SYNOPSIS

General

This year is the 53rd 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 265,467 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 109 Hydromet stations that can be accessed. The McCook Field Office has installed and maintains 55 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 2005 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.

<u>2005 Summary</u>

Climatic Conditions

Precipitation at the project dams during 2005 ranged from 92 percent of normal at Cedar Bluff Dam to 143 percent of normal at Kirwin Dam. Temperatures during the first four months of 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 above normal at 12 of the 16 project dams, varying from 78 to 250 percent. Cedar Bluff recorded the second greatest February precipitation total ever recorded at the site while Red Willow Dam recorded the second greatest March precipitation at the site. Precipitation during April at Merritt Dam was 250% of normal which was the greatest ever recorded for the month at that site.

Precipitation during May was generally below normal throughout the basin. Only three project dams recorded above normal precipitation during May. Lovewell Dam recorded the lowest precipitation ever recorded at the site for the month of May. June was generally wetter than normal while July was generally drier than normal. Virginia Smith Dam recorded the lowest July precipitation total ever and Medicine Creek Dam recorded the second lowest July precipitation total at the respective sites. Average temperatures were above normal in May, June and July. August precipitation improved considerably with only three project dams having below normal precipitation for the month. The improvement turned out to be short lived as September precipitation was well below normal at all project dams. Precipitation during September was only 43 percent of normal over the projects. Temperatures in August were generally near to above normal throughout the projects area and well above normal in September.

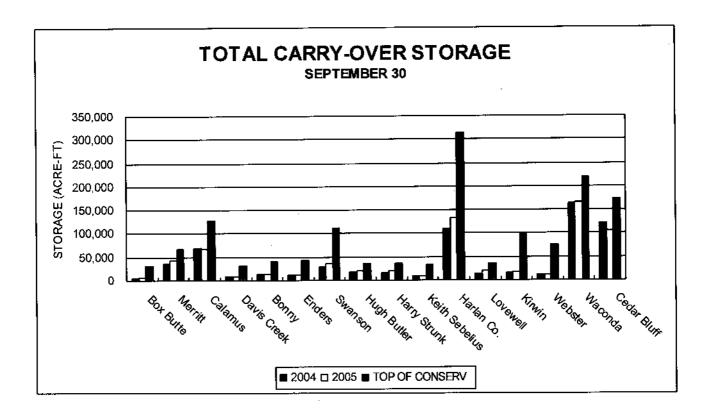
October was generally wetter than normal while November was generally drier than normal. Only five dams recorded below normal precipitation during October and only five dams recorded above normal precipitation during the month of November. Precipitation during December was well below normal at all project dams with the exception of Harry Strunk Lake. Temperatures continued above average during October, November, and December.

Storage Reservoirs

1. Conservation Operations. The 2005 inflow was below the dry-year forecast at Bonny and Enders Reservoirs, and Swanson, Hugh Butler and Harry Strunk Lakes. Box Butte, Merritt, Calamus, Kirwin, Webster, Lovewell and Cedar Bluff Reservoirs along with Harlan County, Keith Sebelius and Waconda Lakes had inflows between the dry- and normal-year forecasts. Davis Creek Reservoir had inflows between the normal-year and wet-year forecast.

All project reservoirs had below average carryover storage from the 2004 water year with the exception of Cedar Bluff 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 2005. Keith Sebelius Lake and Cedar Bluff Reservoir recorded below average inflows during 11 months of 2005. Reservoir releases were made from Merritt and Virginia Smith Dams to maintain reservoir levels prior to the 2005 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 the Kansas River Basin project reservoirs was below normal at the end of the irrigation season with the exception of Cedar Bluff Reservoir.

The following summarized graph shows a comparison of 2004 and 2005 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 2005. Flood releases were not required to reduce or maintain pool levels. The fiscal year 2005 flood control benefits accrued by the operation of Reclamation's Nebraska-Kansas Projects facilities was \$641,000 as determined by the Corps of Engineers. An additional benefit of \$464,000 was credited to Harlan County Lake. The accumulative total of flood control benefits for the years 1951 through 2005 by facilities in this report total \$1,873,552,000 (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 228,542 acre-feet (AF) of water diverted to irrigate approximately 151,173 acres of project lands in the 12 irrigation districts (see tables 3 and 6). The project water supply was either inadequate or limited for 169,024 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 2005.

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

<u>Irrigation Production</u>

The 2005 crop yields on lands receiving project water in the Nebraska-Kansas Projects were lower than 2004 for three of the five reporting districts. The average corn yield, the principal crop of all reporting districts, was 172 bushels per acre. This was approximately five bushels per acre less than in 2004. The average unit price of corn when harvested was lower than the previous year at approximately \$1.75/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 first part of August. Crop maturity progressed near normal during the growing season. Several irrigation districts had finished making irrigation releases by mid September. Eleven canals did not divert water in 2005 as a result of extremely short water supplies. Nearly all irrigation districts had finished delivering water by the end of September with corn harvest commencing by mid-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. As a result of this policy, Reclamation has developed fishery management guidelines for reservoirs within the Nebraska-Kansas Projects. These guidelines outline a program which considers public use, fisheries, fish habitat, and improved communication and coordination. 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 2005 season, normal reservoir operations were favorable for recreation and fish and wildlife uses at several project reservoirs. 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.

Re-authorization of the North Loup Project by the Act of October 18, 1986 [Public Law 99-591, Section 101(e)] authorized the construction of a fish hatchery below Virginia Smith Dam and Calamus Reservoir. The hatchery was constructed under Public Law 89-72 and a cost-sharing agreement with the Nebraska Game and Parks Commission (Commission) with 75 percent federal and 25 percent state funds. Administration of construction was accomplished by the Commission; construction began in July 1989, and was completed in September 1991. 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 in full operation should produce about 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.

2006 Outlook

Three detailed studies 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 2006 is a dry year, 169,024 of the total 266,167 acres with service available to be irrigated (64 percent) will have an inadequate water supply.

Under most probable inflow conditions, it is also expected that Frenchman Valley, H&RW, Almena, Bostwick in Nebraska, Kansas Bostwick, Kirwin, Webster and Mirage Flats Irrigation Districts would experience some shortages to irrigation demands from Enders Reservoir, 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, H&RW and Almena Irrigation Districts are expected to experience irrigation demand shortages from Box Butte and Enders Reservoirs, and Keith Sebelius Lake.

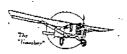
During 2006, under all inflow forecast conditions, storage water will be in excess of project needs at Bonny Reservoir and Waconda Lake. The state of Colorado will make Bonny storage water available to downstream water right appropriators.

Under reasonable minimum inflow conditions, the conservation pools at Merritt, Calamus Davis Creek and Lovewell Reservoirs, and Harry Strunk Lake are expected to fill during 2006.

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 2005

Much more rain needed to restore lakes



Enders Dam road to be closed for repairs

McCook Daily Gazette

Drought concerns spread

Farmers to be paid not to irrigate

More than water flow important to a river

Irrigators feeling pinch of new water laws, regulations

Lower Republican NRD adopts integrated management plan

High Court says DNR does not have authority over groundwater

Water rules raise questions for irrigators

Rain welcome, whenever it comes to area

Pumping water into the Republican River; retiring thousands of acres possible solution to complying with Kansas pact

Pumping water into the Republican River; retiring thousands of acres possible solution to complying with Kansas pact

Pumping water into the Republican River; retiring thousands of acres possible solution to complying with Kansas pact

Came & Parks

Game & Parks: groundwater depletion threatens area reservoirs, hatchery

Report: Nebraska over its water allocation for Republican River

CREP sign-up nears 40,000 acres statewide

Water issues far from over

Reservoirs filling; drought effects remain

Frenchman Creek low flow Blamed for Dec. 31 fish fill

Public weighs in on water regs

Moisture was plentiful first six months, but July is dry GROUND ZERO
Swanson Lake the front line for saltcedar invasion

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 2005 and serves as a guideline for the 2006 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. The states are also responsible for administering the water surface activities and the federal lands around the reservoir. 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 1986 through 2005 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.

<u>Irrigation and Reclamation Districts</u>

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 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 May1st through September 30th or such additional period from April 1st as determined between the District and Reclamation. For all other districts, the contracted irrigation

Long Term Water Service Contract Renewal

The Ainsworth Irrigation District (AID) notified Reclamation on February 16, 2005 that the Board approved a motion to request renewal of the AID contract with Reclamation. The long-term water service contract with the AID will expire December 31, 2006. The current schedule provides for the completion of the draft Environmental Assessment and contract negotiations in 2006.

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 2006 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 an Appraisal Study which analyzed system improvement alternatives in the lower portion of the basin that would provide for more efficient use of the water supply. This study was completed in 2004 and distributed to interested parties in February of 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.

The appraisal study 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 the study was introduced in 2003 but the legislation was not advanced. On February 14th, 2006, congressmen from both Nebraska and Kansas reintroduced

the Lower Republican River Basin Study Act (H.R. 4750).

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. Additional monitoring equipment for terraces and additional reservoirs will be installed by UNL in 2006.

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 2005 that a "Water-Short Year Administration" was in effect.

Frenchman Valley Appraisal Study

In 2004, the state of Nebraska proposed to Reclamation an appraisal study that will 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. Preplanning activities, including developing a Plan of Study (POS) for the appraisal study, began in 2005 and will continue in 2006. Agencies developing the POS include the NKAO, the Nebraska DNR, the Frenchman Valley and H&RW Irrigation Districts, the Nebraska Game and Parks Commission, the Upper and Middle Republican Natural Resources Districts. The POS is anticipated to be completed in calendar year 2006.

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. Four tabletop exercises and one functional exercise were conducted during calendar year 2005. Orientation meetings were held for all of the NKAO dams. Tabletop exercises were held for the Box Butte Dam Emergency Action Plan (EAP), Trenton Dam EAP, Red Willow Dam EAP, and the Medicine Creek Dam EAP. A functional exercise was held for the Merritt 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.

There was one internal alert declared at NKAO projects in 2005. At Red Willow Dam, an Internal Alert was declared after material was discovered in the outlet works stilling basin under drain system. Additional analysis of the drain system is scheduled to be completed in 2006. 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.

One table top exercise and three functional exercises are planned in 2006. EAP orientation meetings will be held at all NKAO dams. Site security plans for each dam are scheduled to be written in 2006.

Public Safety Reviews

The Annual Safety Training was conducted in February 2005. This training provided maintenance personnel the opportunity to acquire a 10 hour certification with respect to OSHA construction standards. First Aid and CPR training was also provided. During the planning stages of this training, an informational letter, and invite 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 Reclamation when developing or maintaining safety programs for the water districts.

Life Safety Code Assessments for each structure at all of the reserved works facilities within the NKAO jurisdiction were formally completed during FY 2005. The "Simplified Life Safety Code Assessment" worksheet (developed by the LSC team and the Regional Life Safety Coordinator) was utilized. In addition, assessments for the Grand Island Area Office, and the new McCook Field Office were also performed. Assessments were provided to the Regional Office which included the AHJ determinations, and recommendations for each facility and appurtenances.

The ongoing safety reviews of project facilities continues to identify potential safety hazards to the public and operating personnel. During 2005, NKAO combined 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.

Automatic External Defibrillators (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. Formal training will be provided to employees in early 2006.

In order to ensure facility accessibility, reliability and safety, focus continues regarding compliance with accessibility standards. Specialists from the Denver Technical Center performed additional accessibility evaluations at public access sites at three different reservoirs. These evaluations were comprehensive, and set out specific suggestions as to improvements at public facilities. These evaluations are expected to continue throughout 2006.

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 training, and given information related to these and several other issues.

Several individuals volunteered and were deployed with respect to Hurricane Katrina relief efforts; particular safety concerns were identified and addressed prior to deployment of the individuals.

Facility Reviews, Maintenance and Construction

Periodic Facility Reviews were conducted at Bonny, Norton, Kirwin, Webster, and Cedar Bluff Dams during 2005. Annual Site Inspections were conducted at the other ten NKAO dams in 2005.

Associated Facility Reviews were conducted in 2005 for the following canal systems: Ainsworth, Mirage Flats, Geranium, Mirdan, Scotia, Fullerton, Elba, Franklin, Naponee, Franklin Pump, Superior, Courtland in Nebraska, Courtland above Lovewell Dam, and Courtland below Lovewell Dam.

Technical surveys were completed at Bonny, Red Willow, Virginia Smith, and Davis Creek Dams in 2005.

Construction of a new Reclamation office building in McCook, Nebraska began in June of 2004 to replace the existing structure built more than 70 years ago. The new office building was completed in May 2005.

Video inspections of the toe drain systems at Merritt, Enders, Trenton, Norton, Webster, and Cedar Bluff Dams were attempted with varying degrees of success during 2005. A program to examine all of our toe drain systems was initiated in 2001.

Security enhancements continue at NKAO dams.

CHAPTER II - NIOBRARA AND LOWER PLATTE RIVER BASINS

Mirage Flats Project in Nebraska

General

Flows in the Niobrara River along with Box Butte Reservoir storage provide a water supply for the 11,662 acre Mirage Flats Project. From 1996 to 2005, the project water supply averaged 12,000 AF, which is about 1.03 acre-feet 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.

2005 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 17.78 inches, which is 104 percent of normal. The 2005 total inflow of 16,464 AF was between the dry- and normal-year forecasts.

From early July through early September, diversions of 10,617 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 4,113 AF (0.35 acre-foot per irrigable acre), which is a delivery efficiency of 39 percent. Total reservoir storage was only 5,572 AF at the end of the irrigation season. Privately owned irrigation wells supplemented the project water supply.

On-site dam operator training was conducted in May 2005. A tabletop exercise of the Box Butte Dam EAP took place in June and the Annual Site Inspection of Box Butte Dam was conducted in October.

In 2005, the District installed additional canal lining on the upper end of the Mirage Flats Canal. This extended the 1.0 mile canal lining section an additional 0.5 miles. The District continued to implement water conservation measures as outlined in their Water Management Plan and their Long Range Plan. The district continued to assist irrigators with delivery 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. The district continues to develop and expand on the canal automation and remote monitoring system.

2006 Outlook

The project water supply is expected to be inadequate in 2006 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. The District plans for the irrigators to continue the use of water from privately-owned irrigation wells as a supplemental supply.

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 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 ET data.

Ainsworth Unit, Sandhills Division in Nebraska

General

Within the Ainsworth Irrigation District, there are 34,539 acres with service available. The project water supply is provided by storage of Snake River flows in Merritt Reservoir. The reservoir is filled each fall after the irrigation season to elevation 2944.0 feet. 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. A minimum release of 75 cubic feet per second (cfs) should be made to the river during spring filling operations if at all possible. This operation enhances the spring fish spawn. Seepage, pickup and toe drain flow normally result in flows of up to 15 cfs below Merritt Dam. Whenever possible, daily changes in releases to the river should be made in no more than 50 cfs increments. This will minimize adverse impacts on the Snake River trout fishery downstream of the dam.

The district has a basic water supply. If available, additional water can be purchased by the district as a supplemental supply.

2005 Summary

Precipitation, as recorded near Merritt Dam, totaled 28.18 inches, which was 140 percent of normal. April and June precipitation was the highest on record for the respective months. The inflow for the year totaled 178,277 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 71,713 AF diverted from Merritt Reservoir into Ainsworth Canal, with 45,517 AF delivered to the farm headgates (delivery efficiency of 64 percent). There were 34,158 acres of land irrigated in 2005.

The district provided a total of 349 AF of irrigation water from holding ponds located within the district's service area.

New Area-Capacity Tables for Merritt Reservoir became effective on January 1, 2005. These revised tables resulted from a sedimentation survey conducted in June, 2003.

A functional exercise of the Merritt Dam EAP took place in January 2005 and the Annual Site Inspection of Merritt Dam was conducted in September.

The Standing Operating Procedures (SOP) for Merritt Dam was updated and republished in August 2005.

The Ainsworth Irrigation District, along with Reclamation and the local Natural Resource Districts, provided 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. A furrow irrigated site may be added to this project in 2006.

2006 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 2006 for the irrigation of 34,539 acres.

The process of renewing the long term water service contract with Ainsworth Irrigation District will continue in 2006. The existing contract with the AID will expire December 31, 2006. The current schedule provides for the completion of the draft Environmental Assessment and contract negotiations in 2006.

A Periodic Facility Review of Merritt Dam is scheduled for 2006.

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 has tentatively scheduled to construct a new flume on the Airport Lateral in 2006.

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 55,000 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 throughout 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 was constructed and is managed by the Lower Loup Natural Resources District. The area includes a boat ramp, a handicapped fishing pier, a day-use area, a primitive camping area, shelter and a hiking path. Kent Diversion Dam is also open to day-use fishing with handicapped accessibility provided.

2005 Summary

Precipitation at Virginia Smith Dam was 21.99 inches which is 93 percent of normal. The inflow totaled 251,935 AF which was between the dry- and normal-year forecasts. There were 72,780 AF of water released into Mirdan Canal and 27,050 AF diverted through Kent Canal from the North Loup River. A total of 43,770 AF was diverted for district use above Davis Creek Reservoir. The farm headgate delivery was 22,944 AF which is a delivery efficiency of 52 percent. Land irrigated in 2005 totaled 33,211 acres above Davis Creek Reservoir. Reservoir inflows were bypassed during July, August, and September as required. The reservoir elevation at the end of the year was at 2238.35 feet. The Calamus Fish Hatchery used bypassed natural flows and storage from Calamus Reservoir totaling 6,623 AF during 2005.

The precipitation of 23.91 inches near Davis Creek Dam was 101 percent of normal. Inflow to Davis Creek Reservoir totaled 48,226 AF during 2005. Beginning in mid April, Davis Creek Reservoir was filled from an elevation of approximately 2047.5 feet to a peak elevation of 2076.12 feet on June 26th using diversions from the North Loup River and Calamus Reservoir. A release of 40,100 AF was made from Davis Creek Dam into Fullerton Canal, with 26,353 AF delivered to the farm headgates (66 percent delivery efficiency). There were 21,430 acres irrigated below

Davis Creek Reservoir. The reservoir elevation at the end of 2005 was near the normal wintering level at 2048.33 feet.

An orientation meeting to review the Virginia Smith Dam and Davis Creek Dam EAPs took place in November 2005.

In December of 2002, the irrigation district reported a small depression along the right side of the river outlet works stilling basin wall at Virginia Smith Dam. Safety of Dams personnel in both Denver and Billings were notified and discussions were conducted with the Technical Service Center. Investigations determined that a problem existed with the under-drain system in the outlet works stilling basin. Gravel material beneath the outlet works chute structure and stilling basin was being transported creating a void. Reclamation personnel drilled holes into the floor of the structure and filled the voids and under-drain system with grout. Grouting was completed in March of 2003. Investigations then began on the under-drain system at the spillway stilling basin because of the similarity to the outlet works system. A risk analysis of the spillway chute and stilling basin under-drain system was completed in September 2003. The risk analysis recommends that the drain system under the spillway basin be grouted. Grouting was originally scheduled to start in October of 2004, but was delayed by the cancellation of the stop log fabrication contract due to contract non performance of the contractor. The stop logs were installed by a different contractor in September 2005. Grouting operations were completed in October 2005.

The Standing Operations Procedures for Virginia Smith Dam were updated and republished in January 2005. Technical surveys of both Davis Creek and Virginia Smith Dams were conducted in October.

2006 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) by 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 34,000 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 this season.

The fish hatchery demand for 2006 is expected to be similar to that of the last few years with approximately 7,000 AF passing through the hatchery.

A Comprehensive Facility Review of Davis Creek Dam and a Periodic Facility Review of Virginia Smith Dam are scheduled for May 2006.

A functional exercise of the EAPs for both Virginia Smith and Davis Creek Dams is scheduled for 2006. The Standing Operating Procedures for Davis Creek Dam is scheduled to be updated and republished this year.

On-site dam operator training is also scheduled to take place at Davis Creek Dam in 2006.

Through a cooperative agreement with Reclamation, the District is planning on expanding the remote monitoring system by installing equipment at various wasteways and key canal measurement sites throughout their delivery system. The first of these installations should be in place by the 2006 irrigation season.

CHAPTER III - REPUBLICAN RIVER BASIN

Armel Unit, Upper Republican Division in Colorado

General

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.

Toe drains were added at Bonny Dam in 1988 and 1994 to address Safety of Dams concerns. These drains were constructed to minimize the potential for dam failure due to piping when the reservoir elevation exceeds 3691.0 feet.

2005 Summary

The annual precipitation total of 18.23 inches at Bonny Dam was 106 percent of normal. The annual computed inflow of 7,353 AF to Bonny Reservoir was below the dry-year forecast. Below normal inflows were recorded during every month of the year. February, March and April inflows were the lowest on record for the respective months since first filling. The reservoir level was 17.6 feet below the top of conservation at the first of the year. The reservoir level gradually increased 2.4 feet to a maximum reservoir level of 3655.43 feet on June 13th. Bonny Dam recorded a maximum one day precipitation total of 1.34 inches overnight on October 11th. The reservoir level gradually decreased throughout the remainder of the year. A new historical low reservoir elevation of 3652.96 feet was recorded on December 9th. The reservoir elevation at the end of the year was 19.0 feet below the top of conservation at 3653.05. The Corps of Engineers determined that \$91,000 in flood prevention benefits were realized from the operation of Bonny Reservoir during 2005.

As directed by the Colorado Water Commissioner, 89 AF of reservoir inflows from the South Fork of the Republican River and Landsman Creek were passed through Bonny Reservoir into Hale Ditch for irrigation purposes. Releases to Hale Ditch began on May 17 and ended on May 24, 2005.

A Periodic Facility Review of Bonny Dam was conducted in April 2005 and an EAP orientation meeting took place in May.

2006 Outlook

Water stored in Bonny Reservoir will be available for sale 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.

Frenchman Unit, Frenchman-Cambridge Division in Nebraska

General

The Culbertson Canal and the Culbertson Extension Canal systems serve 9,295 acres in the Frenchman Valley Irrigation District and 11,695 acres in the H&RW Irrigation District. The water supply for these lands is furnished by flows from Frenchman and Stinking Water Creeks and offseason 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.

2005 Summary

The annual precipitation total of 21.03 inches at Enders Dam was above normal (111 percent). The 2005 inflow into Enders Reservoir of 4,649 AF was below the dry-year forecast. This inflow was the lowest ever recorded at the site. Due to extensive groundwater pumping above the reservoir, the inflow was only eight percent of the average historical preconstruction runoff at the Enders Dam site (60,700 AF from 1929-1947). This year was the 38 th 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 3088.12 feet (25.2 feet below the top of conservation) on June 22 the during 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 26.0 feet below the top of conservation.

The Frenchman Valley Irrigation District reports that approximately 1,482 acres received water in 2005 from natural flow diversions from Frenchman Creek. Farm delivery averaged about 0.05 foot per irrigable acre in the Irrigation District. Some farmers were able to supplement their project water supply from private irrigation wells. Farm delivery efficiency was seven percent for the district. The H&RW Irrigation District did not divert water into Culbertson Extension Canal in 2005 due to the extremely low water supply. This was the fourth consecutive year that the district did not deliver water. H&RW Irrigation District storage water in Enders Reservoir was carried over into 2006.

In August 2004, a small depression was discovered near the outlet works stilling basin at Enders Dam. An Internal Alert remains in effect until investigations to the cause of the depression are completed. Reclamation has installed instrumentation in the area to collect additional data. Investigations and additional analysis are scheduled in 2006.

On-site dam operator training was conducted in March at Enders Dam.

An Annual Site Inspection of Enders Dam was conducted in August 2005 and an orientation meeting to review the Enders Dam EAP took place in October.

A silica fume concrete material overlay was installed on the spillway bridge deck in September 2005.

In 2005, the 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 short water supply.

2006 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 79,300 AF. Most probable inflow conditions are expected to be inadequate by 50,700 AF and reasonable maximum inflow conditions by 17,400 AF, to irrigate the 9,295 acres in the Frenchman Valley Irrigation District and 11,695 acres in the H&RW Irrigation District.

The District will continue to support the Limited Irrigation Demonstration project in 2006. The District has expressed an interest in replacement of additional open ditch laterals with buried pipe. A pipe project on one section of a smaller lateral will be investigated in 2006. 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 District is 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 preferred alternatives to identify the most efficient use of the declining water supply in the basin. The District has 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

General

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 16,562 acres; Red Willow Canal to 4,877 acres; Bartley Canal to 6,435 acres; and Cambridge Canal to 17,297 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 laterals which were physically or economically feasible with pipe laterals which has significantly increased both system and on-farm efficiencies.

2005 Summary

The annual precipitation total of 20.66 inches at Trenton Dam was 103 percent of normal. The inflow of 15,542 AF to Swanson Lake was well below the dry-year forecast and the third 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 22.5 feet below the top of conservation pool. The reservoir level gradually increased during the spring and summer and peaked at 2733.28 feet on June 21 st (approximately 18.7 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 or Bartley Canals. This was the third consecutive year that the district did not deliver water from the two canals. At the end of the year the reservoir level was 20.6 feet below the top of conservation at 2731.37 feet. The Corps of Engineers determined that \$91,000 of flood damages were prevented by the operation of Swanson Lake.

The annual precipitation total of 22.15 inches at Red Willow Dam was 113 percent of normal. The greatest precipitation event recorded at Red Willow Dam in 2005 was 1.97 inches overnight on March 29. The annual inflow of 9,090 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 February and July. The reservoir level at the first of the year was 13.2 feet below the top of conservation. Inflows gradually increased the level of the reservoir to a peak of 2571.49 feet (10.3 feet below full) on June 17th Releases were not made from Hugh Butler Lake in 2005 due to the extremely low water supply available. Irrigation diversions were not made into Red Willow Canal for the third consecutive year. The level of Hugh Butler Lake at the end of the year was 11.5 feet below the top of conservation, the fifth lowest end of year storage ever recorded. The Corps of Engineers determined that \$91,000 of flood damages were prevented by the operation of Hugh Butler Lake.

The annual precipitation total of 22.32 inches at Medicine Creek Dam was 108 percent of normal. The inflow of 30,861 AF was below the dry-year forecast and the fifth lowest annual total ever recorded. The computed inflow was below normal during all twelve months. The reservoir level at the beginning of 2005 was 9.8 feet below the top of conservation. The reservoir pool gradually increased peaking at 2366.64 feet on June 21st (0.5 foot into flood pool). Precipitation during August (6.45 inches) was the greatest ever recorded at the dam for the month. Irrigation

releases began on June 27th and were shut off on August 30th with nearly 19,000 AF of water released from the reservoir for irrigation. The Nebraska Department of Natural Resources directed that some reservoir inflow be bypassed into Medicine Creek for livestock watering in 2005. Releases were made from September 23rd throughSeptember 25th, September 27th, September 29th through September 30th and again on October 6th. The greatest 24-hour precipitation event recorded at Medicine Creek Dam was 4.41 inches overnight on August 14th. Harry Strunk Lake was 5.4 feet below the top of conservation at the end of the year. The Corps of Engineers determined that the reservoir prevented \$98,000 in flood damages.

The water supply was limited with 19,732 AF of water diverted to irrigate 15,945 acres of land served by the Cambridge Canal (farm delivery efficiency was 50 percent).

A combined tabletop exercise of the Trenton, Red Willow, and the Medicine Creek Dams' EAPs took place in September of 2005. Annual Site Inspections were conducted in February at Medicine Creek Dam, March at Red Willow Dam, and in August at Trenton Dam in 2005.

On-site dam operator training was conducted at Trenton Dam in March.

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. An Internal Alert remains in effect until additional analysis of the under drain system is complete. Additional analysis of the drain system is scheduled to be completed in 2006.

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. The district continues to investigate remote monitoring opportunities that will improve delivery system operations.

2006 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 37,200 AF. Shortages are not expected under most probable inflow conditions.

Comprehensive Facility Reviews of Red Willow and Medicine Creek Dams are scheduled for 2006. On-site dam operator training is also scheduled to take place at Red Willow and Medicine Creek Dams in 2006.

The Standing Operating Procedures for Trenton Dam are being updated and are expected to be republished in 2006.

The district plans to support the limited irrigation demonstration again in 2006. The district is planning on replacing the last four miles of Red Willow Canal with buried pipe to eliminate the high loss, high maintenance section of open ditch. 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

General

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.

2005 Summary

The annual precipitation at Norton Dam totaled 27.69 inches, which is 112 percent of normal. The total inflow of 4,555 AF was between the dry- and normal-year forecasts. The reservoir level was 17.9 feet below the top of conservation on December 31, 2004. Late winter and spring inflows gradually increased the reservoir level to a peak elevation of 2287.65 feet on June 13th (16.7 feet below full pool). The greatest 24-hour precipitation event occurred overnight on April 5th with 2.68 inches recorded. Irrigation releases were not made from the reservoir in 2005. Keith Sebelius Lake was 17.8 feet below the top of conservation (2286.47 feet) at the end of the year.

The city of Norton used 412 AF of municipal water during 2005.

A Periodic Facility Review of Norton Dam was conducted in April and an orientation meeting to review the Norton Dam EAP took place in September 2005.

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 filter drain system is scheduled for completion in 2006 with construction beginning in 2007.

2006 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. The MOA was approved by the irrigators within the district which provides that no water will be released for irrigation below elevation 2288.0 feet. The District and the Kansas Department of Wildlife and Parks are currently in negotiations to extend this MOA an additional year.

If 2006 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 24,100 AF. If normal inflow into the lake and normal rainfall over the irrigated area occur in 2006, a shortage of 19,200 AF may be experienced, and if 2006 is a wet year the water supply may be inadequate by as much as 3,600 AF. Requirements for the city of Norton will be met in full in 2006.

A tabletop exercise of the Norton Dam EAP is scheduled for 2006.

The District will continue to solicit 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 fall of 2005 the District began to work on a pipe lateral project which will eliminate approximately 2 miles of open ditch lateral S-2.5 and replace it with 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 is also investigating replacing a portion of Lateral 7.1 with buried pipe.

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

General

Harlan County Lake storage and Republican River flows provide a project water supply for 22,935 acres in the Bostwick Irrigation District in Nebraska, and 13,378 acres in the Kansas-Bostwick Irrigation District No. 2 above Lovewell Reservoir. These 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.

