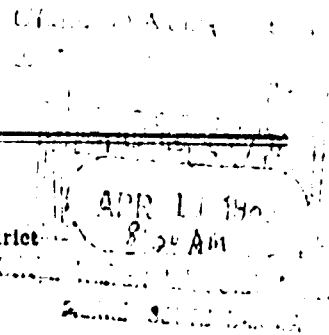


1. Considered 5-18, 1960
2. Name of Applicant E. M. Sweetman
3. Post Office Address Sw Falls
4. Amount of water claimed 5.64
5. Source of water supply ground water
6. Water to be used for irrigation
- Acres to be irrigated 395
7. Water to be diverted and used in Minnesota County about
6 N miles of Sw Falls
8. Proof of Publication Received ☒
- Not Received ☐
9. Application Approved ☐
- Subject to ☐
- Not Approved ☐
- Action deferred ☐
10. Remarks:

No. 1271-3
 Water Division No. 3 BIG SIOUX RIVER District
 (Blanks to be filled by the Engineer for the W. R. C.)



APPLICATION FOR PERMIT To appropriate Water within the State of South Dakota

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

1. Name of applicant E. M. Sweetman
Falls
 Postoffice address Twin Oaks, Sioux /, County Minnehaha, State South Dakota

- I. If a corporation _____
 (a) 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:
 (a) Method of accomplishing work (Whether by contract, employment of others, or by direct labor)
contract
 (b) Cash on hand, \$ 12,000.00 (c) Treasury stock, \$ _____
 (d) Bonds to be issued, \$ _____ (e) Other resources, \$ _____

2. Name of diversion work No diversion
 3. Amount of water claimed 3 cubic feet per second per well
 4. Source of water supply underground wells
 5. Location of point of diversion No diversion
 _____ on _____ bank _____ County.
 6. Annual period or periods during which water is to be used May 1 to September 1
 7. To be used for:

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

- (a) Number of acres to be irrigated 395 acres.

- (b) Legal subdivisions to be irrigated See attached supplemental sheet

(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.) irrigating farm land

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

- (a) Nature of use None

 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 887-3

8. Estimated cost of work:

(a) Head Gates, \$----- (b) Pumping plant, \$-----
 (c) Fluming, \$----- (d) Canal-earth, \$----- Rock, \$-----
 (e) Other structures (w) Wells \$12,000.00 Total, \$-----

9. Description of diversion works:

I. Nature of works: (Reservoir, dam, ditch, flume, pumping plant, etc.)
 None

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 highwater 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 ----1 month---- years.

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

12. Choice of newspaper for publication of notice of intention to appropriate
 Sioux Falls Argus Leader

STATE OF SOUTH DAKOTA
 County of MINNEHAHA } ss.

I, E. M. Sweetman
 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 E. M. Sweetman

Subscribed and sworn to before me this 5 day of April 10 66

Notary Public (or other qualified officer.)

R 50 W

R 49 W

R 49 W

T 102 N

5

3

8

10

17

16

15

21

22

RENNER

RENNER CORNER

HIGHWAY
77

BIG SIOUX RIVER
20
800'
1050'
127 ACRES
1040'
R.C. SWEETMAN
1050'
800'

SILVER CREEK

SILVER CREEK

EVELYN SWEETMAN

236 ACRES

RICHARD
GERALD
SWEETMAN
159 ACRES

• INDICATES WELLS

PART OF MAPLETON TOWNSHIP			
MINNEHAHA COUNTY, S.DAK.			
CITY OF SIOUX FALLS RAYMOND JORGENSEN, R.L.S.			
DRAWN BY R.N.J.	CHECKED BY R.N.J.	SCALE: 4" = 1 MILE	FILED
APPR. BY R.N.J.	FIELD DATA R.N.J.	SHEET 1 OF 1	FILED

MAP NO 887-3

APPL NO 1270-3

Remarks by State Water Resources Commission:

FOUR OF THE WELLS UNDER THIS PERMIT ARE LOCATED ON LAND TO WHICH THE CITY OF SIOUX FALLS HAS PRIORITY RIGHTS TO THIS WATER UNDER FUTURE USE WITHDRAWAL PERMITS, AND THIS APPLICATION IS APPROVED SUBJECT TO THESE PRIOR RIGHTS, IF OR WHEN THE CITY DEVELOPS THE RESERVED WATER SUPPLY.

STATE OF SOUTH DAKOTA
County of HUGHES ss.

Pierre, South Dakota, MAY 23, 1966

This is to certify that the foregoing application was received by the Commission at 8:15 o'clock
9 a.m. upon the 23RD day of FEBRUARY, 1966

State Water Resources Commission

By:

Sydney J. Jones
for Chief Engineer, Executive Officer

Number of permit 1271-3

Date of first receipt of application FEBRUARY 23, 1966

Date of return to applicant for correction, amendments or changes required as follows: MARCH 4, 1966

Date of receipt of corrected application APRIL 11, 1966

Date from which applicant may claim right FEBRUARY 23, 1966

Approved MAY 18, 1966, Recorded in Book 9 Page 126

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 JUNE 3, 1966
- 2nd. The whole of said work is to be completed on or before JUNE 18, 1966
- 3rd. The limit of time for proof of beneficial use of water appropriated in accordance herewith is JUNE 18 MAY 18, 1967 EXTENSION APPROVED 7-20-66
- 4th. The water appropriated shall be used for the purpose of IRRIGATION

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 5.64 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 exercise 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 MAY 18, 1967; said water to be used during the following described annual period:

MAY 1 TO SEPTEMBER 1
Witness my hand this 23RD day of MAY, 1966.

