

WATER PERMIT NO. 1840-1

Name of Applicant: Apple Creek Development, LLC

Address: 1750 Fountain Plaza Dr, Rapid City SD 57702

Phone: 605 343-3555

Amount of Water Claimed: 0.67 cfs

Total Acres: NA

Source of Water Supply: groundwater (two wells)

Water to be used for: suburban housing development, commercial use & irrigation County: Lawrence

Type of Waste Disposal System:

Location: 4 miles west of Sturgis

PRIORITY Date Received: 3-7-05

Application/License Fee: \$325

Corrected Application Received: 3-18-05

Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: SE ¼ SW ¼ & SW ¼ NW ¼ Sec
11-T5N-R4E

Land to be Irrigated: NA

Depth of Well: 900 and 1000 feet deep

Well Driller: :

Remarks:

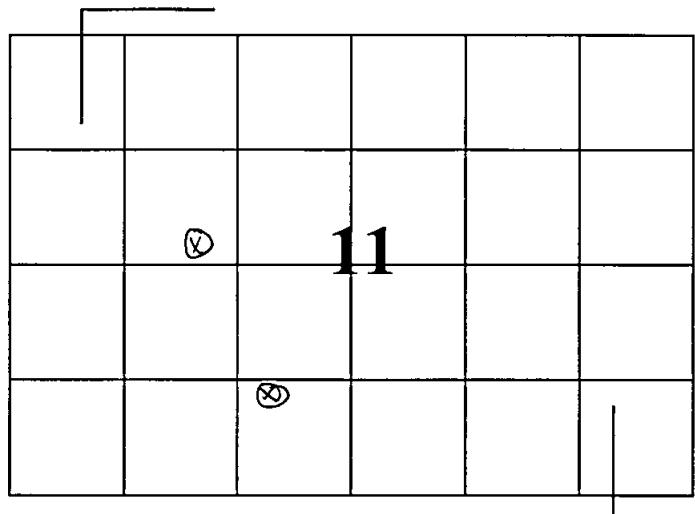
Type of Map: aerial

Prepared by: Gregory M Wierenga, PE

Reviewed and the Number Assigned on: 3-18-05

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



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

originally 3/7/05

Mail to:
Water Rights Program
Joe Foss Building
523 E. Capitol
Pierre, SD 57501-3181
(605) 773-3352

(office use only)
No. 1840-1 Hydrologic Unit 10120202
Basin Belle Fourche River
Newspaper Black Hills Pioneer, Spearfish

RECEIVED

MAR 18 2005

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.)

- (Dave Simpson, Partner)
1. Name of Applicant Apple Creek Development, LLC Phone 605-343-3555
(check one) ☐ Owner ☐ Tenant/lessee
Mailing Address c/o Fountain Springs Golf Club Pro Shop, 1750 State SD 57702
(Street, RR, or Box and City) Rapid City (Zip Code)
2. Amount of water claimed 0.67 *CFS or 300 **GPM (2 wells) ***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 Well, Madison aquifer
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Lawrence
SE1/4 SW1/4 Section 11, T5N, R4E, BHM. (Well No. 1).
SW1/4 NW1/4 Section 11, T5N, R4E, BHM. (Well NO. 2).
5. County or counties where water will be used Lawrence
6. Annual period during which water is to be used Year Around 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)

See attached project description.

STATE OF SOUTH DAKOTA)

County of Pennington) SS

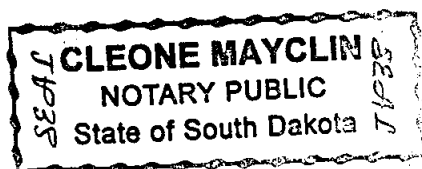
Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

I, Dave Simpson, 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 16th day of March 2005

Cleone Mayclin
Notary Public Signature



**SOUTH DAKOTA
WATER PERMIT NO. 1840-1**

Date of first receipt of application March 7, 2005.

Date of return to applicant for corrections, amendments or changes March 8, 2005.

Date of receipt of corrected application March 18, 2005.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1840-1 to Apple Creek Development LLC, c/o Fountain Springs Golf Club Pro Shop, Dave Simpson, 1750 Fountain Plaza Dr, Rapid City SD 57702 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. 1840-1 appropriates 0.67 cubic feet of water per second from two wells to be completed into the Madison Aquifer (approximately 1000 and 900 feet deep) located in the SE ¼ SW ¼ and SW ¼ NW ¼ Section 11-T5N-R4E. During early development phases one of the wells may be used for limited golf course irrigation on the 9 hole expansion at the Boulder Canyon golf course located in the W ½ Section 11 and E ½ NW ¼, W ½ NE ¼ Section 14, T5N-R4E.
2. The water appropriated shall be used for the purpose of suburban housing development and commercial use 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. 1840-1 is June 20, 2005.
5. The date from which applicant may claim right is March 7, 2005.
6. One-fifth of the construction is to be completed on or before December 20, 2007.
7. All construction is to be completed on or before June 20, 2010.
8. Water is to be put to beneficial use on or before June 20, 2014.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 1840-1 is issued for a 20-year term. Pursuant to SDCL 46-2A-21, the 20-year term may be deleted at any time during the 20-year period or following its expiration. If the 20-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 1840-1 may also be cancelled for nonconstruction, forfeiture, abandonment, or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1 and ARSD 74:02:01:37.
2. 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.

(continued)

3. The wells authorized by Permit No. 1840-1 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.
4. Apple Creek Development shall report to the Chief Engineer annually the amount of water withdrawn from the Madison Aquifer.

WATER MANAGEMENT BOARD

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

JUL 19 2005

date



(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 12 $\frac{1}{4}$ ", 8 $\frac{3}{4}$ " Depth 900'
- b) Casing Type Steel, JRK-55 Diameter 9 $\frac{5}{8}$ " O.D. Thickness .312" (32 lb./ft.)
- c) Screen Type None Diameter _____ Thickness _____
- d) Gravel Pack None Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 450'
- f) Depth to Water (ground surface to water level) 400'
- g) Distance to nearest existing domestic well:
On applicants property 900' (Minnelusa Formation) On property owned by others 800' (Madison, Shonley)

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) Central collection and treatment plant.
- b) System Capacity (gallons) 80,000 gpd (approx.) Year Constructed Planned for 2006.
- c) Connected to the City of N/A Sanitary System

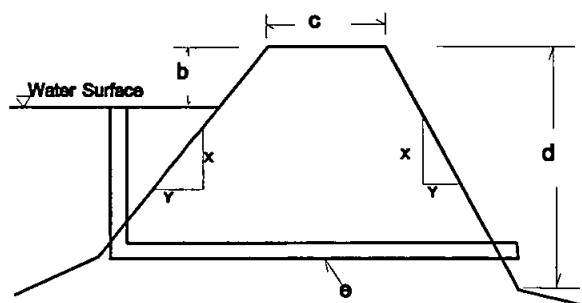
3. Dugout Information

- a) Surface Dimensions N/A 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

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 12 1/4", 8 3/4" Depth 1,000'
- b) Casing Type Steel Diameter 9 5/8" O.D. Thickness .352 (36 lb./ft.)
- c) Screen Type None Diameter _____ Thickness _____
- d) Gravel Pack None Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material 670'
- f) Depth to Water (ground surface to water level) 400'
- g) Distance to nearest existing domestic well:
On applicants property 900' (Minnetonka Formation) On property owned by others 800' (Madison, Shonley)

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) Central collection and treatment plant.
- b) System Capacity (gallons) 80,000 gpd (approx.) Year Constructed Planned for 2006.
- c) Connected to the City of N/A Sanitary System