2005 Summary - Bostwick Division - Harlan County Lake Operations

The annual precipitation at Harlan County Dam totaled 22.51 inches of rainfall, which is 98 percent of normal. The 2005 inflow of 53,682 AF was between the dry- and normal-year forecast. The inflow was below normal for all twelve months. 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 2005 approximately 20.3 feet below the top of conservation pool, at 1925.44 feet. Inflows during the first six months of the year slowly increased the reservoir pool to a peak of 1929.94 feet on June 26th (top of conservation pool is elevation 1945.73 feet). Harlan County Dam recorded 1.73 inches of rain overnight on June 9th (the greatest one day total in 2005). Due to the extremely low water supply available, no water was released from Harlan County Lake. This was the second time since deliveries began in the early 50's that irrigation deliveries were not made from the lake. The reservoir level continued to decline throughout the remainder of the year. The level of Harlan County Lake at the end of 2005 was 1928.31 feet (17.4 feet below the top of conservation). Harlan County Lake prevented \$464,000 of downstream flood damages during 2005 according to the Corps of Engineers.

A total of 29,265 AF (approximately 66 percent of total inflow) was delivered to Lovewell Reservoir through the Courtland Canal.

2005 Summary - Bostwick Division - Nebraska

The Bostwick Irrigation District in Nebraska diverted 4,712 AF of natural flows for the irrigation of 2,800 acres on Superior Canal. Farm delivery efficiency averaged 32 percent in the district. Irrigation diversions were not made into Franklin, Naponee, Franklin Pump, or Courtland Canal in Nebraska in 2005.

The district continued to replace open ditch laterals with buried pipe to reduce losses and improve system operations. 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 Canal Laterals 9.5, 17.5, 21.2, and 27.3. The District started installing pipe on these projects in the fall of 2005 and should complete these projects in 2006. 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.

2005 Summary - Bostwick Division - Kansas

The 2005 precipitation at Lovewell Dam totaled 28.07 inches, which was 103 percent of normal. Lovewell Reservoir began 2005 with a water surface elevation only 8.3 feet below the top of conservation. Inflows during the first six 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 May 13th (elevation 1582.6 feet), and in filling the reservoir to an elevation of 1584.20 feet on June20th. Releases were made into the lower Courtland Canal beginning on June 20th to season the canal and maintain the reservoir level. A strong storm system stalled out over Lovewell Reservoir on the evening of July 25th dropping 3.33 inches of precipitation overnight. The reservoir pool increased 0.5 foot as a result of the storm. Lovewell Dam recorded another 7.40 inches of rainfall in August, the second greatest precipitation ever recorded for the month. Irrigation demands reduced the pool elevation to 1576.04 feet on August 23rd. 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 1578.98 feet on December 31, 2005 (3.6 feet below the top of active conservation).

The Kansas-Bostwick Irrigation District diverted a total of 27,780 AF to serve 1,107 acres above Lovewell Dam and 23,439 acres below Lovewell Dam. Farm delivery efficiency averaged 45 percent in the district.

The Standing Operating Procedures for Lovewell Dam were updated and republished in January 2005.

On-site dam operator training was conducted in June at Lovewell Dam. An Annual Site Inspection of Lovewell Dam was conducted in August and an orientation meeting to review the Lovewell Dam EAP took place in November.

In 2005 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 the fall of 2005, the District replaced open ditch Courtland West lateral 1.4 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 is also planning on replacing portions of open ditch Ridge lateral 5.0 and Courtland West lateral 0.3-1.3 with buried pipe in the spring of 2006.

2006 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 129,400 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 24,000 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 has submitted a deviation request to the Corps of Engineers that would allow Lovewell Reservoir to be filled to elevation 1584.2 feet (1.6 feet into flood pool) prior to the irrigation season. The additional storage is to 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 2005.

Both Districts will continue to investigate remote monitoring site installation that will provide system operations improvements and pursue projects that will eliminate sections of open ditch laterals. 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 is scheduled to be installed in the spring of 2006. Both of the Bostwick Districts also supported a Water 2025 proposal that would automate the gates on Courtland Canal at the Superior-Courtland Diversion Dam.

The Kansas Department of Agriculture submitted a Water 2025 Challenge Grant proposal which was selected for funding in 2005. Through this project, the Division of Water Resources 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.

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.

2005 Summary

The annual precipitation total of 33.61 inches at Kirwin Dam was 143 percent of normal and the third highest annual total ever recorded at the site. The inflow of 10,440 AF was between the dry- and normal-year forecast. Kirwin Reservoir was 27.2 feet below the top of conservation pool at the first of the year. Due to extremely low water supply, no water was released from the Kirwin Reservoir. Precipitation during August (7.35 inches) was the greatest ever recorded for the month. The greatest 24-hour precipitation event occurred overnight on August 14th with 4.10 inches recorded. The reservoir level continued to gradually increase throughout the remainder of the year to a peak elevation of 1705.39 feet (23.9 feet below full) on December 31 st. The reservoir was credited with preventing \$11,000 in flood damages as determined by the Corps of Engineers.

A Periodic Facility Review of Kirwin Dam was conducted in May and an orientation meeting to review the Kirwin Dam EAP took place in June 2005.

2006 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 23,800 AF may be experienced. A shortage of 5,200 AF may be expected under normal-year inflows.

The Standing Operating Procedures (SOP) is scheduled to be updated and republished in 2006.

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) are scheduled to be placed in buried pipe in the spring of 2006. The District is also investigating replacing sub lateral 19.0-0.6 with buried pipe in 2006. Future conservation projects include the possibility of installing remote monitoring equipment at the wasteways and at the Kirwin North/South Canal split. The District is also working with the Bostwick Irrigation District in Nebraska for applying spray-on canal sealant in a problem area of Kirwin Canal. Many of the future conservation projects may be delayed due to the declining water supply.

Webster Unit, Solomon Division in Kansas

General

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.

2005 Summary

In 2005, the precipitation at Webster Dam was 114 percent of normal (26.94 inches). The inflow of 5,967 AF was between the dry- and normal-year forecasts. Webster Reservoir began 2005, 27.2 feet (elevation 1865.23 feet) below the top of conservation pool. The reservoir pool gradually increased to a peak elevation of 1866.85 feet (25.6 feet below full) on June 17th. Irrigation releases were not made from the reservoir in 2005. August precipitation (6.52 inches) was the fifth highest total ever recorded for the month. Webster Dam received 2.43 inches of rainfall overnight on August 28th, the greatest 24-hour precipitation event during the year. The reservoir level continued to decline during the final four months of the year and was 27.1 feet below the top of conservation on December 31, 2005.

A Periodic Facility Review of Webster Dam was conducted in May and an orientation meeting to review the Webster Dam EAP took place in June.

A special inspection was conducted on the spillway counterweights at Webster Dam in 2004. The inspection concluded that deterioration had affected the structural integrity of the counterweights. Repairs to the counterweights were completed by a contractor in November 2005.

The spillway under drain system was inspected in July 2005 and was found to be in good condition.

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 the fall and winter of 2005, the district replaced open ditch Lateral 25.0 and open ditch lateral 26.1 with buried pipe. These projects provided increased delivery water surface to project irrigators and eliminated approximately 2.0 miles of high loss, high maintenance open ditch lateral.

2006 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 2006. Under dry-year inflows a shortage of 33,700 AF may be expected under normal-year inflows.

Concrete repairs in the Webster Dam spillway chute are scheduled to begin in 2006.

The District is currently not planning on installing any large lateral projects in 2006 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 2 nd and 3 rd 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.

Glen Elder Unit, Solomon Division in Kansas

General

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. Based on the current State of Kansas Certificate of Appropriation, water usage is not to exceed 737 AF per calendar year.

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.

2005 Summary

The annual precipitation total of 27.38 inches at Glen Elder Dam was 106 percent of normal. The inflow of 63,624 AF was between the dry- and normal-year forecast. Waconda Lake began the year 5.3 feet below the top of conservation. The lake level peaked at elevation 1451.91 feet on June 14th (3.7 feet below the top of conservation). This was the lowest annual peak since first filling of the reservoir. Irrigation releases began on May 18th and continued through October 11 reducing the lake level to 1450.68 feet. Rainfall during the first week of June increased the pool level nearly one foot (11,000 AF), with a peak average daily inflow of approximately 3,000 cfs. Glen Elder Dam recorded 3.92 inches of precipitation overnight on July 25 th, the greatest 24-hour precipitation event recorded at the dam in 2005. The Corps of Engineers determined Waconda Lake prevented \$259,000 in flood damages. On December 31, 2005 the lake level was 1450.50 feet (5.1 feet below full).

A total of 19,907 AF of water was released from Glen Elder Dam in 2005. Storage releases of 3,556 AF combined with natural flow releases of 6,631 AF for the irrigation of 6,509 acres in the Glen Elder Irrigation District. Five individual temporary water service contracts received storage water totaling 175 AF for the irrigation of approximately 274 acres. Storage releases totaling 640 AF were made for the City of Beloit, with an additional 8,025 AF bypassed for quality control as directed by the State Water Commissioner. Releases to the Mitchell County Rural Water District No. 2 totaled 705 AF.

The Standing Operating Procedures (SOP) for Glen Elder Dam was republished in January 2005 and on-site dam operator training at Glen Elder Dam was conducted in June.

An orientation meeting to review the Glen Elder Dam EAP took place in July 2005 and a Annual Site Inspection of Glen Elder Dam was conducted in August.

A new vacuum relief valve was installed at an existing manhole on top of the outlet pipe in September 2005.

2006 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 6,600 acres will be irrigated in 2006. 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. Uncontracted storage water from Waconda Lake will be available to private irrigators in the Solomon Valley below Glen Elder Dam during the 2006 irrigation season. With sufficient inflows the active conservation pool will be allowed to fill prior to the irrigation season. 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.

A functional exercise of the Glen Elder Dam EAP is scheduled for 2006.

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 has also been participating 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 has been working with Reclamation in order to finalize the Irrigation District Boundary and the final irrigable acres. The District will be holding a hearing in the spring of 2006 on the new boundary.

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. No water had been available for delivery to the district since 1978. Reformulation of the Cedar Bluff Unit in October of 1992 allowed the Cedar Bluff Irrigation District to begin the proceedings to disband, and the Kansas Water Office and Kansas Department of Wildlife and Parks to acquire the use and control of portions of the reservoir conservation capacity. The district completed all activities necessary to accomplish disbandment in 1994. A "designated operating pool" has been 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 a continuous accounting procedure for water storage in Cedar Bluff Reservoir.

2005 Summary

The annual precipitation total at Cedar Bluff Dam was 19.51 inches which is 92 percent of normal. The inflow (8,134 AF) was between the dry- and normal-year forecasts. At the beginning of the year, the level of Cedar Bluff Reservoir was 2134.93 feet (top of active conservation is 2144.00 feet). The peak reservoir level recorded during the year was 2135.08 feet on February 13th. Precipitation in February(1.69 inches) was the second greatest total ever recorded for the month. The greatest 24-hour precipitation event occurred overnight on May 23 rd with 2.99 inches of rainfall. The reservoir gradually decreased throughout the remainder of the year and by December 31, 2005, the reservoir level had decreased to 2131.67 feet (12.3 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 4 AF released to the facility. A total of 1,405 AF of water was released from Cedar Bluff Reservoir during 2005 for the City of Russell.

A Periodic Facility Review of Cedar Bluff Dam was conducted in April and an orientation meeting to review the Cedar Bluff Dam EAP took place in December 2005.

2006 Outlook

Storage in Cedar Bluff Reservoir on December 31, 2005 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 2006.

TABLE 1 RESERVOIR DATA - NIOBRARA, LOWER PLATTE AND KANSAS RIVER BASINS

CAPACITY ALLOCATIONS 1/

LIVE CONSERVATION **FLOOD DEAD** Inactive Active **CONTROL RESERVOIR** - Elevation Ft. 3969.0 3976.5 4007.0 Box Butte 31,060 2,275 640 Total Acre-feet 28,785 640 1.635 Net Acre-feet 2946.0 2875.0 2896.0 Merritt - Elevation Ft. Total Acre-feet 774 4,662 66,726 ---Net Acre-feet 774 3,888 62,064 2185.0 2213.3 2244.0 Calamus - Elevation Ft. 127,400 Total Acre-feet 817 24,646 102,754 23,829 817 Net Acre-feet 2076.0 - Elevation Ft. 1998.5 2003.0 Davis Creek 172 31,158 Total Acre-feet 76 ---30,986 Net Acre-feet 76 96 3710.0 Bonny - Elevation Ft. 3635.5 3638.0 3672.0 Total Acre-feet 1,418 2,134 41,340 170,160 1,418 716 39.206 128,820 Net Acre-feet 3112.3 3127.0 3082.4 Enders - Elevation Ft. 3080.0 72,958 8,948 42,910 Total Acre-feet 7,516 33,962 30,048 Net Acre-feet 7,516 1,432 2773.0 2710.0 2752.0 Swanson 2720.0 - Elevation Ft. 112,214 246,291 Lake Total Acre-feet 2,118 12,430 Net Acre-feet 2,118 10,312 99,784 134,077 Hugh Butler - Elevation Ft. 2552.0 2558.0 2581.8 2604.9 36,224 85,070 Lake Total Acre-feet 5,185 8,921 Net Acre-feet 27,303 48,846 3,736 5,185 2386.2 2366.1 2335.0 2343.0 Harry Strunk - Elevation Ft. 35,705 88,420 Lake Total Acre-feet 4.160 8.859 26,846 52,715 Net Acre-feet 4,160 4,699 Keith Sebelius - Elevation Ft. 2275.0 2280.4 2304.3 2331.4 Lake Total Acre-feet 1,636 3,993 34,510 133,740 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 Net Acre-feet 0 118,099 196,012 500,000 1595.3 1562.07 1582.6 Lovewell - Elevation Ft. 1571.7 Total Acre-feet 1.674 11,644 35,666 86,131 Net Acre-feet 1,674 9,970 24,022 50,465 Kirwin - Elevation Ft. 1693.0 1697.0 1729.25 1757.3 Total Acre-feet 313,290 4,969 8,515 98,154 Net Acre-feet 4,969 3,546 89,639 215,136 Webster - Elevation Ft. 1855.5 1892.45 1923.7 1860.0 Total Acre-feet 1,256 4,231 76,157 259,510 Net Acre-feet 1.256 2,975 71,926 183,353 Waconda - Elevation Ft. 1407.8 1428.0 1455.6 1488.3 Lake 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 2144.0 2166.0 2107.8 Total Acre-feet 4,402 364,342 28,574 172,452 Net Acre-feet 4,402 24,172 143,878 191,890 Total Storage (A.F.) 274,340

Total Net Acre-feet

36,889

36,889

237,451

1,475,207

1,200,867

3,909,611 2/

2,357,568

¹¹ 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.

TABLE 2 SUMMARY OF 2005 OPERATIONS MIRAGE FLATS PROJECT

BOX BUTTE RESERVOIR

					End of	MIRAGE FL	ATS CANAL	
			Gross		Month	Diversions	Delivered	
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms	
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	
Jan.	1,166	61	67	0.00	8,806	0	0	
Feb.	1,429	56	91	0.00	10,088	0	0	
Mar.	1,469	61	172	0.90	11,324	0	0	
Apr.	1,907	60	299	2.15	12,872	0	0	
May	1,531	79	375	4.09	13,949	0	0	
June	1,788	71	497	5.98	15,169	0	0	
July	1,480	6,359	630	1.65	9,660	4,845	1,611	
Aug.	1,100	4,407	380	2.05	5,973	4,830	2,367	
Sep.	998	718	219	0.00	6,034	942	135	
Oct.	1,276	34	167	0.89	7,109	0	0	
Nov.	1,175	34	100	0.00	8,150	0	0	
Dec.	1,145	65	63	0.07	9,167	0	0	
TOTAL	16,464	12,005	3,060	17.78	-	10,617	4,113	

NOTE - Acres inigated 2005: Mirage Flats Canal - 11,092 acres.

SANDHILLS DIVISION AINSWORTH UNIT

MERRITT RESERVOIR

					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.	14,320	14,083	237	0.42	61,370	0	0	
Feb.	12,822	12,793	299	0.23	61,100	0	0	
Mar.	15,214	13,983	418	2.14	61,913	0	0	
Apr.	17,289	11,752	724	6.42	66,726	0	0	
May	14,417	13,458	1,249	3.18	66,436	1,956	8	
June	17,035	15,362	1,673	9.23	66,436	3,971	264	
July	14,726	30,946	1,555	1.50	48,661	29,897	19,623	
Aug.	16,524	25,408	1,005	2.50	38,772	25,630	18,099	
Sep.	15,209	11,151	834	1.11	41,996	10,259	7,523	
Oct.	13,876	2,777	594	0.71	52,501	0	0	
Nov.	12,735	4,264	408	0.47	60,564	0	0	
Dec.	14,110	12,992	312	0.27	61,370	0	0	
TOTAL	178,277	168,969	9,308	28.18		71,713	45,517	

NOTE -- Acres inigated 2005: Ainsworth Canal - 34,158 acres.

NORTH LOUP DIVISION CALAMUS RESERVOIR

ABOVE DAVIS CREEK

		CALAIVIO	3 KLSLKVC	ЛК		_	ABOVI	E DAVIS CREE	=r\	
					End of	Release to	MII	RDAN CANAL		
			Gross		Month	Calamus	Release		Delivered	
	Inflow	Outflow	Evap.	Precip.	Content	Fish Hatch.	to Canal	Canal Use	To Farms	
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)	(AF)	(AF)	
Jan.	19,579	7,252	444	0.32	112,532	430	0	0	0	
Feb.	18,964	8,313	590	0.94	122,593	424	0	0	0	
Mar.	21,286	19,309	1,075	2.50	123,495	362	0	0	0	
Apr.	24,117	23,675	1,743	2.86	122,194	693	0	0	0	
May	23,504	23,502	1,789	3.10	120,407	623	3,320	1,119	303	
June	27,443	24,502	1,901	5.48	121,447	691	10,120	2,470	208	
July	19,188	45,423	2,381	0.55	92,831	810	31,380	23,011	13,482	
Aug	21,291	38,822	1,400	3.60	73,900	833	23,080	13,609	7,153	
Sep.	18,466	24,343	1,163	0.30	66,860	637	4,880	3,561	1,798	
Oct.	19,411	11,052	994	0.50	74,225	654	0	0	0	
Nov.	17,694	5,587	582	1.39	85,750	128	0	0	0	
Dec.	20,992	5,810	371	0.45	100,561	338	0	0	0	
TOTAL	251,935	237,590	14,433	21.99	_	6 623	72 780	43 770	22 944	

NOTE - Acres inigated 2005: Mirdan Canal - 33,211 acres.

NORTH LOUP DIVISION (Continued)

						BELOW DAY	/IS CREEK	
		DAVIS CREE	K 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.	5	165	48	0.10	9,137	Ó	0	
Feb.	30	133	59	0.76	8,975	0	0	
Mar.	75	179	104	1.82	8,767	0	0	
Apr.	6,690	716	200	1.61	14,541	0	0	
May	14,649	2,878	316	4.71	25,996	1,370	3	
June	10,578	4,822	515	8.58	31,237	3,490	194	
July	6,970	18,359	565	0.88	19,283	17,320	15,039	
Aug.	7,956	14,198	276	2.78	12,765	14.190	9,929	
Sep.	1,169	3,782	225	0.24	9,927	3,730	1,188	
Oct.	43	252	146	1.00	9,572	0	0	
Nov.	46	190	78	1.08	9,350	0	0	
Dec.	15	125	44	0.35	9,196	0	0	
TOTAL	48,226	45,799	2,576	23.91		40.100	26,353	

NOTE - Acres irrigated 2005: Fullerton Canal - 21,430 acres.

UPPER REPUBLICAN DIVISION

Find of Month Mont			BONNY R	ESERVOIR					
Month Outflow (AF) Evap. (AF) Precip. (Inches) Content (AF) Ditch (AF) Jan. 562 307 104 0.31 13,905 0 Feb. 601 278 134 0.16 14,094 0 Mar. 599 307 185 0.67 14,201 0 Apr. 907 298 426 1.43 14,384 0 May 902 397 633 2.64 14,256 89 June 1,612 298 824 3.92 14,746 0 July 274 307 983 1.34 13,730 0 Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0						End of	Outflow		
Month (AF) (AF) (Inches) (AF) (AF) (AF) Jan. 562 307 104 0.31 13,905 0 Feb. 601 278 134 0.16 14,094 0 Mar. 599 307 185 0.67 14,201 0 Apr. 907 298 426 1.43 14,384 0 May 902 397 633 2.64 14,256 89 June 1,612 298 824 3.92 14,746 0 July 274 307 983 1.34 13,730 0 Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 <				Gross		Month	To Hale		
Jan. 562 307 104 0.31 13,905 0 Feb. 601 278 134 0.16 14,094 0 Mar. 599 307 185 0.67 14,201 0 Apr. 907 298 426 1.43 14,384 0 May 902 397 633 2.64 14,256 89 June 1,612 298 824 3.92 14,746 0 July 274 307 983 1.34 13,730 0 Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0		Inflow	Outflow	Evap.	Precip.	Content	Ditch		
Feb. 601 278 134 0.16 14,094 0 Mar. 599 307 185 0.67 14,201 0 Apr. 907 298 426 1.43 14,384 0 May 902 397 633 2.64 14,256 89 June 1,612 298 824 3.92 14,746 0 July 274 307 983 1.34 13,730 0 Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)		
Mar. 599 307 185 0.67 14,201 0 Apr. 907 298 426 1.43 14,384 0 May 902 397 633 2.64 14,266 89 June 1,612 298 824 3.92 14,746 0 July 274 307 983 1.34 13,730 0 Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	Jan.	562	307	104	0.31	13,905	0		
Apr. 907 298 426 1.43 14,384 0 May 902 397 633 2.64 14,256 89 June 1,612 298 824 3.92 14,746 0 July 274 307 983 1.34 13,730 0 Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	Feb.	601	278	134	0.16	14,094	0		
May 902 397 633 2.64 14,256 89 June 1,612 298 824 3.92 14,746 0 July 274 307 983 1.34 13,730 0 Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	Mar.	599	307	185	0.67	14,201	0		
June 1,612 298 824 3.92 14,746 0 July 274 307 983 1.34 13,730 0 Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	Apr.	907	298	426	1.43	14,384	0		
July 274 307 983 1.34 13,730 0 Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	May	902	397	633	2.64	14,256	89		
Aug. 444 307 687 2.47 13,180 0 Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	June	1,612	298	824	3.92	14,746	0		
Sep. 264 298 605 0.01 12,541 0 Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	July	274	307	983	1.34	13,730	0		
Oct. 497 307 245 4.53 12,486 0 Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	Aug.	444	307	687	2.47	13,180	0		
Nov. 252 298 197 0.57 12,243 0 Dec. 439 307 110 0.18 12,265 0	Sep.	264	298	605	0.01	12,541	0		
Dec. 439 307 110 0.18 12,265 0	Oct.	497	307	245	4.53	12,486	0		
	Nov.	252	298	197	0.57	12,243	0		
TOTAL 7,353 3,709 5,133 18.23 89	Dec.	439	307	110	0.18	12,265	0		
	TOTAL	7,353	3,709	5,133	18.23	-	89	 	

FRENCHMAN-CAMBRIDGE DIVISION FRENCHMAN UNIT

ENDERS RESERVOIR

					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.	452	184	54	0.46	11,846	0	0	0	0	
Feb.	378	167	69	0.11	11,988	0	0	0	0	
Mar.	526	184	110	2.37	12,220	149	0	0	0	
Apr.	569	179	208	2.46	12,402	1,250	0	0	0	
May	766	155	296	5.29	12,717	1,696	0	0	0	
June	723	179	343	3.95	12,918	1,527	3	0	0	
July	0	184	506	1.03	12,228	1,288	224	0	0	
Aug.	83	184	311	2.05	11,816	652	220	0	0	
Sep.	0	179	362	0.05	11,275	0	0	0	0	
Oct.	370	184	136	2.84	11,325	0	0	0	0	
Nov.	355	179	118	0.24	11,383	0	0	0	0	
Dec.	427	184	60	0.18	11,566	0	0	0	0	
TOTAL	4,649	2,142	2,573	21.03	_	6,562	447	0	0	

TOTAL 4,649 2,142 2,573 21.03 - 6,562 NOTE: Acres irrigated 2005: Culbertson Canal - 1,482 acres; Culbertson Extension Canal - 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued) MEEKER-DRIFTWOOD UNIT

SWANSON LAKE

					End of N	/IEEKER-DR	IFTWOOD	BARTLEY	CANAL	
			Gross		Month	Release	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.	1,911	61	171	0.35	32,168	0	0	0	0	
Feb.	2,524	56	228	0.11	34,408	0	0	0	0	
Mar.	3,081	61	379	2.77	37,049	0	0	0	0	
Apr.	2,367	60	746	0.94	38,610	0	0	0	0	
May	1,653	61	1,180	2.69	39,022	0	0	0	0	
June	2,212	60	1,404	3.02	39,770	0	0	0	0	
July	654	61	1,916	1.58	38,447	0	0	0	0	
Aug.	373	61	1,391	4.66	37,368	0	0	0	0	
Sep.	0	60	1,597	0.92	35,711	0	0	0	0	
Oct.	335	61	584	2.77	35,401	0	0	0	0	
Nov.	105	60	429	0.63	35,017	0	0	0	0	
Dec.	327	61	215	0 22	35,068	0	0	0	0	
TOTAL	15,542	723	10,240	20.66		0	0	0	0	•

NOTE: Acres irrigated 2005: Meeker-Driftwood Canal - 0 acres; Bartley Canal - 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued) RED WILLOW UNIT HUGH BUTLER LAKE

		HOGH BUIL					
					End of	RED WILLO	W CANAL
			Gross		Month	Diversions	Delivered
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)
Jan.	763	246	72	0.42	18,832	0	0
Feb.	687	222	90	0.12	19,207	0	0
Mar.	1,083	246	155	3.51	19,889	0	0
Apr.	1,022	238	374	0.99	20,299	0	0
May	1,028	246	552	1.87	20,529	0	0
June	1,762	238	613	5.33	21,440	0	0
July	63	246	809	1.10	20,448	0	0
Aug.	666	246	615	4.94	20,253	0	0
Sep.	84	238	514	0.88	19,585	0	0
Oct.	624	246	277	2.43	19,686	0	0
Nov.	555	238	181	0.33	19,822	0	0
Dec.	753	246	87	0.23	20,242	0	0
TOTAL	9,090	2.896	4.339	22.15	_	0	0

NOTE -- Acres irrigated 2005: Red Willow Canal - 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued) CAMBRIDGE UNIT

					End of	CAMBRIDO	SE CANAL
			Gross		Month	Diversions	Delivered
	Inflow	Outflow	Evap.	Precip.	Content	To Canal	To Farms
Month	(AF)	(AF)	(AF)	(Inches)	(AF)	(AF)	(AF)
Jan.	2,612	61	81	0.60	23,647	0	Ó
Feb.	2,385	56	106	0.38	25,870	0	0
Mar.	2,527	61	193	3.24	28,143	0	0
Apr.	2,757	60	486	1.03	30,354	0	0
May	3,695	61	767	1.56	33,221	0	0
June	5,163	1,343	985	4.66	36,056	1,855	116
July	1,101	10,098	1,107	0.76	25,952	10,452	5,816
Aug.	2,672	7,694	618	6.45	20,312	7,425	3,826
Sep.	1,325	107	520	0.70	21,010	0	0
Oct.	2,021	71	308	1.74	22,652	0	0
Nov.	2,082	60	203	0.81	24,471	0	0
Dec.	2,521	61	98	0.39	26,833	0	0
TOTAL	30,861	19,733	5,472	22.32		19.732	9,758

NOTE - Acres irrigated 2005: Cambridge Canal - 15,945 acres.

KANASKA DIVISION ALMENA UNIT

KEITH SEBELIUS 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.	248	58	56	0.88	8,381	27	0	0	
Feb.	326	44	71	0.69	8,592	16	0	0	
Mar.	444	48	122	2.59	8,866	18	0	0	
Apr.	720	57	285	4.37	9,244	28	0	0	
May	549	81	477	2.91	9,235	50	0	0	
June	422	78	556	2.45	9,023	48	0	0	
July	345	90	729	4.11	8,549	60	0	0	
Aug.	396	77	479	4.04	8,389	46	0	0	
Sep.	415	73	442	1.74	8,289	43	0	0	
Oct.	253	65	288	2.34	8,189	34	0	0	
Nov.	171	53	134	1.33	8,173	23	0	0	
Dec.	266	50	67	0.24	8,322	19	0	0	
TOTAL	4,555	774	3,706	27.69	-	412	0	0	_

NOTE: Acres irrigated 2005: Almena Canal - 0 acres.

BOSTWICK DIVISION FRANKLIN UNIT

HARLAN COUNTY LAKE

		I IAILAN OC	JOINT LAKE							
	Dat	a from Corps	of Engineers	S	End of	FRANKLIN	CANAL	NAPONEE CANAL		
			Gross		Month	Release	Delivered	Release	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.	992	0	446	0.76	107,599	0	0	0	0	
Feb.	5,474	0	524	0.85	112,554	0	0	0	0	
Mar.	7,002	0	772	2.36	118,779	0	0	0	0	
Apr.	11,673	0	1,789	1.67	128,666	0	0	0	0	
May	6,040	0	2,952	2.03	131,754	0	0	0	0	
June	13,250	0	3,888	5.75	141,112	0	0	0	0	
July	2,013	0	5,408	2.81	137,717	0	0	0	0	
Aug.	4,076	0	4,821	3.15	136,971	0	0	0	0	
Sep.	454	0	5,591	0.74	131,834	0	0	0	0	
Oct.	1,694	0	3,831	1.46	129,695	0	0	0	0	
Nov.	250	0	1,834	0.67	128,111	0	0	0	0	
Dec.	764	0	764	0.26	128,111	0	0	0	0	
TOTAL	53.682	0	32.620	22.51		0	0	0	0	

NOTE: Acres irrigated 2005: Franklin Canal - 0 acres: Naponee Canal - 0 acres.

