

- ~~1170-3~~
1170-1
1. Considered MARCH 28 1978
 2. Name of Applicant CHARLES SCHMITT
 3. Post Office Address RAPID CITY, S.D.
 4. Amount of Water claimed .11
 5. Source of Water supply 480' DEEP WELL (MINNEAPOLIS?)
 6. Water to be used for SUBURBAN HOUSING
Acres to be irrigated --
 7. Water to be diverted and used in MEADE County
about 6 N, 6 miles WEST of RAPID CITY
 8. Proof of Publication
Received 3-17-78
Not Received _____
Approved _____
Subject to _____
Not Approved _____
Action Deferred _____
 9. Application
 10. Remarks: CHANGE N^o ON THIS
PERMIT AFTER COMMISSION MTG.
SHOULD BE DIVISION #1.

Map No. 981-1Water Division No. 1170-1No. 1170-1RAPID CREEK

District

(Blanks to be Filled by the Engineer for the W. R. C.)



APPLICATION FOR PERMIT

To Appropriate Water within the State of South Dakota

(NOTE - Draw a line through items not applicable)

1. Name of Applicant Charles Schmitt
- Postoffice address Rt. 9, Box 395-6, Rapid City, State SD
- If a corporation show date and place of incorporation _____
2. Method of accomplishing work (contract, employment of others, or by direct labor) completed
3. Name of diversion work The Nichol
4. Amount of water claimed (cubic feet per second) 30 users
5. Source of water supply groundwater - Minnelusa well
6. Location of point of diversion 11 CFS.
- Lot 6 - SW4 NW4 SEC. 25 - T3N - R6E
- County Meade

7. Annual period or periods during which water is to be used continuous
8. Use to be made of water. (irrigation, industrial, municipal, commercial, recreation, etc.) suburban housing
9. For irrigation use, Total number of acres to be irrigated _____

List below each forty acre subdivision, or lot, or fraction thereof and show number of acres to be irrigated in each.

Land Description	No. Acres Irr.	Land Description	No. Acres Irr.

Attach sheet if more space is needed

10. Time required to complete construction of water supply system completed years. Additional time required to complete application of water to the proposed beneficial use completed years.
11. Choice of newspaper for Notice of Intent to Appropriate Water publication _____
12. Principal Features of the Proposed Water Supply System.

A. Works proposed to divert water from its natural sources.

well-pump

B. Works proposed to transport water to place of use.

underground pipe

C. Works proposed to apply water to beneficial use.

Max of 30 domestic

Estimated Total Cost \$ _____

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map.
(See instructions concerning preparation.)

STATE OF SOUTH DAKOTA

County of Hughes

I, Charles J. Schmitt, the applicant, certify that I have read the foregoing application and have examined the attached map and that the matters therein stated are true and that I intend, and am able to complete the necessary construction.

Subscribed and sworn to before me this 23rd day of February, 1978

Notary Public (or other qualified officer)

Walter Wright Specialist

Map No.

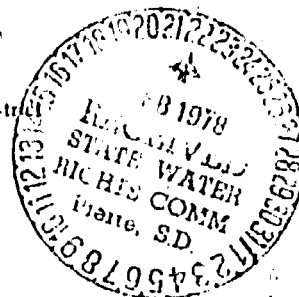
Water Division No.

(Blanks to be Filled by the Engineer for the W. R. C.)

No

RAPID CREEK

Distribution



APPLICATION FOR PERMIT

To Appropriate Water within the State of South Dakota

(NOTE--Draw a line through items not applicable)

1. Name of Applicant Charles Schmitt

Name of Applicant _____
Postoffice address Rt. 9, Box 395-6, Rapid City, State SD

If a corporation show date and place of incorporation _____

2. Method of accomplishing work. (contract, employment of others, or by direct labor) completed

4. Name of diversion work The Nichol

4. Amount of water claimed (cubic feet per second) 30 users

5. Source of water supply groundwater - Minnelusa well

6. Location of point of diversion .11 CES.

LOT 6 - SW4 NW4 SEC. 25 - T3N - R6E

County Meade

7. Annual period or periods during which water is to be used continuous

8. Use to be made of water. (irrigation, industrial, municipal, commercial, recreation, etc.) suburban housing

9. For irrigation use, _____ Total number of acres to be irrigated _____

[illegible]

Land Description	No. Acres Int.	Land Description	No. Acres Int.

Attach sheet if more space is needed

10. Time required to complete construction of water supply system completed years. Additional time required to complete application of water to the proposed beneficial use completed years.

11. Choice of newspaper for Notice of Intent to Appropriate Water publication_____

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underground pipe

C. Works proposed to apply water to beneficial use.

Max of 30 domestic

Estimated Total Cost \$_____

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map. (See instructions concerning preparation.)

STATE OF SOUTH DAKOTA

County of Hughes) ss.

County of St. Louis
 I, Charles J. Schmitt, the applicant, certify that I have read the foregoing application and have examined the attached map and that the matters therein stated are true and that I intend, and am able to complete the necessary construction.

Signed L. L. L. / J. E. L.

