

WATER PERMIT NO. 7104-3

Name of Applicant: **Howell Farms Inc.**

Address: **21370 464th Ave, Volga SD 57071** Phone: **605 695-2673**

Amount of Water Claimed: **2.28 cfs** Total Acres: **150**

Source of Water Supply: **groundwater (2 wells)**

Water to be used for: **irrigation** County: **Brookings**

Type of Waste Disposal System: **NA**

Location: **3 miles south of Volga**

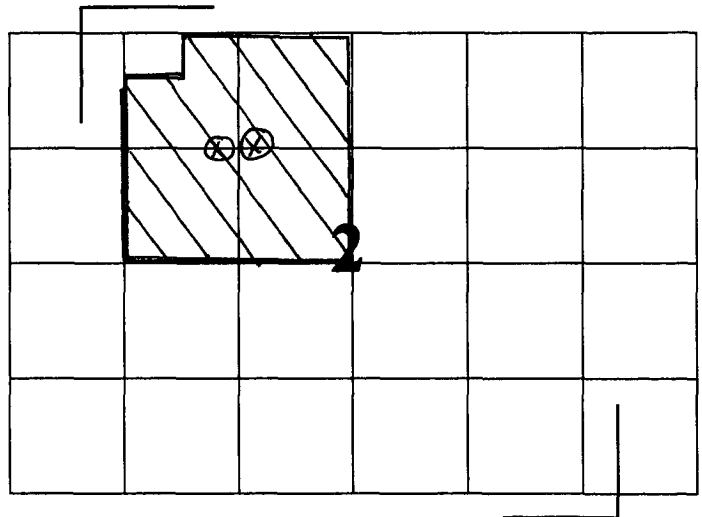
PRIORITY Date Received: **3-16-09** Application/License Fee: **\$300**

Corrected Application Received: Period of Annual Use: **June 1 – August 31**

Remarks:

Diversion Point: **approximately center of NW ¼**
Sec 2-T109N-R51W

Land to be Irrigated: **NW ¼ Sec 2-T109N-R51W**



Depth of Well: **37 feet deep**

Well Driller: **Lacey Well Drilling Inc.**

Remarks:

Type of Map: **aerial**

Prepared by: **Gary Kyler, Brookings Co NRCS**

Reviewed and the Number Assigned on: **3-16-09**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

FORM 2: Application for irrigation in South Dakota
(type or print)

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>7104-3</u>	(office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Brookings Register PO Box 177</u>	
	<u>605-692-6271</u>	<u>57006</u>

RECEIVED
MAR 16 2009
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

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

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

1. Name of Applicant Howell Farms Inc. Phone 605-695-2673
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 21370 464th AVE, VOLGA State S.D., 57071
(Street, RR, or Box and City) (Zip Code)
2. Amount of water claimed 2.14 *CFS or 1000 **GPM ***AF Total Acreage 150
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply GROUND WATER VEIN - FROM 12' TO 37'
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County BROOKINGS
2 WELLS IN NW1/4 SECTION 2 - T104N-R51W
(approximate center)
5. County or counties where water will be used BROOKINGS
6. Annual period during which water is to be used SUMMER - JUNE 1 - AUGUST 31
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)

Land Description	Acres	Land Description	Acres
NW1/4 OF NW1/4 OF SEC 2 T104N-R51W EXCEPT N 495' OF W 880'			
NE 1/4 " " " "			
SW 1/4 " " " "			
SE 1/4 " " " "			

8. Give a description of the project. (Attach sheet if more space is needed)
CENTER PIVOT IRRIGATION OF CORN/SOYBEANS FROM 2 WELLS
EACH WITH 20" BORE HOLE & 12" CASING & SCREEN.

STATE OF SOUTH DAKOTA) SS
County of BROOKINGS)

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)

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

Applicant's signature Craig Howell

Subscribed and sworn to before me this 11th day of March 20 09

Nicol A. Kauder Notary Public
Notary Public signature

commission exp. date 2/20/2015

**SOUTH DAKOTA
WATER PERMIT NO. 7104-3**

Date of first receipt of application March 16, 2009.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7104-3 to Howell Farms Inc., 21370 464th Ave, Volga SD 57071 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. Water Permit No. 7104-3 appropriates 2.14 cubic feet of water per second from two wells to be completed into the Big Sioux:Brookings Aquifer (approximately 37 feet deep) located in approximate center of the NW 1/4 Section 2 to irrigate 150 acres located in the NW 1/4 Section 2; all in T109N-R51W.
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: June 1- August 31.
3. The date from which applicant may claim right is March 16, 2009.
4. The date of approval of Permit No. 7104-3 is May 11, 2009.
5. One-fifth of the construction is to be completed on or before November 11, 2011.
6. All construction is to be completed on or before May 11, 2014.
7. Water is to be put to beneficial use on or before May 11, 2018.
8. 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 wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 7104-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump 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.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: Garland Erbele