BOSTWICK DIVISION (Continued) SUPERIOR-COURTLAND UNIT

COURTLAND CANAL - ABOVE LOVEWELL

	FRANKLIN	PUMP CANA	L SUPE	RIOR CANAL		NEBRAS	KA USE	KANSAS	SUSE	
	Diverted	Delivered	Diverted	Delivered	Total		Delivered	Diversion	Delivered	
	To Canal	To Farms	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	0	0	
June	0	0	2,160	493	0	0	0	541	373	
July	0	0	1,982	795	0	0	0	1,221	125	
Aug.	0	0	570	195	0	0	0	102	63	
Sep.	0	0	0	0	0	0	0	0	0	
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	4,712	1,483	0	0	0	1,864	561	

NOTE: Acres irrigated 2005: Franklin Pump Canal - 0 acres: Superior Canal - 2,800 acres.

Courtland Canal-Nebraska use - 0 acres. Courtland Canal-Kansas use - 1,107 acres.

BOSTWICK DIVISION (Continued) COURTLAND UNIT

LOVEWELL RESERVOIR Est. Flow Inflow End of COURTLAND (Below) from from Total Gross Month Release Delivered White Rock Courtland Outflow Inflow Evap. Precip. Content To Canal To Farms Creek (AF) Month 34.8 (AF) (AF) (AF) (AF) (Inches) (AF) (AF) (AF) Jan. 824 1,804 2.628 12 107 1.28 18,413 0 0 Feb. 1.314 3.430 4,744 11 153 1.22 22,993 0 0 1,019 3,950 4,969 Mar. 12 312 2.17 27,638 0 0 1,668 7,345 Apr. 5.677 18 1 035 2.65 33,930 0 0 688 1,347 May 3.749 4,437 25 0.85 36.995 0 June 1,005 4,164 5.169 3.687 1.512 3.69 36,965 4,310 1,394 3,500 July 0 3,500 14.595 1.527 4.91 24.343 14,572 7,353 Aug. 2,855 1,562 4,417 7,059 898 7.40 20,803 7,034 3.293 Sep. 293 913 1,206 18 930 1.25 21 061 0 0 Oct. 628 884 1,512 558 1.89 12 22.003 0 0 Nov. 504 1,512 2,016 12 345 0.57 23,662 0 0 Dec 728 2,348 1.620 12 162 0.19 25,836 TOTAL 15.026 29.265 44,291 25,473 8,886 28.07 25,916 12,040

NOTE: Acres irrigated 2005: Courtland Canal below Lovewell - 23,439 acres.

SOLOMON DIVISION KIMAAN UNIT

KIRVVIN RESERVOIR End of KIRVVIN CANAL Gross Month Release Delivered Inflow Outflow Evap Precip. Content To Canal To Farms Month (AF) (AF) (AF) (Inches) (AF) (AF) 0.89 Jan. 230 14560 Feb 489 0 114 1.09 14,935 0 0 Mar 670 0 191 2.94 15,414 0 0 Apr. 2,315 0 486 4.20 17,243 0 0 826 0 708 2.70 17,361 0 0 May 844 June 1,624 0 4.48 18,141 0 0 July 677 0 994 4 94 17.824 0 0 Aug. 1,889 0 710 7.35 19,003 0 0 Sep. 605 0 699 1.86 18.909 0 0 Oct. 344 0 406 2.04 18,847 0 0 Nov. 340 0 247 0.87 18.940 0 0 Dec 431 0 119 0.25 19 252 0 TOTAL 10,440 0 5,602 33.61 0 0

NOTE: Acres irrigated 2005: Kirwin Canal - 0 acres.

SOLOMON DIVISION (Continued) WEBSTER UNIT

WEBSTER RESERVOIR OSBORNE CANAL End of Gross Delivered Month Diversions Inflow Outflow Precip. Content To Canal To Farms Evap (AF) (AF) (Inches) (AF) (AF) (AF) Month (AF) 10.287 Jan. 225 0 91 1.03 0 0 247 Feb. 0 112 0.76 10.422 0 0 375 0 10,598 199 1.43 0 0 Mar. 0 1.28 0 Apr. 1,892 528 11,962 0 May 633 0 747 2.12 11,848 0 0 June 1,039 0 854 5.10 12,033 0 0 July 108 0 1,077 2.69 11,064 0 0 Aug. 828 0 11,147 745 6.52 0 0 0 Sep. 0 725 1.63 10,422 0 0 Oct. 238 0 386 2.66 10,274 0 0 Nov 192 0 219 1.47 10,247 0 0 Dec 190 0 0.25 10,327 TOTAL 5,967 0 5,793 26.94 0

NOTE: Acres irrigated 2005: Osborne Canal - 0 acres.

SOLOMON DIVISION (Continued) GLEN ELDER UNIT

WACONDA LAKE OUTFLOW TO RIVER End of City of Beloit Irrig.District Other Release To Storage Gross Month Storage Quality Controlled Mitchell Co. Inflow Outflow Precip. RWD No. 2 Evap Content Release Bypass Release Releases Month (AF) (AF) (AF) (Inches) (AF) (AF) (AF) (AF) (AF) Jan. 2,160 979 585 1.10 160 397 n 923 n 0 56 Feb. 4.059 886 771 1.90 162,799 0 833 0 0 53 Mar 2.782 985 1.394 1.68 163,202 0 922 0 0 63 9,302 950 3,137 2.91 168.417 893 Apr. 0 0 0 57 3.278 1.575 1 35 164 519 573 May 5 601 n 393 549 60 17,403 2.426 6.999 June 3.55 172,497 69 417 12 1,867 61 July 13.141 4.842 7.664 6.20 173 132 97 2 676 49 1 945 75 Aug. 6,433 5.108 2.96 3.118 171.339 20 401 70 2.566 61 Sep. 501 947 5,151 1.69 165,742 81 812 0 Ω 54 Oct. 2,142 1,273 3,207 2.32 163,404 499 262 54 53 405 Nov 616 943 1,583 1.38 161,494 111 781 0 0 51 Dec 1,807 983 724 161,594 922 61 640 63,624 19,907 41,924 27.38 3,556 6,981 705 8,025

NOTE: Acres irrigated 2005: Glen Elder District - 6,509 acres.

SMOKY HILL DIVISION ELLIS UNIT

CEDAR BLUFF RESERVOIR End of Release to Release Month City of To Fish Hatchery Inflow Outflow Evap. Precip. Content Russell Month (AF) (AF) (AF) (Inches) (AF) (AF) (AF) Jan. 415 415 0.87 117,211 0 Feb. 1.083 0 505 1.69 117,789 0 0 Mar 360 0 833 1.17 117,316 0 0 Apr. 668 0 1 868 1.09 116,116 0 0 May 926 0 2 629 2.05 114,413 0 0 June 1.678 3 3.357 3.09 112.731 0 3 1,152 July 4.156 2.80 109.726 0 Aug. 1,456 0 2,785 2.37 108,397 0 0 Sep 0 0 2,950 1.20 105 447 0 0 Oct. 396 0 104,354 1,489 2.29 0 0 Nov 0 0 1 224 0.65 103,130 0 0 Dec 0 1.405 544 0.24 101,181 TOTAL 8,134 1,409 22,755 19,51 1,405

	Acres With Service	Acres Irrigated	Estimated Acres to be Irrigated
Irrigation District and Canal	Available	in 2005	in 2006
Mirage Flats Irrigation District			
Mirage Flats Canal	11,662	11,092	11,100
Ainsworth Irrigation District			
Ainsworth Canal	34,539	34,158	34,000
Twin Loups Irrigation District			
Above Davis Creek	34,053	33,211	34,000
Below Davis Creek	20,851	21,430	20,900
Total Twin Loups Irrigation District	54,904	54,641	54,900
Frenchman Valley Irrigation District			
Culbertson Canal	9,295	1,482	0
H & RW Irrigation District	,	•	
Culbertson Extension Canal	11,695	0	0
Frenchman-Cambridge Irrigation District	•		
Meeker-Driftwood Canal	16,562	0	0
Red Willow Canal	4,877	0	0
Bartley Canal	6,435	0	6,000
Cambridge Canal	17,297	15,945	15,500
Total Frenchman-Cambridge Irrigation District	45,171	15,945	21,500
Almena Irrigation District			
Almena Canal	5,764	0	0
Bostwick Irrigation District in Nebraska	2,70.	v	Ů
Franklin Canal	11,262	0	0
Naponee Canal	1,628	0	0
Franklin Pump Canal	2,106	0	0
Superior Canal	5,972	2,800	0
Courtland Canal (Nebraska)	1,967	0	0
Total Bostwick Irrigation Dist. in Nebraska	22,935	2,800	0
Kansas-Bostwick Irrigation District			
Courtland Canal above Lovewell	13,378	1,107	10,000
Courtland Canal below Lovewell	29,122	23,439	23,000
Total Kansas-Bostwick Irrigation District	42,500	24,546	33,000
Kirwin Irrigation District			
Kirwin Canal	11,465	0	0
Webster Irrigation District	11,403	U	U
Osborne Canal	8,537	0	0
Glen Elder Irrigation District	7,000	6,509	6,600
TOTAL PROJECT USES	265,467	151,173	161,100
	203,107	101,170	101,100
Non-Project Uses			
Hale Ditch	700	0	700
TOTAL PROJECT AND NON-PROJECT	266.167	151 173	161,800
TOTAL PROJECT AND NON-PROJECT	266,167	151,173	161

TABLE 4 Page 1 of 16

BOX BUTTE RESERVOIR OPERATION ESTIMATES - 2006

	INFL		EVAPOR/		REQUIR		SPILL	REQUIREMENT SHORTAGE	END O	F MONTH CONT	RESERVOII CHANGE
MONTH	MEAN CFS	1000 AF	INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				ъ	FASONADI	E MINIM	IUM INFLOW (CONDITIONS			
JAN	18	1.1	1.2	0.1	2	0.1	0.0	0.0	3989.8	10.1	0.9
FEB	23	1.3	1.5	0.1	2	0.1	0.0	0.0	3991.0	11.2	1.1
MAR	29	1.8	2.5	0.2	2	0.1	0.0	0.0	3992.6	12.7	1.5
APR	25	1.5	4.1	0.3	2	0.1	0.0	0.0	3993.7	13.8	1.1
MAY	20	1.2	4.9	0.4	5	0.3	0.0	0.0	3994.2	14.3	0.5
JUN	12	0.7	6.1	0.5	119	7.1	0.0	0.0	3986.3	7.4	-6.9
JUL	8	0.5	7.0	0.3	226	13.9	0.0	9.5	3978.9	3.2	-4.2
AUG	13	0.8	6.3	0.2	226	13.9	0.0	13.3	3978.9	3.2	0.0
SEP	15	0.9	4.6	0.2	40	2.4	0.0	1.7	3978.9	3.2	0.0
OCT	18	1.1	3.4	0.1	2	0.1	0.0	0.0	3980.8	4.1	0.9
NOV	22	1.3	1.8	0.1	2	0.1	0.0	0.0	3982.8	5.2	1.1
DEC	18	1.1	1.1	0.1	2	0.1	0.0	0.0	3984.3	6.1	0.9
TOTAL		13.3	44.4	2.6		38.3	0.0	24.5			-3.1
					MOST PR	OBABLE	INFLOW CON	DITIONS			
JAN	21	1.3	1.1	0.1	2	0.1	0.0	0.0	3990.0	10.3	1.1
FEB	29	1.6	1.3	0.1	2	0.1	0.0	0.0	3991.6	11.7	1.4
MAR	37	2.3	2.3	0.2	2	0.1	0.0	0.0	3993.6	13.7	2.0
APR	32	1.9	3.8	0.3	2	0.1	0.0	0.0	3995.1	15.2	1.5
MAY	24	1.5	4.5	0.3	3	0.1	0.0	0.0	3995.9	16.1	0.9
	15	0.9	5.6	0.5	71	4.2	0.0	0.0	3992.2	12.3	-3.8
JUN JUL	11	0.9			210		0.0			3.2	
AUG	18		6.4	0.4		12.9		3.5	3978.9		-9.1
SEP		1.1	5,7	0.2	164	10.1	0.0	9.2	3978.9	3.2	0.0
	18	1.1	4.2	0.1	29	1.7	0.0	0.7	3978.9	3.2	0.0
OCT	21	1.3	3.1	0.1	2	0.1	0.0	0.0	3981.2	4.3	1.1
NOV	27	1.6	1.7	0.1	2	0.1	0.0	0.0	3983.7	5.7	1.4
DEC	23	1.4	1.0	0.1	2	0.1	0.0	0.0	3985.6	6.9	1.2
TOTAL		16.7	40.6	2.6		29.8	0.0	13.4			-2.3
				R	EASONABL	E MAXII	MUM INFLOW	CONDITIONS			
JAN	28	1.7	1.0	0.1	2	0.1	0.0	0.0	3990.5	10.7	1.5
FEB	38	2.1	1.2	0.1	2	0.1	0.0	0.0	3992.5	12.6	1.9
MAR	47	2.9	2.1	0.2	2	0.1	0.0	0.0	3995.1	15.2	2.6
APR	42	2.5	3.4	0.3	2	0.1	0.0	0.0	3997.0	17.3	2.1
MAY	33	2.0	4.1	0.4	3	0.2	0.0	0.0	3998.1	18.7	1.4
JUN	18	1.1	5.1	0.5	47	2.8	0.0	0.0	3996.2	16.5	-2.2
JUL	13	0.8	5.8	0.5	135	8.3	0.0	0.0	3987.8	8.5	-8.0
AUG	21	1.3	5.2	0.3	104	6.4	0.0	0.1	3978.9	3.2	-5.3
SEP	24	1.4	3.8	0.1	18	1.1	0.0	0.0	3979.3	3.4	0.2
OCT	28	1.7	2.8	0.1	2	0.1	0.0	0.0	3982.3	4.9	1.5
NOV	35	2.1	1.5	0.1	2	0.1	0.0	0.0	3985.5	6.8	1.9
DEC	29	1.8	0.9	0.1	2	0.1	0.0	0.0	3987.7	8.4	1.6
TOTAL		21.4	36.9	2.8		19.5	0.0	0.1			0.0
			30.7			13.0	0.0	0.1			-0.8

TABLE 4Page 2 of 16

MERRITT RESERVOIR OPERATION ESTIMATES - 2006

		FLOW	EVAPOR		CANAL	ASE REQU RIVER	TO	TAL	SPILL	REQUIREMENT SHORTAGE	END OF ELEV	CONT	RESERVOIF CHANGE
MONTH	MEAN CFS	1000 AF	INCHES	1000 AF	1000 AF	1000 AF	MEAN CFS	1 1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				RI	EASONABL	E MINIM	UM INE	rLOW C	CONDITIONS				
JAN	224	13.8	1.2	0.3	0.0	1.0	16	1.0	12.8	0.0	2944.0	61.1	-0.3
FEB	245	13.6	1.5	0.3	0.0	1.0	18	1.0	12.3	0.0	2944.0	61.1	0.0
MAR	252	15.5	2.1	0.5	0.0	4.6	75	4.6	7.6	0.0	2945.0	63.9	2.8
APR	259	15.4	3.4	0.8	0.0	4.5	76	4.5	7.3	0.0	2946.0	66.7	2.8
MAY	250	15.4	4.7	1.1	3.3	4.6	128	7.9	6.4	0.0	2946.0	66.7	0.0
JUN	237	14.1	5.9	1.4	7.5	3.0	176	10.5	2.2	0.0	2946.0	66.7	0.0
JUL	239	14.7	6.7	1.3	32.9	3.0	584	35.9	0.0	0.0	2936.5	44.2	-22.5
AUG	244	15.0	5.9	0.8	30.6	3.0	546	33.6	0.0	0.0	2923.8	24.8	-19.4
SEP	240	14.3	4.7	0.5	8.4	3.0	192	11.4	0.0	0.0	2925.7	27.2	2.4
OCT	244	15.0	3.9	0.5	0.0	1.0	16	1.0	0.0	0.0	2934.6	40.7	13.5
NOV	237	14.1	2.2	0.4	0.0	1.0	17	1.0	0.0	0.0	2940.9	53.4	12.7
DEC	221	13.6	1.5	0.3	0.0	1.0	16	1.0	4.6	0.0	2944.0	61.1	7.7
TOTAL		174.5	43.5	8.2	82.7	30.7		113.4	53.2	0.0			-0.3
						30.7		110.1	55.2	0.0			-0.3
				1	MOST PRO	BABLE II	IFLOW	COND	ITIONS				
JAN	241	14.8	1.1	0.2	0.0	1.0	16	1.0	13.9	0.0	2944.0	61.1	-0.3
FEB	263	14.6	1.3	0.3	0.0	1.0	18	1.0	13.3	0.0	2944.0	61.1	0.0
MAR	272	16.7	1.9	0.4	0.0	4.6	75	4.6	8.9	0.0	2945.0	63.9	2.8
APR	277	16.5	3.1	0.7	0.0	4.5	76	4.5	8.5	0.0	2946.0	66.7	2.8
MAY	268	16.5	4.2	1.0	2.9	4.6	122	7.5	8.0	0.0	2946.0	66.7	0.0
JUN	257	15.3	5.3	1.3	6.4	3.0	158	9.4	4.6	0.0	2946.0	66.7	0.0
JUL	257	15.8	6.1	1.3	28.1	3.0	506	31.1	0.0	0.0	2939.4	50.1	
AUG	263	16.2	5.3	0.8	26.3	3.0	477	29.3	0.0	0.0			-16.6
SEP	259	15.4	4.2	0.6	7.2	3.0	171	10.2	0.0		2932.0	36.2	-13.9
OCT	263	16.2	3.5	0.6	0.0	1.0	16	1.0		0.0	2934.6	40.8	4.6
NOV	255	15.2	2.0	0.4	0.0	1.0			0.0	0.0	2941.7	55.4	14.6
DEC	237	14.6	1.4	0.4	0.0	1.0	17 16	1.0 1.0	8.1 13.3	0.0	2944.0 2944.0	61.1 61.1	5.7 0.0
TOTAL		187.8	39.3	7.9	70.9	20.7		101.6	70.6			0111	
TOTAL		107.0	39.3	7.9	70.9	30.7		101.6	78.6	0.0			-0.3
				RI	EASONABL	E MAXIM	UM IN	FLOW (CONDITIONS	i			
JAN	257	15.8	1.0	0.2	0.0	1.0	16	1.0	14.9	0.0	2944.0	61.1	-0.3
FEB	281	15.6	1.2	0.3	0.0	1.0	18	1.0	14.3	0.0	2944.0	61.1	0.0
MAR	291	17.9	1.7	0.4	0.0	4.6	75	4.6	10.1	0.0	2945.0	63.9	2.8
APR	297	17.7	2.8	0.7	0.0	4.5	76	4.5	9.7	0.0	2945.0	66.7	2.8
MAY	288	17.7	3.8	0.9	2.3	4.6	112	6.9	9.9	0.0	2946.0 2946.0	66.7	
JUN	272	16.2	4.8	1.2	5.2	3.0	138	8.2	6.8	0.0			0.0
JUL	275	16.9	5.4	1.2	23.0	3.0	423	26.0	0.0	0.0	2946.0 2942.2	66.7	0.0
AUG	281	17.3	4.8	0.9	21.6	3.0	400	24.6	0.0	0.0		56.4	-10.3
SEP	276	16.4	3.8	0.7	5.8	3.0	148	8.8	0.0	0.0	2938.5	48.2	-8.2
OCT	281	17.3	3.1	0.7	0.0	1.0	16	1.0	9.6		2941.6	55.1	6.9
NOV	272	16.2	1.8	0.4	0.0	1.0	17	1.0	9.6 14.8	0.0	2944.0	61.1	6.0
DEC	254	15.6	1.2	0.3	0.0	1.0	16	1.0	14.8	0.0	2944.0 2944.0	61.1 61.1	0.0
TOTAT		200.5	07.7				-			0.0	4511.0	01.1	0.0
TOTAL		200.6	35.2	7.9	57.9	30.7		88.6	104.4	0.0			-0.3

TABLE 4 Page 3 of 16

CALAMUS RESERVOIR OPERATION ESTIMATES - 2006

	INFI		EVAPORA		CANAL	ASE REQU RIVER	TOT	AL	SPILL	REQUIREMENT SHORTAGE	END OF ELEV	MONTH CONT	RESERVOI 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
				1	REASONAB	LE MININ	MUM IN	IFLOW C	ONDITIONS				
JAN	285	17.5	1.3	0.5	0.5	3.1	59	3.6	0.0	0.0	2241.3	114.0	13.4
FEB	303	16.8	1.6	0.6	0.5	2.8	59	3.3	9.5	0.0	2242.0	117.4	3.4
MAR	337	20.7	2.9	1.2	0.5	3.1	59	3.6	15.9	0.0	2242.0	117.4	0.0
APR	348	20.7	4.7	2.0	0.5	3.0	59	3.5	5.2	0.0	2244.0	127.4	10.0
MAY	384	23.6	4.9	2.1	2.7	3.1	94	5.8	15.7	0.0	2244.0	127.4	0.0
JUN	353	21.0	6.0	2.5	5.6	3.0	145	8.6	9.9	0.0	2244.0	127.4	0.0
JUL	330	20.3	6.8	2.6	35.6	20.3	909	55.9	0.0	0.0	2235.6	89.2	-38.2
AUG	311	19.1	7.0	2.1	29.0	19.1	782	48.1	0.0	0.0	2226.9	58.1	-31.1
SEP	294	17.5	5.3	1.3	6.6	17.5	405	24.1	0.0	0.0	2224.2	50.2	-7.9
OCT	291	17.9	3.9	1.0	0.5	3.1	59	3.6	0.0	0.0	2228.6	63.5	13.3
NOV	318	18.9	2.1	0.6	0.5	3.0	59	3.5	0.0	0.0	2232.8	78.3	14.8
DEC	307	18.9	1.2	0.4	0.5	3.1	59	3.6	0.0	0.0	2236.6	93.2	14.9
TOTAL		232.9	47.7	16.9	83.0	84.2		167.2	56.2	0.0			-7.4
					мост	DDODAI	DIE IN	EI OW (CONDITIONS				
					MOSI	IKODA	DDE IN	r LOW (CONDITION	3			
JAN	322	19.8	1.2	0.5	0.5	3.1	59	3.6	0.0	0.0	2241.8	116.3	15.7
FEB	342	19.0	1.4	0.6	0.5	2.8	59	3.3	14.0	0.0	2242.0	117.4	1.1
MAR	382	23.5	2.6	1.0	0.5	3.1	59	3.6	18.9	0.0	2242.0	117.4	0.0
APR	395	23.5	4.2	1.7	0.5	3.0	59	3.5	8.3	0.0	2244.0	127.4	10.0
MAY	436	26.8	4.3	1.8	2.3	3.1	88	5.4	19.6	0.0	2244.0	127.4	0.0
JUN	398	23.7	5.3	2.2	4.6	3.0	128	7.6	13.9	0.0	2244.0	127.4	0.0
JUL	372	22.9	6.0	2.4	27.6	22.9	821	50.5	0.0	0.0	2237.6	97.4	-30.0
AUG	351	21.6	6.2	2.0	19.5	21.6	668	41.1	0.0	0.0	2232.2	75.9	-21.5
SEP	333	19.8	4.7	1.4	5.7	19.8	429	25.5	0.0	0.0	2230.2	68.8	-7.1
OCT	330	20.3	3.4	1.0	0.5	3.1	59	3.6	0.0	0.0	2234.5	84.5	15.7
NOV	358	21.3	1.9	0.6	0.5	3.0	59	3.5	0.0	0.0	2238.6	101.7	17.2
DEC	346	21.3	1.1	0.4	0.5	3.1	59	3.6	11.0	0.0	2240.0	108.0	6.3
TOTAL		263.5	42.1	15.6	63.2	91.6		154.8	85.7	0.0			7.4
					REASON	ABLE M	AXIMU	JM INFL	OW CONDI	rions			
TAN	260	22.6	1.0	0.4	0.5	2.1	F.0	2.6	1.0	0.0	0040 0	115 4	
JAN	368	22.6	1.0	0.4	0.5	3.1	59	3.6	1.8	0.0	2242.0	117.4	16.8
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	3.8	1.6	1.9	3.1	81	5.0	24.3	0.0	2244.0	127.4	0.0
JUN	457	27.2	4.6	2.0	3.8	3.0	114	6.8	18.4	0.0	2244.0	127.4	0.0
JUL	426	26.2	5.3	2.2	16.2	26.2	690	42.4	0.0	0.0	2240.2	109.0	-18.4
AUG	402	24.7	5.4	2.0	14.2	24.7	633	38.9	0.0	0.0	2236.5	92.8	-16.2
SEP	380	22.6	4.1	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	0.4	0.5	3.1	59	3.6	20.4	0.0	2240.0	108.0	0.0
		301.7	37.0	14.6	44.4	100.8		145.2	134.5	0.0			7.4

TABLE 4 Page 4 of 16

DAVIS CREEK RESERVOIR OPERATION ESTIMATES - 2006

		LOW	EVAPOR		RELE REQUIR	REMENT	SPILL	R REQUIREMENT SHORTAGE	ELEV CONT 1000		CHANGE
MONTH	MEAN CFSAI		INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				RE	ASONARLI	E MINIMI	IM INFLOW	CONDITIONS			
JAN	0	0.0	1.2	0.1	5	0.3	0.0	0.0	2047.5	8.8	-0.4
FEB	0	0.0	1.5	0.1	5	0.3	0.0	0.0	2046.6	8.4	-0.4
MAR	0	0.0	2.8	0.1	10	0.6	0.0	0.0	2045.0	7.7	-0.7
APR	168	10.0	4.5	0.2	25	1.5	0.0	0.0	2059.6	16.0	8.3
MAY	239	14.7	4.8	0.3	78	4.8	0.0	0.0	2070.8	25.6	9.6
JUN	240	14.3	5.9	0.5	138	8.2	0.0	0.0	2076.0	31.2	5.6
JUL	205	12.6	6.4	0.6	286	17.6	0.0	0.0	2070.8	25.6	-5.6
AUG	140	8.6	4.9	0.4	268	16.5	0.0	0.0	2061.3	17.3	-8.3
SEP	10	0.6	4.2	0.2	129	7.7	0.0	0.0	2049.8	10.0	-7.3
OCT	0	0.0	3.7	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		60.8	42.9	2.8		58.4	0.0	0.0			-0.4
	MOST PROBABLE INFLOW CONDITIONS										
		_									
JAN	0	0	1.2	0	5	0.3	0.0	0.0	2047.7	8.9	-0.3
FEB	0	0	1.4	0.1	5	0.3	0.0	0.0	2046.8	8.5	-0.4
MAR	0	0	2.6	0.1	10	0.6	0.0	0.0	2045.2	7.8	-0.7
APR	131	7.8	4.1	0.2	25	1.5	0.0	0.0	2056.5	13.9	6.1
MAY	239	14.7	4.4	0.3	67	4.1	0.0	0.0	2069.4	24.2	10.3
JUN	240	14.3	5.5	0.5	114	6.8	0.0	0.0	2076.0	31.2	7
JUL	138	8.5	6.0	0.5	221	13.6	0.0	0.0	2070.8	25.6	-5.6
AUG	47	2.9	4.5	0.3	205	12.6	0.0	0.0	2059.0	15.6	-10
SEP	10	0.6	3.9	0.2	101	6	0.0	0.0	2049.8	10.0	-5.6
OCT	0	0	3.4	0.1	5	0.3	0.0	0.0	2049.0	9.6	-0.4
NOV	0	0	1.8	0.1	5	0.3	0.0	0.0	2048.3	9.2	-0.4
DEC	0	0	1.1	0	5	0.3	0.0	0.0	2047.7	8.9	-0.3
TOTAL		48.8	39.9	2.4		46.7	0.0	0.0			-0.3
				R	EASONABI	E MAXII	MUM INFLOW	CONDITIONS			
I A NI	0	0.0	1 1	0.0	-	0 -	2.2				
JAN	0	0.0	1.1	0.0	5	0.3	0.0	0.0	2047.7	8.9	-0.3
FEB	0	0.0	1.4	0.1	5	0.3	0.0	0.0	2046.8	8.5	-0.4
MAR APR	0	0.0	2.4	0.1	10	0.6	0.0	0.0	2045.2	7.8	-0.7
	96	5.7	3.9	0.2	25	1.5	0.0	0.0	2053.0	11.8	4.0
MAY	239	14.7	4.2	0.3	57	3.5	0.0	0.0	2067.7	22.7	10.9
JUN	240	14.3	5.2	0.4	91	5.4	0.0	0.0	2076.0	31.2	8.5
JUL	29	1.8	5.6	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	3.7	0.2	74	4.4	0.0	0.0	2049.8	10.0	-4.0
OCT	0	0.0	3.2	0.1	5	0.3	0.0	0.0	2049.0	9.6	-0.4
NOV	0	0.0	1.7	0.1	5	0.3	0.0	0.0	2048.3	9.2	-0.4
DEC	0	0.0	1.0	0.0	5	0.3	0.0	0.0	2047.7	8.9	-0,3

