

No. 3565-5Water Division No. 1James RiverDistrict 1

JAN 12 1959

(Blanks to be filled by the Engineer for the W. R. C.)

STATE ENGINEER, SOUTHERN DISTRICT
SOUTH DAKOTAAPPLICATION FOR PERMIT
To appropriate Water within the State of South Dakota

(NOTE—Draw a line through items not applicable.)

See Map # 3486-3

new well.

1. Name of applicant City of HuronPostoffice address Box 97County BeadleState S. Dak.

I. If a corporation

(n) Name of same

(b) Date and place of incorporation

(c) Amount of capital stock

(d) Amount paid in

(e) Names and addresses of directors

(NOTE—A certified copy of articles of incorporation must accompany the application.)

II. Method of accomplishing the work and financial resources of the applicant:

(r) Method of accomplishing work (Whether by contract, employment of others, or by direct labor)

Contract

(b) Cash on hand, \$

(c) Treasury stock, \$

(d) Bonds to be issued, \$

(e) Other resources, \$

2. Name of diversion work City Well of Huron Well No. 13. Amount of water claimed 2 cubic feet per second4. Source of water supply Ground Water5. Location of point of diversion 1940 ft S. 23 degrees 05' East of the N.W. corner
Sect. 9, T. 110 N., R. 62 W. on _____ bank _____ County.6. Annual period or periods during which water is to be used Jan 1 to Jan 1

7. To be used for:

I. Irrigation or domestic use: Grayly, overhead sprinkling or combination system?

(a) Number of acres to be irrigated _____ acres.

(b) Legal subdivisions to be irrigated

(NOTE—A list of lands to be irrigated, giving each subdivision and fraction with acreage thereof, should be written here, or may be appended as a part of this application. Same must also be shown on accompanying map.)

(c) Statement as to domestic use (giving location, etc.) Municipal Use

II. Stockwatering, mining, milling, power, fish culture, fire protection and public recreation:

(a) Nature of use

Name any of the above uses claimed

(b) Amount of power to be generated

horse power.

Amount claimed for engine cooling

(c) Location of plant

(d) Method of developing power

(e) Point where water will be returned to stream

Map No. 430-3

8. Estimated cost of work:

(a) Head Gates, \$

(b) Pumping plant, \$ 5,000.00

(c) Fluming, \$

(d) Canal-earth, \$

Rock, \$

(e) Other structures

Total, \$

9. Description of diversion works:

I. Nature of works: (Reservoir, dam, ditch, flume, pumping plant, etc.)

Pumping Plant

II. Dimensions of works:

(a) Dam: Height feet; length at bottom feet; length at top

feet; thickness at bottom feet; thickness at top

feet; slope at front water face; slope at back face

material used in construction

(b) Reservoir: Capacity when filled acre feet. Surface area at water

mark acres

DEPTH AT OUTLET-Feet	SURFACE AREA AT EACH DEPTH AT OUTLET—ACRES	FEET	ACRE-Feet CAPACITY

(c) Head gate: Width feet; height feet;

Material

(d) Canal: Total length miles.

LOCATION BELOW HEADGATE	DEPTH	BOTTOM WIDTH	WIDTH AT WATER-LINE	GRADE PER MILE
At Mile	feet	feet	feet	feet
At Mile	feet	feet	feet	feet
At Mile	feet	feet	feet	feet
At Mile	feet	feet	feet	feet
At Mile	feet	feet	feet	feet
At Mile	feet	feet	feet	feet

(Give dimensions where reductions in size are made.)

10. Time required for completion of work 2 months years.

11. Time required for complete application of water to the proposed beneficial use 2 months years.

12. Choice of newspaper for publication of notice of intention to appropriate

Huronite and Daily Plainsman, Huron, S. Dak.

STATE OF SOUTH DAKOTA

County of Bangle

I, _____, being first duly sworn
on my oath depose and say: That my relation to the above described undertaking is that of owner, that I have
read the above foregoing statement, examined the map accompanying the same, and that I know of my own
personal knowledge that the matters therein stated and shown are true.

Signed

W. B. Matson Mayor

Subscribed and sworn to before me this

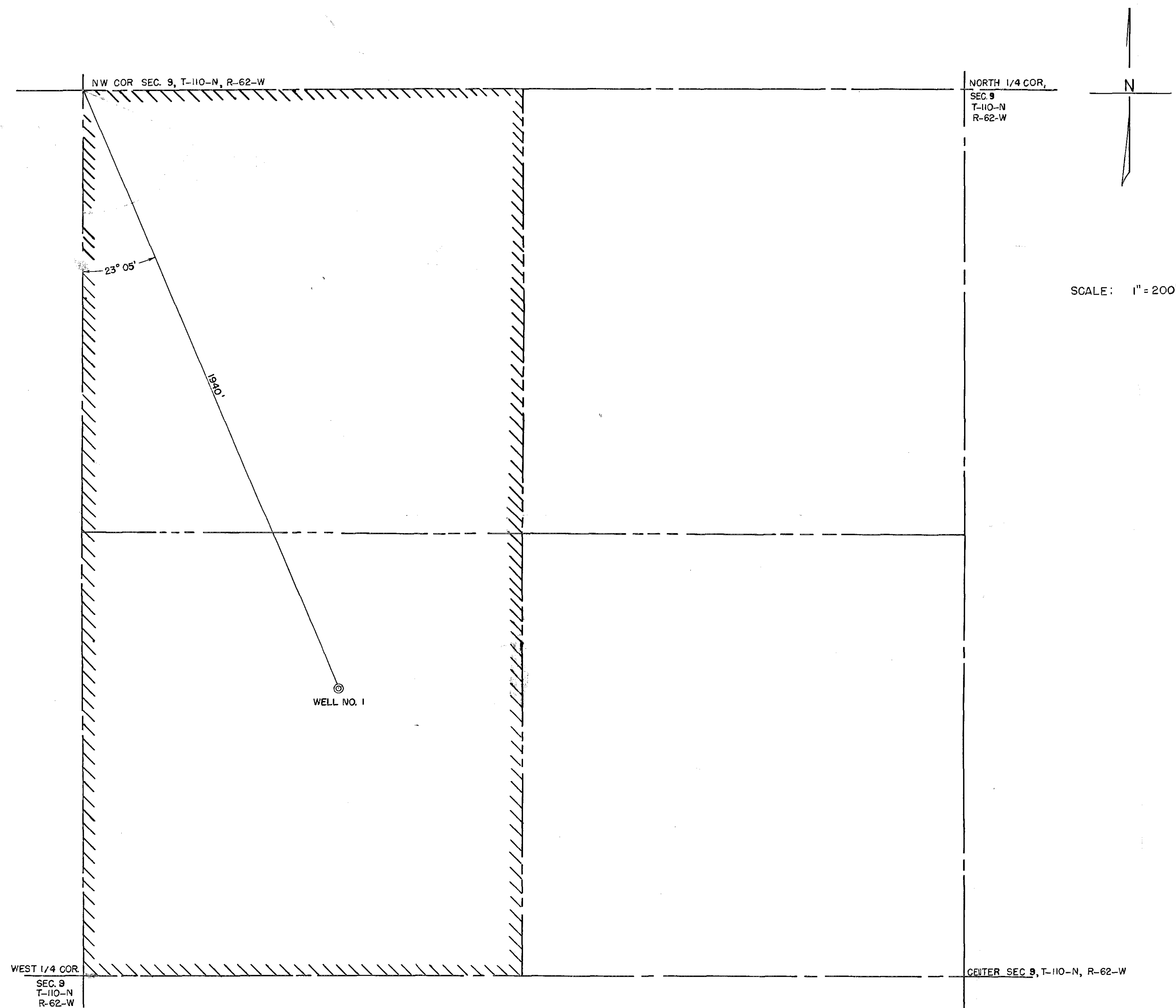
12th

day of

January

1927

W. B. Pearson City Auditor
Notary Public (or other qualified officer.)



STATE OF SOUTH DAKOTA)
COUNTY OF BEADLE) SS

I, HARLAN W. MEYER, A REGISTERED LAND SURVEYOR IN AND FOR THE STATE OF SOUTH DAKOTA, DO HEREBY CERTIFY THAT, AT THE REQUEST OF THE CITY OF HURON, OWNER, BY DIRECTION OF THE GOVERNING BODY I HAVE SHOWN THE WELL LOCATIONS TO BE USED FOR MUNICIPAL WATER SUPPLY WITHIN THEIR OWNERSHIP BOUNDARIES ON NOVEMBER 13, 1958 FOR WHICH APPLICATION FOR APPROPRIATIVE WATER RIGHT IS MADE AND THAT THIS MAP IS A TRUE REPRESENTATION THERE OF.

