

WATER PERMIT NO. 1701-1

Name of Applicant: Stagebarn Lodging, LLC

Address: 9501 High Meadows, Black Hawk SD 57718

Phone: 605 787-5756

Amount of Water Claimed: 0.10 cfs (45 gpm)

Total Acres: NA

Source of Water Supply: groundwater (one well)

Water to be used for: commercial County: Meade

Type of Waste Disposal System: septic tank, drain field

Location: about 3 miles northwest of Black Hawk

PRIORITY

Date Received: 11-22-1999

Fee: \$50.00

Corrected Application Received:

Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: SW ¼ SW ¼ Sec 24-T3N-R6E

Land to be Irrigated: NA

Depth of Well: 1050 feet deep

Well Driller: Bice Drilling

Remarks:

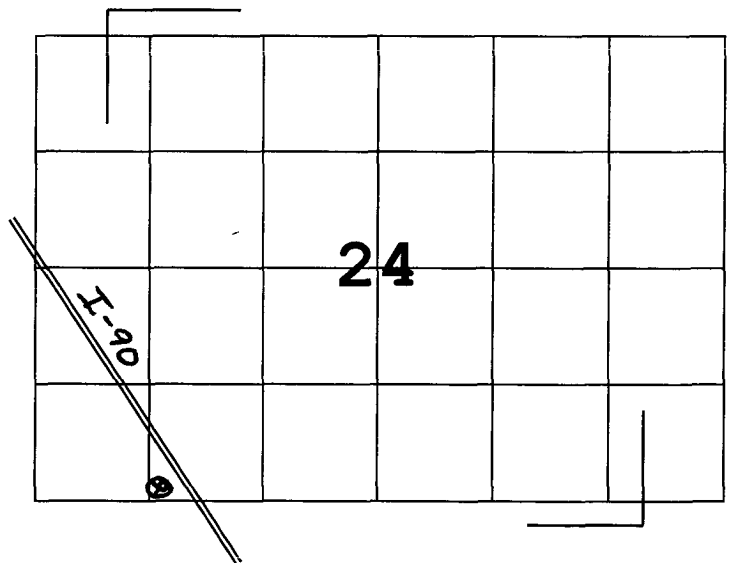
Type of Map: aerial

Prepared by: Maxine Mosely, NRCS

Reviewed and the Number Assigned on: 11-22-1999

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



SOUTH DAKOTA
WATER PERMIT NO. 1701-1

Date of first receipt of application November 22, 1999.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1701-1 to Stagebarn Lodging, LLC, 9501 High Meadows, Black Hawk SD 57718 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. 1701-1 to appropriate 0.10 cubic feet of water per second (45 gallons per minute) from one well (Madison Formation) 1,050 feet deep located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 24-T3N-R6E.
2. The water appropriated shall be used for the purpose of supplying water for 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. 1701-1 is January 10, 2000.
5. The date from which applicant may claim right is November 22, 1999.
6. One-fifth of the construction is to be completed on or before July 10, 2002.
7. All construction is to be completed on or before January 10, 2005.
8. Water is to be put to beneficial use on or before January 10, 2009.
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. 1701-1 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty 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. 1701-1 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 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)

3. The well authorized by Permit No. 1701-1 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28.
4. If the well approved under this Permit flows, it shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the Permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

WATER MANAGEMENT BOARD

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

FEB 04 2000

date



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

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>1701-1</u>	(office use only) Hydrologic Unit <u>10/20/11</u>
	Basin <u>Upper Cheyenne</u>	
	Newspaper <u>Meade Co. Times-Tribune, Sturgis,</u>	
	<u>SD</u>	



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: ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
(check one) ☐ 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.) _____

- Name of Applicant Stagebarn Lodging L.L.C. Phone 605 787-5756
(check one) Owner Tenant/lessee
Mailing Address 9501 High Meadows Black Hawk State S. DAK 57718
(Street, RR. or Box) (Zip Code)
- Amount of water claimed 0.10 *CFS or 45 **GPM ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply MADISON FORMATION
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) SW SW Sec 24
TWN 3N Rg 6E County MEADE
- County or counties where water will be used MEADE
- Annual period during which water is to be used Jan 1st - Dec 31st
- 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)

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, MAURICE JAMISON, 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.

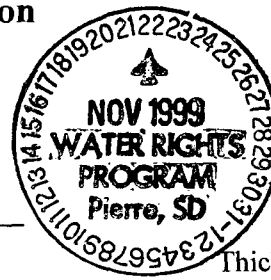
Signed Maurice Jamison

Subscribed and sworn to before me this 18 day of November 19 99

Greg L. Kellum
Notary Public

Supplemental Information

(type or print in ink)



1. Well Information - Proposed Construction

- a) Drill Hole Diameter 7 7/8" Depth 1050'
- b) Casing Type steel Diameter 5.5" Thickness .275
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material @ 600' to MINNEAPOLIS
- f) Depth to Water (ground surface to water level) @ 35'
- g) Distance to nearest existing domestic well:

On applicants property NONE On property owned by others yes 300'

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) septic tank, drain field
- b) System Capacity (gallons) 7,500 gals Year Constructed 1999
- c) Connected to the City of _____ Sanitary System _____

