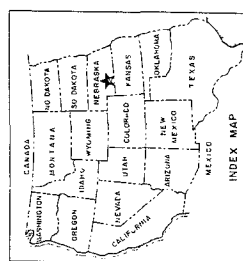
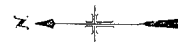


**EXPLANATION**

- BUREAU OF RECLAMATION COMPLETED AND AUTHORIZED WORK
- RESERVOIR (FLOW CONTROL) POOL, CREEP-INDUCED
- DAM
- CANAL
- AREA BENEFITED BY PROJECT WORKS
- KANSAS RIVER PROJECTS HEADQUARTERS - U.S.B.R.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
WALTER J. HICKEL, SECRETARY  
BUREAU OF RECLAMATION  
ELIOT L. GARDINER, COMMISSIONER

MISSOURI RIVER BASIN PROJECT  
**FRENCHMAN - CAMBRIDGE DIVISION**  
NEBRASKA  
REGION 7  
MAP NO. 228-101-782  
SCALE OF MILES

REVISED 1970

# FACTUAL DATA ON THE FRENCHMAN-CAMBRIDGE DIVISION

## FEATURES OF THE PROJECT PLAN

Facilities in the Division store and deliver a full water supply to 54,680 acres of irrigable land and a supplemental supply to 9,600 acres along the Republican River and its tributaries in southwestern Nebraska. The storage facilities also protect lives and property from floods, provide for fish and wildlife conservation and recreation, and aid in water quality and sediment control.

The four rolled earthen dams form reservoirs to control flood and normal streamflow. Their capacity for storage is 1,485,000 acre-feet. Large siltways for diversion into downstream canal systems. In addition, irrigation releases are made from Swanson Lake directly into the Meeker-Driftwood Canal System. ENDRIES DAM AND RESERVOIR, TRENTON DAM AND SWANSON LAKE, RED WILLOW DAM AND HUTCH BUTLER LAKE, and MEDICINE CREEK DAM AND RESERVOIR are operated by the Bureau of Reclamation. Red Willow Creek and Medicine Creek, respectively.

The CULBERTSON DIVERSION DAM and the CULBERTSON CANAL, LATERALS are the Frenchman-Cambridge Division's major features. The Frenchman-Cambridge Division is served by the Frenchman-Cambridge-Driftwood, Red Willow, and Medicine Creek canals. The Frenchman-Cambridge-Driftwood canal system begins at Trenton Dam and includes the UPPER MEEKER, UPPER MEEKER SUB, DRIFTWOOD, DRIFTWOOD WEST, DRIFTWOOD SUB and MEEKER EXTENSION CANALS. RED WILLOW, BARTLEY and CAMBRIDGE DIVERSION DAMS divert water from Red Willow Creek and the Republican River to the RED WILLOW, BARTLEY and CAMBRIDGE CANALS. The total length of the canals in the division is 204.3 miles. The canals in the division have been subdivided into 747 miles of smaller units. Open and closed drains are constructed as the need arises.

## RECREATION AND FISH AND WILDLIFE

The four lakes or reservoirs in the Division are providing many thousands of people from southwest Nebraska, northwest Kansas, and northwest Colorado with the water sports of boating, fishing, swimming, fishing and waterfowl hunting. Anglers enjoy crappie, pike, drum, catfish and other common warm water species. Numerous tracts at each impoundment are being intensively developed and managed to provide food and cover for pheasant, quail and small fur-bearing animals. Pheasant and quail are among the very popular game birds. The water surface area managed for wildlife and recreation by the Nebraska Game and Parks Commission.

## CHARACTER OF SOILS

The Division lands are located on uplands, terraces and valley bottoms. The uplands, about 23 percent of the area, are covered with wind-deposited loess that is deep and well drained. The surface is generally rolling between deeply eroded draws. Terrace lands comprise 70 percent of the lands and have soils developed on loess or alluvial (water-deposited) materials and have deep loamy subsoils. The bottom lands, representing about 7 percent of the lands, have alluvial soils derived from a mixing of these sands with silt outwash from loess uplands.