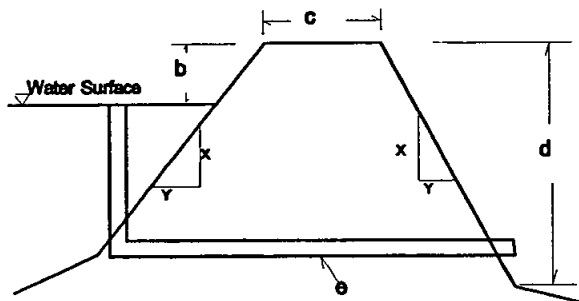
3. Dugout Information

- a) Surface Dimensions N/A 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

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date MARCH 18, 20 05

RECEIVED OF Apple Creek Development LLC, 2000 Wesleyan Blvd., Rapid City SD 57702

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

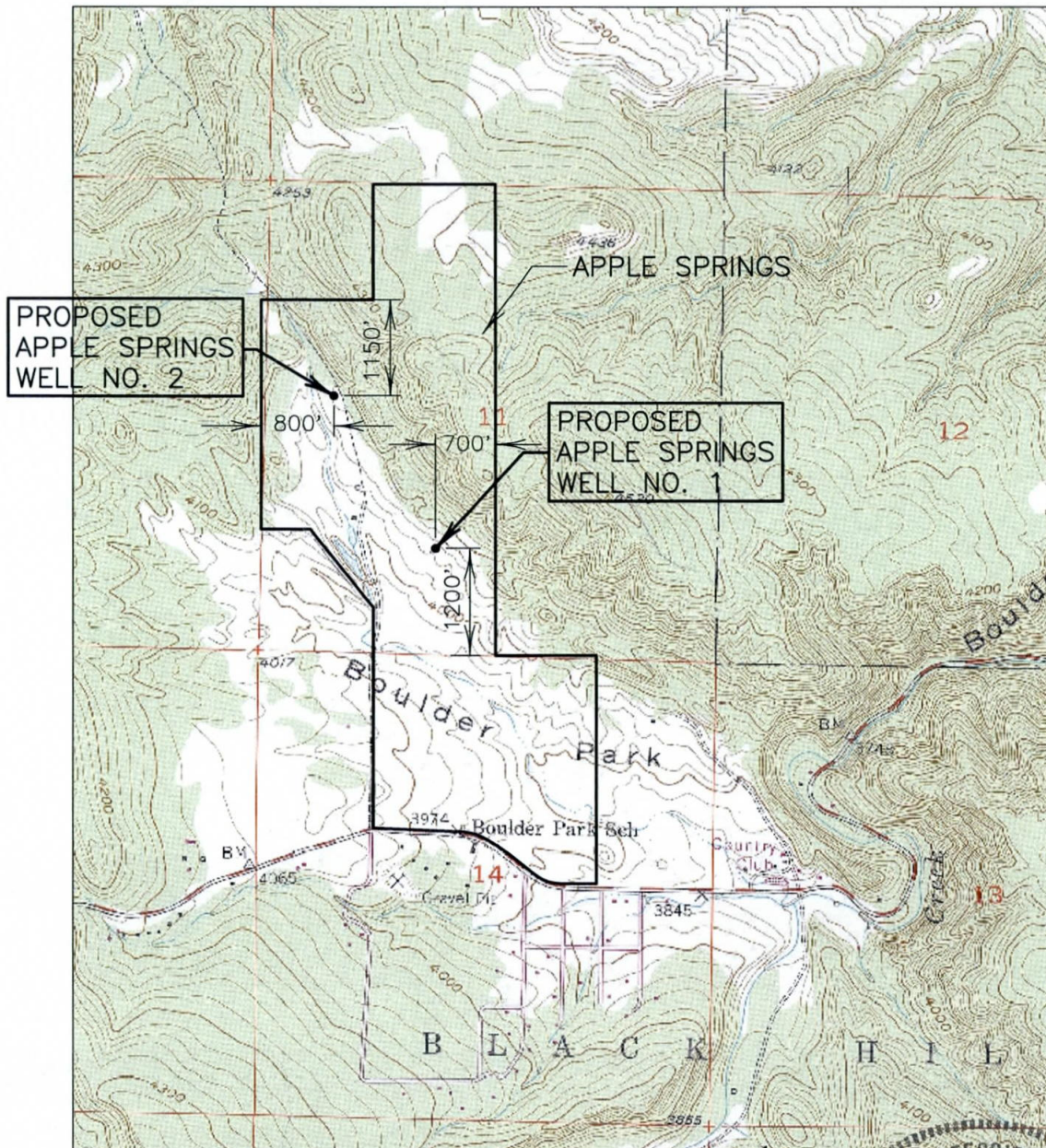
Fee for Application for Permit No. <u>1240-1</u> to Appropriate Water, to construct and to put water to beneficial use	275	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>1240-1</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	325.00

No.

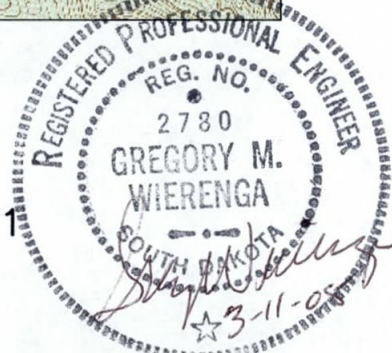
001807

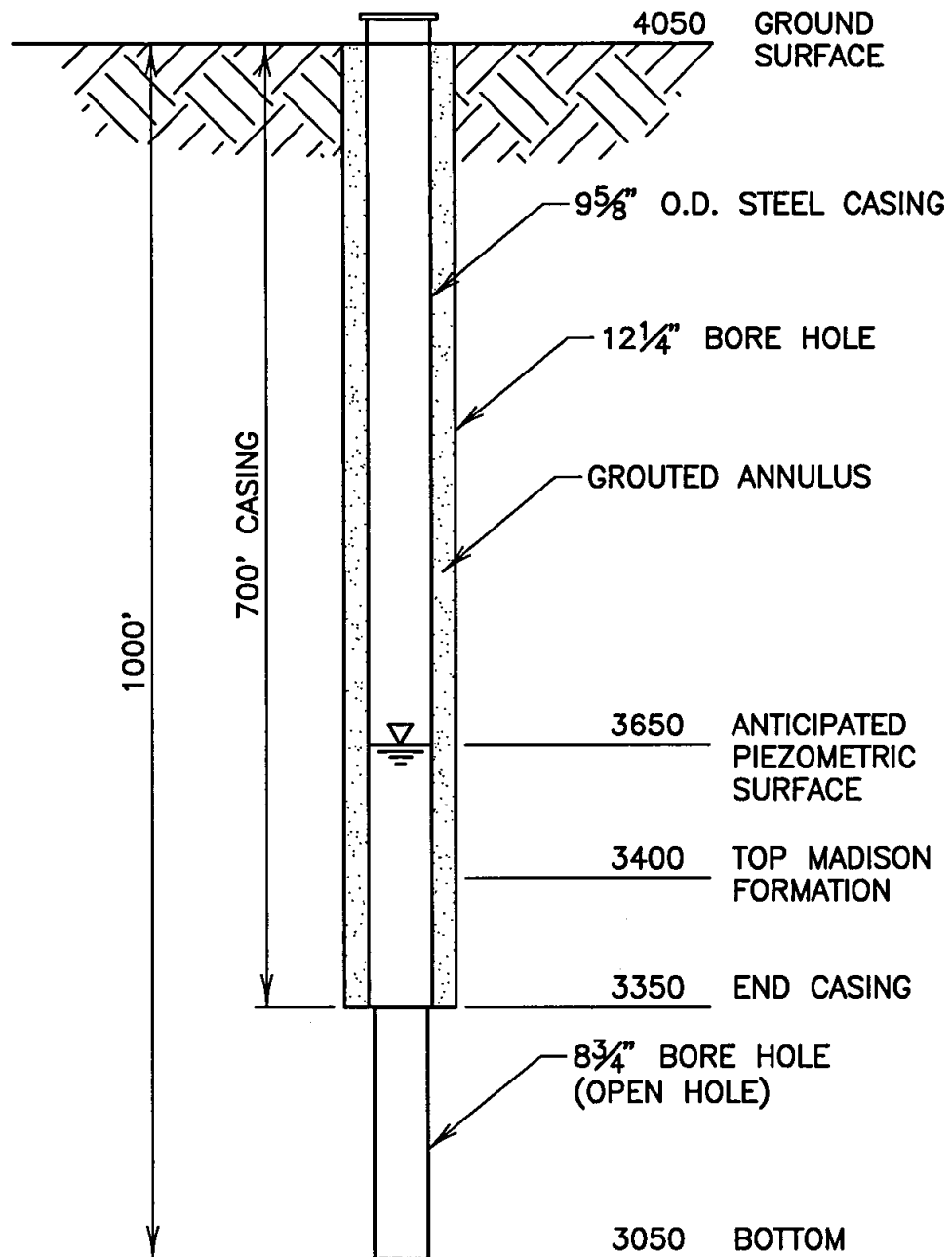
By

Darland Eibele
Chief Engineer *gm*



LOCATION MAP
FOR
APPLE SPRINGS WELL NO. 1
AND WELL NO. 2
LAWRENCE, CTY, S.D.





