

SYNOPSIS

General

This year is the 56th 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 269,744 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 70 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 2008 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.

2008 Summary

Climatic Conditions

Precipitation at the project dams during 2008 ranged from 86 percent of normal near Box Butte Dam to 172 percent of normal at Kirwin Dam. Temperatures during the first two months of the year were generally well below normal throughout the projects area. Precipitation during the first three months of the year was below normal throughout most of the projects area. Precipitation totals varied from 27 to 122 percent. Temperatures were near normal during the spring. Precipitation during April, and May was generally above normal throughout the basin.

Average temperatures were near normal in June and July and above normal in August. Precipitation during June and July was only slightly below normal project wide. August precipitation was generally well above normal in the Kansas River Basin and well below normal in north central Nebraska. Eleven project dams recorded below normal precipitation in June, while ten project dams recorded below normal precipitation in July. Only five project dams had below normal precipitation in August.

September precipitation varied considerably throughout the projects while precipitation in October was well above normal with the exception of Box Butte Dam. Virginia Smith, Davis Creek, Medicine Creek, Harlan County, Norton, Kirwin, Webster, and Cedar Bluff Dams recorded the greatest October precipitation totals ever for the month at the respective sites. Temperatures in September and October were generally above normal throughout the projects area.

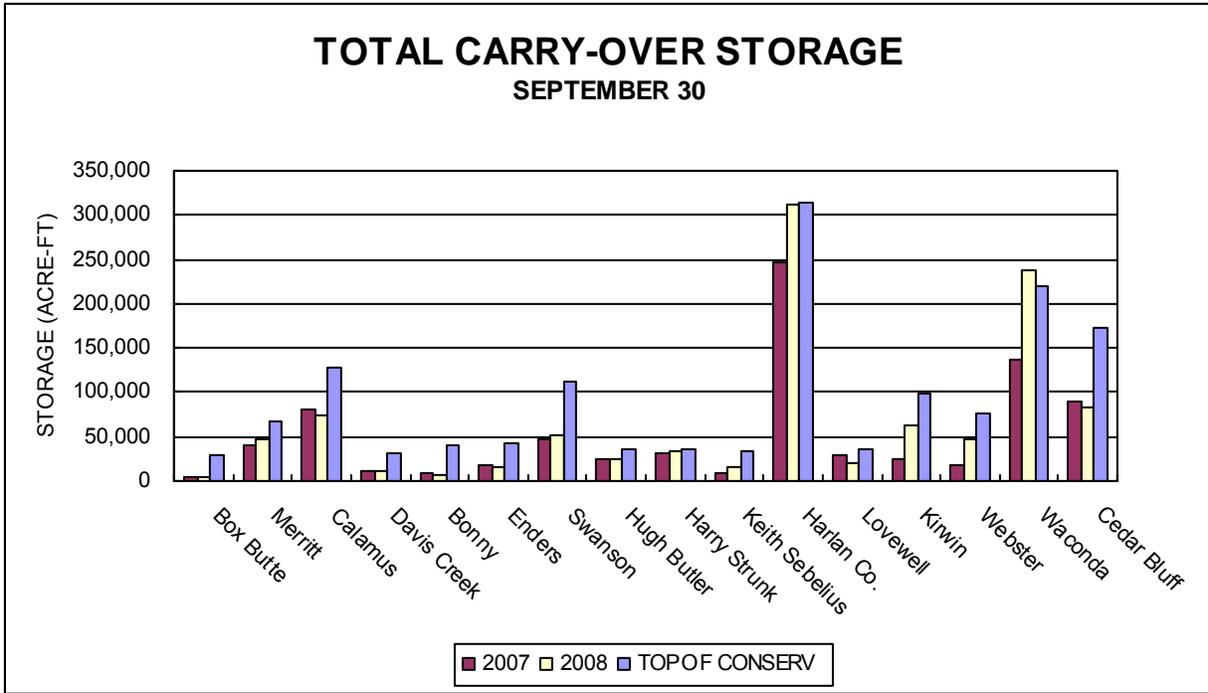
Precipitation during November and December averaged only 82 percent of normal over the projects with Box Butte Dam recording zero precipitation in December. Temperatures were above normal in November and below normal in December.

Storage Reservoirs

1. Conservation Operations. The 2008 inflow was above the dry-year forecast at project reservoirs with the exception of Box Butte and Enders Reservoirs. Merritt, Davis Creek and Cedar Bluff Reservoirs, and Hugh Butler and Swanson Lakes had inflows between the dry- and normal-year forecasts. Bonny, Calamus and Webster Reservoirs along with Keith Sebelius, Waconda, and Harlan County Lakes had inflows between the normal- and wet-year forecasts. Lovewell and Kirwin Reservoirs as well as Harry Strunk Lake had inflows above the wet-year forecast.

Twelve of the sixteen project reservoirs had below average carryover storage from the 2007 water year. Swanson Lake and Enders Reservoir in southwest Nebraska recorded below average inflows during all 12 months of 2008. Box Butte and Cedar Bluff Reservoirs recorded below average inflows during 11 months of 2008. Reservoir releases were made from Merritt, Virginia Smith, Medicine Creek, Harlan County and Lovewell Dams to maintain or reduce reservoir levels prior to the 2008 irrigation season. Just prior to the irrigation season, Enders, Webster and Box Butte Reservoirs, along with Keith Sebelius, Swanson, Hugh Butler and Harry Strunk Lakes, did not have sufficient storage to provide water users with a full water supply. Harry Strunk and Harlan County Lakes and Lovewell Reservoir had some flood storage occupied prior to the irrigation season. The irrigation demand months of July and August did little to reduce storage in those project reservoirs that had storage available for full irrigation as inflows maintained reservoir pools. Precipitation during July and August helped in reducing the demands on project reservoirs. Reservoir storage was below normal at ten project reservoirs at the end of 2008.

The following summarized graph shows a comparison of 2007 and 2008 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, Harlan County and Waconda Lakes, and Lovewell Reservoir utilized flood pool storage and made flood releases in 2008. The fiscal year 2008 flood control benefits accrued by the operation of Reclamation’s Nebraska-Kansas Projects facilities was \$7,871,700 as determined by the Corps of Engineers. An additional benefit of \$9,103,300 was credited to Harlan County Lake. The accumulative total of flood control benefits for the years 1951 through 2008 by facilities in this report total \$1,931,373,900 (see Table 5). Box Butte, Merritt, Calamus, and Davis Creek Reservoirs do not have a designated flood pool and have not accrued any flood benefits to date.

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

Water Service There was 252,098 acre-feet (AF) of water diverted to irrigate approximately 186,380 acres of project lands in the 12 irrigation districts (see tables 3 and 6). The project water supply was either inadequate or limited for 75,175 acres of the total project lands. This includes lands in Mirage Flats, Frenchman Valley, H&RW, Frenchman-Cambridge, Almena, and Webster Irrigation Districts. The project water supplies for the other units mentioned in this report were more than adequate in 2008.