WITNESS MY HAND AND SEAL THIS 29TH DAY OF NOVEMBER 1958.

Harlan W. Meyer
REGISTERED LAND SURVEYOR

STATE OF SOUTH DAKOTA)
COUNTY OF BEADLE) SS

ON THIS DAY, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC WITHIN AND FOR SAID STATE AND COUNTY, PERSONALLY APPEARED HARLAN W. MEYER, KNOWN TO ME TO BE THE PERSON WHO EXECUTED THE FOREGOING SURVEYOR'S CERTIFICATE AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME.

WITNESS MY HAND AND NOTARY SEAL THIS 29TH DAY OF Nov 1958.

Harmon H. Hanson
NOTARY PUBLIC

MY COMMISSION EXPIRES June 13, 1961

MAP		
SHOWING AREA AND WELL LOCATIONS WHERE WATERS WILL BE DIVERTED FOR PERMIT TO APPROPRIATE WATER FOR MUNICIPAL WATER SUPPLY.		
OWNER CITY OF HURON	SURVEYOR HARLAN W. MEYER	DATE NOVEMBER 1958

Remarks by State Water Resources Commission:

STATE OF SOUTH DAKOTA
County of Bughe } 93.

Filed, South Dakota, January 20, 1959

This is to certify that the foregoing application was received by the Commission at 10:00 o'clock
9 a.m. upon the 14 day of January, 1959

State Water Resources Commission

By: J. O. Quinn
Chief Engineer, Executive Officer

Number of permit 565-3

Date of first receipt of application January 14, 1959

Date of return to applicant for correction, amendments or changes required as follows: —, 19—

Date of receipt of corrected application —, 19—

Date from which applicant may claim right January 14, 1959

Approved April 8, 1959, Recorded in Book 45 Page 143

This is to certify that we have examined the foregoing application for a permit to appropriate water of the State of South Dakota, and we hereby grant the same as stated herein, subject, however, to the following limitations and conditions:

- 1st. The equivalent of at least one-fifth of the work above specified is to be completed on or before October 8, 1959
- 2nd. The whole of said work is to be completed on or before April 8, 1960
- 3rd. The limit of time for proof of beneficial use of water appropriated in accordance herewith is April 8, 1961
- 4th. The water appropriated shall be used for the purpose of municipal use
- 5th. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be injuriously affected by this appropriation.
- 6th. The amount of the appropriation herein granted shall not exceed 2.0 cubic feet per second; neither shall it exceed the capacity of the above described system of diversion works, nor the least amount of water that experience may hereafter indicate as necessary for the production of crops in the area else of the best husbandry; and further, said appropriation must be limited to not more than one-seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is actually and beneficially applied for irrigation on or before April 8, 1961; said water to be used during the following described annual period:

Continuously

Witness my hand this 11 day of May, 1959

State Water Resources Commission

By: J. O. Quinn
Chief Engineer, Executive Officer

Certificate of Construction Issued DECEMBER 5, 1963

Water License Issued DECEMBER 5, 1964

Form 2A -- Wells (Supplement to Form 2)

9. (Continued)

III. Well Specifications

(a) Hole and casing

Size of drill hole or excavation 40" , Depth 82'

Type of casing concrete
(wood, concrete, steel, etc.)

Size of casing 16" , Thickness of casing 2 1/2"

Length of casing 42' If collection gallery, length, size and depth of gallery

(b) Screens

Type of perforated screen Slotted Kelly Well Screen

Size of perforated screen 16" (diameter) , 40' (length)

Thickness of gravel pack (9") , length of gravel pack 46'

(c) Water Bearing Materials

Distance to water , Character of water bearing materials medium course sand

Thickness of water bearing material 30'

(d) Pump and Motor

Type of pump deepwell turbine
(centrifugal, propeller, mixed flow, etc.)

Name of pump Fairbanks, Morse Co. , size 8"

Kind of motor electric
(gasoline, electric, diesel, etc.)

Horse power 50 , Name of Motor Fairbanks, Morse Co.

(e) Complete well

Capacity 900GPM at drawdown of 62' From Surface. Estimated cost \$8000.00

(f) Owner of land upon which well is located City of Huron ,

Box 97, Huron, S. Dak. Name
Address

(g) Distance to nearest existing wells

On same owner's property rods. On property owned by others 160 rods

Form 15.

Permit No. 565-3

Water Diversion No. 3 JAMES RIVER Water District

CERTIFICATE OF CONSTRUCTION

This is to Certify, That THE CITY OF EUKON

the holder of

Permit No. 565-3, issued upon Application No. 565-3, bearing date of priority of January 14

1959 authorizing the diversion of 2.0 cu. ft. per second of the waters of

ground water County of Beadle, State of South Dakota at a

point 1940' S., 23° 05' E., of the NW Corner, Section 9, T110N, R62W

, for municipal

purposes, has a complied with the provisions of the laws of the State of South Dakota relating to proof of completion of the works of diversion set out and described in said Permit; that said works are found in satisfactory condition for diverting and conveying to the place of intended use 2.0 cu. ft. per second of water.

Date December 5, 1969

WATER RESOURCES COMMISSION

By:

J.W. GRIMES, Executive Officer

WATER LICENSE NO. 565-3

(1) WHEREAS, On the 14th day of January A. D. 19 59
the City of Huron

made Water Right Application No. 565-3 for a permit to use 2.0 cubic feet per second of the waters
of ground water

County of Beadle, State of South Dakota, for Municipal

_____ purposes; and

(2) WHEREAS, On the 11th day of May A. D. 19 59

Permit No. 565-3, with a date of priority of January 14, 1959

was issued to said applicant _____ for the diversion of said water, and provided for the completion of construction of the water
supply system therein described on or before the 8th day of April A. D. 19 60 and for the
application to beneficial use of said water on or before the 8th day of April A. D. 19 61

and;

(3) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to completion of the construction of the water supply system and is entitled to divert 2.0 cubic feet
per second of water for beneficial use and,

(4) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to the application of water to beneficial use of the following extent.

water used for municipal purposes by the City of Huron

(5) NOW, THEREFORE, By the virtue of the authority vested in us by the laws of the State of South Dakota, We hereby grant and confirm to The City of Huron

~~xxxx~~
the holder (X) and owner (X) of said permit No. 565-3 a water right, dating from January 14,
1959 to use of 2.0 cubic feet per second of the waters
of ground water

in the County of Beadle and State of South Dakota, or so much thereof as may be necessary for the
purposes hereinbelow mentioned, to be diverted at a point 1940' S., 22°05' E., of the NW corner,
Section 9, T110N, R62W

~~xxxxxx~~ and conducted to and through the City water distribution system

for the purpose of municipal use

Subject to any limitations listed in Water Right Permit No. 565-3 and subject to the laws of the State of South Dakota.