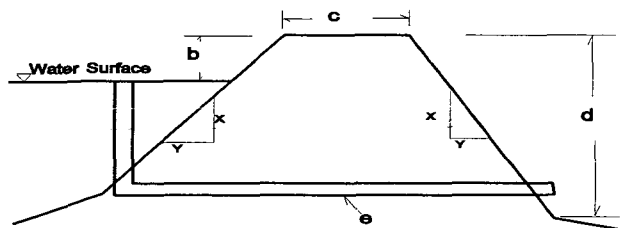
3. Dugout Information

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

4. Water Storage Dams

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

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



- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

N^o 416274

Pierre, _____ November 22, 19 99

RECEIVED OF Bice Drilling Co., Inc., 1210 Creek D⁵., Rapid City, SD 57701
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>1701-1</u> 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. <u>1701-1</u>	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	100 00

By John Hatch
Chief Engineer

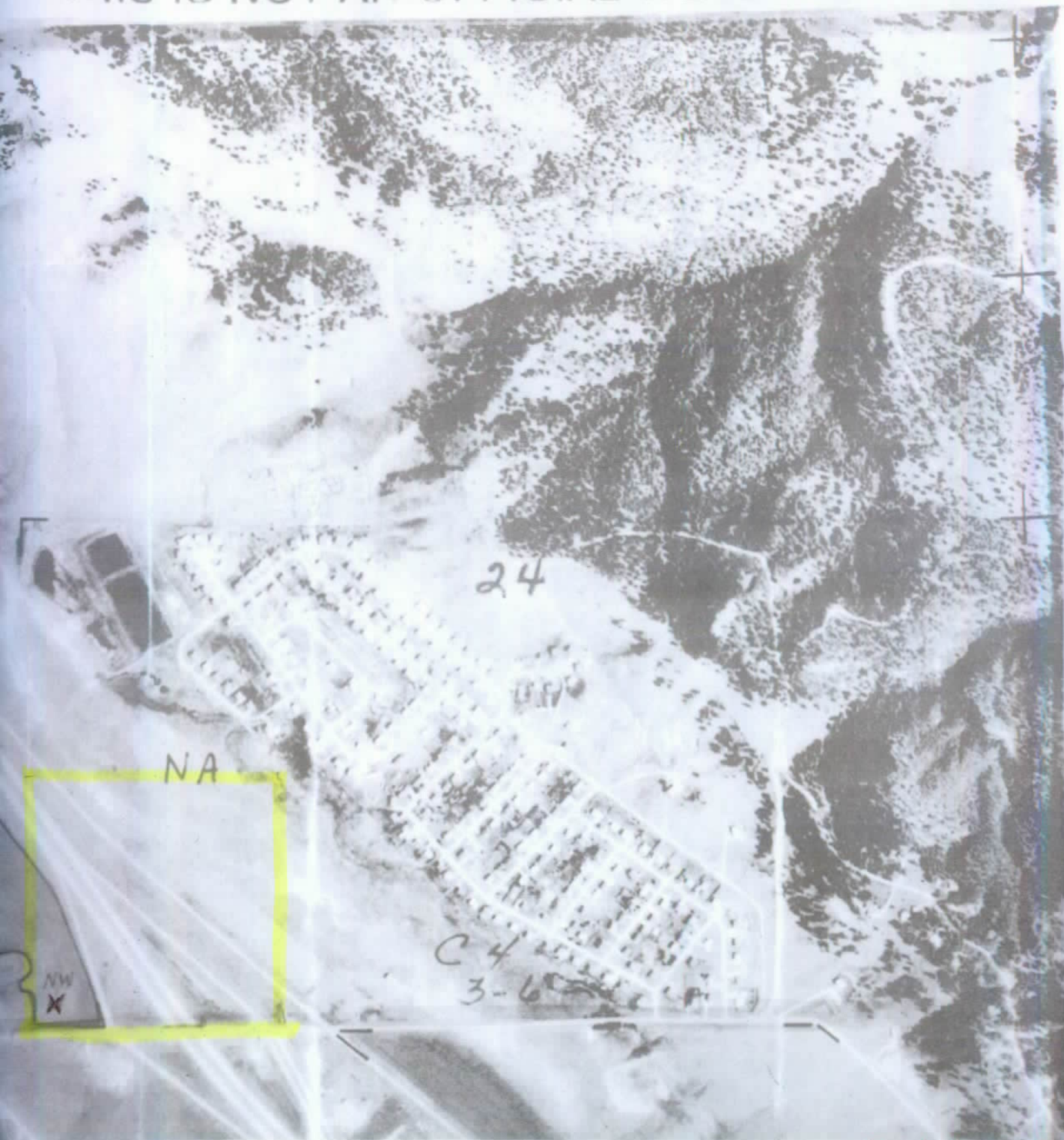
Melanie Moseley

Rangeland Management Specialist, NRCS

SW SW Sec 24 T4N3N R9 6E

MAP NOT TO SCALE

THIS IS NOT AN OFFICIAL WETLAND MAP.