State Water Resources Commission

By:

W. C. Jones
Chief Engineer, Executive Officer

Certificate of Construction Issued NOVEMBER 26, 1968

Water License Issued NOVEMBER 26, 1968

- 7.(b) The Southeast Quarter ($SE\frac{1}{4}$) and the East Half ($E\frac{1}{2}$) of the Southwest Quarter ($SW\frac{1}{4}$) of Section 49, Township 102, Range 49; and the North Half of the Northeast Quarter ($N\frac{1}{2}NE\frac{1}{4}$) and the East Half of the Northwest Quarter ($E\frac{1}{2}NW\frac{1}{4}$) of Section 9, Township 102, Range 49, Minnehaha County, South Dakota

DIVERSION POINTS:

WELL #1	1050' W	1500' S	OF THE E $\frac{1}{4}$ CORNER	SECTION 49,	TOWNSHIP 102,	RANGE 49
#2	2270' W	1500' S	" " "	" "	" "	" "
#3	3370' W	1500' S	" " "	" "	" "	" "
#4	1050' W	1500' S	OF THE NE CORNER	SECTION 9,	TOWNSHIP 102,	RANGE 49
#5	800' W	1500' S	OF THE CORNER OF	" "	" "	" "
#6	800' W	1050' S	OF	" "	" "	" "

Form 2A — Wells (Supplement to Form 2)

9. (Continued)

III. Well Specifications

(a) Hole and casing

Size of drill hole or excavation 30" , Depth 40' - 50'
 Type of casing Steel -- to be removed
 (wood, concrete, steel, etc.)
 Size of casing , Thickness of casing
 Length of casing . If collection gallery, length, size and depth of
 gallery

(b) Screens

Type of perforated screen Louvred Galv.
 Size of perforated screen 15" 20' - 30'
 (diameter) (length)
 Thickness of gravel pack 8" , length of gravel pack. 20' - 30'

(c) Water Bearing Materials

Distance to water 15' - 22' Character of water bearing materials
 Fine sand to very coarse sand and gravel.

Thickness of water bearing material 20' - 30'

(d) Pump and Motor

Type of pump Centrifugal
 (centrifugal, propeller, mixed flow, etc.)
 Name of pump Turbine , size 8" - 10"
 Kind of motor Electric
 (gasoline, electric, diesel, etc.)
 Horsepower 10 HP , Name of Motor G.E. or U.S.

(e) Complete well 500 GPM

Capacity 500 GPM at drawdown of 8' Estimated cost \$1,000
 well only

(f) Owner of land upon which well is located E. M. Sweetman

Twin Oaks, Sioux Falls, South Dakota
 Address

(g) Distance to nearest existing wells

On same owner's property 100 rods On property owned by others 160 rods

Permit No. **127193**Water Division No. **3** **BIG SIOUX RIVER** District**Certificate of Completion of Works**

TO ALL WHOM IT MAY CONCERN:

This is to Certify, That **E.M. Sweetman**

of **Sioux Falls** County of **Minnehaha** and State of **South Dakota**, the holder, of Permit No. **1271-3** issued upon Application No. **1271-3**, bearing date of priority of **February 23, 1966**, authorizing the diversion of **5.64** cu. ft. per second of the waters of **ground water**, County of **Minnehaha**, State of South Dakota, at **points in the NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ and NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 4, and in the NE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 9, all in T102N, R49W**, for **irrigation**

purposes, has fully 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 **6.0** cu. ft.

per second of water; and that the lands proposed to be irrigated by the use of said water are described as follows, to-wit: **All in T102N, R49W**

Section 4	E$\frac{1}{4}$ SW$\frac{1}{4}$	60 acres
	SE$\frac{1}{4}$	155 acres
Section 9	N$\frac{1}{4}$ NE$\frac{1}{4}$	80 acres
	E$\frac{1}{4}$ NW$\frac{1}{4}$	80 acres
Total		395 acres

Witness my hand this **26th** day of **November** A. D. 19 **68**

State Water Resources Commission

By:

J.W. GRIMES
Chief Executive Executive Officer

STATE OF SOUTH DAKOTA

WATER LICENSE No. 1271-3

WHEREAS, On the 23rd day of February A. D. 1966
E.M. Sweetman
 of ~~XXXX~~ Sioux Falls County of Minnehaha and State of
South Dakota duly made application (No. 1271-3) to us for a permit to use 5.64
 cubic feet per second of the waters of ground water
 County of Minnehaha, State of South Dakota, for irrigation
 purposes; and

WHEREAS, On the 23rd day of May A. D. 1966
 Permit No. 1271-3 was issued to said applicant for the diversion of said water, and providing for the
 completion of the works of diversion therein described on or before the 18th day of
June A. D. 1967 and for the application to beneficial use of said
 water on or before the 18th day of June A. D. 1967
 and,

WHEREAS, On the 21st day of November A. D. 1968
 the holder of said permit duly made proof of the completion of adequate works for the diversion of 6.0
1271-3
 cubic feet per second of said waters, as evidenced by our Certificate No. 1271-3
 dated November 26, 1968 confirming the completion of works of sufficient capacity for
 diverting and conveying to the place of intended use 6.0 cubic feet per second of water, with date of
 priority of February 23, 1966 ~~XXXX~~ and,

WHEREAS, On the 21st day of November A. D. 1968
 proof was duly made of the application to beneficial use of 5.64 cubic feet per second of said water;
for irrigating 395 acres in Portions of Sections 4 and 9, T1C2N, R49W.

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 E.M. Sweetman
of Sioux Falls the holder and owner of said permit No 1271-3
a water right, dating from February 23, 1966 to the use of 5.64
cubic feet per second of the waters of ground water
in the County of Minnehaha and State of South Dakota, or so much thereof as may be
necessray for the purposes hereinbelow mentioned, to be diverted at points in the NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$,
NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 4, and in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 9, T102N, R49W.
and conducted to and upon portions of Sections 4 and 9, T102N, R49W, more specifically
described in the Certificate of Completion of Works

for the purpose of irrigation, subject to any limitations listed in the
Permit to Appropriate Water, and

subject, however, to the laws of the State of South Dakota applicable to a license for the use of the waters of the
State, and subject, also to the local or community customs, rules and regulations which have been or may be
adopted from time to time by a majority of the users from a common source of supply, canal or lateral from
which such water may be taken, when such rules and regulations have for their object the economical use of such
water.