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

AUG 05 2009

date



(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 20" Depth 37'
- b) Casing Type PVC Diameter 12" Thickness _____
- c) Screen Type _____ Diameter 12" Thickness _____
- d) Gravel Pack MEDIUM SAND Length of Gravel Pack 25'
- e) Depth to Top of Water Bearing Material 12'
- f) Depth to Water (ground surface to water level) 12'
- g) Distance to nearest existing domestic well:
- On applicants property _____ On property owned by others 1,700'

2. Wastewater Disposal System Information

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

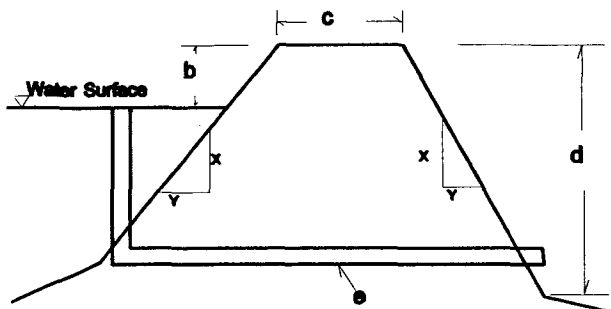
3. Dugout Information

- 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

2003

2939

MAP NOT TO SCALE
THIS IS NOT AN OFFICIAL WETLAND MAP

RECEIVED

MAR 16 2009

WATER RIGHTS
PROGRAM



In Water Since 1946

Wells — Pumps
Dewatering Work
Test Drilling

LACEY WELL DRILLING, INC.
47582 - 240th St.
Dell Rapids, South Dakota 57022
Telephone (605) 428-5979

Down-Hole Camera
Water Specialists
Irrigation Supplies

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MAR 16 2009

WATER RIGHTS
PROGRAM

2-6-08

Howe 11 Farms

Log of test hole drilled in
approximate middle of NW 4 2
109 N 51 W Colotap, Brookings Co

0-5 till

5-11 sandy clay soil 12'

11-36 medium sand

We would go with a 20" borehole
setting 12" PVC casing and screen

Thanks

Jim
Lacey

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 3/16, 20 09

RECEIVED OF Howell Farms Inc. 21370 464th Ave Volga SD 57071

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

Fee for Application for Permit No. <u>7104-3</u> to Appropriate Water, to construct and to put water to beneficial use	250	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. <u>7104-3</u>	50	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	300 00

No.

04072

By [Signature]
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7104-3, Howell Farms, Inc.**

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. 7104-3, Howell Farms, Inc., c/o Craig Howell, 21370 464th Avenue, Volga SD 57071.

The Chief Engineer is recommending APPROVAL of Application No. 7104-3 for 2.14 cfs because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 7104-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump 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.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
April 14, 2009

NOTE: The application requests diversion rate authority of 2.28 cubic feet of water per second (cfs) to irrigation 150 acres. The statutory limit for irrigation of 150 acres is 2.14 cfs (960 gpm). Therefore, this recommendation proposes to limit the diversion rate to the statutory limit of 2.14 cfs.

REPORT ON WATER PERMIT APPLICATION NO. 7104-3
For Howell Farms, Inc.
April 9, 2009

Application No. 7104-3 proposes to appropriate 2.28 cfs from two wells approximately 36 feet deep located in the approximate center of the NW $\frac{1}{4}$ of section 2 to irrigate 150 acres located in the NW $\frac{1}{4}$ of section 2; all in T109N R51W in Brookings County.

