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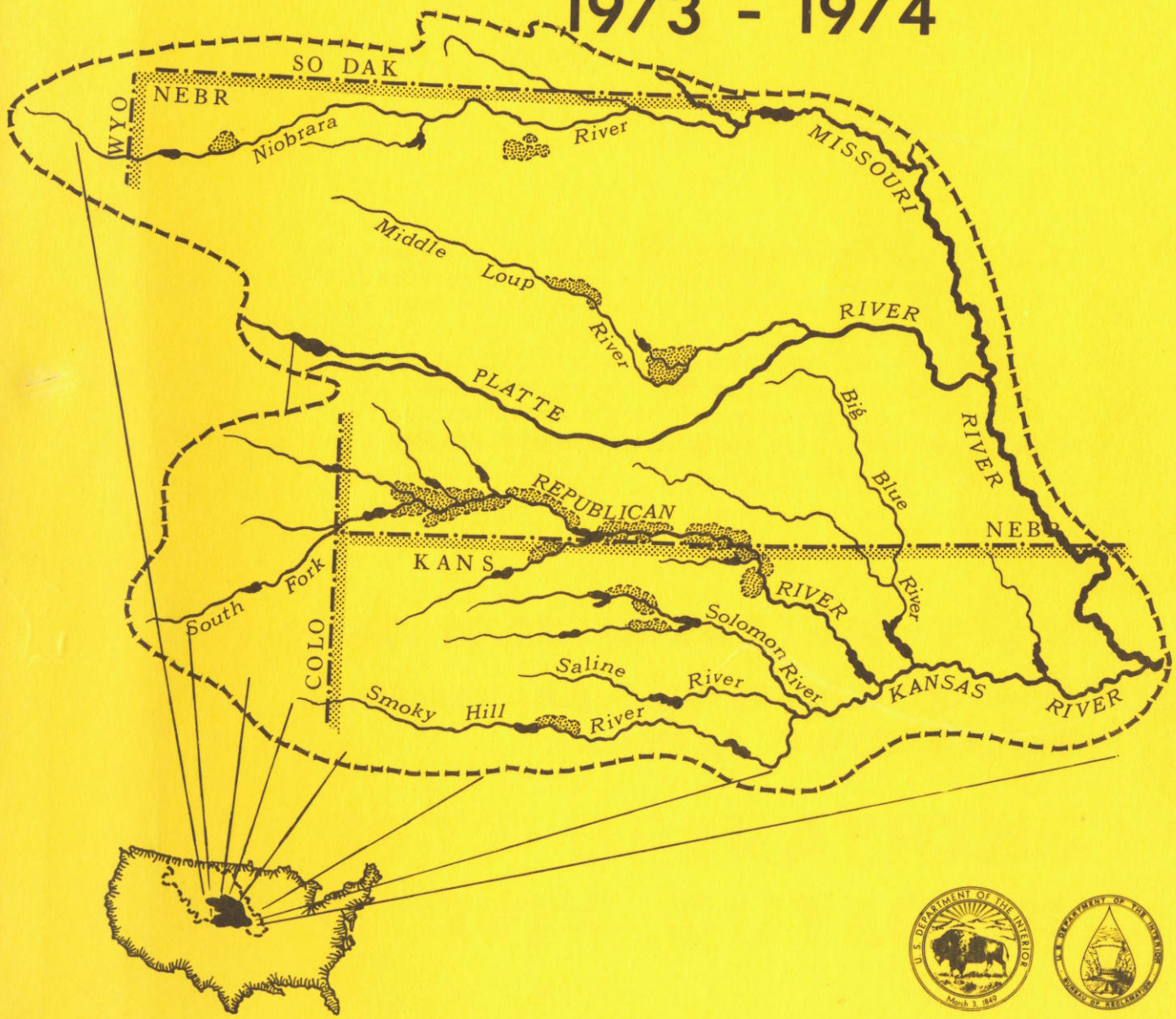
ANNUAL OPERATING PLAN

NIOBRARA, LOWER PLATTE, AND KANSAS RIVER BASINS 1973 - 1974



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DEPARTMENT OF THE INTERIOR
Rogers C. B. Morton, Secretary
Bureau of Reclamation
Gilbert G. Stamm, Commissioner

Department of the Interior

Bureau of Reclamation

Lower Missouri Region · Denver, Colorado

ANNUAL OPERATING PLAN

NIOBRARA, LOWER PLATTE, AND KANSAS RIVER BASINS

1973 OPERATIONS
1974 OUTLOOK

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SYNOPSIS

GENERAL

This is the twenty-first consecutive year that an Annual Operating Plan has been prepared for the federally owned reservoirs serving an irrigation function in the Niobrara, Lower Platte, and Kansas River Basins. There are 15 dams and reservoirs in Colorado, Nebraska, and Kansas. These reservoirs with 10 diversion dams, 10 pumping plants, and 22 canal systems serve approximately 268,600 acres of project lands in Nebraska and Kansas. A map in the back 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, and the reservoirs in the Kansas River Basin are operated by either the Bureau of Reclamation or the Corps of Engineers. The diversion dams, pumping plants, and canal systems are operated by either irrigation or reclamation districts.

In addition to irrigation, these features serve flood control, municipal and industrial water, recreation, and fish and wildlife purposes.

The "Headlines 73" following this Synopsis is indicative of the awareness of local people of natural resource development and conservation in the Niobrara, Lower Platte, and Kansas River Basins.

1973 SUMMARY

Climatic Conditions. The total precipitation during 1973 varied from 120 to 182 percent of normal over the operating area. The temperatures during the irrigation season were generally moderate.

Storage Reservoirs.

A. Conservation Operations - The 1973 inflows were within the range of forecasted dry, normal or wet years for all reservoirs with the exception of Lovewell, which was two and a half times the wet year forecast. The conservation capacity of Waconda Lake was filled for the first time this year. Kirwin Reservoir was drawn down to a record-low water level since initial filling of the conservation pool. The active conservation storage was evacuated from Box Butte, Enders and Norton Reservoirs in 1973. The carry-over storage in these three reservoirs and the available inflows and streamflows below the dams were inadequate to fully supply the irrigation requirements of the project lands served by the reservoirs. The water supply was adequate in the other 12 reservoirs described in this report.

B. Flood Control Operations - Flood control benefits in the amount of $7,465,000 were accrued in 1973 by the operation of Harlan County, Lovewell, Kirwin, Webster, Glen Elder, and Cedar Bluff Dams. The accumulated flood control benefits for the years 1951 through 1973 by the facilities covered in this report total $39,625,000.

The first indication that 1973 might be a wet year came in March when central Kansas was drenched with rains from 350 to 550 percent of normal. Above normal rainfall was also experienced during the months of July, September and October. Major floods occurred in central and eastern Kansas during September and October.

The flood control pool in Lovewell Reservoir was nearly filled and induced surcharge operations were started on October 12th. This was the first such operation since initial reservoir operations in the Kansas River Projects area began in August 1949.

During this period, flood operations of Waconda Lake and Harlan County and Lovewell Reservoirs were integrated with downstream reservoirs to minimize the effects of flooding on the lower Republican, Solomon and Smoky Hill Rivers, as well as on the Kansas and Missouri Rivers. Several periods of above normal flows occurred in upstream reaches of the Solomon and Smoky Hill Rivers above Kirwin, Webster and Cedar Bluff Reservoirs. However, 1973 storage levels were much below normal for these three reservoirs and all inflows were stored in their conservation capacities.

Water Service. There were 525,998 acre-feet of water diverted to irrigate 242,974 acres of project lands in 13 irrigation districts. The project water supply was inadequate for 34,953 acres of lands irrigated in the Mirage Flats, Frenchman Valley, H & RW, and Almena Irrigation Districts. Arrangements were made in the Mirage Flats and Almena Irrigation Districts with owners of private irrigation wells for a supplemental water supply to district lands. The project water supplies for the other units mentioned in this report were adequate in 1973.

The full water requirements of three municipalities, two industrial companies, and a Federal fish hatchery were furnished from storage releases or natural flows.

Under a long-term contract, 23,709 acre-feet were diverted to irrigate 13,200 acres of non-project lands in the Middle Loup Public Power and Irrigation District.

Irrigation Production. The crop planting was delayed somewhat by late spring rains. Heavy rains in September and early October delayed harvesting as well as creating major floods in the Lower Republican and Smoky Hill River Basins. The crop yields from project lands in 1973 were lower on the average than in 1972. Corn, the prinicipal crop,

dropped from 123 bushel average to 111 bushels. The unit prices for all commodities were much higher in 1973 from year earlier prices. The 1973 gross crop value of $54,801,818 was 159% of the 1972 gross crop value.

There were 12,100 acres (4.5 percent of the project lands) idle under the U.S. Department of Agriculture Feed Grain Program in 1973. This acreage was only about one-third as many idle acres as the previous year.

Fish and Wildlife and Recreation Benefits. The operations in 1973 were favorable for the recreation and fish and wildlife uses. Inundation of access roads, camping and picnic shelters, etc. in the flood control pool areas of Lovewell Reservoir and Waconda Lake during September, October and early November was late in the season and other than an increase of sightseers the effect was minor. Considerable clean-up of trash and debris in the state management and cabin areas of these two lakes was required.

The Youth Conservation Corps camps at McCook, Nebraska, and Hays, Kansas, performed work on recreation facilities which enhanced the visitations at Enders, Swanson, Hugh Butler, Harry Strunk, Norton, Cedar Bluff and Webster Public Use Areas.

Weather Modification. Research cloud seeding studies were continued for the second consecutive year in western Kansas during the late summer of 1973 as a research program. Such activities were conducted under a cooperative agreement between the Kansas Water Resources Board and the Bureau of Reclamation. Preliminary results indicate that cloud seeding in western Kansas might be feasible and that further long-range experimentation should be undertaken to better identify optimum conditions and procedures.

1974 OUTLOOK

The irrigation and reclamation districts estimate that 242,811 acres will be irrigated in 1974. It is anticipated that irrigator participation in the Department of Agriculture Feed Grain Program will no longer reduce the irrigated acres as it has in the last few years. The operation studies indicate that if 1974 is a dry year, the project water supplies will be inadequate for the irrigation of 36,750 acres in Mirage Flats, H & RW, Frenchman Valley, Almena, and Webster Irrigation Districts. As in past years, the Mirage Flats and Almena Irrigation Districts plan to use water from private irrigation wells to supplement the project water supply.

The industrial, municipal, and fish hatchery water supply requirements are expected to be met in full.

During 1974, under all inflow forecast conditions, storage water will be in excess of project needs in Bonny Reservoir and Waconda Lake and will be

available for sale to private irrigators or for other non-project uses. Under normal forecast conditions, excess storage will also be available for sale from Hugh Butler, Harry Strunk, and Swanson Lakes during July only.

The pool levels in several of the reservoirs will more than likely be above normal during the early part of the year. With dry-year forecasted inflows, the conservation pools of Merritt, Sherman, Bonny, Harlan County and Lovewell Reservoirs and Swanson, Harry Strunk and Waconda Lakes are now full or will fill during 1974.

Even with low pool levels in the reservoirs and inadequate water supplies for irrigation of some project lands, the recommendations of State game, fish, and park commissions will generally be satisfied. As in the past, irrigation and reclamation districts will advise State agencies regarding aquatic weed control and canal operations. The Bureau of Reclamation will continue to operate the reservoirs and other facilities under its jurisdiction in the best interests of all project functions and for the greatest public benefit whenever possible.

HEADLINES 73

Thursday, April 26, 1973, McCook Daily Gazette

Levees Fail to Hold

Flooding Covers 10.4 Million Farm Acres

After April Showers, Comes...May Showers

Missouri Braces for Second Major Flooding

Tuesday, May 22, 1973, McCook Daily Gazette 9

Trenton, Enders Top Fishing Spots in Area

RAIN AGAIN

Anyone Care to Start Boat Building Firm?

By JACK ROGERS

If weather conditions don't change soon Southwest Nebraska's leading industry may be a boat manufacturing firm.

Valley — cancelled classes today because buses cannot run on the unsurfaced roads. Oberlin and Norcatur school buses were running only on blacktop roads.

Friday, April 20, 1973, McCook Daily Gazette 11

Best Fishing Activity Noted In SW Area

Reservoir Ramblings

WACONDA— ... by Gary Hedstrom

Thursday, September 20, 1973, McCook Daily Gazette

Watershed Dam Receives Test

Tuesday, April 24, 1973, McCook Daily Gazette

Missouri Flood Could Be Worst In 200 Years

Friday, May 25, 1973, McCook Daily Gazette 11

Medicine Creek, Red Willow Top Fishing Spots

LINCOLN — Medicine Creek Reservoir and Red Willow Reservoir are the two spots in

Tuesday, September 18, 1973, McCook Daily Gazette

Game Officers to Stock Area Lakes with Stripers

$20 Million Worth

Bureau Planning Cloud Seeding

Anglers Find Fish Hitting Over State

Omaha World-Herald, Tuesday, March 6, 1973

Underground Supplies

Water Regulation Need Cited

Rain Tops 7 Inches At Harlan

Wednesday, June 20, 1973, McCook Daily Gazette

Enders Reservoir Releasing Water

Omaha World-Herald

OMAHA, NEB., WEDNESDAY, MARCH 7, 1973

UNL Chancellor:

Water Projects 'Help More Than Irrigator'

Friday, April 6, 1973, McCook Daily Gazette

March Rains Boost Lake Water Levels

Frenchmen Creek Fund Supported by Nixon

Thursday, September 6, 1973, McCook Daily Gazette 5

Water Levels Down at All Lakes in Area

THE BELLEVILLE TELESCOPE, Thursday, May 17, 1973

Lovewell May Get Large Grant

McCOOK, NEBRASKA 69001, THURSDAY, JULY 19, 1973

Damage Light, No Hail

5.59 Inches Fall at Oxford

Volume 56—Number 41

McCOOK, NEBRASKA 69001, WEDNESDAY, SEPTEMBER 12, 1973

Top Crops Expected

Norton Dam Gets 2.12 On Weekend

S. V. Sportsmen Fishing Derby June 2-3

SEVERAL SCANDIA HOMES were evacuated last Thursday morning as the Republican River deposited its floodwaters into the southwest part of the town. According to residents in Scandia, last week's flood was the first time that water from the river had backed up into the town since 1958. See Section B of this week's Telescope for additional flood pictures at Scandia and Hubbell, Nebraska.

VOLUME LXXII NO. 291 BELOIT, KANSAS, THURSDAY, OCTOBER 4, 1973

WACONDA LAKE AT ITS HIGHEST

GOOD CATCH — With improvement of weather comes an improvement in catches from Southwest Nebraska's lakes. Jim Mason, Kearney, pulled this 11-pound, 2-ounce walleye from High Butler Lake Monday night. It measured 28 inches in length and 19½ inches around.

BELLEVILLE, REPUBLIC COUNTY, KANSAS, THURSDAY, OCTOBER 18, 1973

Reservoirs Save Area Flooding After Week Of Torrential Rains

Truck Crashes Railing At Glen Elder Dam

Moisture Stops Planting Over Wide Section of U.S.

SEPT. 8TH, 9TH

Lake Waconda to Host State Fishing Derby

Set Aside Acre Total Expected To Drop Sharply

Watershed Dam Slows Runoff Water Flow

Monday, September 24, 1973, McCook Daily Gazette

No Changes Proposed Now For Reservoir at Alma

Friday, March 9, 1973, McCook Daily Gazette

New State Map Promotes SW Nebraska

McCOOK, NEBRASKA 69001, TUESDAY, SEPTEMBER 11, 1973

2.76-Inch Rain Falls In Palisade

CHAPTER I - INTRODUCTION

PURPOSE OF THIS REPORT

In addition to describing the operational responsibilities of the Bureau of Reclamation, Corps of Engineers, and irrigation or reclamation districts in the three basins, this Annual Operating Plan advises water users, cooperating agencies, and other interested groups or persons of the actual operations during 1973 and serves as guidelines for the 1974 operations.

OPERATIONAL RESPONSIBILITIES

The Bureau of Reclamation is responsible for irrigation operations at all Federal reservoirs in the Kansas River Projects area. Where the Bureau of Reclamation is the constructing agency, it is responsible for the employment of operation and maintenance personnel, safety of the structure, and reservoir operations for all other conservation functions, such as recreation, fish and wildlife, municipal and industrial uses, sanitation and water quality control not specifically associated with regulation of the flood control storage.

The Corps of Engineers is responsible for regulation of the flood control storage at all Federal reservoirs in the Kansas River Basin, and for conservation functions other than irrigation at the dams where it is the construction agency.

By contractual arrangements with the Bureau of Reclamation, 12 irrigation or reclamation districts are responsible for the operation of irrigation facilities constructed or rehabilitated by the Bureau of Reclamation in the Niobrara, Lower Platte, and Kansas River Basins with the exceptions of the reservoirs in the Kansas River Basin.

The States of Nebraska, Colorado, and Kansas are responsible for administration and enforcement of the laws of their respective States pertaining to the water rights and priorities of all parties concerned with the use of water.

The Republican River Compact was authorized on August 4, 1942, by Public Law No. 696, which was enacted by the 77th Congress. The Compact was ratified by the States of Colorado, Kansas, and Nebraska. This Annual Operating Plan is in accordance with the objectives of the Compact, which are: ". . to provide for the most efficient use of the waters of the Republican River Basin for multiple-purposes; to provide for an equitable division of such waters; to remove all causes, present and future, which

might lead to controversies; to promote interstate comity; to recognize that the most efficient utilization of the waters within the Basin is for beneficial consumptive use, and to promote joint action by the States and the United States in the efficient use of water and the control of destructive floods."

TABLES AND EXHIBITS

Principal records for the facilities reported herein are attached as tables and exhibits.

WATER SUPPLY

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

RESERVOIR OPERATIONS

All operations are scheduled for optimum benefits to project functions. At the end of the irrigation season, the carryover storage in each reservoir and the reasonable minimum inflow are evaluated to determine if water in excess of that required to fill the conservation pool may be anticipated. If excess inflow is apparent, controlled releases will be made to accomplish maximum downstream benefits. However, this plan is not used for Bonny Reservoir as winter releases from this reservoir are undesirable.

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 in the scope of this report are a part of the Pick-Sloan Missouri Basin Program and include multipurpose reservoirs, diversion dams, pump stations, and canal systems. Fifteen storage facilities are now in operation as follows:

Constructed by the Bureau of Reclamation:

(a) Operated by irrigation or reclamation districts--Box Butte and Merritt Dams in the Niobrara River Basin and Sherman Dam in the Lower Platte River Basin.

(b) Operated by the Bureau of Reclamation--Bonny, Trenton, Enders, Red Willow, Medicine Creek, Norton, Lovewell, Kirwin, Webster, Glen Elder, and Cedar Bluff Dams in the Kansas River Basin.

Constructed and operated by the Corps of Engineers:

(a) Harlan County Dam in the Kansas River Basin.

IRRIGATION DISTRICTS

Thirteen irrigation districts and one reclamation district in the Niobrara, Lower Platte, and Kansas River Basins have contracted with the Bureau of Reclamation for water supply and irrigation facilities.

The normal irrigation season for Mirage Flats Irrigation District is April through September. The contracted irrigation season for Frenchman Valley, H & RW, Frenchman-Cambridge, and Cedar Bluff Irrigation Districts is from May 1 to October 15, and for all other districts, May 1 to September 30.

MUNICIPAL AND INDUSTRIAL WATER

Three municipalities and two oil companies have executed water service contracts for full or supplemental water supplies.

FISH HATCHERY

A United States Bureau of Sport Fisheries and Wildlife warm-water fish hatchery is in operation below Cedar Bluff Reservoir.

ENVIRONMENTAL CONSIDERATIONS

A "Statement of Operational Objectives" for Harlan County Reservoir sets forth the general operational objectives and the specific reservoir uses considered desirable, such as that fish and wildlife interests will be best served by high pool levels with minimum fluctuations and regulation of outflow in excess of minimum requirements insofar as feasible. The statement recognizes that to assure realization of the greatest public benefits, operation plans should be sufficiently comprehensive to permit the maximum integration of the secondary uses consistent with the primary purposes of flood control and irrigation.

Insofar as practicable, the above mentioned objectives are considered in the operation of all reservoirs in the Kansas River Basin, Merritt Reservoir in the Niobrara River Basin, and Sherman Reservoir in the Lower Platte River Basin. The regulated outflow will also be of advantage to farmers, ranchers, industries, cities, and other interests below all reservoirs.

CHAPTER II - NIOBRARA AND LOWER PLATTE RIVER BASINS

MIRAGE FLATS PROJECT IN NEBRASKA

GENERAL

Niobrara River flows and Box Butte Reservoir storage provide a water supply which is normally insufficient to achieve maximum yields from the 11,662-acre Mirage Flats Irrigation District. About 90 percent of the acreage in this district has been irrigated each year for the past 25 years. The project water supply will yield an average diversion of one and a half acre-feet per acre which is about one acre-foot per acre short of the long-term average for a full water supply. Several of the landowners in the district have drilled irrigation wells as a source of a supplemental supply. The farmers that own wells share the well water with their neighbors, but the wells are too few in number to fully supplement the project water supply.

The Mirage Flats Irrigation District cooperates with the Nebraska Game and Parks Commission by operating the Box Butte Dam outlet works gates and the Dunlap Diversion Dam gates in a manner that avoids large sudden changes in the flows of the Niobrara River.

1973 SUMMARY

The Niobrara River flows and the carryover storage in Box Butte Reservoir were insufficient for a full water supply for the Mirage Flats Irrigation District lands and the active storage was evacuated by August 29th. This is the fourth consecutive year that all of the available active storage was used. The total precipitation in the Mirage Flats area was 18.72 inches, which is 123 percent of normal.

There were 10,852 acres irrigated, which is 93 percent of the acres with service available. The farm deliveries from the project water supply were 0.91 acre-foot per acre. The gross crop value was $1,824,867 which is more than double the 1972 value. Water from privately owned irrigation wells was used as a supplemental supply. No information is available on the amount of well water pumped to project land.

1974 OUTLOOK

The water level in the reservoir on January 1, 1974, was about two feet higher than it was on that day one year previously. The Mirage Flats Irrigation District will announce to their water users in the spring the

amount of water that will be available from Box Butte storage. The project water supply is expected to be inadequate in 1974 as it has been in past years. The district plans, however, for the irrigators to continue the use of water from privately owned irrigation wells as a supplemental supply. There are 11,000 acres expected to be irrigated in 1974.

AINSWORTH UNIT, SANDHILLS DIVISION IN NEBRASKA

GENERAL

The water supply for 33,960 acres in the Ainsworth Irrigation District is provided by Merritt Reservoir storage and Snake River flows. To avoid ice damage to the upstream face of Merritt Dam during the winter months, releases from Merritt Reservoir are regulated to maintain a water level about 5 feet below the top of the conservation capacity. When the reservoir surface clears of ice each spring, the conservation capacity is slowly filled. This operation greatly enhances the spring spawning of fish.

The Ainsworth Irrigation District cooperates with the Nebraska Game and Parks Commission by avoiding sudden large changes in reservoir releases. Small releases are also regulated as necessary to maintain a minimum flow of 15 c.f.s. in the Snake River below Merritt Dam.

1973 SUMMARY

The total precipitation of 21.09 inches for the year in the Merritt Dam vicinity was 120 percent of normal. The water supply was more than adequate to meet the irrigation requirements of 68,222 acre-feet to serve the 30,200 acres of irrigated land. The gross crop value was $6,511,561, which is over two million dollars greater than the previous year.

1974 OUTLOOK

Releases from Merritt Reservoir will be regulated to slowly fill the conservation capacity by mid-May. The water supply is expected to be adequate for the irrigation of an estimated 32,500 acres.

SARGENT UNIT, MIDDLE LOUP DIVISION IN NEBRASKA

GENERAL

The Sargent Irrigation District has contracted with the Loup Basin Reclamation District for the operation of the Milburn Diversion Dam and Sargent Canal system serving 13,650 acres in this unit. The water supply is diverted from the Middle Loup River into the Sargent Canal under an appro-

priated natural flow right from the State of Nebraska. These diversions may exceed the natural flow appropriation of 195 c.f.s. by an exchange of storage from Sherman Reservoir, provided that water is available after all senior appropriations are satisfied and the excess is not greater than the storage releases from Sherman Reservoir.

1973 SUMMARY

The annual precipitation over the Sargent Unit was slightly above normal. The diversions into Sargent Canal of 22,887 acre-feet were between dry and normal year forecasts, of which 1,700 acre-feet were in excess of the Sargent Irrigation District's natural flow appropriation. The diversions exceeded the appropriated right for 16 days during 1973. There were 12,763 acres irrigated with a gross crop value of $2,542,816, which is about $1,100,000 greater than in 1972.

1974 OUTLOOK

The Loup Basin Reclamation District estimates that 12,000 acres in the Sargent Unit will be irrigated in 1974. The water supply is expected to be adequate.

FARWELL UNIT, MIDDLE LOUP DIVISION IN NEBRASKA

GENERAL

The Loup Basin Reclamation District operates the Arcadia Diversion Dam, Sherman Feeder Canal, Sherman Dam and Reservoir, and the Farwell Canal system serving 48,250 acres of Farwell Irrigation District land. Diversions are also made through the Arcadia Diversion Dam to 13,000 acres of non-project lands in the Middle Loup Public Power and Irrigation District under appropriated natural-flow water rights.

During the winter months, the pool level of Sherman Reservoir is normally regulated to 5 feet below the top of the conservation capacity to avoid ice damage to the upstream face of Sherman Dam. This low pool level also minimizes seepage from the reservoir into the ground-water table. Each spring, diversions into Sherman Feeder Canal from the Middle Loup River are regulated to fill the conservation capacity of Sherman Reservoir by mid-June. The gradual rising water surface in the spring is ideal for fish spawning.

Whenever the flows in the Middle Loup River at Arcadia, Nebraska, exceed 6,000 c.f.s., and safe capacity flows are diverted into Sherman Feeder Canal to Sherman Reservoir, flood control benefits can be accrued by such operations.

1973 SUMMARY

The diversions from the Middle Loup River at Arcadia Diversion Dam were 23,709 acre-feet to Middle Loup Public Power and Irrigation District and 112,070 acre-feet into Sherman Feeder Canal.

Sherman Feeder Canal diversions into Sherman Reservoir were started on April 17, and the conservation capacity was filled on May 27, 1973. The precipitation at Sherman Dam was 28.24 inches, which is 136 percent of normal. The releases of 87,718 acre-feet into the Farwell Canal were 106 percent of normal. The Loup Basin Reclamation District reports that 38,785 acres of Farwell Irrigation District lands were irrigated in 1973. The gross crop value of $8,642,575 was 56 percent greater than in 1972.

1974 OUTLOOK

Diversions from the Middle Loup River into Sherman Feeder Canal for the normal spring filling of the conservation capacity of Sherman Reservoir are expected to start in April.

The water supply under most probable inflow conditions is expected to be adequate for the 45,000 acres that are planned to be irrigated in 1974.

CHAPTER III - REPUBLICAN RIVER BASIN

ARMEL UNIT, UPPER REPUBLICAN DIVISION IN COLORADO

GENERAL

Bonny Reservoir storage is transferred to Swanson Lake as required where releases into the Republican River are regulated to meet the industrial needs of the Midwest Oil Corporation and LVO Company for their waterflood operations in the Sleepy Hollow Oil Field, south of Bartley, Nebraska.

Bonny Reservoir inflows from the South Fork of the Republican River and Landsman Creek are released into Hale Ditch, as requested by the State Engineer of Colorado. Bonny storage water is available to Hale Ditch and other natural flow appropriators under temporary contracts. Much of the land served by Hale Ditch is now owned and operated by the Colorado Division of Wildlife.

To avoid the possibility of ice damage to the exposed Hale Ditch outlet pipe, the reservoir was operated so that winter releases were not required. Modifications are being made so that Bonny Dam and Reservoir will be operable at any time of year and regulatory releases will be made when needed in the future. This change in the operating plan will provide more water surface area and result in increased benefits for water sports and fish and wildlife programs. The operation pattern with a slowly rising or stable pool enhances fish spawning in the spring and affords excellent hunting conditions each fall.

1973 SUMMARY

The precipitation was 151 percent of normal while the inflow to Bonny Reservoir was only slightly above normal. The water supply was adequate to furnish 371 acre-feet to Midwest Oil Corporation and 12 acre-feet to LVO Company.

There were 383 acre-feet delivered under temporary contract sales of storage water for industrial or irrigation purposes during 1973. As directed by the Colorado Water Commissioner, 1,712 acre-feet of reservoir inflows from the South Fork of the Republican River and Landsman Creek were passed through Bonny Reservoir into Hale Ditch.

1974 OUTLOOK

The Midwest Oil Corporation and the LVO Company will have an adequate water supply in 1974. Bonny storage will also be available for sale to Hale Ditch and other private irrigators under temporary contracts.

The prospects are excellent for hunting, fishing, and recreation uses.

A meter and gate will be installed in the Hale Ditch outlet pipe adjacent to the outlet works in the spring of 1974.

FRENCHMAN UNIT, FRENCHMAN-CAMBRIDGE DIVISION IN NEBRASKA

GENERAL

The transportation of water from Enders Reservoir through 52 miles of Frenchman Creek channel to the Culbertson Diversion Dam created an erosion problem that made it necessary to initiate a control and stabilization program in 1964, which is expected to continue until 1978. The program has restored private access, protected private and public improvements, stabilized various reaches of channel banks, and reduced sediment from the flow in the Culbertson Canal and the stream at the Culbertson Diversion Dam.

The Culbertson Canal and the Culbertson Extension Canal systems serve 9,600 acres in the Frenchman Valley Irrigation District and 11,500 acres in the H & RW Irrigation District. The water supply for these lands is furnished by flows from Frenchman River and Stinking Water Creek and off-season storage in Enders Reservoir.

The normal operation of Enders Reservoir, with the gradual rise in water surface during the spring months, provides desirable fish spawning conditions. Large irrigation releases substantially lower the pool level by late summer, thereby limiting the fishing and recreational usage.

1973 SUMMARY

The annual precipitation at Enders Dam was 138 percent of normal, while the annual inflow into Enders Reservoir was below the dry-year forecast. This is the sixth consecutive year with much below-normal inflows. The conservation pool was not filled during 1973. The active conservation storage capacity was evacuated by the 29th of August.

The farm delivery averaged about 18 inches per acre for the two districts. The row crops were furnished an adequate supply but some shortages were reported for alfalfa. A few farmers were able to supplement their project water supply from private irrigation wells. The Frenchman Valley Irrigation District reports that 8,350 acres received water in 1973, and H & RW reports 10,663 acres, which are 87 and 93 percent, respectively, of the lands with service available. The gross crop value for Frenchman Valley Irrigation District was $2,166,107, and for H & RW, $2,882,763, which are substantial increases over the previous year.

1974 OUTLOOK

The fall and early winter inflows into Enders Reservoir were about midway between normal and dry-year forecasts. If dry-year conditions prevail, the project water supply is expected to be inadequate to irrigate 9,200 acres in Frenchman Valley Irrigation District and 11,200 acres in H & RW Irrigation District. As much as 2,500 acre-feet are expected to be conserved by pumping seepage into the Enders Reservoir.

The control and stabilization program of the Frenchman River channel will be continued in 1974. The State of Nebraska is relocating U.S. Highway 6 in the Frenchman valley involving several channel changes. It is unknown at this time how these changes will affect the stabilization program.

MEEKER-DRIFTWOOD, RED WILLOW, AND CAMBRIDGE UNITS, FRENCHMAN-CAMBRIDGE DIVISION IN NEBRASKA

GENERAL

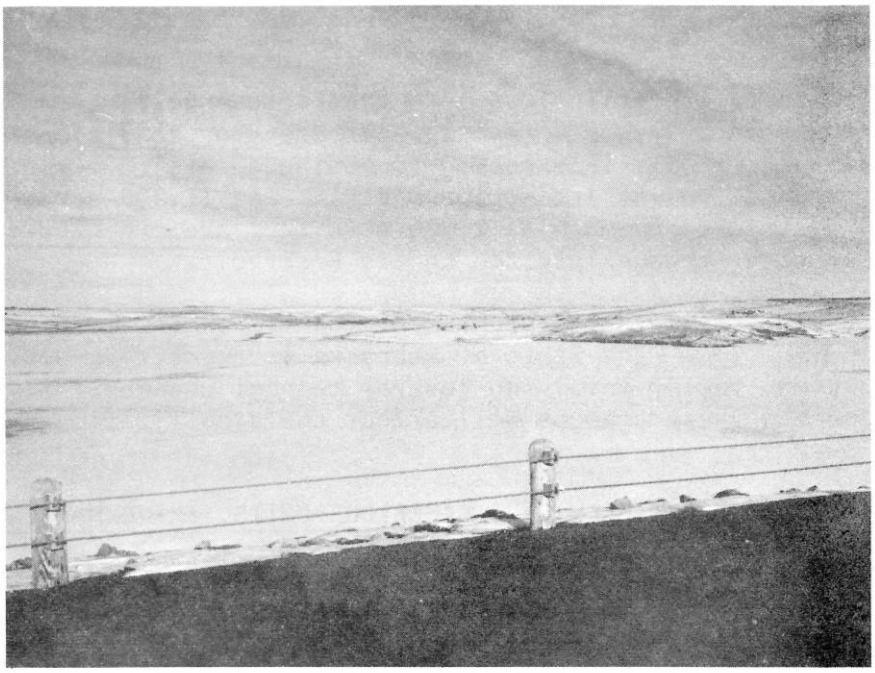
The normal operation of Trenton Dam and Swanson Lake, Red Willow Dam and Hugh Butler Lake, and Medicine Creek Dam and Harry Strunk Lake during the spring months, with a slowly rising or stable pool level, enhances optimum spawning of northern and walleye pike. These lakes provide excellent opportunities for fishing, water sports, and recreation. The seepage below Red Willow and Medicine Creek Dams provides excellent fishing.

Service is provided by Meeker-Driftwood Canal to 16,476 acres; Red Willow Canal to 4,932 acres; Bartley Canal to 6,539 acres; and Cambridge Canal to 17,053 acres. The water supply for these lands is provided by storage in Swanson, Hugh Butler, and Harry Strunk Lakes, and flows of the Republican River and Red Willow and Medicine Creeks.

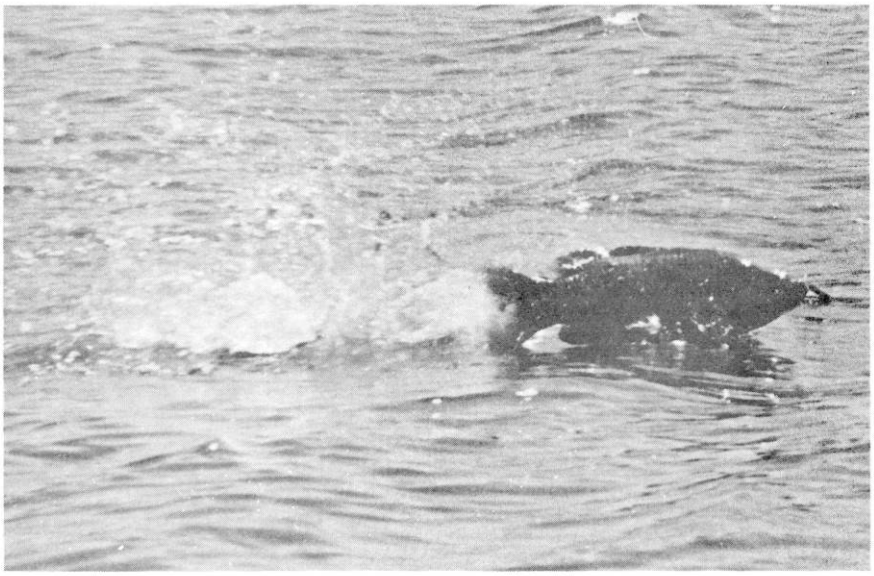
1973 SUMMARY

The precipitation at Trenton Dam was 140 percent of normal and the inflow to Swanson Lake was slightly above the normal year forecasts. The conservation capacity was full at the beginning of the irrigation season in 1973. This storage and the 1973 inflows furnished full water supplies to project lands served by the Meeker-Driftwood and Bartley Canal systems. The Frenchman-Cambridge Irrigation District diverted 37,385 acre-feet into Meeker-Driftwood Canal to irrigate 14,956 acres, and 12,828 acre-feet into Bartley Canal for 5,911 acres.

The precipitation at Red Willow Dam was 133 percent of normal while the inflow into Hugh Butler Lake was about equal to wet-year forecasts. The water supply was more than adequate for Red Willow Canal diversions. The district diverted 10,683 acre-feet for the irrigation of 4,538 acres



Winter scenes of snow covered ice and hills were commonplace in the Hugh Butler Lake area in December of 1973.



Those frisky Hugh Butler fish teased the anglers in 1973.

served by Red Willow Canal. There were an estimated 500 acre-feet of Red Willow Creek flows used downstream from Red Willow Dam for irrigation of non-project lands under senior water rights.

The annual precipitation was 142 percent of normal at Medicine Creek Dam while the inflow was slightly below the normal-year forecast. The water supply was adequate for the diversion of 32,371 acre-feet for 16,013 acres served by the Cambridge Canal.

The 1973 gross crop value from the lands served by Meeker-Driftwood, Bartley, Red Willow, and Cambridge Canals was $11,778,196, as compared to $7,375,789 in 1972.

There were 279 acre-feet of storage from Hugh Butler and Harry Strunk Lakes sold under temporary contracts to private irrigators in Red Willow and Medicine Creek valleys.

1974 OUTLOOK

The carryover storage and 1974 flows are forecasted to furnish an adequate water supply to irrigate 42,000 acres in the Frenchman-Cambridge Irrigation District. It is estimated that 15,500 acres will be served from the Meeker-Driftwood Canal, 16,000 acres from the Cambridge Canal, 4,500 acres from Red Willow Canal, and 6,000 acres from Bartley Canal.

ALMENA UNIT, KANASKA DIVISION IN KANSAS

GENERAL

There are 5,350 acres with service available in the Almena Irrigation District. The project water supply is provided by Prairie Dog Creek flows and Norton Reservoir storage.

The water service contract for the city of Norton, Kansas, provides for a maximum annual use of 1,600 acre-feet from Norton Reservoir.

1973 SUMMARY

The annual precipitation at Norton Dam was 154 percent of normal. The total 1973 inflow of 7,394 acre-feet was only slightly above the dry-year forecast.

Of the 1.56 acre-feet per acre of farm delivery to 5,118 acres of Almena Irrigation District land, 0.70 acre-feet per acre was provided from project water supply and the balance from private irrigation wells.

Irrigation releases were started on June 26, and the active storage capacity was evacuated by August 12th. Reduced releases from the inactive storage capacity were continued until August 19th. Storage water was available for the city of Norton, throughout the year.

The irrigation district officials were advised early in the spring that carryover storage in Norton Reservoir with dry-year inflows from Prairie Dog Creek would be inadequate and furnish only an estimated farm delivery of 9 inches of water per acre. For the third consecutive year, the district used water from privately owned irrigation wells to supplement the project water supply.

There were 7,170 acre-feet released from Norton Reservoir, of which the Almena Irrigation District diverted 6,549 acre-feet from Prairie Dog Creek. The water users pumped 4,450 acre-feet as a supplemental supply from irrigation wells. This well water combined with available project water provided a full irrigation supply. The average crop yields were the highest of the 13 districts discussed in this report. The 5,118 acres that were irrigated in 1973 produced a gross crop value of $1,723,329 ($336.72 per acre).

The city of Norton used 545 acre-feet of municipal water during 1973.

The low water level in Norton Reservoir affected the visitations by a reduction of twelve percent over the previous year.

1974 OUTLOOK

The Almena Irrigation District expects to deliver water to 5,350 acres if an adequate water supply is available. If 1974 is a dry year without significant run-off producing storms above Norton Reservoir, about 1,700 acre-feet of active storage are expected to be available for irrigation uses and the district will use water from privately owned irrigation wells as in past years. If normal inflow into the reservoir and normal rainfall over the irrigated area occurs in 1974, a full water supply can be furnished the irrigation district lands from Norton storage and Prairie Dog Creek flows.

The city of Norton requirements are expected to be met in full in 1974.

FRANKLIN, SUPERIOR-COURTLAND, AND COURTLAND UNITS, BOSTWICK DIVISION IN NEBRASKA AND KANSAS

GENERAL

Harlan County Reservoir storage and Republican River Basin flows provide a project water supply for 22,787 acres in the Bostwick Irrigation District in Nebraska, and 12,771 acres in the Kansas-Bostwick Irrigation District

above Lovewell Reservoir and, together with White Rock Creek flows and Lovewell Reservoir storage, furnish a water supply for 27,321 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 are in the Kansas-Bostwick Irrigation District.

It is desirable for water quality purposes to maintain minimum daily flows of 40 cubic feet per second in the Republican River below Superior, Nebraska. During normal years when the Superior Canal and Courtland Canal (in Nebraska) are in operation, the return flows of seepage and surface irrigation runoff along with the natural flow pickup in the Republican River below the Superior-Courtland Diversion Dam will meet this minimum flow requirement. In the interest of water conservation, during dry years when forecasted operation studies indicate that reasonable minimum inflows will not fill Harlan County Reservoir before the start of the next irrigation season, available flows in the fall and spring of the year in the Republican River below Harlan County Dam, with minimum release of 10 cfs from the reservoir, are diverted into Courtland Canal to transport water into the conservation capacity of Lovewell Reservoir. During these periods when flows of the Republican River are diverted into the Courtland Canal for extended periods with no irrigation deliveries, and in combination with below normal precipitation, the flows in the Republican River downstream from Superior may be as low as 20 cfs.

In cooperation with the Kansas Forestry, Fish and Game Commission, the Kansas-Bostwick Irrigation District and the Bureau of Reclamation maintain a minimum flow of 20 cfs into Lovewell Reservoir when Courtland Canal above Lovewell Reservoir is in operation and the conservation pool is below capacity. This minimum inflow provides excellent fishing around the Courtland Canal inlet into Lovewell Reservoir. The seepage below Lovewell Dam into White Rock Creek maintains a small live stream throughout the year.

1973 SUMMARY - BOSTWICK DIVISION
HARLAN COUNTY OPERATIONS

The precipitation at Harlan County Dam was 163 percent of normal, while the annual inflow was between the dry and normal year forecasts. The operation of Harlan County Dam during 1973 prevented flood damages in the amount of $1,309,000. The conservation capacity of Harlan County Reservoir was full at the beginning of the 1973 irrigation season. The 29,751 irrigated acres in the Bostwick Division in Nebraska and Kansas above Lovewell Dam were furnished a full water supply. Also 26,935 acre-feet were delivered to Lovewell Reservoir through Courtland Canal.