WITNESS, My hand and seal of our office at Pierre, South Dakota,
this 26th day of November A. D. Nineteen
Hundred and Sixty-eight.

State Water Resources Commission

By:

J..W. GRIMES
Chief Engineer, Executive Officer

STATE OF SOUTH DAKOTA

Water License No. _____

To _____

Source of Supply _____

County _____

Amt. _____ c. f. s.

Point of Diversion _____

Place of Use _____

Purpose _____

Date of Priority _____

Recorded _____

In Book _____ of _____ Page _____

on or before
(First Publication April 21, 1966)

APPROPRIATION OF WATER

Office of State Water Resources Commission,

Pierre, S. Dak., April 12, 1966

Notice is hereby given that E. M. Sweetman whose postoffice address is Sioux Falls 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 5.64

cubic feet of water per second of time from the ground water are through the Sweetman #2

the point of diversion of which is to be located on the at points in the NE $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ & NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 4, & at points in the NE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ & NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 9, in the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 9

Twp. 102N Range 49W Said water to be used for the purpose of providing irrigation on the following described land:

SE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, Section 4; N $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$ Section 9, T102N, R49W

~~XXXXXX~~

~~XXXXXXXXXX~~
purposes:

This application will be taken up by the State Water Resources Commission at their office at Pierre for consideration upon the 18th day of May, 1966 at 2 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:

BURTON F. JONES
Water Right Specialist

CC: W. H. Leopard, Publisher
Argus Leader
Sioux Falls, S. D.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA }
County Minnehaha } ss.

W. T. Haggard being duly sworn, deposes and says the annexed printed copy of Notice of Intention to Appropriate Water was taken from the _____
Sioux Falls Argus Leader 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 Sioux Falls County of _____
Minnehaha and State of South Dakota; that the said notice was published in said newspaper on the following dates:

April Thursday 14, 1966

April Thursday 21, 1966

April Thursday 28, 1966

May Thursday 5, 1966

in each and every issue of the full number thereof, the first publication being made on the 14th day of April 1966 and the last publication on the 5th day of May 1966, upon which days or times of publication aforesaid the newspaper was regularly published, and that during the whole time of said publication he was Comptroller the printer and publisher of the said newspaper.

W T Haggard
 Subscribed and sworn to before me this 11th day of May A. D. 19 66

Erica M. Taggart
 Notary Public Minnehaha County, S. D.

APPROPRIATION OF WATER
 Office of State Water Resources Commission, Pierre, S. Dak., April 12, 1966.
 Notice is hereby given that R. C. Sweetman whose postoffice address is Sioux Falls, S. Dak., has made application in accordance with the provisions of the water laws of South Dakota for a permit to appropriate for beneficial use 1.80 cubic feet of water per second of time from ground water through the Sweetman No. 1 the points of diversion of which are to be located in the NW 1/4 SE 1/4 and in the SW 1/4 of the SE 1/4 of Section 20 Twp. 102N Range 49W. Said water is to be used for the purpose of providing irrigation on portions of the following described land: W 1/2 SE 1/4 and E 1/2 SW 1/4, Section 20, T102N, R49W.
 This application will be taken up by the State Water Resources Commission at their office at Pierre for consideration upon the 18th day of May, 1966, at 2 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:
 BURTON F. JONES
 Water Right Specialist
 (April 14, 21, 28 & May 5)

STATE WATER RESOURCES COMMISSION
 PIERRE, SOUTH DAKOTA

Erica M. Taggart

Notary Public
 Minnehaha County, S. D.

BEST IMAGE POSSIBLE FROM POOR ORIGINAL

File 1271-3

SECTION FROM WATER RESOURCES COMMISSION

OF THE CITY OF MINNEAPOLIS

IN THE MATTER OF THE CITY OF MINNEAPOLIS

VS. THE BOARD OF WATER RESOURCES

IN THE MATTER OF THE CITY OF MINNEAPOLIS

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for the preparation of detailed studies of the
of the requested appropriation of water for
and proposed development of the hydrology
supply system. It has been necessary, therefore,
and copies prepared for other purposes.
major sources of this information are as follows:

1. Report of Investigation No. 56, Grand River
basin of the Sioux Falls Area, South Dakota
by Petrock and Olson, March, 1947. This report
summarizes the basic hydrological and geological
information of the area.
2. Water Supply for the City of Sioux Falls by
R. L. Dragstedt, February, 1963. This report sum-
marizes the development of the municipal water
supply system.
3. Report on Sources of Supply, Sioux Falls, South
Dakota by Gordon and Hansen, May, 1961. This
report summarizes the program for the continued
development of the water supply system.

General and Historical Data

The City of Sioux Falls depends for its municipal
water supply upon the ground water in the unconsolidated
alluvium in the alluvial stream bed of the Big Sioux River
and also of the Big Sioux River and its tributaries.
The capacity of Sioux Falls and the available ground

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and the discharge of such as the underground
water has seepage upon the stream flow as well
as the direct formation of water into the
stream. The situation on the water side, the stream
is a clear and pure and water supplies directly
to the city, therefore, is of great interest to the city.

The public water supply for the city from its beginning was developed from the unconsolidated formations.

water development for public water supply purposes.

1939, when the South Dakota Water Control
Commission a well in the NW 1/4 of Section 36, Township 101 N,

1947, the mid-level development dates to 1903-4, which included Co. 1, which comprised 6-inch circular wells

...the City had continued to construct walls for the

...of the underground supply network goes with
...the entire water supply needs of the City. The

is indicated by the following tabulation:

Serial	Date of Constitution	Type	Remarks
1	1903	Tubular	Abandoned
2	1909	Galesea	Abandoned in 1921
3	1911	Galesea	
4	1913	Galesea	Converted to Buoy in 1916
5	1921	Heavy	Abandoned in 1934

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No.	Date of Examination	Type of Remarks
28	1955	Examination
29	1955	Runway
30	1956	Runway
31	1957	Runway
32	1957	Runway
33	1957	Runway

The type of faults constructed are of particular
importance and relate to the geology of the formation.