WITNESS, My hand and seal of our office at Pierre, South Dakota
this 5th day of December A. D.
Nineteen Hundred and Sixty-nine

WATER RESOURCES COMMISSION

By:

Chief Engineer, Executive Officer, J.W. GRIMES

**OVERSIZE
DOCUMENT IS
SUPPLEMENTARY
TO MICROFILM FILE**

(First Publication before February 21, 1959)

APPROPRIATION OF WATER

Office of State Water Resources Commission,

Pierre, S. Dak., January 20, 1959

Notice is hereby given that the City of Huron whose postoffice address is Huron S. Dak., has made an application in accordance with the provisions of the water laws of South Dakota for a permit to appropriate for beneficial use 2.00 cubic feet of water per second of time from the ground water through the City of Huron Well No. 1, the point of diversion of which is to be located on the ~~back of the~~ SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 9 Twp. 110 N Range 62 W Said water to be used for ~~the purpose of providing irrigation of the~~ lowering the water level municipal purposes in the City of Huron

This application will be taken up by the State Water Resources Commission at their office at Pierre for consideration upon the 8th day of April, 1959, at 2:00 P.M. All interested persons may appear and be heard.

Appropriate action will be taken by the Water Resources Commission after suitable time has elapsed for the consideration of any or all information presented.

State Water Resources Commission

By:

~~Charles E. Wyborny, Water Rights Engineer~~
 Les Wyborny, Water Rights Engineer

cc Robert D. Lusk, Publisher
 The Daily Plainsman
 Huron, South Dakota

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA }
 County Beadle } ss.

I, Grace LeGrand being duly sworn, deposes and says the annexed printed copy of Notice of Intention to Appropriate Water was taken from the

Daily Plainsman a newspaper which during the whole time of publication of said notice herein after stated, has been and is printed and published in the

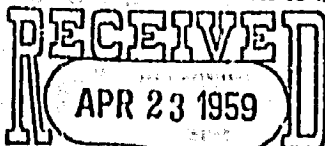
City of Huron County of Beadle and State of South Dakota;

that the said notice was published in said newspaper on the following dates:

Jan. 30; Feb. 6, 13, 20 1959

in each and every issue of the full number thereof, the first publication being made on the 30 day of Jan. 1959 and the last publication on the 20 day of Feb. 1959, upon which days or times of publication aforesaid the newspaper was regularly published, and that during the whole time of said publication he was the printer and publisher of the said newspaper.

Subscribed and sworn to before me this 20 day of Feb. A. D. 1959



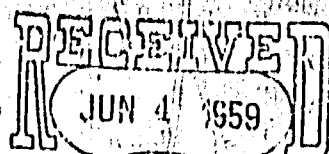
STATE WATER RESOURCES COM. I.
 PIERRE, SOUTH DAKOTA

Notary Public Beadle County, S. D.

APPROPRIATION OF WATER
 Notice is hereby given that the City of Huron, whose postoffice address is Huron, S. Dak., has made an application in accordance with the provisions of the water laws of South Dakota for a permit to appropriate for beneficial use 200 cubic feet of water per second of time from ground water through the City of Huron Well No. 1, the point of diversion of which is to be located in the SW 1/4 of the NW 1/4 of Section 2, Twp. 110N, Range 2, W. Said water to be used for municipal purposes in the City of Huron.
 This application will be taken up by the State Water Resources Commission at their office at Pierre for consideration upon the 8th day of April, 1959, at 2:00 P. M. All interested persons may appear and be heard.
 Appropriate action will be taken by the Water Resources Commission after suitable time has elapsed for the consideration of any or all information presented.
 State Water Resources Commission
 Pierre, S. D.
 20, 1959

Permit No.

Water Division No. Water District

STATE WATER RESOURCES COMM.
PIERRE, SOUTH DAKOTA

Notice of Application of Water to Beneficial Use

(This blank must be filled out by holder of permit and forwarded to the State Water Resources Commission at least sixty days before the time set for application of water.)

(P. O.) Box 97, Huron, South Dakota

(Date) June 3, 1959

TO THE STATE WATER RESOURCES COMMISSION OF SOUTH DAKOTA, PIERRE:

DEAR SIR: Notice is hereby given that on the 4th day of June
1959, at Huron, S. Dak. County of Beadle State of South Dakota,
before _____ proof will be submitted of the application to beneficial use
(Examining Engineer or Officer)

of 2 cubic feet per second of the waters of _____

_____ In accordance with the terms and conditions of Permit No. 565-3
heretofore issued by the Water Resources Commission of South Dakota.

1. The name and postoffice address of the person or corporation holding said permit are _____
Huron, P. O. Box 97, Huron, South Dakota

2. The use to which said water has been applied is Municipal

3. The amount applied to beneficial use is 2 cu. ft. Sec.

4. The place where said water is used is (If for irrigation, give full and accurate description of the lands irrigated) City of Huron, Beadle County, South Dakota

5. The name of the canal or ditch or other works by which said water is conducted to such place of use is _____

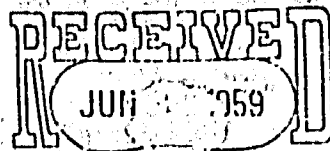
6. The right to take the water from such works is based upon permit No. 565-3

7. The source of supply from which such water is diverted is Ground Water

8. The date of priority which said user is prepared to establish is Jan. 14, 1959

(Sign)

William D. Meyer
Mayor of the City of Huron



Permit No. _____

STATE WATER RESOURCES COMM.
PIERRE, SOUTH DAKOTA

Water Division No. _____

Water District _____

NOTICE OF COMPLETION OF WORKS

This blank must be filled out by the holder of permit and forwarded to the Executive Officer at least 60 days before the time set for completion of works

(P. O.) Box 97, Huron, South Dakota(Date) June 3, 1959

TO THE STATE WATER RESOURCES COMMISSION
OF SOUTH DAKOTA, PIERRE:

DEAR SIR: Notice is hereby given of the completion of the works for the diversion of (2) Two

cu. ft. per second of the waters of the state from _____

through the Continuously

for Municipal purposes

_____ in accordance with the terms and conditions of a certain permit heretofore issued by the Water Resources Commission of the State of South Dakota.

1. The name of the person or corporation holding said permit is City of Huron,
South Dakota

2. The postoffice address of such person or the place of business of such corporation is Box 97, Huron
County of Beadle State of South Dakota

3. The number of such permit is 565-3 and the date set for the completion of such work is
May 15, 1959

4. Said water to be used for Municipal purposes.

5. Said works of diversion will be fully completed on the date set for such completion, and the amount of water which said works are capable of conducting to the place of intended use, in accordance with the plans accompanying the application for such permit, is 2 cubic feet per second.

6. The amount of land for which said water is available is 80 acres,
particularly described as follows: 2-1/2 of the NW 1/4 of Sec. 9, T. 110N., R. 62W.
of the 5th P. M.

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

(Signature of Owners)

Harlan P. Meyer
City Engineer
City of Huron
For the Mayor of
the City of Huron

June 25, 1959

Mr. Harlan J. Meyer, City Engineer
City of Huron
Huron, South Dakota

Dear Mr. Mayer:

Receipt is hereby acknowledged of your letter of June 4, 1959 enclosing notice of completion of works.

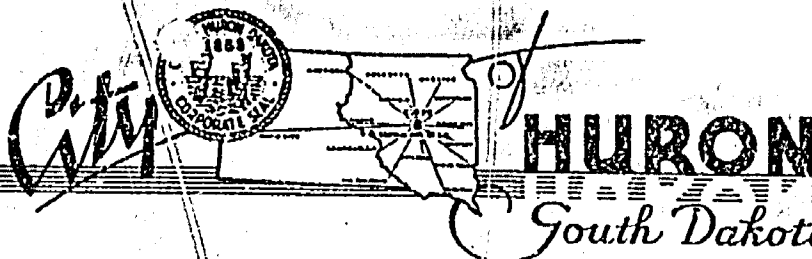
You are authorized to make the inspection of the diversion of works constructed under authority of permit No. 565-3 on or before July 15, 1959. In case you so desire, the inspection to determine the amount of water applied to beneficial use may be made at the same time as that of the constructed work.

