

No.

U.S. 5442

Office of State Engineer
DOCUMENT FILE

*U.S. Dept. of Interior
Bureau of Reclamation
Signature Project
Elgin River County
California River*

CERTIFICATE OF WITHDRAWAL

WATER FOR APPROPRIATION

UNITED STATES OF AMERICA
DEPARTMENT OF Interior
Bureau of Reclamation

Cheyenne River

Water Division No. 2

South Cheyenne Water Dist.

Source of Appropriation-Stream

County

The United States of America, Department of Interior, Bureau of Reclamation, having filed "Notice of Intent to Reclaim" _____, public waters of the State of _____.

utilize certain heretofore unappropriated public waters of the State of South Dakota, in accordance with the requirements of the statutes of the State of South Dakota, such statutes and authority being contained in Section 61.0137 1939 Revised Code of South Dakota, now therefore;

This is to certify that there is hereby reserved, of the heretofore unappropriated waters of The Cheyenne River, the annual amount of 50,000 acre-feet of water ~~to be stored in a reservoir~~ for the reclamation of ~~approximately 16,250~~ 16,250 acres of land by damming said stream at a point near Hot Springs to be later described. ~~Text distant from the corner of Section 36, Township 33N, Range 104E~~

The purpose of such storage is Irrigation

This is to certify that there is hereby reserved, of the heretofore unappropriated waters of _____ a maximum of _____ cubic feet per second to be diverted through the _____ ditch, canal or pipe line at a point located on the _____ bank _____ feet distant from the _____ Corner of Section _____ Township _____, Range _____ for the purpose of _____ during the months of _____.

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 on 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 statutes heretofore referred to and under the authority of which this certificate is issued.

In accordance with the provisions of the statutes hereinbefore referred to, this certificate is executed at the State Capital at Pierre, South Dakota, this 11th day of April 1941.

Det. N. Loucka State Engineer

The above notice filed April 11, '41.

CERTIFICATE OF WITHDRAWAL
of
WATER FOR APPROPRIATION
to the
UNITED STATES OF AMERICA
Department of the Interior
Bureau of Reclamation

Withdrawal No. 579
Supplemental and Amended

Angostura Project
Name of Project

Cheyenne River
Water Division No. 2
South Cheyenne Water Dist.
Source of Appropriation-
Stream

Fall River
County

The United States of America, Department of the Interior, Bureau of Reclamation, on April 11, 1941, having filed "Notice of Intention" to utilize certain theretofore unappropriated public waters of the State of South Dakota, in accordance with the requirements of the statutes of the State of South Dakota, particularly Section 61.0137, South Dakota Code, 1939;

NOW, THEREFORE:

This is to certify that effective April 11, 1941, there is hereby reserved, of the heretofore unappropriated waters of the Cheyenne River, the annual amount of 160,000 acre-feet of water for the reclamation of 16,250 acres of land and for the reclamation of 25,000 acres of land adjacent to the Cheyenne River by pumping water therefrom, said water to be stored in a reservoir to be constructed by damming said stream at a point immediately below the mouth of Sheep Canyon to be later more particularly described.

The purpose of such storage is irrigation, domestic, stockwatering, mining, milling, power, and other beneficial uses.

This certificate and withdrawal shall in no manner prejudice, alter, amend, or affect the rights of any prior appropriator or prior appropriation of water prior to April 11, 1941, nor of any application for appropriation pending on April 11, 1941, 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 statutes hereinbefore referred to and under the authority of which this certificate is issued.

In accordance with the provisions of the statutes hereinbefore referred to, this certificate is executed at the State Capitol at Pierre, South Dakota, this _____ day of _____, 1946.

State Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CUSTOM HOUSE
DENVER, COLORADO

OFFICE OF THE CHIEF ENGINEER

ADDRESS ALL COMMUNICATIONS TO
CHIEF ENGINEER

RECEIVED
APR 11 1941

OFFICE OF STATE ENGINEER
PIERRE, S. DAK.

April 7, 1941.

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

Dear Mr. Loucks:

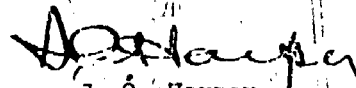
Enclosed is a Notice of Intention to the State Engineer of the State of South Dakota for the withdrawal from other appropriations of sufficient of the unappropriated waters of the Cheyenne River and its tributaries for the reclamation of 16,250 acres of land under the Angostura irrigation project in Fall River and Custer Counties, South Dakota.

This notice is filed pursuant to Section 61.0137 of the South Dakota Code, 1939.

As stated in the Notice, plans of the proposed work, as soon as the same are prepared, will be filed in your office.

Please acknowledge receipt of the notice, and also furnish the date when the notice was accepted for filing in your office and the recordation date of your office.

Very truly yours,



S. O. Harper,
Chief Engineer.

Encl.

April 11, 1941

S.O. Harper, Chief Engineer
U.S. Dept. of the Interior
Bureau of Reclamation
Custard House
Denver, Colorado

Dear Mr. Harper:

This will acknowledge receipt of your letter of April 7, 1941, containing "Notice of Intention to the State Engineer of the State of South Dakota" to appropriate certain waters of the Cheyenne River for the Angostura project.

We are enclosing herewith, a certificate of withdrawal properly filled out, with the exception that no description of the point of diversion was given in the Notice. It is assumed that this will be supplied later, plans of the proposed work, as soon as prepared, to be filed. The Notice was received for filing on April 11, 1941.

Very truly yours,

Dean W. Loucks
State Engineer

DWL/mf
Enc.-

RECEIVED
APR 11 1941

NOTICE OF INTENTION TO THE
STATE ENGINEER OF THE STATE OF SOUTH DAKOTA

Angostura Project, South Dakota

OFFICE OF STATE ENGINEER

PIERRE S. HARPER, the Secretary of the Interior of the United States of America

is authorized by the Act of Congress of August 11, 1939 (53 Stat. 1418), as amended by the Act of Congress of October 14, 1940 (Public No. 848, 76th Congress, 3rd Session), to construct water conservation and utilization projects in the Great Plains and arid and semi-arid areas of the United States, and

WHEREAS, the Bureau of Reclamation of the United States Department of the Interior, pursuant to said acts, is making a survey of the Angostura irrigation project in Fall River and Custer Counties, South Dakota, with a view of later utilizing the waters of the Cheyenne River,

NOW, THEREFORE, in conformity with Section 61.0137 of the South Dakota Code, 1939, the United States of America, through S. O. Harper, Chief Engineer of the Bureau of Reclamation, thereunto duly authorized by the Secretary of the Interior, hereby makes application, as of the date of this notice, for the withdrawal from other appropriations of sufficient of the unappropriated waters of the Cheyenne River and its tributaries for the reclamation of 16,250 acres of land under the Angostura Project. For your information, plans of the proposed work, as soon as the same are prepared, are to be filed in your office by the Chief Engineer of the Bureau of Reclamation.

Dated at Denver, Colorado, this 7th day of April, 1941.

THE UNITED STATES OF AMERICA

By

S. O. Harper
S. O. Harper, Chief Engineer,
Bureau of Reclamation,
Department of the Interior.

CERTIFICATE OF INTENTION
of
ACTION FOR RECLAMATION
to the
UNITED STATES OF AMERICA
Department of the Interior
Bureau of Reclamation

Withdrawal No. 575
Supplemental and Amended

Autoshare Project
Name of Project

Fall River
County

Cheyenne River
Water Division No. 2
South Cheyenne Water Dist.
Source of Appropriation-
Stream

The United States of America, Department of the Interior, Bureau of Reclamation, on April 11, 1941, having filed "Notice of Intention" to utilize certain theretofore unappropriated public waters of the State of South Dakota, in accordance with the requirements of the statutes of the State of South Dakota, particularly Section 81.0137, South Dakota Code, 1939;

NOW, THEREFORE:

This is to certify that effective April 11, 1941, there is hereby reserved, of the heretofore unappropriated waters of the Cheyenne River, the annual amount of 130,000 acre-feet of water for the reclamation of 16,250 acres of land and for the reclamation of 25,300 acres of land adjacent to the Cheyenne River by pumping water therefrom (water to be stored in a reservoir to be constructed by damming said stream at a point immediately below the mouth of Sheep Canyon to be later more particularly described.

The purpose of such storage is irrigation, domestic, stockwatering, mining, power, and (other beneficial uses.)

63

This certificate and withdrawal shall in no manner prejudice, alter, amend, or affect the rights of any prior appropriator or prior appropriation of water prior to April 11, 1941, nor of any application for appropriation pending on April 11, 1941. 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 statutes hereinbefore referred to and under the authority of which this certificate is issued.

In accordance with the provisions of the statutes hereinbefore referred to, this certificate is executed at the State Capitol at Pierre, South Dakota, this _____ day of _____, 1940.

State Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CUSTOMHOUSE
DENVER, COLORADO

OFFICE OF THE CHIEF ENGINEER

ADDRESS ALL COMMUNICATIONS TO
THE CHIEF ENGINEER

RECEIVED
APR 18 1941

OFFICE OF STATE ENGINEER
PIERRE, S. DAK

April 18, 1941.

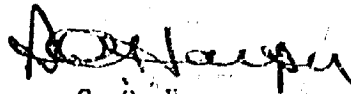
Honorable Dean W. Loucks,
State Engineer,
Pierre, South Dakota.

Dear Mr. Loucks;

Reference is made to your letter dated April 11, 1941, enclosing "Certificate of Withdrawal No. 579," reserving of the heretofore unappropriated waters of Cheyenne River. The annual amount of 50,000 acre-feet of water for the reclamation of 16,250 acres of land on the Augustura Project by damming said stream at a point near Hot Springs, South Dakota.

The description of the point of diversion and plans of the proposed works will be filed with your office as soon as these have been prepared.

Very truly yours,


S. O. Harper,
Chief Engineer.

DEAN W. LOUCKS
STATE ENGINEER

STATE OF SOUTH DAKOTA
OFFICE OF STATE ENGINEER
PIERRE

CHEROKEE RIVER PROJECT 1941
HAS BEEN APPROVED

Washington, D. C.--(As reported by Francis Case)--At last, after more 40 years of approach under one plan or another, the Angostura project on the Cherokee River, south of Hot Springs, has been approved at an estimated cost of \$3,938,000.

The project will have irrigation, flood control and recreation benefits.

A dam 132 feet high and 800 feet long will create a lake of between 3,500 and 4,000 acres, storing 120,000 acre feet of water. The 40,000 feet of water in the top 10 or 12 feet of the reservoir plus the stream flow will initially irrigate between 15,000 and 20,000 acres of choice loam "flats" in eastern Fall River and Custer counties and possibly permit later extensions.

The project will be constructed by the Bureau of Reclamation under the terms of the so-called Case-Wheeler Act, with the water-users repaying their share of the cost on a 40-year basis. Fall River county is to supply the land for the reservoir and canals. WPA and CCC will supply the bulk of the labor. Farm Security Administration has optioned a large amount of the lands to be watered and will subdivide it for settlement.

RECEIVED

FEB 27 1946
8:30 A. M.

OFFICE OF STATE ENGINEER
PIERRE, S. DAK.

AMENDED AND SUPPLEMENTAL
NOTICE OF INTENTION
TO THE STATE ENGINEER, STATE OF SOUTH DAKOTA

WHEREAS, the United States, pursuant to Section 61.0137, South Dakota Code, 1939, filed with the State Engineer of South Dakota a Notice of Intention to construct certain works to utilize the waters of the Cheyenne River, and

WHEREAS, said Notice of Intention was accepted and filed on April 11, 1941, by the State Engineer of South Dakota, and

WHEREAS, in said Notice of Intention it recites that the works are to be constructed by authority of the Act of Congress of August 11, 1939 (53 Stat. 1418), as amended, and

WHEREAS, in said Notice of Intention it recites that the works to be constructed propose the irrigation and reclamation of 16,220 acres of land, and

WHEREAS, the United States desires to amend and supplement said Notice of Intention,

NOW, THEREFORE, in conformity with Section 61.0137, South Dakota Code, 1939, the United States of America, acting through J. H. Jamstock, Regional Director, Division VI, Bureau of Reclamation, United States Department of the Interior, thereunto duly authorized by the Secretary of the Interior, hereby makes application to amend and supplement said original Notice of Intention in the following particulars:

1. That the Notice of Intention be amended to add that the works will be constructed pursuant to the Act of Congress of June 17, 1902 (32 Stat. 388), as amended and supplemented, and the Act of Congress of December 2, 1944 (58 Stat. 837).

2. That the withdrawal and reservation of the waters of the Cheyenne River as of April 11, 1941, be supplemented to include sufficient of the waters of the Cheyenne River to irrigate by means of pumping 25,300 acres of land located along the Cheyenne River, in addition to the 16,810 acres covered in the original Notice of Intention.

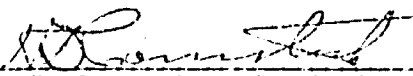
3. That the withdrawal and reservation of the waters of the Cheyenne River as of April 11, 1941, be supplemented to include sufficient of the waters of the Cheyenne River to store each year to capacity by means of a storage reservoir to be constructed by the United States on the Cheyenne River immediately below the mouth of Sheep Canyon, 180,000 acre-feet of water.

This notice is intended to describe, in terms consistent with the project as authorized by the Act of Congress of August 17, 1939 (53 Stat. 1418), and as subsequently authorized by the Act of Congress of December 22, 1944 (58 Stat. 827), the waters covered by the original Notice of Intention, as hereby amended and supplemented; but this notice shall be without prejudice to or effect on the priority conferred by Withdrawal No. 572 dated April 11, 1941, as to the waters covered by the original Notice of Intention, as hereby amended and supplemented.

For your information, plans of the proposed works, as and when the same are prepared, will be filed in your office by the Regional Director, Region VI, Bureau of Reclamation.

DATED at Billings, Montana, this 25th day of February, 1946.

UNITED STATES OF AMERICA

By 
F. D. Constock, Regional Director, Region VI,
Bureau of Reclamation,
Department of the Interior.

Copy

Man. 6/17/1902
to the State Engineer

AMENDED AND SUPPLEMENTAL
NOTICE OF INTENTION
TO THE STATE ENGINEER, STATE OF SOUTH DAKOTA

WHEREAS, the United States, pursuant to Section 61.0137, South Dakota Code, 1939, filed with the State Engineer of South Dakota a Notice of Intention to construct certain works to utilize the waters of the Cheyenne River, and

WHEREAS, said Notice of Intention was accepted and filed on April 11, 1941, by the State Engineer of South Dakota, and

WHEREAS, in said Notice of Intention it recites that the works are to be constructed by authority of the Act of Congress of August 11, 1939 (53 Stat. 1415), as amended, and

WHEREAS, in said Notice of Intention it recites that the works to be constructed propose the irrigation and reclamation of 16,250 acres of land, and

WHEREAS, the United States desires to amend the supplement said Notice of Intention.

NOW, THEREFORE, in conformity with Section 61.0137, South Dakota Code, 1939, the United States of America, acting through H. D. Comstock, Regional Director, Region VI, Bureau of Reclamation, United States Department of the Interior, thereunto duly authorized by the Secretary of the Interior, hereby makes application to amend and supplement said original Notice of Intention in the following particulars:

1. That the Notice of Intention be amended to add that the works will be constructed pursuant to the Act of Congress of June 17, 1902

(32 Stat. 358), as amended and supplemented, and the Act of Congress of December 22, 1944 (58 Stat. 887).

