SYNOPSIS

General

This year is the 55th consecutive year that an Annual Operating Plans (AOP) has been prepared for the Federally-owned dams and reservoirs in the Niobrara, Lower Platte, and Kansas River Basins. The plan has been developed by the Water Operations Group in McCook, Nebraska for the 16 dams and reservoirs that are located in Colorado, Nebraska, and Kansas. These reservoirs, together with 9 diversion dams, 9 pumping plants, and 20 canal systems, serve approximately 269,532 acres of project lands in Nebraska and Kansas. In addition to irrigation and municipal water, these features serve flood control, recreation, and fish and wildlife purposes. A map at the end of this report shows the location of these features.

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

A Supervisory Control and Data Acquisition System (SCADA) located at McCook is used to assist in operational management of all 11 dams under Reclamation's jurisdiction that are located in the Kansas River Basin. A Hydromet system collects and stores near real-time data at selected stations in the Nebraska-Kansas Projects. The data includes water levels in streams, canals, and reservoirs and also gate openings. This data is transmitted to a satellite and downloaded to a Reclamation receiver in Boise, Idaho. The data can then be accessed by anyone interested in monitoring water levels or water usage in an irrigation system. The Nebraska-Kansas Projects currently has 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 2007 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.

2007 Summary

Climatic Conditions

Precipitation at the project dams during 2007 ranged from 77 percent of normal at Box Butte Dam to 152 percent of normal near Virginia Smith Dam. Temperatures during the first two months of the year were generally well below normal throughout the projects area. Precipitation during the first two months of the year varied throughout the projects area. Precipitation totals were above normal at 9 of the 16 project dams, varying from 62 to 350 percent. Temperatures were above normal during March and May and near normal in April. Precipitation during March, April, and May was generally above normal throughout the basin. Red Willow and Medicine

Creek Dams recorded the greatest precipitation total ever during the month of April while Davis Creek Dam recorded the greatest precipitation total ever for the month of May.

Average temperatures were near normal in June and July and above normal in August. Precipitation during June, July, and August was generally below normal throughout the basin. Twelve project dams recorded below normal precipitation in June, while eight project dams recorded below normal precipitation in July, and eleven project dams had below normal precipitation in August. Merritt Dam recorded the lowest precipitation total ever recorded for the month of July at the site.

September precipitation was generally below normal while precipitation in October was generally above normal. Both Virginia Smith and Davis Creek Dams recorded the greatest October precipitation total ever for the month at the respective sites. Temperatures in September and October were generally above normal throughout the projects area.

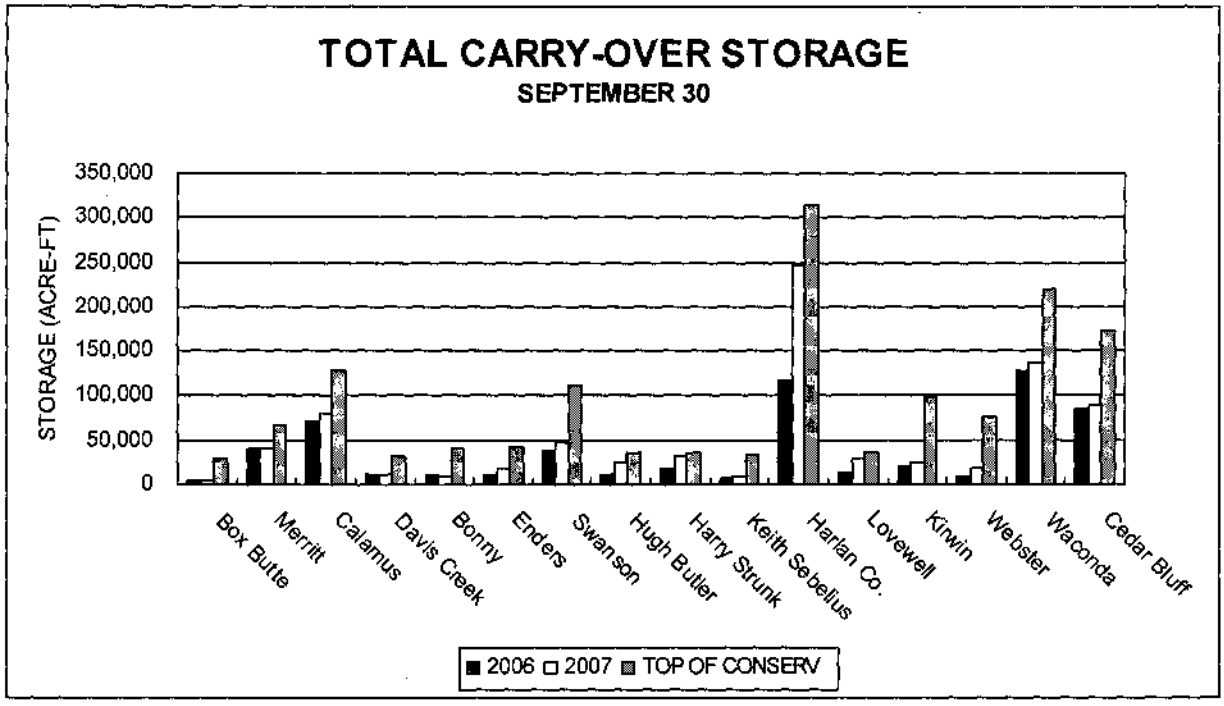
Precipitation during November was only 12 percent of normal over the projects with all project dams recording below normal precipitation. Virginia Smith and Harlan County Dams recorded zero precipitation for the month of November. Precipitation during December was well above normal at all project dams. December precipitation ranked within the top five greatest ever recorded for the month at 13 of the 16 project dams. Temperatures were above normal in November and below normal in December.

Storage Reservoirs

1. Conservation Operations. The 2007 inflow was above the dry-year forecast at all project reservoirs with the exception of Box Butte Reservoir. Merritt, Davis Creek, Bonny, Enders, Lovewell, and Webster Reservoirs, and Swanson and Waconda Lakes had inflows between the dry- and normal-year forecasts. Calamus, Kirwin, and Cedar Bluff Reservoirs along with Hugh Butler, Keith Sebelius, and Harlan County Lakes had inflows between the normal- and wet-year forecasts. Harry Strunk Lake had inflows above the wet-year forecast.

All project reservoirs had below average carryover storage from the 2006 water year. Swanson Lake in Southwest Nebraska and Bonny Reservoir in Eastern Colorado recorded below average inflows during all 12 months of 2007. Enders, Webster, and Box Butte Reservoirs, and Waconda Lake recorded below average inflows during 11 months of 2007. Reservoir releases were made from Merritt, Virginia Smith, Medicine Creek, and Lovewell Dams to maintain or reduce reservoir levels prior to the 2007 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 July and August was of little help in reducing the demands on project reservoirs. Reservoir storage remained near or below normal in all the project reservoirs at the end of the irrigation season with the exception of Harry Strunk Lake.

The following summarized graph shows a comparison of 2006 and 2007 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 2007. A flood release was made from Lovewell Reservoir from June 28th through July 6th to reduce pool levels. The fiscal year 2007 flood control benefits accrued by the operation of Reclamation's Nebraska-Kansas Projects facilities was $13,802,000 as determined by the Corps of Engineers. An additional benefit of $27,002,000 was credited to Harlan County Lake. The accumulative total of flood control benefits for the years 1951 through 2007 by facilities in this report total $1,914,399,000 (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 230,949 acre-feet (AF) of water diverted to irrigate approximately 144,170 acres of project lands in the 12 irrigation districts (see tables 3 and 6). The project water supply was either inadequate or limited for 169,258 acres of the total project lands. This includes lands in Mirage Flats, Frenchman Valley, H&RW, Frenchman-Cambridge, Almena, Bostwick in Nebraska, Kansas Bostwick, Kirwin and Webster Irrigation Districts. The project water supplies for the other units mentioned in this report were more than adequate in 2007.

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

Irrigation Production

The 2007 crop yields on lands receiving project water in the Nebraska-Kansas Projects were higher than 2006 for two of the three reporting districts. The average corn yield, the principal crop of all reporting districts, was 167 bushels per acre. This was approximately seven bushels per acre less than in 2006. The average unit price of corn when harvested was higher than the previous year at approximately $3.30/bu. The start of irrigation releases from project reservoirs varied considerably depending on storage water available. Much of the growing season was drier than normal with near normal temperatures. Crop maturity progressed near normal during the growing season. Several irrigation districts had finished making irrigation releases by mid September. Twelve canals did not divert water in 2007 as a result of extremely short water supplies. All irrigation districts had finished delivering water by the end of September with corn harvest commencing by 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. 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 2007 season, normal reservoir operations were favorable for recreation and fish and wildlife uses at project reservoirs with full or nearly full conservation pool levels. Lower water levels have been experienced at most reservoirs in the Kansas River Basin over the past few years somewhat limiting the recreation benefits. Normal summer drawdown due to irrigation releases did allow for some late summer shoreline revegetation.

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

2008 Outlook

Three forecast conditions have been developed for each of the reservoirs in the Niobrara, Lower Platte, and Kansas River Basins conforming with established operating criteria under various reservoir inflow conditions. These operation studies are included in table 4, sheets 1 through 16. The municipal and rural water district water supply requirements will be met under all three inflow forecast conditions for all units.

Under reasonable minimum inflow forecast conditions, irrigation districts receiving storage water from the following lakes and reservoirs are expected to receive less than a full supply: Box Butte, Enders, Swanson, Hugh Butler, Harry Strunk, Keith Sebelius, Harlan County, Lovewell, Kirwin and Webster. The irrigation districts affected are Mirage Flats; Frenchman Valley and H&RW; Frenchman-Cambridge; Almena; Bostwick in Nebraska and Kansas Bostwick; Kirwin; and Webster; respectively. If 2008 is a dry year, 169,258 of the total 269,532 acres with service available to be irrigated (63 percent) will have an inadequate water supply.

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

Under reasonable minimum inflow conditions, the conservation pools at Merritt, Calamus, Davis Creek, and Lovewell Reservoirs and Harry Sturnk Lake are expected to fill during 2008.

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 2007

Drought enters eighth year in region

Kansas adding up water bill

Dam road Closed for maintenance

Harlan County Lake level up from flooding

State has eye on Harry Strunk Lake

Enders making a comeback

Curtis Company wins Norton contract

Niobrara irrigators suing Nebraska DNR

Groundwater Improves in Parts of state

Groundwater Allocations At issue again

Lawsuit puts brakes On water payments

Governor signs water bill into law

Republican River Basin Study Act passes U.S. House of Representatives

Colorado threatens irrigation cutoff

Override of Bush Veto is expected

Another storm rolls through area

Republican River project affected

NRD board sets special Hearing on integrated Management plan

Bostwick board OKs sale of district water

Vegetation control meetings Planned for Republican River

Flood water raises Enders Lake To its highest level since 2000

New rules could shut down Colorado farmers' wells

Weed Management Area rolling into operation on Republican River

NRDs discuss timetable with irrigation districts

More control Likely to end Up in Lincoln

Rains wash out Hayes County

Kansas starts dispute with Nebraska on compact compliance

Split NRD board OKs water allocations

State announces purchase of water

Bureau working on Enders Dam basin

State responds to Kansas' Republican River letter

Kansas says it will act 'quickly,' 'decisively' to get their water

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 2007 and serves as a guideline for the 2008 operations. This report also describes the responsibilities of Reclamation, Corps of Engineers, and the irrigation and reclamation districts in the Niobrara, Lower Platte, and Kansas River Basins.

Operational Responsibilities

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

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

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

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

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

Tables and Exhibits

Records for the facilities reported in the AOP are included as tables and exhibits and are located following page 32.

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 1988 through 2007 were used for the analysis of reservoirs in the Niobrara, Lower Platte and Kansas River Basins.

Reservoir Operations

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

Major Features

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

Constructed by Reclamation

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

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

Constructed and Operated by the Corps of Engineers

1. Harlan County Dam in the Kansas River Basin.

Irrigation and Reclamation Districts

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

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

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 2008 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.

Republican River Compact — Kansas v. Nebraska

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

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

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

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

The Stipulation also required that the States, in cooperation with the United States, form a Conservation Committee to develop a proposed study plan to determine the quantitative effects of non-federal reservoirs and land terracing practices on water supplies in the Republican River Basin

above Hardy, Nebraska. The Study Plan supported by the three states, the Natural Resources Conservation Service, and Reclamation was completed and signed on April 28, 2004. Cooperative agreements for completing the five year study were developed between Reclamation, the University of Nebraska-Lincoln (UNL), and Kansas State University. Installation of data loggers on 35 reservoirs throughout the basin was completed in 2004. Advanced monitoring equipment for terraces and additional reservoirs was installed by UNL in 2006. Data collection and model development will continue in 2008. The study is expected to be complete in 2009.

Water-Short Year Administration will be in effect in those years in which the projected or actual irrigation supply is less than 119,000 acre feet of storage available for use from Harlan County Lake as determined by Reclamation. It was determined in 2007 that a "Water-Short Year Administration" was in effect.

Frenchman Valley Appraisal Study

In 2004, the Nebraska Department of Natural Resources (DNR) requested Reclamation prepare an Appraisal Study (AS) to examine opportunities for more efficient management of water supplies in the Frenchman River Valley including Reclamation's Enders Reservoir, a feature of the Frenchman-Cambridge Division in Nebraska. The study will focus on problems and opportunities in an area that has experienced dramatically reduced ground and surface water supplies, including reduced reservoir inflows. Pre-planning activities, including developing a Plan of Study began in 2005. Agencies participating in the study include, Reclamation, Nebraska DNR, Frenchman Valley and H&RW Irrigation Districts, Nebraska Game and Parks Commission, and the Upper and Middle Republican Natural Resources Districts. The AS is scheduled to be completed by September 2008.

Emergency Management

The Nebraska-Kansas Area Office (NKAO) continued to coordinate with local jurisdictions that could potentially be impacted by flooding from large operational releases and/or dam failure. Three tabletop exercises and two functional exercises were conducted during calendar year 2007. Orientation meetings were held for all of the NKAO dams. Functional exercises were held for the Bonny Dam Emergency Action Plan (EAP), Enders Dam EAP, Kirwin Dam EAP, and the Cedar Bluff 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 2007. At Davis Creek Dam, an internal alert was declared after a sinkhole was discovered immediately adjacent to the outlet works building. The underdrain system's outfalls were plugged with temporary mechanical packers. The effect of plugging the underdrains and the need for additional drainage is being evaluated. An internal alert at Red Willow Dam continues from 2005 due to discovery of material in the outlet works stilling basin under drain system. Additional analysis of the outlet works stilling basin under drain system will continue in 2008. 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 tabletop exercise and five functional exercises are planned in 2008. EAP orientation meetings will be held at all other NKAO dams. Site security plans for Box Butte, Merritt, Bonny, Enders, Red Willow, Medicine Creek, Norton, Kirwin, Webster and Cedar Bluff Dams were finalized and published in 2007. Site security plans for Virginia Smith and Davis Creek Dams will continue to be developed in 2008.

Public Safety Reviews

The Annual Safety Training for field personnel was held at the Community College in McCook, NE in February 2007. An invitation letter was sent to all of the water users within the NKAO jurisdiction. This letter included some safety tips, an invitation to the Annual Safety Training, and promoted the utilization of assistance from Reclamation when developing or maintaining safety programs for the water districts. This training provided maintenance personnel the opportunity to renew their 10 hour certification with respect to OSHA construction standards. First Aid and CPR training was also provided to all interested NKAO personnel. The First Aid and CPR training was provided by the McCook Fire Department.

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

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

In order to ensure facility accessibility, reliability and safety, achieving compliance with accessibility standards continues. Evaluations and the development of the action plans continued during 2007. The action plans identify work activities and provide estimated funding requirements for the needed accessibility retrofits at public facilities. These improvements are being coordinated with our managing partners, and are implemented as budget allows.

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

Facility Reviews, Maintenance and Construction

Periodic Facility Reviews were conducted at Box Butte, Enders, and Trenton Dams during 2007. Annual Site Inspections were conducted at Davis Creek, Bonny, Red Willow, Medicine Creek, Norton, Webster, and Cedar Bluff Dams in 2007.

Technical surveys were completed at Trenton Dam in 2007.

The Reclamation Dive team conducted underwater exams at Davis Creek and Lovewell stilling basins in 2007.

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 1998 to 2007, the project water supply averaged 11,100 AF, which is about 0.95 AF 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 increase 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.

2007 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 13.06 inches, which is 77 percent of normal. The 2007 total inflow of 11,674 AF was below the dry-year forecast and the lowest annual computed inflow ever recorded at the reservoir.

From early July through mid August, diversions of 6,963 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 2,504 AF (0.23 acre-foot per irrigable acre), which is a delivery efficiency of 36 percent. Total reservoir storage was only 3,264 AF at the end of the irrigation season. Privately owned irrigation wells supplemented the project water supply.

An orientation meeting to review the Box Butte Dam EAP took place in May and a Periodic Facility Review of Box Butte Dam was conducted in June.

The District continued to implement water conservation measures as outlined in their Water Management Plan and their Long Range Plan. Assistance to project irrigators provided by the District include delivery system 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.

2008 Outlook

The project water supply is expected to be inadequate in 2008 as it has been since the early 1960's. In the spring, the district will inform their water users of the amount of water that will be available from storage in Box Butte Reservoir. It is anticipated that District irrigators will continue to use their privately-owned irrigation wells as a supplemental supply.

A functional exercise of the Box Butte Dam EAP is scheduled to be conducted in 2008.

The District's future water conservation plans include the automation of Dunlap Diversion Dam and the outlet works gate at Box Butte Dam. The District will again seek assistance from Reclamation's WRRL to assist in installing equipment to meet those needs as well as to fine tune the automation and remote monitoring system already in place.

Ainsworth Unit, Sandhills Division in Nebraska

General

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

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

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

2007 Summary

Precipitation, as recorded near Merritt Dam, totaled 26.76 inches, which was 132 percent of normal. July precipitation was the lowest on record for the month since construction. The inflow for the year totaled 174,371 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 75,646 AF diverted from Merritt Reservoir into Ainsworth Canal, with 48,052 AF delivered to the farm headgates (delivery efficiency of 64 percent). There were 34,577 acres of land irrigated in 2007.

The district provided a total of 433 AF of irrigation water from holding ponds located within the district's service area.

An orientation meeting to review the Merritt Dam EAP took place in June 2007.

The Ainsworth Irrigation District, along with Reclamation and the local Natural Resource District, continued to provide support to the University of Nebraska Extension Service for an irrigation scheduling/nitrogen management demonstration that will educate and improve irrigation management in the area. The first demonstration site included a center pivot in the District and a field day was held in the fall of 2005. In 2006 a furrow irrigated site was added to this project. Field days were subsequently held in 2006 and 2007. This project may continue in 2008

Working with Reclamation's technical and financial assistance through a cooperative agreement, the District installed a new ramp flume on the Sand Draw Lateral. This flume, along with the flume placed on the Airport Lateral in 2006, will improve district delivery operations and reduce operational waste.

2008 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. If weather conditions or irrigation demands dictate, it may be necessary to begin filling the reservoir prior to this time. The reservoir level will be maintained from the end of April until irrigation releases begin. A 25 cfs release to the Snake River will begin when irrigation releases drop the reservoir pool below elevation 2946.0 feet. This release will be made for approximately 40 days and then terminated until the end of the irrigation season. Once the reservoir begins to refill following the irrigation season, a release of 25 cfs to the Snake River will resume until the reservoir reaches the desired winter elevation. The water supply is expected to be adequate in 2008 for the irrigation of 35,000 acres.

A tabletop exercise of the Merritt Dam EAP is scheduled for 2008.

The Ainsworth Irrigation District updated their Water Conservation Plan in the fall of 2005. Improved water measurement opportunities were identified as one of the main objectives of the District. The District is working with Reclamation on some operational measurement problems on some of the lateral turnouts and is investigating the possibility of installing some new

ramp flumes to improve delivery system operations. The District plans to work with Reclamation in order to automate the Sand Draw Lateral turnout in the spring of 2008. The District is also looking to improve measurement and automation opportunities on the B-15.0 Lateral.

North Loup Division in Nebraska

General

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

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

Davis Creek Reservoir level will be maintained at an average elevation of 2048.0 feet from the end of the irrigation season through the winter months. Off season seepage and evaporation has historically resulted in a reservoir drawdown of 2.5 to 3.0 feet requiring an end of season reservoir level of 2050.0 feet or less. This carry-over elevation provides a minimal recreational pool while reducing increases in groundwater storage due to reservoir seepage. The reservoir is filled via Mirdan Canal, starting in April and reaching full content by the end of June. A 160-acre recreation area adjoining the reservoir continues to be managed by the Lower Loup Natural Resources District. The area includes a boat ramp, a handicapped accessible fishing pier, a day-use area, a primitive camping area, shelter and a hiking path. Kent Diversion Dam is managed by the Nebraska Game and Parks Commission and is also open to day-use fishing with handicapped accessibility provided.

2007 Summary

Precipitation at Virginia Smith Dam was 35.96 inches which is 152 percent of normal. The inflow totaled 263,302 AF which was between the normal- and wet-year forecasts. There were 85,789 AF of water released into Mirdan Canal and 6,962 AF diverted through Kent Canal from the North Loup River. A total of 38,126 AF was diverted for district use above Davis Creek Reservoir. The farm headgate delivery was 20,346 AF which is a delivery efficiency of 53 percent. Land irrigated in 2007 totaled 33,999 acres above Davis Creek Reservoir. Calamus Reservoir inflows were bypassed during July, August, and September as required. The reservoir

elevation at the end of the year was at 2240.70 feet. The Calamus Fish Hatchery used bypassed natural flows and storage from Calamus Reservoir totaling 6,519 AF during 2007.

The precipitation of 32.81 inches near Davis Creek Dam was 135 percent of normal. Inflow to Davis Creek Reservoir totaled 50,424 AF during 2007. Beginning in mid April, Davis Creek Reservoir was filled from an elevation of approximately 2050.0 feet to a peak elevation of 2075.23 feet on June 29th using diversions from the North Loup River and Calamus Reservoir. A release of 43,352 AF was made from Davis Creek Dam into Fullerton Canal, with 20,547 AF delivered to the farm headgates (47 percent delivery efficiency). There were 20,922 acres irrigated below Davis Creek Reservoir. The reservoir elevation at the end of 2007 was near the normal wintering level at 2049.30 feet.

In May an Internal Alert was issued at Davis Creek Dam after a sinkhole was discovered ¡immediately adjacent to the outlet works building. The sinkhole was monitored throughout the irrigation season which verified the sinkhole was still active. The underdrain system was videoed which showed significant amount of material located in the eyebrow outfall pipe indicating a failure of the underdrain system. The underdrain system's outfalls were plugged with temporary mechanical packers. An Internal Alert remains in effect until the need for additional drainage and the effect of plugging the underdrains is evaluated.

An orientation meeting to review the Virginia Smith and Davis Creek Dams EAPs took place in May 2007.

On-site dam operator training and an Annual Site Inspection of Davis Creek Dam were conducted in September 2007.

Through a cooperative agreement with Reclamation, the District began installing remote monitoring equipment at key canal sites to improve delivery system operations. In 2007 equipment was placed at the Parshall flume located below Virginia Smith Dam, at the 9.5 check structure, and at the 13.4 check structure.

2008 Outlook

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

Water will be available for all irrigable acres with service from the Mirdan, Geranium and Scotia Canals and Lateral Systems. It is estimated that approximately 34,000 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 the season.

The fish hatchery demand for 2008 is expected to be similar to that of the last few years with approximately 6,500 AF required for the hatchery.

The District plans to expand their remote monitoring capabilities by installing equipment at additional wasteways and key canal measurement sites throughout their delivery system. In addition to further remote monitoring capabilities, during the spring of 2008 the District will begin installing equipment to allow for remote control or automation of Virginia Smith Dam, the radial gate at the 9.5 check structure, the radial gate at the 13.4 check structure, and the vertical slide gate at the 6.1 lateral turnout.

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.

2007 Summary

The annual precipitation total of 15.43 inches at Bonny Dam was 90 percent of normal. The annual computed inflow of 8,094 AF to Bonny Reservoir was between the dry-year and the normal-year forecasts. The reservoir level was 21.3 feet below the top of conservation at the first of the year. The reservoir level increased 2.1 feet to a maximum reservoir level of 3652.78 feet on May 2". The reservoir level gradually decreased throughout the remainder of the year. Bonny Dam recorded a maximum one day precipitation total of 1.44 inches overnight on June 13th. A new historical low reservoir elevation of 3648.39 feet was recorded on December 2nd. The reservoir elevation at the end of the year was 23.6 feet below the top of conservation at 3648.39 feet. The Corps of Engineers determined that $4,000 in flood prevention benefits were realized from the operation of Bonny Reservoir during 2007.

The Colorado Water Commissioner directed inflows from the South Fork of the Republican River and Landsman Creek be passed through Bonny Reservoir into Hale Ditch during early June for a total of 87 acre-feet. The Colorado Department of Natural Resources also ordered releases be made for compact compliance purposes into the river. A total of 1,359 acre-feet was released for this purpose from May 22" through June 5th.

An EAP functional exercise was conducted in September and an Annual Site Inspection of Bonny Dam was performed in June.

Concrete repairs were made on the spillway inlet apron and the crack in the transverse portion of the curved vertical wall in 2006. A large void was discovered during the concrete repairs on the right side of the inlet where the upper horizontal floor slab met the sloping floor slab. A decision document was drafted in 2007 to include the issue evaluation as part of the 2008 CFR rather than initiate a special issue evaluation.

2008 Outlook

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

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

A Comprehensive Facility Review of Bonny Dam is scheduled for 2008.

Frenchman Unit, Frenchman-Cambridge Division in Nebraska

General

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

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

2007 Summary

The annual precipitation total of 25.39 inches at Enders Dam was above normal (134 percent). The 2007 inflow into Enders Reservoir of 13,258 AF was between the dry- and normal-year forcasts This was the 40th consecutive year with below-normal inflows in which the conservation pool did not fill. The reservoir level was 26.7 feet below the top of conservation at the first of the year. The reservoir pool increased with late winter and spring inflows peaking at 3097.11 feet (15.2 feet below the top of conservation) on June 18th. Enders Dam recorded 6.02 inches of rainfall from June 11th though June 13th. Runoff from these storms increased the reservoir storage by approximately 9,400 AF. Due to the extremely low water supply available, no water was released from Enders Reservoir. The end of the year reservoir level was 19.7 feet below the top of conservation.

The Frenchman Valley Irrigation District did not divert water into Culbertson Canal in 2007. In the spring of 2007, the Nebraska Department of Natural Resources entered into a Memorandum of Agreement (MOA) with the Frenchman Valley Irrigation District to purchase the district's natural flow rights for calendar year 2007. The MOA, approved by the irrigators within the district, provided that no water would be diverted into the Culbertson Canal during 2007. The H&RW Irrigation District did not divert water into Culbertson Extension Canal in 2007 due to the extremely low water supply. This was the fifth consecutive year that the district did not deliver water. H&RW Irrigation District storage water in Enders Reservoir was carried over into 2008.

In August 2004, a small depression was discovered near the outlet works stilling basin at Enders Dam. An Internal Alert remains in effect until investigation of the stability of the outlet works stilling basin and risk assessment are complete. A Safety of Dams recommendation in 2006 recommend filling the stilling basin under drain system and potential voids with low-pressure grout and backfilling the existing sinkhole with compacted material after completion of the grouting program. The rapid increase in reservoir elevation in June 2007 prompted the addition of 50,000 pounds of concrete weights to be placed on the outlet works to counter any uplift on the structure.

A Periodic Facility Review of Enders Dam was conducted in June 2007 and a Functional EAP exercise took place in September.

In 2007, the Frenchman Valley Irrigation District (along with Reclamation) again provided support for a Limited Irrigation Demonstration project with the University of Nebraska Extension Service.

2008 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 75,000 AF. Most probable inflow conditions are expected to be inadequate by 47,200 AF and reasonable maximum inflow conditions by 13,200 AF, to irrigate the 9,292 acres in the Frenchman Valley Irrigation District and 11,915 acres in the H&RW Irrigation District.

The Frenchman Valley Irrigation District will continue to support the Limited Irrigation Demonstration project in 2008. The District has expressed an interest in replacement of additional open ditch laterals with buried pipe. Future piping projects are somewhat limited due to the water supply shortage. The District is also investigating remote monitoring opportunities to improve the delivery system operations. The District has identified two additional operational wasteways sites that would improve delivery systems with remote monitoring.

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

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

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 16,855 acres; Red Willow Canal to 4,797 acres; Bartley Canal to 6,353 acres; and Cambridge Canal to 17,664 acres. The water supply for these lands is provided by storage in Swanson, Hugh Butler, and Harry Strunk Lakes, and inflows of the Republican River and Red Willow and Medicine Creeks. The Frenchman-Cambridge Irrigation District has replaced all of the open ditch laterals which were economically feasible with buried pipe which has significantly increased both system and on-farm efficiencies.

2007 Summary

The annual precipitation total of 21.20 inches at Trenton Dam was 106 percent of normal. The inflow of 21,582 AF to Swanson Lake was between the dry-year and normal-year forecast. The reservoir level began the year approximately 20.2 feet below the top of conservation pool. The reservoir level gradually increased during the spring and peaked at 2737.14 feet on June 22nd (approximately 14.9 feet below full). Due to the extremely low water supply available, no water was released from Swanson Lake. Irrigation diversions were not made into Meeker-Driftwood Canal. This was the fifth consecutive year that the district did not deliver water from the Meeker-Driftwood Canal. At the end of the year the reservoir level was 17.0 feet below the top of conservation at 2735.00 feet. The Corps of Engineers determined that the reservoir prevented $3,828,000 in flood damages.

The annual precipitation total of 22.36 inches at Red Willow Dam was 114 percent of normal. The greatest precipitation event recorded at Red Willow Dam in 2007 was 2.32 inches overnight on April 23th. The annual inflow of 19,478 AF into Hugh Butler Lake was near the wet-year forecast. This was due to flood water in late May that increased the lake elevation 7.8 feet for a total of over 9,000 AF. The reservoir level at the first of the year was 18.6 feet below the top of conservation. Inflows increased the level of the reservoir to a peak of 2576.26 feet (5.5 feet below full) on June 6th. No irrigation releases were made in 2007. Irrigation diversions were not made into Red Willow Canal for the fifth consecutive year. The level of Hugh Butler Lake at the end of the year was 7.6 feet below the top of conservation. The Corps of Engineers determined that the reservoir prevented $286,000 in flood damages in 2007.

The annual precipitation total of 27.41 inches at Medicine Creek Dam was 133 percent of normal. The inflow of 67,732 AF was above the wet-year forecast. The reservoir level at the beginning of 2007 was 7.7 feet below the top of conservation. The reservoir pool gradually increased, filling the conservation capacity on April 23rd (2366.1 feet). The reservoir level increased to elevation 2372.19 feet (6.1 feet into the flood pool) on June 3rd due to large storms. Theses storms increased the storage approximately 11,000 AF with a peak average inflow of 3,500 cfs. Frenchman-Cambridge Irrigation District sold their 2007 water rights to the Republican River NRD's to aid in compact compliance. Water was released to mimic normal reservoir operations. Harry Strunk Lake was 0.3 foot below the top of conservation at the end of the year. The Corps of Engineers determined that the reservoir prevented $4,306,000 in flood damages.

An orientation meeting to review the Trenton, Red Willow, and the Medicine Creek Dams' EAPs took place in August 2007. An Annual Site Inspections was conducted in July at Red Willow Dam and August at Medicine Creek Dam. A Periodic Facility Review was conducted at Trenton Dam in June 2007. The Standing Operating Procedures for Trenton Dam was updated and republished in 2007. On-site dam operator training took place in September at both Red Willow and Medicine Creek Dams.

A technical survey of Trenton Dam was completed in September 2007.

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

Painting of the spillway gate and associated metal work at Trenton Dam began in 2006 but was discontinued due to winter weather. The painting contractor completed the painting in 2007. A new storage building at Trenton Dam was completed in 2007.

In 2007, the District completed a pipe project that replaced approximate 3 miles of the end section of Cambridge Canal with buried pipe. Reclamation provided technical and financial assistance for this project through a cooperative agreement with the District. This project eliminated approximately 3 miles of open ditch canal and will also provide improved delivery service to a number of project irrigators.

2008 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 22,500 AF.

A combined functional exercise of the Trenton, Red Willow, and Medicine Creek Dams' EAPs is scheduled for 2008.

The district plans to support the limited irrigation demonstration again in 2008. The District is also investigating expanding the operational capabilities of two check structures on Cambridge Canal to improve operations. The District has also been investigating the possibility of replacing the last 5 miles of Red Willow Canal with buried pipe. This project is on hold pending funding availability.

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.

2007 Summary

The annual precipitation at Norton Dam totaled 24.66 inches, which is 101 percent of normal. The total inflow of 7,801 AF was slightly above the normal-year forecast. The reservoir level was 18.1 feet below the top of conservation on December 31, 2006. Late winter and early spring inflows increased the reservoir level to a peak elevation of 2290.56 feet on June 19th (13.7 feet

below full pool). Irrigation releases were made from the reservoir in 2007. A total of 1,099 AF was released into Almena Canal with 403 AF delivered to farms (37 percent efficiency). Keith Sebelius Lake was 16.2 feet below the top of conservation (2288.08 feet) at the end of the year.

The city of Norton used 399 AF of municipal water during 2007.

An Annual Site Inspection of Norton Dam was conducted in April and an orientation exercise of the Norton Dam EAP took place in August 2007.

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

2008 Outlook

In July of 2007, 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 ten years. The MOA was approved by the irrigators within the district and provided that no water would be released for irrigation below elevation 2288.5 feet.

If 2008 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 2008, a shortage of 16,400 AF may be experienced. Requirements for the city of Norton will be met in full in 2008.

A Comprehensive Facility Review of Norton Dam is scheduled for 2008.

The District continues to plan projects to replace open ditch laterals with buried pipe that will reduce seepage losses, lessen maintenance requirements, and provide improvements in on-farm efficiencies. Due to uncertainty of the District's water supply and the temporary agreements with the State to forgo irrigation releases, the District had delayed some identified delivery system improvement projects.

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

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

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

Natural gain in streamflow, plus irrigation return flows, and operational bypass at Superior-Courtland Diversion Dam will provide some flow downstream.

The Kansas Department of Wildlife and Parks has requested that the Kansas-Bostwick Irrigation District and Reclamation maintain, when possible, a flow of 20 cfs into Lovewell Reservoir when the Courtland Canal is in operation and the conservation pool is below capacity. This recommended inflow provides excellent fishing around the canal inlet to the reservoir. The seepage below Lovewell Dam into White Rock Creek maintains a small live stream throughout the year.

2007 Summary - Bostwick Division - Harlan County Lake Operations

The annual precipitation at Harlan County Dam totaled 26.92 inches of rainfall, which is 119 percent of normal. The 2007 inflow of 198,528 AF was between the normal- and wet-year forecasts. 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 2007 approximately 19.0 feet below the top of conservation pool, at 1926.75 feet. Above normal temperatures the week of February 18th rapidly melted snow cover resulting in above normal inflows into Harlan County Lake. Storage in Harlan County increased over 22,000 AF with a peak average daily inflow of approximately 1,700 cfs. The reservoir level increased to 1929.90 feet at the end of February. Isolated thunderstorms in the basin above Harlan County produced some localized short term runoff during April and May. Strong storms dumped some heavy rainfall in the basin from April 20th through April 24th. Runoff from these storms increased the storage in Harlan County by approximately 24,000 AF with a peak average daily inflow of 2,300 cfs. The lake level increased to 1934.77 at the end of April. The basin received another 4 to 8 inches of rainfall in late May. Storm runoff from these storms peaked at approximately 1,000 cfs and increased the storage in Harlan County nearly 17,000 AF. The lake level at the end of June was 1939.36 feet, a storage increase of approximately 126,000 AF since the beginning of 2007. Irrigation releases began on June 21st and continued through August 31st. Flood releases were not required in 2007. The lake level continued to increase throughout the remainder of the year peaking at 1941.08 on December 31st Harlan County Lake prevented $27,002,000 of downstream flood damages during 2007 according to the Corps of Engineers.

Approximately 8,923 acres in the Kansas Bostwick Irrigation District above Lovewell Dam were furnished a limited water supply.

A total of 34,687 AF (approximately 61 percent of total inflow) was delivered to Lovewell Reservoir through the Courtland Canal.

2007 Summary - Bostwick Division - Nebraska

Irrigation diversions were not made into Franklin, Naponee, Franklin Pump, Superior, or Courtland Canals in Nebraska in 2007. In the spring of 2007, the Nebraska Department of Natural Resources and the Bostwick Irrigation District in Nebraska entered into a Memorandum of Agreement (MOA) to purchase the district's water supply for the 2007 calendar year. The MOA was approved by the irrigators within the district which provided that the district relinquish the rights to use its share of natural flow and storage water for the 2007 irrigation season.

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

The District applied and was selected for a 2006 Water 2025 project that will allow the District to complete the original Water 2025 proposal. The District completed the pipe installation on Superior Lateral 27.3 in the fall of 2007.

2007 Summary - Bostwick Division - Kansas

The 2007 precipitation at Lovewell Dam totaled 31.52 inches, which was 115 percent of normal. Lovewell Reservoir began 2007 with a water surface elevation 6.4 feet below the top of conservation. Inflows during the first four months of the year from White Rock Creek and diversion of Republican River flows via Courtland Canal slowly increased the reservoir filling the reservoir conservation pool on April 25th (elevation 1582.6 feet). Overnight on June 27th, an isolated thunderstorm dropped 3.29 inches of rainfall at the dam. The reservoir peaked at elevation 1585.11 feet on June 28th. Releases were made into White Rock Creek beginning on June 28th and discontinued on July 6th to lower the reservoir level. Diversions of Republican River natural flows into Lovewell Reservoir continued after the irrigation release had ended and were discontinued in October. The water surface elevation gradually increased to 1581.07 feet on December 31, 2007 (1.5 feet below the top of active conservation). Lovewell Reservoir prevented $4,000 of downstream flood damages during 2007 according to the Corps of Engineers

The Kansas-Bostwick Irrigation District diverted a total of 49,849 AF to serve 8,923 acres above Lovewell Dam and 24,055 acres below Lovewell Dam. Farm delivery efficiency averaged 46 percent in the district.

A dive inspection of the outlet works inlet and spillway were conducted in September 2007.

A new storage building at Lovewell Dam was completed in 2007.

In 2007, the Kansas Bostwick Irrigation District No. 2 was awarded a Water 2025 Challenge Grant that will allow the District to replace approximately 9 miles of open ditch lateral with buried pipe. The District began placing pipe in the fall of 2007, and this project will continue for the next 2 years.

2008 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 52,100 AF in meeting the full dry-year irrigation requirement for the Bostwick lands. Under most probable inflow conditions the water supply is expected to be fully adequate.

A functional exercise of the Lovewell Dam EAP is scheduled for 2008.

A specification is scheduled to be issued in 2008 to excavate approximately 3,000 cubic yards of sediment from the spillway inlet channel.

Both Districts will continue to investigate remote monitoring site installation that will provide system operations improvements. Kansas Bostwick Irrigation District is also providing support to KSU for the installation of a sub-surface drip irrigation project, which was installed in late 2006 and will be operational for the 2007 irrigation season.

The Kansas Department of Agriculture submitted a Water 2025 Challenge Grant proposal which was selected for funding in 2005. Through this project, the Kansas Division of Water Resources (KDWR) will install flow meter data logging equipment and remote monitoring equipment on approximately 100 diversions in the Republican River Basin. The real time monitoring of the diversions will enhance administration of water rights, improve water management, and expand water marketing opportunities between senior and junior water rights holders. There were 38 sites installed in 2006, but equipment problems delayed the project. These delays resulted in most sites not operating until after the 2006 irrigation season. The problems converting the meter readings to a transmittable data form limited the success of this pilot project. KDWR ended their participation in this pilot project, but still expresses an interest in this program.

Kirwin Unit, Solomon Division in Kansas

General

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

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

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

2007 Summary

The annual precipitation total of 29.49 inches at Kirwin Dam was 126 percent of normal. The inflow of 21,000 AF was between the normal- and wet-year forecasts. Kirwin Reservoir was 23.8 feet below the top of conservation pool at the first of the year. The reservoir level continued to increase to a peak elevation of 1711.96 feet (17.3 feet below full) on June 4th. Due to the spring runoff, irrigation releases were made from Kirwin Reservoir. A total of 2,810 acres received project water during 2007 with 2,939 AF delivered to farms. Farm Delivery efficiency was 35 percent. The Corps of Engineers determined Kirwin reservoir prevented $18,000 in flood damages.

A functional exercise of the Kirwin Dam EAP took place in August and an Annual Site Inspection of Kirwin Dam was conducted in September.

2008 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 20,000 AF may be experienced. A shortage of 3,400 AF may be expected under normal-year inflows.

A Comprehensive Facility Review of Kirwin Dam is scheduled for 2008.

The district continues to investigate opportunities to replace problem sections of open ditch laterals with buried pipe. The district is planning on replacing a short sub-lateral (19.0-0.6) with buried pipe in the spring of 2008. The district is also assisting landowners with on-farm improvements such as the installation of sprinklers through assisting with burying lines to pivots and through the relocation of turnouts. Future conservation projects include the possibility of installing remote monitoring equipment at the wasteways and at the Kirwin North/South Canal

split. Future conservation projects may be delayed due to the declining water supply and availability of cost-share funding.

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

Webster Unit, Solomon Division in Kansas

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.

2007 Summary

In 2007, the precipitation at Webster Dam was 128 percent of normal (30.04 inches). The inflow of 15,574 AF was below the normal-year forecast. Webster Reservoir began 2007 approximately 28.5 feet (elevation 1864.00 feet) below the top of conservation pool. The reservoir pool peaked at an elevation of 1871.45 feet on June 24th and gradually declined throughout the remainder of the year. Irrigation releases were not made from the reservoir in 2007. The reservoir level was 22.2 feet below the top of conservation on December 31, 2007. The Corps of Engineers determined Webster Reservoir prevented $20,000 in flood damages.

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

Concrete repairs in the spillway chute continued in 2007. Approximately 3,100 ft^2 of concrete was repaired in the flat portion of the spillway by NKAO personnel in 2007. Repairs to the other areas of the spillway were contracted to Vieco Development and Construction Company, Inc. Vieco repaired approximately 6000 ft^2 of spillway.

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

2008 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 forecasts to irrigate the district lands in 2008. Under dry-year inflows a shortage of 27,600 AF may be experienced. A shortage of 8,200 AF may be expected under normal-year inflows.

A Comprehensive Facility Review of Webster Dam is scheduled for 2008.

The district is not planning to install any large lateral pipe projects in 2008 but will continue to solicit interest from project irrigators. Interest in investing in delivery system improvements has been hampered by the uncertainty of future water supplies. The district is investigating improvements to the water measurement structure between the 2nd and 3rd sections of Osborne Canal. Future conservation projects include the possibility of installing remote monitoring equipment at the wasteways and at the beginning of the second and third sections of Osborne Canal.

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

Glen Elder Unit, Solomon Division in Kansas

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.

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.

2007 Summary

The annual precipitation total of 26.39 inches at Glen Elder Dam was 103 percent of normal. The inflow of 68,767 AF was below the normal-year forecast. Waconda Lake began the year 9.1 feet below the top of conservation. The lake level peaked at elevation 1448.95 feet on August 8th (6.7 feet below the top of conservation). This was the lowest annual peak since first filling of the reservoir. Irrigation releases began on June 8th and continued through September 19th reducing the lake level to 1448.03 feet. On December 31, 2007 the lake level was 1448.54 feet (7.1 feet below full).

A total of 19,388 AF of water was released from Glen Elder Dam in 2007. Storage releases of 7,473 AF combined with natural flow releases of 5,891 AF for the irrigation of 6,092 acres in the Glen Elder Irrigation District. The district delivered 4,706 AF to the farms resulting in a delivery efficiency of 35 percent. Storage releases totaling 77 AF were made for the City of Beloit, with an additional 4,913 AF bypassed for water quality as directed by the State Water Commissioner. Releases to the Mitchell County Rural Water District No. 2 totaled 698 AF.

A functional exercise of the Glen Elder Dam EAP took place in August 2007.

2008 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 6,500 acres will be irrigated in 2008. The storage in Waconda Lake and flows in the North and South Forks of the Solomon River will furnish an adequate water supply to the district. The reservoir will be regulated to maintain a constant level during the winter months when the reservoir is ice-covered to minimize ice damage. Under normal-year conditions, the lake is expected to be maintained at about two feet below the top of the conservation pool during the winter.

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

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

Cedar Bluff Unit, Smoky Hill Division in Kansas

General

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

2007 Summary

The annual precipitation total at Cedar Bluff Dam was 20.76 inches which is 99 percent of normal. The inflow (17,303 AF) was between the normal- and wet-year forecasts. At the beginning of the year, the level of Cedar Bluff Reservoir was 2127.96 feet (top of active conservation is 2144.00 feet). The reservoir level increased throughout the spring peaking at 2130.23 feet on June 22[1]. On December 31, 2007, the reservoir level had decreased to 2128.25 feet (15.8 feet below the top of active conservation).

The State of Kansas used the fish hatchery facility located below Cedar Bluff Dam with 1 AF released to the facility. No water was released from Cedar Bluff Reservoir during 2007 for the City of Russell.

An Annual Site Inspection of Cedar Bluff Dam was conducted in July and a functional exercise of the Cedar Bluff Dam EAP took place in August 2007.

2008 Outlook

Storage in Cedar Bluff Reservoir on December 31, 2007 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 2008.

A Comprehensive Facility Review of Cedar Bluff Dam is scheduled for 2008.

TABLE 1

RESERVOIR DATA - NIOBRARA, LOWER PLATTE AND KANSAS RIVER BASINS

CAPACITY ALLOCATIONS 1/
LIVE CONSERVATION

RESERVOIR		DEAD	Inactive	Active	FLOOD CONTROL
Box Butte 4/	- Elevation Ft.	3969.0	3979.0	4007.0	---
	Total Acre-feet	188	2,392	29,161	---
	Net Acre-feet	188	2,204	26,769	
Merritt	- Elevation Ft.	2875.0	2896.0	2946.0	---
	Total Acre-feet	774	4,662	66,726	---
	Net Acre-feet	774	3,888	62,064	
Calamus	- Elevation Ft.	2185.0	2213.3	2244.0	---
	Total Acre-feet	817	24,646	127,400	---
	Net Acre-feet	817	23,829	102,754	
Davis Creek	- Elevation Ft.	1998.5	2003.0	2076.0	---
	Total Acre-feet	76	172	31,158	---
	Net Acre-feet	76	96	30,986	
Bonny	- Elevation Ft.	3635.5	3638.0	3672.0	3710.0
	Total Acre-feet	1,418	2,134	41,340	170,160
	Net Acre-feet	1,418	716	39,206	128,820
Enders	- Elevation Ft.	3080.0	3082.4	3112.3	3127.0
	Total Acre-feet	7,516	8,948	42,910	72,958
	Net Acre-feet	7,516	1,432	33,962	30,048
Swanson	- Elevation Ft.	2710.0	2720.0	2752.0	2773.0
Lake	Total Acre-feet	2,118	12,430	112,214	246,291
	Net Acre-feet	2,118	10,312	99,784	134,077
Hugh Butler	- Elevation Ft.	2552.0	2558.0	2581.8	2604.9
Lake	Total Acre-feet	5,185	8,921	36,224	85,070
	Net Acre-feet	5,185	3,736	27,303	48,846
Harry Strunk	- Elevation Ft.	2335.0	2343.0	2366.1	2386.2
Lake	Total Acre-feet	3,408	7,897	34,647	87,361
	Net Acre-feet	3,408	4,489	26,750	52,714
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
Lovewell	- Elevation Ft.	1562.07	1571.7	1582.6	1595.3
	Total Acre-feet	1,659	11,644	35,666	86,131
	Net Acre-feet	1,659	9,970	24,022	50,465
Kirwin	- Elevation Ft.	1693.0	1697.0	1729.25	1757.3
	Total Acre-feet	4,969	8,515	98,154	313,290
	Net Acre-feet	4,969	3,546	89,639	215,136
Webster	- Elevation Ft.	1855.5	1860.0	1892.45	1923.7
	Total Acre-feet	1,256	4,231	76,157	259,510
	Net Acre-feet	1,256	2,975	71,926	183,353
Waconda	- 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	2107.8	2144.0	2166.0
	Total Acre-feet	4,402	28,574	172,452	364,342
	Net Acre-feet	4,402	24,172	143,878	191,890
Total Storage (A.F.)		35,670	273,495	1,472,250	3,909,611 2/
Total Net Acre-feet		35,670	237,810	1,198,755	2,357,568

1/ Includes space for sediment storage.

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

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

4/ New Area-Capacity Tables in effect 1-1-08. Sedimentation survey finished in April 2007.

TABLE 2
SUMMARY OF 2007 OPERATIONS
MIRAGE FLATS PROJECT

BOX BUTTE RESERVOIR — MIRAGE FLATS CANAL

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	742	42	51	0.17	5,730	0	0
Feb.	873	36	69	0.36	6,498	0	0
Mar.	3,705	47	145	0.87	10,011	0	0
Apr.	1,438	49	278	1.57	11,122	0	0
May	515	53	343	1.38	11,241	0	0
June	490	48	432	2.31	11,251	0	0
July	299	6,399	392	3.00	4,759	5,423	1,620
Aug.	765	1,666	240	1.17	3,618	1,540	884
Sep.	601	32	169	0.54	4,018	0	0
Oct.	757	36	131	1.01	4,608	0	0
Nov.	702	41	77	0.02	5,192	0	0
Dec.	788	38	47	0.66	5 895	0	0
TOTAL	11,674	8,486	2,374	13.06	–	6,963	2,504

NOTE -- Acres irrigated 2007: Mirage Flats Canal 11,092 acres.

SANDHILLS DIVISION
AINSWORTH UNIT

MERRITT RESERVOIR — AINSWORTH CANAL

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	Release To Canal (AF)	Delivered To Farms (AF)
Jan.	14,418	14,182	236	0.33	61,100	0	0
Feb.	13,759	13,190	299	0.75	61,370	0	0
Mar.	15,915	14,678	420	1.93	62,187	0	0
Apr.	16,363	10,513	728	3.38	67,309	0	0
May	15,211	13,488	1,430	6.81	67,602	2,785	161
June	12,317	12,278	1,495	4.13	66,146	5,627	642
July	14,626	36,615	1,416	0.10	42,741	35,433	25,220
Aug.	16,314	26,331	785	3.70	31,939	26,471	18,679
Sep.	14,019	5,264	694	1.03	40,000	5,330	3,350
Oct.	14,846	1,537	585	3.61	52,724	0	0
Nov.	12,903	4,116	411	0.07	61,100	0	0
Dec.	13 680	13 637	312	0.92	60,831	0	0
TOTAL	174,371	165,829	8,811	26.76	–	75,646	48,052

NOTE -- Acres irrigated 2007: Ainsworth Canal 34,577 acres.