You need only to return one copy of the Form 26 to us. The other copy is sent along in case you wish to keep a carbon copy for yourself.

Sincerely,

Les Wyborny
Water Resources Commission
Water Rights Engineer

Enc: Form 21 (2)



November 18th, 1958

Mr. Joe Grimes
State Water Resources Engineer
State Water Resources Commission
Pierre, South Dakota

*New appl.
for ground water
different from 9-3*

Dear Mr. Grimes:

I am requesting temporary permission in behalf of the City of Huron to construct two wells in our west well field located in the W $\frac{1}{2}$ of the Northwest 1/4, Section 9, T.110N, R. 62W of the 5th P. M. I am in the process of drawing up the water right application and it should be soon forthcoming.

We, Ross Matson, Mayor, Morgan Sanford, Water Commissioner and myself are also requesting a hearing with you before next Monday night if possible, to discuss the feasibility of going for a water supply in the area north of Huron where water is supposedly more abundant.

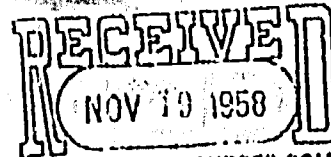
With best personal regards,

Yours truly,

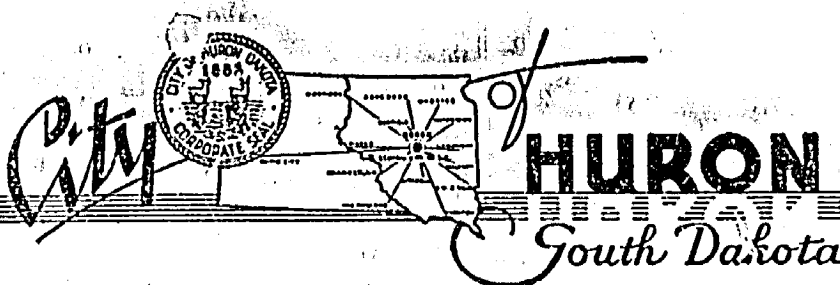
Harlan W. Meyer

Harlan W. Meyer
City Engineer

HWM:jw

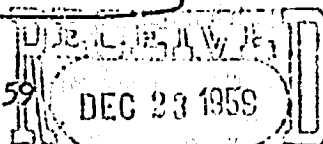


STATE WATER RESOURCES COMM
PIERRE, SOUTH DAKOTA



OFFICE OF
CITY ENGINEER

December 22, 1959



STATE WATER RESOURCES COM. LL.
PIERRE, SOUTH DAKOTA

Mr. Joe Grimes, Engineer
State Water Resources Commission
Pierre, South Dakota

Dear Joe:

Would you please send me the necessary papers and information for making future water rights application for our well field that lies west of the City of Huron.

We have come to the conclusion from the facts of our last summers testing program that the water east of the City of Huron is of such chemical composition that it makes it undesirable for city use. We are therefor planning to expand what is known as our west well facilities.

Merry Christmas and a Hapry New Year!!

Yours truly,

Harlan W. Meyer
City Engineer

HWM:jw

5653

City Engineer
Municipality
Huron

December 24, 1959

Mr. Harlan W. Meyer, City Engineer
City of Huron
Huron, South Dakota

Dear Mr. Meyer:

Primarily applications for "future use withdrawals" follow the same form as for a new application.

You will determine what amount of water you will require (the Commission has acted upon the theory that twice the present city capacity is a reasonable amount). A map must be prepared showing the location of the well field. The actual location or locations of the wells will be shown on the application submitted when the construction is started.

I am enclosing the necessary forms for your use.

Sincerely,

Burton F. Jones
Water Rights Specialist

BFJ:ls

Enc: Form 2 (2)
Check sheet
Water laws.

June 16, 1969

Mr. Glen Housieux, City Engineer
City of Huron
Huron, South Dakota 57350

Dear Mr. Housieux:

The City of Huron's Permit No. 565-3 calls for the diversion of 2.0 c.f.s. from a well in the well field west of Huron.

Mr. Jones of this office visited with you on June 11th concerning this well, and it was indicated the well was not being used and had been abandoned. It was indicated that with the additional storage in the James River dam, use of the well in the foreseeable future was not anticipated, and that cancellation of the permit would be scheduled for consideration by the Commission.

Such consideration has been scheduled at 3:00 P.M., D.S.T., July 16, 1969, at the Commissions Office in Pierre, South Dakota.

Sincerely,

J.W. GRIMES

JWG/BFJ/bw

City Of Huron, South Dakota 57350

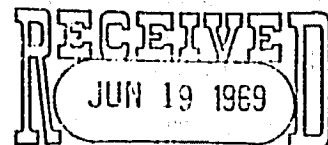


From The Office Of City Engineer

P.O. Box 1369

Phone 605 352-6791

June 18, 1969



Mr. J. W. Grimes
South Dakota Water Resources Commission
State Office Building
Pierre, South Dakota 57501

STATE WATER RESOURCES COMM.
PIERRE, SOUTH DAKOTA

Ref: Your letter dated 6-16-69
City of Huron's Permit
No. 565-3

Dear Mr. Grimes:

Mr. Jones was in my office on June 11th to tell me that he was here to make a final inspection on this well. I advised him that we are not taking water out of it at the present time, but cancellation of the permit was not discussed.

This well is being maintained by the city, pump and motor are in place. The well is connected to the city system and we do not under any circumstances want the permit cancelled.

Please remove such consideration from your 3:00 P.M., D.S.T., July 16, 1969, schedule.

Sincerely,

Glenn B. Housiaux
Glenn B. Housiaux
City Engineer

GBH/kb

565-3

June 26, 1969

Mr. Glenn B. Housiaux
City Engineer
P.O. Box 1369
Huron, S.D. 57350

Dear Mr. Housiaux:

As discussed in our phone conversation of June 24, 1969, the time limit for Water Permit 565-3 of the City of Huron for a municipal well has expired and the permit must either be cancelled or a final inspection made and a water license issued.

As discussed, a water license will be issued for this well as a standby well and consideration of cancellation of the permit will not be scheduled.

The enclosed Form 12, should be completed by you and returned to this office together with recording and filing fees of \$2.00. Water License No. 565-3 can then be issued to the City of Huron.

Sincerely,

DONALD DRISCOLL
Deputy Chief Engineer

DD/bw
Encl: As stated

Permit No. 565-3Water Division 3 JAMES RIVER Water DistrictREPORT OF EXAMINATION OF WORKS
AND/OR APPLICATION OF WATER TO BENEFICIAL USE

TO: Water Resources Commission, State Office Building No. 2, Pierre, South Dakota 57501

I have this day made a thorough examination of the water use system constructed by THE CITY
OF HURON holder
of Permit No. 565-3, bearing date of priority of JANUARY 24, 1959
authorizing the diversion of 2.0 cu. ft. per second of the waters of GROUND WATER
for MUNICIPAL purposes, in BEADLE County.