TABLE 4 Page 5 of 16

BONNY RESERVOIR OPERATION ESTIMATES - 2006

		LOW	EVAPORA		CANAL	ASE REQU	TO	ΓAL	SPILL	R REQUIREMENT SHORTAGE	END OF ELEV	MONTH	RESERVOIR 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
				ь	REASONAB	LE MININ	IUM INI	FLOW (CONDITIONS	i			
JAN	11	0.7	1.3	0.1	0.0	0.4	7	0.4	0.0	0.0	3653.2	12.5	0.2
FEB	13	0.7	1.4	0.1	0.0	0.4	7	0.4	0.0	0.0	3653.4	12.7	0.2
MAR	13	0.8	2.2	0.2	0.0	0.4	7	0.4	0.0	0.0	3653.6	12.9	0.2
APR	15	0.9	4.6	0.4	0.0	0.4	7	0.4	0.0	0.0	3653.7	13.0	0.1
MAY	15	0.9	5.9	0.5	0.4	0.4	13	0.8	0.0	0.0	3653.3	12.6	-0.4
JUN	15	0.9	7.5	0.7	0.3	0.4	12	0.7	0.0	0.0	3652.9	12.1	-0.5
JUL	8	0.5	8.5	0.7	1.0	0.4	23	1.4	0.0	0.0	3651.3	10.5	-1.6
AUG	5	0.3	7.3	0.6	0.6	0.4	16	1.0	0.0	0.0	3649.9	9.2	-1.3
SEP	3	0.2	6.1	0.4	0.3	0.4	12	0.7	0.0	0.0	3648.8	8.3	-0.9
OCT	7	0.4	3.8	0.3	0.2	0.4	10	0.6	0.0	0.0	3648.2	7.8	-0.5
NOV	10	0.6	2.5	0.2	0.0	0.4	7	0.4	0.0	0.0	3648.2	7.8	0.0
DEC	10	0.6	1.5	0.1	0.0	0.4	7	0.4	0.0	0.0	3648.3	7.9	0.1
TOTAL		7.5	52.6	4.3	2.8	4.8		7.6	0.0	0.0			-4.4
					MOST PRO	OBABLE 1	INFLOW	COND	ITIONS				
JAN	20	1.2	1.1	0.1	0.0	0.4	7	0.4	0.0	0.0	3653.7	13.0	0.7
FEB	22	1.2	1.3	0.1	0.0	0.4	7	0.4	0.0	0.0	3654.4	13.7	0.7
MAR	21	1.3	1.9	0.2	0.0	0.4	7	0.4	0.0	0.0	3655.0	14.4	0.7
APR	27	1.6	4.2	0.4	0.0	0.4	7	0.4	0.0	0.0	3655.7	15.2	0.8
MAY	29	1.8	5.3	0.5	0.1	0.4	8	0.5	0.0	0.0	3656.3	16.0	0.8
JUN	27	1.6	6.7	0.7	0.3	0.4	12	0.7	0.0	0.0	3656.5	16.2	0.2
JUL	15	0.9	7.6	0.8	0.7	0.4	18	1.1	0.0	0.0	3655.7	15.2	-1.0
AUG	8	0.5	6.6	0.6	0.6	0.4	16	1.0	0.0	0.0	3654.7	14.1	-1.1
SEP	5	0.3	5.5	0.5	0.3	0.4	12	0.7	0.0	0.0	3653.9	13.2	-0.9
OCT	10	0.6	3.4	0.3	0.1	0.4	8	0.5	0.0	0.0	3653.7	13.0	-0.2
NOV	17	1.0	2.2	0.2	0.0	0.4	7	0.4	0.0	0.0	3654.1	13.4	0.4
DEC	18	1.1	1.3	0.1	0.0	0.4	7	0.4	0.0	0.0	3654.6	14.0	0.6
1 TOTAL		13.1	47.2	4.5	2.1	4.8		6.9	0.0	0.0			1.7
					REASONAE	BLE MAX	IMUM II	NFLOW	CONDITION	ïs			
JAN	31	1.9	1.0	0.1	0.0	0.4	7	0.4	0.0	0.0	3654.4	13.7	1.4
FEB	32	1.8	1.1	0.1	0.0	0.4	7	0.4	0.0	0.0	3655.5	15.0	1.3
MAR	34	2.1	1.7	0.2	0.0	0.4	7	0.4	0.0	0.0	3656.7	16.5	1.5
APR	40	2.4	3.7	0.4	0.0	0.4	7	0.4	0.0	0.0	3658.0	18.1	1.6
MAY	42	2.6	4.8	0.5	0.2	0.4	10	0.6	0.0	0.0	3659.1	19.6	1.5
JUN	39	2.3	6.0	0.7	0.2	0.4	10	0.6	0.0	0.0	3659.8	20.6	1.0
JUL	21	1.3	6.8	0.8	0.4	0.4	13	0.8	0.0	0.0	3659.6	20.3	-0.3
AUG	13	0.8	5.9	0.7	0.4	0.4	13	0.8	0.0	0.0	3659.1	19.6	-0.7
SEP	8	0.5	4.9	0.5	0.2	0.4	10	0.6	0.0	0.0	3658.7	19.0	-0.6
OCT	16	1.0	3.1	0.3	0.2	0.4	10	0.6	0.0	0.0	3658.7	19.1	0.1
NOV	27	1.6	2.0	0.2	0.0	0.4	7	0.4	0.0	0.0	3659.5	20.1	1.0
DEC	28	1.7	1.2	0.1	0.0	0.4	7	0.4	0.0	0.0	3660.3	21.3	1.2
TOTAL		20.0	42.2	4.6	1.6	4.8		6.4	0.0	0.0			9.0

TABLE 4 Page 6 of 16

ENDERS RESERVOIR OPERATION ESTIMATES - 2006

	INF	LOW	EVAPOR/	ATION	RELE REQUIR		SPILL	REQUIREMENT SHORTAGE	END O	F MONTH CONT	CHANGE
MONTH	MEAN CFSA		INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				REAS	ONABLE M	IINIMUM	I INFLOW CO	NDITIONS			
JAN	10	0.6	1.0	0.1	3	0.2	0.0	0.0	3086.7	11.9	0.3
FEB	9	0.5	1.1	0.1	4	0.2	0.0	0.0	3087.0	12.1	0.2
MAR	10	0.6	1.9	0.1	3	0.2	0.0	0.0	3087.4	12.4	0.3
APR	10	0.6	4.1	0.3	3	0.2	0.0	0.0	3087.5	12.5	0.1
MAY	10	0.6	5.3	0.3	3	0.2	0.0	0.0	3087.6	12.6	0.1
JUN	10	0.6	6.7	0.4	234	13.9	0.0	10.0	3082.3	8.9	-3.7
JUL	11	0.7	7.3	0.4	533	32.8	0.0	32.5	3082.3	8.9	0.0
AUG	10	0.6	6.1	0.3	540	33.2	0.0	32.9	3082.3	8.9	0.0
SEP						4.3	0.0	3.9	3082.3	8.9	0.0
OCT	10 10	0.6 0.6	4.5	0.2 0.2	72	0.2	0.0	0.0	3082.5	9.1	0.0
NOV	10	0.6	2.9 2.1	0.2	3		0.0	0.0		9.1 9.4	0.3
					3	0.2			3083.1		0.3
DEC	10	0.6	1.2	0.1	3	0.2	0.0	0.0	3083.6	9.7	0.3
TOTAL		7.2	44.0	2.6		85.8	0.0	79.3			-1.9
				IV	IOST PROE	BABLE IN	IFLOW COND	ITIONS			
JAN	23	1.4	0.9	0.1	3	0.2	0.0	0.0	3087.8	12.7	1.1
FEB	22	1.2	1.0	0.1	4	0.2	0.0	0.0	3088.9	13.6	0.9
MAR	21	1.3	1.7	0.1	3	0.2	0.0	0.0	3090.1	14.6	1.0
APR	22	1.3	3.9	0.3	3	0.2	0.0	0.0	3091.0	15.4	0.8
MAY	24	1.5	4.9	0.4	3	0.2	0.0	0.0	3092.0	16.3	0.9
JUN	24	1.4	6.2	0.4	116	6.9	0.0	0.0	3084.6	10.4	-5.9
JUL	26	1.6	6.8	0.4	483	29.7	0.0	27.0	3082.3	8.9	-1.5
AUG	23	1.4	5.7	0.3	384	23.6	0.0	22.5	3082.3	8.9	0.0
SEP	20	1.2	4.2	0.2	37	2.2	0.0	1.2	3082.3	8.9	0.0
OCT	21	1.3	2.7	0.1	3	0.2	0.0	0.0	3083.9	9.9	1.0
NOV	22	1.3	2.0	0.1	3	0.2	0.0	0.0	3085.3	10.9	1.0
DEC	21	1.3	1.1	0.1	3	0.2	0.0	0.0	3086.7	11.9	1.0
TOTAL		16.2	41.0	2.6		64.0	0.0	50.7			0.3
					ONABLE M		I INFLOW CO	NDITIONS			
JAN	36	2.2	0.8	0.1	3	0.2	0.0	0.0	3088.8	13.5	1.9
FEB	34	1.9	0.9	0.1	4	0.2	0.0	0.0	3090.7	15.1	1.6
MAR	34	2.1	1.6	0.1	3	0.2	0.0	0.0	3092.6	16.9	1.8
APR	35	2.1	3.5	0.3	3	0.2	0.0	0.0	3094.3	18.5	1.6
MAY	36	2.2	4.4	0.4	3	0.2	0.0	0.0	3095.8	20.1	1.6
JUN	35	2.1	5.6	0.5	37	2.2	0.0	0.0	3095.2	19.5	-0.6
JUL	41	2.5	6.1	0.4	296	18.2	0.0	5.5	3082.3	8.9	-10.6
AUG	37	2.3	5.1	0.3	226	13.9	0.0	11.9	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
		25.6									

TABLE 4 Page 7 of 16

SWANSON LAKE OPERATION ESTIMATES- 2006

	INFL		EVAPOR.		CANAL	RIVER		TAL	SPILL	REQUIREMENT SHORTAGE	END OF ELEV	MONTH CONT	RESERVOI 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
					REAS	ONABLE	MINIMU	M INFL	OW CONDITIO	ns			
JAN	24	1.5	1.0	0.2	0.0	0.1	2	0.1	0.0	0.0	2731.8	36.3	1.2
FEB	40	2.2	1.1	0.2	0.0	0.1	2	0.1	0.0	0.0	2732.5	38.2	1.9
MAR	44	2.7	1.9	0.4	0.0	0.1	2	0.1	0.0	0.0	2733.3	40.4	2.2
APR	47	2.8	4.3	1.0	0.0	0.1	2	0.1	0.0	0.0	2733.9	42.1	1.7
MAY	44	2.7	5.1	1.2	0.1	0.1	3	0.2	0.0	0.0	2734.4	43.4	1.3
JUN	35	2.1	6.6	1.6	4.3	1.0	89	5.3	0.0	0.0	2732.7	38.6	-4.8
JUL	20	1.2	7.6	1.5	16.0	2.7	304	18.7	0.0	1.3	2725.0	20.9	-17.7
AUG	10	0.6	6.6	1.1	13.4	6.3	320	19.7	0.0	19.6	2724.7	20.3	-0.6
SEP	5	0.3	5.1	0.8	2.0	2.1	69	4.1	0.0	4.0	2724.4	19.7	-0.6
OCT	8	0.5	3.1	0.5	0.0	0,1	2	0.1	0.0	0.0	2724.3	19.6	-0.1
NOV	18	1.1	2.2	0.4	0.0	0.1	2	0.1	0.0	0.0	2724.7	20.2	0.6
DEC	20	1.2	1.2	0.2	0.0	0.1	2	0.1	0.0	0.0	2725.1	21.1	0.9
TOTAL		18.9	45.8	9.1	35.8	12.9		48.7	0.0	24.9			-14.0
					м	OST PRO	BABLE I	NFLOW	CONDITIONS				
JAN	59	3.6	0.9	0.2	0.0	0.1	2	0.1	0.0	0.0	2732.6	38.4	3.3
FEB	92	5.1	1.0	0.2	0.0	0.1	2	0.1	0.0	0.0	2734.3	43.2	4.8
MAR	102	6.3	1.7	0.4	0.0	0.1	2	0.1	0.0	0.0	2736.2	49.0	5.8
APR	111	6.6	4.0	1.1	0.0	0.1	2	0.1	0.0	0.0	2737.9	54.4	5.4
MAY	101	6.2	4.7	1.3	0.1	0.1	3	0.2	0.0	0.0	2739.3	59.1	4.7
JUN	81	4.8	6.1	1.7	3.8	0.1	66	3.9	0.0	0.0	2739.0	58.3	-0.8
JUL	44	2.7	7.0	1.9	13.9	4.2	294	18.1	0.0	0.0	2733.6	41.0	-17.3
AUG	24	1.5	6.1	1.2	11.5	4.1	254	15.6	0.0	0.0	2727.3	25.7	-17.3
SEP	12	0.7	4.7	0.8	1.7	0.1	30	1.8	0.0	0.0	2726.4	23.8	-1.9
OCT	18	1.1	2.8	0.5	0.0	0.1	2	0.1	0.0	0.0	2726.7	24.3	0.5
NOV	44	2.6	2.0	0.4	0.0	0.1	2	0.1	0.0	0.0	2727.7	26.4	2.1
DEC	47	2.9	1.1	0.2	0.0	0.1	2	0.1	0.0	0.0	2728.8	29.0	2.6
ГОТАL		44.1	42.1	9.9	31.0	9.3		40.3	0.0	0.0			-6.1
					REASO	ONABLE :	MAXIMU	M INFI	OW CONDITIO	ons			
JAN	101	6.2	0.8	0.2	0.0	0.1	2	0.1	0.0				
FEB	157			0.2	0.0	0.1	2	0.1	0.0	0.0	2733.6	41.0	5.9
MAR	176	8.7	0,9	0.2	0.0	0.1	2	0.1	0.0	0.0	2736.3	49.4	8.4
APR	176	10.8 11.5	1.6 3.7	0.4 1.1	0.0	0.1	2	0.1	0.0	0.0	2739.4	59.7	10.3
MAY	174	10.7	4.3		0.0	0.1	2	0.1	0.0	0.0	2742.3	70.0	10.3
JUN	139			1.4	0.1	0.1	3	0.2	0.0	0.0	2744.6	79.1	9.1
JUL	75	8.3	5.6	1.9	3.0	0.1	52	3.1	0.0	0.0	2745.4	82.4	3.3
AUG	75 41	4.6	6.5	2.2	11.4	1.2	205	12.6	0.0	0.0	2742.9	72.2	-10.2
SEP	20	2.5	5.6	1.7	9.4	1.8	182	11.2	0.0	0.0	2740.1	61.8	-10.4
OCT	29	1.2	4.3	1.3	1.4	0.1	25	1.5	0.0	0.0	2739.6	60.2	-1.6
NOV		1.8	2.6	0.8	0.0	0.1	2	0.1	0.0	0.0	2739.9	61.1	0.9
	74	4.4	1.9	0.6	0.0	0.1	2	0.1	0.0	0.0	2740.9	64.8	3.7
DEC	81	5.0	1.0	0.3	0.0	0.1	2	0.1	0.0	0.0	2742.1	69.4	4.6
OTAL		75.7	38.7	12.1	25.3	4.0		29.3	0.0	0.0			34.3

TABLE 4 Page 8 of 16

HUGH BUTLER LAKE OPERATION ESTIMATES - 2006

	INFLOW MEAN 1000		EVAPOR	ATION 1000	RELE REQUIR MEAN		RESERVOIR SPILL 1000	REQUIREMENT SHORTAGE 1000	END O	F MONTH CONT 1000	RESERVOI CHANGE 1000
MONTH	CFS	AF	INCHES	AF	CFS	AF	AF	AF	FT	AF	AF
				R	EASONABL	E MINIM	IUM INFLOW (CONDITIONS			
JAN	11	0.7	0.9	0.1	5	0.3	0.0	0.0	2570.5	20.5	0.3
FEB	16	0.9	1.0	0.1	5	0.3	0.0	0.0	2570.9	21.0	0.5
MAR	18	1.1	1.8	0.2	5	0.3	0.0	0.0	2571.5	21.6	0.6
APR	18	1.1	4.9	0.5	5	0.3	0.0	0.0	2571.7	21.9	0.3
MAY	20	1.2	5.8	0.6	5	0.3	0.0	0.0	2572.0	22.2	0.3
JUN	18	1.1	7.2	0.7	32	1.9	0.0	0.0	2570.7	20.7	-1.5
JUL	16	1.0	8.0	0.7	161	9.9	0.0	0.1	2561.0	11.2	
AUG	15	0.9	7.1	0.7	67						-9.5
SEP	10					4.1	0.0	3.7	2561.0	11.2	0.0
		0.6	5.4	0.4	17	1.0	0.0	0.8	2561.0	11.2	0.0
OCT	11	0.7	3.5	0.2	5	0.3	0.0	0.0	2561.2	11.4	0.2
NOV	12	0.7	2.1	0.1	5	0.3	0.0	0.0	2561.6	11.7	0.3
DEC	11	0.7	1.1	0.1	5	0.3	0.0	0.0	2561.9	12.0	0.3
TOTAL		10.7	48.7	4.2		19.3	0.0	4.6			-8.2
					MOST PR	OBABLE	INFLOW CON	IDITIONS			
JAN	18	1.1	0.8	0.1	5	0.3	0.0	0.0	2570.9	20.9	0.7
FEB	22	1.2	0.9	0.1	5	0.3	0.0	0.0	2571.5	21.7	0.8
MAR	26	1.6	1.6	0.2	5	0.3	0.0	0.0	2572.4	22.8	1.1
APR	27	1.6	4.4	0.5	5	0.3	0.0	0.0	2573.1	23.6	0.8
MAY	28	1.7	5.3	0.6	5	0.3	0.0	0.0	2573.7	24.4	0.8
JUN	27	1.6	6.5	0.7	25	1.5	0.0	0.0	2573.2	23.8	-0.6
JUL	21	1.3	7.2	0.7	67	4.1	0.0	0.0	2570.3	20.3	-3.5
AUG	21	1.3	6.4	0.6	55	3.4	0.0	0.0	2567.9	17.6	-2.7
SEP	15	0.9	4.9	0.4	15	0.9	0.0	0.0	2567.5	17.2	-0.4
OCT	15	0.9	3.1	0.3	5	0.3	0.0	0.0	2567.8	17.5	0.3
NOV	18	1.1	1.9	0.2	5	0.3	0.0	0.0			
DEC	16	1.0	1.0	0.1	5	0.3	0.0	0.0	2568.4 2568.9	18.1 18.7	0.6 0.6
TOTAL		15.3	44.1	4.5		12.3	0.0	0.0			-1.5
				RE	ASONABLE	E MAXIM	IUM INFLOW (CONDITIONS			
TANI	0.0		. =								
JAN	23	1.4	0.7	0.1	5	0.3	0.0	0.0	2571.1	21.2	1.0
FEB	29	1.6	0.8	0.1	5	0.3	0.0	0.0	2572.1	22.4	1.2
MAR	34	2.1	1.5	0.2	5	0.3	0.0	0.0	2573.4	24.0	1.6
APR	34	2.0	4.0	0.4	5	0.3	0.0	0.0	2574.4	25.3	1.3
MAY	36	2.2	4.8	0.5	5	0.3	0.0	0.0	2575.4	26.7	1.4
JUN	37	2.2	5.9	0.7	20	1.2	0.0	0.0	2575.7	27.0	0.3
JUL	28	1.7	6.6	0.7	50	3.1	0.0	0.0	2574.1	24.9	-2.1
AUG	29	1.8	5.8	0.6	41	2.5	0.0	0.0	2573.1	23.6	-1.3
SEP	18	1.1	4.5	0.5	10	0.6	0.0	0.0	2573.1	23.6	0.0
OCT	21	1.3	2.8	0.3	5	0.3	0.0	0.0	2573.6	24.3	0.7
NOV	24	1.4	1.8	0.2	5	0.3	0.0	0.0	2574.3	25.2	0.7
DEC	23	1.4	0.9	0.1	5	0.3	0.0	0.0	2575.1	26.2	1.0

TABLE 4Page 9 of 16

HARRY STRUNK LAKE OPERATON ESTIMATES - 2006

		LOW	EVAPORA		RELE REQUIR	EMENT	SPILL	REQUIREMENT SHORTAGE	END OI ELEV	F MONTH CONT	CHANGE
MONTH	MEAN CFS	N 1000 AF	INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				R	EASONABL	E MINIM	IUM INFLOW	CONDITIONS			
JAN	37	2.3	0.9	0.1	2	0.1	0.0	0.0	2362.0	28.9	2.1
FEB	47	2.6	1.0	0.1	2	0.1	0.0	0.0	2363.5	31.3	2.4
MAR	49	3.0	1.8	0.2	2	0.1	0.0	0.0	2365.2	34.0	2.7
APR	49	2.9	4.9	0.7	2	0.1	0.4	0.0	2366.1	35.7	1.7
MAY	52	3.2	5.7	0.9	2	0.1	2.2	0.0	2366.1	35.7	0.0
JUN	54	3.2	7.2	1.1	87	5.2	0.0	0.0	2364.3	32.6	-3.1
JUL	50	3.1	8.1	0.9	311	19.1	0.0	0.0	2351.3	15.7	-16.9
AUG	39	2.4	7.0	0.5	262	16.1	0.0	7.4	2343.0	8.9	-6.8
SEP	27	1.6	5.4	0.3	27	1.6	0.0	0.3	2343.0	8.9	0.0
OCT	33	2.0	3.5	0.2	2	0.1	0.0	0.0	2345.4	10.6	1.7
NOV	35	2.1	2.1	0.2	2	0.1	0.0	0.0	2347.7	12.5	1.7
DEC	34	2.1	1.1	0.1	2	0.1	0.0	0.0	2349.9	14.4	1.9
DLC	54	۵,1	1.1	0.1	2	0.1	0.0	0.0	<i>∠J</i> +7.7	14.4	1.7
TOTAL		30.5	48.6	5.2		42.8	2.6	7.7			-12.4
					MOST P	ROBABL	E INFLOW CO	ONDITIONS			
JAN	42	2.6	0.8	0.1	2	0.1	0.0	0.0	2362.2	29.2	2.4
FEB	54	3.0	0.8	0.1	2	0.1	0.0	0.0			
MAR		3.5							2364.0	32.0	2.8
APR	57 55		1.6	0.2	2	0.1	0.4	0.0	2365.6	34.8	2.8
		3.3	4.4	0.7	2	0.1	1.6	0.0	2366.1	35.7	0.9
MAY	60	3.7	5.2	0.8	2	0.1	2.8	0.0	2366.1	35.7	0.0
JUN	62	3.7	6.6	1.0	72	4.3	0.0	0.0	2365.2	34.1	-1.6
JUL	59	3.6	7.4	0.9	259	15.9	0.0	0.0	2356.1	20.9	-13.2
AUG	46	2.8	6.4	0.5	220	13.5	0.0	0.0	2344.1	9.7	-11.2
SEP	30	1.8	4.9	0.3	20	1.2	0.0	0.0	2344.6	10.0	0.3
OCT	37	2.3	3.2	0.2	2	0.1	0.0	0.0	2347.1	12.0	2.0
NOV	42	2.5	1.9	0.1	2	0.1	0.0	0.0	2349.8	14.3	2.3
DEC	39	2.4	1.0	0.1	2	0.1	0.0	0.0	2352.1	16.5	2.2
TOTAL		35.2	44.4	5.0		35.7	4.8	0.0			-10.3
				R	EASONABL	E MAXII	MUM INFLOW	CONDITIONS			
IAN	50	2.6	0.7	0.1	2	0.4	0.0	0.7			
JAN FEB	59	3.6	0.7	0.1	2	0.1	0.0	0.0	2362.9	30.2	3.4
	76 80	4.2	0.8	0.1	2	0.1	0.0	0.0	2365.3	34.2	4.0
MAR	80	4.9	1.4	0.2	2	0.1	4.0	0.0	2365.6	34.8	0.6
APR	79	4.7	4.0	0.6	2	0.1	3.1	0.0	2366.1	35.7	0.9
MAY	85	5.2	4.7	0.7	2	0.1	4.4	0.0	2366.1	35.7	0.0
JUN	86	5.1	5.9	0.9	45	2.7	1.5	0.0	2366.1	35.7	0.0
JUL	80	4.9	6.7	0.9	177	10.9	0.0	0.0	2362.0	28.8	-6.9
AUG	63	3.9	5.8	0.7	150	9.2	0.0	0.0	2357.6	22.8	-6.0
SEP	42	2.5	4.4	0.5	2	0.1	0.0	0.0	2359.1	24.7	1.9
OCT	52	3.2	2.9	0.3	2	0.1	0.0	0.0	2361.1	27.5	2.8
NOV	57	3.4	1.7	0.2	2	0.1	0.0	0.0	2363.1	30.6	3.1
DEC	55	3.4	0.9	0.1	2	0.1	0.0	0.0	2365.1	33.8	3,2
		49.0	40.0	5.3							

TABLE 4 Page 10 of 16

KEITH SEBELIUS LAKE OPERATION ESTIMATES - 2006

	INF	LOW	EVAPORA	ATION	RELI REQUIR	EASE EMENT	RESERVOIR SPILL	R REQUIREMENT SHORTAGE	END O	F MONTH CONT	RESERVOII CHANGE
MONTH	MEAN CFSAI		INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				REAS	ONABLE M	IINIMUM	INFLOW CO	NDITIONS			
JAN	2	0.1	0.9	0.1	2	0.1	0.0	0.0	2286.3	8.2	-0.1
FEB	4	0.2	1.1	0.1	2	0.1	0.0	0.0	2286.3	8.2	0.0
MAR	5	0.3	1.9	0.1	2	0.1	0.0	0.0	2286.4	8.3	0.1
APR	7	0.4	5.3	0.4	2	0.1	0.0	0.0	2286.3	8.2	-0.1
MAY	10	0.6	6.0	0.4	7	0.4	0.0	0.3	2286.4	8.3	0.1
JUN	12	0.7	7.5	0.5	77	4.6	0.0	4.5	2286.5	8.4	0.1
JUL	8	0.5	8.6	0.4	146	9.0	0.0	8.9	2286.5	8.4	0.0
AUG	8	0.5	7.6	0.4	146	9.0	0.0	8.9	2286.5	8.4	0.0
SEP	3	0.2	5.9	0.4	27	1.6	0.0	1.5	2286.3	8.2	-0.2
OCT	2	0.2	4.0	0.3	2	0.1	0.0	0.0	2286.0	8.0	-0.2
NOV	2	0.1	2.2		2	0.1				8.0 7.9	
	2			0.1			0.0	0.0	2285.9		-0.1
DEC	2	0.1	1.1	0.1	2	0.1	0.0	0.0	2285.8	7.8	-0.1
TOTAL		3.8	52.1	3.1		25.3	0.0	24.1			-0.5
				M	OST PROB	ABLE IN	FLOW COND	TIONS			
	_				_						
JAN	5	0.3	0.8	0.1	2	0.1	0.0	0.0	2286.5	8.4	0.1
FEB	7	0.4	1.0	0.1	2	0.1	0.0	0.0	2286.8	8.6	0.2
MAR	11	0.7	1.7	0.1	2	0.1	0.0	0.0	2287.4	9.1	0.5
APR	12	0.7	4.7	0.3	2	0.1	0.0	0.0	2287.7	9.4	0.3
MAY	18	1.1	5.4	0.4	3	0.2	0.0	0.1	2288.2	10.0	0.6
JUN	24	1.4	6.7	0.5	47	2.8	0.0	2.7	2289.2	10.8	0.8
JUL	16	1.0	7.7	0.5	138	8.5	0.0	8.4	2289.6	11.2	0.4
AUG	15	0.9	6.7	0.3	112	6.9	0.0	6.8	2290.0	11.7	0.5
SEP	7	0.4	5.3	0.3	22	1.3	0.0	1.2	2290.0	11.7	0.0
OCT	3	0.2	3.5	0.2	2	0.1	0.0	0.0	2290.0	11.6	-0.1
NOV	5	0.3	2.0	0.1	2	0.1	0.0	0.0	2290.0	11.7	0.1
DEC	3	0.2	1.0	0.0	2	0.1	0.0	0.0	2290.1	11.8	0.1
TOTAL		7.6	46.5	2.9		20.4	0.0	19.2			3.5
				REAS	ONABLE M	AXIMUM	I INFLOW CO	NDITIONS			
JAN	10	0.6	0.8	0.1	2	0.1	0.0	0.0	2286.9	8.7	0.4
FEB	14	0.8	0.9	0.1	2	0.1	0.0	0.0	2287.6	9.3	0.6
MAR	23	1.4	1.5	0.1	2	0.1	0.0	0.0	2288.8	10.5	1.2
APR	25	1.5	4.2	0.4	2	0.1	0.0	0.0	2289.9	11.5	1.0
MAY	39	2.4	4.8	0.5	3	0.2	0.0	0.0	2291.4	13.2	1.7
JUN	50	3.0	6.1	0.6	34	2.0	0.0	0.0	2291.7	13.6	0.4
JUL	36	2.2	6.9	0.6	94	5.8	0.0	0.3	2288.0	9.7	-3.9
AUG	33	2.0	6.1	0.4	75	4.6	0.0	3.0	2288.0	9.7	0.0
SEP	15	0.9	4.8	0.3	15	0.9	0.0	0.3	2288.0	9.7	0.0
OCT	7	0.4	3.2	0.2	2	0.1	0.0	0.0	2288.2	9.8	0.1
NOV	10	0.6	1.8	0.1	2	0.1	0.0	0.0	2288.6	10.2	0.4
DEC	8	0.5	0.9	0.1	2	0.1	0.0	0.0	2288.9	10.5	0.3

