

No. 75 1-3

Office of State Engineer
DOCUMENT FILE

Sand Lake Waterfowl Refuge
"Houghton" and "Colman" dams
described in "Cul. of Exam."
dated April 30, 1945

Drawn by 10-11-45

WITHDRAWAL NO. U. S. #1Sand Lake Migratory Waterfowl Refuge
(Name of Project)Water Division No. 3James River

Water District

NOTICE OF COMPLETION OF WORKS

P. O. Salt Lake City, UtahDate. May 6, 1942

TO THE STATE ENGINEER OF SOUTH DAKOTA, PIERRE:

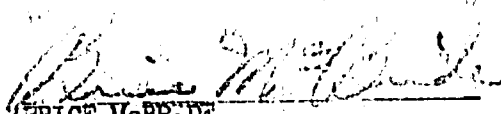
Dear Sir: Notice is hereby given of the completion of the construction on the Sand Lake Migratory Waterfowl Refuge, constructed and owned by the United States of America, Department of the Interior, Fish and Wildlife Service, (formerly the Bureau of Biological Survey), on the James River. The project provides for the diversion and storage or direct diversion of quantities of water as shown on the plans and reports submitted and the project has been completed in accordance with the said plans and reports, terms and conditions of withdrawals heretofore issued by the State Engineer of the State of South Dakota or as shall be hereafter reported by the Examining Engineer.

1. The proper name of the Federal Agency holding said withdrawal is the United States of America, Department of the Interior, Fish and Wildlife Service.
2. The name and post-office address of the proper corresponding official for said Federal Agency is Erice McBride, Sr. Hydraulic Engineer, 436 Federal Bldg, Salt Lake City, Utah.
3. The project is located in _____ of Section _____ Township 128, 127, 126, 125 N., Range 62 & 61 W.
4. Said water to be used for water conservation and propagation of aquatic vegetation purposes.
5. The amount of water which said completed works are capable of impounding or conducting to the place of intended use is as shown by information previously submitted or as shall hereafter reported by the Examining Engineer will be reported by Examining Engineer.

Form 17A - Withdrawal No. U. S. #1 - Sheet 2

6. The amount of land for which said water is available is _____ acres, particularly described as follows:
(see map already filed) _____.

I hereby certify that the facts set forth in the above notice are true.


ERIC McBRIDE
Sr. Hydraulic Engineer
U. S. Fish and Wildlife Service
Department of the Interior

PART
CANCELLATION

of

CERTIFICATE OF WITHDRAWAL OF
WATER FOR APPROPRIATION
Dated October 16, 1934

to

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

Brown County

James River

Since we are satisfied that the construction of works is no longer contemplated in a portion of the area described under certificate of withdrawal of public waters No. U. S.-1, Brown County, the same is hereby cancelled from appropriation and the same shall here after be subject to general appropriation, except that portion of the area in Brown County including that portion of the James River and its tributaries extending downstream to a point where the James River crosses the west line of Section 1, T. 126N., R. 32 W. From the waters of the above described James River and its tributaries, there is hereby reserved sufficient amount of the heretofore unappropriated waters to fill and maintain all ponds and marsh areas designated on the plans now on file in the State Engineers Office.

This cancellation of a portion of the withdrawal No. U. S.-1 as described above, is issued in accordance with the provisions of such statutes and authority contained in and described as Vol. 2, Chapter 2, Article 1, Paragraph 243 of the Revised Code of 1919, and in accordance with provisions of the above referred to withdrawal.

In accordance with the provisions of the statute hereinbefore referred to, this certificate is executed at the State Capitol at Pierre, South Dakota, this 10th day of Aug. 1938.

Charles H. Louch
State Engineer
South Dakota

CERTIFICATE OF WITHDRAWAL
OF
PUBLIC WATERS

BROWN COUNTY

JAMES RIVER

The Bureau of Biological Survey of the United States Department of Agriculture 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 3, Article 1, Paragraph 8243 of the Revised Code of 1919, now therefore:

This is to Certify that all of the unappropriated waters of the James River, together with all of its tributary streams, rivers, springs, draws, coolies and watersheds lying within the boundaries of Brown County, State of South Dakota, are 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 affect 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 hereinbefore referred to and under the authority of which this certificate is issued.

In accordance with the provisions of the statute hereinbefore referred to this Certificate is executed at the State Capitol at Pierre, South Dakota on this 16th day of October 1934.

Chas. A. Drimmer
STATE ENGINEER

COPY

CERTIFICATE OF WITHDRAWAL

OF

PUBLIC WATERS

BROWN COUNTY

JAMES RIVER

The Bureau of Biological Survey of the United States Department of Agriculture 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 824 of the Revised Code of 1919, now therefor:

This is to Certify that all of the unappropriated waters of the James River, together with all of its tributary streams, rivers, springs, draws, coolies and watersheds lying within the boundaries of Brown County, State of South Dakota, are 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 affect 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 withdrawal had not been made.

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

In accordance with the provisions of the statute hereinbefore referred to this Certificate is executed at the State Capitol at Pierre, South Dakota on this 16th day of October 1934.

Chas. A. Trimmer
STATE ENGINEER

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

John N. Ball
Project Coordinator
St. Charles Hotel
Pierre, S. D.

October 8, 1934

Mrs. W. A. Trimmer
State Engineer
Pierre, South Dakota

Dear Mr. Trimmer:

Notice is hereby given of the intention of the Bureau of Biological Survey of the U. S. Department of Agriculture to construct dams and dikes and carry on other development work on LaCreek in Bennett County in the State of South Dakota and on the James River in Brown County in the State of South Dakota in order to store and hold water from these streams in reservoirs to be constructed and to flood marshes and other lands and for other necessary uses in creating federal migratory water fowl refuges and breeding grounds.

It is requested that all of the James River lying within Brown County in the State of South Dakota between the North Dakota state line on the North and the Spink County line on the South together with all of its tributary streams, rivers, springs, draws, coolies and watersheds which in any way contribute water in any manner to the James River be withdrawn from further appropriation of water by any and all other parties, under authority of the laws of the State of South Dakota pertaining to water and water rights cited in Volume 2, Chapter 2, Article 1, Paragraph 3245 of the Revised Code of 1919.

It is further requested that all of LaCreek lying in Bennett County in the State of South Dakota from its source in section 22, township 36N, range 38 west of the sixth principal meridian thru section 25, township 37 N. range 36 west of the sixth principal meridian together with all tributary and feeder streams, springs, rivers, draws, coolies and watersheds which in any way, either directly or indirectly, contribute water to and/or help to maintain and increase the water flow of LaCreek be withdrawn from appropriation of water by any and all other parties, under authority of the laws of the State of South Dakota pertaining to water and water rights as cited in Volume 2, Chapter 2, Article 1, Paragraph 3243 of the Revised Code of 1919.

This request is made in the name of the Bureau of Biological Survey of the U. S. Department of Agriculture under authorization of the attached telegram from Mr. J. M. Darling, Chief of the Bureau of Biological Survey. It is respectfully requested that this withdrawal of appropriation of waters become effective at once. Development plans will be filed with your office from time to time as required under the act.

Yours very truly,

John N. Ball (S) (mod)
JOHN N. BALL
Project Coordinator

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

IN REPLY REFER TO

John H. Bell
Project Coordinator
St. Charles Hotel
Pierre, S. D.

October 8, 1934

Mr. C. A. Trimmer
State Engineer
Pierre, S. D.

Dear Mr. Trimmer:

Notice is hereby given of the intention of the Bureau of Biological Survey of the U. S. Department of Agriculture to construct dikes and dikes and carry on other development work on Lacreek in Bennett County in the State of South Dakota and on the James River in Brown County in the State of South Dakota in order to store and hold water from these streams in reservoirs to be constructed and to flood arid lands and other lands and for other necessary uses in creating several migratory waterfowl refuges and breeding grounds.

It is recited that all of the James River lying within Brown County in the State of South Dakota between the North Dakota state line on the North and the Spink County line on the South together with all of its tributary streams, rivers, springs, dikes, cohes and laterals which in any way contribute water in any manner to the James River be withdrawn from further appropriation of water by any and all other parties, under authority of the laws of the State of South Dakota pertaining to water and water rights cited in Volume 2, Chapter 2, Article 1, Paragraph 8243 of the Revised Code of 1919.

It is further recited that all of Lacreek lying in Bennett County in the State of South Dakota from its source in section 22, township 36N, range 38 west of the sixth principal meridian, through section 25, township 37 N, range 38 west of the sixth principal meridian, together with all tributary and leader streams, springs, rivers, dikes, cohes and laterals which in any way, either directly or indirectly, contribute water to and/or help to maintain and increase the water flow of Lacreek be withdrawn from appropriation of water by any and all other parties, under authority of the laws of the State of South Dakota pertaining to water and water rights cited in Volume 2, Chapter 2, Article 1, Paragraph 8243 of the Revised Code of 1919.

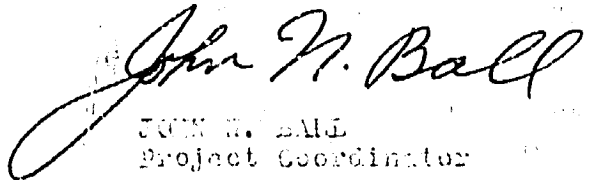
UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

IN REPLY REFER TO

(2)

This request is made in the name of the Bureau of Biological Survey of the U. S. Department of Agriculture under authorization of the attached telegram from Mr. J. N. Darling, Chief of the Bureau of Biological Survey. It is respectfully requested that this withdrawal of appropriation of waters become effective at once. Development plans will be filed with your office from time to time as required under the act.