AQUIFER – BIG SIOUX BROOKINGS (BS-B)

The Big Sioux Brookings is a predominantly surficial outwash (sand and gravel) that is predominantly under water table conditions in Brookings County. The aquifer underlies 74,500 acres and contains an estimated 245,850 acre-feet of recoverable water in storage in Hamlin County (Hedges, 1982). The Aquifer extends into Hamlin County to the north, Kingsbury County to the west and into Moody County to the south. Ground water movement appears to be from west to east in the area of this application (Hamilton, 1989). Hamilton mapped the entire aquifer in Brookings County which he called the Big Sioux aquifer (did not use the management units which are used in this report) and estimated the aquifer to underlie 540 square miles and contain an estimated 2.0 million acre-feet of water in storage in Brookings and Kingsbury Counties. The aquifer is hydraulically connected to the Big Sioux River and some area lakes and streams. Generally ground water movement is toward these surface water bodies which act as discharge zones for the ground water, however under some hydrologic conditions the surface water does recharge the ground water system. Recharge has been estimated to average about 6.57 inches per year to the aquifer (Koch, 1980).

There is a test well log available for the drill site. The test well log by Lacey Drilling indicates till from the surface to five feet, sandy clays from 5 to 11 feet and medium sand from 11 to 36 feet all below land surface. The test well had a static water level of twelve feet below land surface. There appears to be potential for irrigation water in this area but the sand and gravel thickness may not be sufficient. That is probably the reason the applicant requests two wells at this site.

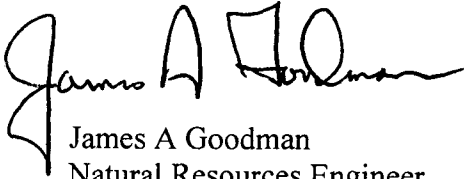
The Water Rights Program monitors observation well BG-77G that is located about two miles southeast of this application and observation BG-77Q that is located about one mile east of this application. Water levels for these wells show good response to climatic conditions. Water levels rise during wet periods (recharge) and gradually decline during dry years. A hydrograph for these observation wells are included with this report (Water Rights, 2009).

REVIEW OF EXISTING WATER PERMITS/RIGHTS

The nearest existing permitted irrigation well (Water Right No. 2695-3) is located about three-fourths mile southwest from the wells for this application. At this distance interference is not a concern. Drawdown will be created by pumping but will not be significant at the distance between wells. This is also shown by the observation well record which does not indicate that drawdown is a factor and what fluctuation that does appear is related to climatic conditions.

CONCLUSIONS

1. Water is available from the Big Sioux Brookings aquifer.
2. The aquifer is under water table conditions in this area. Drawdown created by pumping is not expected to be significant. Interference is not a concern.
3. The well(s) authorized by this application must be constructed in accordance with SD Well Construction Standards.
4. The applicant requests a diversion rate greater than one cfs per 70 acres. There is no justification for this request. This permit can be granted for 2.14 cfs (962gpm) for irrigation of 150 acres.