Subscribed and sworn to before me this 22nd day of February 1978

Notary Public (or other qualified officer)
Value Rights Specialist

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 1170-1
CHARLES SCHMITT Rt. 9 - Box 395-6
 (Applicant) (Post Office Address)
RAPID CITY, S.D. 57701 With the following modifications:
 (State)

The ~~industrial~~ well approved under this Permit is located near domestic wells which may obtain water from the same aquifer. The ~~industrial~~ well owner, under this Permit, shall control his ~~industrial~~ withdrawals so there is not a reduction of needed water supplies in adequate domestic wells.

Date of first receipt of application FEBRUARY 22, 19 78
 Date of return to applicant for correction, amendments or changes required _____, 19 ____
 Date of receipt of corrected application _____, 19 ____
 Approved MARCH 29, 19 78, Recorded in Book 19 Page 318

WATER RIGHT PERMIT NO. 1170-1

The Water Rights Commission hereby grants and issues this Water Right Permit No. 1170-1 authorizing the construction of the water use system and the putting of water to beneficial use as stated in the Application and as modified in the Water Right Application approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is FEBRUARY 22, 19 78
2. The equivalent of at least one-fifth of the work above specified is ~~to be~~ completed on or before _____, 19 ____
3. The whole of said work is ~~to be~~ completed on or before _____, 19 ____
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is COMPLETED
5. The water appropriated shall be used for the purpose of SUBURBAN HOUSING
6. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be injuriously affected by this appropriation.
7. The amount of the appropriation herein granted shall not exceed .11 cubic feet per second; neither shall it exceed the capacity of the above described water supply system, nor shall it exceed the amount of water needed for ~~beneficial use~~ used for SUBURBAN HOUSING ~~and if for the irrigation purpose, said appropriation must be limited to not more than 3 acre feet per acre per year and be limited to not more than 11,700 cubic feet of water per acre of irrigated land to which water is actually and beneficially applied for irrigation on or before~~ THIS DATE 19 78; said water to be used during the following described annual period: CONTINUOUSLY

Witness my hand this 7th day of APRIL, 19 78

WATER RIGHTS COMMISSION

By:

John Katak
 Chief Engineer, Executive Officer

Certificate of Construction Issued March 23, 1981

Water License Issued March 23, 1981

STATEMENT

DOWNEN DRILLING CO.

Rt. 1 Box 537

Phone 787-4525

RAPID CITY, SOUTH DAKOTA 57701

Charles SchmittRapid City, S. Dak. 57701TERMS: Cash-DATE Nov. 22, 1974

480' drilling
 400' 4" casing
 1-4" well seal

3,120.00
 2,200.00

12.50

2,212.50

Tax

85.50

2,298.00

\$5,418.00

Well log:

0-140' red shale
 140-130' limestone
 180-300' red shale
 300-400' red lime & shale
 400-435' white limestone
 435-470' yellow sandstone
 470-480' red limestone
 Test 35 gal. per min

Water level 15.5 ft

*Paid by chh
 268*

DOWNEN DRILLING CO.

1 PERCENT PER MONTH

INTEREST ON CHARGE

PROMPT PAYMENT WILL

REDUCE INTEREST.

Form 2A - Wells, Dugouts or Water Storage Dams (Supplement to form 2)

12. Principal Features of the Proposed Water Supply System: (continued.)

D. Well Information or Estimates

- (1) Drill Hole, Diameter 4", Depth 480' deep
- (2) Casing, Type steel Diameter 4" Thickness std.
(wood, concrete, steel, etc.)
- (3) Perforated Screen.
Type _____, Diameter _____, Length _____
- (4) Gravel Pack, Thickness _____, Length of gravel pack _____

E. Dugout Information or Estimates

- (1) Surface dimensions _____, Depth _____

F. Fill out for Either a Well or a Dugout.

- (1) Water Bearing Materials. (Please attach a copy to test well log if available.)

Character of Water bearing materials _____

Depth to top of water bearing material _____

Depth to bottom of water bearing material _____

Thickness of water bearing material _____

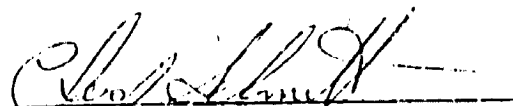
Depth to water (ground surface to water level) _____

- (2) Distance to nearest existing household or livestock watering wells.

On same owner's property _____ rds. On property owned by others _____ rds.

G. Water Storage Dams.

If the proposed water use system contains one or more water storage dams, please show in the space below, the height, maximum water depth, surface area and storage capacity of each storage dam. The location of each water storage dam should be shown on the water right map.