TABLE 4 Page 11 of 16

HARLAN COUNTY LAKE OPERATION ESTIMATES - 2006

INFL ME AN			EVAPOR		REQUIF	EASE REMENT	SPILL	R REQUIREMENT SHORTAGE	END O ELEV	F MONTH CONT	RESERVOII CHANGE
MONTH	MEAI CFSA	N 1000 F	INCHES	1000 AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				RE.	ASONABLE	E MINIMU	JM INFLOW C	CONDITIONS			
JAN	46	2.8	0.9	0.6	0	0.0	0.0	0.0	1928.6	130.3	2.2
FEB	72	4.0	0.9	0.6	0	0.0	0.0	0.0	1929.0	133.7	3.4
MAR	96	5.9	1.7	1.1	0	0.0	0.0	0.0	1929.6	138.5	4.8
APR	82	4.9	4.3	3.0	0	0.0	0.0	0.0	1929.8	140.4	1.9
MAY	104	6.4	5.3	3.7	0	0.0	0.0	0.0	1930.1	143.1	2.7
JUN	87	5.2	6.5	4.4	250	14.9	0.0	0.0	1928.4	129.0	-14.1
JUL	88	5.4	7.3	4.8	758	46.6	0.0	44.4	1928.2	127.4	-1.6
AUG	72	4.4	6.3	4.1	610	37.5	0.0	37.2	1928.2	127.4	0.0
SEP	35	2.1	5.0	3.3	61	3.6	0.0	3.6	1928.1	126.2	-1.2
OCT	33	2.0	3.3	2.1	0	0.0	0.0	0.0	1928.1	126.1	-0.1
NOV	44	2.6	2.0	1.3	0	0.0	0.0	0.0	1928.2	127.4	1.3
DEC	44	2.7	1.3	0.8	0	0.0	0.0	0.0	1928.4	129.3	1.9
TOTAL		48.4	44.7	29.8		102.6	0.0	85.2			1.2
		10.1				102.0	0.0	03.2			1.2
					MOST PRO	OBABLE I	NFLOW CON	DITIONS			
JAN	120	7.4	0.8	0.6	0	0.0	0.0	0.0	1929.1	134.9	6.8
FEB	189	10.5	0.8	0.6	0	0.0	0.0	0.0	1930.3	144.8	9.9
MAR	254	15.6	1.5	1.1	0	0.0	0.0	0.0	1932.0	159.3	14.5
APR	218	13.0	3.9	3.0	0	0.0	0.0	0.0	1933.0	169.3	10.0
MAY	276	17.0	4.8	3.8	0	0.0	0.0	0.0	1934.4	182.5	13.2
JUN	232	13.8	5.8	4.8	71	4.2	0.0	0.0	1934.9	187.3	4.8
JUL	233	14.3	6.6	5.3	581	35.7	0.0	0.0	1932.1	160.6	-26.7
AUG	187	11.5	5.7	4.2	594	36.5	0.0	14.8	1930.5	146.2	-14.4
SEP	92	5.5	4.6	3.3	37	2.2	0.0	0.0	1930.5	146.2	0.0
OCT	88	5.4	3.0	2.2	0	0.0	0.0	0.0	1930.9	149.4	3.2
NOV	116	6.9	1.8	1.3	0	0.0	0.0	0.0	1931.5	155.0	5.6
DEC	114	7.0	1.1	0.9	0	0.0	0.0	0.0	1932.2	161.1	6.1
TOTAL		127.9	40.2	31.1		78.6	0.0	14.8			33.0
				REA	ASONABLE	MAXIMU	JM INFLOW C	CONDITIONS			
JAN	260	16.0	0.7	0.5	0	0.0	0.0	0.0	1930.2	143.6	15.5
FEB	407	22.6	0.7	0.5	0	0.0	0.0	0.0	1930.2	165.7	22.1
MAR	546	33.6	1.3	1.1	0	0.0	0.0	0.0	1932.7	198.2	32.5
APR	472	28.1	3.5	3.1	0	0.0	0.0	0.0	1938.3	223.2	32.5 25.0
MAY	594	36.5	4.2	4.1	0	0.0	0.0	0.0	1936.3	255.6	32.4
JUN	494	29.4	5.2	5.3	39	2.3	0.0	0.0	1941.1	277.4	21.8
JUL	501	30.8	5.8	6.1	161	9.9	0.0	0.0	1942.9	292.2	14.8
AUG	403	24.8	5.0	5.3	161	9.9	0.0	0.0	1944.8	301.8	
SEP	198	11.8	4.0	4.4	20	1.2	0.0	0.0	1944.8	301.8	9.6
OCT	189	11.6	2.6	2.9	0	0.0	0.0	0.0			6.2
NOV	250	14.9	1.6	1.7	0	0.0	12.2		1945.9	316.7	8.7
DEC	246	15.1	1.0	1.1	0	0.0	14.0	0.0	1946.0 1946.0	317.7 317.7	1.0 0.0
ГОТАL		275.2	35.6	36.1		23.3	26.2	0.0			189.6

TABLE 4 Page 12 of 16

LOVEWELL RESERVOIR OPERATION ESTIMATES - 2006

	WHITE ROCK CREEK INFLOW	COURTLAND CANAL INFLOW	TO	TAL LOW	FV∆D∩D	ATION	RELI REQUIRI	EASE	RES SPILL	REQ SHORT	END OI	F MONTH CONT	RESERVOIF CHANGE
	1000	1000	MEAN		EVIII ON	1000	MEAN	1000	1000	1000	LLL V	1000	1000
MONTH	AF	AF	CFS	AF	INCHES	AF	CFS	AF	AF	AF	FT	AF	AF
				REA	SONABLE	MININ	IUM INFL	ow cor	NDITIONS	5			
JAN	0.4	2.2	42	2.6	0.8	0.2	0	0.0	0.0	0.0	1579.9	28.2	2.4
FEB	0.6	2.5	56	3.1	1.0	0.2	0	0.0	0.0	0.0	1581.0	31.1	2.9
MAR	1.5	3.3	78	4.8	1.8	0.4	0	0.0	0.0	0.0	1582.5	35.5	4.4
APR	1.4	2.3	62	3.7	3.7	0.9	0	0.0	0.0	0.0	1583.5	38.3	2.8
MAY	1.7	2.5	68	4.2	4.7	1.3	16	1.0	0.0	0.0	1584.1	40.2	1.9
JUN	1.8	0.0	30	1.8	6.0	1.5	188	11.2	0.0	0.0	1580.3	29.3	-10.9
JUL	1.2	0.0	20	1.2	6.7	1.2	566	34.8	0.0	17.1	1571.7	11.6	-17.7
AUG	0.1	0.0	2	0.1	5.4	0.7	389	23.9	0.0	23.9	1571.3	11.0	-0.6
SEP	1.0	0.0	17	1.0	4.1	0.5	52	3.1	0.0	3.2	1571.7	11.6	0.6
OCT	0.7	1.9	42	2.6	2.8	0.4	0	0.0	0.0	0.0	1573.1	13.8	2.2
NOV	0.6	2.5	52	3.1	2.1	0.3	0	0.0	0.0	0.0	1574.7	16.6	2.8
DEC	0.4	2.6	49	3.0	1.0	0.2	0	0.0	0.0	0.0	1576.1	19.4	2.8
TOTAL	11.4	19.8		31.2	40.2	7.8		74.0	0.0	44.2			-6.4
					MOST PR	OBABI	LE INFLO	w cond	ITIONS				
JAN	1	3.8	78	4.8	0.7	0.1	0	0.0	0.0	0.0	1580.8	30.5	4.7
FEB	1.5	3.4	88	4.9	0.8	0.2	0	0.0	0.0	0.0	1582.4	35.2	4.7
MAR	3.4	0.0	55	3.4	1.5	0.4	0	0.0	0.0	0.0	1583.4	38.2	3.0
APR	3	0.0	50	3.0	3.1	0.8	0	0.0	0.0	0.0	1584.1	40.4	2.2
MAY	3.8	0.0	62	3.8	4.0	1.1	15	0.9	1.6	0.0	1584.2	40.6	0.2
JUN	4.1	1.2	89	5.3	5.0	1.3	155	9.2	0.0	0.0	1582.5	35.4	-5.2
JUL	2.8	3.6	104	6.4	5.6	1.1	472	29.0	0.0	0.0	1571.7	11.7	-23.7
AUG	0.3	11.1	185	11.4	4.6	0.6	324	19.9	0.0	9.0	1571.7	11.6	-0.1
SEP	2.2	0.6	47	2.8	3.4	0.4	44	2.6	0.0	0.2	1571.7	11.6	0.0
OCT	1.5	4.7	101	6.2	2.3	0.3	0	0.0	0.0	0.0	1575.2	17.5	5.9
NOV	1.3	4.1	91	5.4	1.8	0.3	0	0.0	0.0	0.0	1577.6	22.6	5.1
DEC	0.9	4.6	89	5.5	0.8	0.2	0	0.0	0.0	0.0	1579.8	27.9	5.3
TOTAL	25.8	37.1		62.9	33.8	6.8		61.6	1.6	9.2			2.1
				RE/	ASONABLE	MAYI	MIIM INE	TOW CO	NDITION	ıs			
				KL2	ISOMIDEE	, 19171211		2011 00	мотто				
JAN	2.9	0.0	47	2.9	0.6	0.1	0	0.0	0.0	0.0	1580.1	28.6	2.8
FEB	4.4	0.0	79	4.4	0.7	0.2	0	0.0	0.0	0.0	1581.6	32.8	4.2
MAR	9.9	0.0	161	9.9	1.3	0.3	0	0.0	4.2	0.0	1583.4	38.2	5.4
APR	9	0.0	151	9.0	2.7	0.7	0	0.0	5.9	0.0	1584.2	40.6	2.4
MAY	11.3	0.0	184	11.3	3.4	0.9	8	0.5	9.9	0.0	1584.2	40.6	0.0
JUN	12.3	1.2	227	13.5	4.3	1.1	87	5.2	7.2	0.0	1584.2	40.6	0.0
JUL	8.3	1.2	155	9.5	4.8	1.2	265	16.3	0.0	0.0	1581.5	32.6	-8.0
AUG	1	1.2	36	2.2	3.9	0.8	179	11.0	0.0	0.0	1577.8	23.0	-9.6
SEP	6.6	0.6	121	7.2	2.9	0.6	24	1.4	0.0	0.0	1579.9	28.2	5.2
OCT	4.4	0.0	72	4.4	2.0	0.4	0	0.0	2.2	0.0	1580.6	30.0	1.8
NOV	3.8	0.0	64	3.8	1.5	0.3	0	0.0	3.5	0.0	1580.6	30.0	0.0
DEC	2.6	0.0	42	2.6	0.7	0.2	0	0,0	2.4	0.0	1580.6	30.0	0.0
TOTAL	76.5	4.2		80.7	28.8	6.8		34.4	35.3	0.0			4.2

TABLE 4Page 13 of 16

KIRWIN RESERVOIR OPERATION ESTIMATES - 2006

	INFLOW MEAN 1000		EVAPORA		RELE REQUIR MEAN	EMENT	SPILL	REQUIREMENT SHORTAGE	END O ELEV	F MONTH CONT	CHANGE	
MONTH CFSAI			INCHES	INCHES AF		1000 AF	1000 1000 AF AF		1000 FT AF		1000 AF	
				RE	ASONABL	E MINIM	UM INFLOW (CONDITIONS				
JAN	3	0.2	0.9	0.1	0	0.0	0.0	0.0	1705.5	19.4	0.1	
FEB	5	0.3	1.1	0.1	0	0.0	0.0	0.0	1705.6	19.6	0.2	
MAR	10	0.6	1.9	0.3	0	0.0	0.0	0.0	1705.8	19.9	0.3	
APR	12	0.7	4.3	0.6	0	0.0	0.0	0.0	1705.8	20.0	0.1	
MAY	18	1.1	5.3	0.7	8	0.5	0.0	0.0	1705.8	19.9	-0.1	
JUN	13	0.8	6.6	0.8	87	5.2	0.0	0.0	1702.2	14.7	-5.2	
JUL	13	0.8	7.5	0.8	192	11.8	0.0	8.9	1700.0	11.8	-2.9	
AUG	10	0.6	6.6	0.7	192	11.8	0.0	11.8	1699.9	11.7	-0.1	
SEP	5	0.3	5.0	0.5	52	3.1	0.0	3.1	1699.7	11.5	-0.2	
OCT	3	0.2	3.4	0.3	0	0.0	0.0	0.0	1699.6	11.4	-0.1	
NOV	5	0.3	2.1	0.2	0	0.0	0.0	0.0	1699.7	11.5	0.1	
DEC	3	0.2	1.1	0.1	0	0.0	0.0	0.0	1699.8	11.6	0.1	
	~				V				- 577.0			
TOTAL		6.1	45.6	5.2		32.4	0.0	23.8			-7.7	
					MOST PR	OBABLE	INFLOW CON	IDITIONS				
JAN	13	0.8	0.8	0.1	0	0.0	0.0	0.0	1705.8	20.0	0.7	
FEB	22	1.2	1.0	0.1	0	0.0	0.0	0.0	1706.5	21.1	1.1	
MAR	34	2.1	1.7	0.2	0	0.0	0.0			23.0	1.9	
APR	39	2.3	3.8	0.6	0	0.0	0.0	0.0	1707.6 1708.5	24.7	1.7	
MAY	62	3.8	4.7	0.8	7	0.4	0.0	0.0	1709.8	27.3	2.6	
JUN	52	3.1	5.9	1.0	74	4.4	0.0	0.0	1708.7	25.0	-2.3	
JUL	49	3.0	6.7	0.9	192	11.8	0.0	0.0	1703.7	15.3	-2.3 -9.7	
AUG	34	2.1	5.9	0.6	166	10.2	0.0	5.2	1700.0	11.8	-3.5	
SEP	17	1.0	4.5	0.4	8	0.5	0.0	0.0	1700.0	11.9	0.1	
OCT	11	0.7	3.0	0.4	0	0.0	0.0	0.0	1700.4	12.3	0.4	
NOV	15	0.7	1.9		0	0.0	0.0					
DEC	11	0.7	1.0	0.2 0.1	0	0.0	0.0	0.0	1701.0 1701.4	13.0 13.6	0.7 0.6	
TOTAL		21.7	40.9	5.3		27.3	0.0	5.2			-5.7	
				RE	ASONABL	E MAXIM	IUM INFLOW	CONDITIONS				
JAN	46	2.8	0.7	0.1	0	0.0	0.0	0.0	1707.1	22.0	2.7	
FEB	76	4.2	0.9	0.1	0	0.0	0.0	0.0	1709.2	26.1	4.1	
MAR	120	7.4	1.5	0.3	0	0.0	0.0	0.0	1712.2	33.2	7.1	
APR	134	8.0	3.5	0.8	0	0.0	0.0	0.0	1714.8	40.4	7.2	
MAY	211	13.0	4.3	1.2	5	0.3	0.0	0.0	1718.3	51.9	11.5	
JUN	175	10.4	5.3	1.6	59	3.5	0.0	0.0	1719.8	57.2	5.3	
JUL	166	10.2	6.0	1.8	168	10.3	0.0	0.0	1719.3	55.3	-1.9	
AUG	115	7.1	5.3	1.6	119	7.3	0.0	0.0	1718.8	53.5	-1.8	
SEP	61	3.6	4.0	1.2	7	0.4	0.0	0.0	1719.3	55.5	2.0	
OCT	39	2.4	2.7	0.8	0	0.0	0.0	0.0	1719.8	57.1	1.6	
NOV	52	3.1	1.7	0.5	0	0.0	0.0	0.0	1720.5	59.7	2.6	
DEC	41	2.5	0.9	0.3	0	0.0	0.0	0.0	1721.1	61.9	2.2	
		74.7	36.8	10.3								

TABLE 4 Page 14 of 16

WEBSTER RESERVOIR OPERATION ESTIMATES - 2006

	INFI MEAN	LOW 1 1000	EVAPORA	TION 1000	RELE REQUII MEAN	CASE REMENT 1000	RESERVOIR SPILL 1000	R REQUIREMENT SHORTAGE 1000	END O	F MONTH CONT 1000	RESERVOII CHANGE 1000
MONTH	CFSA		INCHES	AF	CFS	AF	AF	AF	FT	AF	AF
				RE	ASONABLE	MINIMU	M INFLOW C	CONDITIONS			
JAN	3	0.2	0.9	0.1	0	0.0	0.0	0.0	1865.4	10.4	0.1
FEB	5	0.3	1.1	0.1	0	0.0	0.0	0.0	1865.5	10.6	0.2
MAR	8	0.5	2,0	0.2	0	0.0	0.0	0.0	1865.8	10.9	0.3
APR	10	0.6	4.4	0.5	0	0.0	0.0	0.0	1865.8	11.0	0.1
MAY	13	0.8	5.7	0.6	15	0.9	0.0	0.0	1865.3	10.3	-0.7
JUN	12	0.7	7.2	0.8	101	6.0	0.0	3.2	1863.0	7.4	-2.9
JUL	11	0.7	7.9	0.8	236	14.5	0.0	14.5	1863.0	7.3	-0.1
AUG	7	0.4	7.2	0.7	236	14.5	0.0	14.5	1862.7	7.0	-0.3
SEP	3	0.2	5.4	0.5	25	1.5	0.0	1.5	1862.4	6.7	-0.3
OCT	2	0.1	3.6	0.3	0	0.0	0.0	0.0	1862.2	6.5	-0.2
NOV	3	0.2	2.2	0.2	0	0.0	0.0	0.0	1862.2	6.5	0.0
DEC	3	0.2	1.2	0.1	0	0.0	0.0	0.0	1862.3	6.6	0.1
TOTAL		4.9	48.7	4.9		37.4	0.0	33.7			-3.7
					MOST PRO	- DBABLE I	NFLOW CO	NDITIONS			
TANI	11	0.7	0.0	0.1	0	0.0	0.0	0.0	1865.8	10.9	0.6
JAN FEB	11	0.7	0.8	0.1	0	0.0	0.0	0.0			
	18 28	1.0	1.0	0.1	0	0.0	0.0	0.0	1866.4	11.8	0.9
MAR APR	39	1.7 2.3	1.7 4.0	0.2 0.5	0	0.0	0.0	0.0 0.0	1867.5 1868.6	13.3 15.1	1.5 1.8
MAY	59 59	3.6	5.1	0.5	13	0.0 0.8	0.0 0.0	0.0	1869.9	17.2	2.1
JUN	44	2.6	6.4	0.7	74	4.4	0.0	0.0	1868.3	14.6	-2.6
JUL	41	2.5	7.1	0.8	208	12.8			1863.0	7.4	-2.0 -7.2
AUG	23	1.4	6.4	0.6	161	9.9	0.0 0.0	3.9 9.1	1863.0	7.4	0.0
SEP	13	0.8	4.8	0.5	5	0.3	0.0	0.0	1863.0	7.4	0.0
OCT	8	0.5	3.2	0.3	0	0.0	0.0	0.0	1863.2	7.4	0.0
NOV	10	0.6	2.0	0.3	0	0.0	0.0	0.0	1863.5	8.0	0.4
DEC	10	0.6	1.1	0.2	0	0.0	0.0	0.0	1863.9	8.5	0.5
TOTAL		18.3	43.6	4.9		28.2	0.0	13.0			-1.8
				RE	ASONABLE	MAXIMU	M INFLOW (CONDITIONS		_	
											
JAN	52	3.2	0.8	0.1	0	0.0	0.0	0.0	1867.5	13.4	3.1
FEB	79	4.4	0.9	0.1	0	0.0	0.0	0.0	1870.2	17.7	4.3
MAR	124	7.6	1.6	0.2	0	0.0	0.0	0.0	1874.3	25.1	7.4
APR	178	10.6	3.6	0.7	0	0.0	0.0	0.0	1878.9	35.0	9.9
MAY	265	16.3	4.6	1.0	7	0.4	0.0	0.0	1884.6	49.9	14.9
JUN	192	11.4	5.8	1.5	42	2.5	0.0	0.0	1887.0	57.3	7.4
JUL AUG	181	11.1	6.5 5.8	1.7	125	7.7	0.0	0.0	1887.5	59.0	1.7
SEP	106	6.5	5.8	1.6	101	6.2	0.0	0.0	1887.1	57.7	-1.3
	64 36	3.8	4.4	1.2	2	0.1	0.0	0.0	1887.9	60.2	2.5
OCT NOV	36 40	2.2	2.9	0.8	0	0.0	0.0	0.0	1888.3	61.6	1.4
DEC	49 44	2.9 2.7	1.8 1.0	0.5 0.3	0	0.0	0.0	0.0	1889.0 1889.7	64.0 66.4	2.4 2.4
			1.0	0.0	V	0.0	0.0	0.0	1009.1	00.4	2.4
TOTAL		82.7	39.6	9.7		16.9	0.0	0.0			56.1

TABLE 4 Page 15 of 16

WACONDA LAKE OPERATION ESTIMATES - 2006

JAN FEB MAR	MEAN CFSAF		INCHES	1000	RELEASE REQUIREMENT					RESERVOIR CHANGE	
FEB				AF	MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
FEB				REAS	SONABLE M	MINIMUN	M INFLOW CO	ONDITIONS			
	34	2.1	0.8	0.7	8	0.5	0.0	0.0	1450.6	162.5	0.9
MAR	52	2.9	1.0	0.9	9	0.5	0.0	0.0	1450.7	164.0	1.5
	98	6.0	1.9	1.6	3	0.2	0.0	0.0	1451.1	168.2	4.2
APR	101	6.0	4.8	4.2	2	0.1	0.0	0.0	1451.3	169.9	1.7
MAY	117	7.2	5.9	5.1	7	0.4	0.0	0.0		171.6	1.7
JUN	99	5.9	7.5	6.5	42	2.5	0.0	0.0	1451.2	168.5	-3.1
JUL	161	9.9	8.9	7.5	156	9.6	0.0	0.0	1450.4	161.3	-7.2
AUG	60	3.7	7.6	6.1	124	7.6	0.0	0.0	1449.4	151.3	-10.0
SEP	45	2.7	6.0	4.7	24	1.4	0.0	0.0		147.9	-3.4
OCT	36	2.2	3.9	3.0	3	0.2	0.0	0.0	1449.0	146.9	-1.0
NOV	40	2.4	2.1	1.6	7	0.4	0.0	0.0		147.3	0.4
DEC	33	2.0	1.0	0.8	10	0.6	0.0	0.0	1449.1	147.9	0.6
TOTAL		53.0	51.5	42.7		24.0	0.0	0.0			-13.7
				M	IOST PROB	BABLE IN	FLOW COND	ITIONS			
JAN	0.4	£ 0	0.7	0.6	2	0.2	0.0	0.0	1451.0	1666	5.0
	94	5.8 7.9	0.7	0.6	3	0.2	0.0	0.0	1451.0	166.6	5.0
FEB	142		0.9	0.8	5	0.3	0.0	0.0	1451.6 1453.0	173.4	6.8
MAR	267	16.4	1.7	1.5	2	0.1	0.0			188.2	14.8
APR	279	16.6	4.3	4.2	0	0.0	0.0	0.0	1454.0	200.6	12.4
MAY	322	19.8	5.2	5.3	3	0.2	0.0	0.0	1455.2	214.9	14.3
JUN	274	16.3	6.7	7.0	32	1.9	2.9	0.0	1455.6	219.4	4.5
JUL	446	27.4	7.9	8.3	112	6.9	12.2	0.0	1455.6	219.4	0.0
AUG	163	10.0	6.7	7.0	89	5.5	0.0	0.0	1455.4	216.9	-2.5
SEP	124	7.4	5.4	5.6	17	1.0	0.0	0.0	1455.5	217.7	0.8
OCT	98	6.0	3.5	3.6	0	0.0	0.7	0.0	1455.6	219.4	1.7
NOV	109	6.5	1.9	1.9	3	0.2	28.7	0.0	1453.6	195.1	-24.3
DEC	88	5.4	0.9	0.9	5	0.3	4.2	0.0	1453.6	195.1	0.0
TOTAL		145.5	45.7	46.7		16.6	48.7	0.0			33.5
				REAS	ONABLE M	IAXIMU	M INFLOW CO	ONDITIONS			
JAN	358	22.0	0.7	0.6	0	0.0	0.0	0.0	1452.5	183.0	21.4
FEB	535	29.7	0.8	0.8	2	0.1	16.7	0.0	1453.6	195.1	12.1
MAR	1010	62.1	1.5	1.5	2	0.1	36.2	0.0	1455.6	219.4	24.3
APR	1052	62.6	3.9	4.0	2	0.1	58.5	0.0	1455.6	219.4	0.0
MAY	1215	74.7	4.7	4.9	2	0.1	69.7	0.0	1455.6	219.4	0.0
JUN	1034	61.5	6.0	6.3	20	1.2	54.0			219.4	0.0
JUL	1680	103.3	7.1	7.4	70	4.3	91.6 0.0		1455.6 1455.6	219.4	0.0
AUG	618	38.0	6.0	6.3	57	3.5	28.2	0.0	1455.6	219.4	0.0
SEP	471	28.0	4.8	5.0	10	0.6	22.4			219.4	0.0
OCT	366	22.5	3.1	3.3	2	0.1	19.1			219.4	0.0
NOV	415	24.7	1.7	1.7	0	0.0	47.3	0.0	1455.6 1453.6	219.4 195.1	
DEC	330	20.3	0.8	0.8	2	0.0	19.4	0.0	1453.6	195.1 195.1	-24.3 0.0
OTAL		549.4	40.9	42.6		10.2	463.1	0.0			33.5

TABLE 4Page 16 of 16

CEDAR BLUFF RESERVOIR OPERATION ESTIMATES - 2006

	INFLOW MEAN 1000		EVAPORA		REQUIR		SPILL	R REQUIREMENT SHORTAGE	END O ELEV	F MONTH CONT	RESERVOIR CHANGE
MONTH	MEAN CFS A		INCHES AF		MEAN CFS	1000 AF	1000 AF	1000 AF	FT	1000 AF	1000 AF
				REAS	SONABLE I	MINIMUN	M INFLOW CO	ONDITIONS			
TANT	2	0.4	4.4						2424.6	100.0	0.2
JAN	2	0.1	1.1	0.4	0	0.0	0.0	0.0	2131.6	100.9	-0.3
FEB	2	0.1	1.3	0.5	0	0.0	0.0	0.0	2131.5	100.5	-0.4
MAR	2	0.1	2.1	0.8	0	0.0	0.0	0.0	2131.4	99.8	-0.7
APR	3	0.2	5.4	2.0	0	0.0	0.0	0.0	2131.0	98.0	-1.8
MAY	7	0.4	6.4	2.3	2	0.1	0.0	0.0	2130.5	96.0	-2.0
JUN	7	0.4	7.9	2.8	2	0.1	0.0	0.0	2129.9	93.5	-2.5
JUL	7	0.4	9.6	3.4	10	0.6	0.0	0.0	2129.1	89.9	-3.6
AUG	7	0.4	8.2	2.8	7	0.4	0.0	0.0	2128.4	87.1	-2.8
SEP	2	0.1	7.0	2.3	3	0.2	0.0	0.0	2127.8	84.7	-2.4
OCT	2	0.1	4.9	1.6	2	0.1	0.0	0.0	2127.4	83.1	-1.6
NOV	2	0.1	2.3	0.7	2	0.1	0.0	0.0	2127.2	82.4	-0.7
DEC	2	0.1	1.3	0.4	2	0.1	0.0	0.0	2127.1	82.0	-0.4
TOTAL		2.5	57.3	20.0		1.7	0.0	0.0			-19.2
				ı	MOST PRO	BABLE I	NFLOW COND	DITIONS			
JAN	7	0.4	1.0	0.4	0	0.0	0.0	0.0	21217	101.2	0.0
			1.0	0.4	0	0.0	0.0	0.0	2131.7 2131.7	101.2	0.0
FEB	7	0.4	1.1	0.4	0	0.0		0.0		101.2	0.0
MAR	13	0.8	1.9	0.7	0	0.0	0.0	0.0	2131.7	101.3	0.1
APR	24	1.4	4.9	1.9	0	0.0	0.0	0.0	2131.6	100.8	-0.5
MAY	33	2.0	5.7	2.2	3	0.2	0.0	0.0	2131.5	100.4	-0.4
JUN	35	2.1	7.1	2.7	3	0.2	0.0	0.0	2131.3	99.6	-0.8
JUL	46	2.8	8.6	3.2	11	0.7	0.0	0.0	2131.1	98.5	-1.1
AUG	31	1.9	7.4	2.7	7	0.4	0.0	0.0	2130.8	97.3	-1.2
SEP	13	0.8	6.3	2.3	3	0.2	0.0	0.0	2130.4	95.6	-1.7
OCT	5	0.3	4.4	1.6	2	0.1	0.0	0.0	2130.1	94.2	-1.4
NOV	7	0.4	2.1	0.7	2	0.1	0.0	0.0	2130.0	93.8	-0.4
DEC	5	0.3	1.1	0.4	2	0.1	0.0	0.0	2129.9	93.6	-0.2
TOTAL		13.6	51.7	19.2		2.0	0.0	0.0			-7.6
				REAS	SONABLE I	//AXIMU	M INFLOW CO	ONDITIONS			
JAN	28	1.7	0.9	0.3	0	0.0	0.0	0.0	2122.0	100 (
FEB	38	2.1				0.0	0.0	0.0	2132.0	102.6	1.4
MAR	38 65	4.0	1.0	0.4	0	0.0	0.0	0.0	2132.3	104.3	1.7
APR			1.7	0.7	0	0.0	0.0	0.0	2133.0	107.6	3.3
MAY	106	6.3	4.4	1.8	0	0.0	0.0	0.0	2133.9	112.1	4.5
	155	9.5	5.1	2.2	3	0.2	0.0	0.0	2135.3	119.2	7.1
JUN	166	9.9	6.4	2.9	3	0.2	0.0	0.0	2136.5	126.0	6.8
JUL	210	12.9	7.7	3.7	3	0.2	0.0	0.0	2138.1	135.0	9.0
AUG	148	9.1	6.6	3.3	0	0.0	0.0	0.0	2139.1	140.8	5.8
SEP	61	3.6	5.6	2.8	2	0.1	0.0	0.0	2139.2	141.5	0.7
OCT	24	1.5	4.0	2.0	2	0.1	0.0	0.0	2139.1	140.9	-0.6
NOV	34	2.0	1.8	0.9	2	0.1	0.0	0.0	2139.3	141.9	1.0
DEC	24	1.5	1.0	0.5	2	0.1	0.0	0.0	2139.4	142.8	0.9
TOTAL		64.1	46.1	21.5		1.0	0.0	0.0			41 6
			1011			1.0	0.0	0.0			41.6

TABLE 5
FLOOD DAMAGES PREVENTED BY NEBRASKA-KANSAS PROJECTS RESERVOIRS

RESERVOIR	DURING FY 2005	PRIOR TO 2005	ACCUMULATED TOTAL
BONNY	\$91,000	\$2,689,000	\$2,780,000
ENDERS	\$0	\$3,281,000	\$3,281,000
SWANSON	\$91,000	\$19,066,000	\$19,157,000
HUGH BUTLER	\$91,000	\$2,574,000	\$2,665,000
HARRY STRUNK	\$98,000	\$4,924,000	\$5,022,000
KEITH SEBELIUS	\$0	\$3,958,000	\$3,958,000
HARLAN COUNTY	\$464,000	\$150,090,000	\$150,554,000
LOVEWELL	\$0	\$146,608,000	\$146,608,000
KIRWIN	\$11,000	\$86,859,000	\$86,870,000
WEBSTER	\$0	\$110,313,000	\$110,313,000
WACONDA	\$259,000	\$1,213,195,000	\$1,213,454,000
CEDAR BLUFF	\$0	\$128,890,000	\$128,890,000
TOTAL	\$1,105,000	\$1,872,447,000	\$1,873,552,000