A brief description of the geological structure is
as follows:

The Big River Valley was initially formed
by a tectonic action in the limestone and quartzite of the
Black Mountain. During the extensive ice age,
glacial overwash covered the valley with a thick
fine black sandy clay which ultimately formed
the natural base for the present surface.
The natural gravels in the valley were
and down into the crevices the valley had formed
the north, south limits of the aquifer were defined
by the firsts resulting from faulting during
glaciation. The glacial ice sheet, at the end
of the glacial period, covered a valley in the
stream bed which cut the surface and present
surface. As the ice sheet retreated, moving ac-
ross of the melt waters deposited layers of sand
and gravel in the stream bottom, filling the valley
at the top of the natural quartzite surface.
The formation of the glacial period, along
the valley bottom deposited an additional 10 feet of
sand, silt, and clay on top of the sand and
gravel base, forming an aquifer as it presently
exists.

The upper bearing material which is approx-
imately 10 feet in thickness is a mixture of sand
and gravel. The present surface is composed of
sands and gravels which has been formed by
glacial deposition with fine sand, clay, and silt.

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1. A section does not extend over the entire
length of the aquifer, ground under the
city is both shallowly and locally water-
bearing, and the water is of poor quality.

2. The water in the aquifer is of poor quality,
and is not suitable for drinking purposes.
The water is of poor quality, and is not
suitable for drinking purposes. The water
is of poor quality, and is not suitable for
drinking purposes. The water is of poor
quality, and is not suitable for drinking
purposes. The water is of poor quality,
and is not suitable for drinking purposes.

3. Concerning the availability of other sources, the report
concludes that the following:

a. The city can supply water from the
city of Council Bluffs, the deep well at
Council Bluffs has to be considered. The city
can supply water from the city of Council
Bluffs, the deep well at Council Bluffs has
to be considered. The city can supply water
from the city of Council Bluffs, the deep
well at Council Bluffs has to be considered.

Wells drilled anywhere within the vicinity of
Council Bluffs will eventually encounter a pink sand
the which belongs to the Sioux formation. In some
cases it can be determined, this formation is approx-
imately 1500 feet thick. Some of the water in the
aquifer is of good quality for ordinary household
uses. The formation also supplies water to the
city of Council Bluffs. The water is of poor
quality, and is not suitable for drinking
purposes. The water is of poor quality,
and is not suitable for drinking purposes.
The water is of poor quality, and is not
suitable for drinking purposes. The water
is of poor quality, and is not suitable for
drinking purposes. The water is of poor
quality, and is not suitable for drinking
purposes. The water is of poor quality,
and is not suitable for drinking purposes.

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The design of a large supply. There is a large amount of machinery and equipment in the plant. The design of the plant is such that it can be expanded in capacity at any time. The design of the plant is such that it can be expanded in capacity at any time.

The design of the plant is such that it can be expanded in capacity at any time. The design of the plant is such that it can be expanded in capacity at any time. The design of the plant is such that it can be expanded in capacity at any time.

1. Page 6. "The design of the plant is such that it can be expanded in capacity at any time. The design of the plant is such that it can be expanded in capacity at any time. The design of the plant is such that it can be expanded in capacity at any time."

2. Page 7. "The design of the plant is such that it can be expanded in capacity at any time. The design of the plant is such that it can be expanded in capacity at any time. The design of the plant is such that it can be expanded in capacity at any time."

3. Page 16. "As a result of such extensive operation, the writer (Bergman) in 1933 developed a new design aimed to take account of such factors. The design provides for a unit in which the only moving parts are the pistons and rods and are of a type which could readily be replaced at any time and so restore capacity. The design is such that it can be expanded in capacity at any time. The design of the plant is such that it can be expanded in capacity at any time. The design of the plant is such that it can be expanded in capacity at any time."

BEST IMAGE POSSIBLE FROM POOR ORIGINAL

... the collection near the bottom ... Prevention ...
... the ... for ... and ... the ...
... for ... treatment ... and ...
... with ...

The City, as so outlined in the ... documents, has ...
... observed and improved the type of well con-
... in order to provide for efficient management of
... available aquifer.

Development and Extension of Future Water Supply

In 1900 the approximate area in which the municipal
water supply system was founded, the population of St. Louis
was about 20,500 persons. In 1955, when the estimated
population was 72,100 persons and considerable urban develop-
ment was occurring beyond the present city limits, the
demands for water service to, and conservation of, these areas
within the city are increasing. The anticipated urban area,
based on recent studies, is shown on Figure 1 and the esti-
mated population, as shown on Figure 2, in the year 2000
is 100,000 persons.

The record of annual average and maximum day water
consumption, together with the anticipated future water con-
sumption, are shown on Figure 3. These data show that the
annual average water consumption in St. Louis has doubled in
the last 25 years and the maximum day water consumption is