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

The Water Use System consists of,

- A. Works used to divert the water: 70' DEEP WELL WITH 21" I.D.
CASING.
FAIRBANKS-MORSE PAMONA 8" PUMP, POWERED
BY FAIRBANKS-MORSE 20 H.P. ELECTRIC MOTOR

B. Works used to transport water to place of use,

C. Works used to apply water to beneficial use.

8" MAINLINE FROM WELL TO 16" TRANSMISSION
LINE TO CITY DISTRIBUTION SYSTEM

The system is in the following condition: FAIR

The point of diversion is located 1940' S ^{23°} 05' E OF THE NW
CORNER SECTION 9, T11N, R162W

The works are capable of diverting and conveying to the place of use 2.0cu. ft. per second of water which is to be used for MUNICIPAL

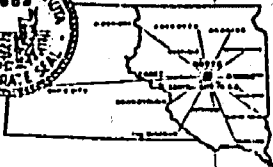
Water has been put to beneficial use to the maximum extent as follows: WELL IS USED
AS STANDBY SUPPLY FOR CITY OF HURON.

comprising a total of _____ acres of land.

Date NOVEMBER 20, 1969

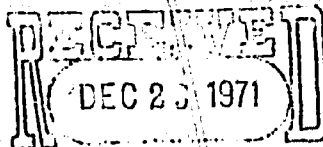
Burton Jones
(Signature)

WATER RIGHT SPECIALIST
WATER RESOURCES COMMISSION



AIRPORT GOVERNING BOARD - CITY OF HURON

MUNICIPAL AIRPORT - HURON, SOUTH DAKOTA 57350



STATE WATER RESOURCES COMM.
PIERRE, SOUTH DAKOTA

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December 17, 1971

South Dakota Water Resources Commission
State Office Building
Pierre, South Dakota

SUBJECT: PROPOSED 1972 CONSTRUCTION PROJECT
W. W. HOWES MUNICIPAL AIRPORT, HURON, SOUTH DAKOTA

Gentlemen:

Prior to initiating a considerable amount of detail planning and design for the 1972 Huron Airport construction program authorized by the citizens of Huron by the affirmative bond election vote in August of this year, the Airport Governing Board, the South Dakota Aeronautics Commission and the Federal Aviation Administration must assure themselves and others that the project will have no adverse economic, social and environmental effects, and that its location will be consistent with the goals and objectives of such airport planning as has been carried out for our community. Hopefully the project will not only avoid contributing to adverse effects, but be, or become, a significant improvement to the economic aspects of the community and perhaps to the environment as well.

We would appreciate your written comments with regard to the possible effects of the proposed project on the water table of the area and any other aspects of natural environment which might be affected by the project and which are of concern to your agency.

Very truly yours,


HURON AIRPORT GOVERNING BOARD
J. H. Ruddy, President

PROPOSED 1972 CONSTRUCTION PROJECT
W. W. HOWES MUNICIPAL AIRPORT
HURON, SOUTH DAKOTA

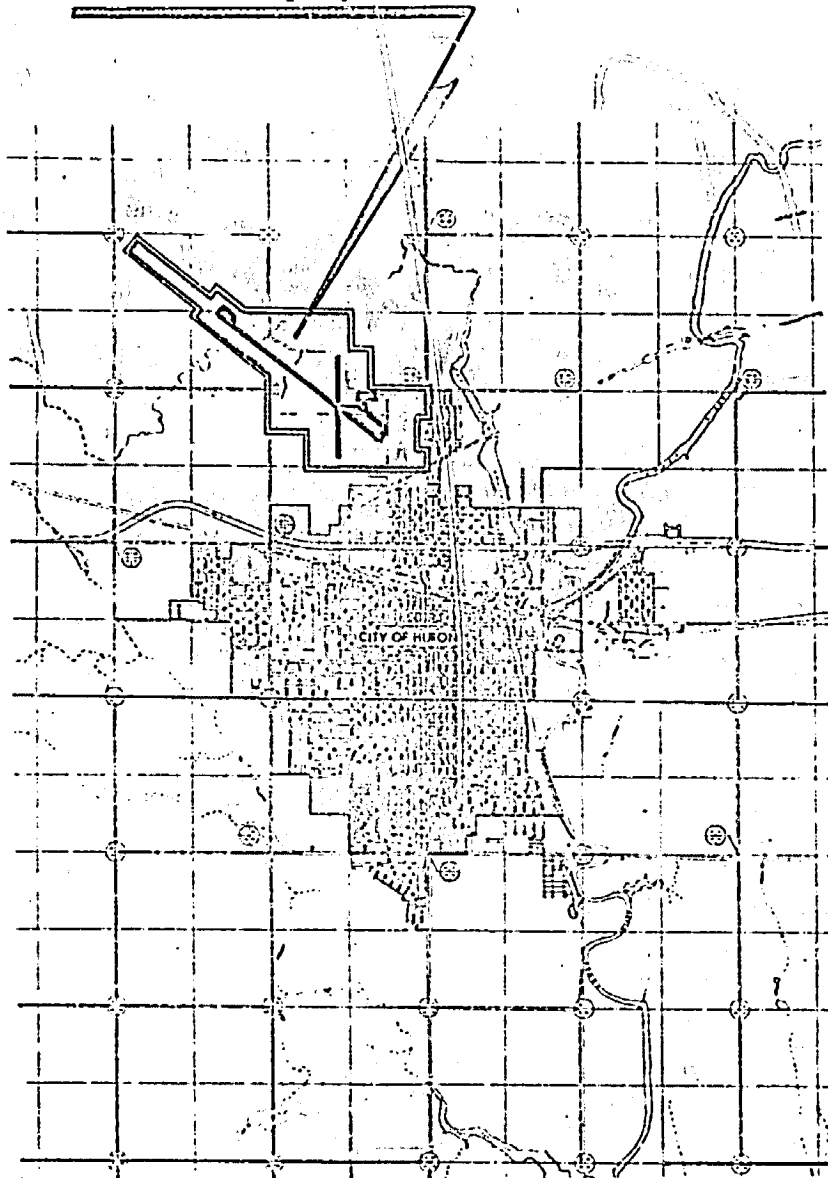
PROJECT DESCRIPTION

The "project" consists of the following improvements conforming to the approved AIRPORT LAYOUT PLAN and, with minor exceptions, the recommendations in the "1969 Airport Study" of the W. W. Howes Municipal Airport, Huron, South Dakota:

1. Grading and drainage for a 500' x 7600' safety area for Runway 12/30.
2. Phase I construction of pavement for 150' x 7200' Runway 12/30 with strength to accommodate Convair 580 or similar aircraft with dual gear and gross aircraft weight of 54,600 lbs.
3. Grading, drainage and pavement of 1300' of parallel taxiway adjacent to the southeast end of Runway 12/30.
4. Grading, drainage and pavement of a turnaround near the northwest end of Runway 12/30.
5. New high intensity runway lighting system for Runway 12/30.
6. Extension of the existing medium intensity taxiway lighting system.
7. Relocation of affected components of the instrument landing system.
8. Acquisition of real property to accommodate the runway extension.
9. Acquisition of real property to accommodate the programmed MALS/RAIL (approach) lighting system for Runway 12.
10. Miscellaneous construction occasioned by or in connection with the foregoing.

Construction of the improvements included in the project will permit unrestricted operation of air carrier aircraft currently in operation at this airport by North Central Airlines and will permit the accommodation of general aviation jet aircraft requiring runway lengths in excess of the current maximum runway length of 5100', will expedite aircraft operations by eliminating the use of the southeasterly 1300' of the active runway as a taxiway, will provide an "off active runway" run-up location on the northwest end of the instrument runway, will improve surface drainage, will modernize an obsolete high intensity runway lighting system, will enhance the utilization of the ILS Runway by lowering the minimum weather requirements governing instrument landings, will enhance the utilization of the runway under cross wind conditions, and will constitute Phase I of the ultimate planned runway improvement to accommodate heavier fan-jet commercial aircraft such as DC-9's, which are in current use in South Dakota by North Central Airlines.