ANTICIPATED WELL PROFILE
FOR
APPLE SPRINGS WELL NO. 1
AND WELL NO. 2

March 10, 2005 4:37:59 p.m.
Drawing: APPLE SPRINGS WELL NO. 1.DWG (JM) (\\NEMMASTER\C\CETEC\04188\)



1830 West Fulton Street
Rapid City, SD 57702
Phone: (605) 341-7800
Fax: (605) 341-7884
cetec@rushmore.com



cetec@rushmore.com

RECEIVED
MAR - 7 2005
WATER RIGHTS
PROGRAM

February 28, 2005

Mr. Eric Gronlund, P.E.
S.D. Dept. of Environment & Natural Resources
Water Rights
Joe Foss Building
523 E. Capitol
Pierre, SD 57501-3182

Re: **Apple Springs in Boulder Canyon
Application for Water Rights**

Dear Mr. Gronlund:

An application for a water permit for the referenced development in Lawrence County is enclosed.
Included with this letter are the following:

- 2 copies of Form 2
- 2 copies of Form 2A
- Location Map
- Anticipated Well Profile
- Filing Fee \$225.00 (150 gpm)
- Project description

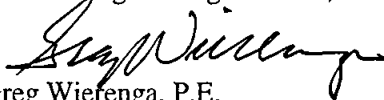
The property owner and developer is:

Apple Creek Development, LLC
c/o Dave Simpson
c/o Fountain Springs Golf Club Pro Shop
1750 Fountain Plaza Drive
Rapid City, SD 57702

Please contact me if any additional information is needed.

Sincerely,

CETEC Engineering Services, Inc.


Greg Wiefenga, P.E.
Project Manager

GMW/sjf

Enclosures

cc: Dave Simpson

◆
CETEC/04188.00/3/2/2005



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

March 8, 2005

Greg Wierenga
CETEC Engineering Services Inc.
PO Box 9014
Rapid City SD 57709-9014

RE: Apple Creek Development LLC

Dear Mr. Wierenga:

Thank you for submitting the *Application for a Permit to Appropriate Water* for the Apple Creek suburban housing development. In order to complete the application the following is required.

- Enclosed is the application which is being returned because it must be notarized.
- Enclosed is the map which must be signed by one of the following: Registered Land Surveyor, Registered Professional Engineer or by any other government employee who normally prepares maps as a part of his assigned duties.
- The Project Description submitted with the application indicates the proposed project will have two wells with a pump rate of 150 gallons per minute (gpm) from each well. The map only shows one proposed well site. If two wells are being requested for this project, please mark the location of the second proposed well.
- Also, we did not receive the application filing fee as indicated in the cover letter. The application/license filing fee for this application will be \$275 if you are requesting 150 gpm from one well. The application/license fee for 300 gpm from two wells will be \$325.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

c: Apple Creek Development LLC

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Water Permit Application No. 1840-1, Apple Creek Development

ADDRESS: COUNTY: Lawrence

DATE: March 24, 2005 TELEPHONE:

RE: Call to Greg Wierenga, CETEC Engineering Services

COMMENTS:

I contacted Mr. Wierenga, who is the consulting engineer on this project, to confirm that the wells will be use solely for the suburban housing development and not for irrigation of proposed 9 hole expansion of the Boulder Canyon golf course.

Mr. Wierenga stated that the well will be used for domestic purposes by the homes in the development and some incidental commercial uses. It is not the intend to use either well for irrigation of the golf course with the exception that one of the wells may be used for limited golf course irrigation to supplement recycled wastewater. Ultimately once project build out occurs it is anticipated that the wastewater effluent along with Boulder Canyon's current permitted sources will meet irrigation needs of the golf course.

I explained that it will likely be necessary for Boulder Canyon golf course to get a permit for additional acreage for the 9 hole expansion.

NAME: Eric Henderson



cetec@rushmore.com

March 10, 2005

Ms. Karen Schlaak, P.E.
S.D. Dept. of Environment & Natural Resources
Division of Environmental Services
Drinking Water Program
Joe Foss Building
523 E. Capitol Ave.
Pierre, SD 57501-3182

RECEIVED

MAR 18 2005

WATER RIGHTS
PROGRAM

Re: **Apple Springs in Boulder Canyon
Application for Water Rights**

Dear Ms. Schlaak:

A revised application and supporting information for the Apple Springs application are enclosed per your letter of March 8, 2005. Transmitted herewith are the following:

- Two copies of application.
- Location Map showing proposed Wells 1 and 2.
- Anticipated well profile.
- Filing fee for two wells (\$325).

Thank you for your assistance.

Sincerely,

CETEC Engineering Services, Inc.

A handwritten signature in cursive script, appearing to read "Greg Wierenga".

Greg Wierenga, P.E.
Project Manager

GMW/sjf

Enclosures: As noted.

cc: Apple Creek Development, LLC

CETEC/04188.00/3/10/2005

**Project Description
for
Apple Springs in Boulder Canyon**

Developer: Apple Creek Development, LLC
%Fountain Springs Golf Club Pro Shop
1750 Fountain Plaza Drive
Rapid City, SD 57702

Engineer: CETEC Engineering Services, Inc.
1830 West Fulton Street
P.O. Box 9014
Rapid City, SD 57709-9014

General Description of Project

Proposed development layout is shown on the attached Figure 1. Total site is 370 acres.
Projected water uses are as follows:

Residential

Townhomes:	110 units
Single Family:	185 units
Rental Homes:	25 units
	320 dwelling units

Commercial

Highway Service:	5,000 sq. ft. floor area
Lodge & Misc.:	50,000 s.f.f.a.
Golf Clubhouse:	5,000 s.f.f.a.
	60,000 s.f.f.a.

Development projected to start 2006 with 10 to 15-year build-out. The Boulder Canyon golf course will be expanded from 9 holes to 18 holes with the development.

Water Demands

Residential Properties / Rentals:.....320 dwelling units
Highway Service / Lodge / Clubhouse:.....60,000 square feet floor area

Average Day at Full Build-Out

Residential:	320	d.u. x	2.5	people/d.u. x	100	gpcd =	80,000	gpd
Commercial:	60,000	s.f.f.a. x	250	gpd/	1,000	sffa =	15,000	gpd
Golf Irrigation:	not included							0
							Total Average Day:	95,000 gpd

Peak Day Demand (3.0 x average day)

$$3.0 \times 95,000 \text{ gpd} = 285,000 \text{ (200 gpm)}$$

Pumping Rate

Proposed project will have two wells, both completed to the Madison aquifer. Anticipated total well yield required is 1.5 times ultimate peak day demand.