## IRRIGATION

Lands selected for irrigation are located along a 120-mile section of the Republican River and its tributaries in southwestern Nebraska. The elevation varies from 2,740 to 3,880 feet above sea level. The irrigation season extends from May 1 to October 15, or 168 days. The average annual diversion requirements vary from 1.8 to 2.1 acre-feet per acre and farm delivery from 1.3 to 1.5 acre-feet.

## PRINCIPAL PRODUCTS

Principal crops grown under irrigation are corn, alfalfa and sorghums. With a stabilized livestock feed supply, farm operators tend to increase the feeding of cattle and hogs.

## PRINCIPAL MARKETS

Agricultural products are marketed in the immediate area or are shipped directly to large markets, centers such as Omaha, St. Joseph and Kansas City. Excellent rail and highway facilities serve the area.

## OPERATION

The dams and reservoirs are operated by the Bureau of Reclamation. When water surfaces rise above the top of the conservation pool the dams are operated under instructions furnished by the Corps of Engineers. All diversion dams, canals, laterals and drains are operated and maintained by the three irrigation districts.

## WATER SUPPLY

Water supply for the Frenchman-Cambridge Division is obtained from the Republican and Medicine Creeks. The available supply, based on a 23-year record, averages 313,000 acre-feet annually after allowances for senior water rights and future development. Diversion areas in square miles above the dams are: Enders—827; Trenton—4,603; Red Willow—296; and Medicine Creek—656.

## CLIMATE

Precipitation has averaged a little over 19 inches annually but has varied from 8.74 to 38.26 inches. About 84 percent of the precipitation occurs during the growing season. Much of it is received from intense storms of short duration. Temperatures range from a record low of 38°F to a record high of 117°F. The frost-free season averages 156 days.

## FLOOD CONTROL

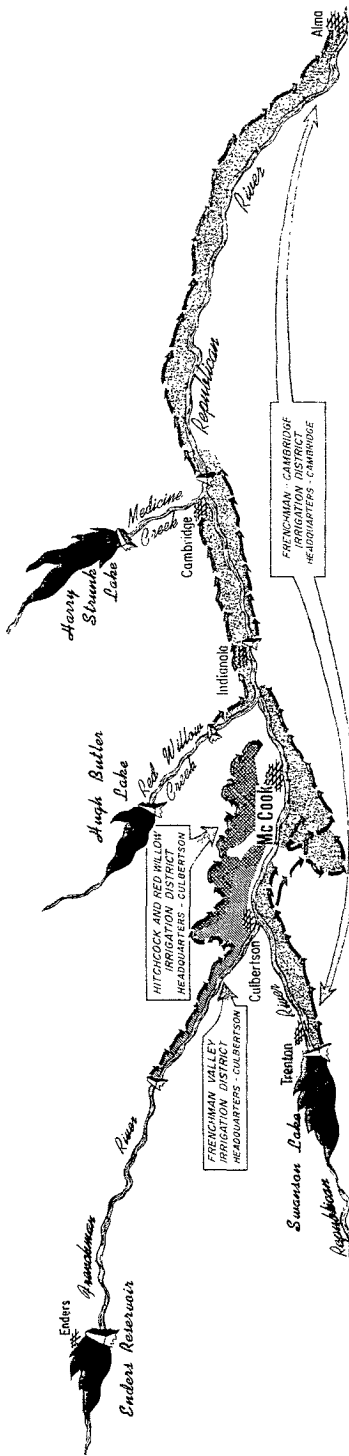
The 1935 flood on the Republican River took 110 lives; the 1947 flood on Medicine Creek claimed 23. Property damage was to the millions of dollars. Property damage to the Division's lands and water resources resulted from the storm at rates which caused downstream damage. No monetary value can be placed on the preservation of human life. The losses due to reduced flood damage to property, crops and livestock are estimated to average \$1,485,000 annually.

## WATER QUALITY CONTROL

The year-long live streams resulting from construction of the reservoirs, irrigation return flows, and natural accretions, provide flows adequate for the maintenance of water quality.