W. W. HOWES MUNICIPAL
AIRPORT SITE
Present & proposed



VICINITY MAP

W. W. HOWES MUNICIPAL AIRPORT
Huron, South Dakota

0

PROPOSED NEW LAND ACQUISITION TO ACCOMMODATE THE
RUNWAY EXTENSION, THE PROGRAMMED PAVEMENT (APPROX)
LIGHTING SYSTEM AND RUNWAY 12/30 RELOCATED MIDDLE MARKER

NEW PROPOSED LOCATION OF
GUIDE SLOPE TRANSITION
ALL RELATED EQUIPMENT

PROPOSED
TURNAROUND

W. W. HOWES

BROADLAND CREEK

DRAINAGE DITCH
TO BE DEEPENED

PROPOSED 96" x 80' CULVERT

EDGE OF PROPOSED PAVED AREAS
(TYPICAL)

EXISTING GUIDE SLOPE TRANSITION
AND ALL RELATED EQUIPMENT
TO BE RELOCATED

SCALE 1"=1000'

SCHOELL, HADSON & VOSLER
ENGINEERS & SURVEYORS
BURTON, SOUTH DAKOTA

PROPOSED NEW HIGH
INTENSITY LIGHTING
SYSTEM ON RUNWAY
12/30.

EXISTING PROPERTY
LINE

MUNICIPAL

EXIST. ASPHALT EXISTING PAVED AREA
(TYPICAL)

EXIST. TAXIWAY

PROPOSED PARALLEL
TAXIWAY

PROPOSED NEW
H.I. INT. TAXI-
WAY LIGHTING
SYSTEM

AIRPORT

DRAINAGE DITCH
TO BE DEEPENED

PROPOSED HIGHWAY
RAILROAD

PROPOSED IMPROVEMENTS
W.W. HOWES MUNICIPAL AIRPORT
BURTON, SOUTH DAKOTA
DEC. 1971.

SOUTH DAKOTA HIGHWAY 37

V.H. Cressman
C.M.

565-3

Decker
Co.

December 28, 1971

Mr. J. H. Ruddy
Airport Governing Board
Municipal Airport
Huron, South Dakota 57350

Dear Mr. Ruddy:

In your letter of December 17, 1971, you request comments upon the effects that proposed modification at the Huron airport may have upon the water table in the area and upon the water oriented environment.

No practical effects related to ground water at the Huron airport or in the vicinity will occur as a result of the proposed project.

Physical characteristics at the Huron airport are such that the usual provisions of airport design and construction will care for surface water run-off, protection of water quality and control of soil erosion as these aspects of the proposed projects are related to stream flows.

Sincerely,

J. W. Grimes

JWG:ls



565-3
753-3

Department of Natural Resource Development

WATER RIGHTS COMMISSION

Joe Foss Building, Pierre, South Dakota 57501

Phone 605/224-3151

March 20, 1978

Glenn B. Housiaux
City Engineer
City of Huron
Huron, SD 57350

Dear Mr. Housiaux:

Recent news releases have reported construction of a new transmission line from the City's West well field into the Huron water treatment plant. We have also received telephone calls from irrigators located near the well field concerning Water Rights held by the City of Huron.

The City of Huron, as you are aware, has two water rights in the area. Water Right No. 565-3 (priority 1-14-59) authorizes one well for 2.0 cfs located 1940' South, 23° 5' East of NW corner Section 9, T110N, R62W. Since only one well is authorized, if the amount of water pumped drops below 2.0 cfs, a second well to pump the difference is not authorized. A new replacement well can be constructed nearby without a permit as long as the old well is abandoned.

The second Water Right, No. 753 (priority 12-23-60) is a future use permit for 4.0 cfs in the E½ Section 8, and W½ Section 9, T110N, R62W. The future use permit reserves up to 4.0 cfs, if it can be developed. However, specific applications to use all or any part of the reserved water must be submitted prior to using any additional wells that may be constructed.

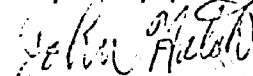
If more than one well is necessary, additional wells could be authorized by making application to use water reserved by your future use permit No. 753-3. Spacing of wells will also need to be considered for any additional wells which are authorized.

We are contacting you on this matter, since priorities are quite critical in the area southwest of Huron. The Water Rights Commission has several applications southwest of Huron in deferred status at this time. Therefore, priorities are very important. The head pressure in the aquifer has declined several feet during the past three dry years, a condition we believe is due to the drought. However, applications are being deferred until additional information is obtained. The City of Huron with the 1960 priority date on its future use permit will be able to obtain permits for additional wells under the future use permit. The City of Huron must be sure that it has permits for any wells that are pumped. Unauthorized wells are illegal wells and subject to shut off in areas such as southwest Beadle County where there are deferred applications and where there have been complaints from domestic well owners.

Page 2
Glenn Housiaux
March 20, 1978

If the City of Huron will be pumping more than one well in the immediate future, be sure that the City has approved Water Rights for additional wells. Please contact me if you have any questions. I thought you should be appraised of the situation before actual problems develop.

Very truly yours,



JOHN HATCH, Chief Engineer
Water Rights Commission

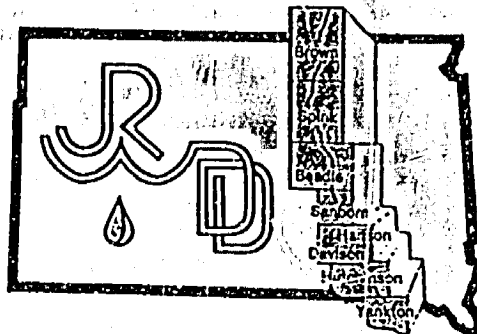
JH/gy

James River Water Development District

STAFF

Jerry Blodenfeld, Manager
Kathy Cronin, Office Manager
Terry Mills, Water Project Coordinator

City Hall P.O. Box 849
Huron, SD 57350
605-352-0600



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May 8, 1990

Mr. John Hatch, Chief Engineer
Water Rights Division
Joe Foss Building
Pierre, South Dakota - 57501

Dear Mr. Hatch:

Thank you for the past assistance of you and your staff relative to James River water right needs.

Recognizing the potential drought problems, Huron's dependence on the James River for water, and a need to better define the water rights of Huron, the City of Huron has requested that we obtain a clarification on Huron's James River water rights.

As such, we are requesting your assistance by answering the following questions:

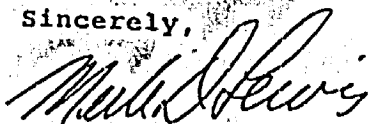
1. Please identify and explain Huron's water quantity rights to the James River. We would appreciate receiving a copy of Huron's water right as part of your answer.
2. We understand that the Bureau of Reclamation owns and holds in reserve certain water rights for the City of Huron. Please identify and explain those water quantity rights.
3. Please explain the necessary steps for Huron to take to get those water rights transferred to the City of Huron. As part of your answer, please explain any implications such a transfer would have on the "PRIORITY DATE" of the water rights.
4. Please identify and explain Sand Lake National Wildlife Refuge's water quantity rights to the James River. We would appreciate receiving a copy of Sand Lake National Wildlife Refuge's water right as part of your answer.
5. In the event that Sand Lake National Wildlife Refuge has water behind their dams, what obligation do they have to allow water to free flow to satisfy Huron's direct or indirect water rights?

6. If Huron is in need of water to fulfill their direct or indirect water rights, can Sand Lake store James River flows before Huron's water right is fulfilled?
7. What is the correlation between South Dakota James River water rights and James River water withdrawals that take place in North Dakota?
8. What protection does South Dakota James River water right holders have against people in North Dakota making withdrawals to the detriment of South Dakota water right holders?
9. Please explain the necessary steps required to allow upstream irrigators to pump water into the James River to supplement Huron's and Dakota Pork's water needs.
10. Would the Department of Water and Natural Resources staff support such an initiative?

John, the City of Huron needs this information to explore possible options for future actions to meet the basic needs of its citizens under a continuing drought cycle. The present condition of the James River, due to the past three years of drought conditions, have prompted the need to seek possible future water solutions and alternatives.