Signature of Applicant

WATER LICENSE NO. 1170-1

(1) WHEREAS, On the 22nd day of February A. D. 19 78

Charles Schmitt
made Water Right Application No. 1170-1 for a permit to use 11 cubic feet per second of the waters
of groundwater (one well)
County of Minnekahta State of South Dakota, for Suburban Housing
Development purposes; and

(2) WHEREAS, On the 29th day of March A. D. 19 78

Permit No. 1170-1 with a date of priority of February 22, 1978
was issued to said applicant S for the diversion of said water, and recognizing the completion of construction of the water
supply system therein described on or before the xxxx day of xxxx A. D. 19 xx and for the
application to beneficial use of said water on or before the xxxx day of xxxx A. D. 19 xx

and:

(3) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to completion of the construction of the water supply system and is entitled to divert .09 cubic feet
per second of water for beneficial use and,

(4) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to the application of water to beneficial use of the following extent,

water supplies for a Suburban Housing Development

(5) NOW, THEREFORE, By the virtue of the authority vested in us by the laws of the State of South Dakota, We hereby grant and confirm to Charles Schmitt

of Rapid City, SD

the holder S and owner S of said permit No. 1170-1 a water right, dating from February 22, 1978 to use of .09 cubic feet per second of the waters

of groundwater (one well)

in the County of Meade and State of South Dakota, or so much thereof as may be necessary for the purposes hereinbelow mentioned, to be diverted at a point 280 ft. north and 757 ft. east of the NW corner

Section 25 - T3N - R6E

and conducted ~~XXXXXXXXXX~~

thru the developments distribution system

for the purpose of A Suburban Housing Development

Subject to any limitations listed in Water Right Permit No. 1170-1 and subject to the laws of the State of South Dakota.

WITNESS, My hand and seal of our office at Pierre, South Dakota

this 23rd day of March A. D.

Nineteen Hundred and Eighty-one

WATER MANAGEMENT BOARD

By:

John Hatch
Chief Engineer Executive Officer

JOHN HATCH

Permit No. 1170-1

Water Diversion No. 1 Upper Cheyenne Water District

CERTIFICATE OF CONSTRUCTION

This is to Certify, That Charles Schmitt

_____ the holder _____ of
Permit No. 1170-1, issued upon Application No. 1170-1, bearing date of priority of February 22,
1978 authorizing the diversion of .11 cu. ft. per second of the waters of _____
groundwater (one well) County of Neade, State of South Dakota at a
point 280 ft. north and 757 ft. east of the W₁ corner Section 25 - T3N - R6E
_____, for suburban housing development

_____ purposes, have _____ complied with the provisions of the laws of the State of South Dakota relating to proof of
completion of the works of diversion set out and described in said Permit; that said works are found in satisfactory
condition for diverting and conveying to the place of intended use .09 cu. ft. per second of water.

Date March 23, 1981

John Hatch
JOHN HATCH, Chief Engineer
Water Rights Division

Publish first publication, on or before March 19, 1978

NOTICE OF HEARING ON
APPLICATION TO APPROPRIATE WATER

Pierre, South Dakota 57501

February 24, 1978

Notice is hereby given that Charles Schmitt whose post office address is Rapid City, South Dakota, has made an application in accordance with the provisions of SDCL 46-1-1 thru 46-1-8; 46-2-9 thru 46-2-11, 46-2-13; 46-5-1 thru 46-5-8, 46-5-10 thru 46-5-22, 46-5-41, 46-6-3, 46-6-5, 46-6-6.1, 46-6-10, 46-6-14 and Commission Rules ARSD 52:01:01:01 thru 52:01:01:13, for a permit to appropriate for beneficial use .11 cubic feet of water per second of time from ground water (1 well) through the Niche, the point of diversion of which is to be located in the SW 1/4 NW 1/4

of Section 25, Twp. 3N Range 6E. Said water to be used for ~~the xxxxxxxx~~
~~providing irrigation zone portions of the following described land:~~
Suburban housing purposes

This Application No. 4227-3 will be considered by the Water Rights Commission at the Guest House, at Watertown, SD upon the 25th day of March, 1978 at 10 A.M. The Commission is authorized to make a determination on this application at the hearing. All interested persons may appear and be heard. Any person who may be affected by a Commission decision who desires to present evidence or cross-examine witnesses according to SDCL 1-26 may notify the Commission in writing prior to the hearing or orally at the hearing.

NOTE: Final Proof of publication must be received by the hearing date for the Commission to take action.

WATER RIGHTS COMMISSION

BETTY WESTLUND
Water Rights Specialist

cc: Charles Schmitt, RR #9, Box 395-6, Rapid City, SD 57701

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)

County Meade) ss.

I, Teresa Shoun hereby

certify that the annexed printed copy of Notice of Intent to Appropriate

Water was taken from the Sturgis Tribune

A newspaper which during the whole time of publication of said notice
herein after stated, has been and is printed and published in the Black

Hills Publishers of Sturgis

County of Meade and State of South Dakota;
that the said notice was published in said newspaper on the following
dates:

March 1, March 8, 1978

Teresa Shoun
(Signature)

Bookkeeper
(Title)

March 15, 1978
(Date Signed)

NO. 4227-3
NOTICE OF HEARING
ON APPLICATION TO
APPROPRIATE WATER
Pierre, South Dakota 57501
February 24, 1978