1701-1

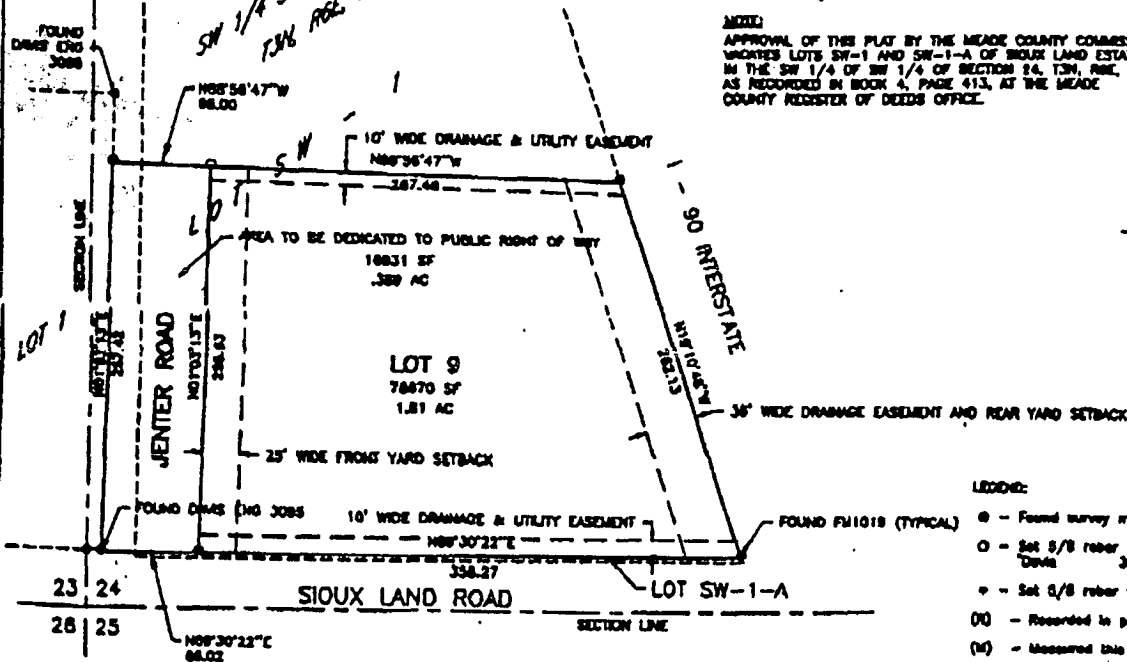
PLAT OF LOT 9
OF STAGE STOP SUBDIVISION

FORMERLY: LOT SW-1 AND SW-1-A OF SIOUX LAND ESTATES
IN SECTION 24, T3N, R8E, B1M; AND A PORTION OF THE UNPLATTED
SW 1/4 OF SW 1/4 OF SECTION 24, T3N, R8E, B1M;

ALL LOCATED IN: SW 1/4 SW 1/4
SECTION 24, T3N, R8E, B1M.

MEADE COUNTY, SOUTH DAKOTA

NOTICE OF HEARING
MAY BE SENT TO:
GEORGE JENTER
1910 BALL PARK ROAD
STURGEON, SD 57783



LEGEND:

- - Found survey monument as noted
 - - Set 5/8 rebar with survey cap marked "DAVIS"
 - + - Set 5/8 rebar with no cap
 - (D) - Recorded in previous survey
 - (M) - Measured this survey
- BASE OF BEARINGS: As shown hereon

CERTIFICATE OF SURVEYOR
State of South Dakota
County of Pennington

I, Ronald D. Davis, Registered Land Surveyor No. 3095 of the State of South Dakota, do hereby certify that all the survey and corner data shown on this plat is to be made and that I did mark upon the ground the boundaries thereof in the manner shown. All area amounts shown hereon are considered to have the words "more or less" following.

I have set my hand and seal:
Dated this 27th day of April, 1999.

CERTIFICATE OF OWNERSHIP:
State of South Dakota
County of Meade

I, Lavern Wilburn, do hereby certify that I am the owner of the tract of land shown and described hereon, and that the plat was done at my request for the purposes indicated hereon, and that I do hereby approve the within plat of said land, and that the development of this land shall conform to all existing zoning, subdivision, and erosion and sediment control regulations.

In witness whereof, I have set my hand.

OWNER: Lavern Wilburn
Lavern Wilburn

On the 23rd day of April, 1999, before me, a Notary Public, personally appeared Lavern Wilburn, known to me to be the person described in the foregoing instrument, and he acknowledged to me that he signed the same.

NOTARY PUBLIC: [Signature]

My Commission Expires: 2000

CERTIFICATE OF OWNERSHIP:
State of South Dakota
County of Meade

I, George W. Jenter, do hereby certify that I am the owner of the tract of land shown and described hereon, and that the plat was done at my request for the purposes indicated hereon, and that I do hereby approve the within plat of said land, and that the development of this land shall conform to all existing zoning, subdivision, and erosion and sediment control regulations.

In witness whereof, I have set my hand.

OWNER: George W. Jenter
George W. Jenter

On the 22nd day of April, 1999, before me, a Notary Public, personally appeared George W. Jenter, known to me to be the person described in the foregoing instrument, and he acknowledged to me that he signed the same.

NOTARY PUBLIC: [Signature]

My Commission Expires: 2000

J99009

APPROVED BY
MEADE COUNTY
Platted by [Signature]
On 27th day of April, 1999

CERTIFICATE OF TREASURER

I, Treasurer of Meade County, do hereby certify that all taxes which are due upon the within described lands are paid according to the records of my office.

Dated this 27th day of April, 1999.
Treasurer of Meade County: [Signature]

CERTIFICATE OF DIRECTOR OF EQUALIZATION

I, Director of Equalization of Meade County, do hereby certify that I have on record in my office a copy of the within described plat.

DIRECTOR OF EQUALIZATION: Nick J. Chaffee

Dated this 5th day of May, 1999.

APPROVED: [Signature]

DATE: 5/5/99

RESOLUTION OF GOVERNING BOARD

I, Auditor of Meade County, do hereby certify that at an official meeting held on the 5th day of May, 1999, the County Commissioners, by resolution, did approve the plat shown hereon.

Dated this 5th day of May, 1999.