FIGURE 1

S.O.H. NO. 301A



LEGEND

- CITY LIMITS
- - - OUTLYING AREAS BOUNDARY

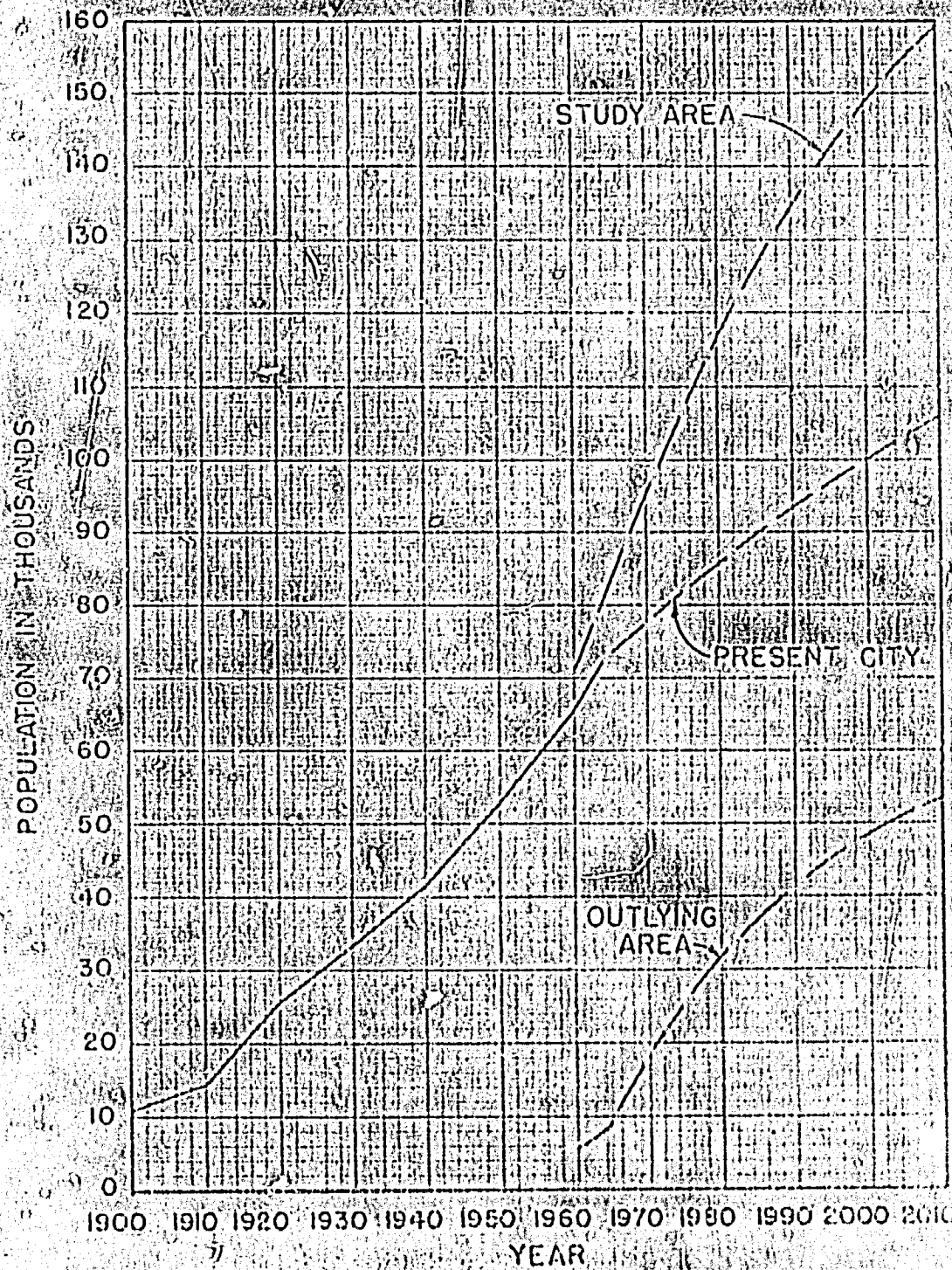
SIOUX FALLS S.D.

URBAN AREA

JUNE, 1946

GRIFFLEY AND HANSEN
ENGINEERS

FIGURE 23



SIoux FALLS S.D.

POPULATION RECORD
AND FORECAST

JUNE, 1966

REELEY AND HANSEN
ENGINEERS

BEST IMAGE POSSIBLE FROM POOR ORIGINAL

GRIFFLEY AND HANSEN

CHICAGO, ILL.