Notice is hereby given that
Charles Schmitt whose post
office address is Rapid City,
South Dakota, has made an
application in accordance
with the provisions of SDCL
46-1-1 thru 46-1-8; 46-2-1 thru
46-2-14; 46-2-13; 46-5-1 thru 46-
5-8, 46-5-10 thru 46-5-22, 46-5-
41, 46-6-3, 46-6-5, 46-6-6.1, 46-6-
10, 46-6-14 and Commission
Rules ARS1) 52:01:1:01 thru
52:01:01:13, for a permit to
appropriate for beneficial
use .11 cubic feet of water
per second of time from
ground water (1 well)
through the Niche, the point
of diversion of which is to be
located in the SW 1/4 NW 1/4 of
Section 25, Twp. 3N Range
6E. Said water to be used for
Suburban housing purposes.
This application No. 4227-3
will be considered by the
Water Rights Commission at
the Guest House at Water-
town, SD, upon the 28th day
of March, 1978 at 10 A.M. The
Commission is authorized to
make a determination on
this application at the
hearing. All interested
persons may appear and be
heard. Any person who may
be affected by a Commission
decision who desires to
present evidence or cross-
examine witnesses accord-
ing to SDCL 1-26 may
notify the Commission in
writing prior to the hearing
or orally at the hearing.
Water Rights Commission
s. Betty Westlund
Betty Westlund
Water Rights Specialist
Tribune, March 1, 8



OVERSIZE

DOCUMENT IS

SUPPLEMENTARY

TO MICROFILM FILE

REPORT ON
WATER SYSTEM

for

NICHE SUBDIVISION

SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 25, T3N, R6E
Meade County, South Dakota

for

CHARLES SCHMITT
Rt. 6 Box 413
Rapid City, South Dakota

By

THOMAS, ERICKSON, DOMINIČAK & CROW
CONSULTING ENGINEERS, INC.
717 Mt. Rushmore Road
Rapid City, South Dakota

April 1977

1. INTRODUCTION

General

In the fall of 1975, Charles Schmitt began selling water and sewerage service to the residents of the Niche Subdivision. Initially, the water system consisted of one well, located on Charles Schmitt's lot, a pressure tank in his basement and a 15,500 gallon capacity concrete reservoir. Since that time, the original pump has been replaced by a more powerful two horsepower pump and another pressure tank has been added to the water supply system. The distribution system is entirely made up of 1½" PVC plastic pipe.

The gravity feed sewerage system consists of three septic tanks and approximately 2100 feet of 4" PVC plastic pipe for the sewer lines. Lots 1-5 and Lots 19-25 inclusive flow into a septic tank located on Parcel C. Lots 6-11 flow into the septic tank behind Charles Schmitt's house in Lot 6 and the remaining Lots 12-18 use the septic tank located in Parcel S. Mr. Schmitt is currently charging \$10.00 per month for water service and \$10.00 per month for sewerage facilities per lot.

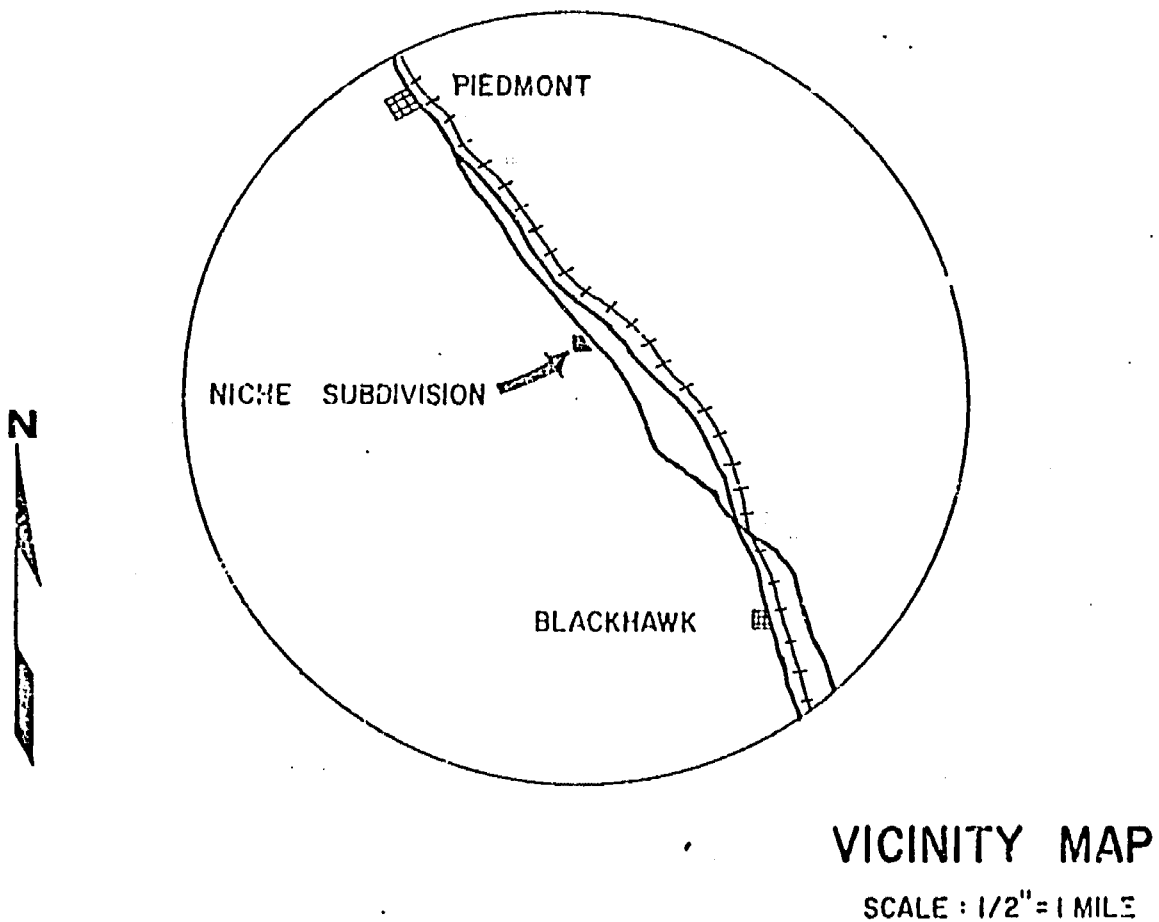
The purpose of this report is to study and determine the capability of the water system and to estimate the value of the water and sewer system.

