

Considered: _____

WATER PERMIT NO. 2118-2

HAP No. same 433-5302

Name of Applicant Daniel Kruse

Post Office Address Box 11C, Route 2, Interior SD 57750

Amount of Water Claimed 5.40 cfs Total Acres 378

Source of Water Supply White River & dry draws

Water to be used for irrigation County Pennington

About 19 miles S of Quinn.

PROOF OF PUBLICATION: Received _____ Not Received _____

APPLICATION: Approved _____ Subject to _____

F.F. & C.L. Adopted _____ Not Approved _____ Deferred _____

PRIORITY _____ Date Received Aug 11, 1989 Fee _____ Remarks _____

Corrected Application Received _____ Period of Annual Use _____

WATER QUALITY APPROVAL RECEIVED Mar 19, 1990 APPROVED/CONDITIONAL (Circle one)

WI-1 Description same as Application YES ☒ NO _____ REMARKS acreage has been reduced
and a typing error exists on the diversion point description

Diversion Point White River: between SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec

13-4S-16E and NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec 8-4S-17E; diversion dikes:

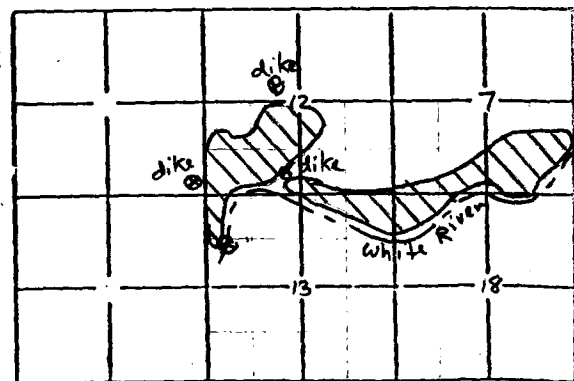
E $\frac{1}{2}$ SE $\frac{1}{4}$, sec 11; SE $\frac{1}{4}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec 12; all in
4S-R16E

Land to be Irrigated SE $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$ section 7;

N $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ section 18; all in T4S-R17E:

W $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ section 13; W $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ section 12; all

in T4S-R16E



Well Log: Driller NA Licensed YES _____ NO _____

Depth of Well _____ REMARKS _____

Type of Map Topo PREPARED BY Jean Sterling Reviewed and the Number

assigned on March 21, 1990 By Ron D. Small

(See instructions)

No. 2118-2 Hydrologic Unit 10140202
Basin White River
Newspaper Pennington Co. Courant, Box 435, Wall (Thur)
Rapid Press, Box 309 (Wed)

Application For Soil/Water Compatibility Permit and Permit To Appropriate Water

Type of Application: ☒ New ☐ Vested Right ☐ Amend Permit No. _____
☐ Change Acreage ☐ Change diversion point(s) ☐ Add diversion point(s)
☐ Add Acreage ☐ Increase diversion rate ☐ Other _____

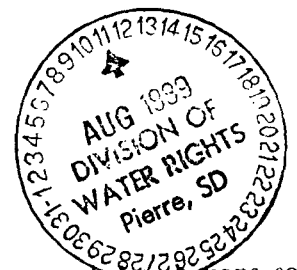
1. Name of Applicant Daniel Kruse Phone No. 433-5302
Post Office Address Box 11 C, Route 2, Interior State SD 57750
(Street, RR or Box) (City) Zip Code
2. Amount of water claimed (c.f.s) ~~0.27~~ 5.40 Total acres irrigated ~~432~~ 579 378
3. Source of Water supply White River and diversion dikes on dry draws
4. Location of point of diversion White River: between points in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec 13-45-16E and
the NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec 8-45-17E; diversion dikes: E $\frac{1}{2}$ SE $\frac{1}{4}$ sec 11; SE $\frac{1}{4}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$
sec 12; all in 45-16E County Pennington
5. Counties where water will be used Pennington
6. Annual period during which water is to be used Apr 1 - Oct 31
7. 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.
SEE ATTACHMENT 1	

Land Description	No. Acres Irr.

Attach sheet if more space is needed

8. Type of Irrigation: Gravity: _____ Towline: _____ Center Pivot: _____ Gun: _____ Other: _____ (Specify) _____
9. Crops to be Irrigated: _____
10. Give a description of proposed project. (Attach sheet if more space is needed)



Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach maps, soils information and any other technical information.

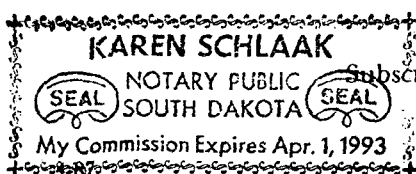
STATE OF SOUTH DAKOTA)
County of Hughes)^{ss}

I, Daniel Kruse, the applicant, certify that I have read this application and examined the attached maps, that the water sample, if needed, has been taken by the required procedures and has not been adulterated or tampered with and is truly representative of the water to be used, and that the matters stated in this application are true and correct.

Signed Daniel Kruse

11th day of August 1989

Karen Schlaak
Notary Public



Attachment A

SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 12 T4S R16E 33 Acres
 SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 12 T4S R16E 35 Acres
 SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 12 T4S R16E 40 Acres
 NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 12 T4S R16E 23 Acres
 NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 12 T4S R16E 15 Acres

SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 12 T4S R16E 35 Acres
 NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 12 T4S R16E 38 Acres
 NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 12 T4S R16E 20 Acres
 SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 12 T4S R16E 3 Acres

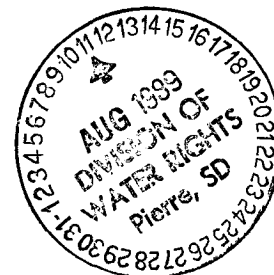
NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 13 T4S R16E 10 Acres
 SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 13 T4S R16E 10 Acres
 NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 13 T4S R16E 12 Acres
 SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 13 T4S R16E 30 Acres

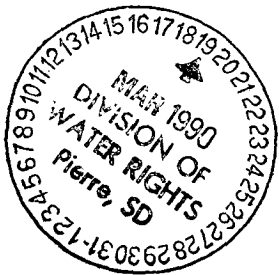
W $\frac{1}{2}$ NW $\frac{1}{4}$ Section 13 T4S R16E 10 Acres

NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 18 T4S R17E 12 Acres
 SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 18 T4S R17E 20 Acres
 NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 18 T4S R17E 5 Acres

NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 7 T4S R17E 13 Acres
 SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 7 T4S R17E 40 Acres
 NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 7 T4S R17E 12 Acres
 SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 7 T4S R17E 38 Acres
 NW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 7 T4S R17E 22 Acres
 SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 7 T4S R17E 38 Acres
 NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 7 T4S R17E 30 Acres
 SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 7 T4S R17E 30 Acres
 SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 7 T4S R17E 5 Acres

TOTAL ACRES - 579





ATTACHMENT TO DANIEL KRUSE'S IRRIGATION PERMIT

Legal Description

Requirements: That the application of water be restricted to the bottom land of the area:

- ✓ NW $\frac{1}{4}$ 18-T4S-R17E = 37 acres
- SW $\frac{1}{4}$ 7-T4S-R17E
- SE $\frac{1}{4}$ 7-T4S-R17E
- NE $\frac{1}{4}$ 7-T4S-R17E
- NW $\frac{1}{4}$ 7-T4S-R17E = 123 acres portions of (see attached map)
- ✓ NE $\frac{1}{4}$ 13-T4S-R16E = 62 acres portions of (see attached map)
- ✓ NW $\frac{1}{4}$ 13-T4S-R16E = 10 acres
- ✓ SE $\frac{1}{4}$ 12-T4S-R16E = 25 acres
- SW $\frac{1}{4}$ 12-T4S-R16E = 121 acres portions of (see attached map)
- 378 total acres

See map for map by [unclear] (10/1/19/12)

1

**SOUTH DAKOTA
WATER PERMIT No. 2118-2 FOR IRRIGATION**

Date of first receipt of application August 11, 1989.

Date Soil/Water Compatibility Permit received March 19, 1990.

The Water Management Board approved Water Permit Application No. 2118-2 on May 24, 1990 for Daniel Kruse, Route 2, Box 11C, Interior, SD 57750 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. 2118-2 appropriates 5.4 cubic feet of water per second from the White River and/or dry draws to irrigate 378 acres. The White River diversion points are to be located between the SW1/4 NW1/4 Section 13 T4S-R16E and the NW1/4 SW1/4 Section 8 T4S-R17E and the diversion dikes are located on the dry draws in the E1/2 SE1/4 Section 11; SE1/4 NW1/4, SE1/4 SW1/4 Section 12; all in T4S-R16E. The irrigated acreage is to be located in the SE1/4, S1/2 SW1/4 Section 7; N1/2 NW1/4, SW1/4 NW1/4 Section 18; all in T4S-R17E and the W1/2 NW1/4, NE1/4 Section 13; W1/2 SE1/4, SW1/4 Section 12; all in T4S-R16E.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 - October 31.
3. The date from which applicant may claim right is March 19, 1990.
4. One-fifth of the construction is to be completed on or before November 24, 1992.
5. All construction is to be completed on or before May 24, 1995.
6. Water is to be put to beneficial use on or before May 24, 1999.
7. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. Permit No. 2118-2 does not authorize diversion of water from the White River after June 1 of each calendar year, nor at any time when the river flow is low, unless written orders have been issued by the Chief Engineer. Diversions under this permit shall be in accordance with any written orders issued by the Chief Engineer.