Yours very truly,


JOHN N. BALL
Project Coordinator

UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF BIOLOGICAL SURVEY

Sand Lake Waterfowl Refuge

Columbia, South Dakota

September 30, 1938

IN REPLY REFER TO

RECEIVED

OCT 3 1938

OFFICE OF STATE ENGINEER
PIERRE, S. DAK

Mr. Egan W. Loucks
State Engineer
State House
Pierre, South Dakota

Dear Mr. Loucks:

I have one more request to make of you in connection with our desire to have recorded both the Certificate of Withdrawal executed by Chas. A. Trimmer on October 16, 1934, and the Part Cancellation of this Certificate by yourself on August 11, 1938.

The County Recorder needs to have affixed to the copy of Trimmer's certificate the notarized statement that this is a true and exact copy of the original certificate.

If you can have this done I then can have both documents recorded in proper sequence in the Brown County Recorder's Office.

Very truly yours,

Philip A. Duffont
Philip A. Duffont
Refuge Manager

PAD:rb

cc: McBride
Laurek

September 23, 1938

Philip A. Dullont,
Refuge Manager
Sand Lake Waterfowl Refuge
Columbia, South Dakota

Dear Mr. Dullont:

Re: Sand Lake
Water Levels

This will acknowledge receipt of your letter of September 21st and we are returning herewith, authorized Certificate of Withdrawal of water for appropriation in connection with the Sand Lake Refuge. We are also enclosing a copy of the original Withdrawal as of October 26, 1934 and signed by former State Engineer, C. A. Trimzer.

It is my understanding of the present State Code that it is not required, since the 1907 law, that such water rights be recorded in the counties, the record being in this office. Prior to the 1907 law all water rights were recorded in the counties, this perhaps accounts for the fact that you do not find a record of the original withdrawal. We are, however, enclosing a copy of the authorized withdrawal for your use.

Very truly yours,

DEAN W. DOUGLAS,
State Engineer.

DW:dn
Enc. 2

DATE MICROFILMED

COPYING OPERATION

UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF BIOLOGICAL SURVEY

Sand Lake Waterfowl Refuge

Columbia, South Dakota

September 21, 1938

IN REPLY REFER TO
Sand Lake
Water Levels

RECEIVED

SEP 23 1938

OFFICE OF STATE ENGINEER
PIERRE, S. DAK.

Mr. Dean W. Loucks, State Engineer
State House,
Pierre, South Dakota

Dear Mr. Loucks:

Recently Mr. Brice McBride forwarded to me the enclosed Pa
Cancellation of Certificate of Withdrawal of water for appropriation,
signed by you on August 11, 1938. McBride asked that record this
in the County Recorders office of Brown County.

Before this can be recorded there is a need for your signature
to be notarized. Will you have this done and the cancellation re-
turned to me at this office?

The office of the County Recorder experienced difficulty in
finding the previous filing for water appropriation, dated October
16, 1934. Do you have information as to where and when this was
recorded at the Brown County Court House?

Very truly yours,

Philip A. Daint
Philip A. Daint
Refuge Manager

PAD:rb

August 11, 1935.

Brice McBride,
Hydraulic Engineer
United States Department of Agriculture
Bureau of Biological Survey
513 Chamber of Commerce Bldg.
Salt Lake City, Utah

Dear Mr. McBride,

Re: Sand Lake Rights

Replying to your letter of July 29 relative to the withdrawal of water rights on the Sand Lake Waterfowl Refuge in Brown County. We are herewith enclosing a cancellation of the withdrawal dated October 16, 1934, and listed as No. U. S. . . , except that portion of the area in Brown County including that portion of the James River and its tributaries extending downstream to a point where the James River crosses the west line of Section 4, T. 125N., R. 62W.

The document reserves the right to the Bureau of Biological Survey to waters of the James River and its tributaries above this point and included in Brown County, in a sufficient amount of the heretofore unappropriated waters to fill and maintain all ponds and marshes as designated on plans now on file in this office.

We are directing this cancellation to you for you to forward through the proper channels.

Very truly yours,

DEAN W. DOCKES,
State Engineer.

WLD:dm
Enc.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY
WASHINGTON, D. C.

ADDRESS REPLY TO
CHIEF, BUREAU OF BIOLOGICAL SURVEY
AND REFER TO

July 29, 1938

RECEIVED

JUL 31 1938

OFFICE OF STATE ENGINEER
PIERRE, S. DAK.

Mr. D. W. Loucks, State Engineer,
State Capitol,
Pierre, South Dakota.

Dear Mr. Loucks:

Re: Sand Lake Rights

In our original filings made in the fall of 1934 on waters from the James River for use on the Sand Lake Migratory Waterfowl Refuge, the withdrawal requested included all of the James River and its tributaries lying within the boundary of Brown County, South Dakota.

You will note from the plans recently filed at your office that the farthest downstream structure across the James River, within the boundaries of the Sand Lake Refuge, is the Columbia Rock Dam located in Section 4, T. 125 N., R. 62 W. Since we do not contemplate any further construction at this time below this point, you have our permission to re-open the section of the river from the west boundary of Section 4, T. 125 N., R. 62 W. and downstream to the Brown County line.

It is my suggestion that our final certificate show that by virtue of our filings made in the fall of 1934, the Bureau of Biological Survey claims sufficient of the waters of the James River and its tributaries from the northern boundary of Brown County, downstream to the point where the James River crosses the west line of Section 4, T. 125 N., R. 62 W. to fill and maintain all ponds and marsh areas designated on the plans that have already been filed with you.

Very truly yours,

Brico McBride

Brico McBride,
Hydraulic Engineer.

June 22, 1938

Erice McBride,
Hydraulic Engineer
Bureau of Biological Survey
515 Chamber of Commerce Bldg.
Salt Lake City, Utah

Dear Mr. McBride:

Re: Sand Lake
Withdrawal Certificate

We herewith acknowledge receipt of your letter of June 13, 1938 and of three drawings of the above named project sheets of which are marked 1-10.1, 1-11.1, 1-12.1 these sheet numbers, in the last two instances, do not correspond with the numbers in your letter. However, with the filing of these plans and your withdrawal certificate the filing should be completed.

In checking up your certificate of withdrawal I note that it includes all of the unappropriated waters of the James River together with its tributaries, streams, rivers, springs, draws, oodles and watersheds lying within the boundaries of Brown County, State of South Dakota during the continuance of the right therein granted and contained.

Apparently there is a portion of the James River included in the certificate lying below the Columbia Road Dam Sec. 24, T.125N, R.02W on which there are no contemplated Federal Surveys or construction by the Bureau of Biological Survey. Can you give me any reason why this portion of the withdrawal, below the Columbia Road Dam, should not be cancelled and made available for further appropriation, in accordance with lines 17 to 20 of Section 8243 of Article 1 of the Revised Code of 1919.

Kindly let us know relative to the above matters.

Very truly yours,

WM. E. LORING,
State Engineer.

BWL:d.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

C
O
P
Y
R - Sand Lake

513 Chamber of Commerce Building
Salt Lake City, Utah
June 13, 1938

Mr. F. W. Loucks,
State Engineer,
Pierre, South Dakota.

Dear Mr. Loucks:

Under separate cover, I am mailing you three drawings, Nos. M-S.Dak. 1-10.1, M-S.Dak. 1-11.2, and M-S.Dak. 1-12.2. These three drawings indicate the major structures as they exist today and show:

1. The location.
2. The height and length of dikes.
3. Crest elevation and length of spillways.
4. Elevation and size of outlet structures.

There are several other existing structures in the form of dikes and ditches that have been constructed on the Sand Lake project, but none of these will have any effect upon the total storage back of the dam, and hence I have not included them in the plans.

Kindly acknowledge receipt of these plans and state whether or not this completes our filings on the Sand Lake project.

Very truly yours,

Drice McBride,
Hydraulic Engineer.

cc: Mr. Maurek
Washington

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

IN REPLY REFER TO

R - Sand Lake

513 Chamber of Commerce Building
Salt Lake City, Utah
June 13, 1938

RECEIVED

JUN 20 1938

OFFICE OF STATE ENGINEER
PIERRE, S. DAK.

Mr. D. W. Loucks,
State Engineer,
Pierre, South Dakota.

Dear Mr. Loucks:

Under separate cover, I am mailing you three drawings, Nos. M-S.Dak. 1-10.1, M-S.Dak. 1-11.2, and M-S.Dak. 1-12.2. These three drawings indicate the major structures as they exist today and show:

1. The location.
2. The height and length of dikes.
3. Crest elevation and length of spillway.
4. Elevation and size of outlet structures.

There are several other existing structures in the form of dikes and ditches that have been constructed on the Sand Lake project, but none of these will have any effect upon the total storage back of the dam, and hence I have not included them in the plans.

Kindly acknowledge receipt of these plans and state whether or not this completes our filings on the Sand Lake project.