Meade County Auditor: [Signature]

CERTIFICATE OF STREET AUTHORITY

The location of the access road abutting the County or State Highway or the City Street as shown hereon is hereby approved. Any change in the location of the proposed access road shall require additional approval.

Dated this 5th day of May, 1999.

Highway Authority: [Signature]

STATE OF SOUTH DAKOTA Doc# 01854
COUNTY OF MEADE

Filed for record this day of May 5, 1999.

at 2 o'clock and 55 minutes P.M. and

recorded in Book 22 of plats, on page 111

By [Signature]
Meade County Register

For \$100.00 cash

LOT 9 SW-1 AND SW-1-A SW 1/4 SW 1/4 SECT 24 13.68.04

PREPARED BY:
DAVIS ENGINEERING & LAND SURVEYING
PO BOX 7835 (805) 341-3085
RAPID CITY, SD 57708

PR 20-111

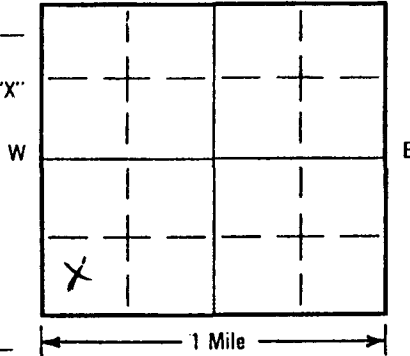
1701-1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location: SW 1/4 SW 1/4 Sec 24 Twp 3N Rg 6E
 County: MEADE
 North

Please mark well location with an "X"



Well Completion Date

2/23/00

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 150 ft. from septic (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

AIR Rotary

CASING DATA: ☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>15.50</u> LB/FT	<u>5.5</u> IN	<u>1.5</u> FT	<u>976</u> FT	<u>7 7/8</u> IN
_____ LB/FT	_____ IN	<u>980</u> FT	<u>1090</u> FT	<u>4 3/4</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type: portland No. of Sacks: 160 Grout Weight: 14 lb./gal From: 976 ft To: 0 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

Laboratory sent to for water quality analysis: _____ NO, Why Not? _____

Well Owner: Stage barn Super 8 motel
 Business Name: Maurice Harrison
 Address: 1501 High Meadows Rd.
Black Hawk SD. 57718

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Red shale with gravel	0	40
Red shale / some gyp	40	330
pink & white limestone	330	360
Red sandy shale	360	460
pink, Red & yellow sand	460	680
purple grey limestone	680	740
pink sand	740	780
mostly multicolored limestone	780	970
off white limestone	970	1090

STATIC WATER LEVEL: 40 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: AIR Developed

☐ Bailed _____

☒ Other _____

Pumping Level Below Land Surface

480 ft. After 2 Hrs. pumped 50 GPM

280 ft. After 2 Hrs. pumped 33 GPM

If pump installed, pump rate _____ GPM

REMARKS

This well was drilled under license # 195

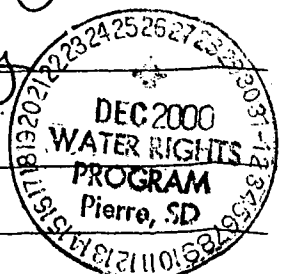
And this report is true and accurate.

Drilling firm: S. Bice Drilling

Signature of License Representative: Frank Conway

Signature of Well Owner or Equitable Property Holder: _____

Date: _____





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

November 23, 1999

Frank Conway
S. Bice Drilling Co.
1220 Creek Dr.
Rapid City, SD 57701

Dear Mr. Conway:

As requested, pursuant to South Dakota Well Construction Standard 74:02:04:21, you are authorized to construct a test well for Stagebarn Lodging, L.L.C., prior to approval of a water permit. The test well is to be completed into the Madison Aquifer in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 24, T3N-R6E. The test well must be constructed in accordance with the SD Well Construction Standards. Any test holes that are abandoned must be plugged pursuant to the SD Well Construction Standards.

Very truly yours,

James A. Goodman, P.E.
Natural Resources Engineer
for John Hatch, Chief Engineer
Water Rights Program
(605) 773-3352

c: Maurice Jamison, 9501 High Meadows, Black Hawk, SD 57718

WATER PERMIT APPLICATION NO. 1701-1
STAGEBARN LODGING, LLC
DECEMBER 2, 1999

Water Permit Application No. 1701-1 proposes to appropriate 0.10 cubic feet of water per second (45 gallons per minute) from one well (Madison Limestone) 1,050 feet deep located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 24, T3N-R6E. The water is to be used for commercial use.

AQUIFER: Madison Aquifer (MDSN)

GENERAL:

The Madison Aquifer is a massive, carbonate (limestone and dolomite) aquifer that underlies most of western South Dakota. It is estimated that the aquifer contains at least 640 million acre-feet of recoverable water in storage in the State (Allen, 1984). The importance of the Madison as an aquifer is largely due to randomly distributed zones of secondary porosity and permeability formed by weathering of exposed surfaces, groundwater solution, and fracturing. These zones also play an important role in determining the hydraulic behavior of the Madison aquifer and the response of the system to stress. Recharge to the Madison aquifer occurs through streamflow losses and direct infiltration of precipitation at the outcrop area. Recharge for the entire Madison Aquifer in South Dakota has been estimated to range from 140,000 to 400,000 acre-feet per year (Woodward Clyde, 1981). The Madison is generally considered an excellent aquifer both in terms of quality and quantity, especially near the outcrop (recharge area). The Madison outcrop is located within approximately 3 miles west of this well site (Darton, 1925) and (DeWitt, 1989), and the top of the Madison is estimated to be approximately 1,000 feet below ground surface (Redden, 1995).