2. That the withdrawal and reservation of the waters of the Cheyenne River as of April 11, 1941, be supplemented to include sufficient of the waters of the Cheyenne River to irrigate by means of pumping 25,300 acres of land located along the Cheyenne River in addition to the 15,250 acres covered in the original Notice of Intention and shown generally on the enclosed General Map No. 47-3-24 (Rev. Oct. 1945), dated December 11, 1941.

3. That the withdrawal and reservation of the waters of the Cheyenne River as of April 11, 1941, be supplemented to include sufficient of the waters of the Cheyenne River to store each year to capacity by means of a storage reservoir to be constructed by the United States on the Cheyenne River immediately below the mouth of Sheep Canyon, in the Northwest Quarter (NW¹/₄) of Section Twenty (20), Township Eight (8) South, Range Six (6) East, Black Hills Meridian, 160,000 acre-feet of water. The point of diversion is to be at the dam site as herein described.

This notice is intended to describe, in terms consistent with the project as authorized by the Act of Congress of August 11, 1939 (53 Stat. 1418), and as subsequently authorized by the Act of Congress of December 22, 1944 (58 Stat. 887), the waters covered by the original Notice of Intention, as hereby amended and supplemented; but this notice shall be without prejudice

co or affect on the priority conferred by Withdrawal No. 579 dated April 11, 1941, as to the waters covered by the original Notice of Intention, as hereby amended and supplemented.

For your information, further and additional plans of the proposed works, as and when the same are prepared, will be filed in your office by the Regional Director, Region VI, Bureau of Reclamation. The map attached, dated December 11, 1941, is a general map of the proposed plan, but not inclusive of the 25,300 acres of land located along the Cheyenne River to be irrigated by means of pumping.

DATED at Billings, Montana, this 12th day of March, 1946

THE UNITED STATES OF AMERICA

By H. D. Comstock (signed)
H. D. Comstock, Regional Director,
Region VI, Bureau of Reclamation,
Department of the Interior.

Copy

CERTIFICATE OF WITHDRAWAL
of
WATER FOR APPROPRIATION
to the
UNITED STATES OF AMERICA
Department of the Interior
Bureau of Reclamation

Withdrawal No. 579
Supplemental and Amended

Angostura Project
Name of Project

Cheyenne River
Water Division No. 2
So. Cheyenne Water Dist.
Source of Appropriation
Stream

Fall River
County

The United States of America, Department of the Interior, Bureau of Reclamation, on April 11, 1941, having filed "Notice of Intention" to utilize certain theretofore unappropriated public waters of the State of South Dakota, in accordance with the requirements of the statutes of the State of South Dakota, particularly Section 61.0237, South Dakota Code, 1939;

NOW, THEREFORE:

This is to certify that effective April 11, 1941, there is hereby reserved, of the heretofore unappropriated waters of the Cheyenne River, the annual amount of 160,000 acre-feet of water for the reclamation of 16,250 acres of land and for the reclamation of 25,300 acres of land adjacent to the Cheyenne River by pumping water therefrom, said water to be stored in a reservoir to be constructed by damming said stream at a point immediately below the mouth of Shope Canyon in the Northwest Quarter (NW¹/₄) of Section Twenty (20), Township Eight (8) South, Range Six (6) East, Black Hills Meridian, Fall River County, South Dakota.

The purpose of such storage is irrigation, domestic, stockwatering, mining, milling, power, and other beneficial uses.

This certificate and withdrawal shall in no manner prejudice, alter, amend, or affect the rights of any prior appropriator or prior appropriation of water prior to April 11, 1941, or of any application for appropriation pending on April 11, 1941, 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 statutes hereinbefore referred to and under the authority of which this certificate is issued.

In accordance with the provisions of the statutes hereinbefore referred to, this certificate is executed at the State Capitol at Pierre, South Dakota, this _____ day of _____, 1946.

State Engineer.

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

P.O. Box 1838
Billings, Montana
FEB 23 1946

RECEIVED

FEB 27 1946

OFFICE OF STATE ENGINEER
PIERRE S. DAK

Honorable Dean M. Loucks,
State Engineer,
Pierre, South Dakota.

Dear Mr. Loucks:

There is enclosed an Amended and Supplemental Notice of Intention to utilize certain waters of the Cheyenne River, in connection with the Angostura Project near Hot Springs, South Dakota, as provided by Section 61.0137, South Dakota Code, 1939. This amended notice is intended to show that the project will be constructed under acts of Congress other than those included in the original notice filed in your office on April 11, 1941. There is also shown the additional storage capacity of the proposed reservoir and the added lands to be irrigated. As stated in the notice, plans will be filed with you when available.

There is also enclosed a proposed supplemental and amended Certificate of Withdrawal. This is to supplement Withdrawal No. 879 and reflects the changes set out in the amended notice.

Please acknowledge receipt of the amended notice, and also furnish the date when the amended notice was accepted for filing in your office and the recordation date of your office. It is assumed you will furnish this office a copy of the supplemental Certificate of Withdrawal when it is issued.

Very truly yours,

Encls.

H. J. Burke
H. J. Burke,
Regional Counsel

February 27, 1946

Honorable W. J. Burke,
Regional Counsel,
U.S. Dept. of the Interior,
P. O. Box 1538,
Billings, Montana.

Re: U.S. Withdrawal #579
Cheyenne River
Angostura Project.
Fall River County

Dear Mr. Burke:

This is to acknowledge your letter of February 25, enclosing an amendment and supplemental Notice of Intention, relative to the Withdrawal No. 579 in connection with the Angostura Project on the Cheyenne River in Fall River County in South Dakota. You also submitted ~~tentative~~ Certificate of Withdrawal.

In April 1941, when the original withdrawal was filed, no point of diversion was supplied in the documents. It was my understanding at that time, that such information would be furnished as soon as the site for the dam had been determined. Also that plans for the proposed work would be filed in this office as soon as same are prepared.

Since it is reported that 55% of the preconstruction work has been completed, the Bureau undoubtedly has prepared a preliminary plan of the proposed project including the lands to be irrigated. I believe that a reasonable interpretation of Section 61.0137 of the State Code intends that such preliminary plan be filed in the office of the State Engineer for his information as soon as it has been prepared. Your suggestion, heretofore, has been that only final plans of the project are to be filed.

In connection with the point of diversion to which this withdrawal No. 579 is to apply, your notice only states that the dam shall be located immediately below the mouth of "Sheps Canyon" but gives no indication as to where it is located in reference to land lines. "Sheps Canyon" is a localized name and means very little to anyone outside of that particular locality. The lands are only described as along the Cheyenne River and this you will admit, is very indefinite.

In summary, I feel that this office, through proper interpretation of 61.0137, is entitled to more information to file with this Withdrawal No. 579 than has so far been furnished. I will appreciate your further consideration in this connection.

Respectfully yours,

DEAN W. LOUCKS,
State Engineer.

D.W/ep

C
O
P
Y

September 15, 1949

Paul H. Ferg
Acting District Manager
Missouri-Osha District
Bureau of Reclamation
P. O. Box 825
Huron, South Dakota

Re: Water Permits
Cheyenne River
Above Angostura

Dear Mr. Ferg:

This is in confirmation of our conversation at Huron a few days ago. We now have on our desk a new application from M. F. Childers for any excess or unappropriated water from the Cheyenne River above Angostura Dam and Reservoir. The Notice through which certain waters were withdrawn from further application submitted by the Bureau calls for sufficient water from the Cheyenne River to irrigate and pump 25,300 acres of land located along the Cheyenne River, in addition to the 16,250 acres covered in the original Notice, also sufficient waters of the Cheyenne River to store 160,000 feet annually. This Notice is rather indefinite as to the exact amount and leaves us to conjecture as to whether or not there is any water available for further appropriation after the needs of the Angostura Project have been satisfied.

We rejected the first application by Mr. Childers on the basis of your opinion that there would not be adequate water to justify the construction of works as he was planning. As discussed with you, Mr. Childers and son were in the office a few days ago and he indicated at that time that he and the several other ranchers living above the reservoir are interested in using flood waters for irrigation of crops by pumping directly from the Cheyenne River channel. It seems to be the opinion of most of the owners familiar with the situation that such use of flood water would have very little effect upon the supply furnished to the Angostura reservoir.

However, since a large amount of water has been appropriated to the Angostura Project and it is not practical to determine whether or not there is any surplus for further appropriation under the present right held by the Bureau, we feel that to allow any further appropriation in the valley would possibly exceed our authority since we are charged with the responsibility of rejecting any rights for which there is not water available. It would, therefore, seem that it would be necessary for the Bureau to set up some policy relative to small irrigators of the nature described and located above the Reservoir. Either certain waters should be released, as now included in the present project, or an agreement should be entered into between the Bureau and the up-stream irrigators giving them authority to use a certain amount of the flood waters. The third alternative, however, would be to declare that all waters of the Cheyenne River above the Project would be used by the Project and that no further water was available for appropriation. The third alternative would, I am sure, seem rather drastic to certain land owners above the Project and would probably draw considerable criticism.

Paul H. Bert - 2
September 15, 1949

We also have an inquiry relative to an application for sprinkler irrigation above the Bixby Dam. According to our files, the Bureau has not as yet filed for any rights above this Project and we will, therefore, have to consider any applications that may be submitted prior to receiving a Notice from the Bureau.

We will be glad to hear from you in connection with the above problems and, if necessary, secure a policy from the Bureau consistent with and adaptable to South Dakota State Water Laws.

Yours very truly,

DEAN W. BUCKS
State Engineer

DNL:HW

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION
P.O. Box 1538
Billings, Montana
March 13, 1946

RECEIVED

OFFICE OF STATE ENGINEER
PIERRE S. DAK

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

Dear Mr. Loucks:

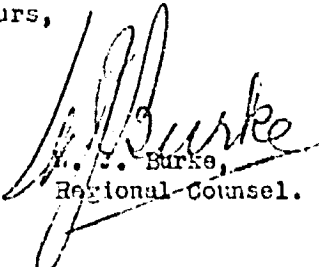
We are in receipt of your letter of February 27 commenting on the Amended and Supplemental Notice of Intention relative to Withdrawal No. 579 and the proposed Certificate of Withdrawal, all in connection with the Angostura Project in Fall River County of your State.

We agree with you that wherever it is possible, the preliminary plan be filed with the Notice of Intention and that the point of diversion be located more definitely than that shown in the instrument forwarded you with our letter of February 25. We have accordingly redrawn the Amended and Supplemental Notice and proposed Certificate, and enclose the Notice of Intention duly executed by H. D. Comstock, Regional Director and, also, the proposed Certificate of Withdrawal. There is attached to the Notice of Intention print of General Map No. 47-3-24 (Rev. Oct. 1945), dated December 11, 1941. The tracing from which this print was prepared has been brought up to-date as far as the 16,250 acres to be irrigated directly from the canal shown on the map are concerned, but does not show the 25,300 acres to be irrigated below that point by means of pumping. We are unable to secure for you at this time such a map concerning the 25,300 acres; but as soon as a preliminary map is prepared, it will be forwarded to your office.

We have also shown the dam site in the Notice of Intention by reference to quarter section. The point of diversion will be at the dam site, and we have also shown that fact in the Notice of Intention.

We will be glad to cooperate with you to the extent that the filing will be in shape to give you as much information as possible. We also wish to assure you that when additional plans are available, they will be forwarded for filing with the enclosed Notice of Intention.

Very truly yours,


H. D. Comstock,
Regional Counsel.

Enclosures

March 18, 1946

W. J. Burke,
Regional Counsel,
P.O. Box 1538,
Billings, Montana

Re: U. S. Withdrawal #579
Cheyenne River
Fall River County,
Angostura Project.

Dear Mr. Burke:

This will acknowledge receipt of your letter of March 13, enclosing the redrawn and Amended Supplemental Notice and proposed Certificate. The Notice of Intention was duly executed by H. D. Comstock, Regional Director. Also attached to the Notice of Intention is a print of General Map No. 47-3-24 (Rev. Oct. 1945), dated December 11, 1941. The print gives the information relative to the 16,250 acres to be irrigated directly from the canal shown on the map. A map concerning the 25,300 acres to be irrigated by pumping from the Cheyenne River is to be furnished at a later date.

We are enclosing, herewith, the Supplemental and Amended Withdrawal #579 which has been signed by the State Engineer and filed in this office as of March 12, 1946. The document has been recorded in Book 2 on Page 550.

When the construction of the works for the utilization of such waters has been completed by the United States, such water shall be deemed to be appropriated and further appropriate documentary evidence will be furnished by this office at that time.

Very truly yours,

DEAN W. LOUCKS,
State Engineer.

DWL/ep
Enclosure

C
O
P
Y



IN REPLY
REFER TO: 400

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGIONAL OFFICE, REGION 6
P. O. BOX 2553
BILLINGS, MONTANA

RECEIVED
NOV 25 1962
STATE WATER RESOURCES COMMISSION
PIERRE, SOUTH DAKOTA

NOV 21 1962

State Water Resources Commission

Pierre, South Dakota

Attention: Mr. J. W. Grimes, Chief Engineer and Executive Officer

Gentlemen:

Acting pursuant to the South Dakota State Engineer's "Certificate of Withdrawal of Water for Appropriation to the United States of America," No. 579, dated April 11, 1941, as amended March 18, 1946, the United States has built the Angostura Federal Reclamation Project in the valley of the Cheyenne River, Fall River County, South Dakota. Project works include the Angostura Dam and Reservoir, the Angostura Powerplant of 1,200 kilowatts nameplate capacity, and canals, laterals, and drains for the irrigation of 12,135 acres of land lying along the Cheyenne River for a distance of 24 miles below the Reservoir, which is approximately 9 miles southeast of Hot Springs, South Dakota.

The Dam is a concrete, gravity-type structure with earth embankment wings, having a structural height of 193 feet and a crest length of 2930 feet, including the concrete and earth sections. The Reservoir has a total storage capacity of 160,000 acre-feet of conservation storage. In addition, 60,000 acre-feet of surcharge capacity will be utilized to control extreme floods. Enclosed are Bureau of Reclamation Drawings 454-D-92 and -95, showing the plan and sections of the Dam and its location. Bureau of Reclamation Drawing No. 47-3-24, dated December 11, 1941, showing the area to be irrigated, was filed with the State Engineer, March 12, 1946, as a part of the United States "Amended Notice of Intention" to develop the Cheyenne River. The ultimate irrigable area may be somewhat less than shown on the said map.

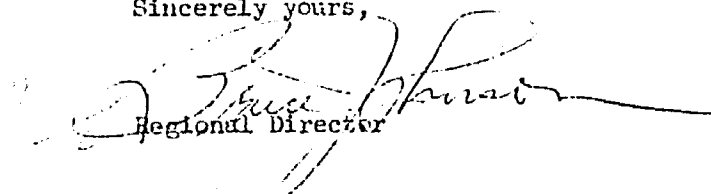
Construction of the Dam and Reservoir was initiated August 23, 1946, and was completed December 7, 1949. The Powerplant was first put into operation in December 1951, and the canal and lateral system of the Project was substantially completed in 1952, and irrigation began in 1953.

501 1700 1223

We request that you cause the works to be inspected and, if found satisfactory, that you issue us your certificate of construction and your license to appropriate water for the 12,135 acres for which facilities have been built and which have been irrigated.