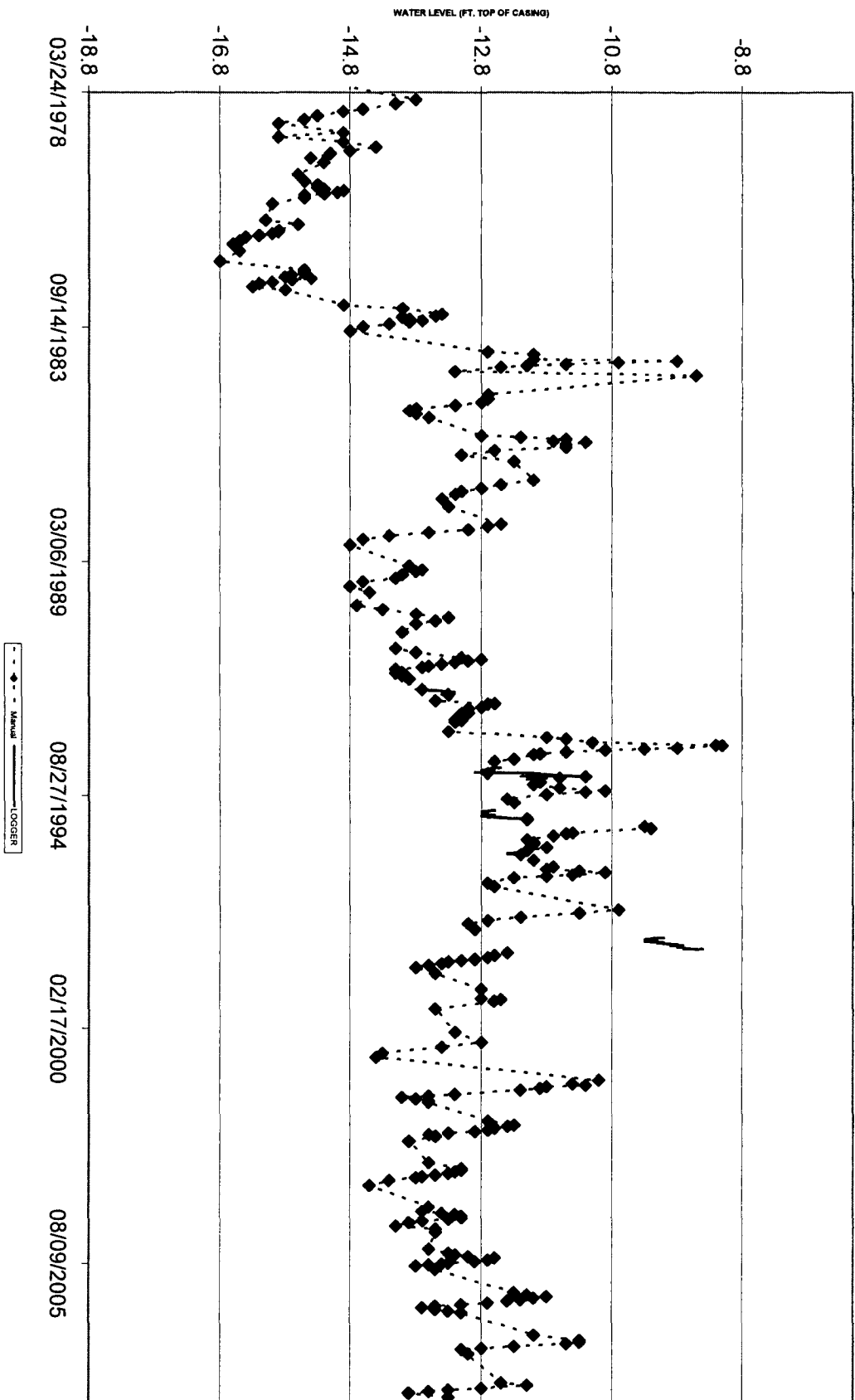


James A Goodman
Natural Resources Engineer

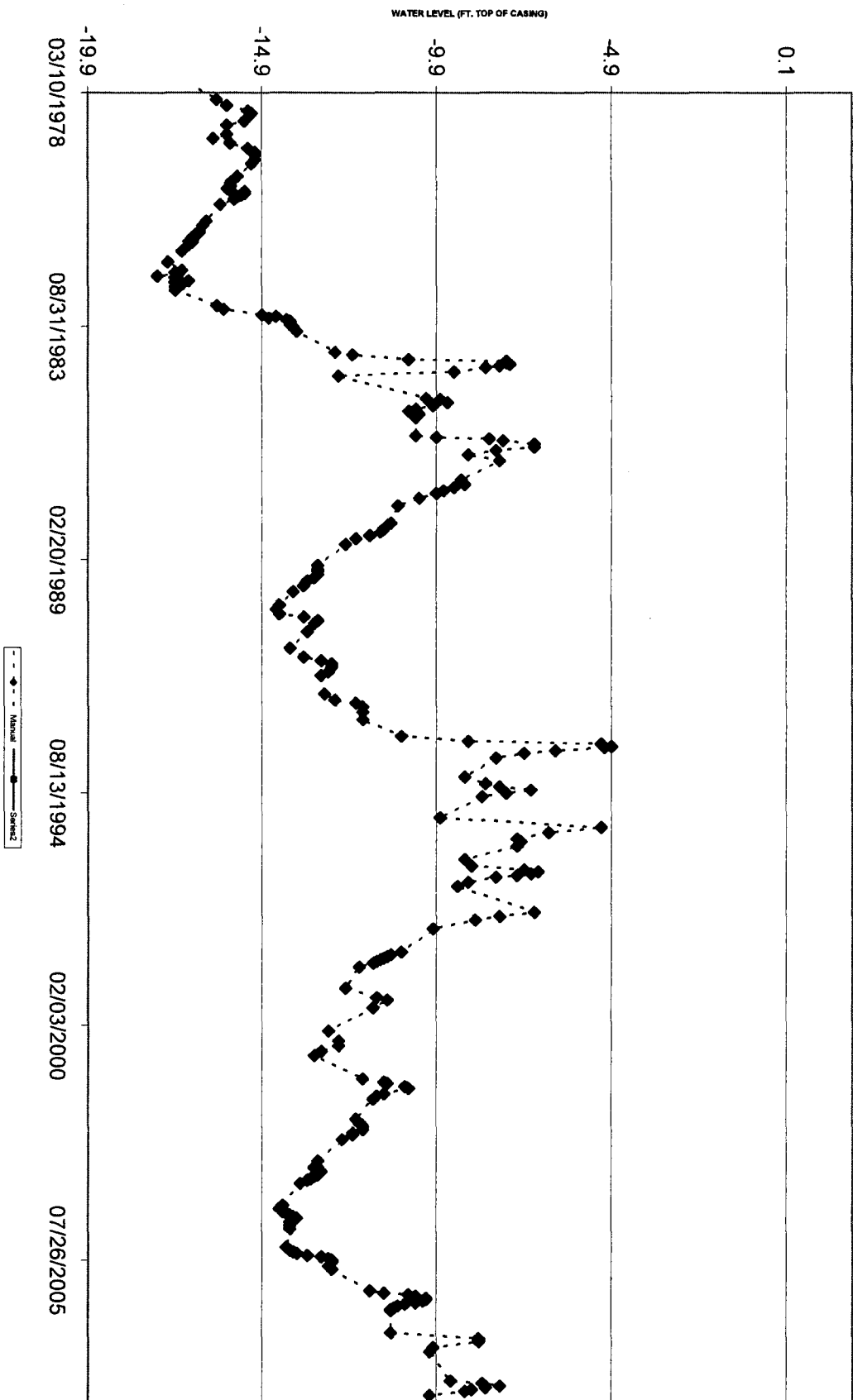
BIBLIOGRAPHY

- Hamilton, L.J., 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota, Water-Resources Investigations Report 88-4185, USGS, Huron, SD, 57350.
- Hedges, L.S., and others, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River South Dakota and Iowa, for US Army Corps of Engineers, SD DENR, SDGS, Vermillion, SD, 57069.
- Koch, N.C., 1980, Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota, Water-Resources Investigation Report 80-100, USGS, Huron, SD, 57350.
- Water Rights, 2009, Unpublished Observation Well Data for Hamlin County, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

**WATER RIGHTS' OBSERVATION WELL
BG-77Q**



**WATER RIGHTS' OBSERVATION WELL
BG-77G**



State of South Dakota

Exhibit "A"

SS

MAY 20 2009

County of Brookings

WATER RIGHTS
PROGRAM

Katy VanMaanen of said county, first duly sworn, on oath, says: That she is the office clerk of THE BROOKINGS REGISTER, a daily newspaper, printed and published in the City of Brookings, in said County of Brookings, and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper and has a bona fide circulation of at least two hundred copies of each issue daily; that said newspaper has been published within the said County of Brookings and State of South Dakota, for more than one year prior to the first publication of Exhibit "A," hereto attached and herein mentioned, and was and is printed that the

Legal 203 "Notice of Application"

a printed copy of which, taken from the paper in which the same was published, is hereto attached marked Exhibit said newspaper for _____ 2 times, to-wit:

April 24, 2009

May 1, 2009

said Exhibit "A" inures to the sole benefit for the publishers of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever; that the fees charged for the publication thereof are:

Forty five dollars and seventy-four cents \$45.74

Subscribed and sworn to before me this

8th day of

May

2009

Christina Nelson

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires April 27, 2012

Legal 203, 2x, 4/24, 5/1
NOTICE OF APPLICATION NO. 7104-3 to
Appropriate Water

