

WATER PERMIT NO. 7333-3

Name of Applicant: **Firesteel Ranch Corp**

Address: **38668 SD Hwy 34, Wessington Springs SD 57382**

Phone: **605 539-9380**

Amount of Water Claimed: **0.155 cfs**

Total Acres: **na**

Source of Water Supply: **groundwater (3 existing wells)**

Water to be used for: **commercial**

County: **Jerauld**

Type of Waste Disposal System:

Location: **4 miles east of Wessington Springs**

PRIORITY

Date Received: **3-13-12**

Application/License Fee: **\$ 700**

Corrected Application Received: **_**

Period of Annual Use: **January 1 – December 30**

Remarks:

Diversion Point: **E ½ Sec 14-T107N-R64W**

Land to be Irrigated: **na**

Depth of Well: **970 & 980**

Well Driller: **Chase Drilling**

Remarks:

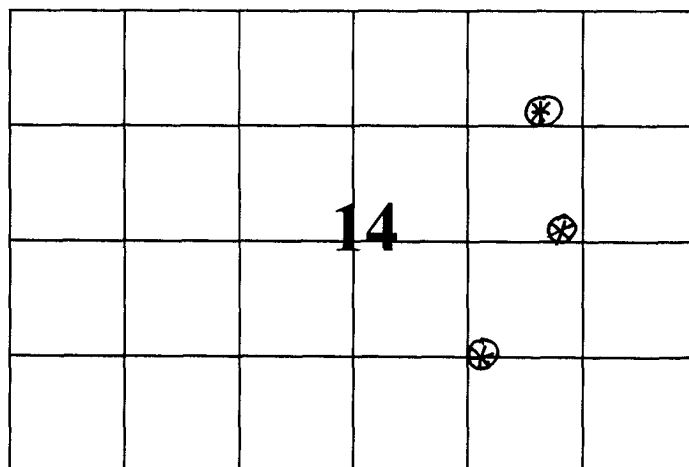
Type of Map: **aerial**

Prepared by: **Diana Long, Jerauld Co. SCS**

Reviewed and the Number Assigned on: **3-13-12**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



FORM 2: Application for uses other than irrigation
(type or print)

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	(office use only)	
	No. <u>7333-3</u>	Hydrologic Unit <u>10160011</u>
	Basin <u>James River</u>	
	Newspaper <u>True Dabotan</u>	<u>PO Box 358</u>
	<u>605-539-1281</u>	<u>Wess. Springs 57382</u>

RECEIVED
MAR 13 2012
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

- | | | | |
|--|---|--|--|
| ☐ Municipal | ☐ Suburban Housing | ☐ Recreational | ☐ Institutional |
| ☐ Rural Water System | ☐ Commercial | ☐ Fish & Wildlife | ☐ Geothermal Heat |
| ☒ Domestic (over 18 gpm) | ☐ Industrial | ☐ Other | |

Type of Application:
(check one)

- ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____
☐ Amendment/Correction to Permit No. _____

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

1. Name of Applicant Firesteel Ranch Corp. Phone 605-539-9380
 (check one) ☒ Owner ☐ Tenant/lessee
 Mailing Address 38668 SD Hwy 34 Wessington Springs SD 57382
 (Address) (City) (State) (Zip Code)
2. Amount of water claimed 0.155 *CFS or 70 **GPM ***AF
 (*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply 3 domestic wells
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Jerauld
3 wells located in E 1/2 of section 14-T107N-R64W
5. County or counties where water will be used Jerauld
6. Annual period during which water is to be used Jan 1 - Dec 31
7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

5000 hd beef feedlot. Summer water usage 20 gal/hd/day = 100,000 gal/day or 70gpm

STATE OF SOUTH DAKOTA)

County of Jerauld)