Estimates of damages prevented are received from the Army Corps of Engineer's Kansas City District Office. The Accumulated Totals date from 1951 through 2005. 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 2005 AND THE ESTIMATED DIVERSION FOR 2006

(Units - Acre-Feet)

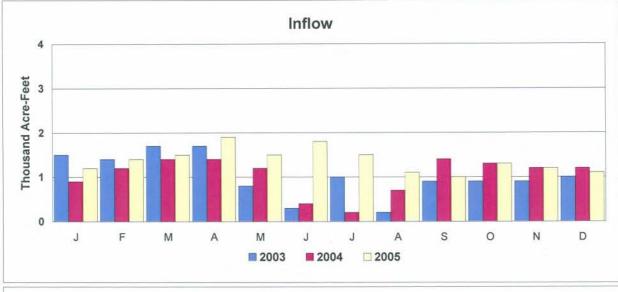
	2005 Irrigation Operations	10-Year Average Diversion	2005	Estimated Diversion	
Irrigation District and Canal	From To	(1995-2004)	Diversion	in 2006	
Mirage Flats Irrigation District					
Mirage Flats Canal	7/10 9/9	12,516	10,617	10,000	
Ainsworth Irrigation District	1/10 ///	12,510	10,017	10,000	
Ainsworth Trigation District Ainsworth Canal	5/15 9/17	74,501	71,713	75,000	
Twin Loups Irrigation District	3/13 //17	74,501	71,713	75,000	
Above Davis Creek	5/17 9/15	40,591	43,770	45,000	
Below Davis Creek	5/17 9/15	37,599	40,100	42,000	
Below Davis Cicek	3/17 9/13	31,399	40,100	42,000	
Total Twin Loups Irrigation District		78,190	83,870	87,000	
Frenchman Valley Irrigation District					
Culbertson Canal	3/29 8/24	8,961	6,562	0	
H & RW Irrigation District	0, 2, 0, 2 :	-,			
Culbertson Extension Canal	Did not run.	7,942	0	0	
Frenchman-Cambridge Irrigation District		.,	, and the second		
Meeker-Driftwood Canal	Did not run.	20,317	0	0	
Red Willow Canal	Did not run.	5,376	0	0	
Bartley Canal	Did not run.	6,168	0	7,000	
Cambridge Canal	6/20 8/31	23,203	19,732	20,000	
Camorage Canar	0/20 0/31	23,203	17,732	20,000	
Total Frenchman-Cambridge Irrig	gation District	55,064	19,732	27,000	
Almena Irrigation District					
Almena Canal	Did not run.	4,605	0	0	
Bostwick Irrigation District in Nebraska		1,005	Ü	v	
Franklin Canal	Did not run.	26,707	0	0	
Naponee Canal	Did not run.	2,423	0	0	
Franklin Pump Canal	Did not run.	2,712	0	0	
Superior Canal	6/6 8/19	12,829	4,712	0	
Courtland Canal (Nebraska)	Did not run.	1,898	0	0	
Courtinue Canar (1 Coraska)	Dia not run.	1,070	<u>_</u>		
Total Bostwick Irrigation Distric	t in Nebraska	46,569	4,712	0	
			.,,, 12	v	
Kansas-Bostwick Irrigation District					
Courtland Canal above Lovewell	6/1 8/15	24,361	1,864	16,000	
Courtland Canal below Lovewell	6/20 8/23	46,282	25,916	28,000	
		-, -			
Total Kansas-Bostwick Irrigation	District	70,643	27,780	44,000	
Kirwin Irrigation District					
Kirwin Canal	Did not run.	20,325	0	0	
Webster Irrigation District		,- 	v	-	
Osborne Canal	Did not run.	13,422	0	0	
Glen Elder Irrigation District	5/18 10/11	5,749	3,556	7,000	
Č		-,		7,000	
TOTAL		398,487	228,542	250,000	

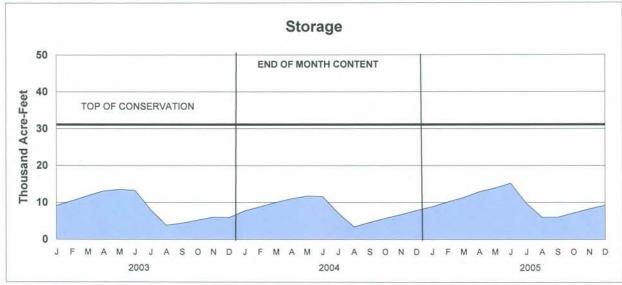
TABLE 7
NEBRASKA-KANSAS PROJECTS
Summary of Precipitation, Reservoir Storage and Inflows
CALENDAR YEAR 2005

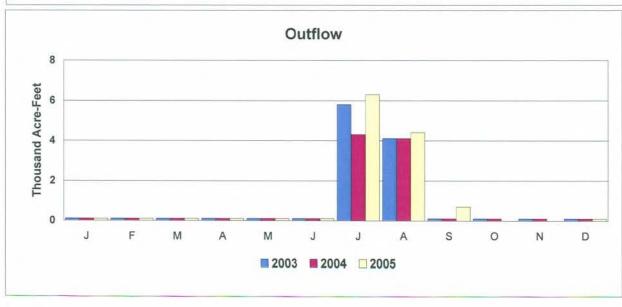
				· ·	ALLINDAN	LAIT 2003					
	Total Precip.	Percent Of Average	Storage 12-31-04	Storage 12-31-05	Gain or Loss	Maximum Content	Storage Date	Minimum Content	Storage Date	Total Inflow	Percent Of Most Probable
Reservoir	Inches	%	AF	AF	AF	AF		AF		AF	%
Box Butte	17.78	104	7,768	9,167	1,399	15,179	JUN 29	5,270	SEP 3	16,464	99
Merritt	28.18	140	61,370	61,370	0	67,749	APR 24	35,051	SEP 9	178,277	95
Calamus	21.99	93	100,649	100,561	-88	123,495	MAR 30	66,625	SEP 28	251,935	96
Davis Creek	23.91	101	9,345	9,196	-149	31,462	JUN 26	8,813	APR 14	48,226	99
Bonny	18.23	106	13,754	12,265	-1,489	14,916	JUN 13	12,173	DEC 9	7,353	56
Enders	21.03	111	11,632	11,566	-66	12,981	JUN 22	11,174	OCT 9	4,649	29
Swanson	20.66	103	30,489	35,068	4,579	40,193	JUN 21	30,559	JAN 1	15,542	35
Hugh Butler	22.15	113	18,387	20,242	1,855	21,630	JUN 17	18,397	JAN 1	9,090	59
Harry Strunk	22.32	108	21,177	26,833	5,656	36,707	JUN 21	20,310	AUG 31	30,861	88
Keith Sebelius	27.69	112	8,247	8,322	75	9,342	JUN 13	8,091	NOV 22	4,555	60
Harlan County	22.51	98	107,050	128,111	21,061	141,360	JUN 26	106,981	JAN 3	53,682	42
Lovewell	28.07	103	15,904	25,836	9,932	41,060	JUN 20	15,994	JAN 1	44,291	60
Kirwin	33.61	143	14,414	19,252	4,838	19,252	DEC 31	14,307	JAN 2	10,440	48
Webster	26.94	114	10,153	10,327	174	12,405	JUN 17	18,060	NOV 25	5,967	33
Waconda	27.38	106	159,801	161,594	1,793	176,227	JUN 14	159,603	JAN 2	63,624	44
Cedar Bluff	19.51	92	117,211	101,181	-16,030	117,999	FEB 13	101,181	DEC 31	8,134	60