The potentiometric surface of the Madison aquifer is expected to be around 3600 feet msl in this area so the water level of this well should be near or above ground surface (a flowing well) (Water Rights, 1998).

WATER AVAILABILITY:

The well site proposed by this application is located within five miles of two Water Rights' Observation Wells completed into the Madison Aquifer (MD-94A and PE-95C). Hydrographs for the wells show climatic fluctuations in the water levels and clearly demonstrate the system is recharged.

The Water Rights Program monitors 26 observation wells completed into the Madison aquifer in the Black Hills Area. Records from the observation wells indicate the potentiometric surface of the Madison Aquifer fluctuates 30-40 feet per year near the recharge area in response to seasonal and climatic variations. Long term water-level declines are not apparent from any of the hydrographs. Observation well data suggest that at the existing level of development, natural influences dominate the water level of the aquifer and the effects of pumping as yet are not obvious.

The high cost of Madison wells, except very near the outcrop, and the availability of groundwater from shallower aquifers, has limited domestic development and generally restricted usage from the Madison to those uses which require Water Rights. There are 109 permits/rights which appropriate water from the Madison aquifer in South Dakota. The majority of the water rights/permits from the aquifer are from Butte (17), Lawrence (22), Meade (18), Pennington (30) and Fall River (10) Counties. The Madison supplies water for irrigation, geothermal, industrial, commercial, recreational, and commercial use. However, by far the major use of the aquifer is for common distribution systems (suburban housing development and municipal use). The cities of Spearfish, Belle Fourche, Whitewood, Sturgis, Rapid City, Box Elder and Edgemont all depend on water from the Madison Aquifer.

If the worst case assumptions are made that (1) permits/rights with an annual withdrawal limitation (ac-ft/yr.) will use the maximum allowable; and (2) permits/rights that are limited by a diversion rate only, will use 60% of the maximum allowable (considered reasonable for water distribution systems); the total water use from the Madison would be approximately 50,000 acre-feet per year. The actual amount of water used from the Madison is considerably less than this estimate. Three Future Use Permits (2086-2, 1833-2, and 369-1) reserve another 7,133 acre feet annually from the Madison Aquifer for future use. Comparison of the estimated annual recharge to the Madison with the water use estimated from the aquifer indicates unappropriated water is available from the Madison aquifer.

This application proposes an additional appropriation (under continuous pumping conditions) of up to 72 ac-ft/yr. from the Madison Aquifer. Realistic usage from this well should be less than 50 ac-ft/yr. This amount of water will not significantly upset the balance of withdrawals to recharge for the system.

AFFECTS ON EXISTING RIGHTS:

There are 11 existing ground water rights/permits within one mile of this well site, they include:

Permit No.	Owner	Aquifer
1170-1	Niche Homeowners	Minnelusa
1334-1	State Stop Plaza	Minnelusa
1373-1	Eastridge Acres Dev.	Minnelusa
1533-1	Meade School Dist. 46-1	Minnelusa
1569-1	Indian Hills No. 4 Sub.	Madison
1588-2	Wonderland Water Assoc.	Minnelusa
1659-2	Sheridan Heights Inc	Minnelusa
1907-2	Our Lady of the Black Hills	Minnelusa
1497-1	Midland Heights	Minnelusa
1651-1	Stagebarn Housing Center	Minnekahta
1660-1	GFK Inc.	Minnekahta

The nearest Madison appropriation, No. 1569-1, Indian Hills No. 4 Subdivision, is approximately 0.7 miles northwest of this well site. Other Madison Permits/Rights in the area are over one mile from this well site. Interference with existing Madison wells is not expected to be significant and certainly not adverse, due to the spacing of the wells and the low diversion rate of this permit (0.10 cfs).

If the cumulative affect of development from the Madison Aquifer, (i.e., an affect that cannot be attributed directly to a single diversion), requires the lowering of pumps in existing wells or reduces flows of area springs or streams, unlawful impairment of existing rights questions may need to be answered. SDCL 46-6-6.1 authorizes the Water Management Board to protect domestic water use by controlling large capacity wells without the necessity of requiring maintenance of artesian head pressure in a domestic use well. The statute also provides for the lowering of a water lift mechanism to a depth near the bottom of the groundwater supply or, in artesian aquifers to a substantial depth below the geological formation confining the ground water. Considering this statute, although water levels may be affected, the affect may not be unlawful impairment.

There are a number of wells completed into Minnelusa Aquifer in this area. Testimony was presented in opposition to Water Permit No. 1569-1 that pumping the Madison Aquifer may affect nearby wells completed into the Minnelusa aquifer (Water Rights, 1993). The extent of hydrologic connection between the Madison and Minnelusa Aquifers is unclear and is arguable. For the most part the Madison and Minnelusa Aquifers are "hydraulically distinct units". However, in general the potentiometric surfaces (water levels) suggest a potential for leakage from the Madison Aquifer to the Minnelusa Aquifer, and

there is some concern over possible impacts to Minnelusa wells caused by pumping the Madison. If leakage is significant, drawdown in the Madison could cause decreased leakage and consequently lower water levels in the Minnelusa aquifer.