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 2008 crop yields on lands receiving project water in the Nebraska-Kansas Projects were higher than 2007. The average corn yield, the principal crop of all reporting districts, was 179 bushels per acre. This was approximately twelve bushels per acre more than in 2007.

The start of irrigation releases from project reservoirs varied considerably depending on May rainfall amounts and storage water available. Normal rainfall was experienced during much of the early growing season with near normal temperatures. August was generally much wetter and warmer than normal. Crop maturity progressed near normal during the growing season. Most irrigation districts had finished making irrigation releases by mid September. Five canals did not divert water in 2008 as a result of short water supplies. All irrigation districts had finished delivering water by the end of September with corn harvest delayed until early winter due to an extremely wet 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 2008 season, normal reservoir operations were favorable for recreation and fish and wildlife uses at project reservoirs with full or nearly full conservation pool levels. Higher water levels in late 2008 were experienced at most reservoirs in the Kansas River Basin providing increased recreation benefits. Higher than normal inflows prevented summer drawdown from irrigation releases and thus did not allow for some late summer shoreline revegetation. Increased water levels did however submerge existing shoreline vegetation.

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.

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

General

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.

2008 Summary

The annual precipitation total of 22.93 inches at Trenton Dam was 115 percent of normal. The inflow of 19,296 AF to Swanson Lake was between the dry-year and normal-year forecast. The lake level began the year at elevation 2735.00 feet and peaked at 2738.49 feet (13.5 feet below the top of conservation) on June 7th. The reservoir level gradually decreased to an elevation of 2736.58 feet on October 13th. 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 sixth consecutive year that the district did not deliver water from the Meeker-Driftwood Canal. At the end of the year the reservoir level was 14.8 feet below the top of conservation at 2737.16 feet. The Corps of Engineers determined that Swanson Lake prevented \$61,900 in flood damages.

The annual precipitation total of 29.38 inches at Red Willow Dam was 150 percent of normal and the second highest ever recorded at the dam. The annual inflow of 13,743 AF into Hugh Butler Lake was between the dry-year and normal-year forecast. The reservoir level at the first of the year was 2574.18 ft, 7.6 feet below the top of conservation. May precipitation totaled 8.32 inches at the dam, the most ever recorded for the month. The reservoir level gradually filled to a peak of 2577.44 feet (4.4 feet below full) on June 27th. Irrigation releases began on June 22nd and ended on September 4th dropping the pool level 2.4 feet. Flood releases were not required in 2008. The level of Hugh Butler Lake at the end of the year was 6.5 feet below the top of conservation. The Corps of Engineers determined that Hugh Butler Lake prevented \$65,500 of flood damages during 2008.

The annual precipitation total of 28.89 inches at Medicine Creek Dam was 140 percent of normal and the second highest ever recorded at the dam. The inflow of 69,752 AF was above the wet-year forecast. The reservoir level at the beginning of 2008 was only .3 foot below the top of conservation. Releases were made during early 2008 to regulate the reservoir elevation approximately .5 foot below the flood pool in cooperation with the Nebraska Game and Parks Commission. The reservoir was allowed to fill on April 29th. The dam received 10.40 inches of precipitation during May, the greatest ever for the month. The reservoir level increased to elevation 2373.83 feet (7.7 feet into flood pool) on May 25th as a result of runoff from storms that occurred above the lake during May 23rd and 24th.

These storms increased the storage in Harry Strunk Lake approximately 9,900 AF with a peak average daily inflow of approximately 4,500 cfs. Lake inflows exceeded historic highs for the month of May. Uncontrolled releases through the spillway reached over 1000 cfs. The reservoir level dropped from the flood pool on August 2nd. Scheduled releases during July, August and early September reduced the reservoir elevation to 2364.31 feet on September 6th. Medicine Creek Dam recorded 4.35 inches of precipitation during October, the most ever recorded for the month. Harry Strunk Lake was only 0.8 foot below the top of conservation at the end of the year. The Corps of Engineers determined that Harry Strunk Lake prevented \$758,400 in flood damages.

A Functional Exercise to review the Trenton, Red Willow, and the Medicine Creek Dams' EAPs took place in August 2008. Annual Site Inspections were conducted in September at Red Willow Dam and July at Medicine Creek Dam and Trenton Dam. The Standing Operating Procedures for Trenton Dam was updated in 2008

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. Grouting of the underdrain system is scheduled for the fall of 2009.

In 2008, the District began making water measurement improvement upgrades on Meeker, Red Willow, and Cambridge canals, including improving farm turnouts, lateral turnouts, and canal measurement structures. Reclamation provided financial assistance for this project through a cooperative agreement with the District.

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.

2008 Summary - Bostwick Division - Harlan County Lake Operations

The annual precipitation at Harlan County Dam totaled 30.31 inches of rainfall, which is 133 percent of normal. The 2008 inflow of 224,841 AF was between the normal- and wet-year forecasts. The COE's Water Management Section in Kansas City, Missouri, determined that a release was not required during January and February, but was required during December in accordance to the environmental assessment and the annual operating plan.

Harlan County Lake began 2008 approximately 4.7 feet below the top of conservation pool, at 1941.08 feet. The reservoir increased rapidly during the spring. On May 22nd and again on May 23rd storms produced rainfall totals of 4 to 8 inches across the basin. The reservoir level increased 4.2 feet as a result of the runoff. The reservoir content gained 56,100 AF attributed directly to these storms. The peak average daily inflow was approximately 7,600 cfs. Flood releases began on May 28th and continued through June 25th at which time irrigation demands exceeded inflows and the lake level reached 1948.0 feet. Irrigation releases continued through September 5th reducing the lake level to elevation 1945.64 feet. Harlan County Dam recorded 8.60 inches of precipitation during October, the greatest ever recorded for the month. Runoff from the October storms increased the lake level to 1947.31 feet on November 3rd. Flood releases began on November 3rd and were made throughout the remainder of the year to reduce lake levels back to the top of conservation. The reservoir elevation was 1946.12 ft (0.4 foot in the flood pool) on December 31, 2008. Harlan County Lake prevented \$9,103,300 of downstream flood damages during 2008 according to the Corps of Engineers.

A total of 7,657 AF (approximately 8 percent of total inflow) was delivered to Lovewell Reservoir through the Courtland Canal.

2008 Summary - Bostwick Division - Nebraska

Irrigation diversions were made into Franklin, Naponee, Franklin Pump, Superior, and Courtland Canals in Nebraska in 2008. Water was supplied to 22,454 acres with an average of 2.64 inches delivered to the farm.