Very truly yours,

Alice McBride

Alice McBride,
Hydraulic Engineer.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

IN REPLY REFER TO

RECEIVED
AUG 22 1938

OFFICE OF STATE ENGINEER
PIERRE, S. DAK.

427 Federal Building
Salt Lake City, Utah
August 20, 1938

Mr. Dean W. Loucks,
State Engineer,
Pierre, South Dakota.

Dear Mr. Loucks:

Re: Sand Lake Rights

Replying to your letter of August 11, with attached Cancellation of Certificate of Withdrawal, I am herewith returning this Cancellation with the suggestion that it be revised to show the date of priority of our water rights set out in the certificate.

As I understand the situation, we have the right to all of the waters in the James River and its tributaries arising in Brown County to a point where the James River crosses the west line of Section 4, T. 125 N., R. 62 W., with the date of priority of October 16, 1934.

Reading this Cancellation Certificate without reference to any other records does not disclose the fact that our priority is of October 16, 1934. I would appreciate it very much if you will rewrite this certificate so as to indicate the date of priority in the body in such a way that it would not be necessary to refer to other documents in determining the priority and extent of our water rights.

Very truly yours,

Brice M. McBride

Enc.

Brice McBride, Hydraulic Engineer.

LETTER OF AUTHORIZATION

for
Inspection

May 15

1942

Robert W. DougallSand Lake Migratory Waterfowl Refuge
(Name of Project)Box 638, Minot, North DakotaJames River
(Source of Appropriation - stream)

Dear Sir:

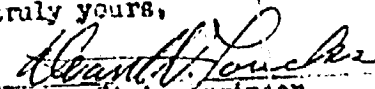
The United States of America, Department of the Interior, Fish and Wildlife Service (formerly the Bureau of Biological Survey) having filed "Notice of Intention" to utilize certain specified waters of the State, and there having been issued a withdrawal from further appropriation as provided in Section 61,0137, 1939 Revised Code of South Dakota and identified as Withdrawal No. U. S. #1, on James River (stream), County of Brown, has informed this office that the construction for the diversion, storage, appropriation and application of water to beneficial use has been fully completed and is ready for examination.

You are, therefore, hereby authorized to arrange with the holder of said withdrawal for an examination of the Sand Lake Migratory Waterfowl Refuge, constructed and owned by the United States of America, Department of the Interior (formerly the Bureau of Biological Survey), and also an inspection to determine the amount of water stored and applied to beneficial use.

In this examination you will ascertain whether or not the constructed works comply fully with the plans submitted and are capable of using quantities of water as set forth in the "Notice of Intention", and give in complete form all the information which is suggested by the statements in the Certificate of Inspection which is herewith enclosed, in the attached instructions, and such other information as will enable the State Engineer to act intelligently and judicially in the matter of determining the status of completion of the project.

You should also arrange with the holder of the withdrawal for the payment of your fee for this service and such proper expenses as you incur in making this examination and report and taking the testimony.

Very truly yours,


State Engineer

Water Division No. 3James River Water District

CERTIFICATE OF EXAMINATION OF WORKS

Report of Examining Engineer

Date Aug. 9, 1944Sand Lake Mig. Waterfowl RefugeBy: Robert W. DougallJames River

(Source of Appropriation)

To the State Engineer, Pierre, South Dakota:

Dear Sir: I hereby certify that in accordance with your letter of authorization dated May 15, 1942, I have made a thorough examination of Sand Lake Refuge Dams, constructed by the United States of America, Fish and Wildlife Service, holder of withdrawal No. U.S.#1, issued upon Certificate of Withdrawal bearing date October 16, 1934, authorizing the withdrawal from further appropriation the waters of James River, tributary of Missouri River, for water conservation and propagation of aquatic vegetation, fish and recreation.

I have to report on the condition of the same as follows:

The impounded and diversion works comprise:

HOUGHTON DAM:	Type <u>Earth fill - gravel covered 1 ft.</u> Foundation <u>clay</u>
	Size: Max. length <u>5700 ft</u> , Max. Height to spillway <u>6 ft.</u>
	flow line elev <u>127.2 ft</u> Freeboard <u>3 ft</u>
Section:	Upstream slope <u>8-1</u>
	Downstream slope <u>6-1</u>
	Top width <u>10 ft</u>
	Yardage (approx.) <u>56,000</u>
Reservoir:	Area normal Pool Level <u>5,927 acres</u>
	Capacity <u>10,528 acre-feet</u>
	Nature of shore line <u>marsh - river bottom loams</u>
Spillway:	Type <u>concrete wall, hand placed rock 500 ft aux.</u>
	spill <u>1 ft. above concrete. Location in river channel</u>
	near <u>NW cor. Sec 36, T 127 N, R 62 W.</u>
	Width <u>100 ft</u> , Depth <u>3 ft.</u>
	Capacity <u>1700 cfs., with free fall below</u>
Cullet:	Size <u>3 ft wide, 6 ft deep</u> Control <u>wooden stoplogs</u>
	Location <u>in center of concrete spillway and in</u>
	<u>river channel</u>
Ditches:	<u>None.</u>

COLUMBIA DAM: Type earth fill - covered with 5" gravel Foundation clay
 Size: Max. Length 3100 ft Max. Height to spillway 6 ft.
 flow line Elev 1271 ft Freshboard 3 ft.
 Section: Upstream slope 8-1
Downstream slope 9-1
Top width 20 ft.
Yardage (approx) 36,000
 Reservoir: Area Normal Pool Level 5,420 acres
 Capacity 16,493 acre-feet
 Nature of shore line marsh - river bottom loams
 Spillway: Type concrete wall, hand placed large rock placed
on gravel Location in river channel, W cor. Sec 4,
T 125 N, R 62 W.
Width 400 ft Depth 3 ft.
 Capacity 6800 c.f.s., with free fall.
 Outlet: Size: 3 ft wide, 6 ft. deep Control wooden stoplogs
 Location in center concrete spillway and in river
channel.
 Ditches: None.

HOUGHION DAM:

The System is in the following condition: Dam has had more riprap placed on it since original construction and is in excellent condition.

The outlet of the reservoir or the point of diversion of the ditch, canal or pipe line is located near the NW corner of Section 36 Township 127 N Range 62 W.

The works are capable of utilizing 10,528 acre-feet of storage water annually plus 17781 acre-feet for seasonal use.

The legal subdivisions to be irrigated are: Two 127 N, R 62 W; E $\frac{1}{2}$ Sec 26, Sec 25, N $\frac{1}{2}$ Sec 36, N $\frac{1}{2}$ Sec 35, Sec 24, Sec 13, E $\frac{1}{2}$ Sec 12, S $\frac{1}{2}$ Sec 12, S $\frac{1}{2}$ Sec 1. Two 127 N, R 61 W.; Sec 30, N $\frac{1}{2}$ Sec 31, Sec 19, Sec 18, W $\frac{1}{2}$ Sec 17, W $\frac{1}{2}$ Sec 8, Sec 7, Sec 6, W $\frac{1}{2}$ Sec 5, W $\frac{1}{2}$ Sec 32, E $\frac{1}{2}$ and E $\frac{1}{2}$ Sec 31, E $\frac{1}{2}$ Sec 30, E $\frac{1}{2}$ Sec 30, W $\frac{1}{2}$ Sec 29, E $\frac{1}{2}$ Sec 19, Sec 20, W $\frac{1}{2}$ Sec 21, E $\frac{1}{2}$ Sec 18., comprising a total of 5,927 acres of land.

The domestic and stockwater uses comprise use by cattle that are grazed under permit on refuge.

The utilization for public recreation, game and fish propagation, fire protection, comprises: principal use for migratory waterfowl refuge - supplemental use, game and fish propagation, public recreation.

Notice of Completion of Works was filed May 11, 1942.

COLUMBIA DAM:

The System is in the following condition: Dam has had more riprap placed on it since original construction and is in excellent condition.

The outlet of the reservoir is located in the SW $\frac{1}{4}$ of Section 4, Township 125 N Range 62 W.

The works are capable of utilizing 16,493 acre-feet of storage water annually, plus 16,260 acre-feet of seasonal use.

The legal sub-divisions to be irrigated are: Twp 125 N, R 62 W.; Sec 4. T 126 N, R 62 W.; Sec 33, W $\frac{1}{4}$ Sec 23, NW $\frac{1}{4}$ Sec 23, Sec 21, N $\frac{1}{2}$ Sec 22, N $\frac{1}{2}$ Sec 23, SW $\frac{1}{4}$ Sec 23, W $\frac{1}{4}$ Sec 13, Sec 14, Sec 15, Sec 16, E $\frac{1}{2}$ Sec 10, S $\frac{1}{2}$ SW $\frac{1}{4}$ Sec 10, Sec 11, W $\frac{1}{4}$ Sec 12, Sec 1, Sec 2, E $\frac{1}{2}$ Sec 3. T 127 N, R 62 W.; E $\frac{1}{2}$ Sec 34, Sec 35, Sec 36. T 127 N, R 61 W.; NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 31, comprising a total of 5,420 acres of land.

The domestic and stockwater uses comprise use by cattle that are grazed under permit on refuge.

The utilization for public recreation, game and fish propagation, fire protection, comprises: principal use for migratory waterfowl refuge - supplemental use, game and fish propagation, and public recreation.