A copy of the plat of the Niche Subdivision showing the water and sewer system is shown in Appendix A.

Area to be Served

The Niche Subdivision is located in that portion of the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 25, T3N, R6E, B.H.M., Meade County, South Dakota, lying south and west of the 66 foot wide right-of-way of old Highways 14 and 79. Included in the subdivision are Lots 1-25, Parcels C, S and W and public dedicated right-of-ways.

A vicinity map of the Niche Subdivision is shown below.



II. WATER SUPPLY SYSTEM

Population

The Niche Subdivision was originally planned for an ultimate size of 30 lots. Presently there are 24 lots occupied and 1 lot for rent, leaving 5 lots for any future expansion. It was estimated that the average family size per lot was 3.5 people. This would approximately yield 84 people that are presently buying water and 105 people that ultimately could. It was discussed with Mr. Schmitt that there would be no other hook-ups to the water system outside of the Niche Subdivision; therefore, 105 people can be used for the ultimate design population.

Water Consumption Values

The subdivision's water consumption values were discussed with Mr. Schmitt. He estimated that the values ranged from 3500 gallons per day on average days up to 5000 gallons per day on peak, hot summer days. These estimates were for the entire 24 occupied lots.

Breaking this down, this is equal to 45 gallons per person per day on average days and 60 gallons per person per day on hot summer days. This is a normal use rate for a small subdivision that has no industrial water demand. This rate would probably decrease if service meters were added to the system.

The ultimate water consumption value was based on the ultimate

design population of 105 people and a maximum day design flow of 100 gallons per person per day. This is a 67 percent increase over the maximum day flow rate ever recorded. This results in an estimated requirement of 10,500 gallons per day for the entire system. This value is the maximum amount of water that will ever be required by the Niche Subdivision consumers in one day.

Present Well Yield

In the fall of 1974, the Niche Subdivision well was drilled by the Downen Drilling Company of Rapid City, South Dakota. The following well log was obtained from Charles Schmitt:

0' - 140'	Red Shale
140' - 180'	Limestone
180' - 300'	Red Shale
300' - 400'	Red Lime and Shale
400' - 435'	White Limestone
435' - 470'	Yellow Sandstone
470' - 480'	Red Limestone

The water level of the well was determined to be 155 feet and the well capacity was estimated at 35 gallons per minute by the Downen Drilling Company.

The existing two horsepower REDA pump is capable of supplying 17.5 gallons per minute to the pressure tanks with 40 psi pressure or 21 gallons per minute to the reservoir with 0 psi pressure. The flow rate of 17.5 gallons per minute will produce

1050 gallons of water in one hour. Pumping only 10 hours of the day, the well can produce 10,500 gallons of water, which coincidentally happens to be the ultimate water requirement for the subdivision.

It is readily seen that the water supply system is adequate to the domestic needs of the area residents.

Emergency Requirements

In case of a power failure, the reservoir could supply a sufficient amount of water to the subdivision for approximately 4.4 days during average day use and approximately 3.1 days during peak days. This is true if the reservoir is completely filled. If the reservoir is half full, as it usually is in the winter, there are only 2.2 days of water use available before the reservoir dries up.

Another important characteristic of a water system is the fire flow requirements established by the American Insurance Association. The National Board of Fire Underwriters uses the formula $G = 1,020 \sqrt{P} (1 - 0.01 \sqrt{P})$ where G is the necessary demand for fire extinguishing in gallons per minute, and P is the population in thousands. The population that was used was 84 people.

The Niche Subdivision's present fire extinguishing demand is computed to be 295 gallons per minute. The minimum required

pumping duration is 3 hours. This means that 53,100 gallons of water over and above the average consumption must be available in storage to meet the National Board of Fire Underwriter's requirements.