Total Well Pumping Rate Required: $1.5 \times 200 = 300$ gpm

Split total pumping between 2 wells.

$$\text{Pump Rate Each Well: } \frac{300 \text{ gpm}}{2} = 150 \text{ gpm}$$

Irrigation

Lawn and grounds irrigation is included in projected domestic demands.

Golf course irrigation is planned to be supplied with a combination of existing well supply (Boulder Canyon Country Club), surface runoff and/or spring flow to surface impoundments, and wastewater effluent recycling. Well 1 may be used for limited golf course irrigation in early development phases to supplement recycled wastewater effluent.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

May 26, 2005

Jerry Weber, Secretary/Treasurer
Boulder Canyon Country Club
PO Box 305
Sturgis SD 57785

Dear Mr. Weber:

Please find enclosed a copy of the report, recommendation and public notice for Water Permit Application No. 1840-1, filed by Apple Creek Development.

The public notice is to be published on June 2 and 9, 2005 in the Black Hills Pioneer.

I want the Country Club to be informed about this application. Additionally, the application references a nine hole expansion of the golf course. I want to make sure your aware that if the Country Club develops an additional nine holes that it will be necessary to obtain a water right permit for the additional irrigated acres.

Please feel free to contact me if you have any questions.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
(605) 773-3352
eric.gronlund@state.sd.us

enclosure

WATER PERMIT APPLICATION NO. 1840-1
APPLE CREEK DEVELOPMENT
MAY 20, 2005

Water Permit Application No. 1840-1 proposes to appropriate 0.67 cubic feet of water per second (cfs) from two wells completed into the Madison aquifer (approximately 1,000 and 900 feet deep respectively) located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ and SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 11, T5N-R4E. The water is for a suburban housing development and commercial use. The water will also be used to irrigate a nine hole expansion at the Boulder Canyon Golf course located in the W $\frac{1}{2}$ Sec. 11 and the E $\frac{1}{2}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$ Sec. 14, T5N-R4E.

AQUIFER: Madison (MDSN)

AQUIFER CHARACTERISTICS:

The Madison Limestone, locally known as the Pahasapa Limestone, is a fine to medium crystalline, cavernous limestone and dolomite. The Madison underlies approximately 314,880 acres of Lawrence County and contains an estimated 9,446,400 acre-feet of recoverable water in storage in the county (Allen and others, 1985). The Madison extends into the counties adjacent to Lawrence County, and in fact underlies much of the Western United States. The Madison is estimated to be 400 feet thick in this area (Carter and Redden, 1999a) (Carter and Redden, 1999b). The top portion of the Madison Limestone is karstic, therefore it contains randomly distributed zones of secondary porosity and permeability formed by weathering of exposed surfaces, groundwater solution and fracturing, and is considered the Madison aquifer. The Madison is generally considered an excellent aquifer both in terms of quality and quantity, especially near the outcrop (recharge area). The well sites proposed by this application are within approximately one mile of the Madison outcrop (Strobel and others, 1999), and the top of the Madison limestone is estimated to be about 450-500 feet below grade at the well sites (Carter and Redden, 1999a). The average porosity of the Madison is estimated to be 11% and the effective porosity from which recoverable water can be obtained by wells is assumed to be 5% (Rahn, 1979). The Madison is recharged through infiltration of precipitation falling directly on the outcrop area, possibly upward leakage from the Deadwood aquifer, and from streamflow losses. The estimated average annual recharge for the Madison aquifer in South Dakota ranges from 140,000 to 400,000 acre-feet annually (Woodward Clyde, 1981). Average annual recharge from 1931-1998 is estimated to be approximately 137,000 ac-ft/yr (Carter and Driscoll, 2001). The static water level of a Madison aquifer well is expected to be approximately 400 feet below grade at the well sites proposed by this application (Strobel and others, 2000).

The Water Rights Program monitors 26 observation wells completed into the Madison aquifer in the Black Hills area. This well site is located within approximately four miles of three Water Rights' observation wells that are completed into the Madison aquifer, (LA-96D, LA-90A, and MD-86A). Hydrographs for the wells show the aquifer's response to climatic conditions, clearly demonstrate the system is recharged, and that for the period of record withdrawals have not exceeded recharge (see figures 1-3). Long term water-level declines are not apparent from hydrographs of any of the Madison aquifer observation wells.

The observation well data suggests that at the existing level of development, the aquifer is capable of sustaining additional withdrawals.

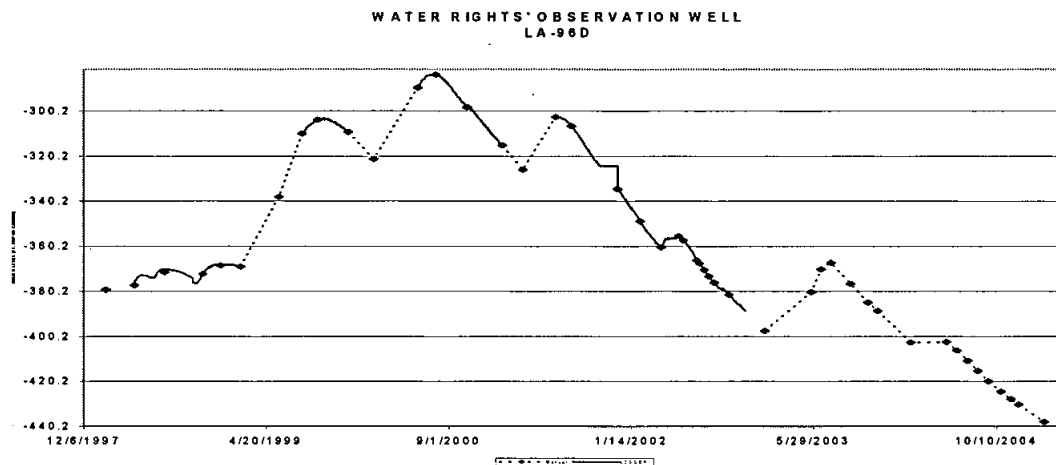


Figure 1. Hydrograph of Water Right's Observation Well LA-96D located approximately one and one-half miles southwest of 1840-1

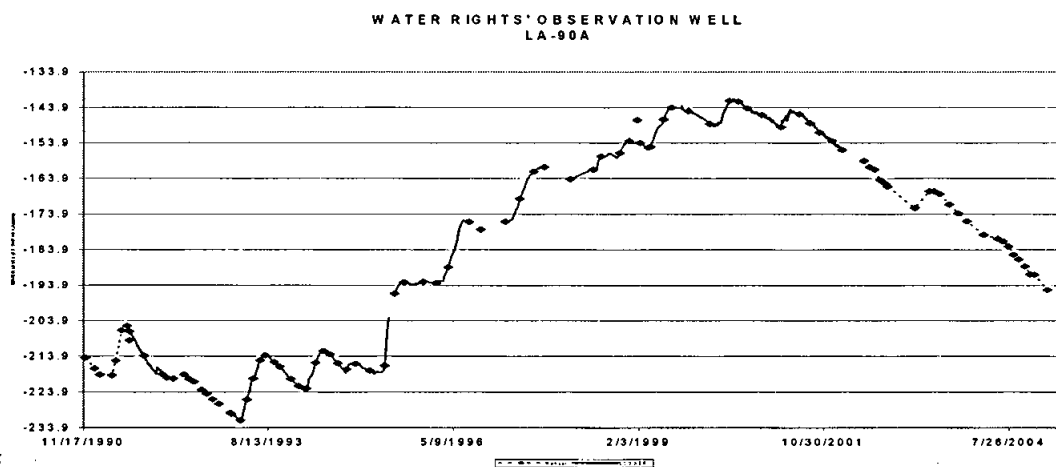


Figure 2. Hydrograph of Water Right's Observation Well LA-90A located approximately two miles north of 1840-1