The difference between the potentiometric surfaces of the two aquifers varies at different locations. The Water Rights Program maintains 17 sites where observation wells are completed side by side into the Madison and Minnelusa Aquifers. The difference between water levels is over 50 feet at nine of these sites, is between 50 feet and 10 feet at four sites, and is less than 10 feet at four sites. While a significant difference in water levels may suggest distinct aquifer systems, similar heads do not necessarily mean the aquifers are in direct hydraulic connection. A number of variables may affect the difference in potentiometric surfaces including elevation, relationship to losing stream segments, relationship to springs, etc. In Rapid City, at three sites within a two-mile radius, the difference in potentiometric surfaces of the Madison and Minnelusa Aquifers is 3 feet, 56 feet and 80 feet, respectively.

Two and one-half miles north west of this well site, the Water Rights Program monitors a pair of observation wells, one in the Minnelusa (MD-84A) and the other in the Madison aquifer (MD-94A). Comparison of the water levels shows there is over 80 feet of difference in the potentiometric surface of the two aquifers, see figure 1.

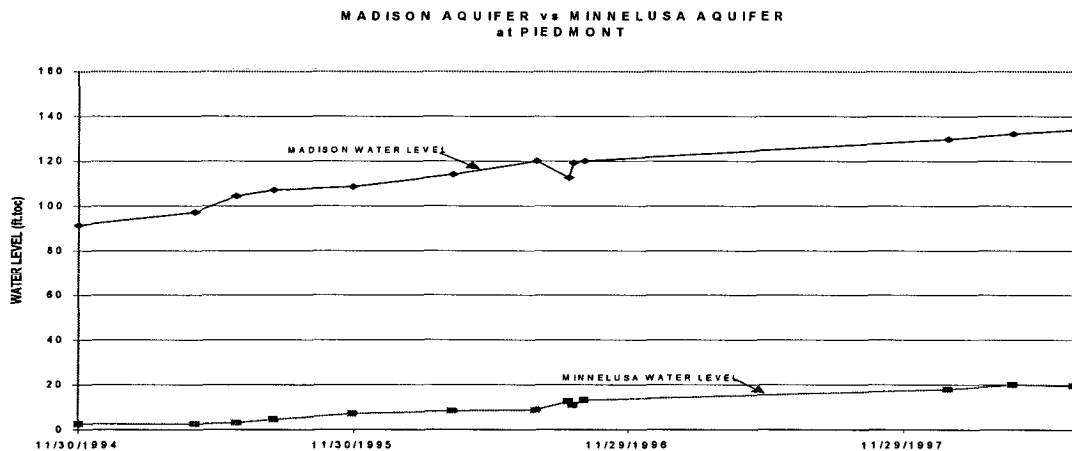


Figure 1. Hydrograph Comparing Madison and Minnelusa Aquifers

As can be seen, at this site the potential is for leakage from the Madison to the Minnelusa. Individual hydrographs of the two wells (figure 2 & figure 3) show the aquifers respond rapidly to recharge.