During the irrigation season, the mean daily flows in the Republican River below Superior, Nebraska, were considerably more than the desired minimum of 40 cfs.

1973 SUMMARY - BOSTWICK DIVISION - NEBRASKA

The diversions into Franklin and Superior Canals were above normal, while diversions into Naponee and Franklin Pump Canals and Courtland Canal (Nebraska) were below normal. The Bostwick Irrigation District in Nebraska diverted 53,569 acre-feet for the irrigation of 20,029 acres. The gross crop value was $4,983,250, which reflects a substantial increase over 1972.

1973 SUMMARY - BOSTWICK DIVISION - KANSAS

The annual precipitation at Lovewell Dam was 182 percent of normal. The annual inflow from White Rock Creek was about two and a half times the wet-year forecasts. The major storm period was from early September to mid-October and the precipitation was 456 and 450 percent, respectively, of normal for these months. Three major floods occurred above Lovewell Dam and the water level in the reservoir crested on October 13, only three inches below the top of the flood control pool. These floods were controlled and prevented flood damages of $1,728,000. The accumulated flood control benefits during the sixteen years that Lovewell Dam has been operated is $2,434,000.

The Kansas-Bostwick Irrigation District diverted a total of 50,635 acre-feet to serve 9,722 acres above Lovewell Dam and 20,806 acres below Lovewell. The gross crop value was $7,006,234, which is a 137 percent increase over the previous year. Certain farmers in the Kansas-Bostwick Irrigation District are cooperating with the Bureau of Reclamation in an Irrigation Management Scheduling Research Program. Indications are that this program may result in a substantial water saving as well as tending to control ground water levels.

1974 OUTLOOK - BOSTWICK DIVISION

The Bostwick Irrigation District in Nebraska expects to deliver water to 22,787 acres and the Kansas-Bostwick Irrigation District to 30,500 acres. The storage in Harlan County and Lovewell Reservoirs and the flows of the Republican River and White Rock Creek are forecasted to furnish an adequate water supply for the Bostwick lands.

Lovewell Reservoir reached a record "high" in 1973 as recreation areas were partially inundated. Cabin owners breathed a sigh of relief when the lake crested near the top of the flood control pool on October 13.

On October 11, 1973, the water surface approached the top of the Lovewell Dam spillway gates.

Fishing was good in the Lovewell Dam spillway stilling basin when flood storage releases were made late in the fall.

Major flooding on October 11, 1973, in the White Rock Creek valley upstream from Lovewell Reservoir.

CHAPTER IV - SMOKY HILL RIVER BASIN

KIRWIN UNIT, SOLOMON DIVISION IN KANSAS

GENERAL

The water supply for the 11,435 acres of land in the Kirwin Irrigation District is furnished by storage from Kirwin Reservoir and inflows from the North Fork of the Solomon River.

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

1973 SUMMARY

The precipitation was 160 percent of normal while the inflow was less than the normal-year forecast. The lowest water surface elevation of 1710.84, on September 2, 1973, set a record-low pool level since the initial filling of the conservation capacity in 1960. The water supply was adequate to fully meet the irrigation requirements. The operation of Kirwin Dam and Reservoir prevented $40,000 flood damages.

The Kirwin Irrigation District diverted 18,555 acre-feet for irrigation of 9,088 acres. The gross crop value from these acres was $2,248,667, which is about $900,000 greater than in 1972.

The water surface area at the end of August was only 2,252 acres, which is less than one-half of the area for a full conservation pool. The visitations of about 106,000 is less than half of those recorded in 1972.

1974 OUTLOOK

The Kirwin Irrigation District estimates that 9,500 acres will be irrigated in 1974. The carryover storage in Kirwin Reservoir and the forecasted inflows from the North Fork of the Solomon River are expected to be adequate to irrigate these lands.

WEBSTER UNIT, SOLOMON DIVISION IN KANSAS

GENERAL

The Webster Irrigation District has service available to 8,500 acres. The project water supply is provided by Webster Reservoir storage and flows of the South Fork of the Solomon River.

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.

1973 SUMMARY

The precipitation at Glen Elder Dam was 156 percent of normal and the inflow approached that expected in wet-year forecasts.

The conservation pool in Waconda Lake filled May 16 for the first time since initial storage started in January 1969. Major storms occurred in late September and in October. The record-high water level, 9½ feet above top of conservation capacity, was reached October 20th. Controlled releases were made as the Solomon River stage receded and by late November, the flood storage was evacuated and normal conservation operations were resumed. This operation prevented flood damages amounting to $3,797,000. The accumulated flood benefits since initial operation in 1969 are $4,692,000.

There were 589 acre-feet released for the benefit of Beloit, Kansas. Also, about 3,539 acre-feet were released to provide water quality control in the Solomon River.

1974 OUTLOOK

The municipal requirements of Beloit will be met in full with releases as required from Waconda Lake. Releases will also be regulated to maintain water quality control in the Solomon River at Beloit. The Water Commissioner of the State of Kansas may also request that inflows be passed through the lake for water right administration.

CEDAR BLUFF UNIT, SMOKY HILL DIVISION IN KANSAS

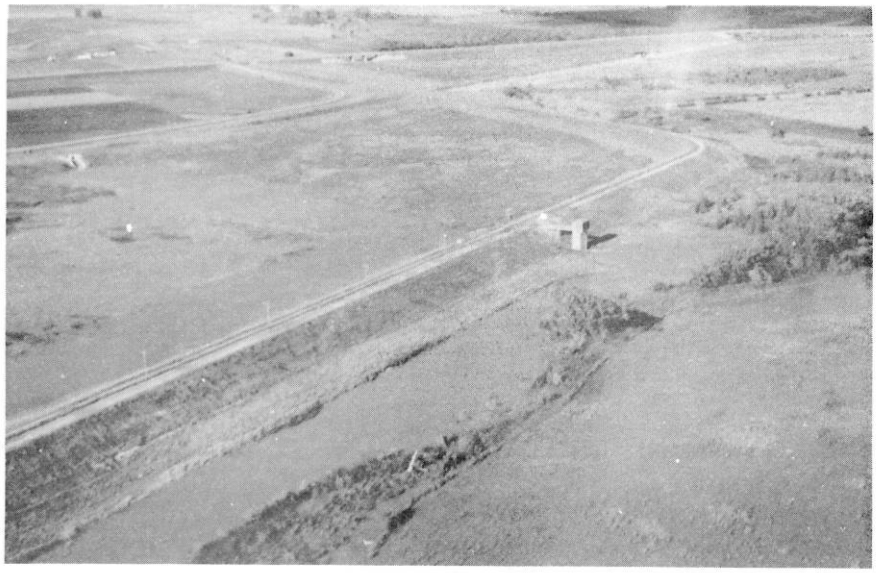
GENERAL

Cedar Bluff Reservoir storage and Smoky Hill River flows provide a full water supply for the 6,800 acres in the Cedar Bluff Irrigation District, and up to 4,000 acre-feet for the Cedar Bluff National Fish Hatchery. Cedar Bluff storage also furnishes a maximum of 2,000 acre-feet per annum if required for the city of Russell, Kansas.

The return flows from the Cedar Bluff National Fish Hatchery and seepage from Cedar Bluff Reservoir maintain fisheries and enhance fishing in the Smoky Hill River below Cedar Bluff Dam.

Cawker City Dike

The water surface of Waconda Lake reached the Downs and Cawker City Dikes for the first time in 1973.



Downs Dike

1973 SUMMARY

The precipitation was 145 percent of normal. The inflow was between the normal year and the wet-year forecast. The control of these inflows prevented $536,000 in flood damages. The water supplies for the Cedar Bluff Irrigation District and the Cedar Bluff National Fish Hatchery were furnished in full. No releases were required for the city of Russell.

The Cedar Bluff Irrigation District diverted 13,191 acre-feet to irrigate 6,144 acres of project lands. The gross crop value of $1,318,497 was an increase of $400,000 over the previous year.

The Cedar Bluff National Fish Hatchery diverted 1,858 acre-feet. Of this, 919 acre-feet were passed through the hatchery facilities and returned to the Smoky Hill River below Cedar Bluff Dam.

1974 OUTLOOK

The carryover storage in Cedar Bluff Reservoir and the inflows from the Smoky Hill River are expected to fully meet the requirements of the Cedar Bluff National Fish Hatchery, the City of Russell, and the irrigation of 6,200 acres of project lands.

TABLES

AND

EXHIBITS

TABLE 1

RESERVOIR DATA - NIOBRARA, LOWER PLATTE AND KANSAS RIVER BASINS

RESERVOIR		CAPACITY ALLOCATIONS 1/ DEAD	LIVE CONSERVATION Inactive	LIVE CONSERVATION Active	FLOOD CONTROL
Box Butte	- Elevation Ft.	3969.0	3976.5	4007.0	---
	Total Acre-feet	640	2,275	31,060	---
	Net Acre-feet	640	1,635	28,785	---
Merritt	- Elevation Ft.	2875.0	2896.0	2946.0	---
	Total Acre-feet	1,614	6,800	74,486	---
	Net Acre-feet	1,614	5,186	67,686	---
Sherman	- Elevation Ft.	2118.5	2129.0	2162.3	---
	Total Acre-feet	3,839	10,496	69,076	---
	Net Acre-feet	3,839	6,657	58,580	---
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
Swanson	- Elevation Ft.	2710.0	2720.0	2752.0	2773.0
	Total Acre-feet	4,101	15,510	120,160	253,950
	Net Acre-feet	4,101	11,409	104,650	133,790
Enders	- Elevation Ft.	3080.0	3082.4	3112.3	3127.0
	Total Acre-feet	8,467	9,968	44,480	74,520
	Net Acre-feet	8,467	1,501	34,512	30,040
Hugh Butler Lake	- Elevation Ft.	2552.0	2558.0	2581.8	2604.9
	Total Acre-feet	6,313	10,450	37,776	86,630
	Net Acre-feet	6,313	4,137	27,326	48,854
Harry Strunk Lake	- Elevation Ft.	2335.0	2343.0	2366.1	2386.2
	Total Acre-feet	4,911	9,548	37,141	89,313
	Net Acre-feet	4,911	4,637	27,593	52,172
Norton	- Elevation Ft.	2275.0	2280.4	2304.3	2331.4
	Total Acre-feet	2,718	5,284	35,935	134,740
	Net Acre-feet	2,718	2,566	30,651	98,805
Harlan County	- Elevation Ft.	1885.0	1927.0	1946.0	1973.5
	Total Acre-feet	929	144,761	342,560	840,561
	Net Acre-feet	929	143,832	197,799	498,001
Lovewell	- Elevation Ft.	1562.0	1571.7	1582.6	1595.3
	Total Acre-feet	5,054	16,760	41,690	92,150
	Net Acre-feet	5,054	11,706	24,930	50,460
Kirwin	- Elevation Ft.	1693.0	1697.0	1729.25	1757.3
	Total Acre-feet	6,385	9,785	99,435	314,550
	Net Acre-feet	6,385	3,400	89,650	215,115
Webster	- Elevation Ft.	1855.5	1860.0	1892.45	1923.7
	Total Acre-feet	2,184	5,300	77,370	260,740
	Net Acre-feet	2,184	3,116	72,070	183,370
Waconda Lake	- Elevation Ft.	1407.8	1428.0	1455.6	1488.3
	Total Acre-feet	1,236	36,671	241,460	963,775
	Net Acre-feet	1,236	35,435	204,789	722,315
Cedar Bluff	- Elevation Ft.	2090.0	2107.8	2144.0	2166.0
	Total Acre-feet	8,261	35,320	185,090	376,950
	Net Acre-feet	8,261	27,059	149,770	191,860
Total Storage (A.F.)		58,070	321,062	1,479,063	3,658,039
Total Net Acre-feet		58,070	262,992	1,158,001	2,353,598

1/ Includes space for sediment storage.

TABLE 2
SUMMARY OF 1973 OPERATIONS

MIRAGE FLATS PROJECT

BOX BUTTE RESERVOIR

MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	MIRAGE FLATS CANAL Diversions To Canal (AF)	MIRAGE FLATS CANAL Delivered To Farms (AF)
Jan.	1,679	49	48	.17	3,762	0	0
Feb.	2,117	46	54	.16	11,780	0	0
Mar.	2,651	59	109	1.67	14,266	0	0
Apr.	2,104	50	241	3.57	16,070	0	0
May	1,523	67	492	1.29	17,033	0	0
June	2,606	1,113	668	1.02	17,917	964	195
July	1,188	8,335	592	3.95	9,407	8,378	3,844
Aug.	2,281	9,183	300	.21	1,819	10,078	5,464
Sep.	2,408	806	74	5.22	3,367	839	412
Oct.	2,211	36	140	.19	5,759	0	0
Nov.	2,689	52	102	.64	8,286	0	0
Dec.	1,850	55	100	.63	9,976	0	0
TOTAL	25,307	19,851	2,520	18.72	---	20,259	9,915
NORMAL	22,100	25,300	4,000	15.27	31,060 1/	26,500	---

1/ Conservation Pool Capacity.

NOTE.--MIRAGE FLATS IRRIGATION DISTRICT
Mirage Flats Canal:
Acres with service available -- 11,662
Acres irrigated 1973 -- 10,852

SANDHILLS DIVISION
AINSWORTH UNIT

MERRITT RESERVOIR

MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	AINSWORTH CANAL Diversions To Canal (AF)	AINSWORTH CANAL Delivered To Farms (AF)
Jan.	1,499	14,874	126	.48	60,901	0	0
Feb.	13,026	13,632	129	.11	60,166	0	0
Mar.	18,816	6,790	285	2.98	71,907	0	0
Apr.	14,849	11,278	790	1.86	74,781	0	0
May	16,347	14,732	1,026	4.70	75,370	2,730	286
June	13,584	13,029	1,439	1.79	74,486	5,290	1,692
July	22,663	40,034	1,343	.67	55,772	30,256	24,396
Aug.	14,237	28,116	1,145	.43	40,749	26,824	21,512
Sep.	17,194	11,890	487	5.45	45,615	3,122	1,350
Oct.	17,272	6,619	433	1.57	55,772	0	0
Nov.	13,488	10,052	317	.49	60,660	0	0
Dec.	14,457	14,008	200	.56	60,909	0	0
TOTAL	177,432	185,054	7,720	21.09	---	68,222	49,236
NORMAL	190,600	179,400	11,200	17.52	74,486 2/	89,600	---

2/ Conservation Pool Capacity.

NOTE.--AINSWORTH IRRIGATION DISTRICT
Ainsworth Canal:
Acres with service available -- 33,960
Acres irrigated 1973 -- 30,200

MIDDLE LOUP DIVISION

MONTH	SARGENT UNIT SARGENT CANAL Diversions To Canal (AF)	SARGENT UNIT SARGENT CANAL Delivered To Farms (AF)	MIDDLE LOUP UNIT 3/ MIDDLE LOUP PUBLIC POWER CANALS Diversions To Canals (AF)	Diversion To Sherman Feeder Canal (AF)	FARWELL UNIT SHERMAN RESERVOIR Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	FARWELL CANALS Release To Canals (AF)	FARWELL CANALS Delivered To Farms (AF)
Jan.	0	0	0	0	0	185	118	0	50,110	0	0
Feb.	0	0	0	0	0	167	137	.10	48,961	0	0
Mar.	0	0	0	0	78	185	124	5.22	48,731	0	0
Apr.	0	0	0	8,590	6,605	185	478	1.64	55,673	0	0
May	0	0	109	19,340	16,187	185	1,022	4.10	69,653	0	0
June	2,650	43	4,546	19,380	15,062	14,606	1,321	1.66	68,788	14,658	347
July	6,319	3,727	7,447	24,050	22,370	34,589	1,150	5.04	55,419	34,828	18,706
Aug.	10,485	6,749	9,491	17,480	18,285	31,000	985	1.90	41,719	31,736	18,389
Sep.	3,433	2,104	2,116	23,230	18,508	6,678	583	6.31	52,966	6,496	4,295
Oct.	0	0	0	0	5,810	184	647	.63	57,945	0	0
Nov.	0	0	0	0	0	179	328	1.00	55,419	0	0
Dec.	0	0	0	0	0	185	200	.64	52,478	0	0
TOTAL	22,887	12,623	23,709	112,070	102,905	88,328	7,093	28.24	---	87,718	41,739
NORMAL	27,100	---	---	102,400	104,300	100,800	10,600	20.80	69,076 4/	82,800	---

3/ Non-Project. 4/ Conservation Pool Capacity.

NOTE.--SARGENT IRRIGATION DISTRICT
Sargent Canal:
Acres with service available -- 13,650
Acres irrigated 1973 -- 12,763

MIDDLE LOUP P. P. IRRIGATION DISTRICT
Middle Loup P. P. Canals:
Acres with service available -- 13,000
Acres irrigated 1973 -- 13,228

FARWELL IRRIGATION DISTRICT
Farwell Canals:
Acres with service available -- 48,250
Acres irrigated 1973 -- 38,785

UPPER REPUBLICAN DIVISION
ARMEL UNIT

BONNY RESERVOIR

MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	Outflow To Hale Ditch (AF)	Industrial Uses (AF)
Jan.	2,070	370	0	.62	40,500	0	41
Feb.	1,840	340	0	.07	42,000	0	33
Mar.	2,560	2,710	60	4.12	41,790	0	32
Apr.	3,520	2,594	556	3.18	42,160	0	31
May	2,900	3,068	852	2.21	41,160	164	31
June	1,630	4,261	1,122	2.58	37,390	385	32
July	2,760	859	1,096	4.27	38,160	451	33
Aug.	560	792	1,346	1.02	36,540	406	30
Sep.	1,220	571	558	4.33	36,630	199	25
Oct.	1,670	2,219	543	.82	35,539	434	32
Nov.	1,973	562	300	.45	36,650	57	31
Dec.	2,076	362	251	1.02	38,113	0	32
TOTAL	24,779	18,708	6,684	24.69	---	2,096 6/	383
NORMAL	24,400	14,300	6,900	16.35	41,340 5/	3,800	---

5/ Conservation Pool Capacity.

6/ Includes 384 A.F. under temporary contracts.

TABLE 2
SUMMARY OF 1973 OPERATIONS

FRENCHMAN-CAMBRIDGE DIVISION
FRENCHMAN UNIT

	ENDERS RESERVOIR					CULBERTSON CANAL	CULBERTSON EXT. CANAL	
MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	Diversions To Canal 2/ (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	3,050	0	0	.54	28,140	0	0	0
Feb.	3,180	80	0	.05	31,240	0	0	0
Mar.	2,930	140	40	2.19	33,990	0	0	0
Apr.	3,470	150	470	2.40	36,840	1,154	0	0
May	3,000	162	658	1.94	39,020	1,842	1,627	0
June	2,700	2,338	1,012	1.30	38,370	1,227	3,140	193
July	4,550	19,334	766	5.36	22,820	7,764	11,215	7,143
Aug.	2,820	15,780	510	2.15	9,350	7,522	10,555	7,161
Sep.	4,700	1,390	190	7.18	12,470	2,562	62	0
Oct.	3,956	0	192	.98	16,236	0	0	0
Nov.	3,842	0	127	.52	19,951	0	0	0
Dec.	4,143	0	94	1.24	24,000	0	0	0
TOTAL	43,141	39,374	4,059	25.85	---	22,071	26,599	14,497
NORMAL	52,500	40,800	4,100	18.76	44,480 1/	18,000	22,000	---

1/ Conservation Pool Capacity.
2/ A.F. delivery to farms unavailable due to lack of measuring devices.

NOTE.--FRENCHMAN VALLEY IRRIGATION DISTRICT
Culbertson Canal:
Acres with service available -- 9,600
Acres irrigated 1973 -- 8,350

H & RW IRRIGATION DISTRICT
Culbertson Extension Canal:
Acres with service available -- 11,500
Acres irrigated 1973 -- 10,663

FRENCHMAN-CAMBRIDGE DIVISION (Continued)
MEEKER-DRIFTWOOD UNIT

	SWANSON LAKE					MEEKER-DRIFTWOOD		BARTLEY CANAL	
MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	7,980	60	0	.68	96,540	0	0	0	0
Feb.	9,400	60	0	.08	105,880	0	0	0	0
Mar.	13,870	70	120	3.90	119,560	0	0	0	0
Apr.	16,140	9,264	1,596	2.02	124,840	0	0	0	0
May	15,920	17,122	2,378	2.19	121,260	424	0	0	0
June	6,680	8,252	2,878	2.44	116,810	3,360	658	1,586	326
July	11,890	20,141	2,718	4.81	105,360	15,101	10,594	5,240	4,496
Aug.	2,000	19,565	2,870	.53	85,090	16,199	11,973	5,238	4,480
Sep.	5,240	3,466	1,208	7.30	85,380	2,218	1,017	764	564
Oct.	7,965	143	1,074	1.06	92,210	83	0	0	0
Nov.	7,743	60	533	.64	99,360	0	0	0	0
Dec.	7,220	60	418	1.50	106,100	0	0	0	0
TOTAL	112,048	78,263	15,793	27.15	---	37,385	24,242	12,828	9,866
NORMAL	109,000	95,500	13,200	19.38	120,160 2/	29,500	---	10,800	---

2/ Conservation Pool Capacity.

NOTE.--Meeker-Driftwood Canal:
Acres with service available -- 16,476
Acres irrigated 1973 -- 14,956

Bartley Canal:
Acres with service available -- 6,539
Acres irrigated 1973 -- 5,911

FRENCHMAN-CAMBRIDGE DIVISION (Continued)
RED WILLOW UNIT

	HUGH BUTLER LAKE					RED WILLOW CANAL	
MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	1,990	350	0	.57	34,020	0	0
Feb.	1,810	340	0	.15	35,490	0	0
Mar.	2,540	310	60	3.43	37,660	0	0
Apr.	2,080	1,570	510	2.70	38,460	0	0
May	3,300	1,304	756	3.49	39,700	0	0
June	1,820	4,592	998	1.01	35,930	1,340	381
July	3,390	5,766	834	4.74	32,720	4,282	2,958
Aug.	1,880	5,886	884	1.89	27,830	4,392	3,031
Sep.	2,600	1,230	370	5.01	28,830	669	395
Oct.	2,051	25	354	.59	30,499	0	0
Nov.	1,729	266	128	.69	31,834	0	0
Dec.	1,812	311	90	1.93	33,245	0	0
TOTAL	27,802	21,950 4/	4,984	26.20	---	10,683	6,765
NORMAL	20,900	16,700	4,400	19.75	37,776 3/	8,100	---

3/ Conservation Pool Capacity.
4/ Includes 27 A.F. under temporary contracts.

NOTE.--Red Willow Canal:
Acres with service available -- 4,932
Acres irrigated 1973 -- 4,538

FRENCHMAN-CAMBRIDGE DIVISION (Continued)
CAMBRIDGE UNIT

	HARRY STRUNK LAKE					CAMBRIDGE CANAL	
MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	4,580	60	0	.55	33,040	0	0
Feb.	3,406	56	0	.06	36,390	0	0
Mar.	4,240	2,450	60	2.75	38,120	0	0
Apr.	5,140	4,366	624	1.74	38,270	0	0
May	5,460	3,174	886	2.51	39,670	0	0
June	3,840	6,850	1,100	2.57	35,560	3,590	741
July	6,330	15,024	846	5.27	26,020	13,864	9,636
Aug.	3,070	11,772	758	1.56	16,560	12,898	10,105
Sep.	3,520	896	254	6.25	18,930	1,916	1,130
Oct.	3,667	62	283	1.10	22,252	103	0
Nov.	4,842	60	145	1.87	25,583	0	0
Dec.	3,390	133	106	.99	28,734	0	0
TOTAL	51,485	44,903 6/	5,062	27.22	---	32,371	21,612
NORMAL	51,900	41,100	4,700	19.20	37,141 5/	27,200	---

5/ Conservation Pool Capacity.
6/ Includes 252 A.F. under temporary contracts.

NOTE.--Cambridge Canal:
Acres with service available -- 17,053
Acres irrigated 1973 -- 16,013

FRENCHMAN-CAMBRIDGE IRRIGATION DISTRICT (Meeker-Driftwood, Red Willow, Bartley, and Cambridge Canals):
Acres with service available -- 45,000
Acres irrigated 1973 -- 41,418

TABLE 2
SUMMARY OF 1973 OPERATIONS

KANASKA DIVISION
ALMENA UNIT

NORTON RESERVOIR

MONTH	Inflow (AF)	Outflow (AF)	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.	344	48	0	.46	8,770	42	0	0
Feb.	272	43	0	.23	8,930	38	0	0
Mar.	670	52	0	5.97	9,480	46	0	0
Apr.	980	52	300	3.15	10,040	47	0	0
May	730	59	430	2.60	10,220	53	90	0
June	694	601	612	1.74	9,640	79	268	98
July	1,780	3,789	460	6.34	7,150	63	3,111	1,361
Aug.	160	3,025	352	.60	3,850	66	3,080	2,098
Sep.	560	47	130	5.85	4,180	22	0	0
Oct.	436	11	134	2.31	4,467	1	0	0
Nov.	360	20	63	1.64	4,744	11	0	0
Dec.	408	81	51	.43	5,020	77	0	0
TOTAL	7,394	7,828	2,532	31.32	---	545	6,549	3,557
NORMAL	17,000	11,500	2,500	20.36	35,935 1/	1,200	9,700	---

1/ Conservation Pool Capacity.

NOTE.--ALMENA IRRIGATION DISTRICT
Almena Canal:
Acres with service available -- 5,350
Acres irrigated 1973 -- 5,118

BOSTWICK DIVISION
FRANKLIN UNIT

HARLAN COUNTY RESERVOIR

MONTH	Inflow (AF)	Outflow (AF)	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.	12,080	710	0	.34	280,010	0	0	0	0
Feb.	15,050	560	0	.24	300,500	0	0	0	0
Mar.	23,080	620	360	4.15	322,600	0	0	0	0
Apr.	31,290	600	4,470	1.64	348,820	0	0	0	0
May	36,590	30,423	6,430	2.15	348,550	2,613	1	0	0
June	21,400	23,005	8,354	.89	338,880	2,973	864	210	132
July	25,600	36,341	7,256	9.67	321,350	11,607	4,653	1,408	977
Aug.	8,140	37,653	6,548	1.78	285,320	12,844	7,343	1,811	1,250
Sep.	18,540	4,204	3,172	8.11	296,260	1,242	328	54	34
Oct.	24,626	615	2,912	2.62	317,362	0	0	0	0
Nov.	14,704	595	1,134	1.79	330,337	0	0	0	0
Dec.	15,763	615	797	.69	344,681	0	0	0	0
TOTAL	246,863	135,941	41,433	34.07	---	31,279	13,189	3,483	2,393
NORMAL	325,200	292,300	39,300	20.91	342,560 2/	24, 00	---	3,800	---

2/ Conservation Pool Capacity.

NOTE.--Franklin Canal:
Acres with service available -- 10,170
Acres irrigated 1973 -- 10,134

Naponee Canal:
Acres with service available -- 1,737
Acres irrigated 1973 -- 1,413

BOSTWICK DIVISION (Continued)
SUPERIOR-COURTLAND UNIT

MONTH	FRANKLIN PUMP CANAL Diversions To Canal (AF)	FRANKLIN PUMP CANAL Delivered To Farms (AF)	SUPERIOR CANAL Diversions To Canal (AF)	SUPERIOR CANAL Delivered To Farms (AF)	COURTLAND CANAL - ABOVE LOVEWELL Total Diversion (AF)	NEBRASKA USE Total (AF)	NEBRASKA USE Delivered To Farms (AF)	KANSAS USE Diversions 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	1,319	0	3,721	0	0	0	0
June	446	191	2,018	622	7,035	193	157	2,304	868
July	1,210	857	5,090	2,752	21,968	789	653	9,317	4,804
Aug.	1,705	1,228	5,057	2,477	16,368	590	475	8,554	4,611
Sep.	127	91	231	45	950	32	26	254	68
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	3,488	2,367	13,715	5,896	50,042	1,604	1,311	20,429	10,351
NORMAL	4,500	---	12,400	---	46,200	3,500	---	20,500	---

NOTE.--Franklin Pump Canal:
Acres with service available -- 2,091
Acres irrigated 1973 -- 1,936
Superior Canal:
Acres with service available -- 5,828
Acres irrigated 1973 -- 4,977

NOTE.--Courtland Canal--Nebraska Use:
Acres with service available -- 1,980
Acres irrigated 1973 -- 1,533
Courtland Canal--Kansas Use:
Acres with service available -- 12,771
Acres irrigated 1973 -- 9,722

BOSTWICK IRRIGATION DISTRICT IN NEBR. (Franklin, Naponee, Franklin Pump and Courtland Canals (Nebraska Use):
Acres with service available -- 22,787
Acres irrigated 1973 -- 20,029

BOSTWICK DIVISION (Continued)
COURTLAND UNIT

LOVEWELL RESERVOIR

MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	COURTLAND (Below) Release To Canal (AF)	COURTLAND (Below) Delivered To Farms (AF)
Jan.	2,770	60	0	.70	44,790	0	0
Feb.	1,190	4,050	0	.31	41,930	0	0
Mar.	8,000	4,990	60	4.89	44,880	0	0
Apr.	12,060	13,680	910	2.26	42,350	0	0
May	11,487	8,377	1,354	4.06	42,410	365	0
June	8,261	7,869	1,644	1.77	40,420	4,197	1,454
July	21,071	12,849	1,688	4.97	41,870	12,843	6,537
Aug.	5,790	11,966	1,480	3.33	37,880	11,960	6,500
Sep.	58,366	24,921	614	12.44	70,690	841	274
Oct.	45,712	64,268	830	5.89	56,930	0	0
Nov.	12,352	24,780	272	2.28	44,220	0	0
Dec.	5,918	5,794	124	2.05	44,220	0	0
TOTAL	192,977	183,604	8,976	44.95	---	30,206	14,765
NORMAL	44,400	47,000	5,400	24.72	41,690 3/	39,100	---

3/ Conservation Pool Capacity.

NOTE.--
Courtland Canal below Lovewell:
Acres with service available -- 27,321
Acres irrigated 1973 -- 20,806

KANSAS-BOSTWICK IRRIGATION DISTRICT (Courtland Canal--Kansas Use and Courtland Canal below Lovewell):
Acres with service available -- 40,092
Acres irrigated 1973 -- 30,528

TABLE 2
SUMMARY OF 1973 OPERATIONS

SOLOMON DIVISION
KIRWIN UNIT

	KIRWIN RESERVOIR					KIRWIN CANAL	
MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	Release To Canal (AF)	Delivered To Farms (AF)
Jan.	1,036	0	186	.46	40,240	0	0
Feb.	1,466	0	336	.24	41,370	0	0
Mar.	4,220	0	680	6.56	44,910	0	0
Apr.	4,762	0	1,072	2.37	48,600	0	0
May	3,942	0	1,462	5.10	51,080	0	0
June	936	2,777	2,102	.92	47,810	2,777	1,188
July	2,514	9,427	1,852	3.86	38,830	9,427	6,419
Aug.	464	6,071	1,574	1.80	31,650	6,071	3,638
Sep.	3,206	280	572	8.37	33,900	280	188
Oct.	3,993	0	610	3.39	37,283	0	0
Nov.	1,767	0	272	1.50	38,778	0	0
Dec.	2,064	0	173	1.17	40,669	0	0
TOTAL	30,370	18,555	10,891	35.74	---	18,555	11,433
NORMAL	38,400	17,100	9,900	22.34	99,445 1/	17,100	---

1/ Conservation Pool Capacity.

NOTE.--KIRWIN IRRIGATION DISTRICT
Kirwin Canal:
Acres with service available -- 11,435
Acres irrigated 1973 -- 9,088

SOLOMON DIVISION (Continued)
WEBSTER UNIT

	WEBSTER RESERVOIR					OSBORNE CANAL	
MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	Diversions To Canal (AF)	Delivered To Farms (AF)
Jan.	928	0	124	.66	9,216	0	0
Feb.	1,212	0	168	.21	10,260	0	0
Mar.	3,770	0	500	6.78	13,530	0	0
Apr.	7,098	0	588	2.17	20,030	0	0
May	4,890	0	830	2.67	24,090	887	0
June	1,310	3,064	1,306	.58	21,030	2,775	426
July	1,204	5,420	1,104	4.46	15,710	4,850	2,003
Aug.	596	5,794	968	.62	9,544	4,437	2,568
Sep.	1,764	4	314	8.86	10,990	34	26
Oct.	6,455	0	365	2.55	17,079	0	0
Nov.	2,023	0	151	1.51	18,951	0	0
Dec.	2,589	0	127	1.69	21,413	0	0
TOTAL	33,839	14,282	6,545	32.76	---	12,983	5,023
NORMAL	32,100	17,800	6,200	23.87	76,235 2/	13,800	---

2/ Conservation Pool Capacity.

NOTE.--WEBSTER IRRIGATION DISTRICT
Osborne Canal:
Acres with service available -- 8,500
Acres irrigated 1973 -- 5,136

SOLOMON DIVISION (Continued)
GLEN ELDER UNIT

	WACONDA LAKE					OUTFLOW TO RIVER		
MONTH	Inflow (AF)	Outflow (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	Used By City Of Beloit (AF)	For Minimum Water Quality (AF)	Flood Control Releases (AF)
Jan.	4,756	598	558	.54	120,100	292	306	0
Feb.	3,112	528	784	.34	121,900	246	282	0
Mar.	38,690	410	1,180	7.24	159,000	51	369	0
Apr.	57,290	300	3,890	1.65	212,100	0	300	0
May	40,458	1,232	5,826	2.87	245,500	0	150	1,082
June	10,152	7,486	8,366	1.21	239,800	0	650	6,836
July	19,880	1,812	8,268	6.90	249,600	0	1,482	330
Aug.	8,672	6,254	8,018	2.26	244,000	0	0	6,254
Sep.	81,838	10,502	3,436	7.52	311,900	0	0	10,502
Oct.	99,020	70,318	4,121	4.45	336,459	0	0	70,318
Nov.	39,775	98,737	2,055	3.06	275,442	0	0	98,737
Dec.	27,038	57,743	1,267	1.66	243,470	0	0	57,743
TOTAL	430,681	255,920	47,769	39.70	---	589	3,539	251,802
NORMAL	125,400	92,200	33,200	25.50	241,500 3/	---	10,729	---

3/ Conservation Pool Capacity.

SMOKY HILL DIVISION
ELLIS UNIT

	CEDAR BLUFF RESERVOIR					CEDAR BLUFF CANAL		Release To Fish Hatchery (AF)
MONTH	Inflow (AF)	Outflow 5/ (AF)	Evap. (AF)	Precip. (Inches)	End Of Month Content (AF)	Release To Canal (AF)	Delivered To Farms (AF)	
Jan.	1,046	183	480	.55	107,400	0	0	123
Feb.	1,594	153	738	.06	108,200	0	0	93
Mar.	9,174	156	1,120	8.29	116,200	0	0	96
Apr.	12,830	208	1,854	1.72	127,100	0	0	148
May	7,574	1,046	2,748	3.01	131,000	796	0	190
June	2,420	3,691	3,604	.88	126,500	3,405	2,221	226
July	17,532	4,480	3,570	5.74	135,900	4,171	3,256	249
Aug.	3,570	4,187	3,738	3.40	131,600	3,894	2,267	233
Sep.	2,754	1,192	1,604	4.66	131,500	925	586	207
Oct.	2,351	179	1,680	1.43	131,920	0	0	119
Nov.	1,270	151	652	.88	132,400	0	0	91
Dec.	2,625	143	496	1.33	134,380	0	0	83
TOTAL	64,740	15,769	22,284	31.95	---	13,191	8,330	1,858
NORMAL	40,600	19,600	19,000	22.03	185,090 4/	13,600	---	3,400

4/ Conservation Pool Capacity.

5/ No releases required for City of Russell, Kansas.

NOTE.--CEDAR BLUFF IRRIGATION DISTRICT
Cedar Bluff Canal:
Acres with service available -- 6,800
Acres irrigated 1973 -- 6,144

BØX BUTTE RESERVØIR ØPERATIØN ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 11,000 acres in the Mirage Flats Project.)

MØNTH	HIST. INFLØW	NET EVAP AF	TØTAL RELEASE REQ	RES CHANGE	RES CØNT AT END ØF MØNTH	RES SPILL	RES ELEV AT END ØF MØNTH	REQ SHØRT
REAS MIN								
JAN	2.0	.1	.1	1.8	11.0	0.	3990.8	
FEB	2.1	.1	.1	1.9	12.9	0.	3992.8	
MAR	3.2	.2	.1	2.9	15.8	0.	3995.6	
APR	2.6	.6	1.7	.3	16.1	0.	3995.9	
MAY	1.4	.8	3.4	-2.8	13.3	0.	3993.2	
JUN	.8	.8	3.4	-3.4	9.9	0.	3989.6	
JUL	.5	.6	10.1	-7.6	2.3	0.	3976.5	2.6
AUG	.5	.3	10.2	0.	2.3	0.	3976.5	10.0
SEP	.5	.2	5.1	0.	2.3	0.	3976.5	4.8
ØCT	.7	.1	.1	.5	2.8	0.	3977.9	
NØV	1.5	.1	.1	1.3	4.1	0.	3980.8	
DEC	2.2	.1	.1	2.0	6.1	0.	3984.3	
TØTAL	18.0	4.0	34.5	-3.1	0.	0.		
MØST PRØB								
JAN	2.3	.1	.1	2.1	11.3	0.	3991.1	
FEB	2.4	.1	.1	2.2	13.5	0.	3993.4	
MAR	3.4	.2	.1	3.1	16.6	0.	3996.3	
APR	2.9	.4	1.2	1.3	17.9	0.	3997.5	
MAY	1.5	.7	1.1	-.3	17.6	0.	3997.2	
JUN	1.4	.8	2.4	-1.8	15.8	0.	3995.6	
JUL	1.1	.8	8.8	-8.5	7.3	0.	3986.2	
AUG	1.0	.4	8.8	-5.0	2.3	0.	3976.5	3.2
SEP	.7	.2	2.4	0.	2.3	0.	3976.5	1.9
ØCT	1.0	.1	.1	.8	3.1	0.	3978.6	
NØV	1.9	.1	.1	1.7	4.8	0.	3982.1	
DEC	2.5	.1	.1	2.3	7.1	0.	3985.9	
TØTAL	22.1	4.0	25.3	-2.1	0.	0.		
REAS MAX								
JAN	2.6	.1	.1	2.4	11.6	0.	3991.5	
FEB	2.7	.1	.1	2.5	14.1	0.	3994.0	
MAR	4.7	.2	.1	4.4	18.5	0.	3998.0	
APR	3.7	.3	.6	2.8	21.3	0.	4000.2	
MAY	2.4	.7	.8	.9	22.2	0.	4000.9	
JUN	3.2	.6	1.6	1.0	23.2	0.	4001.6	
JUL	2.1	.9	6.6	-5.4	17.8	0.	3997.4	
AUG	1.6	.7	6.5	-5.6	12.2	0.	3992.1	
SEP	1.3	.5	1.7	-.9	11.3	0.	3991.1	
ØCT	1.8	.3	.1	1.4	12.7	0.	3992.6	
NØV	2.5	.2	.1	2.2	14.9	0.	3994.8	
DEC	2.9	.1	.1	2.7	17.6	0.	3997.2	
TØTAL	31.5	4.7	18.4	8.4	0.	0.		

MERRITT RESERVOIR OPERATION ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 32,500 acres in the Sandhills Division.)

MONTH	HIST. INFLOW	NET EVAP AF	TOTAL RELEASE REQ	RES CHANGE	RES CONT AT END OF MONTH	RES SPILL	RES ELEV AT END OF MONTH	REQ SHORT
REAS MIN								
JAN	14.5	.2	1.0	0.	60.9	13.3	2941.0	
FEB	14.1	.2	1.0	0.	60.9	12.9	2941.0	
MAR	16.6	.4	1.0	0.	60.9	15.2	2941.0	
APR	15.3	1.4	1.0	10.0	70.9	2.9	2944.7	
MAY	15.8	1.8	13.2	.8	71.7	0.	2945.0	
JUN	14.0	2.1	19.3	-7.4	64.3	0.	2942.3	
JUL	13.3	2.0	37.6	-26.3	38.0	0.	2930.0	
AUG	13.4	.9	37.6	-25.1	12.9	0.	2907.4	
SEP	13.3	.3	19.2	-6.1	6.8	0.	2896.0	.1
OCT	14.8	.3	1.0	13.5	20.3	0.	2916.3	
NOV	14.6	.2	1.0	13.4	33.7	0.	2927.3	
DEC	15.1	.1	1.0	14.0	47.7	0.	2935.2	
TOTAL	174.8	9.9	133.9	-13.2	0.	44.3		
MOST PROB								
JAN	16.2	.2	1.0	0.	60.9	15.0	2941.0	
FEB	15.2	.2	1.0	0.	60.9	14.0	2941.0	
MAR	17.4	.4	1.0	0.	60.9	16.0	2941.0	
APR	16.9	1.0	1.0	10.0	70.9	4.9	2944.7	
MAY	17.2	1.6	10.0	3.6	74.5	2.0	2946.0	
JUN	15.5	1.8	14.4	-.7	73.8	0.	2945.8	
JUL	14.8	2.0	27.9	-15.1	58.7	0.	2940.1	
AUG	14.8	1.5	27.9	-14.6	44.1	0.	2933.4	
SEP	14.8	1.0	14.4	-.6	43.5	0.	2933.1	
OCT	15.9	.8	1.0	14.1	57.6	0.	2939.7	
NOV	15.8	.5	1.0	3.3	60.9	11.0	2941.0	
DEC	16.1	.2	1.0	0.	60.9	14.9	2941.0	
TOTAL	190.6	11.2	101.6	.0	0.	77.8		
REAS MAX								
JAN	17.3	.2	1.0	0.	60.9	16.1	2941.0	
FEB	16.3	.2	1.0	0.	60.9	15.1	2941.0	
MAR	18.7	.4	1.0	0.	60.9	17.3	2941.0	
APR	18.8	.7	1.0	10.0	70.9	7.1	2944.7	
MAY	18.4	1.3	6.7	3.6	74.5	6.8	2946.0	
JUN	16.6	1.5	9.6	0.	74.5	5.5	2946.0	
JUL	16.3	1.8	18.1	-3.6	70.9	0.	2944.7	
AUG	15.8	1.6	18.1	-3.9	67.0	0.	2943.3	
SEP	15.8	1.1	9.5	-6.1	60.9	11.3	2941.0	
OCT	16.9	.9	1.0	0.	60.9	15.0	2941.0	
NOV	16.6	.5	1.0	0.	60.9	15.1	2941.0	
DEC	17.5	.2	1.0	0.	60.9	16.3	2941.0	
TOTAL	205.0	10.4	69.0	.0	0.	125.6		

SHERMAN RESERVOIR OPERATION ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 57,000 acres in the Middle Loup Division.)