Your assistance in providing this information by May 22, 1990, will enable Huron to begin taking the necessary steps to plan for their future water needs. If you need additional information, you can contact me direct at 352-8411, or through Jerry Biedenfeld at 352-0600.

Sincerely,



Merle D. Lewis, Chairman
James River Water Development District

cc: Norm Ambrosius, Huron Water Commissioner
JH0502

565-3



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

May 25, 1990

Merle D. Lewis, Chairman
James River Water Development District
P.O. Box 849
Huron SD 57350

Dear Mr. Lewis:

I am writing you in response to your letter of May 8, 1990. The following are answers to your questions:

1. The City of Huron has the following water rights:

A) SURFACE WATER:

Water Right No.	Priority Date	Remarks
9-3	April 22, 1914	allows diversion of 5 cubic feet of water per second (cfs) from the James River
9-3A	March 31, 1950	allows 5 cfs diversion from the James River, in addition to No. 9-3
755-3	December 23, 1960	for storage of 600 acre-feet (AF) annually in 3rd Street dam
1022-3*	1936	for storage of 2600 AF annually in 3rd Street dam
2049-3	February 13, 1974	for 2 cfs from the James River during the months of April, May and June when flows are available for irrigation of golf course and for storage of 90 AF annually in Ravine Lake

* Vested Water right claim which has not been validated by the Water Management Board pursuant to SDCL 46-5-49.

May 26, 1990
Merle D. Lewis, Chairman
Page 2

B) GROUNDWATER:

565-3	January 14, 1955	for 2.0 cfs
753-3	December 26, 1960	reserves 4.0 cfs for future use
4296-3	December 26, 1960	uses 0.95 cfs of 4.0 cfs reserved under Future Use Permit No. 753-3
4962-3	December 26, 1960	3.05 cfs, the remainder of water reserved by Future Use Permit No. 753-3

2. The Bureau of Reclamation holds Water Right No. 1027-3 for storage of James River water in the James Diversion Dam as follows:

Transferred 280 acre feet of storage from Vested Water Right Claim No. 1022-3, 3rd Street Dam, to storage in the James Diversion Dam with a priority date of 1936.

Transferred 2100 acre feet of storage from Vested Water Right Claim No. 1023-3, Spink County Dam, to the James Diversion Dam with a priority date of 1937.

2495 acre feet of new storage in the James Diversion Dam with a priority date of March 28, 1963.

Water Right No. 1027-3 requires 20 cfs of inflow to the reservoir to be bypassed for downstream domestic use.

3. The water is stored by the Bureau of Reclamation for the City of Huron. Transfer of the Water Right can be accomplished, without any affect on the priority date, by filing a transfer form and the necessary fees with the Division of Water Rights. Since there may be a contract between the City of Huron and the Bureau of Reclamation, the Bureau of Reclamation would have to agree to any transfer.
4. U.S. Withdrawal No. 1-3, for the Sand Lake National Wildlife Refuge, was filed with the State Engineer on October 30, 1934. The water right claims all the flows of the James River and its tributaries lying within the boundary of Brown County, South Dakota. After construction, the examination of works for the water right stated that Houghton and Columbia Dams provided for water use on 11,347 acres, a total storage of 27,021 acre feet and a total seasonal use of 34,041 acre feet. A certificate of construction of works and appropriation was issued by Dean Loucks, State Engineer, on May 22, 1945, for a maximum amount of 34,041 acre feet during the period of January 1 to December 31, with a

May 25, 1990

Merle D. Lewis, Chairman

Page 3

priority date of October 16, 1934. A second certificate of construction of works and appropriation was issued by Dean Loucks on June 12, 1945, for an annual amount of 61,962 acre feet which we believe replaced the May 22, 1945 certificate.

In 1952, the Bureau of Reclamation inquired about the actual quantity of water granted by U.S. Withdrawal No. 1-3. On April 12, 1952, the State Engineer, Dean Loucks, sent a letter to the Honorable W. J. Burke, Regional Counsel of the Bureau, relative to the inquiry. Mr. Loucks arrived at 30,740 acre feet as the approximate amount. He also stated that this was not a clear cut figure but represents as nearly as possible the amount of water required to operate the refuge.

US Withdrawal No. 1-3 allows the US Fish and Wildlife Service to fill Sand Lake Wildlife Refuge annually to the outlet elevations of Houghton and Columbia Dams. In addition, US Withdrawal No. 1-3 also authorizes irrigation of 5,927 acres of habitat area up to 3 acre feet of water per acre.

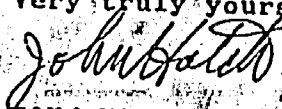
5. Sand Lake Wildlife Refuge has no obligation to release water that was legally stored to satisfy US Withdrawal No. 1-3. If there are inflows from the James River to the Refuge, these inflows or portions of the inflows may have to be bypassed.
6. The City of Huron Water Right Claim No. 9-3 for 5.0 cfs is senior to Sand Lake Wildlife Refuge Water Right. Therefore, Sand Lake should bypass 5.0 cfs. However, the travel time and river conditions from Sand Lake to Huron makes this bypass impractical in most cases.
7. I am not sure what you mean by correlation. The more water that is held or withdrawn in North Dakota, the less water that will be available for South Dakota.
8. There is no compact agreement between South Dakota and North Dakota.
9. Any proposal to pump groundwater into surface water would have to be made through an application. The application would be processed in the same manner as any other water permit application. There is a "best use of water" problem with pumping groundwater into a surface reservoir where up to 50% of the water can be lost to evaporation.
10. We have not supported pumping groundwater to a surface water supply in the past, nor has the Water Management Board.

565-3

May 25, 1990
Merle D. Lewis, Chairman
Page 4

If you have any other questions, please contact us.

Very truly yours,



JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

565-3

5/12/09

Ken Buhler:

Please find the annual water usage for the City of Huron well field from the Warren aquifer. The pages have the year written on them and the yearly total is boxed out with ink.

If you need more information please call.

Vince Juelfs

City of Huron Water/Sewer Supt.

Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Chlorine	12.6	19.0	16.2	17.2	18.2	15.8	18.9	17.2	11.6	11.8	16.4	16.4	17.2	9.0	8.0
NH3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phos.	1071.4	53.5	42.6	47.4	48.1	44.0	45.5	44.5	31.8	33.6	45.6	43.4	47.5	46.0	48.6
KMnO4	244.8	7.6	12.2	9.6	11.2	10.0	10.5	10.1	7.1	7.4	10.0	9.6	10.3	10.1	10.8
Fluoride	53.3	1.4	2.8	2.0	2.3	3.0	2.3	1.6	1.8	1.8	2.1	2.2	1.6	2.5	2.0
Plant	10.7594	0.3032	0.5478	0.3871	0.4962	0.4513	0.4999	0.4763	0.4190	0.3161	0.4387	0.4834	0.4518	0.4660	0.5002
Mid.Dak.	38.5203	0.8413	1.5912	1.1066	1.4177	1.2851	1.4484	1.3655	1.1793	1.0597	1.2566	1.3831	1.3369	1.3305	1.4240
Total	48.2797	1.1446	2.1391	1.4937	1.9139	1.7364	1.9483	1.8418	1.5983	1.4297	1.6953	1.8665	1.7887	1.7964	1.9242