Permit No. 2118-2

Page 2

2. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.
3. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: _____


Chief Engineer, Water Rights Division
Department of Water and Natural Resources

JUL 10 1990

(date)



Water & Natural Resources

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

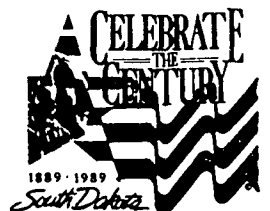
May 25, 1988

Daniel Kruse
Box 11C, Route 2
Interior SD 57750

Dear Mr. Kruse:

This letter is in response to receipt of the signed map, Form 2A for Dam No. 1 and the transfers of ownership for two of the water spreading systems on April 28, 1988. I noted the following items:

- 1) A Form 2A was received for Dam No. 1; however, no Form 2A was received for Dam No. 2. The location of Dam Nos. 1 and 2 are shown on the enclosed map. Enclosed is another blank Form 2A for Dam No. 2
- 2) The map returned with the application shows two pump sites on the White River. The three applications submitted earlier by Aerol Gruwell are all vested right claims constructed prior to March 18, 1957 for dry draw water spreading systems. Applications for new water permits with new priority dates will be required to add the White River as a diversion point.
- 3) Only two transfer of ownership forms were returned with the map; however, there are three separate irrigation systems as shown on the enclosed map. I also believe a portion of the acreage irrigated in the W1/2 section 12 and the NW1/4 section 13 was omitted from the transfer of ownership form and should have been included.



May 25, 1988
Daniel Kruse
Page 2

I think the following course of action will be the easiest to clear up the above mentioned items.

Enclosed are partially completed application forms for vested right claims from dry draws and new permit application forms for the same acreages for irrigation from the White River (Areas A, B & C). The applications are labeled as either vested right claims or as new applications. The enclosed map outlines the acreage covered by each application.

Please review the acreages specified on each application to be sure you are the owner of all the acreages and make any needed corrections or additions. Then sign and notarize each vested right application (Form 2A for Dam No. 2 is attached the applicable application). The new applications need to be completed only if you do intend to begin irrigating from the White River. Follow directions on the attached instruction sheet if you intend to irrigate from the White River.

Completion of the enclosed vested right claims will eliminate the need for the transfer of ownership forms and will hopefully clarify exactly what lands are being irrigated from the dry draws. If you do not own all the land specified on the vested right applications or do not intend to irrigate from the White River, please return a note indicating your intentions. Otherwise, I have no idea if you overlooked an application or if you did not intend to return the application.

Please contact me if you have any questions.

Sincerely,



Ron Duvall
Natural Resources Engineer
605 773-3352

enc.

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

411075

Pierre, August 11, 1938

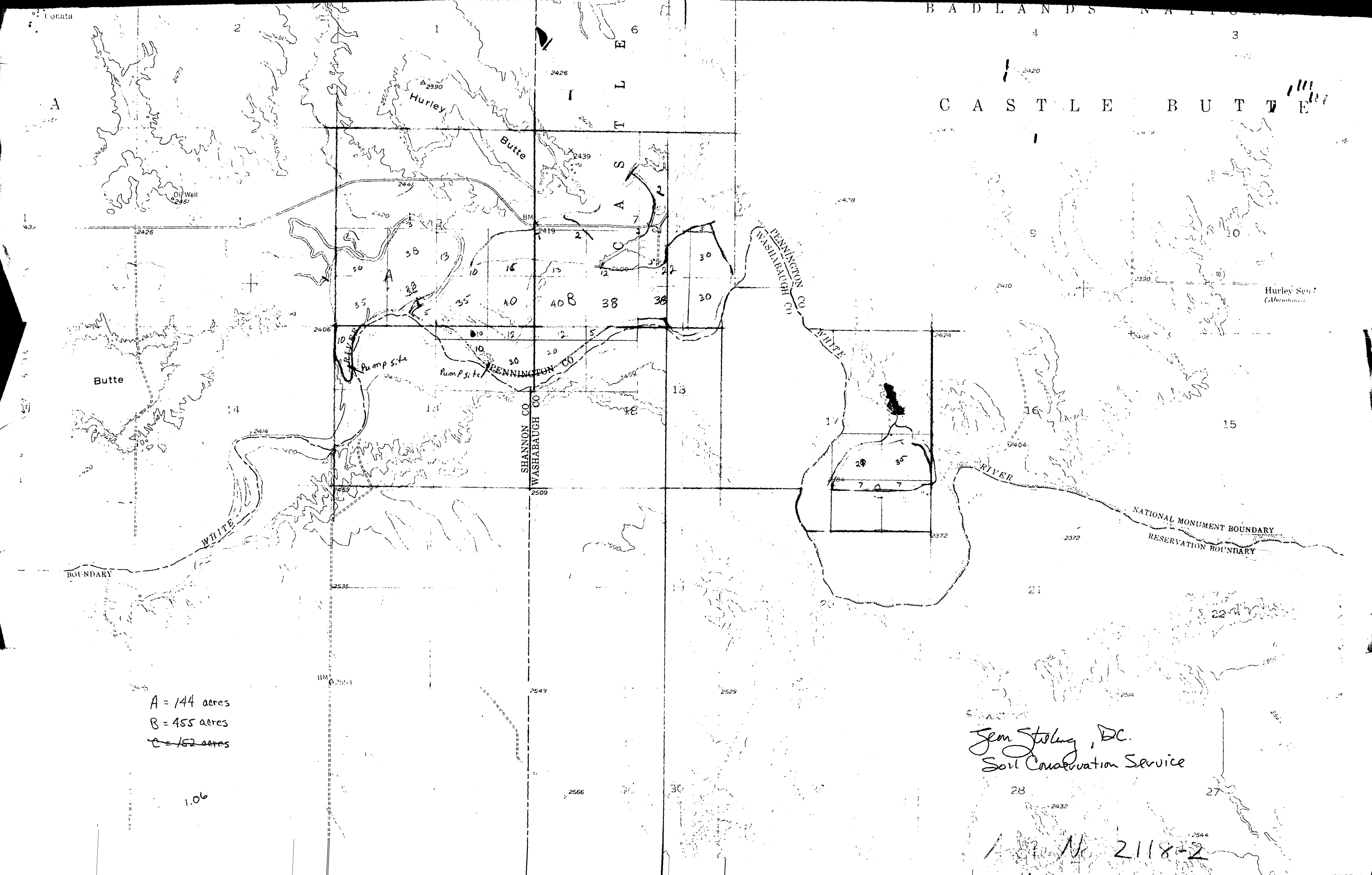
RECEIVED OF Daniel Kruse, Rt 2, Box 100, Interior SD 57750

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct works and to put water to beneficial use _____	400	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 _____		
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	400 00

By John H. H. H.
Chief Engineer

PS



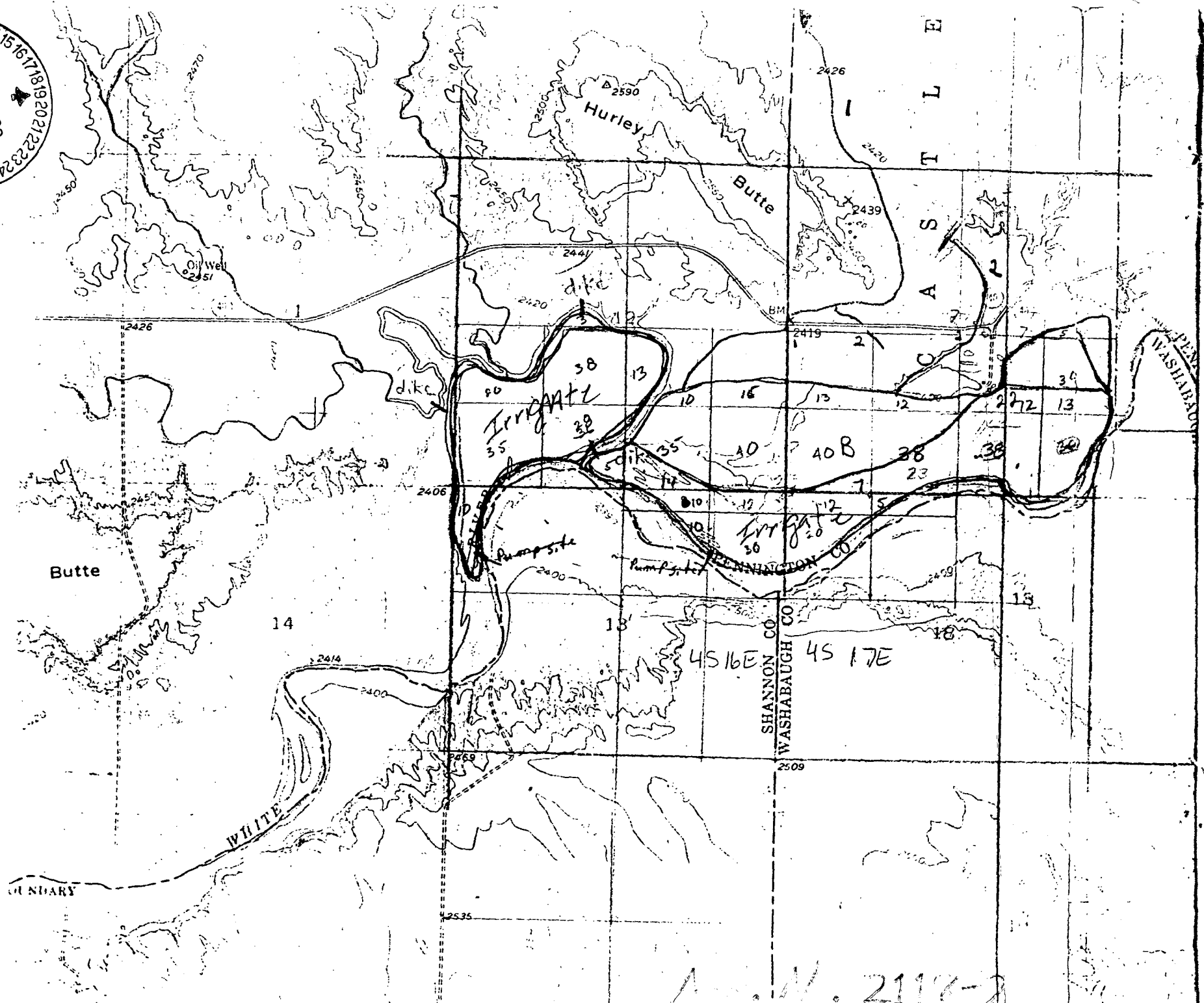
A = 144 acres
B = 455 acres
C = 152 acres