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

I, Jeff Burg, 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

Subscribed and sworn to before me this 12th day of March 20 12

Notary Public signature

Comm expires 6-20-13

**SOUTH DAKOTA
WATER PERMIT NO. 7333-3**

Date of first receipt of application March 13, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7333-3 to Firesteel Ranch Corp, 38668 SD Hwy 34, Wessington Springs SD 57382 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. 7333-3 appropriates 0.155 cubic feet of water per second from three existing wells completed into the Dakota Aquifer (970 and 980 feet deep) located in E 1/2 Section 14-T107N-R64W.
2. The water appropriated shall be used for the purpose of commercial use in a cattle feedlot operation and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 7333-3 is May 4, 2012.
5. The date from which applicant may claim right is March 13, 2012.
6. One-fifth of the construction is to be completed on or before November 4, 2014.
7. All construction is to be completed on or before May 4, 2017.
8. Water is to be put to beneficial use on or before May 4, 2021.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATION

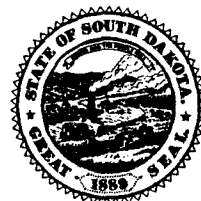
The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

WATER MANAGEMENT BOARD

By: Garland Erbele

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

JUL 16 2012
date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter _____ Depth _____
- b) Casing Type _____ Diameter _____ Thickness _____
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material _____
- f) Depth to Water (ground surface to water level) _____
- g) Distance to nearest existing domestic well:

On applicant's property _____ On property owned by others _____

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

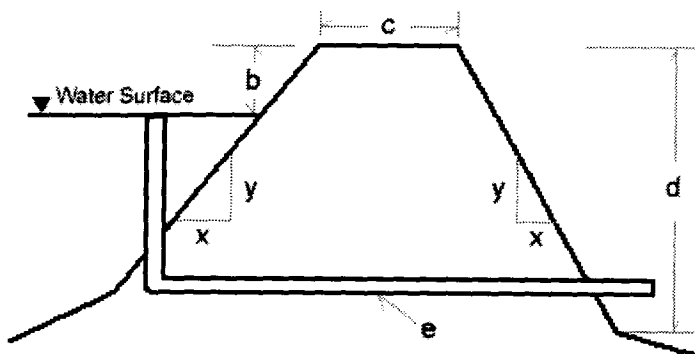
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

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 (e.g. 3 to 1 is a typical slope)
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres





USDA - Farm Service Agency

Wells marked with Pink Star

Diana Long

Soil Conservation Technician

April 03, 2009

3-12-12

Jerauld County, SD

14-107N-64W

RECEIVED

MAR 13 2012

WATER RIGHTS PROGRAM

Legend

- Tract Boundaries
- Common Land Units
- Rangeland
- CRP
- Easements

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

USDA FSA maps are for FSA Program administration only. There is no guarantee or representation to the user as to the accuracy, currency, suitability or reliability of the data. FSA MAPS DO NOT REPRESENT A LEGAL SURVEY. The user accepts the data 'as is' and assumes all risks associated with its use. Wetland points reflect records available with NRCS and may or may not constitute a full inventory of the property. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data. Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

SOUTH DAKOTA WATER WELL COMPLETION REPORT

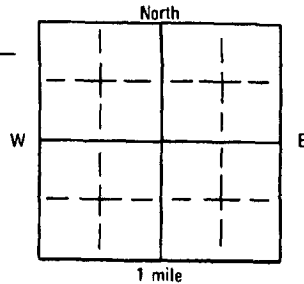
10-85

Location $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 14 Twp 107 Rg 64

County

Jerauld

Please mark well location with an "X"



Well Completion Date 12-1-91

PROPOSED USE:

☐ Domestic ☐ Municipal ☐ Test Holes
☐ Irrigation ☐ Industrial ☒ Stock

Method of Drilling:

Mud rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
Sch. 200 LB/FT	5 IN	0 FT	60 FT	7 1/2 IN
Sch. 80 LB/FT	2 IN	60 FT	980 FT	4 3/4 IN
Sch. 80 LB/FT	2 IN	780 FT	980 FT	4 1/4 IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUT:

Was the well grouted? ☒ YES ☐ NO

To what depth? 60 FEET

What is grouting material? Cement

If cement, number of sacks? 12

Describe grouting procedure Bentonite slurry from 60' to 900'