MONTH	HIST. INFLOW	NET EVAP AF	TOTAL RELEASE REQ	RES CHANGE	RES CONT AT END OF MONTH	RES SPILL	RES ELEV AT END OF MONTH	REQ SHORT
REAS MIN								
JAN	0.	.2	1.5	-1.7	52.6	0.	2156.0	
FEB	0.	.2	1.5	-1.7	50.9	0.	2155.3	
MAR	0.	.2	1.5	-1.7	49.2	0.	2154.6	
APR	20.7	1.0	1.5	18.2	67.4	0.	2161.7	
MAY	17.0	1.6	13.7	1.7	69.1	0.	2162.3	
JUN	14.8	1.8	13.7	-.7	68.4	0.	2162.1	
JUL	11.0	1.8	44.7	-35.5	32.9	0.	2146.6	
AUG	7.4	.9	44.7	-22.4	10.5	0.	2129.0	15.8
SEP	25.2	.6	13.6	11.0	21.5	0.	2139.2	
OCT	35.5	.7	1.5	33.3	54.8	0.	2156.9	
NOV	0.	.5	1.5	-2.0	52.8	0.	2156.1	
DEC	0.	.2	1.5	-1.7	51.1	0.	2155.4	
TOTAL	131.6	9.7	140.9	-3.2	0.	0.		
MOST PROB								
JAN	0.	.2	1.5	-1.7	52.6	0.	2156.0	
FEB	0.	.2	1.5	-1.7	50.9	0.	2155.3	
MAR	0.	.2	1.5	-1.7	49.2	0.	2154.6	
APR	14.9	.9	1.5	12.5	61.7	0.	2159.6	
MAY	14.4	1.5	5.5	7.4	69.1	0.	2162.3	
JUN	7.0	1.8	5.6	-.4	68.7	0.	2162.2	
JUL	18.2	2.0	34.8	-18.6	50.1	0.	2155.0	
AUG	12.7	1.3	34.8	-23.4	26.7	0.	2142.8	
SEP	32.2	1.0	9.6	21.6	48.3	0.	2154.2	
OCT	3.0	.8	1.5	.7	49.0	0.	2154.5	
NOV	0.	.5	1.5	-2.0	47.0	0.	2153.6	
DEC	0.	.2	1.5	-1.7	45.3	0.	2152.9	
TOTAL	102.4	10.6	100.8	-9.0	0.	0.		
REAS MAX								
JAN	0.	.2	1.5	-1.7	52.6	0.	2156.0	
FEB	0.	.2	1.5	-1.7	50.9	0.	2155.3	
MAR	0.	.2	1.5	-1.7	49.2	0.	2154.6	
APR	14.9	.7	1.5	12.7	61.9	0.	2159.7	
MAY	11.7	1.3	3.2	7.2	69.1	0.	2162.3	
JUN	4.6	1.4	3.2	0.	69.1	0.	2162.3	
JUL	23.6	1.8	24.0	-2.2	66.9	0.	2161.5	
AUG	11.1	1.4	24.0	-14.3	52.6	0.	2156.0	
SEP	7.7	1.0	6.9	-.2	52.4	0.	2156.0	
OCT	0.	.9	1.5	-2.4	50.0	0.	2154.9	
NOV	0.	.5	1.5	-2.0	48.0	0.	2154.1	
DEC	0.	.2	1.5	-1.7	46.3	0.	2153.3	
TOTAL	73.6	9.8	71.8	-8.0	0.	0.		

BØNNY RESERVØIR ØPERATIØN ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Based on industrial contracts only.)

ØNTH	HIST. INFLØW	NET EVAP AF	REL TØ HALE DITCH	REL TØ RIVER	TØTAL RELEASE REQ	RES CHANGE	RES CØNT AT END ØF MØNTH	RES SPILL	ELEV AT END ØF MØNTH
REAS MIN									
JAN	1.4	.2	0.	.4	.4	.8	38.9	0.	3670.8
FEB	1.4	.3	0.	.4	.4	.7	39.6	0.	3671.1
MAR	1.7	.4	0.	.4	.4	.9	40.5	0.	3671.6
APR	1.6	.7	.3	.4	.7	.2	40.7	0.	3671.7
MAY	3.4	.9	.9	4.1	5.0	-2.5	38.2	0.	3670.4
JUN	2.7	1.1	.9	.4	1.3	.3	38.5	0.	3670.6
JUL	1.6	1.3	.9	.4	1.3	-1.0	37.5	0.	3670.1
AUG	1.4	1.1	.8	.4	1.2	-.9	36.6	0.	3669.6
SEP	1.0	.8	.6	.4	1.0	-.8	35.8	0.	3669.1
ØCT	1.1	.8	.5	.4	.9	-.6	35.2	0.	3668.8
NØV	1.3	.5	.3	.4	.7	.1	35.3	0.	3668.9
DEC	1.3	.3	0.	.4	.4	.6	35.9	0.	3669.2
TØTAL	19.9	8.4	5.2	8.5	13.7	-2.2	0.	0.	
MØST PRØB									
JAN	1.7	.2	0.	.4	.4	1.1	39.2	0.	3670.9
FEB	1.7	.2	0.	.4	.4	1.1	40.3	0.	3671.5
MAR	2.2	.3	0.	.4	.4	1.0	41.3	.5	3672.0
APR	2.0	.5	.4	.4	.8	0.	41.3	.7	3672.0
MAY	4.1	.5	.6	4.1	4.7	-1.1	40.2	0.	3671.4
JUN	3.3	.8	.6	.4	1.0	1.1	41.3	.4	3672.0
JUL	2.0	1.1	.4	.4	.8	0.	41.3	.1	3672.0
AUG	1.7	1.0	.4	.4	.8	-.1	41.2	0.	3671.9
SEP	1.2	.7	.6	.4	1.0	-.5	40.7	0.	3671.7
ØCT	1.3	.8	.6	.4	1.0	-.5	40.2	0.	3671.4
NØV	1.6	.5	.2	.4	.6	.5	40.7	0.	3671.7
DEC	1.6	.3	0.	.4	.4	.6	41.3	.3	3672.0
TØTAL	24.4	6.9	3.8	8.5	12.3	3.2	0.	2.0	
REAS MAX									
JAN	3.2	.1	0.	.4	.4	2.7	40.8	0.	3671.7
FEB	3.2	.2	0.	.4	.4	.5	41.3	2.1	3672.0
MAR	4.0	.2	0.	.4	.4	0.	41.3	3.4	3672.0
APR	3.7	.4	.3	.4	.7	0.	41.3	2.6	3672.0
MAY	7.6	.3	.5	4.1	4.6	0.	41.3	2.7	3672.0
JUN	6.2	.4	.2	.4	.6	0.	41.3	5.2	3672.0
JUL	3.7	.9	.2	.4	.6	0.	41.3	2.2	3672.0
AUG	3.1	.7	.4	.4	.8	0.	41.3	1.6	3672.0
SEP	2.2	.5	.4	.4	.8	0.	41.3	.9	3672.0
ØCT	2.5	.6	.3	.4	.7	0.	41.3	1.2	3672.0
NØV	2.9	.4	.3	.4	.7	0.	41.3	1.8	3672.0
DEC	3.0	.2	0.	.4	.4	0.	41.3	2.4	3672.0
TØTAL	45.3	4.9	2.6	8.5	11.1	3.2	0.	26.1	

SWANSON LAKE RESERVOIR OPERATION ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 21,500 acres in the Frenchman-Cambridge Division.)

MONTH	UNDEPL INFLOW	CORR FOR UPSTR DEPL	DEPL INFLOW	NET EVAP AF	TOTAL RELEASE REQ	RES CHANGE	RES CONT AT END OF MONTH	RES SPILL	RES ELEV AT END OF MONTH
REAS MIN									
JAN	7.5	-1.0	6.5	.4	.1	6.0	111.6	0.	2750.2
FEB	9.5	-1.0	8.5	.5	.1	7.9	119.5	0.	2751.9
MAR	11.1	-1.3	9.8	.8	.1	.7	120.2	8.2	2752.0
APR	8.5	-.9	7.6	1.6	.1	0.	120.2	5.9	2752.0
MAY	7.7	1.6	9.3	1.7	6.0	0.	120.2	1.6	2752.0
JUN	6.9	-1.3	5.6	2.1	7.0	-3.5	116.7	0.	2751.3
JUL	2.4	-.4	2.0	3.0	20.7	-21.7	95.0	0.	2746.6
AUG	1.9	-.3	1.6	2.4	20.4	-21.2	73.8	0.	2741.6
SEP	.5	0.	.5	1.7	11.3	-12.5	61.3	0.	2738.3
OCT	2.6	-.2	2.4	1.4	3.3	-2.3	58.5	0.	2737.5
NOV	5.7	-.6	5.1	.8	.1	4.2	62.7	0.	2738.6
DEC	6.7	-.9	5.8	.4	.1	5.3	68.0	0.	2740.1
TOTAL	71.0	-6.3	64.7	16.8	69.8	-37.6	0.	15.7	
MOST PROB									
JAN	9.6	-1.3	8.3	.3	.1	7.9	113.5	0.	2750.6
FEB	12.0	-1.3	10.7	.4	.1	6.7	120.2	3.5	2752.0
MAR	14.3	-1.8	12.5	.6	.1	0.	120.2	11.8	2752.0
APR	12.0	-1.0	11.0	1.0	.1	0.	120.2	9.9	2752.0
MAY	13.5	3.4	16.9	.9	1.4	0.	120.2	14.6	2752.0
JUN	15.7	-.7	15.0	1.5	1.6	0.	120.2	11.9	2752.0
JUL	5.7	-1.1	4.6	2.4	15.7	-13.5	106.7	0.	2749.2
AUG	6.0	-1.0	5.0	2.1	17.7	-14.8	91.9	0.	2745.9
SEP	5.0	1.1	6.1	1.2	5.2	-.3	91.6	0.	2745.8
OCT	4.6	-.3	4.3	1.6	1.6	1.1	92.7	0.	2746.1
NOV	8.1	-.8	7.3	.8	.1	6.4	99.1	0.	2747.5
DEC	8.5	-1.2	7.3	.4	.1	6.8	105.9	0.	2749.0
TOTAL	115.0	-6.0	109.0	13.2	43.8	.3	0.	51.7	
REAS MAX									
JAN	11.8	-2.8	9.0	.2	.1	8.7	114.3	0.	2750.8
FEB	14.5	-1.7	12.8	.2	.1	5.9	120.2	6.6	2752.0
MAR	19.3	-.2	19.1	.2	.1	0.	120.2	18.8	2752.0
APR	16.3	-.4	15.9	.2	.1	0.	120.2	15.6	2752.0
MAY	23.1	3.6	26.7	.3	.8	0.	120.2	25.6	2752.0
JUN	27.4	-.4	27.0	.8	.9	0.	120.2	25.3	2752.0
JUL	29.3	-.9	28.4	1.7	8.5	0.	120.2	18.2	2752.0
AUG	18.3	-.7	17.6	2.1	9.8	0.	120.2	5.7	2752.0
SEP	10.5	1.4	11.9	1.0	1.7	0.	120.2	9.2	2752.0
OCT	8.7	-.5	8.2	1.6	.9	0.	120.2	5.7	2752.0
NOV	10.1	-.4	9.7	.7	.1	0.	120.2	8.9	2752.0
DEC	10.7	-2.6	8.1	.3	.1	0.	120.2	7.7	2752.0
TOTAL	200.0	-5.6	194.4	9.3	23.2	14.6	0.	147.3	

ENDERS RESERVOIR OPERATION ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)

(Irrigation service for 20,400 acres in the Frenchman-Cambridge Division.)

MONTH	HIST. INFLOW	NET EVAP AF	TOTAL RELEASE REQ	RES CHANGE	RES CONT AT END OF MONTH	RES SPILL	RES ELEV AT END OF MONTH	REQ SHORT
REAS MIN								
JAN	3.8	.1	0.	3.7	28.4	0.	3101.5	
FEB	3.5	.1	0.	3.4	31.8	0.	3104.0	
MAR	3.8	.2	0.	3.6	35.4	0.	3106.6	
APR	3.4	.5	0.	2.9	38.3	0.	3108.5	
MAY	3.7	.6	4.7	-1.6	36.7	0.	3107.4	
JUN	4.0	.6	5.1	-1.7	35.0	0.	3106.3	
JUL	3.6	.9	19.5	-16.8	18.2	0.	3092.5	
AUG	3.4	.5	18.3	-8.2	10.0	0.	3082.4	7.2
SEP	3.5	.3	8.6	0.	10.0	0.	3082.4	5.4
OCT	3.4	.3	1.6	1.5	11.5	0.	3084.6	
NOV	3.6	.2	0.	3.4	14.9	0.	3088.9	
DEC	3.7	.1	0.	3.6	18.5	0.	3092.8	
TOTAL	43.4	4.4	57.8	-6.2	0.	0.		
MOST PROB								
JAN	4.6	.1	0.	4.5	29.2	0.	3102.1	
FEB	4.2	.1	0.	4.1	33.3	0.	3105.1	
MAR	4.6	.2	0.	4.4	37.7	0.	3108.1	
APR	4.1	.3	0.	3.8	41.5	0.	3110.5	
MAY	4.5	.4	.8	3.0	44.5	.3	3112.3	
JUN	4.8	.5	.9	0.	44.5	3.4	3112.3	
JUL	4.4	.8	14.9	-11.3	33.2	0.	3105.0	
AUG	4.1	.7	16.7	-13.3	19.9	0.	3094.2	
SEP	4.2	.3	3.2	.7	20.6	0.	3094.8	
OCT	4.2	.4	.6	3.2	23.8	0.	3097.7	
NOV	4.3	.2	0.	4.1	27.9	0.	3101.1	
DEC	4.5	.1	0.	4.4	32.3	0.	3104.4	
TOTAL	52.5	4.1	37.1	7.6	0.	3.7		
REAS MAX								
JAN	5.4	.1	0.	5.3	30.0	0.	3102.7	
FEB	4.9	0.	0.	4.9	34.9	0.	3106.2	
MAR	5.4	.1	0.	5.3	40.2	0.	3109.7	
APR	4.8	.1	0.	4.3	44.5	.4	3112.3	
MAY	5.2	.2	0.	0.	44.5	5.0	3112.3	
JUN	5.6	.3	0.	0.	44.5	5.3	3112.3	
JUL	5.1	.6	8.5	-4.0	40.5	0.	3109.9	
AUG	4.7	.6	10.0	-5.9	34.6	0.	3106.0	
SEP	4.9	.3	1.5	3.1	37.7	0.	3108.1	
OCT	4.8	.4	0.	4.4	42.1	0.	3110.9	
NOV	5.0	.3	0.	2.4	44.5	2.3	3112.3	
DEC	5.2	.1	0.	0.	44.5	5.1	3112.3	
TOTAL	61.0	3.1	20.0	19.8	0.	18.1		

HUGH BUTLER LAKE ØPERATIØN ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 4,500 acres in the Frenchman-Cambridge Division.)

MØNTH	HIST. INFLØW	NET EVAP AF	TØTAL RELEASE REQ	RES CHANGE	RES CØNT AT END ØF MØNTH	RES SPILL	RES ELEV AT END ØF MØNTH	REQ SHØRT
REAS MIN								
JAN	1.0	.1	.3	.6	33.8	0.	2579.3	
FEB	1.1	.1	.3	.7	34.5	0.	2579.7	
MAR	1.5	.3	.3	.9	35.4	0.	2580.3	
APR	1.3	.6	.3	.4	35.8	0.	2580.6	
MAY	1.6	.6	1.8	-.8	35.0	0.	2580.1	
JUN	2.3	.9	1.7	-.3	34.7	0.	2579.9	
JUL	1.4	1.0	4.7	-4.3	30.4	0.	2576.9	
AUG	.9	.7	4.4	-4.2	26.2	0.	2573.7	
SEP	1.0	.6	2.2	-1.8	24.4	0.	2572.3	
ØCT	.9	.5	.8	-.4	24.0	0.	2571.9	
NØV	.9	.3	.3	.3	24.3	0.	2572.2	
DEC	1.0	.1	.3	.6	24.9	0.	2572.7	
TØTAL	14.9	5.8	17.4	-8.3	0.	0.		
MØST PRØB								
JAN	1.3	.1	.3	.9	34.1	0.	2579.5	
FEB	1.5	.1	.3	1.1	35.2	0.	2580.2	
MAR	2.1	.2	.3	1.6	36.8	0.	2581.2	
APR	1.9	.4	.3	1.0	37.8	.2	2581.8	
MAY	2.3	.4	1.0	0.	37.8	.9	2581.8	
JUN	3.2	.4	.9	0.	37.8	1.9	2581.8	
JUL	2.0	.8	4.0	-2.8	35.0	0.	2580.1	
AUG	1.3	.7	4.2	-3.6	31.4	0.	2577.6	
SEP	1.5	.5	1.2	-.2	31.2	0.	2577.5	
ØCT	1.2	.5	.6	.1	31.3	0.	2577.6	
NØV	1.3	.2	.3	.8	32.1	0.	2578.1	
DEC	1.3	.1	.3	.9	33.0	0.	2578.7	
TØTAL	20.9	4.4	13.7	-.2	0.	3.0		
REAS MAX								
JAN	1.9	.1	.3	1.5	34.7	0.	2579.9	
FEB	2.1	.1	.3	1.7	36.4	0.	2580.9	
MAR	2.9	.1	.3	1.4	37.8	1.1	2581.8	
APR	2.6	.2	.3	0.	37.8	2.1	2581.8	
MAY	3.2	.2	.8	0.	37.8	2.2	2581.8	
JUN	4.4	.2	.7	0.	37.8	3.5	2581.8	
JUL	2.8	.5	2.8	-.5	37.3	0.	2581.5	
AUG	1.8	.5	2.8	-1.5	35.8	0.	2580.6	
SEP	2.0	.4	.9	.7	36.5	0.	2581.0	
ØCT	1.6	.4	.4	.8	37.3	0.	2581.5	
NØV	1.8	.2	.3	.5	37.8	.8	2581.8	
DEC	1.8	.1	.3	0.	37.8	1.4	2581.8	
TØTAL	28.9	3.0	10.2	4.6	0.	11.1		

HARRY STRUNK LAKE ØPERATIØN ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 16,000 acres in the Frenchman-Cambridge Division.)

MØNTH	HIST. INFLØW	NET EVAP AF	TØTAL RELEASE REQ	RES CHANGE	RES CØNT AT END ØF MØNTH	RES SPILL	RES ELEV AT END ØF MØNTH	REQ SHØRT
REAS MIN								
JAN	2.2	.1	.3	1.8	30.5	0.	2362.2	
FEB	2.5	.1	.3	2.1	32.6	0.	2363.5	
MAR	3.2	.3	.3	2.6	35.2	0.	2365.0	
APR	3.2	.6	.3	1.9	37.1	.4	2366.1	
MAY	3.9	.6	2.7	0.	37.1	.6	2366.1	
JUN	6.3	.8	2.7	0.	37.1	2.8	2366.1	
JUL	3.8	1.2	11.0	-8.4	28.7	0.	2361.1	
AUG	2.5	.8	10.9	-9.2	19.5	0.	2354.1	
SEP	2.2	.4	4.8	-3.0	16.5	0.	2351.3	
ØCT	2.2	.4	.8	1.0	17.5	0.	2352.2	
NØV	2.1	.2	.3	1.6	19.1	0.	2353.7	
DEC	2.1	.1	.3	1.7	20.8	0.	2355.2	
TØTAL	36.2	5.6	34.7	-7.9	0.	3.8		
MØST PRØB								
JAN	3.2	.1	.3	2.8	31.5	0.	2362.9	
FEB	3.6	.1	.3	3.2	34.7	0.	2364.7	
MAR	4.6	.2	.3	2.4	37.1	1.7	2366.1	
APR	4.6	.4	.3	0.	37.1	3.9	2366.1	
MAY	5.7	.4	.3	0.	37.1	5.0	2366.1	
JUN	9.0	.6	.3	0.	37.1	8.1	2366.1	
JUL	5.5	.9	8.5	-3.9	33.2	0.	2363.9	
AUG	3.5	.7	9.8	-7.0	26.2	0.	2359.4	
SEP	3.2	.4	1.4	1.4	27.6	0.	2360.3	
ØCT	3.1	.5	.3	2.3	29.9	0.	2361.8	
NØV	2.9	.3	.3	2.3	32.2	0.	2363.3	
DEC	3.0	.1	.3	2.6	34.8	0.	2364.8	
TØTAL	51.9	4.7	22.4	6.1	0.	18.7		
REAS MAX								
JAN	4.9	0.	.3	4.6	33.3	0.	2363.9	
FEB	5.6	.1	.3	3.8	37.1	1.4	2366.1	
MAR	7.1	.1	.3	0.	37.1	6.7	2366.1	
APR	7.2	.1	.3	0.	37.1	6.8	2366.1	
MAY	8.7	.1	.3	0.	37.1	8.3	2366.1	
JUN	14.0	.2	.3	0.	37.1	13.5	2366.1	
JUL	8.5	.8	4.1	0.	37.1	3.6	2366.1	
AUG	5.5	.6	4.9	0.	37.1	0.	2366.1	
SEP	4.9	.4	.3	0.	37.1	4.2	2366.1	
ØCT	4.8	.6	.3	0.	37.1	3.9	2366.1	
NØV	4.5	.1	.3	0.	37.1	4.1	2366.1	
DEC	4.7	.1	.3	0.	37.1	4.3	2366.1	
TØTAL	80.4	3.2	12.0	8.4	0.	56.8		

NORTON RESERVOIR OPERATION ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 5,350 acres and the City of Norton in the Kanaska Division.)

MONTH	HIST. INFLOW	NET EVAP AF	TOTAL RELEASE REQ	RES CHANGE	RES CONT AT END OF MONTH	RES SPILL	RES ELEV AT END OF MONTH	REQ SHORT
REAS MIN								
JAN	.1	0.	.1	0.	5.0	0.	2279.9	
FEB	.2	0.	.1	.1	5.1	0.	2280.1	
MAR	.4	.1	.1	.2	5.3	0.	2280.4	
APR	.3	.2	.1	0.	5.3	0.	2280.4	
MAY	1.0	.2	2.2	-1.4	3.9	0.	2277.7	
JUN	1.9	.3	2.6	-.3	3.6	0.	2277.1	.7
JUL	1.4	.3	6.4	0.	3.6	0.	2277.1	5.3
AUG	.7	.3	6.1	0.	3.6	0.	2277.1	5.7
SEP	.6	.2	3.1	0.	3.6	0.	2277.1	2.7
OCT	.4	.2	1.4	0.	3.6	0.	2277.1	1.2
NOV	.1	.1	.1	0.	3.6	0.	2277.1	.1
DEC	.1	0.	.1	0.	3.6	0.	2277.1	
TOTAL	7.2	1.9	22.4	-1.4	0.	0.		
MOST PROB								
JAN	.3	0.	.1	.2	5.2	0.	2280.2	
FEB	.6	0.	.1	.5	5.7	0.	2281.1	
MAR	.8	.1	.1	.6	6.3	0.	2282.0	
APR	.6	.2	.1	.3	6.6	0.	2282.4	
MAY	2.3	.2	.2	1.9	8.5	0.	2285.0	
JUN	4.4	.3	.1	4.0	12.5	0.	2289.3	
JUL	3.4	.5	4.1	-1.2	11.3	0.	2288.2	
AUG	1.6	.4	4.6	-3.4	7.9	0.	2284.2	
SEP	1.4	.3	1.2	-.1	7.8	0.	2284.1	
OCT	1.0	.3	.7	0.	7.8	0.	2284.1	
NOV	.3	.1	.1	.1	7.9	0.	2284.2	
DEC	.3	.1	.1	.1	8.0	0.	2284.4	
TOTAL	17.0	2.5	11.5	3.0	0.	0.		
REAS MAX								
JAN	.7	0.	.1	.6	5.6	0.	2280.9	
FEB	1.5	0.	.1	1.4	7.0	0.	2283.0	
MAR	2.0	0.	.1	1.9	8.9	0.	2285.5	
APR	1.6	.1	.1	1.4	10.3	0.	2287.1	
MAY	5.8	.1	.1	5.6	15.9	0.	2292.4	
JUN	11.0	.3	.1	10.6	26.5	0.	2299.5	
JUL	8.4	.7	.5	7.2	33.7	0.	2303.2	
AUG	3.9	.9	1.6	1.4	35.1	0.	2303.9	
SEP	3.6	.6	.1	.8	35.9	2.1	2304.3	
OCT	2.5	.5	.4	0.	35.9	1.6	2304.3	
NOV	.7	.2	.1	0.	35.9	.4	2304.3	
DEC	.7	.1	.1	0.	35.9	.5	2304.3	
TOTAL	42.4	3.5	3.4	30.9	0.	4.6		

HARLAN COUNTY RESERVOIR OPERATION ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 53,361 acres in the Bostwick Division.)

MONTH	CORR FOR UNDEPL INFLOW	CORR FOR UPSTR DEPL	DEPL INFLOW	NET EVAP AF	TOTAL RELEASE REQ	RES CHANGE	RES CONT AT END OF MONTH	RES SPILL	RES ELEV AT END OF MONTH
REAS MIN									
JAN	19.2	-12.5	6.7	1.0	.6	0.	342.6	5.1	1946.0
FEB	24.3	-14.9	9.4	.9	.6	0.	342.6	7.9	1946.0
MAR	32.1	-9.9	22.2	1.9	.6	0.	342.6	19.7	1946.0
APR	28.0	-9.9	18.1	5.2	.6	0.	342.6	12.3	1946.0
MAY	36.5	-13.0	23.5	4.8	14.1	0.	342.6	4.6	1946.0
JUN	42.0	-14.0	28.0	7.3	13.5	0.	342.6	7.2	1946.0
JUL	15.4	4.7	20.1	10.3	41.2	-31.4	311.2	0.	1943.5
AUG	13.6	5.9	19.5	8.2	47.1	-35.8	275.4	0.	1940.5
SEP	6.2	1.6	7.8	5.1	21.3	-18.6	256.8	0.	1938.8
OCT	5.6	-6.6	-1.0	4.0	.6	-5.6	251.2	0.	1938.2
NOV	13.2	-9.5	3.7	2.3	.6	.8	252.0	0.	1938.3
DEC	16.9	-11.0	5.9	1.0	.6	4.3	256.3	0.	1938.7
TOTAL	253.0	-89.1	163.9	52.0	141.4	-86.3	0.	56.8	
MOST PROB									
JAN	22.4	-17.0	5.4	.7	.6	0.	342.6	4.1	1946.0
FEB	31.2	-16.5	14.7	.7	.6	0.	342.6	13.4	1946.0
MAR	38.0	-12.5	25.5	1.2	.6	0.	342.6	23.7	1946.0
APR	38.8	-7.4	31.4	1.4	.6	0.	342.6	29.4	1946.0
MAY	59.9	-7.9	52.0	3.6	1.6	0.	342.6	46.8	1946.0
JUN	106.6	-11.7	94.9	6.0	1.8	0.	342.6	87.1	1946.0
JUL	42.1	9.3	51.4	8.5	29.4	0.	342.6	13.5	1946.0
AUG	26.6	-3.9	22.7	6.5	30.3	-14.1	328.5	0.	1944.9
SEP	19.7	-11.0	8.7	4.7	7.0	-3.0	325.5	0.	1944.7
OCT	16.4	-13.2	3.2	3.6	.6	-1.0	324.5	0.	1944.6
NOV	20.8	-14.0	6.8	1.6	.6	4.6	329.1	0.	1944.9
DEC	23.5	-15.0	8.5	.8	.6	7.1	336.2	0.	1945.5
TOTAL	446.0	-120.8	325.2	39.3	74.3	-6.4	0.	218.0	
REAS MAX									
JAN	28.1	-22.6	5.5	0.	.6	0.	342.6	4.9	1946.0
FEB	42.6	-20.1	22.5	.3	.6	0.	342.6	21.6	1946.0
MAR	57.1	-8.9	48.2	.8	.6	0.	342.6	46.8	1946.0
APR	55.8	-5.7	50.1	.2	.6	0.	342.6	49.3	1946.0
MAY	105.5	-4.4	101.1	2.0	.9	0.	342.6	98.2	1946.0
JUN	166.5	-14.2	152.3	1.7	.9	0.	342.6	149.7	1946.0
JUL	105.4	-28.3	77.1	7.2	6.6	0.	342.6	63.3	1946.0
AUG	63.8	-22.5	41.3	3.8	6.6	0.	342.6	30.9	1946.0
SEP	75.0	-10.0	65.0	4.2	1.6	0.	342.6	59.2	1946.0
OCT	34.4	-9.8	24.6	2.5	.6	0.	342.6	21.5	1946.0
NOV	31.4	-2.7	28.7	1.1	.6	0.	342.6	27.0	1946.0
DEC	30.4	-1.5	28.9	.4	.6	0.	342.6	27.9	1946.0
TOTAL	796.0	-150.7	645.3	24.2	20.8	0.	0.	600.3	

LØVEWELL RESERVØIR ØPERATIØN ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 19,500 acres in the Bostwick Division.)

ØNTH	INFLØW FRØM W.R.CR	INFLØW FRØM C0URT.	TØTAL INFLØW	NET EVAP AF"	TØTAL RELEASE REQ	RES CHANGE	RES C0NT AT END ØF MØNTH	RES SPILL	RES ELEV AT END ØF MØNTH
REAS MIN									
JAN	.1	0.	.1	.2	0.	-.1	41.6	0.	1582.6
FEB	.2	0.	.2	.2	0.	0.	41.6	0.	1582.6
MAR	.2	0.	.2	.4	0.	-.2	41.4	0.	1582.5
APR	.2	0.	.2	.9	0.	-.7	40.7	0.	1582.3
MAY	.6	6.2	6.8	.9	5.5	.4	41.1	0.	1582.4
JUN	1.3	6.3	7.6	1.4	5.5	.6	41.7	.1	1582.6
JUL	.8	11.5	12.3	1.8	16.2	-5.7	36.0	0.	1580.6
AUG	.5	12.2	12.7	1.3	18.9	-7.5	28.5	0.	1577.6
SEP	.4	6.6	7.0	1.0	8.2	-2.2	26.3	0.	1576.6
ØCT	.3	.6	.9	.6	0.	.3	26.6	0.	1576.7
NØV	.1	0.	.1	.4	0.	-.3	26.3	0.	1576.6
DEC	.1	0.	.1	.2	0.	-.1	26.2	0.	1576.6
TØTAL	4.3	43.4	48.2	9.3	54.3	-15.5	0.	.1	
MØST PRØB									
JAN	.3	0.	.3	.1	0.	0.	41.7	.2	1582.6
FEB	.9	0.	.9	.1	0.	0.	41.7	.8	1582.6
MAR	1.0	0.	1.0	.2	0.	0.	41.7	.8	1582.6
APR	1.1	0.	1.1	.5	0.	0.	41.7	.6	1582.6
MAY	3.0	.6	3.6	.4	1.9	0.	41.7	1.3	1582.6
JUN	5.9	.6	6.5	.4	1.9	0.	41.7	4.2	1582.6
JUL	3.9	9.1	13.0	1.3	15.5	-3.8	37.9	0.	1581.3
AUG	2.2	7.0	9.2	.9	15.8	-7.5	30.4	0.	1578.4
SEP	2.0	2.2	4.2	.7	4.0	-.5	29.9	0.	1578.2
ØCT	1.2	2.7	3.9	.4	0.	3.5	33.4	0.	1579.6
NØV	.4	0.	.4	.3	0.	.1	33.5	0.	1579.6
DEC	.3	0.	.3	.1	0.	.2	33.7	0.	1579.7
TØTAL	22.2	22.2	44.4	5.4	39.1	-8.0	0.	7.9	
REAS MAX									
JAN	.8	0.	.8	0.	0.	0.	41.7	.8	1582.6
FEB	2.5	0.	2.5	.1	0.	0.	41.7	2.4	1582.6
MAR	2.9	0.	2.9	.1	0.	0.	41.7	2.8	1582.6
APR	3.1	0.	3.1	.1	0.	0.	41.7	3.0	1582.6
MAY	8.5	.6	9.1	.1	.8	0.	41.7	8.2	1582.6
JUN	16.8	.6	17.4	-.3	1.0	0.	41.7	16.7	1582.6
JUL	11.1	.6	11.7	1.1	7.6	0.	41.7	3.0	1582.6
AUG	6.1	.6	6.7	.8	7.6	-1.7	40.0	0.	1582.0
SEP	5.7	.6	6.3	.4	1.9	1.7	41.7	2.3	1582.6
ØCT	3.4	0.	3.4	.4	0.	0.	41.7	3.0	1582.6
NØV	1.1	0.	1.1	.2	0.	0.	41.7	.9	1582.6
DEC	.8	0.	.8	0.	0.	0.	41.7	.8	1582.6
TØTAL	62.8	3.0	65.8	3.0	18.9	.0	0.	43.9	

KIRWIN RESERVOIR OPERATION ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 9,500 acres in the Solomon Division.)

MONTH	HIST. INFLOW	NET EVAP AF	TOTAL RELEASE REQ	RES CHANGE	RES CONT AT END OF MONTH	RES SPILL	RES ELEV AT END OF MONTH	REQ SHORT
REAS MIN								
JAN	.3	.2	0.	.1	40.8	0.	1714.5	
FEB	.5	.3	0.	.2	41.0	0.	1714.6	
MAR	.8	.4	0.	.4	41.4	0.	1714.7	
APR	1.0	.4	0.	.6	42.0	0.	1715.0	
MAY	1.9	1.2	2.6	-1.9	40.1	0.	1714.3	
JUN	4.3	1.5	2.6	.2	40.3	0.	1714.4	
JUL	2.8	1.9	7.6	-6.7	33.6	0.	1711.8	
AUG	2.0	1.4	8.8	-8.2	25.4	0.	1707.9	
SEP	1.3	.8	3.8	-3.3	22.1	0.	1706.0	
OCT	.8	.6	0.	.2	22.3	0.	1706.2	
NOV	.4	.4	0.	0.	22.3	0.	1706.2	
DEC	.3	.2	0.	.1	22.4	0.	1706.2	
TOTAL	16.4	9.3	25.4	-18.3	0.	0.		
MOST PROB								
JAN	.6	.2	0.	.4	41.1	0.	1714.6	
FEB	1.3	.2	0.	1.1	42.2	0.	1715.0	
MAR	1.8	.3	0.	1.5	43.7	0.	1715.5	
APR	2.3	.5	0.	1.8	45.5	0.	1716.1	
MAY	4.5	1.0	.9	2.6	48.1	0.	1716.9	
JUN	10.0	1.3	.9	7.8	55.9	0.	1719.2	
JUL	6.6	1.9	6.8	-2.1	53.8	0.	1718.6	
AUG	4.7	1.6	6.8	-3.7	50.1	0.	1717.5	
SEP	3.0	1.2	1.7	.1	50.2	0.	1717.5	
OCT	2.0	1.0	0.	1.0	51.2	0.	1717.8	
NOV	.9	.5	0.	.4	51.6	0.	1717.9	
DEC	.7	.2	0.	.5	52.1	0.	1718.1	
TOTAL	38.4	9.9	17.1	11.4	0.	0.		
REAS MAX								
JAN	1.5	.1	0.	1.4	42.1	0.	1715.0	
FEB	3.0	.1	0.	2.9	45.0	0.	1715.9	
MAR	4.0	.2	0.	3.8	48.8	0.	1717.1	
APR	5.2	.2	0.	5.0	53.8	0.	1718.6	
MAY	10.4	.5	.4	9.5	63.3	0.	1721.1	
JUN	22.8	.6	.6	21.6	84.9	0.	1726.2	
JUL	15.2	2.2	4.3	8.7	93.6	0.	1728.1	
AUG	10.7	1.9	4.3	4.5	98.1	0.	1729.0	
SEP	7.0	1.2	1.0	1.3	99.4	3.5	1729.2	
OCT	4.5	1.0	0.	0.	99.4	3.5	1729.2	
NOV	2.2	.4	0.	0.	99.4	1.8	1729.2	
DEC	1.6	.2	0.	0.	99.4	1.4	1729.2	
TOTAL	88.1	8.6	10.6	58.7	0.	10.2		

WEBSTER RESERVOIR OPERATION ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 5,500 acres in the Solomon Division.)

MONTH	HIST. INFLOW	NET EVAP AF	TOTAL RELEASE REQ	RES CHANGE	RES CONT AT END OF MONTH	RES SPILL	RES ELEV AT END OF MONTH	REQ SHORT
REAS MIN								
JAN	.2	.1	0.	.1	21.5	0.	1871.9	
FEB	.4	.2	0.	.2	21.7	0.	1872.0	
MAR	.6	.3	0.	.3	22.0	0.	1872.2	
APR	.7	.8	0.	-.1	21.9	0.	1872.1	
MAY	1.5	.7	2.8	-2.0	19.9	0.	1871.0	
JUN	2.8	1.1	3.7	-2.0	17.9	0.	1869.9	
JUL	2.2	1.1	7.9	-6.8	11.1	0.	1865.3	
AUG	1.2	.7	8.8	-5.8	5.3	0.	1860.0	2.5
SEP	.9	.5	4.8	0.	5.3	0.	1860.0	4.4
OCT	.7	.4	0.	.3	5.6	0.	1860.3	
NOV	.3	.2	0.	.1	5.7	0.	1860.4	
DEC	.2	.1	0.	.1	5.8	0.	1860.5	
TOTAL	11.7	6.2	28.0	-15.6	0.	0.		
MOST PROB								
JAN	.6	.1	0.	.5	21.9	0.	1872.1	
FEB	1.2	.1	0.	1.1	23.0	0.	1872.7	
MAR	1.6	.2	0.	1.4	24.4	0.	1873.5	
APR	1.9	.4	0.	1.5	25.9	0.	1874.2	
MAY	4.0	.5	.8	2.7	28.6	0.	1875.5	
JUN	7.8	.8	.9	6.1	34.7	0.	1878.3	
JUL	6.1	1.3	7.0	-2.2	32.5	0.	1877.3	
AUG	3.4	1.0	7.0	-4.6	27.9	0.	1875.2	
SEP	2.3	.8	2.1	-.6	27.3	0.	1874.9	
OCT	1.8	.6	0.	1.2	28.5	0.	1875.5	
NOV	.8	.3	0.	.5	29.0	0.	1875.7	
DEC	.6	.1	0.	.5	29.5	0.	1876.0	
TOTAL	32.1	6.2	17.8	8.1	0.	0.		
REAS MAX								
JAN	1.8	.1	0.	1.7	23.1	0.	1872.8	
FEB	3.3	.1	0.	3.2	26.3	0.	1874.4	
MAR	4.4	.1	0.	4.3	30.6	0.	1876.5	
APR	5.5	.2	0.	5.3	35.9	0.	1878.8	
MAY	11.1	.4	0.	10.7	46.6	0.	1883.0	
JUN	21.8	.2	0.	21.6	68.2	0.	1889.9	
JUL	17.1	1.7	3.6	9.2	77.4	2.6	1892.4	
AUG	9.5	1.3	3.7	0.	77.4	4.5	1892.4	
SEP	6.5	1.2	.2	0.	77.4	5.1	1892.4	
OCT	5.2	.9	0.	0.	77.4	4.3	1892.4	
NOV	2.2	.3	0.	0.	77.4	1.9	1892.4	
DEC	1.8	.2	0.	0.	77.4	1.6	1892.4	
TOTAL	90.2	6.7	7.5	56.0	0.	20.0		

WACØNDA LAKE ØPERATIØN ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Service for the city of Beloit and water quality control in the Solomon Division.)

ØNTH	UNDEPL INFLØW	CØRR FØR UPSTR DEPL	DEPL INFLØW	NET EVAP AF	TØTAL RELEASE REQ	RES CHANGE	RES CØNT AT END ØF MØNTH	RES SPILL	RES ELEV AT END ØF MØNTH
REAS MIN									
JAN	1.8	-.5	1.3	.9	.6	-.2	241.3	0.	1455.6
FEB	3.2	-.9	2.3	1.0	.6	.2	241.5	.5	1455.6
MAR	4.4	-1.4	3.0	1.9	.6	0.	241.5	.5	1455.6
APR	5.3	-1.7	3.6	4.8	.6	-1.8	239.7	0.	1455.5
MAY	8.0	.2	8.2	4.7	.6	1.8	241.5	1.1	1455.6
JUN	15.1	-2.6	12.5	6.9	.9	0.	241.5	4.7	1455.6
JUL	11.1	5.2	16.3	8.5	2.6	0.	241.5	5.2	1455.6
AUG	6.0	3.4	9.4	8.9	2.5	-2.0	239.5	0.	1455.4
SEP	4.5	-.9	3.6	6.4	1.6	-4.4	235.1	0.	1455.1
ØCT	2.0	-1.5	.5	4.5	.8	-4.8	230.3	0.	1454.7
NØV	1.9	-.7	1.2	2.5	.6	-1.9	228.4	0.	1454.5
DEC	2.2	-.5	1.7	1.2	.6	-.1	228.3	0.	1454.5
TØTAL	65.5	-1.9	63.6	52.2	12.6	-13.2	0.	12.0	
MØST PRØB									
JAN	4.4	-1.2	3.2	.6	.6	0.	241.5	2.0	1455.6
FEB	6.3	-2.5	3.8	.7	.6	0.	241.5	2.5	1455.6
MAR	7.5	-3.4	4.1	.9	.6	0.	241.5	2.6	1455.6
APR	11.6	-4.2	7.4	3.0	.6	0.	241.5	3.8	1455.6
MAY	27.5	-7.5	20.0	3.1	.6	0.	241.5	16.3	1455.6
JUN	49.0	-16.7	32.3	3.5	.6	0.	241.5	28.2	1455.6
JUL	24.1	-3.6	20.5	6.4	2.3	0.	241.5	11.8	1455.6
AUG	13.0	1.0	14.0	4.7	2.2	0.	241.5	7.1	1455.6
SEP	13.8	-2.7	11.1	4.2	1.3	0.	241.5	5.6	1455.6
ØCT	6.0	-3.8	2.2	3.4	.6	-1.8	239.7	0.	1455.5
NØV	4.8	-1.7	3.1	1.9	.6	.6	240.3	0.	1455.5
DEC	5.0	-1.3	3.7	.8	.6	1.2	241.5	1.1	1455.6
TØTAL	173.0	-47.6	125.4	33.2	11.2	-.0	0.	81.0	
REAS MAX									
JAN	9.5	-3.3	6.2	.4	.6	0.	241.5	5.2	1455.6
FEB	15.5	-6.3	9.2	.2	.6	0.	241.5	8.4	1455.6
MAR	19.0	-8.4	10.6	.4	.6	0.	241.5	9.6	1455.6
APR	36.4	-10.7	25.7	1.5	.6	0.	241.5	23.6	1455.6
MAY	56.6	-21.4	35.2	.9	.6	0.	241.5	33.7	1455.6
JUN	165.9	-44.5	121.4	-.2	.6	0.	241.5	121.0	1455.6
JUL	69.8	-27.1	42.7	4.7	.6	0.	241.5	37.4	1455.6
AUG	41.8	-11.3	30.5	3.4	.6	0.	241.5	26.5	1455.6
SEP	53.5	-8.0	45.5	2.4	.6	0.	241.5	42.5	1455.6
ØCT	28.5	-2.2	26.3	2.5	.6	0.	241.5	23.2	1455.6
NØV	14.9	-.7	14.2	1.0	.6	0.	241.5	12.6	1455.6
DEC	9.6	-.4	9.2	.4	.6	0.	241.5	8.2	1455.6
TØTAL	521.0	-144.3	376.7	17.6	7.2	0.	0.	351.9	

CEDAR BLUFF RESERVOIR OPERATION ESTIMATES - 1974
(UNITS IN 1,000 ACRE-FEET)
(Irrigation service for 6,200 acres and city of Russell in the Smoky Hill Division.

