

DO NOT LICENSE
THESE ARE
TEMPORARY WATER
PERMITS

WATER PERMIT NO. 5967-3

Name of Applicant: Michael G. Williams

Address: 5901 Ditch Rd., Sioux Falls SD 57104

Phone: 605 334-2144

Amount of Water Claimed: 1.50 cfs

Total Acres: 105.3

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation

County: Minnehaha

Type of Waste Disposal System: NA

Location: north of Sioux Falls, west of Renner

PRIORITY

Date Received: 11-6-96

Fee: \$225

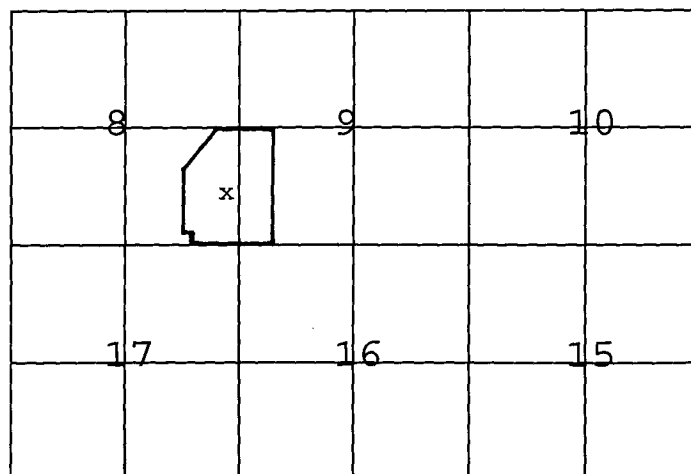
Corrected Application Received: 11-15-96

Period of Annual Use: May 1 - September 30

Remarks:

Diversion Point: along section line of the SE 1/4
Sec 8 and SW 1/4 Sec 9; all in T102N-R49W

Land to be Irrigated: ^E~~W~~ 1/2 SE 1/4 Sec 8
^W~~E~~ 1/2 SW 1/4 Sec 9; all in T102N-R49W



Depth of Well: 30 feet deep

Well Driller: Lacey Well Drilling

Remarks:

Type of Map: aerial

Prepared by: Cynthia J. Peterson, FSA

Reviewed and the Number Assigned on: 11-15-96

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
TEMPORARY WATER PERMIT NO. 5967-3 FOR IRRIGATION

Date of first receipt of application November 6, 1996.

Date of return to applicant for corrections, amendments or changes November 7, 1996.

Date of receipt of corrected application November 15, 1996.

The Water Management Board approved Water Permit Application No. 5967-3 as a temporary water permit on March 6, 1997 for Michael G Williams, 5901 Ditch Rd, Sioux Falls SD 57104 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Temporary Water Permit No. 5967-3 appropriates 1.50 cubic feet of water per second from one well (Big Sioux:Sioux Falls Aquifer) 30 feet deep located along the section line between the SE 1/4 Section 8 and the SW 1/4 Section 9 to irrigate 105.3 acres located in the E 1/2 SE 1/4 Section 8 and W 1/2 SW 1/4 Section 9; all in T102N-R49W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 - September 30.
3. The date from which applicant may claim right is November 6, 1996.
4. One-fifth of the construction is to be completed on or before September 6, 1999.
5. All construction is to be completed on or before March 6, 2002.
6. Water is to be put to beneficial use on or before March 6, 2006.
7. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The City of Sioux Falls has priority right to this water under future use withdrawal permits. This permit is issued as a temporary permit pursuant to SDCL 46-5-39 and is subject to Sioux Falls prior rights if or when the city develops the reserve water supply. The permit may be subject to cancellation when the city puts to beneficial use water reserved by their future use permit. The Chief Engineer must provide the permit holder six months notice prior to cancellation of this temporary permit.
2. If development and pumping of the Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by the temporary permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.

(continued)

Temporary Water Permit No. 5967-3

Michael G Williams

Page 2

3. The well authorized by Temporary Permit No. 5967-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. This permit is approved subject to the irrigation water use questionnaire being submitted each year.
5. Approval of temporary Permit No. 5967-3 withdraws deferred Application No. 1968-3 from consideration.

WATER MANAGEMENT BOARD

By: _____

John Hatch
John Hatch, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

APR 3 1997

date



North field



Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	(office use only)
	No. <u>5967-3</u> Hydrologic Unit <u>10170203</u>
	Basin <u>Sioux River</u>
Newspaper <u>Argus Leader, Sioux Falls, SD</u>	

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____
(check one) (Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. acreage change, change diversion point(s), add diversion point(s), etc.) _____

1. Name of Applicant Michael D. Williams ☐ Owner ☒ Tenant/Lessee Phone 605-334-2144
(check one)
Mailing Address 5901 Ditch Rd. Sioux Falls State S. Dak. 57104
(Street, RR, or Box) (Zip Code)
2. Amount of water claimed 1.50 *CFS or 700 **GPM ***AF Total Acreage 105.3
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout if applicable)

3. Source of water supply well
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) On the center along the section
East side of the road 77 acres of the SE 1/4 of sec. 8 T-102-N
R-49-W and SW 1/4 section 9-T102N-R49W County Minnehaha

5. County or counties where water will be used Minnehaha
6. Annual period during which water is to be used May 1 - September 30
7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each
(Attach sheet if more space is needed) See attachment See sheet

Land Description	Acres	Land Description	Acres
<u>5 1/2 of the W 45 acres of the</u>	<u>22.5</u>	<u>SW 1/4 of sec. 9 T-102-N R-49-W</u>	
<u>SW 1/4 of sec. 9 T-102-N</u>		<u>5 1/2 of the E 77 acres of the SE 1/4</u>	<u>38.5</u>
<u>R-49-W</u>		<u>of sec 8 T-102 N R-49-W</u>	
<u>N 1/2 of the W 45 acres of the</u>	<u>22.5</u>	<u>N 1/2 of the E 77 acres of the SE 1/4</u>	<u>38.5</u>
		<u>of sec. 8 T-102-N R-49-W</u>	

8. Give a description of the project. (Attach sheet if more space is needed)
To pump water from a well to a center pivot irrigation of crop.

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

STATE OF SOUTH DAKOTA)

County of Minnehaha SS

I, Michael G. Williams, the applicant, have read this application, examined the attached map, and certify that the matters stated are true. I intend and am able to complete the necessary construction.

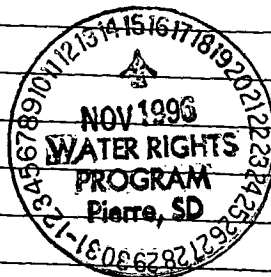
Signed Michael D. Williams
Subscribed and sworn to before me this 30th day of Oct 1996
[Signature]
Notary Public

North field
SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of sec. 9 T-102-N
R-49-W. acres
21

NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of sec. 9 T-102-N
R-49-W 22

SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of sec. 8 T-102-N
R-49-W 34.3

NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of sec. 8 T-102-N
R-49-W 28



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 20" Depth 30'
- b) Casing Type steel Diameter 12" Thickness .375
- c) Screen Type 4" SS Diameter 12" Thickness 3/16
- d) Gravel Pack Thickness 4" Length of Gravel Pack 18'
- e) Depth to Top of Water Bearing Material 10'
- f) Depth to Water (ground surface to water level) 10'
- g) Distance to nearest existing domestic well:
On applicants property none On property owned by others 1500'

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ c) Year Constructed _____
- d) Connected to the City of _____ Sanitary System.

