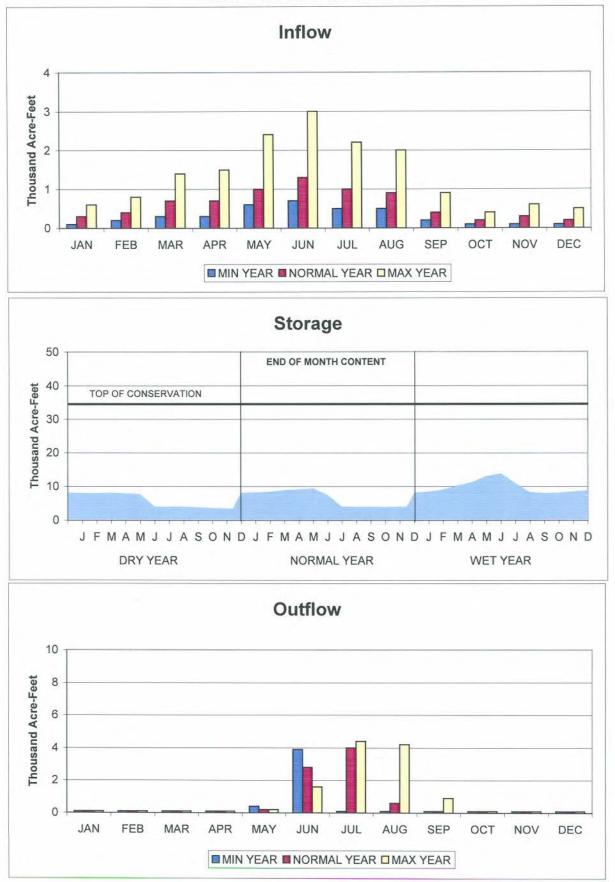
HARRY STRUNK LAKE 2007 OPERATION PLAN



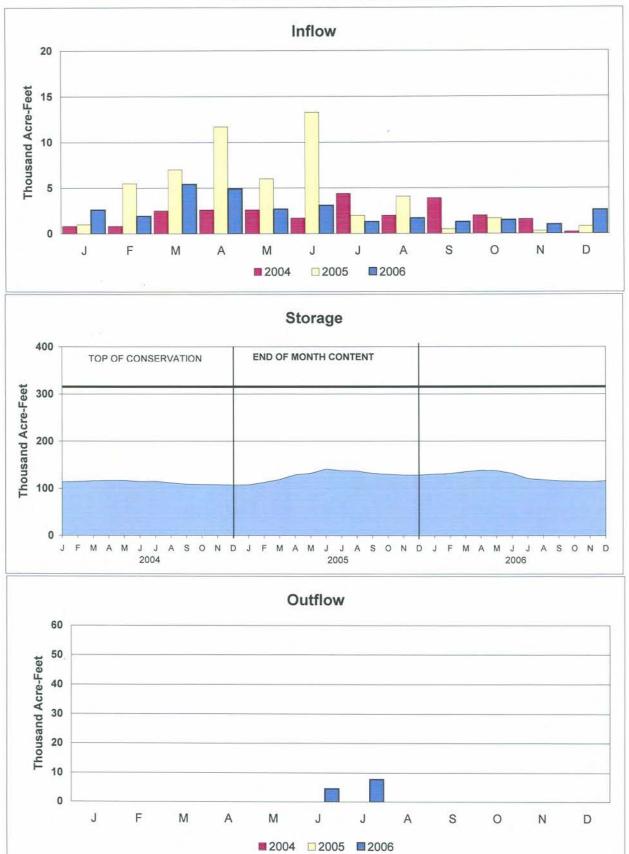
KEITH SEBELIUS LAKE ACTUAL OPERATION



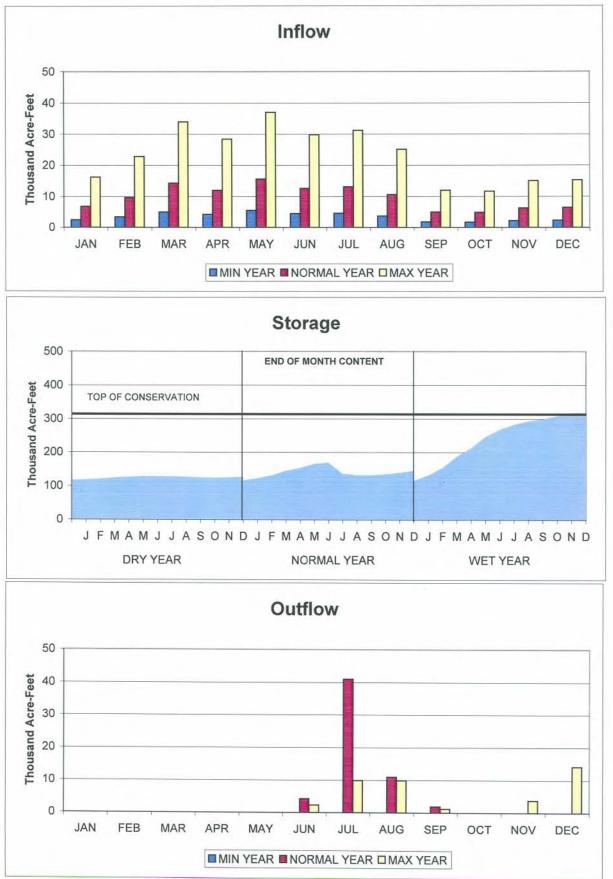
KEITH SEBELIUS LAKE 2007 OPERATION PLAN



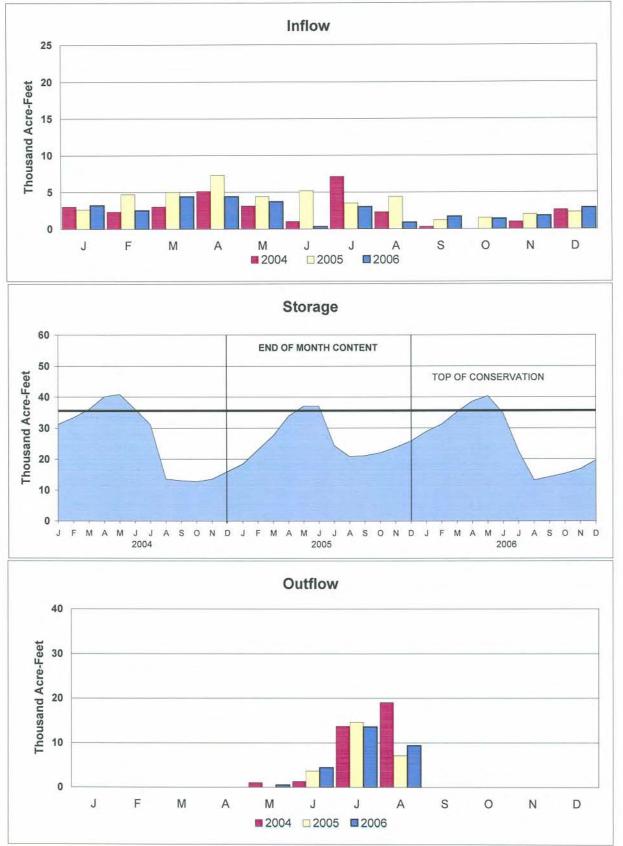
