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### Developing The Oahe Unit

Cooperative Extension, South Dakota State University

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# developing the Oahe unit

No. 1  
Oahe Conservancy Sub-district Series

## Developing The Oahe Unit

The water users of the Oahe Unit will pay the costs of operation and maintenance of the works to get water from the Missouri River to their land. This cost is known as O & M (Operation and Maintenance). It is paid annually on a per acre basis on all lands classified as irrigable.

When you buy a tractor or car, in addition to paying for the cost of the machine you have to pay for the gas, oil, and repairs to keep it running. The same applies to irrigation water. The O & M must be paid and is considered a part of the water charge.

The main facilities necessary to be operated and maintained to irrigate the 482,000 acres of the Oahe Unit are as follows:

- 2,336 miles of canals and laterals
- 2,804 miles of open drains
- 14,000 miles of closed drains
- 307 pumping plants
- 3 dams
- 3 reservoirs

Other structures are also necessary for the plan of operation. O & M also includes personnel, equipment, supplies, materials, and electrical energy associated with these facilities. The appropriate shares of the O & M costs will be allocated to irrigation, flood control, recreation, municipal and industrial water, and fish and wildlife conservation. The irrigators will pay only the share allocated to irrigation.

O & M costs are estimates based on experience with similar facilities on operating irrigation projects,

\*Oahe Unit Report, U. S. Dept. of Interior, Bureau of Reclamation. Compiled by Merlin Hodgson, Extension resource development agent, Huron

adjusted to local wage and salary rates and equipment usage rates. These costs are based on average prices for the period 1957 through 1959.

Two items of costs associated with the Oahe Unit that are higher than average are the cost of power for pumping and the operation and maintenance cost of the drainage system.

Replacement costs have been computed on a 2.5% sinking-fund basis. The average estimated annual charge per acre for O & M for the three main irrigation areas of the Oahe Unit will be \$6.38.

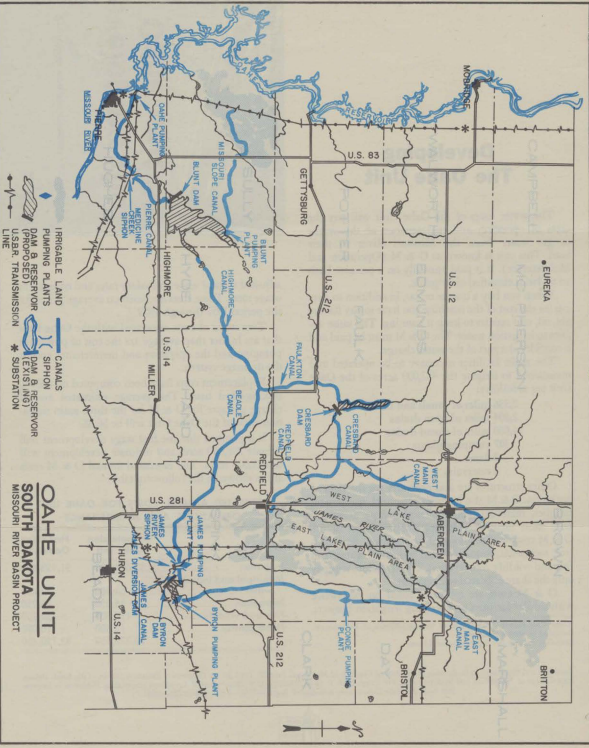
It is planned that the first stage development will irrigate 298,000 acres and ultimate development will be 482,000 acres. The estimated annual O & M costs are as shown in the following table.

ESTIMATED ANNUAL COSTS FOR OAHE UNIT  
OPERATIONS AND MAINTENANCE

	Ultimate plan Oahe unit	First stage Oahe unit
Irrigation .....	\$3,074,800	\$1,923,600
Municipal and industrial water .....	51,400	43,400
Recreation .....	15,250	15,250
Fish and wildlife .....	170,300	128,200
Flood control .....	12,800	10,000
	<b>\$3,324,550</b>	<b>\$2,120,450</b>

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IRRIGABLE LAND  
 PUMPING PLANTS  
 DAM & RESERVOIR  
 (PROPOSED)  
 USER TRANSMISSION  
 CANALS  
 SIPHON  
 DAM & RESERVOIR  
 (EXISTING)  
 \* SUBSTATION  
 LINE

# OAHE UNIT

SOUTH DAKOTA  
 MISSOURI RIVER BASIN PROJECT