3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____



4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope

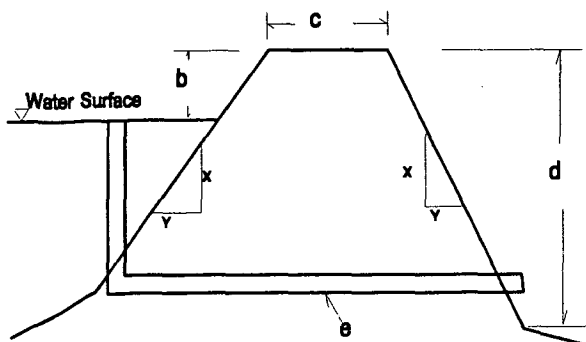
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres





South Dakota State University

October 29, 1996

Gene Williams
5910 Ditch Rd.
Sioux Falls, SD 57104

Dear Mr. Williams:

Enclosed is a copy of the analysis of your water sample which you submitted to us for testing. We have identified the source of your water as taken from a well at a depth of 31 ft in the SE 1/4 of Section 8, Township 102N, Range 49W. We have assigned it lab number 96-0252.

Your water, as represented by this sample, is classified as a high salinity, low sodium hazard for irrigation usage. The electrical conductivity (EC) of this water is 1250 micromhos/cm. The main ions in this water are: calcium (Ca) and bicarbonate (HCO_3). I have plotted your approximate water quality in red on the outside back cover of the enclosed pamphlet (AES 13). The range in the sodium hazard, from 0.31 to 0.87, is dependent upon the leaching fraction that may result if irrigation water is applied. The higher sodium hazard is associated with no leaching, and the lower sodium hazard is associated with normal leaching fractions (0.03-0.05). The leaching fraction is defined as the amount of water lost below the root zone annually, divided by the total amount received into the soil profile.

This water can be used for irrigation purposes for most normal soils which have adequate internal drainage. This means that if the water table is greater than 10 feet below ground surface the majority of the year and there are no tight impermeable layers within the root zone which may create a perched water table, the salts (ions) that do exist in the water will be able to be leached downward below the root zone where they do little or no harm to growing crops. The probability for soil salinization from this water is low when used on soils with good subsurface drainage.

The boron level 0.17 ppm for this water poses a low toxicity level for most normal crops in this area. I have enclosed a sheet that tells the boron toxicity levels for major crops.

I am forwarding a copy of this letter and water analysis to the Division of Water Rights in Pierre for their information and/or action should you decide to proceed with an application for a water right..

If you have further questions regarding this water analysis, please do not hesitate to call or write.

Sincerely,

John H. Bischoff, Assistant Professor
Water Resources Institute

Enclosures

cc: Division of Water Rights
Lacey Well Drilling



5967-3
Water Resources Research Institute
Water Quality Laboratory
Water Pesticide Laboratory

Box 2120, Ag. Engineering 211
SDSU
Brookings, SD 57007
Phone: 605-688-4910
FAX: 605-688-4917
E mail: WRISDSU@MG.SDSTATE.EDU

REPORT OF WATER ANALYSIS
Water Quality Laboratory
Water Resources Research Institute
South Dakota State University
Brookings, SD 57007

10/29/1996
Minnehaha

Bill To: Lacey Well Drilling
RR 1 Box 24
Dell Rapids, SD 57022
cc: Williams, Gene
5910 Ditch Rd.
Sioux Falls, SD 57104

Date Rec'd 10/22/1996
Lab Sample No 96-0252
Source Well
Depth 31
Legal ID: T 102N R 49W S 8d

Calcium (Ca)	184 ppm	9.20 me/l
Magnesium (Mg)	75 ppm	6.17 me/l
Sodium (Na)	20 ppm	0.87 me/l
Potassium (K)	4 ppm	0.10 me/l
Sulfate (SO4)	346 ppm	7.20 me/l
Nitrate as N (NO3)	0.04 ppm	me/l
Organic Nitrogen as N	ppm	
Ammonia Nitrogen as N	ppm	
Nitrite as N (NO2)	ppm	
Ortho Phosphorus	ppm	
Total Phosphorus	ppm	
Chloride (Cl)	28 ppm	0.79 me/l
Bicarbonate (HCO3)	478 ppm	7.84 me/l
Carbonate (CO3)	0 ppm	me/l
Iron (Fe)	ppm	me/l
Fluoride (F)	ppm	me/l
Manganese (Mn)	ppm	
Boron (B)	0.17 ppm	
Hardness (EDTA as CaCO3)	769 ppm	44.94 gpg
Total Solids	ppm	
Total Cations		16.34 me/l
Total Anions		15.83 me/l
Alkalinity (Methyl Orange)	392 ppm(as CaCO3)	
Alkalinity (Phenolphthalein)	0 ppm(as CaCO3)	
Electrical Conductivity	1254 micromhos per cm at 25°C	
Sodium Adsorption Ratio (SAR)	0.31 Adjusted SAR	0.87
Sodium	5.32 % of Cations	
Residual Sodium Carbonate	0.00 me/l	
pH	7.26	

gpg = grains per gallon
me/l = milliequivalents per liter

ppm = parts per million

COMMENTS:

Analysis By: Shirley Mittan

Service Performed:	Analysis Cost:	60.00	Amount Received:	.00
Irrigation Analysis	Sales Tax:	2.40	AMOUNT DUE:	62.40
	Total Cost:	62.40		

Make checks payable to: SDSU Water Quality Lab
Please write lab number on your check!
Lab Sample No. 96-0252

3w 66 feet



X section corner

SOUTH DAKOTA WATER WELL COMPLETION REPORT

5967-3

07-92

Location SW 1/4 SW 1/4 Sec 9 Twp 102 Rg 49
County Minnehaha

Please mark well location with an "X"

North

1 Mile

Well Completion Date 7/8/97

Well Owner: Mike & Gene Williams

Business Name: _____

Address: 5901 Ditch Road
Sioux Falls, S.D. 57104

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>Top Soil</u>	<u>0</u>	<u>5</u>
<u>Sandy clay silt</u>	<u>5</u>	<u>8</u>
<u>gravel</u>	<u>8</u>	<u>19</u>
<u>medium sand, some gravel</u>	<u>19</u>	<u>22</u>
<u>gravel & some medium sand</u>	<u>22</u>	<u>30</u>

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from open field (identify source).