What was grout weight? _____ LB/GAL

SCREEN: ☒ Perforated pipe ☐ Manufactured

Diameter 2 IN Length 80 FEET

Material Sch. 80

Slot Size 3/8" Set From 900 Feet To 980 Feet

Slot Size _____ Set From _____ Feet To _____ Feet

Slot Size _____ Set From _____ Feet To _____ Feet

Other information

Was a packer or seal used? ☒ YES ☐ NO

If so, what material? Rubber

Describe packer(s) and location? 900'

Was well disinfected upon completion? ☐ YES ☒ NO

Explain

Bacteriological analysis ☐ YES ☒ NO

Laboratory sent to

Well Owner:

Quinton Burg

Name Firesteel Ranch

Address Wessington Springs S.D. 57382

Well Log: _____ Depth

Formation

Formation	From	To
Top soil	0	2 1/2
Yellow clay	2 1/2	8 3/4
Blue clay	8 3/4	13 3/4
Shale	13 3/4	17 1/2
Shale	17 1/2	740
Sand	740	783
Shale	783	792
Sandstone (fair)	792	819
Shale	819	821
Sandstone (fair)	821	840
Shale	840	890
Sandstone	890	958
Shale	958	972
Sandstone (good)	972	975
Shale	975	980

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure 12 PSI

GPM flow 40 through 2 inch pipe

Controlled by ☒ Valve ☐ Reducers ☐ Other

If other, specify

Can well be completely shut in? yes

WELL TEST DATA:

☐ Pumped☐ Bailed

Describe:

☐ Other

Pumping Level Below Land Surface

_____ ft. After _____ hrs. pumped _____ GPM

_____ ft. After _____ hrs. pumped _____ GPM

_____ ft. After _____ hrs. pumped _____ GPM

REMARKS:

This well was drilled under license # 296

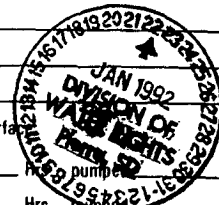
And this report is true and accurate.

Drilling firm

Signature of License Representative:

Signature of Well Owner:

Date

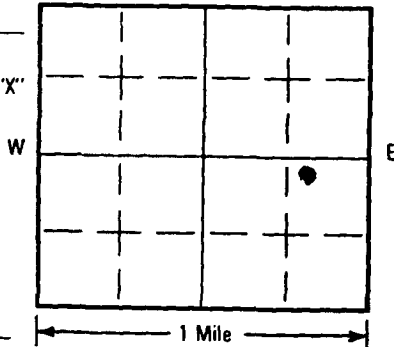


SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

X Location NE 1/4 SE 1/4 Sec 14 Twp 107 Rg 64
County Jeraud

Please mark well location with an "X"



Well Completion Date

9-29-00

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 300 ft. from Feedlot (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

rotary mud

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>PVC 250 LB/FT</u>	<u>5 IN</u>	<u>0 FT</u>	<u>100 FT</u>	<u>7 7/8 IN</u>
<u>Sch 80 LB/FT</u>	<u>2 IN</u>	<u>100 FT</u>	<u>902 FT</u>	<u>4 1/2 IN</u>
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Cement</u>	<u>6</u>	<u>15.5 lb./gal</u>	<u>0 ft</u>	<u>30 ft</u>
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure Premix pipe

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 IN Length 50 FEET

Material Schedule 80

Slot Size 3/8" holes Set From 902 Feet to 952 Feet

Other information _____

WAS A PACKER OR SEAL USED? ☒ YES ☐ NO

If so, what material? rubber

Describe packer(s) and location? 880

DISINFECTION: Was well disinfected upon completion?