Notice of Completion of Works was filed May 11, 1942.

Totals of Houghton and Columbia Dams:

Total Acres	Total Storage Acre-feet	Total Seasonal Use-Acre-feet
<u>11,347</u>	<u>27,021</u>	<u>34,041</u>

Witness my hand, this 30th day of April, A. D. 1945

Robert H. Douglas
Examining Engineer

(Taken from map #1.10.1, #1.11.1 and #1.12.1)

Water Division No. 3James River

Water District

CERTIFICATE OF EXAMINATION OF WORKS

Report of Examining Engineer

Date Aug. 9, 1944Sand Lake Mig. Waterfowl RefugeBy: Robert W. DougallJames River

(Source of Appropriation)

To the State Engineer, Pierre, South Dakota:

Dear Sir: I hereby certify that in accordance with your letter of authorization dated May 15, 1942, I have made a thorough examination of Sand Lake Refuge Dams, constructed by the United States of America, Fish and Wildlife Service, holder of withdrawal No. U.S.#1, issued upon Certificate of Withdrawal bearing date October 16 1934, authorizing the withdrawal from further appropriation the waters of James River, tributary of Missouri River, for water conservation and propagation of aquatic vegetation, fish and recreation.

I have to report on the condition of the same as follows:

The impounded and diversion works comprise:

HOUGHTON DAM: Type Earth fill - gravel covered 1 ft. Foundation clay
 Size: Max. Length 6700 ft, Max. Height to spillway 6 ft.
flow line elev 1272 ft Freeboard 3 ft
 Section: Upstream slope 8-1
Downstream slope 6-1
Top width 10 ft
Yardage (approx.) 56,000
 Reservoir: Area normal Pool Level 5,927 acres
Capacity 10,528 acre-feet
Nature of shore line marsh - river bottom loams
 Spillway: Type concrete wall, hand placed rock 500 ft aux.
spill 1 ft. above concrete. Location in river channel
near NW cor. Sec 36, T127 N, R 62 W.
Width 100 ft, Depth 3 ft.
Capacity 1750 cfs., with free fall below
 Outlet: Size 3 ft wide, 6 ft deep Control wooden stoplogs
Location in center of concrete spillway and in
river channel
 Ditches: None.

COLUMBIA DAM: Type earth fill - covered with 6" gravel Foundation clay
 Size: Max. Length 3100 ft Max. Height to spillway 6 ft.
 flow line Elev 127.1 ft Presboard 3 ft.
 Section: Upstream slope 8-1
Downstream slope 9-1
Top width 20 ft.
Yardage (approx) 36,000
 Reservoir: Area Normal Pool Level 5,420 acres
 Capacity 16,493 acre-feet
 Nature of shore line marsh - river bottom lands
 Spillway: Type concrete wall, hand placed large rock placed
on gravel Location in river channel, $\frac{3}{4}$ cor. Sec 4,
T 127 N, R 62 W.
Width 400 ft Depth 3 ft.
 Capacity 6800 c.f.s., with free fall.
 Outlet: Size: 3 ft wide, 6 ft. deep Control wooden stoplogs
 Location in center concrete spillway and in river
channel.
 Ditches: None.

BOUGHROE DAM:

The System is in the following condition: Dam has had more riprap placed on it since original construction and is in excellent condition.

The outlet of the reservoir or the point of diversion of the ditch, canal or pipe line is located near the NW Corner of Section 36 Township 127 N Range 62 W.

The works are capable of utilizing 10,528 acre-feet of storage water annually plus 17781 acre-feet for seasonal use.

The legal subdivisions to be irrigated are: Twp 127 N, R 62 W; E $\frac{1}{2}$ Sec 26, Sec 25, NW $\frac{1}{4}$ Sec 36, NW $\frac{1}{4}$ Sec 35, Sec 24, Sec 13, E $\frac{1}{2}$ Sec 12, SW $\frac{1}{4}$ Sec 12, SW $\frac{1}{4}$ Sec 1. Twp 127 N, R 61 W.; Sec 30, NW $\frac{1}{4}$ Sec 31, Sec 19, Sec 18, W $\frac{1}{2}$ Sec 17, W $\frac{1}{2}$ Sec 8, Sec 7, Sec 6, W $\frac{1}{2}$ Sec 5, W $\frac{1}{2}$ Sec 32, E $\frac{1}{2}$ and SW $\frac{1}{4}$ Sec 31, E $\frac{1}{2}$ Sec 30, E $\frac{1}{2}$ Sec 30, W $\frac{1}{2}$ Sec 29, E $\frac{1}{2}$ Sec 19, Sec 20, W $\frac{1}{2}$ Sec 21, E $\frac{1}{2}$ Sec 18., comprising a total of 5,927 acres of land.

The domestic and stockwater uses comprise use by cattle that are grazed under permit on refuge.

The utilization for public recreation, game and fish propagation, fire protection, comprises: principal use for migratory waterfowl refuge - supplemental use, game and fish propagation, public recreation.

Notice of Completion of Works was filed May 11, 1942.

COLUMBIA DAM:

The System is in the following condition: Dam has had more riprap placed on it since original construction and is in excellent condition.

The outlet of the reservoir is located in the SW $\frac{1}{4}$ of Section 4, Township 125 N Range 62 W.

The works are capable of utilizing 16,493 acre-feet of storage water annually, plus 16,260 acre-feet of seasonal use.

The legal sub-divisions to be irrigated are: Trp 125 N, R 62 W.; Sec 4. T 126 N, R 52 W.; Sec 33, NW $\frac{1}{4}$ Sec 28, NW $\frac{1}{4}$ Sec 28, Sec 21, NE $\frac{1}{4}$ Sec 22, NE $\frac{1}{4}$ Sec 23, SW $\frac{1}{4}$ Sec 23, NE $\frac{1}{4}$ Sec 13, Sec 14, Sec 15, Sec 16, NE $\frac{1}{4}$ Sec 10, SW $\frac{1}{4}$ Sec 10, Sec 11, NW $\frac{1}{4}$ Sec 12, Sec 1, Sec 2, NE $\frac{1}{4}$ Sec 3. T 127 N, R 62 W.; NE $\frac{1}{4}$ Sec 34, Sec 35, Sec 36. T 127 N, R 61 W.; NW $\frac{1}{4}$ Sec 31, comprising a total of 5,420 acres of land.

The domestic and stockwater uses comprise use by cattle that are grazed under permit on refuge.

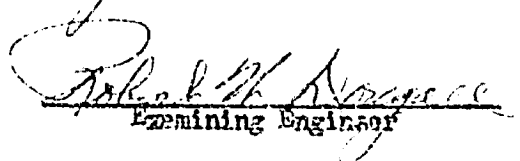
The utilization for public recreation, game and fish propagation, fire protection, comprises: principal use for migratory waterfowl refuge - supplemental use, game and fish propagation, and public recreation.

Notice of Completion of Works was filed May 11, 1942.

Totals of Houghton and Columbia Dams:

Total Acres	Total Storage Acre-feet	Total Seasonal Use-Acre-feet
<u>11,347</u>	<u>27,021</u>	<u>34,041</u>

Witness my hand, this 30th day of April A. D. 1945


Examining Engineer

(Taken from map #1.10.1, #1.11.1 and #1.12.1)

ADDRESS ONLY THE REGIONAL DIRECTOR
FISH AND WILDLIFE SERVICE
AND REFER TO

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

OFFICE OF REGIONAL DIRECTOR

829 PLYMOUTH BUILDING
MINNEAPOLIS 2, MINNESOTA

March 16, 1948

REGION 3

NORTH DAKOTA
SOUTH DAKOTA

NEBRASKA
MINNESOTA

IOWA
MISSOURI
WISCONSIN

MICHIGAN
ILLINOIS
INDIANA

Mr. Dean W. Loucks, State Engineer
State Capitol Building
Pierre, South Dakota

Dear Mr. Loucks:

Your letters of March 11, 1948 have been received, providing this office with the following:

1. Supplemental Certificate of Construction of Works and Appropriation covering that portion of the water appropriated under Water Right No. 255-2 to U. S. Water Right No. 2-2, Lacreek Refuge.
2. Certificate of Construction of Works and Appropriation for the withdrawal of water as provided under Withdrawal No. U. S. 3-2, Little White River Refuge.
3. Supplemental Certificate of Construction of Works and Appropriation covering that portion of appropriated water under Water Right #253-2 to U. S. Water Right No. 3-2, Little White River Refuge.
4. Certificate of Construction of Works and Appropriation for the withdrawal of water as provided under Withdrawal No. U. S. 517-3, Lake Andes Refuge.
5. Copies of four documents relative to the above water filings.

Enclosed herewith is Purchase Order #36147, in the amount of \$6.25, covering charges for the issuance of the above certificates and documents. Providing the amounts are correct, please sign the typed certification on the face of the purchase order in ink and return all copies but the one marked "Vendors Copy" to this office for vouchering.