PROPOSED USE:

- ☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Bucket Auger

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>Sch 40 10.75 LB/FT</u>	<u>16" IN</u>	<u>15 FT</u>	<u>20 FT</u>	<u>30 IN</u>
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Neat Cement</u>	<u>19</u>	<u>15 lb./gal</u>	<u>0 ft</u>	<u>7 ft</u>
<u>Bentonite chips</u>	<u>6</u>	<u>lb./gal</u>	<u>7 ft</u>	<u>8 ft</u>

Describe grouting procedure pumped water out & poured in Neat Cement grout

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 16 IN Length 10 FEET

Material Stainless Steel

Slot Size 100 Set From 20 Feet to 30 Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

☒ YES, How: chlorinate

☐ NO, Why Not? well bore

Laboratory sent to for water quality analysis _____

and gravel pack

STATIC WATER LEVEL 4' Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped

Describe: _____

☐ Bailed

☐ Other

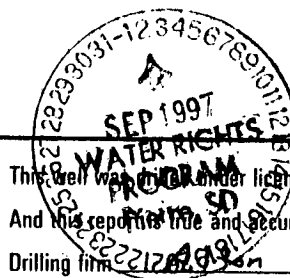
Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS



This well was installed under license # 270

And this report is true and accurate.

Drilling firm Don Well & Concrete Co Inc.

Signature of License Representative:

Don Vande Brake

Signature of Well Owner or Equitable Property Holder:

Michael Williams

Date: 8/2/97

RECEIPT

415178

Division of Water Rights

South Dakota Department of Environment and Natural Resources

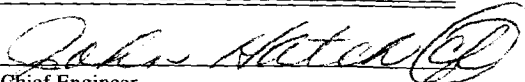
Pierre, _____ November 6, 1996

RECEIVED OF Michael G. or Darlene Williams, 5901 Ditch Road, Sioux Falls, SD 57104-6535

the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>5967-3</u> to Appropriate Water, to construct and to put water to beneficial use _____	225	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	225 00

By 
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 28, 1997

Lyle D. Johnson, Water/Wastewater Manager
City of Sioux Falls
224 W. 9th Street
Sioux Falls, SD 57102

Dear Mr. Johnson:

Two water right permit applications proposing appropriation of water from the Sioux Falls Management Unit of the Big Sioux Aquifer were recently submitted by Michael Williams. The proposed wells may be located within the city's future use area. The Chief Engineer recommends approval of each application as a temporary water permit.

A copy of the notice of hearing, report and recommendations is enclosed for your review. The notice of hearing is scheduled to be published February 6 and 13, 1997, in the Argus Leader. A hearing before the Water Management Board is scheduled for March 6, 1997, in Pierre.

Please contact Ken Buhler at (605) 773-3352 if you have any questions

Sincerely,

Eric Gronlund
Water Rights Program
(605) 773-3352

enclosures

REPORT FOR
WATER PERMIT APPLICATION NO. 5966-3
AND
WATER PERMIT APPLICATION NO. 5967-3
MICHAEL G. WILLIAMS
DECEMBER 12, 1996

Application No. 5966-3 proposes to appropriate 1.56 cubic feet of water per second (cfs) from one well (Sioux Falls Management Unit of the Big Sioux Aquifer) 30 feet deep located along the section line between the NE¼ Section 17 and the NW¼ Section 16 to irrigate 118.5 acres located in the W½ NW¼ Section 16 and the E½ NE¼ Section 17; all in T102N-R49W.

Application No. 5967-3 proposes to appropriate 1.50 cfs from one well (Sioux Falls Management Unit of the Big Sioux Aquifer) 30 feet deep located along the section line between the SE¼ Section 8 and the SW¼ Section 9 to irrigate 105.3 acres located in the E½ SE¼ Section and the W½ SW¼ Section 9; all in T102N-R49W.

AQUIFER: Big Sioux: Sioux Falls (BS:SF)

AQUIFER CHARACTERISTICS:

The Sioux Falls Management Unit of the Big Sioux Aquifer is an alluvium mantled, glacial outwash deposit, which consists of silt, fine to coarse sand, and gravel. The management unit underlies approximately 22,900 acres in Minnehaha County and contains an estimated 103,050 acre-feet of recoverable water in storage in the county (Hedges, 1982). The aquifer is restricted to the Big Sioux Alluvial Valley, and is bounded both to the north (near Dell Rapids) and on the south (Sioux Falls) by the relatively impermeable Sioux Quartzite. The aquifer is predominately under unconfined conditions. The direction of water movement in the aquifer is generally to the south and towards the Big Sioux River (Lindgren, 1992). The aquifer attains a maximum thickness of approximately 48 feet. Test hole logs indicate the sand and gravel is between 18 and 20 feet thick at the diversion points proposed by these applications.

The Water Rights Program monitors two observation wells: MA-80L and MA-80M (Water Rights, 1996), completed into the Sioux Falls Management Unit within one mile of the diversion points proposed by these applications. The hydrographs for these wells (see figures 1 and 2) show that the highest annual water level generally occurs around April- June, and the lowest annual water level generally occurs around August - October.

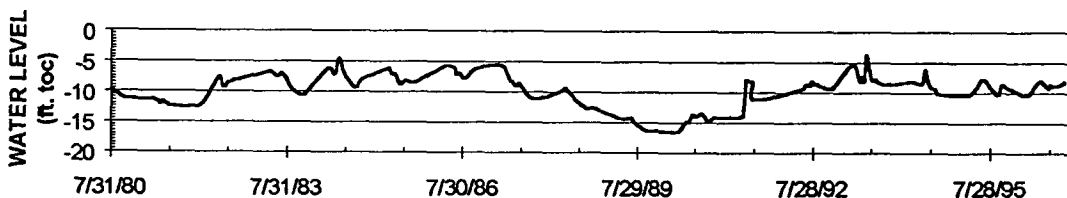


figure 1
MA-80L HYDROGRAPH

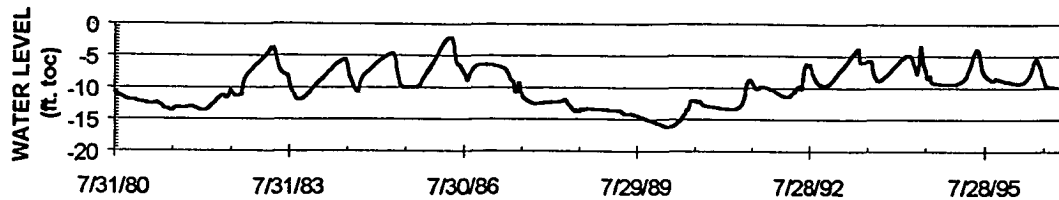


figure 2

MA-80M HYDROGRAPH

The decline of water levels during the summer months is due to increased evapotranspiration, reduced recharge, and pumpage. Water levels rise during the late winter and spring due to recharge, if available. The hydrograph shows that the water level of the aquifer fluctuates rapidly in response to recharge. The response to withdrawals is less obvious and tends to be represented by a slow gradual decline. The hydrographs also show that in general, the early 1980's were fairly wet, the late 1980's were drier, and it has been wet in the 1990's.

DISCUSSION:

Water Availability:

In the Sioux Falls Management Unit water availability must be evaluated in two ways: (1) by considering SDCL 46-6-3.1, which requires that annual withdrawal of groundwater is not to exceed recharge; and, (2) by considering the appropriation with respect to the November 14, 1991, Water Management Board declaratory ruling ("Declaratory Ruling on Establishment of a Maximum Annual Withdrawal Limitation for the Big Sioux Aquifer: Sioux Falls Management Unit").