Plans have been abandoned for the pump irrigation of 25,300 acres along the Cheyenne River for which water was withdrawn by the State Engineer's 1946 amendment of the original withdrawal. The United States consents to the release of the water intended for that use. The ultimate acreage to be irrigated in the Angostura area has not been finally determined and the United States desires the withdrawal of water for the irrigation of 16,250 acres to be continued.

Sincerely yours,



Regional Director

Enclosures 2

Copy to: Project Manager, Huron (w/encl.)
Field Solicitor, Billings



IN REPLY
REFER TO: 400

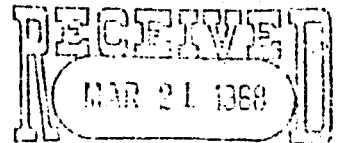
UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

REGIONAL OFFICE, REGION 6

P. O. BOX 2353

BILLINGS, MONTANA 59103



STATE WATER RESOURCES COM. L.
PIERRE, SOUTH DAKOTA

MAR 18 1968

State Water Conservation Commission

Pierre, South Dakota 57501

Attention: Mr. J. W. Grimes, Chief Engineer and Executive Officer

Gentlemen:

By letter of November 21, 1962 (copy enclosed), we notified you that construction of the dam and the irrigation works at Angostura had been completed and requested that you have the works inspected and issue us a license to appropriate water. The water for storage and irrigation is covered under Certificate of Withdrawal of Water for Appropriation No. 579 from Cheyenne River. We have not received a reply to that letter.

We again request that you proceed with the inspection and issue us a license to appropriate sufficient water to irrigate 16,250 acres and to store 160,000 acre-feet in Angostura Reservoir. The Powerplant has been abandoned and is no longer a part of the Project works.

Sincerely yours,

Regional Director

Enclosure

cc:

Project Manager, Huron, South Dakota, Attn: 400
Field Solicitor, Billings, Montana

COMMISSION

John M. Garhart, Spearfish
Lester Bruce, Parker
Carl Cronin, Gettysburg
Lauren A. Davis, Belle Fourche
Milton E. Fischer, Milbank
Richard Lomgren, Harrisburg
Clarence D. Mortenson, Hayes
Dick Fisher, Grebaud

South Dakota

WATER RESOURCES COMMISSION

State Office Building #2

PIERRE, SOUTH DAKOTA 57501

J.W. GRIMES

Chief Engineer
and
Executive Officer

PHONE
224-3584
Area Code 605

October 7, 1969

Mr. Martin H. Oleson, Jr.
Bureau of Reclamation
P.O. Box 825
Huron, South Dakota 57350

Refer 400

Dear Mr. Oleson:

I am sorry to be so tardy answering your letter of August 15, 1969, about perfecting the water rights for the Rapid Valley Project, Deerfield Dam (U.S.509-2) and the Rapid Valley Project, Pactola Dam (U.S.581-2).

In essence, acquisition of water rights by the United States pursuant to state law includes (1) notification on behalf of the United States that it intends to utilize water or to make a survey for later utilization and withdrawal of unappropriated waters by State Government, (2) filing of plans for the proposed work on behalf of the United States, and (3) upon completion of construction of the works by the United States, water license is to be issued.

Concerning the above items, water right records show the following (dates are dates of receipt or action by State Government):

U.S. 509-2

- (1) Notice of Intent filed Dec. 1, 1939, (Pactola Reservoir).
Certificate of Withdrawal issued Dec. 1, 1939.
Notice amended July 7, 1941 (Storage on Castle Creek).
Amended Notice acknowledged as amendment to Withdrawal
No. 509, July 10, 1941.
Notice amended and supplemented Aug. 24, 1942.
Supplemental Withdrawal issued Aug. 24, 1942.
Notice of Aug. 24, 1942, corrected Oct. 8, 1942.
- (2) Print of Drawing 252-7, Deerfield Dam, filed Sept. 10, 1946.

October 7, 1969

(3) Water License not issued.

U.S. 581-2

(1) Notice of Intent filed Apr. 25, 1952, (Pactola Reservoir).
Certificate of Withdrawal issued May 5, 1952.

(2) No plans received.

(3) Water License not issued.

State law does not prescribe what constitutes "plans" which are to be filed on behalf of the United States. Nor does a search of records in this office reveal any prior designation as to what constitutes these "plans". Under state law, the following factors describe a water right: priority date, amount of water used beneficially, the purposes served, the periods of use, the places of use, and any conditions which may apply to the use of water.

For Bureau of Reclamation projects, each of these water right factors may be determined by the following "plans".

Priority date - Date of receipt of the notice on behalf of the United States that it intends to utilize certain specified waters or intends to make a survey with a view of later utilizing certain specified waters.

Amount of Water-The Definite Plan Report, or its equivalent, supplemented by "as built" drawings and tabulations showing storage capabilities, capacities of diversion works and the quantities and rates of water provided for the purposes served by the project works should provide the information needed.

Purposes Served-The Definite Plan Report, or its equivalent, supplemented by any changes which may have occurred on an "as built" basis should provide this information.

Periods of Use- The Definite Plan Report, or its equivalent, modified by any changes provided on an "as built" basis should provide the information needed for determination of periods of storage and beneficial use.

Martin Oleson, Jr.

3.

October 7, 1969

Places of Use - The Definite Plan Report, or its equivalent, supplemented by a drawing showing the irrigable lands and places of use for other than irrigation purposes should provide this information.

Conditions applied to use - Copies of contracts with water users should provide information for determination of this factor.

I hope that this summary will provide the information that you requested for the Deerfield and Pactola projects. This summary may be used to perfect the Bureau's water rights for Shadchill and Angostura projects, also. I believe that the Belle Fourche Project water right should be modernized, too, pursuant to this summary and the Keyhole Project filing in Wyoming, copy in South Dakota, should be perfected pursuant to this summary especially as to places of use.

Sincerely,

J. W. Grimes

JWG:ls



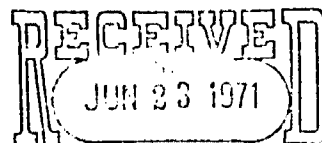
IN REPLY REFER TO: 400

United States Department of the Interior

BUREAU OF RECLAMATION
Region 6
MISSOURI-OAHE PROJECTS OFFICE
P. O. BOX 825
HURON, SOUTH DAKOTA 57350

JUN 22 1971

Mr. J. W. Grimes
Chief Engineer and Executive Officer
South Dakota Water Resources Commission
Pierre, South Dakota 57501



STATE WATER RESOURCES COMM.
PIERRE, SOUTH DAKOTA

Dear Mr. Grimes:

Your letter dated October 7, 1969, outlined the requirements for the perfection of water rights for Bureau of Reclamation projects. The following information and enclosures are provided for the perfection of water right U. S. No. 579-2 for Angostura Reservoir:

Priority Date - Notice of Intent was filed April 11, 1941, and Certificate of Withdrawal was issued March 18, 1946.

Amount of Water - All of the water in the Cheyenne River and its tributaries above Angostura Dam up to the storage capacity of Angostura Reservoir and unappropriated on April 11, 1941, as further supported by the following drawings and tables:

1. Angostura Reservoir topography with Angostura Dam superimposed. (Drawing No. 454-D-65.)
2. Plan, Elevation, and Section - Angostura Dam (Drawing No. 454-D-96.)
3. Capacity Table - Angostura Reservoir, dated October 1, 1966.
4. Area-Capacity Curves, Angostura Reservoir (Drawing No. 454-600-163.)
5. Reservoir Capacity Allocations for Angostura Reservoir.

Purposes Served - Beneficial use for multiple purposes in accordance with the Reclamation Act (32 Stat. 388) as amended, the Flood Control Act of December 22, 1944 (58 Stat. 887) as amended, and the Act of March 10, 1934 (48 Stat. 401) as amended, including but not preferred by this enumeration, flood control; irrigation; silt detention; pollution control; recreation; fish and wildlife; domestic, livestock, and industrial water; and other beneficial purposes.

Periods of Use - Twelve months in each year.

Places of Use - Angostura Irrigation District and surrounding area as water may be beneficially used.

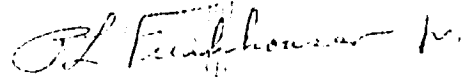
Conditions Applied to Use - Payment of appropriate charges in all cases and compliance with Excess Land Laws under the Reclamation Act (32 Stat. 388) as amended, where water is used for irrigation.

The originally planned and constructed hydroelectric powerplant associated with Angostura Dam has been abandoned. The river outlet facilities, that also served the powerplant, have been retained and will continue to be operational.

Approximately 12,500 acres of land are provided with irrigation water from Angostura Reservoir through the project facilities of the Angostura Unit. The ultimate acreage to be irrigated with water from Angostura Reservoir storage has not been determined; however, the United States requests the continued withdrawal of sufficient water to irrigate 16,250 acres.

This request and accompanying information for perfection of water right U. S. No. 579-2 will supplement our Regional Director's letter to you dated November 21, 1962. Please advise if additional information is needed for perfecting this water right.

Sincerely yours,



Preston L. Funkhouser, Jr.
Project Manager

Enclosure

LAGOSTERA RESERVOIR
CAPACITY IN ACFT-FT

Effective October 1, 1966

ELEV. FT.	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
3156.	36706	36727	36748	36769	36790	36811	36832	36853	36873	36894
.1	36915	36935	36957	36978	36999	37020	37041	37062	37083	37104
.2	37124	37145	37166	37187	37208	37229	37250	37271	37292	37313
.3	37334	37355	37375	37396	37417	37438	37459	37480	37501	37522
.4	37543	37564	37585	37606	37626	37647	37668	37689	37710	37731
.5	37752	37773	37794	37815	37836	37857	37877	37898	37919	37940
.6	37961	37982	38003	38024	38045	38066	38087	38108	38128	38149
.7	38170	38191	38212	38233	38254	38275	38296	38317	38338	38359
.8	38379	38400	38421	38442	38463	38484	38505	38526	38547	38568
.9	38589	38610	38630	38651	38672	38693	38714	38735	38756	38777
3157.	38798	38819	38841	38862	38884	38905	38927	38949	38970	38991
.1	39013	39034	39056	39077	39099	39120	39142	39163	39185	39206
.2	39228	39249	39271	39292	39313	39335	39357	39378	39400	39421
.3	39443	39464	39486	39507	39529	39550	39572	39594	39615	39637
.4	39658	39680	39701	39723	39744	39766	39787	39809	39830	39852
.5	39873	39895	39916	39938	39959	39981	40002	40024	40045	40067
.6	40088	40110	40131	40153	40174	40196	40217	40239	40260	40282
.7	40303	40325	40346	40368	40389	40411	40432	40454	40475	40497
.8	40518	40540	40561	40583	40604	40626	40647	40669	40690	40712
.9	40733	40755	40776	40799	40819	40841	40862	40884	40905	40927
3158.	40948	40970	40992	41015	41037	41059	41081	41103	41125	41147
.1	41167	41191	41214	41236	41258	41280	41302	41324	41346	41368
.2	41390	41413	41435	41457	41479	41501	41523	41545	41567	41589
.3	41611	41634	41656	41678	41700	41722	41744	41766	41788	41810
.4	41832	41855	41877	41899	41921	41943	41965	41987	42009	42031
.5	42054	42076	42098	42120	42142	42164	42186	42208	42230	42253
.6	42273	42297	42319	42341	42363	42385	42407	42429	42451	42474
.7	42496	42518	42540	42562	42584	42606	42628	42650	42672	42695
.8	42717	42739	42761	42783	42805	42827	42849	42871	42894	42916
.9	42938	42960	42982	43004	43026	43048	43070	43093	43115	43137
3159.	43159	43182	43204	43227	43250	43272	43295	43318	43341	43363
.1	43386	43409	43432	43454	43477	43500	43522	43545	43568	43591
.2	43613	43636	43659	43681	43704	43727	43750	43772	43795	43818
.3	43841	43863	43886	43909	43931	43954	43977	44000	44022	44045
.4	44068	44090	44113	44136	44159	44181	44204	44227	44249	44272
.5	44295	44318	44340	44363	44386	44409	44431	44454	44477	44499
.6	44522	44545	44568	44590	44613	44636	44658	44681	44704	44727
.7	44749	44772	44795	44818	44840	44863	44886	44908	44931	44954
.8	44977	44999	45022	45045	45067	45090	45113	45136	45158	45181
.9	45204	45227	45249	45272	45295	45317	45340	45363	45386	45408
3160.	45431	45454	45477	45501	45524	45547	45570	45593	45617	45640
.1	45663	45686	45709	45733	45756	45779	45802	45825	45848	45872
.2	45895	45918	45941	45965	45988	46011	46034	46058	46081	46104
.3	46127	46150	46174	46197	46220	46243	46266	46290	46313	46336
.4	46359	46382	46405	46429	46452	46475	46498	46522	46545	46568
.5	46591	46614	46638	46661	46684	46707	46730	46754	46777	46800
.6	46823	46846	46870	46893	46916	46939	46962	46986	47009	47032
.7	47055	47078	47102	47125	47148	47171	47194	47218	47241	47264
.8	47287	47311	47334	47357	47380	47403	47427	47450	47473	47496
.9	47519	47543	47566	47589	47612	47635	47659	47682	47705	47728
3161.	47751	47775	47799	47823	47847	47871	47895	47919	47942	47966
.1	47990	48014	48038	48062	48086	48110	48134	48157	48181	48205
.2	48229	48253	48277	48301	48325	48348	48372	48396	48420	48444
.3	48468	48492	48516	48540	48563	48587	48611	48635	48659	48683
.4	48707	48731	48755	48778	48802	48826	48850	48874	48898	48922
.5	48946	48969	48993	49017	49041	49065	49089	49113	49137	49161
.6	49184	49208	49232	49256	49280	49304	49328	49352	49376	49399
.7	49423	49447	49471	49495	49519	49543	49567	49590	49614	49638
.8	49662	49686	49710	49734	49758	49782	49806	49829	49853	49877
.9	49901	49925	49949	49973	49997	50020	50044	50068	50092	50116
3162.	50140	50164	50189	50214	50238	50263	50288	50312	50337	50361
.1	50386	50411	50435	50460	50484	50509	50534	50558	50583	50608
.2	50632	50657	50681	50706	50731	50755	50780	50804	50829	50854
.3	50878	50903	50928	50952	50977	51001	51026	51051	51075	51100
.4	51124	51149	51174	51199	51223	51248	51272	51297	51321	51346
.5	51371	51395	51420	51444	51469	51494	51518	51543	51568	51592
.6	51617	51641	51666	51691	51715	51740	51764	51789	51814	51838
.7	51863	51888	51912	51937	51961	51986	52011	52035	52060	52085
.8	52109	52134	52159	52183	52208	52232	52257	52281	52306	52331
.9	52355	52380	52405	52429	52454	52478	52503	52528	52552	52577

ANGLISTURA RESERVOIR
CAPACITY IN ACRES-FT.