Notice is given that Howell Farms, Inc, c/o Craig Howell, 21370 464th Ave, Volga SD 57071 has filed an application for a water permit to appropriate 2.28 cubic feet of water per second from two wells to be completed into the Big Sioux:Brookings Aquifer (approximately 37 feet deep) located in approximate center of the NW 1/4 Section 2 to irrigate 150 acres located in the NW 1/4 Section 2; all in T109N-R51W. Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7104-3 for 2.14 cfs because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition. Any person interested in, opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting 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 May 11, 2009. The petition may be informal, but must include a statement describing the petition-

er'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. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

April 15, 2009

Brookings Register
PO Box 177
Brookings SD 57006

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7104-3 to Appropriate Water to be published twice. Please publish the first notice on April 24, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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 Howell Farms Inc., c/o Craig Howell, 21370 464th Ave., Volga SD 57071 (Ph # 605-695-2673).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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

No. 7104-3

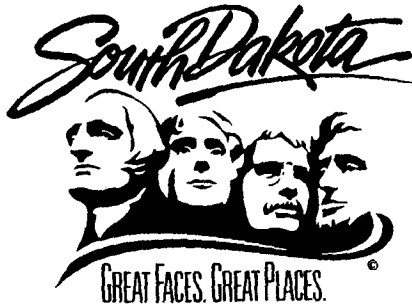
TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of April 15, 2009 enclosing Notice to Appropriate Water by Application No. 7104-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

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

April 15, 2009

Howell Farms Inc
c/o Craig Howell
21370 464th Ave
Volga SD 57071

Dear Mr. Howell:

Water Permit Application No. 7104-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Brookings Register printed at Brookings SD (Ph # 605-692-6271). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendations of the Chief Engineer and reports 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 Notices and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the applications.