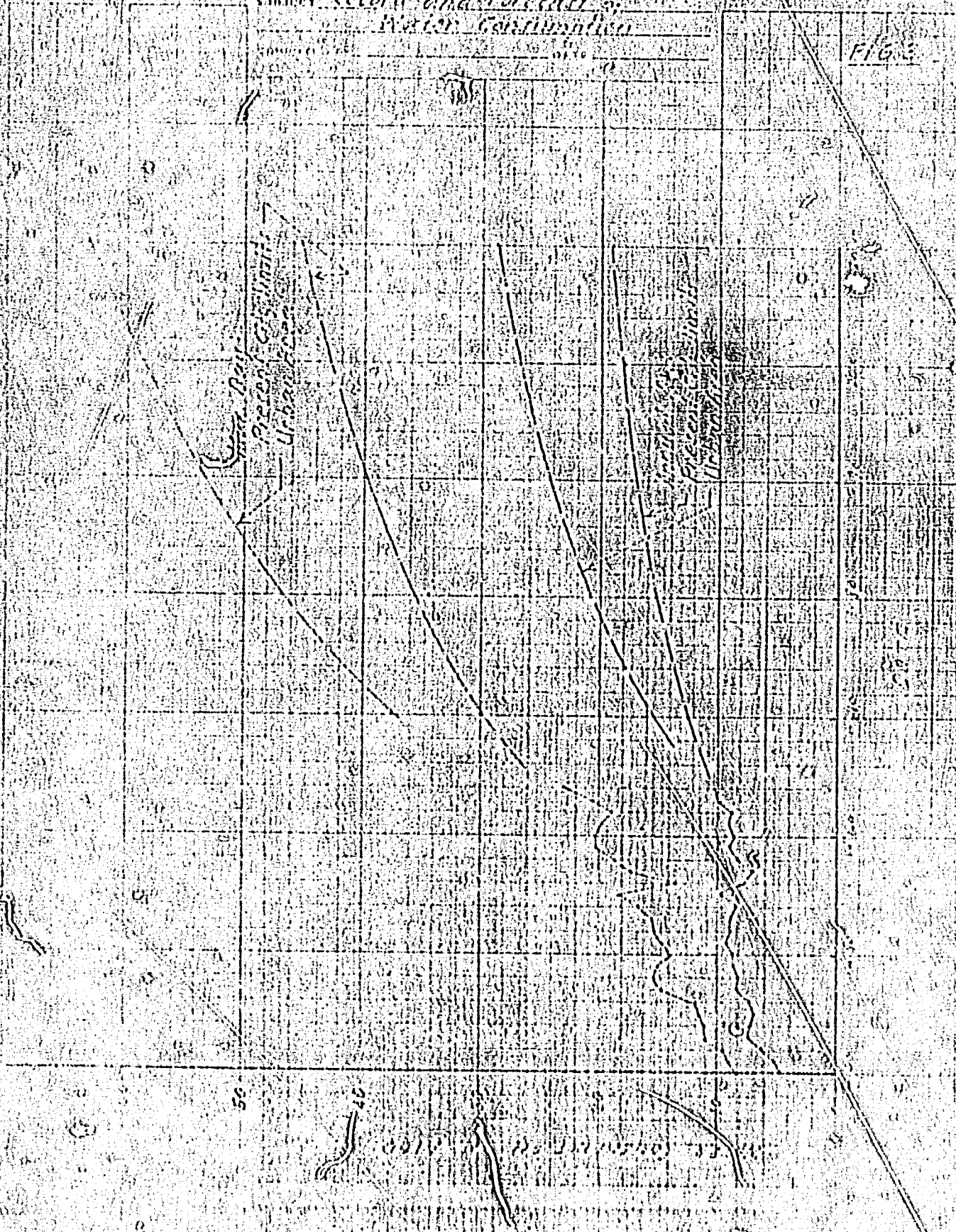
RECORD

RECORD

Sioux Falls, S.D.

Record and Forecast of
Water Consumption

FIG. 3



BEST IMAGE POSSIBLE FROM POOR ORIGINAL

is projected that by 1930, the actual
population of the urban area will be about
1,000,000, and by 1940, the population
will be about 1,500,000. The urban area will
be about 1,000,000 in 1930 and 1,500,000 in 1940.

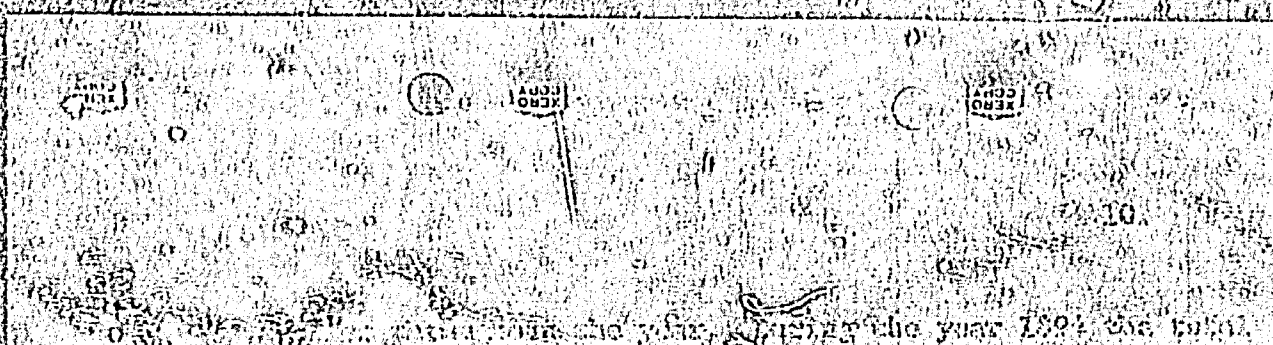
...the City's and for the...
...the City's and for the...
...the City's and for the...

4. A. Hydroponics and B. Controlled Atmosphere

The Report on Sources of Supply for the City of Detroit is prepared by the City and the State of Michigan, 1961, and contains available data on stream flow and volume of water from the unimproved and reservoirs. These data indicate that stream flow during much of the year may be reduced significantly due to the effects of drought and the effects of the storage in the aquifer. It is suggested that the water in storage be conserved in order to be available during periods of drought. It is recommended that the City of Detroit be authorized to purchase additional water for public use and to right-of-way for long-term storage. In this case, the water will be transferred to the business water supply and the water will be stored in the aquifer.

11-1 may be available for use as for exchange of

BEST IMAGE POSSIBLE FROM POOR ORIGIN



During the year 1954 the total precipitation was 19.4 inches and during the years 1955 and 1956 the total precipitation was 20.1 inches. The average annual precipitation is 20.1 inches.

These variations of precipitation are not unusual. During the years of 1951 - 1955 during these years the total annual precipitation was about 20 inches. The rainfall is not uniformly spread throughout the year. During the winter of 1956 (from October, 1955 through the winter 1956) the annual average stream flow was 47.1 cfs. and during only two months, November and December, was there any significant stream flow. The annual flow for that year, 22.7 inches, was more than average.

As water is to be utilized for storage and the water table continues to decline, it has been the experience of the City that it is necessary to develop the water area in order to protect the natural culture, which is being neglected. The need for this natural development is illustrated by the following:

In 1952 the total annual precipitation was 18.06 inches. The total available storage capacity was about 23,000. (The total available storage was 25 and 30 inches and the annual average was about 15.56.) The total available storage was about 15,000.

last an difficulties in obtaining adequate pumping levels in the wells prompted direct observation experiments. These were not successful and difficulties were encountered. In 1955 the total annual rainfall was 22.76 inches. The total available pumping capacity was 32.5 MGD. The maximum day water consumption was about 13 MGD. (Review of data indicates that this low quantity may have resulted from the unavailability of water. In 1955, the maximum day water consumption was about 18 MGD and in 1957, about 17.5 MGD). Emergency well points were driven to attempt to supply additional quantities of water.

The City, since 1955, has attended the well field, on additional wells northwardly, has constructed additional wells for the better development of the aquifer in the vicinity of the water treatment plant, and has conserved the underground water supply by using surface water, to the extent available. These improvements, plus the plans for greater areal development of the well field, are all being accomplished in recognition of the need to develop the well field for drought conditions.

5.2. Water for Irrigation

The need for irrigation water would be greatest during periods of drought and could, therefore, be in direct competition with the needs for public water supply. As a result, the City has been the only large user of water from the Big Sioux aquifer in the vicinity of Sioux Falls. The City could insure the continued security of its supply by prudent and conservative planning, adjusted continuously to reflect increased understanding of the hydrology and to reflect experience in operation. If other large water systems are to be developed in close proximity to the Sioux Falls valley, the systems could be mutually interfering and could prevent all such systems from producing their designed capacities. The City thereby may not be able to meet its obligation to supply the water requirements of its citizens and at the same time, the supplies of all large developments could be inadequate for their designed purposes.