HARLAN COUNTY LAKE ACTUAL OPERATION



HARLAN COUNTY LAKE 2007 OPERATION PLAN



LOVEWELL RESERVOIR ACTUAL OPERATION



2007 OPERATION PLAN

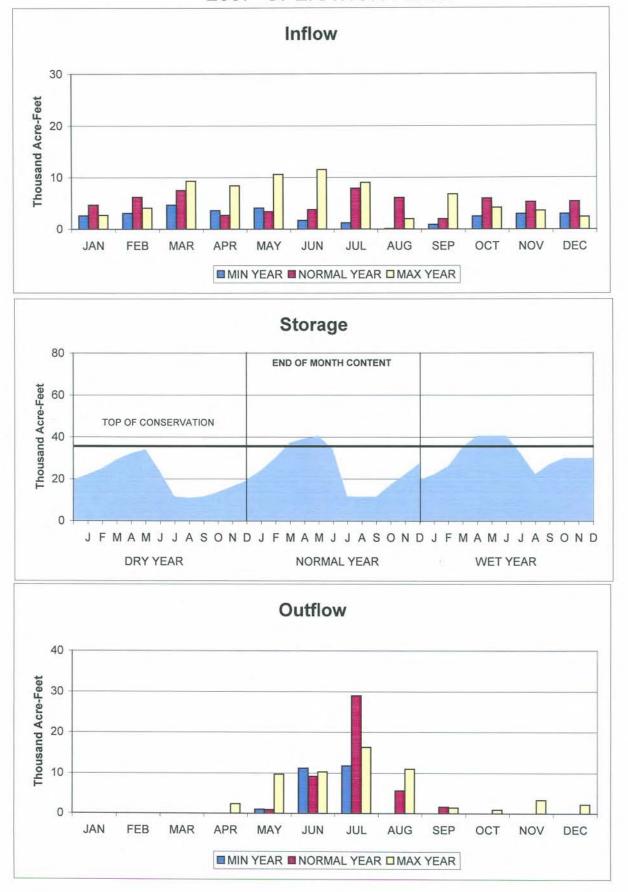
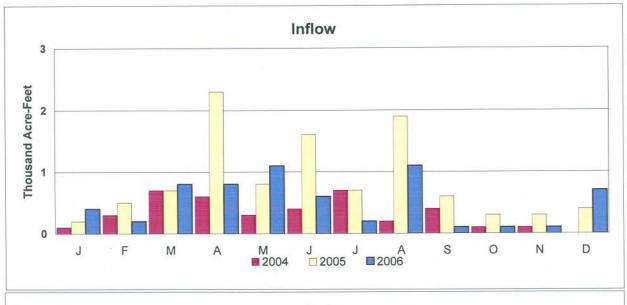
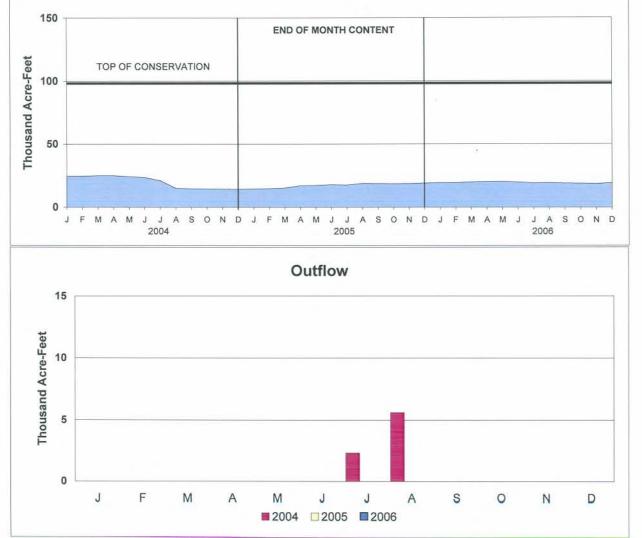