Sincerely,


Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, 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 application.

Instruction to Newspaper - Publish first Notice on April 24, 2009 with the second publication 7 days later. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 7104-3 to Appropriate Water

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7104-3 for 2.14 cfs because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting 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 May 11, 2009.

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. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

AUG 05 2009

Howell Farms Inc
c/o Craig Howell
21370 464th Ave
Volga SD 57071

Dear Mr. Howell:

Enclosed is Water Permit No. 7104-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

SOUTH DAKOTA WATER WELL COMPLETION REPORT

7104-3

07-92

Location NW 1/4 NW 1/4 Sec 35 Twp 110N Rg 50 (S14)

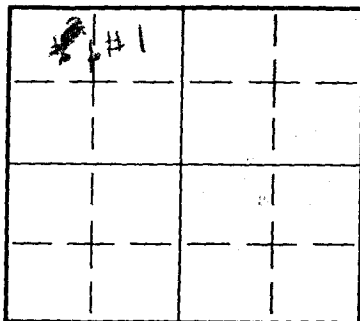
County Brookings

North

Please mark well location with an "X"

W

E



Well Completion Date

4-20-10

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 3/4 mile ft. from clay farm NW (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Bucket + False casing

CASING DATA:

- ☐ Steel ☒ Plastic ☐ Other

If other, describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>20 LB/FT</u>	<u>12" IN</u>	<u>+2 FT</u>	<u>26 FT</u>	<u>20 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>Cement</u>	_____	_____ lb./gal	<u>0</u> ft	<u>11</u> ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 12 IN Length 10 FEET

Material PVC

Slot Size .080 Set From 26 Feet to 36 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: _____

☐ NO, Why Not? _____

Laboratory sent to for water quality analysis

Chlorine pellets

No - Irrigation

Well Owner: Craig Howell

Business Name: Howell Farms Inc.

Address: 2137D 46th Ave.

Volga, S.Dak 57071

WELL LOG:

DEPTH

FORMATION

FROM

TO

Topsoil

0

3

CLAY

3

11

Nice Gravel

11

36

STATIC WATER LEVEL

11'

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: sub

☐ Bailed

☐ Other

Pumping Level Below Land Surface

25'

ft. After 2 Hrs. pumped

450

GPM

ft. After _____ Hrs. pumped

GPM

If pump installed, pump rate _____

GPM

REMARKS

Good well

RECEIVED

MAY 03 2010

WATER RIGHTS PROGRAM

This well was drilled under license # 111

And this report is true and accurate.

Drilling firm Lacey Well Drilling Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Howell Farms Inc. Craig Howell

Date:

4/26/10

SOUTH DAKOTA WATER WELL COMPLETION REPORT

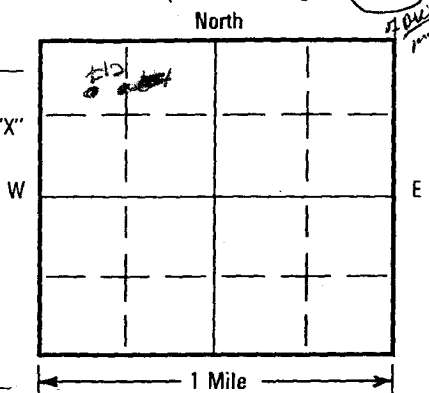
7104-3

07-92

Location NW 1/4 NW 1/4 Sec 35 Twp 110-N Rg 50-W

County Brookings

Please mark well location with an "X"



Well-Completion Date

4-19-10

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 3/4 mi. left from Dairy Farm NW (Identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Bucket & false casing

CASING DATA: ☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>20 LB/FT</u>	<u>12 IN</u>	<u>42 FT</u>	<u>26 FT</u>	<u>20 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>Cement</u>	_____	_____ lb./gal	<u>0 ft</u>	<u>11 ft</u>
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 12 IN Length 10 FEET

Material PVC

Slot Size 1080 Set From 26 Feet to 36 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: _____

_____ NO, Why Not? _____

Chlorine Pellets

Laboratory sent to for water quality analysis

No - Irrigation

Well Owner: Craig Loney

Business Name: Howell Farms Inc.