1.06

Gene Stelling, DC.
Soil Conservation Service

2118-2

MAR 1990
DIVISION OF
WATER RIGHTS
Pierre, SD



2117-2

RE-RECORDED TO SHOW ERROR CORRECTION 3/22/90

Department of Agriculture
WI#1
5/87

SOIL/WATER COMPATIBILITY PERMIT

Division of Conservation

Office Use Only

4411

WR#

OWNERS NAME: DANIEL KRUSE

OWNERS ADDRESS: Route 2, Box 11C

Interior, SD 57750

COUNTY LAND LOCATED IN: PENNINGTON PHONE: 433-5302

LEGAL DESCRIPTION: White River

☐ Well

☒ Surface

1. LOCATION Between points in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ 13-T4S-R16E & NW $\frac{1}{4}$ SW $\frac{1}{4}$ 8-T4S-R17E; dikes; E $\frac{1}{2}$ SE $\frac{1}{4}$

Depth 11-T4S-R16E; SE $\frac{1}{4}$ SW $\frac{1}{4}$ 12-T4S-R16E; SW $\frac{1}{4}$ 12-T4S-R16E

NW $\frac{1}{4}$

SE $\frac{1}{4}$

Legal Description	Acres	Legal Description	Acres
(SEE ATTACHED)			

2. TYPE OF IRRIGATION: GRAVITY: ~~XXX~~ TOWLINE: _____ CENTER PIVOT: _____ GUN: _____ OTHER: _____ (Specify)

3. CROPS TO BE IRRIGATED: Grass or Alfalfa

WATER QUALITY:

4. WATER SAMPLE NUMBER: White River

7. ADJUSTED (SAR): _____

5. SALINITY (EC X 10⁶): _____

8. PERCENT SODIUM: _____

6. SODIUM (SAR): _____

Requirements: That the application of water be restricted to the bottom land of the area:

NW $\frac{1}{4}$ 18-T4S-R17E = 37 acres

SW $\frac{1}{4}$ 7-T4S-R17E

SE $\frac{1}{4}$ 7-T4S-R17E

NE $\frac{1}{4}$ 7-T4S-R17E

NW $\frac{1}{4}$ 7-T4S-R17E = 123 acres portions of (see attached map)

NE $\frac{1}{4}$ 13-T4S-R16E = 62 acres portions of (see attached map)

NW $\frac{1}{4}$ 13-T4S-R16E = 10 acres

SE $\frac{1}{4}$ 12-T4S-R16E = 25 acres

SW $\frac{1}{4}$ 12-T4S-R16E = 121 acres portions of (see attached map)

378 total acres

and that this land be retested within five years. The crop on this land is to be restricted to alfalfa.


Director, Division of Conservation

XXX

APPROVED

XXX

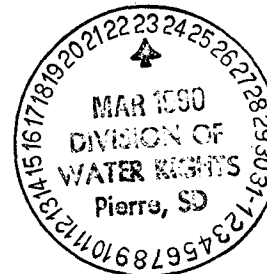
REQUIREMENTS

DISAPPROVED

WAIVER

Soil/water permits will be recorded by the Department of Agriculture, with the County Register of Deeds.

March 16, 1990
Date



Department of Agriculture
WI#1
5/87

SOIL/WATER COMPATIBILITY PERMIT
Division of Conservation

Office Use Only

4411

WR#

OWNERS NAME: DANIEL KRUSE

OWNERS ADDRESS: Route 2, Box 110

Interior, SD 57750

COUNTY LAND LOCATED IN: PENNINGTON PHONE: 433-5302

LEGAL DESCRIPTION: White River

☐ Well

☒ Surface

1. LOCATION Between points in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ 13-T4S-R16E & NW $\frac{1}{4}$ SW $\frac{1}{4}$ 8-T4S-R17E; dikes; E $\frac{1}{2}$ SE $\frac{1}{4}$
Depth 11-T4S-R16E; SE $\frac{1}{4}$ SW $\frac{1}{4}$ 12-T4S-R16E; SE $\frac{1}{4}$ SW $\frac{1}{4}$ 12-T4S-R16E

Legal Description	Acres	Legal Description	Acres
(SEE ATTACHED)			

2. TYPE OF IRRIGATION: GRAVITY: XXX TOWLINE: _____ CENTER PIVOT: _____ GUN: _____ OTHER: _____ (Specify) _____

3. CROPS TO BE IRRIGATED: Grass or Alfalfa

WATER QUALITY:

4. WATER SAMPLE NUMBER: White River

7. ADJUSTED (SAR): _____

5. SALINITY (EC X 10⁶): _____

8. PERCENT SODIUM: _____

6. SODIUM (SAR): _____

Requirements: That the application of water be restricted to the bottom land of the area:

- NW $\frac{1}{4}$ 13-T4S-R17E = 37 acres

SW $\frac{1}{4}$ 7-T4S-R17E

SE $\frac{1}{4}$ 7-T4S-R17E

NW $\frac{1}{4}$ 7-T4S-R17E

SW $\frac{1}{4}$ 7-T4S-R17E = 123 acres portions of (see attached map)

NW $\frac{1}{4}$ 13-T4S-R16E = 62 acres portions of (see attached map)

NW $\frac{1}{4}$ 13-T4S-R16E = 10 acres

- SW $\frac{1}{4}$ 12-T4S-R16E = 25 acres

SW $\frac{1}{4}$ 12-T4S-R16E = 121 acres portions of (see attached map)

378 total acres

and this land be retested within five years. The crop on this land is to be restricted to alfalfa.



[Signature]
Director, Division of Conservation

XXX APPROVED
____ DISAPPROVED
____ WAIVER

XXX REQUIREMENTS

Soil/water permits will be recorded by the Department of Agriculture, with the County Register of Deeds.

Date

Water Rights Division - DWNR
Conversation or File Documentation

File No. _____

NAME OF PERSON OR FILE: Daniel Kruse

ADDRESS: Box 11C, Route 2, Interior COUNTY Pennington

DATE: August 11, 1989 TELEPHONE _____

RE: status of White River permit applications

COMMENTS:

Daniel Kruse indicated that the new applications to irrigate from the White River could be combined (Area A & B - see map). The diversion dikes from Area A are also to be used to irrigate Area B after modifications are completed. Mr Kruse instructed me to add the diversion dikes from Area A and the acreage from Area A & B all on one application.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: Don Durrall

SOUTH Dakota Department of
Water & Natural Resources

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

March 22, 1990

Daniel Kruse
Box 11C, Route 2
Interior SD 57750

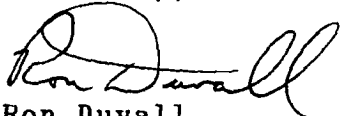
Dear Mr. Kruse:

I am writing in response to receipt of your Soil/Water Compatibility Permit from the Department of Agriculture.

The Soil/Water Permit was approved for 378 acres rather than the 579 acres originally specified on your application. The Water Management Board can not consider approving your water permit application for more acres than specified on the approved Soil/Water Permit. Therefore, your water permit application will also be reduced from 579 acres to 378 acres with a proposed diversion rate of 5.40 cubic feet of water per second (2400 gallons per minute). The reduction in number of acres also results in a reduced application fee. The fee is reduced from \$425.00 to \$350.00. Processing of the \$75.00 refund may take 3 to 4 weeks.

Please contact me if you have any questions.

Sincerely,



Ron Duvall
Natural Resources Engineer
605 773-3352

PAYMENT REQUEST FORM

PAYEE: Daniel Kruse
Route 2 Box 11C
Interior, SD 57750

FROM: DWNR
Water Rights Division
532 E. Capitol
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCT OR TRANSFER

Partial refund of water permit application

Original Application Fee \$425.00

New Application Fee: \$350.00

AMOUNT: \$75.00

FUNDING SOURCE:

GENERAL:

FEDERAL:

COMMENTS:

AUTHORIZATION: *John Hatch*
This payment request checklist and accompanying
documentation are complete and accurate.

3-22-90
DATE

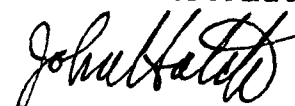
RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2118-2, Daniel Kruse

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 2118-2, Daniel Kruse, Box 11C, Route 2, Interior SD.

The Chief Engineer is recommending APPROVAL of Application No. 2118-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest with the following qualifications:

1. Permit No. 2118-2 does not authorize diversion of water from the White River after June 1 of each calendar year, nor at any time when the river flow is low, unless written orders have been issued by the Chief Engineer. Diversions under this permit shall be in accordance with any written orders issued by the Chief Engineer.
2. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.
3. This permit is approved subject to the irrigation water use questionnaire being submitted each year.

See the attached report for additional information.


JOHN HATCH, Chief Engineer
April 11, 1990

Report on Water Permit Application No. 2118-2

Daniel Kruse

April 3, 1990

Background

Water Permit Application No. 2118-2 requests appropriation of a total of 5.40 cubic feet of water per second (cfs) from the White River and/or dry draws. The diversion points on White River will be located between points in the SW1/4 NW1/4 Section 13, T4S-R16E, and the NW1/4 SW1/4 Section 8, T4S-R17N. The diversion dikes are located on the dry draws in the E1/2 SE1/4 Section 11; SE1/4 NW1/4, SE1/4 SW1/4 Section 12; all in T4S-R16E, in Pennington County. The water will be used to irrigate acreage in the SE1/4, S1/2 SW1/4, Section 7; N1/2 NW1/4, SW1/4 NW1/4 Section 18; all in T4S-R17E, and the W1/2 NW1/4, NE1/4 Section 13; W1/2 SE1/4, SW1/4 Section 12, all in T4S-R16E.

Discussion

USGS flow data for the White River show an average median annual discharge of 46 cfs for 45 years of record measured at the gauging station near Oglala, and an average median annual discharge of 260 cfs for 45 years of record measured at the gauging station near Kadoka.