ELEV. FT.	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
3163.	52601	52627	52652	52678	52703	52728	52754	52779	52805	52830
.1	52655	52681	52706	52732	52757	52782	52808	52833	52859	52884
.2	53109	53135	53160	53186	53211	53236	53262	53287	53313	53338
.3	53363	53389	53414	53440	53465	53490	53516	53541	53567	53592
.4	53617	53643	53668	53694	53719	53744	53770	53795	53821	53846
.5	53871	53897	53922	53948	53973	53998	54024	54049	54075	54100
.6	54125	54151	54176	54202	54227	54252	54278	54303	54329	54354
.7	54379	54405	54430	54456	54481	54506	54532	54557	54583	54608
.8	54633	54659	54684	54710	54735	54760	54786	54811	54837	54862
.9	54887	54913	54938	54964	54989	55014	55040	55065	55090	55116
3164.	55141	55168	55194	55220	55246	55272	55299	55325	55351	55377
.1	55404	55430	55456	55482	55509	55535	55561	55587	55613	55640
.2	55666	55692	55718	55745	55771	55797	55823	55850	55876	55902
.3	55928	55954	55981	56007	56033	56059	56086	56112	56138	56164
.4	56191	56217	56243	56269	56296	56322	56348	56374	56400	56427
.5	56453	56479	56505	56532	56558	56584	56610	56637	56663	56689
.6	56715	56741	56766	56794	56820	56846	56873	56899	56925	56951
.7	56978	57004	57030	57056	57082	57109	57135	57161	57187	57214
.8	57240	57266	57292	57319	57345	57371	57397	57423	57450	57476
.9	57502	57528	57555	57581	57607	57633	57660	57686	57712	57738
3165.	57765	57792	57819	57847	57874	57902	57929	57957	57984	58011
.1	58039	58066	58094	58121	58149	58176	58203	58231	58258	58286
.2	58313	58341	58368	58395	58423	58450	58478	58505	58533	58560
.3	58587	58615	58642	58670	58697	58725	58752	58779	58807	58834
.4	58862	58889	58917	58944	58971	58999	59026	59054	59081	59109
.5	59136	59163	59191	59218	59246	59273	59301	59328	59356	59383
.6	59410	59438	59465	59493	59520	59548	59575	59602	59630	59657
.7	59685	59712	59740	59767	59794	59822	59849	59877	59904	59932
.8	59959	59986	60014	60041	60069	60096	60124	60151	60178	60206
.9	60233	60261	60288	60316	60343	60370	60398	60425	60453	60480
3166.	60508	60536	60564	60592	60621	60649	60677	60706	60734	60762
.1	60791	60819	60847	60875	60904	60932	60960	60989	61017	61045
.2	61073	61102	61130	61158	61187	61215	61243	61271	61300	61328
.3	61356	61385	61413	61441	61469	61498	61526	61554	61583	61611
.4	61639	61667	61696	61724	61752	61781	61809	61837	61865	61894
.5	61922	61950	61979	62007	62035	62063	62092	62120	62148	62177
.6	62205	62233	62261	62290	62318	62346	62375	62403	62431	62459
.7	62488	62516	62544	62573	62601	62629	62658	62686	62714	62742
.8	62771	62799	62827	62856	62884	62912	62940	62969	62997	63025
.9	63054	63082	63110	63138	63167	63195	63223	63252	63280	63308
3167.	63336	63364	63393	63422	63451	63480	63511	63540	63569	63598
.1	63628	63657	63686	63715	63744	63773	63802	63831	63861	63890
.2	63919	63948	63977	64006	64035	64064	64093	64123	64152	64181
.3	64210	64239	64268	64297	64326	64355	64385	64414	64443	64472
.4	64501	64530	64559	64588	64618	64647	64676	64705	64734	64763
.5	64792	64821	64850	64880	64909	64938	64967	64996	65025	65054
.6	65083	65113	65142	65171	65200	65229	65258	65287	65316	65345
.7	65375	65404	65433	65462	65491	65520	65549	65578	65608	65637
.8	65666	65695	65724	65753	65782	65811	65840	65870	65899	65928
.9	65957	65986	66015	66044	66073	66103	66132	66161	66190	66219
3168.	66248	66278	66308	66338	66368	66398	66428	66458	66487	66517
.1	66547	66577	66607	66637	66667	66697	66727	66757	66787	66817
.2	66846	66876	66906	66936	66966	66996	67026	67056	67086	67116
.3	67146	67176	67205	67235	67265	67295	67325	67355	67385	67415
.4	67445	67475	67505	67535	67564	67594	67624	67654	67684	67714
.5	67744	67774	67804	67834	67864	67894	67923	67953	67983	68013
.6	68043	68073	68103	68133	68163	68193	68223	68253	68283	68312
.7	68342	68372	68402	68432	68462	68492	68522	68552	68582	68612
.8	68642	68671	68701	68731	68761	68791	68821	68851	68881	68911
.9	68941	68971	69001	69030	69060	69090	69120	69150	69180	69210
3169.	69240	69271	69301	69332	69363	69393	69424	69455	69485	69516
.1	69547	69577	69608	69639	69670	69700	69731	69762	69792	69823
.2	69854	69884	69915	69946	69976	70007	70038	70069	70100	70130
.3	70161	70191	70222	70253	70283	70314	70345	70375	70406	70437
.4	70468	70499	70529	70560	70590	70621	70652	70682	70713	70744
.5	70774	70805	70836	70867	70897	70928	70959	70989	71020	71051
.6	71081	71112	71143	71173	71204	71235	71265	71296	71327	71358
.7	71388	71419	71450	71480	71511	71542	71572	71603	71634	71664
.8	71695	71726	71757	71787	71818	71849	71879	71910	71941	71971
.9	72002	72033	72063	72094	72125	72156	72186	72217	72248	72278

ANGOSTURA RESERVOIR
CAPACITY IN ACRES-FT.

ELEV. FT.	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
3170.	72304	72340	72371	72402	72434	72465	72496	72527	72558	72589
.1	72620	72652	72683	72714	72745	72776	72807	72838	72869	72901
.2	72932	72963	72994	73025	73057	73088	73119	73150	73181	73212
.3	73243	73275	73306	73337	73368	73399	73430	73461	73492	73524
.4	73555	73586	73617	73648	73679	73711	73742	73773	73804	73835
.5	73866	73897	73929	73960	73991	74022	74053	74084	74115	74147
.6	74178	74209	74240	74271	74302	74333	74364	74395	74426	74458
.7	74489	74520	74552	74583	74614	74645	74676	74707	74738	74770
.8	74801	74832	74863	74894	74925	74956	74988	75019	75050	75081
.9	75112	75143	75174	75206	75237	75268	75299	75330	75361	75392
3171.	75424	75456	75487	75519	75551	75583	75615	75647	75679	75711
.1	75743	75775	75807	75839	75871	75903	75935	75967	75998	76030
.2	76062	76094	76126	76158	76190	76222	76254	76286	76318	76350
.3	76382	76414	76445	76478	76509	76541	76573	76605	76637	76669
.4	76701	76733	76765	76797	76829	76861	76893	76925	76957	76988
.5	77020	77052	77084	77116	77148	77180	77212	77244	77276	77308
.6	77340	77372	77404	77436	77468	77499	77531	77563	77595	77627
.7	77659	77691	77723	77755	77787	77819	77851	77883	77915	77947
.8	77979	78010	78042	78074	78106	78138	78170	78202	78234	78266
.9	78298	78330	78362	78394	78426	78458	78490	78521	78553	78585
3172.	78617	78650	78683	78716	78748	78781	78814	78847	78879	78912
.1	78945	78978	79011	79043	79076	79109	79142	79174	79207	79240
.2	79273	79305	79338	79371	79404	79437	79469	79502	79535	79568
.3	79600	79633	79666	79699	79732	79765	79797	79830	79863	79895
.4	79928	79961	79994	80026	80059	80092	80125	80158	80190	80223
.5	80256	80289	80321	80354	80387	80420	80452	80485	80518	80551
.6	80584	80616	80649	80682	80715	80747	80780	80813	80846	80879
.7	80911	80944	80977	81010	81042	81075	81108	81141	81173	81206
.8	81239	81272	81305	81337	81370	81403	81436	81468	81501	81534
.9	81567	81600	81632	81665	81698	81731	81763	81796	81829	81862
3173.	81894	81928	81962	81995	82029	82063	82096	82130	82164	82197
.1	82231	82265	82299	82332	82366	82399	82433	82467	82500	82534
.2	82568	82601	82635	82668	82702	82736	82769	82803	82837	82870
.3	82904	82938	82971	83005	83039	83072	83106	83140	83173	83207
.4	83241	83274	83308	83342	83375	83409	83442	83476	83510	83543
.5	83577	83611	83644	83678	83712	83745	83779	83813	83846	83880
.6	83914	83947	83981	84015	84048	84082	84116	84149	84183	84216
.7	84250	84284	84317	84351	84385	84418	84452	84486	84519	84553
.8	84587	84620	84654	84688	84721	84755	84789	84822	84856	84890
.9	84923	84957	84990	85024	85058	85091	85125	85159	85192	85226
3174.	85260	85294	85329	85363	85398	85433	85467	85502	85536	85571
.1	85605	85640	85675	85709	85744	85778	85813	85848	85882	85917
.2	85951	85986	86020	86055	86090	86124	86159	86193	86228	86262
.3	86297	86332	86366	86401	86435	86470	86505	86539	86574	86608
.4	86643	86677	86712	86747	86781	86816	86850	86885	86919	86954
.5	86989	87023	87058	87092	87127	87161	87196	87231	87265	87300
.6	87334	87369	87404	87438	87473	87507	87542	87576	87611	87646
.7	87680	87715	87749	87784	87818	87853	87888	87922	87957	87991
.8	88026	88061	88095	88130	88164	88199	88233	88268	88303	88337
.9	88372	88406	88441	88475	88510	88545	88579	88614	88648	88683
3175.	88718	88753	88788	88823	88858	88893	88928	88963	88998	89033
.1	89068	89103	89138	89173	89208	89243	89278	89313	89348	89383
.2	89418	89453	89488	89523	89558	89593	89628	89663	89698	89733
.3	89768	89803	89838	89873	89908	89943	89978	90013	90048	90083
.4	90118	90153	90188	90223	90258	90293	90328	90363	90398	90433
.5	90468	90503	90538	90573	90608	90643	90678	90713	90748	90783
.6	90818	90853	90888	90923	90958	90993	91028	91063	91098	91133
.7	91168	91203	91238	91273	91308	91343	91378	91413	91448	91483
.8	91518	91553	91588	91623	91658	91693	91728	91763	91798	91833
.9	91868	91903	91938	91973	92008	92043	92078	92113	92148	92183
3176.	92218	92253	92288	92323	92358	92393	92428	92463	92498	92533
.1	92568	92603	92638	92673	92708	92743	92778	92813	92848	92883
.2	92918	92953	92988	93023	93058	93093	93128	93163	93198	93233
.3	93268	93303	93338	93373	93408	93443	93478	93513	93548	93583
.4	93618	93653	93688	93723	93758	93793	93828	93863	93898	93933
.5	93968	94003	94038	94073	94108	94143	94178	94213	94248	94283
.6	94318	94353	94388	94423	94458	94493	94528	94563	94598	94633
.7	94668	94703	94738	94773	94808	94843	94878	94913	94948	94983
.8	95018	95053	95088	95123	95158	95193	95228	95263	95298	95333
.9	95368	95403	95438	95473	95508	95543	95578	95613	95648	95683

ANTHUSIA RESERVOIR
CAPACITY IN ACRES-FT.

ELEV. FT.	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
3177.	95974	96012	96049	96087	96125	96163	96200	96238	96276	96313
.1	96351	96389	96426	96464	96502	96539	96577	96615	96652	96690
.2	96720	96766	96803	96841	96879	96917	96954	96992	97029	97067
.3	97105	97142	97180	97218	97255	97293	97331	97369	97406	97444
.4	97482	97519	97557	97595	97632	97670	97708	97745	97783	97821
.5	97859	97896	97934	97972	98009	98047	98085	98122	98160	98198
.6	98235	98273	98311	98348	98386	98424	98462	98499	98537	98575
.7	98612	98650	98688	98725	98763	98801	98838	98876	98914	98951
.8	98989	99027	99065	99102	99140	99178	99215	99253	99291	99328
.9	99366	99404	99441	99479	99517	99554	99592	99630	99668	99705
3178.	99743	99782	99820	99857	99895	99933	99971	100008	100046	100084
.1	100122	100160	100198	100235	100273	100311	100349	100387	100425	100463
.2	100501	100539	100577	100615	100653	100691	100729	100767	100805	100843
.3	100881	100919	100957	100995	101033	101071	101109	101147	101185	101223
.4	101261	101299	101337	101375	101413	101451	101489	101527	101565	101603
.5	101641	101679	101717	101755	101793	101831	101869	101907	101945	101983
.6	102021	102059	102097	102135	102173	102211	102249	102287	102325	102363
.7	102401	102439	102477	102515	102553	102591	102629	102667	102705	102743
.8	102821	102859	102897	102935	102973	103011	103049	103087	103125	103163
.9	103201	103239	103277	103315	103353	103391	103429	103467	103505	103543
3179.	103581	103619	103657	103695	103733	103771	103809	103847	103885	103923
.1	103961	104000	104038	104076	104114	104152	104190	104228	104266	104304
.2	104342	104380	104418	104456	104494	104532	104570	104608	104646	104684
.3	104722	104760	104798	104836	104874	104912	104950	104988	105026	105064
.4	105102	105140	105178	105216	105254	105292	105330	105368	105406	105444
.5	105482	105520	105558	105596	105634	105672	105710	105748	105786	105824
.6	105862	105900	105938	105976	106014	106052	106090	106128	106166	106204
.7	106242	106280	106318	106356	106394	106432	106470	106508	106546	106584
.8	106622	106660	106698	106736	106774	106812	106850	106888	106926	106964
.9	107002	107040	107078	107116	107154	107192	107230	107268	107306	107344
3180.	107382	107420	107458	107496	107534	107572	107610	107648	107686	107724
.1	107762	107800	107838	107876	107914	107952	107990	108028	108066	108104
.2	108142	108180	108218	108256	108294	108332	108370	108408	108446	108484
.3	108522	108560	108598	108636	108674	108712	108750	108788	108826	108864
.4	108902	108940	108978	109016	109054	109092	109130	109168	109206	109244
.5	109282	109320	109358	109396	109434	109472	109510	109548	109586	109624
.6	109662	109700	109738	109776	109814	109852	109890	109928	109966	110004
.7	110042	110080	110118	110156	110194	110232	110270	110308	110346	110384
.8	110422	110460	110498	110536	110574	110612	110650	110688	110726	110764
.9	110802	110840	110878	110916	110954	110992	111030	111068	111106	111144
3181.	111182	111220	111258	111296	111334	111372	111410	111448	111486	111524
.1	111562	111600	111638	111676	111714	111752	111790	111828	111866	111904
.2	111942	111980	112018	112056	112094	112132	112170	112208	112246	112284
.3	112322	112360	112398	112436	112474	112512	112550	112588	112626	112664
.4	112702	112740	112778	112816	112854	112892	112930	112968	113006	113044
.5	113082	113120	113158	113196	113234	113272	113310	113348	113386	113424
.6	113462	113500	113538	113576	113614	113652	113690	113728	113766	113804
.7	113842	113880	113918	113956	113994	114032	114070	114108	114146	114184
.8	114222	114260	114298	114336	114374	114412	114450	114488	114526	114564
.9	114602	114640	114678	114716	114754	114792	114830	114868	114906	114944
3182.	114982	115020	115058	115096	115134	115172	115210	115248	115286	115324
.1	115362	115400	115438	115476	115514	115552	115590	115628	115666	115704
.2	115742	115780	115818	115856	115894	115932	115970	116008	116046	116084
.3	116122	116160	116198	116236	116274	116312	116350	116388	116426	116464
.4	116502	116540	116578	116616	116654	116692	116730	116768	116806	116844
.5	116882	116920	116958	116996	117034	117072	117110	117148	117186	117224
.6	117262	117300	117338	117376	117414	117452	117490	117528	117566	117604
.7	117642	117680	117718	117756	117794	117832	117870	117908	117946	117984
.8	118022	118060	118098	118136	118174	118212	118250	118288	118326	118364
.9	118402	118440	118478	118516	118554	118592	118630	118668	118706	118744
3183.	118782	118820	118858	118896	118934	118972	119010	119048	119086	119124
.1	119162	119200	119238	119276	119314	119352	119390	119428	119466	119504
.2	119542	119580	119618	119656	119694	119732	119770	119808	119846	119884
.3	119922	119960	120000	120038	120076	120114	120152	120190	120228	120266
.4	120304	120342	120380	120418	120456	120494	120532	120570	120608	120646
.5	120684	120722	120760	120798	120836	120874	120912	120950	120988	121026
.6	121064	121102	121140	121178	121216	121254	121292	121330	121368	121406
.7	121444	121482	121520	121558	121596	121634	121672	121710	121748	121786
.8	121824	121862	121900	121938	121976	122014	122052	122090	122128	122166
.9	122204	122242	122280	122318	122356	122394	122432	122470	122508	122546