YES, How: _____

☒ NO, Why Not? Well flowed

Laboratory sent to for water quality analysis _____

Well Owner: Jeff Burg

Business Name: _____

Address: 22808 386 Ave
Wessington Springs, S.D. 57382

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top Soil	0	2
Yellow Clay	2	23
Blue clay + sand + gravel	23	56
Blue Clay	56	110
White Chalk	110	126
Shale	126	375
Sandstone	375	430
Shale	430	690
Sandstone	690	707
Shale	707	802
Sand	802	825
Shale	825	845
Sand	845	885
Shale	885	905
Sandstone	905	952
Shale	952	970

STATIC WATER LEVEL Well flowed Feet

If flowing: closed in pressure 20 PSI

GPM flow 35 through 2 inch pipe

Controlled by ☒ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate 25 GPM

Can well be completely shut in? yes

WELL TEST DATA:

☐ Pumped

Describe: Developed with

☐ Bailed

Air for 5 hours

☒ 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 drilled under license # 296

And this report is true and accurate.

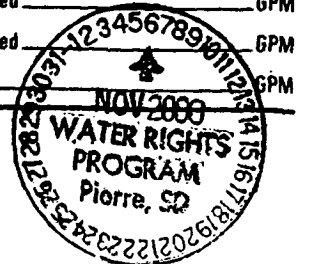
Drilling firm Chase Drilling

Signature of License Representative Day Corp

Signature of Well Owner or Equitable Property Holder:

X First Steel Bank Corp by John

Date: 10/30/2000



Schlaak, Karen

From: Gronlund, Eric
Sent: Monday, March 12, 2012 2:28 PM
To: Schlaak, Karen
Subject: Firesteel Ranch - Well Completion Reports
Attachments: 00026410.pdf; 00040419.pdf

We will be received an application from Firesteel Ranch for use of three wells at their feedlot. All the wells are in place. However, I can only find the well completion reports for two of the wells.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 3/13, 20 12

RECEIVED OF Firesteel Ranch Corp 38668 SD Hwy 34 Wess Springs SD 57382

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

Fee for Application for Permit No. <u>7333-3</u> to Appropriate Water, to construct and to put water to beneficial use	500	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>7333-3</u>	200	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	700 00

No. 05377

By [Signature]
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7333-3, Firesteel Ranch Corp.**

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. 7333-3, Firesteel Ranch Corp., c/o Jeff Burg, 38668 SD Hwy 34, Wessington Springs SD 57382.

The Chief Engineer is recommending APPROVAL of Application No. 7333-3 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 qualification:

The well 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.

See report on application for additional information.

Garland Erbele, Chief Engineer
April 11, 2012

NOTE: The wells were constructed using the alternative method commonly known as slim hole construction which does not require the well casing to be grouted. Wells constructed to supply commercial livestock operations must be completed with the well casing pressure grouted from the top of the producing aquifer to ground surface. Future replacement wells or additional wells for this facility must be completed to meet Well Construction Standard 74:02:04:28, which requires the well casing to be pressure grouted from the top of the Dakota Aquifer to ground surface.

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO.7333-3
FIRESTEEL RANCH CORP
MARCH 31, 2012

Water Permit Application no. 7333-3 proposes to appropriate 0.155 cubic feet of water per second from three existing wells located in the E½ Section 14, T107N-R64W. South Dakota Water Well Completion Reports on file for two of the wells identify the wells as 970 and 980 feet deep respectively, and completed into the Dakota aquifer. Water is to be used for commercial use in a cattle feedlot operation.

AQUIFER: Dakota aquifer (DKOT)

AQUIFER CHARACTERISTICS:

"The Dakota sandstone is the most widely extended and serviceable water-bearing formation in South Dakota and it is the principal source of artesian flow in the many wells." (Darton, 1909)

The Dakota aquifer consists of the permeable beds of sand and sandstone contained in the Cretaceous aged Dakota Formation. The Dakota Formation underlies approximately 66,500 square miles of the 77,047 total square miles that constitute the state (Schoon, 1971). The total amount of recoverable water in storage in the Dakota Formation in eastern South Dakota is estimated to be 381,104,000 acre-feet of water (Hedges and others, 1982). The Dakota-Newcastle Formation contains another 308,442,000 acre-feet of recoverable water in storage in western South Dakota (Allen and others, 1985)

The lithology of the Dakota Formation is quite variable both laterally and vertically, consisting of interbedded sand, sandstone, and shale. It has been postulated that the explanation for this is that the Dakota was deposited in a fluvial environment. The porosity of the Dakota varies with the lithology but is assumed to average 15 % and the specific yield of the aquifer is assumed to be 0.075 (Hedges and others, 1982). The Dakota Formation is expected to be around 350 feet thick in this area (Schoon, 1971). The South Dakota Water Well Completion Reports on file for two of these existing wells indicate the wells flow 35-40 gallons per minute and have shut-in pressures of 12-20 psi.