NORTH LOUP DIVISION
CALAMUS RESERVOIR — ABOVE DAVIS CREEK MIRDAN CANAL

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	Release to Calamus Fish Hatch. (AF)	Release to Canal (AF)	Canal Use (AF)	Delivered To Farms (AF)
Jan.	18,795	8,340	459	0.60	117,322	319	0	0	0
Feb.	20,064	15,989	595	2.06	120,802	287	0	0	0
Mar.	23,666	20,256	1,069	2.21	123,143	301	0	0	0
Apr.	27,550	21,626	1,205	6.31	127,862	743	4,274	0	0
May	27,582	25,819	1,917	7.10	127,708	504	12,280	1,017	130
June	24,164	24,960	2,107	2.80	124,805	636	13,819	2,308	82
July	22,095	42,189	2,386	5.00	102,325	791	27,854	18,279	11,045
Aug	21,933	37,080	1,349	2.14	85,829	885	20,840	12,442	6,792
Sep.	17,618	21,228	1,235	1.56	80,984	705	6,722	4,080	2,297
Oct.	21,586	10,819	531	4.86	91,220	811	0	0	0
Nov.	18,690	7,459	657	0.00	101,794	339	0	0	0
Dec.	19 559	9 732	406	1.32	111 215	199	0	0	0
TOTAL	263,302	245,496	13,916	35.96	--	6,519	85,789	38,126	20,346

NOTE -- Acres irrigated 2007: Mirdan Canal 33,999 acres.

NORTH LOUP DIVISION (Continued)

DAVIS CREEK RESERVOIR — BELOW DAVIS CREEK FULLERTON CANAL

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Mo. Content (AF)	Release To Canal (AF)	Delivered To Farms (AF)
Jan.	49	235	53	0.69	10,473	0	0
Feb.	211	210	65	0.69	10,409	0	0
Mar.	367	365	115	3.56	10,296	0	0
Apr.	2,919	349	199	4.78	12,667	0	0
May	14,275	3,370	296	8.30	23,276	2,200	0
June	13,563	6,035	515	3.74	30,289	4,419	432
July	8,495	17,199	499	2.33	21,086	16,564	12,097
Aug.	7,561	14,418	290	2.23	13,939	14,138	6,807
Sep.	2,586	6,176	170	2.32	10,179	6,031	1,211
Oct.	289	218	150	3.11	10,100	0	0
Nov.	12	202	81	0.01	9,829	0	0
Dec.	98	197	46	1.05	9,684	0	0
TOTAL	50,424	48,973	2,479	32.81	--	43,352	20,547

NOTE - Acres irrigated 2007: Fullerton Canal 20,922 acres.

TABLE 2
SUMMARY OF 2006 OPERATIONS

UPPER REPUBLICAN DIVISION
ARMEL UNIT
BONNY RESERVOIR

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	Outflow To Hale Ditch (AF)
Jan.	631	369	84	0.45	10,113	0
Feb.	1,113	321	95	0.37	10,810	0
Mar.	1,209	369	160	0.30	11,490	0
Apr.	1,176	357	339	1.91	11,970	0
May	626	1,254	562	1.96	10,780	0
June	700	986	527	3.04	9,880	87
July	785	482	631	1.70	9,552	0
Aug.	216	430	481	2.88	8,857	0
Sep.	287	417	445	0.95	8,282	0
Oct.	584	430	343	0.42	8,093	0
Nov.	253	305	151	0.16	7,890	0
Dec.	513	369	87	1.29	7,947	0
TOTAL	8,094	6,090	3,905	15.43	–	87

TABLE 2
SUMMARY OF 2007 OPERATIONS

FRENCHMAN-CAMBRIDGE DIVISION
FRENCHMAN UNIT

ENDERS RESERVOIR

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	CULBERTSON CANAL Diversions To Canal (AF)	CULBERTSON CANAL Delivered To Farms (AF)	CULBERTSON EXT.CANAL Diversions To Canal (AF)	CULBERTSON EXT.CANAL Delivered To Farms (AF)
Jan.	472	184	51	0.59	11,311	0	0	0	0
Feb.	550	167	55	0.88	11,639	0	0	0	0
Mar.	573	184	108	0.30	11,920	0	0	0	0
Apr.	603	179	184	3.61	12,160	0	0	0	0
May	588	185	297	3.62	12,266	0	0	0	0
June	9,312	179	399	6.88	21,000	0	0	0	0
July	233	738	643	4.66	19,852	0	0	0	0
Aug.	109	639	694	1.61	18,628	0	0	0	0
Sep.	62	555	444	1.68	17,691	0	0	0	0
Oct.	96	307	413	0.48	17,067	0	0	0	0
Nov.	196	298	156	0.25	16,809	0	0	0	0
Dec.	464	307	81	0.83	16,885	0	0	0	0
TOTAL	13,258	3,922	3,525	25.39	--	0	0	0	0

NOTE: Acres irrigated 2007: Culbertson Canal - 0 acres; Culbertson Extension Canal - 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued)
MEEKER-DRIFTWOOD UNIT

SWANSON LAKE

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	MEEKER-DRIFTWOOD Release To Canal (AF)	MEEKER-DRIFTWOOD Delivered To Farms (AF)
Jan.	856	61	189	0.41	36,916	0	0
Feb.	2,897	56	210	0.16	39,547	0	0
Mar.	5,999	61	425	1.64	45,060	0	0
Apr.	6,563	60	767	4.93	50,796	0	0
May	2,275	62	1,472	2.18	51,537	0	0
June	1,594	60	1,599	1.25	51,472	0	0
July	359	62	1,867	2.65	49,902	0	0
Aug.	655	62	1,606	4.58	48,889	0	0
Sep.	0	60	1,750	1.36	47,079	0	0
Oct.	0	61	1,167	0.70	45,851	0	0
Nov.	0	60	640	0.12	45,151	0	0
Dec.	385	61	264	1 - 22	45 211	0	0
TOTAL	21,582	726	11,956	21.20	--	0	0

NOTE: Acres irrigated 2007: Meeker-Driftwood Canal - 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued)
RED WILLOW UNIT

HUGH BUTLER LAKE

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	RED WILLOW CANAL Diversions To Canal (AF)	RED WILLOW CANAL Delivered To Farms (AF)	BARTLEY CANAL Diversions To Canal (AF)	BARTLEY CANAL Delivered To Farms (AF)
Jan.	942	246	58	0.42	13,743	0	0	0	0
Feb.	2,026	222	66	0.18	15,481	0	0	0	0
Mar.	1,348	246	136	1.52	16,447	0	0	0	0
Apr.	1,973	238	256	5.67	17,926	0	0	0	0
May	9,359	246	588	2.27	26,451	0	0	0	0
June	1,949	238	689	2.23	27,473	0	0	0	0
July	499	246	808	4.56	26,918	0	0	0	0
Aug.	210	246	743	2.12	26,139	0	0	0	0
Sep.	73	238	612	1.63	25,362	0	0	0	0
Oct.	152	246	419	0.74	24,849	0	0	0	0
Nov.	265	238	210	0.10	24,666	0	0	0	0
Dec.	682	246	109	0.92	24,993	0	0	0	0
TOTAL	19,478	2,896	4,694	22.36	–	0	0	0	

NOTE -- Acres irrigated 2007: Red Willow Canal - 0 acres; Bartley Canal 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued)
CAMBRIDGE UNIT

HARRY STRUNK LAKE

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	CAMBRIDGE CANAL Diversions To Canal (AF)	CAMBRIDGE CANAL Delivered To Farms (AF)
Jan.	2,430	61	86	0.72	25,211	0	0
Feb.	7,525	56	106	0.86	32,574	0	0
Mar.	3,364	1,908	238	0.95	33,792	0	0
Apr.	5,483	2,394	452	6.61	36,429	0	0
May	11,522	3,243	960	3.05	43,748	0	0
June	15,194	21,335	852	2.14	36,755	0	0
July	7,840	12,452	857	6.71	31,286	0	0
Aug.	4,275	4,770	708	2.48	30,083	0	0
Sep.	2,281	60	668	2.11	31,636	0	0
Oct.	2,351	62	455	0.68	33,470	0	0
Nov.	2,422	1,619	283	0.07	33,990	0	0
Dec.	3,045	2,737	145	1.03	34 153	0	0
TOTAL	67,732	50,698	5,810	27.41	--	0	0

NOTE -- Acres irrigated 2007: Cambridge Canal 0 acres.

TABLE 2
SUMMARY OF 2007 OPERATIONS

KANASKA DIVISION
ALMENA UNIT

KEITH SEBELIUS LAKE

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	Release To City Of Norton (AF)	ALMENA CANAL Diversions To Canal (AF)	ALMENA CANAL Delivered To Farms (AF)
Jan.	319	49	55	0.55	8,330	18	0	0
Feb.	2,774	45	74	0.26	10,985	17	0	0
Mar.	749	49	158	1.84	11,527	19	0	0
Apr.	884	50	403	3.17	11,958	20	0	0
May	791	65	571	3.97	12,113	34	0	0
June	632	81	618	3.14	12,046	51	0	0
July	631	1,287	728	3.47	10,662	65	1,099	403
Aug.	185	80	593	2.37	10,174	49	0	0
Sep.	23	71	481	1.19	9,645	41	0	0
Oct.	355	66	321	3.14	9,613	35	0	0
Nov.	72	56	152	0.08	9,477	26	0	0
Dec.	386	55	76	1.48	9,732	24	0	0
TOTAL	7,801	1,954	4,230	24.66	--	399	1,099	403

NOTE: Acres irrigated 2007: Almena Canal - 1,700 acres.

BOSTWICK DIVISION
FRANKLIN UNIT

HARLAN COUNTY LAKE
Data from Corps of Engineers

Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	FRANKLIN CANAL Release To Canal (AF)	FRANKLIN CANAL Delivered To Farms (AF)	NAPONEE CANAL Release To Canal (AF)	NAPONEE CANAL Delivered To Farms (AF)
Jan.	3,035	0	479	2.77	118,855	0	0	0	0
Feb.	22,631	0	457	0.31	141,029	0	0	0	0
Mar.	17,425	0	899	2,52	157,555	0	0	0	0
Apr.	30,803	0	2,390	2.78	185,968	0	0	0	0
May	24,476	0	3,171	5.29	207,273	0	0	0	0
June	41,187	2,088	4,313	2.78	242,059	0	0	0	0
July	26,130	12,238	6,174	2.79	249,777	0	0	0	0
Aug.	11,702	6,911	5,981	1.56	248,587	0	0	0	0
Sep.	4,304	0	5,970	2.41	246,921	0	0	0	0
Oct.	5,355	0	4,165	2.18	248,111	0	0	0	0
Nov.	4,284	0	3,094	0.00	249,301	0	0	0	0
Dec.	7,196	0	1,104	1.53	255,393	0	0	0	0
TOTAL	198,528	21,237	38,197	26.92	--	0	0	0	0

NOTE: Acres irrigated 2007: Franklin Canal - 0 acres; Naponee Canal - 0 acres.

BOSTWICK DIVISION (Continued)
SUPERIOR-COURTLAND UNIT

Month	FRANKLIN PUMP CANAL Diverted To Canal (AF)	FRANKLIN PUMP CANAL Delivered To Farms (AF)	SUPERIOR CANAL Diverted To Canal (AF)	SUPERIOR CANAL Delivered To Farms (AF)	Total Diversion (AF)	COURTLAND CANAL - ABOVE LOVEWELL NEBRASKA USE Total (AF)	NEBRASKA USE Delivered To Farms (AF)	KANSAS USE Diversion To Canal (AF)	KANSAS USE Delivered To Farms (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	0	0	0	0	0	3,114	66
July	0	0	0	0	0	0	0	7,041	3,266
Aug.	0	0	0	0	0	0	0	4,593	2,457
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	0	0	0	0	0	14,748	5,789

NOTE: Acres irrigated 2007: Franklin Pump Canal - 0 acres; Superior Canal - 0 acres.
Courtland Canal-Nebraska use - 0 acres.
Courtland Canal-Kansas use - 8,923 acres.

BOSTWICK DIVISION (Continued)
COURTLAND UNIT
LOVEWELL RESERVOIR

Month	Est. Flow from White Rock Creek (AF)	Inflow from Courtland 34.8 (AF)	Total Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	COURTLAND (Below) Release To Canal (AF)	COURTLAND (Below) Delivered To Farms (AF)
Jan.	549	2,047	2,596	12	120	0.43	22,069	0	0
Feb.	1,485	4,076	5,561	11	160	0.71	27,459	0	0
Mar.	2,052	3,602	5,654	12	347	2.44	32,754	0	0
Apr.	682	3,941	4,623	12	766	1.57	36,599	0	0
May	2,410	4,447	6,857	1,836	1,142	5.61	40,478	1,695	0
June	7,402	1,806	9,208	4,924	1,390	8.11	43,372	4,637	196
July	558	5,318	5,876	16,318	1,215	1.94	31,715	15,064	8,735
Aug.	2,879	5,975	8,854	13,489	1,219	2.98	25,861	13,505	8,233
Sep.	1,372	3,227	4,599	12	908	2.83	29,540	0	0
Oct.	1,795	248	2,043	12	683	3.05	30,888	0	0
Nov.	0	0	0	12	424	0.02	30,452	0	0
Dec.	1,024	0	11024	12	191	1.83	31,273	0	0
TOTAL	22,208	34,687	56,895	36,663	8,565	31.52	--	35,101	17,164

NOTE: Acres irrigated 2007: Courtland Canal below Lovewell 24,055 acres.

TABLE 2
SUMMARY OF 2007 OPERATIONS

SOLOMON DIVISION
KIRVVIN UNIT

	KIRVVIN RESERVOIR					KIRVVIN CANAL	
Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	Release To Canal (AF)	Delivered To Farms (AF)
Jan.	606	0	98	0.45	19,902	0	0
Feb.	6,445	0	148	0.69	26,199	0	0
Mar.	3,550	0	307	3.34	29,442	0	0
Apr.	2,657	0	621	1.55	31,478	0	0
May	1,930	0	1,130	2.85	32,278	0	0
June	898	0	1,275	1.66	31,901	0	0
July	1,827	5,187	1,373	7.16	27,168	5,233	1,652
Aug.	1,217	3,306	1,115	5.19	23,964	3,208	1,287
Sep.	591	0	780	2.28	23,775	0	0
Oct.	402	0	514	2.98	23,663	0	0
Nov.	167	0	296	0.12	23,534	0	0
Dec.	710	O	148	1 22	24 096	0	O
TOTAL	21,000	8,493	7,805	29.49	–	8,441	2,939

NOTE: Acres irrigated 2007: Kihvin Canal - 2,810 acres.

SOLOMON DIVISION (Continued)
WEBSTER UNIT

	WEBSTER RESERVOIR					OSBORNE CANAL	
Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	591	0	85	0.67	9,068	0	0
Feb.	3,910	0	109	0.15	12,869	0	0
Mar.	2,965	0	223	4.61	15,611	0	0
Apr.	3,118	0	388	1.83	18,341	0	0
May	1,851	0	807	3.04	19,385	0	0
June	1,048	0	858	1.19	19,575	0	0
July	614	0	1,046	5.37	19,143	0	0
Aug.	491	0	1,056	5.09	18,578	0	0
Sep.	565	0	735	4.33	18,408	0	0
Oct.	0	0	622	1.18	17,786	0	0
Nov	0	0	348	0.21	17,438	0	0
Dec.	421	0	139	2.37	17720	0	0
TOTAL	15,574	0	6,416-	30.04	--	0	0

NOTE: Acres irrigated 2007: Osborne Canal - 0 acres.

SOLOMON DIVISION (Continued)
GLEN ELDER UNIT

	WACONDA LAKE						OUTFLOW TO RIVER			
Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	City of Beloit Storage Release (AF)	Irrig. Quality Bypass (AF)	District Storage Release (AF)	Other Controlled Releases (AF)	Release To Mitchell Co. RWD No. 2 (AF)
Jan.	1,149	676	473	0.49	125,621	0	615	0	0	61
Feb.	4,346	615	593	1.21	128,759	0	555	0	0	60
Mar.	3,841	677	1,156	2.31	130,767	0	615	0	0	62
Apr.	4,990	650	2,399	2.16	132,708	0	595	0	0	55
May	6,634	667	3,835	4.56	134,840	0	615	0	0	52
June	6,265	2,451	4,328	2.66	134,326	0	277	1,131	990	53
July	11,935	5,944	5,220	3.81	135,097	0	0	3,057	2,814	73
Aug.	15,473	3,559	5,460	2.30	141,551	0	95	1,559	1,841	64
Sep.	2,138	2,188	3,988	2.04	137,513	77	86	1,726	246	53
Oct.	7,418	545	2,835	2.57	141,551	0	492	0	0	53
Nov.	781	536	1,396	0.12	140,400	0	476	0	0	60
Dec.	3,797	544	670	2.16	142,983	0	492	0	0	52
TOTAL	68,767	19,052	32,353	26.39	--	77	4,913	7,473	5,891	698

NOTE: Acres irrigated 2007: Glen Elder District 6,092 acres.

SMOKY HILL DIVISION
ELLIS UNIT

	CEDAR BLUFF RESERVOIR							
Month	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)	End of Month Content (AF)	Release to City of Russell (AF)	Release To Fish Hatchery (AF)	Release to Kansas Water Office (AF)
Jan.	449	0	290	0.36	85,516	0	0	0
Feb.	2,754	0	338	0.21	87,932	0	0	0
Mar.	1,713	0	649	4.27	88,996	0	0	0
Apr.	2,015	0	1,025	2.64	89,986	0	0	0
May	1,877	0	1,753	3.43	90,110	0	0	0
June	6,279	0	2,016	1.80	94,373	0	0	0
July	1,143	0	2,552	2.76	92,964	0	0	0
Aug.	314	1	2,501	1.00	90,776	0	1	0
Sep.	15	0	1,878	1.72	88,913	0	0	0
Oct.	0	0	1,468	0.81	87,445	0	0	0
Nov.	0	0	1,290	0.16	86,155	0	0	0
Dec.	744	0	382	1.60	86 517	0	0	0
TOTAL	17,303	1	16,142	20.76	--			

TABLE 3

ACRES IRRIGATED IN 2007 AND ESTIMATES FOR 2008

Irrigation District and Canal	Acres With Service Available	Acres Irrigated in 2007	Estimated Acres to be Irrigated in 2008
Mirage Flats Irrigation District			
Mirage Flats Canal	11,662	11,092	11,100
Ainsworth Irrigation District			
Ainsworth Canal	35,000	34,577	34,500
Twin Loups Irrigation District			
Above Davis Creek	34,053	33,999	34,000
Below Davis Creek	20,851	20,922	20,900
Total Twin Loups Irrigation District	54,904	54,921	54,900
Frenchman Valley Irrigation District			
Culbertson Canal	9,292	0	0
H & RW Irrigation District			
Culbertson Extension Canal	11,915	0	0
Frenchman-Cambridge Irrigation District			
Meeker-Driftwood Canal	16,855	0	0
Red Willow Canal	4,797	0	4,000
Bartley Canal	6,353	0	0
Cambridge Canal	17,664	0	15,500
Total Frenchman-Cambridge Irrigation District	45,669	0	19,500
Almena Irrigation District			
Almena Canal	5,764	1,700	0
Bostwick Irrigation District in Nebraska			
Franklin Canal	10,920	0	10,000
Naponee Canal	1,650	0	1,600
Franklin Pump Canal	2,090	0	2,000
Superior Canal	5,848	0	5,500
Courtland Canal (Nebraska)	1,946	0	1,900
Total Bostwick Irrigation Dist. in Nebraska	22,454	0	21,000
Kansas-Bostwick Irrigation District			
Courtland Canal above Lovewell	13,378	8,923	12,000
Courtland Canal below Lovewell	29,122	24,055	25,000
Total Kansas-Bostwick Irrigation District	42,500	32,978	37,000
Kirwin Irrigation District			
Kirwin Canal	11,465	2,810	2,800
Webster Irrigation District			
Osborne Canal	8,537	0	0
Glen Elder Irrigation District	10,370	6,092	6,500
TOTAL PROJECT USES	269,532	144,170	187,300
Non-Project Uses			
Hale Ditch	700	0	700
TOTAL PROJECT AND NON-PROJECT	270,232	144,170	188,000

BOX BUTTE RESERVOIR OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE 1000 AF	END OF MONTH ELEV FT	END OF MONTH CONT 1000 AF	RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	16	1.0	1.2	0.1	2	0.1	0.0	0.0	3985.5	5.6	0.8
FEB	22	1.2	1.5	0.1	2	0.1	0.0	0.0	3987.1	6.6	1.0
MAR	28	1.7	2.5	0.1	2	0.1	0.0	0.0	3989.2	8.1	1.5
APR	24	1.4	4.1	0.3	2	0.1	0.0	0.0	3990.5	9.1	1.0
MAY	18	1.1	4.9	0.3	5	0.3	0.0	0.0	3991.1	9.6	0.5
JUN	10	0.6	6.1	0.3	119	7.1	0.0	0.0	3980.0	2.8	-6.8
JUL	7	0.4	7.0	0.2	226	13.9	0.0	13.3	3979.0	2.4	-0.4
AUG	13	0.8	6,3	0.2	226_	13.9	0.0	13.3	3979.0	2.4	0.0
SEP	13	0.8	4.6	0.1	40	2.4	0.0	1.7	3979.0	2.4	0.0
OCT	16	1.0	3.4	0,1	2	0.1	0.0	0.0	3980.9	3.2	0.8
NOV	20	1.2	1.8	0.1	2	0.1	0.0	0.0	3983.0	4.2	1.0
DEC	16	1.0	1.1	0.1	2	0.1	0.0	0.0	3984.4	5.0	0.8
TOTAL		12.2	44.5	2.0		38.3	0.0	28.3			0.2
MOST PROBABLE INFLOW CONDITIONS											
JAN	21	1.3	1.1	0.1	2	0.1	0.0	0.0	3985.9	5.9	1.1
FEB	27	1.5	1.3	0.1	2	0.1	0.0	0.0	3987.9	7.2	1.3
MAR	36	2.2	2.3	0.1	2	0.1	0.0	0.0	3990.6	9.2	2.0
APR	30	1.8	3.8	0.3	2	0.1	0.0	0.0	3992.2	10.6	1.4
MAY	24	1.5	4.5	0.4	3	0.2	0.0	0.0	3993.2	11.5	0.9
JUN	13	0.8	5.7	0.4	71	4.2	0.0	0.0	3988.7	7.7	-3.8
JUL	10	0.6	6.5	0.3	210	12.9	0.0	7.3	3979.0	2.4	-5.3
AUG	16	1.0	5.8	0.2	164	10.1	0.0	9.3	3979.0	2.4	0.0
SEP	17	1.0	4.2	0.1	29	1.7	0.0	0.8	3979.0	2.4	0.0
OCT	21	1.3	3.1	0.1	2	0.1	0.0	0.0	3981.5	3.5	1.1
NOV	27	1.6	1.7	0.1	2	0.1	0.0	0.0	3984.2	4.9	1.4
DEC	21	1.3	1.0	0.0	2	0.1	0.0	0.0	3986.3	6.1	1.2
TOTAL		15.9	41.0	2.2		29.8	0.0	17.4			1.3
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	26	1.6	1.0	0.0	2	0.1	0.0	-0.0	3986.6	6.3	1.5
FEB	34	1.9	1.2	0.1	2	0.1	0.0	0.0	3989.1	8.0	1.7
MAR	46	2.8	2.1	0.1	2	0.1	0.0	0.0	3992.2	10.6	2.6
APR	40	2.4	3.4	0.3	2	0.1	0.0	0.0	3994.3	12.6	2.0
MAY	31	1.9	4.1	0.4	3	0.2	0.0	0.0	3995.6	13.9	1.3
JUN	18	1.1	5.2	0.4	47	2.8	0.0	0.0	3993.5	11.8	-2.1
JUL	13	0.8	5.9	0.4	135	8.3	0.0	0.0	3982.4	3.9	-7.9
AUG	21	1.3	5.3	0.2	104	6.4	0.0	3.8	3979.0	2.4	-1.5
SEP	22	1.3	3.9	0.1	18	1.1	0.0	0.0	3979.3	2.5	0.1
OCT	26	1.6	2.8	0.1	2	0.1	0.0	0.0	3982.4	3.9	1.4
NOV	34	2.0	1.5	0.1	2	0.1	0.0	0.0	3985.6	5.7	1.8
DEC	28	1.7	0.9	0.0	2	0.1	0.0	0.0	3988.1	7.3	1.6
TOTAL		20.4	37.3	2.2		19.5	0.0	3.8			2.5

MERRITT RESERVOIR OPERATION ESTIMATES - 2008

	INFLOW		EVAPORATION		RELEASE REQUIREMENT CANAL	RIVER	TOTAL		RESERVOIR REQUIREMENT SPILL	SHORTAGE	END OF MONTH RESERVOIR ' ELEV	CONT	CHANGE
	MEAN	1000		1000	1000	1000	MEAN	1000	1000	1000		1000	1000
MONTH	CFS	AF	INCHES	AF	AF	AF	CFS	AF	AF	AF	FT	AF	AF
REASONABLE MINIMUM INFLOW CONDITIONS													
JAN	223	13.7	1.3	0.3	0.0	1.0	16	1.0	12.1	0.0	2944.0	61.1	0.3
FEB	243	13.5	1.6	0.4	0.0	1.0	18	1.0	12.1	0.0	2944.0	61.1	0.0
MAR	250	15.4	2.2	0 5	0.0	1.0	16	1.0	11.1	0.0	2945.0	63.9	2.8
APR	255	15.2	3.5	0.8	0.0	1.0	17	1.0	10.6	0.0	2946.0	66.7	2.8
MAY	247	15.2	4.8	1.2	3.3	1.0	70	4.3	9.7	0.0	2946.0	66.7	0.0
JUN	235	14.0	6.0	1.5	7.5	1.0	143	8.5	4.0	0.0	2946.0	66.7	0.0
JUL	236	14.5	6.8	1.4	32.9	2.5	576	35.4	0.0	0.0	2936.6	44.4	-22.3
AUG	242	14.9	6.0	0.8	30.6	1.5	522	32.1	0.0	0.0	2925.1	26.4	-18.0
SEP	239	14.2	4 8	0.5	8.4	1.0	158	9 4	0.0	0.0	2928.3	30.7	4.3
OCT	242	14 9	4.0	0.5	0.0	2.5	41	2.5	0.0	0.0	2935.6	42.6	11.9
NOV	235	14.0	2.3	0.4	0.0	2.5	42	2.5	0.0	0.0	2941.0	53.7	11.1
DEC	220	13.5	1.5	0.3	0.0	1.0	16	1.0	4.8	0.0	2944.0	61.1	7.4
TOTAL		173.0	44.8	8.6	82.7	17.0		99.7	64.4	0.0			0.3
MOST PROBABLE INFLOW CONDITIONS													
JAN	237	14.6	1.1	0.2	0.0	1.0	16	1.0	13.1	0.0	2944.0	61.1	0.3
FEB	259	14.4	1.3	0.3	0.0	1.0	18	1.0	13.1	0.0	2944.0	61.1	0.0
MAR	268	16.5	1.9	0.4	0.0	1.0	16	1.0	12.3	0.0	2945.0	63.9	2.8
APR	274	16.3	3.2	0.8	0.0	1.0	17	1.0	11.7	0.0	2946.0	66.7	2.8
MAY	265	16.3	4.3	1.0	2.9	1.0	63	3.9	11.4	0.0	2946.0	66.7	0.0
JUN	252	15.0	5.4	1.3	6.4	1.0	124	7.4	6.3	0.0	2946.0	66.7	0.0
JUL	252	15.5	6.2	1.3	28.1	2.5	498	30.6	0.0	0.0	2939.5	50.3	-16.4
AUG	259	15.9	5.4	0.9	26.3	1.5	452	27.8	0.0	0.0	2932.7	37.5	-12.8
SEP	255	15.2	4.3	0.6	7.2	1.0	138	8.2	0.0	0.0	2936.3	43.9	6.4
OCT	259	15.9	3.6	0.6	0.0	2.5	41	2.5	0.0	0.0	2942.3	56.7	12.8
NOV	252	15.0	2.0	0.4	0.0	1.0	17	1.0	9.2	0.0	2944.0	61.1	4.4
DEC	234	14.4	1.4	0.3	0.0	1.0	16	1.0	13.1	0.0	2944.0	61.1	0.0
' TOTAL		185.0	40 I	8.1	70.9	15.5		86.4	90.2	0.0			0.3
REASONABLE MAXIMUM INFLOW CONDITIONS													
JAN	254	15.6	1.0	0.2	0.0	1.0	16	1.0	14.1	0.0	2944.0	61.1	0.3
FEB	277	15.4	1.2	0.3	0.0	1.0	18	1.0	14.1	0.0	2944.0	61.1	0.0
MAR	286	17.6	1.7	0.4	0.0	1.0	16	1.0	13 4	0.0	2945.0	63.9	2.8
APR	292	17.4	2.8	0.7	0.0	1.0	17	1.0	12.9	0.0	2946.0	66.7	2.8
MAY	283	17.4	3 8	0.9	2.3	1.0	54	3.3	132	0.0	2946.0	66.7	0.0
JUN	269	16.0	4.9	1.2	5.2	1.0	104	6.2	8.6	0.0	2946.0	66.7	0.0
JUL	270	16.6	5.4	1 2	23.0	2.5	415	25.5	0.0	0.0	2942.2	56.6	-10.1
AUG	276	17.0	4.8	0.9	21.6	1.5	376	23.1	0.0	0.0	2939.1	49.6	-7.0
SEP	272	16.2	3.8	0.7	5.8	1.0	114	6.8	0.0	0.0	2942.9	58.3	8.7
OCT	276	17.0	3.1	0.7	0.0	1.0	16	1.0	12.5	0.0	2944.0	61.1	2.8
NOV	269	16.0	1.8	0.4	0.0	1.0	17	1.0	14.6	0.0	2944.0	61.1	0.0
DEC	250	15.4	I.2	0.3	0.0	1.0	16	1.0	14.1	0.0	2944.0	61.1	0.0
TOTAL		197.6	35.5	7.9	57.9	14.0		71.9	117.5	0.0			0.3

CALAMUS RESERVOIR OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT CANAL 1000 AF	RELEASE REQUIREMENT RIVER 1000 AF	RELEASE REQUIREMENT TOTAL MEAN CFS	RELEASE REQUIREMENT TOTAL 1000 AF	RESERVOIR SPILL 1000 AF	REQUIREMENT SHORTAGE 1000 AF	END OF MONTH ELEV FT	END OF MONTH CONT 1000 AF	RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS													
JAN	283	17.4	1.3	0.5	0.5	3.1	59	3.6	11.9	0.0	2241.0	112.6	1,4
FEB	301	16.7	1.6	0.6	0.5	2.8	59	3.3	12.8	0.0	2241.0	112.6	0.0
MAR	335	20.6	2.9	1.1	0.5	3.1	59	3.6	15.9	0.0	2241.0	112.6	0.0
APR	346	20.6	4.6	1.9	0.5	3.0	59	3.5	0.4	0.0	2244.0	127.4	14.8
MAY	384	23.6	4.8	2.0	2.7	3.1	94	5.8	15.8	0.0	2244.0	127.4	0.0
• JUN	350	20.8	5.9	2.5	5.6	3.0	145	8.6	9.7	0.0	2244.0	127.4	0.0
JUL	327	20.1	6.7	2.6	35.6	20.1	906	55.7	0.0	0.0	2235.6	89.2	-38.2
AUG	309	19.0	6.9	2.1	29.0	19.0	781	48.0	0.0	0.0	2226.9	58.1	-31.1
SEP	292	17.4	5.2	1.3	6.6	17.4	403	24.0	0.0	0.0	2224.2	50.2	-7.9
OCT	289	17.8	3.9	1.0	0.5	3.1	59	3.6	0.0	0.0	2228.6	63.4	13.2
NOV	314	18.7	2.1	0.6	0.5	3.0	59	3.5	0.0	0.0	2232.8	78.0	14.6
DEC	304	18.7	1.2	0.4	0.5	3.1	59	3.6	0.0	0.0	2236.5	92.7	14.7
TOTAL		231.4	47.1	16.6	83.0	83.8		166.8	66.5	0.0			-18.5
MOST PROBABLE INFLOW CONDITIONS													
JAN	320	19.7	1.2	0.5	0.5	3.1	59	3.6	14.2	0.0	2241.0	112.6	1.4
• FEB	340	18.9	1.4	0,6	0.5	2.8	59	3.3	15.0	0.0	2241.0	112.6	0.0
MAR	381	23.4	2.6	1.0	0.5	3.1	59	3.6	18.8	0.0	2241.0	112.6	0.0
APR	393	23.4	4.2	1.7	0.5	3.0	59	3.5	3.4	0.0	2244.0	127.4	14.8
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	397	23.6	5.3	2.3	4.6	3.0	128	7.6	13.7	0.0	2244.0	127.4	0.0
JUL	371	22.8	6.0	2.4	27.6	22.8	820	50.4	0.0	0.0	2237.6	97.4	-30.0
AUG	350	21.5	6.1	2.0	19.5	21.5	667	41.0	0.0	0.0	2232.2	75.9	-21.5
SEP	331	19.7	4.7	1.4	5.7	19.7	427	25.4	0.0	0.0	2230.2	68.8	-7.1
OCT	329	20.2	3.4	1.0	0.5	3.1 .	59	3.6	0.0	0.0	2234.4	84.4	15.6
NOV	358	21.3	1.8	0.6	0.5	3.0	59	3.5	0.0	0.0	2238.6	101.6	17.2
DEC	346	21.3	1.0	0.4	0.5	3.1	59	3.6	10.9	0.0	2240.0	108.0	6.4
TOTAL		262.6	42.0	15.7	63.2	91.3		154.5	95.6	0.0			-3.2
REASONABLE MAXIMUM INFLOW CONDITIONS													
JAN	368	22.6	1.0	0.4	0.5	3.1	59	3.6	17.2	0.0	2241.0	112.6	1.4
FEB	391	21.7	1.3	0.5	0.5	2.8	59	3.3	17.9	0.0	2241.0	112.6	0.0
MAR	437	26.9	2.3	0.9	0.5	3.1	59	.6	22.4	0.0	2241.0	112.6	0.0
APR	452	26.9	3.7	1.5	0.5	3.0	59	3.5	7.1	0.0	2244.0	127.4	14.8
MAY	501	30.8	3.9	1.7	1.9	3.1	81	5.0	24.1	0.0	2244.0	127.4	0.0
JUN	457	27.2	4.7	2.0	3.8	3.0	114	6.8	18.4	0.0	2244.0	127.4	0.0
JUL	428	26.3	5.4	2.2	16.2	26.3	691	42.5	0.0	0.0	2240.2	109.0	-18.4
AUG	402	24.7	5.5	2.0	14.2	24.7	633	38.9	0.0	0.0	2236.5	92.8	-16.2
SEP	380	22.6	4.2	1.4	4.8	22.6	460	27.4	0.0	0.0	2235.0	86.6	-6.2
OCT	377	23.2	3.0	1.1	0.5	3.1	59	3.6	0.0	0.0	2239.4	105.1	18.5
NOV	410	24.4	1.6	0.6	0.5	3.0	59	3.5	17.4	0.0	2240.0	108.0	2.9
DEC	397	24.4	0,9	0.3	0.5	3.1	59	3.6	20.5	0.0	2240.0	108.0	0.0
TOTAL			37.5	14.6	44.4	100.9		145.3	145.0	0.0			-3.2

DAVIS CREEK RESERVOIR OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE 1000 AF	END OF MONTH RESERVOIR EL EV FT	END OF MONTH RESERVOIR CONT 1000 AF	END OF MONTH RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	0	0.0	1.3	0.1	5	0.3	0.0	0.0	2048.5	9.3	-0.4
FEB	0	0.0	1.6	0.1	5	0.3	0.0	0.0	2047.7	8.9	-0.4
MAR	0	0.0	2.9	0.1	10	0.6	0.0	0.0	2046.1	8.2	-0.7
APR	161	9.6	4.6	0.2	25	1.5	0.0	0.0	2059.8	16.1	7.9
MAY	239	14.7	4.9	0.4	78	4.8	0.0	0.0	2070.8	25.6	9.5
JUN	240	14.3	6.0	0.5	138	8.2	0.0	0.0	2076.0	31.2	5.6
JUL	205	12.6	6.5	0.6	286	17.6	0.0	0.0	2070.8	25.6	-5.6
AUG	140	8.6	5.0	0.4	268	16.5	0.0	0.0	2061.3	17.3	-8.3
SEP	10	0.6	4.3	0.2	129	7.7	0.0	0.0	2049.8	10.0	-7.3
OCT	0	0.0	3.8	0.2	5	0.3	0.0	0.0	2048.8	9.5	-0.5
NOV	0	0.0	2.0	0.1	5	0.3	0.0	0.0	2048.1	9.1	-0.4
DEC	0	0.0	1.2	0.0	5	0.3	0.0	0.0	2047.5	8.8	-0.3
TOTAL		60.4	44.1	2.9		58.4	0.0	0.0			-0.9
MOST PROBABLE INFLOW CONDITIONS											
JAN	0	0	1.3	0.1	5	0.3	0.0	0.0	2048.5	9.3	-0.4
FEB	0	0	1.5	0.1	5	0.3	0.0	0.0	2047.7	8.9	-0.4
MAR	0	0	2.7	0.1	10	0.6	0.0	0.0	2046.1	8.2	-0.7
APR	124	7.4	4.2	0.2	25	1.5	0.0	0.0	2056.5	13.9	5.7
MAY	239	14.7	4.5	0.3	67	4.1	0.0	0.0	2069.4	24.2	10.3
JUN	240	14.3	5.6	0.5	114	6.8	0.0	0.0	2076.0	31.2	7
JUL	138	8.5	6.1	0.5	221	13.6	0.0	0.0	2070.8	25.6	-5.6
AUG	47	2.9	4.7	0.3	205	12.6	0.0	0.0	2059.0	15.6	-10
SEP	10	0.6	4.0	0.2	101	6	0.0	0.0	2049.8	10.0	-5.6
OCT	0	0	3.5	0.1	5	0.3	0.0	0.0	2049.0	9.6	-0.4
NOV	0	0	1.9	0.1	5	0.3	0.0	0.0	2048.3	9.2	-0.4
DEC	0	0	1.2	0	5	0.3	0.0	0.0	2047.7	8.9	-0.3
TOTAL		48.4	41.2	2.5		46.7	0.0	0.0			-0.8
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	0	0.0	LI	0.0	5	0.3	0.0	0.0	2048.7	9.4	-0.3
FEB	0	0.0	1.4	0.1	5	0.3	0.0	0.0	2047.9	9.0	-0.4
MAR	0	0.0	2.4	0.1	10	0.6	0.0	0.0	2046.4	8.3	-0.7
APR	89	5.3	4.0	0.2	25	1.5	0.0	0.0	2053.2	11.9	3.6
MAY	239	14.7	4.3	0.3	57	3.5	0.0	0.0	2067.8	22.8	10.9
JUN	240	14.3	5.3	0.5	91	5.4	0.0	0.0	2076.0	31.2	8.4
JUL	29	1.8	5.7	0.5	163	10.0	0.0	0.0	2067.5	22.5	-8.7
AUG	20	1.2	4.3	0.3	153	9.4	0.0	0.0	2056.6	14.0	-8.5
SEP	10	0.6	3.8	0.2	74	4.4	0.0	0.0	2049.8	10.0	-4.0
OCT	0	0.0	3.3	0.1	5	0.3	0.0	0.0	2049.0	9.6	-0.4
NOV	0	0.0	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
TOTAL		37.9	38.3	2.4		36.3	0.0	0.0			-0.8

BONNY RESERVOIR OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT CANAL 1000 AF	RELEASE REQUIREMENT RIVER I000 AF	RELEASE REQUIREMENT TOTAL MEAN CFS	RELEASE REQUIREMENT TOTAL 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE 1000 AF	END OF MONTH ELEV FT	END OF MONTH CONT 1000 AF	RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS													
JAN	10	0.6	1.4	0.1	0.0	0.4	7	0.4	0.0	0.0	3648.4	8.0	0.1
FEB	11	0.6	1.5	0.1	0.0	0.4	7	0.4	0.0	0.0	3648.6	8.1	0.1
MAR	11	0.7	2.3	0.2	0.0	0.4	7	0.4	0.0	0.0	3648.7	8.2	0.1
APR	13	0.8	4.7	0.3	0.0	0.4	7	0.4	0.0	0.0	3648.8	8.3	0.1
MAY	15	0.9	6.0	0.4	0.4	0.4	13	0.8	0.0	0.0	3648.4	8,0	-0.3
JUN	13	0.8	7.6	0.5	0.3	0.4	12	0.7	0.0	0.0	3648.0	7.6	-0.4
JUL	7	0.4	8.6	0.5	1.0	0.4	23	1.4	0.0	0.0	3645.9	6.1	-1.5
AUG	5	0.3	7.4	0.4	0.6	0.4	16	1.0	0.0	0.0	3644.2	5.0	-1.1
SEP	3	0.2	6.2	0.3	0.3	0.4	12	0.7	0.0	0.0	3642.8	4.2	-0.8
OCT	5	0.3	3.9	0.2	0.2	0.4	10	0.6	0.0	0.0	3641.8	3.7	-0.5
NOV	8	0.5	2.6	0.1	0 0	0.4	7	0.4	0.0	0.0	3641.8	3.7	0.0
DEC	10	0.6	1.6	0.1	0.0	0.4	7	0.4	0.0	0.0	3642.1	3.8	0.1
TOTAL		6.7	53.8	3.2	2.8	4.8		7.6	0.0	0.0			-4.1
MOST PROBABLE INFLOW CONDITIONS													
JAN	18	1.1	1.1	(1.1	0.0	0.4	7	0.4	0.0	0.0	3649.0	8.5	0.6
FEB	20	1.1	1.3	0.1	0.0	0.4	7	0.4	0.0	0.0	3649.7	9.1	0.6
MAR	20	1.2	2.0	0.1	0.0	0.4	7	0.4	0.0	0.0	3650.5	9.8	0.7
APR	24	1.4	4.3	0.3	0.0	0.4	7	0.4	0.0	0.0	3651.3	10.5	0.7
MAY	26	1.6	5.4	0.4	0.1	0.4	8	0.5	0.0	0.0	3652.0	11.2	0.7
JUN	24	1.4	6.8	0.6	0.3	0.4	12	0.7	0.0	0.0	3652.1	11.3	0.1
JUL	13	0.8	7.7	0.6	0.7	0.4	18	1.1	0.0	0.0	3651.2	10.4	-0.9
AUG	8	0.5	6.7	0.5	0.6	0.4	16	1.0	0.0	0.0	3650.1	9.4	-1.0
SEP	5	0.3	5.6	0.4	0.3	0.4	12	0.7	0.0	0.0	3649.2	8.6	-0.8
OCT	10	0.6	3.5	0.2	0.1	0.4	8	0.5	0.0	0.0	3649.0	8.5	-0.1
NOV	15	0.9	2.3	0.2	0.0	0.4	7	0.4	0.0	0.0	3649.4	8.8	0.3
DEC	16	1.0	1.4	0.1	0.0	0.4	7	0.4	0.0	0.0	3650.0	9.3	0.5
TOTAL		11.9	48.1	3.6	2.1	4.8		6.9	0.0	0.0			1.4
REASONABLE MAXIMUM INFLOW CONDITIONS													
JAN	31	1.9	1.0	0.1	0.0	0.4	7	0.4	0.0	0.0	3650.0	9.3	1.4
FEB	32	1.8	1.1	01	0.0	0.4	7	0.4	0.0	0.0	3651.4	10.6	1.3
MAR	33	2.0	1.7	0.1	0.0	0.4	7	0.4	0.0	0.0	3652.9	12.1	1.5
APR	40	2.4	3.7	0.3	0.0	0.4	7	0.4	0.0	0.0	3654.4	13.8	1.7
MAY	44	2.7	4.9	0.5	0.2	0.4	10	0.6	0.0	0.0	3655.8	15.4	1.6
JUN	40	2.4	6.1	0.6	0.2	0.4	10	0.6	0.0	0.0	3656.8	16.6	1.2
JUL	21	1.3	6.9	0.7	0.4	0.4	13	0.8	0.0	0.0	3656.6	16.4	-0.2
AUG	13	0.8	6.0	0.6	0.4	0.4	13	0.8	0.0	0.0	3656.2	15.8	-0.6
SEP	8	0.5	5.0	0.5	0.2	0.4	10	0.6	0.0	0.0	3655.7	15.2	-0.6
OCT	16	1.0	3.1	0.3	0.2	0.4	10	0.6	0.0	0.0	3655.7	15.3	0.1
NOV	27	1.6	2.0	0.2	0.0	0.4	7	0.4	0.0	0.0	3656.6	16.3	1.0
DEC	28	1.7	1.2	0.1	0.0	0.4	7	0.4	0.0	0.0	3657.5	17.5	1.2
TOTAL		20.1	42.7	4.1	1.6	4.8		6.4	0.0	0.0			9.6

ENDERS RESERVOIR OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE I000 AF	END OF MONTH RESERVOIR ELEV FT	END OF MONTH RESERVOIR CONT 1000 AF	END OF MONTH RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	8	0.5	1.0	0.1	3	0.2	0.0	0.0	3092.8	17.1	0.2
FEB	9	0.5	1.1	0.1	4	0.2	0.0	0.0	3093.1	17.3	0.2
MAR	8	0.5	1.9	0.2	3	0.2	0,0	0.0	3093.2	17.4	0.1
APR	8	0.5	4.1	0.3	3	0.2	0.0	0.0	3093.2	17.4	0.0
MAY	8	0.5	5.2	0.4	3	0.2	0.0	0.0	3093.1	17.3	-0.1
JUN	8	0.5	6.6	0.4	234	13.9	0.0	5.4	3082.3	8.9	-8.4
JUL	10	0.6	7.2	0.4	533	32.8	0.0	32.6	3082.3	8.9	0.0
AUG	8	0.5	6.0	0.3	540	33.2	0.0	33.0	3082.3	8.9	0.0
SEP	8	0.5	4.5	0.2	72	4.3	0.0	4.0	3082.3	8.9	0.0
OCT	8	0.5	2.9	0.2	3	0.2	0.0	0.0	3082.5	9.0	0.1
NOV	8	0.5	2.1	0.1	3	0.2	0.0	0.0	3082.8	9.2	0.2
DEC	8	0.5	1.2	0.1	3	0.2	0.0	0.0	3083.1	9.4	0.2
TOTAL		6.1	43.8	2.8		85.8	0.0	75.0			-7.5
MOST PROBABLE INFLOW CONDITIONS											
JAN	20	1.2	0.9	0.1	3	0.2	0.0	0.0	3093.6	17.8	0.9
FEB	20	1.1	1.0	0.1	4	0.2	0.0	0.0	3094.4	18.6	0.8
MAR	20	1.2	1.7	0.1	3	0.2	0.0	0.0	3095.2	19.5	0.9
APR	20	1.2	3.9	0,4	3	0.2	0.0	0.0	3095.8	20.1	0.6
MAY	20	1.2	4.9	0.5	3	0.2	0.0	0.0	3096.2	20.6	0.5
JUN	20	1.2	6.1	0.5	116	6.9	0.0	0.0	3089.9	14.4	-6.2
JUL	23	1.4	6.7	0.4	483	29.7	0.0	23.2	3082.3	8.9	-5.5
AUG	20	1.2	5.7	0.3	384	23.6	0.0	22.7	3082.3	8.9	0.0
SEP	18	1.1	4.2	0.2	37	2.2	0.0	1.3	3082.3	8.9	0.0
OCT	20	1.2	2.7	0.1	3	0.2	0.0	0.0	3083.7	9.8	0.9
NOV	20	1.2	2.0	0.1	3	0.2	0.0	0.0	3085.0	10.7	0.9
DEC	18	1.1	1.1	0.1	3	0.2	0.0	0.0	3086.2	11.5	0.8
TOTAL		14.3	40.9	2.9		64.0	0.0	47.2			-5.4
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	34	2.1	0.8	0.1	3	0.2	0.0	0.0	3094.5	18.7	1.8
FEB	32	1.8	0.9	0.1	4	0.2	0.0	0.0	3095.9	20.2	1.5
MAR	33	2.0	1.6	0.1	3	0.2	0.0	0.0	3097.4	21.9	1.7
APR	34	2.0	3.5	0.3	3	0.2	0.0	0.0	3098.7	23.4	1.5
MAY	34	2.1	4.4	0.4	3	0.2	0.0	0.0	3099.9	24.9	1.5
JUN	34	2.0	5.6	0.6	37	2.2	0.0	0.0	3099.2	24.1	-0.8
JUL	39	2.4	6.2	0.5	296	18.2	0.0	1.1	3082.3	8.9	-15.2
AUG	34	2.1	5.1	0.3	226	13.9	0.0	12.1	3082.3	8.9	0.0
SEP	30	1.8	3.8	0.2	3	0.2	0.0	0.0	3084.4	10.3	1.4
OCT	31	1.9	2.4	0,1	3	0.2	0.0	0.0	3086,7	11.9	1.6
NOV	32	1.9	1.8	0.1	3	0.2	0.0	0.0	3088.8	13.5	1.6
DEC	31	1.9	1.0	0.1	3	0.2	0.0	0.0	3090.7	15.1	1.6
TOTAL		24.0	37.1	2.9		36.1	0.0	13.2			-1.8