Address all inquiries regarding additional information concerning this Division to:

REGIONAL DIRECTOR, REGION 7  
BUREAU OF RECLAMATION  
BLDG. 20, DENVER FEDERAL CENTER  
DENVER, COLORADO 80225



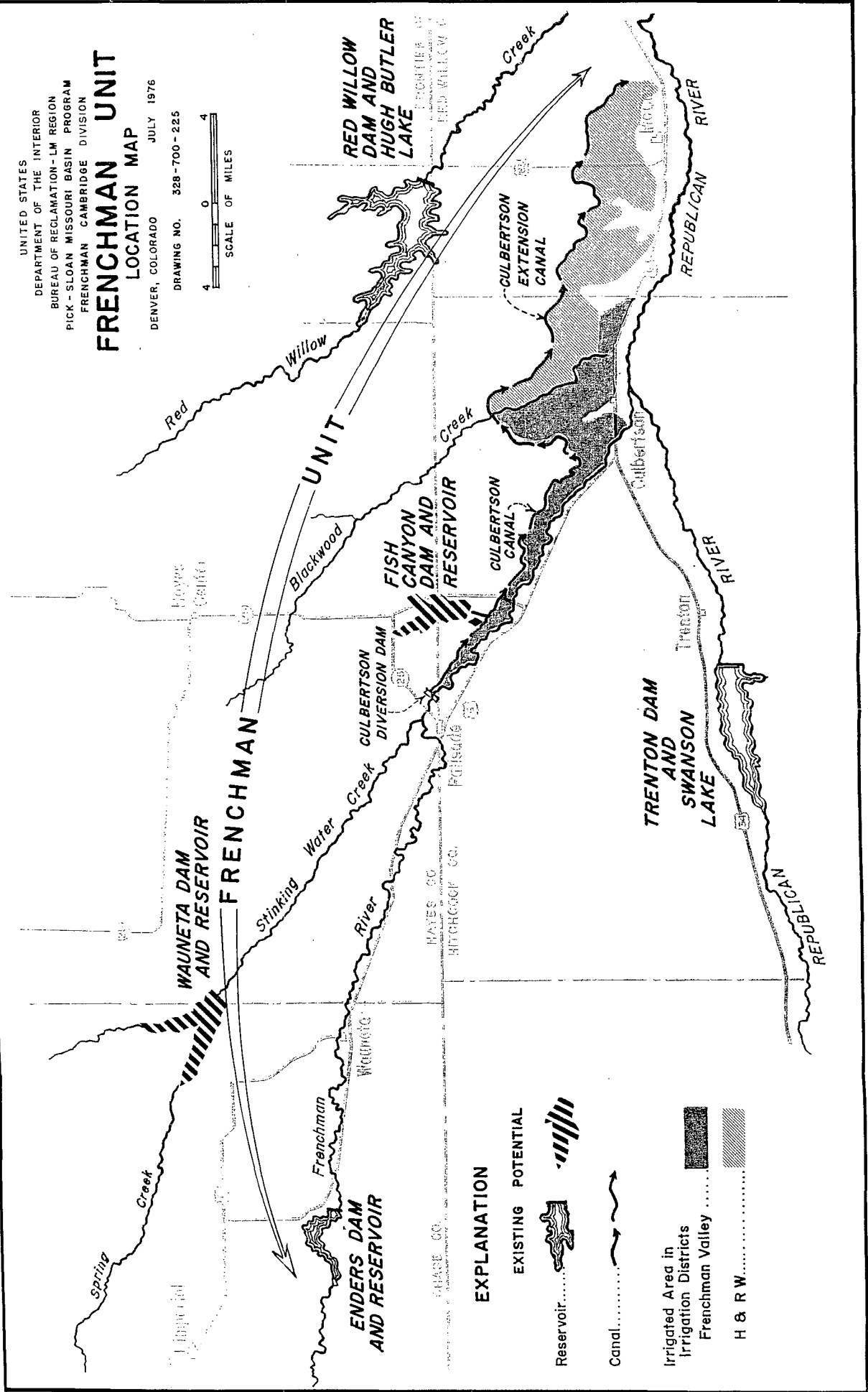
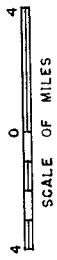
STORAGE FACILITIES				
Item	Enders Dam & Reservoir		Trenton Dam & Reservoir	
	Capacity (A.C.F.)	Volume (A.C.F.)	Capacity (A.C.F.)	Volume (A.C.F.)
Frenchman-Cambridge	1,485,000	1,485,000	1,485,000	1,485,000
Frenchman-Cambridge-Driftwood	1,485,000	1,485,000	1,485,000	1,485,000
Frenchman-Cambridge-Medicine Creek	1,485,000	1,485,000	1,485,000	1,485,000
Hutch Butler	1,485,000	1,485,000	1,485,000	1,485,000
Swanson	1,485,000	1,485,000	1,485,000	1,485,000
Enders	1,485,000	1,485,000	1,485,000	1,485,000
Medicine Creek	1,485,000	1,485,000	1,485,000	1,485,000
Red Willow	1,485,000	1,485,000	1,485,000	1,485,000