In accordance with your suggestion, we wish you to take the necessary action to record the following certificates:

1. Certificate U. S. Water Right No. U. S. 1-3.
2. Certificate U. S. Water Right No. U. S. 2-2.

RECEIVED

DEPT. OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Page 2 - Water Rights

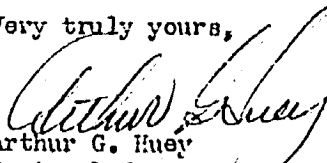
3. Supplemental Certificate U. S. Water Right No. U. S. 2-2 (253-2)
4. Certificate U. S. Water Right No. U. S. 517-3.
5. Certificate U. S. Water Right No. 3-2.
6. Supplemental Certificate U. S. Water Right No. ^{1/2}2-2 (253-2)

Purchase Order #36148, in the amount of \$8.85 in payment for the water right recordings at the State Engineer's Office is also enclosed herewith. Providing the amount is correct, please sign the certification in ink and return all copies to this office, except the "Vendors Copy" for vouchering. Upon recording of the above documents, it will be appreciated if you will provide this office certified information of the individual recordings.

Attached hereto please find Drawings No. M-S.D. 3.33.2; 3.32.3 and 3.31.3 showing plans of the dam, spillway and control gate structures as constructed on Little White River Refuge impounding water appropriated under No. U. S. 3-2 Water Right. These plans are to be made a part of the filing documents under Withdrawal No. U. S. 3-2.

Your cooperation in completing the filing and recording of certificates is appreciated.

Very truly yours,


Arthur G. Huey
Regional Engineer

Enclosures.

CERTIFICATE OF CONSTRUCTION OF WORKS

and

APPROPRIATION

U. S. Water Right No. US 1-3Brown

County

Sand Lake Waterfowl Refuge
Name of ProjectJames River Water District
Water Division # 3

TO ALL WHOM IT MAY CONCERN:

This is to Certify, that the United States of America, Department of Fish + Wild Life Service, has complied with the State Laws (formerly Bureau of Biological Survey) and has been issued a withdrawal No. 11241 bearing date of Oct. 16, 1934 withdrawing from further appropriation a maximum of all of the unappropriated water of the James River and tributaries in Brown County, to be stored or used on the Sand Lake Waterfowl Refuge by means of the "Houghton" and "Columbia" dams, ditch, canal or pipeline at a point located on the bank as described in the "Certificate of Examination of Works", dated April 30, 1945, on file in the State Engineers' Office Section Township Range for the purpose of irrigation, domestic, stockwater, and public recreation during the months of Jan to Dec., 1945. has fully complied with the provisions of the laws of the State of South Dakota relating to completion of the works as set out and described in Section 61.0137, that said works are completed in accordance with information filed in the office of the State Engineer, and a maximum amount of 34,041 ~~acre~~ ^{acre} cubic feet per second during the period of Jan 1 to Dec. 31 is thereby appropriated for the above purposes bearing date of priority of Oct. 16, 19 34.

Witness my hand this 22 day of May 1945.

Dean W. Loucks
Dean W. Loucks
State Engineer

BEST IMAGE POSSIBLE FROM POOR ORIGINAL

CERTIFICATE OF COMPLETION OF WORK

and

APPROPRIATION

Sand Lake Waterford Storage
(Name of Project)

U. S. Water Right No. U.S. 1-5

James River Water District
Water Division 3

County

TO THE COUNTY COMMISSION:

This is to certify, that the United States of America, Department of Interior
and Life Service (formerly the Bureau of Biological Survey) has complied with
the Water Law and has been issued a withdrawal No. U.S. 1 bearing date of
October 10, 1901 withdrawing from further appropriation all of the appropriated
water of the James River tributaries in Brown County, to be stored or used on the
Sand Lake Waterford Storage by means of the "Hoaghton" and "Columbia" dams, as
set forth in the "Certificate of Completion of Work," dated April 29, 1901,
on file in the State Engineer's Office. Said water to be used for irrigation,
stock raising and public recreation purposes during the months of January
to April, inclusive. The above applicant has fully complied with the provisions
of the laws of the State of North Carolina relating to completion of the work
as required in Section 3100, that said works are completed in accordance
with the plan filed in the office of the State Engineer, and the amount of
water so appropriated is hereby appropriated for the above purposes bearing date
of October 10, 1901.

Witness my hand this 12th day of June 1902.

State Engineer

ADDRESS ONLY THE REGIONAL DIRECTOR
FISH AND WILDLIFE SERVICE
AND REFER TO

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

OFFICE OF REGIONAL DIRECTOR

128 PLYMOUTH BUILDING
MINNEAPOLIS 2, MINNESOTA

February 4, 1948

REGION 3

NORTH DAKOTA
SOUTH DAKOTA
NEBRASKA
MINNESOTA
IOWA
MISSOURI
WISCONSIN
MICHIGAN
ILLINOIS
INDIANA

Office of State Engineer
Dean W. Loucks, State Engineer
Pierre, South Dakota

RECEIVED
FEB 10 1948
STATE OF SOUTH DAKOTA
Re: U.S. Water Filings,
South Dakota

Dear Mr. Loucks:

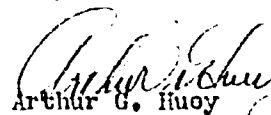
Mr. Robert W. Dougall, Civil Engineer, Fish and Wildlife Service, Minot, North Dakota, has completed a detail to this office, during which time an attempt was made to complete all United States of America water filings in the State of South Dakota on migratory waterfowl refuges.

We have found that several documents are missing from our permanent files and would like to complete each water filing. The documents missing are as follows:

- (1) Application for Withdrawal of Public Waters for the Sand Lake Refuge, Water filing U. S. No. 1-3.
- (2) Application for Withdrawal of Public Waters, Lacreek Refuge, Water filing U. S. No. 2-2.
- (3) Application for Withdrawal of Public Waters, Little White River, Water filing U. S. No. 3-2.
- (4) Certificate for Withdrawal of Public Waters, Little White River, Water filing U. S. No. 3-2.

It would be greatly appreciated if you could provide this office with one copy of each of the above documents for the completion of the U. S. water filing records in this office. Your cooperation in the completion of the U. S. water right filings for the Fish and Wildlife Service is greatly appreciated.

Very truly yours,


Arthur G. Huoy
Regional Engineer

CC - Robert Dougall

March 11, 1948

Arthur G. Huey, Regional Engineer
United States Department of the Interior,
Fish and Wildlife Service
Office of Regional Director
820 Plymouth Building
Minneapolis 2, Minnesota

Re: U. S. Water Filings
South Dakota

Dear Mr. Huey:

This is in reply to your letter of February 4, 1948, in which you state that Mr. Robert W. Dougall, Civil Engineer, Fish and Wildlife Service, has completed a detail, during which time an attempt was made to complete all United States water filings in South Dakota on migratory water fowl refuges.

Your enumerate four documents which are missing from your files of which you request that we furnish copies.

In compliance with the request we are herewith enclosing the following:

1. Two copies of a letter from John Ball, project Coordinator dated October 3, 1934 which constitutes Application for Withdrawal of Public Waters, for Sand Lake Refuge, Water filing U. S. No. 1-3 and Application for Withdrawal of Public Waters, La Creek Refuge, Water Filing U. S. No. 2-2.
2. One copy of a letter from John Ball, Project Coordinator dated December 11, 1935 which constitutes Application for Withdrawal of Public Waters, Little White River, Water filing U. S. No. 3-2.
3. Copy of certificate for Withdrawal of Public Waters, Little White River, Water filing U. S. No. 3-2.

Our state code requires that we charge for making copy of any document filed in the State Engineers Office, fifteen cents for each hundred words or fraction thereof. You will therefore kindly remit in the amount of \$2.25.

Very truly yours,

Dean W. Loucks
State Engineer

DWL/ed

Dean W. Loucks, State Engineer
STATE OF SOUTH DAKOTA
OFFICE OF STATE ENGINEER
PIERRE

March 20, 1948

To: United States Department of the Interior,
Fish and Wildlife Service
Office of Regional Director
828 Plymouth Building
Minneapolis 2, Minn.

CERTIFICATION

This is to certify that the following documents have been recorded as indicated below, in the State Engineers' Office at Pierre, S. D.

1. Certificate U. S. Water Right No. U. S. 1-3 on pages of Book 2.
2. Certificate U. S. Water Right No. U. S. 517-3 on pages of Book 2.
3. Certificate U. S. Water Right No. U. S. 2-2 on pages of Book 2.
4. Supplemental Certificate U. S. Water Right No. U. S. 2-2 on pages of Book 2.
5. Certificate of U. S. Water Right No. U. S. 3-2 on pages of Book 2.
6. Supplemental Certificate U. S. Water Right No. U. S. 3-2 (253-2) on page of Book 2.

Dean W. Loucks
State Engineer

METHOD OF PURCHASE Indicate Method by Number

1. General Schedule of Supplies
2. Treasury Procurement Stock
3. Surplus Property Transfer
4. Advertising (R. S. 43709)
5. War Powers Negotiation
6. Other Exemption from R. S. 43709
7. Miscellaneous

(See Treasury Procurement Circular Letter No. 727)

Requisition No.

Allotment

L. A. 3-6, Project 53

PURCHASE ORDER

**UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE**

Point of Issue **Minneapolis, Minnesota**

Appropriation Symbol and Title

This number must appear on all **PACKAGES** and **PAPERS** relating to this order.

Order

Nº 36148

Date

March 1, 1948

To

**South Dakota State Treasurer
State Office Building
Pierre, South Dakota**

~~From Fish and Wildlife Service~~

**Fish and Wildlife Service
U. S. Department of Interior
828 Plymouth Building
Minneapolis, Minnesota**

Invitation No.