SWANSON LAKE OPERATION ESTIMATES- 2008

	INFLOW		EVAPORATION		RELEASE REQUIREMENT CANAL	RIVER	TOTAL		RESERVOIR REQUIREMENT SPILL	SHORTAGE	END OF MONTH ELEV	CONT	RESERVOIR CHANGE
	MEAN	1000		1000	1000	1000	MEAN	1000	1000	1000		1000	1000
MONTH	CFS	AF	INCHES	AF	AF	AF	CFS	AF	AF	AF	FT	AF	AF
REASONABLE MINIMUM INFLOW CONDITIONS													
JAN	21	1.3	1.0	0.3	0.0	0.1	2	0.1	0.0	0.0	2735.3	46.1	0.9
FEB	32	1.8	1.1	0.3	0.0	0.1	2	0.1	0.0	0.0	2735.7	47.5	1.4
MAR	36	2.2	2.0	0.5	0.0	0.1	2	0.1	0.0	0.0	2736.3	49.1	1.6
APR	40	2.4	4.4	1.2	0.0	0.1	2	0.1	0.0	0.0	2736.6	50.2	1.1
MAY	36	2.2	5.2	1.4	0.1	0.1	3	0.2	0.0	0.0	2736.8	50.8	0.6
JUN	29	1.7	6.7	1.7	4.3	1.0	89	5.3	0.0	0.0	2735.1	45.5	-5.3
JUL	15	0.9	7 7	1.6	16.0	3.6	319	19.6	0.0	0.0	2727.1	25.2	-20.3
AUG	8	0.5	6.7	1.1	13.4	0.1	220	13.5	0.0	9.8	2725.0	20.9	-4.3
SEP	3	0.2	5.7	0.8	2.0	0.1	35	2.1	0.0	2.0	2724.7	20.2	-0.7
OCT	7	0.4	3.2	0.5	0.0	0.1	2	0.1	0.0	0,0	2724.6	20.0	-0.2
NOV	15	0.9	2.2	0.4	0.0	0.1	2	0.1	0.0	0.0	2724.8	20.4	0.4
DEC	16	1.0	1.2	0.2	0.0	0.1	2	0.1	0.0	0.0	2725.1	21.1	0.7
TOTAL		15.5	46.6	10.0	35.8	5.6		41.4	0.0	11.8			-24.1
MOST PROBABLE INFLOW CONDITIONS													
JAN	50	3.1	0.9	0.2	0.0	0.1	2	0.1	0.0	0.0	2735.9	48.0	2.8
FEB	77	4.3	1.0	0.3	0.0	0.1	2	0.1	0.0	0.0	2737.1	51.9	3.9
MAR	88	5.4	1.7	0.5	0.0	0.1	2	0.1	0.0	0.0	2738.6	56.7	4.8
APR	96	5.7	4.1	1.2	0.0	0.1	2	0.1	0.0	0.0	2739.9	61.1	4.4
MAY	86	5.3	4.8	1.4	0.1	0.1	3	0.2	0.0	0.0	2740.9	64.8	3.7
JUN	69	4.1	6.2	1.9	3.8	0.1	66	3.9	0.0	0.0	2740.4	63.1	-1.7
JUL	37	2.3	7.1	2,0	13.9	4.2	294	18.1	0.0	0.0	2735.0	45.3	-17.8
AUG	20	1.2	6.2	1.4	11.5	4.1	254	15.6	0.0	0.0	2729.0	29.5	-15.8
SEP	10	0.6	4.8	0.9	1.7	0.1	30	1.8	0.0	0.0	2728.1	27,4	-2.1
OCT	15	0.9	2.8	0.5	0 0	0.1	2	0.1	0.0	0.0	2728.3	27.7	0.3
NOV	37	2.2	2.0	0.4	0.0	0.1	2	0.1	0,0	0.0	2729.0	29.4	1.7
DEC	41	2.5	1.1	0.2	0,0	0 I	2	0,1	0.0	0.0	2730.0	31.6	2.2
TOTAL		37.6	42.7	10,9	31.0	9.3		40.3	0.0	0.0			-13.6
REASONABLE MAXIMUM INFLOW CONDITIONS													
JAN	101	6.2	0.8	0.2	0.0	0.1	2	0.1	0.0	0.0	2736.9	51.1	5.9
FEB	155	8.6	0.9	0.3	0.0	0.1	2	0.1	0.0	0.0	2739.3	59.3	8.2
MAR	176	10,8	1.6	0.5	0.0	0.1	2	0.1	0.0	0.0	2742.2	69.5	10.2
APR	192	11.4	3.7	1.2	0.0	0.1	2	0.1	0.0	0.0	2744.7	79.6	10.1
MAY	172	10.6	4.3	1.5	0.1	0.1	3	0.2	0.0	0.0	2746.8	88.5	8.9
JUN	138	8.2	5.7	2.1	3.0	0.1	52	3.1	0.0	0.0	2747.5	91.5	3.0
JUL	75	4.6	6.6	2.3	11.4	1.2	205	12.6	0.0	0.0	2745.1	81.2	-10.3
AUG	41	2.5	5.7	1,9	9.4	1.8	182	11.2	0,0	0.0	2742.4	70.6	-10.6
SEP	20	1.2	4.3	1.4	1.4	0.1	25	1.5	0.0	0.0	2742.0	68.9	-1.7
OCT	29	1.8	2.6	0.8	0.0	().1	2	0.1	0.0	0.0	2742.2	69.8	0.9
NOV	74	4.4	1.9	0.6	0.0	0.1	2	0.1	0.0	0.0	2743.2	73.5	3.7
DEC	81	5.0	1.0	0.3	0.0	0.1	2	0.1	0.0	0.0	2744.4	78.1	4.6
TOTAL		75.3	39.1	13.1	25.3	4.0		29.3	0.0	0.0			32.9

HUGH BUTLER LAKE OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE 1000 AF	END OF MONTH RESERVOIR ELEV FT	END OF MONTH RESERVOIR CONT 1000 AF	END OF MONTH RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	II	0.7	0.9	0.1	5	0.3	0.0	0.0	2574.4	25.3	0.3
FEB	14	0.8	1.0	0.1	5	0.3	0.0	0.0	2574.7	25.7	0.4
MAR	18	1.1	1.8	0.2	5	0.3	0.0	0.0	2575.1	26.3	0.6
APR	17	1.0	5.0	0.6	5	0.3	0.0	0.0	2575.2	26.4	0.1
MAY	18	1.1	5.9	0.7	5	0.3	0.0	0.0	2575.3	26.5	0.1
JUN	18	1.1	7.3	0.8	32	1.9	0.0	0.0	2574.1	24.9	-1.6
JUL	15	0.9	8.1	0.8	115	7.1	0.0	0.0	2568.2	17.9	-7.0
AUG	15	0.9	7.2	0.6	140	8.6	0.0	1.6	2561.0	11.2	-6.7
SEP	10	0.6	5.5	0.4	17	1.0	0.0	0.8	2561.0	11.2	0.0
OCT	10	0.6	3.5	0.2	5	0.3	0.0	0.0	2561.1	11.3	0.1
NOV	12	0.7	2.1	0,1	5	0.3	0.0	0.0	2561.5	11.6	0.3
DEC	II	0.7	1.1	0,1	5	0.3	0.0	0.0	2561.8	11.9	0.3
TOTAL		10.2	49.4	4.7		21.0	0.0	2.4			-13.1
MOST PROBABLE INFLOW CONDITIONS											
JAN	16	1.0	0.8	0.1	5	0.3	0.0	0.0	2574.6	25.6	0.6
FEB	22	1.2	0.9	0.1	5	0.3	0.0	0.0	2575.2	26.4	0.8
MAR	26	1.6	1.6	0.2	5	0.3	0.0	0.0	2576.0	27.5	1.1
APR	25	1.5	4.5	0.5	5	0.3	0.0	0.0	2576.5	28.2	0.7
MAY	26	1.6	5.4	0.6	5	0.3	0.0	0.0	2577.0	28.9	0.7
JUN	27	1.6	6.6	0.8	25	1.5	0.0	0.0	2576.5	28.2	-0.7
JUL	21	1.3	7.3	0.8	67	4.1	0.0	0.0	2573.9	24.6	-3.6
AUG	21	1.3	6.5	0.7	55	3.4	0.0	0.0	2571.6	21.8	-2.8
SEP	13	0.8	5.0	0.5	15	0.9	0.0	0.0	2571.1	21.2	-0.6
OCT	I5	0.9	3.1	0.3	5	0.3	0.0	0.0	2571.4	21.5	0.3
NOV	17	1.0	1.9	0.2	5	0.3	0.0	0.0	2571.8	22.0	0.5
DEC	16	1.0	1.0	0.1	5	0.3	0.0	0.0	2572.3	22.6	0.6
TOTAL		14.8	44.6	4.9		12.3	0.0	0.0,			-2.4
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	23	1.4	0.7	0.1	5	0.3	0.0	0.0	2574.9	26.0	1.0
FEB	31	1.7	0.8	0.1	5	0.3	0.0	0.0	2575.9	27.3	1.3
MAR	36	2.2	1.5	0.2	5	0.3	0.0	0.0	2577.1	29.0	1.7
APR	35	2.I	4.0	0.5	5	0.3	0.0	0.0	2578.0	30.3	1.3
MAY	36	2.2	4.9	0.6	5	0.3	0.0	0.0	2578.8	31.6	1.3
JUN	37	2.2	6.0	0.8	20	1.2	0.0	0.0	2579.0	31.8	0.2
JUL	29	1.8	6.7	0.8	50	3.1	0.0	0.0	2577.6	29.7	-2.1
AUG	29	1.8	5.9	0.7	41	2.5	0.0	0.0	2576.6	28.3	-1.4
SEP	20	1.2	4.6	0.5	10	0.6	0.0	0.0	2576.7	28.4	0.1
OCT	21	1.3	2.8	0.3	5	0.3	0.0	0.0	2577.1	29.1	0.7
NOV	24	1.4	1.8	0.2	5	0.3	0.0	0.0	2577.8	30.0	0.9
DEC	23	1,4	0.9	0.1	5	0.3	0.0	0.0	2578.4	31.0	1.0
TOTAL		20.7	40.6	4.9		9.8	0.0	0,0			6.0

HARRY STRUNK LAKE OPERATON ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR SPILL 1000 AF	RESERVOIR SHORTAGE 1000 AF	END OF MONTH E LE V FT	END OF MONTH CONT 1000 AF	RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	34	2.1	0.9	0.1	2	0.1	2.4	0.0	2365.6	33.7	-0.5
FEB	43	2.4	1.0	0.1	2	0.1	2.2	0.0	2365.6	33.7	0.0
MAR	46	2.8	1.8	0.3	2	0.1	2.4	0.0	2365.6	33.7	0.0
APR	45	2.7	4.9	0.7	2	0.1	1.0	0.0	2366.1	34.6	0.9
MAY	49	3.0	5.7	0.9	2	0.1	2.0	0.0	2366.1	34.6	0.0
JUN	50	3.0	7.1	1.0	87	5.2	0.0	0.0	2364.2	31.4	-3.2
JUL	47	2.9	8.0	0.9	311	19.1	0.0	0.0	2350.8	14.3	-17.1
AUG	37	23	6.9	0.5	262	16.1	0.0	7.9	2343.0	7.9	-6.4
SEP	25	1.5	5.4	0.3	27	1.6	0.0	0.4	2343.0	7.9	0.0
OCT	31	1.9	3.5	0.2	2	0.1	0.0	0.0	2345.2	9.5	1.6
NOV	34	2.0	2.1	0.1	2	0.1	0.0	0.0	2347.5	11.3	1.8
DEC	33	2.0	1.1	0.1	2	0.1	0.0	0.0	2349.5	13.1	1.8
TOTAL		28.6	48.4	5.2		42.8	10.0	8.3			-21.1
MOST PROBABLE INFLOW CONDITIONS											
JAN	42	2.6	0.8	0.1	2	0.1	2.9	0.0	2365.6	33.7	-0.5
FEB	54	3.0	0.9	0.1	2	0.1	2.8	0.0	2365.6	33.7	0.0
MAR	57	3.5	1.6	0.2	2	0.1	3.2	0.0	2365.6	33.7	0.0
APR	57	3.4	4.4	0.7	2	0.1	1.7	0.0	2366.1	34.6	0.9
MAY	62	3.8	5.2	0.8	2	0.1	2.9	0.0	2366.1	34.6	0.0
JUN	62	3.7	6.7	1.0	72	4.3	0.0	0.0	2365.2	33.0	-1.6
JUL	59	3.6	7.5	0.9	259	15.9	0.0	0.0	2355.8	19.8	-13.2
AUG	46	2.8	6.5	0.5	220	13.5	0.0	0.0	2344.0	8.6	-11.2
SEP	30	1.8	4.9	0.3	20	1.2	0.0	0.0	2344.4	8.9	0.3
OCT	37	2.3	3.2	0.2	2	0.1	0.0	0.0	2347.0	10.9	2.0
NOV	42	2.5	1.9	0.1	2	0.1	0.0	0.0	2349.6	13.2	2.3
DEC	39	2.4	1.0	0.1	2	0.1	0.0	0.0	2351.9	15.4	2.2
TOTAL		35.4	44.6	5.0		35.7	13.5	0.0			-18.8
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	63	3.9	0.7	0.1	2	0.1	4.2	0.0	2365.6	33.7	-0.5
FEB	81	4.5	0.8	0.1	2	0.1	4.3	0.0	2365.6	33.7	0.0
MAR	86	5.3	1.4	0.2	2	0.1	5.0	0.0	2365.6	33.7	0.0
APR	86	5.1	4.1	0.6	2	0.1	3.5	0.0	2366.1	34.6	0.9
MAY	91	5.6	4.8	0.7	2	0.1	4.8	0.0	2366.1	34.6	0.0
JUN	94	5.6	6.0	0.9	45	2.7	2.0	0.0	2366.1	34.6	0.0
JUL	88	5.4	6.8	0.9	177	10.9	0.0	0.0	2362.2	28.2	-6.4
AUG	70	4.3	5.9	0.7	150	9.2	0.0	0.0	2358.1	22.6	-5.6
SEP	45	2.7	4.5	0.5	2	0.1	0.0	0.0	2359.7	24.7	2.1
OCT	57	3.5	2.9	0.3	2	0.1	0.0	0.0	2361.9	27.8	3.1
NOV	62	3.7	1.7	0.2	2	0.1	0.0	0.0	2364.1	31.2	3.4
DEC	60	3.7	0.9	0.I	2	0.1	1.0	0.0	2365.6	33.7	2.5
TOTAL		53 3	40.5	5.3		23.7	24.8	0.0			0.5

TABLE 4

KEITH SEBELIUS LAKE OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE 1000 AF	END OF MONTH RESERVOIR ELEV FT	END OF MONTH RESERVOIR CONT 1000 AF	END OF MONTH RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	2	0.1	1.1	0.1	2	0.1	0.0	0.0	2287.9	9.6	-0.1
FEB	4	0.2	1.3	0.1	2	0.1	0.0	0.0	2287.9	9.6	0.0
MAR	5	0.3	2.1	0.2	2	0.1	0.0	0.0	2287.9	9.6	0.0
APR	5	0.3	5.5	0.4	2	0.1	0.0	0.0	2287.7	9.4	-0.2
MAY	8	0.5	6.2	0.5	7	0.4	0.0	0.3	2287.6	9.3	-0.1
JUN	12	0.7	7.8	0.5	77	4.6	0.0	4.5	2287.7	9.4	0.1
JUL	8	0.5	8.8	0.4	146	9.0	0.0	8.9	2287.7	9.4	0.0
AUG	7	0.4	7.8	0.4	146	9.0	0.0	8.9	2287.6	9.3	-0.1
SEP	3	0.2	6.1	0.3	27	1.6	0.0	1.5	2287.4	9.1	-0.2
OCT	2	0.1	4.2	0.2	2	0.1	0.0	0.0	2287.2	8.9	-0.2
NOV	2	0.1	2.3	0.1	2	0.1	0.0	0.0	2287.1	8.8	-0.1
DEC	2	0.1	1.2	0.1	2	0.1	0.0	0.0	2287.0	8.7	-0.1
TOTAL		3.5	54.4	3.3		25.3	0.0	24.1			-1.0
MOST PROBABLE INFLOW CONDITIONS											
JAN	5	0.3	0.9	0.1	2	0.1	0.0	0.0	2288.1	9.8	0.1
FEB	7	0.4	1.1	0.1	2	0.1	0.0	0.0	2288.3	10.0	0.2
MAR	11	0.7	1.8	0.1	2	0.1	0.0	0.0	2288.8	10.5	0.5
APR	12	0.7	4.8	0.4	2	0.1	0.0	0.0	2289.0	10.7	0.2
MAY	18	1.1	5.5	0.5	3	0.2	0.0	0.1	2289.6	11.2	0.5
JUN	24	1.4	6.8	0.5	47	2.8	0.0	2.7	2290.3	12.0	0.8
JUL	16	1.0	7.8	0.5	138	8.5	0.0	8.4	2290.7	12.4	0.4
AUG	15	0.9	6.8	0.3	112	6.9	0.0	4.0	2288.5	10.1	-2.3
SEP	7	0.4	5.4	0.3	22	1.3	0.0	1.2	2288.5	10.1	0.0
OCT	3	0.2	3.6	0,2	2	0.1	0.0	0.0	2288.4	10.0	-0.1
NOV	5	0.3	2.I	0.1	2	0.1	0.0	0.0	2288.5	10.1	0.1
DEC	3	0.2	1.1	0.1	2	0.1	0.0	0.0	2288.5	10.I	0.0
TOTAL		7.6	47.7	3.2		20.4	0.0	16.4			0.4
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	10	0.6	0.8	0.1	2	0.1	0.0	0.0	2288.4	10.1	0.4
FEB	14	0.8	0.9	0.1	2	0.1	0.0	0.0	2289.0	10.7	0.6
MAR	23	1.4	1.5	0.1	2	0.1	0.0	0.0	2290.2	11.9	1.2
APR	25	1.5	4.2	0.4	2	0.1	0.0	0.0	2291.1	12.9	1.0
MAY	37	2.3	4.8	0.5	3	0.2	0.0	0.0	2292.4	14.5	1.6
JUN	49	2.9	6.2	0.7	27	1.6	0.0	0.0	2292,9	15.1	0.6
JUL	36	2.2	7.0	0.7	72	4.4	0.0	0.0	2290.5	12.2	-2.9
AUG	31	1.9	6.2	0.5	68	4.2	0.0	0.7	2288.5	10.1	-2.1
SEP	15	0.9	4.8	0.4	15	0.9	0.0	0.8	2288.9	10.5	0.4
OCT	7	0.4	3.2	0.2	2	0.1	0.0	0.0	2289.0	10.6	0.1
NOV	10	0.6	1.8	0.1	2	0.1	0.0	0.0	2289.4	11.0	0.4
DEC	8	0,5	0.9	0.1	2	0.1	0.0	0.0	2289.7	11.3	0.3
TOTAL		16.0	42.3	3.9		12.0	0.0	1.5			1.6

HARLAN COUNTY LAKE OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE 1000 AF	END OF MONTH RESERVOIR ELEV FT	END OF MONTH RESERVOIR CONT 1000 AF	END OF MONTH RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	39	2.4	1.0	1.0	0	0.0	0.0	0.0	1941.2	256.8	1.4
FEB	61	3.4	1.1	1.1	0	0.0	0.0	0.0	1941.4	259.1	2.3
MAR	81	5.0	1.9	1.9	0	0.0	0.0	0.0	1941.6	262.2	3.1
APR	71	4.2	4.5	4.6	0	0.0	0.0	0.0	1941.6	261.8	-0.4
MAY	89	5.5	5.5	5.6	0	0.0	0.0	0.0	1941.6	261.7	-0.1
JUN	74	4.4	6.7	6.7	250	14.9	0.0	0.0	19401	244.5	-17.2
JUL	75	4.6	7.6	6.7	1187	73.0	0.0	0.0	1933.1	169.4	-75,1
AUG	60	3.7	6.6	5.0	704	43.3	0.0	25.6	1931.0	150.4	-19.0
SEP	30	1.8	5.2	3.8	61	3.6	0.0	3.6	1930.7	148.4	-2.0
OCT	28	1.7	3.5	2.5	0	0.0	0.0	0.0	1930.7	147.6	-0.8
NOV	37	2.2	2.2	1.6	0	0.0	0.0	0.0	1930.7	148.2	0.6
DEC	37	2.3	1.4	1.0	0	0.0	0.0	0.0	1930.9	149.5	1.3
TOTAL		41.2	47.2	41.5		134.8	0,0	29.2			-105.9
MOST PROBABLE INFLOW CONDITIONS											
JAN	112	6.9	0.8	0.8	0	0.0	0.0	0.0	1941.6	261.5	6.1
FEB	176	9.8	0.9	0.9	0	0.0	0.0	0.0	1942.3	270.4	8.9
MAR	236	14.5	1.6	1.7	0	0.0	0.0	0.0	1943.3	283.2	12.8
APR	205	12.2	4.0	4.2	0	0.0	0.0	0.0	1944.0	291.2	8.0
MAY	259	15.9	4.9	5.2	0	0.0	0.0	0.0	1944.8	301.9	10.7
JUN	215	12.8	5.9	6.4	71	4.2	0.0	0.0	1945.0	304.1	2.2
JUL	218	13.4	6.7	7.0	725	44.6	0.0	0.0	1941.9	265.9	-38.2
AUG	174	10.7	5.8	5.6	885	54.4	0.0	0.0	1937.7	216.6	-49.3
SEP	86	5.1	4.7	4.2	74	4.4	0.0	0.0	1937.4	213.1	-3.5
OCT	81	5.0	3.1	2.8	0	0.0	0.0	0.0	1937.6	215.3	2.2
NOV	108	6.4	1.9	1.7	0	0.0	0.0	0.0	1938.0	220.0	4.7
DEC	107	6.6	1.1	1.0	0	0.0	0.0	0.0	1938.5	225.6	5.6
TOTAL		119.3	41.4	41.5		107.6	0.0	0.0			-29.8
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	268	16.5	0.7	0.7	0	0.0	0.0	0.0	1942.4	271.2	15.8
FEB	420	23.3	0.7	0.7	0	0.0	0.0	0.0	1944.2	293.8	22.6
MAR	564	34.7	1.3	1.4	0	0.0	13.0	0.0	1945.7	314.1	20.3
APR	487	29.0	3.5	3.9	0	0.0	25.1	0.0	1945.7	314.1	0.0
MAY	615	37.8	4.2	4.6	0	0.0	33.2	0.0	1945.7	314.1	0.0
JUN	511	30.4	5.3	5.9	39	2.3	22.2	0.0	1945.7	314.1	0.0
JUL	517	31.8	5.9	6.5	161	9.9	15.4	0.0	1945.7	314.1	0.0
AUG	416	25.6	5.1	5.6	161	9.9	10.1	0.0	1945.7	314.1	0.0
SEP	205	12.2	4.1	4.5	20	1.2	6.5	0.0	1945.7	314.1	0.0
OCT	194	11.9	2.6	2.9	0	0.0	9.0	0.0	1945.7	314.1	0.0
NOV	259	15.4	1.6	1.8	0	0.0	13.6	0.0	1945.7	314.1	0.0
DEC	254	15.6	1.0	1.1	0	0.0	14.5	0.0	1945.7	314.1	0.0
TOTAL		284.2	36.0	39.6		23.3	162.6	0.0			58.7

LOVEWELL RESERVOIR OPERATION ESTIMATES - 2008

• MONTH	WHITE ROCK CREEK INFLOW 1000 AF	COURTLAND CANAL INFLOW 1000 AF	TOTAL INFLOW MEAN CFS	TOTAL INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RES SPILL 1000 AF	REQ SHORT 1000 AF	END OF MONTH ELEV FT	END OF MONTH CONT 1000 AF	RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS													
JAN	0.4	0.0	7	0.4	0.8	0.2	0	0.0	0.0	0.0	1581.1	31.5	0.2
FEB	0.6	0.0	11	0.6	1.0	0.2	0	0.0	0.0	0.0	1581.3	31.9	0.4
MAR	1.4	0.7	34	2.1	1.8	0.4	0	0.0	0.0	0.0	1581.9	33.6	**1.7**
APR	1.3	2.3	61	3.6	3.7	0.9	0	0.0	0.0	0.0	1582.8	36.3	2.7
MAY	1.6	2.5	67	4.1	4.7	1.2	16	1.0	0.0	0,0	1583.4	38.2	1.9
JUN	1.8	0 0	30	1.8	6.1	1.4	188	11.2	0.0	0.0	1579.6	27.4	-10.8
JUL	1.2	19.0	329	20.2	6.8	1.2	566	34.8	0.0	0.0	1571.7	11.6	-15.8
AUG	0.1	4.2	70	4.3	5.4	0.7	389	23.9	0.0	20.3	1571.7	11.6	0.0
SEP	1.0	0.0	17	1.0	4.1	()5	52	3.1	0.0	2.6	1571.7	11.6	0.0
OCT	0.6	1 9	41	2.5	2.8	0.4	0	0.0	0.0	0.0	1573.0	13.7	2.1
NOV	0.6	2.5	52	3.1	2.1	0.3	0	0 0	0.0	0.0	1574.6	16.5	2.8
DEC	0.4	2.6	49	3 0	1.0	0.2	0	0.0	0.0	0.0	1576.1	19.3	2.8
TOTAL	11.0	35.7		46.7	40.3	7.6		74.0	0.0	22.9			-12.0
MOST PROBABLE INFLOW CONDITIONS													
JAN	0.8	0.0	13	0.8	0.7	0.2	0	0.0	0.0	0.0	1581.3	31.9	0.6
FEB	1.2	0.0	22	1.2	0.9	0.2	0	0.0	0.0	0.0	1581.6	32.9	1.0
MAR	2.8	0.0	46	2.8	1.6	0.4	0	0.0	0.0	0.0	1582.5	35.3	2.4
APR	2.5	0.0	42	2.5	3.2	0.8	0	0.0	0 0	0.0	1583.0	37.0	1.7
MAY	3.2	0.0	52	3.2	4.1	1.1	15	0.9	0.0	0.0	1583.4	38.2	1.2
JUN	3.4	00	57	3.4	5.1	1.2	155	9.2	0.0	0.0	1581.0	31.2	-7.0
JUL	2.3	8.2	171	10.5	5.7	1.0	472	29.0	0.0	0.0	1571.7	11.7	-19.5
AUG	0.2	20.2	332	20.4	4.7	0.6	324	19.9	0.0	0.0	1571.7	11.6	-0.1
SEP	1.8	1.2	50	3.0	3.5	0.4	44	2.6	0.0	0.0	1571.7	11.6	0.0
OCT	1.2	4.7	96	5.9	2.4	0.3	0	0.0	0.0	0.0	1575.0	17.2	5.6
NOV	1.1	4.1	87	5.2	1.8	0.3	0	0.0	0.0	0.0	1577.4	22.1	4.9
DEC	0.7	4.6	86	5.3	0.8	0.2	0	0.0	0.0	0.0	1579.5	27.2	5.1
TOTAL	21.2	43.0		64.2	34.5	6.7		61.6	0.0	0.0			-4.1
REASONABLE MAXIMUM INFLOW CONDITIONS													
JAN	2.3	0.0	37	2.3	0.6	0.1	0	0.0	0.0	0.0	1581.9	33.5	2.2
FEB	3.4	0 0	61	3.4	0.7	0.2	0	0.0	1.0	0.0	1582.6	35.7	2.2
MAR	7.7	0.0	125	7.7	1.3	0.3	0	0.0	7.4	0.0	1582.6	35.7	0.0
APR	7	0.0	118	7.0	2.8	0.7	0	0.0	3.8	0.0	1583.4	38.2	2.5
MAY	8.8	0.0	143	8.8	3.5	0.9	8	0.5	7.4	0.0	1583.4	38.2	0.0
JUN	9.6	0.0	161	9.6	4.4	1.1	87	5.2	3.3	0.0	1583.4	38.2	0.0
JUL	6.5	1.2	125	7.7	4.9	1.2	265	16.3	0.0	0.0	1580.0	28.4	-9.8
AUG	0.7	1.2	31	1.9	4.0	0.8	179	11.0	0.0	0.0	1575.7	18.5	-9.9
SEP	5.1	0.6	96	5 7	3.0	0.5	24	1 4	0.0	0.0	1577.5	22.3	3.8
OCT	3.5	0.0	57	3.5	2.0	0.4	0	0 0	0.0	0.0	1578.8	25.4	3.1
NOV	3	0.0	50	3.0	1.5	0.3	0	0.0	0.0	0.0	1579.9	28.1	2.7
DEC	2	0.0	33	2.0	0.7	0.2	0	0.0	0.0	0.0	1580.6	29.9	1.8
TOTAL	59.6	3		62.6	29.4	6.7		34.4	22.9	0.0			-1.4

KIRWIN RESERVOIR OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR SPILL 1000 AF	RESERVOIR SHORTAGE 1000 AF	END OF MONTH RESERVOIR ELEV FT	END OF MONTH RESERVOIR CONT 1000 AF	END OF MONTH RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	3	0.2	0.9	0.1	0	0.0	0.0	0.0	1708.2	24.2	0.1
FEB	5	0.3	1.1	0.2	0	0.0	0.0	0.0	1708.3	24.3	0.1
MAR	8	0.5	2.0	0.3	0	0.0	0.0	0.0	1708.4	24.5	0.2
APR	10	0.6	4.4	0.7	0	0.0	0.0	0.0	1708.3	24.4	-0.1
MAY	16	1.0	5.4	0.9	8	0.5	0.0	0.0	1708.1	24.0	-0.4
JUN	13	0.8	6.7	0.9	87	5.2	0.0	0.0	1705.0	18.7	-5.3
JUL	11	0.7	7.6	0.9	192	I1.8	0.0	5.1	1700.0	11.8	-6.9
AUG	8	0.5	6.7	0.7	192	11.8	0.0	11.8	1699.8	11.6	-0.2
SEP	5	0.3	5.1	0.5	52	3.1	0.0	3.1	1699.6	11.4	-0.2
OCT	3	0.2	3.5	0.3	0	0.0	0.0	0.0	1699.5	11.3	-0.1
NOV	3	0.2	2.1	0.2	0	0.0	0.0	0.0	1699.5	11.3	0.0
DEC	3	0.2	1.1	0.1	0	0.0	0.0	0.0	1699.6	11.4	0.1
TOTAL		5.5	46.6	5.8		32.4	0.0	20.0			-12.7
MOST PROBABLE INFLOW CONDITIONS											
JAN	II	0.7	0.8	0.1	0	0.0	0.0	0.0	1708.5	24.7	0.6
FEB	20	1.1	1.1	0.2	0	0.0	0.0	0.0	1709.0	25.6	0.9
MAR	31	1.9	1.8	0.3	0	0.0	0.0	0.0	1709.7	27.2	1.6
APR	35	2.1	3.9	0.7	0	0.0	0.0	0.0	1710.3	28.6	1.4
MAY	55	3.4	4.8	0.9	7	0.4	0.0	0.0	1711.3	30.7	2.1
JUN	45	2.7	6.0	1.2	74	4.4	0.0	0.0	1710.0	27.8	-2.9
JUL	42	2.6	6.8	1.0	192	11.8	0.0	0.0	1704.3	17.6	-10.2
AUG	29	1.8	6.0	0.7	166	10.2	0.0	3.3	1700.0	11.8	-5.8
SEP	15	0.9	4.6	0.5	8	0.5	0.0	0.1	1700.0	11.8	0.0
OCT	10	0.6	3.1	0.3	0	0.0	0.0	0.0	1700.2	12.1	0.3
NOV	13	0.8	2.0	0.2	0	0.0	0.0	0.0	1700.7	12.7	0.6
DEC	11	0.7	1.0	0.1	0	0.0	0.0	0.0	1701.2	13.3	0.6
TOTAL		19.3	41.9	6.2		27.3	0.0	3.4			-10.8
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	46	2.8	0.7	0.1	0	0.0	0.0	0.0	1709.5	26.8	2.7
FEB	74	4.1	0.9	0.2	0	0.0	0.0	0.0	1711.3	30.7	3.9
MAR	117	7.2	1.5	0.3	0	0.0	0.0	0.0	1713.9	37.6	6.9
APR	129	7.7	3.6	0.9	0	0.0	0.0	0.0	1716.1	44.4	6.8
MAY	205	12.6	4.4	1.3	5	0.3	0.0	0.0	1719.3	55.4	11.0
JUN	170	10.1	5.4	1.7	59	3.5	0.0	0.0	1720.6	60.3	4.9
JUL	159	9.8	6.1	1.9	168	10.3	0.0	0.0	1720.0	57.9	-2.4
AUG	112	6.9	5.4	1.6	119	7.3	0.0	0.0	1719.4	55.9	-2.0
SEP	59	3.5	4.1	1.2	7	0.4	0.0	0.0	1720.0	57.8	1.9
OCT	37	2.3	2.7	0.8	0	0.0	0.0	0.0	1720.4	59.3	1.5
NOV	50	3.0	1.7	0.5	0	0.0	0.0	0.0	1721.0	61.8	2.5
DEC	41	2.5	0.9	0.3	0	0.0	0.0	0.0	1721.6	64.0	2.2
TOTAL		72.5	37.4	10.8		21.8	0.0	0.0			39.9

TABLE 4

WEBSTER RESERVOIR OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE 1000 AF	END OF MONTH RESERVOIR 1 ELEV FT	END OF MONTH RESERVOIR 1 CONT 1000 AF	END OF MONTH RESERVOIR 1 CHANGE **1000** AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	3	0.2	0.9	0.1	0	0.0	0.0	0.0	1870.3	17.8	0.1
FEB	4	0.2	1.1	0.2	0	0.0	0.0	0.0	1870.3	17.8	0.0
MAR	7	0.4	2.0	0.3	0	0.0	0.0	0.0	1870.4	17.9	0.1
APR	8	0.5	4.5	0.6	0	0.0	0.0	0.0	1870.3	17.8	-0.1
MAY	13	0.8	5.7	0.8	15	0.9	0.0	0.0	1869.8	16.9	-0.9
JUN	I0	0.6	7.2	0.9	101	6.0	0.0	0.0	1865.5	10.6	-6.3
JUL	8	0.5	8.0	0.8	236	14.5	0.0	11.6	1863.0	7.4	-3.2
AUG	5	0.3	7.3	0.7	236	14.5	0.0	14.5	1862.7	7.0	-0.4
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	2	0.1	2.2	0.2	0	0.0	0.0	0.0	1862.1	6.4	-0.1
DEC	2	0.1	1.2	0.1	0	0.0	0.0	0.0	1862.1	6.4	0.0
TOTAL		4.0	49.1	5.5		37.4	0.0	27.6			-11.3
MOST PROBABLE INFLOW CONDITIONS											
JAN	10	0.6	0.8	0.1	0	0.0	0.0	0.0	1870.6	18.2	0.5
FEB	16	0.9	1.0	0.1	0	0.0	0.0	0.0	1871.0	19.0	0.8
MAR	24	1.5	1.8	0.3	0	0.0	0.0	0.0	1871.7	20.2	1.2
APR	35	2.1	4.1	0.6	0	0.0	0.0	0.0	1872.6	21.7	1.5
MAY	52	3.2	5.2	0.8	13	0.8	0.0	0.0	1873.4	23.3	1.6
JUN	37	2.2	6.5	1.0	74	4.4	0.0	0.0	1871.7	20.1	-3.2
JUL	36	2.2	7.2	0.9	208	12.8	0.0	0.0	1864.0	8.6	-11.5
AUG	21	1.3	6.5	0.7	161	9.9	0.0	8.1	1863.0	7.4	-1.2
SEP	**12**	0.7	4.9	0.5	5	0.3	0.0	0.1	1863.0	7.4	0.0
OCT	7	0.4	3.3	0.3	0	0.0	0.0	0.0	1863.1	7.5	0.1
NOV	10	0.6	2.0	0.2	0	0.0	0.0	0.0	1863.4	7.9	0.4
DEC	8	0.5	1.1	0.1	0	0.0	0.0	0.0	1863.8	8.3	0.4
TOTAL		16.2	44.4	5.6		28.2	0.0	8.2			-9.4
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	52	3.2	0.8	0.1	0	0.0	0.0	0.0	1872.0	20.8	3.1
FEB	77	4.3	0.9	0.1	0	0.0	0.0	0.0	1874.3	25.0	4.2
MAR	120	7.4	1.6	0.3	0	0.0	0.0	0.0	1877.7	32.1	7.1
APR	175	10.4	3.6	0.7	0	0.0	0.0	0.0	1881.7	41.8	9.7
MAY	259	15.9	4.7.	I.1	7	0.4	0.0	0.0	1886.7	56.2	14.4
JUN	188	11.2	5.9	1.6	42	2.5	0.0	0.0	1888.8	63.3	7.1
JUL	176	10.8	6.5	1.8	125	7.7	0.0	0.0	1889.2	64.6	I.3
AUG	104	6.4	5.9	1.7	101	6.2	0.0	0.0	1888.8	63.1	-1.5
SEP	62	3.7	4.5	1.3	2	0.1	0.0	0.0	1889.5	65.4	2.3
OCT	34	2.1	2.9	0.8	0	0.0	0.0	0.0	1889.8	66.7	1.3
NOV	47	2.8	1.8	0.5	0	0.0	0.0	0.0	1890.5	69.0	2.3
DEC	44	2.7	1.0	0.3	0	0.0	0.0	0.0	1891.2	71.4	2.4
TOTAL		80.9	40.1	10.3		16.9	0.0	0.0			53.7

WACONDA LAKE OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE 1000 AF	END OF MONTH ELEV FT	END OF MONTH CONT 1000 AF	RESERVOIR : CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	28	1.7	0.8	0,6	8	0.5	0.0	0.0	1448.6	143.6	0.6
FEB	41	2.3	1.0	0.8	9	0.5	0.0	0.0	1448.7	144.6	1.0
MAR	78	4.8	1.9	1.5	3	0.2	0.0	0.0	1449.1	147.7	3.1
APR	81	4.8	4.8	3.7	2	0.1	0.0	0.0	1449.2	148.7	1.0
MAY	93	5.7	5.9	4.6	7	0.4	0.0	0.0	1449.2	149.4	0.7
JUN	79	4.7	7.5	5.8	42	2.5	0.0	0.0	1448.8	145.8	-3.6
JUL	128	7.9	8.9	6.6	156	9,6	0.0	0.0	1447.9	137.5	-8.3
AUG	47	2.9	7.7	5.4	124	7.6	0.0	0.0	1446.7	127.4	-10.1
SEP	37	2.2	6.0	4.1	24	1.4	0.0	0.0	1446.3	124.1	-3.3
OCT	28	1.7	3.9	2.6	3	0.2	0.0	0.0	1446.2	123.0	-1.1
NOV	32	1.9	2.1	1.4	7	0.4	0.0	0.0	1446.2	123.1	0.1
DEC	26	1.6	1.0	0.7	10	0.6	0.0	0.0	1446.2	123.4	0.3
TOTAL		42.2	51.5	37.8		24.0	0.0	0.0			-19.6
MOST PROBABLE INFLOW CONDITIONS											
JAN	80	4.9	0.7	0.5	3	0.2	0.0	0.0	1449.0	147.2	4.2
FEB	119	6.6	0.9	0.7	5	0.3	0.0	0.0	1449.6	152.8	5.6
MAR	224	13.8	1.7	1.4	2	0.1	0.0	0.0	1450.8	165.1	12.3
APR	234	13.9	4.3	3.7	0	0.0	0.0	0.0	1451.8	175.3	10.2
MAY	270	16.6	5.2	4.8	3	0.2	0.0	0.0	1452.9	186.9	11.6
JUN	230	13.7	6.7	6.4	32	1.9	0.0	0.0	1453.3	192.3	5.4
JUL	374	23.0	7.9	7.7	112	6.9	0.0	0.0	1454.1	200.7	8.4
AUG	137	8.4	6.8	6.7	89	5.5	0.0	0.0	1453,7	196.9	-3.8
SEP	104	6.2	5.4	5.3	17	1.0	0.0	0.0	1453.7	196.8	-0.1
OCT	81	5.0	3.5	3.4	0	0.0	0.0	0.0	1453.9	198.4	1.6
NOV	92	5.5	1.9	1.9	3	0.2	0.0	0.0	1454.1	201.8	3.4
DEC	73	4.5	0.9	0.9	5	0.3	10.0	0.0	1453.6	195.1	-6.7
TOTAL		122.1	45.9	43.4		16.6	10.0	0.0			52.1
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	322	19.8	0.7	0.6	0	0.0	0.0	0.0	1450,5	162.2	19.2
FEB	481	26.7	0.8	0.7	2	0.1	0.0	0.0	1453.0	188.1	25.9
MAR	909	55.9	1.5	1.5	2	0.1	23.0	0.0	1455.6	219.4	31.3
APR	948	56.4	3.9	4.I	2	0.1	52.2	0.0	1455.6	219.4	0.0
MAY	1095	67.3	4.7	4.9	2	0.1	62.3	0.0	1455.6	219.4	0.0
JUN	931	55.4	6.0	6.3	20	1.2	47.9	0.0	1455.6	219.4	0.0
JUL	1512	93.0	7.1	7.5	70	4.3	81.2	0.0	1455.6	219.4	0.0
AUG	555	34.1	6.1	6.4	57	3.5	24.2	0.0	1455.6	219.4	0.0
SEP	424	25.2	4.8	5.1	10	0.6	6.7	0.0	1456.6	232.2	12.8
OCT	330	20.3	3.1	3.4	2	0.1	16.8	0.0	1456.6	232.2	0.0
NOV	375	22.3	1.7	1.8	0	0.0	20.5	0,0	1456.6	232.2	0.0
DEC	298	18.3	0.8	0.8	2	0.1	54.5	0.0	1453.6	195.1	-37.1
TOTAL		494.7	41.2	43.1		10.2	389.3	0.0			52.1

CEDAR BLUFF RESERVOIR OPERATION ESTIMATES - 2008

MONTH	INFLOW MEAN CFS	INFLOW 1000 AF	EVAPORATION INCHES	EVAPORATION 1000 AF	RELEASE REQUIREMENT MEAN CFS	RELEASE REQUIREMENT 1000 AF	RESERVOIR REQUIREMENT SPILL 1000 AF	RESERVOIR REQUIREMENT SHORTAGE 1000 AF	END OF MONTH RESERVOIR ELEV FT	END OF MONTH RESERVOIR CONT 1000 AF	END OF MONTH RESERVOIR CHANGE 1000 AF
REASONABLE MINIMUM INFLOW CONDITIONS											
JAN	2	0.1	1.1	0.4	0	0.0	0.0	0.0	2128.2	86.2	-0.3
FEB	2	0.1	1.2	0.4	0	0.0	0.0	0.0	21281	85.9	-0.3
MAR	3	0.2	2.1	0.7	0	0.0	0.0	0.0	2128.0	85.4	-0.5
APR	5	0.3	5.4	1.8	0	0.0	0.0	0.0	2127.6	83.9	-1.5
MAY	7	0.4	6.4	2.1	5	0.3	0.0	0.0	2127.1	81.9	-2.0
JUN	7	0.4	8.0	2.5	5	0.3	0.0	0.0	2126.4	79.5	-2.4
JUL	10	0.6	9.6	3.0	13	0.8	0.0	0.0	2125.6	76.3	-3.2
AUG	7	0.4	8.2	2.4	11	0.7	0.0	0.0	2124.8	73.6	-2.7
SEP	3	0.2	7.0	2.0	5	0.3	0.0	0.0	2124.2	71.5	-2.1
OCT	2	0.1	4.9	1.4	2	0.1	0.0	0.0	2123.8	70.1	-1.4
NOV	2	0.1	2.3	0.7	2	0.1	0.0	0.0	2123.6	69.4	-0.7
DEC	2	0.1	1.3	0.4	2	0.1	0.0	0.0	2123.5	69.0	-0.4
TOTAL		3.0	57.5	17.8		2.7	0.0	0.0			-17.5
MOST PROBABLE INFLOW CONDITIONS											
JAN	7	0.4	1.0	0.3	0	0.0	0.0	0.0	2128.3	86.6	0.1
FEB	9	0.5	1.1	0.4	0	0.0	0.0	0.0	2128.3	86.7	0.1
MAR	15	0.9	2.0	0.7	0	0.0	0.0	0.0	2128.3	86.9	0.2
APR	24	1.4	5.0	1.7	0	0.0	0.0	0.0	2128.3	86.6	-0.3
MAY	34	2,1	5.8	1.9	3	0.2	0.0	0.0	2128.3	86.6	0.0
JUN	37	2.2	7.2	2.4	3	0.2	0.0	0.0	2128.2	86.2	-0.4
JUL	47	2.9	8.7	2.9	11	0.7	0.0	0.0	2128.0	85.5	-0.7
AUG	33	2.0	7.5	2.5	7	0.4	0.0	0.0	2127.8	84,6	-0.9
SEP	13	0.8	6.4	2.1	3	0.2	0.0	0.0	2127.4	83.1	-1.5
OCT	5	0.3	4.5	1.5	2	0.1	0.0	0.0	2127.0	81.8	-13
NOV	7	0.4	2.2	0.7	2	0.1	0.0	0.0	2126.9	81.4	-0.4
DEC	5	0.3	1.1	0.4	2	0.1	0.0	0.0	2126.9	81.2	-0.2
TOTAL		14.2	52.5	17.5		2.0	0.0	0.0			-5.3
REASONABLE MAXIMUM INFLOW CONDITIONS											
JAN	26	1.6	0.9	0.3	0	0.0	0.0	0.0	2128,6	87.8	1.3
FEB	36	2.0	1.0	0.3	0	0.0	0.0	0.0	2129.0	89.5	1.7
MAR	63	3.9	1.7	0.6	0	0.0	0.0	0.0	2129.8	92.8	3.3
APR	103	6.1	4.4	1.6	0	0.0	0.0	0.0	2130.8	97.3	4.5
MAY	150	9.2	5.2	2.0	3	0.2	0.0	0.0	2132.3	104.3	7.0
JUN	161	9.6	6.5	2.6	3	0.2	0.0	0.0	2133.7	111.1	6,8
JUL	207	12.7	7.8	3.4	3	0.2	0.0	0.0	2135.5	120.2	9.1
AUG	143	8.8	6.7	3.0	0	0.0	0.0	0.0	2136.5	126.0	5.8
SEP	59	3.5	5.7	2.6	2	0.1	0,0	0.0	2136.7	126.8	0.8
OCT	23	1.4	4.1	1.9	2	0.1	0.0	0.0	2136.6	126.2	-0.6
NOV	32	1.9	1.8	0.8	2	0.1	0.0	0.0	2136.8	127.2	1.0
DEC	23	1.4	1.0	0.5	2	0.1	0.0	0.0	2136.9	128.0	0.8
TOTAL		62.1	. 46.8			1.0	0.0	0.0			41.5

TABLE 5

FLOOD DAMAGES PREVENTED BY NEBRASKA-KANSAS PROJECTS RESERVOIRS

RESERVOIR	DURING FY 2007	PRIOR TO 2007	ACCUMULATED TOTAL
BONNY	$4,000	$2,787,000	$2,791,000
ENDERS	$277,000	$3,281,000	$3,558,000
SWANSON	$3,828,000	$19,157,000	$22,985,000
HUGH BUTLER	$286,000	$2,665,000	$2,951,000
HARRY STRUNK	$4,306,000	$5,037,000	$9,343,000
KEITH SEBELIUS	$31,000	$3,958,000	$3,989,000
HARLAN COUNTY	$27,002,000	$150,561,000	$177,563,000
LOVEWELL	$4,000	$146,615,000	$146,619,000
KIRWIN	$18,000	$86,870,000	$86,888,000
WEBSTER	$20,000	$110,320,000	$110,340,000
WACONDA	$3,880,000	$1,213,454,000	$1,217,334,000
CEDAR BLUFF	$1,148,000	$128,890,000	$130,038,000
TOTAL	$40,804,000	$1,873,595,000	$1,914,399,000

Estimates of damages prevented are received from the Army Corps of Engineer's Kansas City District Office. The Accumulated Totals date from 1951 through 2007. 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 2007 AND THE
ESTIMATED DIVERSION FOR 2008
(Units - Acre-Feet)

Irrigation District and Canal	2007 Irrigation Operations From	To	10-Year Average Diversion (1997-2006)	2007 Diversion	Estimated Diversion in 2008
Mirage Flats Irrigation District					
Mirage Flats Canal	7/6	8/13	11,663	6,963	7,000
Ainsworth Irrigation District					
Ainsworth Canal	5/15	9/15	76,058	75,646	80,000
Twin Loups Irrigation District					
Above Davis Creek	4/18	9/17	44,864	38,126	45,000
Below Davis Creek	5/14	9/19	39,919	43,352	40,000
Total Twin Loups Irrigation District			84,783	81,478	85,000
Frenchman Valley Irrigation District					
Culbertson Canal	Did not run.		7,646	0	0
H & RW Irrigation District					
Culbertson Extension Canal	Did not run.		5,538	0	0
Frenchman-Cambridge Irrigation District					
Meeker-Driftwood Canal	Did not run.		14,080	0	0
Red Willow Canal	Did not run.		3,957	0	6,000
Bartley Canal	Did not run.		5,058	0	0
Cambridge Canal	Did not run.		22,532	0	20,000
Total Frenchman-Cambridge Irrigation District			45,627	0	26,000
Almena Irrigation District					
Almena Canal	7/22	7/31	3,623	1,099	0
Bostwick Irrigation District in Nebraska					
Franklin Canal	Did not run.		20,392	0	24,000
Naponee Canal	Did not run.		1,958	0	2,500
Franklin Pump Canal	Did not run.		2,093	0	3,000
Superior Canal	Did not run.		10,150	0	13,000
Courtland Canal (Nebraska)	Did not run.		1,549	0	2,000
Total Bostwick Irrigation District in Nebraska			36,142	0	44,500
Kansas-Bostwick Irrigation District					
Courtland Canal above Lovewell	6/18	8/28	19,789	14,748	22,000
Courtland Canal below Lovewell	5/14	8/30	42,351	35,101	43,000
Total Kansas-Bostwick Irrigation District			62,140	49,849	65,000
Kirwin Irrigation District					
Kirwin Canal	7/10	8/17	15,779	8,441	8,500
Webster Irrigation District					
Osborne Canal	Did not run.		10,256	0	0
Glen Elder Irrigation District	6/9	9/19	7,306	7,473	7,000
TOTAL			366,561	230,949	323,000

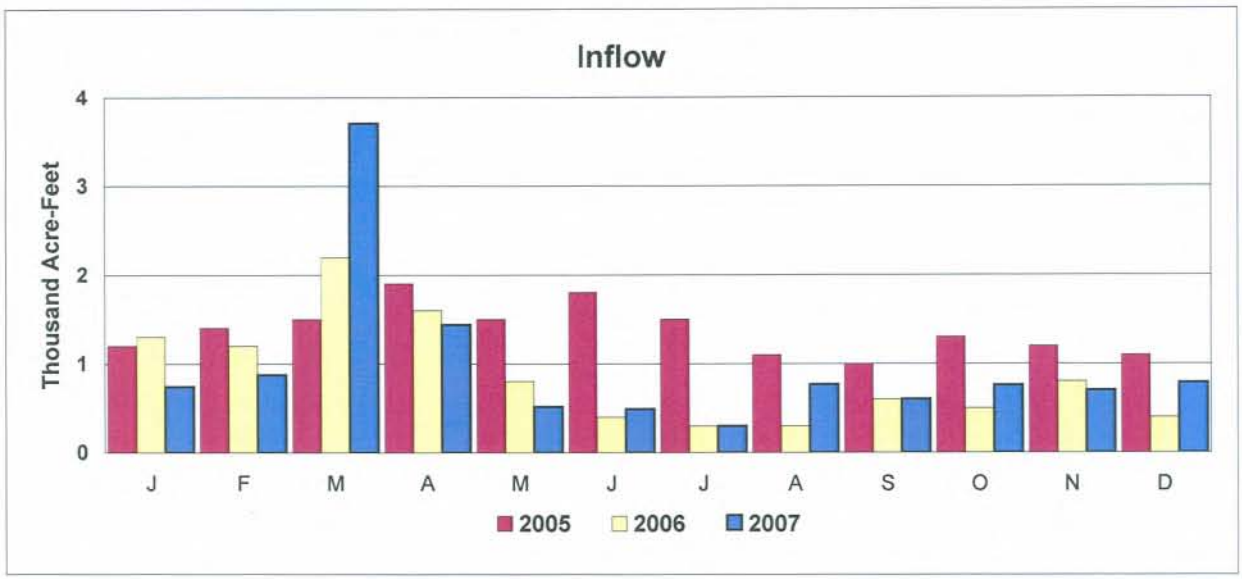
TABLE 7
NEBRASKA-KANSAS PROJECTS
Summary of Precipitation, Reservoir Storage and Inflows
CALENDAR YEAR 2007