The district continued to replace open ditch laterals with buried pipe to reduce losses and improve system operations. In 2005 and 2006, the District was selected for a Water 2025 Challenge Grant Projects 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. The District completed the pipe installation on Superior Lateral 27.3 in the fall of 2007.

2008 Summary - Bostwick Division - Kansas

The 2008 precipitation at Lovewell Dam totaled 34.10 inches, which was 124 percent of normal. The reservoir elevation at the beginning of 2008 was 1.5 feet (elevation 1581.07 feet) below the top of conservation pool. The pool level gradually increased, filling the conservation capacity on April 26th (1582.6 feet). Storms in late May produced significant runoff that raised the elevation 3.3 feet and increased the content 11,000 AF. The reservoir level peaked at 1587.31 feet on June 4th (4.7 feet into the flood pool). A flood release of 200 cfs to the creek began on May 28th and was increased to 500 cfs on June 3rd. The flood release was discontinued on June 25th. Irrigation releases to the canal began on May 27th and continued throughout the irrigation season. Flood releases resumed from July 21st through July 31st dropping the reservoir level from the flood pool. Releases were made to the creek from August 14th through September 15th to lower the reservoir pool to elevation 1576.50 feet for maintenance activities. The reservoir had refilled to elevation 1582.38 feet by late October when a release resumed to the creek. The release continued into late December. The reservoir level at the end of the year was 1581.13 feet (1.5 feet below the top of conservation). Lovewell Reservoir prevented \$2,919,800 of downstream flood damages during 2008 according to the Corps of Engineers

The Kansas-Bostwick Irrigation District diverted a total of 47,449 AF to serve 9,791 acres above Lovewell Dam and 25,561 acres below Lovewell Dam. Farm delivery efficiency averaged 38 percent in the district.

A contractor excavated approximately 3,000 cubic yards of sediment from the spillway and outlet works inlet channel at Lovewell Dam following the 2008 irrigation season.

A functional exercise of the Lovewell Dam EAP took place in 2008.

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.

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

RESERVOIR		CAPACITY ALLOCATIONS ^{1/}			FLOOD CONTROL
		DEAD	LIVE CONSERVATION		
			Inactive	Active	
Box Butte	- 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 Lake	- Elevation Ft.	2710.0	2720.0	2752.0	2773.0
	Total Acre-feet	2,118	12,430	112,214	246,291
	Net Acre-feet	2,118	10,312	99,784	134,077
Hugh Butler Lake	- Elevation Ft.	2552.0	2558.0	2581.8	2604.9
	Total Acre-feet	5,185	8,921	36,224	85,070
	Net Acre-feet	5,185	3,736	27,303	48,846
Harry Strunk Lake	- Elevation Ft.	2335.0	2343.0	2366.1	2386.2
	Total Acre-feet	3,408	7,897	34,647	87,361
	Net Acre-feet	3,408	4,489	26,750	52,714
Keith Sebelius Lake	- Elevation Ft.	2275.0	2280.4	2304.3	2331.4
	Total Acre-feet	1,636	3,993	34,510	133,740
	Net Acre-feet	1,636	2,357	30,517	99,230
Harlan County Lake ^{3/}	- Elevation Ft.	1885.0	1927.0	1945.73	1973.5
	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	1,674	11,644	35,666	86,131
	Net Acre-feet	1,674	9,970	24,022	50,465
Kirwin	- Elevation Ft.	1693.0	1697.0	1729.25	1757.3
	Total Acre-feet	4,969	8,515	98,154	313,290
	Net Acre-feet	4,969	3,546	89,639	215,136
Webster	- Elevation Ft.	1855.5	1860.0	1892.45	1923.7
	Total Acre-feet	1,256	4,231	76,157	259,510
	Net Acre-feet	1,256	2,975	71,926	183,353
Waconda Lake	- Elevation Ft.	1407.8	1428.0	1455.6	1488.3
	Total Acre-feet	248	26,237	219,420	942,408
	Net Acre-feet	248	25,989	193,183	722,988
Cedar Bluff	- Elevation Ft.	2090.0	2107.8	2144.0	2166.0
	Total Acre-feet	4,402	28,574	172,452	364,342
	Net Acre-feet	4,402	24,172	143,878	191,890
Total Storage (A.F.)		35,685	273,495	1,472,250	3,909,611 ^{2/}
Total Net Acre-feet		35,685	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.

TABLE 2
SUMMARY OF 2008 OPERATIONS

FRENCHMAN-CAMBRIDGE DIVISION
FRENCHMAN UNIT

Month	ENDERS RESERVOIR				End of Month Content (AF)	CULBERTSON CANAL		CULBERTSON EXT. CANAL	
	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)		Diversions To Canal (AF)	Delivered To Farms (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	346	307	68	0.07	16,856	0	0	0	0
Feb.	358	288	79	0.25	16,847	0	0	0	0
Mar.	370	307	139	0.59	16,771	0	0	0	0
Apr.	650	298	295	2.58	16,828	0	0	0	0
May	742	307	340	4.97	16,923	0	0	0	0
June	638	298	407	3.13	16,856	0	0	0	0
July	146	307	504	2.18	16,191	0	0	0	0
Aug.	84	307	377	2.52	15,591	0	0	0	0
Sep.	182	298	310	1.64	15,165	0	0	0	0
Oct.	470	181	210	3.27	15,244	0	0	0	0
Nov.	399	131	144	1.12	15,368	0	0	0	0
Dec.	385	307	78	0.13	15,368	0	0	0	0
TOTAL	4,770	3,336	2,951	22.45	--	0	0	0	0

NOTE: Acres irrigated 2008: Culbertson Canal - 0 acres; Culbertson Extension Canal - 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued)
MEEKER-DRIFTWOOD UNIT

Month	SWANSON LAKE				End of Month Content (AF)	MEEKER-DRIFTWOOD	
	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)		Release To Canal (AF)	Delivered To Farms (AF)
Jan.	1,195	61	219	0.04	46,126	0	0
Feb.	2,701	58	257	0.25	48,512	0	0
Mar.	3,099	61	465	0.48	51,085	0	0
Apr.	3,777	60	1,014	2.71	53,788	0	0
May	3,386	61	1,263	5.27	55,850	0	0
June	1,642	60	1,716	3.66	55,716	0	0
July	409	62	2,077	2.14	53,986	0	0
Aug.	2	62	1,839	1.69	52,087	0	0
Sep.	0	60	1,327	1.56	50,700	0	0
Oct.	881	62	787	4.38	50,732	0	0
Nov.	951	60	538	0.67	51,085	0	0
Dec.	1,256	62	290	0.08	51,989	0	0
TOTAL	19,296	726	11,792	22.93	--	0	0

NOTE: Acres irrigated 2008: Meeker-Driftwood Canal - 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued)
RED WILLOW UNIT