Contract No.

Time for Delivery

Discount Terms

F. O. B. Point

Ship via

Gov't R/L No.

ITEM No.	ARTICLES OR SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	Work to be Completed				
1	Recording of Certificate U.S. Water right #1-3, Sand Lake Refuge at State Engrs. Office Pierre, South Dakota, 281 words.				1.80
1	Recording at State Engrs. Office, Pierre, S.D. of Certificate U. S. Water Right #2-2, Lacrock Refuge, 274 words.				1.30
1	Recording at State Engrs. Office, Pierre, S.D. Supplemental Certificate U.S. Water Right (253-2) #2-2, Lacrock Refuge, 554 words.				1.75
1	Recording at State Engrs. Office, Pierre, S.D. Certificate U.S. Water Right #517-3, Lake Andes Refuge, 300 words.				1.50
1	Recording at State Engrs. Office, Pierre, S.D. Certificate U.S. Water Right #3-2, Little White River Refuge, 542 words.				1.45
1	Recording at State Engrs. Office, Pierre, S.D. Supplemental Certificate U.S. Water Right #253-2, #3-2, Little White River Refuge.				1.75
	Rates for above work are \$1.00 for first 100 words and \$.15 for each additional 100 words or fraction thereof.				
	Date ordered 3-16-48 Date Rec'd				

I certify that the above bill is correct and just; that payment therefor has not been received; that all statutory requirements as to American production and labor standards, and all conditions of purchase applicable to the transactions have been complied with; and that State or local sales taxes are not included in the amounts billed.

Encumbered by South Dakota State Treasurer

Voucher dated by March 1, 1948
For State Engrs.
Voucher No.

Date scheduled

3-1735a Vendon
ACCOUNTING OFFICE COPY

Signature:

Name:

Title:

**Arthur G. Huoy
Regional Engineer**

TOTAL 8.85

METHOD OF PURCHASE (See Form 101-101, Series No. 10-101)

- Indicate Method by Number
1. General Schedule of Supplies
 2. Treasury Procurement Stock
 3. Surplus Property Transfer
 4. Advertising (H. B. 43709)
 5. War Powers Negotiation
 6. Other Exemption from H. B. 43709
 7. Miscellaneous

(See Treasury Procurement Circular Letter No. 722)

Requisition No.

Allotment

L.A. 3-6, Project 53

PURCHASE ORDER

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Point of Issue Minneapolis, Minnesota

Appropriation Symbol and Title

This number must appear on all
PACKAGES and PAPERS relating
to this order.

Order

Nº 36147

Date

March 16, 1948

To

South Dakota State Treasurer
State Office Building
Pierre, South Dakota

Secure and Deliver to

Fish and Wildlife Service
U. S. Department of Interior
828 Plymouth Building
Minneapolis, Minnesota

Invitation No.

Contract No.

Time for Delivery

Discount Terms

F. O. B. Point

Ship via

Gov't B/L No.

ITEM No.	ART. CLES OR SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	Work Completed				
1	Supplemental Certificate of Construction and Works and Appropriation (253-2) U.S. Water Right 2-2, Lacreek Refuge.				1.00
1	Certificate of Construction of Works and Appropriations, U.S. Water Right #517-3, Lake Andos Refuge.				1.00
1	Certificate of Construction of Work and Appropriation, U. S. Water Right #3-2, Little White River Refuge.				1.00
1	Documentary copies of water right exhibits. 1500 words @ \$.15 per hundred.				2.25
1	Supplemental Certificate of Construction of Works and Appropriations (253-2) U.S. Water Right 3-2, Little White River Refuge.				1.00
	Date order 2-4-1948 Date Rec'd 3-16-1948				
	I certify that the above bill is correct and just; that payment therefor has not been received; that all statutory requirements as to American production and labor standards, and all conditions of purchase applicable to the transactions have been complied with; and that State or local sales taxes are not included in the amounts billed.				
				TOTAL	6.25

Encumbered by

Payee South Dakota State Treasurer

Date voucher received

For Arthur G. Huey Title Regional Engineer

Voucher audited by

Signature: Arthur G. Huey

Name:

Arthur G. Huey

Voucher No.

Title:

Regional Engineer

Date scheduled

3-1735a

ACCU... COPY

April 12, 1952

Honorable W. J. Burke
Regional Counsel
Bureau of Reclamation
U. S. Dept. of Interior
Post Office Box 1538
Billings, Montana

Re: U. S. Water Permit
No. 1-3

Dear Mr. Burke:

Replying further relative to the inquiry in your letter of April 8 and asking us whether there is anything further in our files to indicate the actual quantity of water granted in the permit.

The blue print and plan covering the project indicates a water area of approximately 15,370 acres. Assuming an annual loss through evaporation, seepage, transpiration etc. of less amount furnished by rainfall of 2 feet over the area, we arrive at an approximate acre feet amount of 30,740 to be furnished annually from the Jim River supply when it is available. This is not a definite clear cut figure but represents as nearly as possible the amount of water required to operate the Refuge and is in accordance with the permit.

Yours very truly,

D.L:EW

DEAN W. LOUCKS
State Engineer

1151-3



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAMDEN
PIERRE SOUTH DAKOTA 57501-1001

January 4, 1993

Wilbur N. Ladd Jr., Regional Director
Fish and Wildlife Service
P.O. Box 25486
Denver Federal Center
Denver, Colorado 80225

Dear Mr. Ladd

I am writing in response to your December 18, 1992, letter and your proposed operation plans for Sand Lake Wildlife Refuge during the 1993 season. We agree that the proposed work needs to be completed and we will assist you in handling the water rights to ensure the work is completed.

I see one potential problem with your proposed operation. If inflows to Sand Lake occur after August 15, there will need to be an operational provision to release 20 - 40 cfs of inflow water to the James River to satisfy downstream domestic use. If you have bypassed all water over the summer, you cannot stop all flow to satisfy your 34,041 acre-feet seasonal use requirement.

The flows could be such that there will be no inflows into Sand Lake during the construction period and therefore no releases would be required. If you have any questions, please contact myself or Gale H. Selken at (605) 773-3352.

Very truly yours,

John Hatch, Chief Engineer
Water Rights Division

US-3

UNITED STATES GOVERNMENT

memorandum

DATE:

REPLY TO
ATTN OF: MS-213, Zimny

SUBJECT: Final Report on Control Leveling and profiles at Sand Lake National Wildlife Refuge

TO: MS-700, ~~730~~, -210, -213

There seems to be some confusion surrounding the vertical datum at Sand Lake National Wildlife Refuge. Different United States agencies appear to be using benchmarks that do not agree among themselves. To alleviate these concerns, the United States Bureau of Reclamation (USBR), Bismarck, North Dakota, authorized vertical control surveys in August of 1987 to verify and establish benchmarks that can be used to accurately calculate engineering data in the Sand Lake area.

One of the first priorities that needed to be completed was a vertical control line that was related to the vertical datum of Garrison Diversion Project in North Dakota. The USBR has been using United States Coast and Geodetic Survey (USC&GS) first and second order benchmarks for their primary vertical control throughout the Garrison project. A first order line monumented with brass caps in concrete pillars was performed by the USC&GS in the early 1930's along the Chicago and Northwestern Railroad tracks that parallel the eastern boundary of Sand Lake National Wildlife Refuge. Coincidentally, USBR has been using the USC&GS benchmarks where the railroad line enters North Dakota for the Oakes Irrigation Area. So the USBR began a 3-wire second order vertical control survey (see Exhibit A) from USC&GS benchmark Y-60 (approximately 1 1/2 miles southeast of Columbia Road Dam) terminating at a USC&GS benchmark P-61 at stateline. After performing 21 miles of these levels, it was found that all the found benchmarks were accurate as recorded and related to the USBR vertical datum in the Oakes project area.

Soon after establishing our vertical control line, USBR ran another second order 3-wire level run (see Exhibit B) from a USBR-monumented brass cap (USBR benchmark No. 7N2550) at the town of Houghton to a USC&GS benchmark L-90 on the South Dakota Highway 10 Bridge. Again it was found that USC&GS benchmark L-90 is on the same datum as our vertical control line along the Chicago and Northwestern Railroad. However, while leveling this line, USBR found a South Dakota State Highway brass cap with the elevations 1284.36 and 1292.54 stamped on it. The correct elevation is 1294.424 from this second order line along Highway 10. The USBR monumented another brass cap benchmark at the junction of Highway 10 and the road to Houghton Dam (USBR benchmark No. 7N2549). From this benchmark USBR ran a third order level line (third order procedures, reading with a micrometer to the thousandth of a foot) to an existing chiseled "X" in the concrete structure at Houghton Dam. The elevation of the "X" was found to be 1292.213. USBR proceeded west to a United States Geological Survey (USGS) benchmark No. TT-48-GA. The recorded elevation on the benchmark is 1291.461; we found the elevation to be 1290.791.