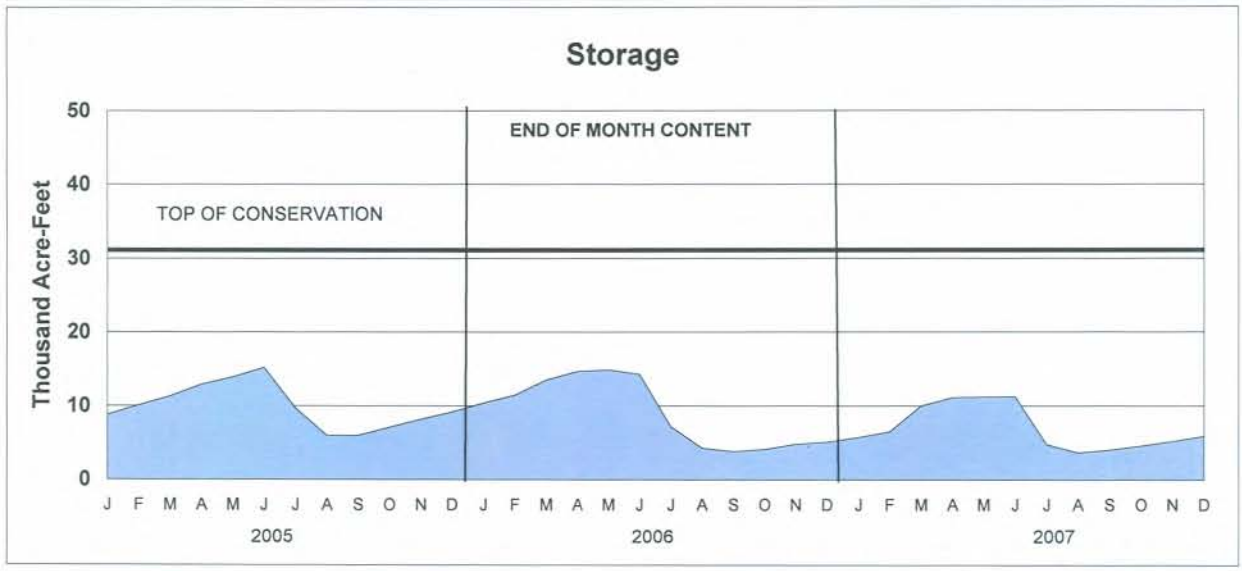
Reservoir	Total Precip. Inches	Percent Of Average %	Storage 12-31-06 AF	Storage 12-31-07 AF	Gain or Loss AF	Maximum Storage Content AF	Maximum Storage Date	Minimum Storage Content AF	Minimum Storage Date	Total Inflow AF	Percent Of Most Probable %
Box Butte	13.06	77	5,081	5,895	814	11,444	JUN 21	3,204	AUG 13	11,674	73
Merritt	26.76	132	61,100	60,831	-269	67,720	MAY 30	31,230	SEP 6	174,371	94
Calamus	35.96	152	107,326	111,215	3,889	129,253	APR 16	79,922	SEP 16	263,302	100
Davis Creek	32.81	135	10,712	9,684	-1,028	30,289	JUN 29	9,608	SEP 17	50,424	106
Bonny	15.43	90	9,935	7,947	-1,988	13,048	MAY 2	7,874	DEC 2	8,094	68
Enders	25.39	134	11,074	16,885	5,811	21,577	JUN 18	11,081	JAN 1	13,258	93
Swanson	21.20	106	36,310	45,211	8,901	51,925	JUN 22	36,310	JAN 1	21,582	57
Hugh Butler	22.36	114	13,105	24,993	11,888	27,824	JUN 22	13,123	JAN 1	19,478	132
Harry Strunk	27.41	133	23,751	34,153	10,402	47,271	JUN 3	22,941	JAN 1	67,732	191
Keith Sebelius	24.66	101	8,115	9,732	1,617	12,256	JUN 19	8,132	JAN 1	7,801	103
Harlan County	26.92	119	116,299	255,393	139,094	255,393	DEC 31	116,761	JAN 1	198,528	166
Lovewell	31.52	115	19,605	31,273	11,668	43,809	JUN 28	19,688	JAN 1	56,895	93
Kirwin	29.49	126	19,394	24,096	4,702	32,379	JUN 4	19,473	JAN 1	21,000	109
Webster	30.04	128	8,562	17,720	9,158	19,715	JUN 24	8,587	JAN 1	15,574	96
Waconda	26.39	103	125,621	142,983	17,362	146,709	AUG 8	146,710	AUG 8	68,767	56
Cedar Bluff	20.76	99	85,357	86,517	1,160	94,761	JUN 24	85,357	JAN 19	17,303	122

EXHIBIT 1A

BOX BUTTE RESERVOIR

ACTUAL OPERATION





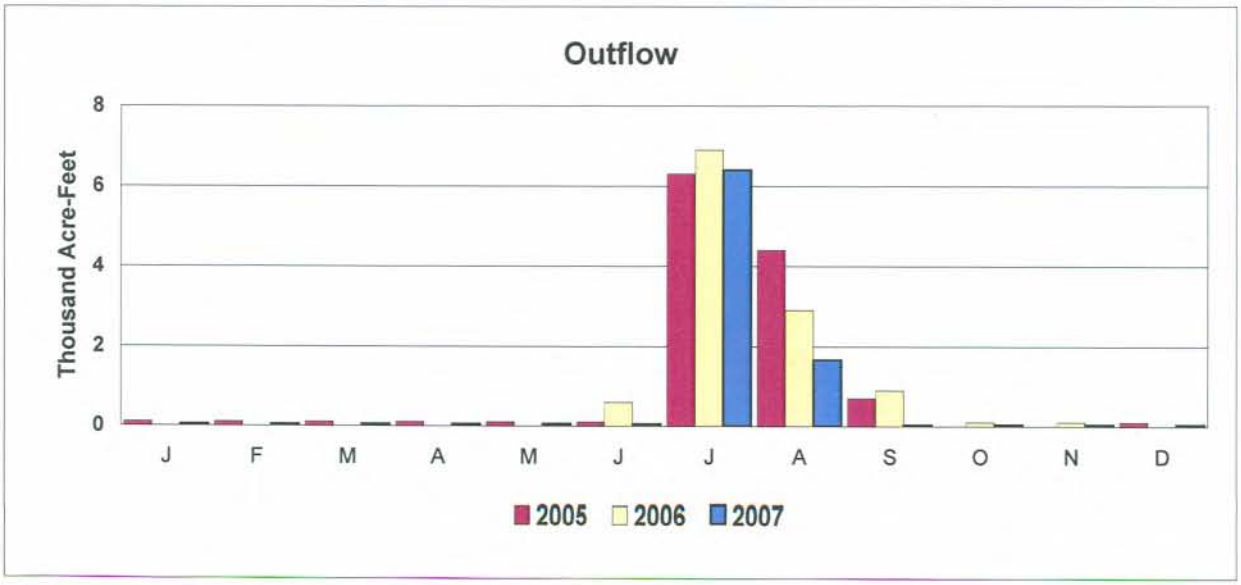
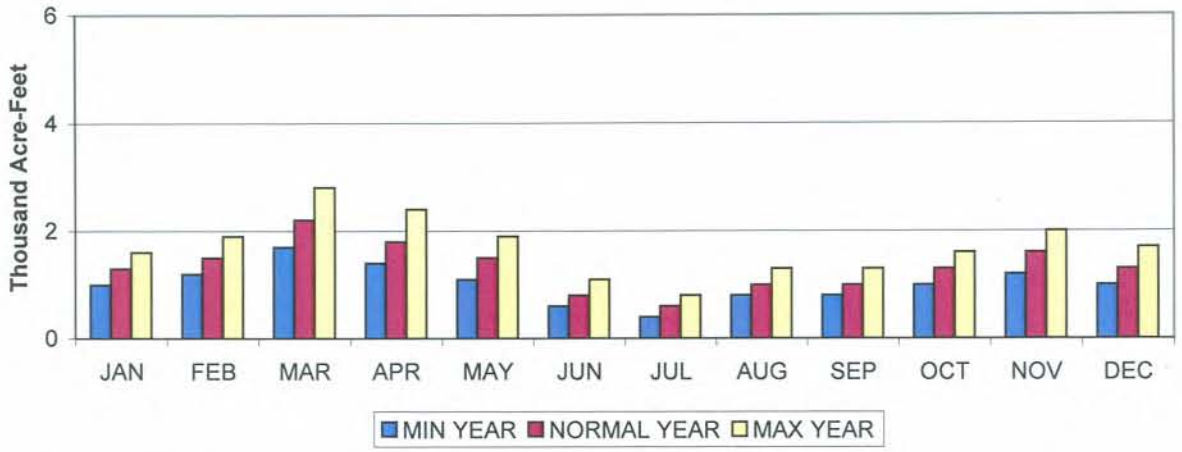


EXHIBIT 1B

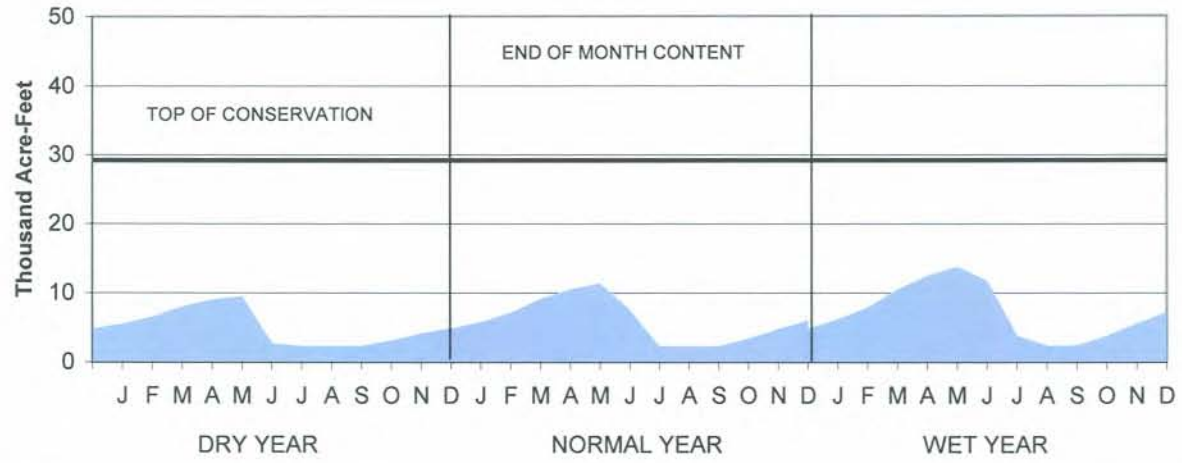
BOX BUTTE RESERVOIR

2008 OPERATION PLAN

Inflow



Storage



Outflow

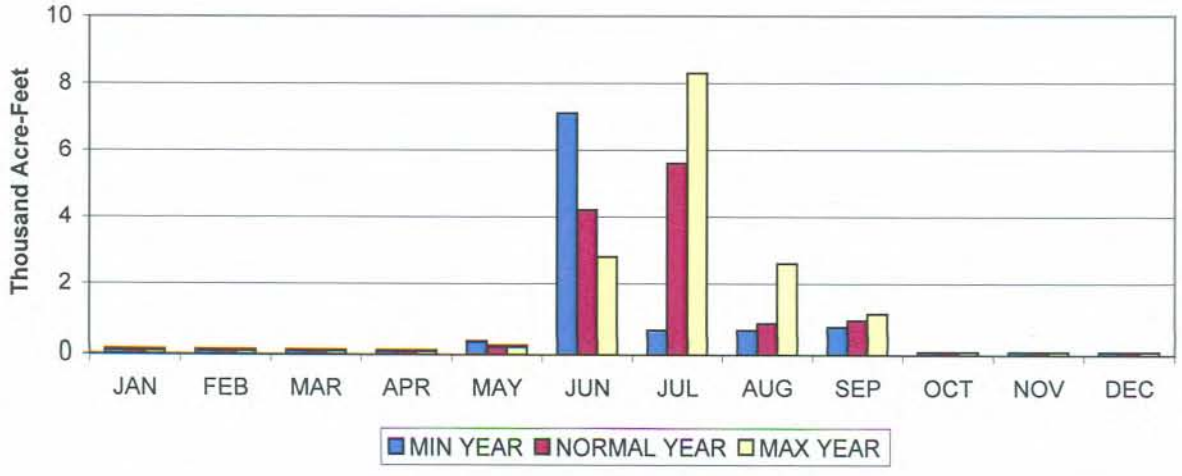
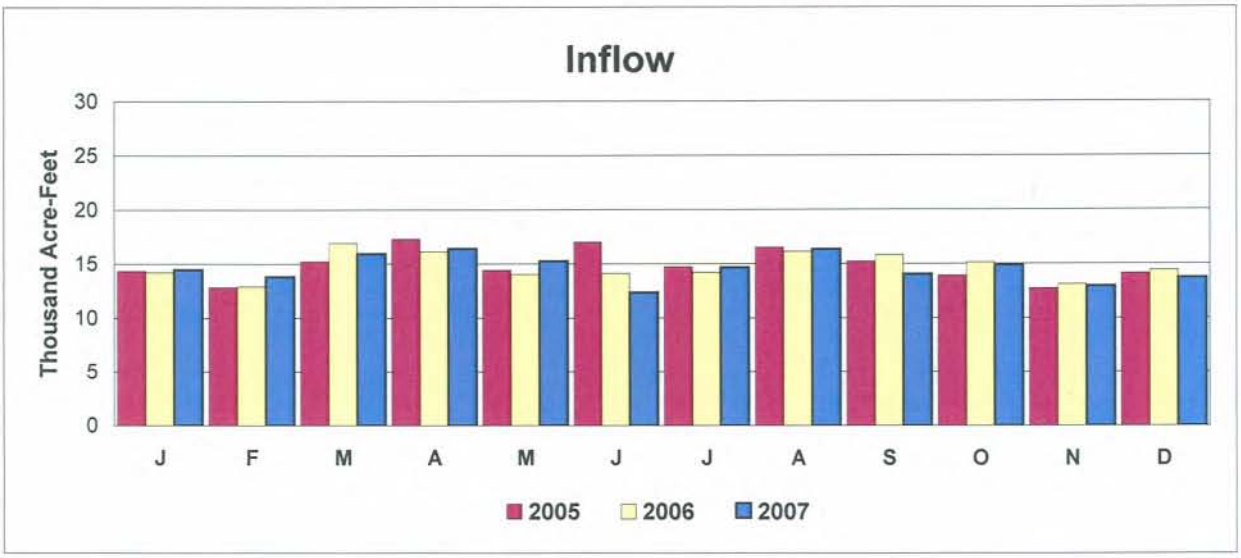
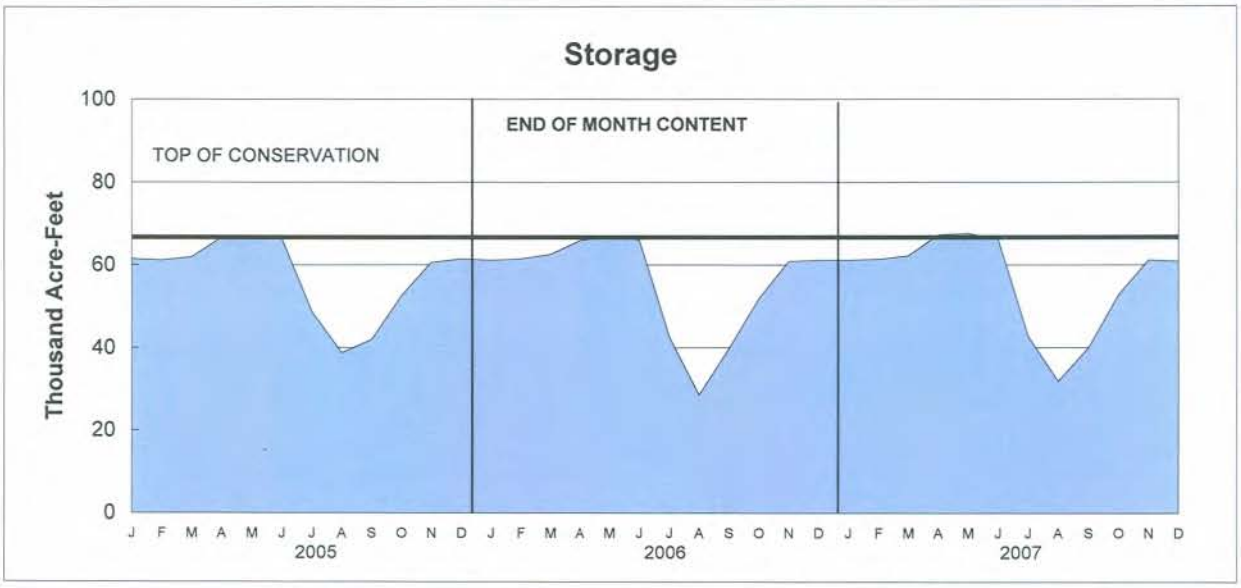


EXHIBIT 2A

MERRITT RESERVOIR
ACTUAL OPERATION





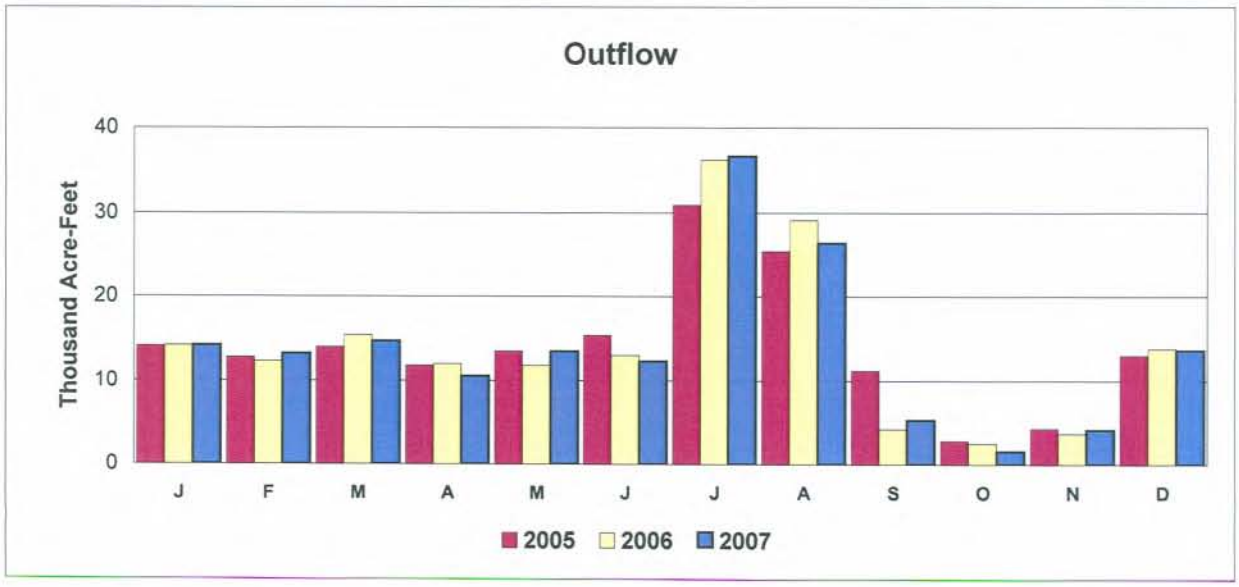
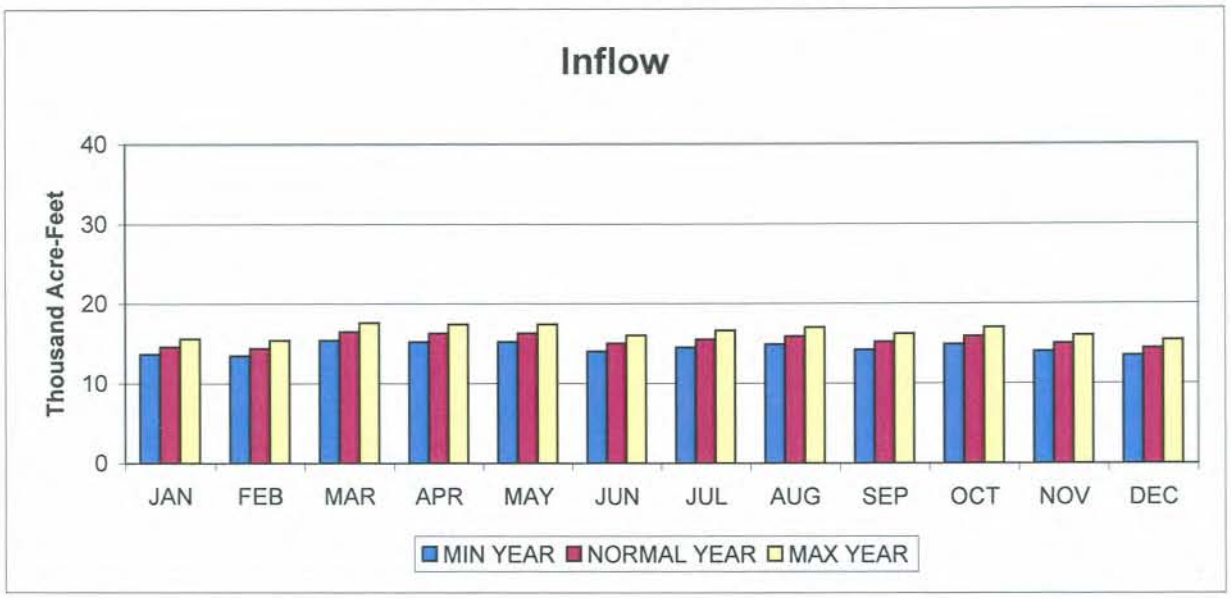
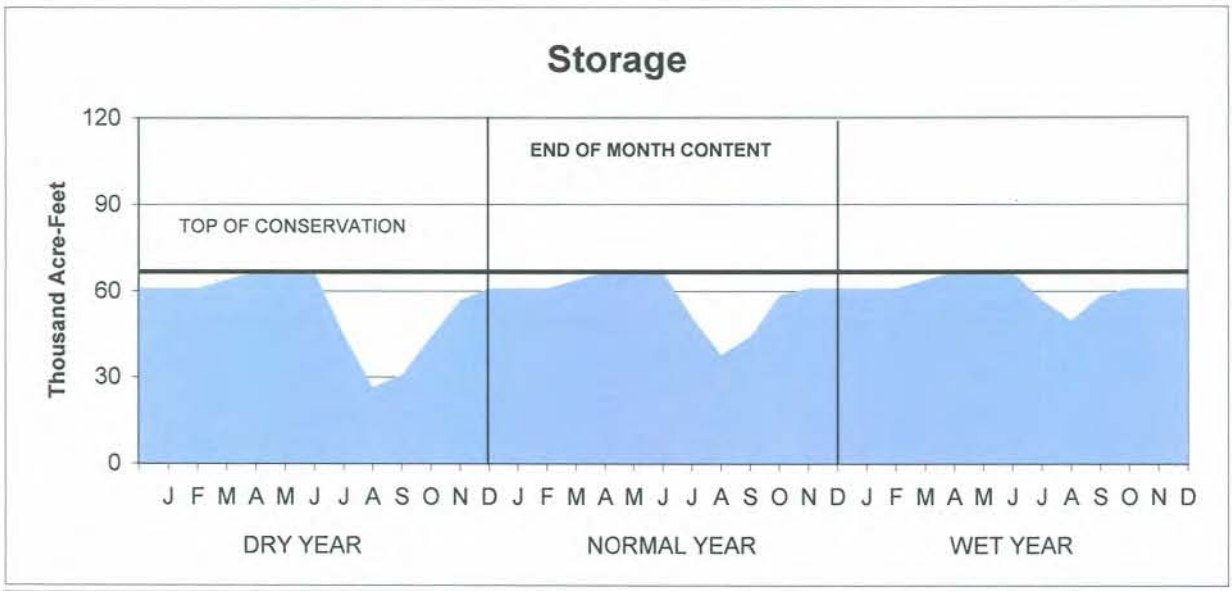


EXHIBIT 2B

MERRITT RESERVOIR

2008 OPERATION PLAN





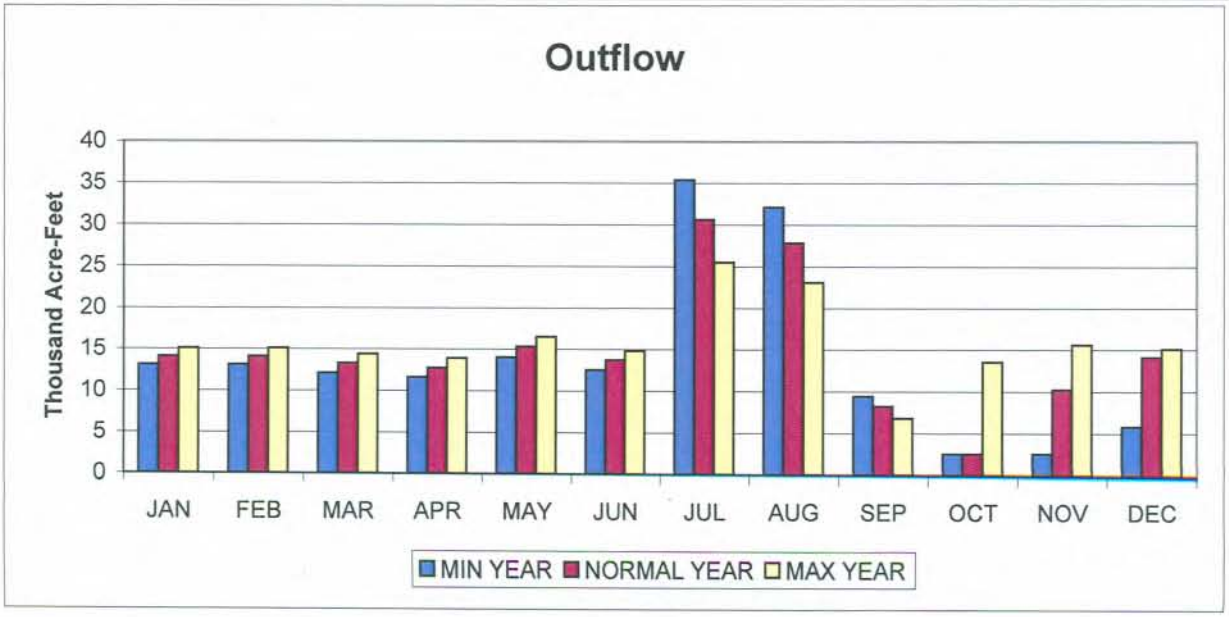
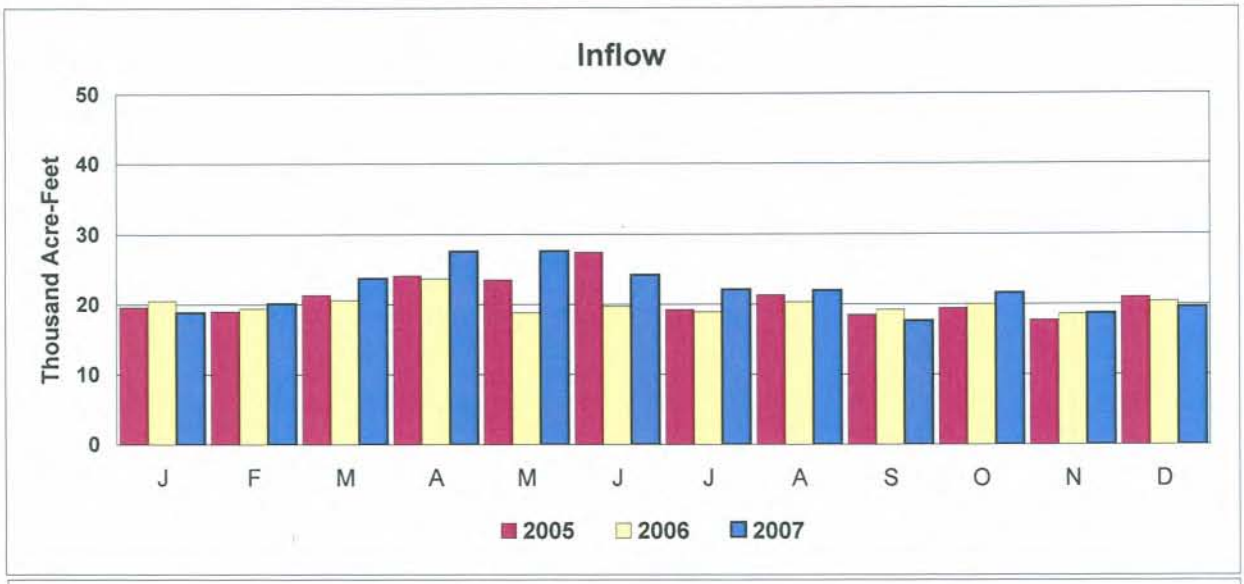
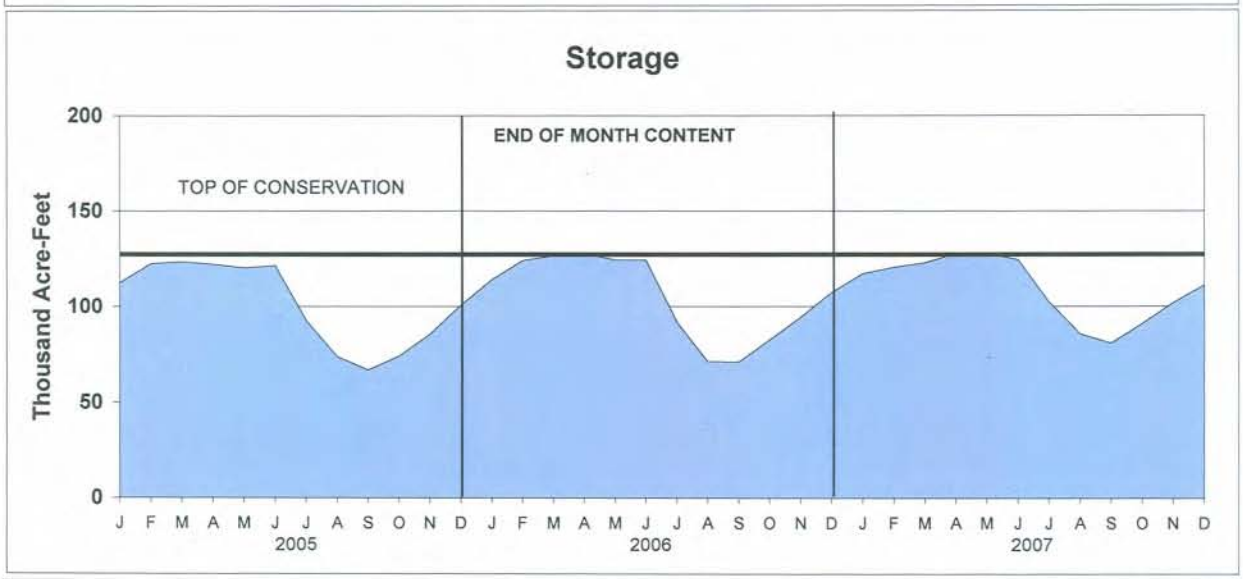


EXHIBIT 3A

CALAMUS RESERVOIR

ACTUAL OPERATION





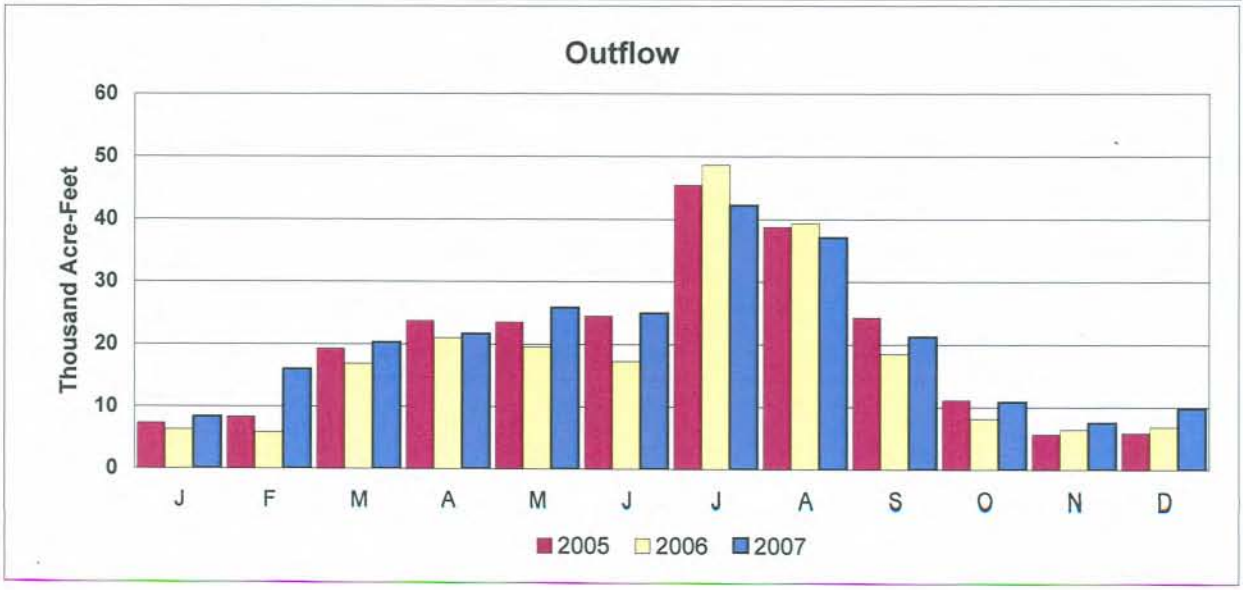
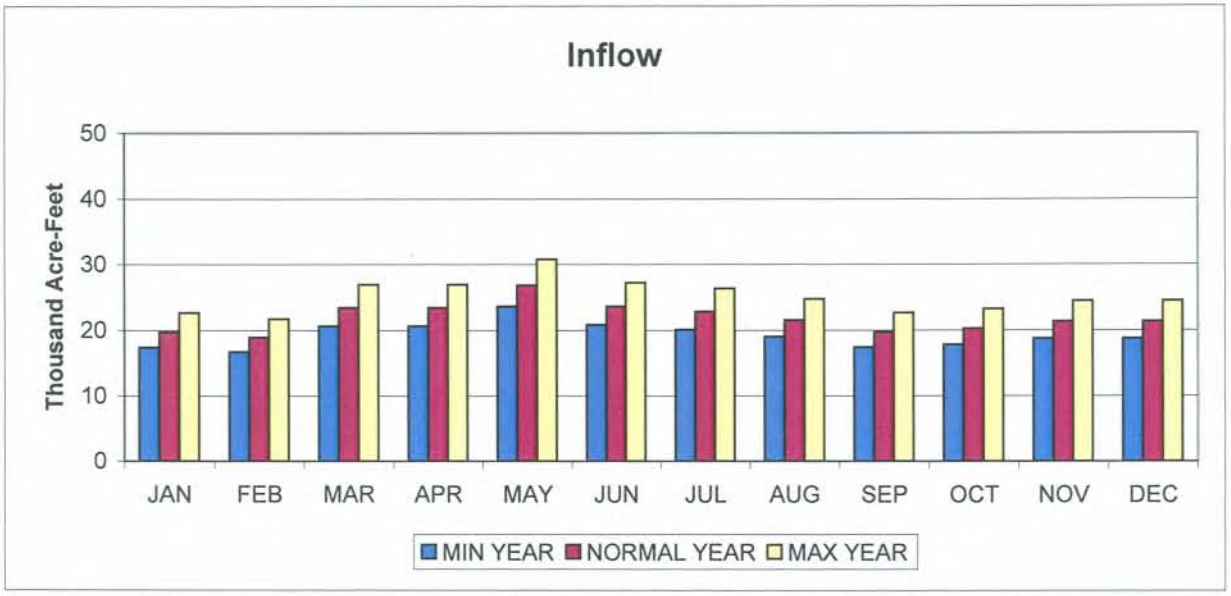
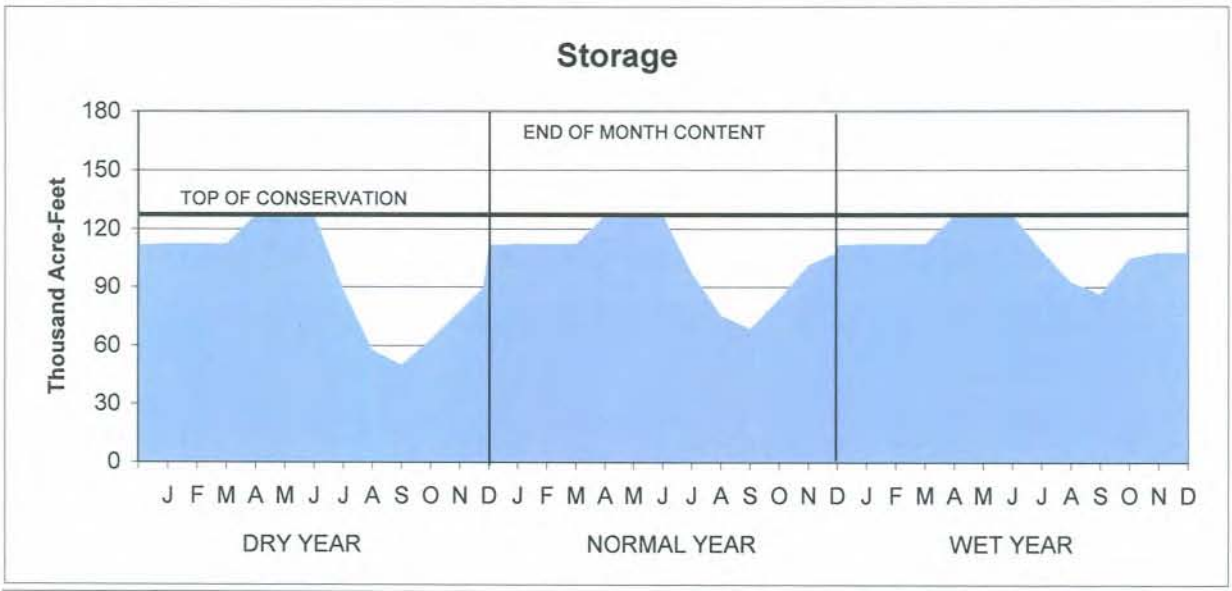


EXHIBIT 3B

CALAMUS RESERVOIR

2008 OPERATION PLAN





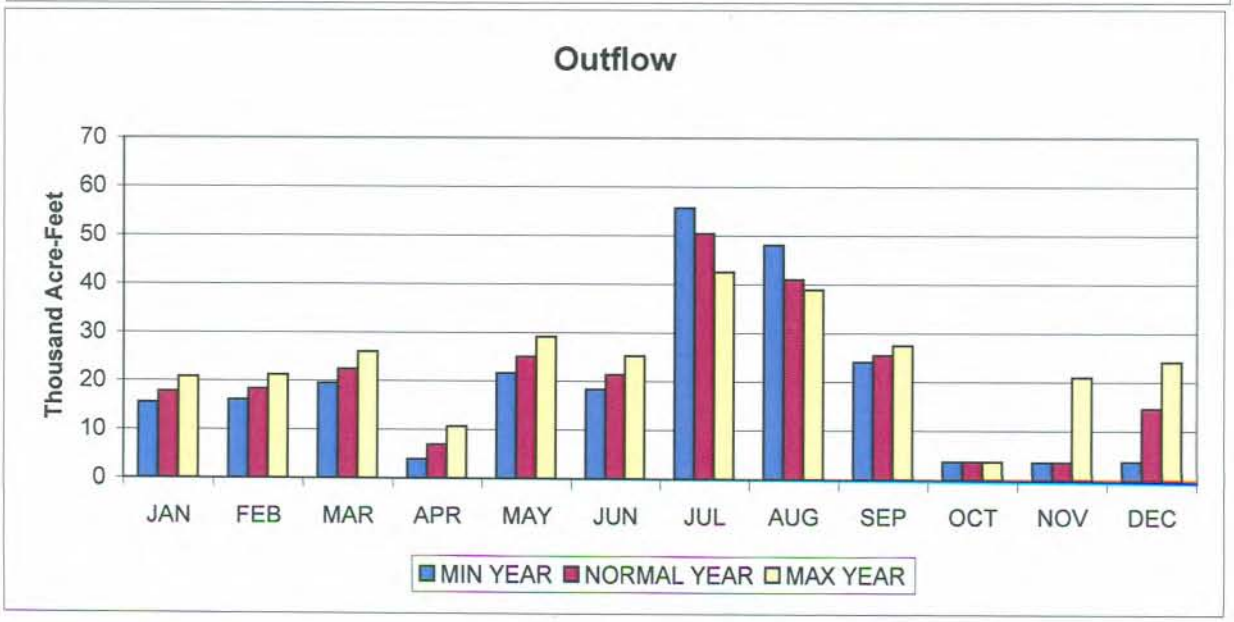
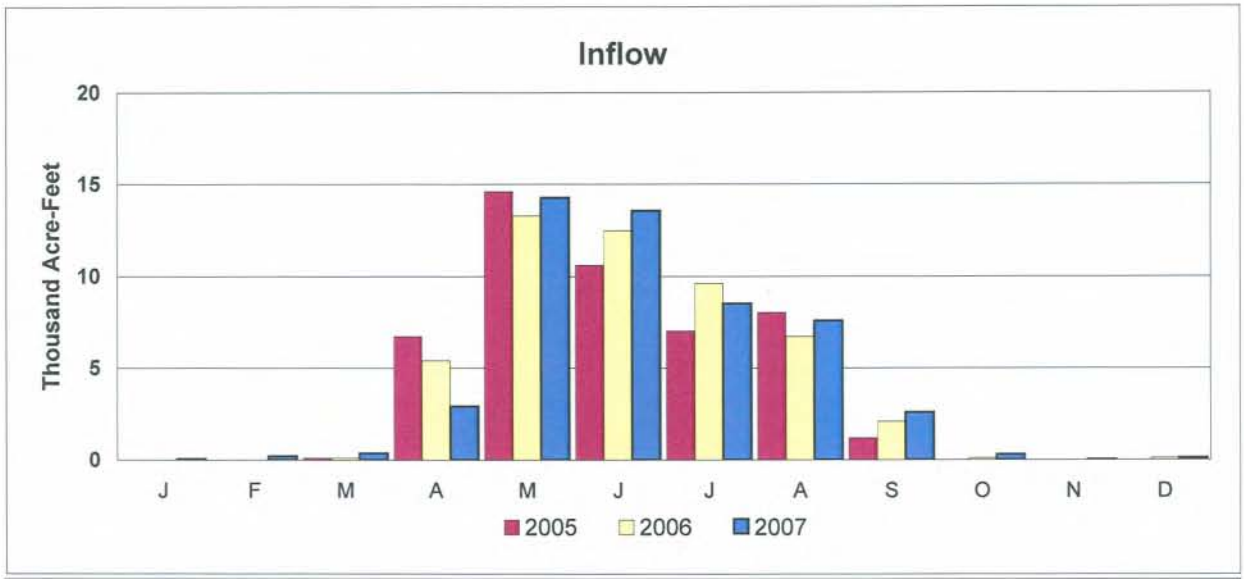
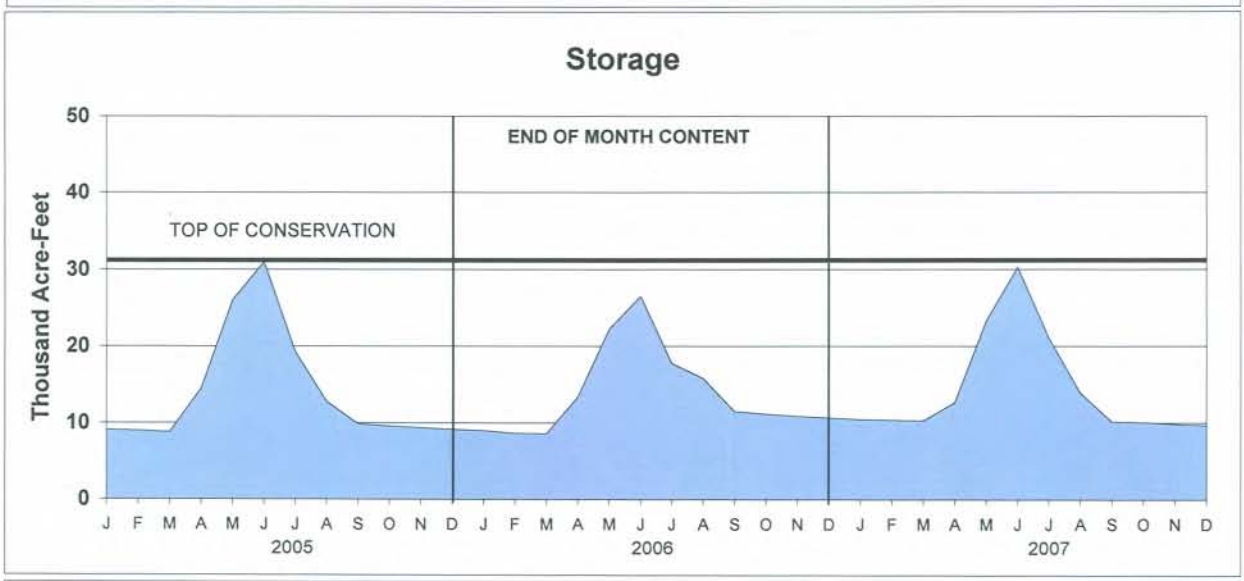


EXHIBIT 4A

DAVIS CREEK RESERVOIR

ACTUAL OPERATION





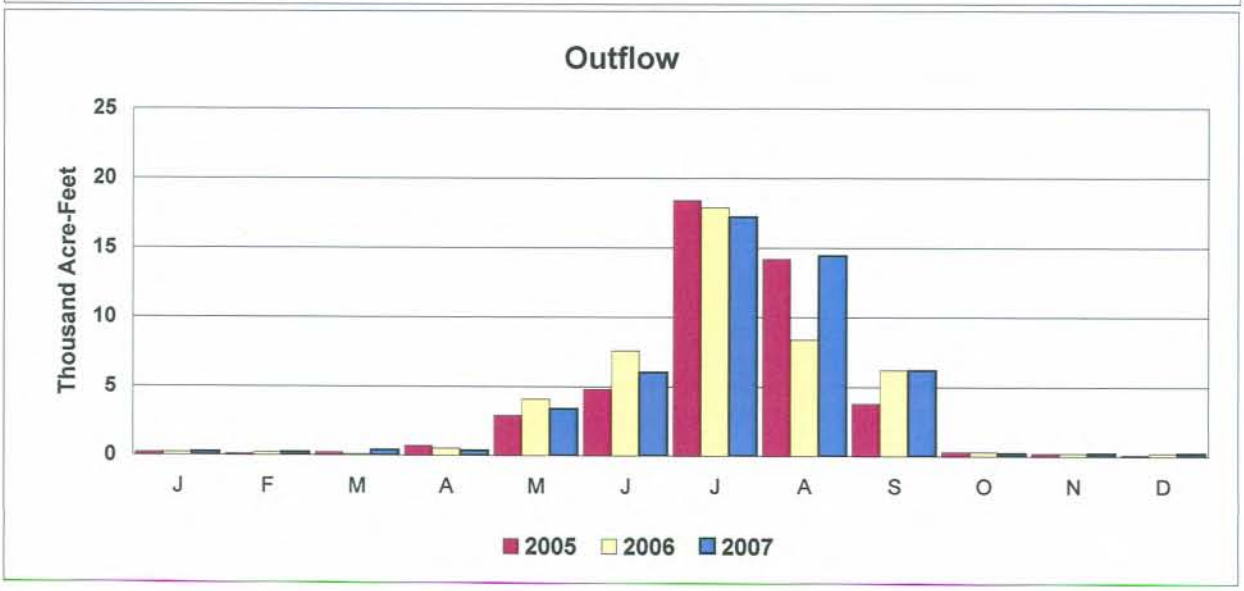
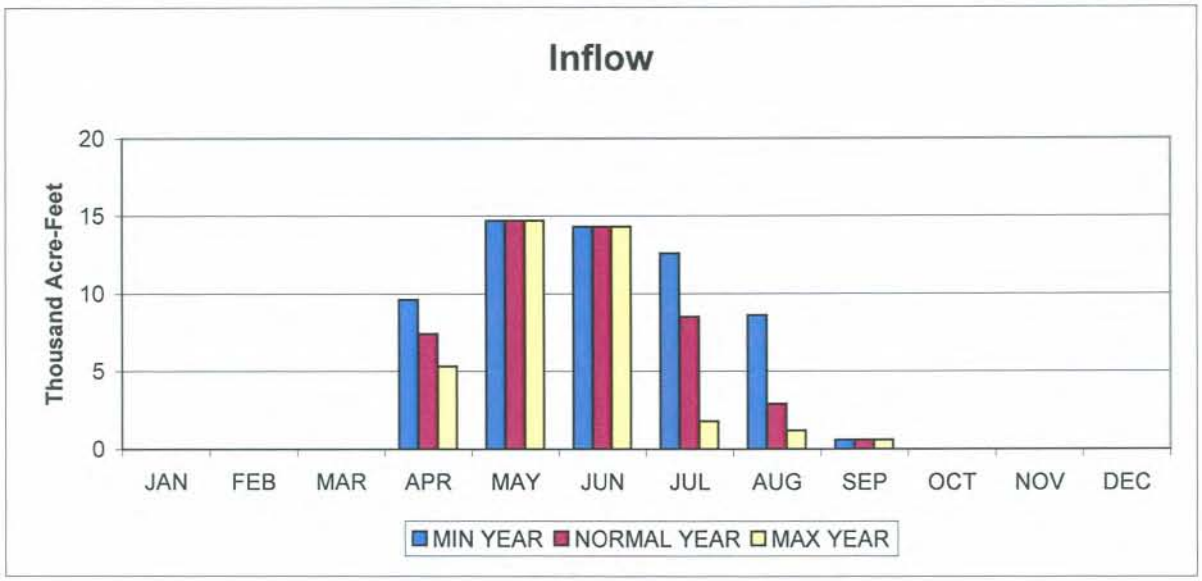
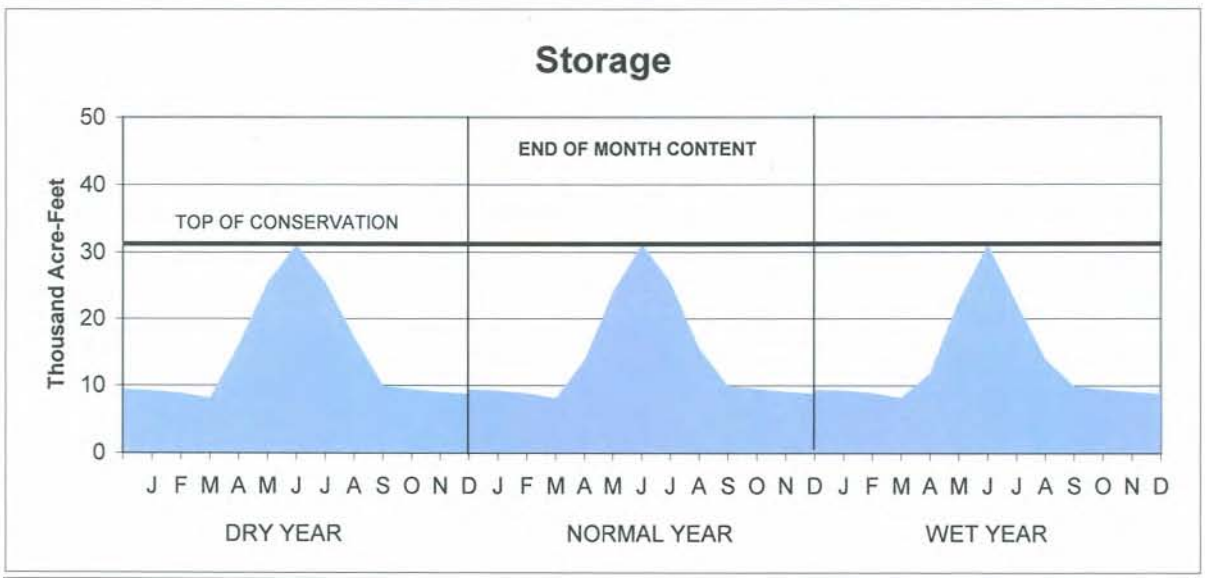