EXHIBIT 13A

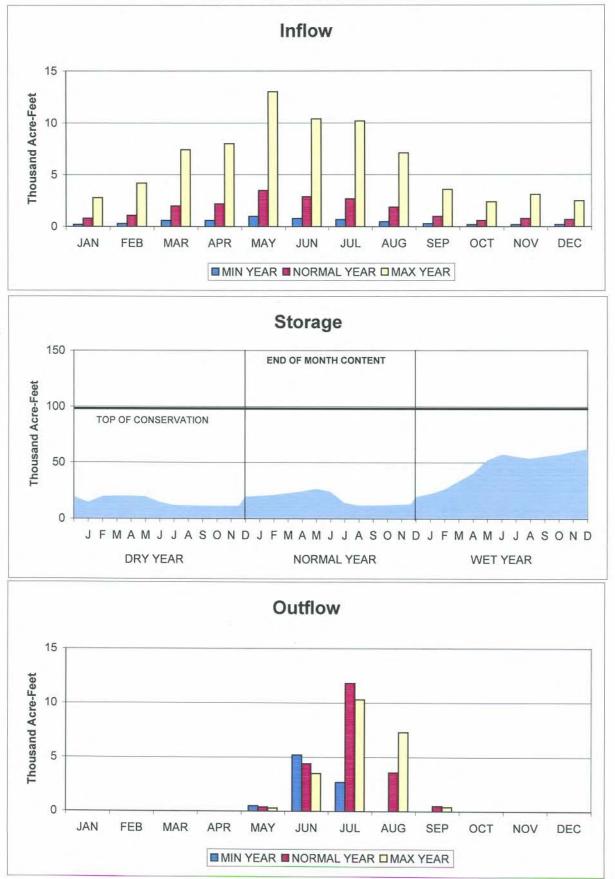
KIRWIN RESERVOIR ACTUAL OPERATION



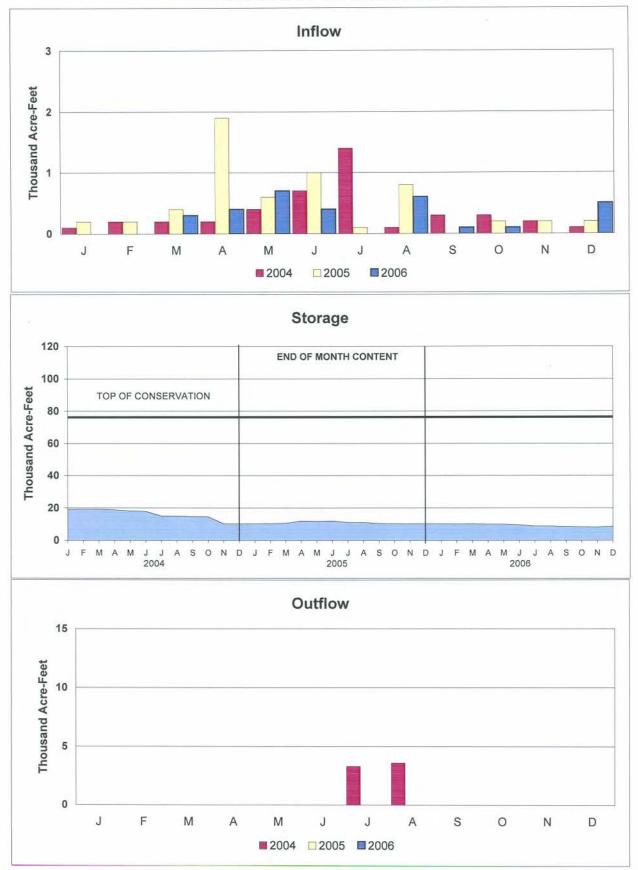
Storage



2007 OPERATION PLAN



WEBSTER RESERVOIR ACTUAL OPERATION



2007 OPERATION PLAN

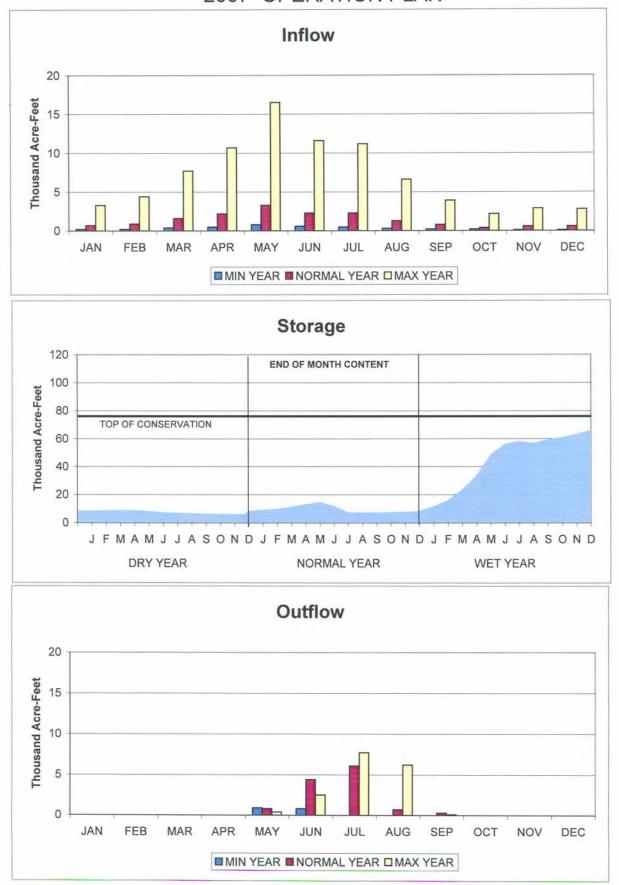
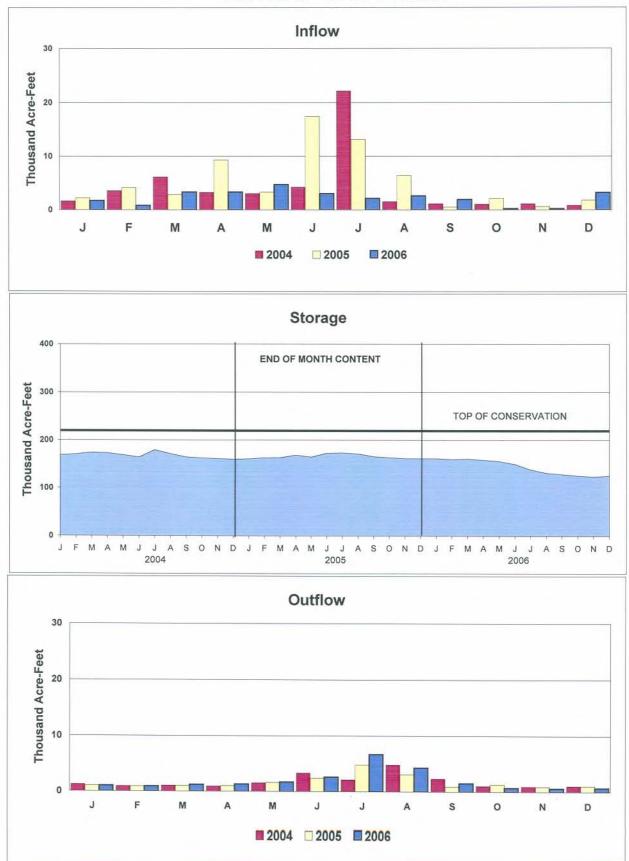
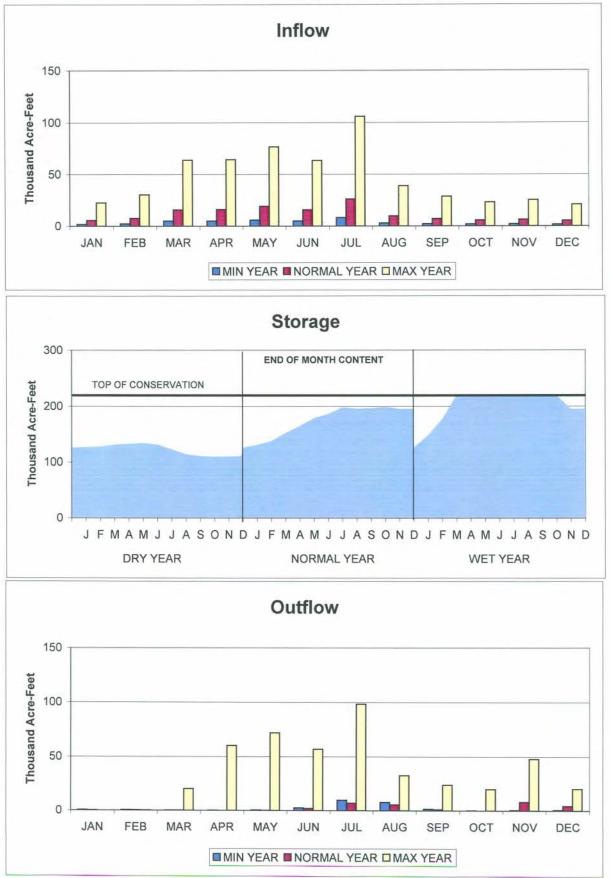