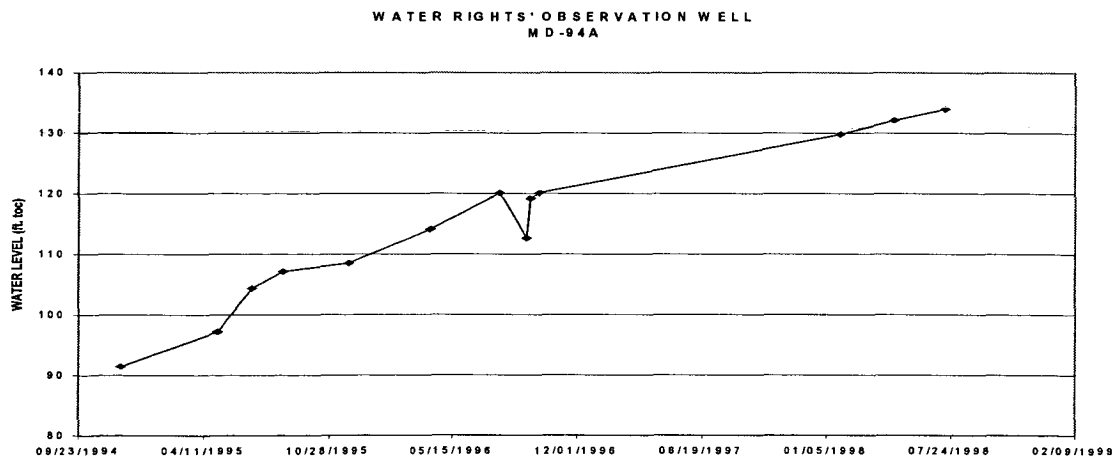


Figure 2. Madison Aquifer Observation Well Hydrograph

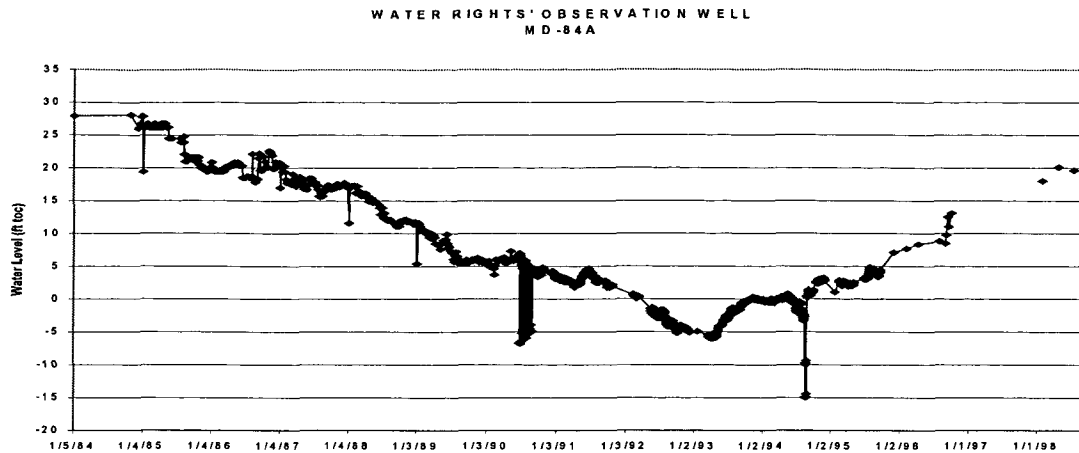


Figure 3. Minnelusa Aquifer Observation Well Hydrograph

The water levels are over 40 feet higher in the Madison well than when it was completed in 1994 and water levels of the Minnelusa have fluctuated over 30 feet between wet years and dry years. As responsive as the aquifers are to recharge, leakage between the two aquifers would have reached equilibrium long ago if leakage were significant (i.e. the water levels would be the same).

It is unlikely that pumping the Madison Aquifer at this site will affect nearby wells completed in the Minnelusa Aquifer. However, the hydrograph for Water Rights' Observation Well MD-84A documents climatic effects of over 30 feet of fluctuation of water levels. It can be expected that during the next dry cycle, recently constructed wells (both Madison and Minnelusa) will experience lower water levels that may necessitate the lowering of pumps in some of these wells. Some people may, although an incorrect conclusion, equate lowering pumps with an increased appropriation such as this, if it coincides with a dry cycle.

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:

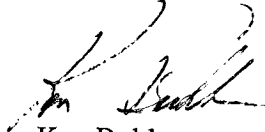
- (1) Sufficient information is available to determine whether any significant adverse hydrologic effects on the supply of water in the Madison formation would result if the proposed withdrawal were approved; and
- (2) The information, whether provided by the applicant or by other means, show that there 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:

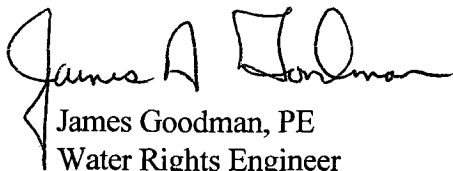
1. This application proposes to appropriate 0.10 cfs from the Madison Aquifer.
2. The Madison Aquifer is a viable aquifer and unappropriated water is available.

3. This appropriation will not adversely impair existing water rights due to the distance between wells, and the apparent hydraulic separation between the Madison and shallower aquifers in this area.
4. Information is not available to justify issuing this permit without a term limitation of 20 years.



Ken Buhler
Water Rights Engineer

Approved by



James Goodman, PE
Water Rights Engineer

REFERENCES:

- Allen, J.C., D.Iles, A.Petres, 1984, Analysis of Groundwater and Streamflow Data, Western Dakotas Region of South Dakota, Task 3 & 4: Groundwater Resources Inventory, US Army Corps of Engineers Contract DAWC 45-82-C-015, SD DENR- Geological Survey, Vermillion SD
- Darton, N.H., Paige, S., 1925, Geologic Atlas of the United States, Central Black Hills Folio, U.S. Geologic Survey Folio No. 219.
- DeWitt, E., J.Redden, D. Buscher, A. Burbach Wilson, 1989, Geologic Map of the Black Hills Area, South Dakota and Wyoming, U.S. Geological Survey, Map I-1910,
- Redden, J.A., 1994, Structural Contours and Phanerozoic Structures in the Rapid City, South Dakota, 1:100,000 Scale Quadrangle, Open-File Report 95-81, U.S. Geological Survey, Rapid City, SD
- Water Rights Program, 1993, "Water Permit File 1569-3", South Dakota DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1999, "Unpublished Observation Well Records", South Dakota DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1999, "Domestic Well Log Files", South Dakota DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Water Rights Program, 1999, "Water Permit/Right Files", South Dakota DENR-Water Rights Program, Joe Foss Building, Pierre, SD
- Woodward Clyde Consultants, 1981, Well Field Hydrology Technical Report, for the ETSI Coal Slurry Pipeline Project, U.S. Dept. of Interior, Bureau of Land Management

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1701-1, Stagebarn Lodging, LLC

Pursuant to SDCL 46 - 2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 1701-1, Stagebarn Lodging, LLC, c/o Maurice Jamison, 9501 High Meadows, Black Hawk SD 57718.

The Chief Engineer is recommending APPROVAL of Application No. 1701-1 for a 20 year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) although evidence is not available to justify issuing this permit without a 20 year term limitation, there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, and 4) it is in the public interest with the following qualifications:

1. In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 1701-1 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty 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. 1701-1 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 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.
3. The well authorized by Permit No. 1701-1 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28.
4. If the well approved under this Permit flows, it shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If this well is abandoned or the Permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.

See report on application for additional information.



JOHN HATCH, Chief Engineer
December 14, 1999



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

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

December 15, 1999

Stagebarn Lodging, LLC
%Maurice Jamison
9501 High Meadows
Black Hawk, SD 57718

Dear Mr. Jamison:

Water Permit Application No. 1701-1 for commercial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Meade Co. Times-Tribune printed at Sturgis, SD (Ph # (605) 347-2503). 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 of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

December 15, 1999

Meade Co. Times-Tribune
Box 69
Sturgis, SD 57785-0069

ATTENTION: Legal Public Notice

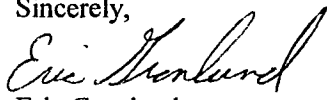
Enclosed is a Notice of Hearing on Application No. 1701-1 to Appropriate Water to be published twice. Please publish the first notice on December 22, 1999, with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Stagebarn Lodging, LLC, %Maurice Jamison, 9501 High Meadows, Black Hawk, SD 57718 (Ph # (605) 787-5756).