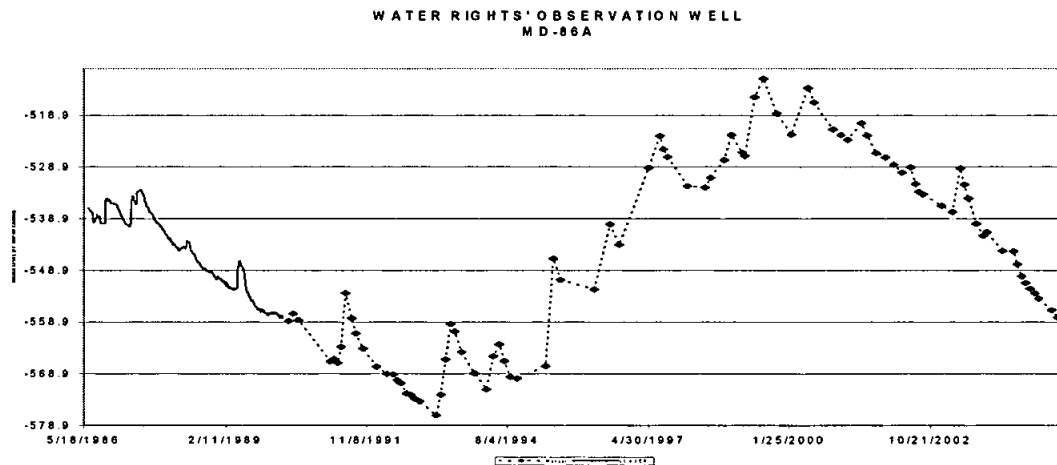


Figure 3. Hydrograph of Water Right's Observation Well MD-86A located approximately four miles east of 1840-1

AFFECTS ON EXISTING RIGHTS:

There are 143 Water Rights/Permits that appropriate water from the aquifer in South Dakota. There are 23 permits/rights appropriating water from the Madison aquifer in Lawrence County (Water Rights, 2002c), where the aquifer is used primarily for suburban housing development, commercial, municipal and irrigation use. There are a number of domestic wells completed into the Madison aquifer on file with the Water Rights Program (Water Rights, 2002a).

Groundwater Rights/Permits in this area are shown in Table 1.

PERMIT NO	NAME	AQUIFER	USE	CFS	ACRES
661-1	BOULDER CANYON COUNTRY CLUB	MNLS	IRR	0.22	29.60
1099-1	IVAN/DOROTHY SHONLEY	MNLS	SHD	0.07	
1100-1	IVAN/DOROTHY SHONLEY	MDSN	SHD	0.07	
1331-1	BOULDER PARK CAMPGROUND	MNLS	COM	0.02	
1510-1	BOULDER CANYON COUNTRY CLUB	MNLS	IRR	0.00	
1510A-1	BOULDER CANYON COUNTRY CLUB	MNLS	IRR	0.00	
1510B-1	BOULDER CANYON COUNTRY CLUB	MNLS	IRR	0.00	
1680-1	IVAN SHONLEY	MDSN	COM	0.16	
1777-1	VALHALLA ADDITION	MDSN	SHD	0.22	

Table 1. Water Rights within about two miles of 1840-1

Water Permit Nos. 1510A-1 and 1510B-1 for Boulder Canyon Country Club are all probably subject to cancellation for non-construction. The single well used to supply Water

Right No. 1100-1 and Water Permit No. 1680-1 is located less than one-half mile southeast of the southern well proposed by this application. The well that supplies Water Permit No. 1777-1 is located approximately one and one-half miles from the southern well proposed by this application.

Well interference is not expected to be an issue with nearby water rights/permits completed into shallower aquifers because of an apparent hydrologic separation between the Madison aquifer and shallower aquifers.

Domestic Wells:

The Water Rights Program has record of 106 well completion reports for water supply wells within about two miles of the well sites proposed by this appropriation. The wells range from less than 50 feet deep to over 1000 feet deep. Only six of these wells appear to be completed into the Madison aquifer (Water Rights, 2005a).

At this time it is not practical to attempt to quantify the specific affect pumping this well will have on area wells since aquifer characteristics have not been determined for this area, and the variability of the hydraulic characteristics has been well documented (Greene, 1993). In addition, Greene concluded that the transmissivity of the Madison is not equal in all directions (anisotropic); therefore the drawdown cone will extend farther in one direction than another. However, well interference between 1840-1 and area domestic wells completed into the Madison aquifer or Water Rights/Permits supplied by the Madison is not likely to be significant because of the distance between wells. Even if drawdown from these wells was measurable in another Madison aquifer well, Water Management Board rules 74:02:04 and 74:02:05, which were promulgated pursuant to SDCL 46-6-6.1, provide protection to wells only to the degree necessary to maintain an adequate depth of water in wells that have the ability to produce water independent of artesian pressure. Simply put, the pump placement in a prior appropriator's well is not necessarily protected. In fact, in past action, the Water Management Board it has concluded that if increased cost or decreased production is considered an adverse impact, it could be in conflict with SDCL 46-1-4, which requires South Dakota's water resources to be put to beneficial use to the fullest extent of which they are capable.

Although there may be interference because of these two wells, the impact of pumping should not be adverse or an unlawful impairment of the existing water right.

Historical Note:

In 1961, area property owners became concerned that pumping a well completed into the Minnelusa aquifer for golf course irrigation (Water Right No. 661-1, Boulder Canyon Country Club) might lower the water levels in the domestic wells. An observation well was completed 1962 to monitor the Minnelusa aquifer in this area. The 35 years of data from the observation well have shown the Minnelusa water levels have not been adversely affected by development in the area. In 1976, Ivan Shonley applied for Water Permits No.1099-1 and No.1100-1, from two wells, Madison and Minnelusa respectively. The Water Rights Commission deferred action upon receiving objections that the proposed project would

affect domestic water supplies. The permits were eventually approved and there has been no report of controversy. In 1991, Water Rights received the latest phone call expressing concern about proposed additions to the Shonley Subdivision. Observation well data indicates well interference concerns in this area have basically been unfounded.

TERM LIMITATION:

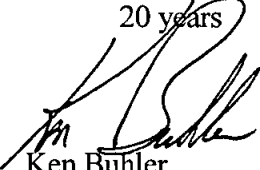
SDCL 46-2A-20 requires that "... no water permit for construction of works to withdraw water from the Madison formation in Butte, Fall River, Custer, Lawrence, Meade and Pennington counties may be issued for a term of more than twenty years, unless the water management board determines, based upon the evidence presented at the hearing that:

- (1) Sufficient information is available to determine whether any significant adverse hydrologic effects on the supply of water in the Madison formation would result if the proposed withdrawal were approved; and
- (2) The information, whether provided by the applicant or by other means, show that there is a reasonable probability that issuance of the proposed permit would not have a significant adverse effect on nearby Madison formation wells and springs."

Evidence is not available to justify issuing this permit without a term limitation of 20 years.