EXHIBIT 4B

DAVIS CREEK RESERVOIR

2008 OPERATION PLAN





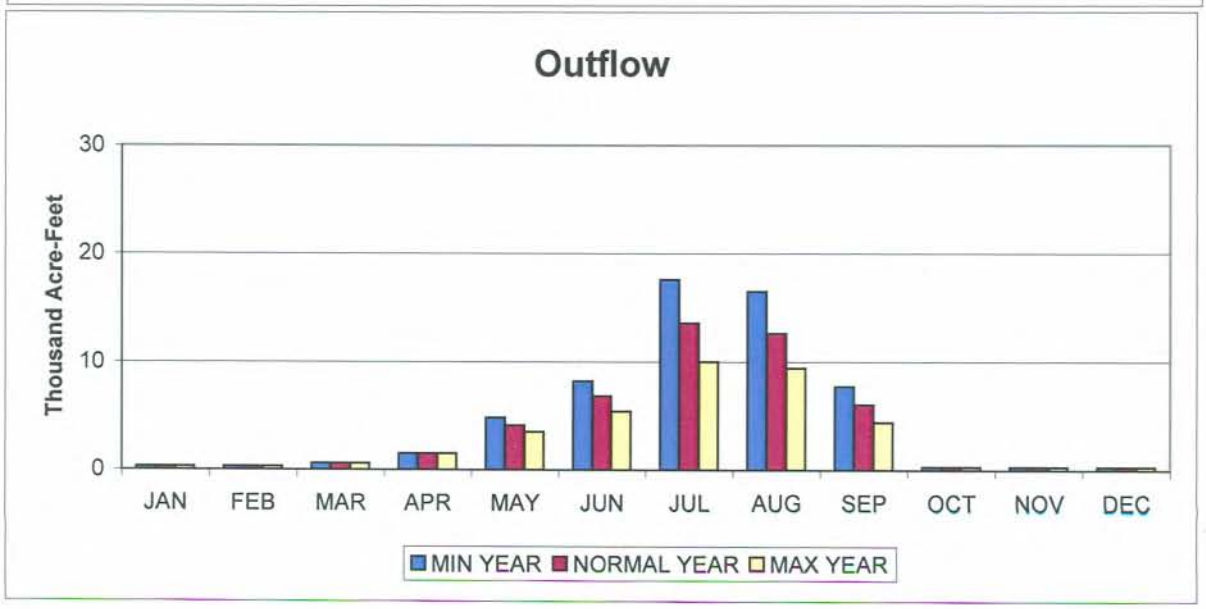
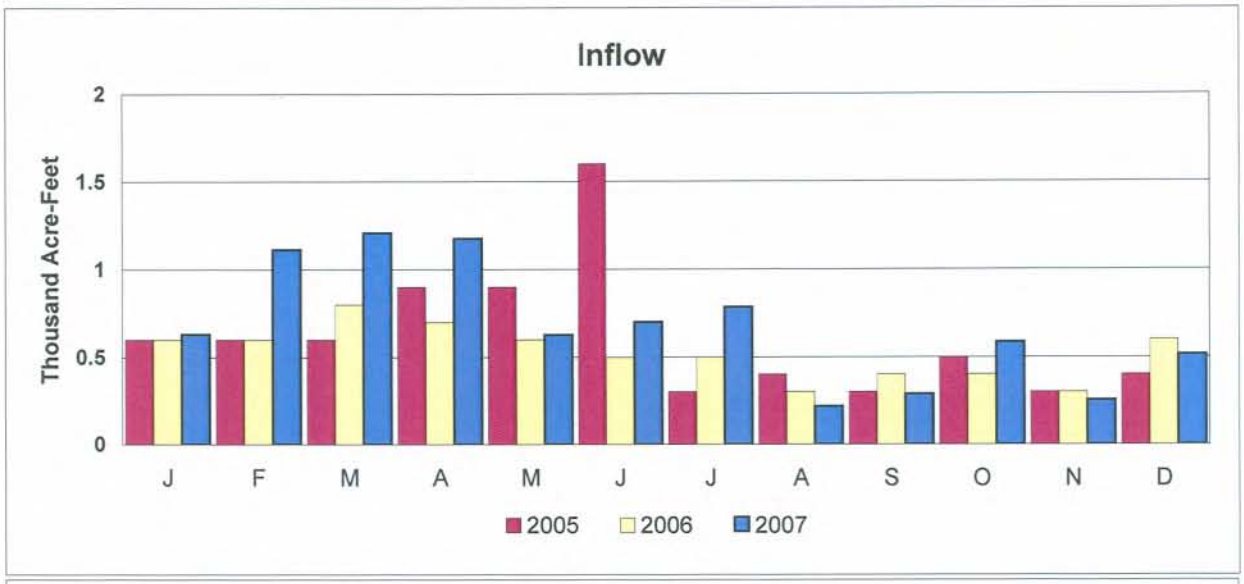
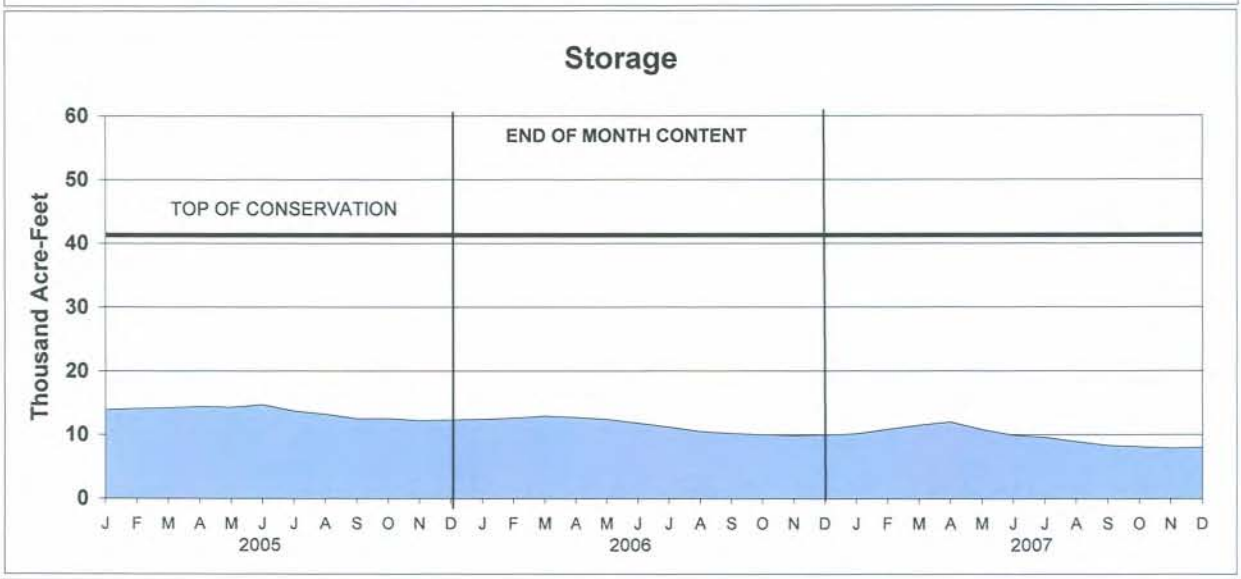


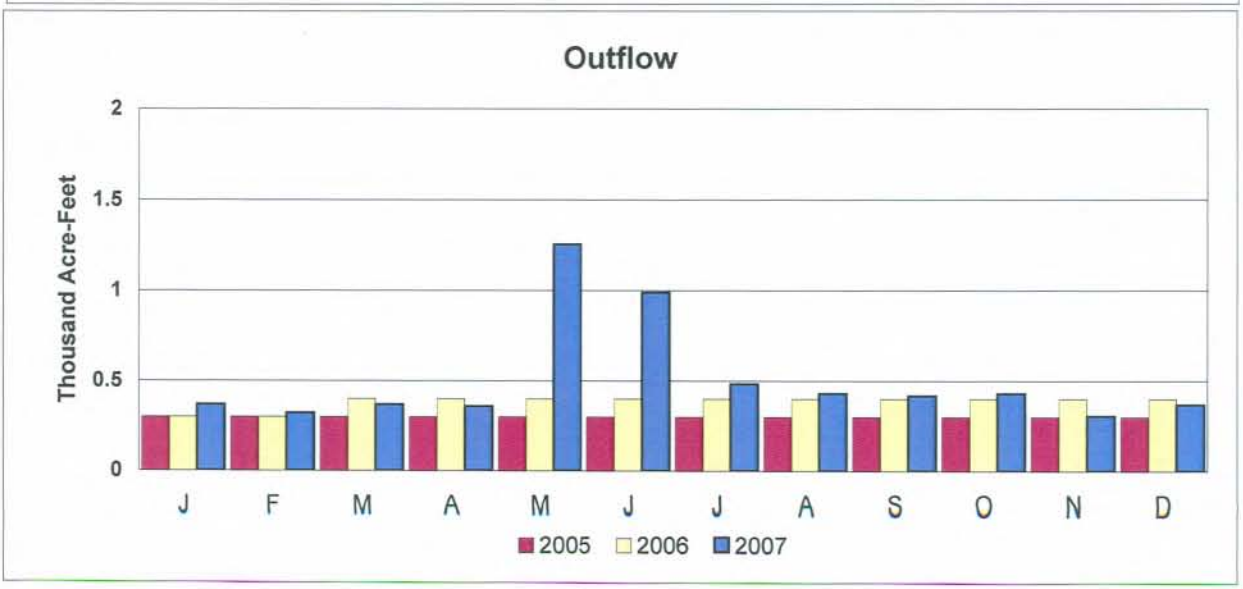
EXHIBIT 5A

BONNY RESERVOIR

ACTUAL OPERATION

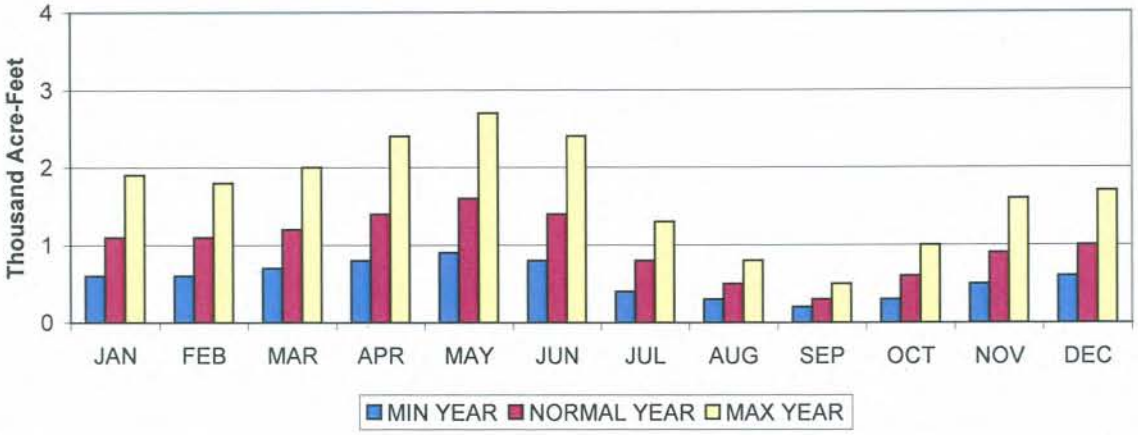




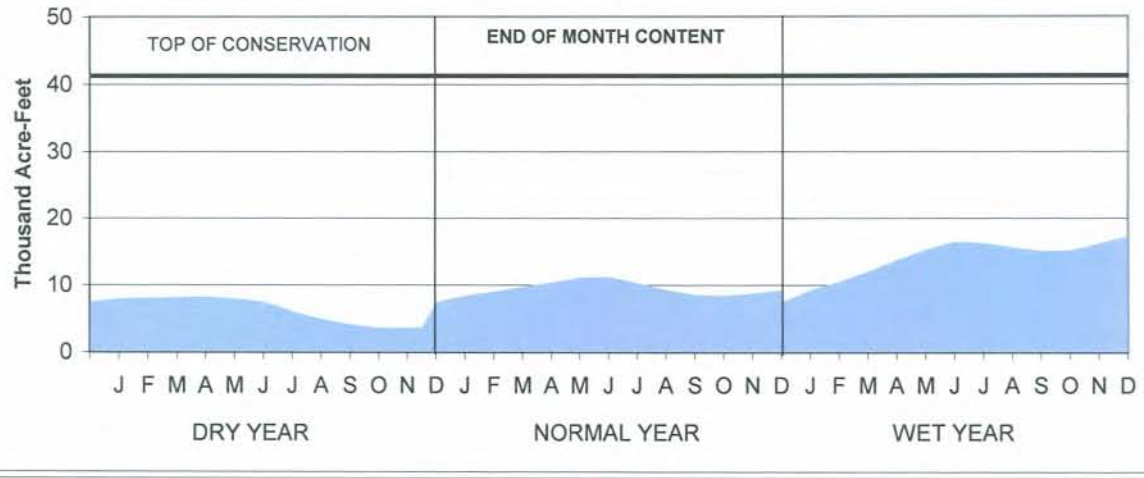


BONNY RESERVOIR
2008 OPERATION PLAN

Inflow



Storage



Outflow

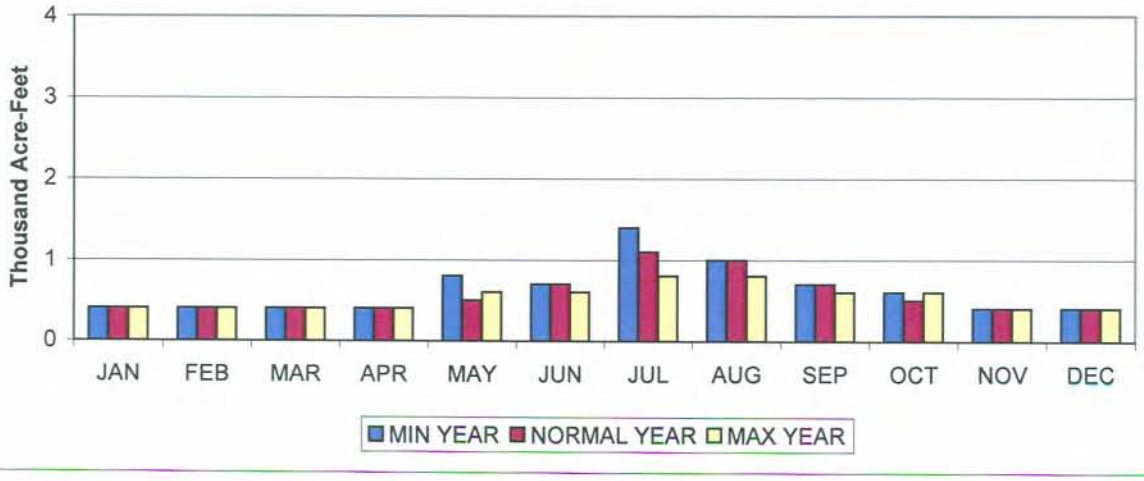
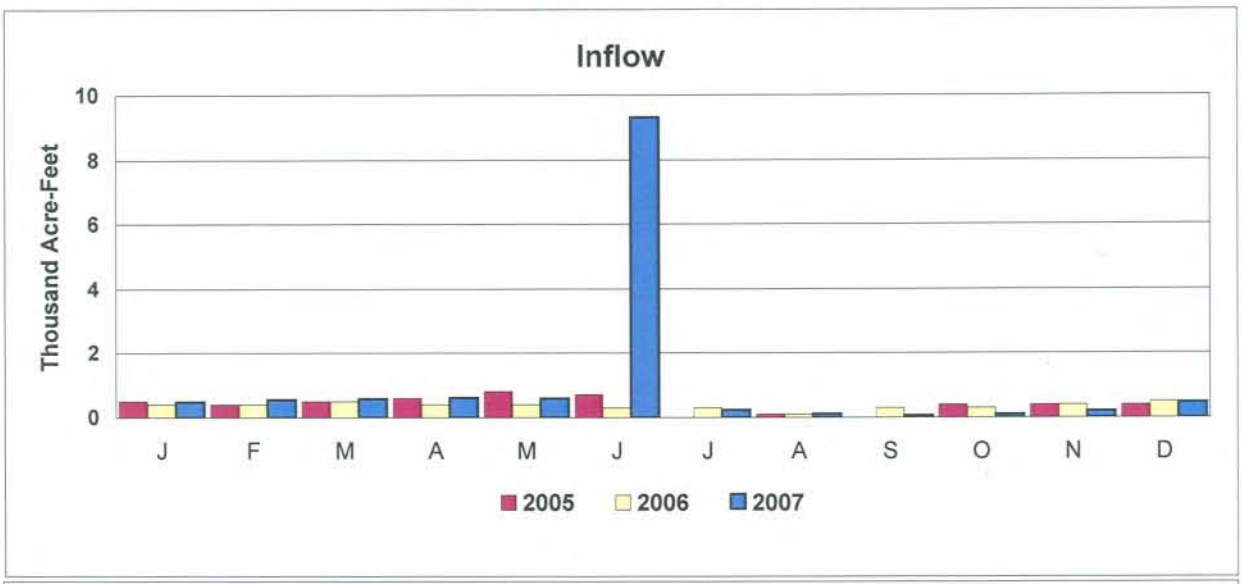
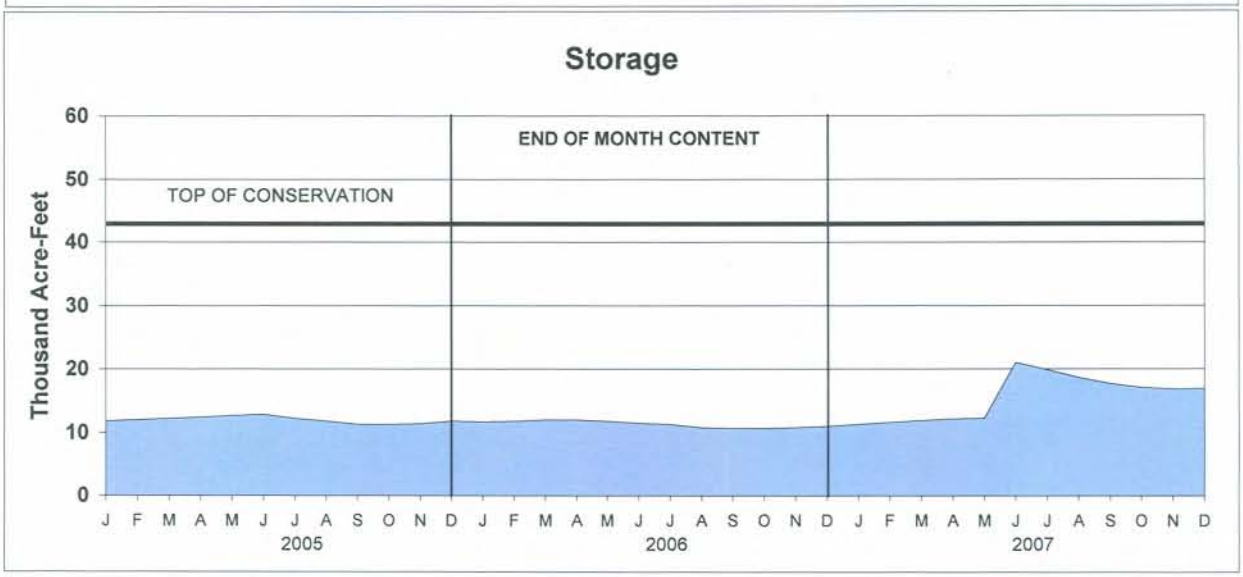


EXHIBIT 6A

ENDERS RESERVOIR

ACTUAL OPERATION





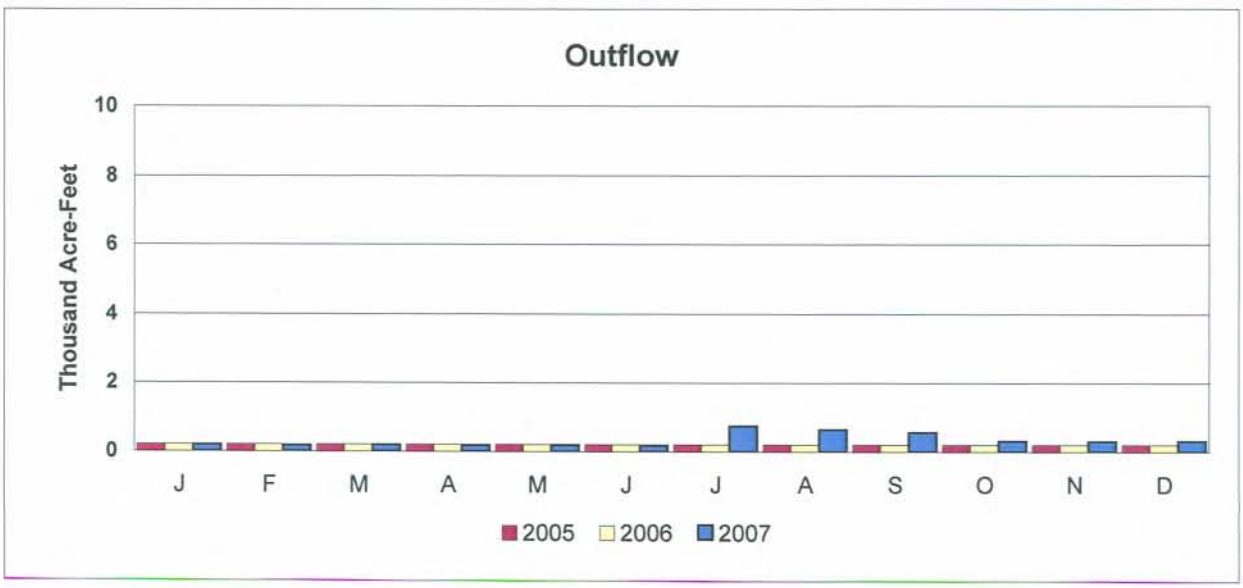
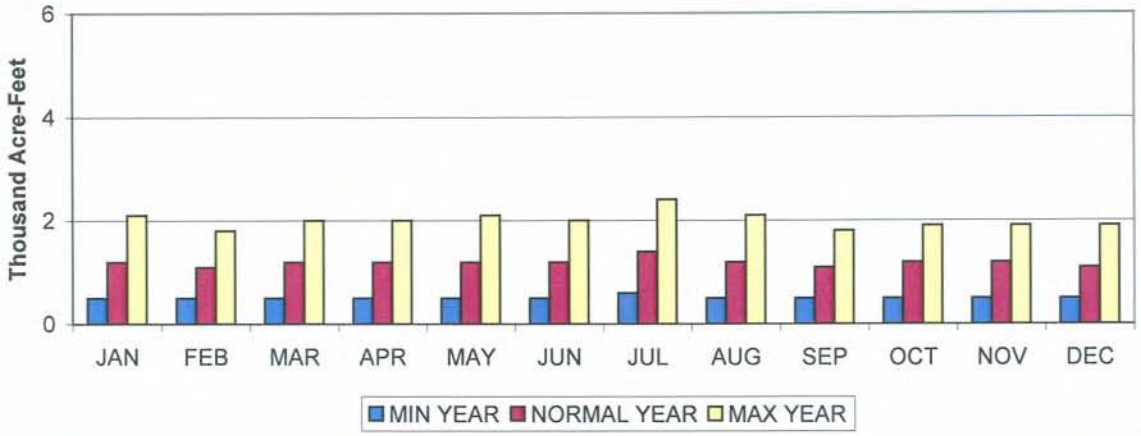


EXHIBIT 6B

ENDERS RESERVOIR

2008 OPERATION PLAN

Inflow



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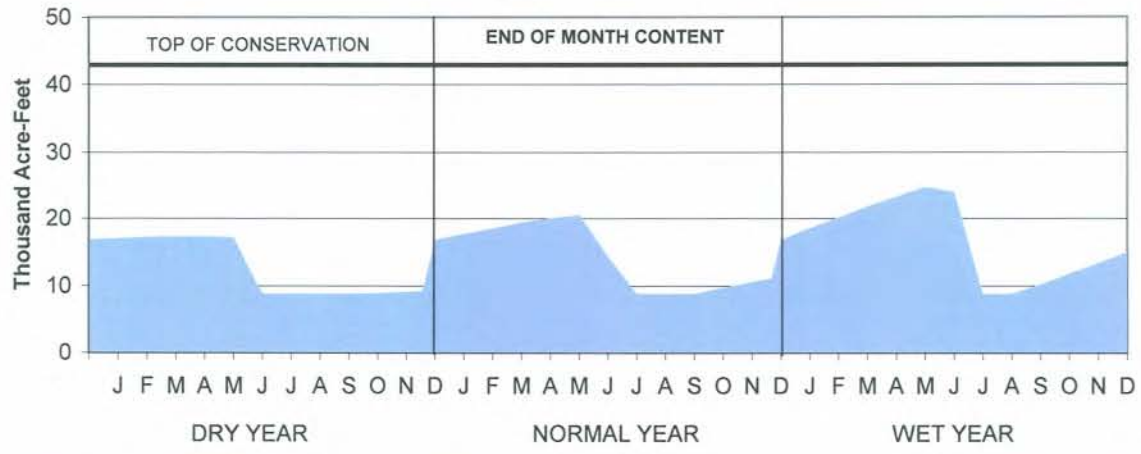

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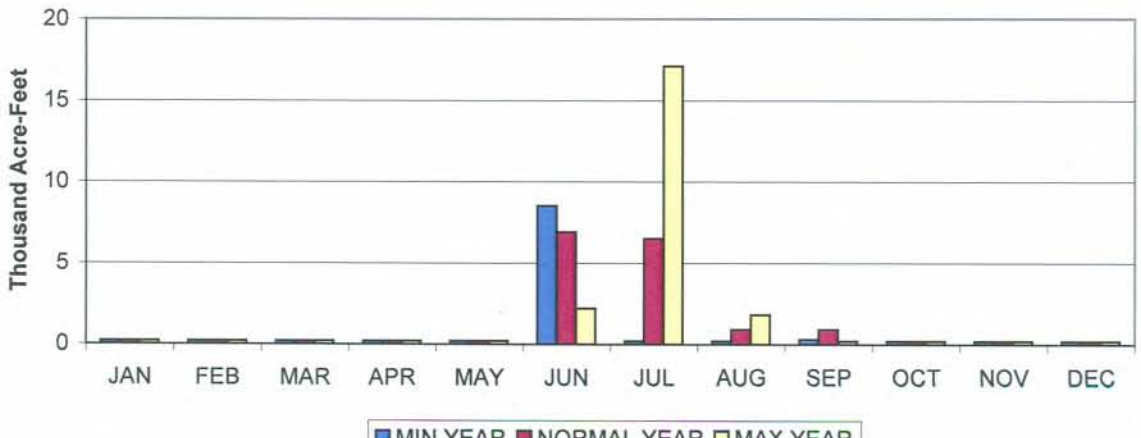
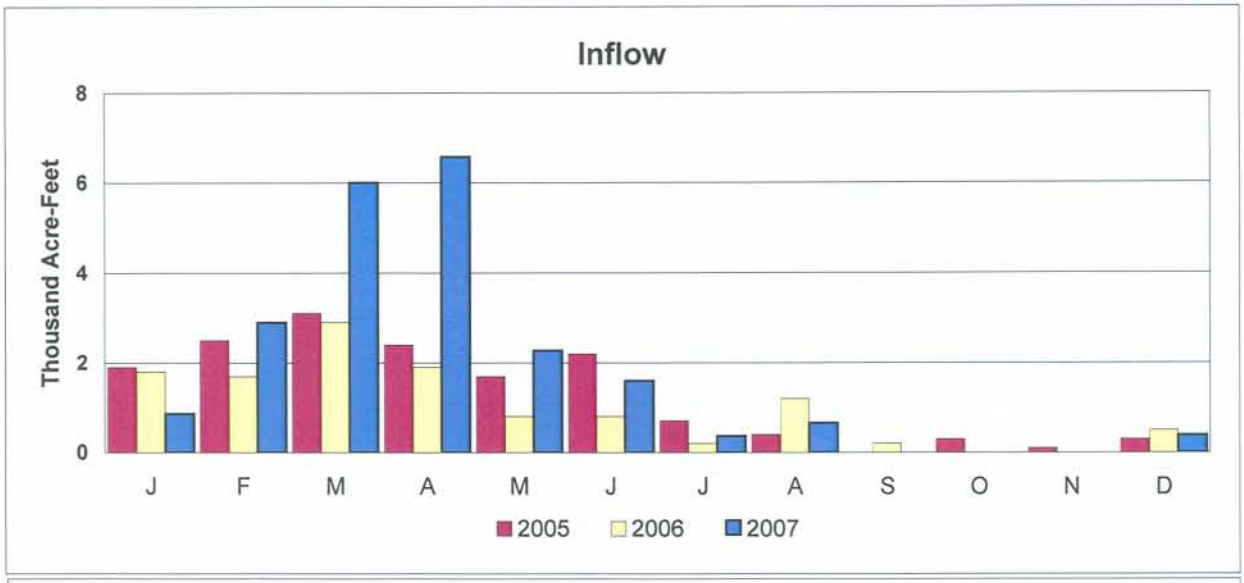
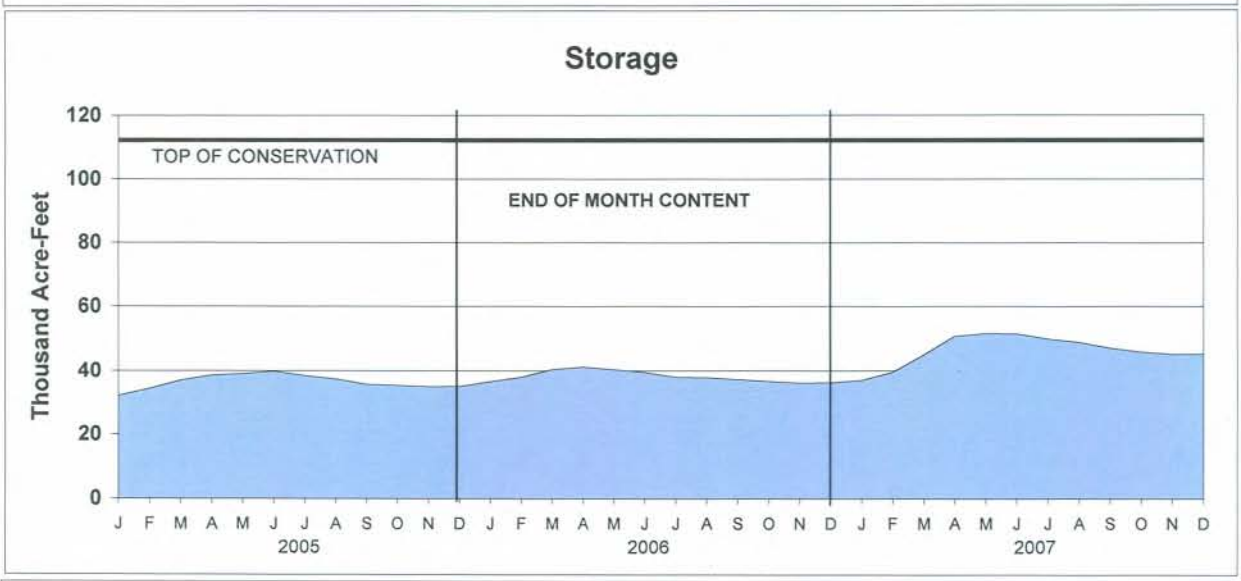


EXHIBIT 7A

SWANSON LAKE
ACTUAL OPERATION





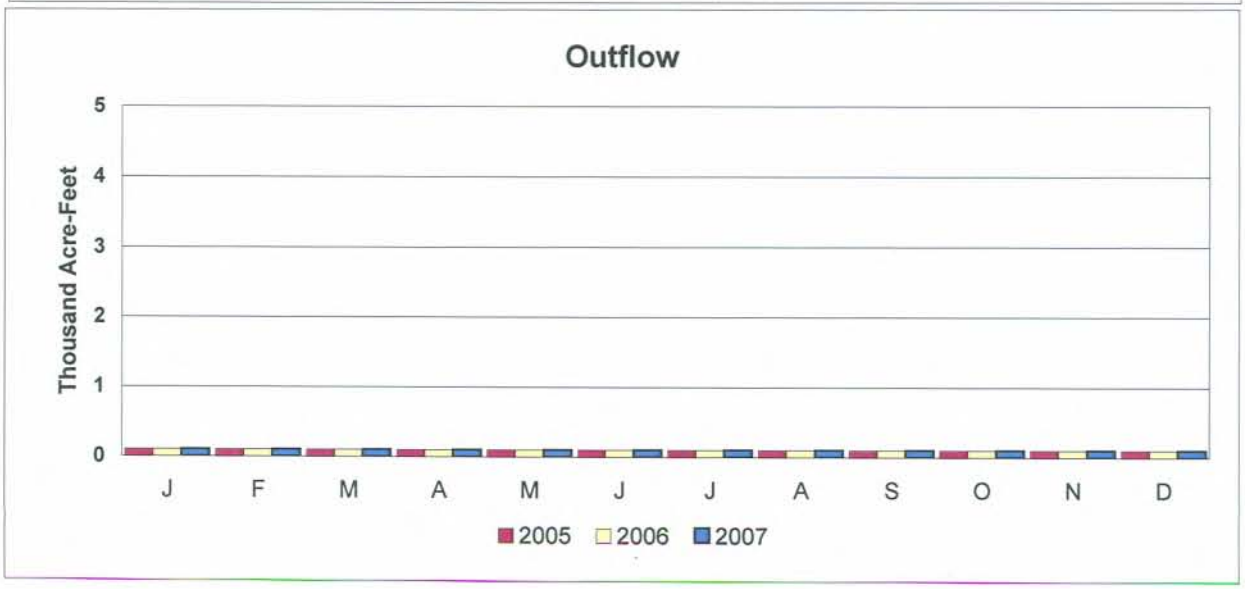
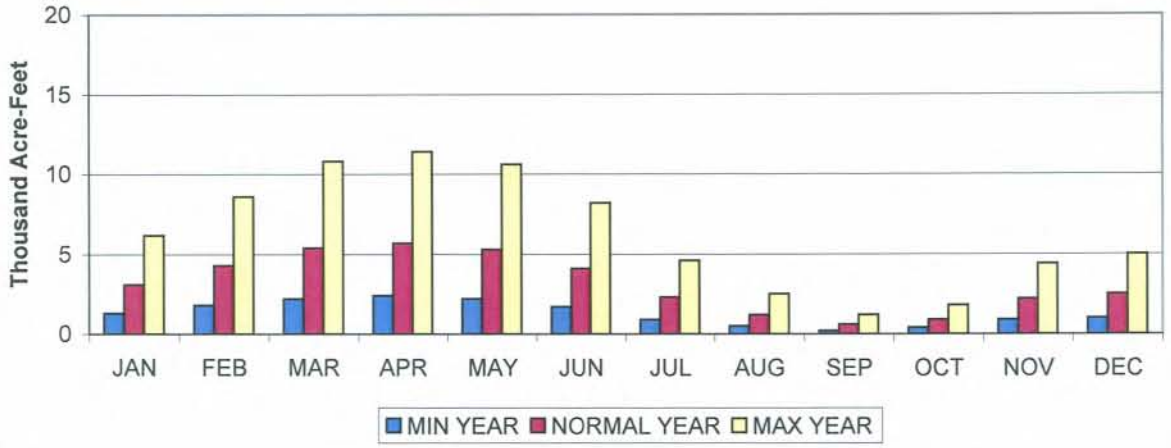


EXHIBIT 7B

SWANSON LAKE

2008 OPERATION PLAN

Inflow



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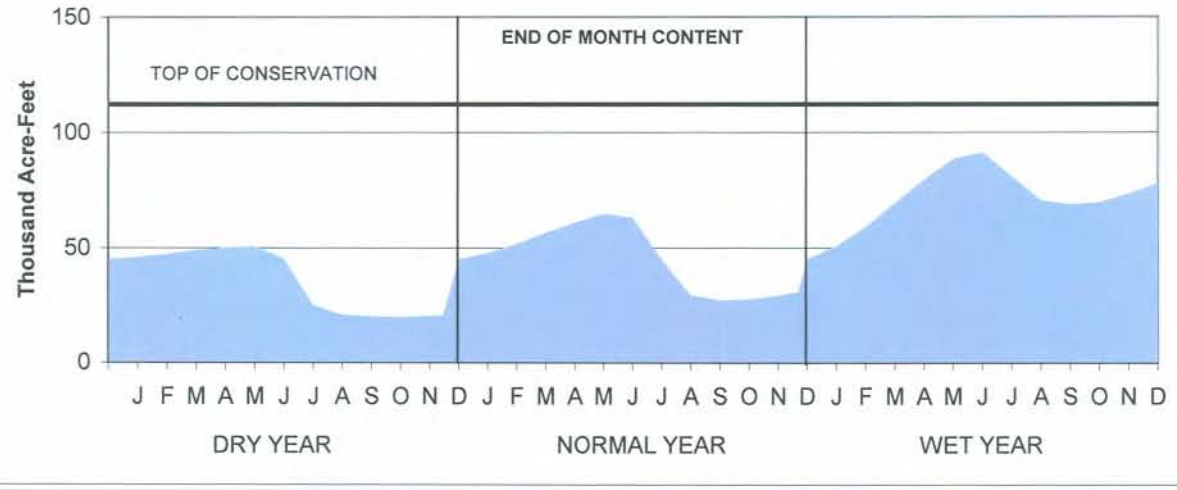

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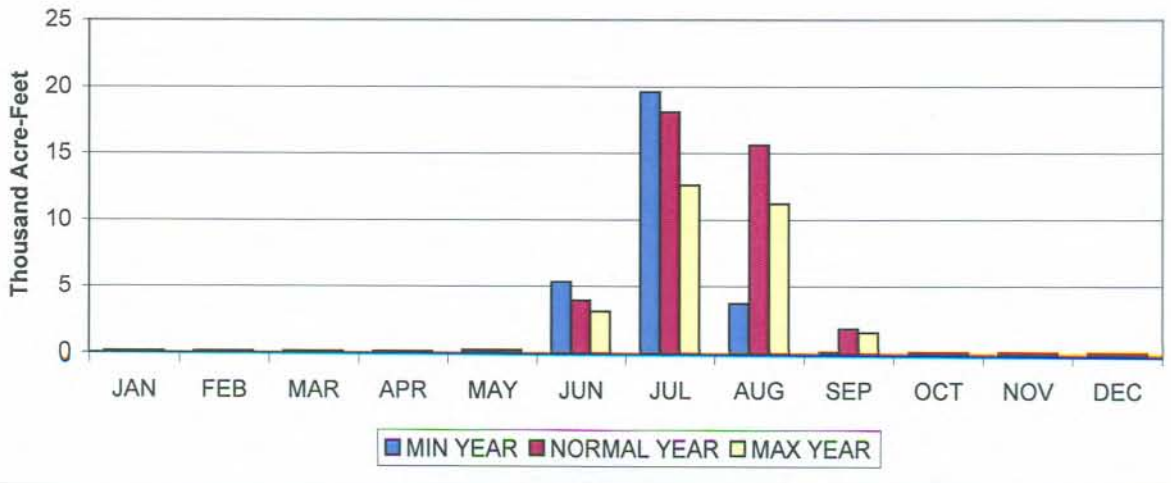
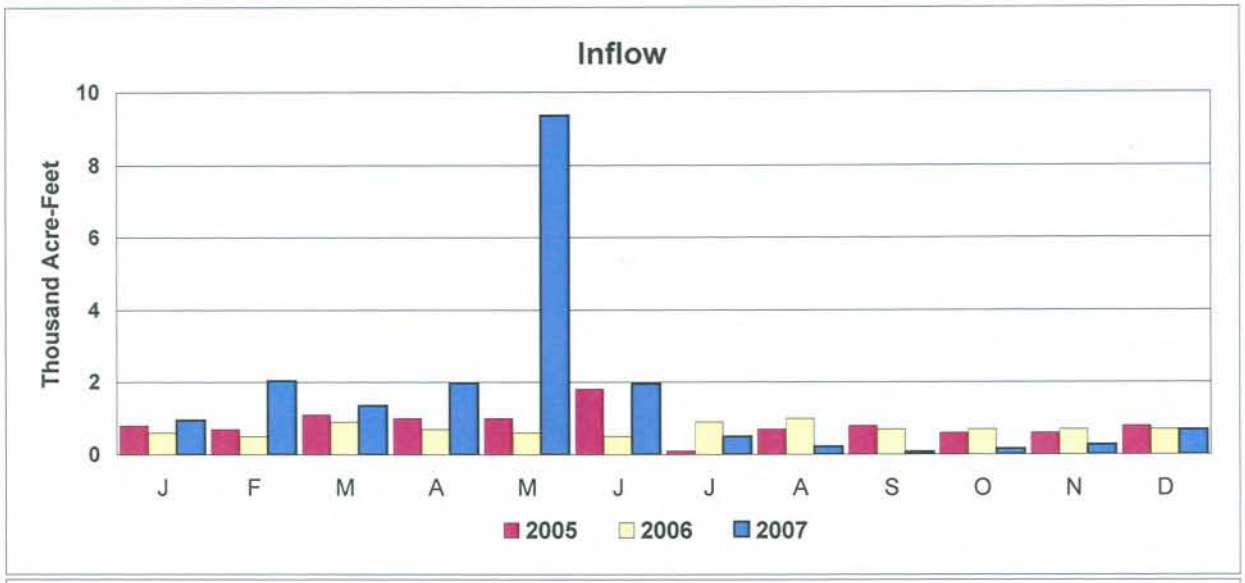
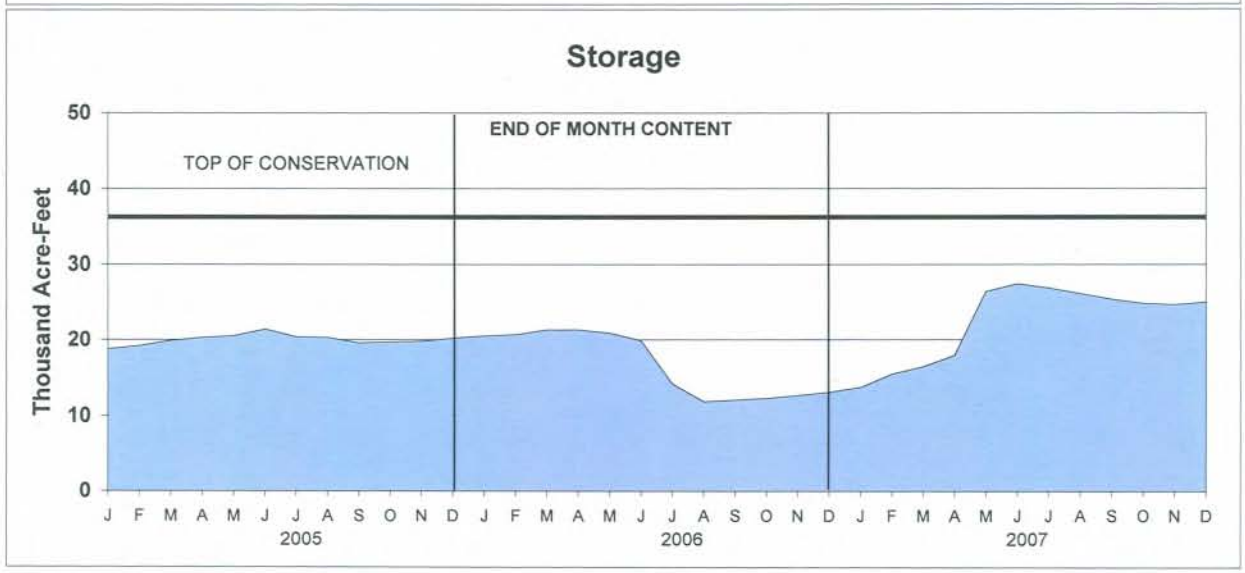


EXHIBIT 8A

HUGH BUTLER LAKE

ACTUAL OPERATION





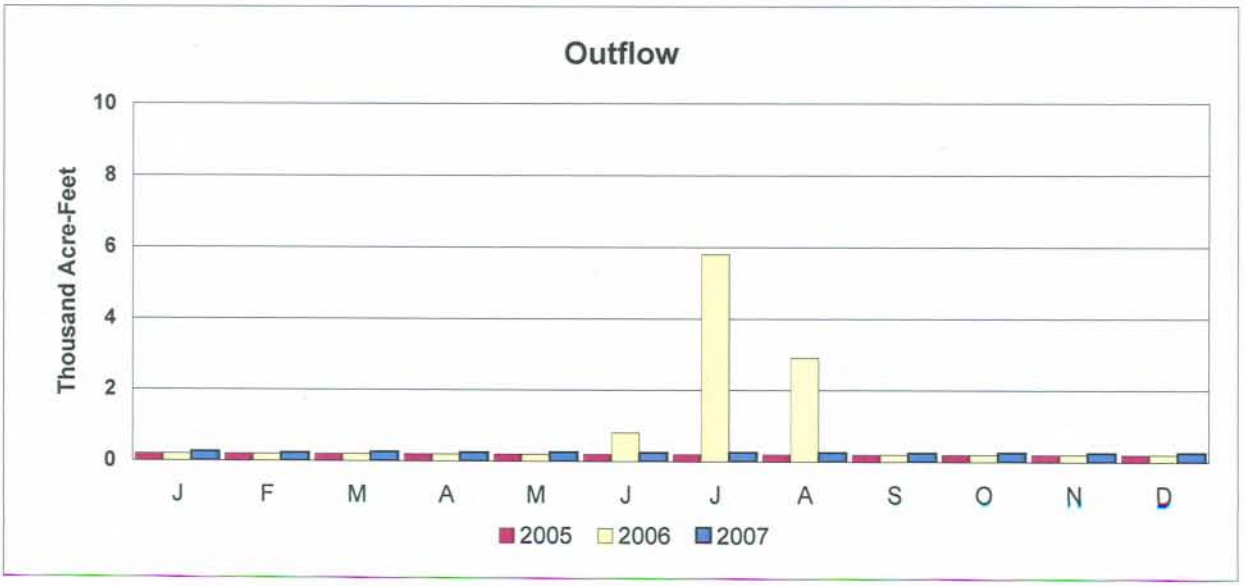
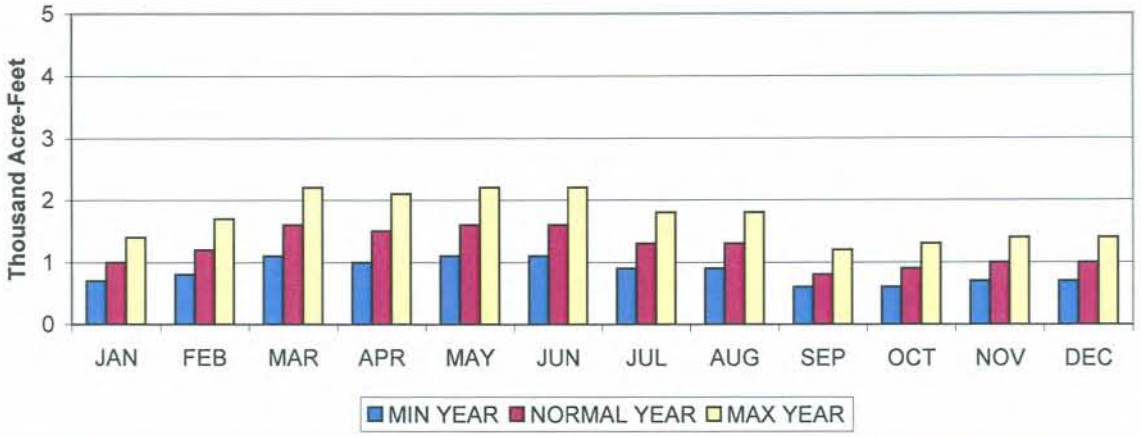


EXHIBIT 8B

HUGH BUTLER LAKE

2008 OPERATION PLAN

Inflow



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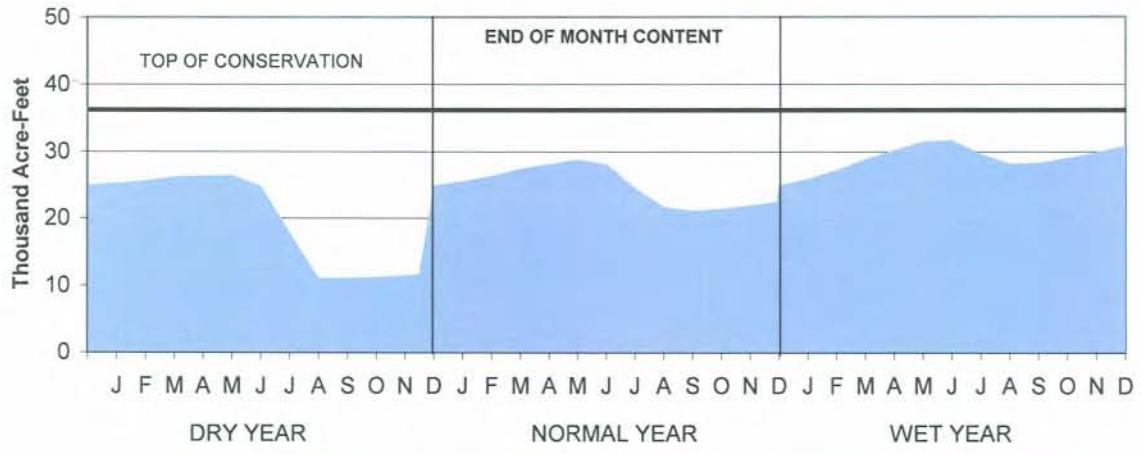