EXHIBIT 15A

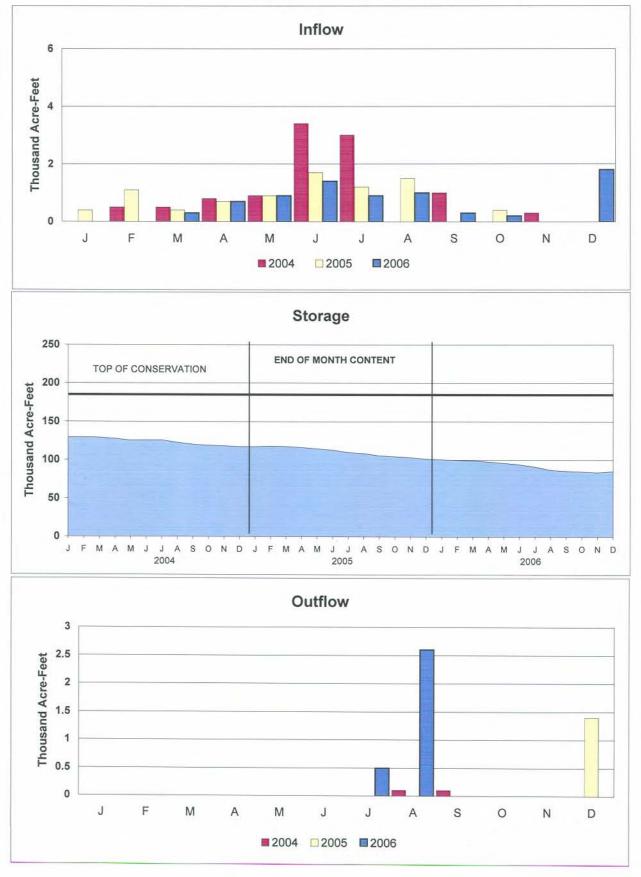
WACONDA LAKE ACTUAL OPERATION



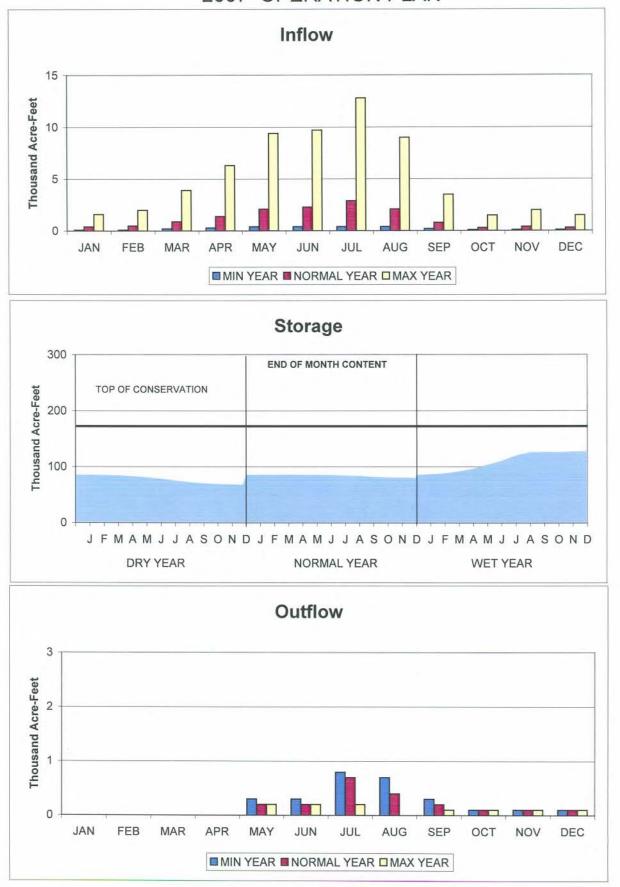
WACONDA LAKE 2007 OPERATION PLAN



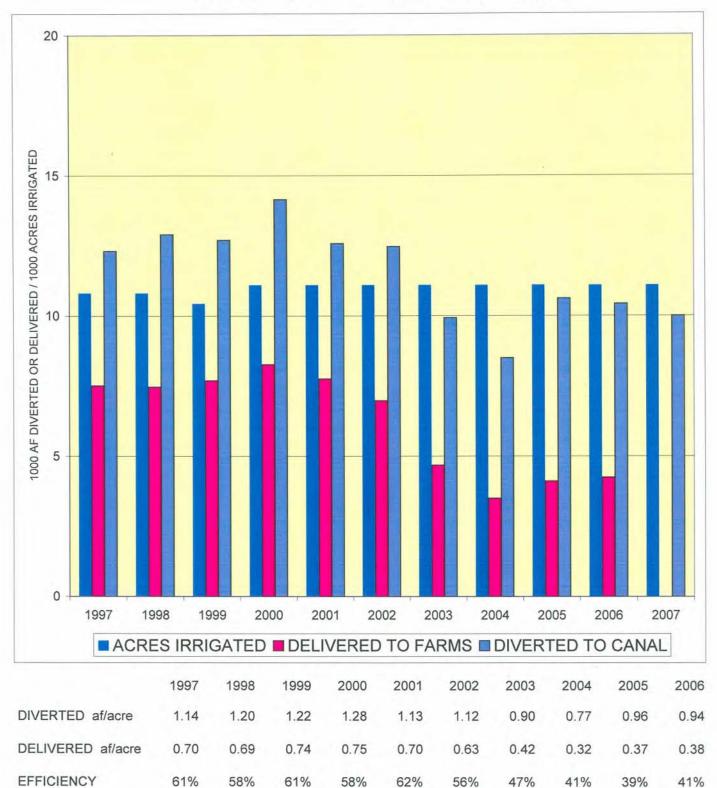
CEDAR BLUFF RESERVOIR ACTUAL OPERATION



CEDAR BLUFF RESERVOIR 2007 OPERATION PLAN



MIRAGE FLATS IRRIGATION DISTRICT



CANAL DIV., FARM DEL., AND ACRES IRRIG.