It is considered, therefore, that all permits for water supply developments in the vicinity of Sioux Falls should be based on hydrogeological data that a planning study be undertaken to establish the safe yield of the aquifer, and that in the interim, any appropriation of ground water should be restricted so essentially that it can be demonstrated

BEST IMAGE POSSIBLE FROM POOR ORIGINAL

The proposed irrigation wells in Section 20 are in close proximity to existing City Wells and could therefore interfere with the production of water from these wells, particularly during periods of low rainfall and stream flow.

The proposed irrigation wells in Section 4 and 9 are in the area into which the City's Well field is expected to develop, and on which the City has water rights. It is expected, therefore, that the proposed irrigation wells will interfere with production from future City Wells.

Further, increased irrigation on the Sioux Falls Aquifer, may result in increased mineralization of the underground water as a result of percolation of irrigation water through tilled areas and into the aquifer. This increase in mineralization may have a detrimental effect upon the Sioux Falls Water supply. The practice of irrigation on the aquifer may be accompanied by the increased use of fertilizers and herbicides which may percolate into the underground waters. The effects of this increased use of such materials cannot at this time be appraised with any accuracy, but on a limited aquifer such as the Sioux Falls aquifer, the adverse effect is expected to be significant.

Permit No. 1271-3Water Division No. 3 3rd 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.) 1001 1/2 Ave. S. Pierre, S.D.(Date) June 5, 1967

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 5.64 cu. ft. per second of the waters of the state from Source Tman #2 through the Source Tman #2 for irrigating farm land 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 Mrs. E. M. Thompson

2. The postoffice address of such person or the place of business of such corporation is State Fair County of Minnehaha State of South Dakota

3. The number of such permit is 1271-3 and the date set for the completion of such work is revised to June 18, 1967

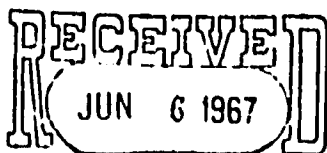
4. Said water to be used for irrigating farm land purposes.

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 5.64 cubic feet per second.

6. The amount of land for which said water is available is 3.92 acres, particularly described as follows: The Southeast Quarter (SE 1/4) and the East Half of the Southeast Quarter (E 1/2 SW 1/4) of Section 49, Township 102, Range 49, and the North Half of the Northeast Quarter (N 1/2 NE 1/4) and the East Half of the Northeast Quarter (E 1/2 NE 1/4) of Section 9, Township 102, Range 49, Minnehaha County, South Dakota
I hereby certify that the facts set forth in the above notice are true.

Mrs. E. M. Thompson

(Signature of Owners)



STATE WATER RESOURCES COMM
PIERRE SOUTH DAKOTA

Permit No. 1271-3Water Division No. 3 Big Sioux River Water District**Notice of Application of Water to Beneficial Use**

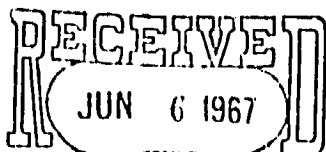
(This blank must be filled out by holder of permit and forwarded to the State Water Resources Commission at least sixty days before the time set for application of water.)

(P. O.) Twin Lake, Sioux Falls(Date) June 5, 1967

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

DEAR SIR: Notice is hereby given that on the _____ day of _____
 1967, at Minnehaha Sioux Falls County of Minnehaha State of South Dakota,
 before _____ proof will be submitted of the application to beneficial use
 (Examining Engineer or Officer)
 of 5.64 cubic feet per second of the waters of Big Sioux Aquifer
 _____ In accordance with the terms and conditions of Permit No. 1271-3
 heretofore issued by the Water Resources Commission of South Dakota.

- The name and postoffice address of the person or corporation holding said permit are _____
Mrs. E. M. Sweetman Twin Lake
Sioux Falls, South Dakota
- The use to which said water has been applied is irrigating farm land
- The amount applied to beneficial use is 5.64 cfs as per record
- The place where said water is used is (If for irrigation, give full and accurate description of the lands irrigated) The Southwest Quarter (SE 1/4) and the East Half of the Southwest Quarter (E 1/2 SW 1/4) of Section 49, Township 102, Range 49; and the North Half of the Northeast Quarter (N 1/2 NE 1/4) and the East Half of the Northeast Quarter (E 1/2 NE 1/4) of Section 9, Township 102, Range 49, Minnehaha County, South Dakota
- The name of the canal or ditch or other works by which said water is conducted to such place of use is Aluminum pipe from wells
- The right to take the water from such works is based upon permit No. 1271-3
- The source of supply from which such water is diverted is wells
- The date of priority which said user is prepared to establish is _____

(Sign) Mrs. E. M. Sweetman

Permit No. 1271-3
BIG SIOUXWater Division No. 3 Water District

Certificate of Examination of Works

Report of Examining Engineer

To the State Water Resources Commission, Pierre, South Dakota:

Dear Sirs: I hereby certify that ~~in accordance with your letter of authorization dated~~

I have this day made a thorough examination of the diversion works constructed by

E. M. SWEETMAN, of SIOUX FALLSMINNEHAHA County, South Dakota, holder of Permit No. 1271-3, issuedupon Application No. 1271-3, bearing date of priority of FEBRUARY 23, 1966, authorizing thediversion of 5.64 cu. ft. per second of the waters of GROUND WATER for IRRIGATION

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

The diversion works comprise: 4 WELLS 40'-50' DEEP - 18" DIAMETER.
ALL HAVE WESTERN LAND ROLLER 6" 4 STAGE PUMPS
W/ 10" BOWLS. 2 POWERED BY MINNEAPOLIS MOLINE GAS
INDUSTRIAL MOTOR & 2 BY U-2 INTERNATIONAL DIESEL.
1600'-10", 2200'-8" 600'-6" MAINLINE, BIG SQUIRT *

and the system is in the following condition: EXCELLENT

The point of diversion is located #1-3370'W & 500'S; #2-2370'W & 800'S;
#3-1050'W & 500'S, ALL FROM E 1/4 CORNER, SECTION 4; #4 1050'W
& 500'S OF THE NE CORNER, SECTION 9, ALL IN T102N, R49W

The works are capable of diverting and conveying to the place of use 6.0 cu. ft. per second of water,
 which is to be used for IRRIGATION

The legal sub-divisions to be irrigated are: SE 1/4 & E 1/2 SW 1/4, SECTION 4; N 1/2 NE 1/4,
E 1/2 NW 1/4, Section 9, ALL IN T102N, R49W

comprising a total of 395 acres of land.