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

-----CU T HERE-----

No. 1701-1

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

Date _____

We are in receipt of your letter of December 15, 1999, enclosing Notice of Hearing to Appropriate Water by Application No. 1701-1 which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper

Instruction to Newspaper - Publish first Notice on December 22, 1999, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 1701-1 to Appropriate Water

Notice is given that Stagebarn Lodging, LLC, 9501 High Meadows, Black Hawk SD 57718 has filed an application for a water permit to appropriate 0.10 cubic feet of water per second (45 gallons per minute) from one well (Madison Formation) 1,050 feet deep located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 24-T3N-R6E for commercial use.

The Chief Engineer is recommending APPROVAL of Application No. 1701-1 for a 20 year term pursuant to SDCL 46-1-14 and 46-2A-20 because 1) although evidence is not available to justify issuing this permit without a 20 year term limitation, 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. 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 January 10, 2000.

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. Nettie H. Myers, Secretary, Department of Environment and Natural Resources.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

FEB 04 2000

Stagebarn Lodging, LLC
%Maurice Jamison
9501 High Meadows
Black Hawk, SD 57718

Dear Mr. Jamison:

Enclosed is Water Permit No. 1701-1 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

Permit No. 1701-1
Upper Cheyenne 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, May 12, 2003, made a thorough examination of the water use system constructed by Stagebarn Lodging L.L.C. of 9501 High Meadows, Black Hawk SD 57718 holder of Permit No. 1701-1, bearing the priority of November 22, 1999 authorizing the diversion of 0.10 cu. ft. per second of the waters of ground water (Madison formation) for commercial purposes, in Meade County.

Inspection contact & relationship to permit holder, if applicable: **Maurice Jamison, owner**

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Bice Drilling
- 2) No. of Wells 1
- 3) Depth(s) 1,090 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 5½ inches
- 2) Length 976 feet
- 3) Type Steel

Screen:

- 1) Type open hole
- 2) Length 114 feet
- 3) Static water level 40 feet

Motor/Pump:

- 1) Make submersible
- 2) Size unknown
- 3) Capacity 45 GPM

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

Water is diverted to a 32,000 gallon reservoir and supplies a 56 unit Super 8 motel including a swimming pool.

C. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Exceptions to compliance are: none

The system is in good condition with the point of diversion located as follows: Well: 250 feet N and 170 feet E from the SW corner section 24-T3N-R6E (SW¼SW¼ -- Latitude 44.19904, Longitude -103.35167). The works are capable of diverting and conveying to the place of use 0.10 cu. ft. per second of water which is to be used for commercial purposes. Water has been put to beneficial use to the maximum extent and the license should be issued for 0.10 cfs.

All structures, wells and lands on map Y | Comments or other permit(s) associated with the project: **none**



Ron Duvall
Natural Resources Engineer
DENR, Water Rights Program

Date report completed: September 26, 2003

Scale: 1 inch equals 482 feet

340

Feet



South Dakota
Department of Environment
& Natural Resources
Water Rights

Completed by:

Ron Duvall
Ron Duvall, Natural Resources Engineer
Water Rights Program

Diversion point(s) located using GeoExplorer II GPS

Date: Sept 26, 2003

Water Right No. 1701-1

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 1701-1

(1) Stagebarn Lodging LLC, 9501 High Meadows, Black Hawk, SD 57718 made Application No. 1701-1, November 22, 1999 for a water permit to divert 0.10 cubic feet of water per second from ground water (one well – Madison Formation), Meade County, South Dakota for commercial purposes. Permit No. 1701-1, with a priority date of November 22, 1999 was approved January 10, 2000 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before January 10, 2005 and for the application to beneficial use of water on or before January 10, 2009.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, Stagebarn Lodging LLC the holder and/or owner of Water Right No. 1701-1 is issued a license, bearing a priority date of November 22, 1999 to appropriate 0.10 cubic feet of water per second from ground water (one well – Madison Formation) for commercial purposes in supplying water to a 56-unit Super 8 Motel including a swimming pool.

The diversion point is located as follows: 250 feet N and 170 feet E of the SW corner of Section 24, T3N, R6E (SW ¼ SW ¼).

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 1701-1 including the following qualifications:

- In accordance with SDCL 46-1-14 and 46-2A-20, Permit No. 1701-1 is issued for a twenty year term. Pursuant to SDCL 46-2A-21, the twenty year term may be deleted at any time during the twenty year period or following its expiration. If the twenty 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. 1701-1 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.
- 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.
- The well authorized by Permit No. 1701-1 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) from the producing formation to the surface pursuant to Section 74:02:04:28.
- If the well approved under this Permit flows, it shall be valved and the flow reduced to the amount needed or to a minimum when not being used. If the well is abandoned or the Permit cancelled, the well must be plugged in accordance with Water Management Board Rules, Chapter 74:02:04.



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

OCT 10 2003

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

OCT 10 2003

1701-1

Maurice Jamison
Stagebarn Lodging LLC
9501 High Meadows
Black Hawk SD 57718

Dear Mr. Jamison:

Enclosed is Water License No. 1701-1. This is the final water right document completing your process of obtaining a Water Right. Also included with the license is a map prepared by the staff engineer who conducted the 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. 1701-1, 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