ANOSTOMA RESERVOIR
CAPACITY IN ACRES-FEET

ELEV. FT.	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
3164.	124151	124195	124240	124284	124328	124372	124416	124460	124504	124548
.1	124593	124637	124681	124725	124769	124813	124857	124901	124945	124989
.2	125034	125078	125122	125166	125210	125254	125298	125342	125387	125431
.3	125475	125519	125563	125607	125651	125695	125740	125784	125828	125872
.4	125916	125960	126004	126048	126092	126137	126181	126225	126269	126313
.5	126357	126401	126445	126489	126534	126578	126622	126666	126710	126754
.6	126798	126842	126886	126930	126975	127019	127063	127107	127151	127195
.7	127239	127283	127327	127372	127416	127460	127504	127548	127592	127636
.8	127680	127725	127769	127813	127857	127901	127945	127989	128033	128077
.9	128122	128166	128210	128254	128298	128342	128386	128430	128474	128519
3165.	128563	128608	128652	128696	128740	128784	128828	128872	128916	128960
.1	129005	129049	129093	129137	129181	129225	129269	129313	129357	129401
.2	129445	129489	129533	129577	129621	129665	129709	129753	129797	129841
.3	129885	129929	129973	130017	130061	130105	130149	130193	130237	130281
.4	130325	130369	130413	130457	130501	130545	130589	130633	130677	130721
.5	130765	130809	130853	130897	130941	130985	131029	131073	131117	131161
.6	131205	131249	131293	131337	131381	131425	131469	131513	131557	131601
.7	131645	131689	131733	131777	131821	131865	131909	131953	131997	132041
.8	132085	132129	132173	132217	132261	132305	132349	132393	132437	132481
.9	132525	132569	132613	132657	132701	132745	132789	132833	132877	132921
3166.	132965	133009	133053	133097	133141	133185	133229	133273	133317	133361
.1	133405	133449	133493	133537	133581	133625	133669	133713	133757	133801
.2	133845	133889	133933	133977	134021	134065	134109	134153	134197	134241
.3	134285	134329	134373	134417	134461	134505	134549	134593	134637	134681
.4	134725	134769	134813	134857	134901	134945	134989	135033	135077	135121
.5	135165	135209	135253	135297	135341	135385	135429	135473	135517	135561
.6	135605	135649	135693	135737	135781	135825	135869	135913	135957	136001
.7	136045	136089	136133	136177	136221	136265	136309	136353	136397	136441
.8	136485	136529	136573	136617	136661	136705	136749	136793	136837	136881
.9	136925	136969	137013	137057	137101	137145	137189	137233	137277	137321
3167.	137365	137409	137453	137497	137541	137585	137629	137673	137717	137761
.1	137805	137849	137893	137937	137981	138025	138069	138113	138157	138201
.2	138245	138289	138333	138377	138421	138465	138509	138553	138597	138641
.3	138685	138729	138773	138817	138861	138905	138949	138993	139037	139081
.4	139125	139169	139213	139257	139301	139345	139389	139433	139477	139521
.5	139565	139609	139653	139697	139741	139785	139829	139873	139917	139961
.6	140005	140049	140093	140137	140181	140225	140269	140313	140357	140401
.7	140445	140489	140533	140577	140621	140665	140709	140753	140797	140841
.8	140885	140929	140973	141017	141061	141105	141149	141193	141237	141281
.9	141325	141369	141413	141457	141501	141545	141589	141633	141677	141721
3168.	141765	141809	141853	141897	141941	141985	142029	142073	142117	142161
.1	142205	142249	142293	142337	142381	142425	142469	142513	142557	142601
.2	142645	142689	142733	142777	142821	142865	142909	142953	142997	143041
.3	143085	143129	143173	143217	143261	143305	143349	143393	143437	143481
.4	143525	143569	143613	143657	143701	143745	143789	143833	143877	143921
.5	143965	144009	144053	144097	144141	144185	144229	144273	144317	144361
.6	144405	144449	144493	144537	144581	144625	144669	144713	144757	144801
.7	144845	144889	144933	144977	145021	145065	145109	145153	145197	145241
.8	145285	145329	145373	145417	145461	145505	145549	145593	145637	145681
.9	145725	145769	145813	145857	145901	145945	145989	146033	146077	146121
3169.	146165	146209	146253	146297	146341	146385	146429	146473	146517	146561
.1	146605	146649	146693	146737	146781	146825	146869	146913	146957	147001
.2	147045	147089	147133	147177	147221	147265	147309	147353	147397	147441
.3	147485	147529	147573	147617	147661	147705	147749	147793	147837	147881
.4	147925	147969	148013	148057	148101	148145	148189	148233	148277	148321
.5	148365	148409	148453	148497	148541	148585	148629	148673	148717	148761
.6	148805	148849	148893	148937	148981	149025	149069	149113	149157	149201
.7	149245	149289	149333	149377	149421	149465	149509	149553	149597	149641
.8	149685	149729	149773	149817	149861	149905	149949	149993	150037	150081
.9	150125	150169	150213	150257	150301	150345	150389	150433	150477	150521
3170.	150565	150609	150653	150697	150741	150785	150829	150873	150917	150961
.1	151005	151049	151093	151137	151181	151225	151269	151313	151357	151401
.2	151445	151489	151533	151577	151621	151665	151709	151753	151797	151841
.3	151885	151929	151973	152017	152061	152105	152149	152193	152237	152281
.4	152325	152369	152413	152457	152501	152545	152589	152633	152677	152721
.5	152765	152809	152853	152897	152941	152985	153029	153073	153117	153161
.6	153205	153249	153293	153337	153381	153425	153469	153513	153557	153601
.7	153645	153689	153733	153777	153821	153865	153909	153953	153997	154041
.8	154085	154129	154173	154217	154261	154305	154349	154393	154437	154481
.9	154525	154569	154613	154657	154701	154745	154789	154833	154877	154921

ANGOSTURA RESERVOIR
CAPACITY IN ACRES-FEET

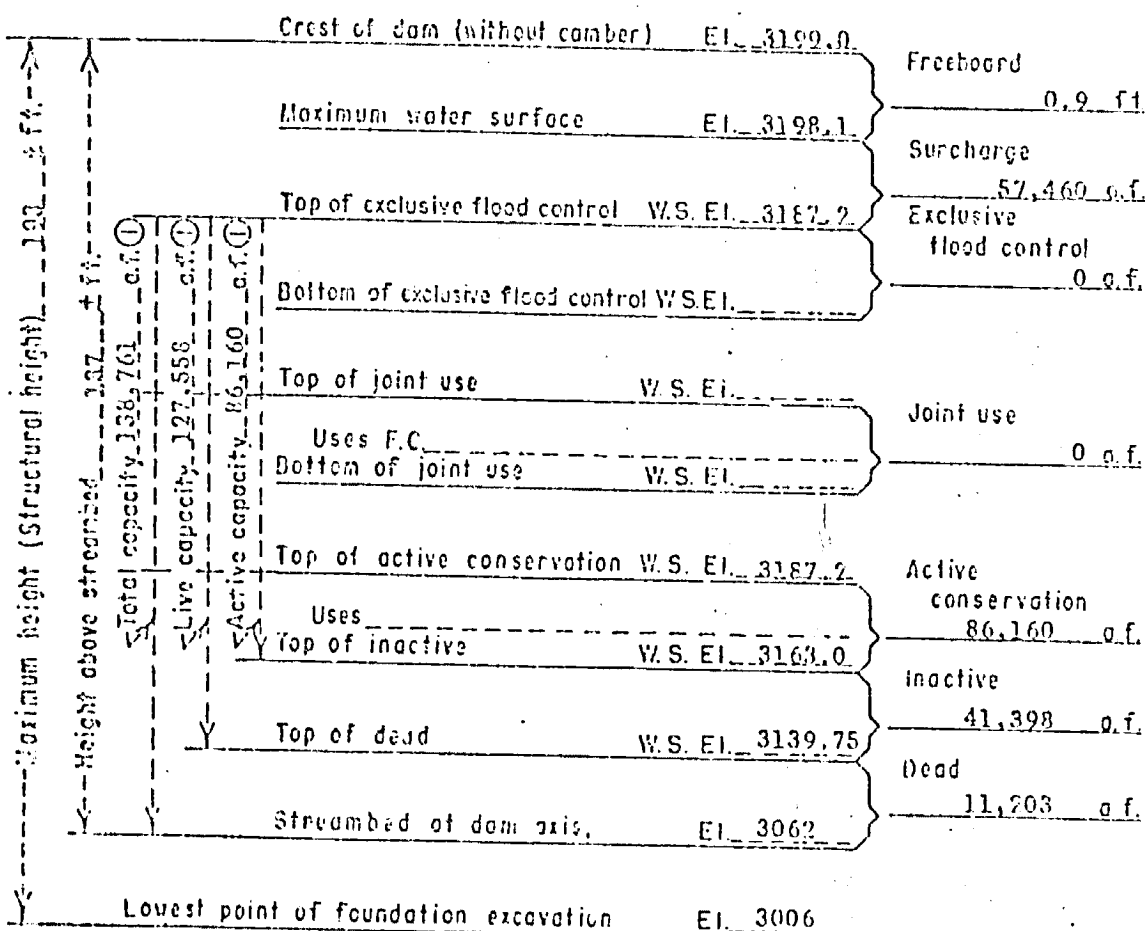
ELEV. FT.	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
3191.	157522	157534	157586	157738	157790	157842	157894	157946	157998	158050
.1	158102	158154	158206	158258	158310	158362	158414	158466	158518	158570
.2	158622	158673	158725	158777	158829	158881	158933	158985	159037	159089
.3	159141	159193	159245	159297	159349	159401	159453	159505	159557	159609
.4	159661	159713	159765	159817	159869	159921	159973	160025	160077	160129
.5	160181	160233	160285	160337	160389	160441	160493	160545	160597	160649
.6	160701	160753	160805	160857	160909	160961	161013	161065	161117	161169
.7	161221	161273	161325	161377	161429	161481	161533	161585	161637	161689
.8	161740	161792	161844	161896	161948	162000	162052	162104	162156	162208
.9	162260	162312	162364	162416	162468	162520	162572	162624	162676	162728
3192.	162780	162833	162885	162937	162989	163041	163093	163145	163197	163250
.1	163302	163354	163406	163458	163510	163562	163614	163666	163718	163770
.2	163822	163874	163926	163978	164030	164082	164134	164186	164238	164290
.3	164342	164394	164446	164498	164550	164602	164654	164706	164758	164810
.4	164862	164914	164966	165018	165070	165122	165174	165226	165278	165330
.5	165382	165434	165486	165538	165590	165642	165694	165746	165798	165850
.6	165902	165954	166006	166058	166110	166162	166214	166266	166318	166370
.7	166422	166474	166526	166578	166630	166682	166734	166786	166838	166890
.8	166942	166994	167046	167098	167150	167202	167254	167306	167358	167410
.9	167462	167514	167566	167618	167670	167722	167774	167826	167878	167930
3193.	168037	168089	168141	168193	168245	168297	168349	168401	168453	168505
.1	168557	168609	168661	168713	168765	168817	168869	168921	168973	169025
.2	169077	169129	169181	169233	169285	169337	169389	169441	169493	169545
.3	169597	169649	169701	169753	169805	169857	169909	169961	170013	170065
.4	170117	170169	170221	170273	170325	170377	170429	170481	170533	170585
.5	170637	170689	170741	170793	170845	170897	170949	171001	171053	171105
.6	171157	171209	171261	171313	171365	171417	171469	171521	171573	171625
.7	171677	171729	171781	171833	171885	171937	171989	172041	172093	172145
.8	172197	172249	172301	172353	172405	172457	172509	172561	172613	172665
.9	172717	172769	172821	172873	172925	172977	173029	173081	173133	173185
3194.	173237	173289	173341	173393	173445	173497	173549	173601	173653	173705
.1	173757	173809	173861	173913	173965	174017	174069	174121	174173	174225
.2	174277	174329	174381	174433	174485	174537	174589	174641	174693	174745
.3	174797	174849	174901	174953	175005	175057	175109	175161	175213	175265
.4	175317	175369	175421	175473	175525	175577	175629	175681	175733	175785
.5	175837	175889	175941	175993	176045	176097	176149	176201	176253	176305
.6	176357	176409	176461	176513	176565	176617	176669	176721	176773	176825
.7	176877	176929	176981	177033	177085	177137	177189	177241	177293	177345
.8	177397	177449	177501	177553	177605	177657	177709	177761	177813	177865
.9	177917	177969	178021	178073	178125	178177	178229	178281	178333	178385
3195.	178437	178489	178541	178593	178645	178697	178749	178801	178853	178905
.1	178957	179009	179061	179113	179165	179217	179269	179321	179373	179425
.2	179477	179529	179581	179633	179685	179737	179789	179841	179893	179945
.3	179997	180049	180101	180153	180205	180257	180309	180361	180413	180465
.4	180517	180569	180621	180673	180725	180777	180829	180881	180933	180985
.5	181037	181089	181141	181193	181245	181297	181349	181401	181453	181505
.6	181557	181609	181661	181713	181765	181817	181869	181921	181973	182025
.7	182077	182129	182181	182233	182285	182337	182389	182441	182493	182545
.8	182597	182649	182701	182753	182805	182857	182909	182961	183013	183065
.9	183117	183169	183221	183273	183325	183377	183429	183481	183533	183585
3196.	183637	183689	183741	183793	183845	183897	183949	183999	184051	184103
.1	184155	184207	184259	184311	184363	184415	184467	184519	184571	184623
.2	184675	184727	184779	184831	184883	184935	184987	185039	185091	185143
.3	185195	185247	185299	185351	185403	185455	185507	185559	185611	185663
.4	185715	185767	185819	185871	185923	185975	186027	186079	186131	186183
.5	186235	186287	186339	186391	186443	186495	186547	186599	186651	186703
.6	186755	186807	186859	186911	186963	187015	187067	187119	187171	187223
.7	187275	187327	187379	187431	187483	187535	187587	187639	187691	187743
.8	187795	187847	187899	187951	188003	188055	188107	188159	188211	188263
.9	188315	188367	188419	188471	188523	188575	188627	188679	188731	188783
3197.	188835	188887	188939	188991	189043	189095	189147	189199	189251	189303
.1	189355	189407	189459	189511	189563	189615	189667	189719	189771	189823
.2	189875	189927	189979	190031	190083	190135	190187	190239	190291	190343
.3	190395	190447	190499	190551	190603	190655	190707	190759	190811	190863
.4	190915	190967	191019	191071	191123	191175	191227	191279	191331	191383
.5	191435	191487	191539	191591	191643	191695	191747	191799	191851	191903
.6	191955	192007	192059	192111	192163	192215	192267	192319	192371	192423
.7	192475	192527	192579	192631	192683	192735	192787	192839	192891	192943
.8	192995	193047	193099	193151	193203	193255	193307	193359	193411	193463
.9	193515	193567	193619	193671	193723	193775	193827	193879	193931	193983
3198.	194035	194087	194139	194191	194243	194295	194347	194399	194451	194503
.1	194555	194607	194659	194711	194763	194815	194867	194919	194971	195023
.2	195075	195127	195179	195231	195283	195335	195387	195439	195491	195543
.3	195595	195647	195699	195751	195803	195855	195907	195959	196011	196063
.4	196115	196167	196219	196271	196323	196375	196427	196479	196531	196583
.5	196635	196687	196739	196791	196843	196895	196947	196999	197051	197103
.6	197155	197207	197259	197311	197363	197415	197467	197519	197571	197623
.7	197675	197727	197779	197831	197883	197935	197987	198039	198091	198143
.8	198195	198247	198299	198351	198403	198455	198507	198559	198611	198663
.9	198715	198767	198819	198871	198923	198975	199027	199079	199131	199183