Month	HUGH BUTLER LAKE				End of Month Content (AF)	RED WILLOW CANAL		BARTLEY CANAL	
	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)		Diversions To Canal (AF)	Delivered To Farms (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	554	246	85	0.01	25,216	0	0	0	0
Feb.	663	230	101	0.25	25,548	0	0	0	0
Mar.	712	246	185	0.29	25,829	0	0	0	0
Apr.	1,084	238	414	1.46	26,261	0	0	0	0
May	2,723	246	589	8.32	28,149	0	0	0	0
June	2,569	720	688	4.45	29,310	230	0	0	0
July	639	2,559	884	3.53	26,506	2,269	728	0	0
Aug.	2,417	1,932	513	5.76	26,478	1,391	405	0	0
Sep.	302	476	569	0.93	25,735	199	82	0	0
Oct.	912	246	303	3.68	26,098	0	0	0	0
Nov.	687	238	218	0.58	26,329	0	0	0	0
Dec.	481	246	113	0.12	26,451	0	0	0	0
TOTAL	13,743	7,623	4,662	29.38	--	4,089	1,215	0	0

NOTE -- Acres irrigated 2008: Red Willow Canal - 2,688 acres; Bartley Canal 0 acres.

FRENCHMAN-CAMBRIDGE DIVISION (Continued)
CAMBRIDGE UNIT

Month	HARRY STRUNK LAKE				End of Month Content (AF)	CAMBRIDGE CANAL	
	Inflow (AF)	Outflow (AF)	Gross Evap. (AF)	Precip. (Inches)		Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	2,983	2,829	118	0.02	34,189	0	0
Feb.	3,093	3,035	130	0.43	34,117	0	0
Mar.	3,362	3,426	243	0.34	33,810	0	0
Apr.	3,861	2,386	509	2.30	34,776	0	0
May	26,515	14,006	789	10.40	46,496	0	0
June	11,158	16,298	1,092	3.55	40,264	1,556	84
July	3,737	7,930	1,129	2.78	34,942	9,396	4,835
Aug.	3,293	5,085	783	2.93	32,367	7,098	3,311
Sep.	2,214	1,206	679	0.86	32,696	1,337	529
Oct.	3,566	1,744	401	4.35	34,117	0	0
Nov.	3,063	3,551	283	0.67	33,346	0	0
Dec.	2,909	2,965	139	0.26	33,151	0	0
TOTAL	69,752	64,459	6,295	28.89	--	19,387	8,759

NOTE -- Acres irrigated 2008: Cambridge Canal 15,768 acres.

TABLE 3
ACRES IRRIGATED IN 2008

Irrigation District and Canal	Acres With Service Available	Acres Irrigated in 2008
Mirage Flats Irrigation District		
Mirage Flats Canal	11,662	7,372
Ainsworth Irrigation District		
Ainsworth Canal	35,000	34,577
Twin Loups Irrigation District		
Above Davis Creek	34,053	34,194
Below Davis Creek	21,063	20,637
Total Twin Loups Irrigation District	55,116	54,831
Frenchman Valley Irrigation District		
Culbertson Canal	9,292	0
H & RW Irrigation District		
Culbertson Extension Canal	11,915	0
Frenchman-Cambridge Irrigation District		
Meeker-Driftwood Canal	16,855	0
Red Willow Canal	4,797	2,688
Bartley Canal	6,353	0
Cambridge Canal	17,664	15,768
Total Frenchman-Cambridge Irrigation District	45,669	18,456
Almena Irrigation District		
Almena Canal	5,764	1,700
Bostwick Irrigation District in Nebraska		
Franklin Canal	10,920	10,920
Naponee Canal	1,650	1,650
Franklin Pump Canal	2,090	2,090
Superior Canal	5,848	5,848
Courtland Canal (Nebraska)	1,946	1,946
Total Bostwick Irrigation Dist. in Nebraska	22,454	22,454
Kansas-Bostwick Irrigation District		
Courtland Canal above Lovewell	13,378	9,791
Courtland Canal below Lovewell	29,122	25,561
Total Kansas-Bostwick Irrigation District	42,500	35,352
Kirwin Irrigation District		
Kirwin Canal	11,465	6,037
Webster Irrigation District		
Osborne Canal	8,537	0
Glen Elder Irrigation District	10,370	5,601
TOTAL PROJECT USES	269,744	186,380
Non-Project Uses		
Hale Ditch	700	0
TOTAL PROJECT AND NON-PROJECT	270,444	186,380

TABLE 5**FLOOD DAMAGES PREVENTED BY NEBRASKA-KANSAS PROJECTS RESERVOIRS**

RESERVOIR	DURING FY 2008	PRIOR TO 2008	ACCUMULATED TOTAL
BONNY	\$11,300	\$2,791,000	\$2,802,300
ENDERS	\$6,300	\$3,558,000	\$3,564,300
SWANSON	\$61,900	\$22,985,000	\$23,046,900
HUGH BUTLER	\$65,500	\$2,951,000	\$3,016,500
HARRY STRUNK	\$758,400	\$9,343,000	\$10,101,400
KEITH SEBELIUS	\$700	\$3,989,000	\$3,989,700
HARLAN COUNTY	\$9,103,300	\$177,563,000	\$186,666,300
LOVEWELL	\$2,919,800	\$146,619,000	\$149,538,800
KIRWIN	\$79,900	\$86,888,000	\$86,967,900
WEBSTER	\$27,900	\$110,340,000	\$110,367,900
WACONDA	\$3,247,600	\$1,217,334,000	\$1,220,581,600
CEDAR BLUFF	\$692,300	\$130,038,000	\$130,730,300
TOTAL	\$16,974,900	\$1,914,399,000	\$1,931,373,900

Estimates of damages prevented are received from the Army Corps of Engineer's Kansas City District Office. The Accumulated Totals date from 1951 through 2008. 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.