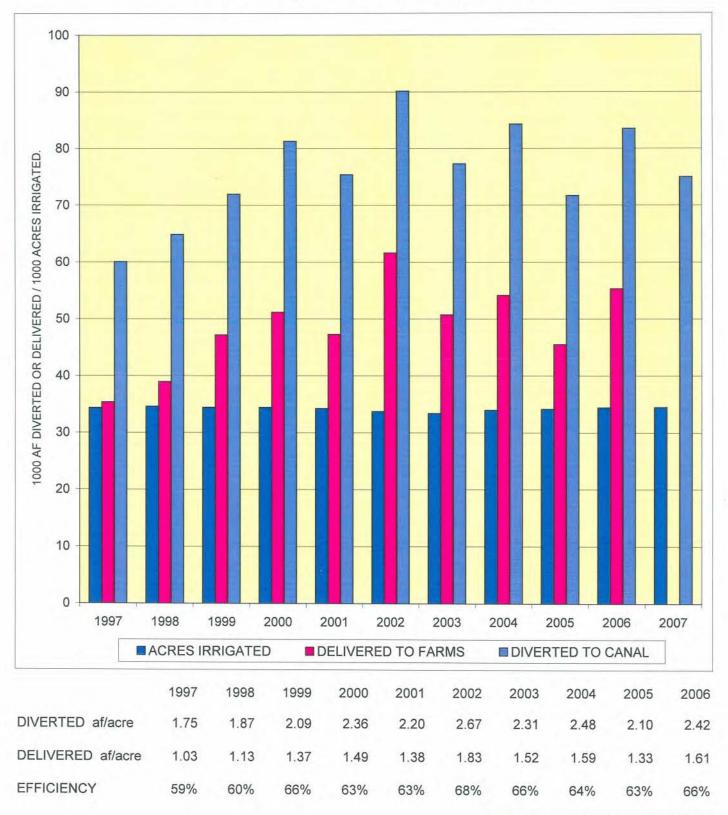
FORECASTED SHORTAGES (2007) DRY YEAR 28,700 AF

NORMAL YEAR 17,500 AF 4,300 AF

EXHIBIT 18

AINSWORTH IRRIGATION DISTRICT

CANAL DIV., FARM DEL., AND ACRES IRRIG.

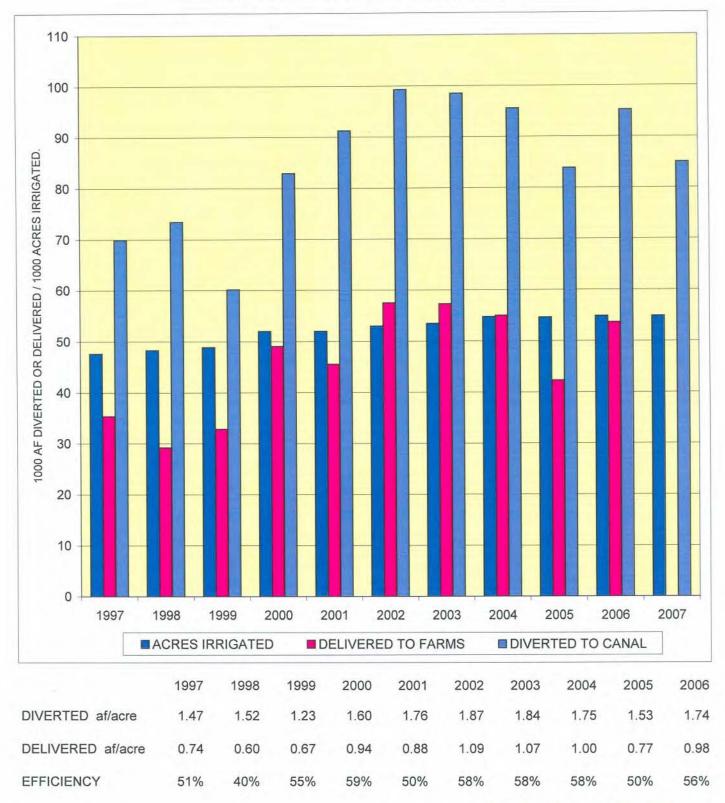


FORECASTED SHORTAGES (2007)

DRY YEAR 0 AF NORMAL YEAR 0 AF

TWIN LOUPS IRRIGATION DISTRICT

CANAL DIV., FARM DEL., AND ACRES IRRIG.