MONTH	HIST. INFLOW	NET EVAP AF	TOTAL RELEASE REQ	RES CHANGE	RES CONT AT END OF MONTH	RES SPILL	RES ELEV AT END OF MONTH	REQ SHORT
REAS MIN								
JAN	.2	.6	.5	-.9	133.5	0.	2135.6	
FEB	.3	.6	.4	-.7	132.8	0.	2135.5	
MAR	.5	1.1	.6	-1.2	131.6	0.	2135.3	
APR	.9	2.4	.4	-1.9	129.7	0.	2135.0	
MAY	2.1	2.3	2.5	-2.7	127.0	0.	2134.4	
JUN	4.7	3.4	2.4	-1.1	125.9	0.	2134.2	
JUL	2.4	3.9	6.3	-7.8	118.1	0.	2132.7	
AUG	2.2	3.5	6.6	-7.9	110.2	0.	2131.0	
SEP	1.2	2.4	4.0	-5.2	105.0	0.	2129.9	
OCT	.9	1.8	1.7	-2.6	102.4	0.	2129.3	
NOV	.3	1.1	.4	-1.2	101.2	0.	2129.1	
DEC	.2	.5	.4	-.7	100.5	0.	2128.9	
TOTAL	15.9	23.6	26.2	-33.9	0.	0.		
MOST PROB								
JAN	.5	.5	.5	-.5	133.9	0.	2135.7	
FEB	.9	.5	.4	0.	133.9	0.	2135.7	
MAR	1.3	.8	.6	-.1	133.8	0.	2135.7	
APR	2.2	1.7	.4	.1	133.9	0.	2135.7	
MAY	5.3	1.5	1.3	2.5	136.4	0.	2136.2	
JUN	11.9	2.0	1.2	8.7	145.1	0.	2137.7	
JUL	6.2	3.6	5.2	-2.6	142.5	0.	2137.3	
AUG	5.7	2.9	6.0	-3.2	139.3	0.	2136.7	
SEP	2.9	2.1	2.0	-1.2	138.1	0.	2136.5	
OCT	2.3	1.7	1.2	-.6	137.5	0.	2136.4	
NOV	.8	1.1	.4	-.7	136.8	0.	2136.2	
DEC	.6	.6	.4	-.4	136.4	0.	2136.2	
TOTAL	40.6	19.0	19.6	2.0	0.	0.		
REAS MAX								
JAN	1.4	.4	.5	.5	134.9	0.	2135.9	
FEB	2.5	.4	.4	1.7	136.6	0.	2136.2	
MAR	3.7	.6	.6	2.5	139.1	0.	2136.7	
APR	6.2	1.1	.4	4.7	143.8	0.	2137.5	
MAY	14.7	1.0	1.0	12.7	156.5	0.	2139.6	
JUN	32.9	.7	.9	28.6	185.1	2.7	2144.0	
JUL	17.0	3.0	3.6	0.	185.1	10.4	2144.0	
AUG	15.8	2.4	4.0	0.	185.1	9.4	2144.0	
SEP	8.1	2.2	1.4	0.	185.1	4.5	2144.0	
OCT	6.5	1.5	.9	0.	185.1	4.1	2144.0	
NOV	2.2	.9	.4	0.	185.1	.9	2144.0	
DEC	1.5	.5	.4	0.	185.1	.6	2144.0	
TOTAL	112.5	14.7	14.5	50.7	0.	32.6		

TABLE 4
FLOOD DAMAGES PREVENTED BY KANSAS RIVER PROJECTS RESERVOIRS

BONNY

Year	Damages Prevented	Cumulative Total
1951	$ 293,000	$ 293,000
1953	135,000	428,000
1957	1,050,000	1,478,000
1960	169,000	1,647,000
1965	273,000	1,920,000
1967	42,000	1,962,000
1969	200,000	2,162,000

SWANSON

Year	Damages Prevented	Cumulative Total
1957	$ 233,000	$ 233,000
1960	900,000	1,133,000
1962	126,000	1,259,000
1964	50,000	1,309,000
1965	477,000	1,786,000
1967	182,000	1,968,000
1969	1,000	1,969,000

ENDERS

Year	Damages Prevented	Cumulative Total
1951	$ 220,000	$ 220,000
1956	104,000	324,000
1960	412,000	736,000
1962	37,000	773,000
1965	137,000	910,000
1967	42,000	952,000
1969	1,000	953,000

HUGH BUTLER

Year	Damages Prevented	Cumulative Total
1962	$ 2,000	$ 2,000
1965	137,000	139,000
1967	42,000	181,000

HARRY STRUNK

Year	Damages Prevented	Cumulative Total
1951	$ 14,000	$ 14,000
1957	5,000	19,000
1960	198,000	217,000
1962	29,000	246,000
1967	129,000	375,000
1969	6,000	381,000

NORTON

Year	Damages Prevented	Cumulative Total
1966	$ 132,000	$ 132,000
1967	885,000	1,017,000
1972	500,000	1,517,000

HARLAN COUNTY

Year	Damages Prevented	Cumulative Total
1957	$1,045,000	$ 1,045,000
1960	4,853,000	5,898,000
1961	255,000	6,153,000
1962	39,000	6,192,000
1964	182,000	6,374,000
1965	60,000	6,434,000
1966	1,658,000	8,092,000
1967	3,539,000	11,631,000
1969	14,000	11,645,000
1971	64,000	11,709,000
1973	1,309,000	13,018,000

LOVEWELL

Year	Damages Prevented	Cumulative Total
1957	$ 349,000	$ 349,000
1960	178,000	527,000
1961	165,000	692,000
1962	5,000	697,000
1971	9,000	706,000
1973	1,728,000	2,434,000

KIRWIN

Year	Damages Prevented	Cumulative Total
1957	$ 522,000	$ 522,000
1958	10,000	532,000
1960	499,000	1,031,000
1961	1,000	1,032,000
1962	1,000	1,033,000
1964	34,000	1,067,000
1965	325,000	1,392,000
1967	191,000	1,583,000
1968	44,000	1,627,000
1969	2,000	1,629,000
1971	3,000	1,632,000
1973	40,000	1,672,000

WEBSTER

Year	Damages Prevented	Cumulative Total
1957	$ 326,000	$ 326,000
1958	114,000	440,000
1960	1,018,000	1,458,000
1961	1,000	1,459,000
1962	1,000	1,460,000
1964	17,000	1,477,000
1965	325,000	1,802,000
1967	85,000	1,887,000
1968	2,000	1,889,000
1969	1,000	1,890,000
1971	3,000	1,893,000
1973	55,000	1,948,000

WACONDA

Year	Damages Prevented	Cumulative Total
1968	$ 280,000	$ 280,000
1969	606,000	886,000
1971	9,000	895,000
1973	3,797,000	4,692,000

CEDAR BLUFF

Year	Damages Prevented	Cumulative Total
1951	$ 597,000	$ 597,000
1955	357,000	954,000
1956	19,000	973,000
1957	4,812,000	5,785,000
1958	829,000	6,614,000
1960	1,573,000	8,187,000
1961	101,000	8,288,000
1962	1,000	8,289,000
1964	17,000	8,306,000
1965	38,000	8,344,000
1967	42,000	8,386,000
1969	1,000	8,387,000
1971	8,000	8,395,000
1973	536,000	8,931,000

PROJECT TOTALS

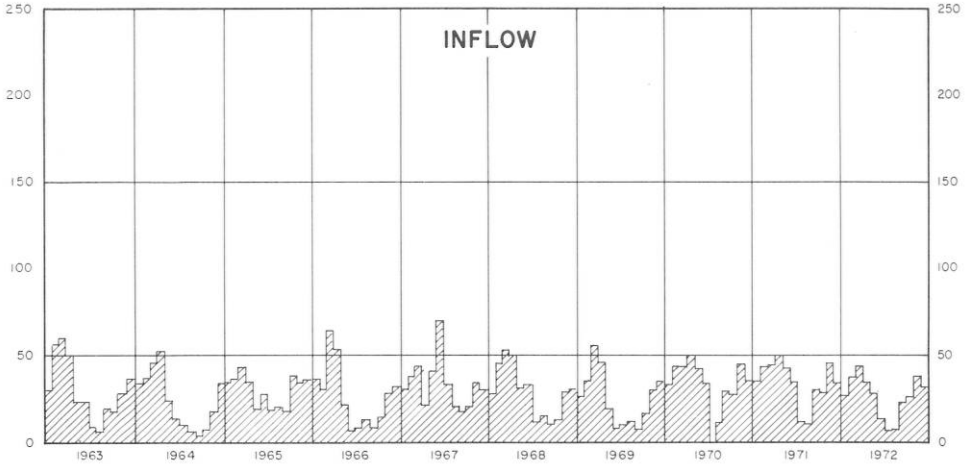
Year	Damages Prevented	Cumulative Total
1951	$1,124,000	$ 1,124,000
1953	135,000	1,259,000
1955	357,000	1,616,000
1956	123,000	1,739,000
1957	8,109,000	9,848,000
1958	953,000	10,801,000
1960	9,800,000	20,601,000
1961	523,000	21,124,000
1962	241,000	21,365,000
1964	300,000	21,665,000
1965	1,772,000	23,437,000
1966	1,790,000	25,227,000
1967	5,179,000	30,406,000
1968	326,000	30,732,000
1969	832,000	31,564,000
1971	96,000	31,660,000
1972	500,000	32,160,000
1973	7,465,000	39,625,000

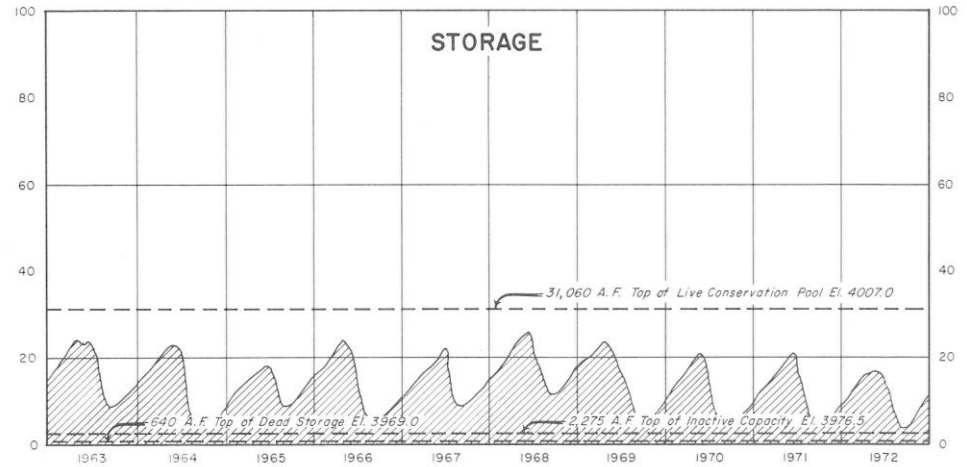
TABLE 5
OTHER USES AT FEDERALLY CONSTRUCTED STORAGE AND DIVERSION DAMS
NIOBRARA, LOWER PLATTE AND KANSAS RIVER BASINS
During 1973
Annual Totals

Features	Visitors	Cars In Area	Water Craft	Sport Fish Caught	Season Take Ducks	Season Take Geese
Colorado						
Bonny Reservoir	142,179	66,166	2,050	12,640	2,500	0
Kansas						
Norton Reservoir	89,542	25,584	1,005	23,000	250	45
Almena Diversion Dam	1,380	310	0	115	0	0
Lovewell Reservoir	153,649	38,620	4,505	14,000	150	40
Kirwin Reservoir	106,166	51,104	2,040	85,000	92	277
Webster Reservoir	126,356	34,150	395	15,000	800	100
Woodston Diversion Dam	1,581	600	0	100	5	0
Waconda Lake	256,116	80,375	4,950	50,000	1,500	75
Cedar Bluff Reservoir	182,742	54,320	5,300	10,000	200	50
Nebraska						
Box Butte Reservoir	36,474	11,080	4,007	14,715	88	6
Merritt Reservoir	45,605	15,220	3,010	26,280	215	0
Milburn Diversion Dam	1,140	875	0	7,180	32	5
Arcadia Diversion Dam	14,100	4,000	0	7,910	165	9
Sherman Reservoir	161,000	60,000	16,900	70,000	815	78
Swanson Lake	204,433	57,756	6,578	44,290	198	15
Enders Reservoir	18,018	4,669	812	7,750	280	11
Hugh Butler Lake	117,057	49,974	6,422	43,997	155	6
Harry Strunk Lake	111,601	21,022	2,591	31,910	127	6
Harlan County Reservoir	763,176	223,567	51,524	- - - - (Not Available)		- -
TOTAL REPORTED	2,532,315	799,392	112,089	463,887	7,572	723

Visitors = Total visitor-days which includes fishing, hunting, boating, skiing, camping, picnicking and signtseeing.
Water Craft = Boating days which includes rentals, inboards, outboards, rowboats and sailboats.

BOX BUTTE RESERVOIR
HISTORICAL OPERATION





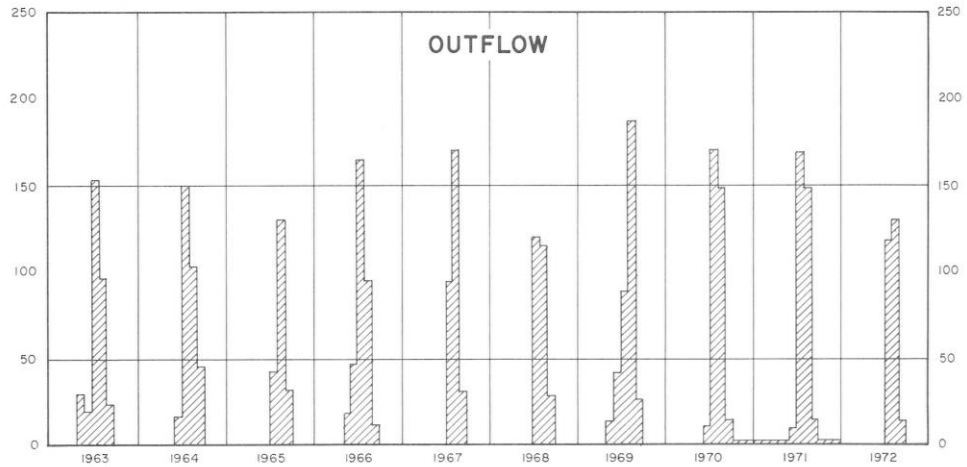
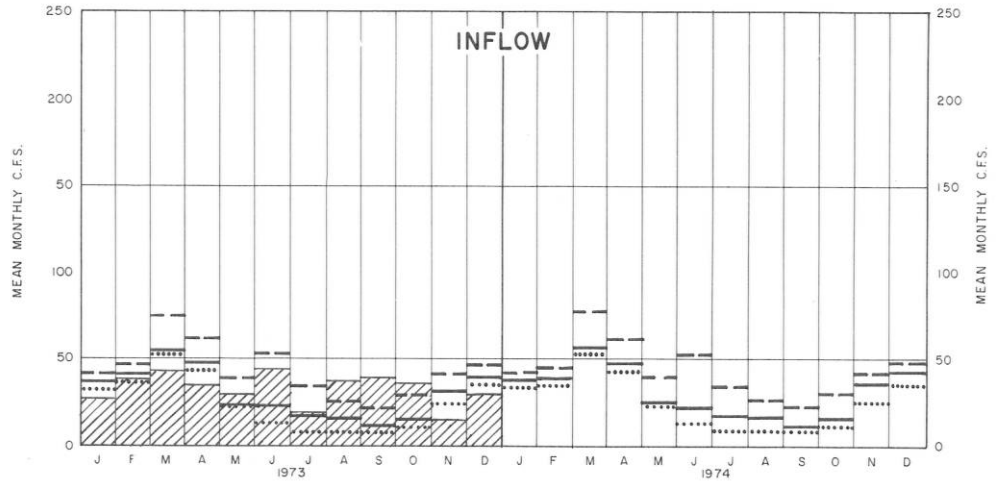
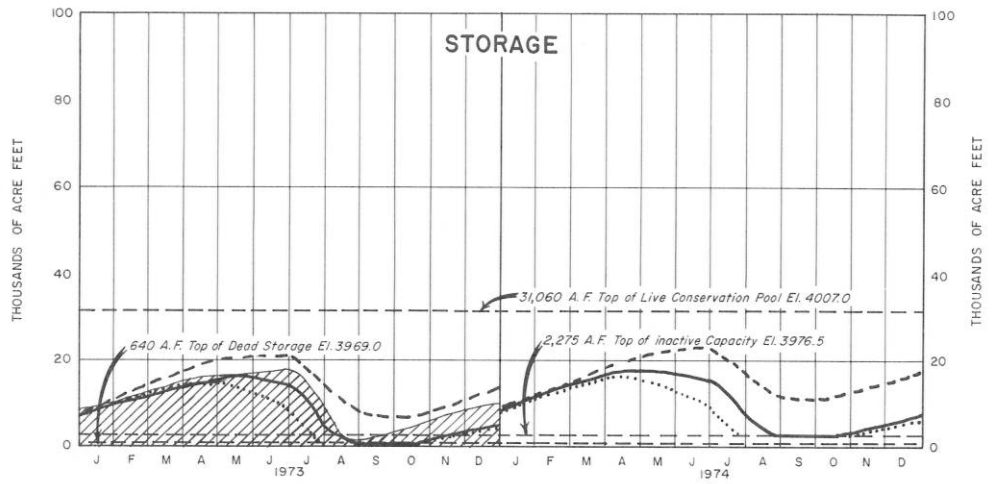
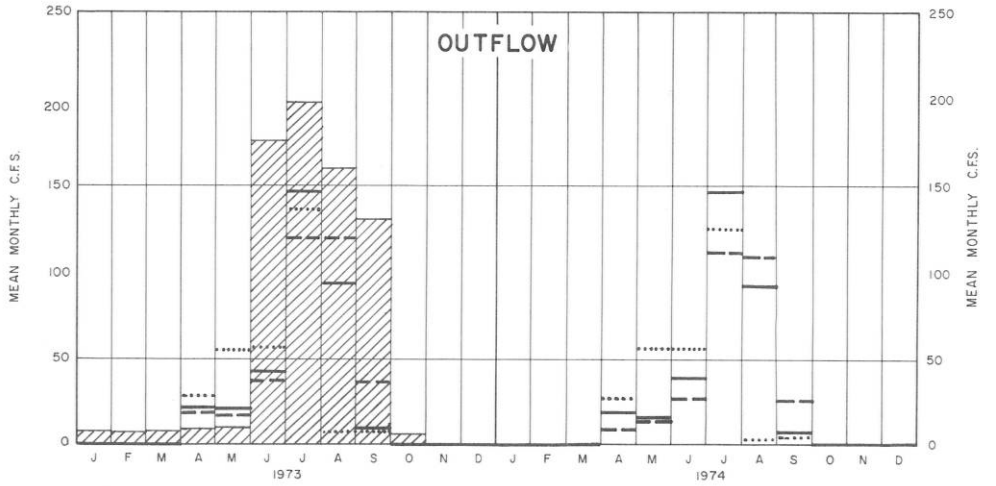


Exhibit 1

BOX BUTTE RESERVOIR
OPERATING PLANS

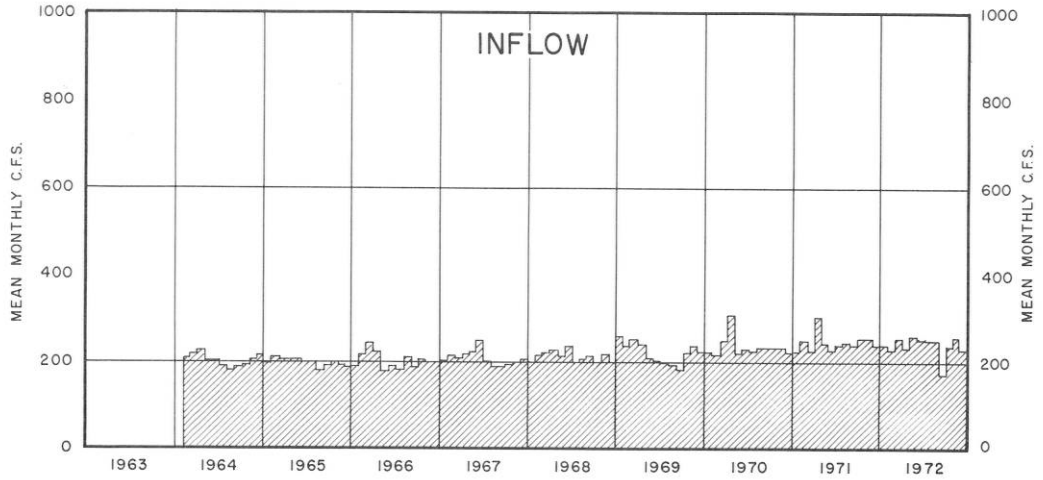


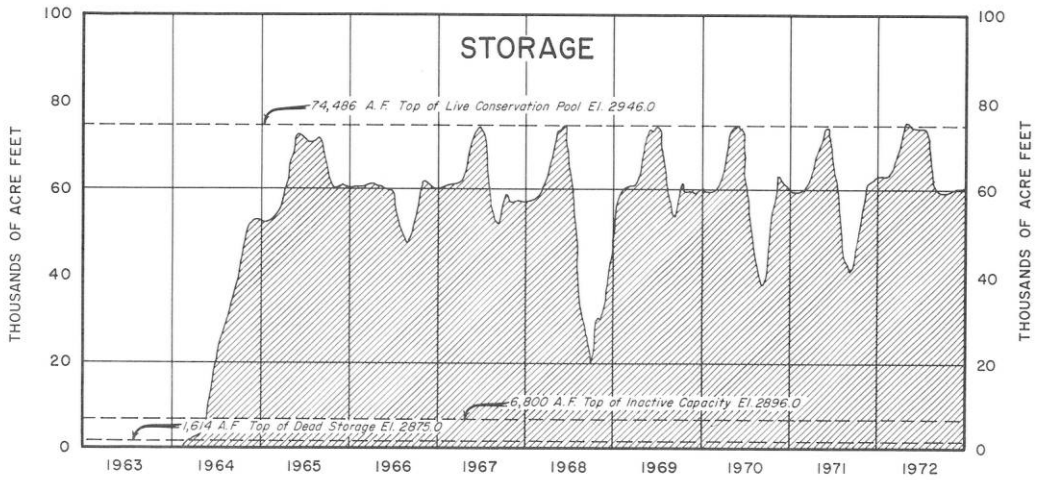




MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

MERRITT RESERVOIR
HISTORICAL OPERATION





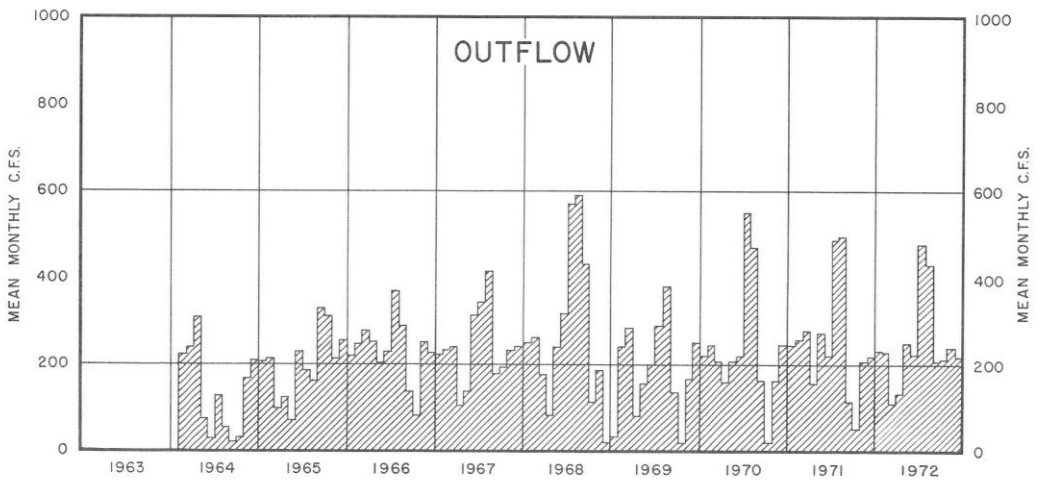
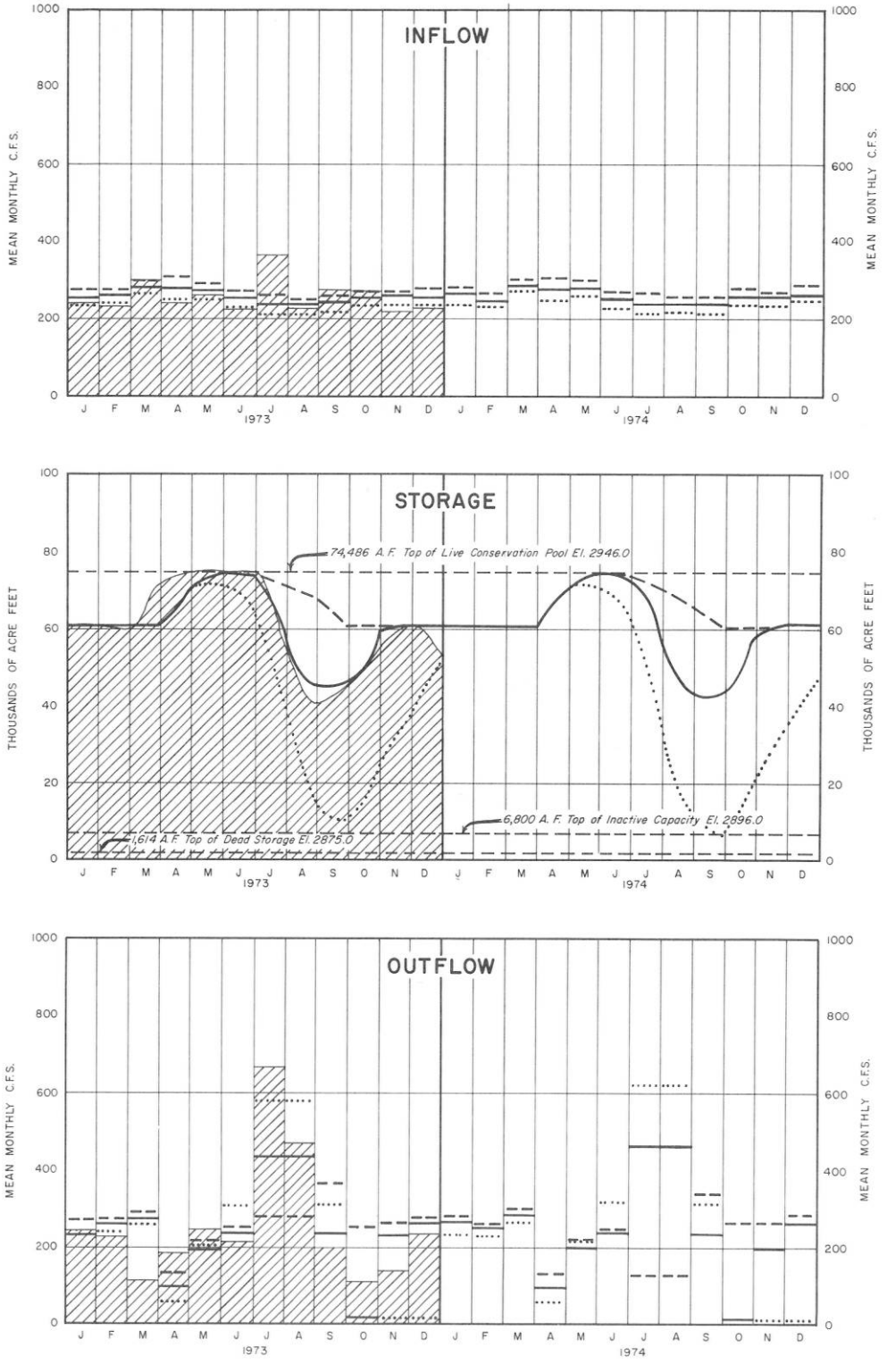
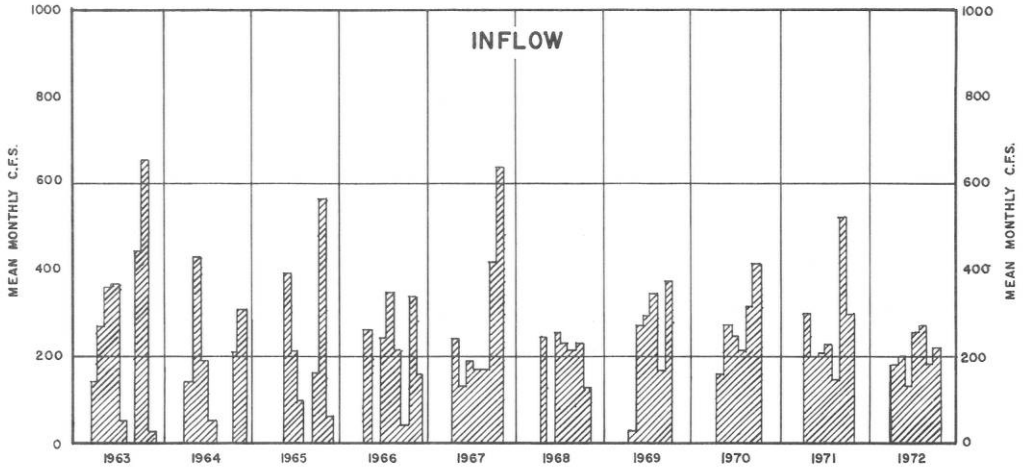


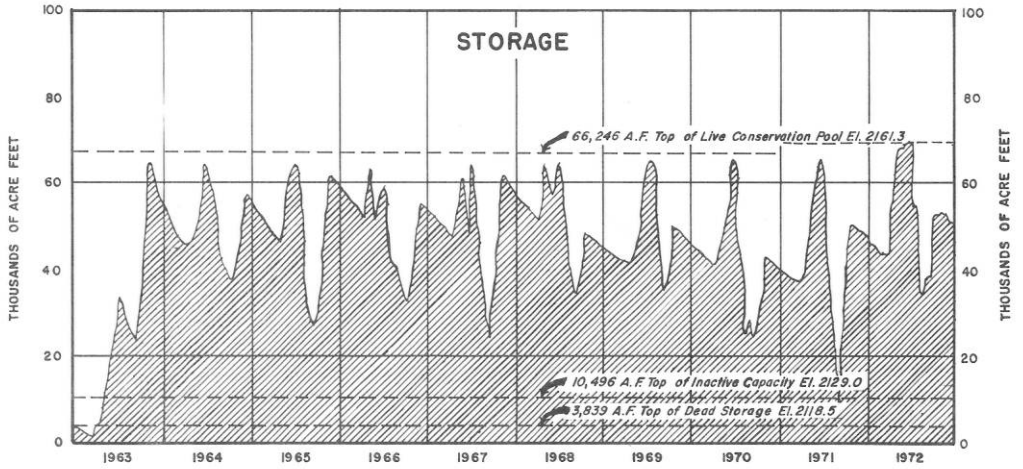
Exhibit 2

MERRITT RESERVOIR
OPERATING PLANS



SHERMAN RESERVOIR
HISTORICAL OPERATION





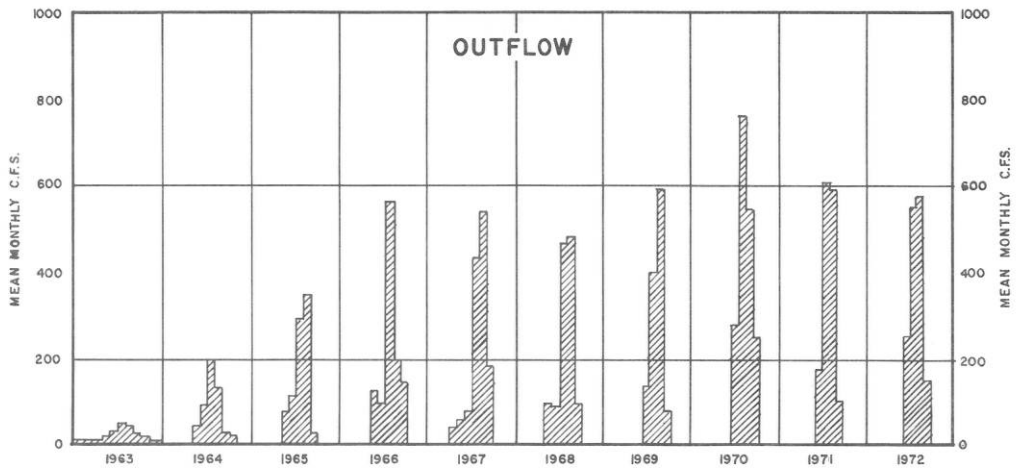
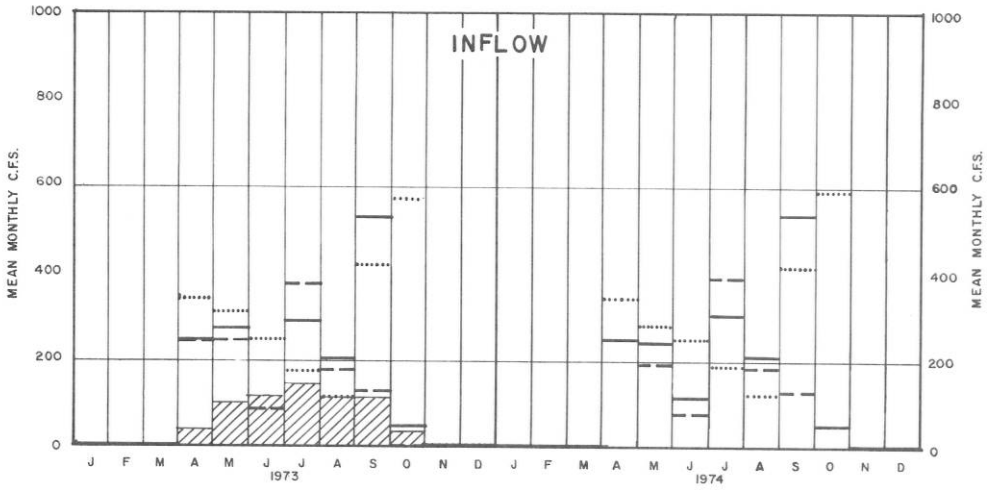
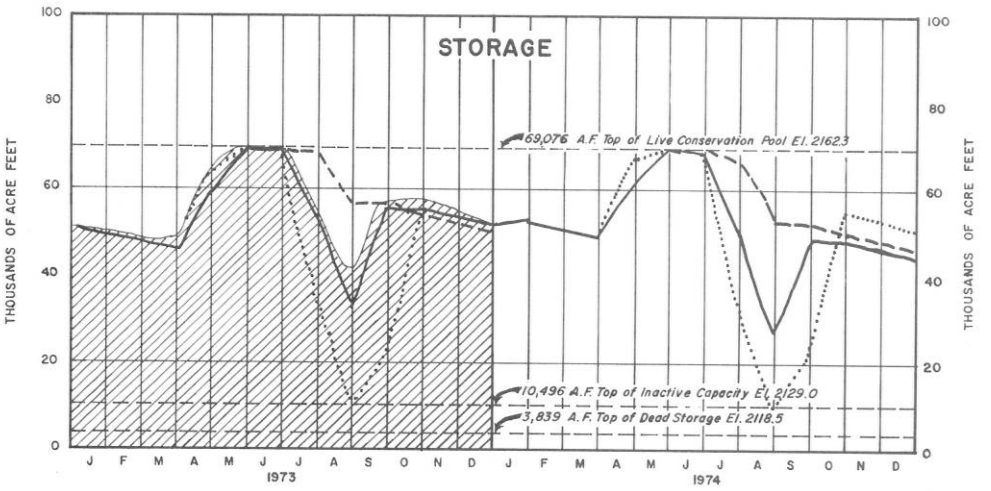
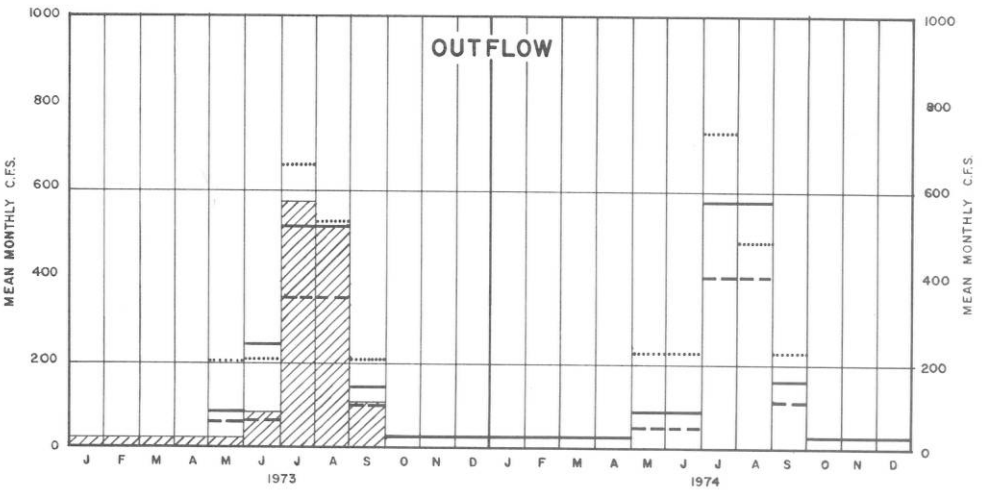