The Niche Subdivision does not meet the Board's requirements by having only a 15,500 gallon capacity of water. The subdivision also will not be capable of producing the fire extinguishing demand of 295 gallons per minute. The National Board of Fire Underwriters also states that a 4" water main is the minimum size allowable for fire protection. Since the subdivision has 1½" water lines for the entire system, and because the system does not meet fire storage or pumping requirements, they will be penalized in their fire insurance rates.

III. WATER DISTRIBUTION SYSTEM

The water distribution system is presently made up of 2 pressure tanks located in Mr. Schmitt's basement, a 15,500 gallon capacity concrete reservoir located on Parcel W, and approximately 2300 feet of 1½" PVC plastic pipe for service lines. Lots 1-11 acquire their water directly from the pressure tanks. The remaining Lots 12-25 acquire their water from the concrete reservoir when it is operable. If the reservoir is not functioning properly, Lots 12-25 can acquire water also from the pressure tanks, and, if for any reason the pressure tanks become inoperable, Lots 1-11 can obtain water from the reservoir.

The next section of this report will give an estimate of the water pressures available to the consumers considering the different water systems. Alternate 1 is the regular water system. Lots 1-11 obtain their water directly from Mr. Schmitt's pressure tanks on this system and Lots 12-25 obtain their water from the reservoir. Alternate 2 is the water system that is currently in use. All of the lots use water from the pressure tanks on this system.

ALTERNATE 1 (Pressure Tanks and Reservoir)

This alternate is the normal water system at the Niche Subdivision. The water pressures at the critical lots will be estimated with Lots 1-11 acquiring water from the pressure tanks and Lots 12-25 acquiring water from the reservoir. Lot 11 will have the lowest water pressure from Mr. Schmitt's pressure tanks. The reasons for this are because Lot 11 is higher in elevation than any of the Lots 1-11 and also because it has the longest distance to pump the water to. It was estimated that the water pressure at Lot 11 was 37 psi. This was calculated using the minimum pressure of 40 psi that is maintained in the pressure tank.

Lot 13 is the critical lot on the reservoir system. This lot is the highest in elevation of the Lots 12-25 and therefore will have the lowest pressure. It was estimated that the water pressure at Lot 13 was 5.7 psi when the reservoir is full. If the reservoir is only half full, as it is in the winter, the pressure was calculated to be 4 psi.

The minimum pressure that is recommended for small water systems is 20 psi.

ALTERNATE 2 (Pressure Tanks Only)

Alternate 2 is the water system that is currently in use at the Niche Subdivision. This water system is made up of two pressure tanks located in Mr. Schmitt's basement. The water in the reservoir at the time of this study was frozen and therefore not available for use. The critical lot on this system will be Lot 13, once again because it is higher in elevation than any of the other lots. It was estimated that the pressure there was 36 psi, again using the minimum pressure in the tanks of 40 psi. The water pressure of the alternate system 2 appears to be sufficient.

IV. COST ESTIMATE

The following quantities are estimates made by Mr. Schmitt of the original costs of the water and sewer system.

Well (including drilling, casing & seal)	\$ 5,418.00
Pump #1	400.00
Maintenance on Pump #1	300.00
Pump #2 (with casing)	1,200.00
Concrete Reservoir	5,000.00
Pressure Tanks	500.00
Trenching, pipe, laying, backfilling of water lines and sewer lines, telephone line and electric line trenches and septic tanks	
\$1,200.00 per lot x 30 lots =	<u>36,000.00</u>
TOTAL =	\$48,818.00

It is also necessary to look at the value of the water and sewer system in a replacement cost frame of mind. The following quantities are estimates of what the water and sewer system would cost today.

Well (drilling, casing & seal)		
\$18.00/ft. x 480'	=	\$ 8,640.00
2 HP Pump with Casing	=	1,300.00
Concrete Reservoir		
45 yds. @ \$160/yd.	=	7,200.00
2 Pressure Tanks	=	600.00
1½" PVC Pipe in Place		
\$2.25/ft. x 2300 L.F.	=	5,175.00
4" PVC Pipe in Place		
\$5.00/ft. x 2100 L.F.	=	10,500.00
Trenching for Telephone & Electric Lines	=	2,000.00
3 Septic Tanks @ \$3500 apiece	=	<u>10,500.00</u>
TOTAL	=	\$45,915.00

The main difference between Mr. Schmitt's estimate and the replacement cost estimate is the last item, the water and sewer lines with septic tanks. As estimated herein, the sub-total for the trenching, pipe laying, backfilling of water lines and sewer lines, telephone line and electric line trenches and septic tanks is \$28,175.00, or \$939.17 per lot as compared to Mr. Schmitt's estimate of \$1200.00 per lot.