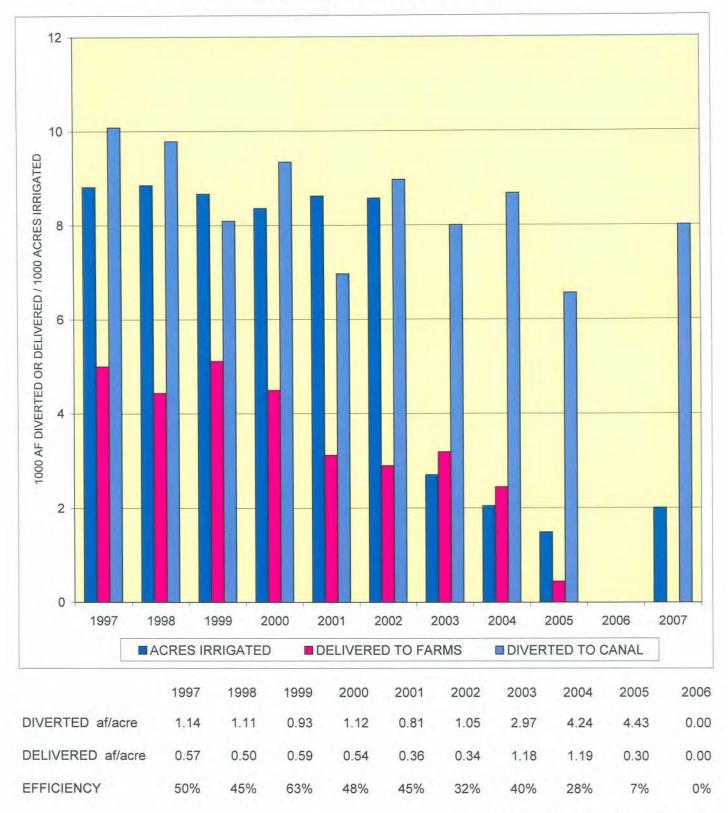


FORECASTED SHORTAGES (2007) DRY YEAR 0 AF

NORMAL YEAR 0 AF

FRENCHMAN VALLEY IRRIGATION DISTRICT

CANAL DIV., FARM DEL., AND ACRES IRRIG.

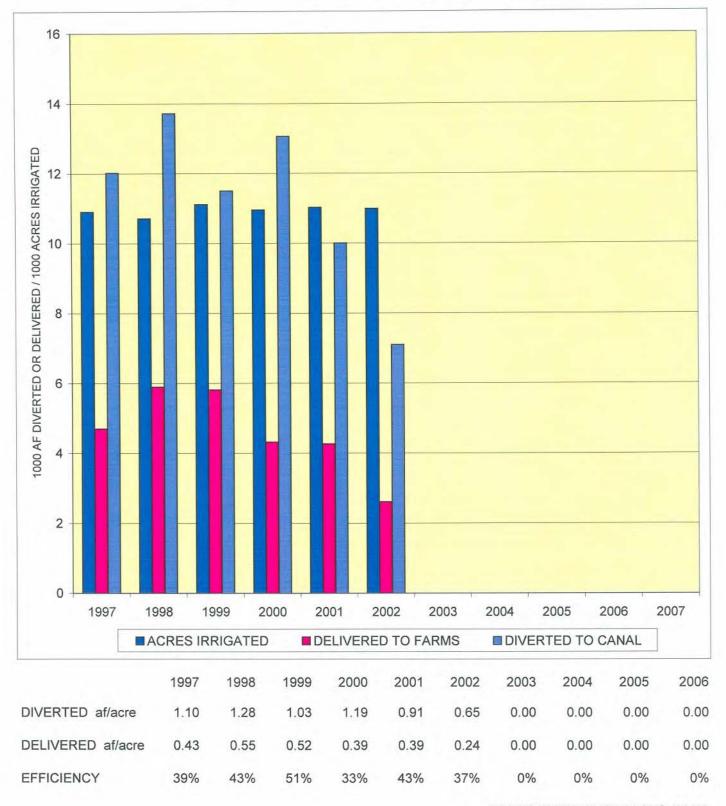


FORECASTED SHORTAGES (2007)

DRY YEAR	35,500 AF
NORMAL YEAR	23,100 AF
WET YEAR	7,900 AF

H AND RW IRRIGATION DISTRICT

CANAL DIV., FARM DEL., AND ACRES IRRIG.