DAMS				
Item	Enders Dam		Trenton Dam	
	Capacity (A.C.F.)	Volume (A.C.F.)	Capacity (A.C.F.)	Volume (A.C.F.)
Frenchman-Cambridge	1,485,000	1,485,000	1,485,000	1,485,000
Frenchman-Cambridge-Driftwood	1,485,000	1,485,000	1,485,000	1,485,000
Frenchman-Cambridge-Medicine Creek	1,485,000	1,485,000	1,485,000	1,485,000
Hutch Butler	1,485,000	1,485,000	1,485,000	1,485,000
Swanson	1,485,000	1,485,000	1,485,000	1,485,000
Enders	1,485,000	1,485,000	1,485,000	1,485,000
Medicine Creek	1,485,000	1,485,000	1,485,000	1,485,000
Red Willow	1,485,000	1,485,000	1,485,000	1,485,000

DIVERSION DAMS				
Item	Enders Dam		Trenton Dam	
	Capacity (A.C.F.)	Volume (A.C.F.)	Capacity (A.C.F.)	Volume (A.C.F.)
Frenchman-Cambridge	1,485,000	1,485,000	1,485,000	1,485,000
Frenchman-Cambridge-Driftwood	1,485,000	1,485,000	1,485,000	1,485,000
Frenchman-Cambridge-Medicine Creek	1,485,000	1,485,000	1,485,000	1,485,000
Hutch Butler	1,485,000	1,485,000	1,485,000	1,485,000
Swanson	1,485,000	1,485,000	1,485,000	1,485,000
Enders	1,485,000	1,485,000	1,485,000	1,485,000
Medicine Creek	1,485,000	1,485,000	1,485,000	1,485,000
Red Willow	1,485,000	1,485,000	1,485,000	1,485,000

CANALS				
Item	Enders Dam		Trenton Dam	
	Capacity (A.C.F.)	Volume (A.C.F.)	Capacity (A.C.F.)	Volume (A.C.F.)
Frenchman-Cambridge	1,485,000	1,485,000	1,485,000	1,485,000
Frenchman-Cambridge-Driftwood	1,485,000	1,485,000	1,485,000	1,485,000
Frenchman-Cambridge-Medicine Creek	1,485,000	1,485,000	1,485,000	1,485,000
Hutch Butler	1,485,000	1,485,000	1,485,000	1,485,000
Swanson	1,485,000	1,485,000	1,485,000	1,485,000
Enders	1,485,000	1,485,000	1,485,000	1,485,000
Medicine Creek	1,485,000	1,485,000	1,485,000	1,485,000
Red Willow	1,485,000	1,485,000	1,485,000	1,485,000

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF RECLAMATION - LM REGION  
 PICK - SLOAN MISSOURI BASIN PROGRAM  
 FRENCHMAN CAMBRIDGE DIVISION  
**FRENCHMAN UNIT**  
 LOCATION MAP  
 DENVER, COLORADO JULY 1976  
 DRAWING NO. 328-700-225



**EXPLANATION**

EXISTING POTENTIAL

Reservoir.....

Canal.....

Irrigated Area in  
Irrigation Districts  
Frenchman Valley.....

H & R W.....