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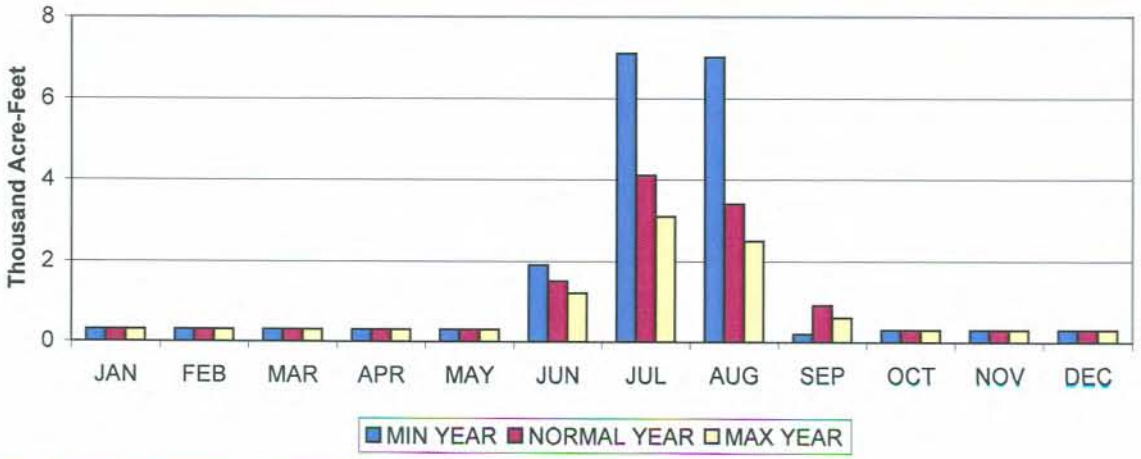
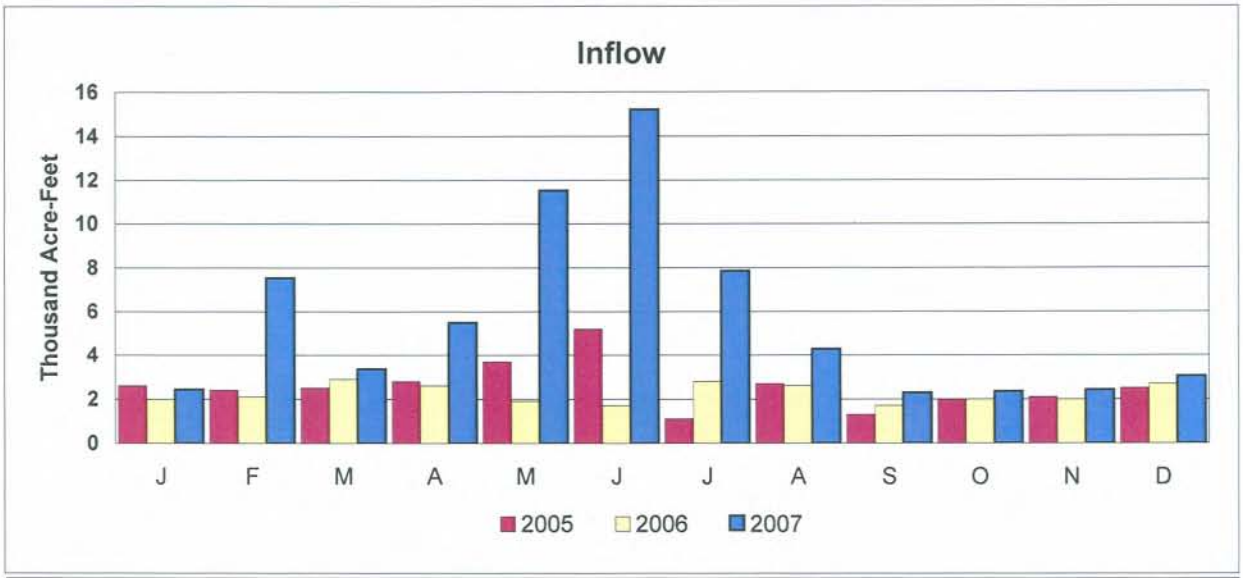
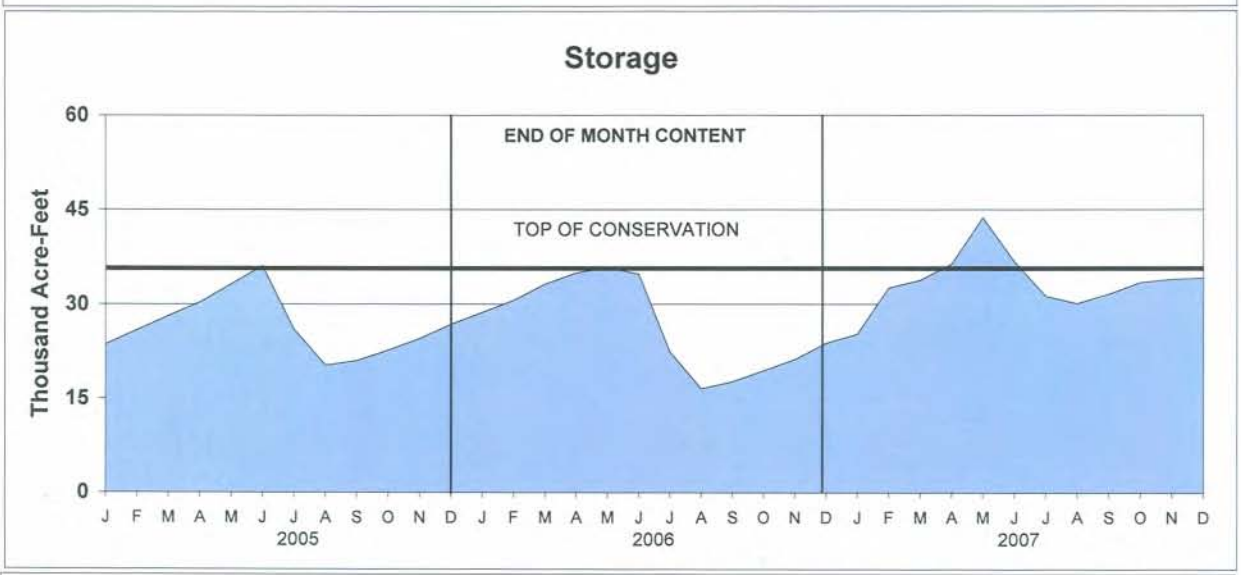


EXHIBIT 9A

HARRY STRUNK LAKE

ACTUAL OPERATION





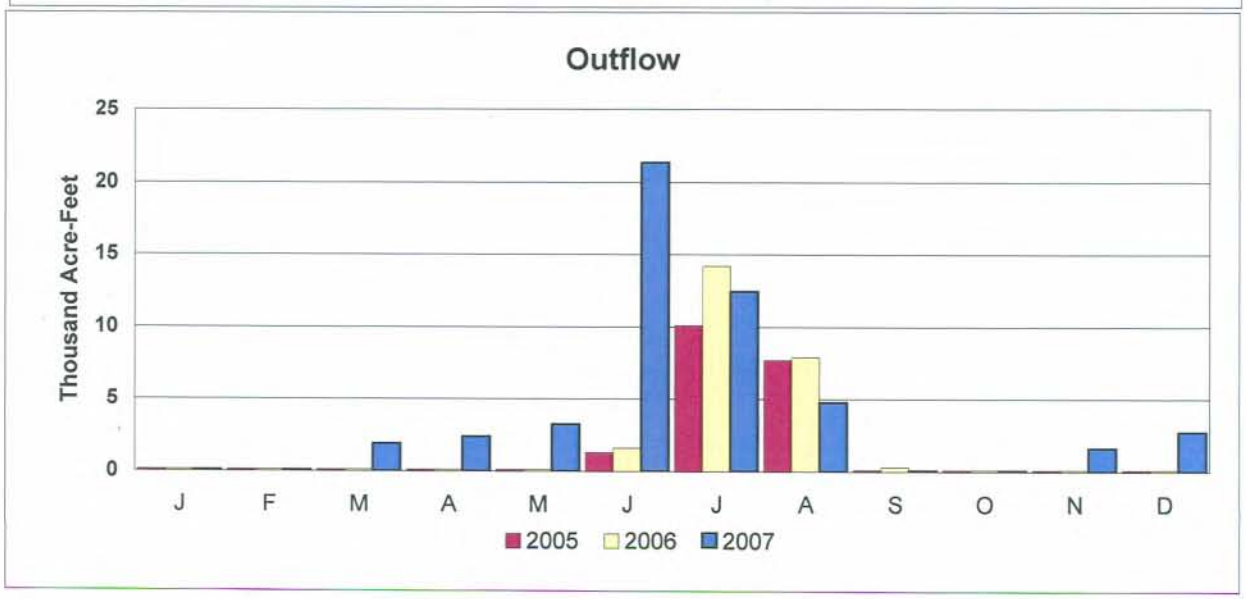
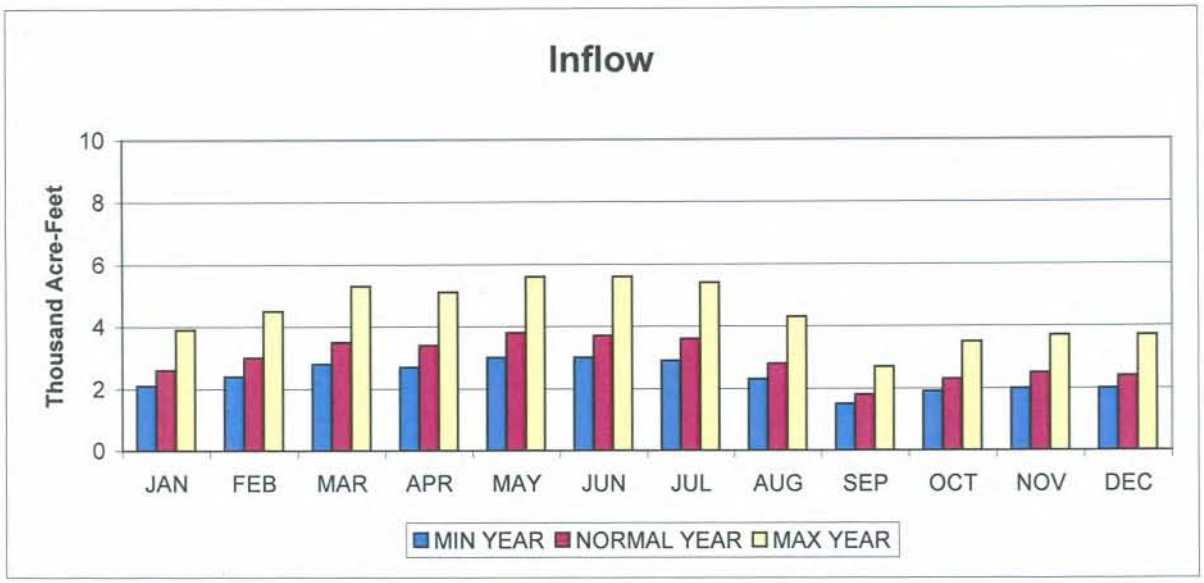
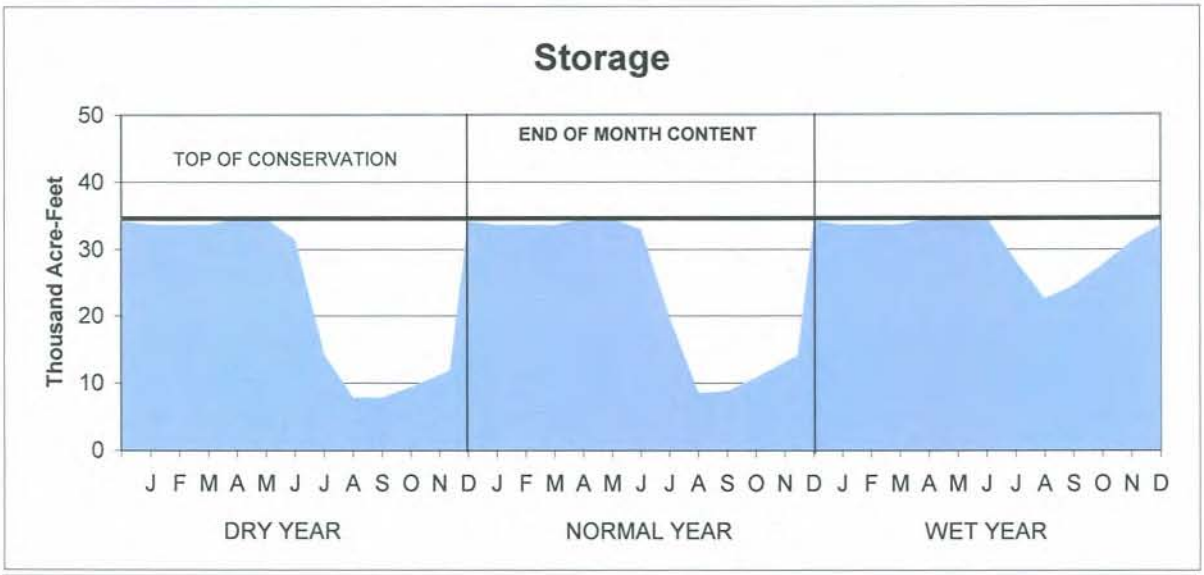


EXHIBIT 9B

HARRY STRUNK LAKE

2008 OPERATION PLAN





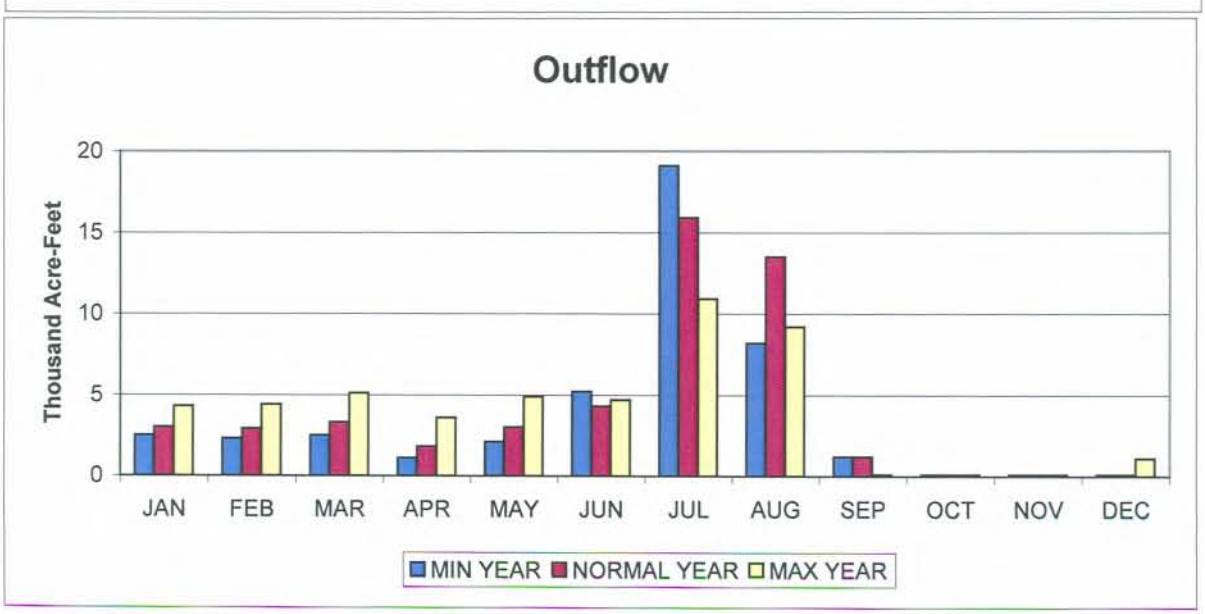
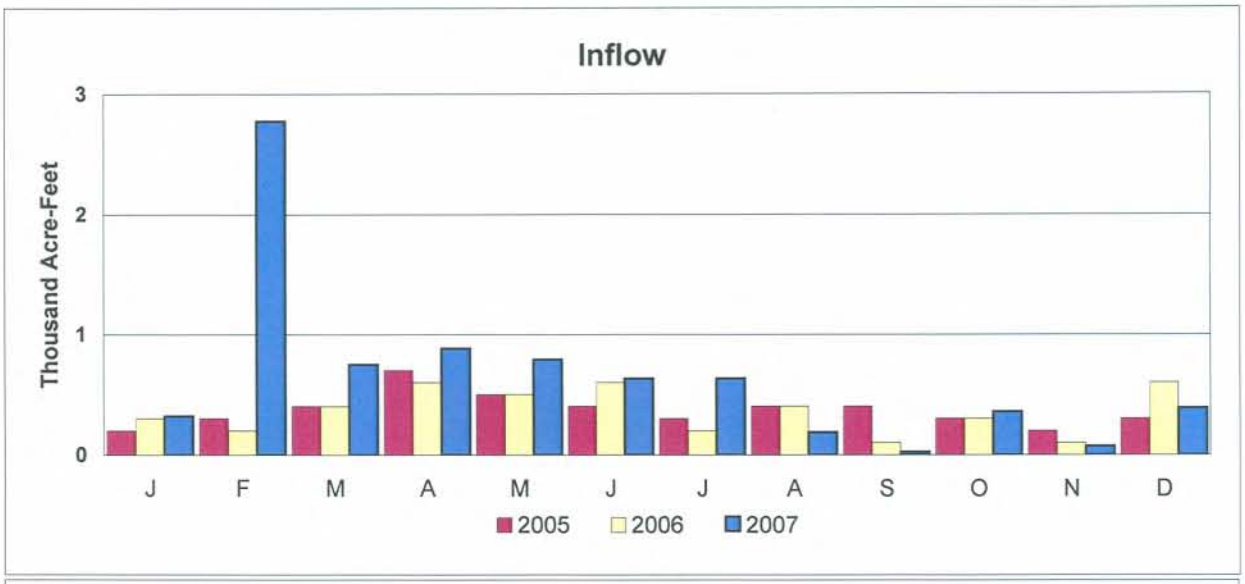
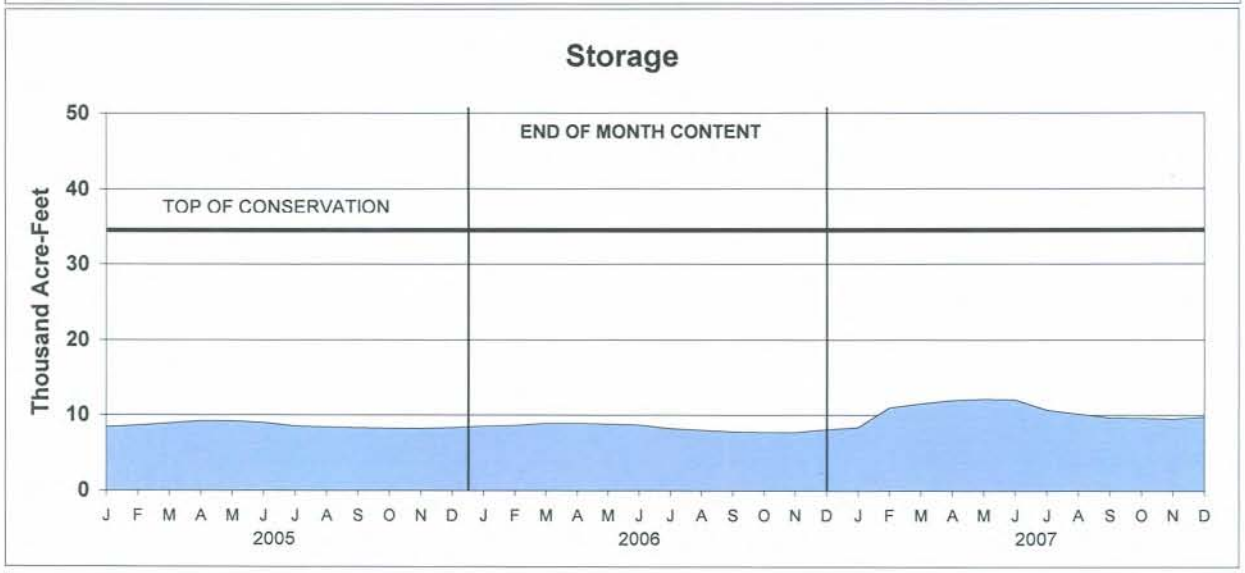


EXHIBIT 10A

KEITH SEBELIUS LAKE

ACTUAL OPERATION





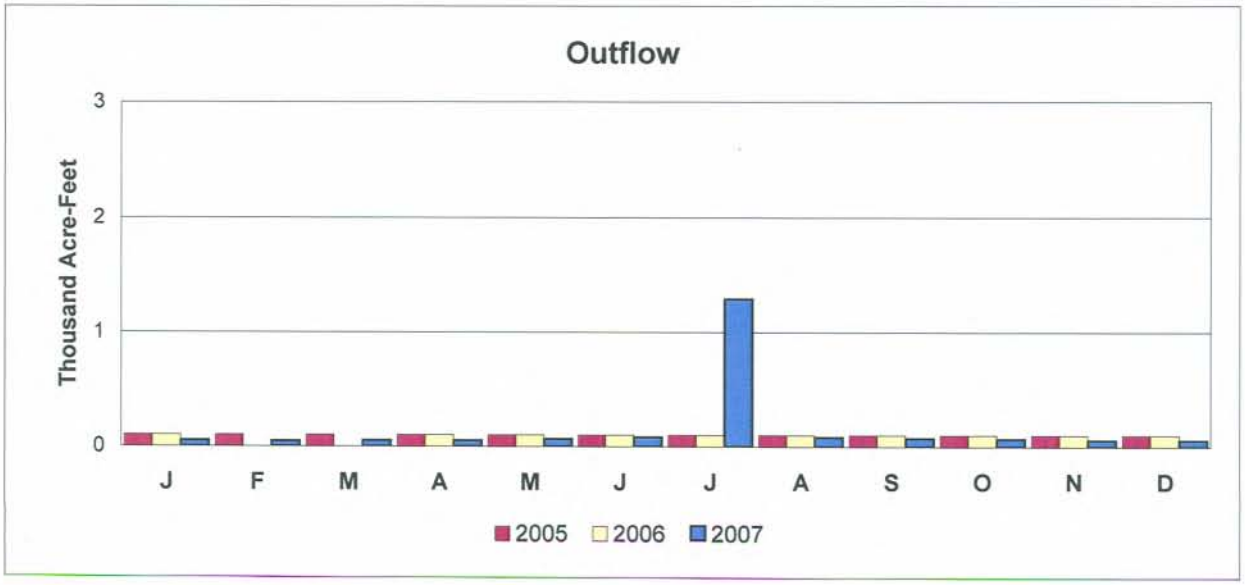
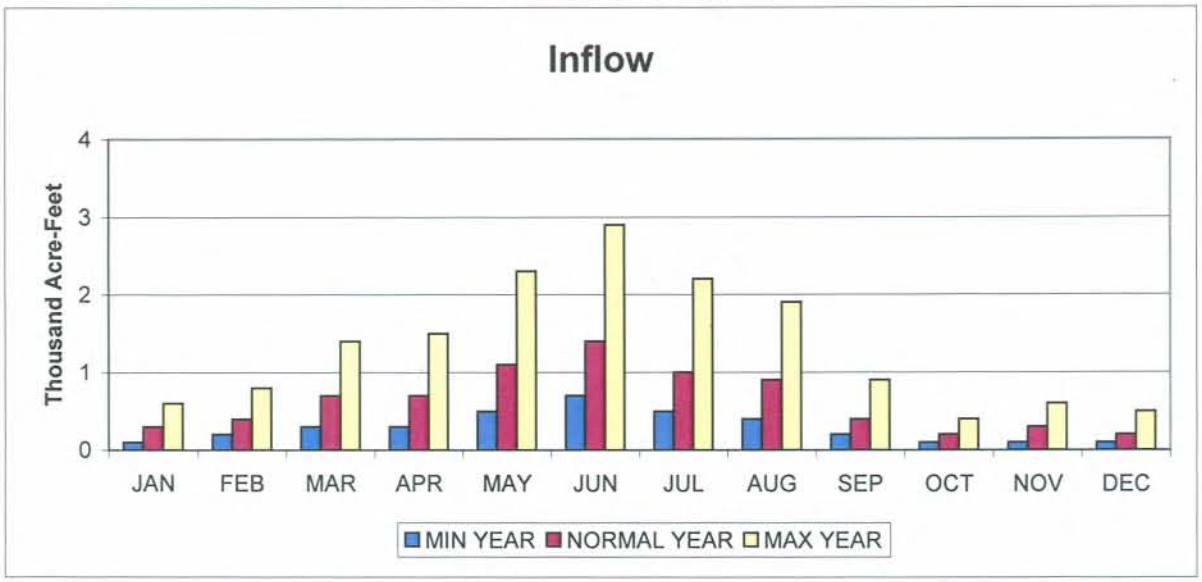
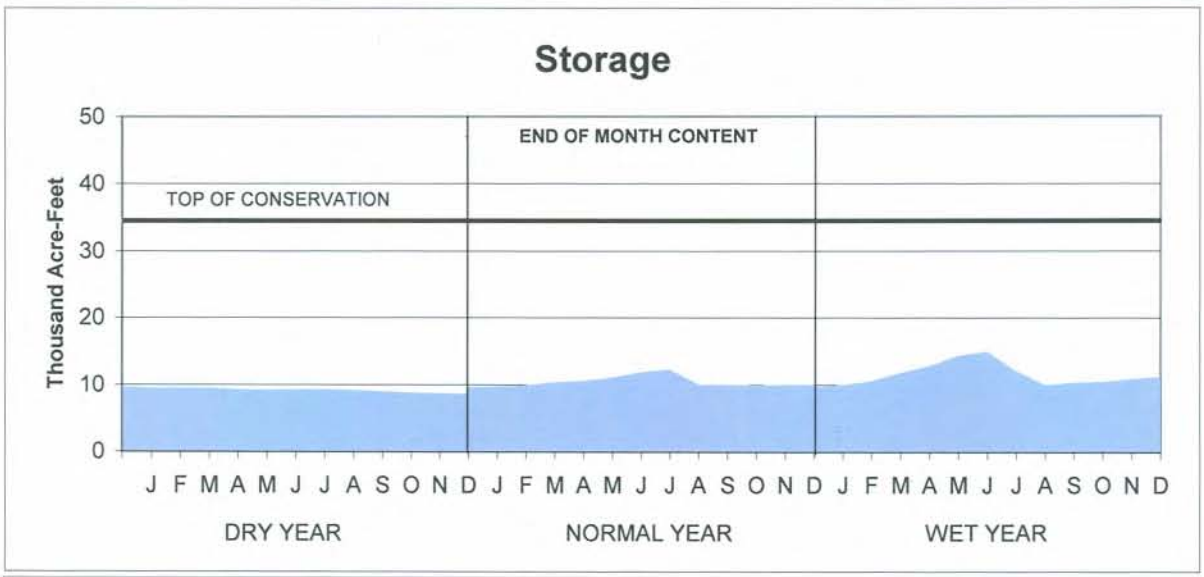


EXHIBIT 10B

KEITH SEBELIUS LAKE

2008 OPERATION PLAN





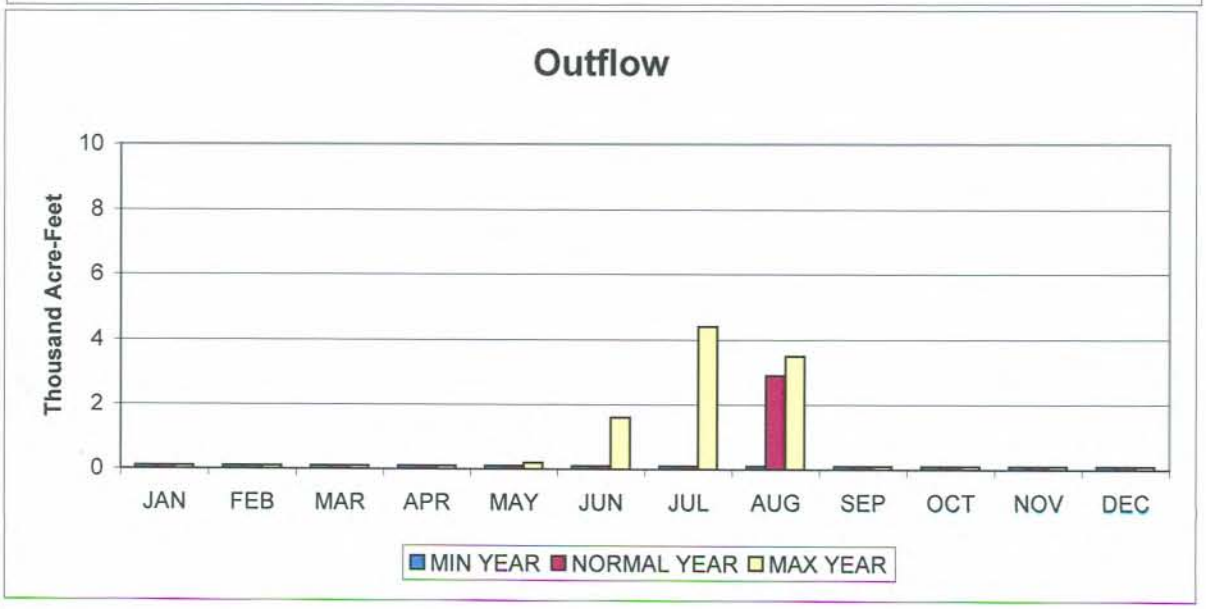
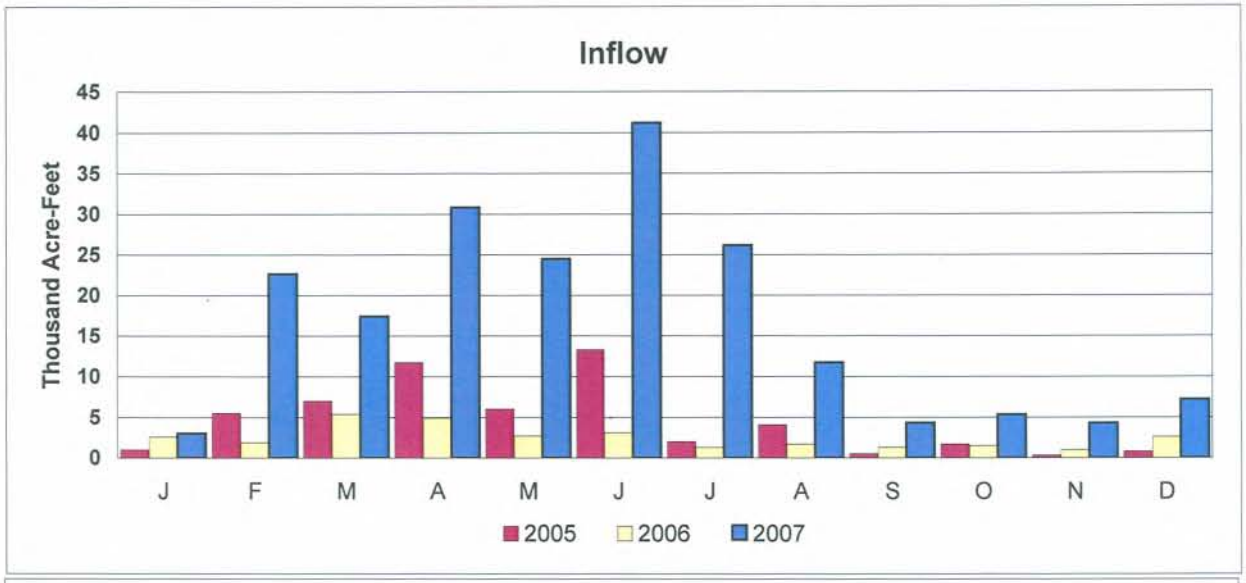
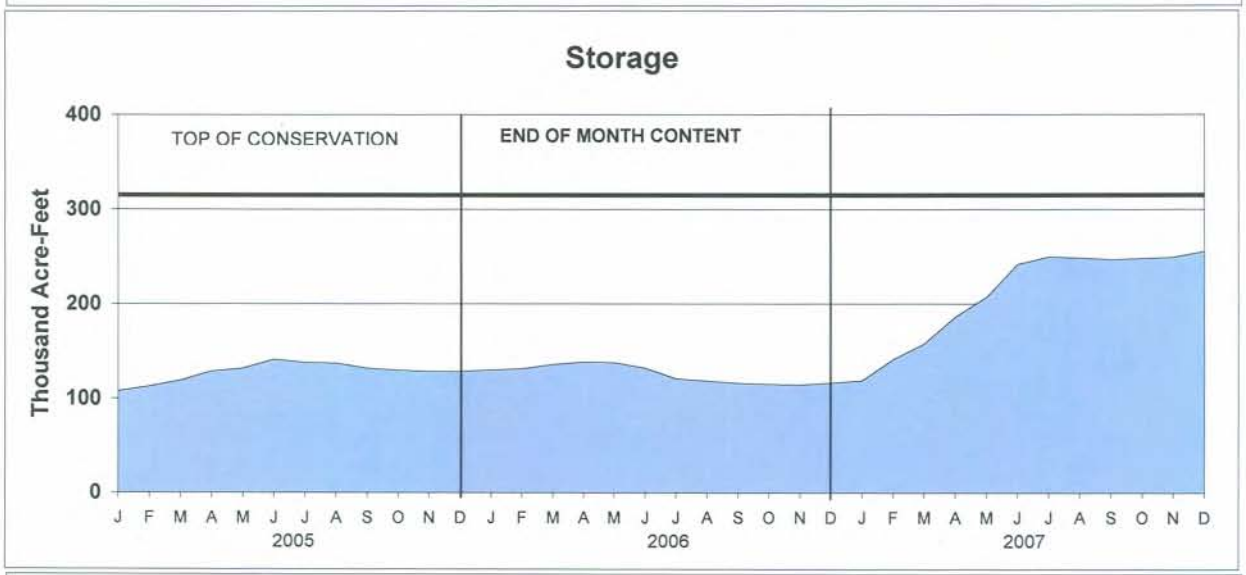


EXHIBIT 11A

HARLAN COUNTY LAKE

ACTUAL OPERATION





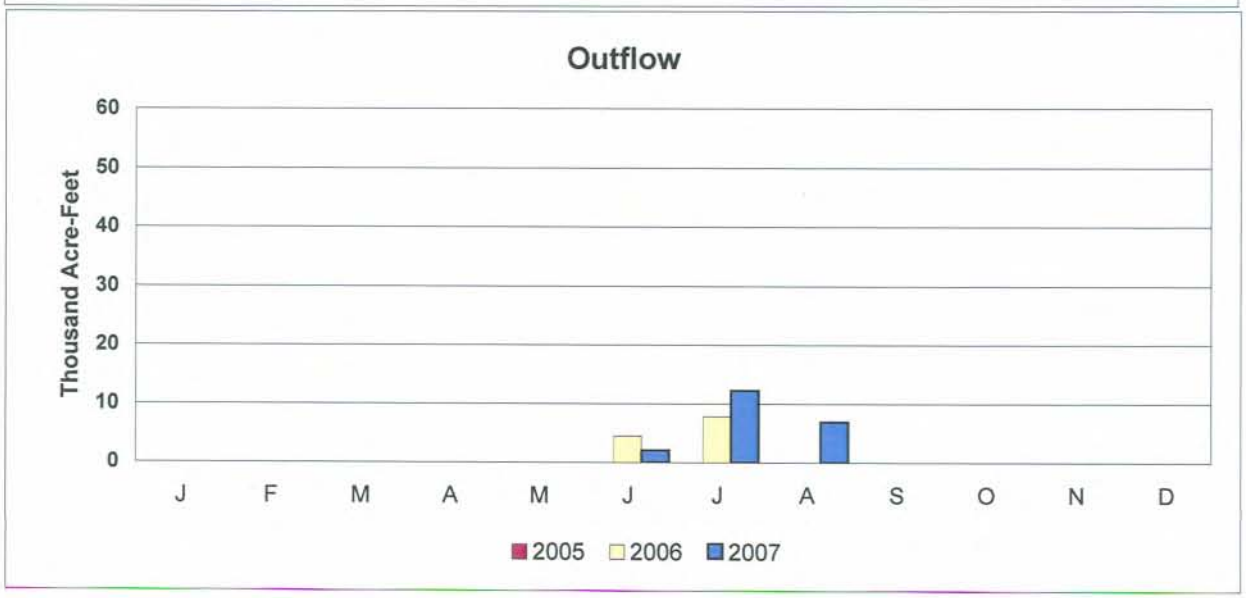
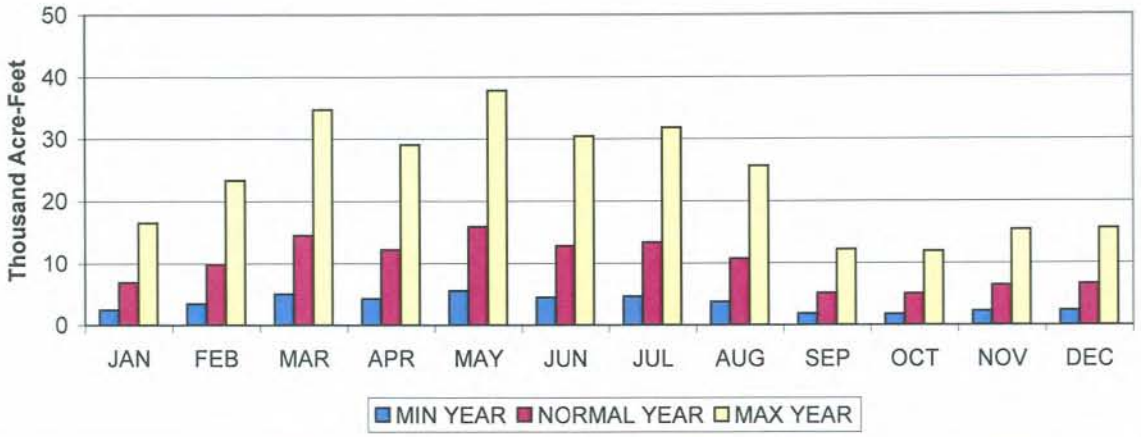


EXHIBIT 11B

HARLAN COUNTY LAKE

2008 OPERATION PLAN

Inflow



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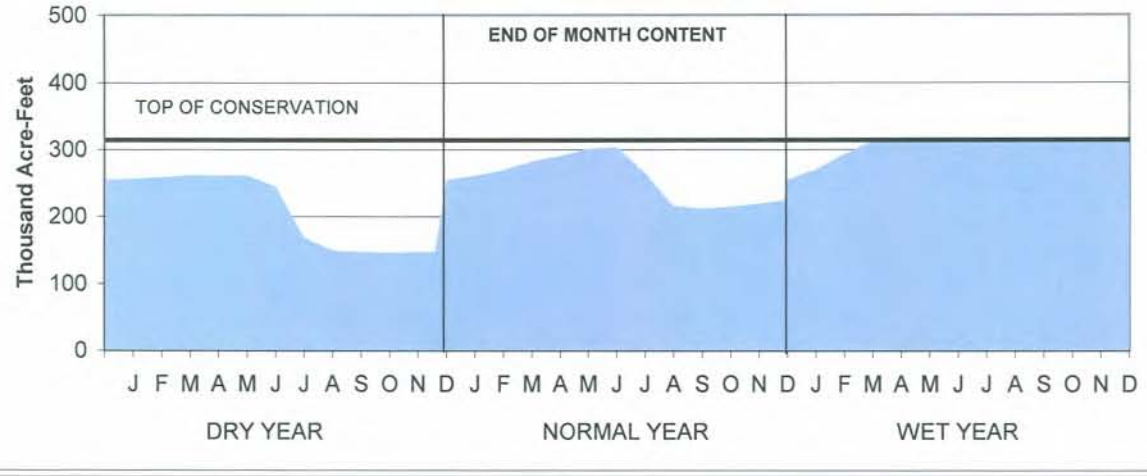


Outflow

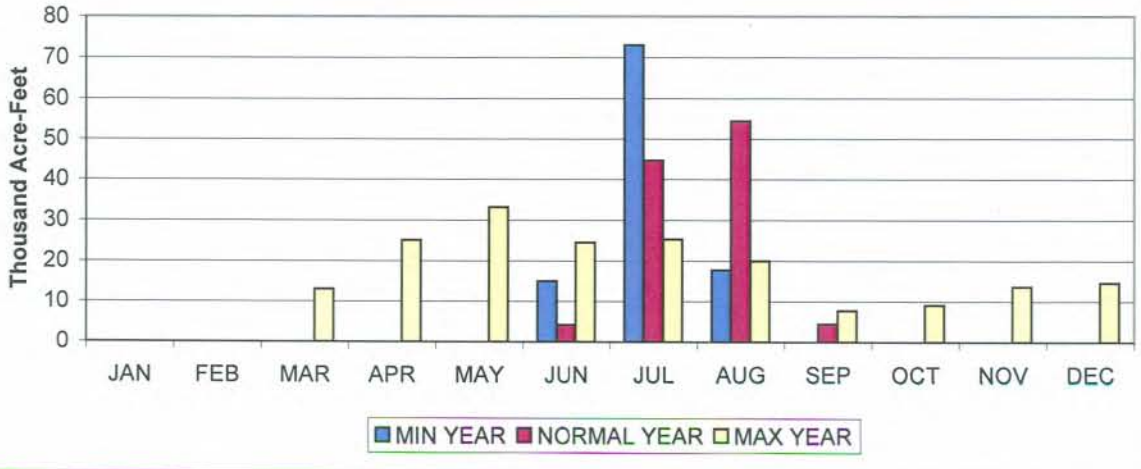
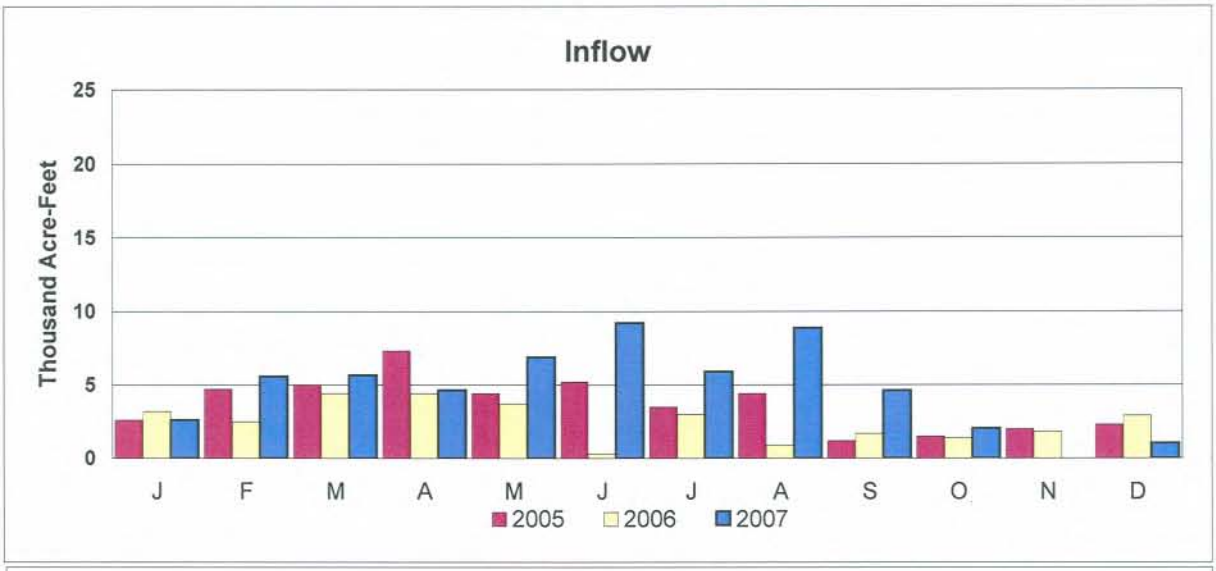
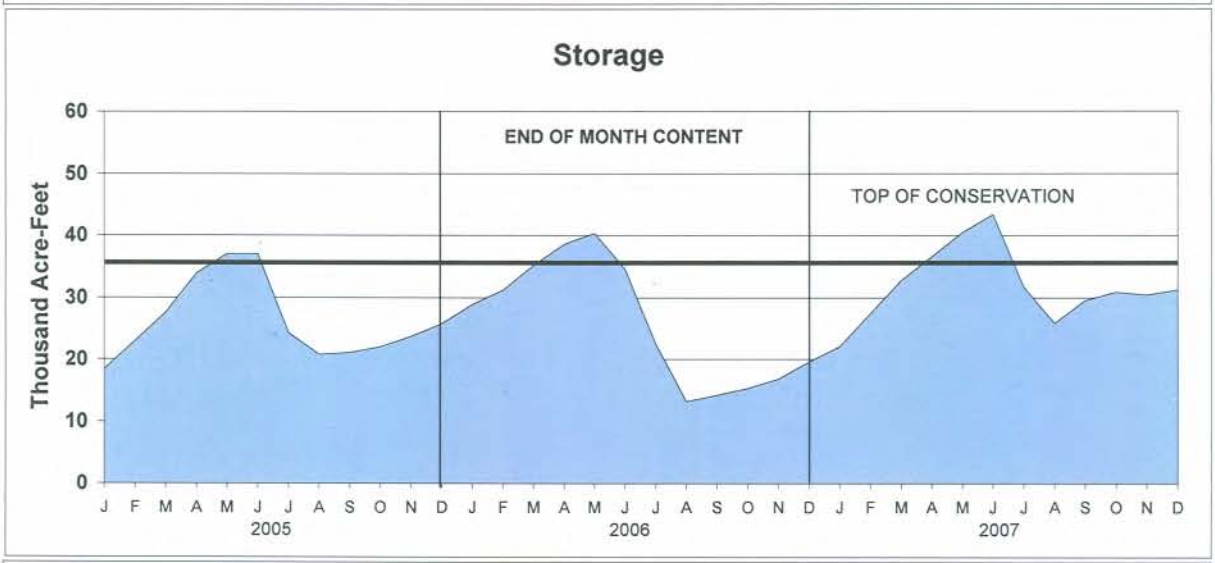


EXHIBIT 12A

LOVEWELL RESERVOIR

ACTUAL OPERATION





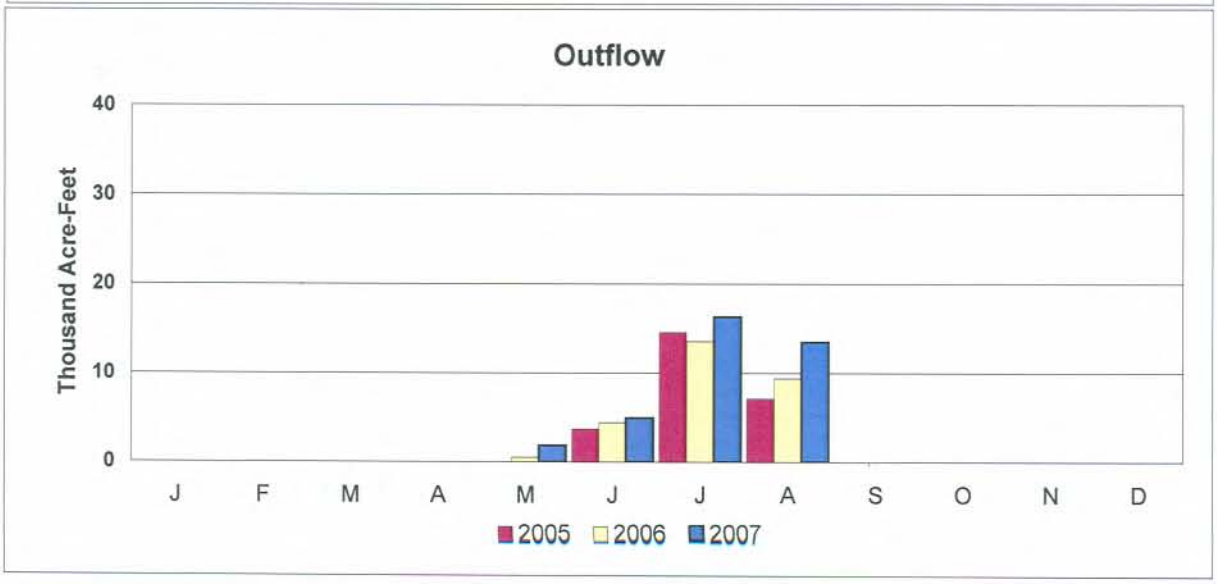
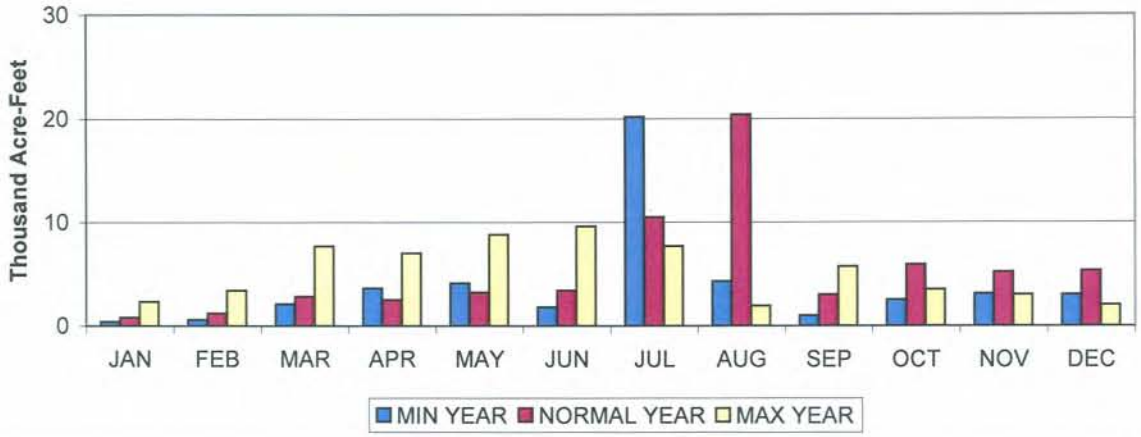


EXHIBIT 12B

LOVEWELL RESERVOIR

2008 OPERATION PLAN

Inflow



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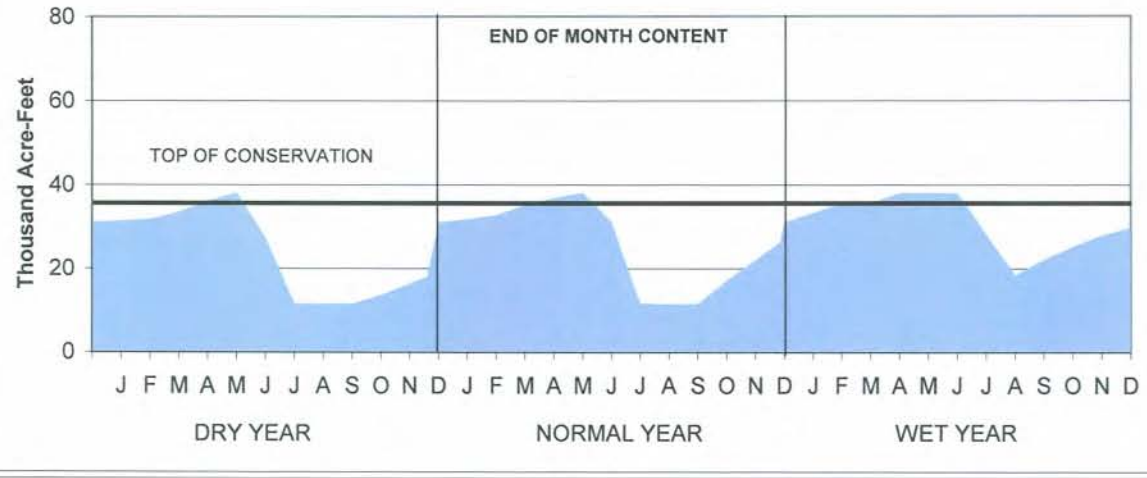