Average Estimated Annual Recharge:

SDCL 46-6-3.1 requires that an application to appropriate groundwater can not be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of average estimated annual recharge.

Recharge:

Recharge to the Sioux Falls Management Unit occurs primarily through infiltration of precipitation, and streamflow losses. Estimates of average annual recharge to the Sioux Falls Management Unit include:

METHOD OF ANALYSIS	INVESTIGATOR	AVE. ANNUAL RECHARGE
Base flow recession	Hedges(1983)	12,404 ac-ft/yr
Observation well	Hedges(1983)	10,686 ac-ft/yr
Flow net	Hedges(1983)	1,908 ac-ft/yr
Computer model	Koch (1982)	13,200 ac-ft/yr

Withdrawal:

Withdrawals from the aquifer occur through evapotranspiration, discharge to the Big Sioux River, possibly through leakage to underlying aquifers, and pumpage. There a number of domestic wells which are supplied by the aquifer; however, the majority of water use from the aquifer is by appropriative uses.

Appropriations:

Currently there are 62 Water Permits/Rights appropriating withdrawals from the Sioux Falls Management Unit (Water Rights, 1996). Permits issued from the aquifer include 41 municipal permits, 9 irrigation permits, 6 rural water system permits, 2 geothermal permits, 3 commercial permits, and one multiple use permit. In addition, there are 4 future use permits which reserve water from the Sioux Falls Management Unit.

Usage:

Although there are a number of permits/right for water from the Sioux Falls Management Unit, historically, the average annual use has been less than 15% of the maximum that could be pumped. Average annual pumpage (total) from the Unit was estimated in 1983 to be 17,370 acre-feet per year (Hedges, 1983). The average daily use (total) from the aquifer was estimated in 1989 to be 20.0 MGD (22,627 ac-ft/yr), (Barari, 1989). Reported withdrawals in acre-feet annually from the Sioux Falls Management Unit by appropriate users include (from Water Rights, 1996):

USER	1990	1991	1992	1993	1994	1995
City of Sioux Falls	17,788	10,257	12,334	9,956	10,597	8,211
MCWC	1,253	1,400	1,458	1,489	1,722	1,752
Irrigation	473	409	160	124	253	240
TOTAL	19,514	12,066	13,952	11,569	12,572	10,203

The best information (recharge estimates and pumping estimates), indicates that the quantity of water withdrawn annually from the Sioux Falls Management Unit exceeds the calculated average estimated annual recharge. If estimates are correct, water would be lost from storage annually. A reduction of recoverable water in storage would be apparent by lowering water levels.

The Water Rights Program monitors 13 observation wells completed into the Sioux Falls Management Unit. A typical observation well hydrograph for the Sioux Falls Management Unit is shown in figure 3.

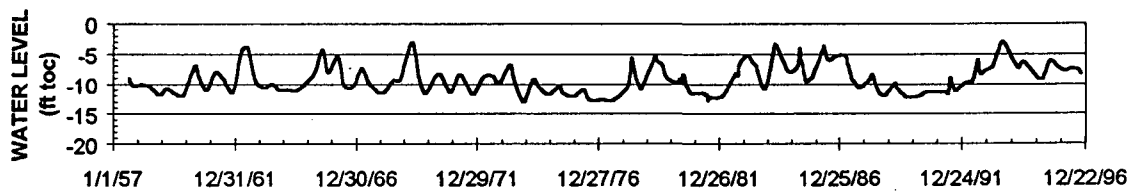


figure 3
MA-57D HYDROGRAPH

Since a sustained downward trend in the water level of the aquifer has not been observed in Water Rights' Observation Wells, it is apparent that the physical evidence (water level readings) does not support the estimates for average annual recharge. The estimates for average annual recharge to the Sioux Falls Management Unit are obviously low. The difference between the estimates and the physical evidence may be accounted for through streamflow loss from the Big Sioux River.

At the current level of development from the aquifer, it is not possible to distinguish between natural water level fluctuations and the effects of pumping. Therefore, it can be assumed that withdrawals do not exceed recharge.

Declaratory ruling:

On November 14, 1991, through a declaratory ruling, the Water Management Board (Board) established a limitation on the annual withdrawals due to pumping by Water Permit/Right holders from the Sioux Falls Management Unit of 32,200 acre-feet per year (ac-ft/yr).

Water use from the Sioux Falls Management Unit in the future will be limited to a total withdrawal of 32,200 ac-ft/yr. When this limit is approached, water use will be restricted on a priority basis until withdrawals do not exceed 32,200 ac-ft/yr. The practical effect of the 32,200 ac-ft/yr limit allows for management of the aquifer, and on a priority basis if necessary.

At the current level of development, it is not likely that withdrawals from appropriative users will equal 32,200 acre-feet per year. However, development of the 11,762 acre-feet per year that has been reserved for future use from the management unit (see table 1) could cause pumping to approach the established annual limitation. When pumping approaches this limit water use will be restricted on a priority basis so withdrawals do not exceed 32,200 acre-feet annually.

Permit No.	Holder	Reservation (ac-ft/yr)
448-3	Sioux Falls	6,929
4838-3	MCWC	33
5523-3	Sioux Falls	4,050
5716-3	MCWC	750
Total		11,762

table 1

In 1991, the Water Management Board approved a reservation for future use by the City of Sioux Falls, (Permit No. 5523-3) from the Sioux Falls Management Unit for an amount that was considerably less than had been applied for. In its consideration of this future use permit the Board concluded that "it is prudent to not allocate all water arguably available so as to accommodate any increase in lawful use of water already under permit". The Board left a "contingency for expansion of use under existing legal rights and a contingency for expansion of present and new systems" amounting to 1,866 ac-ft/yr.

On March 3, 1993, the Water Management Board approved a future use permit (No. 5716-3) for Minnehaha Community Water Corporation. The permit reserves 750 ac-ft/yr from the Sioux Falls Management Unit. Since an appropriation made by a future use permit can be completely developed, the amount of water remaining available for expansion under existing water rights and expansion of systems is 1,116 ac-ft/yr. The best information available at this time indicates that when this contingency is appropriated, the aquifer will be fully appropriated.

Effects on Existing Rights:

Unlawful impairment of groundwater rights may be due to "well interference", which is the overlapping of drawdown cones of depression of two or more wells; or from a "cumulative affect" in which the water level throughout the entire aquifer are lowered, as the result of an extended interim between withdrawal and recharge causing an "overdraft" from storage. In either case mitigation may be necessary, if the pumping authorized by junior priority rights is to continue.

Well interference:

A number of municipal wells supplying the City of Sioux Falls are located between one quarter mile and one mile of the diversion points proposed by these applications. Any interference with these wells is not expected to be adverse since the aquifer is under unconfined conditions. Within an unconfined aquifer, drawdown caused by individual well pumping is not significant except in the immediate vicinity of a production well.