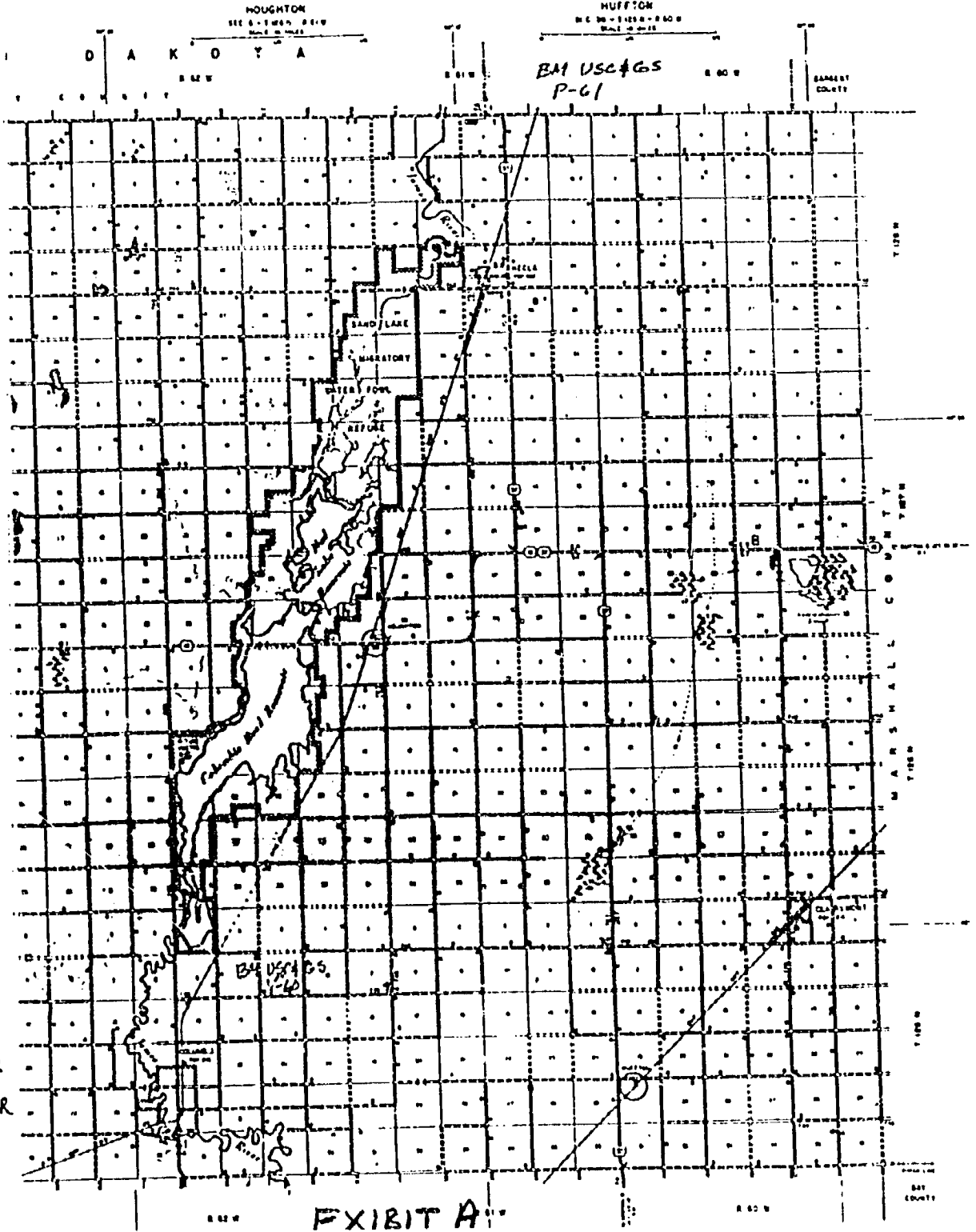
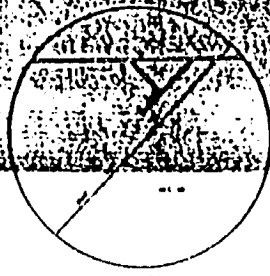
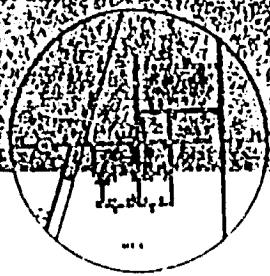
USBR proceeded to monument brass cap No. 7N2747 in the concrete structure on Houghton Dam.

Finally, to complete this project, USBR ran a third order level line from USC&GS Z-60 through Columbia Road Dam and Bridge to USC&GS Y-60 (see Exhibit C). With the information from this line, the USBR monumented two more USBR brass caps in the Columbia Road Bridge and the Columbia Road Dam. Subsequent profiles and dam measurements were performed using the newly monumented USBR brass caps.

To summarize then, except for the South Dakota Highway Department brass cap and the United States Geological Survey brass cap, USBR did not find any significant disagreements with vertical control in the area. Since the first order vertical line along the Chicago and Northwestern Railroad has been tied into the Oakes area, it is my advice that all future field data be tied into the same network.

Michael Zimmer

1151-3



= 2ND ORDER
= 3RD ORDER

EXHIBIT A

U.S. 1-3

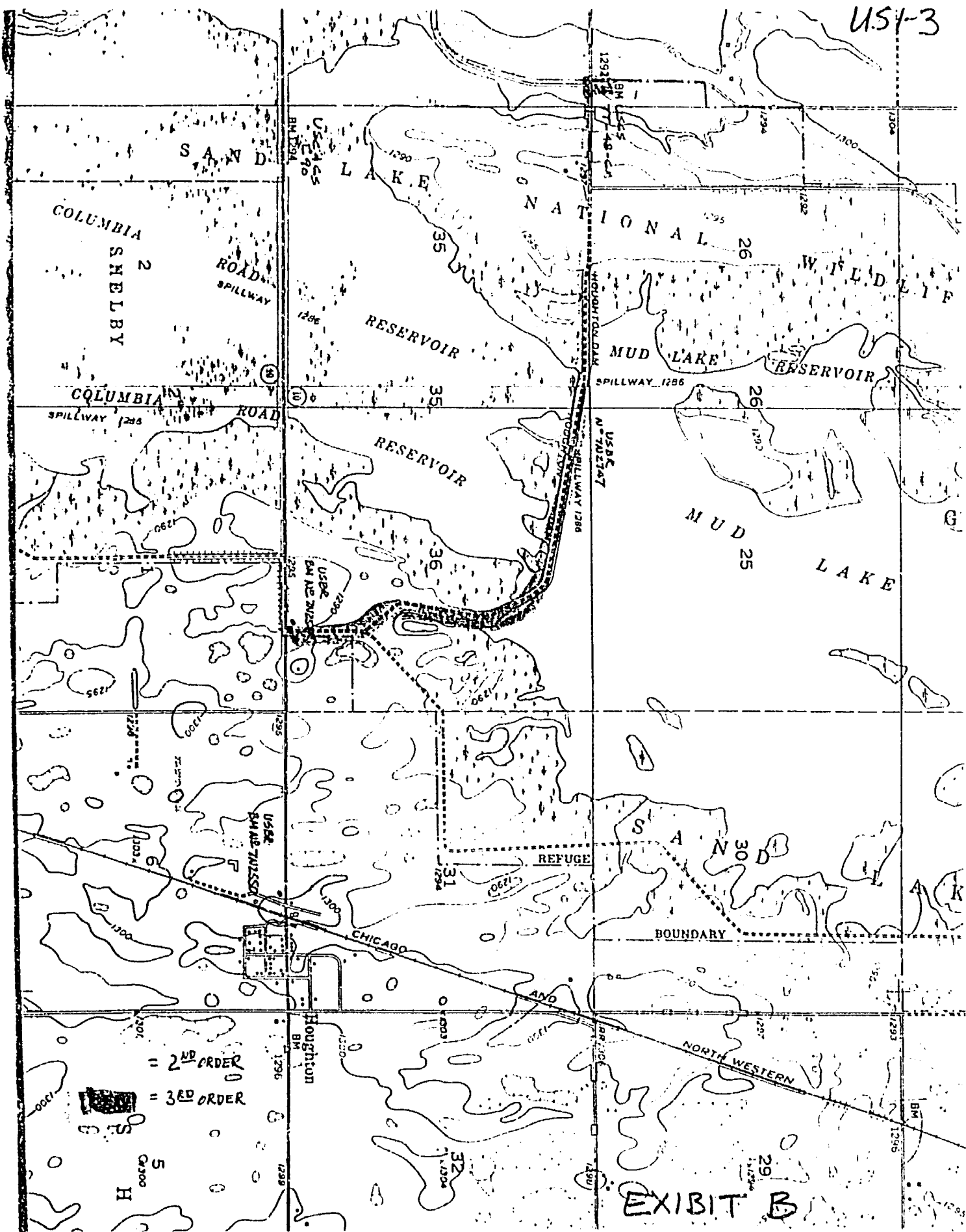
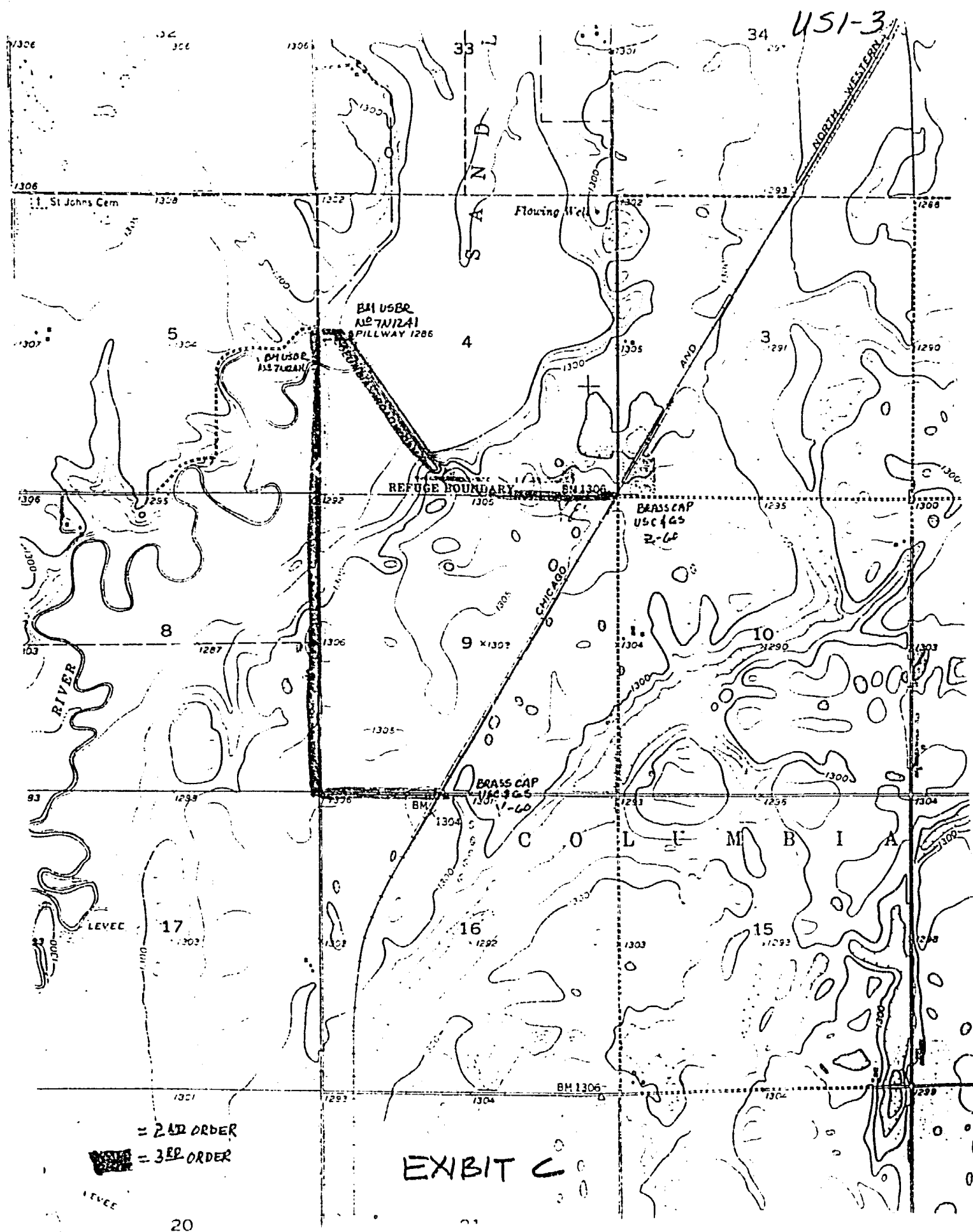