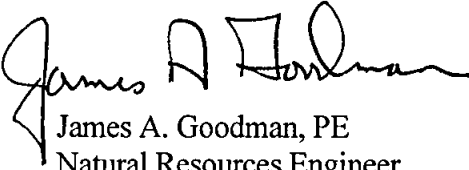
CONCLUSIONS:

1. There is a history of objections to ground water development in this area.
2. This appropriation will not adversely impair existing ground water rights due to the distance between wells, and the apparent hydraulic separation between the Madison and shallower aquifers in this area.
3. Data indicates that unappropriated water is available from the Madison Aquifer in this area.
4. Information is not available to justify issuing this permit without a term limitation of 20 years


Ken Buhler

Natural Resources Engineer

Approved by


James A. Goodman, PE

Natural Resources Engineer

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 3A.B.C. and 4A.B.: Groundwater Resource Inventory: South Dakota Department of Water and Natural Resources
- Carter, J.M., Redden, J.A., 1999a, Altitude of the Top of the Madison Limestone in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-744-D, 2 sheets, scale 1:100,000
- Carter, J.M., Redden, J.A., 1999b, Altitude of the Top of the Deadwood Formation in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-744-E, 2 sheets, scale 1:100,000
- Carter, J.M., Driscoll, D.G., Hamade, G.R., and Jarrell, G.J., 2001, Hydrologic Budgets for the Madison and Minnelusa Aquifers, Black Hills of South Dakota and Wyoming, Water Years 1987-1996, U.S. Geological Survey Water-Resources Investigations Report 01-4119, 53 p.
- Carter, J.M., and Driscoll, D.G., 2001, Estimated Recharge to the Madison and Minnelusa Aquifers in the Black Hills Area, South Dakota and Wyoming, Water Years 1931-98: U.S. Geological Survey Water-Resources Investigations Report 00-4278, 66 p.
- Greene, E.A., 1993, Hydraulic Properties of the Madison Aquifer System in the Western Rapid City Area, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 93-4008, 56 p.
- Strobel, M.L., Jarrell, G.J., Sawyer, J.F., Schleicher, J.R., and Fahrenbach, M.D., 1999, Distribution of Hydrogeologic Units in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-743, 3 sheets, scale 1:100,000
- Strobel, M.L., Galloway, J.M., Hamade, G.R., Jarrell, G.J., and 2000, Potentiometric Surface of the Madison Aquifer in the Black Hills Area, South Dakota: U.S. Geological Survey Hydrologic Investigations Atlas HA-745-D, 2 sheets, scale 1:100,000
- Rahn, P.H., 1979, Ground Water Resources of Western South Dakota: U.S. Army Corps of Engineers, SDSM&T Project #2533
- Water Rights Program, 2002a, "Domestic Well Log Files" DENR-Water Rights Program,

Water Rights Program, 2002c, "Observation Well Files" DENR-Water Rights Program

Water Rights Program, 2002d, "Water Permit Files" DENR-Water Rights Program,



**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. 1840-1, Apple Creek Development, LLC**

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. 1840-1, Apple Creek Development, LLC, c/o Dave Simpson, Fountain Springs Golf Club Pro Shop, 1750 Fountain Plaza Drive, Rapid City SD 57702.

The Chief Engineer is recommending APPROVAL of Application No. 1840-1 for a 20 year term because 1) the proposed diversion can be developed without unlawful impairment of existing rights, 2) the proposed use is a beneficial use and 3) it is in the public interest with the following qualifications:

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 2546-2 is issued for a 20-year term. Pursuant to SDCL 46-2A-21, the 20-year term may be deleted at any time during the 20-year period or following its expiration. If the 20-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 2546-2 may also be cancelled for nonconstruction, forfeiture, abandonment, or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1 and ARSD 74:02:01:37.
2. 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.
3. The wells authorized by Permit No. 1840-1 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.
4. Apple Creek Development shall report to the Chief Engineer annually the amount of water withdrawn from the Madison Aquifer

See report on application for additional information.


Garland Erbele, Chief Engineer
May 26, 2005

NOTE: The project description states that limited golf course irrigation may be necessary in early development phases to supplement recycled wastewater effluent. Boulder Canyon Country Club currently holds water rights for a Minnelusa well and storage pond to irrigate the existing 9 hold golf course. With 9 hole expansion, Well No. 1 to be authorized under this application may be used on an interim basis for irrigating portions of the new 9 holes. It is envisioned that once build-out of the project occurs the new 9 holes will be irrigated using wastewater effluent from the development and the existing sources authorized by the Country Club's water rights. The Country Club will need to apply for and obtain a water permit for the additional acres to be irrigated.

Affidavit of Publication

STATE OF SOUTH DAKOTA COUNTY OF LAWRENCE

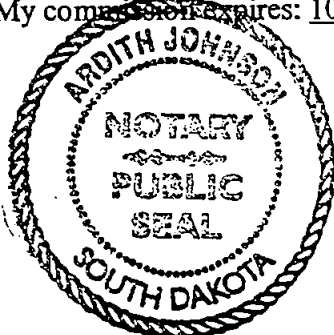
Stewart Huntington of said County and State being first duly sworn, on his oath says: That the BLACK HILLS PIONEER is a legal daily newspaper of general circulation, printed and published in the City of Spearfish, in said County and State by Stewart Huntington, and has been such a newspaper during the times hereinafter mentioned; and that said newspaper has a bonafide circulation of at least 200 copies weekly, and has been published within said County in the English language for at least one year prior to the first publication of the notice herein mentioned, and is printed in whole or in part in an office maintained at the place of publication; and that I, Stewart Huntington, the undersigned, am the Publisher of said newspaper and have personal knowledge of all the facts stated in this affidavit; and that the advertisement headed:

Notice Of Application
No. 1840-1

a printed copy of which is hereto attached, was printed and published in said newspaper for 2 successive and consecutive weeks, the first publication being made on the 2nd day of June, 2005, and the last publication on the 9th day of June, 2005, that the full amount of fees charged for publishing same, to-wit: The sum of \$ 46.10, insures solely to the benefit of the publisher of the BLACK HILLS PIONEER, that no agreement or understanding for a division thereof has been made with any person and that no part thereof has been agreed to be paid to any other person whomsoever.

Stewart Huntington
Subscribed and sworn to before me this 9th day of June, 2005

Ardith Johnson
Notary Public, Lawrence County, South Dakota
My commission expires: 10-24-2010



NOTICE OF APPLICATION NO. 1840-1 to Appropriate Water

Notice is given that Apple Creek Development, LLC, Dave Simpson, President, c/o Fountain Springs Golf Club, 1750 Fountain Plaza Drive, Rapid City SD 57702 has filed an application for a water permit to appropriate 0.67 cubic feet of water per second from two wells to be completed into the Madison aquifer (approximately 1000 and 900 feet deep) located in the SE 1/4 SW 1/4 and SW 1/4 NW 1/4 Section 11-T5N-R4E.

The water is for a suburban housing development and commercial use. During early development phases one of the wells may be used for limited golf course irrigation of the 9 hole expansion at the Boulder Canyon golf course located in the W 1/2 Section 11 and E 1/2 NW 1/4, W 1/2 NE 1/4 Section 14, T5N-R4E.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of application No. 1840-1 for a 20 year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) evidence is not available to justify issuing this permit without a 20 year term limitation, 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. In accordance with SDCL 46-2A-23, the Chief Engineer will act on the 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, the a hearing will be scheduled and the Water Management Board will consider the

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 June 20, 2005.

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

#977
June 2, 9

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JUN 23 2005
WATER RIGHTS
PROGRAM



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and NATURAL RESOURCES

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

May 26, 2005

Black Hills Pioneer
PO Box 7
Spearfish SD 57783-0007

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 1840-1 to Appropriate Water to be published twice. Please publish the first notice on June 2, 2005 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 Apple Creek Development LLC, Dave Simpson Presidnet, % Fountain Springs Golf Club, 1750 Fountain Plaza Drive, Rapid City SD (Ph # 605-343-3555).

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. 1840-1

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

Date _____

We are in receipt of your letter of May 26, 2005 enclosing Notice to Appropriate Water by Application No. 1840-1 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.

May 26, 2005

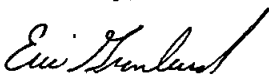
Apple Creek Development LLC
Dave Simpson President
%Fountain Springs Golf Club
1750 Fountain Plaza Dr
Rapid City SD 57702

Dear Mr. Simpson:

Water Permit Application No. 1840-1 for suburban housing development, commercial use & 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 Black Hills Pioneer printed at Spearfish, SD (Ph # 605-642-2761). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application 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 application.