Water Rights below the applicant's diversion point to the Kadoka Gauging station total approximately 228 cfs. Assuming a 40 to 50% usage of the water at any time, the flows necessary to serve these water rights would range from 90 to 114 cfs. The attached flow frequency data show that adequate flows are usually available. The data are derived from the Kadoka stream gauging station and indicate water is available in most years to June 1, and in some years, beyond June 1.

Conclusions and Recommendations

1. In certain years, water will be available to meet the needs of the applicant.
2. It is recommended that the Water Permit Application No. 2118-2 be approved for a diversion rate of 5.4 cfs from the White River and/or dry draws for irrigation of 378 acres with the following qualifications:
 - A) There shall be no diversions from the White River after June 1, under this Permit unless written authorization is issued by the Chief Engineer.

B) Low flows as needed for downstream domestic use, including stock watering and prior water rights shall be bypassed.

C) The irrigation water use questionnaire shall be submitted annually.

MR Ahadi

M. RASSOOL AHADI
Natural Resources Engineer II
(605)773-3352

Approved By:

Delvin D. Brosz

DELVIN D. BROSZ, P.E.
Natural Resources Engineer IV
(605)773-3352

Reference:

Winterton, J.E., "Report on Application No. 1958-2, Sylvan L. Kruse", March 17, 1986, Water Rights Division, DWNr, Pierre, South Dakota.

39 year period

5 day average Duration Hydrograph - White River Near Kadoka

<u>Date</u>	<u>High</u>	<u>10%</u>	<u>20%</u>	<u>30%</u>	<u>50%</u>	<u>70%</u>	<u>80%</u>	<u>90%</u>	<u>Low</u>
4-5	1796	813	387	302	194	124	87	43	18
4-10	3778	1376	503	301	155	101	83	39	15
4-15	3360	981	545	349	170	89	72	49	20
4-20	2790	817	432	259	147	87	57	45	19
4-25	4962	1476	525	255	133	84	55	45	25
4-30	4524	1630	508	255	138	87	58	43	14
5-5	5904	1544	831	445	167	92	63	35	15
5-10	5036	1075	569	308	156	93	72	42	15
5-15	7642	1260	544	333	175	113	73	47	13
5-20	6390	1282	565	325	171	113	86	57	22
5-25	8038	2531	968	379	140	93	80	64	29
5-30	5375	1707	812	524	211	85	71	53	18
6-5	2022	1015	541	386	196	116	77	39	24
6-10	7958	1468	615	337	161	84	62	38	12
6-15	8442	2286	1229	582	210	84	57	35	14
6-20	10364	4330	1792	918	373	148	78	44	19
6-25	7620	3190	1130	554	250	120	75	28	19
6-30	5764	1486	800	448	161	72	44	20	4
7-5	3436	863	444	263	125	75	48	24	5
7-10	1037	412	235	150	85	52	41	26	6
7-15	3158	654	270	177	83	48	23	9	0
7-20	2964	645	305	207	95	45	25	6	2
7-25	3640	1159	659	274	113	49	30	6	1
7-31	4160	951	490	295	154	48	16	5	0
8-5	3060	650	286	194	107	22	8	1	0
8-10	2674	983	387	179	73	21	6	0	0
8-15	1300	704	302	158	57	24	10	1	0
8-20	2352	436	223	141	55	19	5	1	0
8-25	1369	468	200	134	45	17	7	1	0
8-31	1038	223	104	73	31	8	4	1	0
9-5	1700	202	106	57	24	6	2	0	0
9-10	1504	132	65	40	18	3	1	0	0
9-15	1241	244	58	32	11	1	0	0	0
9-20	2758	397	134	65	18	3	0	0	0
9-25	4008	444	95	41	14	3	1	0	0
9-30	839	155	88	28	7	1	0	0	0



Department of Water & Natural Resources

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

April 12, 1990

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

Daniel Kruse
Box 11C Route 2
Interior, SD 57750

Dear Mr. Kruse:

Water Permit Application No. 2118-2 for irrigation 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 Publishers of the Pennington Co. Courant and the Kadoka Press printed at Wall and Kadoka SD. For your information, a copy of the notice is enclosed. Copies of the report and the Chief Engineer's recommendation are also 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 newspapers to authorize publication of your Notice of Intent to Appropriate Water and to arrange for payment. Early contact with the paper can eliminate delays. The publishers have 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. We must receive Proof of Publication before the application can be considered by the Water Management Board.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



Department of Water & Natural Resources

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

April 12, 1990

Kadoka Press
Box 309
Kadoka, SD 57543-0309

ATTN: Legal Publications:

Enclosed is a Notice of Hearing on Application No. 2118-2 to be published twice. Please publish the first notice on or before April 19, 1990 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 Daniel Kruse, Box 11C, Route 2, Interior, SD 57750.

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. The permit application cannot be considered by the Water Management Board until proof of publication has been received.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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

FIRST TRANSMITTAL NOTICE

TO:

Eric Gronlund
Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____

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

Name

Newspaper



Department of Water & Natural Resources

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

April 12, 1990

Pennington Co. Courant
Box 435
Wall, SD 57790-0435

ATTN: Legal Publications:

Enclosed is a Notice of Hearing on Application No. 2118-2 to be published twice. Please publish the first notice on or before April 19, 1990 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 Daniel Kruse, Box 11C, Route 2, Interior, SD 57750.

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----
FIRST TRANSMITTAL NOTICE TO: Eric Gronlund
Water Rights Division
Joe Foss Building
Pierre SD 57501-3181
No. _____
Date _____
We are in receipt of your letter of _____ enclosing Notice of Hearing to
Appropriate Water by Application No. _____ 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 or before April 19, 1990 with 2nd publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 2118-2 to Appropriate Water

NOTICE OF HEAR

Notice is given that Daniel Kruse, Box 11C, Route 2, Interior, SD 57750 has filed an application for a water permit to appropriate a total of 5.40 cubic feet of water per second from the White River and/or dry draws to irrigate 378 acres. The White River diversion points are to be located between the SW1/4 NW1/4 Section 13-T4S-R16E and the NW1/4 SW1/4 Section 8-T4S-R17E and the diversion dikes are located on the dry draws in the E1/2 SE1/4 Section 11; SE1/4 NW1/4, SE1/4 SW1/4 Section 12; all in T4S-R16E. The irrigated acreage is to be located in the SE1/4, S1/2 SW1/4, Section 7; N1/2 NW1/4, SW1/4 NW1/4 Section 18; all in T4S-R17E and W1/2 NW1/4, NE1/4 Section 13; W1/2 SE1/4, SW1/4 Section 12; all in T4S-R16E.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 2118-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water and 4) it is in the public interest. This application will be considered by the Water Management Board in the Pelican Room, Ramkota Inn, Hwy 212, Watertown, SD on May 23, 1990 at 10:00 am. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny this application based on the facts presented at the public hearing.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by May 11, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)". 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 legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by May 11, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) ss.
 County Pennington)

I, Les Ravellette

certify that the attached printed Notice was taken
 from the Pennington County Courant

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

City _____ of _____ Wall _____

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

April 19, 1990

April 26, 1990

Doris Buechel
 (Signature)

Legal Advertising Manager
 (Title)

May 3, 1990
 (Date Signed)

Cost of Printing: \$ 38.56

PUBLIC NOTICE

NOTICE OF HEARING

on Application No. 2118-2 to
 Appropriate Water

Notice is given that Daniel Kruse, Box 11C, Route 2, Interior, SD 57750 has filed an application for a water permit to appropriate a total of 5.40 cubic feet of water per second from the White River and/or dry draws to irrigate 378 acres. The White River diversion points are to be located between the SW ¼ NW ¼ Section 13-T4S-R16E and the NW ¼ SW ¼ Section 8-T4S-R17E and the diversion dikes are located on the dry draws in the E ½ SE ¼ Section 11; SE ¼ NW ¼, SE ¼ SW ¼ Section 12; all in T4S-R16E. The irrigated acreage is to be located in the SE ¼, S ½ SW ¼, Section 7; N ½ NW ¼, SW ¼ NW ¼ Section 18; all in T4S-R17E and W ½ NW ¼, NE ¼ Section 13; W ½ SE ¼, SW ¼ Section 12; all in T4S-R16E.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 2118-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water and 4) it is in the public interest. This application will be considered by the Water Management Board in the Pelican Room, Ramkota Inn, Hwy 212, Watertown, SD on May 23, 1990 at 10:00 a.m. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny this application based on the facts presented at the public hearing.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by May 11, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605-773-3352)". 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 legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by May 11, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

Publish: April 19 and 26, 1990.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
 County Jackson) ss.

I, Ronda Eckert

certify that the attached printed Notice was taken
 from the Kadoka Press

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

City of Kadoka

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

April 19th 1990

April 26th 1990

Ronda Eckert
 (Signature)

Legal Advertising Manager
 (Title)

April 26, 1990
 (Date Signed)

Cost of Printing: \$ 38.39



NOTICE OF HEARING on Application No. 2118-2 to Appropriate Water

Notice is given that Daniel Kruse, Box 11C, Route 2, Interior, SD 57750 has filed an application for a water permit to appropriate a total of 5.40 cubic feet of water per second from the White River and/or dry draws to irrigate 378 acres. The White River diversion points are to be located between the SW 1/4 NW 1/4 Section 13-T4S-R16E and the NW 1/4 SW 1/4 Section 8-T4S-R17E and the diversion dikes are located on the dry draws in the E 1/2 SE 1/4 Section 11; SE 1/4 NW 1/4, SE 1/4 SW 1/4 Section 12; all in T4S-R16E. The irrigated acreage is to be located in the SE 1/4, S 1/2 SW 1/4, Section 7; N 1/2 NW 1/4, SW 1/4 NW 1/4 Section 18; all in T4S-R17E and W 1/2 NW 1/4, NE 1/4 Section 13; W 1/2 SE 1/4, SW 1/4 Section 12; all in T4S-R16E.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application 2218-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water and 4) it is in the public interest. This application will be considered by the Water Management Board in the Pelican Room, Ramkota Inn, Hwy 212, Watertown, SD on May 23, 1990 at 10:00 a.m. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny this application based on the facts presented at the public hearing.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by May 11, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E. Capitol, Pierre, SD 57501 (605 773-3352)". 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 legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by May 11, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

Publish April 19, 26, 1990

Conversation or File Documentation

NAME OF PERSON OR FILE: Daniel KruseADDRESS: _____ COUNTY PenningtonDATE: 6/12/90 TELEPHONE _____

RE: _____

COMMENTS:

The ~~so~~ location (description) of the lands to be irrigated
were ~~determined by~~ the Soil Water Compatibility Permit.
limited by

The approved irrigated lands are described ~~by~~ on
the SW permit and attached maps.