Outflow

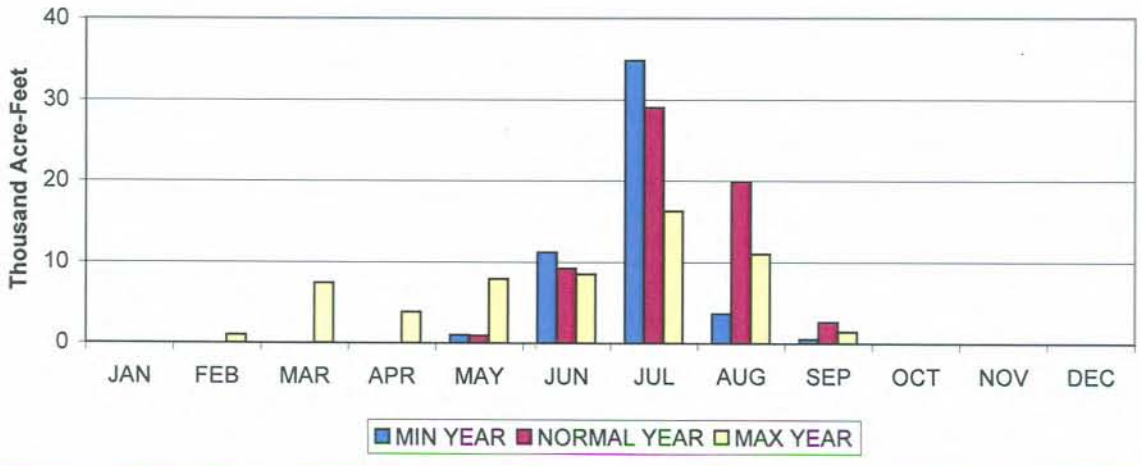
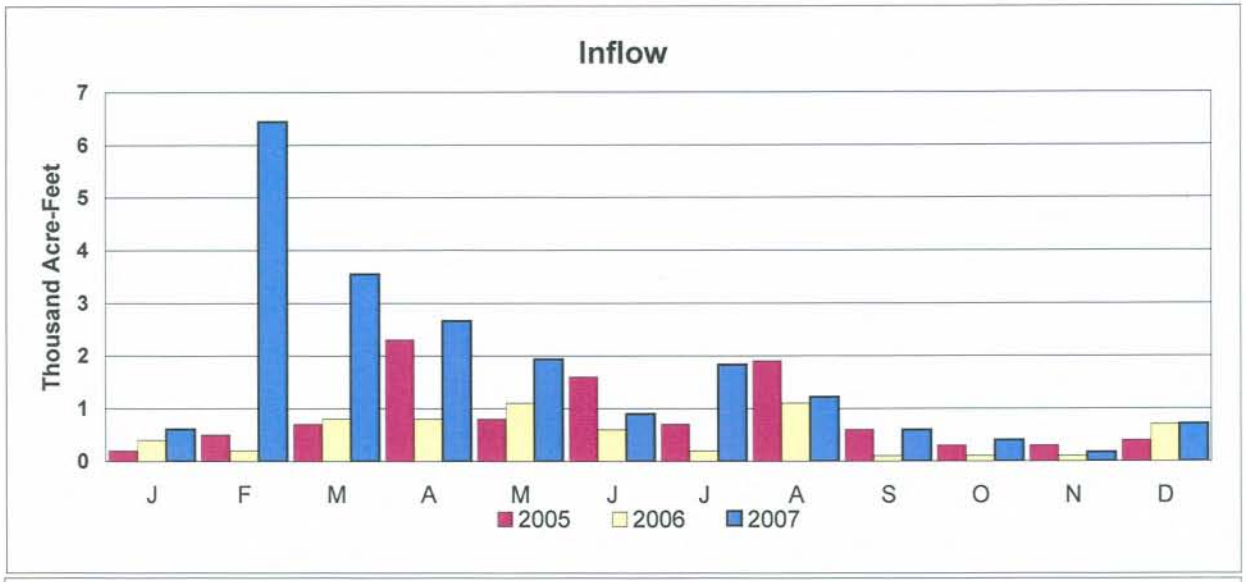
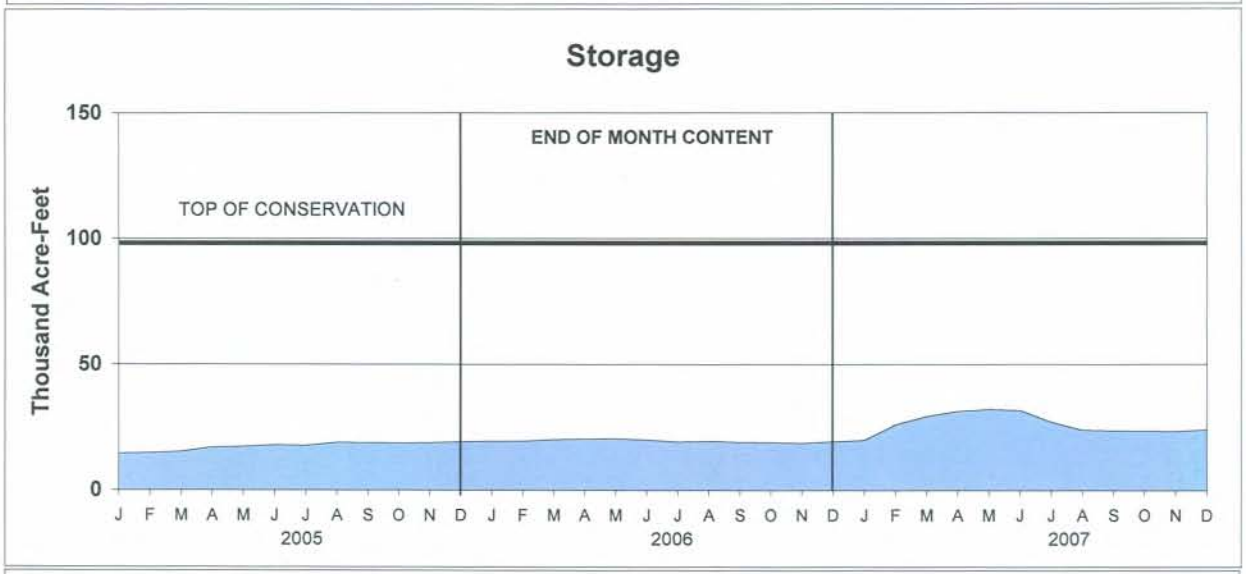


EXHIBIT 13A

KIRWIN RESERVOIR

ACTUAL OPERATION





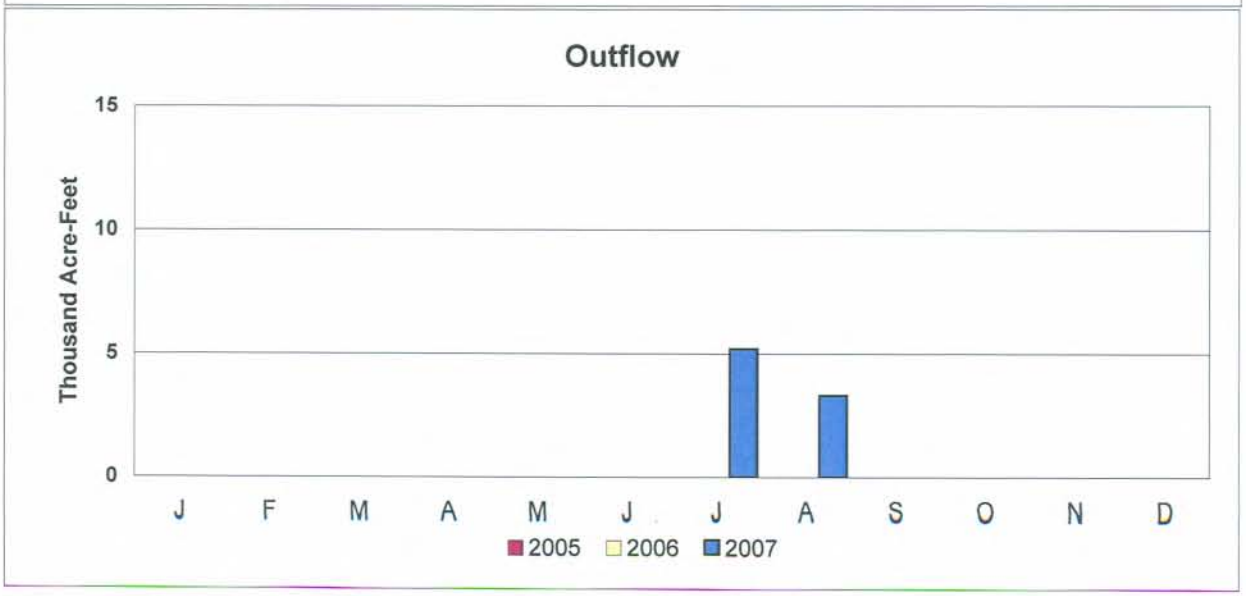
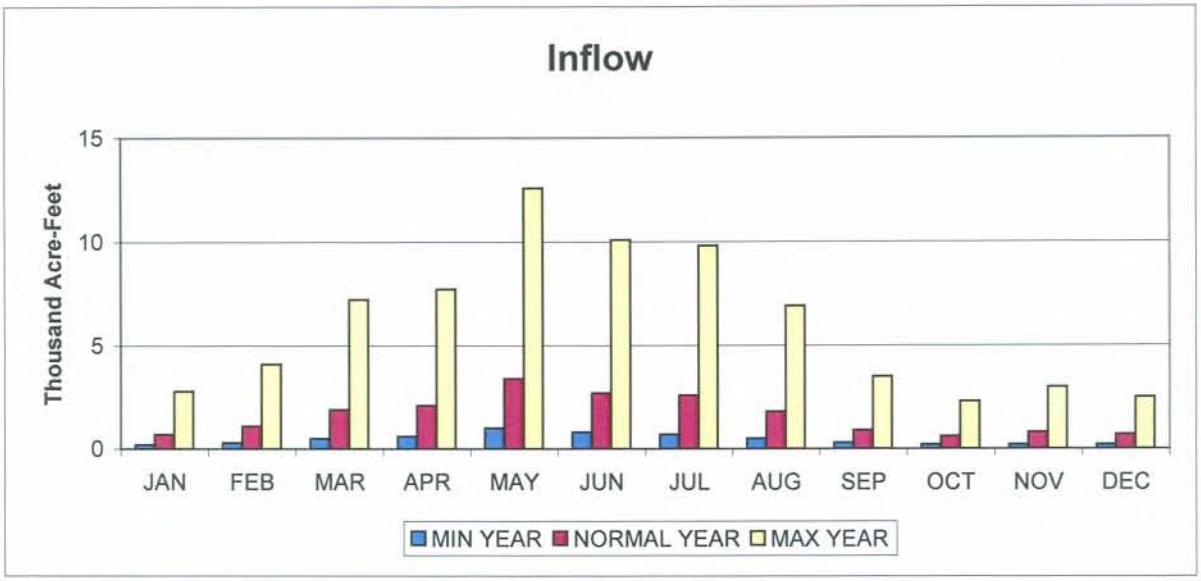
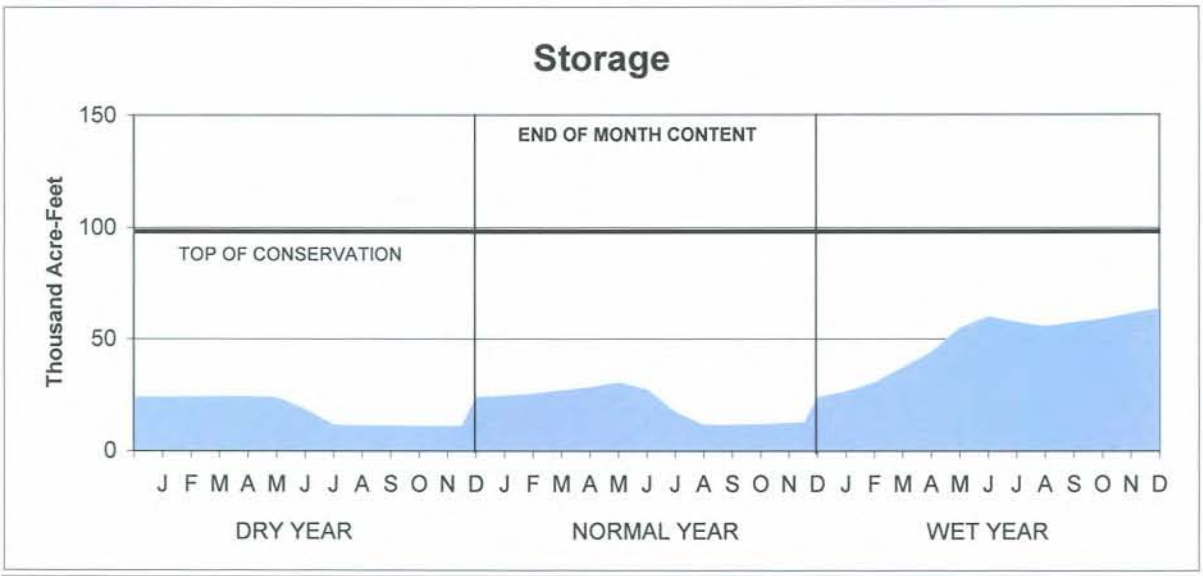


EXHIBIT 13B

KIRWIN RESERVOIR

2008 OPERATION PLAN





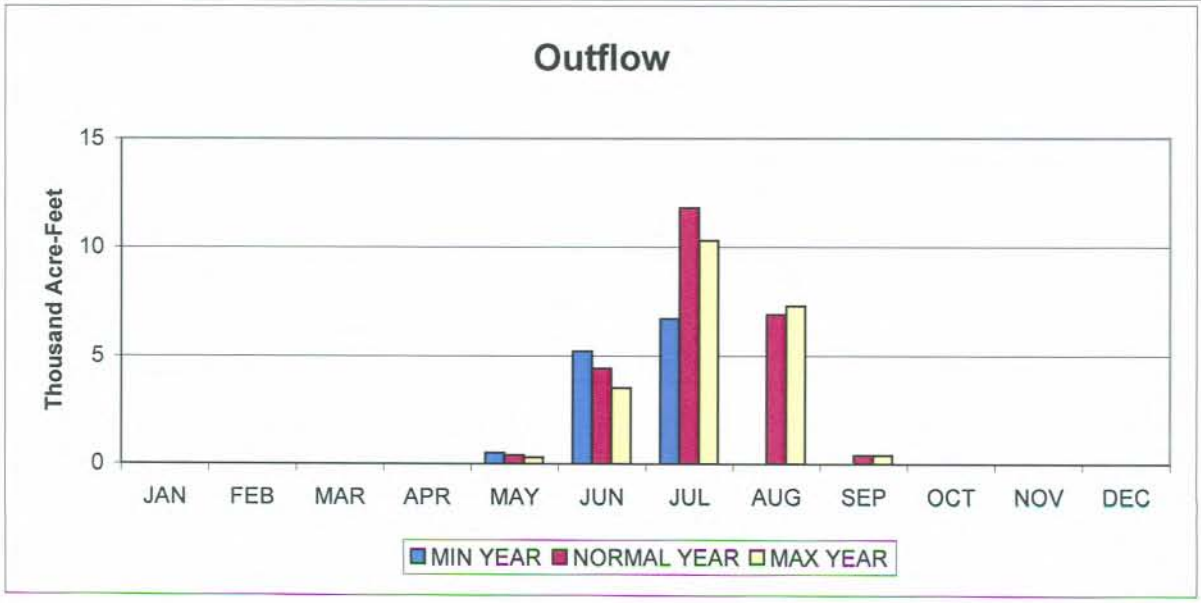
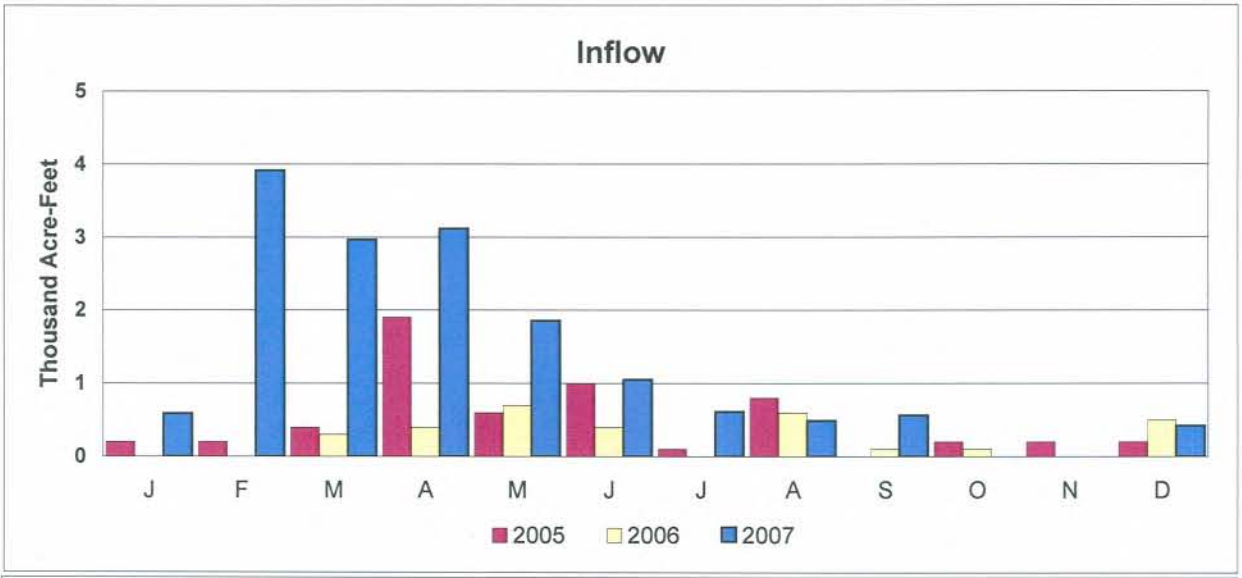
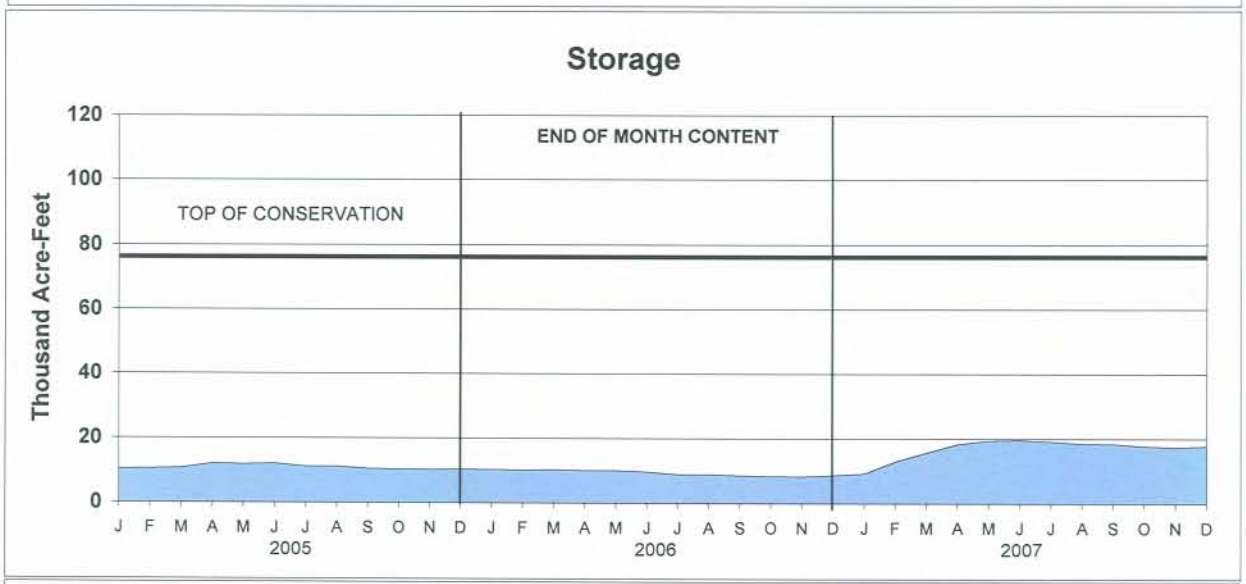


EXHIBIT 14A

WEBSTER RESERVOIR

ACTUAL OPERATION





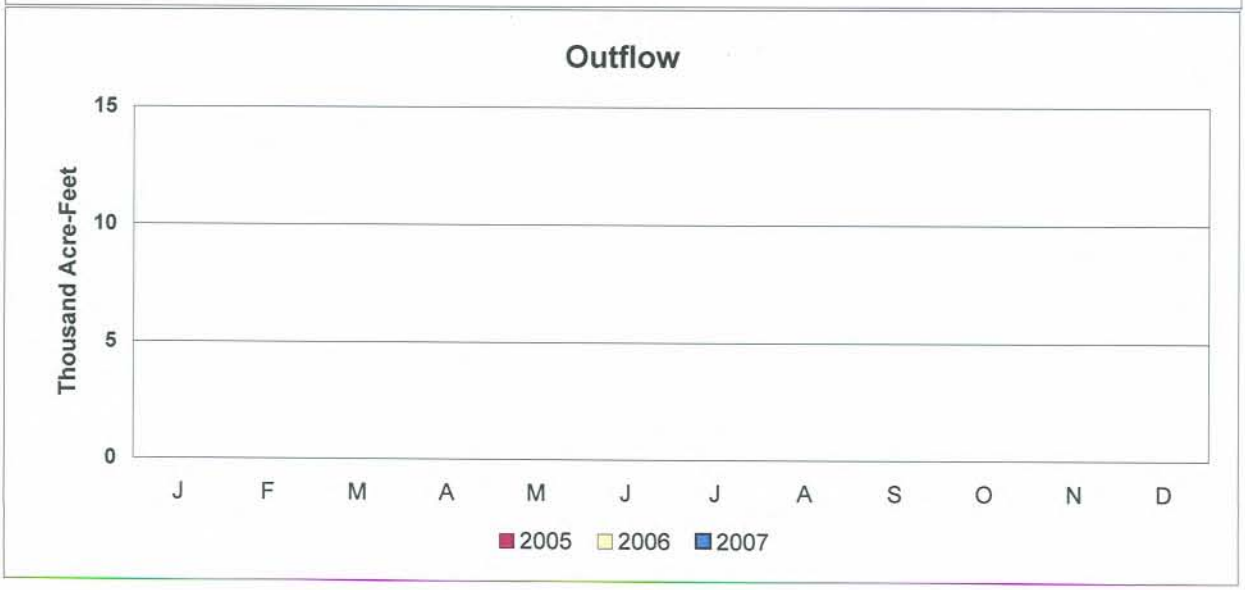
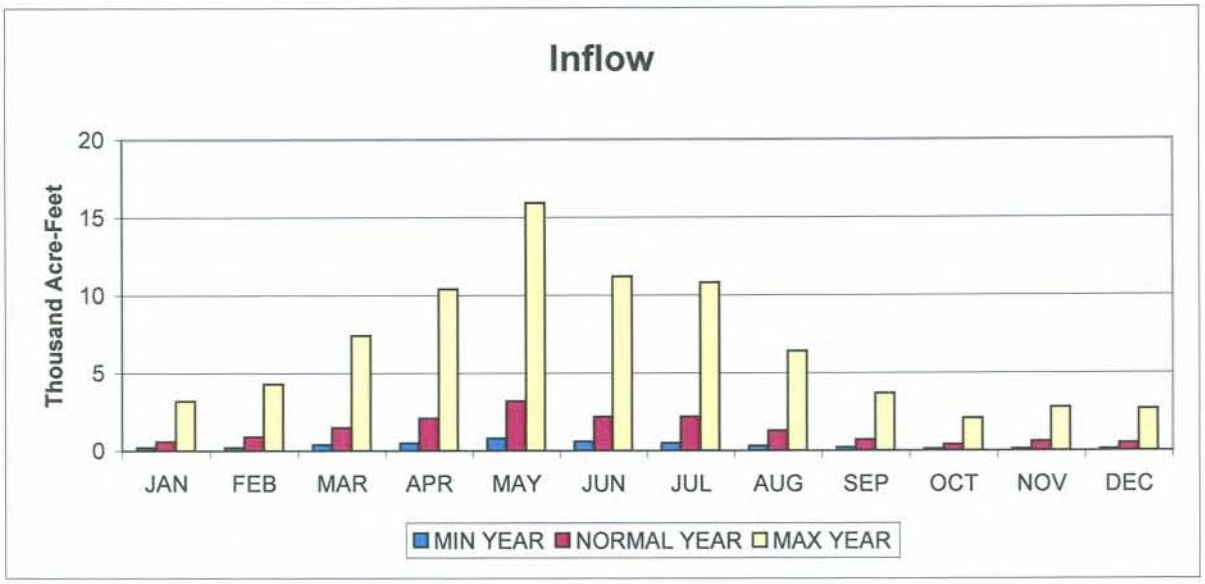
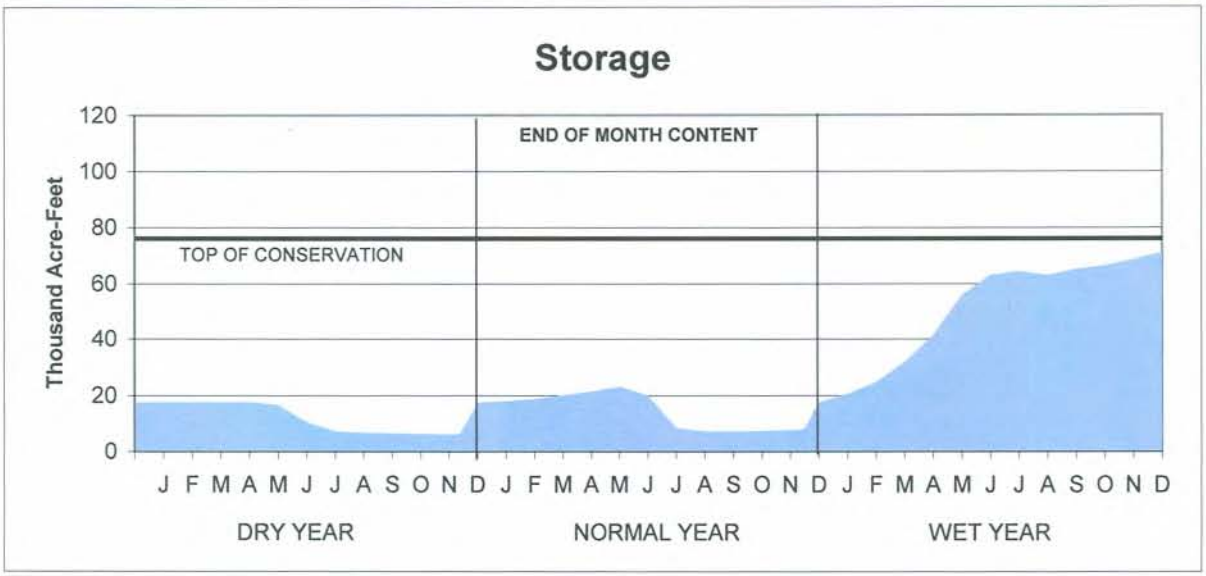


EXHIBIT 14B

WEBSTER RESERVOIR

2008 OPERATION PLAN





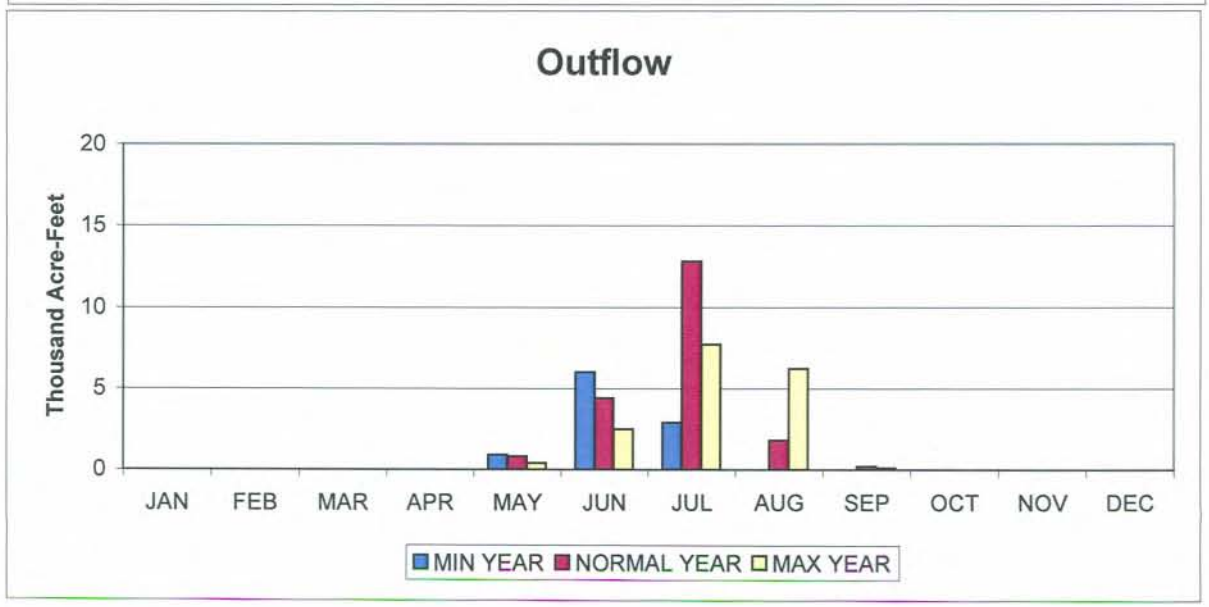
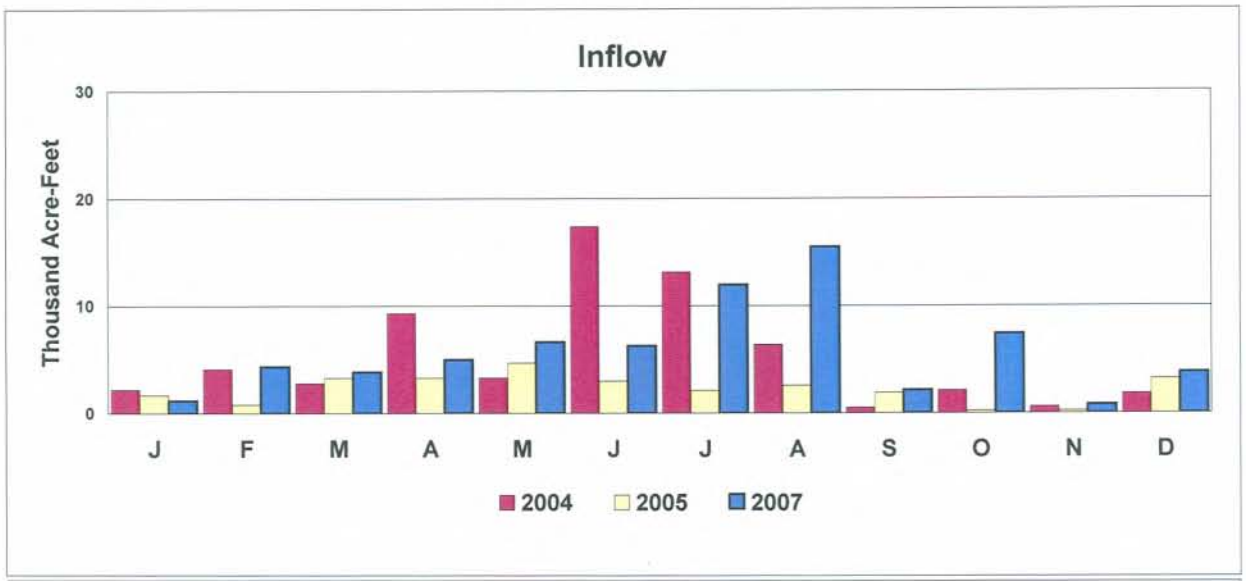
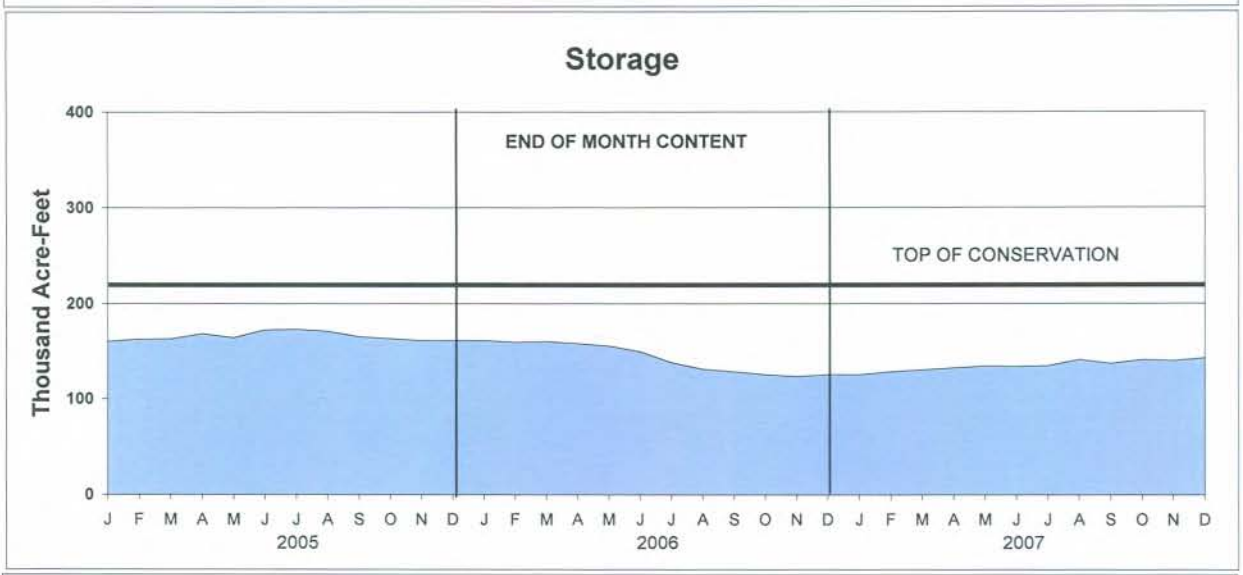


EXHIBIT 15A

WACONDA LAKE
ACTUAL OPERATION





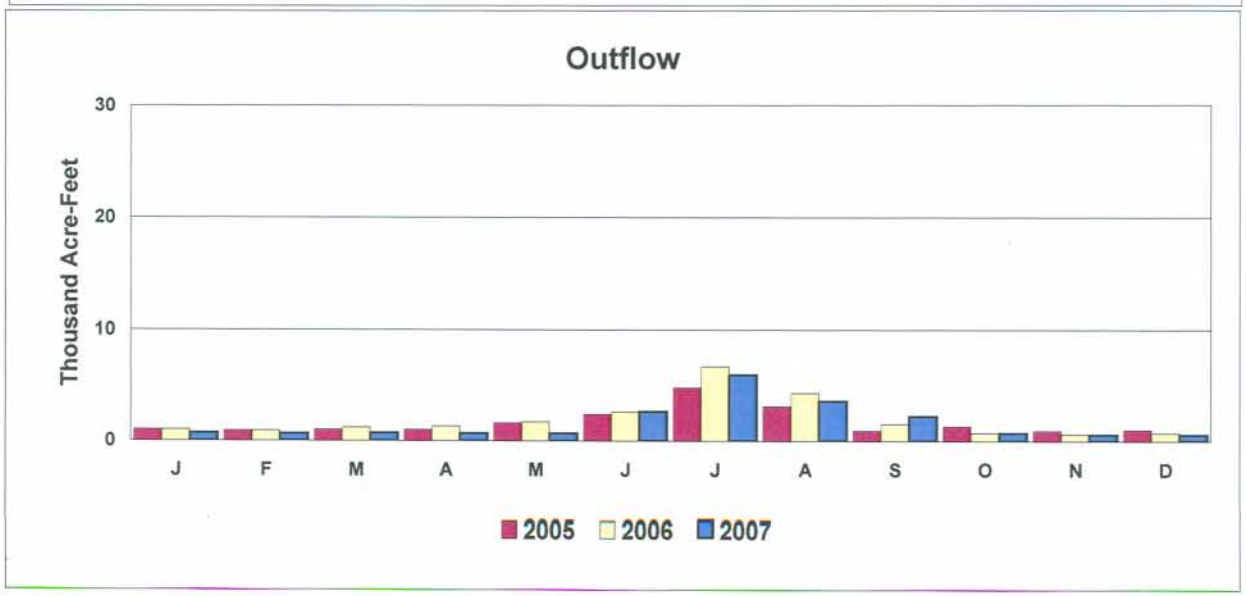
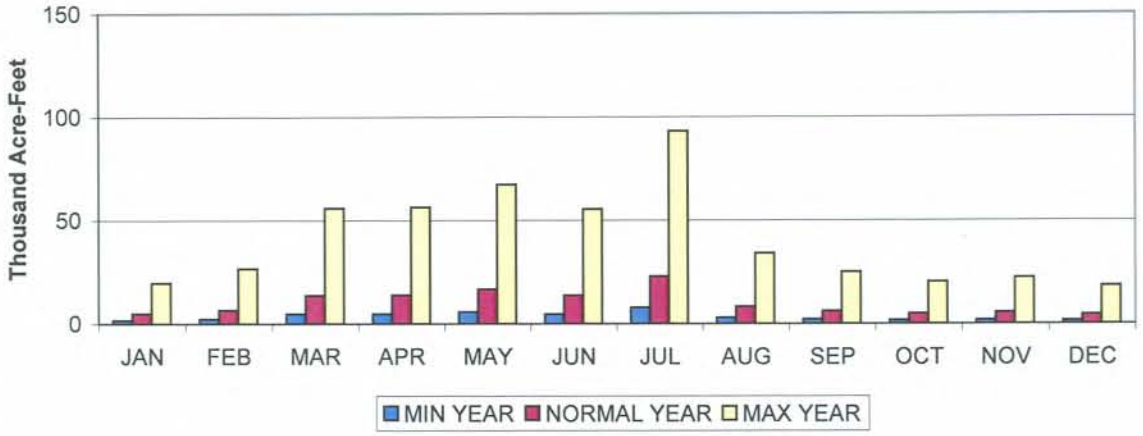


EXHIBIT 15B

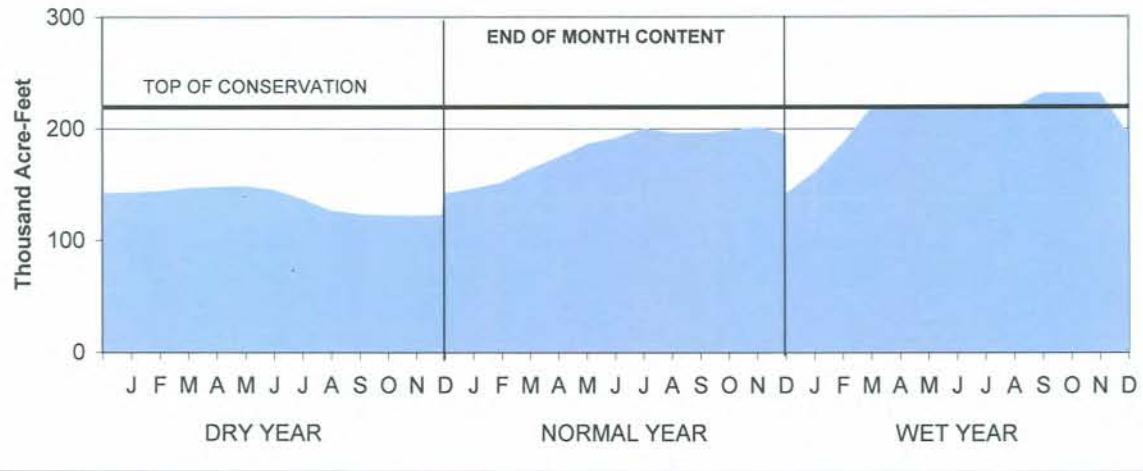
WACONDA LAKE

2008 OPERATION PLAN

Inflow



Storage



Outflow

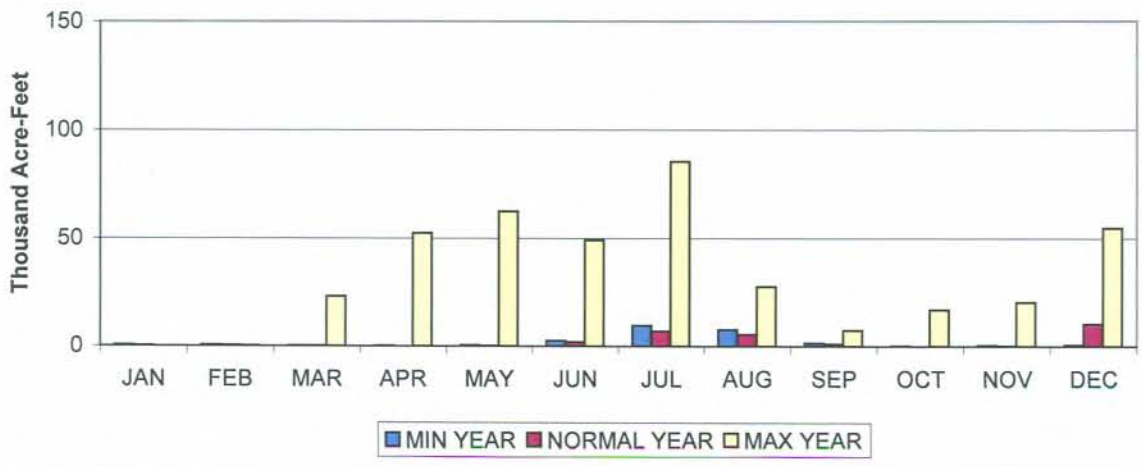
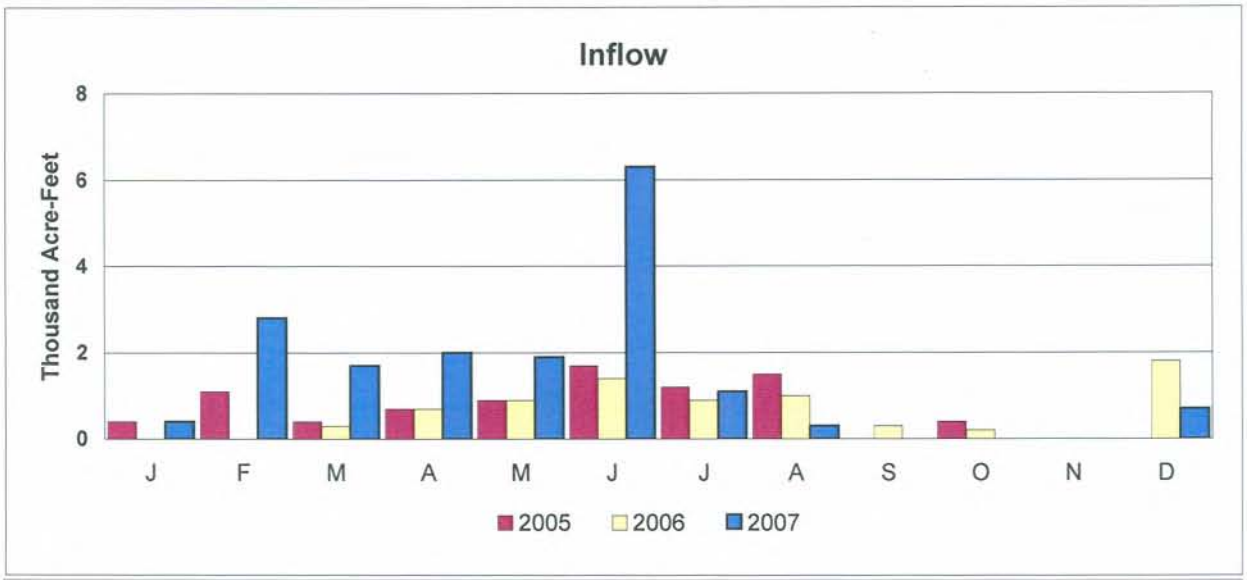
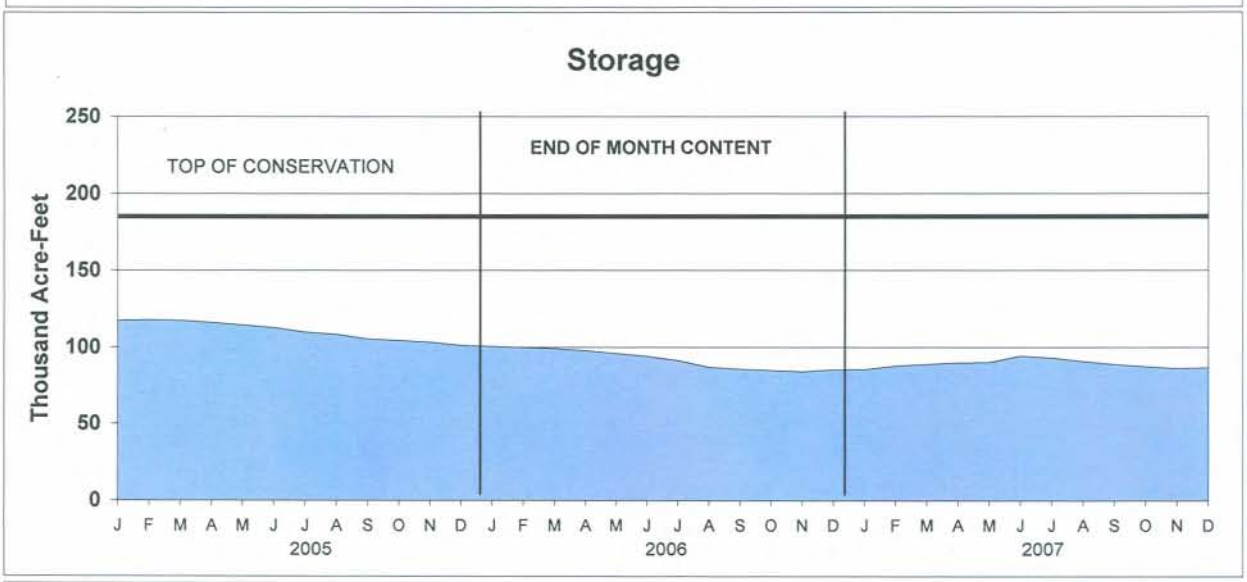


EXHIBIT 16A

CEDAR BLUFF RESERVOIR

ACTUAL OPERATION





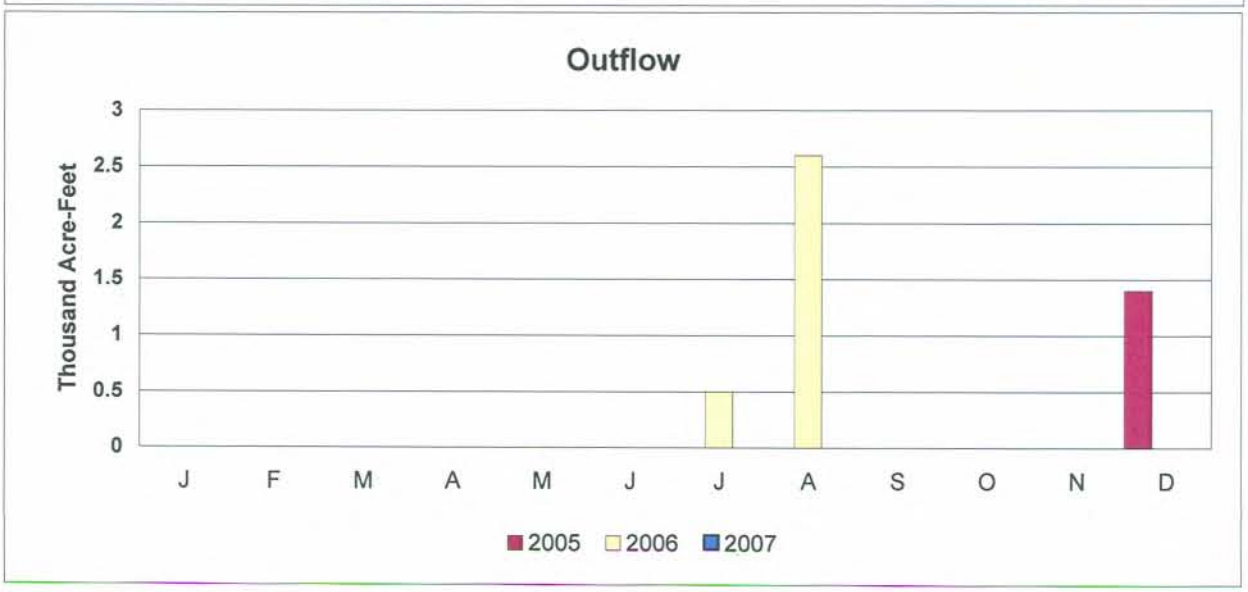
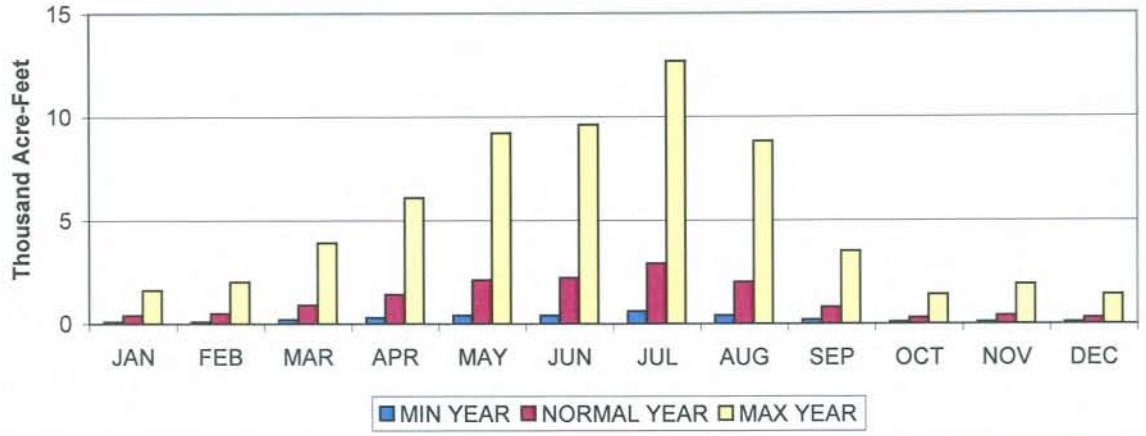


EXHIBIT 16B

CEDAR BLUFF RESERVOIR

2008 OPERATION PLAN

Inflow



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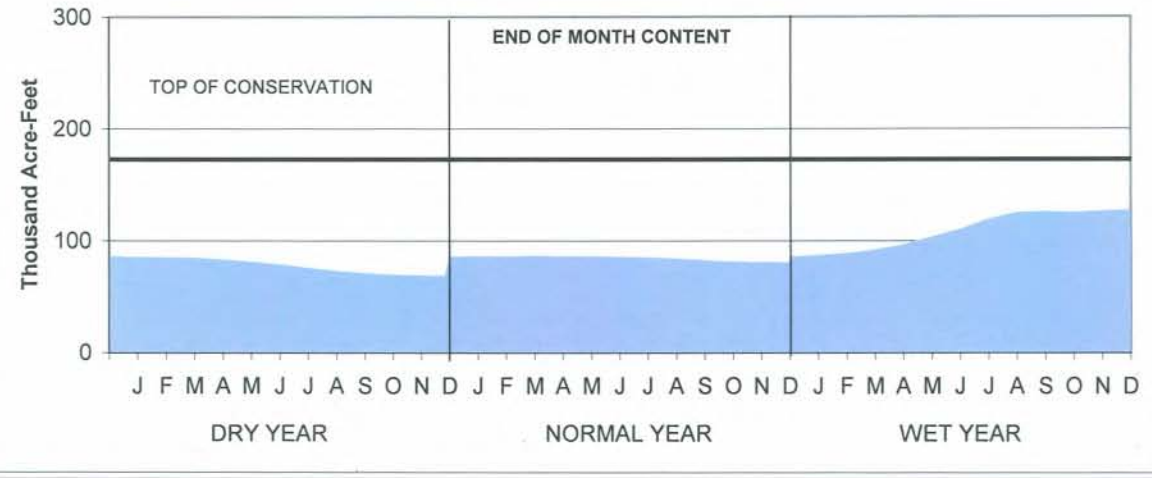