Cumulative affect:

Although the Board has established an annual withdrawal limitation of 32,200 ac-ft/yr, the potential of adverse impact to existing rights is independent of the amount of water that can be appropriated from the aquifer. Water rights could be adversely impacted even though substantially less than 32,200 acre-feet per year is pumped. The Board adopted a declaratory ruling on November 14, 1991 stating (in part):

"That private domestic wells are being impacted and deprived of reasonable use of water for domestic purposes by appropriative permit holders' withdrawals from the Big Sioux Aquifer: Sioux Falls Management Unit."

The City of Sioux Falls offered a seven point proposal that would eliminate the problem addressed in the declaratory ruling issued November 14, 1991. Since the problem was addressed and corrected through the proposal, the board did not need to order mitigation.

Following the declaratory ruling, the Board approved a reservation for future use by the City of Sioux Falls, (Permit No. 5523-3). The consequence of the declaratory ruling was the inclusion of the following qualification on the permit:

"If development and pumping of Sioux Falls Management Unit of the Big Sioux Aquifer water reserved by Future Use Permit No. 5523-3 results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered groundwater levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04."

Special Consideration:

On June 28, 1957 the Water Rights Commission (now known as the Water Management Board) approved Future Use Permit No. 448-3. This permit claimed 46.8 cfs from the Sioux Falls Management Unit for future use by the City of Sioux Falls. At the present time, 6,929 ac-ft/yr remains reserved by this permit from a future use area shown in figure 4.

Seven previous applications have been filed by other parties to appropriate water from within the area specified by Future Use Permit No. 448-3. They include:

Permit No.	Applicant	Hearing Date
656-3	Clarence Machmiller	8/28/59
1270-3	R.C. Sweetman	5/18/66
1271-3	E.M. Sweetman	5/18/66
2047-3	Val K. Beckman (Midway Farms, Inc.)	5/15/74
1968-3	Gene Williams	1/22/75
2244-3	Dale Swartz	5/22/75
4034-3	E.M. Sweetman	7/27/77

Pursuant to SDCL 46-5-39, these applications (with the exception of Application No. 1968-3), were approved as temporary permits. Each of these Water Rights contain the following qualification:

"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."

SDCL 46-5-39 allows the Water Management Board to authorize a temporary appropriation of the water from the unused portion of a future use permit; however, 46-5-40 states that the temporary permit would be effective only until such time as the future use holder wants to use the water covered by the temporary permit. The temporary permit holder would then be given six months notice and his permit would be canceled at the end of six months.

On January 22, 1975, the Water Rights Commission considered Application No. 1968-3, Gene Williams. The application proposed to appropriate 4.72 cfs from three wells completed into the Sioux Falls Management Unit to irrigate 333 acres. The proposed wells were to be located within the area specified

by Future Use No. 448-3 and the Commission considered approving the application as a temporary permit.

The Commission discussed potential problems for the Sioux Falls well field operation even with the issuance of temporary permits from the Sioux Falls Management Unit. Some of the variables the city must contend with in managing its well field (and presumably the entire management unit), were discussed. These variables included: recharge; water in storage in the aquifer; and how does a junior appropriator "control his withdrawals so there is not a reduction of needed water supplies for senior water rights". The Commission deferred action on Application No. 1968-3 and directed the Commission staff to "conduct a study of the future use statutes and give consideration to the time limitation involved."

On May 22, 1975, following discussion, another application (No. 2244-3) was approved from the management unit as a Temporary Permit. The diversion points proposed by Application No. 2244-3 are approximately 4 miles north of the diversion points proposed by Application No. 1968-3. One of the three wells proposed by Application No. 2244-3 was within the area specified in Future Use Permit No. 448-3 and the application was approved as a Temporary Permit. Water Permit Application No. 1969-3 remained in a deferred status.

Two of the three wells proposed by Application No. 1968-3 are in the same location as the wells proposed by Water Permit Application Nos. 5966-3 and 5967-3. The lands to be irrigated by No. 1968-3 included all lands (except one acre) proposed by No. 5966-3 and No. 5967-3 plus 110.2 additional acres.

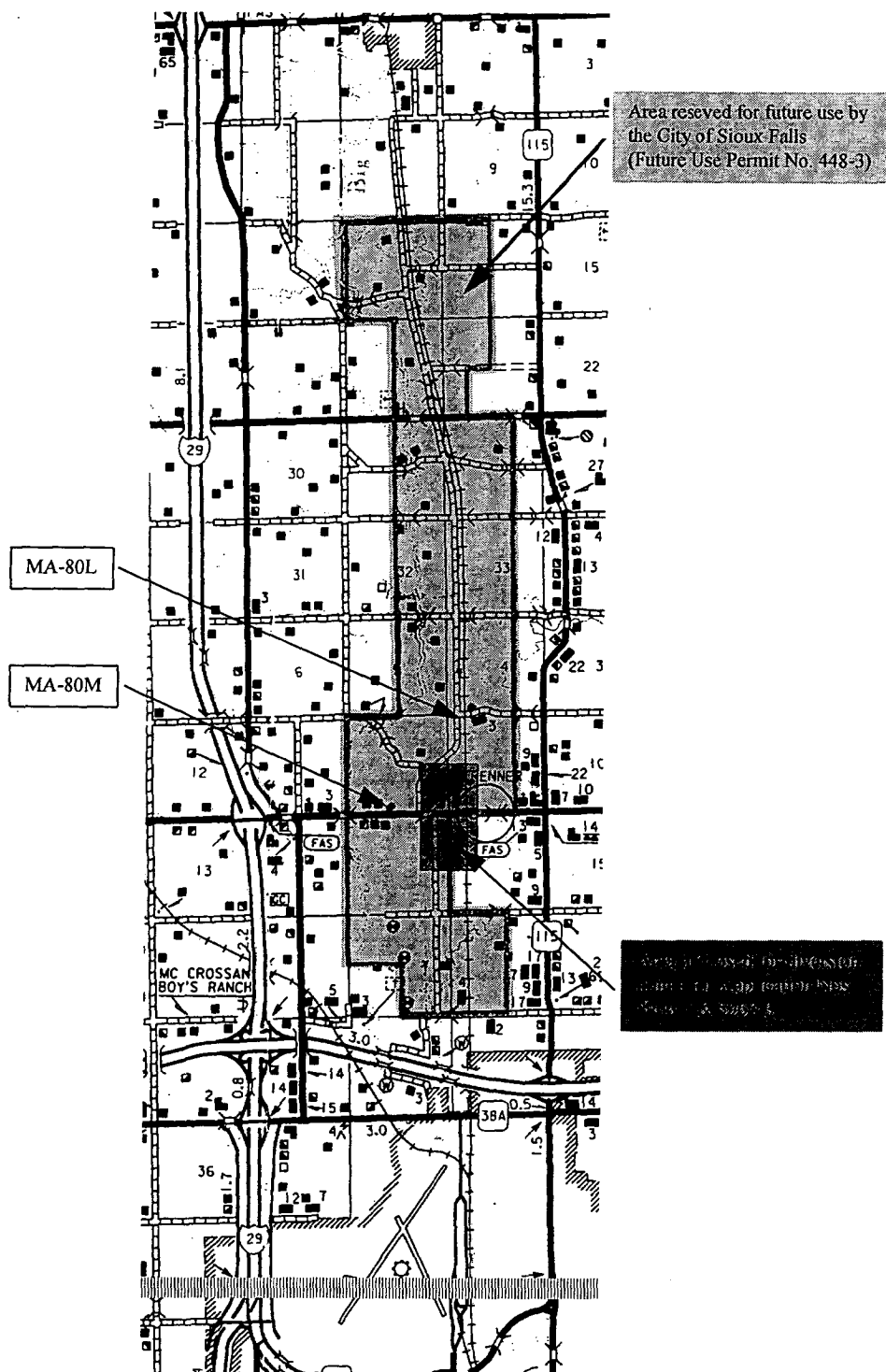


Figure 4
Location Map

(Note: Additional Future Use areas and Observation wells occur which are not depicted by this map)