File in Permit or other file as necessary. Use to document conversations and
what the other party was told; why action or decision was made.

NAME: _____



Department of Water & Natural Resources

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

JUL 10 1990

Daniel Kruse
Rt 2, Box 11C
Interior SD 57750

Dear Mr. Kruse:

Enclosed is Water Permit No. 2118-2 as approved by the Water Management Board authorizing you to construct your water diversion system and put the water to beneficial use, not exceeding the limits as specified in the Water Permit.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that the Water License may be issued, thus completing your acquisition of a Water Right.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

enclosures

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period - i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.



2118-2

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

DANIEL KRUSE
RR 2 BOX 11C
INTERIOR SD 57750

NOTICE

RE: Violation of Water Permit No(s) 2118-2

Our records indicate that the 1993 Irrigation Questionnaire has not been submitted for Permit No(s) 2118-2. The request for the Questionnaire was dated October 18, 1993. The Water Management Board has directed that owners of water permits who have not submitted the 1993 Irrigation Questionnaire be given notice of permit violation and a hearing to be held by the Board. The hearing held by the Board will determine the action to be taken for violation of Water Permit No(s) 2118-2 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at 8:45 am, April 6, 1994, at the Golden Hills Resort, 900 Miners Ave, Lead, SD, and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to SDCL 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 2118-2 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is(are) received in this office on/or before April 1, 1994, you will no longer be in violation of your permit and your name will be deleted from the Board agenda.

Very truly yours,

Ron Duvall, Natural Resources Engineer IV
Water Rights Division
605 773-3352

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to:

DANIEL KRUSE
RR 2 BOX 11C
INTERIOR SD 57750

5. Signature (Addressee)

6. Signature (Agent)

Daniel Kruse

I also wish to receive the following services (for an extra fee):

1. ☒ Addressee's Address

2. ☐ Restricted Delivery

Consult postmaster for fee.

4a. Article Number

P837 692 598

4b. Service Type

☐ Registered ☐ Insured

☒ Certified ☐ COD

☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

2-23-94

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 ☆ U.S.G.P.O. : 1992-307-530

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

February 24, 1994

2118-2

Daniel Kruse
RR #2 Box 11C
Interior, SD 57750

Dear Mr. Kruse:

I am writing to acknowledge receipt of your 1993 irrigation questionnaire. I completed the questionnaire for you based upon our February 23rd telephone conversation. You may disregard the February 16, 1994, **Notice of Violation of Water Permit No. 2118-2.**

The questionnaire was completed and on file in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads 'Genny McMath'.

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

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 2118-2

I have this day, April 5, 2016, made a thorough examination of the water use system constructed by Daniel Kruse 19651 E. Highway 44, Interior, SD of Permit No. 2118-2, bearing the priority of 3/19/1990 authorizing the diversion of 5.4 cu. ft. per second of the waters of the White River and dry draw tributaries for irrigation purposes, in Pennington County.

Inspection contact & relationship to permit holder, if applicable: **Daniel Kruse, owner**
605-433-5302

A. Works used to divert water from White River:

Pump:

- 1) Make Crisafulli
- 2) Model Regular Lift 540 RPM
- 3) Size 16"
- 4) Capacity 8,600 GPM @ 15 ft.

Power:

- 1) Source Diesel
- 2) Horsepower rating 100-125 hp

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

The pump is used in years when weather conditions are such that irrigation is needed, and fuel and crop prices are such that irrigating is profitable. The pump is used at one of four locations along the White River (diversion points #4-#7), depending on which acreage is being irrigated, and discharged at the upper ends of the fields which lie primarily along the White River. Some of the fields have been leveled and others are watered by means of wild flooding. Typically the pump is run for 12-24 hrs for a period of 4-6 days prior to June 1. (230 ac-ft. @ 6 days pumping @ 19.2 cfs)

C. Works used to divert water from dry draw tributaries to the White River

The area consisting of 73 acres located primarily in the SW $\frac{1}{4}$ of section 12 is irrigated from a dry draw which empties into a section of natural channel which was abandoned years ago and is now plugged at either end (diversion point #3). The water spills over the bank and floods across the acreage.

The area consisting of 304 acres can be irrigated for the most part from diverting the dry draws which cross highway 44 in the north $\frac{1}{2}$ of section 7. The water is transported through two constructed ditches originating from diversion dikes located in the SW $\frac{1}{4}$ of section 6 (diversion point #1) and the NW $\frac{1}{4}$ of section 7 (diversion point #2). Water diverted from the diversion dike located in the NW $\frac{1}{4}$ of section 7 can also be routed back into the natural channel and through a culvert under highway 44 into the extreme northeast corner the of 304 acre area. Portions of the 304 acre area are leveled and/or have dikes to control the water.

Most of the 377 acres get some water every year from the dry draws with the volume depending on rainfall and snowmelt amounts but would typically not get enough to be considered irrigation but rather water spreading. Some years these acres are then supplemented with pumping from the White River.

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Yes

List any extended period of nonuse: **none**

- 3) Exceptions to compliance are: none

E. Condition and Location:

1. The system is in good condition with the points of diversion located as follows:

Diversion point #1, NW ¼ SW ¼ S6 T4S R17E, N 43.72598° W 102.13758°

Diversion point #2, NW ¼ NE ¼ S7 T4S R17E, N 43.716452° W 102.12871°

Diversion point #3, SE ¼ NW ¼ S12 T4S R16E, N 43.713218° W 102.151509°

Diversion point #4, SE ¼ SW ¼ S12 T4S R16E, N 43.706315° W 102.150745°

Diversion point #5, SE ¼ NE ¼ S13 T4S R16E, N 43.701399° W 102.141181°

Diversion point #6, NW ¼ NW ¼ S18 T4S R17E, N 43.704155° W 102.133279°

Diversion point #7, SW ¼ SE ¼ S7 T4S R17E, N 43.705934° W 102.126775°

2. The pump is capable of diverting to the place of use 19.2 cu. ft. per second of water which is to be used for gravity irrigation. Water has been put to beneficial use to the maximum extent as follows:

legal description/acreage

legal description/acreage

SE ¼ NE ¼ S12 T4S R16E - 2.4 ac.

NW ¼ SW ¼ S12 T4S R16E - 9.0 ac.

NE ¼ SW ¼ S12 T4S R16E - 37.1 ac.

SW ¼ SW ¼ S12 T4S R16E - 0.4 ac.

SE ¼ SW ¼ S12 T4S R16E - 15.6 ac.

NW ¼ SE ¼ S12 T4S R16E - 14.3 ac.

NE ¼ SE ¼ S12 T4S R16E - 11.1 ac.

SW ¼ SE ¼ S12 T4S R16E - 8.2 ac.

SE ¼ SE ¼ S12 T4S R16E - 16.9 ac.

NW ¼ NE ¼ S13 T4S R16E - 11.4 ac.

NE ¼ NE ¼ S13 T4S R16E - 28.9 ac.

NW ¼ SW ¼ S7 T4S R17E - 12.3 ac.

NE ¼ SW ¼ S7 T4S R17E - 7.3 ac.

SW ¼ SW ¼ S7 T4S R17E - 40.0 ac.

SE ¼ SW ¼ S7 T4S R17E - 38.1 ac.

SW ¼ NE ¼ S7 T4S R17E - 3.7 ac.

SE ¼ NE ¼ S7 T4S R17E - 7.6 ac.

NW ¼ SE ¼ S7 T4S R17E - 9.1 ac.

NE ¼ SE ¼ S7 T4S R17E - 20.1 ac.

SW ¼ SE ¼ S7 T4S R17E - 31.3 ac.

SE ¼ SE ¼ S7 T4S R17E - 19.9 ac.

NW ¼ NW ¼ S18 T4S R17E - 30.1 ac.

NE ¼ NW ¼ S18 T4S R17E - 2.1 ac.

comprising a total of 376.9 acres of land and the license should be issued for 5.4 cfs . See comments.

3. All structures, wells and lands on map Yes

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

The permit was issued for 5.4 cfs. The owner's pump used for White River diversion is capable of 19.2 cfs, however the maximum annual pumping duration is typically 6 days or less. Therefore the maximum volume diverted would be less than 230 ac-ft. (.6 ac-ft/ac annually).

Diversion points #1 and #2 are shown on maps submitted with the permit application but were not listed in the actual permit as issued. These dry draw diversion dikes alter the natural flow of water for use in the irrigation system, however the flow from the affected drainage under unaltered conditions would still enter the White River on Kruse property.

The White River diversion locations need maintenance annually prior to pumping due to erosion and deposition occurring along the bank. The diversion dikes #1 and #2 also need annual maintenance to function properly.