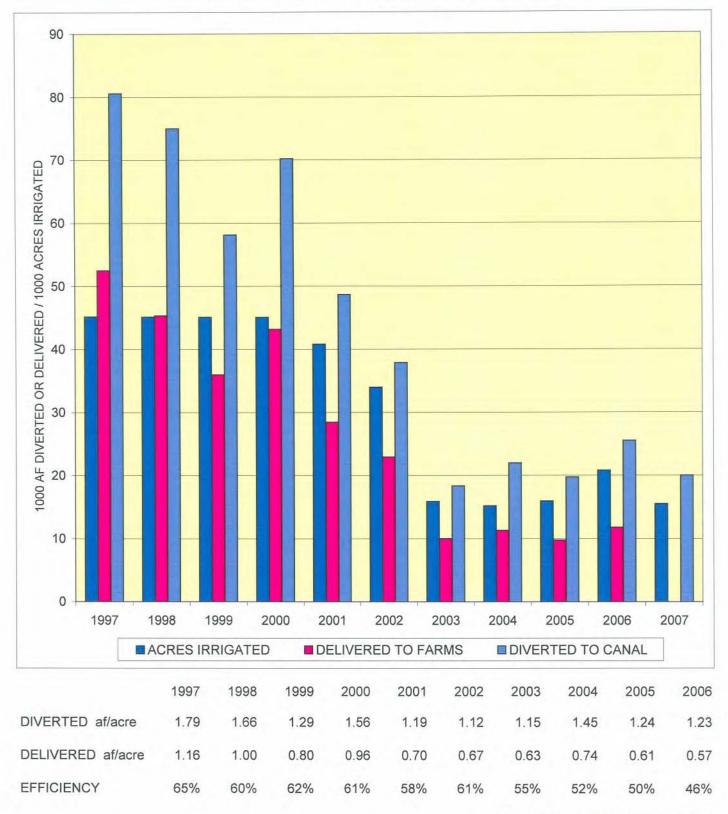


FORECASTED SHORTAGES (2007) DRY YEAR 45,100 AF

NORMAL YEAR 29,300 AF WET YEAR 10,100 AF

FRENCHMAN-CAMBRIDGE IRRIGATION DISTRICT

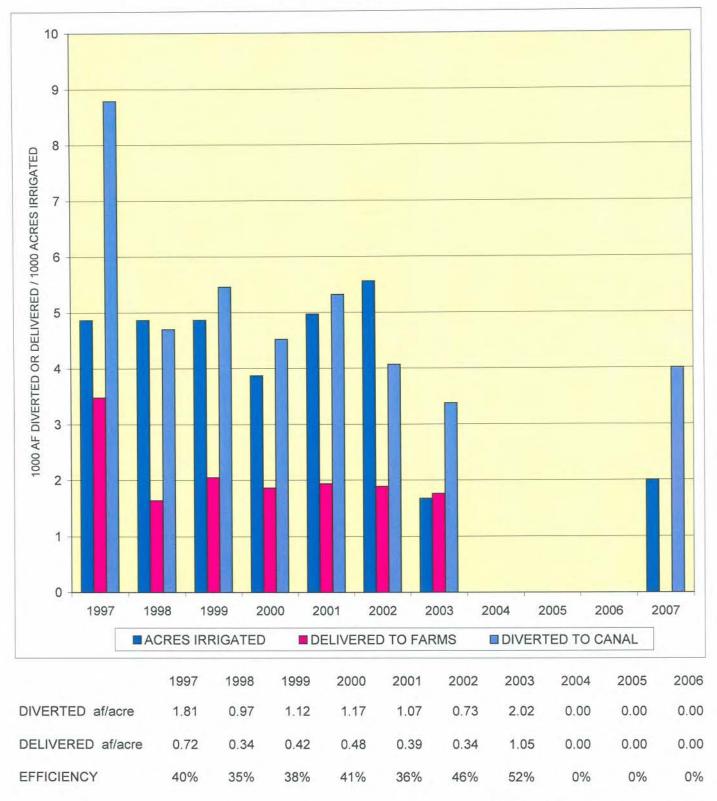
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2007) DRY YEAR 45,400 AF NORMAL YEAR 800 AF

ALMENA IRRIGATION DISTRICT

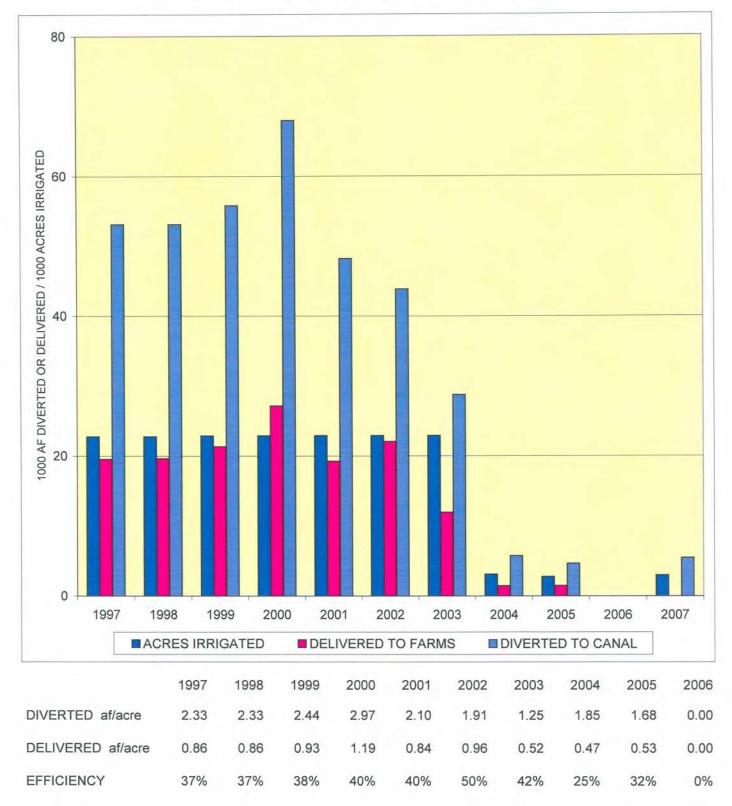
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2007) DRY YEAR 20,000 AF NORMAL YEAR 12,000 AF

BOSTWICK IRRIGATION DISTRICT - NEBRASKA

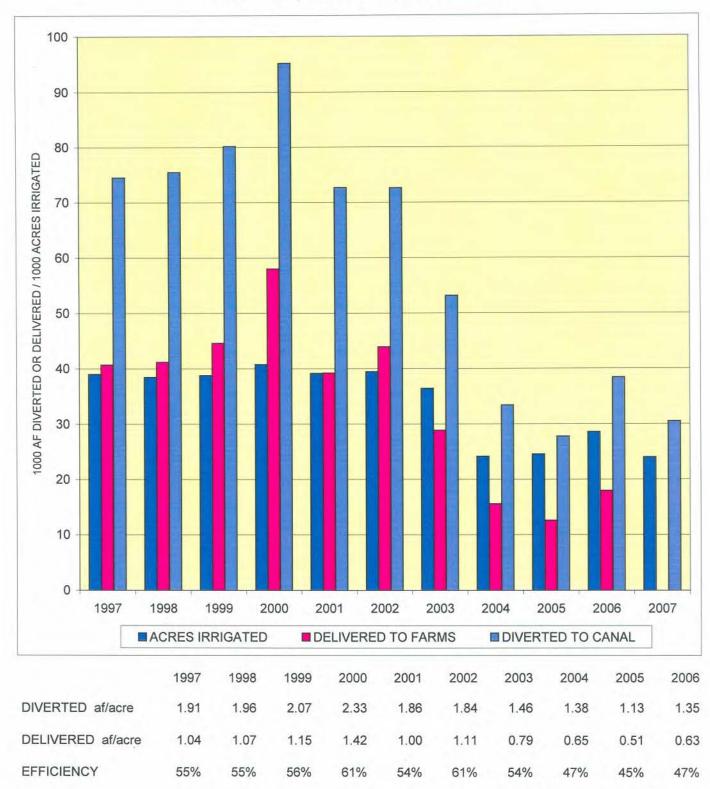
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2007) DRY YEAR 66,700 AF NORMAL YEAR 15,900 AF