DISCUSSION:

SDCL 46-2A-9 requires "A permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest."

Water Availability:

The probability of unappropriated water available from the Dakota aquifer for this appropriation can be evaluated by considering SDCL 46-6-3.1 which requires "No application to appropriate groundwater may 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 the average estimated annual recharge of water to the groundwater source."

Recharge versus Withdrawals:

Since the early 1900's there has been concern regarding the declining artesian head pressure of the Dakota aquifer. This artesian pressure decline has been well documented, and in some parts of the state water levels have declined several hundred feet since the aquifer was first developed. Some have interpreted this declining pressure as an indicator that the Dakota is being "mined". As Schoon (1971) states: "The fact that withdrawal from the artesian system exceeds recharge is clearly demonstrated by declining pressures." (Schoon, 1971).

The Water Management Board has carefully considered the issue of declining head pressures in the Dakota aquifer. In its deliberation on and approval of Permit No. 5136-3, the Board adopted findings of fact and conclusions of law that basically stated that the quantity of the average estimated annual recharge to the Dakota is not likely to be quantified in the near future. The Board concluded that whether withdrawals exceed the average annual recharge cannot be determined based solely upon a decline in head pressure and in theory the Dakota aquifer head pressure is stabilizing relative to withdrawals and discharges. The Board found that the decline of head pressure is due to water being discharged without beneficial use through uncontrolled flowing wells and that water discharged from uncontrolled flowing wells does not constitute withdrawal (appropriation) pursuant to SDCL 46-6-3.1. The Board also found that withdrawals pursuant to SDCL 46-6-3.1 are appropriations for beneficial uses of water, including withdrawals through private domestic wells for domestic use.

There are currently 227 Water Rights or Permits appropriating water from the Dakota aquifer in South Dakota. The total diversion rate authorized through these appropriations is 84.608 cfs (Water Rights, 2012b). The annual withdrawal from Dakota aquifer appropriations is probably less than 30,000 ac-ft/yr. By way of comparison, in 1958, the flow from 46 uncontrolled wells in Bon Homme, Brule, Buffalo, Charles Mix, Gregory, Lyman, and Yankton counties was more than 16 mgd, and the flow from 3,054 Dakota aquifer wells in the James River valley was estimated to be approximately 16 mgd (Davis, Dyer and Powell, 1961). Therefore, uncontrolled flowing wells amounted to over 35,900 ac-ft/yr. The number of wells tapping the Dakota has increase by many thousands of wells since 1958 and presumably so is the amount of water flowing to waste.

The DENR-Water Rights Program monitors 43 observation wells completed into the Dakota aquifer. Observation well HD-87A is located approximately 22 miles northwest and Au-89A is located approximately 32 miles south of wells Application No. 7333-3 proposes to use. Hydrographs for the wells are shown in Figures 1 and 2.