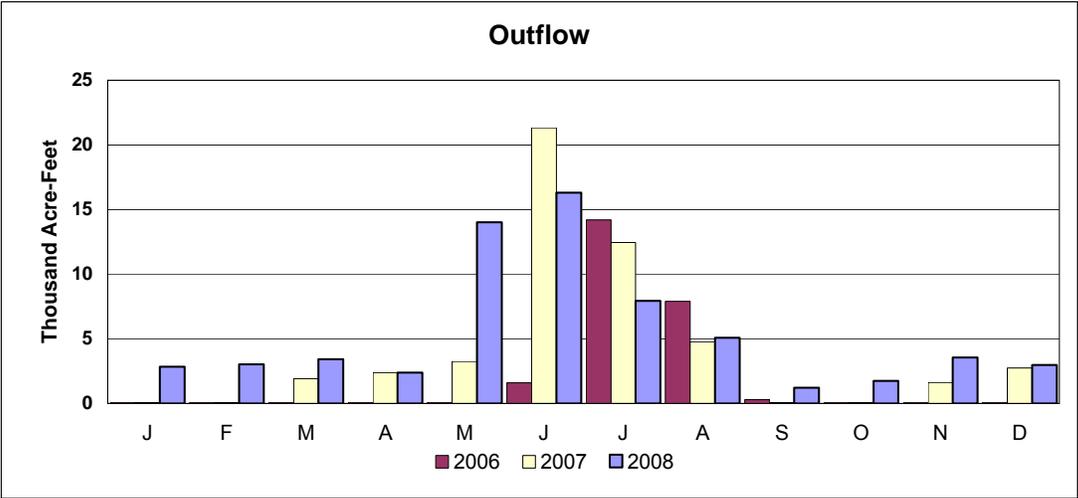
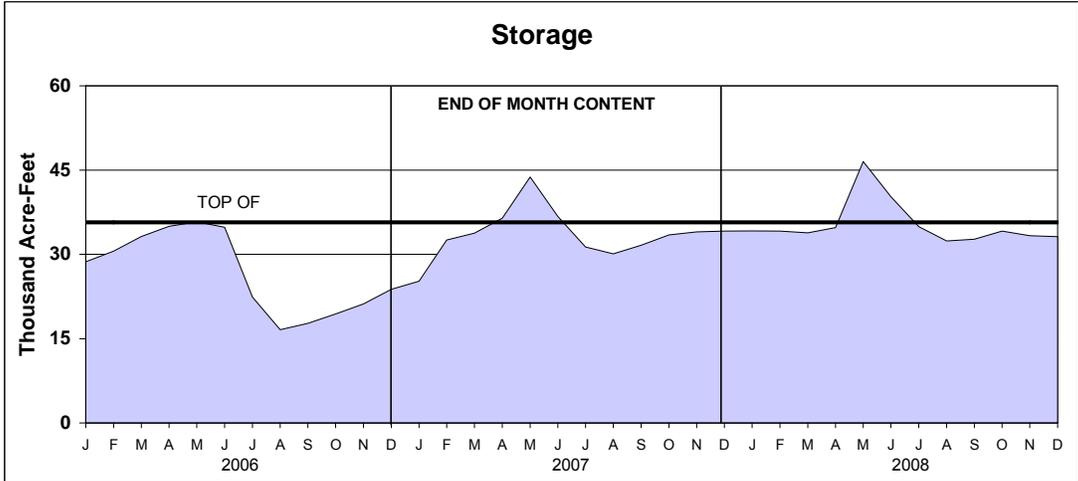
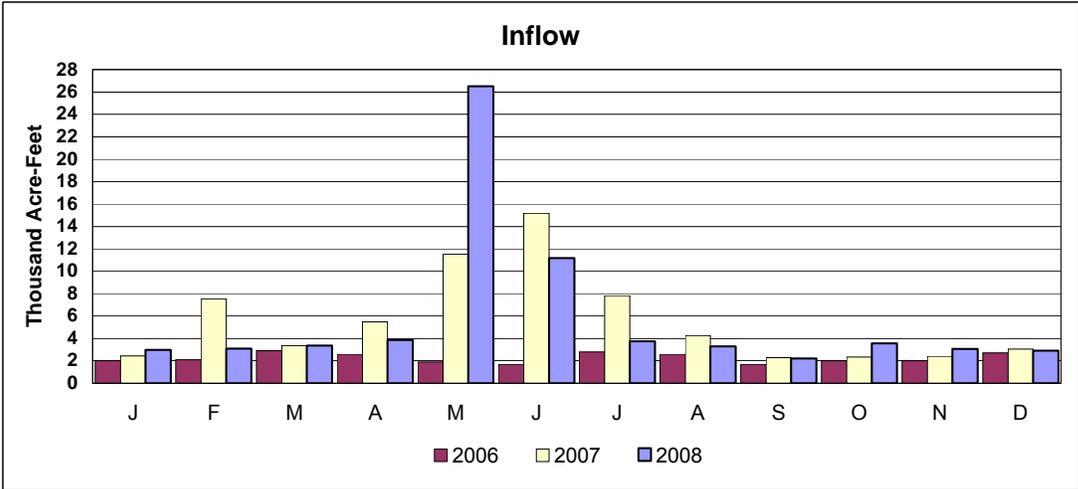
TABLE 6
WATER DIVERTED IN 2008
(Units - Acre-Feet)

Irrigation District and Canal	2008 Irrigation Operations		10-Year Average Diversion (1998-2007)	2008 Diversion
	From	To		
Mirage Flats Irrigation District				
Mirage Flats Canal	7/10	8/16	11,128	5,786
Ainsworth Irrigation District				
Ainsworth Canal	5/11	9/22	77,605	62,616
Twin Loups Irrigation District				
Above Davis Creek	4/25	9/26	44,228	38,460
Below Davis Creek	5/12	9/15	40,370	38,859
Total Twin Loups Irrigation District			84,598	77,319
Frenchman Valley Irrigation District				
Culbertson Canal	Did not run.		6,638	0
H & RW Irrigation District				
Culbertson Extension Canal	Did not run.		4,166	0
Frenchman-Cambridge Irrigation District				
Meeker-Driftwood Canal	Did not run.		10,859	0
Red Willow Canal	6/24	9/5	3,094	4,089
Bartley Canal	Did not run.		4,033	0
Cambridge Canal	6/19	9/20	19,563	19,387
Total Frenchman-Cambridge Irrigation District			37,549	23,476
Almena Irrigation District				
Almena Canal	7/14	8/11	2,853	2,217
Bostwick Irrigation District in Nebraska				
Franklin Canal	6/26	8/17	17,089	16,085
Naponee Canal	7/9	8/22	1,638	316
Franklin Pump Canal	7/1	8/29	1,791	576
Superior Canal	6/26	8/25	8,919	5,666
Courtland Canal (Nebraska)	6/17	9/10	1,394	311
Total Bostwick Irrigation District in Nebraska			30,831	22,954
Kansas-Bostwick Irrigation District				
Courtland Canal above Lovewell	6/18	9/24	18,656	17,433
Courtland Canal below Lovewell	5/27	9/8	40,978	30,016
Total Kansas-Bostwick Irrigation District			59,634	47,449
Kirwin Irrigation District				
Kirwin Canal	7/7	8/19	14,089	9,418
Webster Irrigation District				
Osborne Canal	Did not run.		8,649	0
Glen Elder Irrigation District				
Glen Elder Canal	5/20	8/20	7,514	863
TOTAL			345,254	252,098