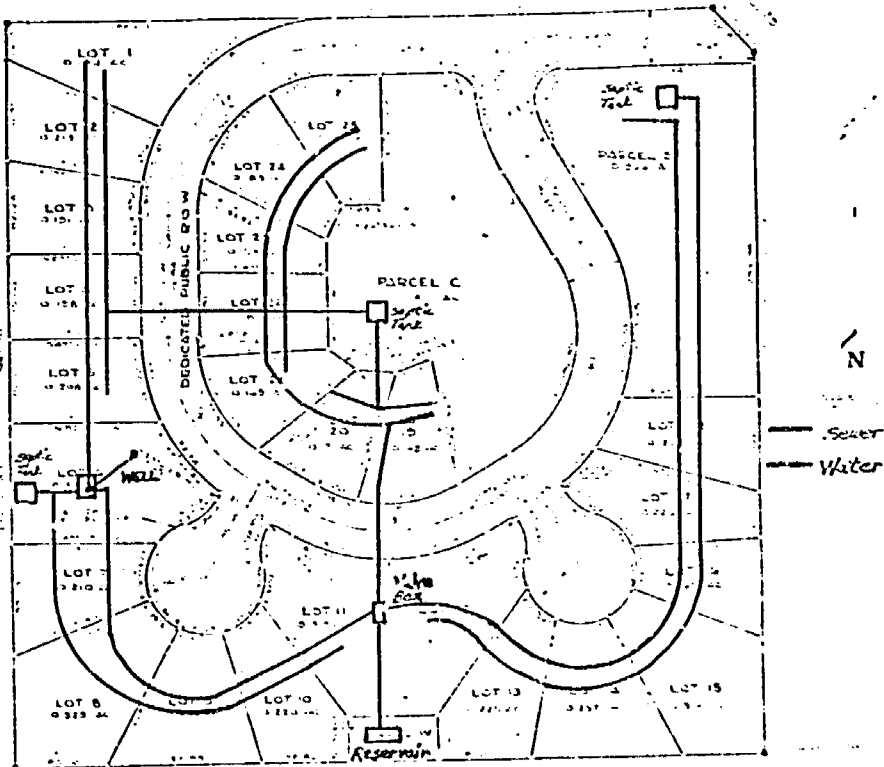
V. CONCLUSIONS AND RECOMMENDATIONS

The present water system at the Niche Subdivision can supply adequate pressures to the consumers. This system was described in Alternate 2 and it consists of 2 pressure tanks located in Mr. Schmitt's basement. The major problem with this system is if there is ever a power failure or if maintenance on the pump is ever required, the people will be without water. This, of course, is when the reservoir is inoperable.

The regular water system discussed under Alternate 1 also has a problem area in that the reservoir is not able to supply adequate pressure to the lots nearby it. The reservoir also has just enough capacity to fight a one-hour fire. The 15,500 gallon reservoir can be thought of as a 2.2 to a 4.4 day emergency use reservoir until the power is maintained or until the pump is fixed if a breakdown occurs.

If the regular system of using both the pressure tanks and the water reservoir is to be used, some of the lots that are served by the reservoir need to have individual pressure boosters at their trailer to maintain adequate pressure. It is estimated that the cost of one of these pumps per lot is \$150.00.

MAP OF NICHE SUBDIVISION'S
WATER AND SEWER SYSTEM



RECEIPT

WATER RIGHTS COMMISSION

State of South Dakota

No 4 8091

PIERRE, March 23, 19 81

RECEIVED OF Cheryl Safar, NICHE WATER & SEWER, RR 9, Rapid City, SD 57701

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

Fee for Application for Permit to Appropriate Water No. (examination, processing, recording and filing)		
Fee for inspecting Construction, and issuing Cert. of Construction No. 1170-1	50	00
Fee for inspecting Beneficial Use, and issuing Water License No. 1176-1		
Fee for issuing Location Certificate-Dry Draw, No.		
Fee for filing		
Fee for certified copy of		
Fee for Print copy of map		
Fee for Certifying		
Fee for		
(any other work as provided by law)		
TOTAL	50	00

WATER RIGHTS COMMISSION

By *(John Hatch)*
Chief Engineer, Executive Officer
JOHN HATCH / 81

Permit No 1170-1Water Division 1 Rapid Creek Water District

**REPORT OF EXAMINATION OF WORKS
AND/OR APPLICATION OF WATER TO BENEFICIAL USE**

TO: WATER RIGHTS, WATER MANAGEMENT BOARD / FOSS BLDG., PIERRE, SOUTH DAKOTA 57501

I have this day made a thorough examination of the water use system constructed by Charles Schmitt of RR 9, Box 395-6 Rapid City, S. Dak. 57701 holder. of Permit No. 1170-1, bearing date of priority of February 22, 1978 authorizing the diversion of .11 cu. ft. per second of the waters of Well for Suburban Housing purposes, in Meade County.

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

The Water Use System consists of,

A. Works used to divert the water:

2 H.P. Submersible Pump
Pumping 40 gpm

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

P.V.C. Mains To Houses and Trailer Houses.

C. Works used to apply water to beneficial use.

Houses, Lawns and Gardens

The system is in the following condition: GoodThe point of diversion is located 280 ft N and 757 ft E of the W 1/4 Cor Sec. 25, T3N R6EThe works are capable of diverting and conveying to the place or use .09 cu. ft. per second of water which is to be used for Suburban Housing

Water has been put to beneficial use to the maximum extent as follows:

comprising a total of _____ acres of land.