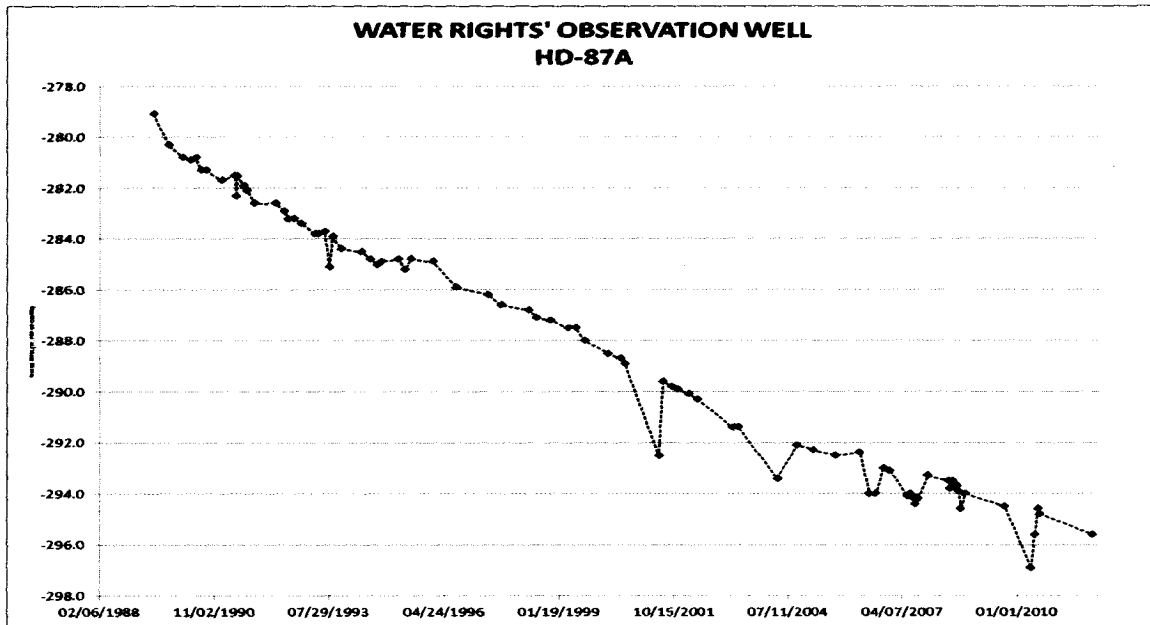


Figure 1. Hydrograph of DENR-Water Rights Program observation well HD-87A, located approximately 22 miles northwest of the wells Application No. 7333-3 proposes to use.

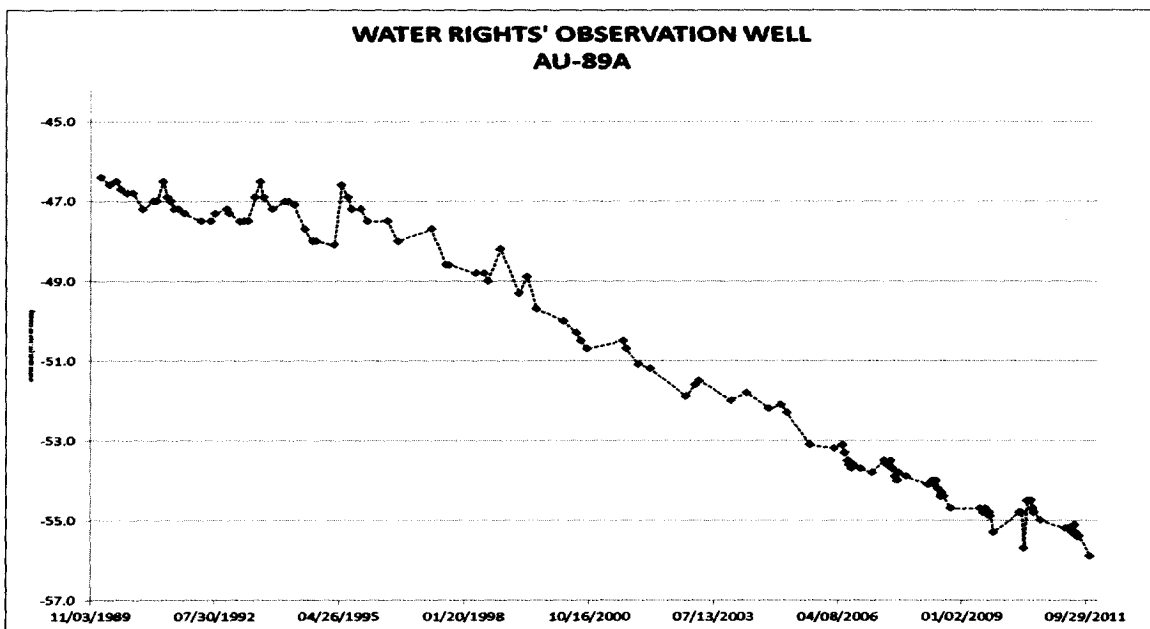


Figure 1. Hydrograph of DENR-Water Rights Program observation well HD-87A, located approximately 22 miles northwest of the wells Application No. 7333-3 proposes to use.