CONCLUSIONS:

1. Water Permit Applications 5966-3 and 5967-3 propose to appropriate 1.56 cfs and 1.50 cfs respectively to irrigate a total of 223.8 acres.
2. Water Permit Applications 5966-3 and 5967-3 propose a maximum combined annual appropriation of 447.6 acre-feet.
3. There is a reasonable probability unappropriated water is available on a temporary basis for these appropriations.
4. There is a reasonable probability these appropriations can be made without adversely affecting existing developed rights.
5. The appropriations proposed by these applications will not cause withdrawals to exceed the annual limitation that was established for the management unit by Board's November 14, 1992 "Declaratory Ruling on Establishment of a Maximum Annual Withdrawal Limitation for the Big Sioux Aquifer: Sioux Falls Management Unit" (32,200 acre-feet per year).
6. The diversion points proposed by these applications may be within or near the area reserved for future use by Future Use Permit 448-3.
7. Seven previous applications have been filed by other parties to appropriate water from within the area specified by Future Use Permit No. 448-3. Six of these applications were approved as Temporary Permits pursuant to SDCL 46-5-39.
8. Water Permit Applications No. 5966-3 and No. 5967-3 propose similar appropriations as Water Permit Application No. 1968-3. Action on Application No. 1968-3 has been deferred since January 22, 1975.
9. Since the Water Management Board's November 14, 1991 "Declaratory Ruling Regarding the Decline of the Water Levels in Private Domestic Wells in the Big Sioux Aquifer: Sioux Falls Management Unit", new appropriations from the management unit have included the following qualification:

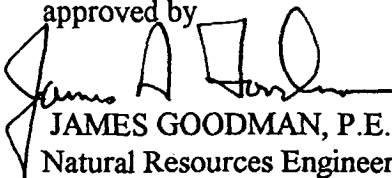
"If development and pumping of Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by this permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered groundwater levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04."



KEN BUHLER

Natural Resources Engineer

approved by



JAMES GOODMAN, P.E.

Natural Resources Engineer

REFERENCES:

- Barari, A., D.Iles, T.Cowman, 1989, Assessment of Water Resources and Conceptual Evaluation of a Regional Water Supply for Southeastern South Dakota, SD Dept. of Environment and Natural Resources, Geological Survey Program, Open-File Report 60-UR, Vermillion, SD
- Hedges, L.S., S.Burch, D.Iles, R.Barari, R.Schoon, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, U.S.Army Corps of Engineers Contract DACW 45-80-C-0185
- Hedges, L.S., S.Burch, D.Iles, 1983, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 6: Average Annual Water Use by Aquifer, U.S.Army Corps of Engineers Contract DACW 45-80-C-0185
- Koch, N.C., 1982, A Digital-Computer Model of the Big Sioux Aquifer in Minnehaha County, South Dakota, USGS, Water-Resources Investigations Report 82-4064, Huron, SD
- Lindgren, R.J., C.Niehus, 1992, Water Resources of Minnehaha County, South Dakota, USGS, Water-Resources Investigations Report 91-4101, Huron, SD
- Water Rights Program, 1996, "Irrigation Summary By Aquifer", DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1996, "Observation Well Files", DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1996, "Water Permit/Right Files", DENR-Water Rights Program, Joe Foss Building, Pierre, SD

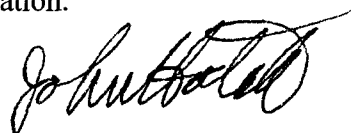
RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 5967-3, Michael G. Williams

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 5967-3, Michael G. Williams, 5901 Ditch Road, Sioux Falls, SD 57104

The Chief Engineer is recommending APPROVAL of Application No. 5967-3 as a TEMPORARY PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary permit until the City of Sioux Falls develops water reserved from this future area; 2) the proposed diversion can be developed as a temporary permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest with the following qualifications:

1. The City of Sioux Falls has priority right to this water under future use withdrawal permits. This permit is issued as a temporary permit pursuant to SDCL 46-5-39 and is subject to Sioux Falls prior rights if or when the city develops the reserve water supply. The permit may be subject to cancellation when the city puts to beneficial use water reserved by their future use permit. The Chief Engineer must provide the permit holder six months notice prior to cancellation of this temporary permit
2. If development and pumping of the Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by the temporary permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.
3. The well authorized by Permit No. 5967-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
4. This permit is approved subject to the irrigation water use questionnaire being submitted each year.
5. Approval of temporary Permit No. 5967-3 withdraws deferred Application No. 1968-3 from consideration.

See report on application for additional information.



JOHN HATCH, Chief Engineer
January 10, 1997



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.**

January 28, 1997

Michael G. Williams
5901 Ditch Road
Sioux Falls, SD 57104

Dear Mr. Williams:

Water Permit Application Nos. 5966-3 and 5967-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Argus Leader printed at Sioux Falls, SD (Ph # (605) 331-2200). For your information, a copy of the notice, the recommendations of the Chief Engineer and a report on the applications are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendations, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the applications.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 28, 1997

Argus Leader
P.O. Box 5034
Sioux Falls, SD 57117-5034

ATTENTION: Legal Department

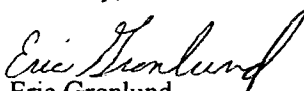
Enclosed is a Notice of Hearing on Application Nos. 5966-3 and 5967-3 to be published twice. Please publish the first notice on February 6, 1997, with the second publication 7 days later.

The APPLICANT MUST VERIFY TO YOU THAT THE NOTICE IS TO BE PUBLISHED, before you make the first publication. Please BILL the APPLICANT for the cost of publication. The APPLICANT is Michael G. Williams, 5901 Ditch Road, Sioux Falls, SD 57104/ (Ph # (605) 334-2144).

A copy of BOTH publications must be SENT to the WATER RIGHTS PROGRAM. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. No action may be taken on the permit application until proof of publication has been received.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

FIRST TRANSMITTAL NOTICE

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Nos. _____

Date _____

We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application Nos. _____ which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper

Instruction to Newspaper - Publish first Notice on February 6, 1997, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NOS. 5966-3 and 5967-3 to Appropriate Water

Notice is given that Michael G. Williams, 5901 Ditch Road, Sioux Falls SD 57104 has filed the following applications for water permits.