Exhibit 3

SHERMAN RESERVOIR
OPERATING PLANS

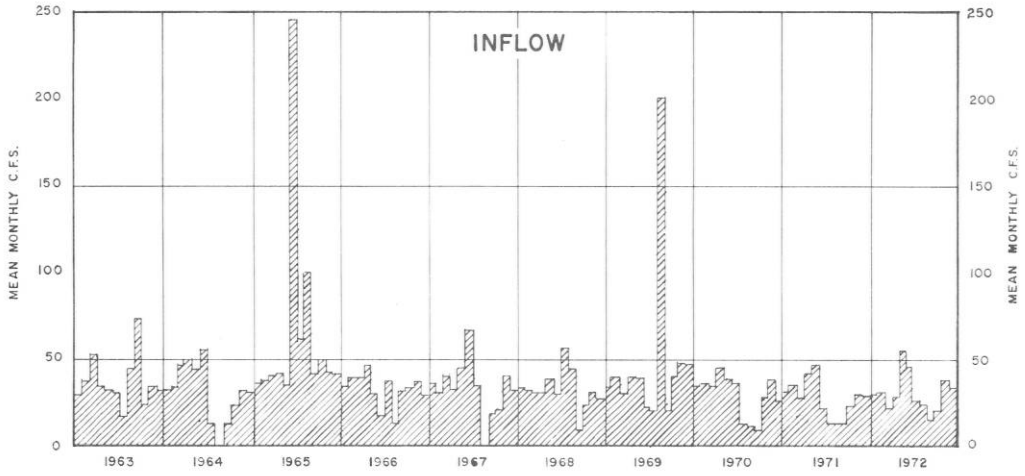


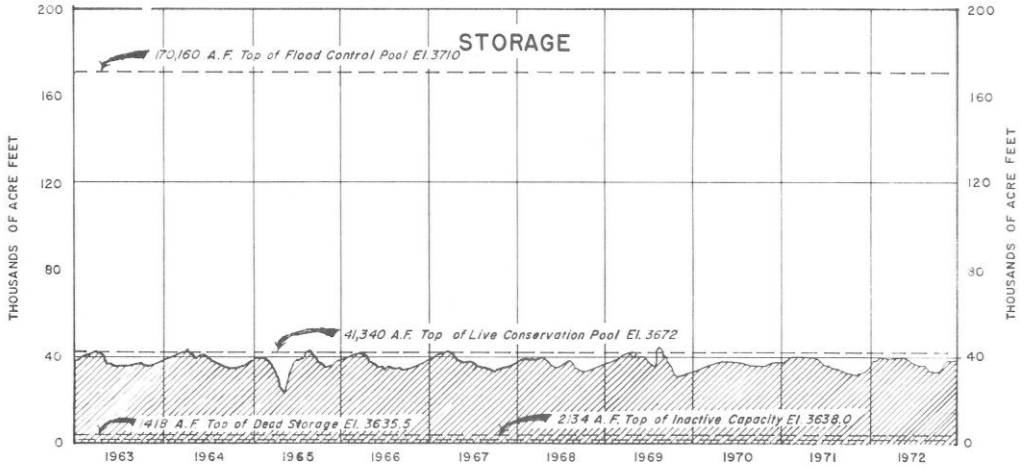




MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

BONNY RESERVOIR
HISTORICAL OPERATION





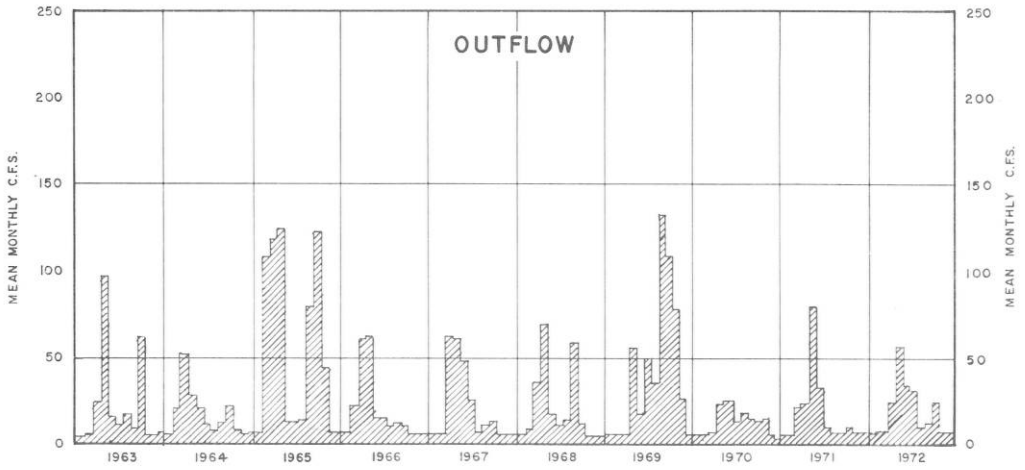
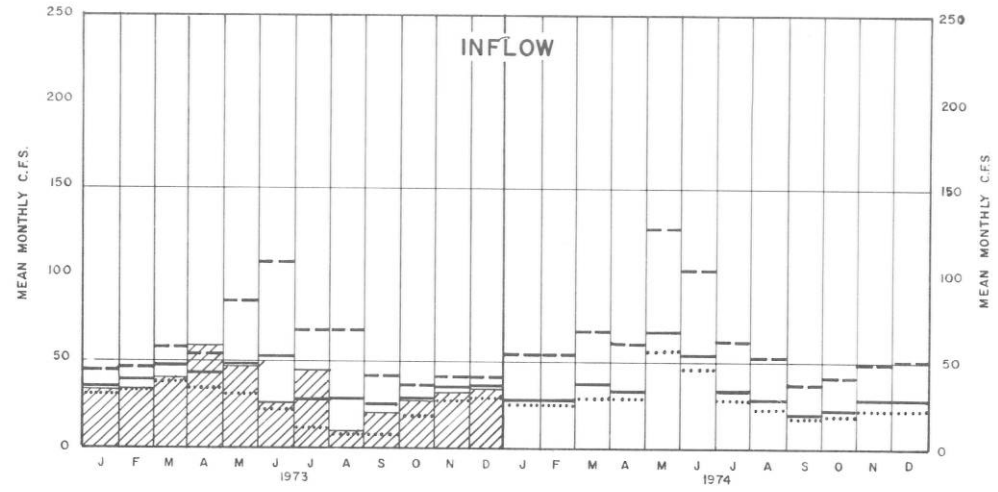
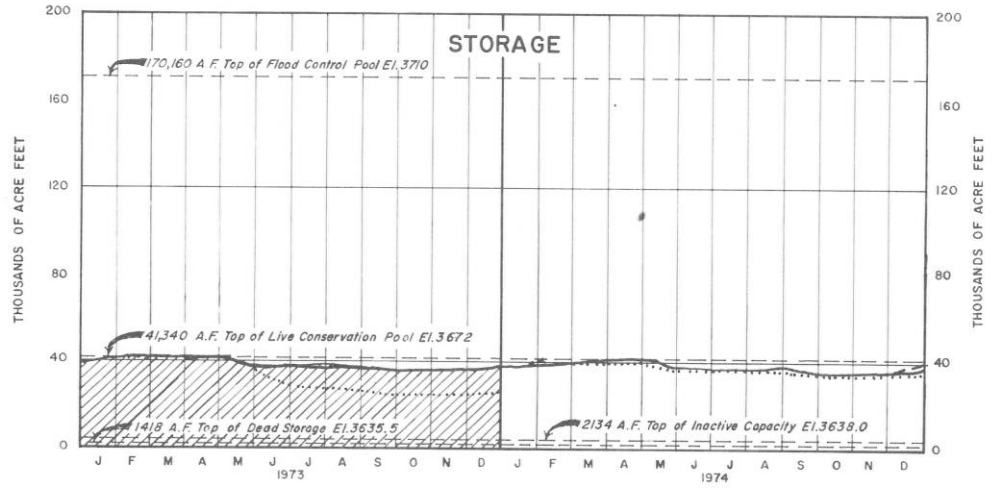
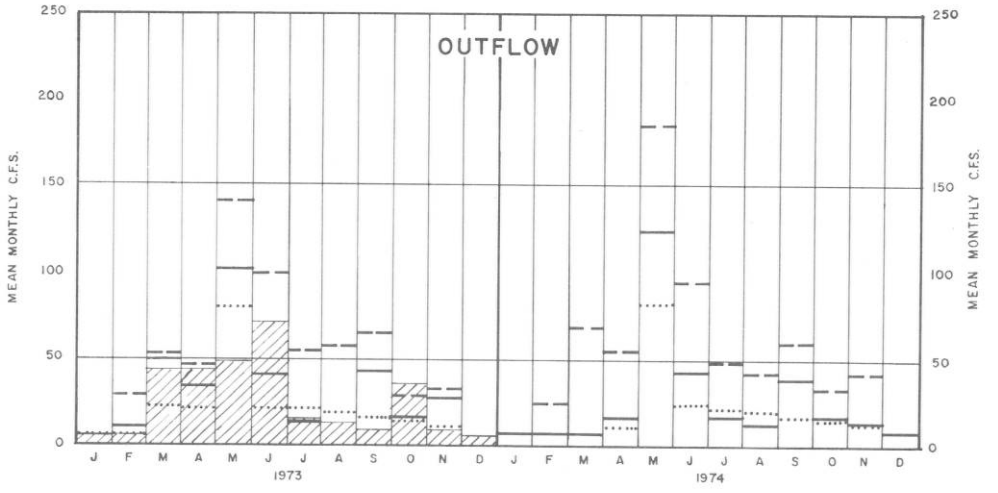


Exhibit 4

BONNY RESERVOIR
OPERATING PLANS

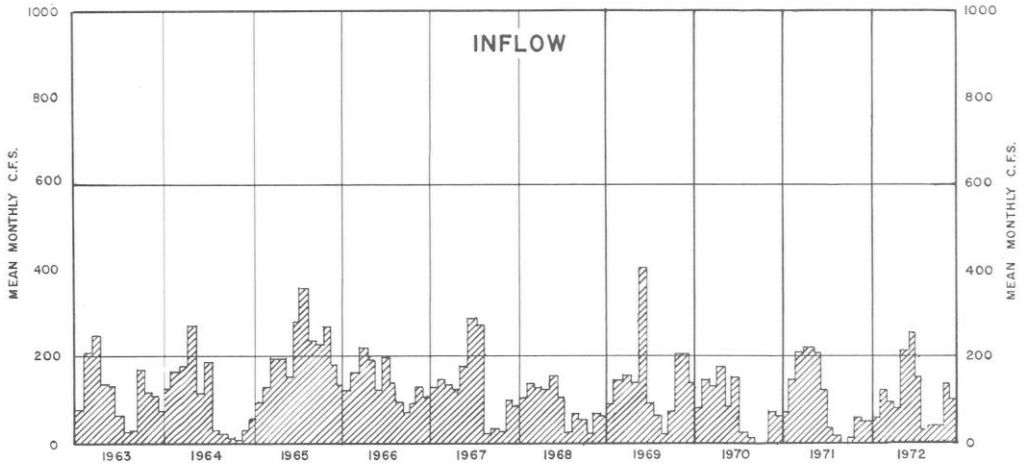


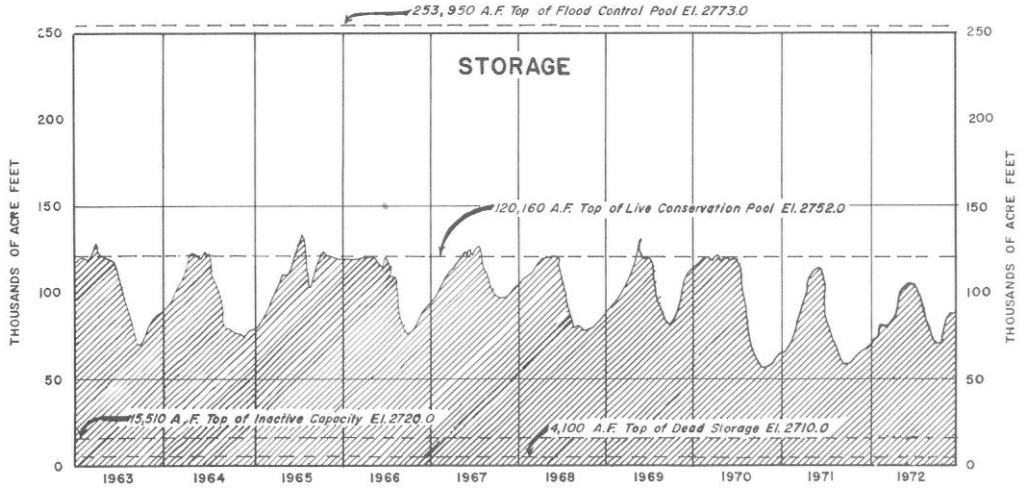




MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

SWANSON LAKE
HISTORICAL OPERATION





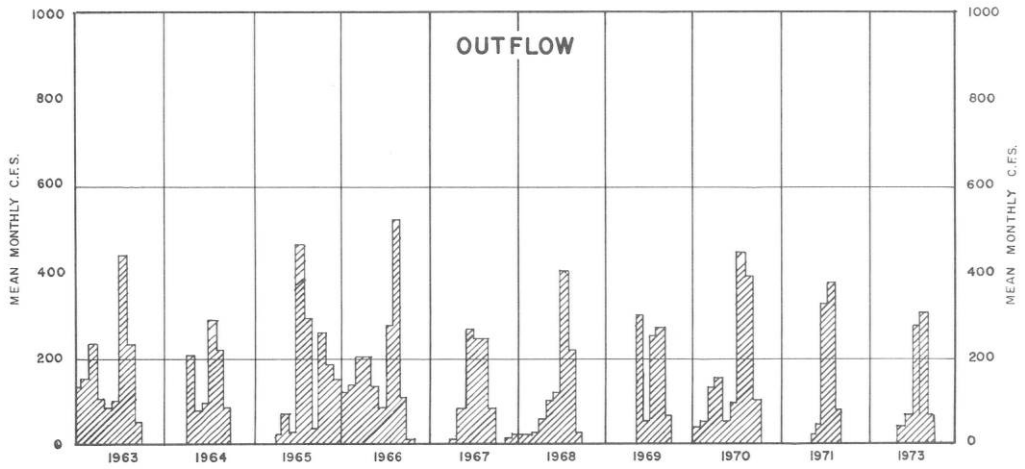
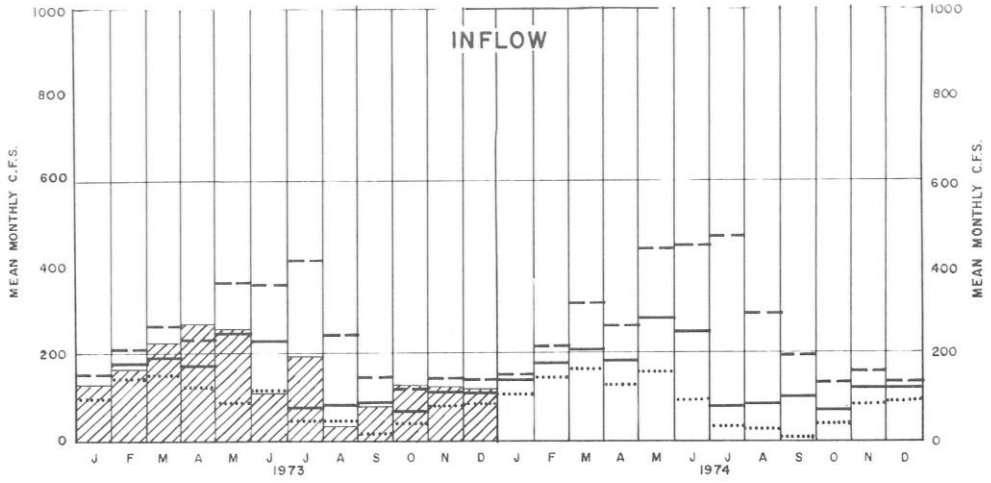
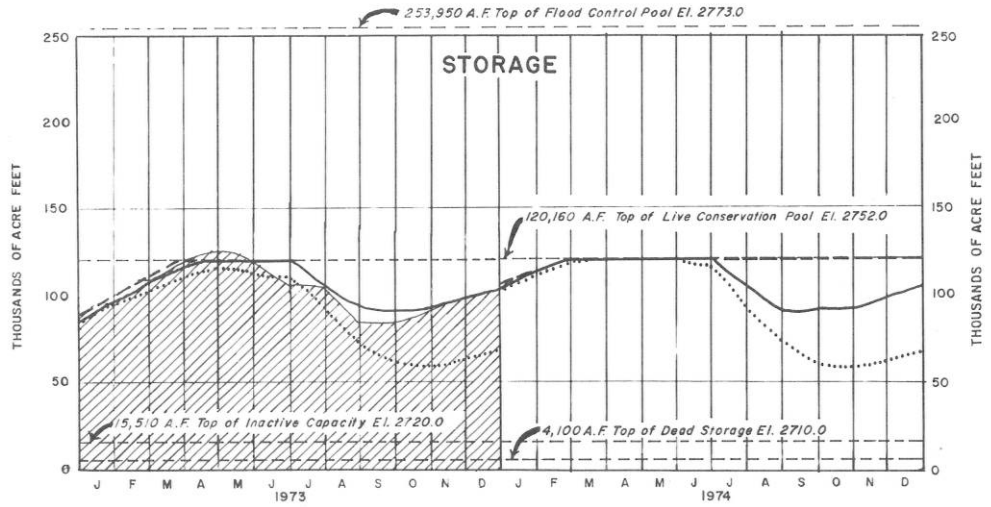
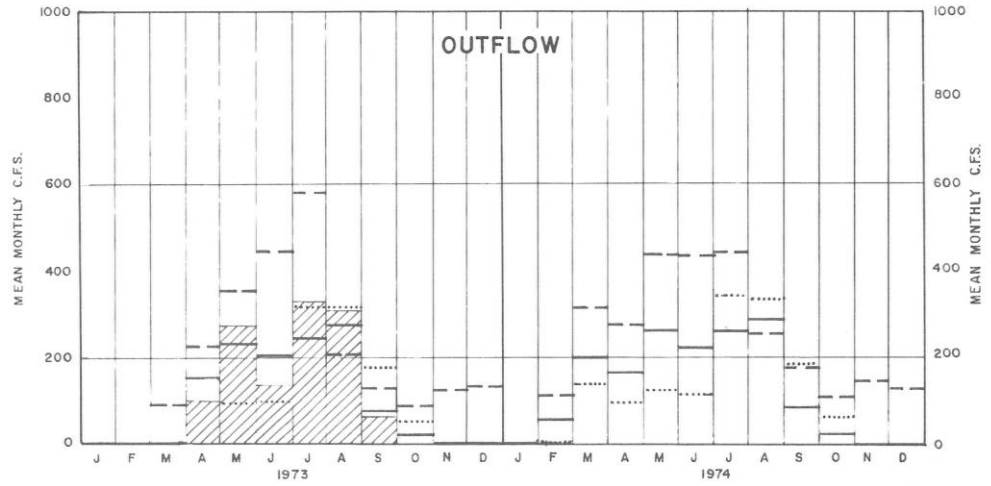


Exhibit 5

SWANSON LAKE
OPERATING PLANS

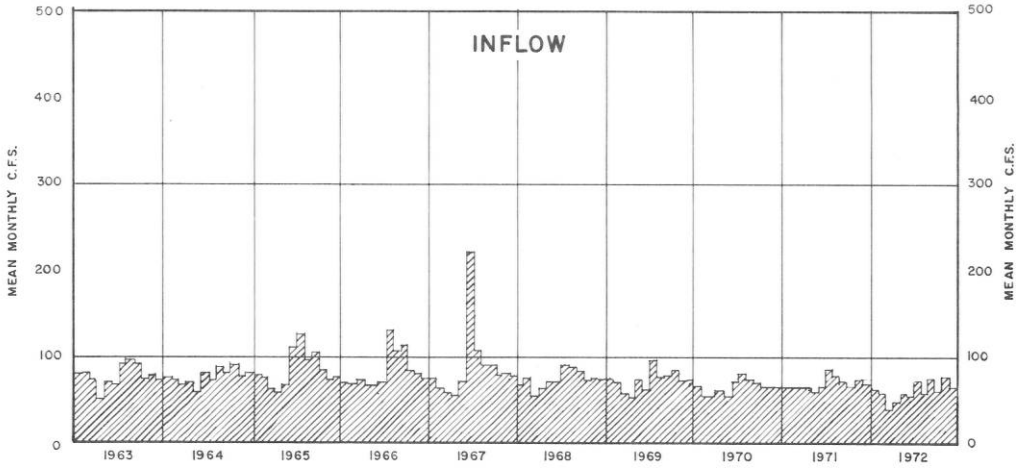


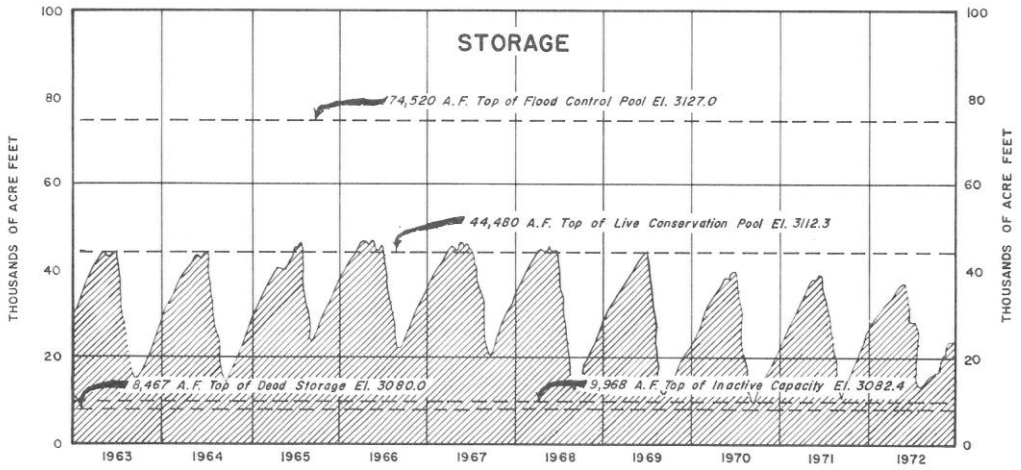




MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

ENDERS RESERVOIR
HISTORICAL OPERATION





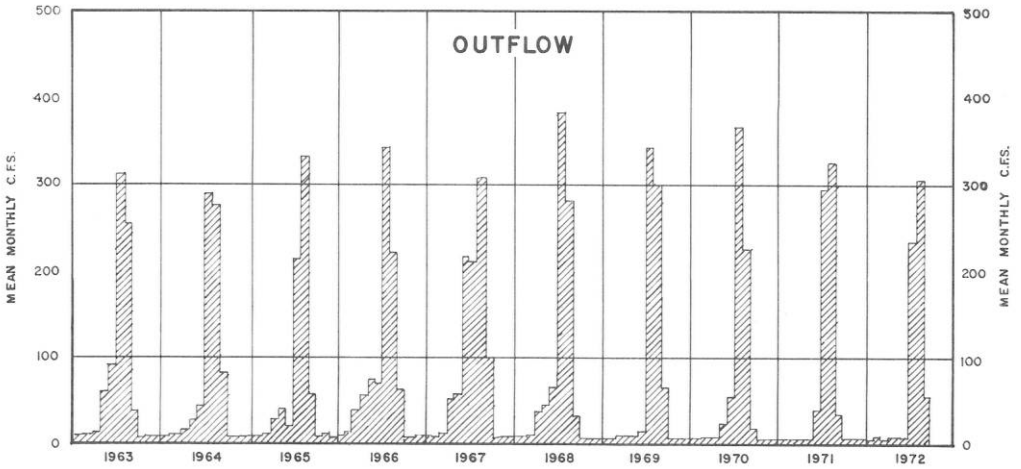
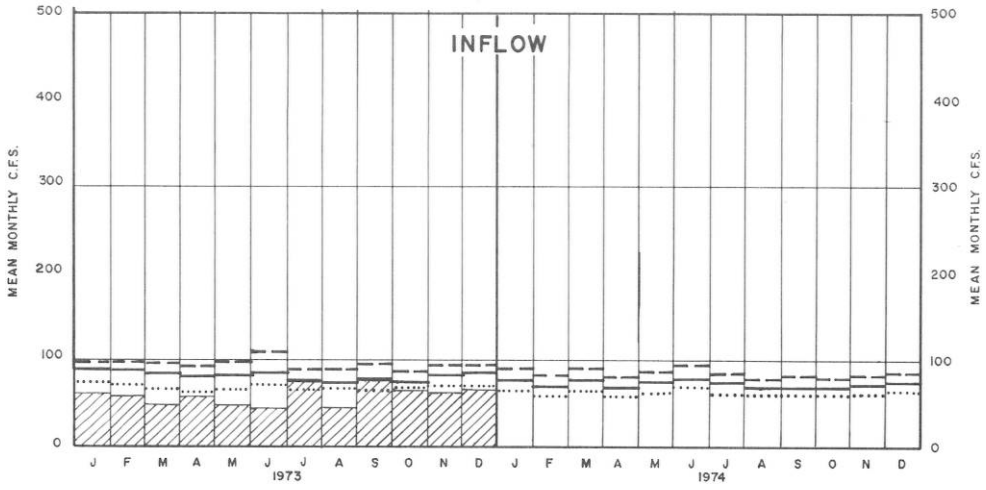
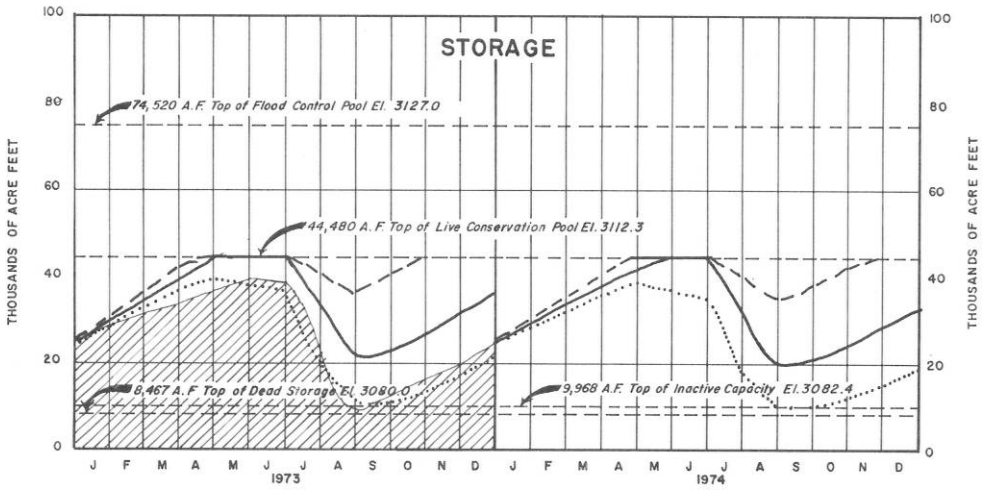
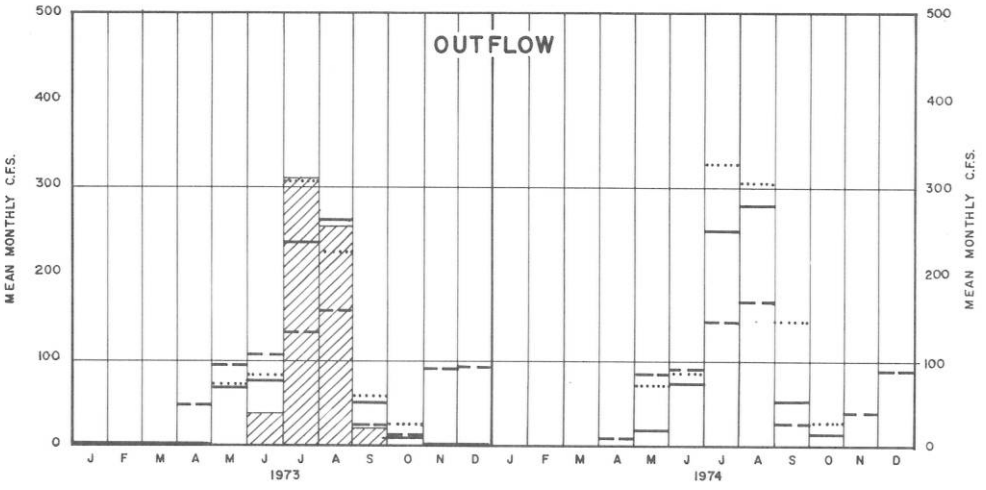


Exhibit 6

ENDERS RESERVOIR
OPERATING PLANS

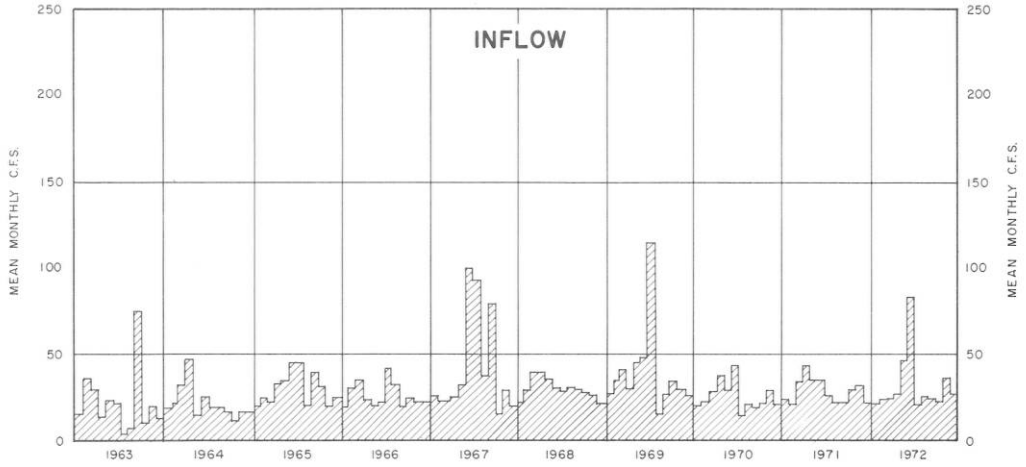


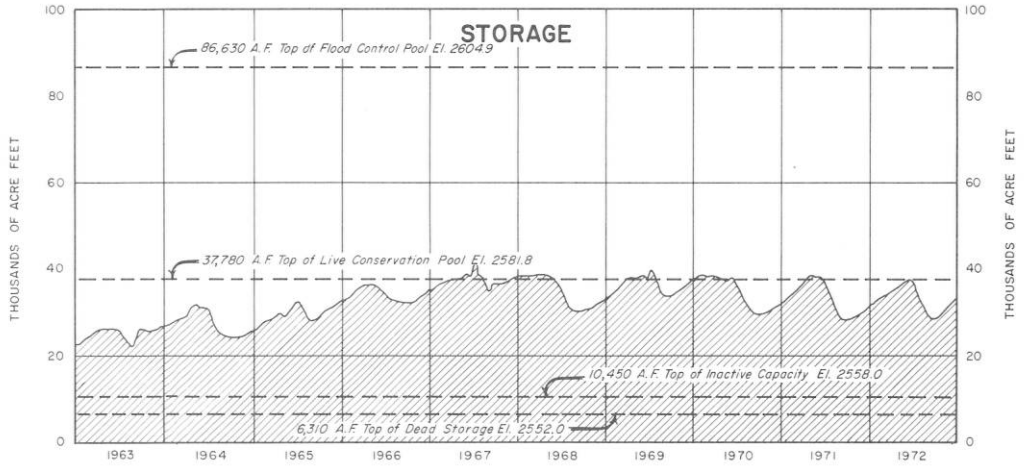




MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

HUGH BUTLER LAKE
HISTORICAL OPERATION





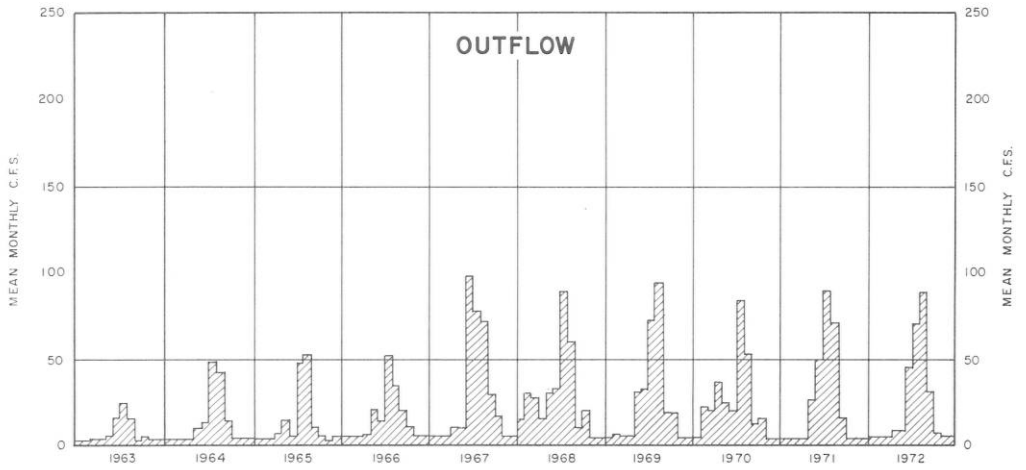
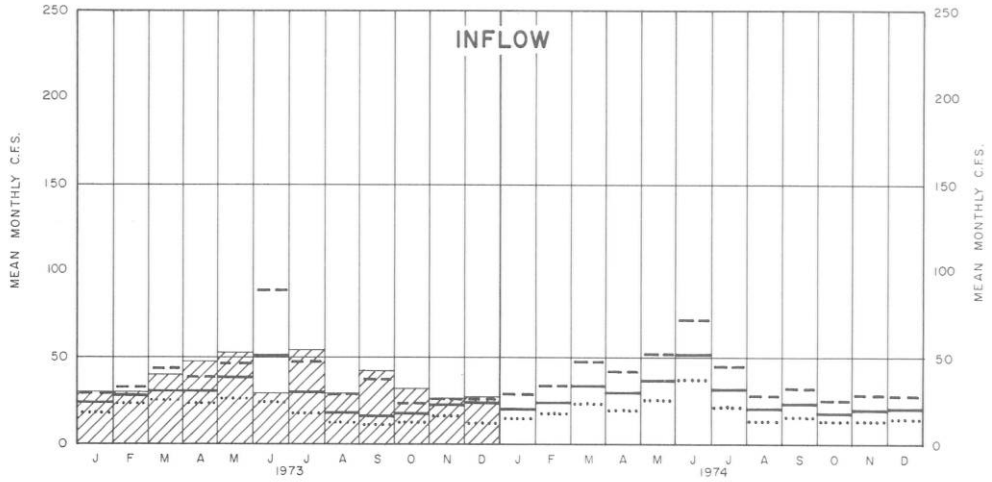
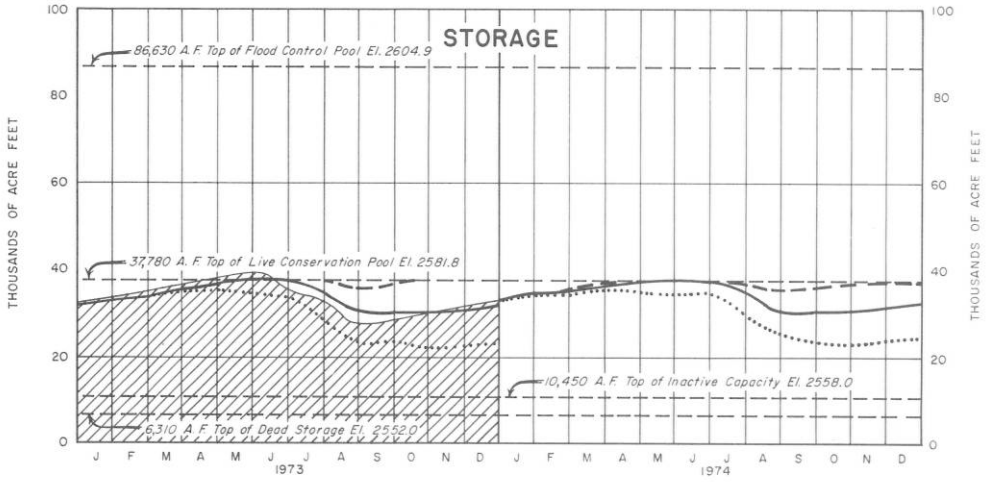
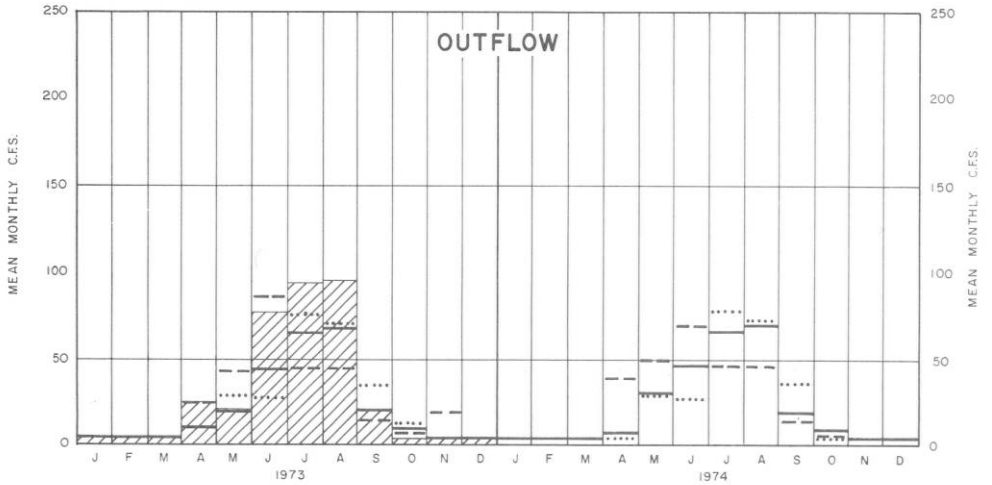


Exhibit 7

HUGH BUTLER LAKE
OPERATING PLANS







MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

HARRY STRUNK LAKE
HISTORICAL OPERATION

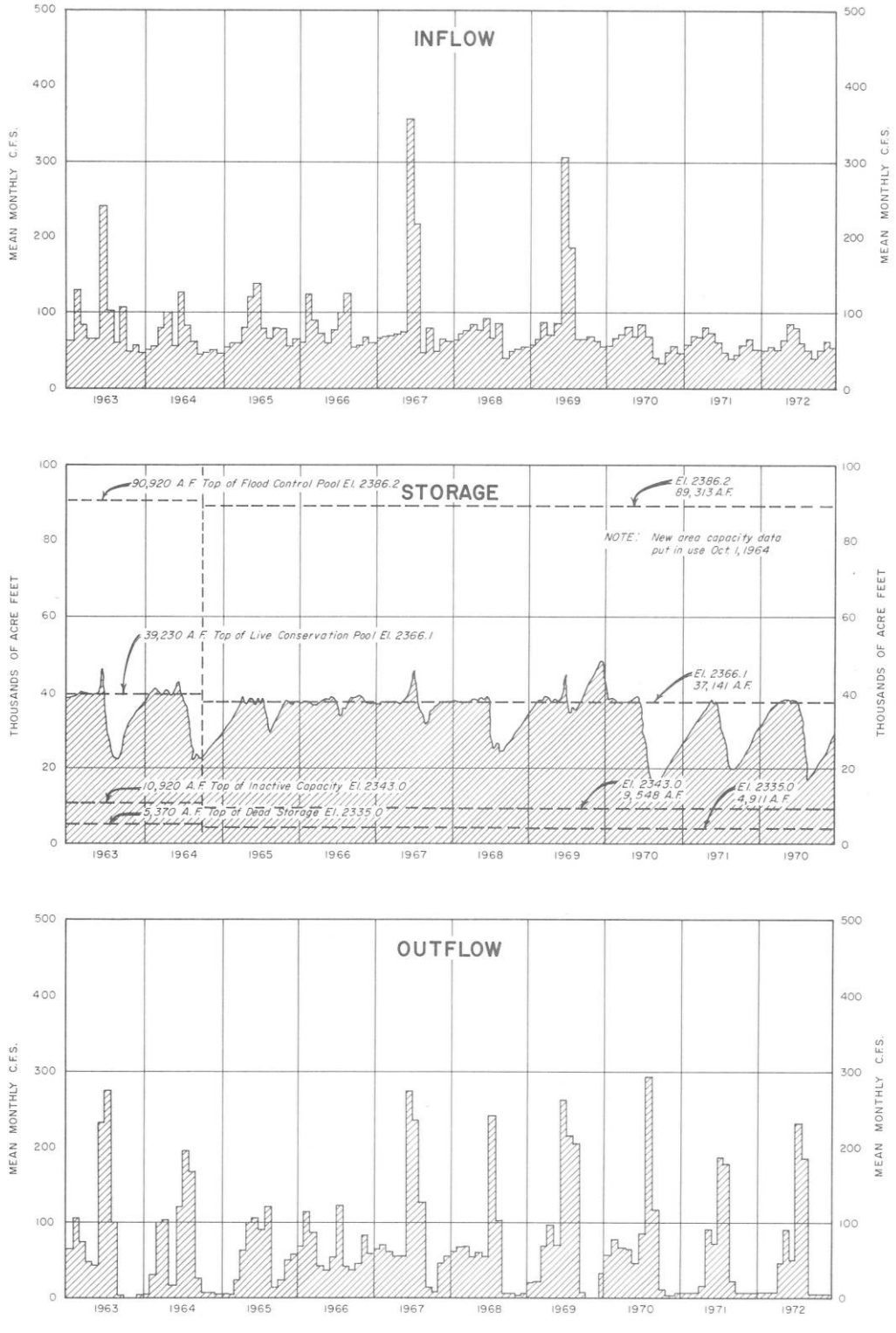
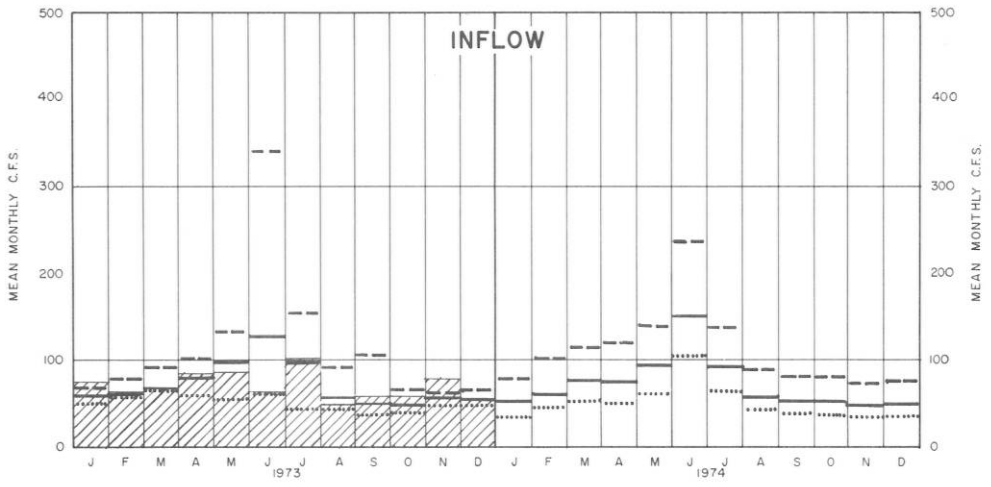
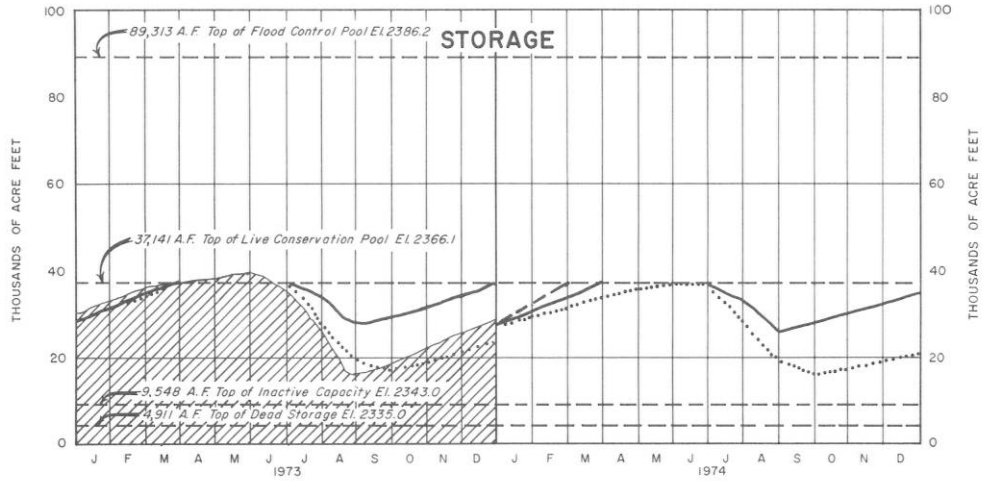
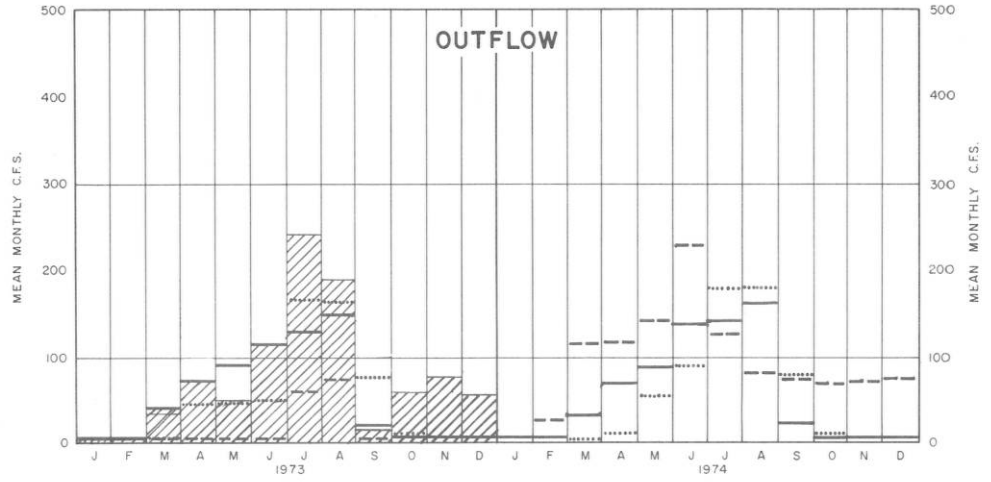