RESERVOIR C

ALLOCATIONS

Type of dam Concrete gravity Region 6 State South Dakota
 Operated by Angostura Irrigation District Angostura Reservoir
 Crest length 2,030 ft. Angostura Dam
 Volume 238,610 cubic yards Missouri River Basin Project
 Top width 10 ft., Max. Base Width 230 ft. Cheyenne Division
 Closure date October 1912 Angostura Unit
 Construction period 1916-49 Operational Status
 Stream Cheyenne River October 1966 Date
 Reservoir Surface area 4706 acres at El. 3187.2

Furnish one copy of completed form to the Chief Engineer: Attention D-756



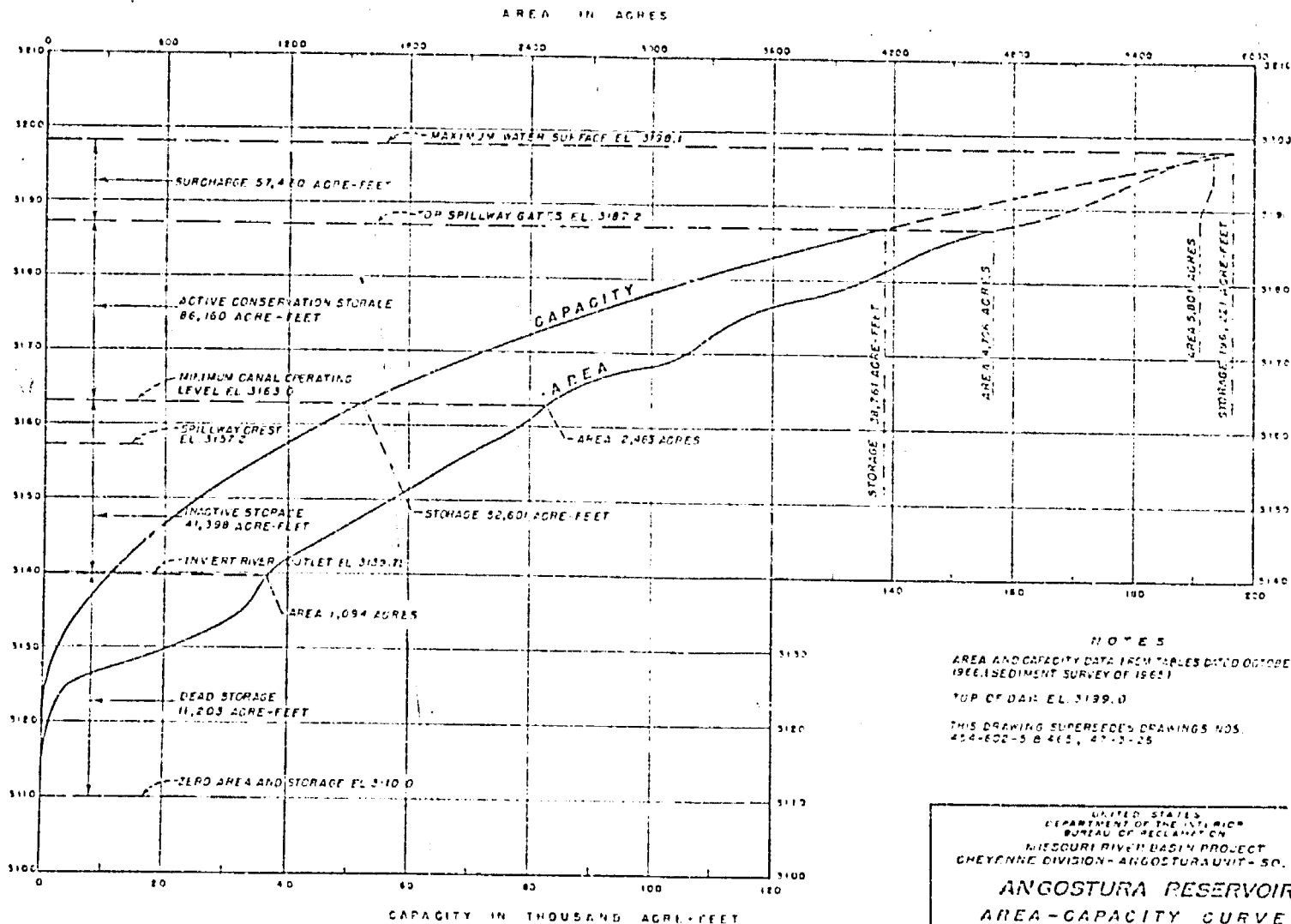
F.C. Flood Control (Total) _____ a.f.
 I. Irrigation _____ a.f.
 M. & I. Municipal and Industrial _____ a.f.
 P. Power _____ a.f.
 F. & W. Fish and Wildlife _____ a.f.
 Other _____ a.f.
 S. Sediment 1/ _____ a.f.
 (1) Includes _____ a.f. allowance for _____ year sediment deposition between streambed and El. _____, of which _____ a.f. is above El. _____

Reference: Area-capacity tables dated October 1966

Area-capacity Irwg. No. 454-600-163

1/ 1949-1965 sediment accumulation measured 21,300 A.F.

ELEVATION IN FEET (U.S. G.S. DATUM)



NOTES
AREA AND CAPACITY DATA FROM TABLES DATED OCTOBER 1966 (SEDIMENT SURVEY OF 1965)
TOP OF DAM: EL. 3139.0
THIS DRAWING SUPERSEDES DRAWINGS NOS. 454-602-5 & 465, 47-3-25

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION MISSOURI RIVER BASIN PROJECT CHEYENNE DIVISION-ANGOSTURA UNIT- SO. DAM.	
ANGOSTURA RESERVOIR AREA-CAPACITY CURVES	
DRAWN BY P. J. [illegible] SUBMITTED BY [illegible]	DATE [illegible]
TRACED BY [illegible] RECOMMENDED BY [illegible]	DATE [illegible]
CHECKED BY [illegible] APPROVED BY [illegible]	DATE [illegible]
JULIUS [illegible]	JULY 1966
454-600-163	

STATE OF SOUTH DAKOTA

UNITED STATES WITHDRAWAL WATER LICENSE NO. 579-2
ANGOSTURA RESERVOIR - ANGOSTURA PROJECT

- (1) WHEREAS, On the 12th day of March, 1946, the Bureau of Reclamation, United States of America filed with the State Engineer, *U.S. Withdrawal No. 579-2, supplementing and amending *U.S. Withdrawal No. 579-2 filed April 11, 1941, to reserve of the heretofore unappropriated waters of the Cheyenne River, the annual amount of 160,000 acre-feet of water for reclamation of 16,250 acres of land and for the reclamation of 25,300 acres of land adjacent to the Cheyenne River by pumping water therefrom, said water to be stored in a reservoir to be constructed by damming said stream at a point immediately below the mouth of Sheps Canyon in the Northwest Quarter of Section 20, T8S, R6E, B1E, Fall River County, South Dakota; and
- (2) WHEREAS, On the 18th of March, 1946, the State Engineer issued a *"CERTIFICATE OF WITHDRAWAL OF WATER FOR APPROPRIATION to the United States of America" for U.S. Withdrawal No. 579-2, Supplemented and Amended, as specified in Section (1), above and certified it was effective as of April 11, 1941; and
- (3) WHEREAS, It is hereby certified that the United States of America has completed construction of the Angostura Reservoir on the Cheyenne River, having storage capacities as follows: dead storage 11,203 acre-feet, inactive storage 41,398 acre-feet, active conservation storage 86,160 acre-feet, total storage being 138,761 acre-feet, the United States of America is entitled to an initial water storage fill of 138,761 acre-feet in Angostura Reservoir and an annual replenishment of storage to the top of the active storage space plus evaporation and natural water loss, and it is hereby certified the supply and distribution system has been completed as shown by Bureau of Reclamation, Angostura Unit *Maps No. 454-602-558, 559, 560, 561, 562 and 563, and the recreation development around Angostura Reservoir has been completed as shown by *Bureau of Reclamation, Angostura Reservoir, Map No. 454-0A-602-87; and
- (4) WHEREBY, It is hereby certified the United States of America has made application of water to beneficial use of the following extent:
- Water contained in the active storage space (up to 138,761 acre-feet of water) of Angostura Reservoir may be released for irrigation use, as provided in *"CONTRACT BETWEEN UNITED STATES OF AMERICA AND ANGOSTURA IRRIGATION DISTRICT", dated May 29, 1951 (116 Angostura Unit, Farm Unit, Series 454-602- Drawings show 12342 irrigable acres), and distributed as indicated in Section 3 of this U.S. Withdrawal Water License No. 579-2.

(5) NOW THEREFORE, By virtue of the authority vested in us by the laws of the State of South Dakota, we hereby grant and confirm to the United States of America, United States Withdrawal Water License No. 579-2, a water right dating from April 11, 1941 to store water annually in Angostura Reservoir on the Cheyenne River in the County of Fall River and State of South Dakota, or so much thereof as may be necessary for the purposes herein below mentioned to be diverted at a point immediately below the mouth of Sheps Canyon in the Northwest Quarter of Section 20, T38S, R1E, S1M, and conducted to and upon the locations described in Section (3) and (4) of this United States Withdrawal Water License No. 579-2 for the purpose of irrigation and recreational use plus incidental silt detention, water quality, fish and wildlife habitat, domestic, livestock watering and other beneficial use, with recreation being a year around use and irrigation uses being in the April 1st through October 15th period.

Subject to the following qualifications:

Flows (not exceeding inflows) shall be released as needed for downstream domestic use, including livestock watering, and prior downstream water right use;

The initial reservoir filling (138,761 acre-feet) having been accomplished, the authorized annual refill shall be equal to that volume of water needed to bring the reservoir water surface to the top of the active conservation storage space, elevation 3187.2 feet, *Bureau of Reclamation Table 454-600-163.

Annual irrigation diversions shall not exceed the irrigated acreage multiplied by 3, the maximum allowable acre-feet that can be applied to each irrigated acre, multiplied by 7/5, the water transportation factor.

WITNESS, My hand and seal of our office
at Pierre, South Dakota this _____ day
of _____ A.D.
Nineteen Hundred and _____.

WATER RIGHTS COMMISSION

By:


DONALD DRISCOLL, Chief Engineer
and Executive Officer

* Indicates specified document is filed in U.S. Withdrawal File No. 579-2.

579-2A



United States Department of the Interior

BUREAU OF RECLAMATION

Region 6

MISSOURI-DAHE PROJECT'S OFFICE

P. O. BOX 825

HURON, SOUTH DAKOTA 57350

IN REPLY REFER TO: 400
C.O.

FEB 14 1972

Mr. J. W. Grimes
Chief Engineer and Executive Officer
South Dakota Water Resources Commission
Pierre, South Dakota 57501

Dear Mr. Grimes:

In response to your letter dated January 21, 1972, the additional information you requested for perfecting U.S. Withdrawal No. 579-2, as supplemented and amended, for the Angstura Unit is being provided. The drawings referred to are being transmitted under separate cover.

1. Legal descriptions of the irrigated lands, as such, are not available; however, the following drawings which delineate the irrigable land and show its acreage for each farm unit are being provided:

<u>Drawing No.</u>	<u>Farm Unit No.</u>	<u>Drawing No.</u>	<u>Farm Unit No.</u>
454-602-622	1 154.81	454-602-416	18 154.81
-623	2 124.81	-416	19 154.81
-624	3 154.81	-642	20A 154.81
-625	4A 27.25	-643	20B 154.81
-626	4B 13.45	-420	21 154.81
-627	5 146.74	-645	22 154.81
-628	6 127.81	-646	23 154.81
-443	7 154.81	-647	24 154.81
-444	8 154.81	-648	25 154.81
-433	9 154.81	-649	26 154.81
-632	10 124.81	-650	27 154.81
-633	11 154.81	-651	28 154.81
-418	12 154.81	-652	29 154.81
-635	13 154.81	-653	30 154.81
-636	14 1237.81	-654	31 154.81
-419	15 154.81	-655	32 154.81
-638	16 154.81	-656	33 154.81
-639	17 154.81	-657	34 154.81
		-658	35 Sheet 1 of 2

Drawing No.	Farm Unit No.	Drawing No.	Farm Unit No.
454-602-659	35 Sheet 2 of 2 76.77	454-602-706	80 137.85
-660	37 Sheet 1 of 2 91.55	-707	81 132.72
-661	37 Sheet 2 of 2 48.32	-708	82 125.79
-662	38 156.37	-424	83 24.67
-663	39 158.45	-447	84 21.22
-664	40 151.13	-448	85 76.00
-665	41 124.75	-425	87 16.97
-666	42 137.42	-426	88 11.00
-445	43 65.37	-449	89 11.00
-667	44 157.47	-450	90 11.15
-668	45 194.67	-451	91 127.46
-669	46 144.30	-427	92 11.55
-670	47 142.72	-431	93 Sheet 1 of 3
-671	48 116.37	-432	93 Sheet 2 of 3
-672	49 157.37	-434	93 Sheet 3 of 3 251.75
-673	50 124.34	-428	94 11.55
-674	51 138.35	-452	95 65.78
-675	52 Sheet 1 of 2 103.78	-453	96 61.96
-676	52 Sheet 2 of 2 56.16	-454	97 45.39
-677	53 140.50	-455	98 27.70
-678	54 34.55	-429	99 152.20
-679	55 124.79	-456	100 260.61
-680	56 140.86	-457	101 23.52
-681	57 143.17	-458	102 10.75
-682	58 177.24	-430	103 142.53
-683	59 120.52	-459	104 143.43
-684	60A 68.23	-460	105 56.66
-685	60B 47.93	-461	106 32.55
-686	61 177.11	-462	107 217.60
-687	62 165.55	-463	108 12.22
-688	63 118.15	-465	City of Hot Springs
-689	64 132.51		Airport
-446	65 139.14		134.90
-691	66 155.67		
-692	67 51.02		217.50
-693	68A 72.73		
-694	68B 53.41		12.912.20
-695	69 118.57		
-696	70 15.43		
-697	71 137.67		
-698	72 127.31		
-699	73 141.77		
-700	74 77.13		
-701	75 121.70		
-702	76 104.56		
-703	77 130.27		
-704	78 150.22		
-705	79 148.74		

2. Drawing No. 454-OA-602-87 shows the general plan for recreation development around Angostura Reservoir.

3. The designed capacity of the irrigation main canal to serve the Angostura Unit is 293 c.f.s.

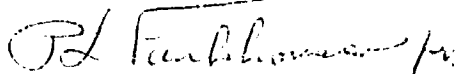
4. Drawings Nos. 454-602-558, -559, -560, -561, -562, and -563 show the complete layout of the supply and distribution system for the Angostura Unit.