Address: 21370 464th Ave.

Volga, S.Dak. 57071

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Topsoil	0	1
Yellow Clay	1	3
Gravel	3	4
Yellow Clay	4	11
Gravel	11	36'6"

STATIC WATER LEVEL 11'2" 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

26 ft. After 2 Hrs. pumped 450 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

Good Well

This well was drilled under license # 111

And this report is true and accurate.

Drilling firm Lacey Well Drilling, Inc.

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Howell Farms Inc. Craig Loney

Date: 4/26/10

RECEIVED

MAY 03 2010

WATER RIGHTS PROGRAM

7104-3
RECEIVED

JUL 19 2010

WATER RIGHTS
PROGRAM**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**Date 7-17-2010TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181FROM: Howell Farms Inc
(name)
21370 464th AVE
(address)
VOLGA, SD 57071
(city, state, zip) (phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

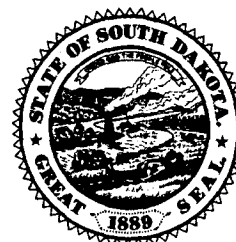
Water Permit No. 7104-3 states that the water use system is to be constructed by
5-11-2014, and water is to be put to beneficial use by 5-11-2018.
(date) (date)

The water use system was completed on 7-9-2010.
(date)

Applying the water to beneficial use was completed on 7-16-2010.
(date)

You may schedule an investigation so that the water license may be issued.

Craig Howell
(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

July 19, 2010

7104-3

Craig Howell
Howell Farms Inc
21370 464th Ave
Volga SD 57071

Dear Mr. Howell:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that you are completed with your irrigation system.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Genny McMath". The signature is written in a cursive, flowing style.

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

Permit No. 7104-3
Sioux River - Water District

Report Of Examination Of Works And/Or Application of Water To Beneficial Use

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, **September 13, 2011**, made a thorough examination of the water use system constructed by **Howell Farms, Inc** of **21370 464th Avenue, Volga SD 57071** holder of Permit No. **7104-3**, bearing the priority of **March 16, 2009** authorizing the diversion of **2.14 cu. ft. per second** from the **Big Sioux:Brookings Aquifer** for **irrigation** purposes, in **Brookings** County.

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

A. Works used to divert the water:

Two wells are in place each with submersible pumps that Craig Howell stated produce 0.78 cfs (350 gpm) each for a total appropriation of 1.56 cfs..

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

Well heads are located a few hundred feet to the northwest of the pivot center. Water from the wells is conveyed to the pivot point underground.

C. Works used to apply water to beneficial use:

An 7 tower Valley center pivot

The system is in the following condition **excellent**. The points of diversion (well) are **located specifically Well 1 - Lat 44.27980 Lon -96.92345 (approx. 1,060' south and 1,340' east of NW corner Section 2, T109N, R51W - NE ¼ NW ¼) and Well 2 - Lat 44.27978 Lon -96.92490 (approx. 1,050' south and 975' east of NW corner Section 2, T109N, R51W - NW ¼ NW ¼)** The works are capable of diverting a total of **1.56 cfs from two wells** which is to be used for **irrigation**. Water has been put to beneficial use to the maximum extent as follows:

All in Section 2, T109N, R51W

NW ¼ NW ¼	32 acres
NE ¼ NW ¼	34 acres
SW ¼ NW ¼	34 acres
SE ¼ NW ¼	34 acres

This breakdown of acres is a best estimate based on 1) information provided by the applicant, 2) viewing the orthoquadrangle using ArcMap, and 3) calculating the area based on the pivot radius.

comprising a total of **134** acres of land and the license should be issued for **1.56 cfs** based on the combined total from the two wells

Applicable permit qualifications have been complied with: **Yes**

Exceptions to compliance are: **none** Date Report Completed: **November 2, 2011**



Eric Gronlund

Natural Resources Engineer
 DENR, Water Rights Program

FIELD INVESTIGATION REPORT FOR PERMIT NO. 7104-3

DATE OF INVESTIGATION:	September 13, 2011
NAME & ADDRESS OF PERMIT HOLDER	Howell Farms Inc 21370 464 th Avenue Volga SD 57071
NAME & ADDRESS OF INVESTIGATION CONTACT/ RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE	Craig Howell
DIVERSION POINT LEGAL LOCATIONS	N ½ NW ¼ Section 2, T109N, R51W

