

No. *2572*

Office of State Engineer
DOCUMENT FILE

Bitter Lake Dam

County: *Ferman*

Applicant: *Respect. Economy*

Location: *NW 1/4 Sec 9, T10N, R11W*

Date of filing: *8-11-38*

Completion: *June 1936*

Purpose: *Shuntack*

W. H. Chaul

Bitter Lake

CERTIFICATE OF WITHDRAWAL OF
WATER FOR APPROPRIATION

U. S. No. 57

TO

UNITED STATES DEPARTMENT OF Agriculture
~~BUREAU OF~~ Land Utilization Division
BUREAU OF AGRICULTURAL ECONOMICS

Lyman
County

Bitter Dam
Stream

The United States Department of Agriculture, Land Utilization Division, having made application for the withdrawal of certain ~~heretofore~~ unappropriated public waters of the State of South Dakota, and having complied with the requirements of the statute of the State of South Dakota providing for such withdrawal, such statute and authority being contained in and described as Vol. 2, Chapter 2, Article 1, Paragraph 8243 of the Revised Code of 1919, now therefore:

This is to certify that there is hereby reserved, of the heretofore unappropriated waters of a Dry Draw the annual amount of 740,520 cubic feet of water plus losses due to evaporation or such amount as will maintain the lake level at the present overflow elevation. Said water is to be used for stockwater purpose. The W. corner of Twp. Sec. 9, T. 117 N., R. 6 E., S. 10 N. end of the impounding dam is located 1174 feet north 6 00 minutes East of W. corner of Twp. Sec. 9, T. 117 N., R. 6 E., S. 10 N. The above quantity of water is hereby withdrawn from future appropriation during the continuance of the right herein granted and contained.

This certificate and withdrawal shall in no manner prejudice, alter, amend or effect the rights of any prior appropriator or prior appropriation of water, nor of any application for appropriation pending upon the date of this certificate, but the rights and privileges of any and all such prior appropriators or applicants for appropriation of water shall remain inviolate and intact, the same as if the within withdrawal had not been made.

This certificate shall be and is subject to cancellation in accordance with the provisions of the statute heretofore referred to and under the authority of which this certificate is issued.

In accordance with the provisions of the statute heretofore referred to, this certificate is executed at the State Capitol at Pierre, South Dakota, this 11th day of August 1930.

Charles D. Smith
State Engineer.

LOCATION NOTICE

JOB NO. 226-3 Approximate date completed: June, 1936

KNOW ALL MEN BY THESE PRESENTS:

That Leonard Noble, Proj. Mgr., South Central South Dakota Land Adjustment Project, Resettlement Administration, U. S. Department of Agriculture whose post office is . . . Pierre, South Dakota, a citizen of the United States, above the age of 21 years, being in possession of the following in the name of the United States, described land, to wit:

. Tract No. 446 - NW 1/4
. Section . . . 9 Township . . . 108 N
range . . . 79 W . . . 5th P.M., in . . . Lyman County, South Dakota.

Availing him self of the right granted him . . under the provisions of Chapter 2, Article 1, Paragraph 8239 of the Revised Code of 1919, has located and claims the right to construct a certain dam across a dry draw situated in the NW 1/4 of the . NW 1/4 of section . . 9, township . . 108 N . range 79 W . 5th P.M. and has located and claims the right to construct ditches and flumes for the purpose of directing flood waters from said dam for irrigation of the land first above described and for Live Stock Purposes, and claims the right of way across any land for the purpose of conveying water for said purposes.

Said locator claims for the above purpose 740,520 . . cubic feet of water plus losses due to evaporation per second during the following described annual periods . . . January 1 . . . to December 31 . . . inclusive, each year.

The location of the point of diversion of the water is as follows:
From the
The ditch will run in a direction to and on said land for a distance of feet.

Said location was made on the . . . 12th . day of . . March . . 1936.

Witness my hand and seal this 3rd day of August, 1937.
FOR HENRY A. WALLACE
SECRETARY OF AGRICULTURE

Leonard Noble
Locator, Project Manager
Resettlement Administration
U. S. Dept. of Agriculture

STATE OF SOUTH DAKOTA,)
) ss.
County of Hughes . .)

On the 3rd . . . day of August 1937 . . , before me
. Gertrude Badessem a Notary Public in for the County and State aforesaid, personally appeared Leonard Noble to me personally known to be the person who executed the foregoing instrument and acknowledged that he executed the same for the use and purposes therein set forth.

Witness my hand and official seal the day and date above written.

Comm. Ex. Nov 16-1939

Gertrude Badessem
Notary Public

DESCRIPTION OF EARTH IMPOUNDING DAM
RESERVOIR AND SPILLWAY DAM NO. 226

JOB NUMBER 226 - 3

Resettlement Administration
Lincoln, Nebraska

Region VII

Project South Dakota
State

LD-SD 2
Number

A. Location of Dam and Reservoir

NW 1/4 of the Sec. 9; Township 108 N; Range 79 W;
of the 5th Meridian; County Lyman.

B. General Data

1. Area of drainage basin above dam: 2.4 sq. miles.

(Note: For areas greater than 5 sq. miles give size to nearest sq. mi.; for areas smaller than 5 sq. miles give area to nearest tenth.)

2. Average annual precipitation on water shed in inches: 20"

3. Give amount of rainfall in inches and duration of the heaviest downpour that can be expected based upon reliable records or information of the vicinity.

a. 3.5 inches.

b. 60 minutes.

c. Generalized Runoff Data for Region VII
Source of information.

4. Give description of water shed.

a. The slopes are sod-covered, cultivated, ~~barren~~.

Most of watershed is rolling, 4/5 sod-covered, 1/5 cultivated.

(Note: Answer (a) by striking out words not needed. Only a general description is wanted. If desired, a word or two may be given in the space that is provided.)

b. Average length of drainage basin 4.0 miles.

c. Average width of drainage basin 0.6 miles.

5. Maximum run-off of drainage area at the dam site: 440
cu. ft. per second.

(over)

C. Description of Dam

1. Height above low point of valley at centerline of dam: 11.8 ft.
2. Length along centerline at top of dam: 513 ft.
3. Width of top: 10 ft.
4. Upstream slope: 4 ft. horizontally to 1 ft. vertically.
5. Downstream slope: 2 ft. horizontally to 1 ft. vertically.
6. Volume in embankment: 5000 cu. yds.
7. Distance above high-water line to top of dam: 5 ft.
8. Distance above water surface to top of dam when spillway is discharging maximum run-off: 3 ft.

D. Description of Spillway

1. Bottom width: 24 ft.
2. Slope of sides: 1 : 1 (Give ratio horizontal to vertical.)
3. Gradient of spillway ditch: 1 ft. per hundred ft.
4. Maximum discharge: 440 cu. ft. per second.
5. Depth of water in spillway at time of maximum discharge: 2 ft.

(Note: The surface of water in the spillway must be at least 30" below the top of the dam when the spillway is discharging the maximum run-off of the drainage basin.)

E. Description of Reservoir

1. Area when filled to level of spillway: 6.7 acres.
2. Area when half-full: 2.4 acres.
3. Area at depth of two feet: .5 acres.
4. Volume when filled to level of spillway: 17.0 acre-ft.
5. Volume when half-full: 3.7 acre-feet.
6. Volume at depth of two feet: 0.5 acre-feet.
7. Average depth when full: 2.54 feet.

(over)