The Dakota aquifer is confined and under artesian conditions in this area and drawdown resulting from pumping may extend a few miles from the production well. There are a number of domestic use wells on file with the DENR-Water Rights Program in this area (Water Rights, 2012c). The nearest water right/permit appropriating water from the Dakota aquifer is Water Right No. 1070-3, Town of Lane, which is located approximately two and one-quarter miles east of the wells that Application No. 7333-3 propose to use. Well interference may occur, however

it should not be significant. The distance between wells is sufficient that well interference is not expected to be adverse in adequate wells.

Public Interest:

When considering Water Permit Application No. 5136-3, the Water Management Board adopted Findings of Fact and Conclusions of Law basically stating that the public interest is better served by allowing Dakota aquifer water to be utilized for a beneficial use than to allow the water to remain unused or to be discharged by uncontrollable flowing wells; and that it is not in the public interest to deny a water permit application when the effects of the withdrawal will not have a significant affect upon the decline or stabilization of head pressure in the Dakota Formation (Water Rights, 1987).

The Water Management Board's position remains to optimize development for beneficial use from the Dakota aquifer.

SD Well Construction Standard 74:02:04:35

The wells that this application proposes to use were constructed using the alternative well construction described by South Dakota Well Construction Standard 74:02:04:35. The well construction method (slim hole technique) which does not require the well casing to be grouted into the wellbore, may only be used for private and reasonable domestic use wells and for noncommercial livestock watering wells. Wells constructed as commercial livestock watering wells must be completed according to SD Well Construction Standard 74:02:04:28, which requires the well casing to be pressure grouted from the top of the producing aquifer to the ground surface.

CONCLUSIONS:

1. The average annual recharge to the Dakota aquifer has not been quantified.
2. Water levels in the Dakota aquifer have declined in many parts of the state since the first wells were completed into the aquifer.
3. The Water Management Board has concluded that whether withdrawals exceed average annual recharge cannot be determined based solely upon a decline in head pressure.
4. The potentiometric surface of the Dakota aquifer has declined primarily as a result of the waste of water from uncontrolled flowing wells.
5. The Water Management Board has concluded that in reference to SDCL 46-6-3.1, "withdrawals" applies only to water placed to beneficial use via appropriations or domestic use.
6. Appropriative and domestic uses from the Dakota aquifer do not exceed the average annual recharge to the aquifer.
7. There is a reasonable probability unappropriated water is available for this proposed appropriation.
8. There is a reasonable probability that existing water rights/permits will not be adversely impacted if this application is approved.



Ken Buhler
Natural Resources Engineering Specialist

REFERENCES:

- Allen, J.C., Iles, D.L., and Petres, A.K., 1985, Analysis of Groundwater and Streamflow Data Western Dakotas Region of South Dakota, Tasks #A.B.C. and 4A.B.: Groundwater Resource Inventory Final Report. Prepared for U.S. Army Corps of Engineers, contract DACW45-82-C-0151
- Darton, N.H., 1909, Geology and Underground Waters of South Dakota: U.S. Geological Survey Water-Supply Paper 227, 156 p.
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- Water Rights, 2012a, Observation Well Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2012b, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2012c, Well Completion Report Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

RECEIVED

MAY 01 2012

WATER RIGHTS
PROGRAM

Affidavit of Publication

STATE OF SOUTH DAKOTA, COUNTY OF JERAULD, SS.