BOX BUTTE RESERVOIR

ACTUAL OPERATION

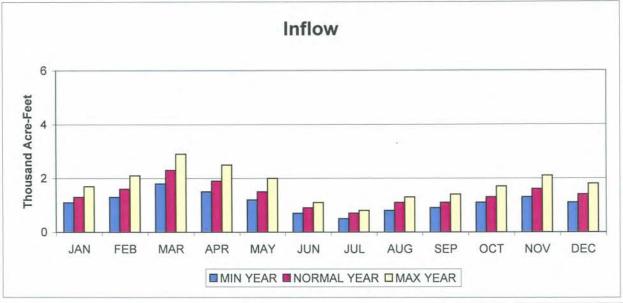


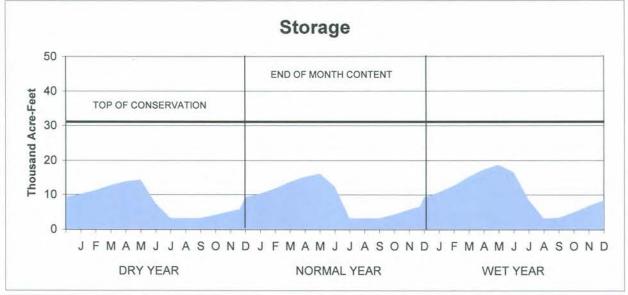


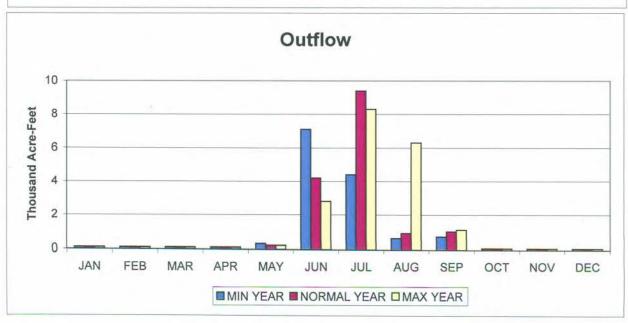


BOX BUTTE RESERVOIR

2006 OPERATION PLAN

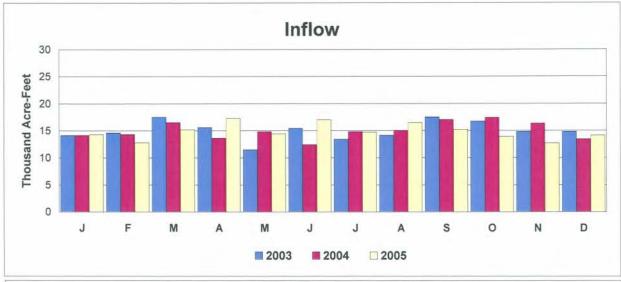


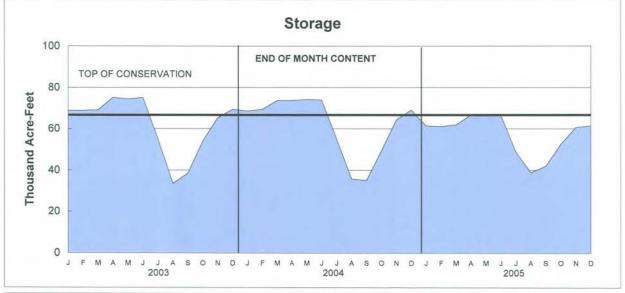


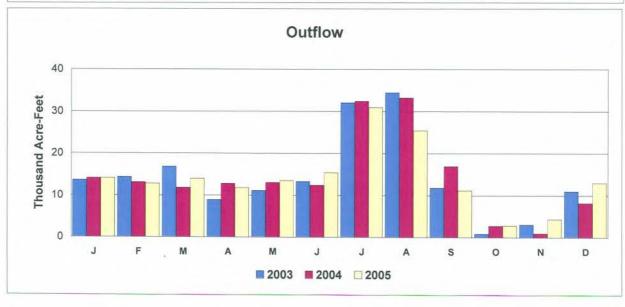


MERRITT RESERVOIR

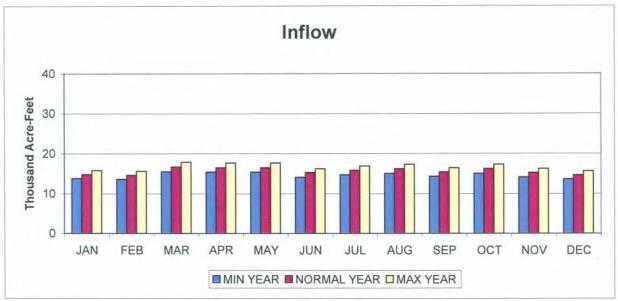
ACTUAL OPERATION

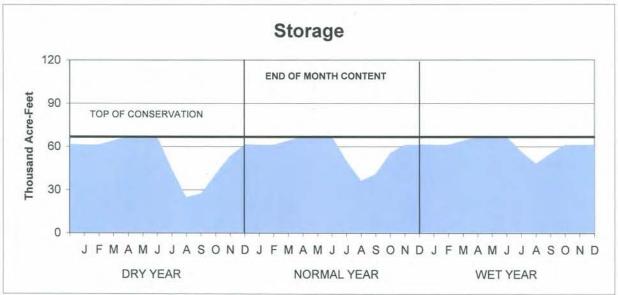


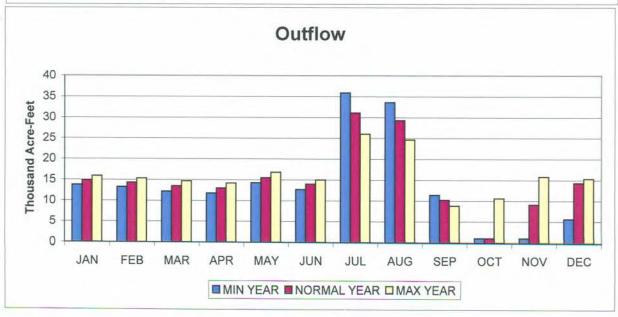




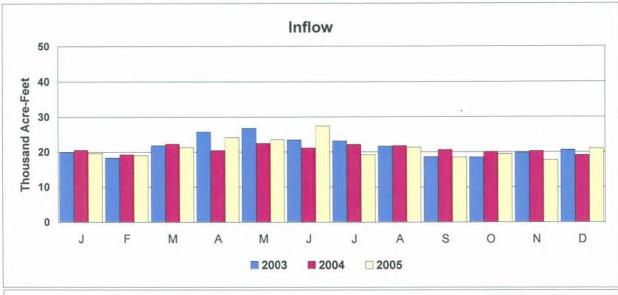
MERRITT RESERVOIR 2006 OPERATION PLAN

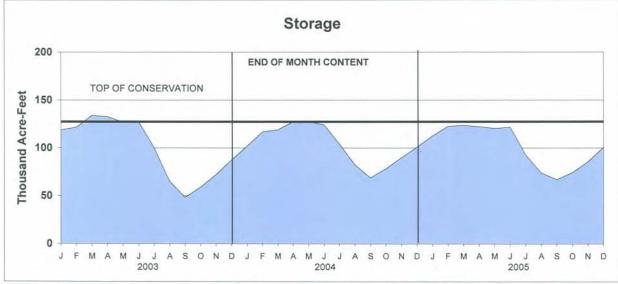


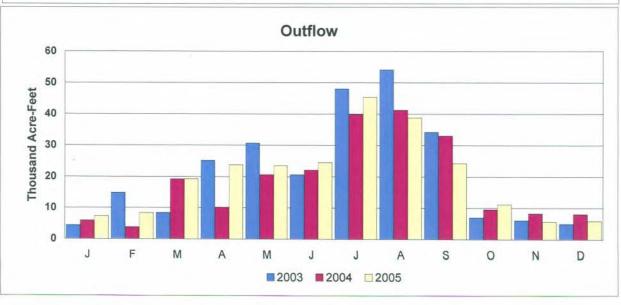




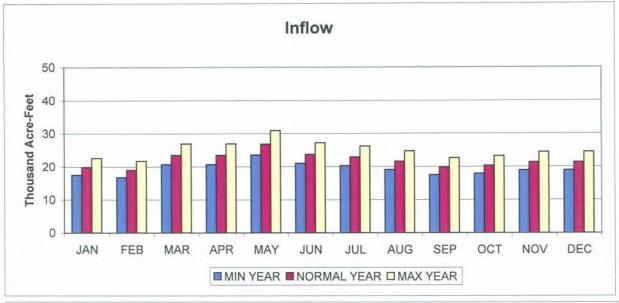
CALAMUS RESERVOIR ACTUAL OPERATION

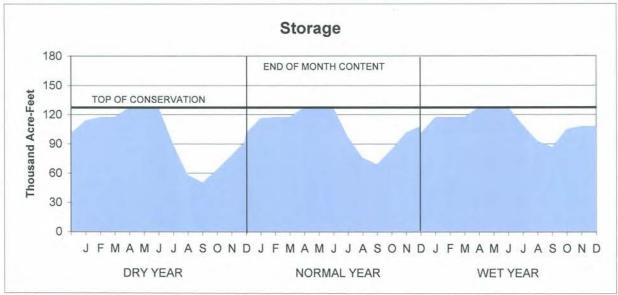


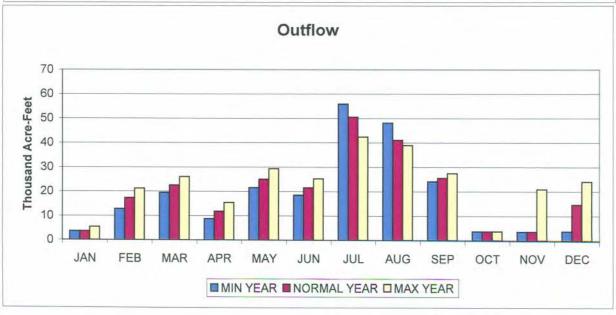




CALAMUS RESERVOIR 2006 OPERATION PLAN

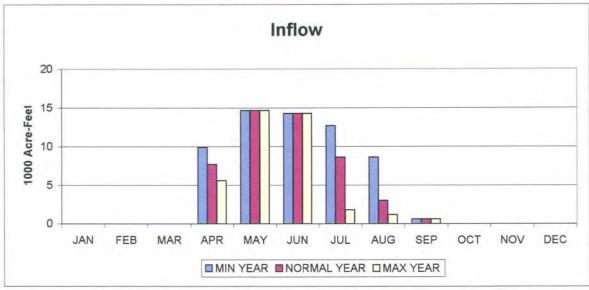


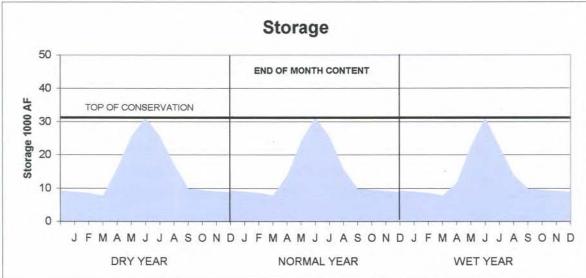


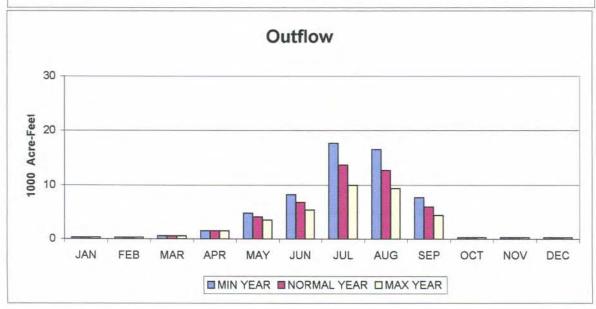


DAVIS CREEK RESERVOIR

2005 OPERATION PLAN

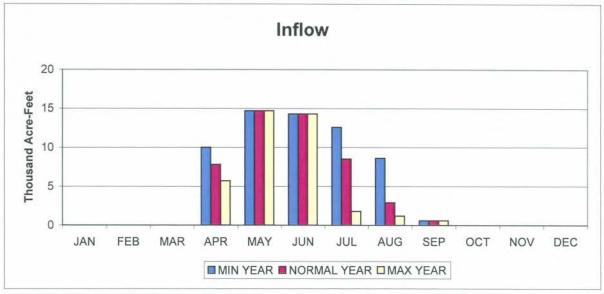


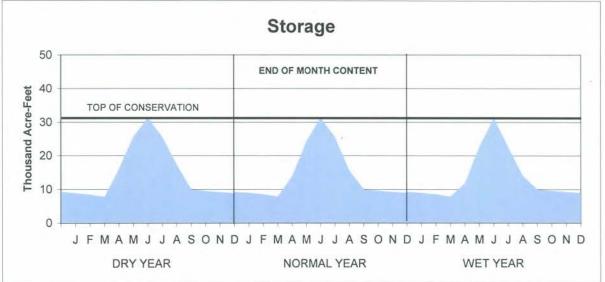


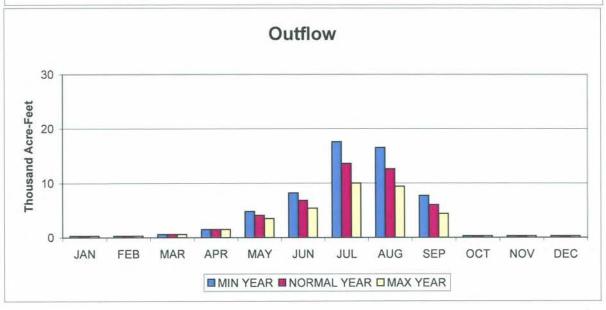


DAVIS CREEK RESERVOIR

2006 OPERATION PLAN

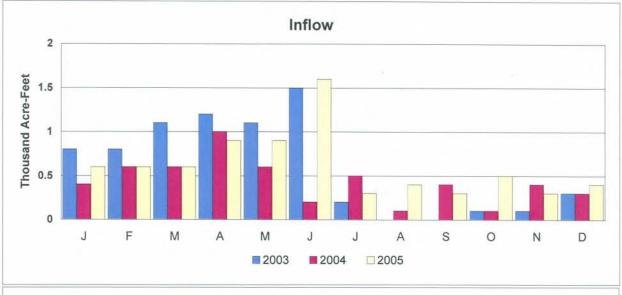


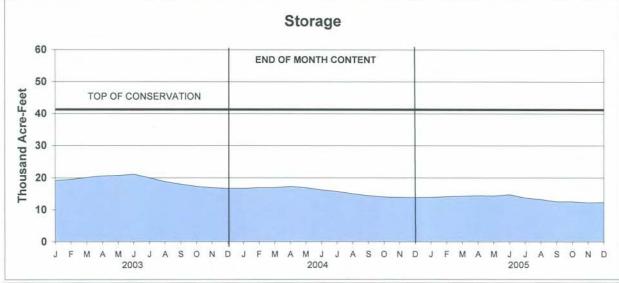


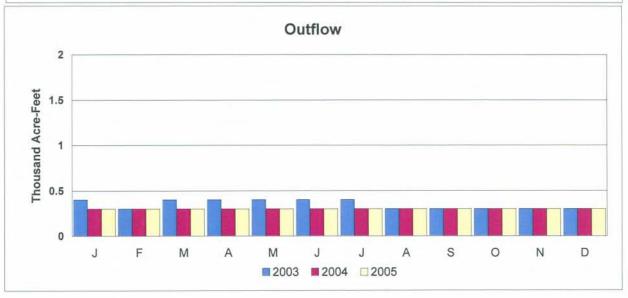


BONNY RESERVOIR

ACTUAL OPERATION

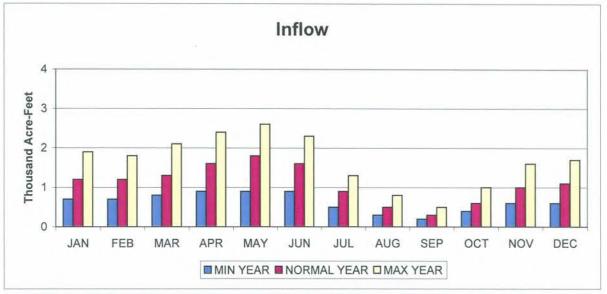


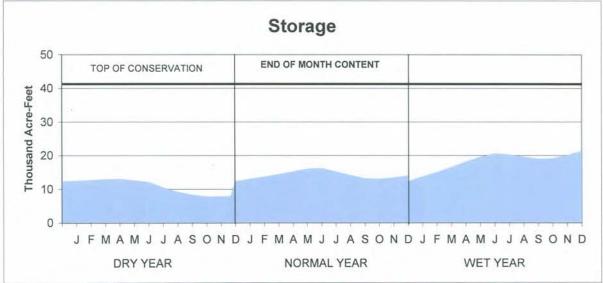


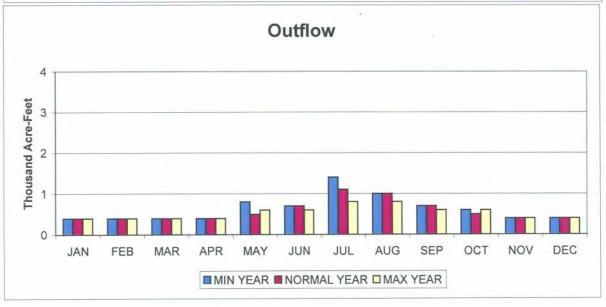


BONNY RESERVOIR

2006 OPERATION PLAN

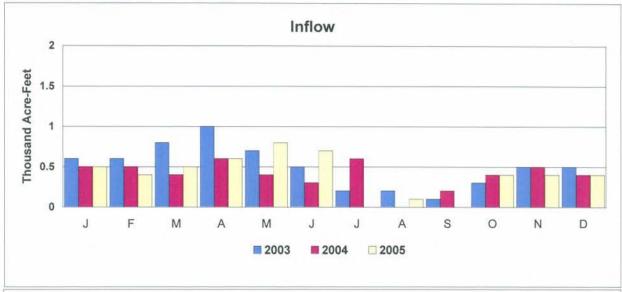


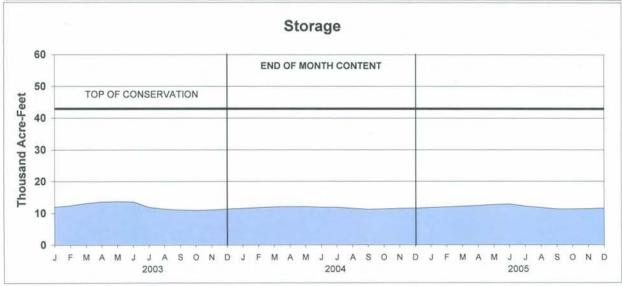


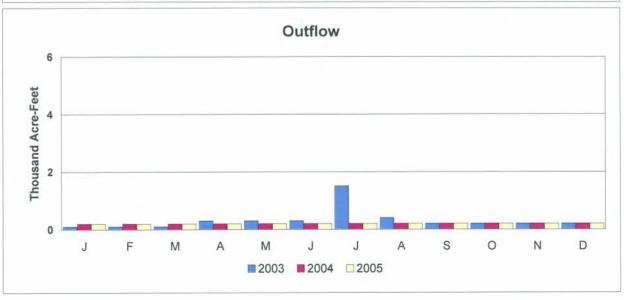


ENDERS RESERVOIR

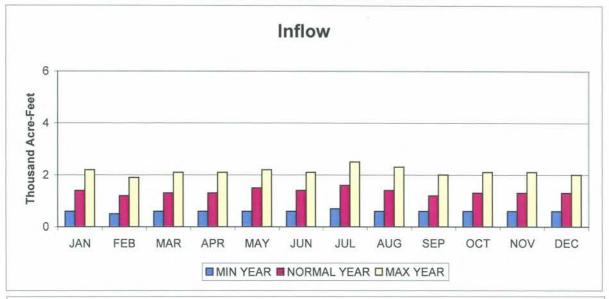
ACTUAL OPERATION

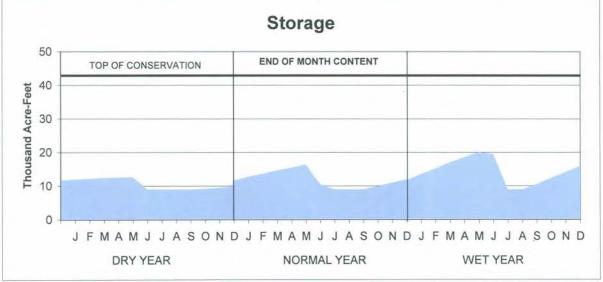


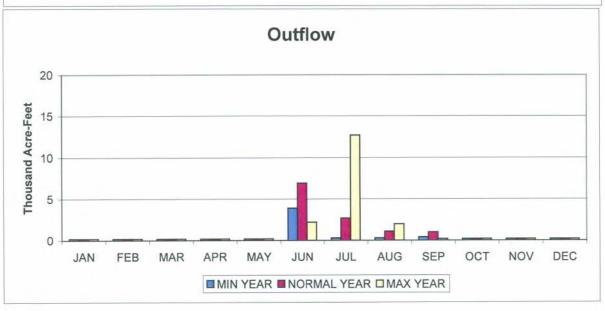




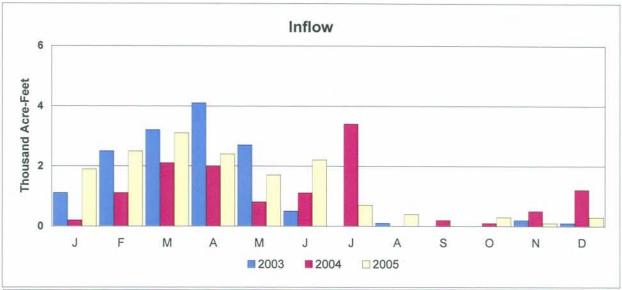
ENDERS RESERVOIR

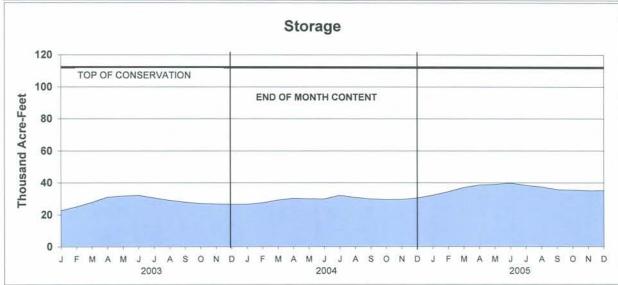


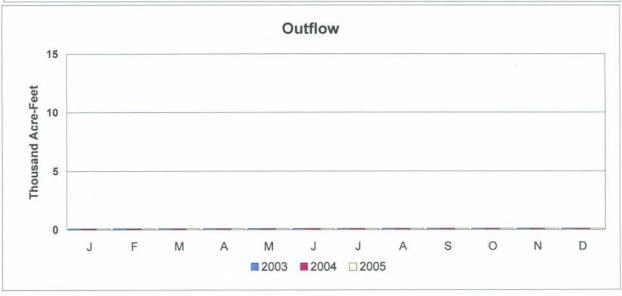




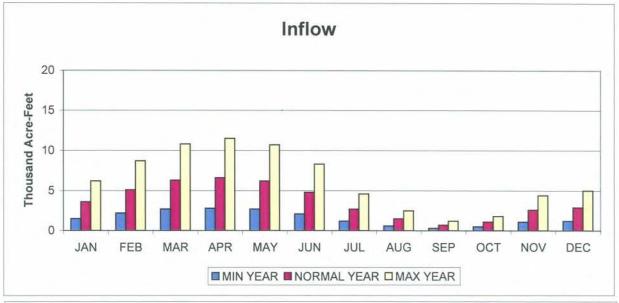
SWANSON LAKE ACTUAL OPERATION

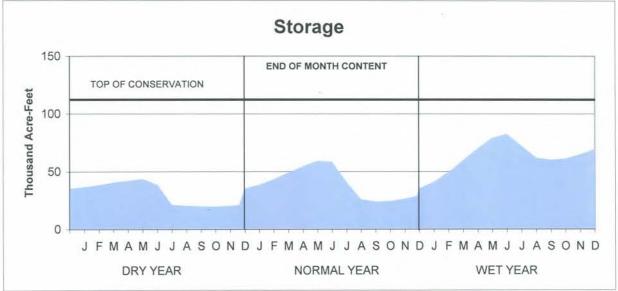


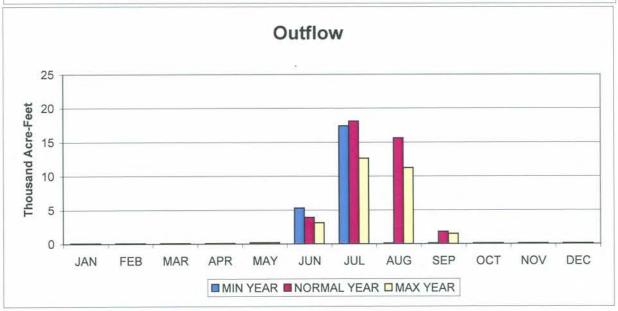




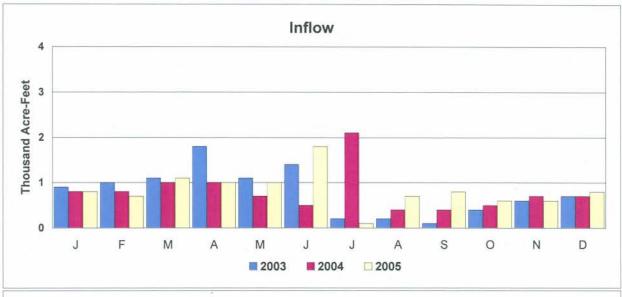
SWANSON LAKE 2006 OPERATION PLAN

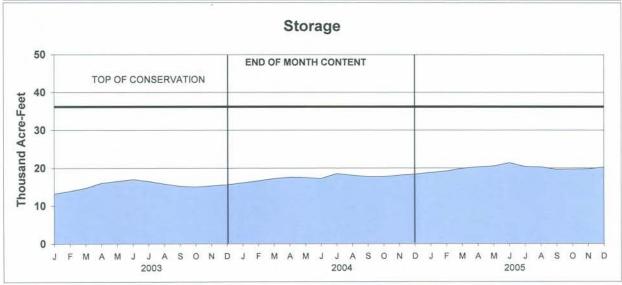


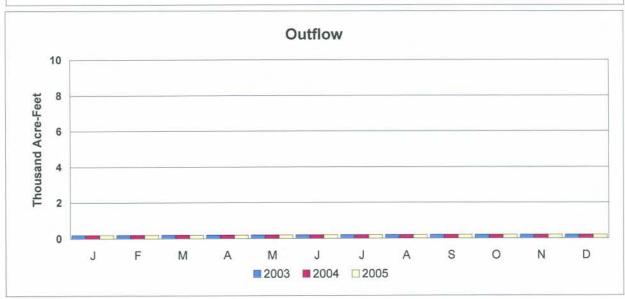




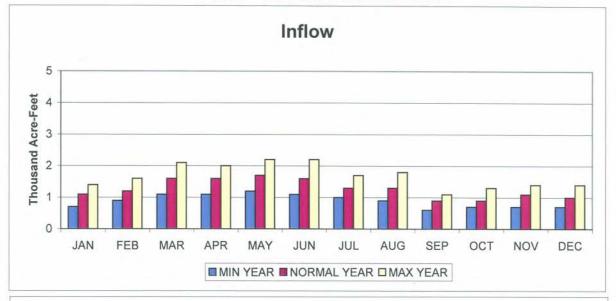
HUGH BUTLER LAKE

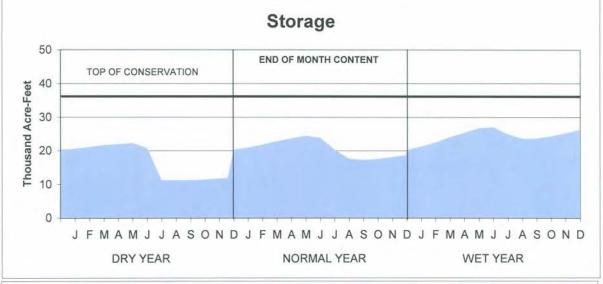


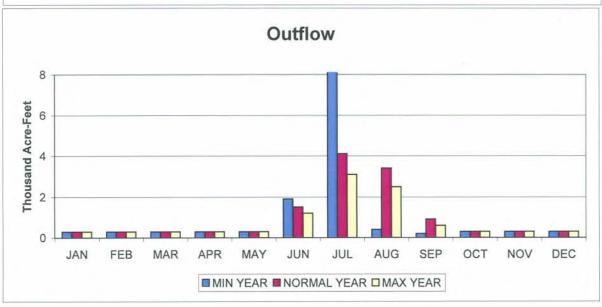




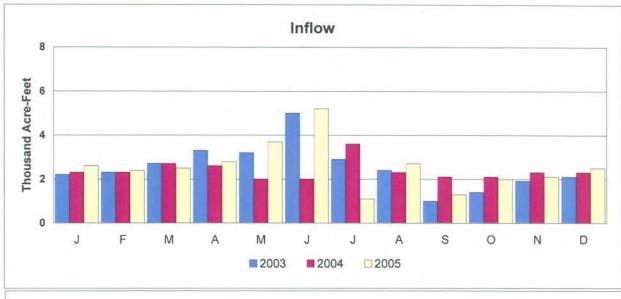
HUGH BUTLER LAKE

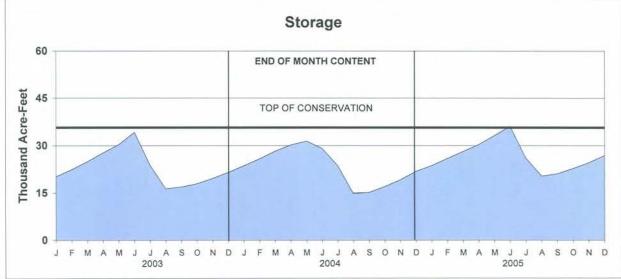


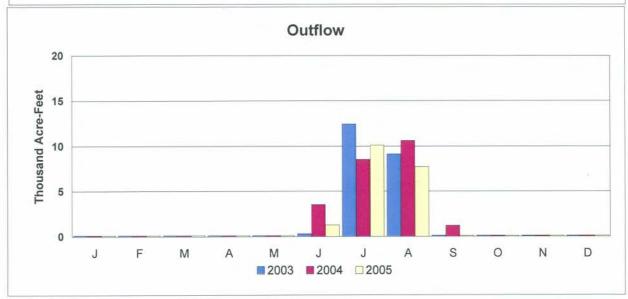




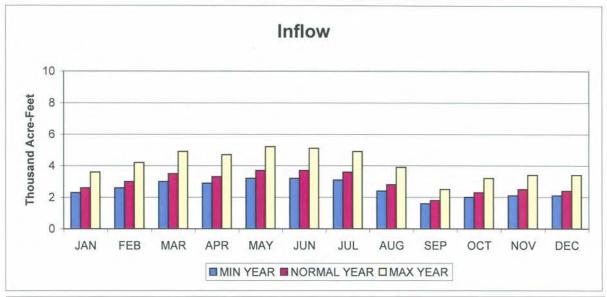
HARRY STRUNK LAKE

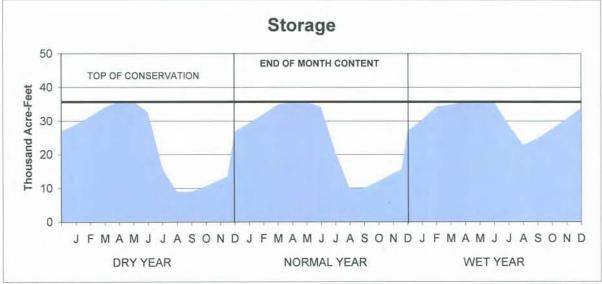


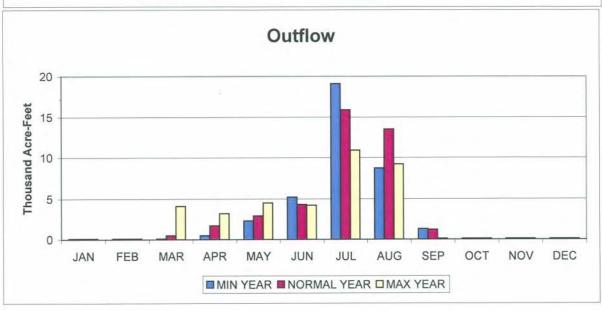




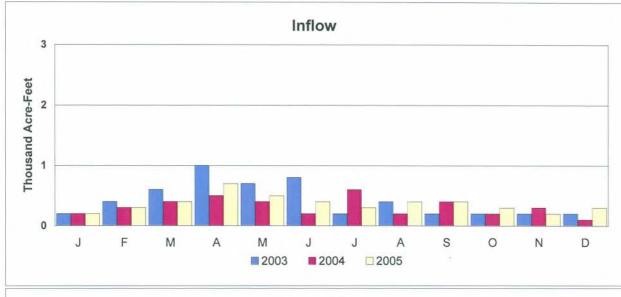
HARRY STRUNK LAKE

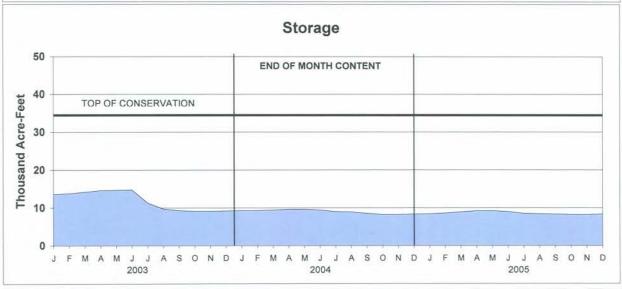


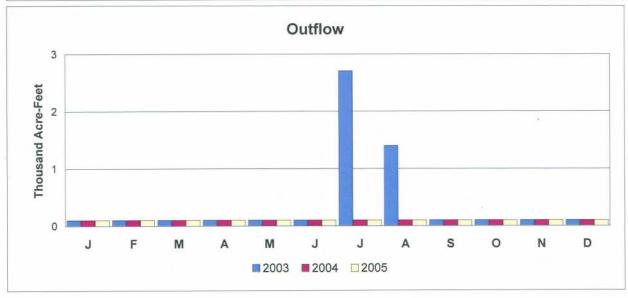




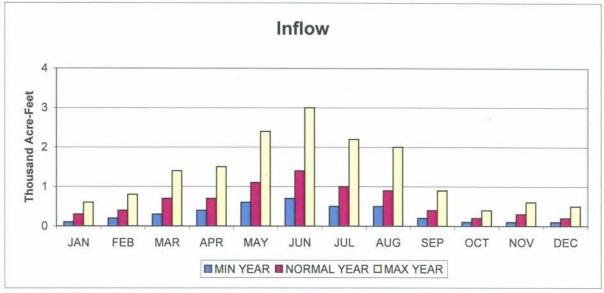
KEITH SEBELIUS LAKE

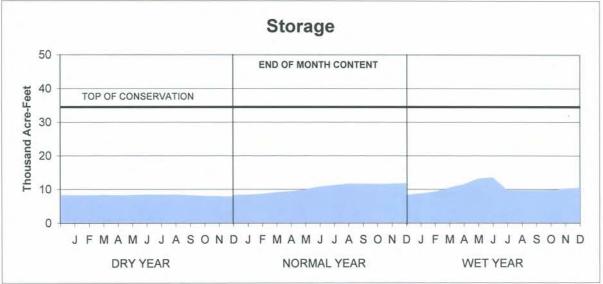


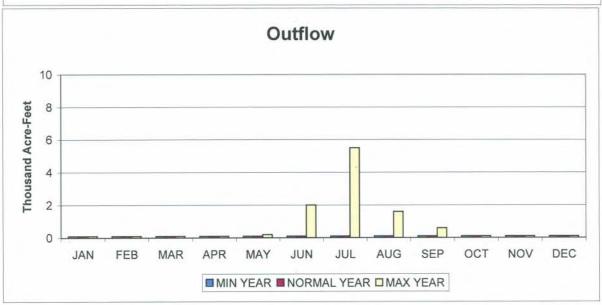




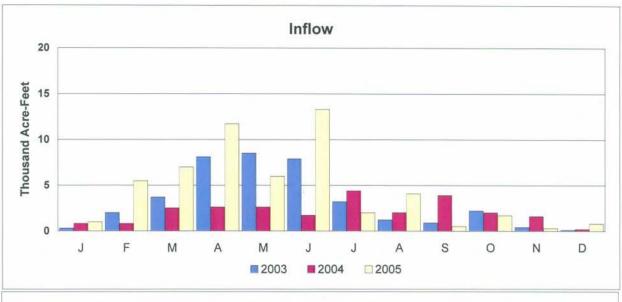
KEITH SEBELIUS LAKE

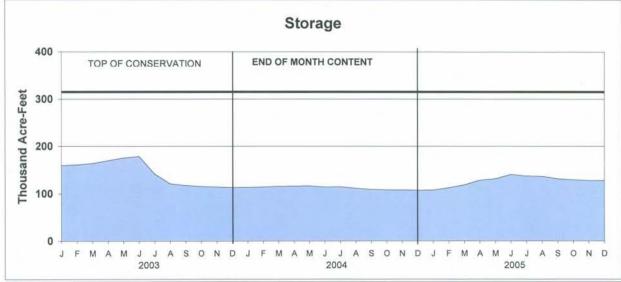


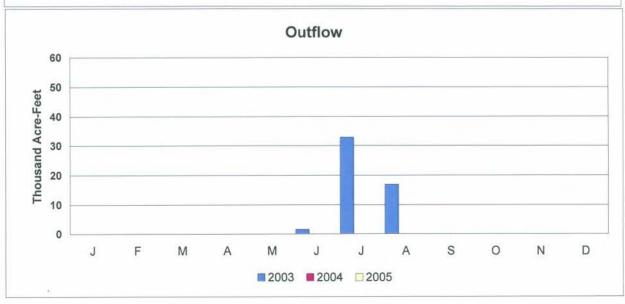




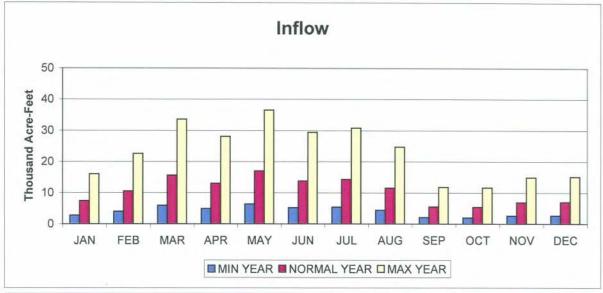
HARLAN COUNTY LAKE

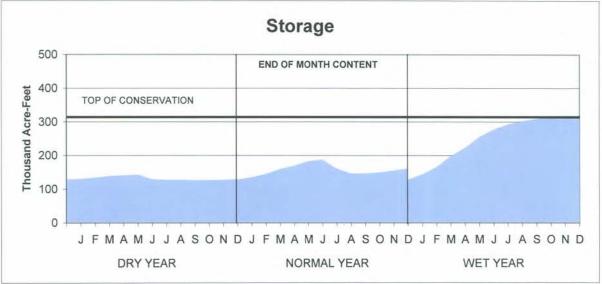


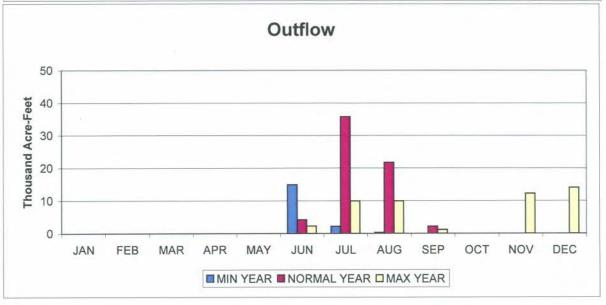




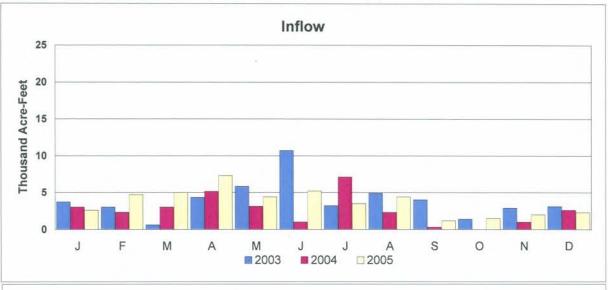
HARLAN COUNTY LAKE

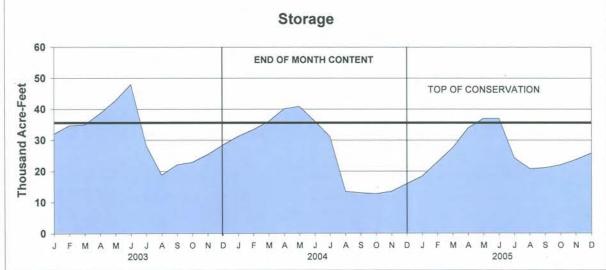


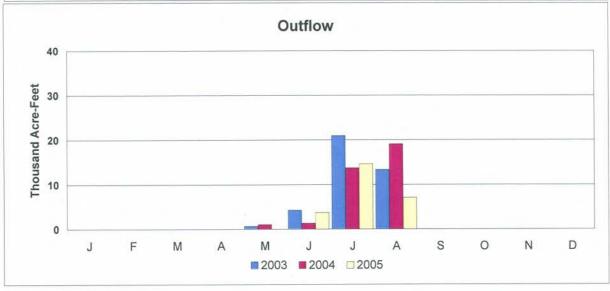