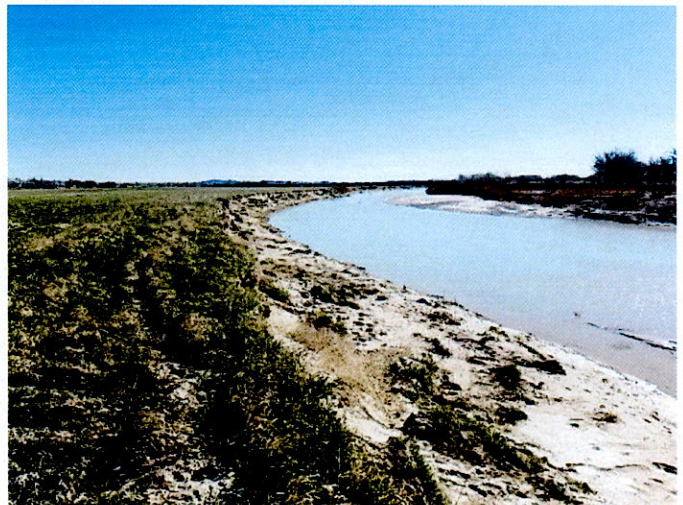


Steven Quissell
Water Rights Inspector
DENR, Water Rights Program

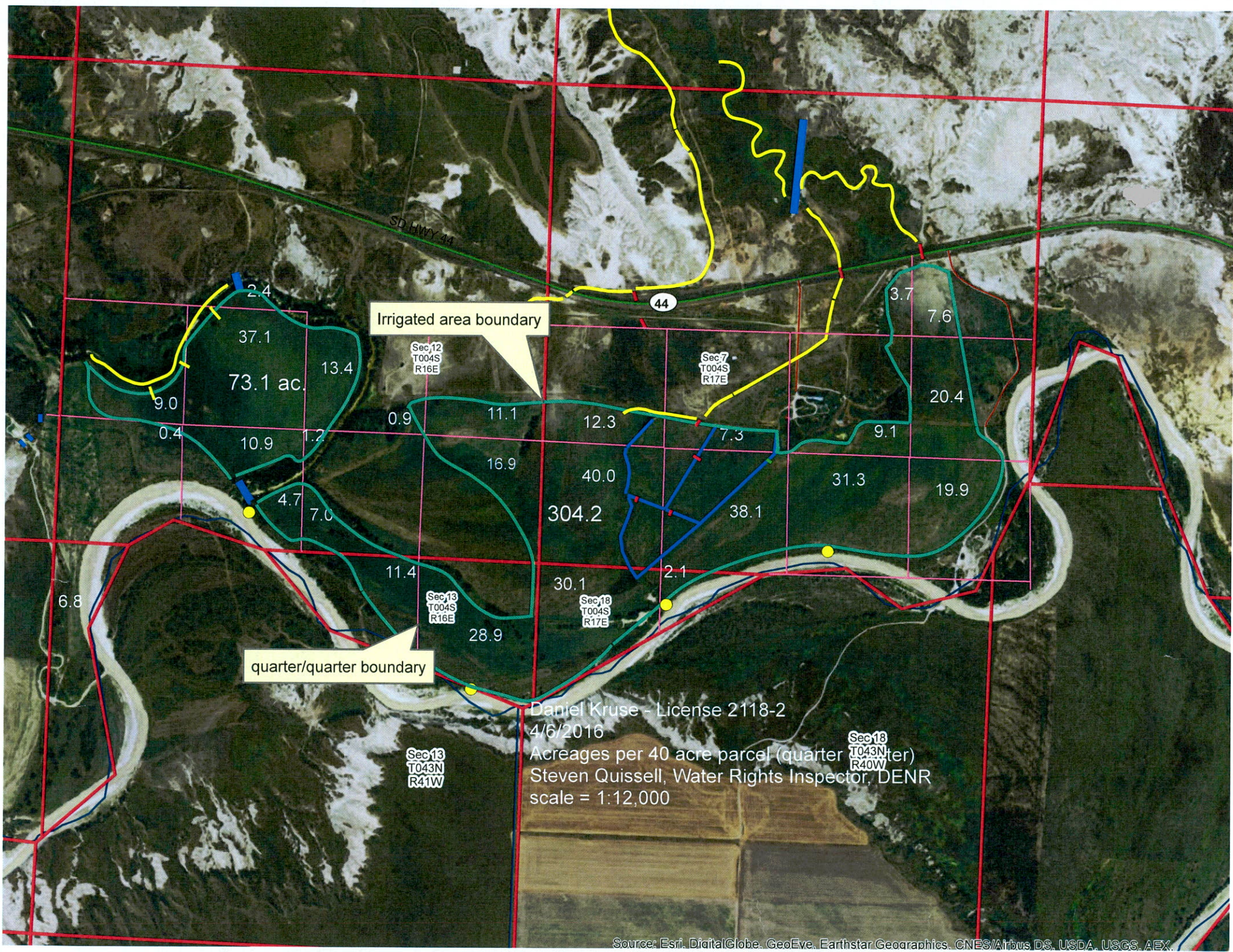
Date report completed: 4/11/16



Diversion Point #6 looking upstream



Diversion Point #6 looking downstream



SD HWY 44

44

Irrigated area boundary

Sec.12
T004S
R16E

Sec.7
T004S
R17E

73.1 ac.

quarter/quarter boundary

Sec.13
T004S
R16E

Sec.18
T004S
R17E

Sec.18
T043N
R40W

Daniel Kruse - License 2118-2
4/6/2016
Acreages per 40 acre parcel (quarter/quarter)
Steven Quissell, Water Rights Inspector, DENR
scale = 1:12,000

Daniel Kruse - Water Right #2118-2

4/6/2016

Steven Quissell, Water Rights Inspector, DENR

scale = 1:24,000

SD HWY 44

Sec 1
T4S
R16E

Sec 6
T4S
R17E

#1

#2

44

73.1 ac.

Headquarters

304.2

Legend

- Pump Sites
- Dikes
- Irrigated Area Boundary
- Diversion Ditches
- Culvert
- Section line
- #4 Diversion Points

Sec 12
T004S
R16E

Sec 7
T004S
R17E

Sec 13
T004S
R16E

Sec 18
T004S
R17E

Sec 13
T043N
R41W

Sec 18
T043N
R40W

UNKNOWN

Licensing of Acreage Outside of Permitted Area

NAME: Daniel Kruse

ADDRESS: 19651 E. Highway 44, Interior, SD

DATE: April 12, 2016 COUNTY: Pennington TELEPHONE: (605)433-5302

AUTHORITY

Pursuant to SDCL 46-5-30.5, acreage developed for irrigation outside of the area described on the permit may be licensed provided the following conditions are met:

NO INCREASE IN PERMITTED ACREAGE OR WATER APPROPRIATED:

The acreage developed for irrigation is 376.9 acres as compared to 378 acres authorized by the permit. 2118-2 will be licensed for 5.4-cfs, no increase in water appropriated.

UNPERMITTED ACREAGE:

- **Contiguous to Permitted Acreage**

66.4 contiguous acres S½ NE¼, SW¼, SE¼ Section 7-T04S-R17E
2.4 contiguous acres SE NW Section 12-T04S-R16E
25.5 contiguous acres SE Section 12-T04S-R16E

- **Owned by Same Property Owner**

yes

- **Developed Prior to Expiration of Construction Period**

yes

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the 94.3 acre area be included in the water license.



Lynn Beck, Natural Resources Engineer III
Water Rights Program

The Chief Engineer makes a finding pursuant to SDCL 46-5-30.5 that:

This acreage change does not impair existing water rights and the overall project, as developed, is consistent with the original application. Licensing of the unpermitted acreage may occur without application or publication pursuant to SDCL 46-2A-4.



Jeanne Goodman, Chief Engineer
Water Rights Program

Approval of Location Change and/or Additional Diversion Point(s)

NAME: Daniel Kruse

ADDRESS: 19651 E. Highway 44, Interior, SD 57750

DATE: April 13, 20016

COUNTY: Pennington

TELEPHONE: (605)433-5302

AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

- **Developed water source same as permitted source and no additional water appropriated**

Same water source, dry draws. Dams at diversion point #1 located in the NW¼ SW¼ Sec. 6-T04S-R17E and diversion point #2 located in the NW¼ NE¼ Sec. 7-T04S-R17E.

- **If irrigation, no new land is irrigated**

Contiguous acres have been developed and are documented in "Licensing of Acreage Outside of Permitted Area" File No. 2118-2.

- **Review of Existing Diversions**

Both dams are on the same drainage which drains to the White River. There are no other diversions below the two dams. The dry draw dams are covered under VR 2100-2 also held by Daniel Kruse.

RECOMMENDED ACTION

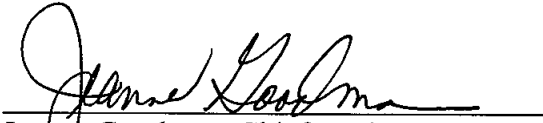
Based on the above criteria, it is recommended that the diversion points be licensed as developed.



Lynn Beck, Natural Resources Engineer III
Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This change in location and/or additional diversion point(s) does not increase the potential for adverse effects to existing diversions.



Jeanne Goodman, Chief Engineer
Water Rights Program



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

April 21, 2016

2118-2

Daniel Kruse
19651 E Hwy 44
Interior SD 57750

Dear Mr. Kruse:

On April 5, 2016 the investigation of your water use system, including the extent of application of water to beneficial use, as developed under Water Permit No. 2118-3, was completed by Steven Quissell, a staff engineer with our program. Your final water right document, the water license, can now be issued.

State law requires that we charge a \$50.00 fee for the investigation and issuance of the water license. Upon receipt of the \$50.00 fee, we will complete processing your water license. The check or money order for the fee should be made payable to the "Water Rights Program".

Your licensed water right will be similar to a property right that cannot be lost as long as the water use continues and you abide by the permit requirements.

If you have any questions regarding the water permit, investigation of your water use system or payment of the fee, please contact Genny McMath with our program at (605) 773-3352.

Sincerely,

Karen Schlaak
Water Rights Program
(605) 773-3352



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

June 16, 2016

REMINDER NOTICE

2118-2

Daniel Kruse
19651 E Hwy 44
Interior SD 57750

Dear Mr. Kruse:

On April 21, 2016, we advised you that a \$50.00 fee was due for the completed investigation of your Water Permit No. 2118-2. The fee also covers issuance of your water license which is the final document in obtaining and perfecting a water permit.

To date, we have not received the fee and therefore can not issue the water license. Your licensed water right will be similar to a property right that can not be lost as long as the water use continues and you abide by any permit requirements.

If you have any questions regarding the water permit, investigation of your water use system or payment of the fee, please contact me. The check or money order for the fee should be made payable to the "Water Rights Program".