EXHIBIT B



651-3

TABLE D

FOUND and ESTABLISHED BENCHMARKS in the SAND LAKE NATIONAL WILDLIFE REFUGE

<u>Brass Cap No.</u>	<u>Recorded Elevation</u>	<u>Elevation As Measured</u>	<u>Originating Agency</u>
7N2747, Houghton Dam		1292.251	USBR brass cap
Chiseled X, Houghton Dam	1292.30	1292.213	USBR
South Dakota Highway Monument	1284.36 & 1292.54	1294.424	South Dakota State Highway Department
TT-48-GA	1291.461	1290.791	USGS
7N2549		1293.274	USBR brass cap
7N2550		1300.948	USBR brass cap
Chiseled X, Columbia Road Bridge	1297.97	1297.942	USBR
7N12411		1297.977	USBR brass cap
Chiseled X, Columbia Road Dam	1290.90	1290.856	USBR (Huron)
7N1241		1290.889	USBR brass cap

HOUGHTON DAM

10 openings - 10 feet wide by 6.3 feet deep
110.6 feet overall

Watersurface

Upstream (top of gate): 1288.73 Downstream: 1287.82

	<u>Elevation</u>
East side of top of structure	1292.26
East side of sill	1285.25
West side of top of structure	1292.24
West side of sill	1285.22

COLUMBIA DIKE -- SAND LAKE NWR

2 openings - 16 feet wide by 9.6 feet deep
35.6 feet overall

	<u>Elevation</u>
Top of sill	1281.31
Top of crest of Radial gate when closed	1287.54
Top of crest of Radial gate when open	1289.89
Bottom of crest of Radial gate when open	1282.94

451-3 Sellen

NAR
8/28/87
1:00 PM
CDT

TABLE 1
HOUGHTON DAM / COLUMBIA ROAD DAM
STRUCTURE DATA
AND
OPERATING CRITERIA

ITEM -----	MUD LAKE -----		SAND LAKE -----	
	LOW ELEV (FT) -----	STORAGE (AF) -----	LOW ELEV (FT) -----	STORAGE (AF) -----
DIKE CREST	1291.0	35,220	1291.0	41,930
SPILLWAY CREST	1289.3	15,940	1289.5	31,220
HIGH TARGET	1289.3	15,940	1289.3	29,860
GATE CREST	# -	-	* 1287.54	18,531
NORMAL TARGET	(SEE TABLE 2)		(SEE TABLE 2)	
GATE SILL	1285.22	141	1281.31	222

VARIABLE - DEPENDENT UPON NO. OF STOPLOGS IN PLACE

* TOP OF RADIAL GATES WHEN CLOSED

NOTE: ELEVATIONS BASED ON AUGUST 1987 SURVEYS BY USBR

STORAGE BASED ON ACAP TABLES DATED:

MUD LAKE - 5/ 5/87

SAND LAKE - 2/23/84



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

October 10, 2006

Gene Williams
Sand Lake National Wildlife Refuge
39650 Sand Lake Drive
Columbia SD 57433

Dear Gene

I am writing in response to an inquiry from Bill Schultze about the fall operation of Mud and Sand lakes. I understand that Mud Lake is now full and you would like to evacuate some water to protect structures from ice damage over the winter. In turn if enough water makes it to Sand Lake you would like to hold the water to enhance releases next spring.

Irrigation use has ended for the season so there shouldn't be a problem with this plan as long as 20 cfs is passing the Stratford gage to meet downstream domestic needs. This is to be a temporary plan of operation between now and freeze up, after freeze-up no by pass is required. If you have any questions please contact myself or Lynn Beck at (605) 773-3352.

Sincerely,

Garland Erbele
Chief Engineer



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

May 27, 2021

Dear James River Water Right Holder:

I am writing to water right holders and operators who use water from the James River that river flow is much lower this year and to let them know that shutoff orders are possible this summer.

South Dakota law gives the highest priority to domestic use, including livestock watering. There is generally adequate water available to meet both domestic use and other needs. However, once water availability reaches critical low levels, other uses will begin to interfere with domestic use. If river levels become critically low, the department may be forced to issue shutoff orders to protect domestic use, including livestock watering and those water rights that are most senior.

We are only cautioning that shutoff orders may become necessary. **This not a shutoff order.** This letter is only intended to give you advanced warning that your ability to divert water may be cut short this year. If shutoff orders are issued, you will receive another letter from the department. In the meantime, water right holders can help by closely monitoring water usage and avoid wasting water.

If you are interested, the US Geological Survey has an Internet site showing river flows at 164 stream gauging stations across the state. To view the latest realtime stream flow, go to:

<https://waterdata.usgs.gov/sd/nwis/current/?type=flow>

Thank you for your cooperation. If you have any questions, please contact Mark Rath, Blaise Hansen, or Nakaila Steen at (605) 773-3352.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program

451-3



United States Department of the Interior

FISH AND WILDLIFE SERVICE Mountain-Prairie Region



IN REPLY REFER TO:

FWS/R6/NWRS/WTR
WR SD
Mailstop 60189

MAILING ADDRESS:
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225-0486

STREET LOCATION:
134 Union Boulevard
Lakewood, Colorado 80228-1807

RECEIVED

MAY 13 2022

WATER RIGHTS
PROGRAM

Eric Gronlund, Chief Engineer
South Dakota Department of Agriculture & Natural Resources
Office of Water
523 East Capitol Avenue
Pierre, South Dakota 57501-3182

MAY 10 2022

Ref: Houghton Dam Removal – Sand Lake National Wildlife Refuge

Dear Mr. Gronlund:

The referenced dam was removed in 2021 and was utilized by the Service to manage Mud Lake located at Sand Lake National Wildlife Refuge. Since Houghton Dam removal, the Service is managing Sand Lake and the former Mud Lake as one unit utilizing the Sand Lake water control structure. This letter serves as the Service's official notification as requested by Mark Rath.

If you have any questions or require additional information, please contact Carrie Cordova of my staff at (303) 236-5399.

Sincerely,

Brian S. Caruso
Chief, Water Resources Division