Well depth 280 ftLicense fee .04 cfs.Date September 4, 1980

LeRoy J. McNamee
(Signature)

**SOUTH Dakota Department of
Water & Natural Resources**

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501

Division of Water Rights
605 773-3352

No. 1170-1

November 5, 1986

Larry Kelerleber
RR#1, Box 3110
Black Hawk, South Dakota 57718

Dear Mr. Kelerleber:

Please find enclosed a copy of a Notice of Transfer of Water Permit form. This form must be signed by the owner before a notary and returned to this office with a filing fee of \$2.50.

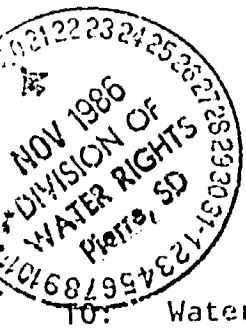
Upon receipt of the enclosed form and the \$2.50 filing fee the permit will be transferred to the proper name. South Dakota Water Law 46-5-30.3 requires Notice of any sale, grant, lease, conveyance or other transfer of a Water Permit or Water Right to appropriate water to be filed with this office within ninety days.

Please advise if you have any questions.

Sincerely,

Maxine Stirling
Secretary

ms/
Enc.



NO. 1170-1

NOTICE OF TRANSFER OF WATER PERMIT

mfr

Water Rights
Foss Building
Pierre, SD 57501

Date: 11-17-86

This is to notify you that the title to the lands described as follows:

A Suburban Housing Development with a point of diversion located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$
of Section 25, T3N, R6E, Meade County.

formerly owned by Charles Schmitt

has been transferred to Niche Homeowners Association, RR 1 Box 3110 Black Hawk SD 57718
(please include complete mailing address)
together with any rights to the beneficial use of water thereon as evidenced by

Water Right Permit No. 1170-1 as provided for in SDCL 46-5-32 and 46-5-33.

You are therefore hereby requested to file this "Notice of Transfer of Water Permit" in its appropriate file at the Div. of Water Rights, Water Management Board as evidence of the change of ownership.

A fee of Two Dollars and Fifty Cents (\$2.50) is hereto attached to cover filing fees as required under SDCL 46-2-13.

STATE OF SOUTH DAKOTA)
County of Meade) ss.

I, Larry Keierleber being first duly sworn on my oath depose and say:
That my relation to the above described undertaking is that of Owner, that I have read the above foregoing statement, and I know of my own personal knowledge that the information herein stated is true.

Larry Keierleber
(Signed)

Subscribed and sworn to before me this 11 Day of NOVEMBER, 1986.

Stan M. Paris
(Notary Public)



1170-1

Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

WATER RIGHTS DIVISION
(605) 773-3352

November 20, 1986

Larry Keierleber
RR 1, Box 3110
Black Hawk, South Dakota 57718

Dear Mr. Keierleber:

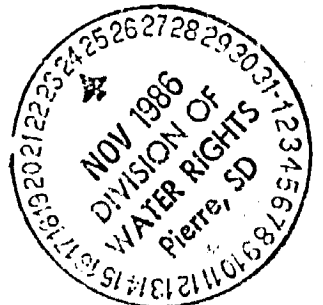
We are in receipt of your "Notice of Transfer" for transferring Water Right No. 1170-1 from Charles Schmitt to Niche Home Owners Association. However, as stated on the transfer form, a \$2.50 filing fee is required before the "Notice of Transfer" can be filed with our office.

Please remit the \$2.50 filing fee as soon as possible. The transfer can be completed upon receipt of the fee.

Sincerely,

Genny McMath
Natural Resources Analyst

GM:ms



Equal Opportunity Employer

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

410630

Pierre, November 24, 1986

RECEIVED OF Niche Homeowners Assn., Inc., c/o Larry Katerlacher RR-1, Box 3110 Black Hawk
the following amount in fees for services rendered as provided for by law: SD 57718

Fee for Application for Permit No. _____ to Appropriate Water, to construct works and to put water to beneficial use _____		
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>1170-1</u>	2	50
Fee for Filing Extension Request _____		
Fee for Certified Copy of _____		
Fee for Print Copy of Map _____		
Fee for Certifying _____		
Fee for _____		
(Any Other Work Provided by Law)	Total	2 50

By

Chief Engineer

JOHN HATCH

MS

SOUTH DAKOTA Department of
Water & Natural Resources

Joe Foss Building Water Rights Division
Pierre, South Dakota 57501 Phone (605) 773-3352

November 25, 1986

Nich Homeowners Association, Inc.
c/o Larry Kelerleber
RR 1, Box 3110
Black Hawk, South Dakota 57718

Dear Sir:

Enclosed is receipt No. 410630 in the amount of \$ 2.50 which you
paid for transfer of Water Right No. 1170-1.

Nich Homeowners Association, Inc.
Our records now show ~~you~~ as the owner of this Water Right.

Sincerely,

Maxine Stirling
Secretary

ms/
Enc.