Exhibit 8

HARRY STRUNK LAKE
OPERATING PLANS

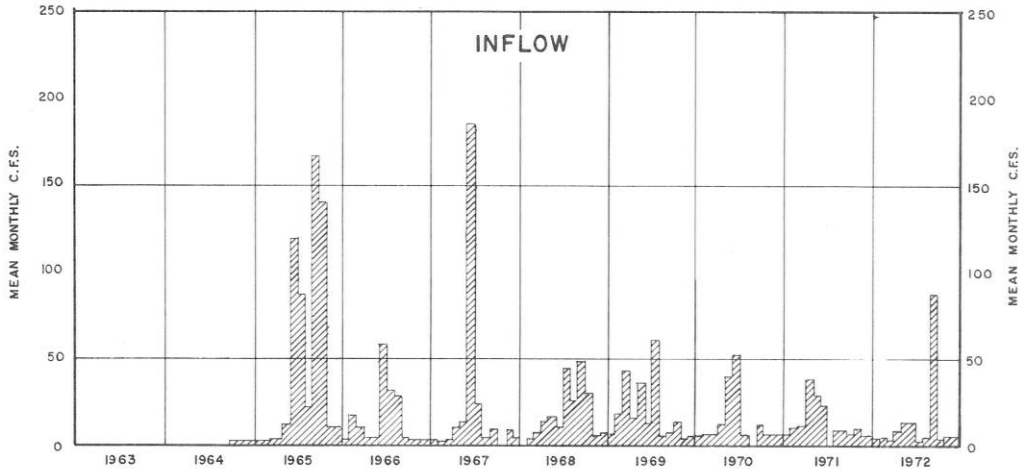


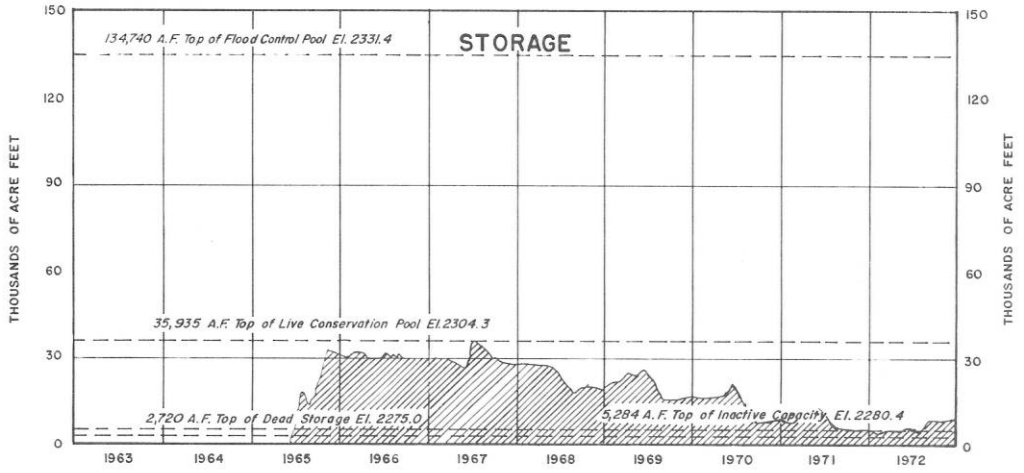




MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

NORTON RESERVOIR
HISTORICAL OPERATION





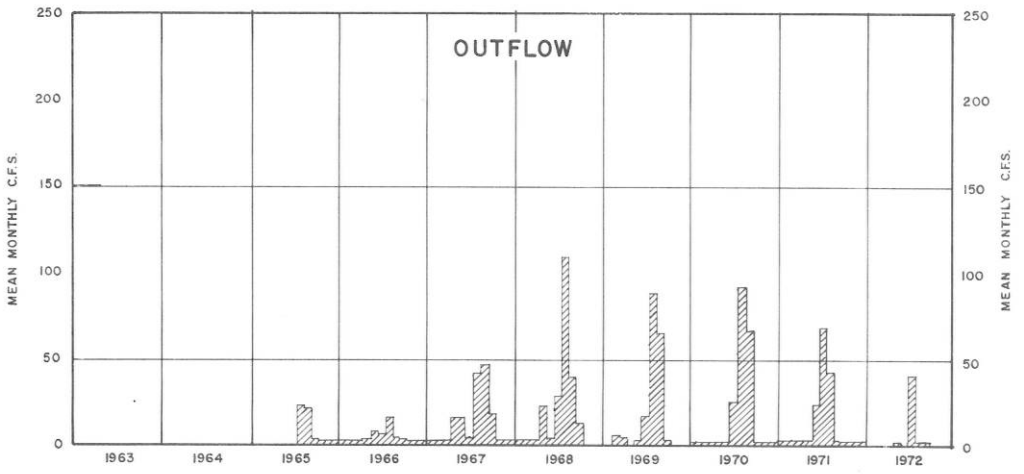
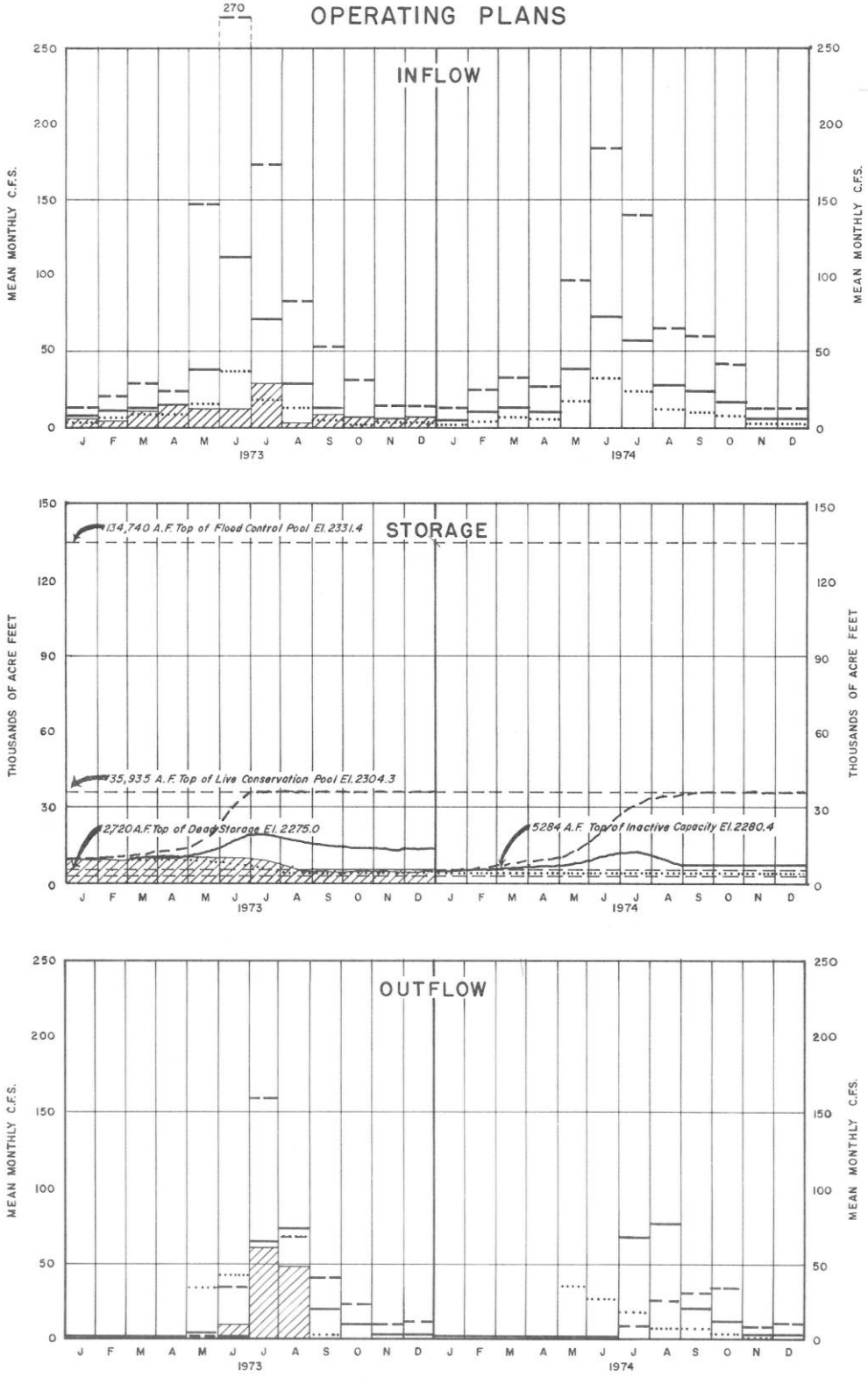
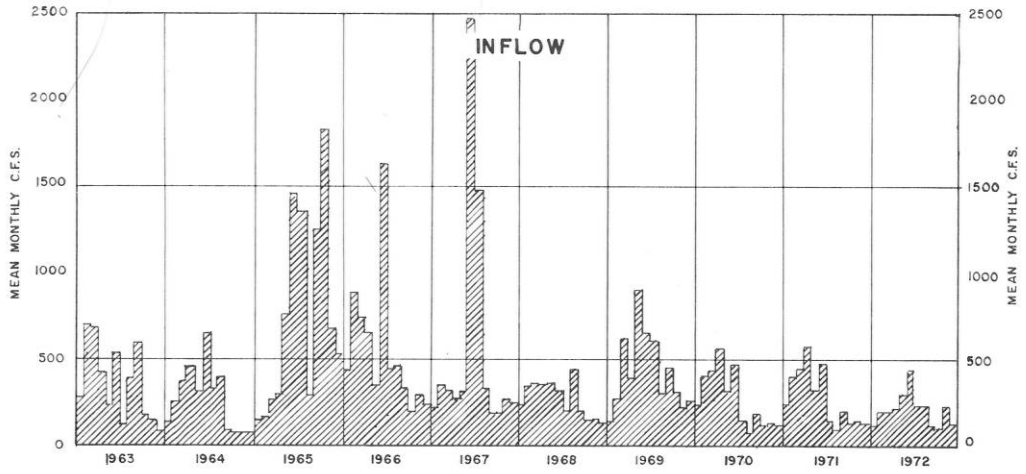


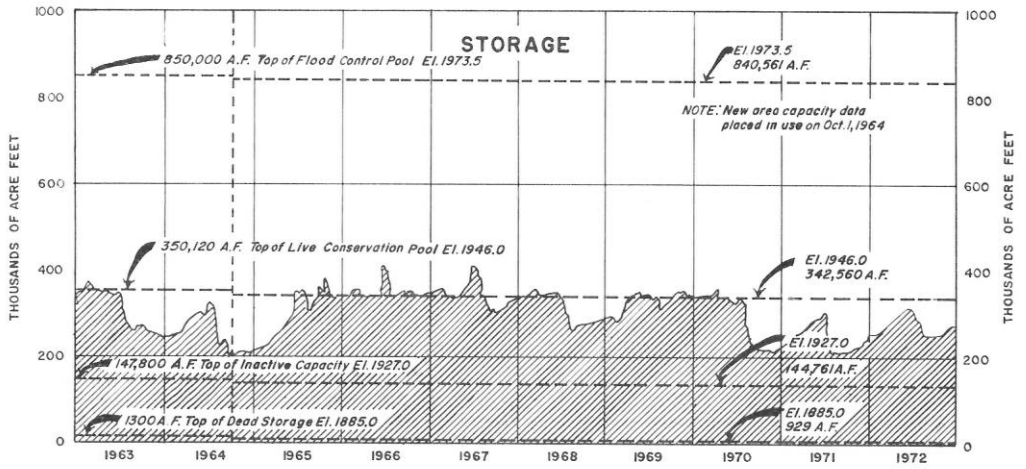
Exhibit 9

NORTON RESERVOIR
OPERATING PLANS



HARLAN COUNTY RESERVOIR
HISTORICAL OPERATION





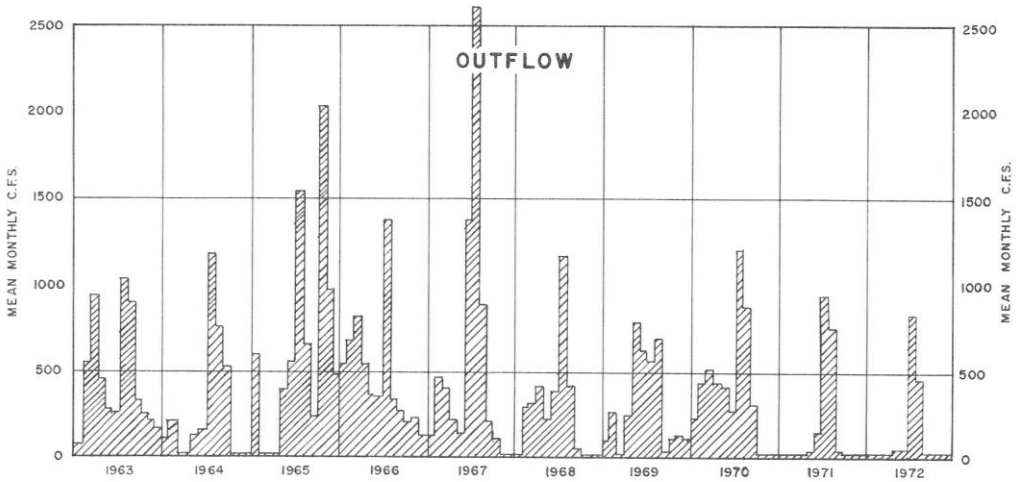
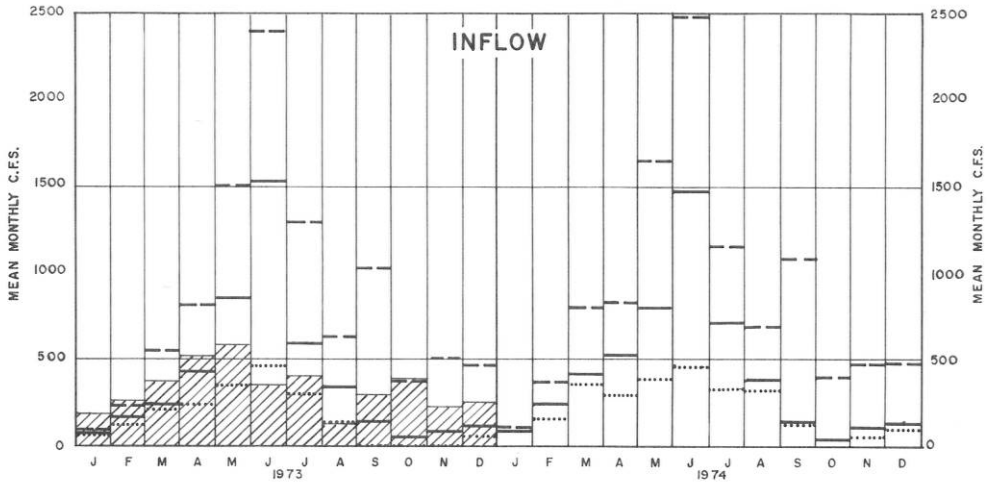
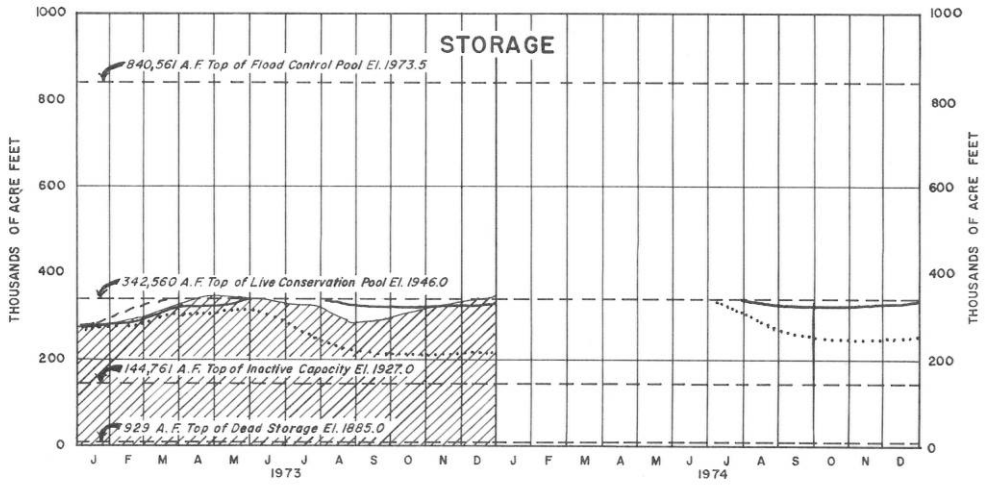
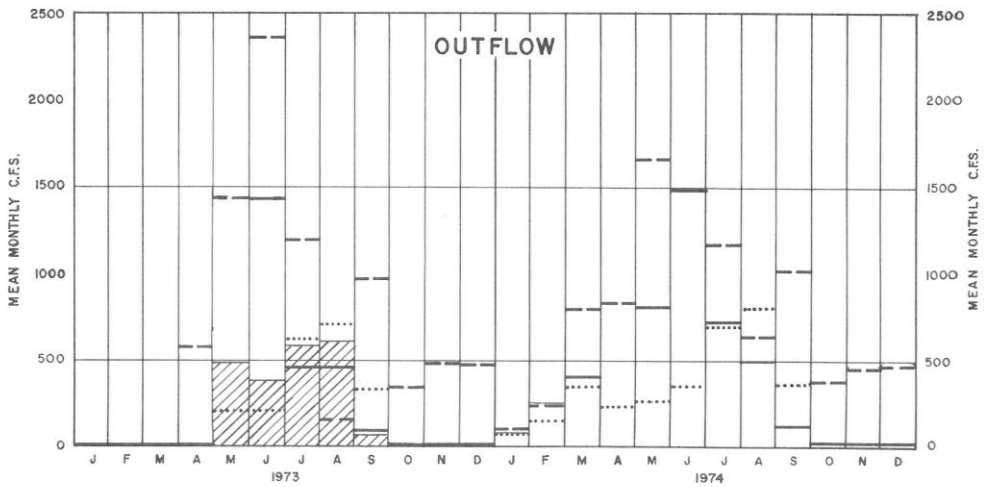


Exhibit 10

HARLAN COUNTY RESERVOIR
OPERATING PLANS

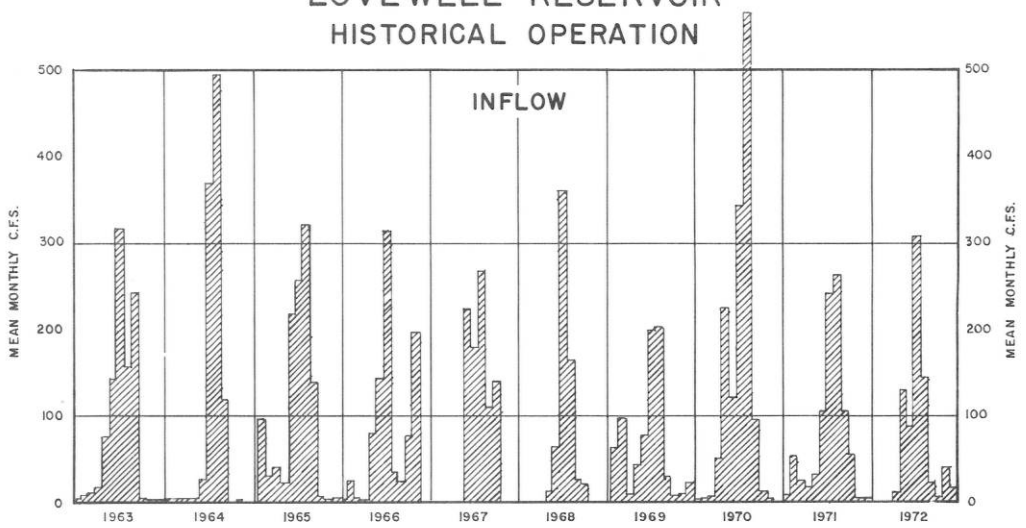


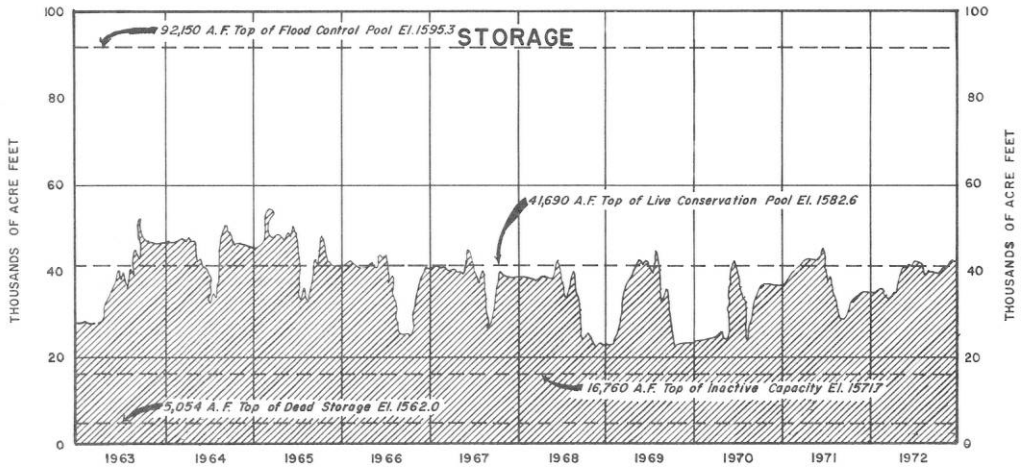




MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

LOVEWELL RESERVOIR
HISTORICAL OPERATION





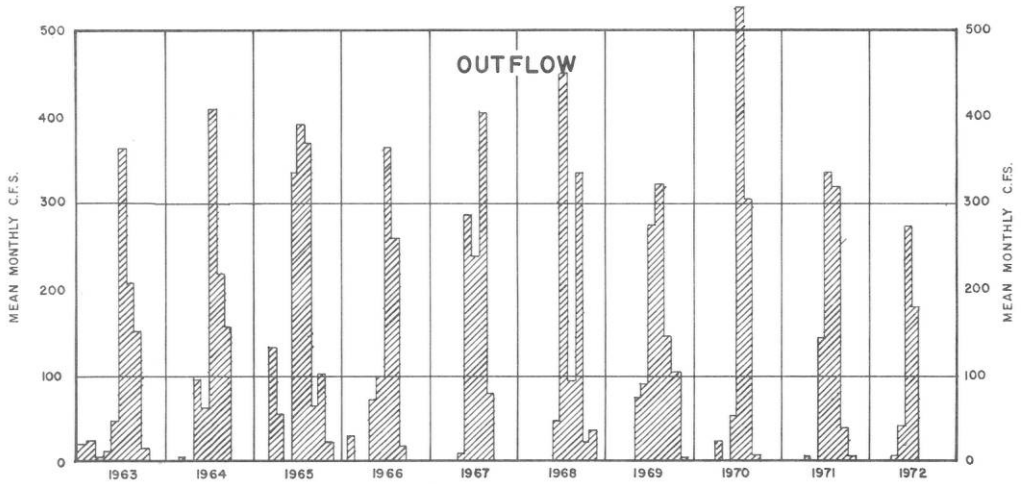
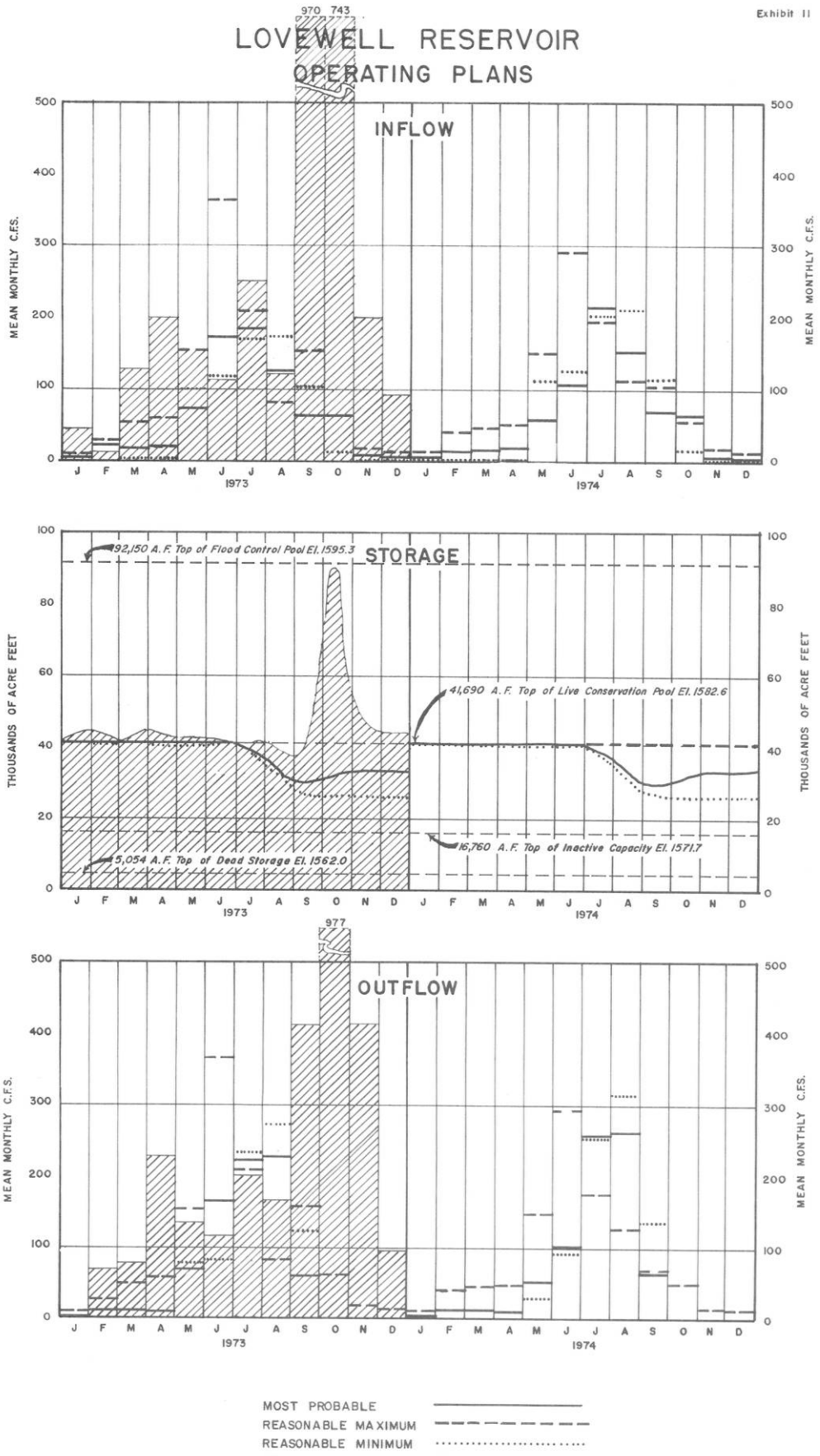
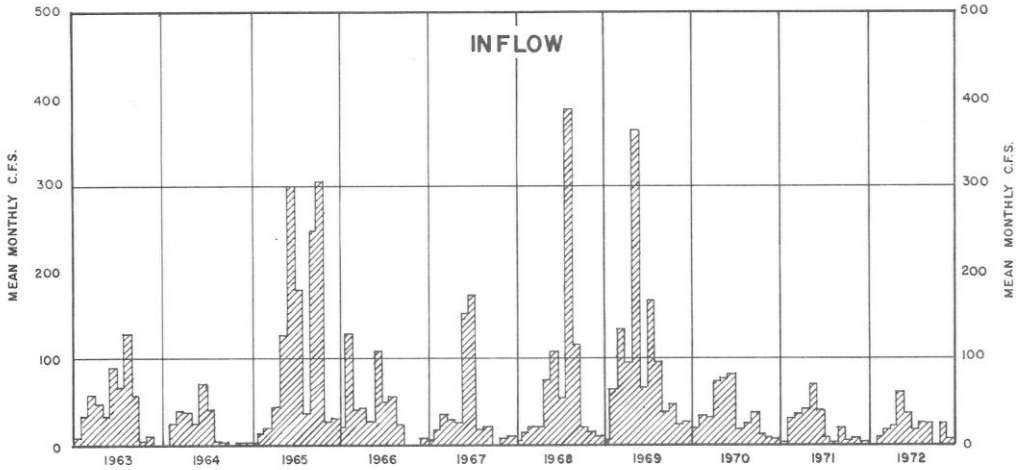


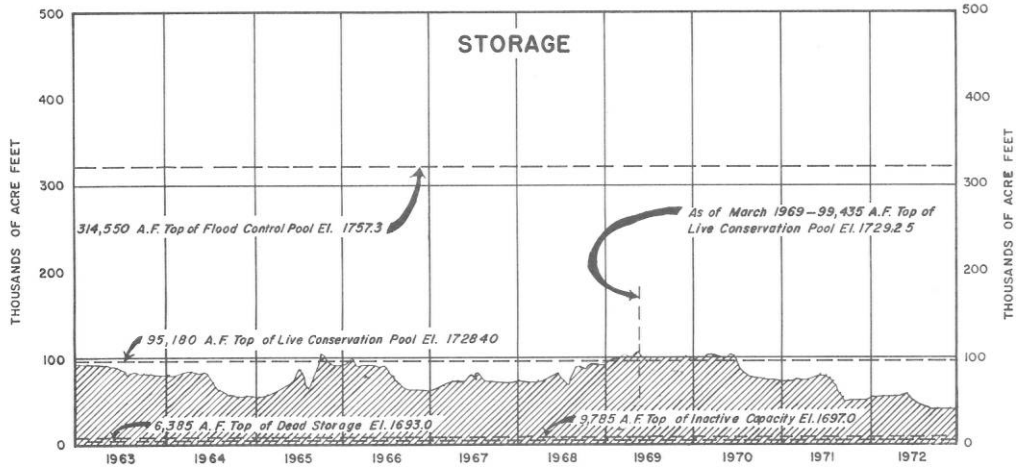
Exhibit II

LOVEWELL RESERVOIR
OPERATING PLANS



KIRWIN RESERVOIR
HISTORICAL OPERATION





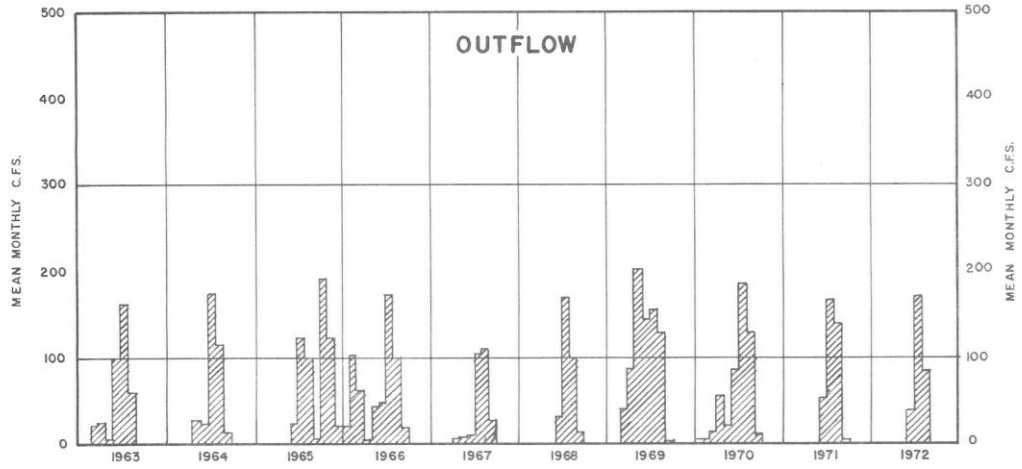
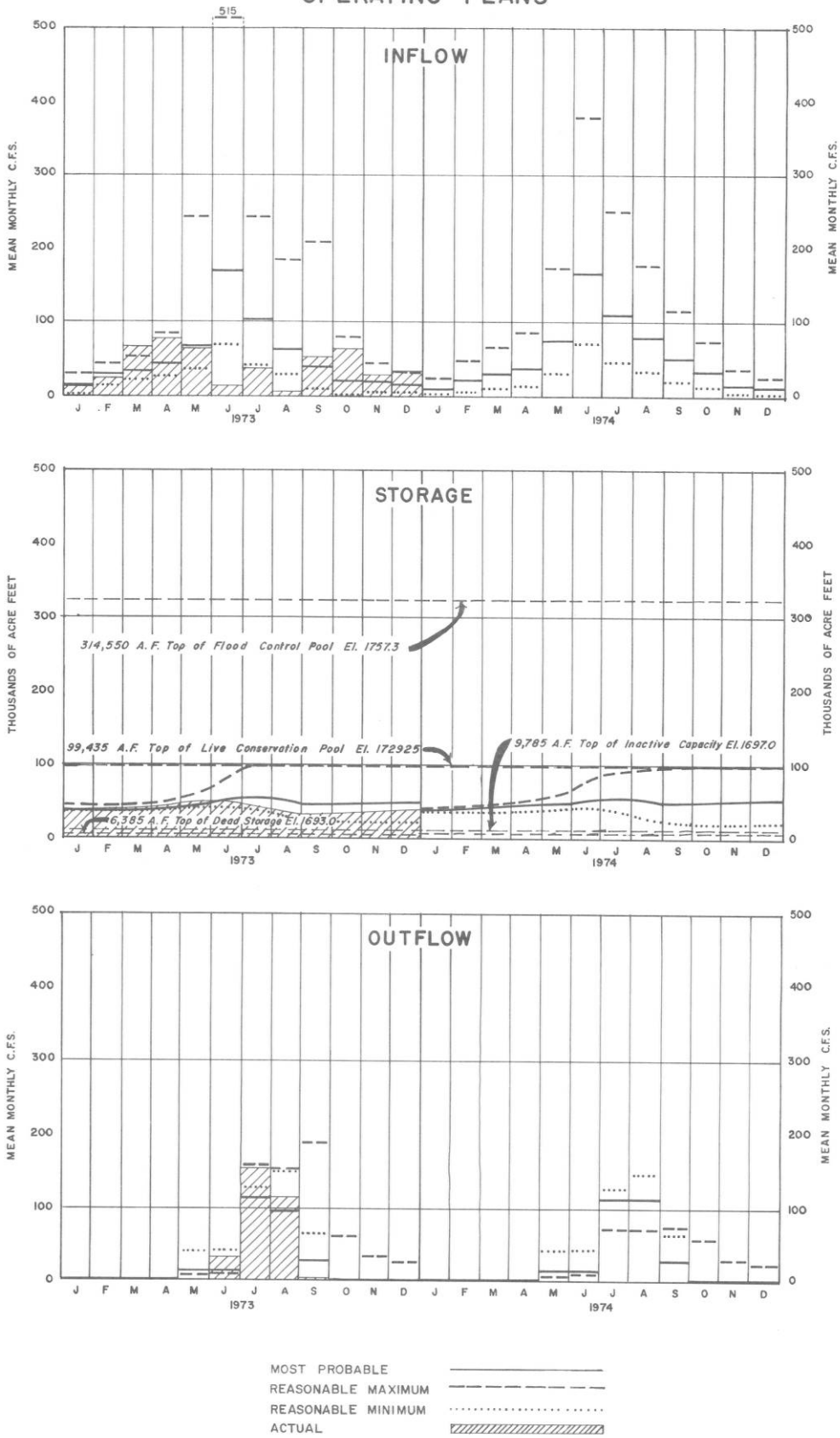
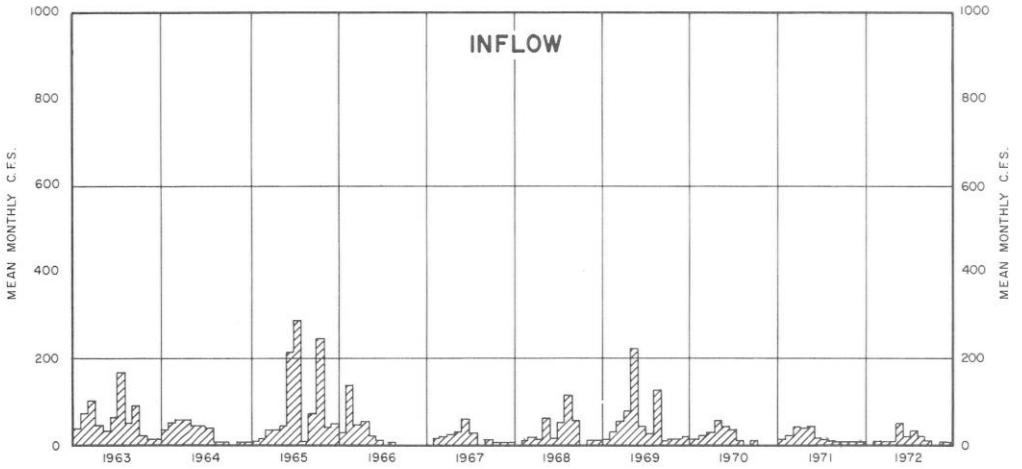


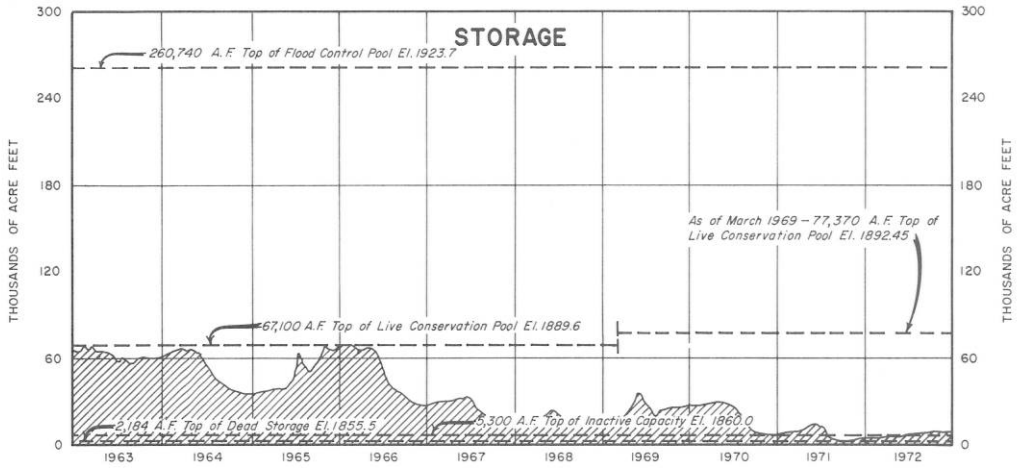
Exhibit 12

KIRWIN RESERVOIR
OPERATING PLANS



WEBSTER RESERVOIR
HISTORICAL OPERATION





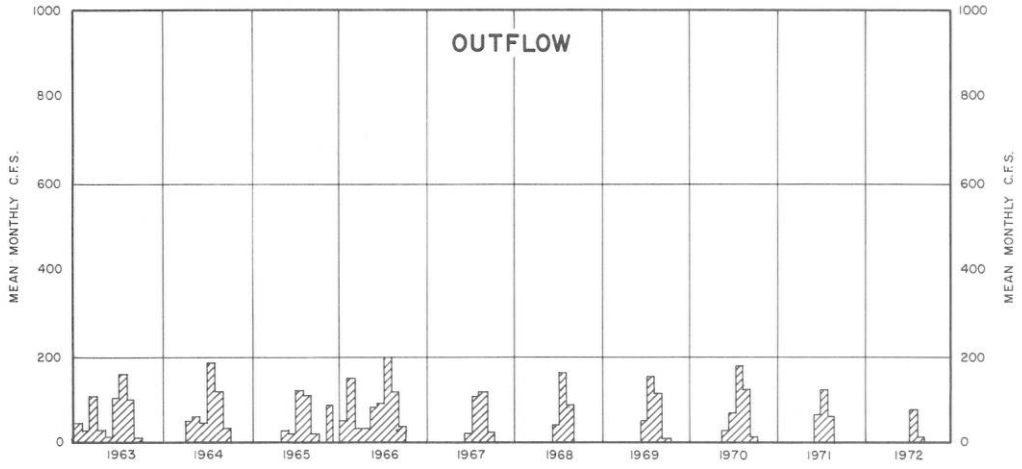
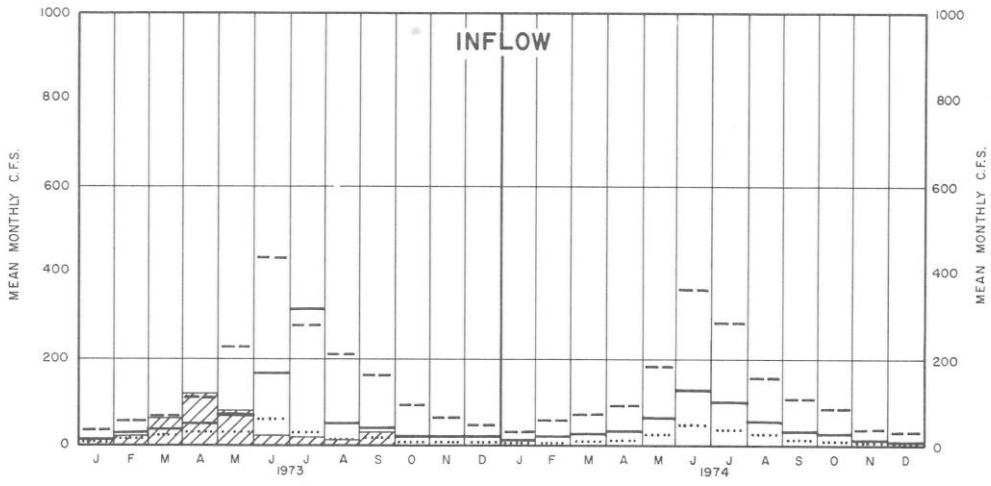
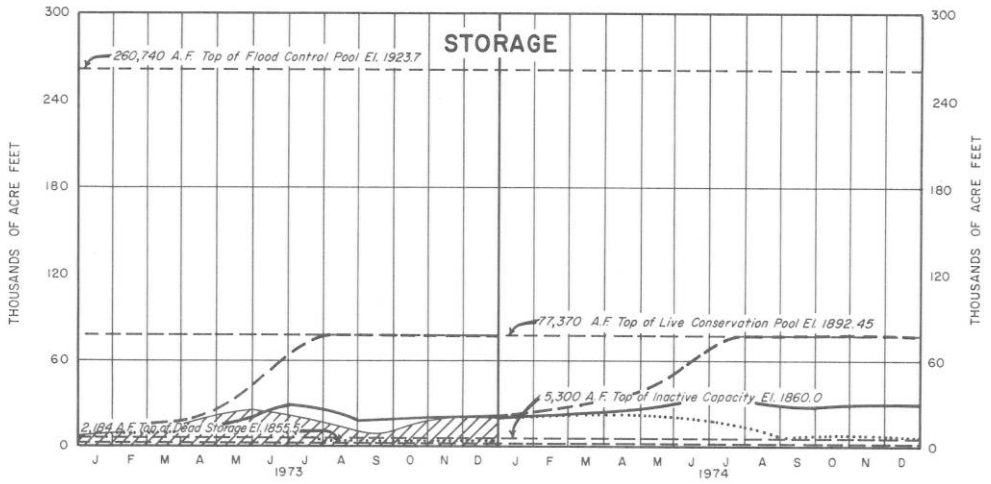
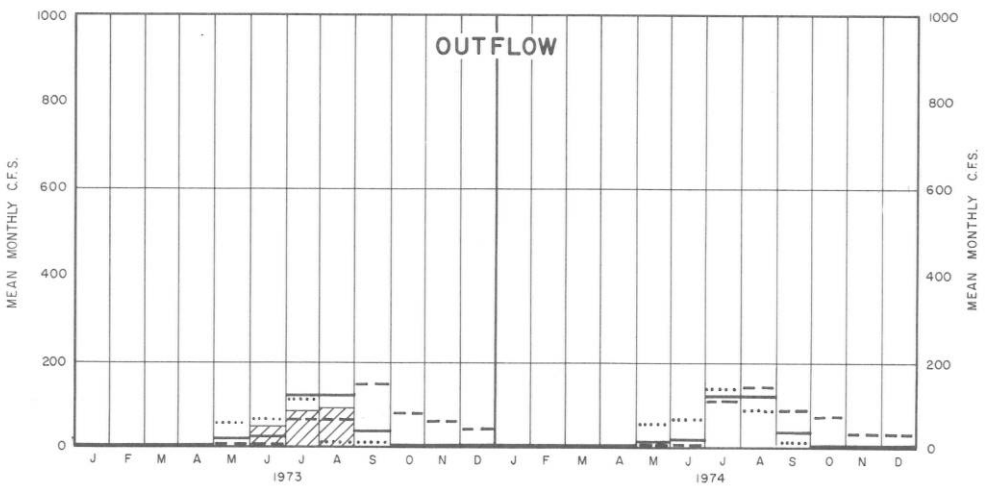