5. A copy of Contract No. I79r-1974, with Supplements Nos. 1, 2, and 3, and Amendment No. 4 between the Bureau of Reclamation and the Angostura Irrigation District and a copy of a typical water service contract as made by the Irrigation District are enclosed.

6. The irrigation use period is considered to be from April 1 through October 15.

Please advise if additional information is required for perfection of the water right.

Sincerely yours,



Preston L. Funkhouser, Jr.
Project Manager

Enclosure

Enclosure 107621 (u/sep. cover)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Contract 72

7-22-1974

Angostura Unit, Cheyenne Division, South Dakota
Missouri River Basin Project

CONTRACT BETWEEN THE UNITED STATES OF AMERICA
AND ANGOSTURA IRRIGATION DISTRICT

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Form Approved by
Department of the Interior
January 25, 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Angostura Unit, Cheyenne Division, South
Dakota, Missouri River Basin Project

CONTRACT BETWEEN THE UNITED STATES OF AMERICA
AND ANGOSTURA IRRIGATION DISTRICT

THIS CONTRACT, made this 29 th day of May,
1951, between the UNITED STATES OF AMERICA, hereinafter called the
United States, represented by the contracting officer executing this
contract, and the ANGOSTURA IRRIGATION DISTRICT, an irrigation district
organized and existing under and by virtue of the laws of the State of
South Dakota, with the principal place of business at Hot Springs,
South Dakota, hereinafter referred to as the District,

WITNESSETH, THAT:

WHEREAS, pursuant to the Act of December 22, 1944 (58 Stat.
867), the United States is constructing the Missouri River Basin Pro-
ject as set forth in the House Document 475 and Senate Document 191,
as revised and coordinated by Senate Document 247, all of the Seventy-
eighth Congress, Second Session; and

WHEREAS, as a part of said Missouri River Basin Project, the
United States proposes to construct the Angostura Unit, Cheyenne Division,
for the employment of waters of the Cheyenne River, such unit to be
situated in the State of South Dakota and to include necessary works in
Fall River and Custer Counties; and

WHEREAS, the District desires to contract with the United States

a. For the furnishing of water from the Angostura
Unit for the irrigation of lands within the District; and

b. In connection with the construction and operation
and maintenance of certain distribution and drainage works as may be
necessary for the irrigation of lands within the District;

NOW, THEREFORE, in consideration of the mutual and dependent
covenants herein contained, it is mutually agreed between the parties
hereto as follows:

DEFINITIONS

1. Where used in this contract, the terms:
 - a. "Contract" shall mean and include the explanatory recitals and Articles 1 through 39;
 - b. "Part A" shall mean and include Articles 2 through 9;
 - c. "Part B" shall mean and include Articles 10 through 15;
 - d. "Secretary" or "contracting officer," or either of them, shall mean the Secretary of the United States Department of the Interior, or his duly authorized representative;
 - e. "Federal Reclamation Laws" shall mean the Act of June 17, 1902 (32 Stat. 388), and all acts amendatory thereof and supplementary thereto, including particularly, without limitation of the foregoing, the Reclamation Project Act of 1939; (53 Stat. 1187), as amended.
 - f. "Year" shall mean the period January 1 through the next following December 31;
 - g. "Irrigation season" shall mean the period April 15 through November 30 within any year;
 - h. "District water supply" shall mean the estimated amount of water available for the irrigation of lands under the District, for any irrigation season, as determined by the Secretary. Such amount shall, insofar as practicable, be that quantity which may be applied beneficially in accordance with good usage in the irrigation of lands under the District;
 - i. "District water supply works" shall mean the Angostura Dam and Reservoir, the main canal and appurtenant structures, including but not limited to turnouts, siphons, and canals, and that part of the drainage system which contributes to water resource development of the Missouri River Basin Project, as may be conclusively determined by the contracting officer on or before the termination date of the development period provided below in Article 11 (a).
 - j. "Distribution works," subject to such final location, character and capacity as may be determined by the Secretary, shall include all irrigation water delivery works beyond the points of furnishing water specified in Article 6 hereof which may be constructed by the United States pursuant hereto for the distribution of water to the district lands, together with facilities appurtenant to such works and that part of the drainage facilities not included in "District water supply works" as defined above.

PART A

TERM OF PART A

2. This Part A of this contract shall become effective upon the announcement of availability of water as provided in Article 11 of Part B of this contract, and shall continue for a period of forty (40) years including the year in which water is initially available.

WATER TO BE FURNISHED TO THE DISTRICT

3. For each irrigation season of the term of this Part A, the United States shall furnish to the District, and the District shall pay for, pursuant to the provisions of Article 5, the District water supply.

SCHEDULING AND FURNISHING OF WATER

4. The contracting officer shall, by written notice on or before March 15 of each year, advise the District of the District water supply for the ensuing irrigation season. The contracting officer shall furnish to the District the District water supply at such times during the irrigation season and in such quantities within the capacity of the system as may be mutually agreed upon but not in excess of that quantity which can be put to beneficial use as conclusively determined by the contracting officer. In any year in which the District water supply shall be insufficient to meet the needs of District lands, the District shall submit a plan of equitable distribution of the District water supply among the District lands, which shall be followed when approved by the contracting officer.

PAYMENT BY DISTRICT OF ANNUAL WATER SERVICE CHARGE

See Amendment No. 1 dated 4/15/65
a. On or before March 15 of each year beginning with the year prior to the term of this Part A, the Secretary shall notify the District in writing of the annual water service charge payable by the District for the following year.

b. During the first ten years of the term of this Part A, the annual charge shall be at such rate as is necessary to cover the annual operation and maintenance cost of District water supply works operated by the United States as determined and announced by the contracting officer; for the succeeding thirty (30) years of the term of this Part A the annual water service charge shall be Twenty-three thousand five hundred fifty dollars (\$23,550): Provided, That the District may elect to pay annual charges in accordance with a variable formula as described in c below.

c. -- On or before February 15 of any year after the first ten years and during the remaining term of Part A of this contract the District Board of Directors may notify the Secretary in writing

dictated by Amendment No. 1 dated 8/4/65.

that, beginning with the next succeeding calendar year, the District elects to make payment of its annual charges in accordance with the variable formula: Provided, That once the District Board of Directors notifies the Secretary of the District's election to make payment in accordance with the variable formula, all annual payments thereafter shall be made in accordance with such variable formula. On or before March 15 of the year in which the Secretary receives notice of such election by the District, and on or before March 15 of every year thereafter during the term of Part A of this contract, the Secretary shall announce the amount of the annual payment which shall be due in the succeeding year. The amount of each annual payment under this subsection c shall be determined by multiplying the product of the base charge and the price index factor by the agricultural parity ratio: Provided, That the annual charge shall at no time be less than the operation and maintenance cost of the District water supply works as determined by the Secretary:

(1) The "base charge" shall be twenty-three thousand five hundred fifty dollars (\$23,550) each year.

(2) The "price index factor" is that number which represents the relationship between the current prices received for farm products and the average prices for farm products during the period 1939-1944 as determined by the Secretary.

(3) The "agricultural parity ratio" is the national agricultural parity ratio as conclusively determined by the Secretary for the year preceding the notice year.

(4) In making the determination required in c (2) and c (3) above, the Secretary shall use the commodity price indexes and the national agricultural parity ratio as determined by the Secretary of Agriculture under the provisions of Title II of the Agricultural Act of 1948 (Public Law 897, 80th Congress, 2nd Session), as now amended or as it may be amended from time to time. If the commodity price indexes and national parity ratio, which are basic to the determination of the annual charge under c of this article, are not available for any year the annual charges payable under c of this article shall be twenty-three thousand five hundred fifty dollars (\$23,550).

d. Annual payments under subsection c above shall not be more than one hundred seventy-five percent (175%) of the base charge, and not less than twenty-five percent (25%) of the base charge.

e. On or before ^{March 1} April 15 of each year of the term of this Part A in advance of the furnishing of water for the ensuing irrigation season, the District shall make payment to the United States for the District water supply. *(Change in date made in accordance with Supplement No. 2 dated 10/1/57)*

all of above deleted by Amendment No. 1 dated 8/6/61.

f. Neither the failure nor the refusal of the District to accept any quantity of the District water supply required to be paid for by the District pursuant to Article 3 shall relieve the District of its obligation to pay for water so required to be paid for pursuant to Article 3, and the District shall make payment therefor in the same manner as if the water had been furnished to and accepted by it all in accordance with this Part A.

g. The operation and maintenance payment required of the District in 1962 in the amount of Forty-Two Thousand Dollars (\$42,000.00) is hereby deferred and will be paid in forty (40) equal consecutive annual installments, without interest or penalty, the first installment to fall due on December 31, 1966.

b. The United States shall not be responsible for the control, carriage, handling, use, disposal, or distribution of water which may be furnished the District hereunder beyond the several points of delivery as provided in a of this article, and the District shall hold the United States harmless on account of damage or claim of damage of any nature whatsoever for which there is legal responsibility, including property damage, personal injury, or death arising out of or connected with the distribution of such water beyond said point of furnishing.

c. The United States claims all of the waste, seepage, or return flow derived from water furnished pursuant to this contract and the same is hereby reserved and retained by the United States:

Provided, That such claim shall not extend to waste, seepage or return flow commingling with other water impounded by stock water, reservoirs or spreader dams existing on the date of this contract.

UNITED STATES NOT LIABLE FOR WATER SHORTAGE

7. On account of drought, inaccuracy of distribution, or other causes, there may occur at times during any year a shortage in the District water supply, but in no event shall any liability accrue against the United States or any of its officers, agents, or employees for any damage, direct or indirect, arising out of such shortage.

CONSTRUCTION OF FACILITIES BY THE UNITED STATES

8. Notwithstanding any provision of this contract to the contrary, the United States shall not be obligated to furnish water to the District hereunder unless and until the construction by the United States of the works required for furnishing such water to the District has been completed as conclusively determined by the contracting officer.

RIGHT TO RECEIVE WATER

9. No rights or interest in the District water supply, other than to receive annually pursuant to the terms and limitations of this Part A during the effective period hereof, shall accrue to the District or to anyone claiming through the District, by reason of the application of water to beneficial use or of any provisions of this contract.

END OF PART A

PART B

CONSTRUCTION CHARGE OBLIGATION

10. a. As its obligation under this Part B on account of construction charges for the distribution works, the District shall pay to the United States whatever amount is expended by the United States in the construction of the distribution works defined in sub-article 1.j. as determined and announced by the Secretary but not to exceed seven hundred eighteen thousand dollars (\$718,000).

b. Such construction charge obligation shall be spread in annual installments over a period not exceeding forty (40) years following the development period. The annual installment shall be seventeen thousand nine hundred fifty dollars (\$17,950). Provided, however, That if, prior to the end of the development period, appropriate legislative authority is available for payment of the annual installment in accordance with a variable formula, then in lieu of the annual installments above prescribed, annual installments may, at the option of the District, be fixed and paid in accordance with a variable formula: Provided, That once the District Board of Directors notifies the Secretary of the District's election to pay its annual installments in accordance with a variable formula, all annual installments thereafter, under Part B of this contract, shall be paid in accordance therewith. The amount of each such annual installment shall be announced by the contracting officer on March 15th of the year in which due. The Secretary shall compute the amount of each annual installment to be fixed in accordance with a variable formula by multiplying the product of the base charge and the price index factor by the agricultural parity ratio.

(1) The "base charge" shall be seventeen thousand nine hundred fifty dollars (\$17,950).

(2) The "price index factor" is that number which represents the relationship between the current prices received for farm products and the average prices for farm products during the period 1939-1944 as determined by the Secretary.

(3) The "agricultural parity ratio" is the national agricultural parity ratio as conclusively determined by the Secretary for the twelve months preceding the date of notice.

(4) In making the determination required in b(3) and b(4) above, the Secretary shall use the commodity price indexes and the national agricultural parity ratio as determined by the Secretary of Agriculture under the provisions of Title II of the Agricultural Act of 1948 (Public law 897, 80th Congress, 2nd Session) as it may be amended from time to time. If the commodity price indexes and national parity ratio, which are basic to the determination of the annual installment under a of this article, are not available for any year the annual installments due under this contract shall be seventeen thousand nine hundred fifty dollars (\$17,950).

c. Annual installments which may be varied under subsection b above shall be not more than one hundred seventy-five percent (175%) of the base charge, and not less than twenty-five percent (25%) of the base charge.

d. The first annual installment shall become due and payable on December 31 of the year next following the last year of the development period fixed for the District. The succeeding annual installments shall become due and payable on December 31 of the succeeding years.

DEVELOPMENT PERIOD

11. a. The development period for the lands in the District is hereby fixed at ten (10) years from and including the first year in which the distribution works are so far completed as to be available for use, and water is available for furnishing pursuant to Part A hereof, for substantially all of the irrigable lands in the District, all as determined and announced by the Secretary in a notice to the District prescribing the date of such availability.

b. During the development period, the annual charge to the District for the use of the distribution works will be fixed with the object of collecting as a minimum during the whole development period an amount equal to the total operation and maintenance costs of the distribution works during such period, and such charge shall be in addition to any and all charges for the furnishing of water pursuant to Article 5 of Part A of this contract. The amount of the annual charge and the terms and conditions with respect to it for each year during the development period shall be determined and announced on or before March 15 thereafter of the development period.

c. The District shall pay to the United States the charges as announced for each irrigation season during the development period

Change in accordance with Supplement No. 2 dated 12/1/58.

on or before ~~May 1~~ 15. The District shall levy the necessary assessments, tolls, and charges against the lands in the District during the development period and make the necessary collections from the water users in advance of the use of the distribution works for the season.

d. Any charges paid to the United States by the District during the development period pursuant to (c) hereof which are in excess of the actual costs of operation and maintenance of the distribution works for such period shall be credited to the construction charge obligation of the District in the manner to be determined by the Secretary.