Sincerely,

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

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 6/23, 2046

RECEIVED OF Daniel Kruse 19651 E SD Hwy 44 Interior SD 57750

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. 2118-2		
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. _____	50	00
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	
	50	00

No. **07866**

By Jean Goodman
Chief Engineer

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 2118-2

(1) Daniel Kruse, 19651 E Hwy 44, Interior SD 57750 made Application No. 2118-2, August 11, 1989 for a water permit to divert 5.4 cubic feet of water per second from the White River and dry draws, Pennington County, South Dakota for irrigation purposes. Permit No. 2118-2, with a priority date of March 19, 1990 was approved May 24, 1990 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 24, 1995 and for the application to beneficial use of water on or before May 24, 1999.

An investigation conducted for licensing purposes found diversion points and acreage developed for irrigation under Water Permit No. 2118-2 were not in the locations authorized by the permit. Pursuant to SDCL 46-5-13.1 and 46-5-30.5, the Chief Engineer makes a finding that existing water rights will not be impaired and the overall project, as developed, is consistent with the original application.

(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, the holder and/or owner of Water Right No. 2118-2 is issued a license, bearing a priority date of March 19, 1990 to appropriate 5.4 cubic feet of water per second from the White River and dry draws to irrigate 376.9 acres.

The diversion points are located as follows:

- #1 - NW 1/4 SW 1/4 Sec 6-T4S-R17E (dry draw)
- #2 - NW 1/4 NE 1/4 Sec 7-T4S-R17E (dry draw)
- #3 - SE 1/4 NW 1/4 Sec 12-T4S-R16E (dry draw)
- #4 - SE 1/4 SW 1/4 Sec 12-T4S-R16E (White River)
- #5 - SE 1/4 NE 1/4 Sec 13-T4S-R16E (White River)
- #6 - NW 1/4 NW 1/4 Sec 18-T4S-R17E (White River)
- #7 - SW 1/4 SE 1/4 Sec 7-T4S-R17E (White River)

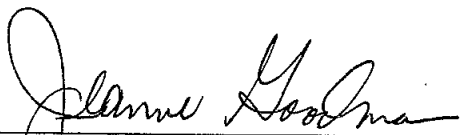
The acres authorized for irrigation are as follows:

<u>Section 12-T4S-R16E</u>		<u>Section 7-T4S-R17E</u>		<u>Section 13-T4S-R16E</u>	
SE 1/4 NE 1/4	2.4 acres	NW 1/4 SW 1/4	12.3 acres	NW 1/4 NE 1/4	11.4 acres
		NE 1/4 SW 1/4	7.3 acres	NE 1/4 NE 1/4	28.9 acres
NW 1/4 SW 1/4	9.0 acres	SW 1/4 SW 1/4	40.0 acres		
NE 1/4 SW 1/4	37.1 acres	SE 1/4 SW 1/4	38.1 acres	<u>Section 18-T4S-R17E</u>	
SW 1/4 SW 1/4	0.4 acres			NW 1/4 NW 1/4	30.1 acres
SE 1/4 SW 1/4	15.6 acres	SW 1/4 NE 1/4	3.7 acres	NE 1/4 NW 1/4	2.1 acres
		SE 1/4 NE 1/4	7.6 acres		
NW 1/4 SE 1/4	14.3 acres				
NE 1/4 SE 1/4	11.1 acres	NW 1/4 SE 1/4	9.1 acres		
SW 1/4 SE 1/4	8.2 acres	NE 1/4 SE 1/4	20.1 acres		
SE 1/4 SE 1/4	16.9 acres	SW 1/4 SE 1/4	31.3 acres		
		SE 1/4 SE 1/4	19.9 acres		
				Total 376.9 acres	

(continued)

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 2118-2 including the following qualifications:

- Permit No. 2118-2 does not authorize diversion of water from the White River after June 1 of each calendar year, nor at any time when the river flow is low, unless written orders have been issued by the Chief Engineer. Diversion under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.
- This permit is approved subject to the irrigation water use questionnaire being submitted each year.



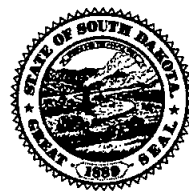
Jeanne Goodman, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

JUL 22 2016

date





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

2118-2

JUL 22 2016

Daniel Kruse
19651 E Hwy 44
Interior SD 57750

Dear Mr. Kruse:

Enclosed is Water License No. 2118-2. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 07866 in the amount of \$50.00 which you paid for the investigation and issuance of the Water License. Also, included with your license is a map prepared by the staff engineer who conducted the investigation.

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,

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

Subject: Bypass Qualifications on the White River

March 30, 2023

Dear White River Water Right Holder,

The SD Dept. of Agriculture and Natural Resources Water Rights Program is reviewing qualifications on White River water rights in order to update when pumping is authorized. Water Rights issued with priority dates junior to 1975 contained a qualification requiring a mandatory June 1 shutoff to cease pumping water from the river. The mandatory June 1 shutoff qualification was placed on these permits to protect domestic water users, which includes livestock watering. The review found, with the passage of time the United States Geological Survey (USGS) streamflow monitoring has expanded and realtime access to this information has improved. An analysis of long-term historical flow found that the lower White River, downstream of the Little White River confluence, receives significant flow from the Little White River relative to the flow contribution from the upstream portion of the White River. Consequently, it may be possible to remove the mandatory June 1 shutoff qualification for the junior water right permits in this lower section of the river and replace the qualification with a flow bypass limitation as measured at the USGS streamflow gaging station located near Oacoma.

The intent of this effort is to allow for more efficient use of water when it is available by utilizing a bypass requirement as measured at a USGS stream flow gaging station for those water users. This qualification change will also allow many lower White River junior priority water right holders to irrigate after June 1 without the need to request an extension from the Chief Engineer. Current real time river flow information can be easily accessed on-line at the following internet address:

<https://waterdata.usgs.gov/sd/nwis/rt>

In order to amend a qualification on an existing water right permit, formal action by the SD Water Management Board is needed. In the near future, you can expect to receive official notification scheduling a hearing before the Water Management Board. The notification will include if your water right is proposed to have the qualification amended. This hearing will also be public noticed in select county newspapers in which the White River flows through. If you wish to participate in the hearing, you can, but you are not required to. There will be instructions with the notification on how to participate in the hearing if you so choose.

If you have any questions concerning this effort, please contact Mark Rath of the Water Rights Program at (605) 773-3352 or mark.rath@state.sd.us

Sincerely,

Eric Gronlund, Chief Engineer
SD DANR – Water Rights Program

Review of White River Water Rights and Report on Proposed Amendment

February 14, 2023

Introduction

An evaluation was made of the current qualifications that were placed on the existing White River water permits/rights to determine whether these qualifications are effectively managing the water source for the users.

Review of the Water Source

The White River, a prairie stream, located in southwestern South Dakota and northwestern Nebraska, Figure 1. The White River headwaters originate in northwestern Nebraska and drains approximately 9,975 square miles before discharging into the Missouri River near Oacoma SD.

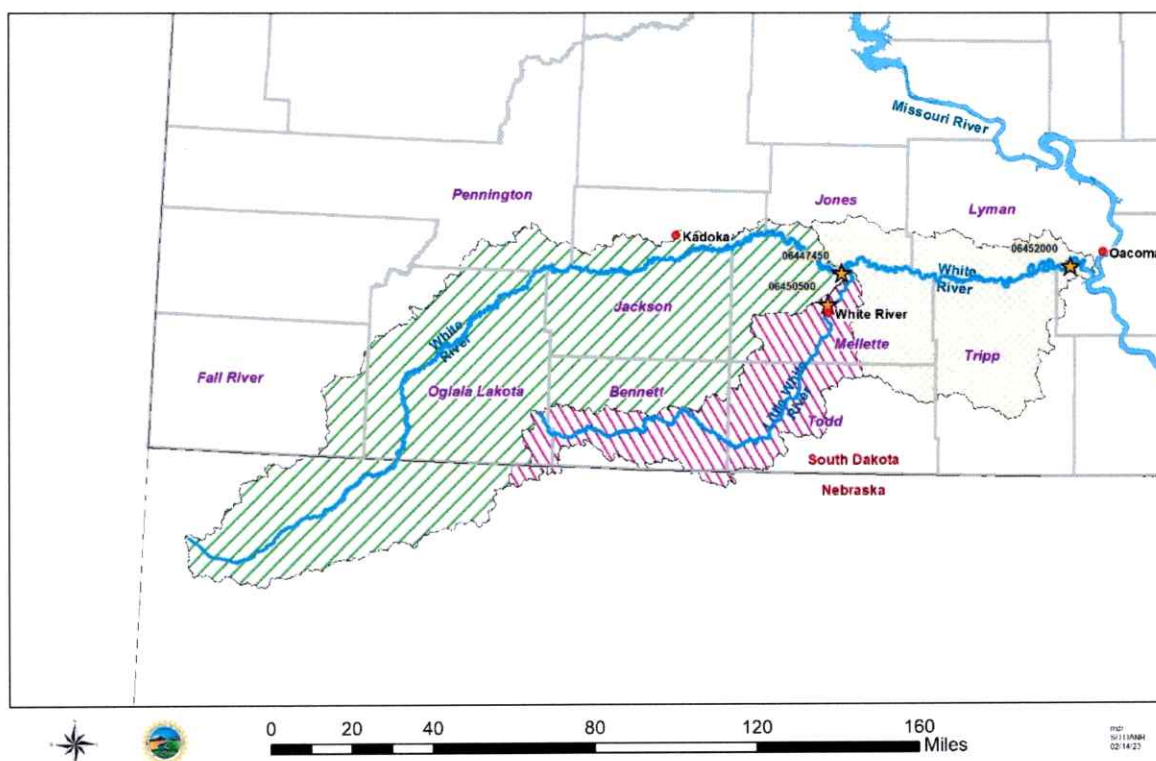


Figure 1. White River Watershed Map.