Karen Wenzel

being first duly sworn, deposes and says: that he/she is a resident of the County of Jerauld and State of South Dakota; and the True Dakotan is a weekly general circulation, published in Wessington Springs, in said county Dennis P. Wenzel; and is now and has been such newspaper continue all the times hereafter mentioned; that the affiant is, and was during hereafter mentioned, the business manager of said newspaper, in charge of the advertising department thereof; and has personal knowledge of all facts and circumstances of the foregoing affidavit:

And that the notice and advertisement headed

Notice to Appropriate Water (Judicial)

a printed copy of which is hereunto attached and made a part hereof and published in said newspaper in 2 successive issues. That the date of said notice in said newspaper aforesaid was on Tuesday, the April 2012; and that the succeeding publications were:

On Tuesday, the 24 day of April, 2012

On Tuesday, the _____ day of _____, 20____

On Tuesday, the _____ day of _____, 20____

That the fee charged for the printing and publishing of said notice and advertisement in said newspaper aforesaid, was 49 dollars and 27 cents; and that said fee for printing and publishing said notice and advertisement in said newspaper has been full paid; that the full amount of fee for the publishing of the said attached and annexed notice and advertisement and the benefit of the publisher of the said True Dakotan; and no agreement or understanding for the division thereof has been made with any person who is not the said newspaper is a legal newspaper as provided by law.

Signed:

Karen Wenzel

Subscribed and sworn to before me, this 30 day of April, 2012

Penny Wenzel

Notary Public
Jerauld County

AFFIDAVIT EX REL PUBLIC
STATE OF SOUTH DAKOTA, COUNTY OF JERAULD, SS.

_____ being first duly sworn on his oath, says that he is one of the authorized attorneys of the _____ In the action mentioned and described in the annexed notice; that the affiant directed the publication of the annexed notice; that no agreement or understanding for any division of the fees therefore has been made with any person whomsoever; and that no part thereof has been refunded or rebated by the party publishing said notice.

Subscribed and sworn to before me this _____ day of _____, 20____

Notary Public, Jerauld County, South Dakota

NOTICE OF APPLICATION NO.7333-3 to Appropriate Water

Notice is given that Firesteel Ranch Corp, c/o Jeff Burg, 38668 SD Hwy 34, Wessington Springs SD 57382 has filed an application for a water permit to appropriate 0.155 cubic feet of water per second from three existing wells completed into the Dakota Aquifer (970 and 980 feet deep) located in E 1/2 Section 14-T107N-R64W for commercial use in a cattle feedlot operation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7333-3 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 4, 2012

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.

Published twice at the total approximate cost of \$49.27.
c-29-30



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

April 11, 2012

True Dakotan
PO Box 358
Wessington Springs SD 57382

ATTENTION: Legal Public Notice

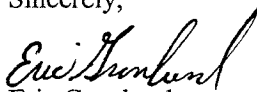
Enclosed is a Notice on Application No. 7333-3 to Appropriate Water to be published twice. Please publish the first notice on April 17, 2012 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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 Firesteel Ranch Corp., c/o Jeff Burg, 38668 SD Hwy 34, Wessington Springs SD 57382 (Ph # 605-539-9380).

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. 7333-3

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

Date _____

We are in receipt of your letter of April 11, 2012 enclosing Notice to Appropriate Water by Application No. 7333-3 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
denr.sd.gov

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

April 11, 2012

Firesteel Ranch Corp
Jeff Burg
38668 SD Hwy 34
Wessington Springs SD 57382

Dear Mr. Burg:

Water Permit Application No. 7333-3 for commercial 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 True Dakotan printed at Wessington Springs SD (Ph # 605-539-1281). 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 Notice 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 17, 2012 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. 7333-3 to Appropriate Water

Notice is given that Firesteel Ranch Corp, c/o Jeff Burg, 38668 SD Hwy 34, Wessington Springs SD 57382 has filed an application for a water permit to appropriate 0.155 cubic feet of water per second from three existing wells completed into the Dakota Aquifer (970 and 980 feet deep) located in E ½ Section 14-T107N-R64W for commercial use in a cattle feedlot operation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7333-3 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 4, 2012

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.

Published twice at the total approximate cost of_____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

JUL 16 2012

Firesteel Ranch Corp
Jeff Burg
38668 SD Hwy 34
Wessington Springs SD 57382

Dear Mr. Burg:

Enclosed is Water Permit No. 7333-3 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