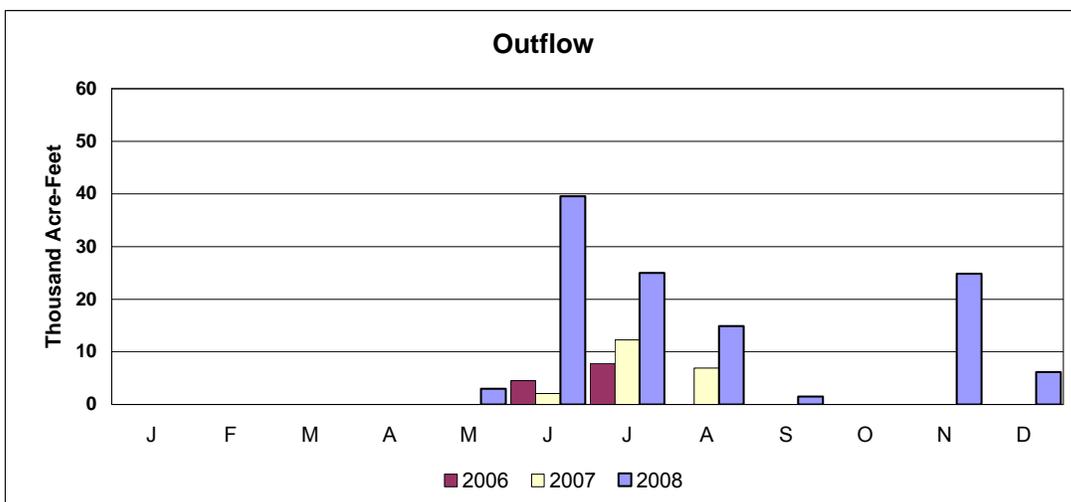
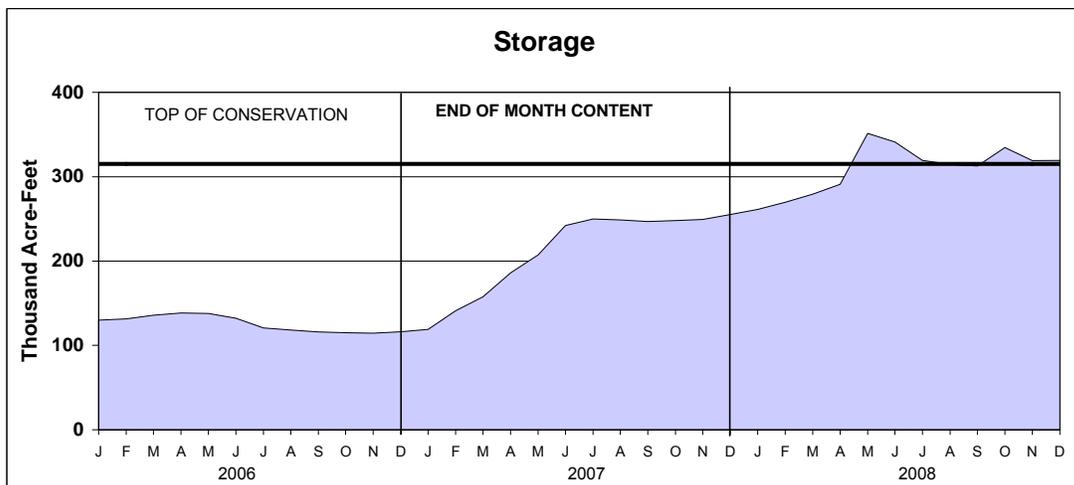
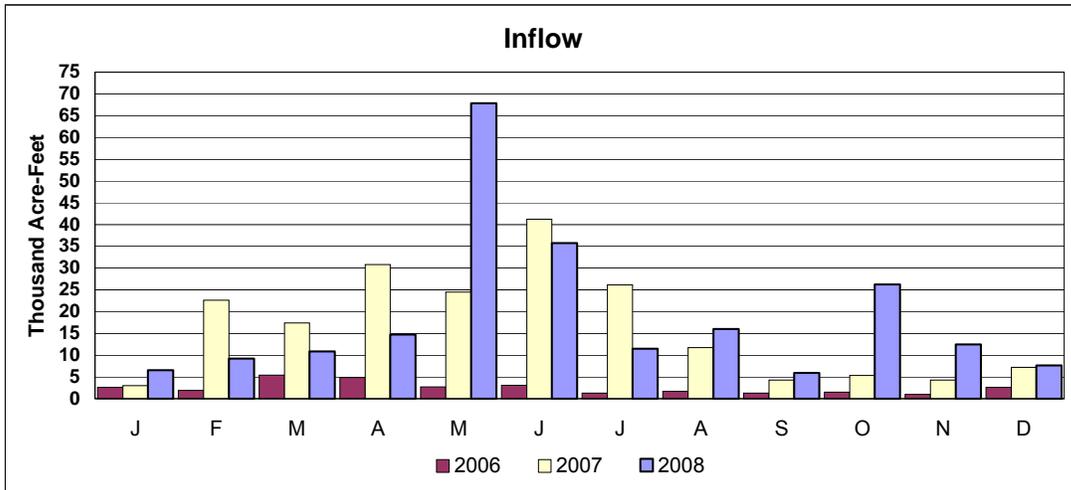
TABLE 7
NEBRASKA-KANSAS PROJECTS
Summary of Precipitation, Reservoir Storage and Inflows
CALENDAR YEAR 2008

Reservoir	Total Precip. Inches	Percent Of Average %	Storage 12-31-07 AF	Storage 12-31-08 AF	Gain or Loss AF	Maximum Content AF	Storage Date	Minimum Content AF	Storage Date	Total Inflow AF
Box Butte	14.56	86	5,895	6,375	480	9,572	JUN 25	3,608	AUG 14	11,286
Merritt	21.35	104	60,831	61,100	269	66,959	JUN 1	41,554	SEP 7	182,099
Calamus	27.82	115	111,215	109,027	-2,188	128,582	MAY 27	73,324	SEP 16	266,651
Davis Creek	35.85	145	9,684	10,126	442	30,177	JUL 8	8,791	APR 23	46,785
Bonny	22.20	130	7,947	9,276	1,329	10,460	AUG 15	7,675	OCT 9	12,159
Enders	22.45	118	16,885	15,368	-1,517	17,134	JUN 8	14,973	OCT 11	4,770
Swanson	22.93	115	45,211	51,989	6,778	56,388	JUN 7	44,427	JAN 1	19,296
Hugh Butler	29.38	150	24,993	26,451	1,458	29,513	JUN 27	24,993	JAN 1	13,743
Harry Strunk	28.89	140	34,153	33,151	-1,002	51,158	MAY 25	31,502	SEP 5	69,752
Keith Sebelius	33.74	138	9,732	16,313	6,581	19,166	JUN 4	9,722	JAN 1	14,265
Harlan County	30.31	133	255,393	319,311	63,918	357,333	JUN 6	255,637	JAN 1	224,841
Lovewell	34.10	124	31,273	31,438	165	51,414	JUN 4	20,187	SEP 17	90,852
Kirwin	40.49	172	24,096	88,425	64,329	88,615	DEC 31	24,077	JAN 2	85,559
Webster	36.39	154	17,720	68,885	51,165	68,885	DEC 31	17,686	JAN 2	59,868
Waconda	31.11	122	142,983	206,420	63,437	319,346	OCT 27	142,713	JAN 3	407,850
Cedar Bluff	26.84	128	86,517	83,542	-2,975	89,201	JUN 3	83,035	DEC 27	12,383