Exhibit 13

WEBSTER RESERVOIR
OPERATING PLANS

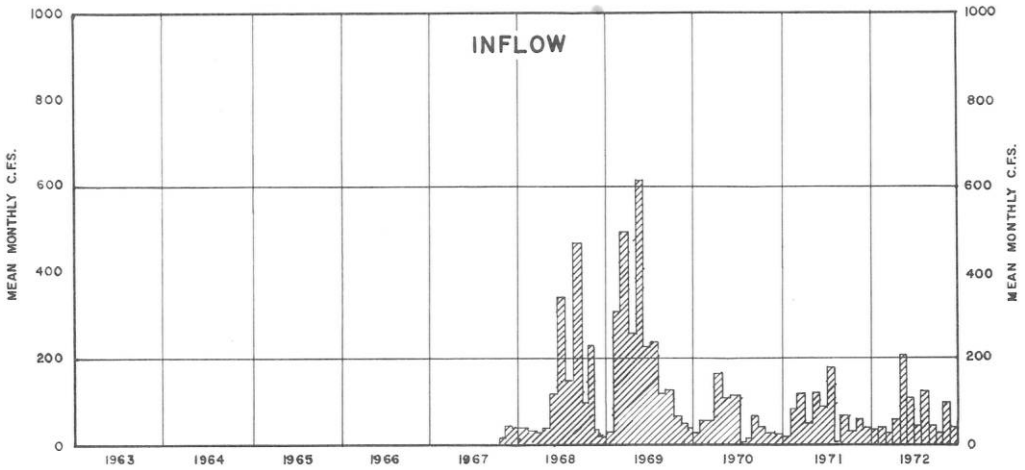


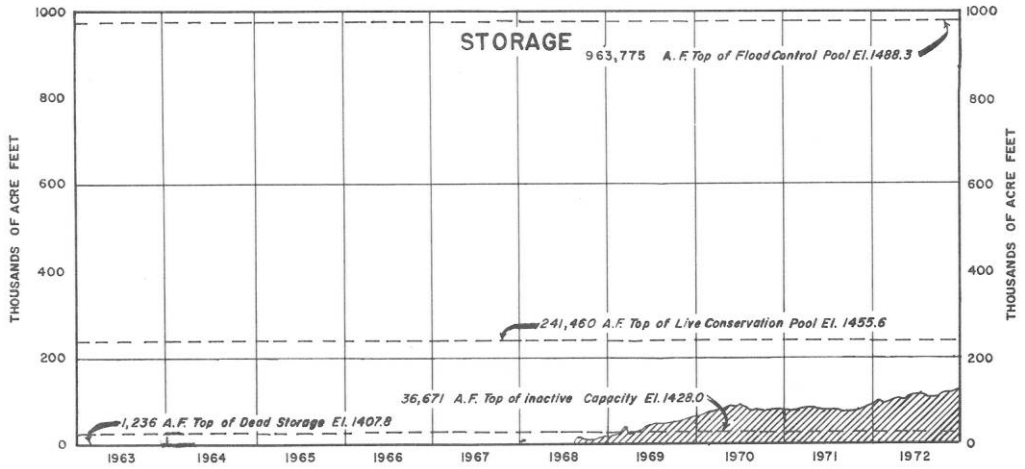




MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

WACONDA LAKE
HISTORICAL OPERATION





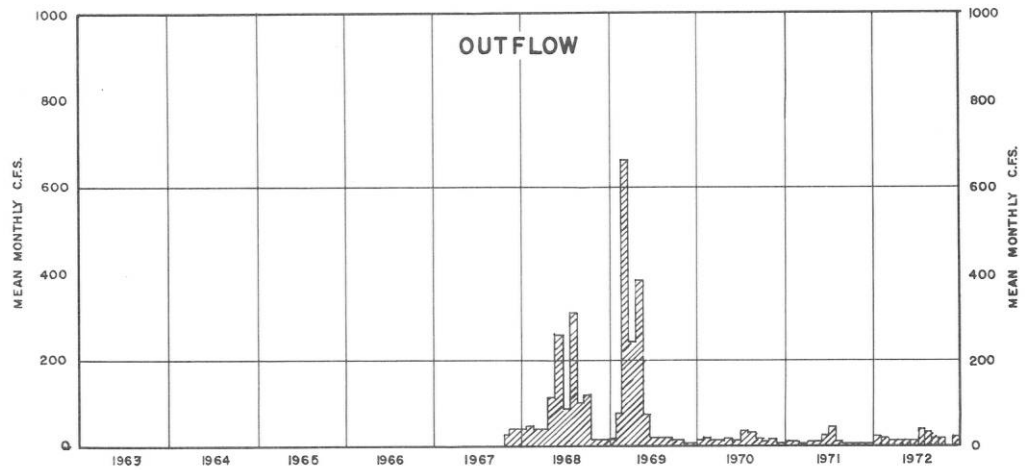
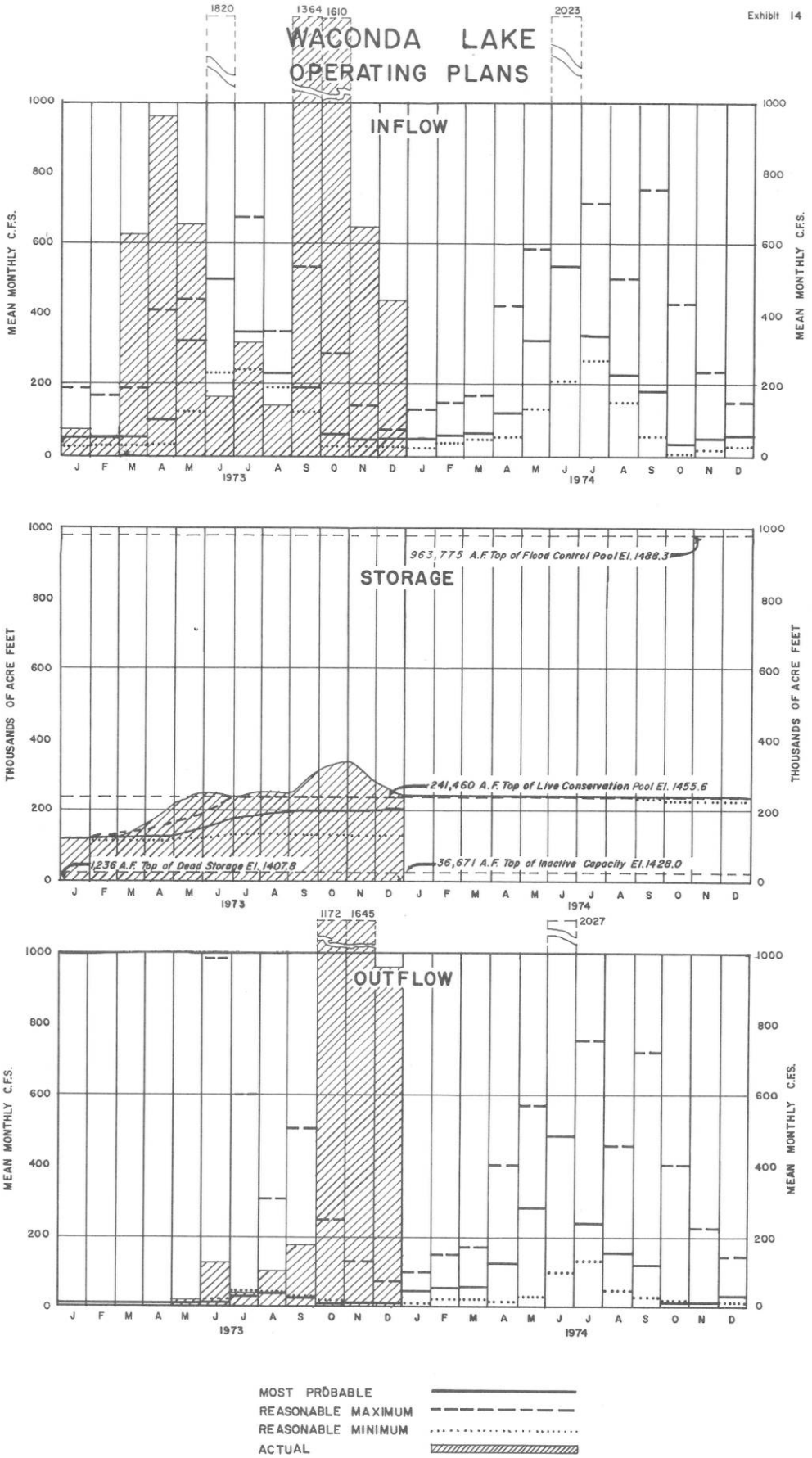
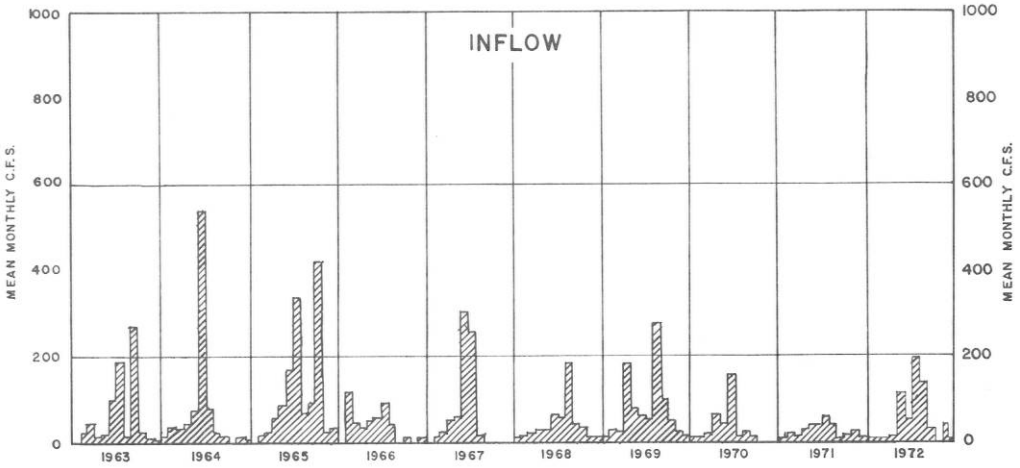


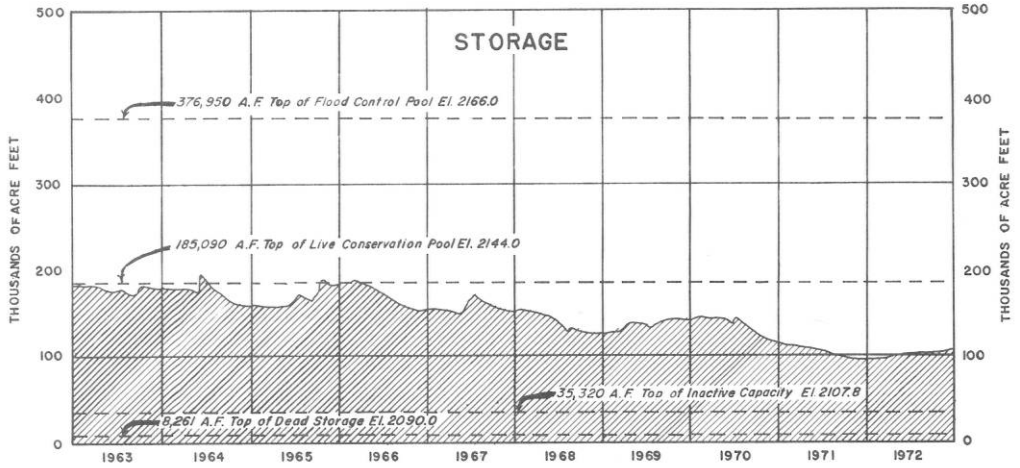
Exhibit 14

WACONDA LAKE
OPERATING PLANS



CEDAR BLUFF RESERVOIR
HISTORICAL OPERATION





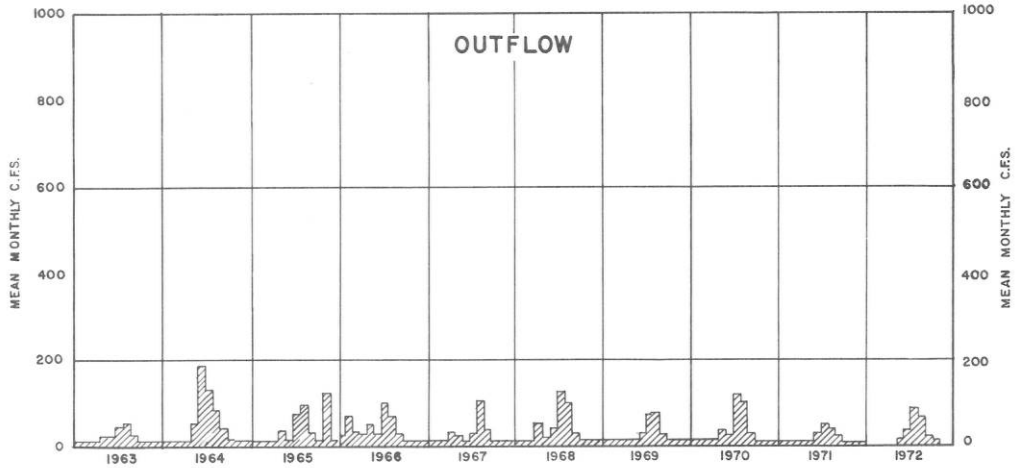
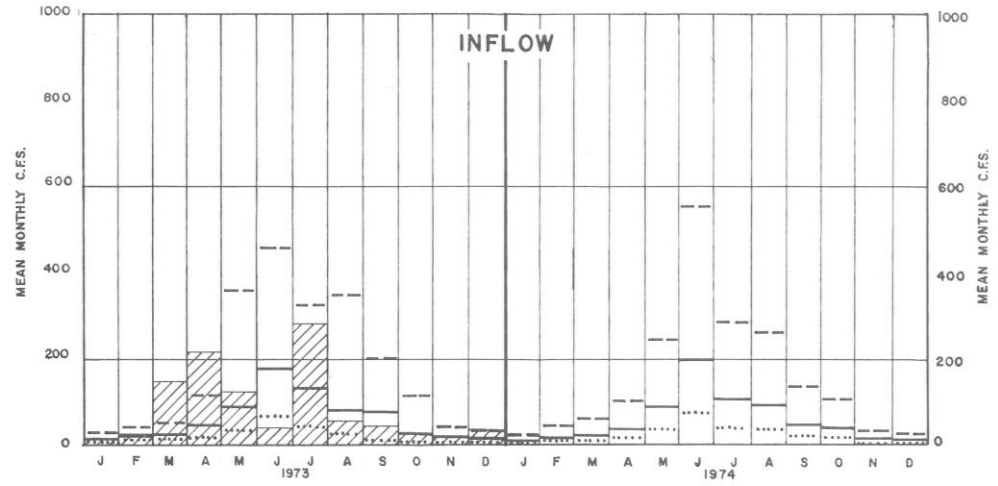
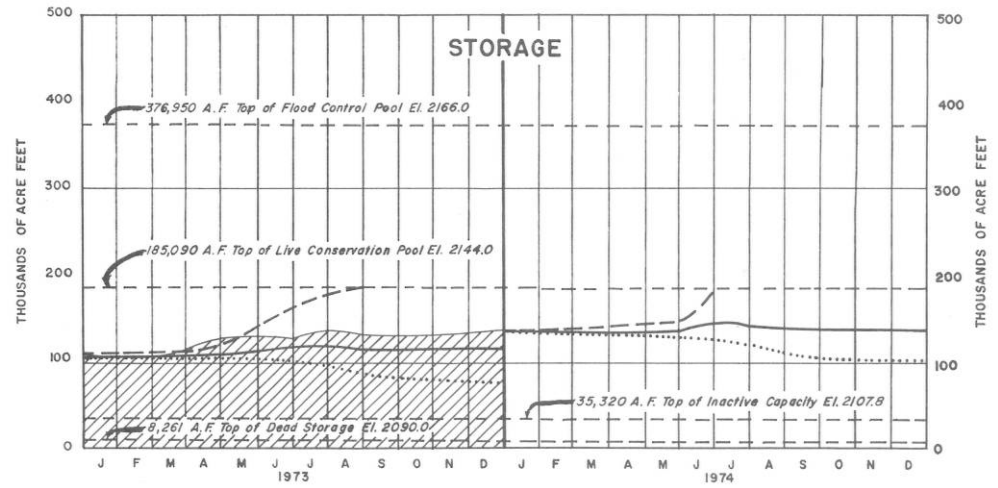
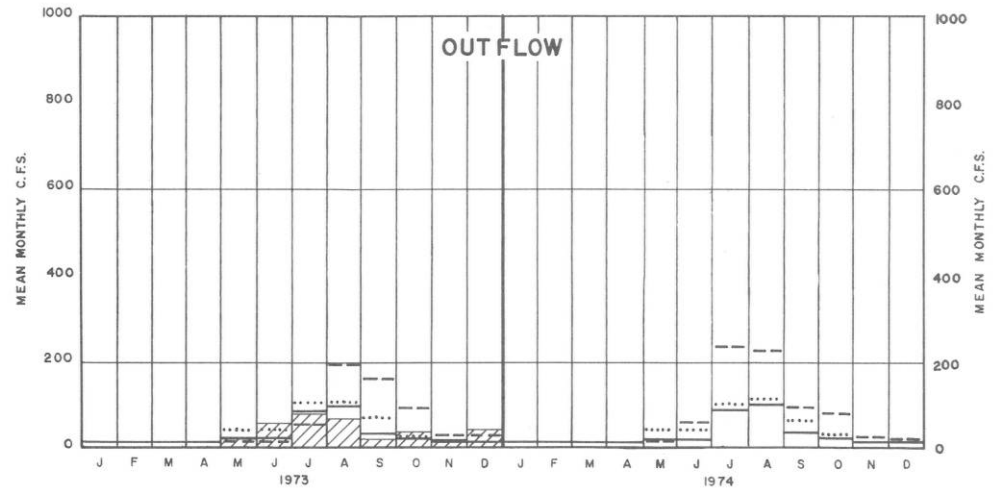


Exhibit 15

CEDAR BLUFF RESERVOIR
OPERATING PLANS







MOST PROBABLE
REASONABLE MAXIMUM
REASONABLE MINIMUM
ACTUAL

CANAL DIVERSIONS AND ACRES IRRIGATED

All Districts in Niobrara, Lower Platte and Kansas River Basins

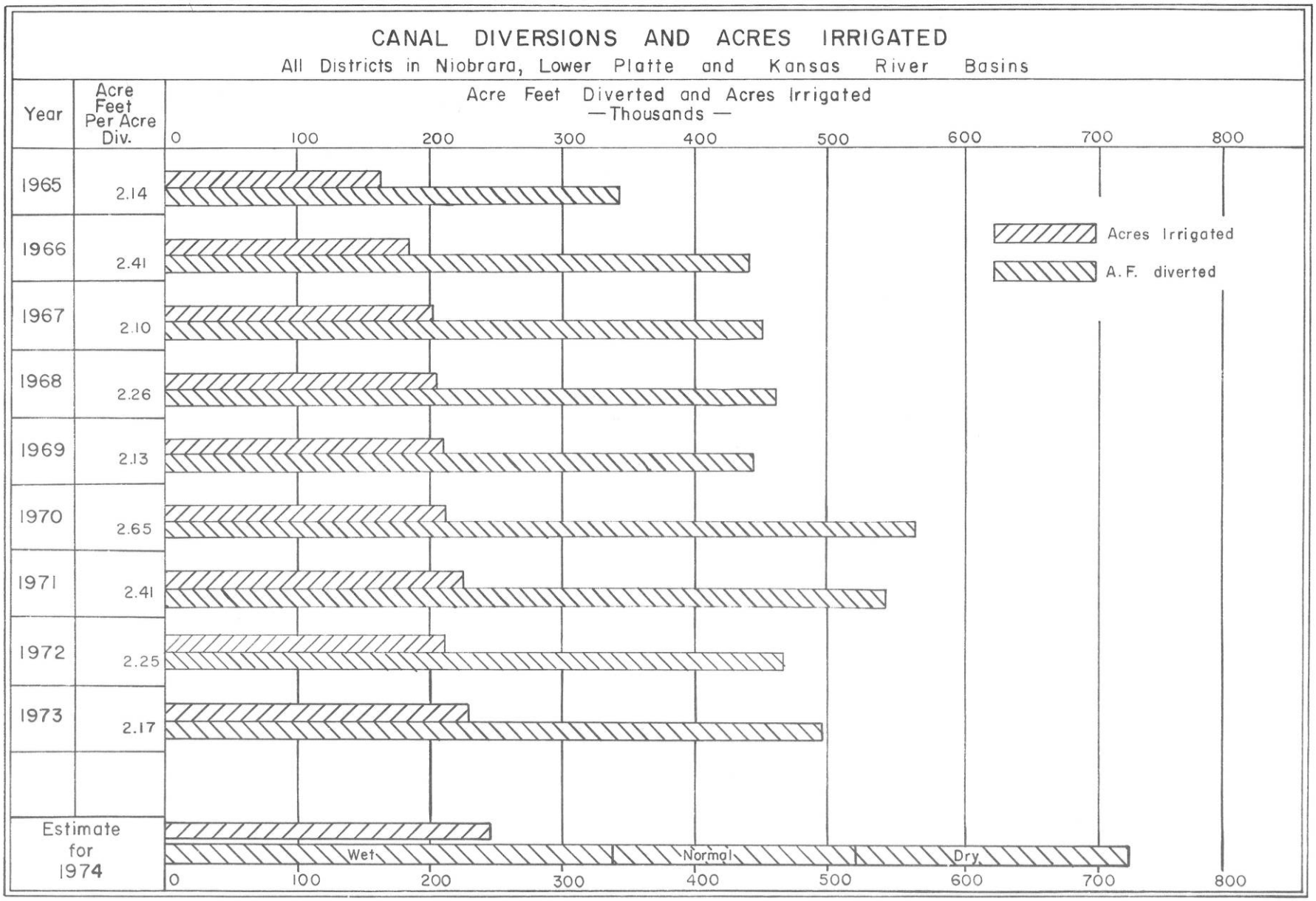


Exhibit 16

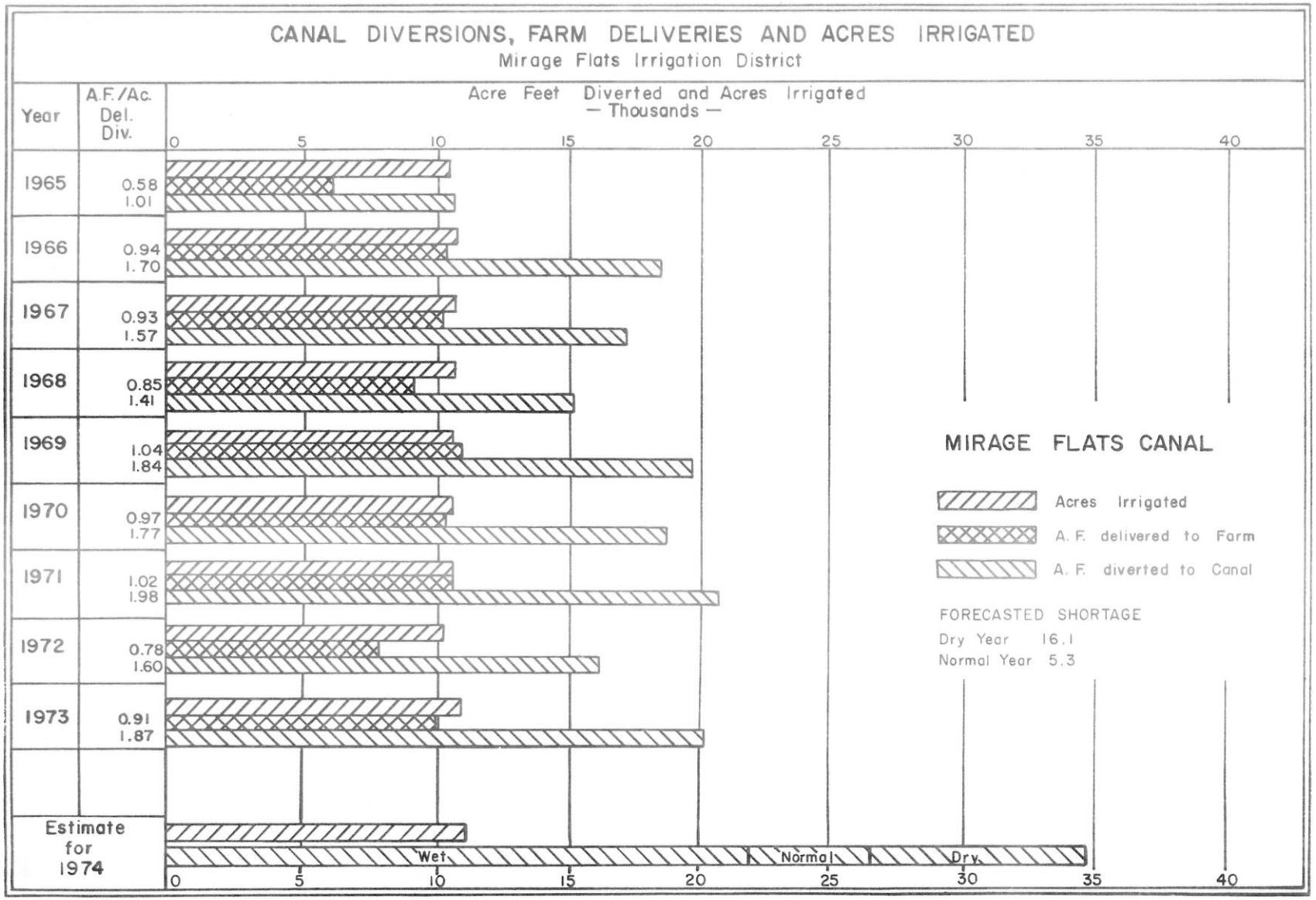
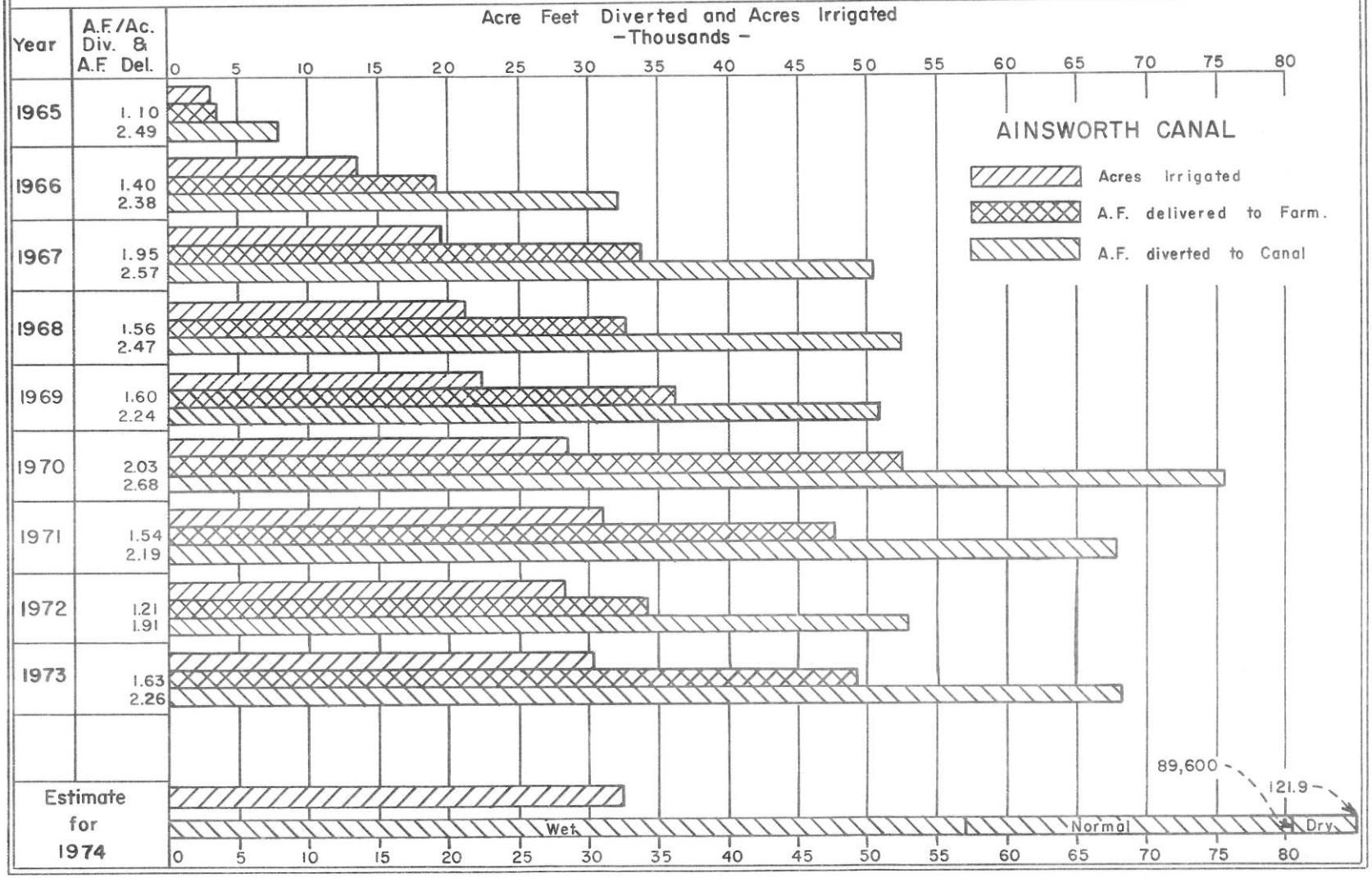

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Mirage Flats Irrigation District
Year
A.F./Ac. Del. Div.
Acre Feet Diverted and Acres Irrigated
— Thousands —
0
5
10
15
20
25
30
35
40
1965
0.58
1.01
1966
0.94
1.70
1967
0.93
1.57
1968
0.85
1.41
1969
1.04
1.84
1970
0.97
1.77
1971
1.02
1.98
1972
0.78
1.60
1973
0.91
1.87
Estimate for 1974
Wet
Normal
Dry
MIRAGE FLATS CANAL
Acres Irrigated
A. F. delivered to Farm
A. F. diverted to Canal
FORECASTED SHORTAGE
Dry Year 16.1
Normal Year 5.3

Exhibit 17

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED

Ainsworth Irrigation District



Year	A.F./Ac. Div. & A.F. Del.
1965	1.10 2.49
1966	1.40 2.38
1967	1.95 2.57
1968	1.56 2.47
1969	1.60 2.24
1970	2.03 2.68
1971	1.54 2.19
1972	1.21 1.91
1973	1.63 2.26
Estimate for 1974	

Exhibit 18

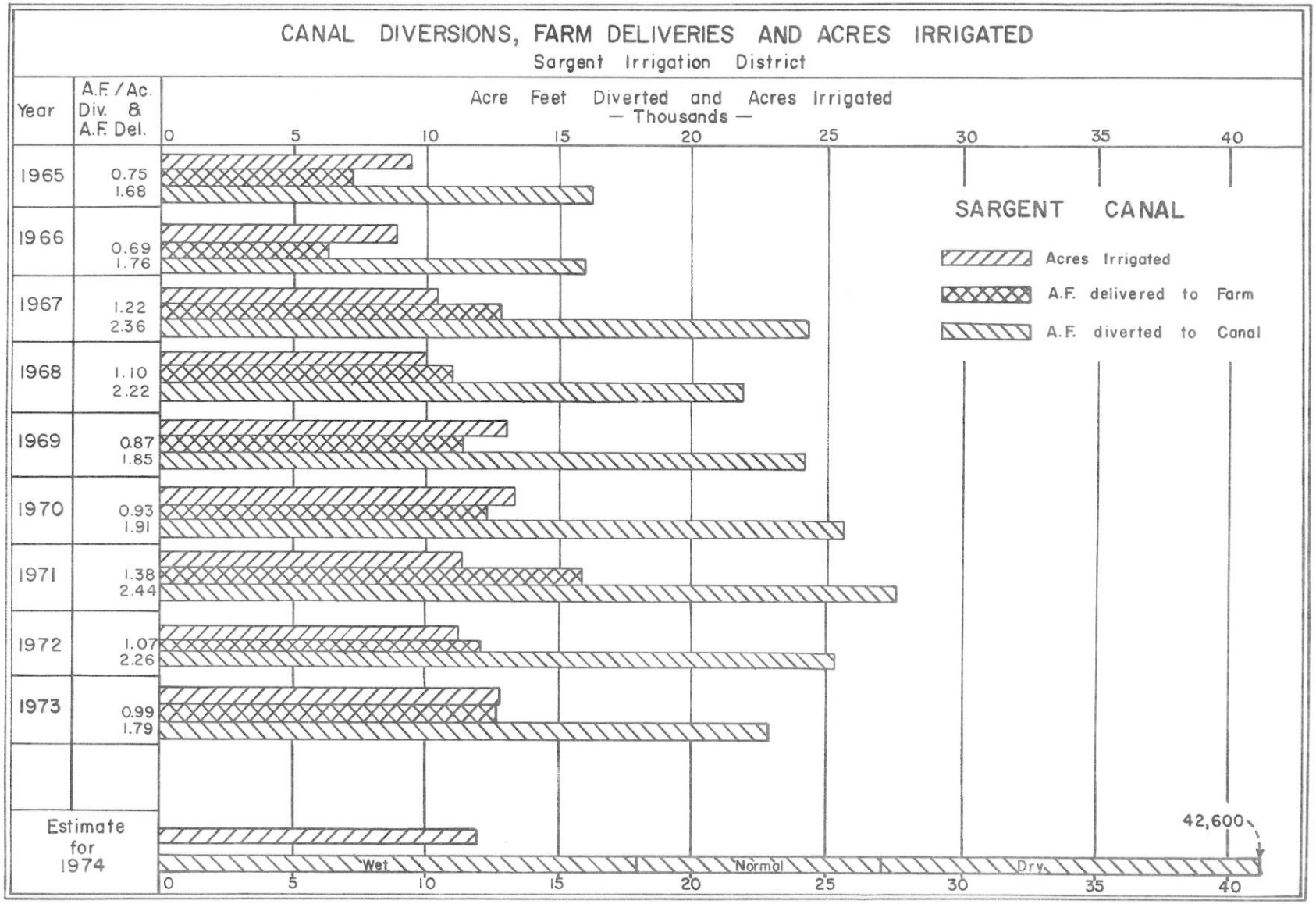

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Sargent Irrigation District
Year
A.F./Ac. Div. & A.F. Del.
Acre Feet Diverted and Acres Irrigated
— Thousands —
0
5
10
15
20
25
30
35
40
1965
0.75
1.68
1966
0.69
1.76
1967
1.22
2.36
1968
1.10
2.22
1969
0.87
1.85
1970
0.93
1.91
1971
1.38
2.44
1972
1.07
2.26
1973
0.99
1.79
Estimate for 1974
SARGENT CANAL
Acres Irrigated
A.F. delivered to Farm
A.F. diverted to Canal
42,600
Wet
Normal
Dry

Exhibit 19

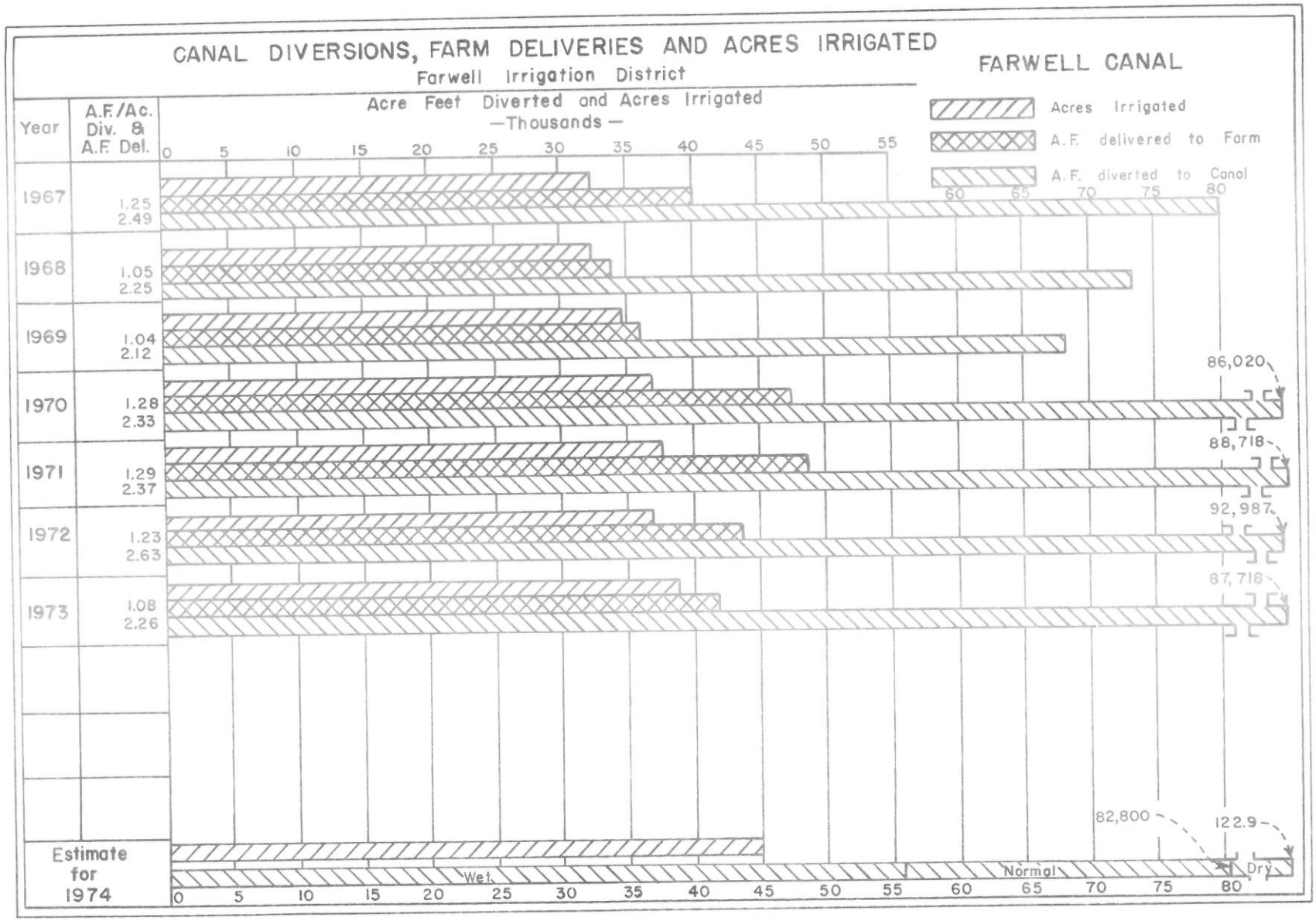

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Farwell Irrigation District
FARWELL CANAL
Acres Irrigated
A.F. delivered to Farm
A.F. diverted to Canal
Acre Feet Diverted and Acres Irrigated
—Thousands—
Year
A.F./Ac. Div. & A.F. Del.
1967 1.25 2.49
1968 1.05 2.25
1969 1.04 2.12
1970 1.28 2.33
1971 1.29 2.37
1972 1.23 2.63
1973 1.08 2.26
Estimate for 1974
86,020
88,718
92,987
87,718
82,800
122.9
Wet
Normal
Dry
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