OPERATION AND MAINTENANCE -- TRANSFER OF DISTRIBUTION WORKS

12. a. On January 1 of the year for which the first installment of the construction charge obligation accrues under this contract, the United States will transfer to the District and the District will accept the care, operation, and maintenance of all of the distribution works described in Article 1.

b. Upon transfer of the distribution works, the District shall thereafter care for, operate, and maintain the distribution works, without cost or expense to the United States, and in full compliance with the Federal Reclamation Laws, the rules and regulations of the Secretary pursuant thereto, the terms of this contract, and in such a manner that the distribution works shall remain in as good and efficient condition and of equal capacity for the distribution of irrigation water as at the date such distribution works are turned over to the District.

c. No substantial change will be made by the District in any of the distribution works without first obtaining written consent of the Secretary. The District shall make promptly any and all repairs to the distribution works, which, in the opinion of the Secretary, are necessary. If, in the opinion of the Secretary, any part of the distribution works is for any cause unfit for service, he may order the water shut off and turned out until, in his opinion, such part of the distribution works is put in proper condition for service. In case of neglect or failure of the District to do so, the Secretary may

This paragraph 12 per Supplement No. 2 dated 12/1/58.

d. After the District shall have taken over the care, operation, and maintenance of the distribution works, the Secretary may from time to time cause an appropriate inspection of the project works and of the books and records of the District to be made to ascertain whether the requirements of this contract are being satisfactorily performed by the District. Such inspections may include physical inspection of all properties and audit of the books and records of the District. Any such inspection or audit shall, except in a case of emergency, be made after written notice to the District and the actual expense thereof shall be paid by the District to the United States in the manner provided in Article 13 hereof.

is found by the Secretary to be operating the distribution works or any part thereof in violation of the provisions of this contract, then at the election of the Secretary, the United States shall take over from the District the care, operation and maintenance of the distribution works by giving written notice to the District of such election and of the effective date thereof. Thereafter during the period of Government operation the District shall pay to the United States the cost of operation and maintenance of the distribution works as fixed in notices from the Secretary to the District and payment shall be in advance of the furnishing of water. Such notice shall be given not later than March 15 of any year and payment shall be made not later than April 15 of the same year. The District shall levy the necessary assessments, tolls and charges against the lands in the District during the period of operation by the United States and make the necessary collections from the water users in advance of the use of the distribution works for the season. At the election of the Secretary, the operation and maintenance of such works may be retransferred to the District under conditions similar to the original transfer by giving written notice at least 6 months prior to the effective date of such transfer.

OVERHEAD, INSPECTION AND REPAIR

13. In addition to other payments to be made by the District under the provisions of this Part B, the Secretary shall notify the District before March 15 of any year subsequent to the end of the development period, and the District shall pay to the United States on or before April 15 of the same year, the estimated costs for the current year of the items in a and b below to be adjusted to actual costs in the notice for the succeeding year:

a. Administration, supervision and general expenses in connection with the distribution works as in the opinion of the Secretary are properly and equitably chargeable to the District.

b. The cost of inspection and repairs to the distribution works incurred by the United States as provided in Article 12.

RESERVE FUND FOR OPERATION AND MAINTENANCE

14. During the development period as provided in Article 11 hereof, the annual assessments, tolls, or charges levied against the water users by the District shall be sufficient to enable the accumulation during said development period of a reserve fund of \$10,000 to be maintained by the District apart from its other funds, to be available, subject to the approval of the Secretary, only for the purpose of meeting major unforeseen costs of operation and maintenance, repair or betterment of the distribution works. Thereafter, such further amounts of not less than two thousand dollars (\$2,000) shall be added to the reserve fund annually from District levies for operation and

maintenance until the fund has been increased to eighteen thousand dollars (\$18,000). Whenever the reserve fund has been reduced below sixteen thousand dollars (\$16,000), it shall be restored by annual additions of not less than two thousand dollars (\$2,000).

TITLE TO DISTRIBUTION WORKS

15. Title to the distribution works shall be and shall remain in the United States until the construction charge obligation of the District as prescribed in Article 10 of this Part B has been fully discharged and until otherwise provided by Congress, notwithstanding that the distribution works are transferred to the District for care, operation and maintenance.

END OF PART B

CHARGES TO BE ASSESSED IN ACCORDANCE WITH LAND CLASSIFICATION

16. All District assessments, tolls or other charges against individual tracts of land in the District for the purpose of paying annual installments due under this contract and other expenses incurred by the District shall be based on the classification of each tract of land as approved by the Secretary. Such assessments, tolls or other charges against individual tracts in the District shall be fixed for the different classes of land at such ratios as may be determined by the District's Board of Directors: Provided, That the total water charges shall be within the following percentage ratios, all ratios being related to a base of 100 percent for class 1 land:

<u>Land Class</u>	<u>Percent</u>
1	100
2	85-90
3	65-75
4	45-60

Handwritten note: "See also 7/1/57"

DISTRICT PERMITTED TO MAKE MINOR CHANGES IN LAND CLASSIFICATION

17. In connection with their duties as a Board of Equalization, as provided by State law, the District Board of Directors shall be permitted to make minor changes, within the paying classes, in the classification of project lands in order to correct serious inequalities that may become evident in future years. Such changes are to be approved by the Secretary before they become effective. The District's annual installments due to the United States are not to be affected by any such changes.

WATER SERVICE TO NON-ASSESSABLE LANDS AND TO STATE LANDS UNDER PURCHASE CONTRACT

18. a. Subject to approval by the Secretary, the District may furnish water to lands within the District which are not subject to

assessment, upon payment in advance of a water rental charge. Per acre water rental charges for such lands which are classified by the Secretary as irrigable pay class lands shall be equal to the total annual per acre assessments levied against assessable District lands of a similar land classification. Per acre water rental charges for such lands which have not been classified or which are classified by the Secretary as non-pay lands shall be at such rates as are from time to time announced by the Secretary. All moneys collected by the District for water service under this Article shall be used to meet the District's obligations to the United States under this contract.

b. State School lands heretofore or hereafter under contract of purchase shall, however, be assessed by the District, (as permitted by Section 15,0311, South Dakota Code of 1939), the assessment to be a lien upon the interest of such purchaser but not upon the interest of such vendor.

AGREED CHARGES A GENERAL OBLIGATION OF THE DISTRICT

19. The District as a whole is obligated to pay to the United States the charges becoming due as provided in this contract, notwithstanding the individual default in the payment to the District by individual water users of assessments, water rentals, or other charges levied by the District.

LEVY OF ASSESSMENTS, TOLLS AND CHARGES

20. The District will cause to be levied and collected all necessary assessments, tolls and other charges, and will use all of the authority and resources of the District to meet the obligations of the District to make in full all payments to be made pursuant to this contract on or before the date such payments become due and to meet the other obligations under this contract.

APPLICATION OF PAYMENTS

21. The United States may, at its option exercised by the Secretary, apply any payment or payments received by the District to the United States to any charges then due and payable by the District to the United States under the provisions of this contract.

PENALTY FOR DELINQUENT PAYMENTS

22. Every installment or charge required to be paid to the United States under this contract and which shall remain unpaid after it shall have become due and payable shall be subject to a penalty of one-half of one percent per month from the date of delinquency. The District shall impose on delinquencies in the payments of assessments, or other charges levied by the District to meet its obligations under this contract, such penalties as it is authorized to impose under the laws of the State of South Dakota.

is found by the Secretary to be operating the distribution works or any part thereof in violation of the provisions of this contract, then at the election of the Secretary, the United States shall take over from the District the care, operation and maintenance of the distribution works by giving written notice to the District of such election and of the effective date thereof. Thereafter during the period of Government operation the District shall pay to the United States the cost of operation and maintenance of the distribution works as fixed in notices from the Secretary to the District and payment shall be in advance of the furnishing of water. Such notice shall be given not later than March 15 of any year and payment shall be made not later than April 15 of the same year. The District shall levy the necessary assessments, tolls and charges against the lands in the District during the period of operation by the United States and make the necessary collections from the water users in advance of the use of the distribution works for the season. At the election of the Secretary, the operation and maintenance of such works may be retransferred to the District under conditions similar to the original transfer by giving written notice at least 6 months prior to the effective date of such transfer.

OVERHEAD, INSPECTION AND REPAIR

13. In addition to other payments to be made by the District under the provisions of this Part B, the Secretary shall notify the District before March 15 of any year subsequent to the end of the development period, and the District shall pay to the United States on or before April 15 of the same year, the estimated costs for the current year of the items in a and b below to be adjusted to actual costs in the notice for the succeeding year:

a. Administration, supervision and general expenses in connection with the distribution works as in the opinion of the Secretary are properly and equitably chargeable to the District.

b. The cost of inspection and repairs to the distribution works incurred by the United States as provided in Article 12.

RESERVE FUND FOR OPERATION AND MAINTENANCE

14. During the development period as provided in Article 11 hereof, the annual assessments, tolls, or charges levied against the water users by the District shall be sufficient to enable the accumulation during said development period of a reserve fund of \$10,000 to be maintained by the District apart from its other funds, to be available, subject to the approval of the Secretary, only for the purpose of meeting major unforeseen costs of operation and maintenance, repair and betterment of the distribution works. Thereafter, such further amounts of not less than two thousand dollars (\$2,000) shall be added to the reserve fund annually from District levies for operation and

45579-2



United States Department of the Interior



IN REPLY REFER TO:

DK-700
PRJ 13.00

BUREAU OF RECLAMATION
Dakotas Area Office
Rapid City Field Office
515 9th St., Room 101
Rapid City, South Dakota 57701

FEB 24 2006

Mr. Garland Erbele
Chief Engineer
Water Rights Division
South Dakota Department of Environment and Natural Resources
523 E. Capitol
Pierre, South Dakota 57501-3181

RECEIVED
FEB 27 2006
WATER RIGHTS
PROGRAM

Subject: Request for Junior Water Rights Shut Off Order - Angostura Reservoir, South Dakota

Dear Mr. Erbele:

We request that the State of South Dakota's Department of Environment and Natural Resources Water Rights Division issue shut off orders to junior water right holders on the Cheyenne River above Angostura Reservoir.

Angostura Reservoir is presently at elevation 3169.90, which is a little over 17 feet down from full (top of conservation or full is at elevation 3187.2). On February 24, 2005, the storage in Angostura Reservoir is about 60,000 acre-feet, which is 63,000 acre-feet from full. If the spring weather continues to be dry, the water right at Angostura will not be satisfied.

If you have questions, please contact Curt Anderson or me at 605-394-9757.

Sincerely,

For Jeffrey L. Nettleton
Rapid City Field Office Manager

cc: Ms. Sue Lowry
Administrator
Interstate Streams Division
Wyoming State Engineer's Office
Herschler Building 4E
Cheyenne, WY 82002

Mr. Mick Jenniges
Manager
Angostura Irrigation District
P.O. Box 346
Oral, SD 57766



IN REPLY REFER TO:

DK-700
PRJ 13.00

45 579-2

United States Department of the Interior
BUREAU OF RECLAMATION

Dakotas Area Office
Rapid City Field Office
515 9th St., Room 101
Rapid City, SD 57701

FEB - 2 2007



RECEIVED
FEB 05 2007
WATER RIGHTS
PROGRAM

Mr. Garland Erbele
Chief Engineer
Water Rights Division
South Dakota Department of Environment and Natural Resources
523 E. Capitol
Pierre, South Dakota 57501-3181

Subject: Request for Junior Water Rights Shut Off Order – Angostura Reservoir, Angostura
Unit, South Dakota

Dear Mr. Erbele:

We request that the State of South Dakota's Department of Environment and Natural Resources, Water Rights Division issue shut off orders to junior water right holders on the Cheyenne River above Angostura Reservoir. Angostura Reservoir is presently at elevation 3165.9, which is a little over 21 feet down from full (top of conservation or full is at elevation 3187.2). The storage in Angostura Reservoir on January 30, 2007, is about 49,000 acre-feet, which is 74,000 acre-feet from full. If the spring weather continues to be dry, the water right at Angostura will not be satisfied.

If you have questions, please contact Curt Anderson or me at 605-394-9757.

Sincerely,

Jeffrey L. Nettleton
Rapid City Field Office Manager

cc: Ms. Sue Lowry
Administrator
Interstate Streams Division
Wyoming State Engineer's Office
Herschler Building 4E
Cheyenne, WY 82002

Mr. Mick Jenniges
Manager
Angostura Irrigation District
P. O. Box 346
Oral, SD 57766



IN REPLY REFER TO:

DK-700
WTR-4.10

United States Department of the Interior

BUREAU OF RECLAMATION
Dakotas Area Office
Rapid City Field Office

515 9th St., Room 101
Rapid City, South Dakota 57701

FEB 20 2008



RECEIVED

FEB 21 2008

WATER RIGHTS
PROGRAM

Mr. Garland Erbele
Chief Engineer
Water Rights Division
South Dakota Department of Environment and Natural Resources
523 E. Capitol
Pierre, South Dakota 57501-3181

Subject: Request for Junior Water Rights Shut Off Order - Angostura

Dear Mr. Erbele:

We request that the State of South Dakota's Department of Environment and Natural Resources, Water Rights Division issue shut off orders to junior water right holders on the Cheyenne River above Angostura Reservoir. Angostura Reservoir is presently at elevation 3167.7, which is 19.5 feet down from full (top of conservation or full is at elevation 3187.2). The storage in Angostura Reservoir on February 20, 2008 is about 54,000 acre-feet, which is 69,000 acre-feet from full. If the spring weather continues dry, the water right at Angostura will not be satisfied.

If you have questions, please contact Curt Anderson or me at 605-394-9757.

Sincerely,

For Jeffrey L. Nettleton
Rapid City Field Office Manager

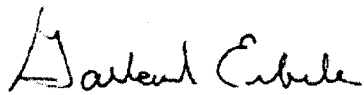
cc: Ms. Sue Lowry
Administrator
Interstate Streams Division
Wyoming State Engineer's Office
Herschler Building 4E
Cheyenne, WY 82002

Mr. Mick Jenniges
Manager
Angostura Irrigation District
P.O. Box 346
Oral, SD 57766

March 19, 2008

NOTICE OF SHUTOFF ORDER

TO: Name
Address
City State Zip

FROM: GARLAND ERBELE, Chief Engineer
Water Rights Program 

SUBJECT: Shutoff Order for Junior Priority Date Water Rights Upstream of
Angostura Dam

Shutoff Order for Water Right Nos.***

The US Bureau of Reclamation holds Water Right No. US579-2 for Angostura Reservoir with a senior priority date of April 11, 1941. To protect this right, the Bureau of Reclamation has asked that we issue shutoff orders for junior water right holders. Effective immediately no diversions of water from the Cheyenne River and tributaries by holders of water rights junior to the priority date of April 11, 1941 upstream of Angostura Dam will be allowed. On March 17, 2008, the water elevation in Angostura Reservoir was 3168.8-feet, 18.4-feet below the full elevation of 3187.2-feet. Storage is at 56785 acre-feet, about 66263 acre-feet below full. Angostura Reservoir is not expected to fill with the current low inflows.

The Angostura Reservoir storage level will be closely monitored and if the Cheyenne River flows upstream of the dam increase such that the reservoir will fill, this shutoff order will be rescinded at that time. If conditions do not improve, this order will remain in effect until the end of the calendar year.

I am asking for your cooperation in complying with this shutoff order. If you have any questions, please contact Mark Rath at (605) 773-3352 or Aaron Tieman at (605) 394-2229 with the Water Rights Program. Thank you.