HARRY STRUNK LAKE ACTUAL OPERATION

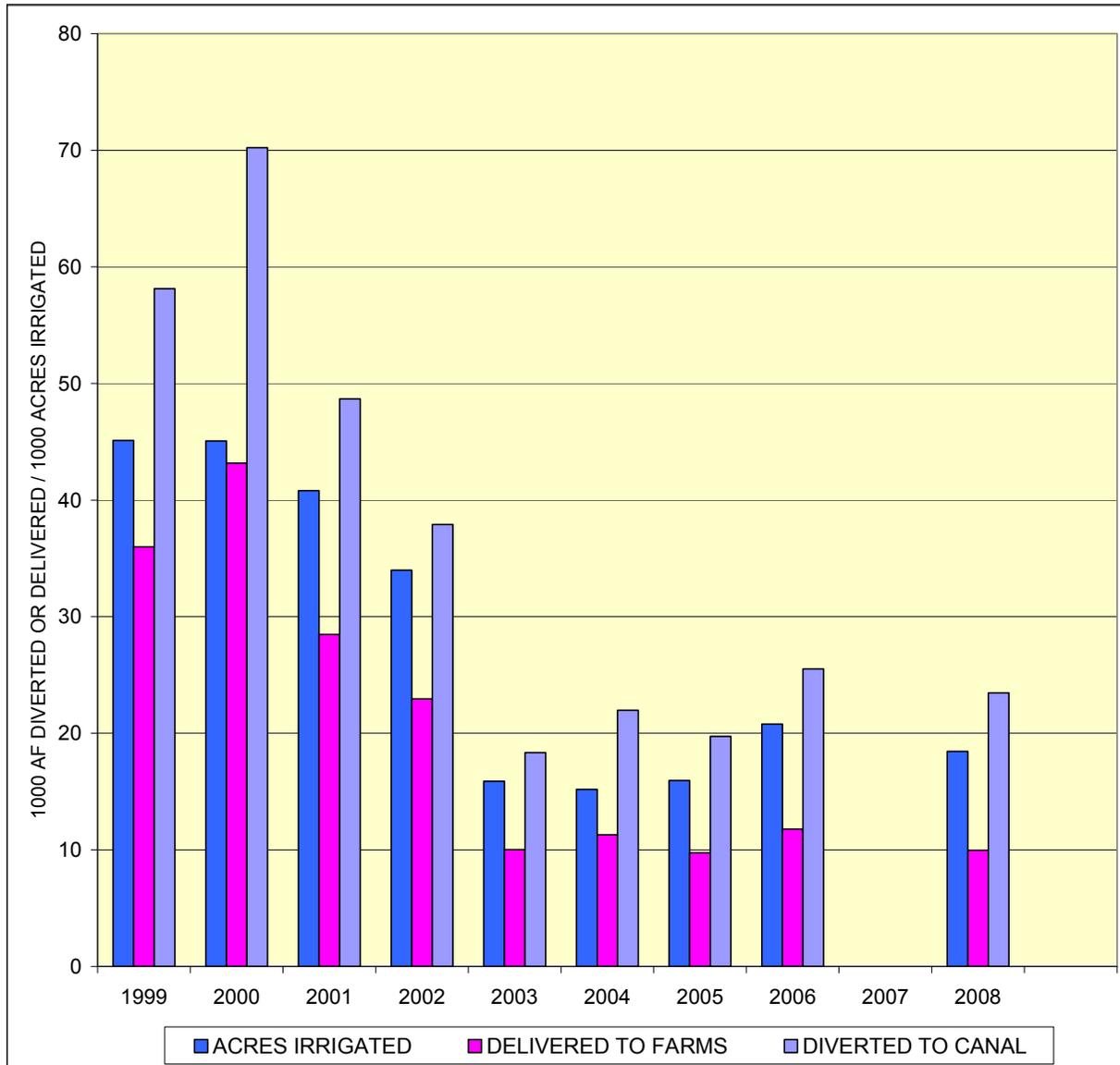


HARLAN COUNTY LAKE ACTUAL OPERATION



FRENCHMAN-CAMBRIDGE IRRIGATION DISTRICT

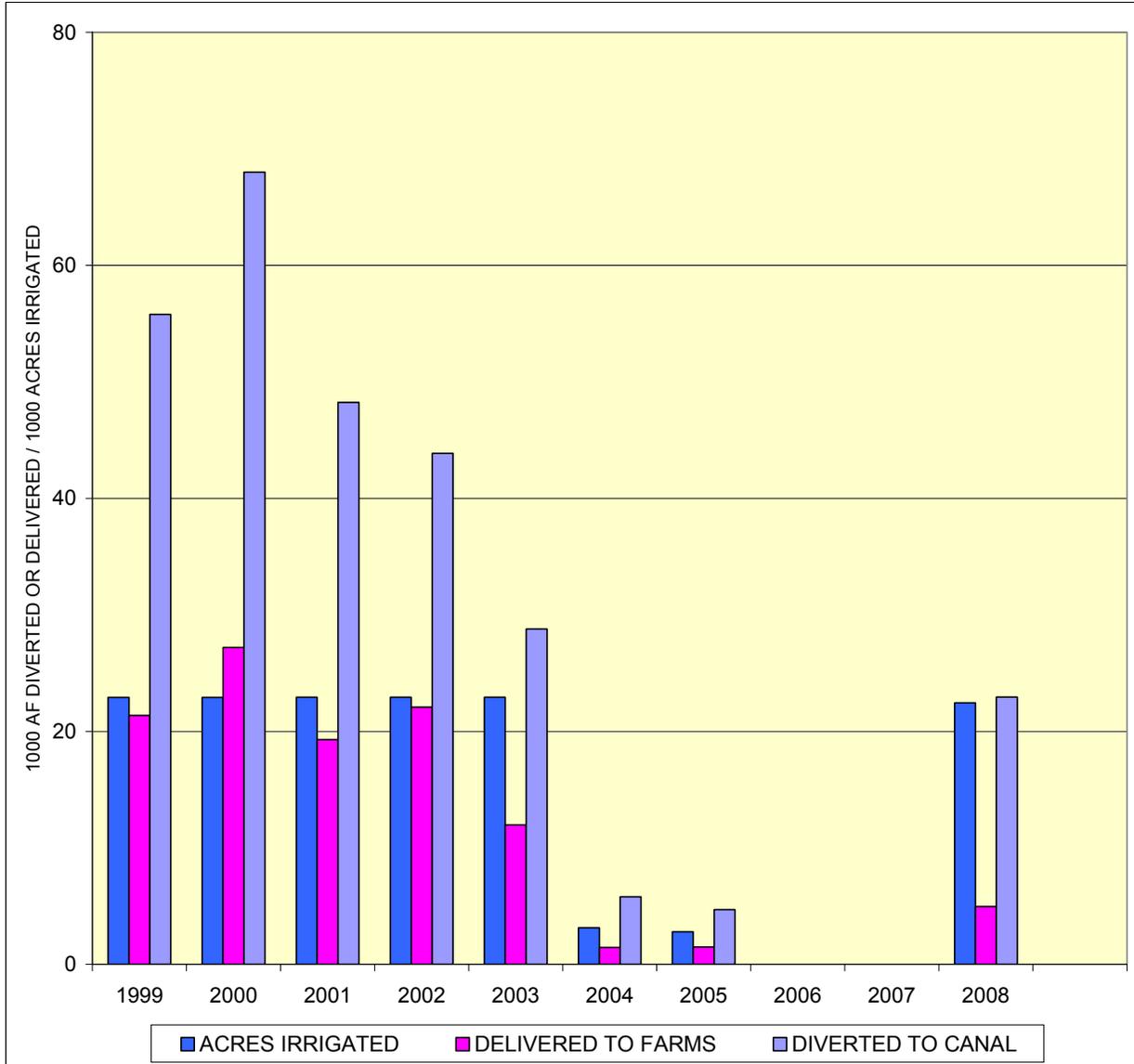
CANAL DIV., FARM DEL., AND ACRES IRRIG.