Sincerely,


Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

c: Greg Wierenga, CETEC Engineering, 1830 W Fulton St., Rapid City SD 57702

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 June 2, 2005 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 1840-1 to Appropriate Water

Notice is given that Apple Creek Development, LLC, Dave Simpson, President, c/o Fountain Springs Golf Club, 1750 Fountain Plaza Drive, Rapid City SD 57702 has filed an application for a water permit to appropriate 0.67 cubic feet of water per second from two wells to be completed into the Madison Aquifer (approximately 1000 and 900 feet deep) located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ and SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 11-T5N-R4E. The water is for a suburban housing development and commercial use. During early development phases one of the wells may be used for limited golf course irrigation on the 9 hole expansion at the Boulder Canyon golf course located in the W $\frac{1}{2}$ Section 11 and E $\frac{1}{2}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$ Section 14, T5N-R4E.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1840-1 for a 20 year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) evidence is not available to justify issuing this permit without a 20 year term limitation, 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. In accordance with SDCL 46-2A-23, the Chief Engineer will act on the 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 the 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 June 20, 2005.

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
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JUL 19 2005

Apple Creek Development LLC
%Fountain Springs Golf Club Pro Shop
Dave Simpson
1750 Fountain Plaza Dr
Rapid City SD 57702

Dear Mr. Simpson:

Enclosed is Water Permit No. 1840-1 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

1840-1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location SE $\frac{1}{4}$ SW $\frac{1}{4}$ Sec 11 Twp SN Rg 84E

County

North

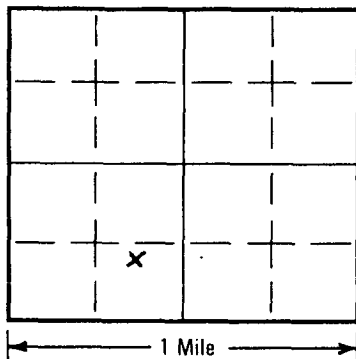
Lawrence

Please mark well location with an "X"

W

E

Well Completion Date

Nov 11 05

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 500 ft. from septic (identify source).

PROPOSED USE:

U.H.D.

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

METHOD OF DRILLING:

Air RotaryCASING DATA: ☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>54.5</u> LB/FT	<u>13 3/8</u> IN	<u>0</u> FT	<u>63</u> FT	<u>17 1/2</u> IN
<u>36</u> LB/FT	<u>9 5/8</u> IN	<u>+2</u> FT	<u>915</u> FT	<u>12 1/4</u> IN
<u>23</u> LB/FT	<u>7</u> IN	<u>878</u> FT	<u>1050</u> FT	<u>8 3/4</u> IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Portland</u>	<u>580</u>	<u>14</u> lb./gal	<u>0</u> ft.	<u>915</u> ft.
<u>Portland</u>	<u>60</u>	<u>14</u> lb./gal	<u>878</u> ft.	<u>1050</u> ft.

Describe grouting procedure Pressure grouted through casing.SCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ 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: chlorine_____
NO, Why Not? Solution

Laboratory sent to for water quality analysis _____

Well Owner: Mark SimpsonBusiness Name: Apple Creek Development, LLCAddress: 1750 Fountain Plaza Dr.Rapid City, SD 57702

WELL LOG:

DEPTH

FORMATION

FROM

TO

Spearfish060Minnekahta60104Opake104250Minnekahta250900Madison9001500Englewood15001505

STATIC WATER LEVEL

460

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:

☐ PumpedDescribe: Air Developed☐ Bailed☒ Other _____

Pumping Level Below Land Surface

840

ft. After _____

Hrs. pumped _____

GPM

ft. After _____

Hrs. pumped _____

GPM

If pump installed, pump rate _____

GPM

REMARKS Water Permit No. 1840-1Note: See Attached Note on cementing Details

RECEIVED

This well was drilled under license # 331

DEC - 1 2005

And this report is true and accurate.

WATER RIGHT
PROGR.Drilling firm Taylor DrillingSignature of License Representative: K T J

RECEIVED

Signature of Well Owner or Equitable Property Holder

DEC - 1 2005

WATER RIGHT
PROGRAM

Date: _____

Mark Simpson
Apple Creek Development, LLC

9 5/8" Casing was pressure grouted with 200 sacks of Portland cement with no return of cement to surface. A cement bond log showed top of cement @ 590 ft. Casing was jet perforated with 4 shots @ 575 ft. Circulation through perforation was not good enough to pump cement grout. A 1" trimmy line was set along side 9 5/8" casing to 205 ft. 300 sacks of Portland cement was pumped to fill annular space to surface. 60 sacks of Portland cement was used to squeeze into the bond log perforations.

RECEIVED
DEC - 1
WATER REPLY
PROGR



1840-1

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 31, 2008

No. 1840-1

Apple Springs Development LLC
John Burckhard
1750 Fountain Plaza Dr.
Rapid City SD 57702

Dear Mr. Burckhard:

Enclosed is a partially completed "Notice of Transfer" form for use in filing an ownership/name change on Water Permit No. 1840-1. The water permit is currently listed in the name of Apple Creek Development LLC.

The transfer form should be checked over for accuracy and **signed by the owner**. Upon completion, return the form to our office with a required filing fee of \$2.50.

South Dakota Water Law 46-5-30.3 requires Notice of any sale, grant, lease, conveyance or other transfer of a water permit or water right to appropriate water to be filed with this office within ninety days.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak
Water Rights Program
605 773-3352
email: karen.schlaak@state.sd.us

enclosure

NOTICE OF TRANSFER OF OWNERSHIP

RECEIVED

FEB 14 2008

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

No. 1840-1 ~~WATER RIGHTS~~
PROGRAM

Date: 2/11/08

I/We request that Water Right/Permit No. 1840-1

formerly owned by: Apple Creek Development LLC

be transferred to: (name & address) Apple Springs Water Works LLC
2000 Wesleyan Blvd
Rapid City SD 57702 Telephone No. 605 390 2612

Title to the following described land(s)/property has been transferred as described above:

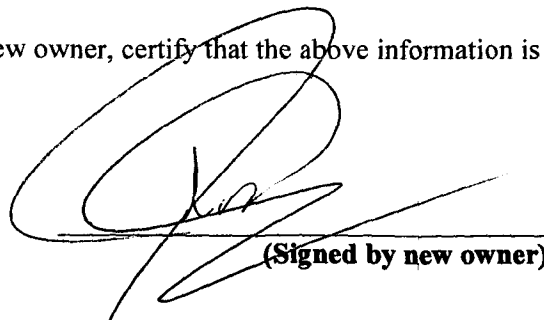
2 wells - SE 1/4 SW 1/4 and SW 1/4 NW 1/4 Section 11-T5N-R4E

I/We understand that the validity of Water Right/Permit No. 1840-1 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Two Dollars and Fifty Cents (\$2.50) is required to cover the filing fees as required under SDCL 46-2-13. This form must be signed by the new owner.

I/We John D Burckhard, the new owner, certify that the above information is true and correct.


(Signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date February 14, 20 ~~08~~

RECEIVED OF John Burchhard, 2663 Cavern Rd, Rapid City SD 57702

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	2	50	
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 _____ 184901			
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. _____	2	50	
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____			
(Any Other Work Provided by Law)	TOTAL		
	2.50		

No.

03028

By Harland Erbele
Chief Engineer

(KS)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 20, 2008

1840-1

John D Burckhard
Apple Springs Water Works LLC
2000 Wesleyan Blvd
Rapid City SD 57702

Dear Sir:

I am writing to acknowledge receipt of the ownership change you submitted for Water Permit No. 1840-1. The transfer has been completed. The water permit formerly held by Apple Creek Development LLC is now listed in the name of Apple Springs Water Works LLC.

Enclosed is your Receipt No. 03528 in the amount of \$2.50 which you paid for filing the ownership change. You may keep this for your records.

If you have any questions, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352

Permit No. 1840-1
Belle Fourche 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, **June 29, 2010**, made a thorough examination of the water use system constructed by **Apple Springs Water Works** of **2000 Wesleyan Blvd., Rapid City, SD 57702** holder of Permit No. **1840-1**, bearing the priority of **March 7, 2005** authorizing the diversion of **0.67** cu. ft. per second of the waters of the **Madison Aquifer** for **Surban Housing Development, Commercial and Irrigation** purposes, in **Lawrence** County.