Exhibit 20

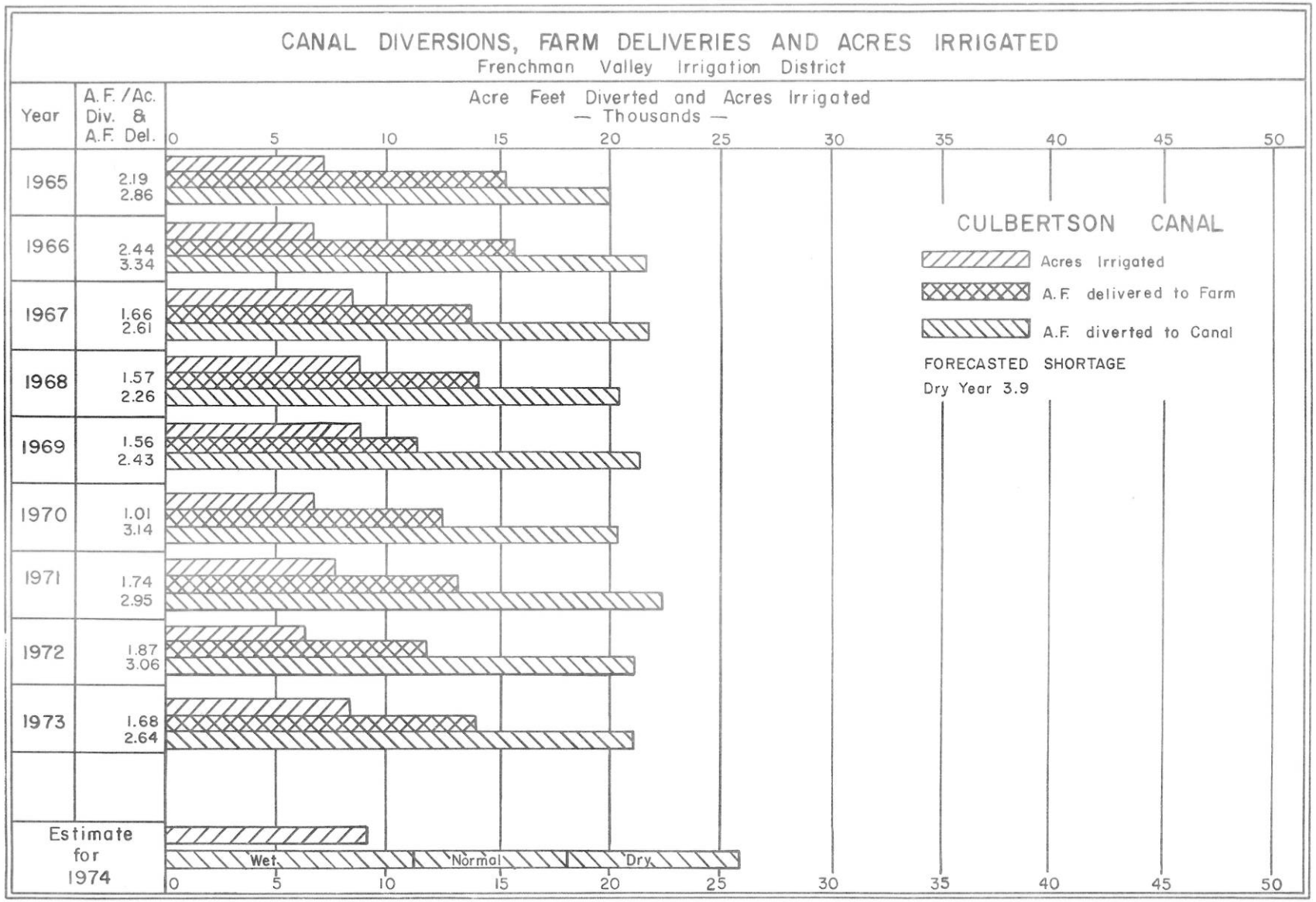

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Frenchman Valley Irrigation District
Year
A.F./Ac. Div. & A.F. Del.
Acre Feet Diverted and Acres Irrigated
— Thousands —
0 5 10 15 20 25 30 35 40 45 50
1965 2.19 2.86
1966 2.44 3.34
1967 1.66 2.61
1968 1.57 2.26
1969 1.56 2.43
1970 1.01 3.14
1971 1.74 2.95
1972 1.87 3.06
1973 1.68 2.64
Estimate for 1974
Wet
Normal
Dry
CULBERTSON CANAL
Acres Irrigated
A.F. delivered to Farm
A.F. diverted to Canal
FORECASTED SHORTAGE
Dry Year 3.9

Exhibit 21

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED

H. and R. W. Irrigation District

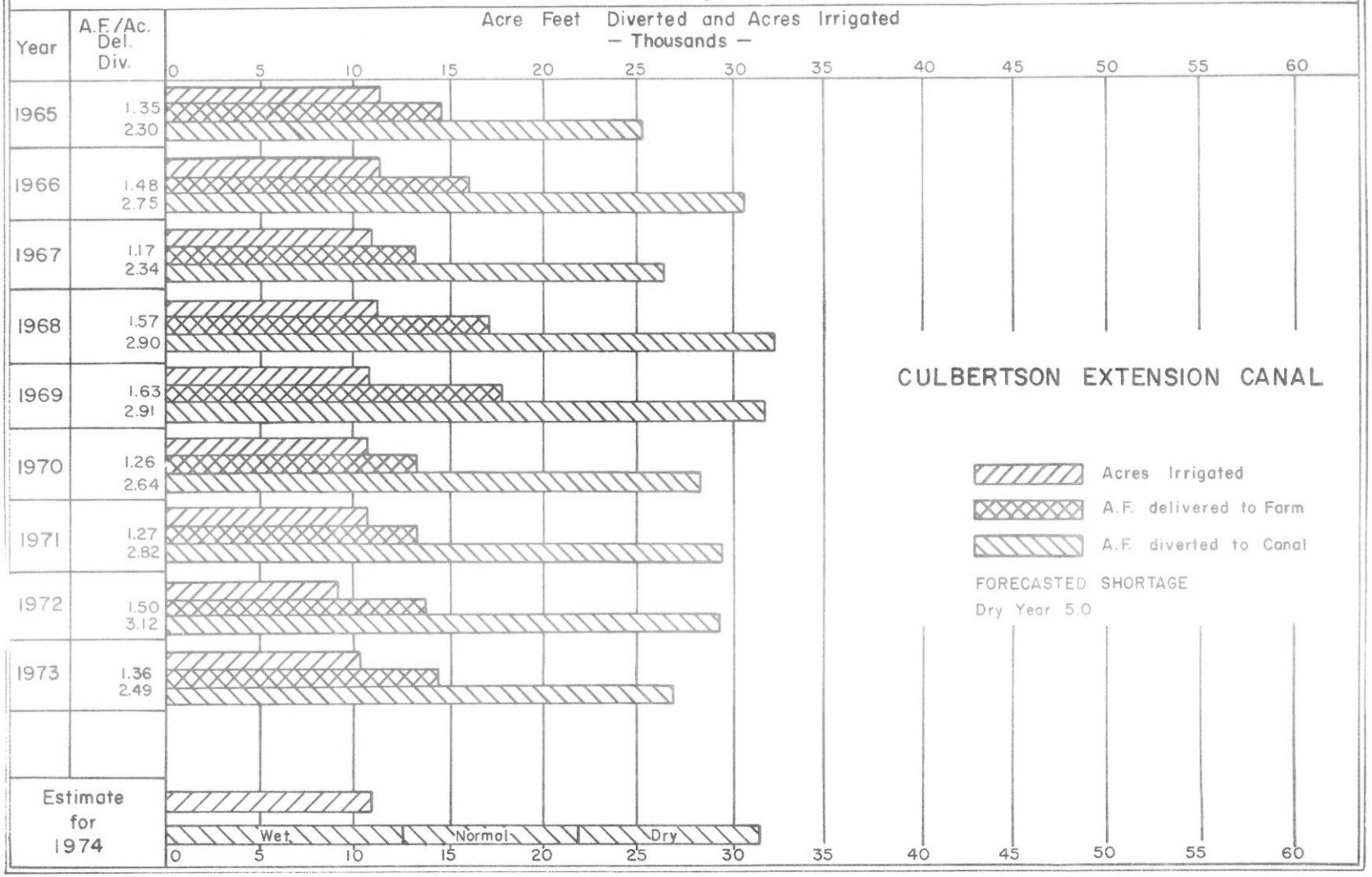


Exhibit 22

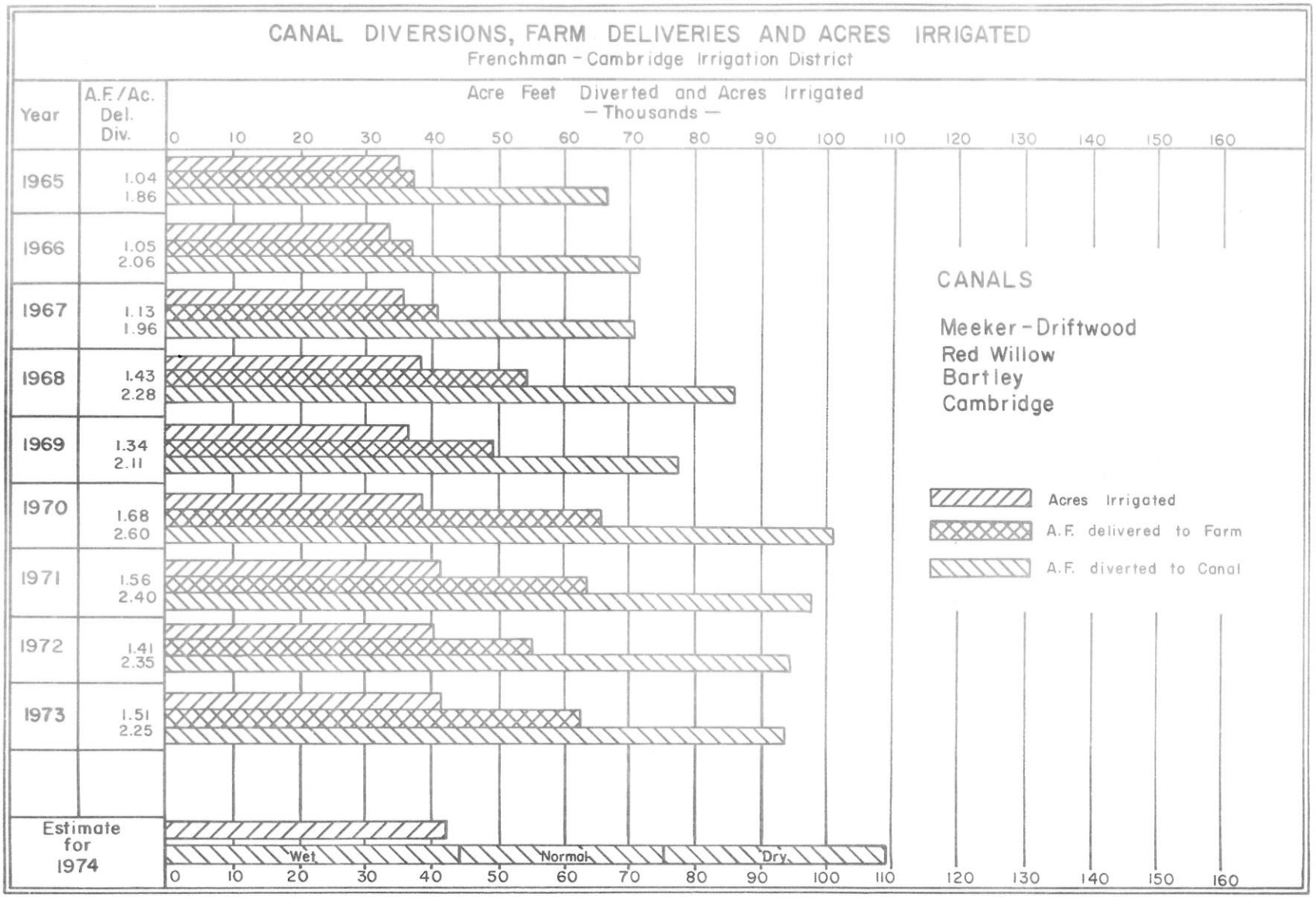

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Frenchman - Cambridge Irrigation District
Year
A.F./Ac. Del. Div.
Acre Feet Diverted and Acres Irrigated
— Thousands —
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160
1965 1.04 1.86
1966 1.05 2.06
1967 1.13 1.96
1968 1.43 2.28
1969 1.34 2.11
1970 1.68 2.60
1971 1.56 2.40
1972 1.41 2.35
1973 1.51 2.25
Estimate for 1974
Wet
Normal
Dry
CANALS
Meeker - Driftwood
Red Willow
Bartley
Cambridge
Acres Irrigated
A.F. delivered to Farm
A.F. diverted to Canal

Exhibit 23

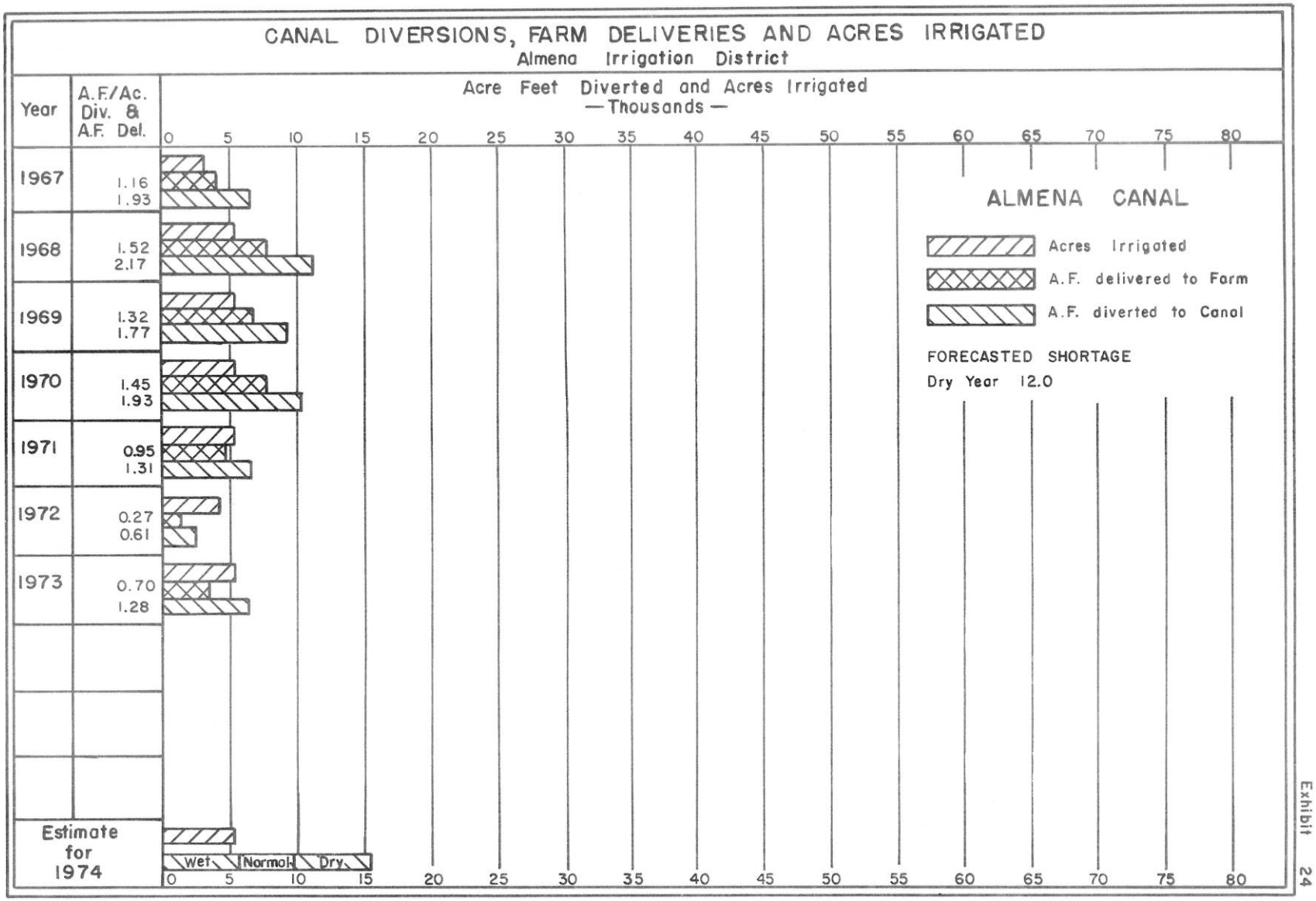

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Almena Irrigation District
Year
A.F./Ac. Div. & A.F. Del.
Acre Feet Diverted and Acres Irrigated
— Thousands —
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80
1967 1.16 1.93
1968 1.52 2.17
1969 1.32 1.77
1970 1.45 1.93
1971 0.95 1.31
1972 0.27 0.61
1973 0.70 1.28
Estimate for 1974
Wet
Normal
Dry
ALMENA CANAL
Acres Irrigated
A.F. delivered to Farm
A.F. diverted to Canal
FORECASTED SHORTAGE
Dry Year 12.0

Exhibit 24

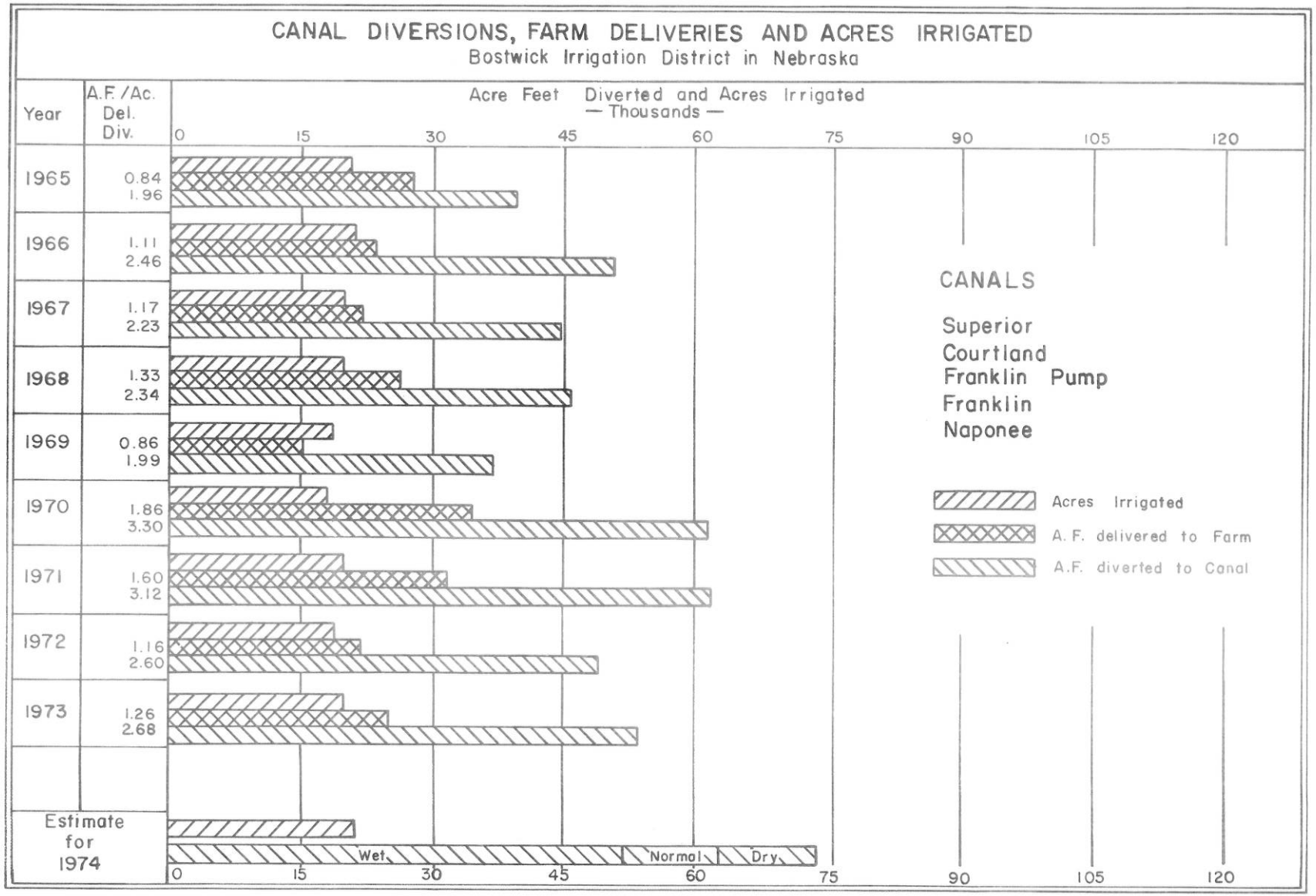

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Bostwick Irrigation District in Nebraska
Year
A.F./Ac. Del. Div.
Acre Feet Diverted and Acres Irrigated
— Thousands —
0
15
30
45
60
75
90
105
120
1965
0.84
1.96
1966
1.11
2.46
1967
1.17
2.23
1968
1.33
2.34
1969
0.86
1.99
1970
1.86
3.30
1971
1.60
3.12
1972
1.16
2.60
1973
1.26
2.68
Estimate for 1974
Wet
Normal
Dry
CANALS
Superior
Courtland
Franklin Pump
Franklin
Naponee
Acres Irrigated
A. F. delivered to Farm
A.F. diverted to Canal

Exhibit 25

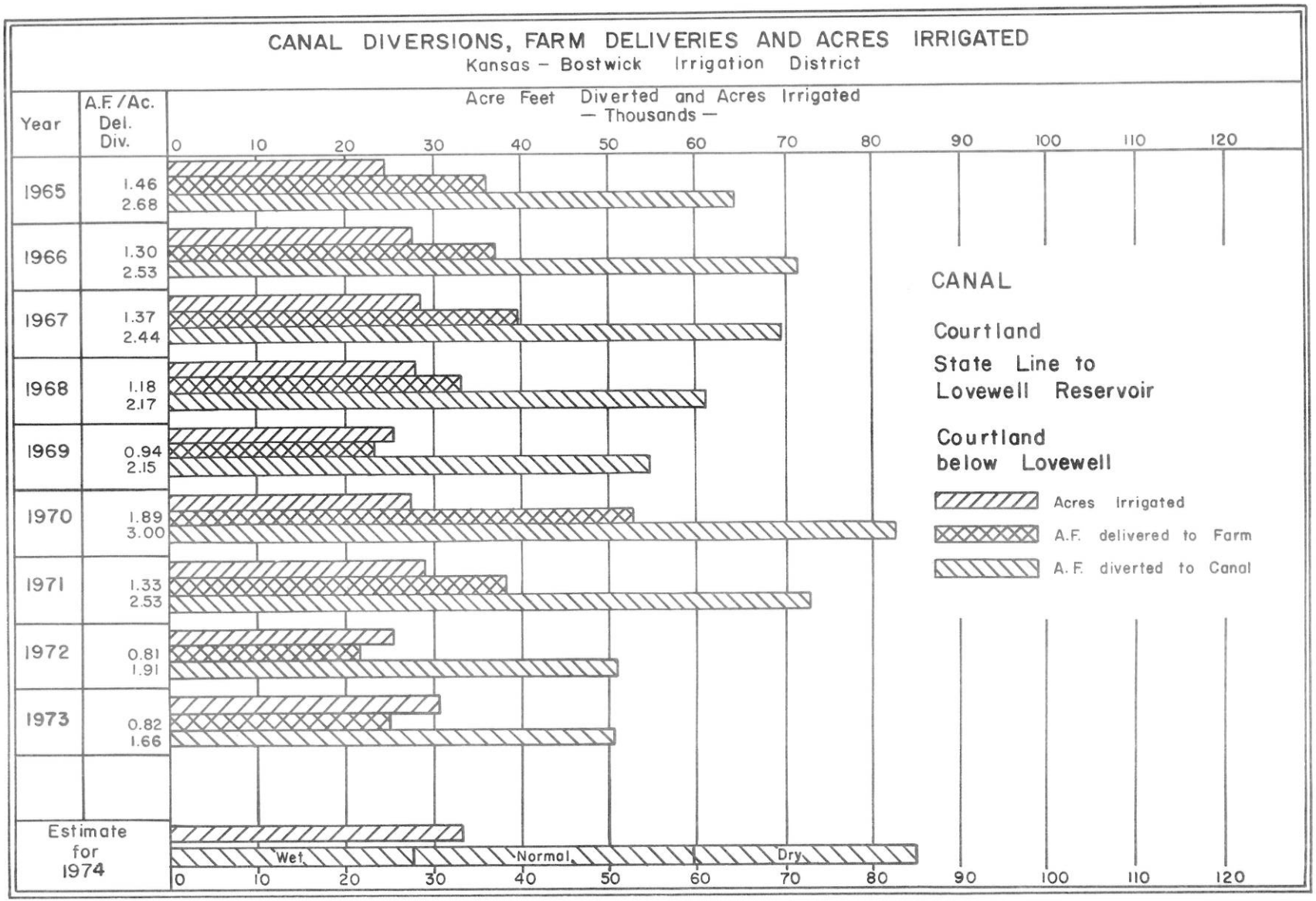

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Kansas – Bostwick Irrigation District
Year
A.F./Ac. Del. Div.
Acre Feet Diverted and Acres Irrigated
— Thousands —
0 10 20 30 40 50 60 70 80 90 100 110 120
1965 1.46 2.68
1966 1.30 2.53
1967 1.37 2.44
1968 1.18 2.17
1969 0.94 2.15
1970 1.89 3.00
1971 1.33 2.53
1972 0.81 1.91
1973 0.82 1.66
Estimate for 1974
Wet
Normal
Dry
CANAL
Courtland
State Line to
Lovewell Reservoir
Courtland
below Lovewell
Acres Irrigated
A.F. delivered to Farm
A.F. diverted to Canal

Exhibit 26

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED

Kirwin Irrigation District

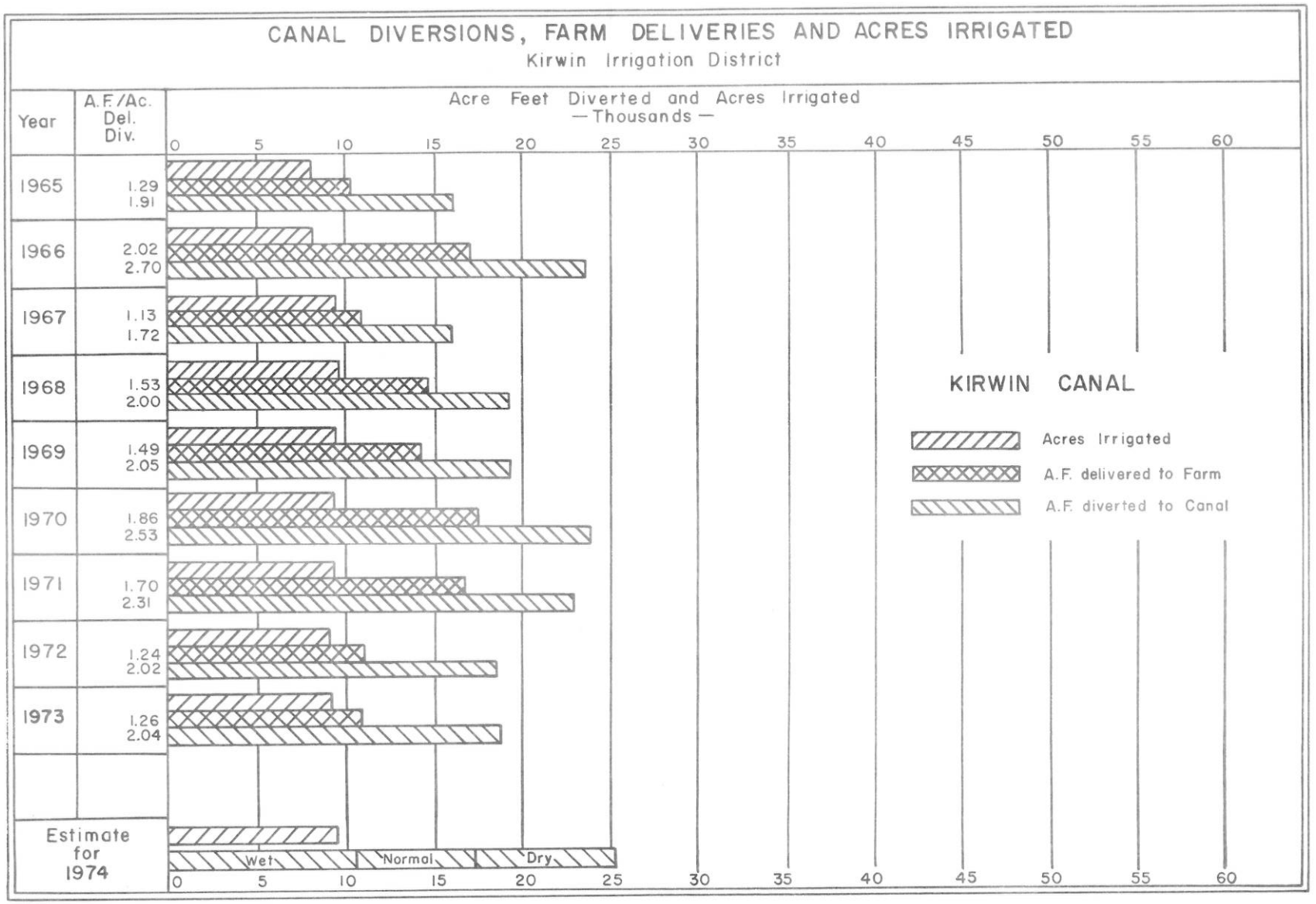


Exhibit 27

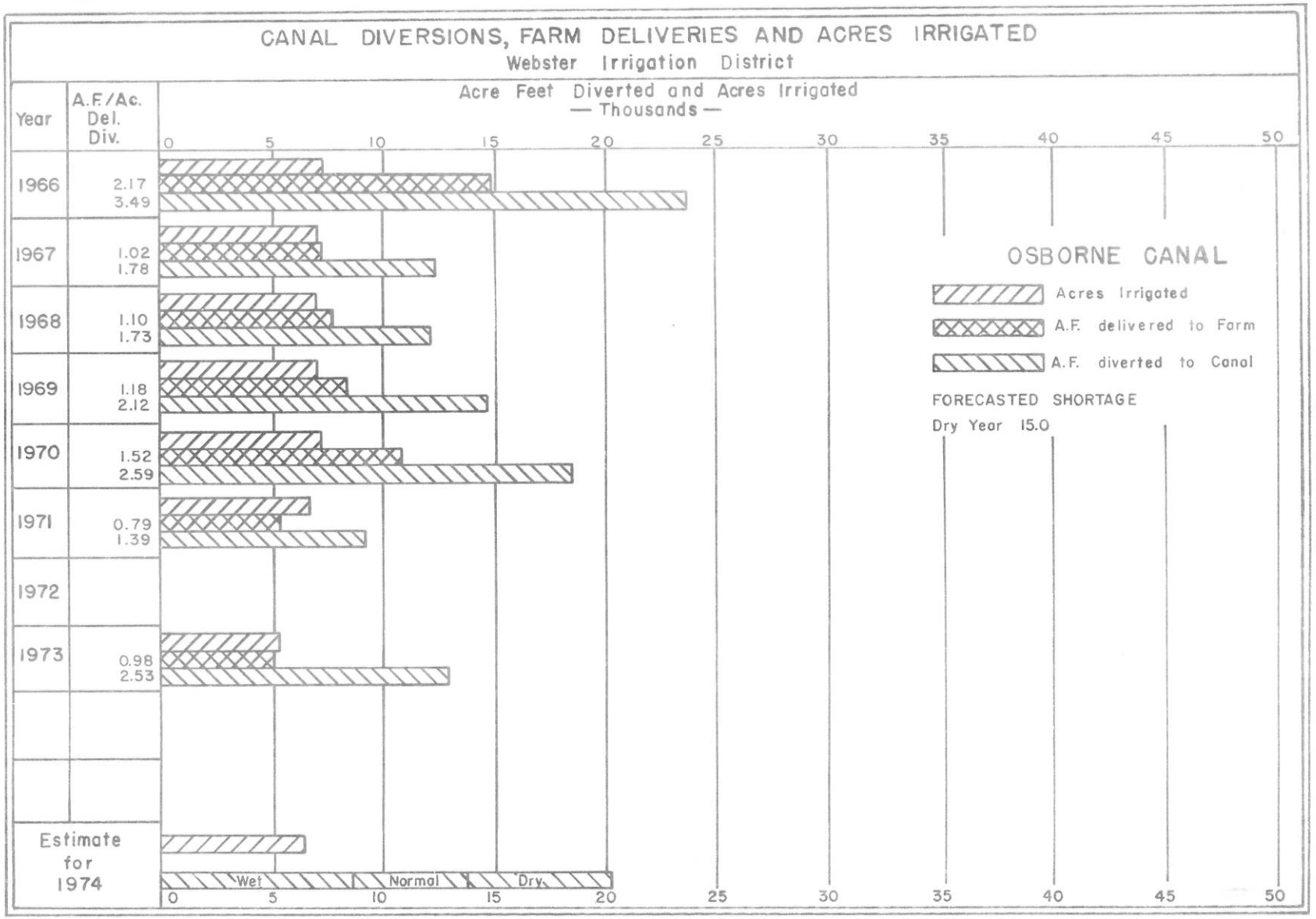

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Webster Irrigation District
Acre Feet Diverted and Acres Irrigated
— Thousands —
Year
A.F./Ac. Del. Div.
0 5 10 15 20 25 30 35 40 45 50
1966 2.17 3.49
1967 1.02 1.78
1968 1.10 1.73
1969 1.18 2.12
1970 1.52 2.59
1971 0.79 1.39
1972
1973 0.98 2.53
Estimate for 1974
Wet
Normal
Dry
OSBORNE CANAL
Acres Irrigated
A.F. delivered to Farm
A.F. diverted to Canal
FORECASTED SHORTAGE
Dry Year 15.0

Exhibit 28

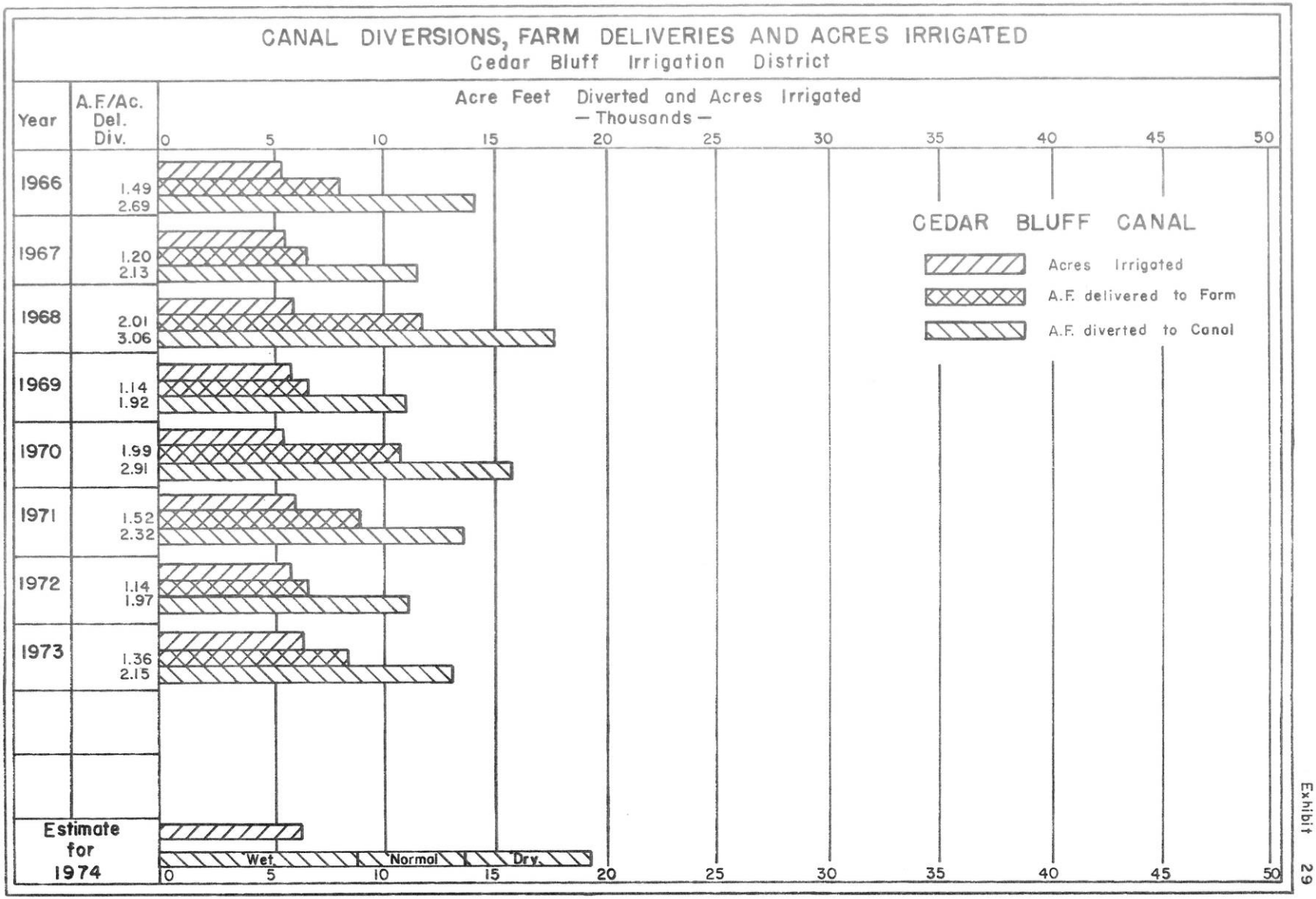
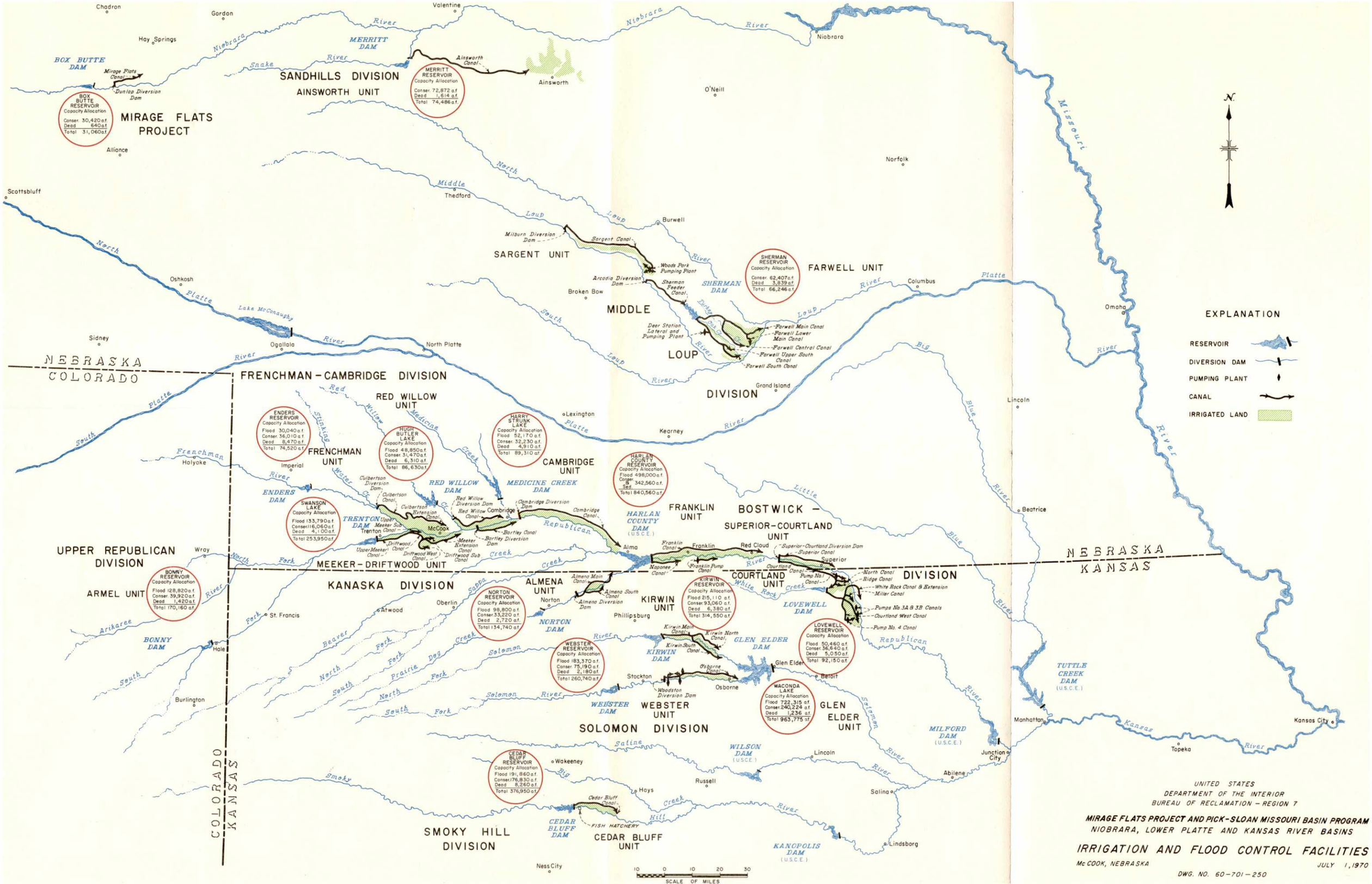

CANAL DIVERSIONS, FARM DELIVERIES AND ACRES IRRIGATED
Cedar Bluff Irrigation District
Year
A.F./Ac. Del. Div.
Acre Feet Diverted and Acres Irrigated
— Thousands —
0 5 10 15 20 25 30 35 40 45 50
1966 1.49 2.69
1967 1.20 2.13
1968 2.01 3.06
1969 1.14 1.92
1970 1.99 2.91
1971 1.52 2.32
1972 1.14 1.97
1973 1.36 2.15
Estimate for 1974
Wet.
Normal
Dry.
CEDAR BLUFF CANAL
Acres Irrigated
A.F. delivered to Farm
A.F. diverted to Canal

Exhibit 29



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION – REGION 7

MIRAGE FLATS PROJECT AND PICK-SLOAN MISSOURI BASIN PROGRAM
NIOBRARA, LOWER PLATTE AND KANSAS RIVER BASINS

IRRIGATION AND FLOOD CONTROL FACILITIES

McCOOK, NEBRASKA — JULY 1, 1970

DWG. NO. 60-701-250