Total	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Chlorine	4.2	2.8	0.0	0.3	0.0	0.1	8.7	12.0	10.4	11.2	17.6	18.0	15.6	11.8	10.2	10.6
NH3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phos.	30.9	14.0	0.0	0.0	0.0	0.0	24.6	31.0	32.5	29.4	48.5	53.5	51.5	38.0	27.9	32.6
KMnO4	7.0	3.1	0.0	0.0	0.0	0.0	6.2	7.2	8.3	7.6	11.3	12.8	12.1	8.4	6.3	7.7
Fluoride	2.1	1.2	0.0	0.0	0.0	0.0	1.3	1.5	1.3	2.0	1.9	2.5	2.6	1.6	1.9	2.0
Plant	0.3216	0.1554	0.0000	0.0000	0.0000	0.0000	0.2322	0.3570	0.3408	0.3120	0.4650	0.5033	0.4957	0.3783	0.2744	0.3167
Mid.Dak.	0.9199	0.9237	1.7127	1.7920	1.8232	1.7801	0.8956	1.0159	0.9660	0.8746	1.3251	1.4121	1.4207	1.0721	0.7878	0.8860
Total	1.2414	1.0791	1.7127	1.7920	1.8232	1.7801	1.1278	1.3729	1.3068	1.1866	1.7901	1.9155	1.9163	1.4504	1.0622	1.2026

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Yearly Total
Plant	13.3309	11.5457	12.2578	12.3133	17.4909	23.2182	28.0877	22.4756	16.6429	13.4986	9.5766	10.7594	191.1976
Mid.Dak.	32.7310	32.9387	34.9265	35.0225	50.0367	66.5093	82.2258	64.8271	48.1118	45.6730	40.3486	38.5203	571.8710
Total	46.0619	44.4844	47.1844	47.3357	67.5276	89.7275	110.313	87.3028	64.7546	59.1716	49.9252	49.2797	763.0686

2006

Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Chlorine	287.5	9.8	4.8	10.0	11.0	11.4	9.2	11.5	3.1	8.3	11.0	8.6	11.8	10.7	8.0
NH3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phos.	824.0	25.0	22.6	25.4	30.0	28.6	27.9	26.6	21.0	20.0	34.4	26.6	34.5	32.1	22.5
KMnO4	209.5	6.2	5.6	6.6	7.4	7.2	7.2	6.8	5.4	5.2	8.3	6.6	8.5	8.1	5.7
Fluoride	42.2	1.1	2.1	0.6	1.3	1.4	1.9	1.9	0.7	0.8	1.0	1.5	1.6	1.6	1.1
Plant	8.7137	0.2590	0.2132	0.2745	0.2890	0.3240	0.2710	0.3032	0.2202	0.2149	0.3250	0.2595	0.3327	0.2813	0.2206
Mid.Dak.	47.1860	1.4233	1.1719	1.4823	1.5954	1.7922	1.4830	1.6734	1.2017	1.1982	1.7883	1.4289	1.8127	1.5510	1.2022
Total	55.8997	1.6822	1.3852	1.7569	1.8845	2.1162	1.7541	1.9768	1.4218	1.4131	2.1133	1.6884	2.1454	1.8322	1.4228

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Chlorine	7.2	10.8	9.4	11.4	12.4	8.5	7.8	7.7	8.3	7.0	11.5	10.0	11.8	8.0	7.6	10.2
NH3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phos.	21.5	32.0	22.5	34.9	25.1	31.0	20.4	21.6	21.0	21.0	31.0	27.4	33.5	21.5	20.6	32.4
KMnO4	5.5	8.1	7.4	8.5	6.3	7.9	5.3	5.4	5.6	5.3	8.1	6.9	8.3	5.4	5.3	8.0
Fluoride	1.4	1.5	1.8	1.6	1.4	1.0	1.9	0.5	1.0	1.0	1.3	1.6	2.1	0.9	1.4	1.4
Plant	0.2154	0.2932	0.3111	0.3241	0.5337	0.3176	0.2239	0.2235	0.2265	0.2197	0.3065	0.3046	0.3182	0.2462	0.2180	0.3200
Mid.Dak.	1.1775	1.5817	1.7303	1.7906	2.3060	1.7373	1.2330	1.2178	1.2372	1.1917	1.6726	1.6847	1.7316	1.3518	1.1867	1.7512
Total	1.3929	1.8749	2.0414	2.1146	2.8397	2.0549	1.4569	1.4414	1.4637	1.4114	1.9791	1.9893	2.0498	1.5980	1.4047	2.0713

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Yearly Total
Plant	13.1149	11.4760	11.3311	15.3552	22.7281	22.4790	32.9231	20.7019	15.2628	12.9359	8.4276	8.7137	195.4491
Mid.Dak.	38.0373	35.5456	37.5103	38.1815	46.0772	54.1452	79.9144	58.3517	56.1936	53.6347	46.4445	47.1860	591.2220
Total	51.1522	47.0216	48.8414	53.5368	68.8053	76.6242	112.8375	79.0536	71.4562	66.5706	54.8721	55.8997	786.6711

2007

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Total	292.1	14.2	12.6	9.6	11.0	7.6	6.8	9.3	9.7	10.1	8.4	12.2	7.0	5.5	6.2
Chlorine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH3	838.6	42.4	41.6	26.9	31.5	21.5	20.0	25.0	28.5	26.4	23.1	29.4	18.5	18.1	18.1
Phos.	182.0	8.9	8.0	5.9	7.1	4.8	4.4	5.8	5.7	5.8	4.9	6.5	4.0	3.9	4.5
KMnO4	36.7	2.2	1.9	1.3	1.3	1.0	1.0	1.0	1.1	0.7	1.1	1.3	0.8	1.0	1.0
Fluoride	8.3533	0.4188	0.4036	0.2567	0.3058	0.2093	0.1926	0.2602	0.2794	0.2777	0.2386	0.3150	0.1930	0.1873	0.2015
Plant	47.3673	1.6268	1.5656	1.3635	1.8118	1.2520	1.1520	1.5699	1.6657	1.6799	1.4334	1.8827	1.1666	1.1286	1.2187
Mid.Dak.	55.7206	1.9692	1.9522	1.6202	2.1175	1.4613	1.3446	1.8301	1.9451	1.9576	1.6720	2.1977	1.3596	1.3159	1.4203
Total															

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Total	11.8	9.8	10.6	11.0	9.0	7.2	11.6	9.0	13.1	7.0	6.5	7.2	6.6	10.2	8.3	10.8
Chlorine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH3	32.4	28.5	33.0	31.6	25.4	22.6	30.6	29.9	30.0	18.0	18.9	20.1	20.0	30.5	27.5	28.0
Phos.	7.2	6.2	7.3	7.0	5.8	5.0	6.6	6.4	6.0	3.7	3.9	4.1	4.1	6.1	6.2	6.3
KMnO4	1.4	1.3	1.3	1.2	1.3	0.9	1.6	1.1	1.5	0.7	1.0	0.1	0.7	1.5	1.1	1.4
Fluoride	0.3089	0.2685	0.3139	0.3019	0.2469	0.2175	0.3147	0.3127	0.2975	0.1841	0.1925	0.2066	0.2050	0.3012	0.2679	0.2748
Plant	1.8536	1.6103	1.8731	1.8239	1.4686	1.2966	1.9035	1.8928	1.7849	1.0956	1.1469	1.2382	1.2401	1.8224	1.6173	1.6215
Mid.Dak.	2.1605	1.8788	2.1870	2.1258	1.7155	1.5140	2.2182	2.2055	2.0824	1.2796	1.3394	1.4448	1.4451	2.1236	1.8852	1.8963
Total																

Yearly Total
 179.4870
 658.8633
 838.3503

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Plant	8.6700	8.7687	8.8141	8.4521	10.7293	14.2115	26.5295	27.7998	26.9527	19.3454	10.8609	8.3533
Mid.Dak.	48.4258	48.5238	48.5714	50.2710	59.6088	64.9361	77.2118	74.2326	49.1857	47.3904	42.1386	47.3673
Total	58.0958	57.2925	57.3855	58.7230	70.3381	79.1476	103.7413	102.0324	76.1383	66.7358	52.9995	55.7206

2008