Inspection contact & relationship **John Burckhard**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: **Taylor**
- 2) No. of Wells **1**
- 3) Depth(s) **1,505** feet
- 4) Well log is available **Y**

Casing:

- 1) Diameter **13 3/8, 9 5/8, 7** inches
- 2) Length **63, 815, 172** feet
- 3) Type **Steel**

Pump:

- 1) Make **Grundfos**
- 2) Model **150S-400-22**
- 3) Size **40 hp**
- 4) Capacity **150** GPM

Chemigation Equipment:

- 1) Does chemigate **N**

B. 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 NA

3) Exceptions to compliance are: None

The system is in Good condition with the point(s) of diversion located as follows:

Approximately 1,110 feet north and 2,005 feet east ^{of} the SW corner of Section 11-T5N-R4E
(N 44.40494, W -103.60139) (SE ¼ SW ¼)

The works are capable of diverting and conveying to the place of use 0.33 cu. ft. per second of water which is to be used for Surban Housing Development, Commercial and Irrigation use.

The license should be issued for 0.33cfs.

All structures, wells and lands on map Y

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

Permit No. 1840-1 was originally permitted for two wells appropriating 0.67 cfs. At the time of the inspection, only one well had been constructed. All construction was to have been completed on or before June 20, 2010.



Mike DeFea
Natural Resources Engineer
DENR, Water Rights Program

Date report completed: July 15, 2010

Water Permit No. 1840-1

Apple Springs Water Works



Mike DeFea

Mike DeFea
Natural Resources Engineer
DENR, Water Rights Program
July 14, 2010



South Dakota
Department of Environment
& Natural Resources
Protecting SD's Tomorrow... Today



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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www.state.sd.us/denr

JUL 21 2010

1840-1

John Burckhard
Apple Springs Water Works
2000 Wesleyan Blvd
Rapid City SD 57702

Dear Mr. Burckhard:

Enclosed is Water License No. 1840-1. 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. 1840-1, 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,

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1840-1

(1) Apple Creek Development LLC made Application No. 1840-1, March 7, 2005 for a water permit to divert 0.67 cubic feet of water per second from ground water (two wells – Madison Aquifer), Lawrence County, South Dakota for suburban housing development and commercial use purposes with limited golf course irrigation during early development. Permit No. 1840-1 with a priority date of March 7, 2005 was approved June 20, 2005 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 20, 2010 and for the application to beneficial use of said water on or before June 20, 2014.

On February 14, 2008, Water Permit No. 1840-1 was transferred to Apple Springs Water Works LLC.

(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 0.33 cubic feet of water per second for beneficial use.

Two wells were originally permitted and only one well was developed. The location of the diversion point is 1,110 feet north and 2,005 feet east of the SW corner of Section 11, T5N, R4E (SE ¼ SW ¼).

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

(4) Pursuant to South Dakota Water Law 46-5-30.1 Apple Springs Water Works LLC, 2000 Wesleyan Blvd, Rapid City SD 57702 the holder and/or owner of Water Right No. 1840-1 is issued a license to appropriate water, the right to use 0.33 cubic feet of water per second from ground water (one well – Madison Aquifer) with a priority date of March 7, 2005 from the location specified in (2) of this license for suburban housing and commercial use purposes.

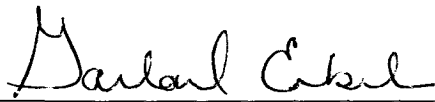
This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 1840-1 and subject to the following qualification:

- In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 1840-1 is issued for a 20-year term. Pursuant to SDCL 46-2A-21, the 20-year term may be deleted at any time during the 20-year period or following its expiration. If the 20-year term is not deleted at the end of the term, the permit may either be cancelled or amended with a new term limitation of up to twenty years. Permit No. 1840-1 may also be cancelled for non-construction, forfeiture, abandonment, or three permit violations pursuant to SDCL 46-1-12, 46-5-37, 46-5-37.1 and ARSD 74:02:01:37.
- 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.

Continued

Water License No. 1840-1

- The well authorized by Permit No. 1840-1 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. *(Well was drilled by Taylor Drilling in November, 2005; log on file with the Water Rights Program).*
- Apple Springs Water Works LLC shall report to the Chief Engineer annually the amount of water withdrawn from the Madison Aquifer.



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

JUL 21 2010

date



Schlaak, Karen

From: Mike Short <mike@liveapplesprings.com>
Sent: Wednesday, May 07, 2014 2:03 PM
To: Schlaak, Karen
Cc: John Burkhardt
Subject: Formerly Known as Apple Springs Water Water

Karen,

In followup to our discussion a few minutes ago, H2O Clear Solutions LLC, a South Dakota company, is the new owner of the assets formerly owned and operated by Apple Springs Water Works LLC. Here is our contact information for your records. I plan to get you meter readings within the next few days as requested.

H2O Clear Solutions LLC
PO BOX 271316
Flower Mound, TX 75027
Contact is Mike Short - Owner

Regards,

Mike Short
mike@liveapplesprings.com
(214)402-9810





DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



May 8, 2014

No. 1840-1

H2O Clear Solutions LLC
c/o Mike Short
PO Box 271316
Flower Mound TX 75027

Dear Mr. Short:

Enclosed is a partially completed "Notice of Transfer" form for use in filing an ownership change on Water Right No. 1840-1. The water right is currently listed in the name of Apple Springs Water Works LLC. Also enclosed is a copy of the water right and map for your files.

The transfer form should be checked over for accuracy and signed by the new owner. Upon completion, return the form to our office with a required filing fee of \$50.00.

South Dakota Water Law 46-5-30.3 requires Notice of any sale, grant, lease, conveyance or other transfer of a water permit or water right to appropriate water to be filed with this office within ninety days.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
email: karen.schlaak@state.sd.us

enclosures

RECEIVED

JUL - 1 2014

WATER RIGHTS
PROGRAM

NOTICE OF TRANSFER OF OWNERSHIP

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

No. 1840-1

Date:

6/6/14

I/We request that Water Right No. 1840-1

formerly owned by: Apple Springs Water Works LLC

X be transferred to: (name & address) H₂O Clear Solutions LLC
PO Box 271316
Flower Mound, TX 75022-1316 Telephone No. (214) 402-9810

Title to the following described land(s)/property has been transferred as described above:

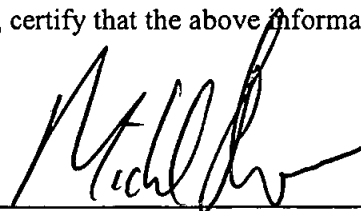
1 well located in the SE 1/4 SW 1/4 Section 11-T5N-R4E

I/We understand that the validity of Water Right/Permit No. 1840-1 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Fifty Dollars (\$50.00) is required to cover the filing fees as required under SDCL 46-2-13. This form must be signed by the new owner.

I/We Michael L. Short, the new owner, certify that the above information is true and correct.

X 

(Signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 7/1, 20 14

RECEIVED OF H2O Clear Solutions LLC PO Box 271316 Flower Mound TX 75027

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	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 <u>1840-1</u>		
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	50 00

No. **06898**

By Jeanne Goodman
Chief Engineer



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



July 1, 2014

1840-1

Michael L Short
H2O Clear Solutions LLC
PO Box 271316
Flower Mound TX 75027-1316

Dear Mr. Short:

I am writing to acknowledge receipt of the transfer form and filing fee you submitted for changing ownership on Water Right No. 1840-1

The ownership change has been completed. Water Right No. 1840-1 formerly held by Apple Springs Water Works LLC is now listed in the name of H2O Clear Solutions LLC.

Enclosed for your records is Receipt No. 06898 in the amount of \$50. If I can answer any questions for you, please give me a call.

Sincerely,

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

enclosure