Application No. 5966-3 appropriates 1.56 cubic feet of water per second (cfs) from one well (Big Sioux:Sioux Falls Aquifer) 30 feet deep located along the section line between the NE 1/4 Section 17 and the NW 1/4 Section 16 to irrigate 118.5 acres located in the W 1/2 NW 1/4 Section 16 and E 1/2 NE 1/4 Section 17; all in T102N-R49W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 5966-3 as a TEMPORARY PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary permit until the City of Sioux Falls develops water reserved from this future area; 2) the proposed diversion can be developed as a temporary permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest.

Application No. 5967-3 appropriates 1.50 cfs from one well (Big Sioux:Sioux Falls Aquifer) 30 feet deep located along the section line between the SE 1/4 Section 8 and the SW 1/4 Section 9 to irrigate 105.3 acres located in the E1/2 SE 1/4 Section 8 and the W1/2 SW 1/4 Section 9; all in T102N-R49W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 5967-3 as a TEMPORARY PERMIT pursuant to SDCL 46-5-39 because 1) water is available to be appropriated as a temporary permit until the City of Sioux Falls develops water reserved from this future area; 2) the proposed diversion can be developed as a temporary permit without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 24, 1997. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider this application at 9:00 a.m., March 6, 1997, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The March 6, 1997, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by February 24, 1997.

Any hearing will be an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlund by February 24, 1997, at the above Water Rights Program address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31, 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; 46-5-38 thru 46-5-40; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; 74:02:01:24 thru 74:02:01:25. Nettie H. Myers, Secretary, Department of Environment and Natural Resources.

5966-3
5967-3

Form 8



PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Minnehaha) SS

I, D. Reicher

certify that the attached printed Notice was taken
from the ARGUS LEADER

printed and published in Sioux Falls

County of Minnehaha and

state of South Dakota. The notice was published
in the newspaper on the following two dates:

Thurs. Feb 6, 1997

Thurs Feb 13, 1997

Cost of Printing \$143.14

NOTICE OF APPLICATION
NOS. 5966-3 and 5967-3 to
Appropriate Water
Notice is given that Michael G.
Williams, 5901 Ditch Road, Sioux
Falls SD 57104 has filed the fol-
lowing applications for water per-
mits.
Application No. 5966-3 appropri-
ates 1.58 cubic feet of water per
second (cfs) from one well (Big
Sioux: Sioux Falls Aquifer) 30 feet
deep located along the section line
between the NE 1/4 Section 17 and
the NW 1/4 Section 16 to irrigate
118.5 acres located in the W 1/2
NW 1/4 Section 16 and E 1/2 NE
1/4 Section 17; all in T102N-R48W.
Pursuant to SDCL 48-2A-2, the
Chief Engineer recommends AP-
PROVAL of Application No. 5966-3
as a TEMPORARY PERMIT pur-
suant to SDCL 48-5-39 because 1)
water is available to be appropri-
ated as a temporary permit until the
City of Sioux Falls develops water
reserved from this future area; 2)
the proposed diversion can be
developed as a temporary permit
without unlawful impairment of ex-
isting rights; 3) the proposed use is
a beneficial use and 4) in the public
interest.

Application No. 5967-3 appropri-
ates 1.58 cfs from one well (Big
Sioux: Sioux Falls Aquifer) 30 feet
deep located along the section line
between the SE 1/4 Section 8 and
the SW 1/4 Section 9 to irrigate
105.3 acres located in the E 1/2 SE
1/4 Section 8 and the W 1/2 SW 1/4
Section 9; all in T102N-R49W.
Pursuant to SDCL 48-2A-2, the
Chief Engineer recommends AP-
PROVAL of Application No. 5967-3
as a TEMPORARY PERMIT pur-
suant to SDCL 48-5-39 because 1)
water is available to be appropri-
ated as a temporary permit until the
City of Sioux Falls develops water
reserved from this future area; 2)
the proposed diversion can be
developed as a temporary permit
without unlawful impairment of ex-
isting rights; 3) the proposed use is
a beneficial use and 4) in the public
interest.
Any person interested in op-
posing or supporting this applica-
tion must file a written petition with
BOTH the applicant and Chief
Engineer. The applicant must also
file a petition if opposed to the
Chief Engineer's recommendation.
The Chief Engineer's address is
"Water Rights Program, Foss
Building, 523 E Capitol, Pierre SD
57501 (605 773-3352)" and the
applicant's mailing address is given
above. A petition filed by either an
interested person or the applicant
must be filed by February 24, 1997.
The petition may be informal, but
must include a statement de-
scribing the petitioner's interest in
the application, the petitioner's rea-
sons for opposing or supporting the
application, and the signature and
mailing address of the petitioner or
the petitioner's legal counsel. If
legal counsel is obtained.
The Water Management Board
will consider this application at 9:00
a.m., March 6, 1997, Floyd Matthew
Training Center, Joe Foss Building,
523 East Capitol, Pierre, SD. The
Chief Engineer's recommendation
is not final or binding upon the
Board. The Board is authorized to
1) approve, 2) approve with quali-
fications, 3) defer or 4) deny this
application based on the facts
presented at the public hearing.
The March 6, 1997, hearing date
will be automatically delayed for at
least 20 days upon written request
to the Chief Engineer from the
applicant or any interested person
opposing the application. The re-
quest for an automatic delay must
be filed by February 24, 1997.
Any hearing will be an adversary
proceeding. Any person filing a
petition and/or the applicant have
the right to be represented by a
lawyer and may present evidence
or cross-examine witnesses ac-
cording to SDCL 1-26. These and
other due process rights will be
forfeited if not exercised. Decisions
of the Board may be appealed to
the Circuit Court and State Su-
preme Court as provided by law.
Contact Eric Gronlund by February
24, 1997, at the above Water Rights
Program address to request copies
of information pertaining to this
application, to assure access to the
hearing by the handicapped or to
obtain an interpreter for the hearing
impaired.
This application is made pursuant
to SDCL 48-1-1 thru 48-1-9, 48-1-12
thru 48-1-16; 48-2-3.1, 48-2-9,
48-2-11, 48-2-13, 48-2-17; 48-2A-1
thru 48-2A-10, 48-2A-12, 48-2A-14,
48-2A-15, 48-2A-20, 48-2A-21;
48-5-1 thru 48-5-11, 48-5-13 thru
48-5-15, 48-5-24, 48-5-25, 48-5-
30.2, 48-5-30.4, 48-5-31, 48-6-3,
48-6-3.1, 48-6-6.1, 48-6-10, 48-6-13,
48-6-14, 48-6-28; 48-5-38 thru
48-5-40; and Board Rules ARSD
74:02:01:01 thru 74:02:01:15,
74:02:01:24 thru 74:02:01:25.
Nettie H. Myers, Secretary
Department of Environment and
Natural Resources
Feb. 6, 13, 1997

D Reicher

(Signature) KH

assistant Controller

(Title)

2-13-97

(Date Signed)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

APR 3 1997

Michael G. Williams
5901 Ditch Rd.
Sioux Falls, SD 57104

Dear Mr. Williams:

Enclosed are Temporary Water Permit Nos. 5966-3 and 5967-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permits.