EXHIBIT 25

KANSAS-BOSTWICK IRRIGATION DISTRICT



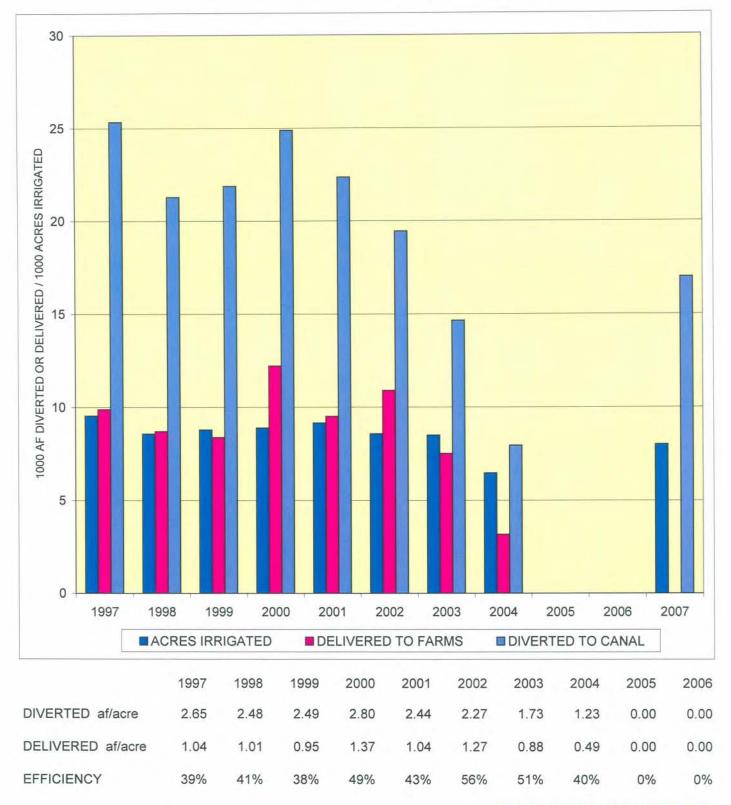
CANAL DIV., FARM DEL., AND ACRES IRRIG.

FORECASTED SHORTAGES (2007) DRY YEAR 86,100 AF NORMAL YEAR 23,900 AF

EXHIBIT 26

KIRWIN IRRIGATION DISTRICT

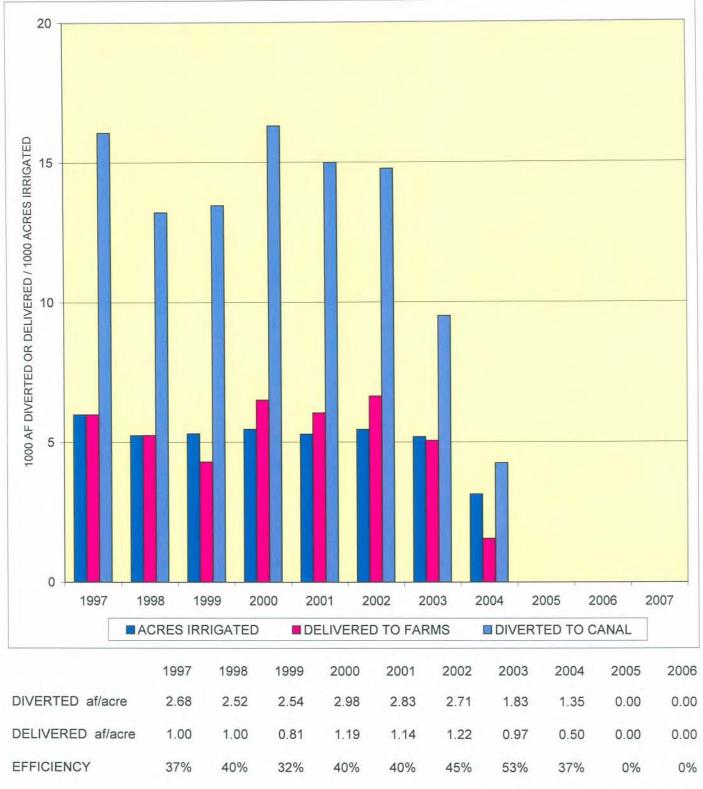
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2007) DRY YEAR 24,000 AF NORMAL YEAR 6,600 AF

WEBSTER IRRIGATION DISTRICT

CANAL DIV., FARM DEL., AND ACRES IRRIG.

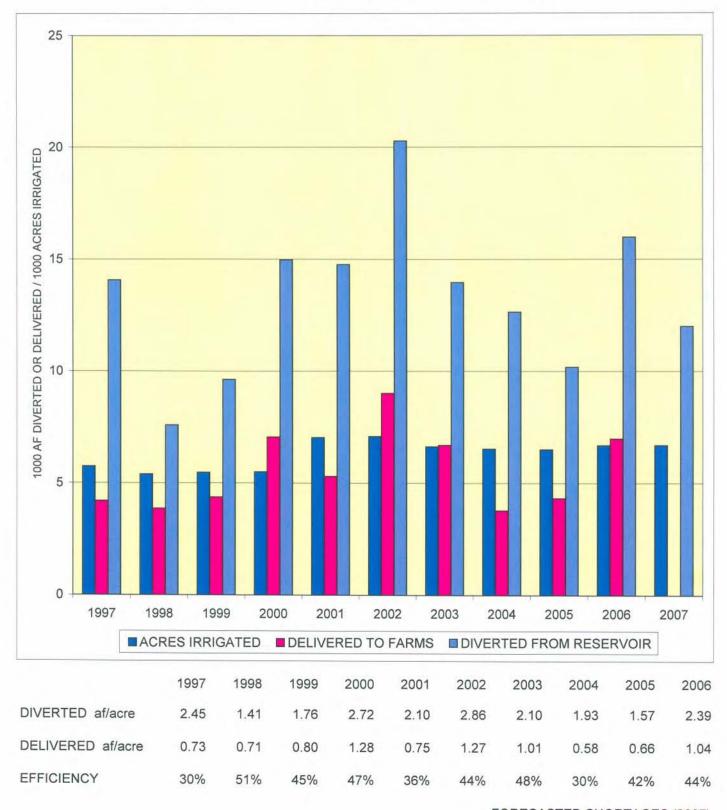


FORECASTED SHORTAGES (2007) DRY YEAR 35,700 AF NORMAL YEAR 15,900 AF

EXHIBIT 28

GLEN ELDER IRRIGATION DISTRICT

CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2007) DRY YEAR 0 AF

NORMAL YEAR 0 AF