WELL INFORMATION:

- 1) Well Drilling Firm: **Lacey Well Drilling**
- 2) No. of Wells
- 3) Depth(s) # 1 - 36 feet & #2 - 36 ½ feet
- 4) Well log is available Yes
- 5) Comment:

Casing:

- 1) Diameter 12 inches
- 2) Length 26 feet
- 3) Type plastic

Screen:

- 1) Type PVC
- 2) Length 11 feet
- 3) Static water level 11' & 11' 2"

Pump:

- 1) Make Submersible
- 2) Model _____
- 3) Size
- 4) Capacity 350 GPM

Motor:

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

SYSTEM TYPE:

Center pivot:

- 1) Make Valley 8,000
- 2) Overall length 1273.9 feet
- 3) Number of towers 7 tower
- 4) Distance between towers _____ feet
- 5) End gun Yes (98.9')
- 6) High or low pressure 30 psi
- 7) Capacity 800 GPM

CHEMIGATION EQUIPMENT: No

PERMIT QUALIFICATIONS:

- 1) Special qualifications to permit being abided by Yes
- 2) All structures, wells and lands on map Yes
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Yes

COMMENTS:

- Notice of Completion of Works filed July 19, 2010
- Irrigation questionnaire reflect that irrigation began in 2010.
- Contacted Lacey Well Drilling regarding the pumps installed in the two wells. They returned my call and left a voice mail confirming that each well produces 350 gpm. They did not provide any details on the make, model or horsepower of the submersible pumps installed in each well.



Well 1 - Lat 44.27980 Lon -96.92345 (approx. 1,060' south and 1,340' east of NW corner Section 2, T109N, R51W)

Well 2 - Lat 44.27978 Lon -96.92490 (approx. 1,050' south and 975' east of NW corner Section 2, T109N, R51W)



Eric Gronlund
Eric Gronlund
Water Rights Program, DENR
License Inspection - September 13, 2011



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

JAN 12 2012

7104-3

Craig Howell
Howell Farms Inc.
21370 464th Ave
Volga SD 57071

Dear Mr. Howell:

Enclosed is Water License No. 7104-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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. 7104-3, 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.

Sincerely,

A handwritten signature in black ink, appearing to read "Garland Erbele". The signature is written in a cursive, flowing style.

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7104-3**

(1) Howell Farms Inc., 21370 464th Ave, Volga SD 57071 made Application No. 7104-3, March 16, 2009 for a water permit to divert 2.14 cubic feet of water per second from ground water (two wells – Big Sioux Brookings Aquifer, Brookings County, South Dakota for irrigation purposes. Permit No. 7104-3, with a priority date of March 16, 2009 was approved May 11, 2009 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 11, 2014 and for the application to beneficial use of said water on or before May 11, 2018.

The Permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on July 19, 2010. The "*Notice*" stated the water use system was completed on July 9, 2010 and the water placed to beneficial use on July 16, 2010.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.56 cubic feet of water per second for beneficial use.

The location of the diversion points are as follows:

- Well #1 – 1,060 feet S and 1,340 feet E of the NW corner of Section 2, T109N, R51W (NE ¼ NW ¼)
- Well #2 – 1,050 feet S and 975 feet E of the NW corner of Section 2, T109N, R51W (NW ¼ NW ¼)

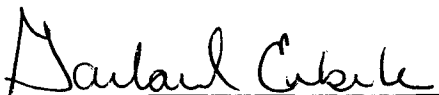
(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

Section 2, T109N, R51W	NW ¼ NW ¼	32 acres
	NE ¼ NW ¼	34 acres
	SW ¼ NW ¼	34 acres
	SE ¼ NW ¼	34 acres
	Total	134 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Howell Farms Inc., 21370 464th Ave, Volga SD 57071 the holder and/or owner of Water Right No. 7104-3 is issued a license to appropriate water, the right to use 1.56 cubic feet of water per second from ground water (two wells – Big Sioux Brookings Aquifer) with a priority date of March 16, 2009 from the locations specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 7104-3 and subject to the following qualifications:

- The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- The wells authorized by Permit No. 7104-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the 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. ***Both wells drilled in April, 2010 by Lacey Well Drilling – copies of logs on file with the Water Rights Program.***
- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.


Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JAN 12 2012
date