Very truly yours,

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

enclosures

PLEASE NOTE: Certain changes may be made to your water permits usually without affecting the priority date. The location of a point of diversion may be changed or additional points of diversion may be approved if the water source remains unchanged; no additional water is appropriated; and, if irrigating, no additional land is irrigated. The change may be allowed without application or publication, if the Water Rights Program is contacted and the chief engineer makes a finding that the change does not increase the potential for interference with existing diversions.

A new water permit application is required to change water sources, increase the permitted diversion rate, or increase the irrigated acreage. If the application is approved, the water permit will receive a new priority date.



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES

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

January 22, 2010

NOTICE

TO: MICHAEL G WILLIAMS, 5901 DITCH RD, SIOUX FALLS, SD 57104

FROM: Ron Duvall, Natural Resources Engineer
for Garland Erbele, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2009 Irrigation Questionnaire(s)

Our records indicate that the 2009 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 5966-3 & 5967-3. The request for the Questionnaire was dated October 16, 2009. The Water Management Board has directed that owners of water permits who have not submitted the 2009 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 5966-3 & 5967-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **10:00 am, March 10, 2010** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, 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 Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 5966-3 & 5967-3 in accordance with applicable provisions of SDCL 46-1-12;
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 on/or before **March 5, 2010**, you will no longer be in violation of your permit and your name will be deleted from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. If you prefer, you can complete the questionnaire online at the following link: <https://denr.sd.gov/iq/asp>

NOTE: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 28, 2010

5966-3
5967-3

Michael G Williams
5901 Ditch Rd
Sioux Falls SD 57104

Dear Mr. Williams:

I am writing to acknowledge receipt of your 2009 irrigation questionnaires. You may disregard the January 22, 2010, "Notice" concerning reporting requirements for Water Permit Nos. 5966-3 and 5967-3.

The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 5967-3

I have this day, July 6, 2021, made a thorough examination of the water use system constructed by Michael G. Williams, 5901 Ditch Rd., Sioux Falls, SD 57104 of Permit No. 5967-3, bearing the priority of November 15, 1996 authorizing the diversion of 1.50 cu. ft. per second of the waters of the Big Sioux: Sioux Falls Aquifer for irrigation purposes, in Minnehaha County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Alton Well & Concrete Co, Inc.
- 2) No. of Wells 1
- 3) Depth(s) 30 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 16 inches
- 2) Length 20 feet
- 3) Type Plastic

Screen:

- 1) Type Manufactured
- 2) Length 10 feet
- 3) Static water level 4 feet

Pump:

- 1) Make NA
- 2) Model Turbine
- 3) Size NA
- 4) Capacity 500 GPM

Motor:

- 1) Make NA
- 2) Model No. NA
- 3) Horsepower rating NA hp

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

Comments: Well is at the pivot

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Valley
- 2) Overall length 1080 feet
- 3) Number of towers 6
- 4) End gun Y/N
- 5) Capacity 500 GPM

Chemigation Equipment: None

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y
- 3) Exceptions to compliance are: None

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: **From SE corner of Sec 8 T102N R49W, 1320ft N & 350 ft W, Lat 43.64877 Long -96.73245 (SE ¼ SE ¼ Section 8).**
2. The works are capable of diverting and conveying to the place of use 1.11 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

Section 8-T102N-R49W

NE 1/4 SE 1/4 - 30ac

SE 1/4 SE 1/4 - 33 ac

Section 9-T102N-R49W

NW 1/4 SW 1/4 - 14 ac

SW 1/4 SW 1/4 - 14 ac

comprising a total of 91 acres of land and the license should be issued for 1.11 cfs.

3. All structures, wells and lands on map Y

F. Comments or other permit(s) associated with the project:

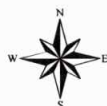
Address and phone number on inspection materials are current.

Irrigation acreage was determined via the use of FSA maps and ArcMap software.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: July 16, 2021



0 0.075 0.15 0.3 0.45 0.6 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

AUG 05 2021

5967-3

Michael G Williams
5901 N Ditch Rd
Sioux Falls SD 57104

Dear Mr. Williams:

Enclosed is Reissued Temporary Use Water Permit No. 5967-3. The temporary use water permit was reissued to reflect the system as developed. The reissued permit is based on a field investigation done by a staff engineer with our program. A copy of his map is included showing the location of the diversion point and acres developed for irrigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, 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.

The Reissued Temporary Use Water Permit is subject to the qualifications listed in the permit. If you have any questions, please contact our office.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

**REISSUED SOUTH DAKOTA
TEMPORARY USE WATER PERMIT NO. 5967-3
AS DEVELOPED**

On March 6, 1997, the Water Management Board approved Temporary Use Water Permit No. 5967-3 for Michael G Williams 5901 N Ditch Rd Sioux Falls SD 57104 authorizing construction of the water use system and placement of water to beneficial use.

1. On July 6, 2021, an investigation was conducted of the water use system described in Temporary Use Water Permit No. 5967-3. The investigation found the system was developed as follows: One well, 30 feet deep into the Big Sioux: Sioux Falls Aquifer located approximately 1,320' N and 350' W of the SE corner of Section 8, T102N, R49W (SE ¼ SE ¼ Sec 8) Latitude 43.64877, Longitude -96.73245.

The temporary use permit holder is authorized to divert the developed diversion rate of 1.11 cubic feet of water per second (500 gpm) from the well described above to irrigate the following acreage:

Section 8, T102N, R49W		Section 9, T102N, R49W	
NE ¼ SE ¼	30 acres	NW ¼ SW ¼	14 acres
SE ¼ SE ¼	33 acres	SW ¼ SW ¼	14 acres

Total of 91 acres

2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: May 1 — September 30.
3. The date from which applicant may claim right is November 6, 1996.
4. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

- The City of Sioux Falls has priority right to this water under future use withdrawal permits. This permit is issued as a temporary use permit pursuant to SDCL 46-5-39 and is subject to Sioux Falls prior rights if or when the city develops the reserve water supply. The permit may be subject to cancellation when the city puts to beneficial use water reserved by their future use permit. The Chief Engineer must provide the permit holder a six month notice prior to cancellation of this temporary use permit.
- If development and pumping of the Sioux Falls Management Unit of the Big Sioux Aquifer water appropriated by the temporary use permit results in adverse impairment of adequate domestic wells or adequate wells having prior rights, reduction of withdrawals or mitigation may be necessary. SDCL 46-1-5(1), in giving preference to domestic use over appropriative rights does so without regard to 1) whether lowered ground water levels are due to drought, 2) the location of the domestic wells in the aquifer, or 3) the thickness of the water bearing sands and gravel; subject to compliance with minimum requirements for adequate wells as defined by Board Well Construction Standards, Chapter 74:02:04.

continued

Reissued Temporary Use Water Permit No. 5967-3

Page 2

- The well authorized by Temporary Use Permit No. 5967-3 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. ***The well was drilled in July 1997 by Alton Well & Concrete Co., Inc. A copy of the well completion report is on file with the Water Rights Program.***
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.
- Approval of Temporary Use Permit No. 5967-3 withdrew deferred Application No. 1968-3 from consideration.

WATER MANAGEMENT BOARD

Eric Gronlund

Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

AUG 05 2021

date