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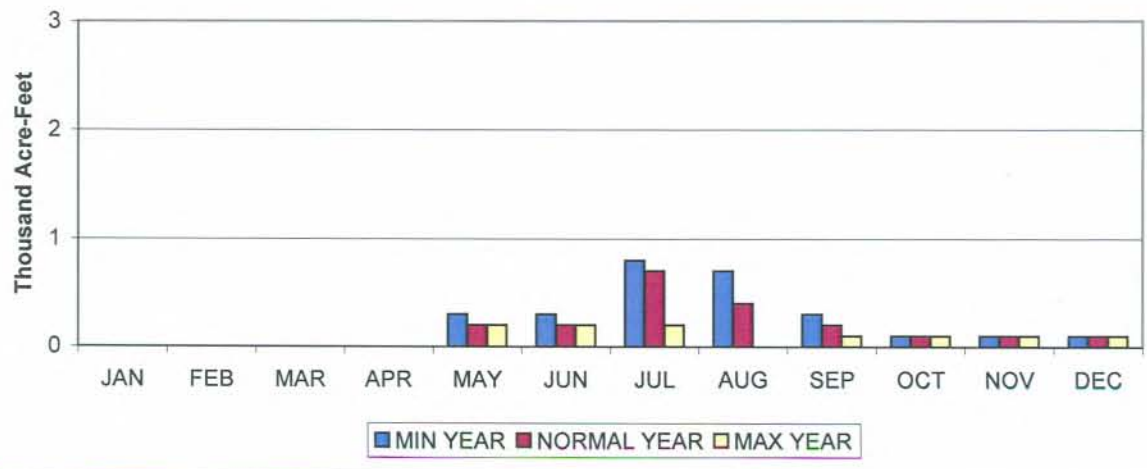
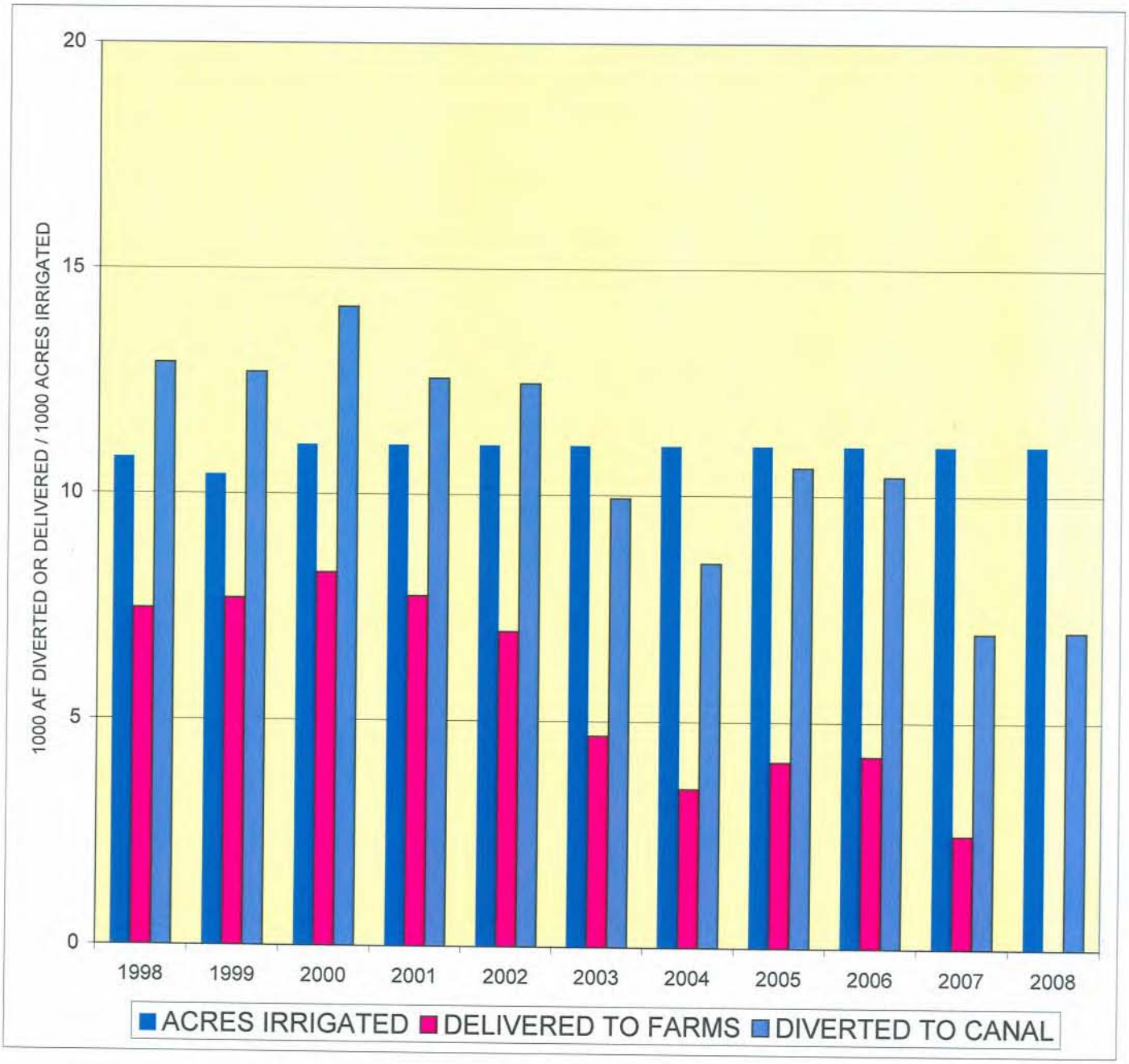


EXHIBIT 17

MIRAGE FLATS IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	1.20	1.22	1.28	1.13	1.12	0.90	0.77	0.96	0.94	0.63
DELIVERED af/acre	0.69	0.74	0.75	0.70	0.63	0.42	0.32	0.37	0.38	0.23
EFFICIENCY	58%	61%	58%	62%	56%	47%	41%	39%	41%	36%

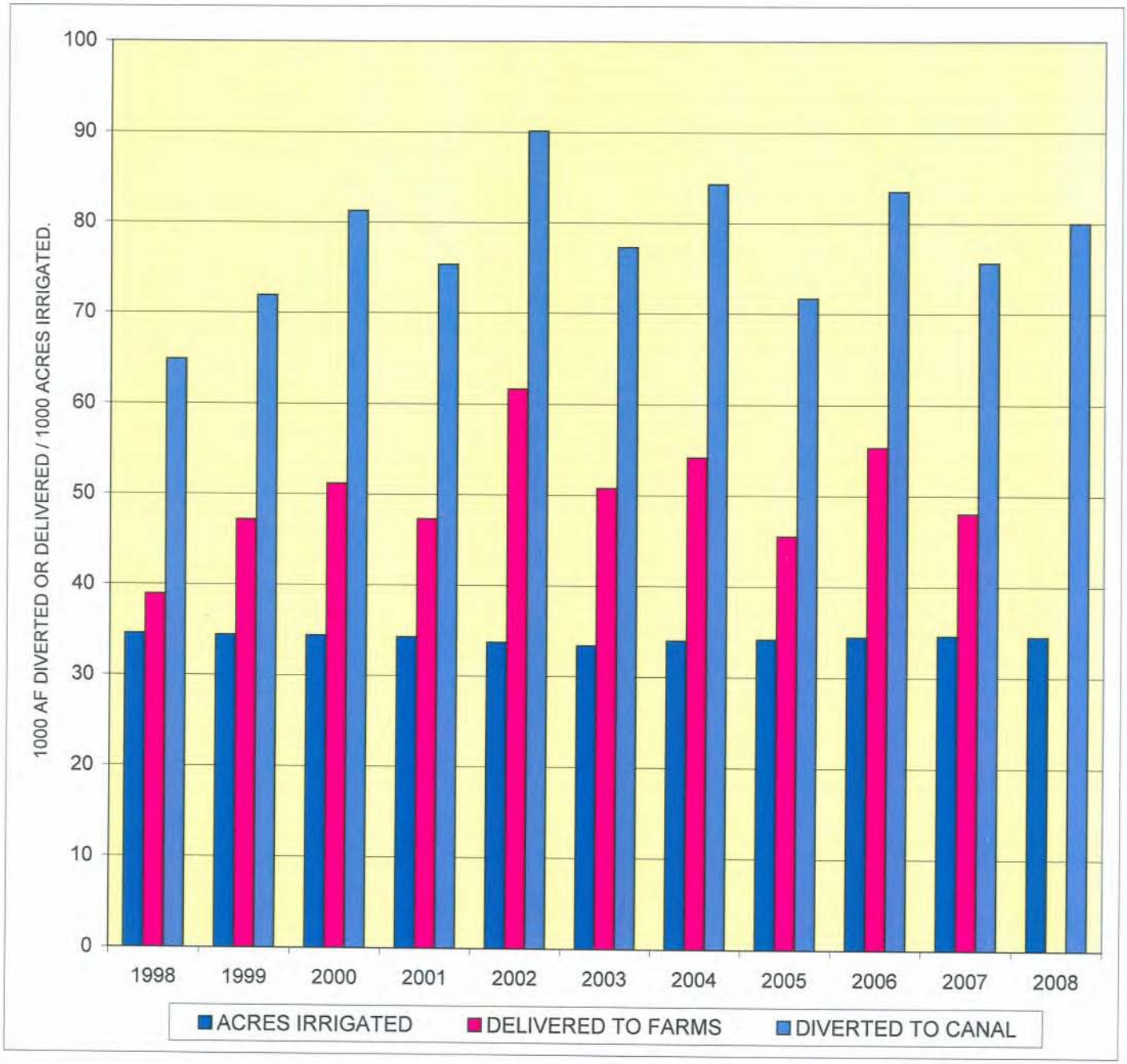
FORECASTED SHORTAGES (2008)

DRY YEAR	28,300 AF
NORMAL YEAR	17,400 AF
WET YEAR	3,800 AF

EXHIBIT 18

AINSWORTH IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	1.87	2.09	2.36	2.20	2.67	2.31	2.48	2.10	2.42	2.19
DELIVERED af/acre	1.13	1.37	1.49	1.38	1.83	1.52	1.59	1.33	1.61	1.39
EFFICIENCY	60%	66%	63%	63%	68%	66%	64%	63%	66%	64%

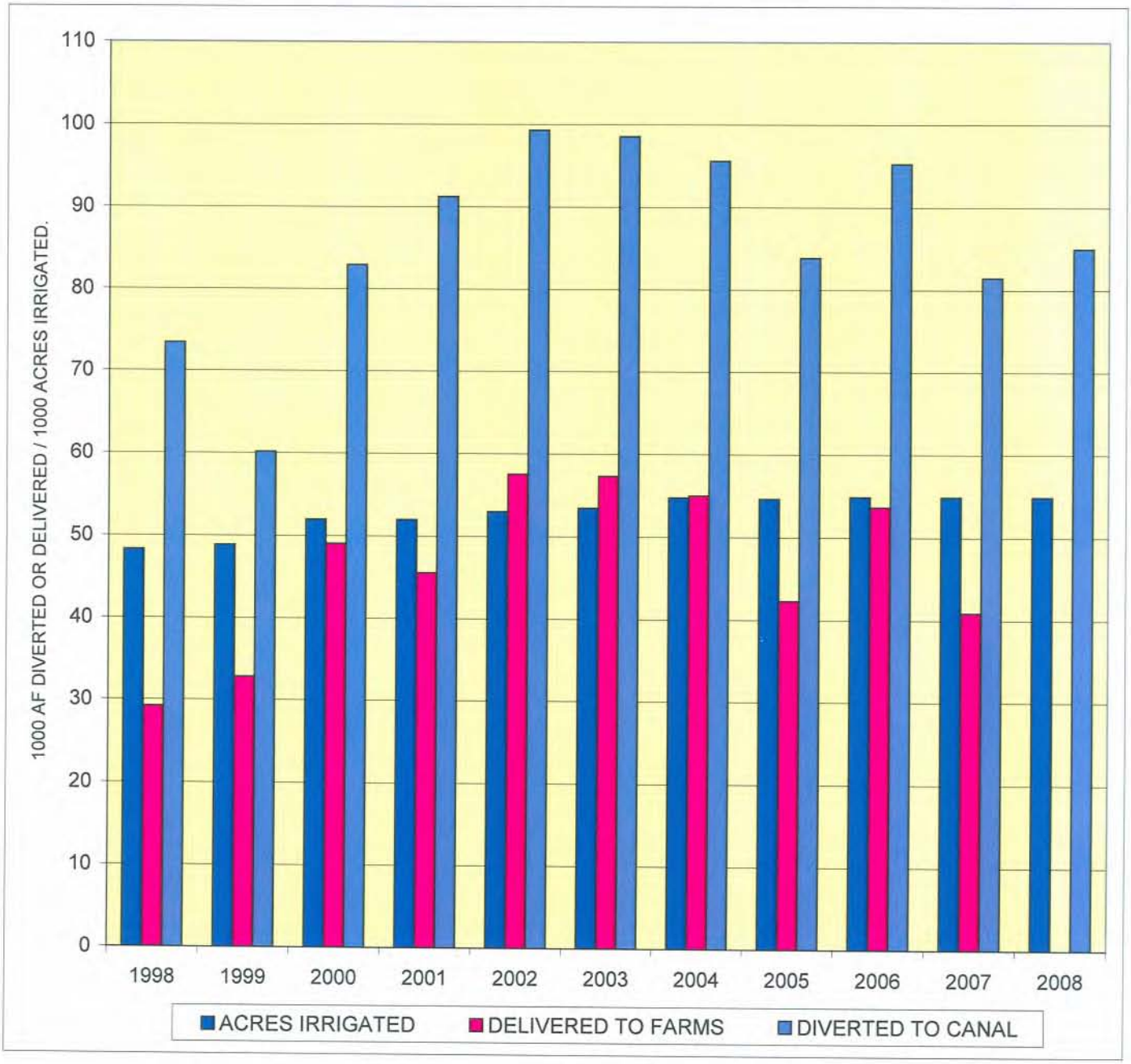
FORECASTED SHORTAGES (2008)

DRY YEAR	0 AF
NORMAL YEAR	0 AF

EXHIBIT 19

TWIN LOUPS IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	1.52	1.23	1.60	1.76	1.87	1.84	1.75	1.53	1.74	1.48
DELIVERED af/acre	0.60	0.67	0.94	0.88	1.09	1.07	1.00	0.77	0.98	0.74
EFFICIENCY	40%	55%	59%	50%	58%	58%	58%	50%	56%	50%

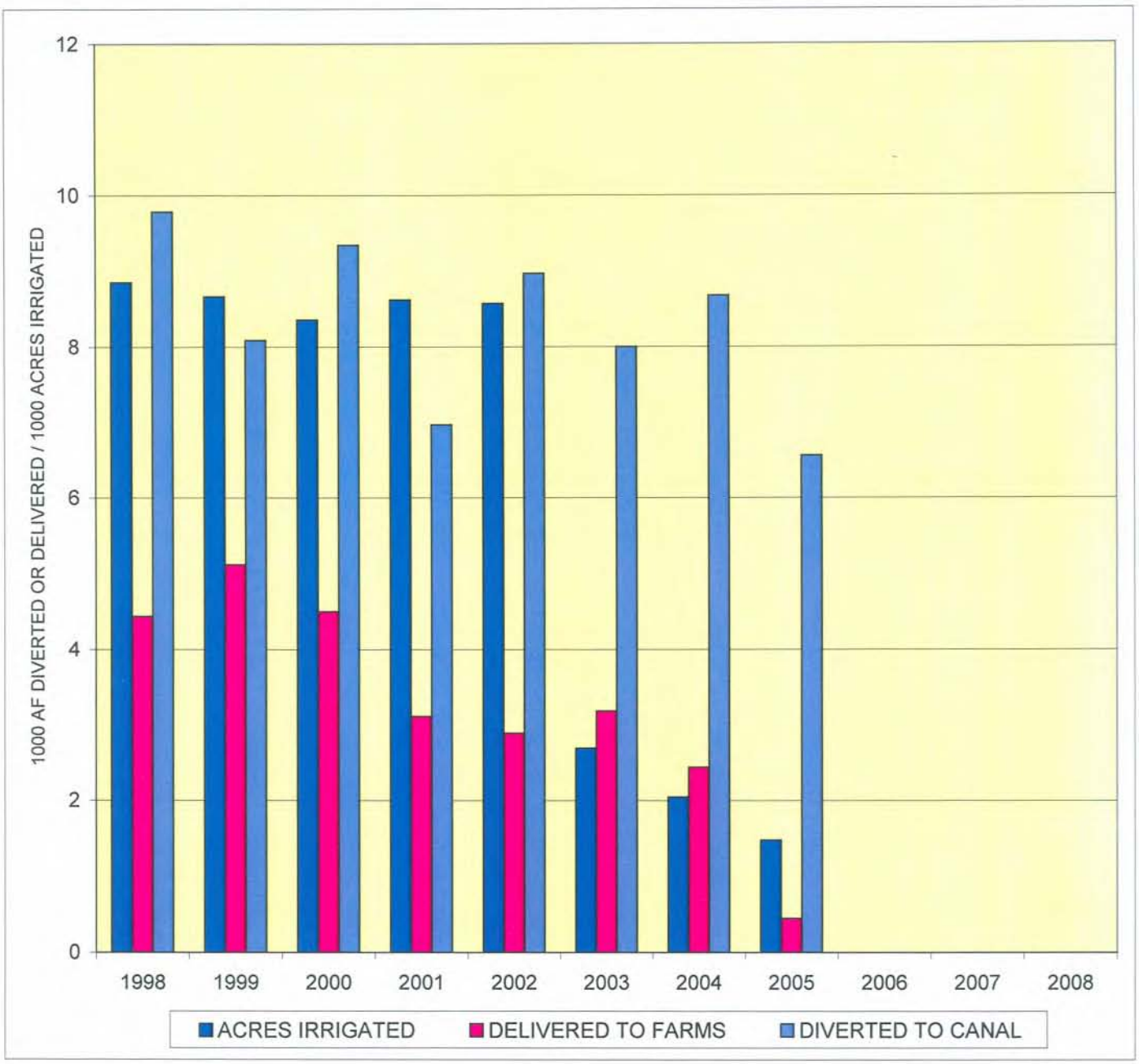
FORECASTED SHORTAGES (2008)

DRY YEAR	0 AF
NORMAL YEAR	0 AF

EXHIBIT 20

FRENCHMAN VALLEY IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	1.11	0.93	1.12	0.81	1.05	2.97	4.24	4.43	0.00	0.00
DELIVERED af/acre	0.50	0.59	0.54	0.36	0.34	1.18	1.19	0.30	0.00	0.00
EFFICIENCY	45%	63%	48%	45%	32%	40%	28%	7%	0%	0%

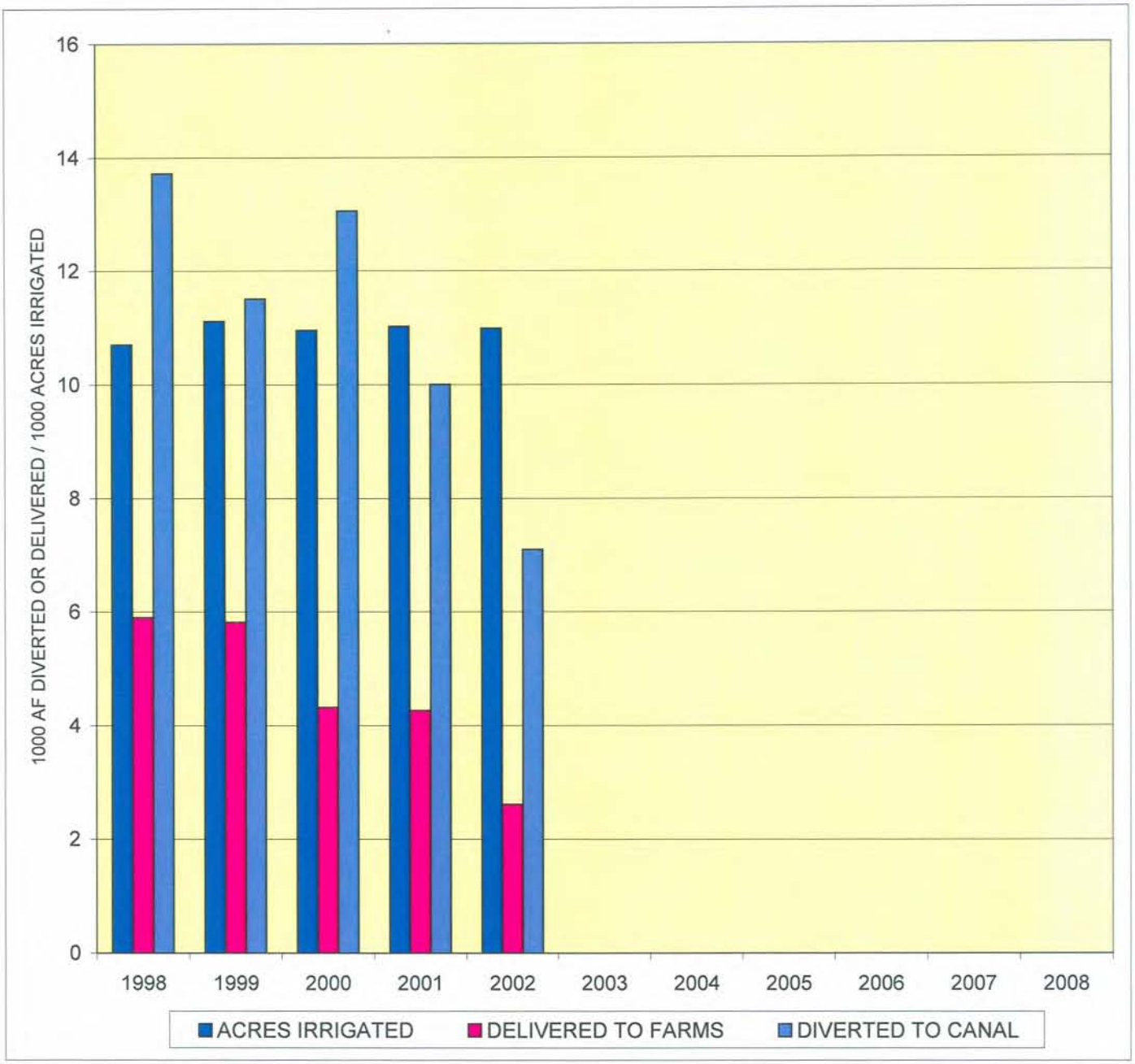
FORECASTED SHORTAGES (2008)

DRY YEAR	33,000 AF
NORMAL YEAR	20,800 AF
WET YEAR	5,800 AF

EXHIBIT 21

H AND RW IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	1.28	1.03	1.19	0.91	0.65	0.00	0.00	0.00	0.00	0.00
DELIVERED af/acre	0.55	0.52	0.39	0.39	0.24	0.00	0.00	0.00	0.00	0.00
EFFICIENCY	43%	51%	33%	43%	37%	0%	0%	0%	0%	0%

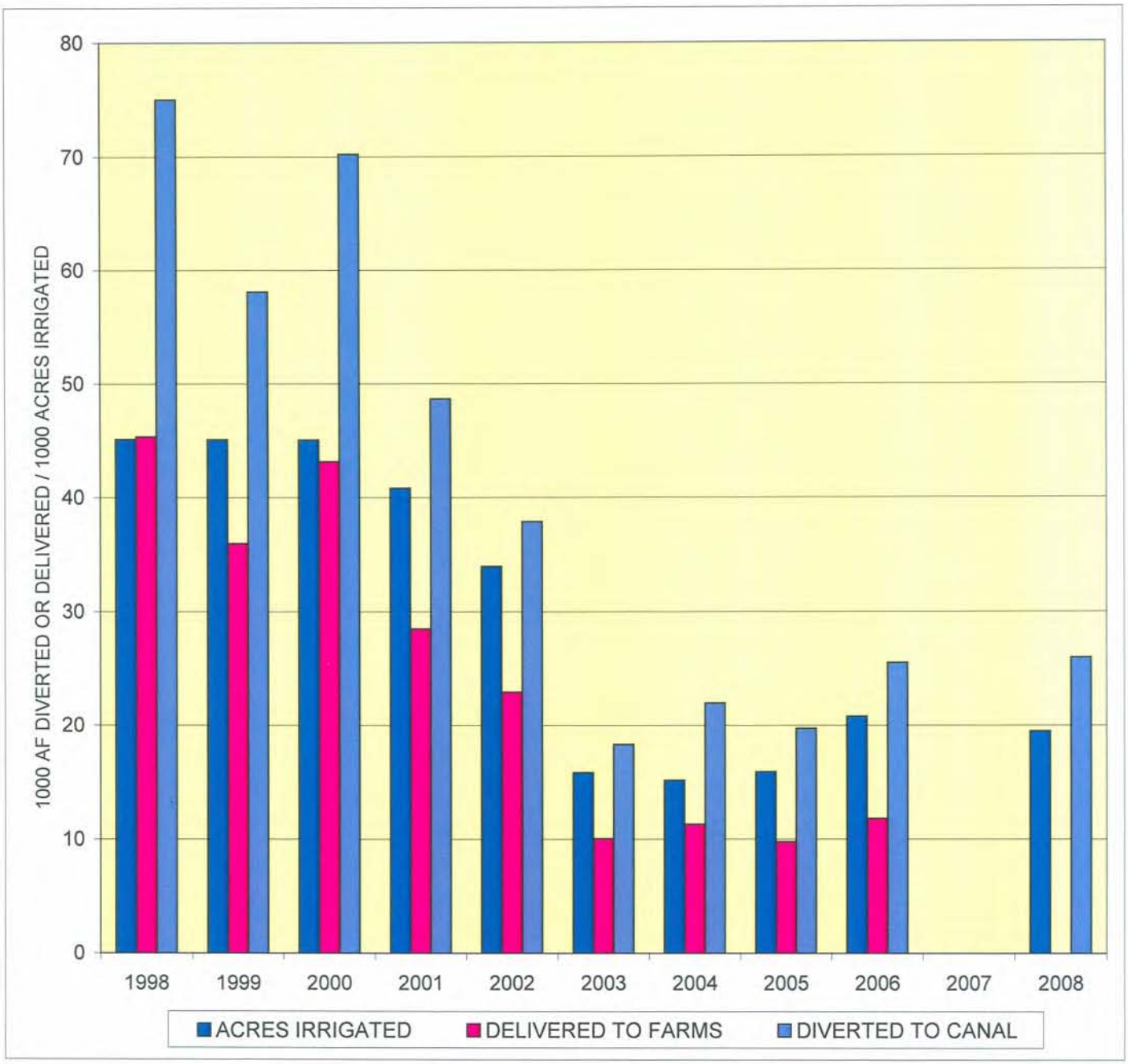
FORECASTED SHORTAGES (2008)

DRY YEAR	42,000 AF
NORMAL YEAR	26,400 AF
WET YEAR	7,400 AF

EXHIBIT 22

FRENCHMAN-CAMBRIDGE IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	1.66	1.29	1.56	1.19	1.12	1.15	1.45	1.24	1.23	0.00
DELIVERED af/acre	1.00	0.80	0.96	0.70	0.67	0.63	0.74	0.61	0.57	0.00
EFFICIENCY	60%	62%	61%	58%	61%	55%	52%	50%	46%	0%

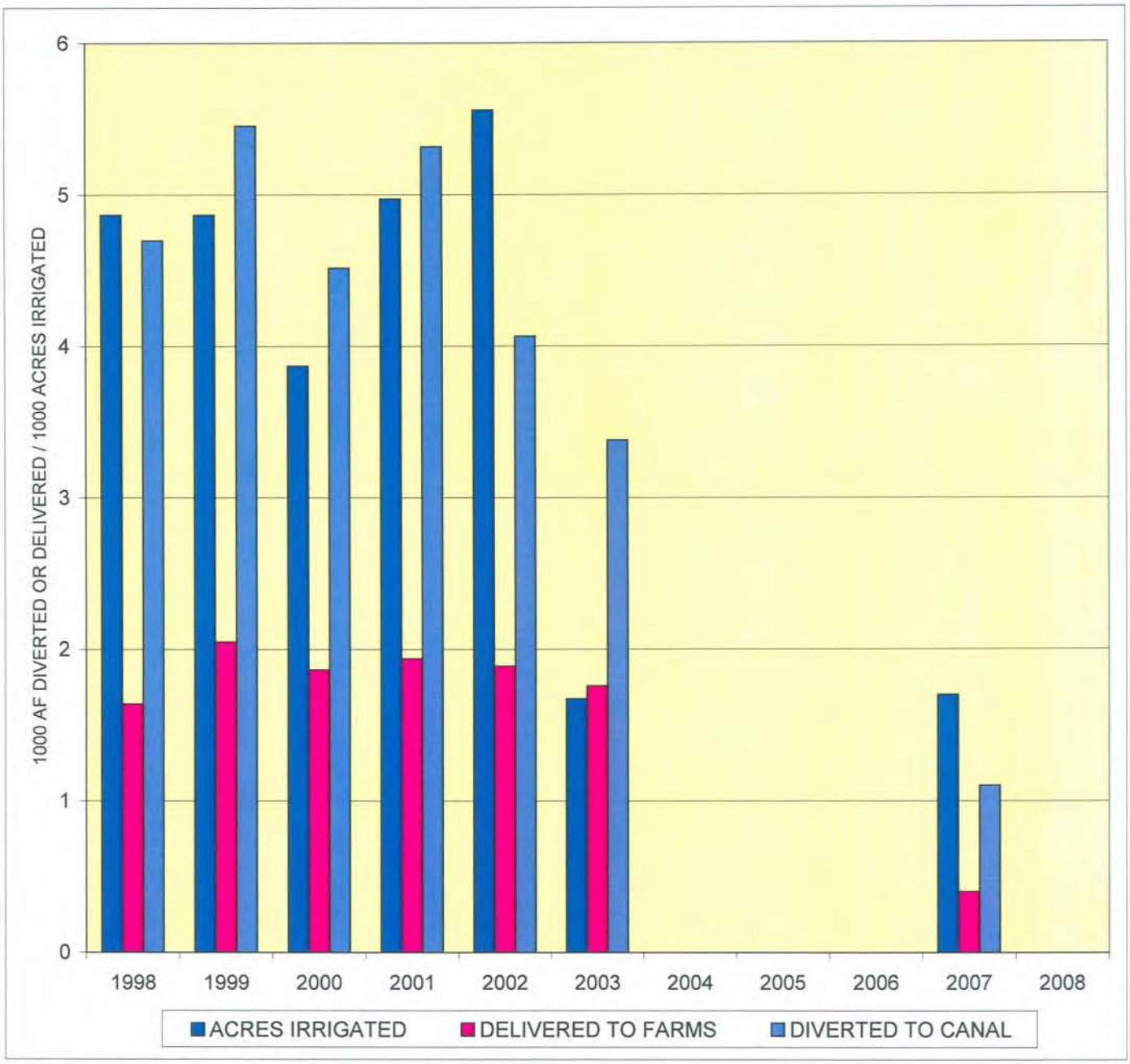
FORECASTED SHORTAGES (2008)

DRY YEAR	22,500 AF
NORMAL YEAR	0 AF

EXHIBIT 23

ALMENA IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	0.97	1.12	1.17	1.07	0.73	2.02	0.00	0.00	0.00	0.65
DELIVERED af/acre	0.34	0.42	0.48	0.39	0.34	1.05	0.00	0.00	0.00	0.24
EFFICIENCY	35%	38%	41%	36%	46%	52%	0%	0%	0%	36%

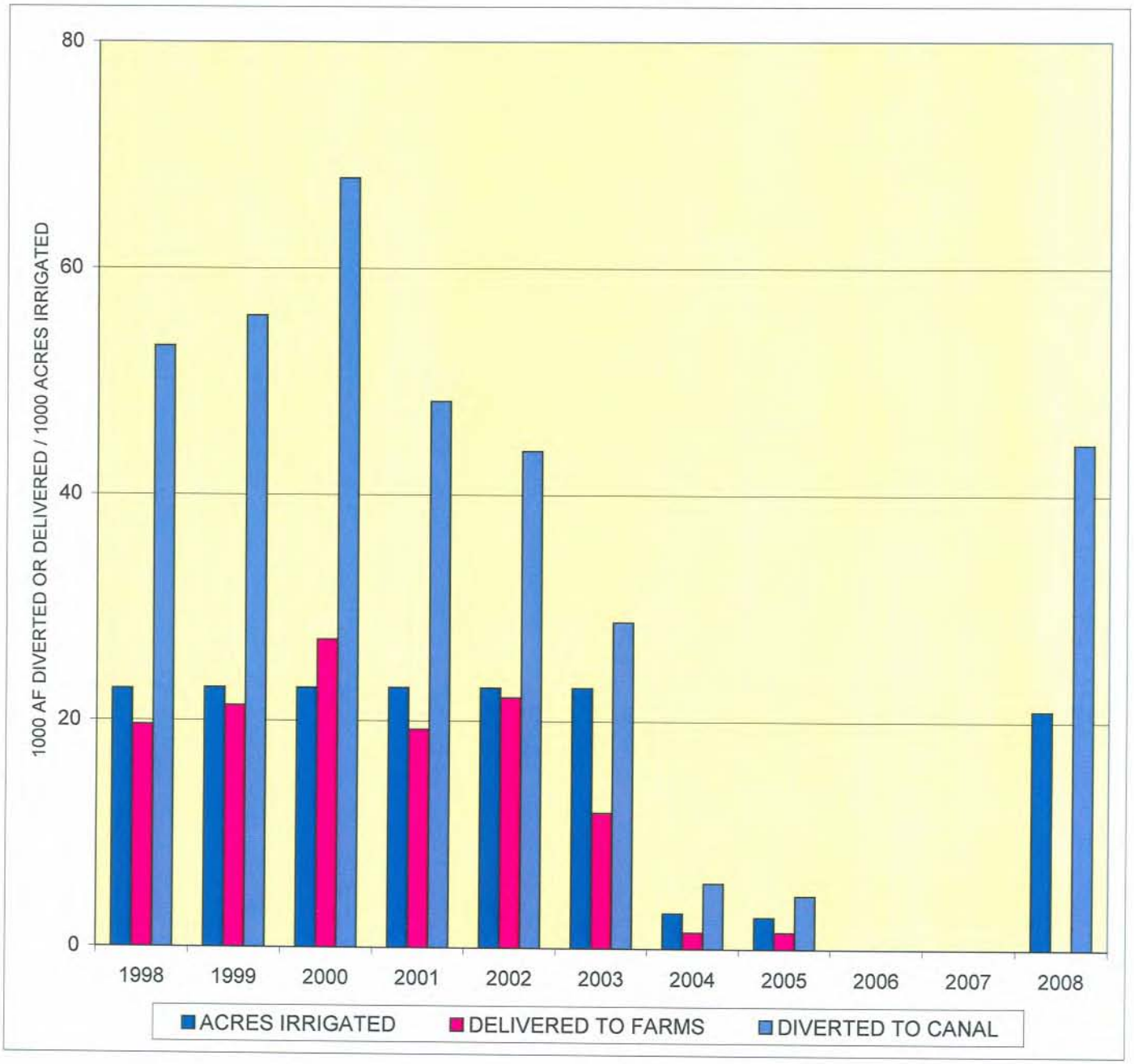
FORECASTED SHORTAGES (2008)

DRY YEAR	24,100 AF
NORMAL YEAR	16,400 AF
WET YEAR	1,500 AF

EXHIBIT 24

BOSTWICK IRRIGATION DISTRICT - NEBRASKA

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	2.33	2.44	2.97	2.10	1.91	1.25	1.85	1.68	0.00	0.00
DELIVERED af/acre	0.86	0.93	1.19	0.84	0.96	0.52	0.47	0.53	0.00	0.00
EFFICIENCY	37%	38%	40%	40%	50%	42%	25%	32%	0%	0%

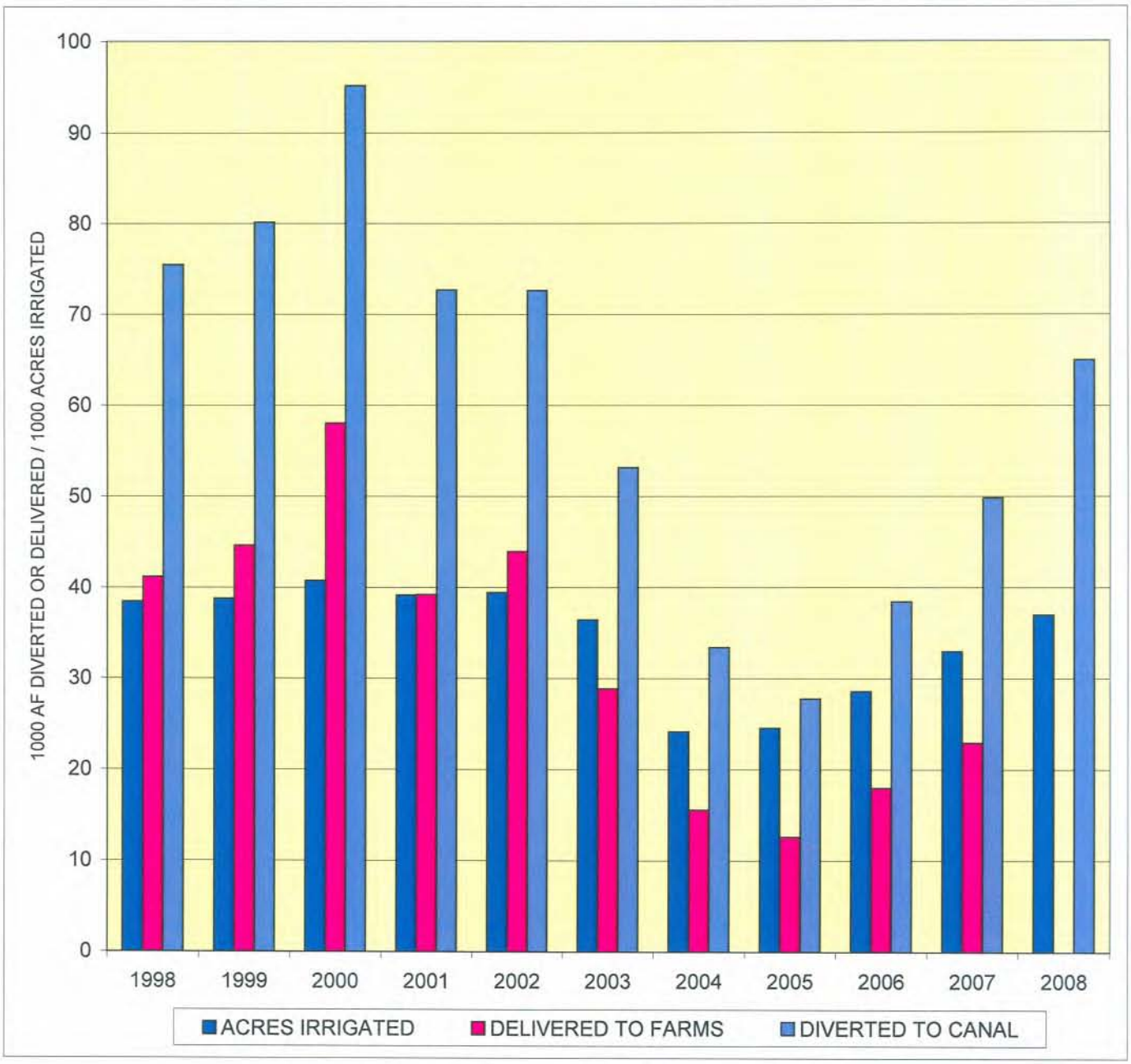
FORECASTED SHORTAGES (2008)

DRY YEAR	18,200 AF
NORMAL YEAR	0 AF

EXHIBIT 25

KANSAS-BOSTWICK IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	1.96	2.07	2.33	1.86	1.84	1.46	1.38	1.13	1.35	1.51
DELIVERED af/acre	1.07	1.15	1.42	1.00	1.11	0.79	0.65	0.51	0.63	0.70
EFFICIENCY	55%	56%	61%	54%	61%	54%	47%	45%	47%	46%

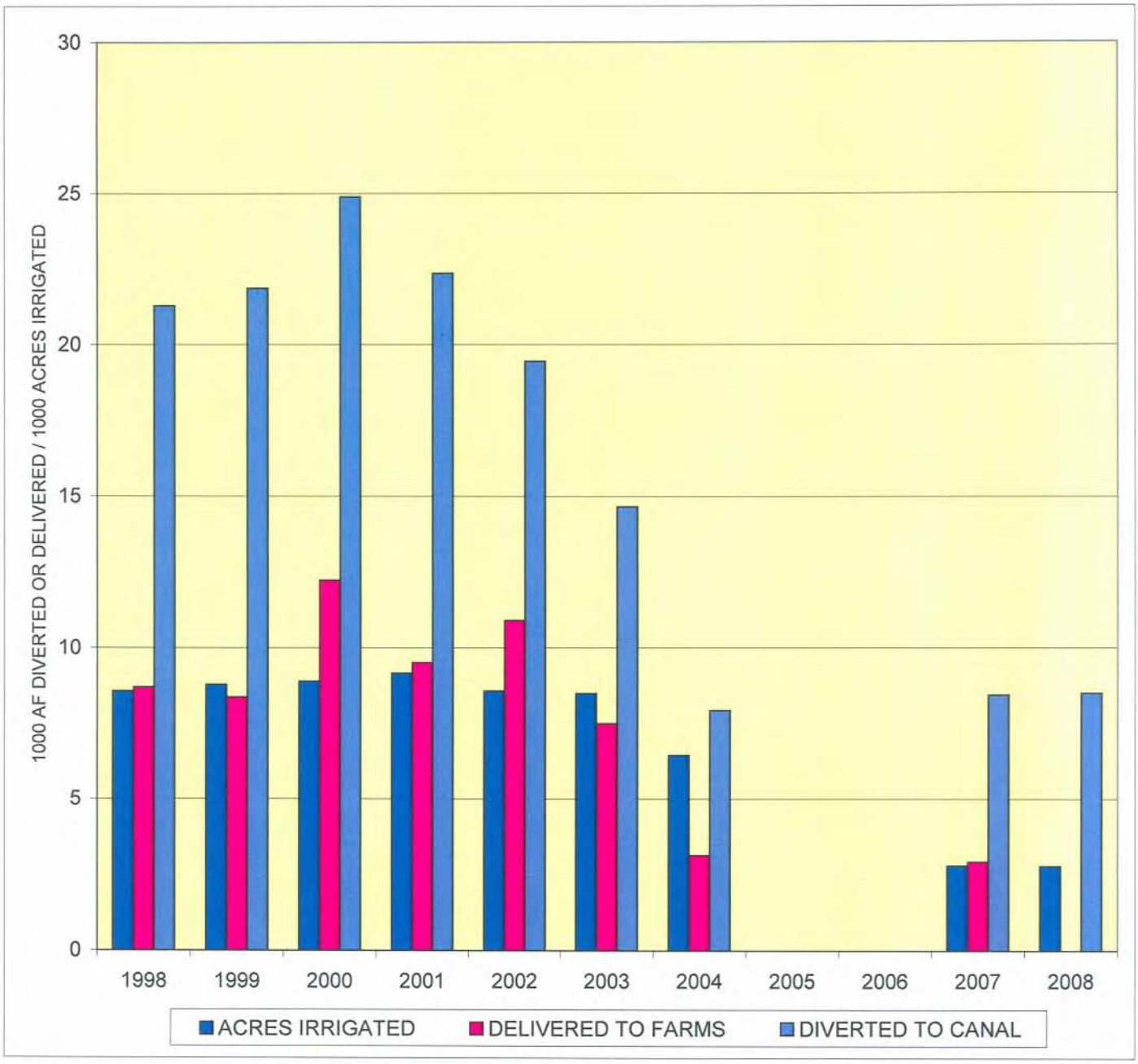
FORECASTED SHORTAGES (2008)

DRY YEAR	33,900 AF
NORMAL YEAR	0 AF

EXHIBIT 26

KIRWIN IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	2.48	0.95	2.80	2.44	2.27	1.73	1.23	0.00	0.00	3.00
DELIVERED af/acre	1.01	0.95	1.37	1.04	1.27	0.88	0.49	0.00	0.00	1.05
EFFICIENCY	41%	38%	49%	43%	56%	51%	40%	0%	0%	35%

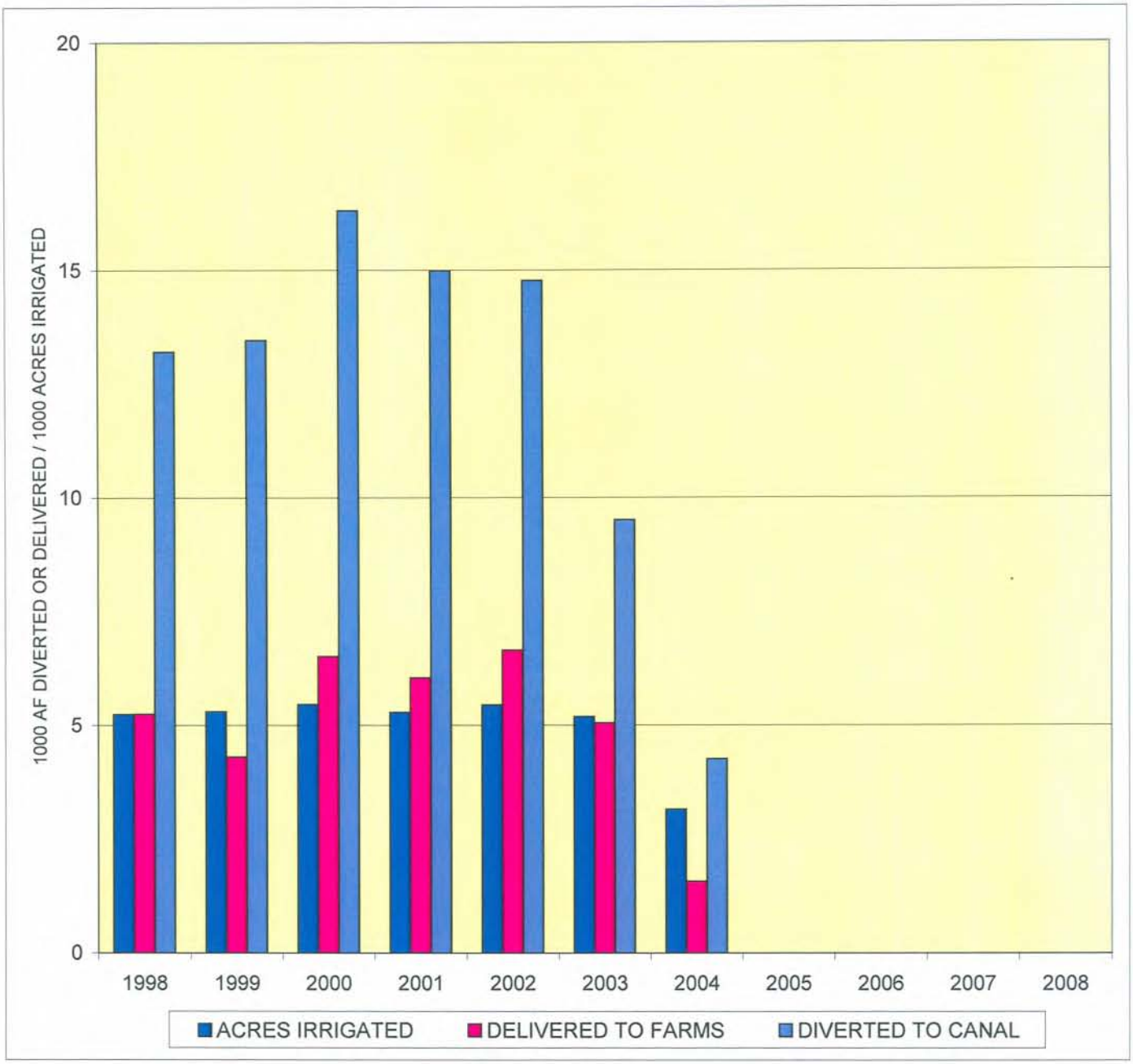
FORECASTED SHORTAGES (2008)

DRY YEAR	20,000 AF
NORMAL YEAR	3,400 AF

EXHIBIT 27

WEBSTER IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	2.52	2.54	2.98	2.83	2.71	1.83	1.35	0.00	0.00	0.00
DELIVERED af/acre	1.00	0.81	1.19	1.14	1.22	0.97	0.50	0.00	0.00	0.00
EFFICIENCY	40%	32%	40%	40%	45%	53%	37%	0%	0%	0%

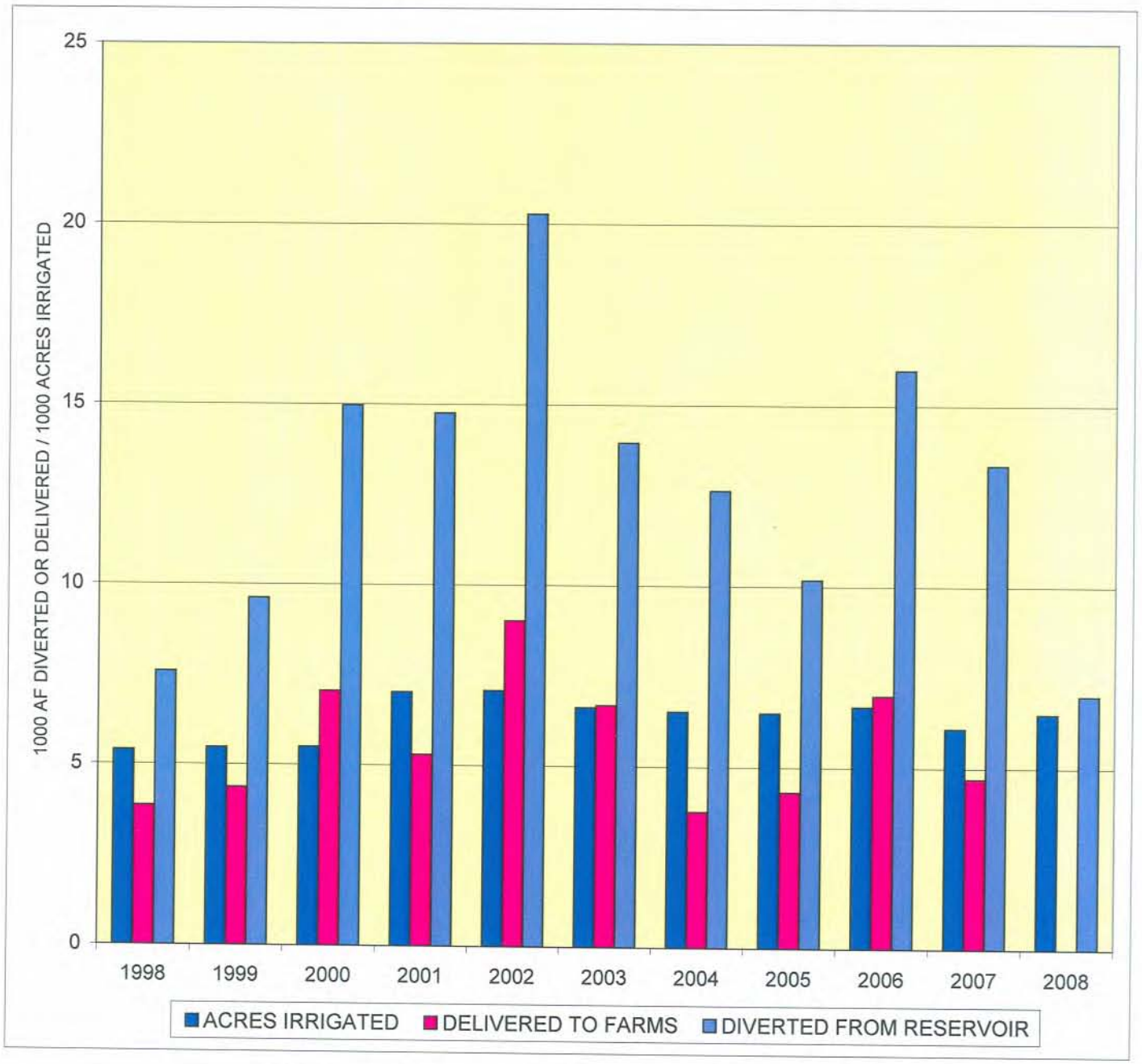
FORECASTED SHORTAGES (2008)

DRY YEAR	27,600 AF
NORMAL YEAR	8,200 AF

EXHIBIT 28

GLEN ELDER IRRIGATION DISTRICT

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



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DIVERTED af/acre	1.41	1.76	2.72	0.75	1.27	1.01	1.93	1.57	2.39	2.19
DELIVERED af/acre	0.71	0.80	1.28	0.75	1.27	1.01	0.58	0.66	1.04	0.77
EFFICIENCY	51%	45%	47%	36%	44%	48%	30%	42%	44%	35%

FORECASTED SHORTAGES (2008)

DRY YEAR	0 AF
NORMAL YEAR	0 AF