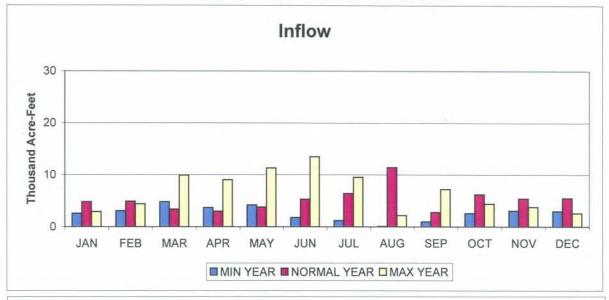
LOVEWELL RESERVOIR

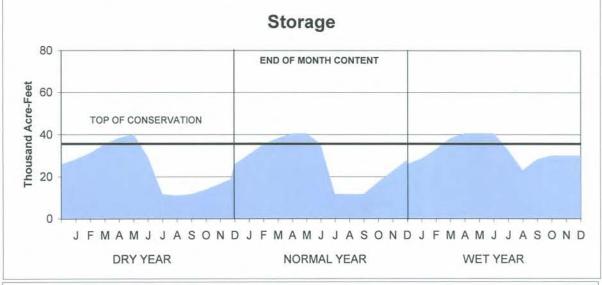


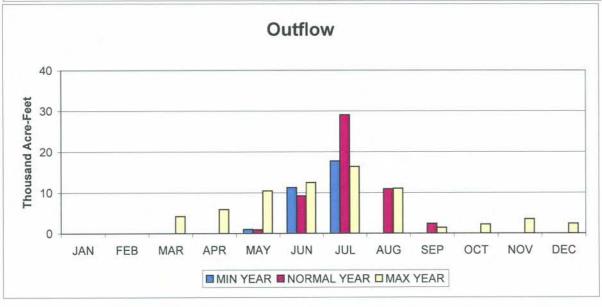




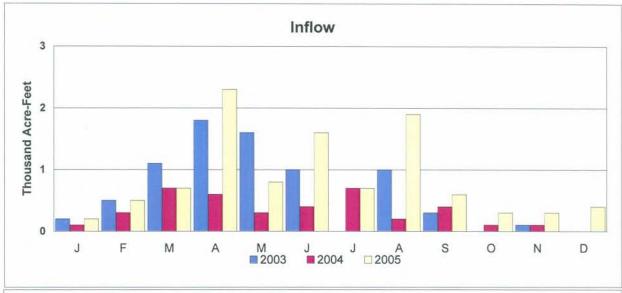
LOVEWELL RESERVOIR

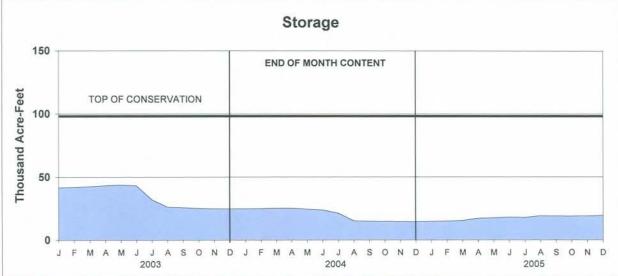


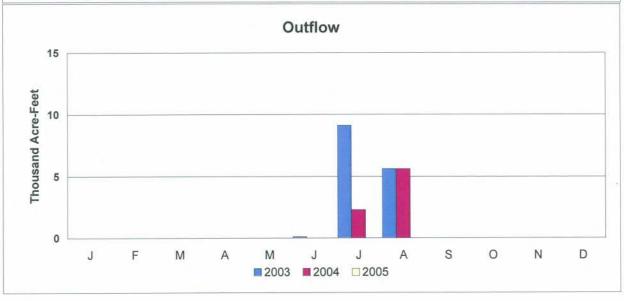




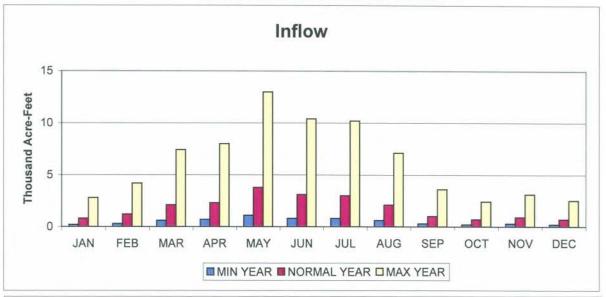
KIRWIN RESERVOIR ACTUAL OPERATION

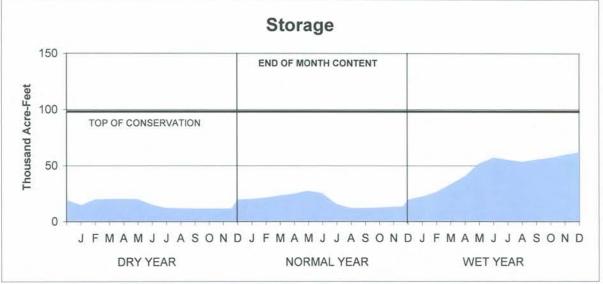


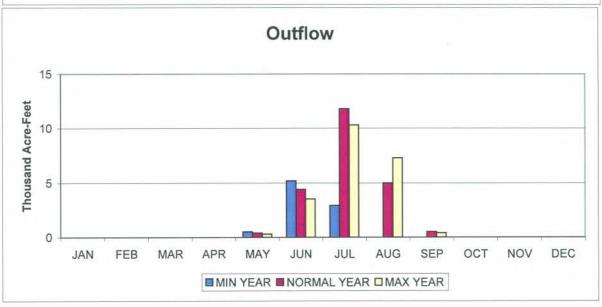




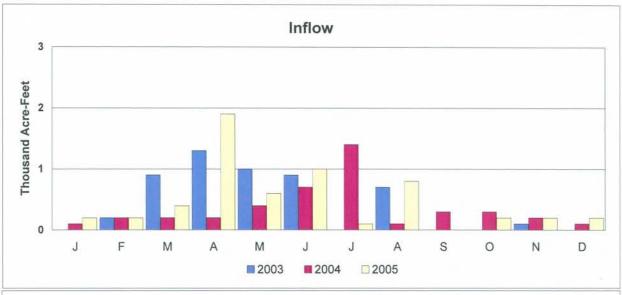
KIRWIN RESERVOIR 2006 OPERATION PLAN

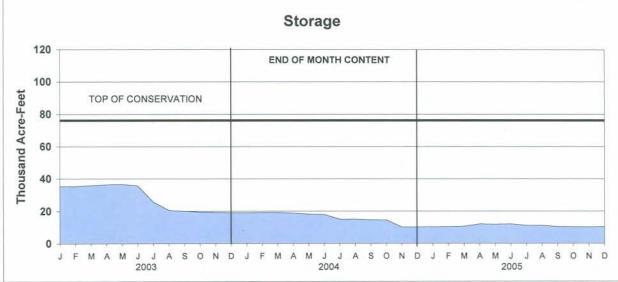


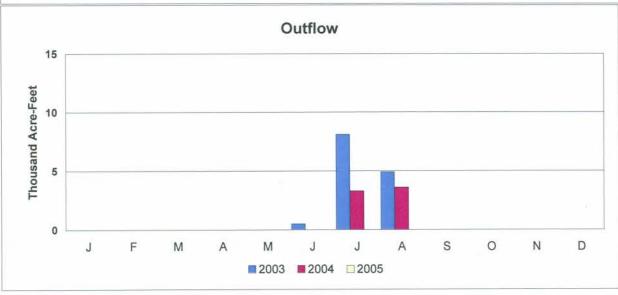




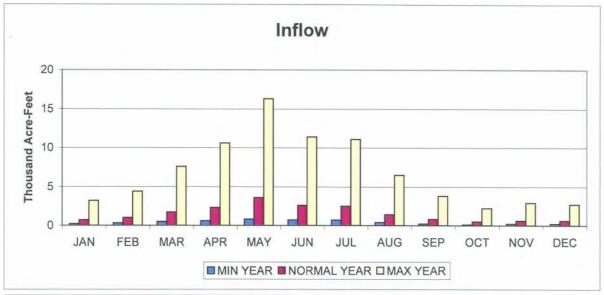
WEBSTER RESERVOIR

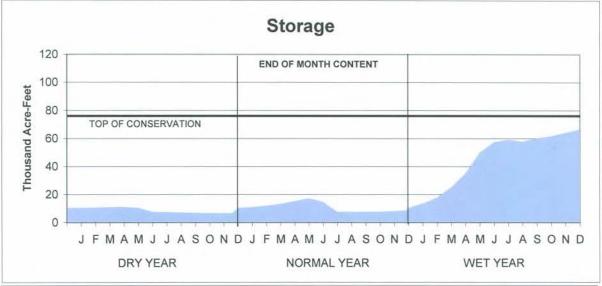


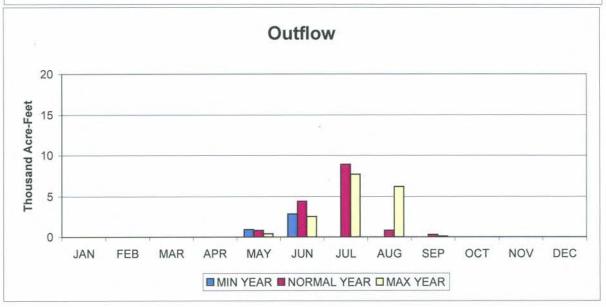




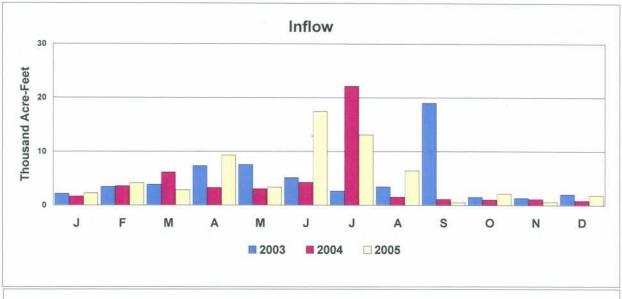
WEBSTER RESERVOIR

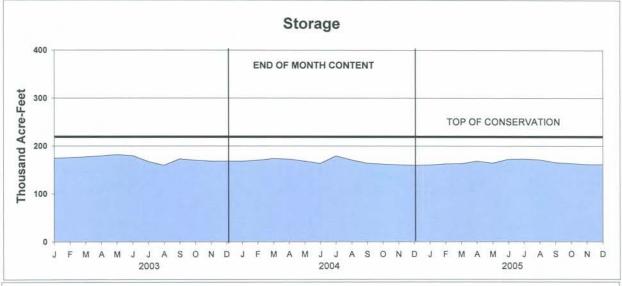


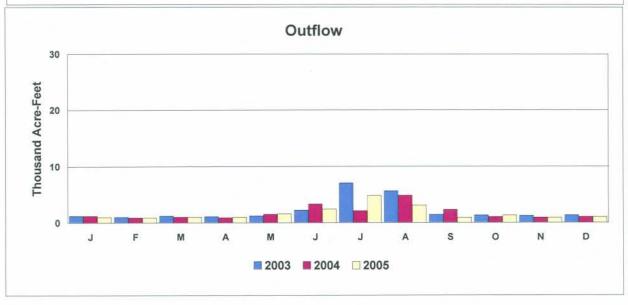




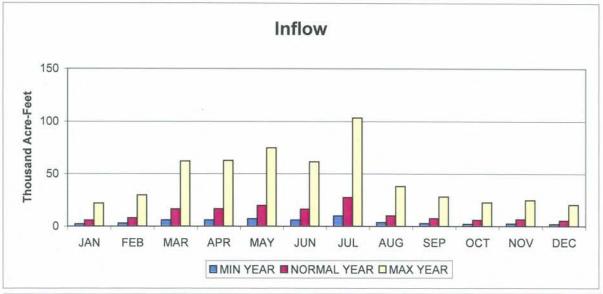
WACONDA LAKE ACTUAL OPERATION

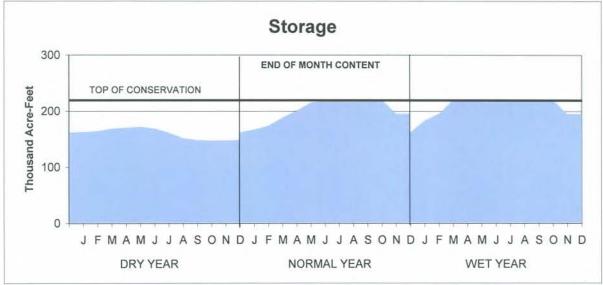


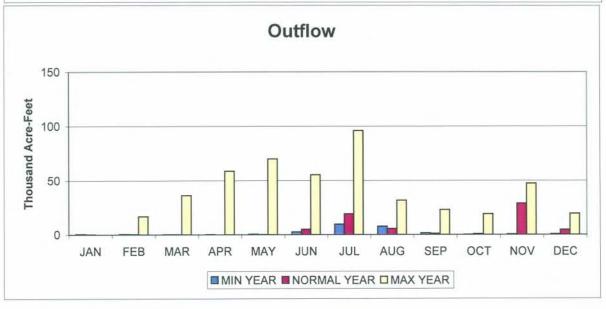




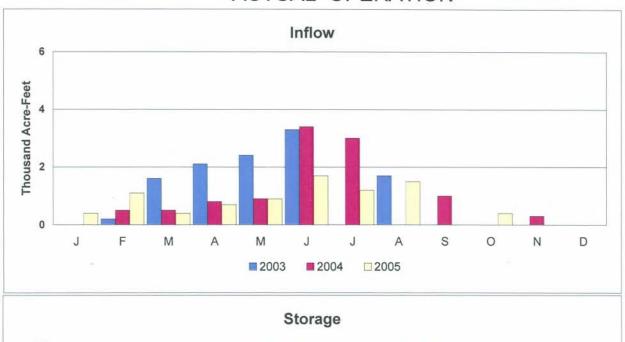
WACONDA LAKE 2006 OPERATION PLAN

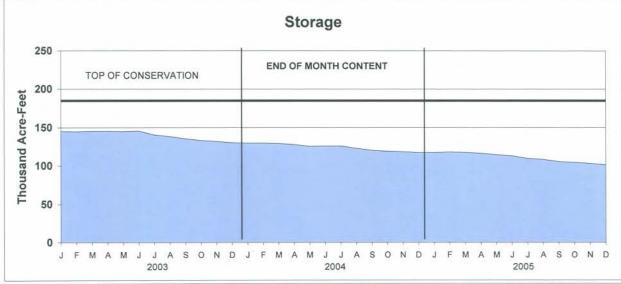


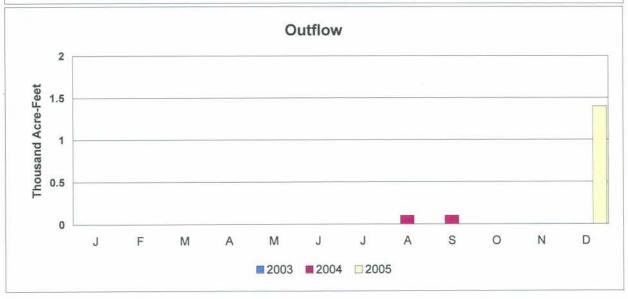




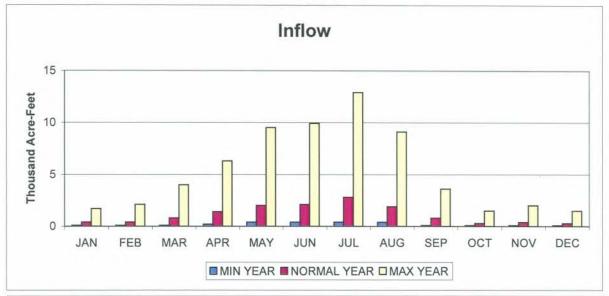
CEDAR BLUFF RESERVOIR

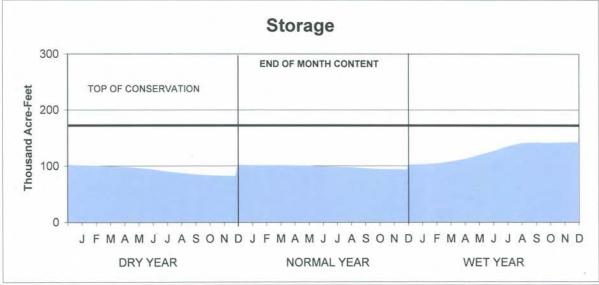


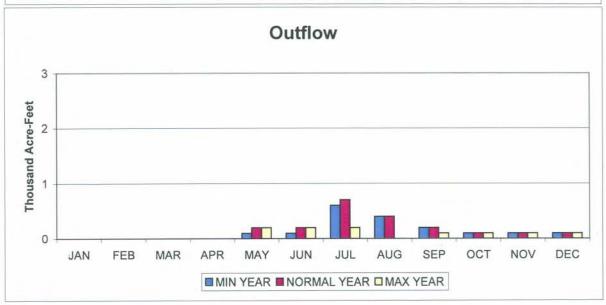




CEDAR BLUFF RESERVOIR

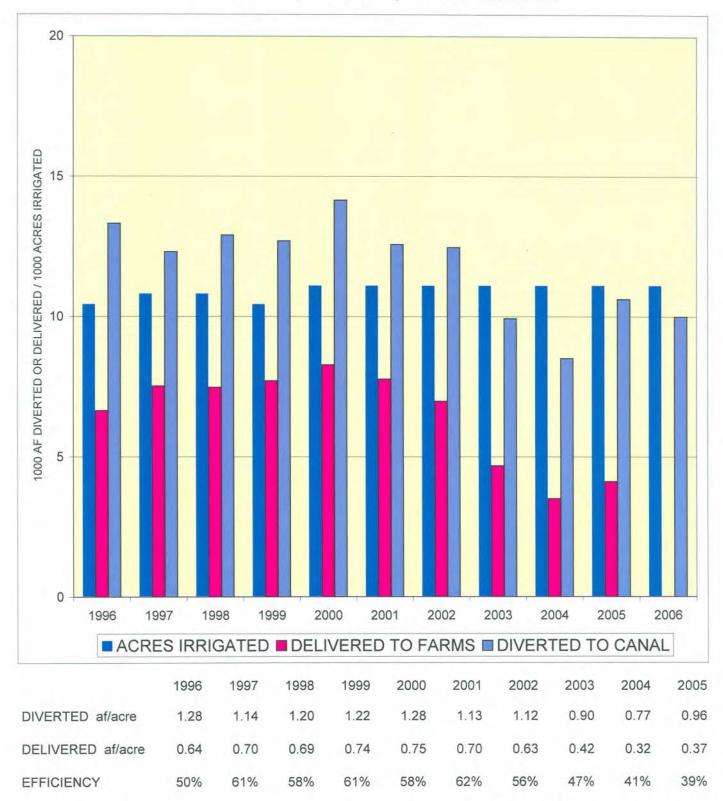






MIRAGE FLATS IRRIGATION DISTRICT

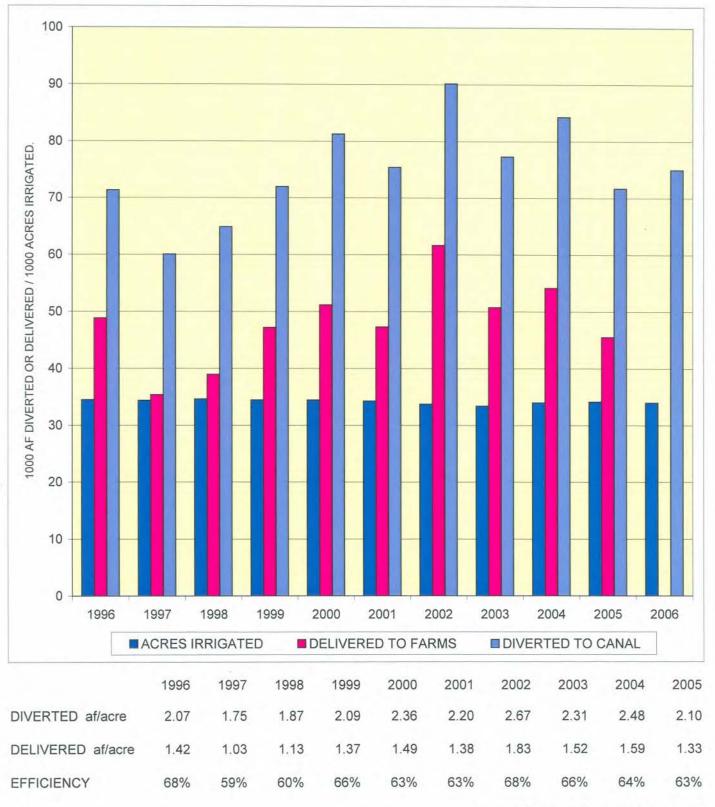
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 24,500 AF
NORMAL YEAR 13,400 AF
WET YEAR 100 AF

AINSWORTH IRRIGATION DISTRICT

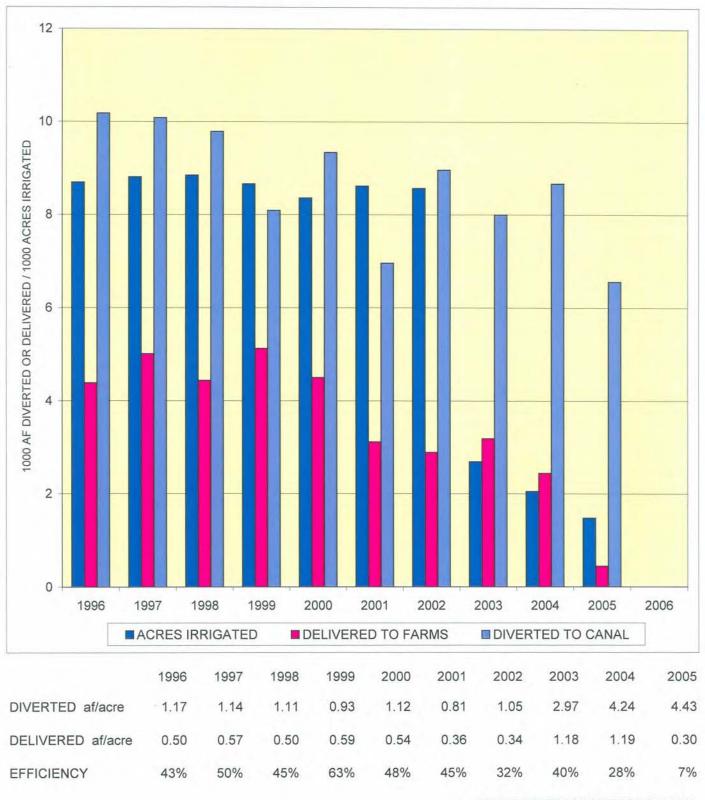
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 0 AF
NORMAL YEAR 0 AF

FRENCHMAN VALLEY IRRIGATION DISTRICT

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



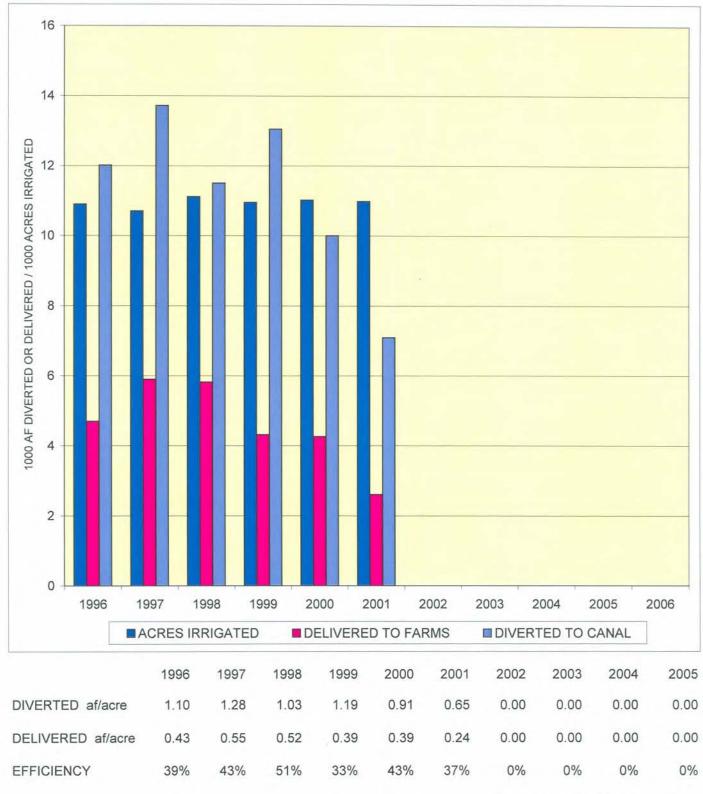
FORECASTED SHORTAGES (2006) DRY YEAR 34,900 AF

NORMAL YEAR WET YEAR

22,300 AF 7,700 AF

H AND RW IRRIGATION DISTRICT

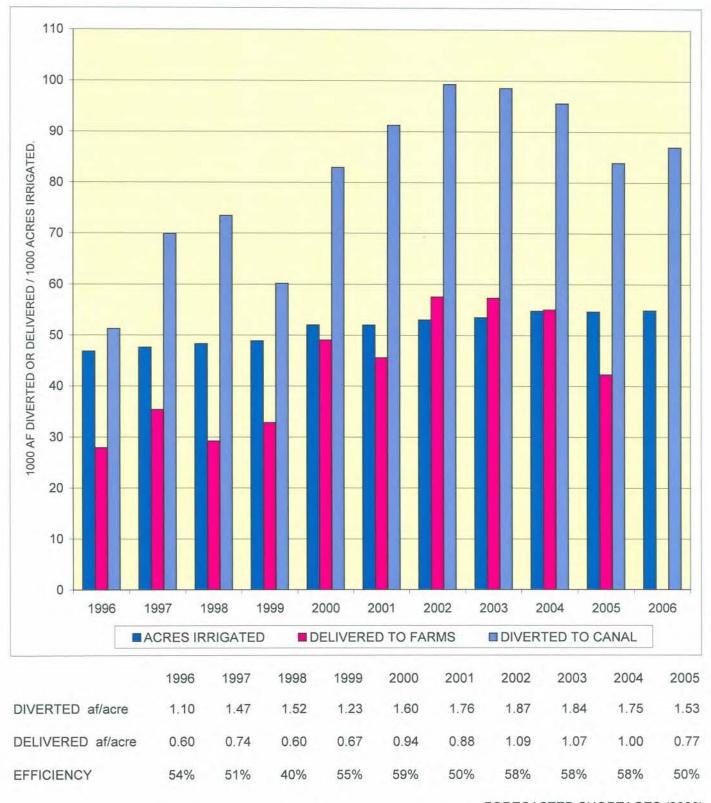
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 44,400 AF
NORMAL YEAR 28,400 AF
WET YEAR 9,700 AF

TWIN LOUPS IRRIGATION DISTRICT

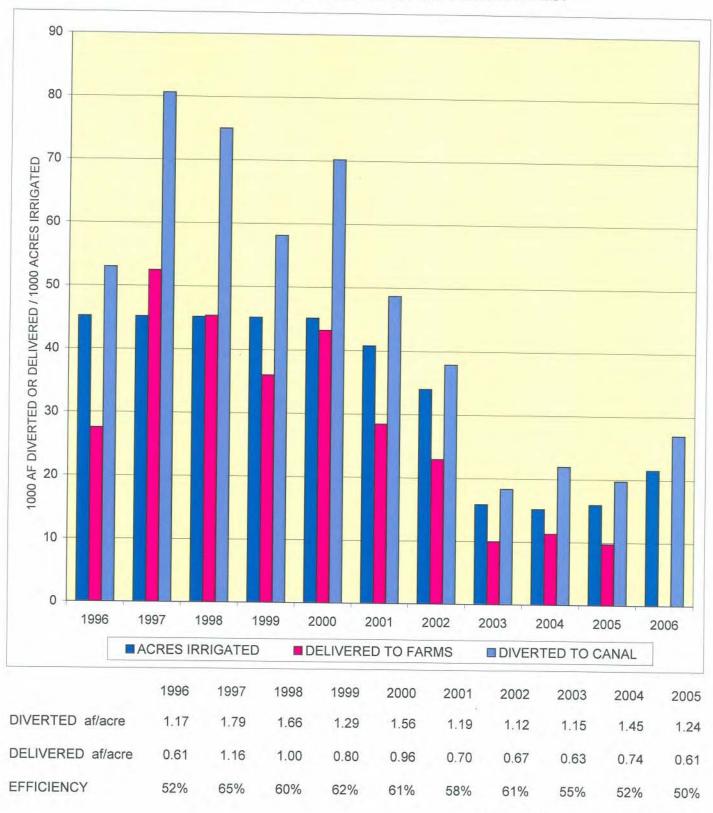
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 0 AF
NORMAL YEAR 0 AF

FRENCHMAN-CAMBRIDGE IRRIGATION DISTRICT

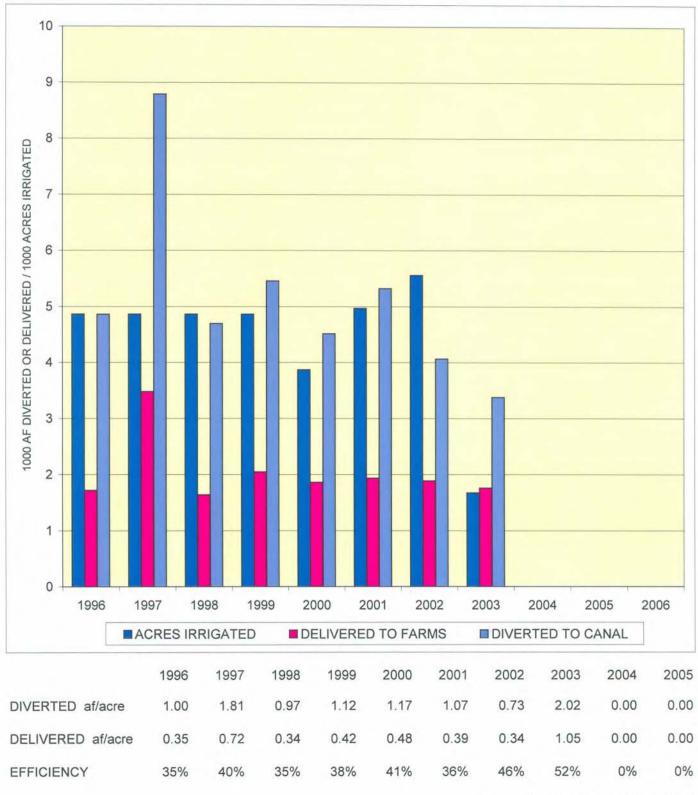
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 37,200 AF
NORMAL YEAR 0 AF

ALMENA IRRIGATION DISTRICT

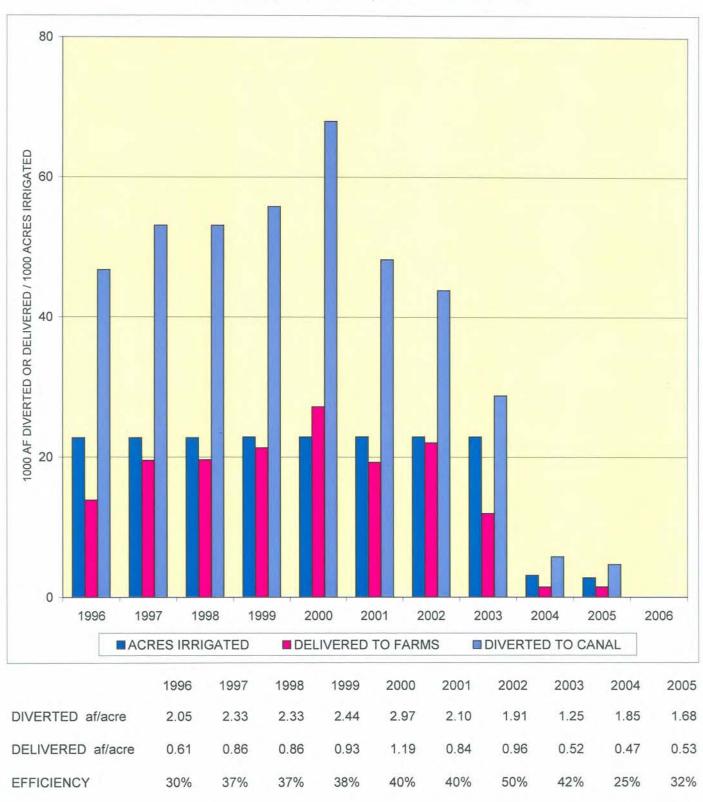
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 24,100 AF
NORMAL YEAR 19,200 AF
WET YEAR 3,600 AF

BOSTWICK IRRIGATION DISTRICT - NEBRASKA

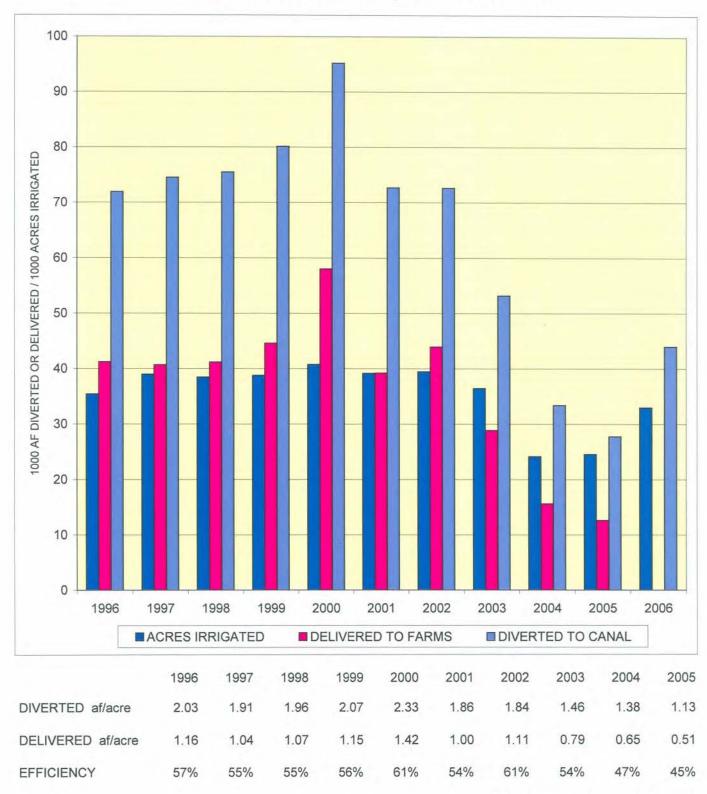
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 56,800 AF
NORMAL YEAR 9,900 AF

KANSAS-BOSTWICK IRRIGATION DISTRICT

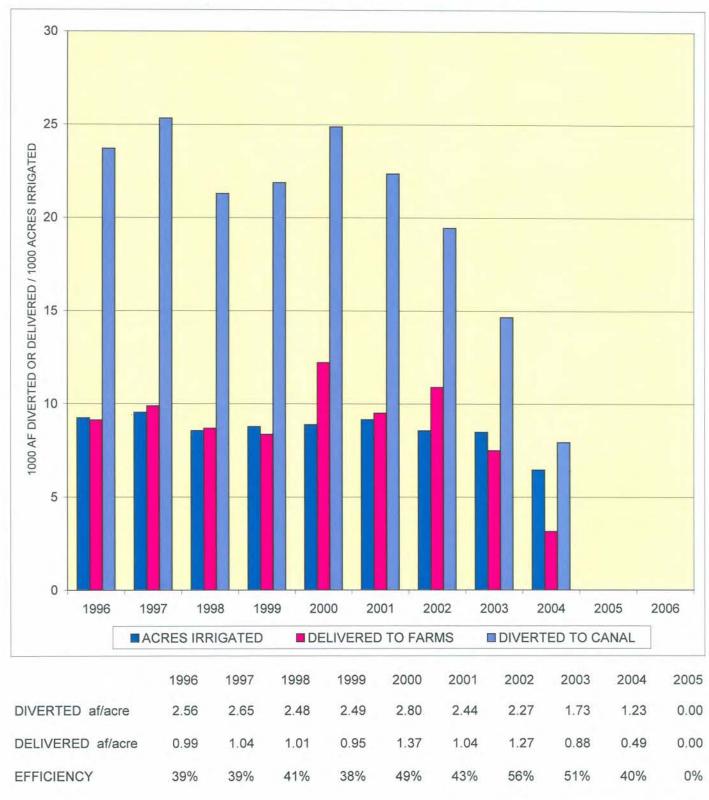
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 72,600 AF
NORMAL YEAR 14,100 AF

KIRWIN IRRIGATION DISTRICT

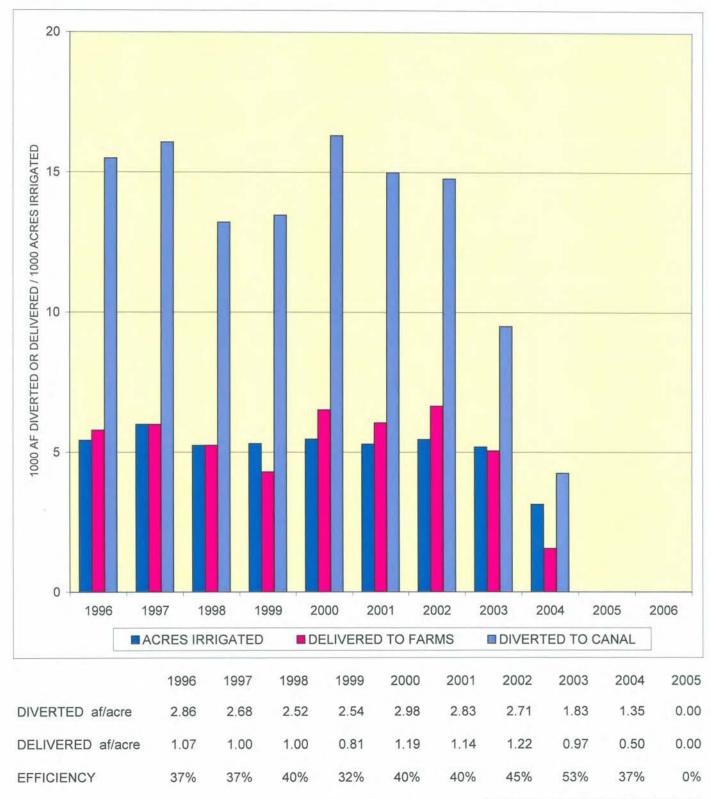
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 23,800 AF
NORMAL YEAR 5,200 AF

WEBSTER IRRIGATION DISTRICT

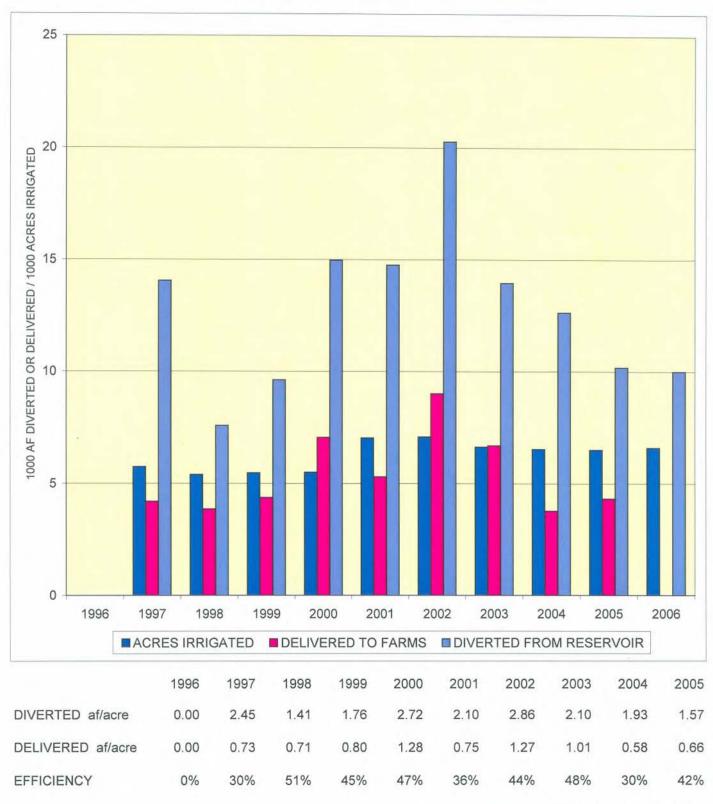
CANAL DIV., FARM DEL., AND ACRES IRRIG.



FORECASTED SHORTAGES (2006)
DRY YEAR 33,700 AF
NORMAL YEAR 13,000 AF

GLEN ELDER IRRIGATION DISTRICT

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



FORECASTED SHORTAGES (2006)
DRY YEAR 0 AF
NORMAL YEAR 0 AF