The domestic use intended comprises

The utilization for power, milling, or other beneficial uses comprises:

* SPRINKLER OPERATES FROM OPEN DITCH 120 RAINBIRD
30 M 3/16 SPRINKLER HEADS @ 40' SPACINGS.

Witness my hand, this 21st day of NOVEMBER A.D. 1968

—SEAL—

Axton Jones
 WATER RIGHT SPECIALIST
 IN WATER RESOURCES COMMISSION

 **Department of
Water & Natural Resources**
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

January 29, 1988

R C SWEETMAN- SWEETMAN CONST
BOX 809
SIOUX FALLS, SD 57101

NOTICE

Re: Violation of Requirement To Submit 1987 Irrigation
Questionnaire

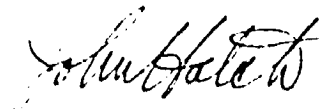
Our records indicate that the 1987 Irrigation Questionnaire has not been submitted for Permit No(s). 1270-3, 1271-3. The request for the Questionnaire was dated October 8, 1987. The Water Management Board has directed that owners of water permits who have not submitted 1987 Irrigation Questionnaires be given notice of hearing(s) to be held by the Board to determine if any action is to be taken concerning the violation.

The hearings will be held at 9:00 am, March 2, 1988 in Room 216, Joe Foss Building, 523 E Capitol, Pierre SD.

The hearing will be conducted pursuant to the provisions of SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to procedures contained in SDCL 1-26. Following the hearing(s), the Water Management Board can:

1. Amend Permit No(s). 1270-3, 1271-3 to require the Irrigation Water Use Questionnaire to be submitted each year;
2. Postpone any action;
3. Take no action.

The hearing(s) is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.


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

NOTE: If the questionnaire(s) is received in this office before the March 2 hearing date, your name will be deleted from the agenda for the hearing.

SOUTH DAKOTA Department of
Water & Natural Resources

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

February 12, 1988

1270-3
1271-3
4034-3

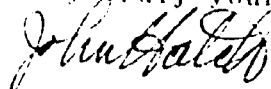
R. C. Sweetman
Sweetman Construction
Box 809
Sioux Falls SD 57101

Dear Mr. Sweetman:

I am writing to acknowledge receipt of your 1987 Irrigation Questionnaire(s). A notice was sent to you January 29, 1988 regarding the requirement to submit the Irrigation Questionnaire(s) for Water Permit No. 1270-3, 1271-3 & 4034-3 and the hearing date before the Water Management Board.

Since your questionnaire was received prior to the March 2, 1988 Water Management Board Meeting, your name has been deleted from the Board Meeting agenda. If you have any questions, please contact us.

Very truly yours,



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

1271-3



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

WADE PETERSON, MGR
RR 1 BOX 627
RENNER SD 57055

NOTICE

RE: Violation of Requirement to Submit 1991 Irrigation Questionnaire

Our records indicate that the 1991 Irrigation Questionnaire has not been submitted for Permit No(s) 1270-3, 1271-3 & 4034-3. The request for the Questionnaire was dated October 18, 1991. The Water Management Board has directed that owners of water permits who have not submitted the 1991 Irrigation Questionnaire be given notice of hearing to determine if any Board action is to be taken concerning the violation.

The hearing will be held at 9:15 am, March 4, 1992, in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol, Pierre SD, and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to SDCL 1-26. Following the hearing, the Water Management Board can:

1. Amend Permit No(s) 1270-3, 1271-3 & 4034-3 to require the Irrigation Water Use Questionnaire to be submitted each year;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is(are) received in this office before the March 4th hearing date, your name will be deleted from the Board agenda.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Ron Duvall".

Ron Duvall, Natural Resources Engineer IV
Water Rights Division
605 773-3352

cc: E M Sweetman, PO Box 84140, Sioux Falls, SD 57118



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

February 14, 1992

1270-3
1271-3
4034-3

Wade Peterson, Mgr
RR #1 Box 627
Renner, SD 57055

Dear Mr. Peterson:

I am writing to acknowledge receipt of your 1991 irrigation questionnaires for Water Right Nos. 1270-3 and 1271-3 and Water Permit No. 4034-3. You may disregard the January 27, 1992, Notice of failure to submit the 1991 irrigation questionnaire. The questionnaires were received prior to the Water Management Board meeting and your name was deleted from the agenda.

If you have any questions, please contact me at (605) 773-3352.

Sincerely,

Genny McMath
Natural Resources Analyst
Water Rights Division

cc: E M Sweetman, PO Box 84140, Sioux Falls, SD 57118



1271-3

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3187

NOV 11 1994

4034-3

E. M. Sweetman
Box 84140
Sioux Falls, SD 57118

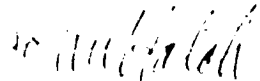
Dear Mr. Sweetman:

Enclosed is Water License No. 4034-3. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 414137 in the amount of \$50.00 which you paid for the inspection and issuance of the Water License.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 4034-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Very truly yours,


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

gm
enclosures

NOTE: The applicable portions of Water Right No. 1271-3 are being incorporated into this Water License No. 4034-3.

R 49W

SILVER CREEK

4

—3—

500' 1000' 500' 1320' 500' 1050'

EVELYN SWEETMAN

236 ACRES

800' 500' 1050'

RICHARD GERALD

159 ACRES

SWEETMAN SWEETMAN

500' 1050'

—10—

RENNER

RENNER CORNER

1271-3