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
DIVERTED af/acre	1.29	1.56	1.19	1.12	1.15	1.45	1.24	1.23	0.00	1.27
DELIVERED f/acre	0.80	0.96	0.70	0.67	0.63	0.74	0.61	0.57	0.00	0.54
EFFICIENCY	62%	61%	58%	61%	55%	52%	50%	46%	0%	42%

BOSTWICK IRRIGATION DISTRICT - NEBRASKA

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

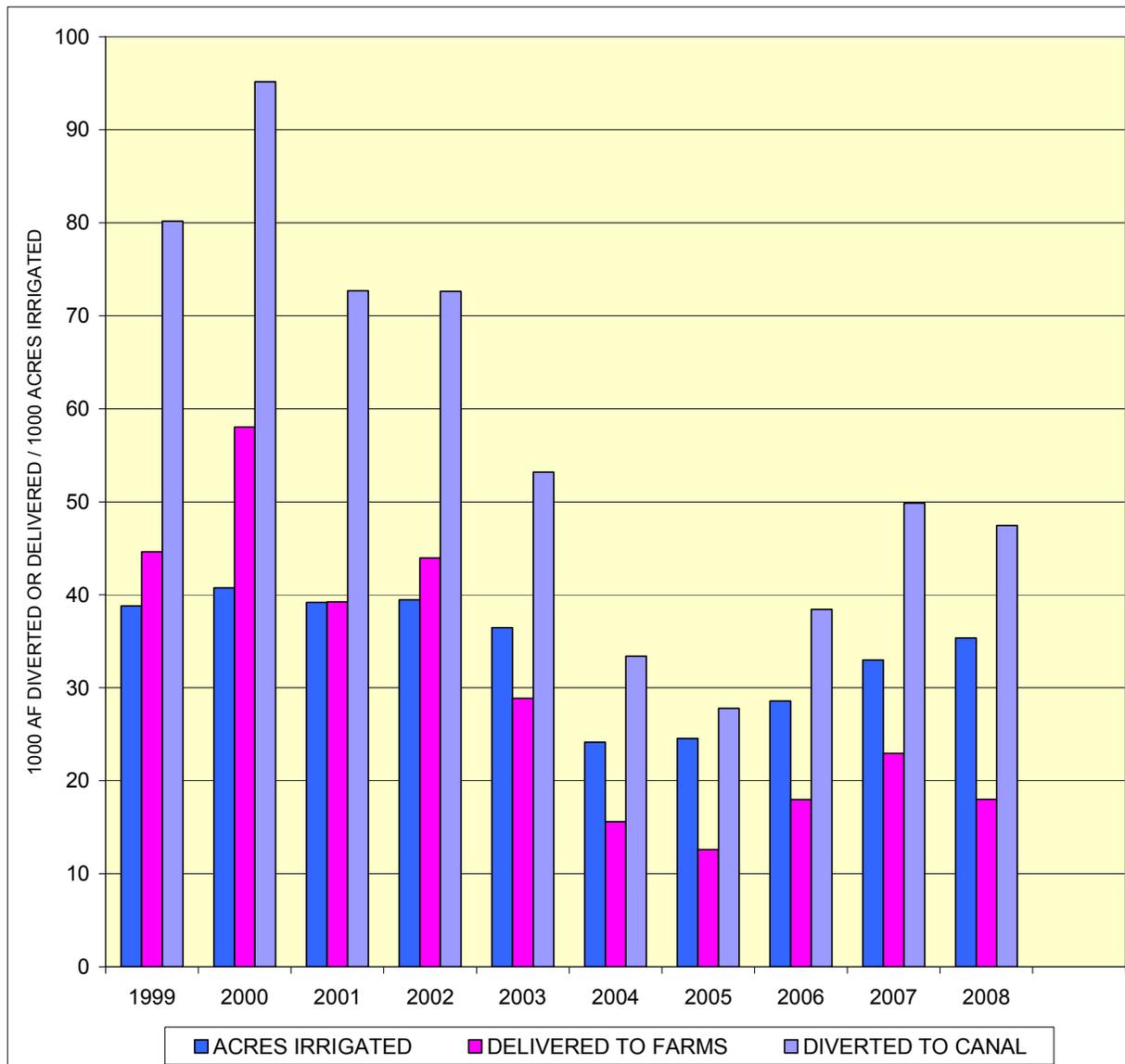


	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
DIVERTED af/acre	2.44	2.97	2.10	1.91	1.25	1.85	1.68	0.00	0.00	1.02
DELIVERED af/acre	0.93	1.19	0.84	0.96	0.52	0.47	0.53	0.00	0.00	0.22
EFFICIENCY	38%	40%	40%	50%	42%	25%	32%	0%	0%	22%

EXHIBIT 25

KANSAS-BOSTWICK IRRIGATION DISTRICT

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



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
DIVERTED af/acre	2.07	2.33	1.86	1.84	1.46	1.38	1.13	1.35	1.51	1.34
DELIVERED af/acre	1.15	1.42	1.00	1.11	0.79	0.65	0.51	0.63	0.70	0.51
EFFICIENCY	56%	61%	54%	61%	54%	47%	45%	47%	46%	38%