The entire watershed can be broken into three sections: upper White River, lower White River and Little White River. The upper White River watershed is the portion drained by the White River headwaters in northwestern Nebraska and drains portions of Oglala Lakota, Fall River, Bennett, Pennington, Jackson, Mellette, Jones, and Todd Counties located upstream of the Little White River confluence. The Little White River watershed is drained by the Little White River headwaters in Oglala Lakota County, draining portions of Nebraska, and Bennett, Todd, and Mellette Counties before merging with the White River approximately 12 miles southeast of the town of Murdo. The Little White River has more uniform flow than the White River due to a permeable sand formation allowing precipitation seeping into the ground to move laterally into the stream through springs and seeps (Ellis, et al. 1971). The lower White River section, after receiving contributing flow from the Little White and upper White rivers, also drains

portions of Mellette, Jones, Todd, Tripp, and Lyman Counties before discharging to the Missouri River just south of the town of Oacoma.

A percentile is a measure used in statistics to indicate the value below which a given percentage of observations in a group of observations fall, in this case daily flows. The percentiles shown correspond to flow scenarios during drier conditions when water would be in short supply. A percentile hydrograph can also give an indication of the time of year when water can be expected to be available at the gage location.

The USGS Stream Gaging No. 06447450 White River near White River, SD is located approximately 2 miles upstream from the confluence of the White and Little White rivers. Figure 2, shows three statistically derived flow levels consisting of the daily median (or 50 percentile), the 25 percentile, and the 10 percentile daily flow values for this stream gage. As this figure indicates, there is an increase in flow in the White River corresponding to spring snowmelt and spring rain events. The figure shows the median or 50 percentile hydrograph for this stream gage exhibits the daily flow values at or below this level on average one out of two years and also indicates flow curtailing in the mid-July to early September time frame before leveling off. It should be noted during any given year, flow in the river is not going to exactly mirror the median flow values. Since the median daily value is the center value with half the measured flow values greater and half less, what median values do provide is an overall indication of the historical flow characteristics for the stream at that location based upon the period of record. The hydrograph also shows there is a significant decline in available water corresponding with the 25 and 10 percentile levels from mid-to-late June.

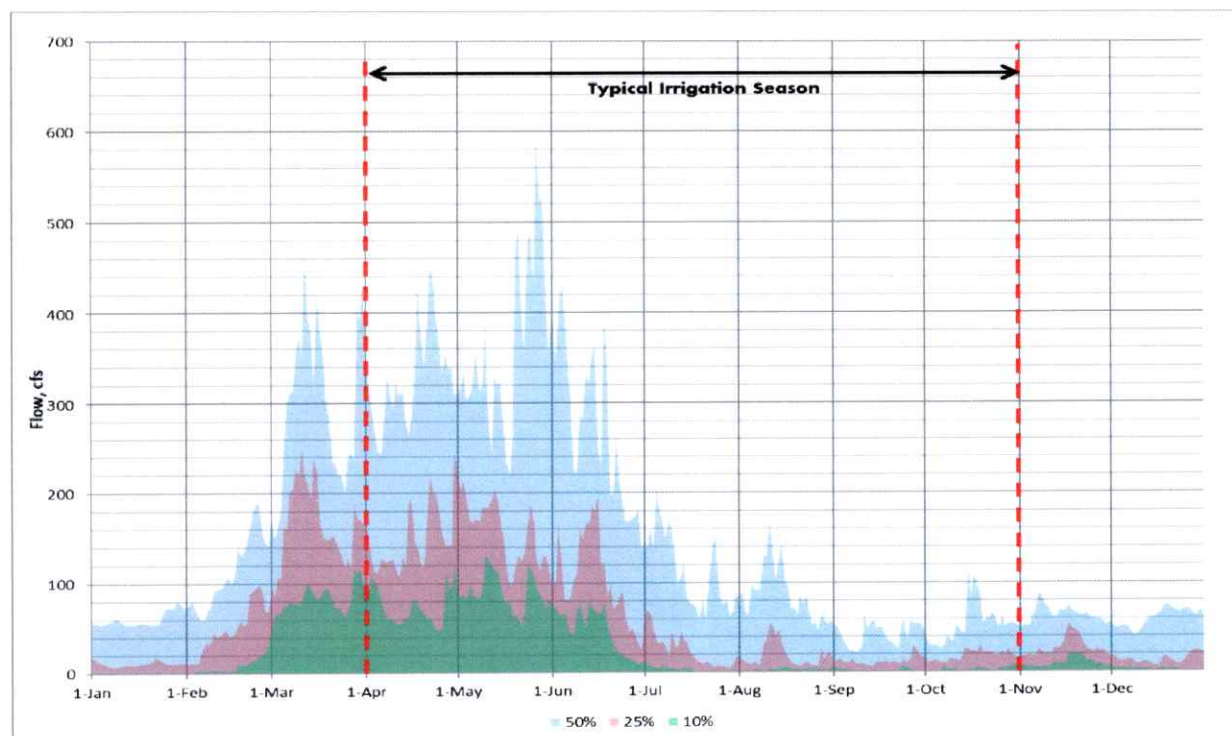


Figure 2. Daily percentile flow hydrographs for the USGS White River near White River 2001-2022, contributing drainage area 6202 mi² (USGS, 2023).

The USGS Stream Gaging No. 06450500 Little White River near White River, SD is located approximately 14.5 miles upstream from the confluence of the Little White River with the White River. Figure 3, indicates there is an increase in flow in the Little White River corresponding to spring snowmelt and rain events. The figure shows the median or 50, 25 and 10 percentile hydrograph levels for this stream and indicates flow at each of the three percentiles peaks in late March and steadily declines until the first of August. Flow then levels off for the remainder of the irrigation season but generally a base flow is maintained throughout the year.

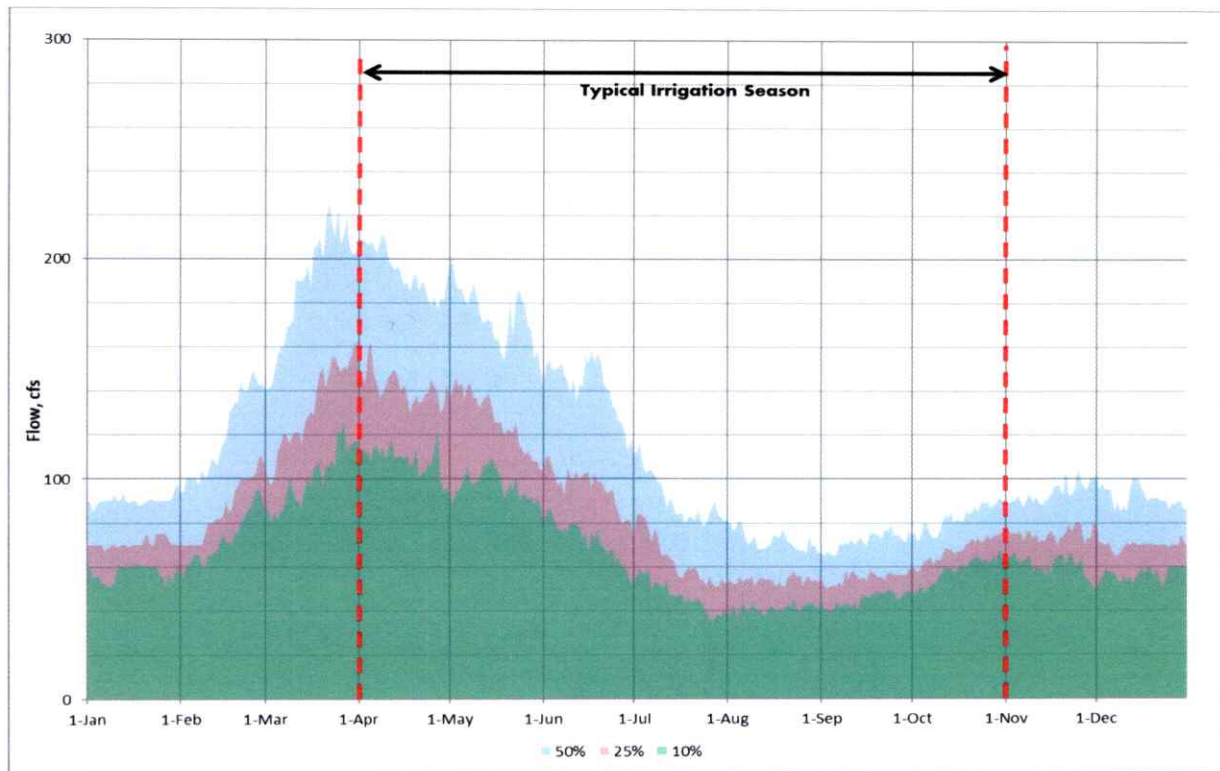


Figure 3. Daily percentile flow hydrographs for the USGS Little White River near White River, 1949-2022, contributing drainage area 1,495 mi² (USGS, 2023).

The USGS Stream Gaging No. 06452000 White River near Oacoma, SD is located approximately 55 river miles downstream from the confluence of the White and Little White rivers and approximately 16 miles upstream from the point where the White River flows into the Missouri River on Lake Francis Case. Figure 4 is a hydrograph showing the 50, 25 and 10 percentile levels similar to what was shown in the previous two figures. The median or 50 percentile hydrograph for this stream gage exhibits the daily flow values at or below this level on average one out of two years, and shows an increase in flow in the White River starting in early February corresponding to early spring runoff and maintains strong flows through most of June before tailing off through the remainder of the summer and fall months. At the 50 percentile level corresponding flow can be expected to be in excess of 40 cubic feet of water per second (cfs) throughout the year on average one out of two years. Looking at the hydrographs corresponding to the 25 and 10 percentiles, they show a similar trend to the 50 percentile curve with increased flows in February and tailing off in the latter part of June. The 25 percentile level shows the daily flow values at or below this level on average one out of four years, indicating flows remain above the 40 cfs level except for a period December through January. At the 10 percentile level, corresponding to the daily flow values

at or below this level on average one out of ten years, flows stay above 20 cfs except during the three week period from the first week of August through the first of September and the six week period in December and January, which is outside the irrigation season.

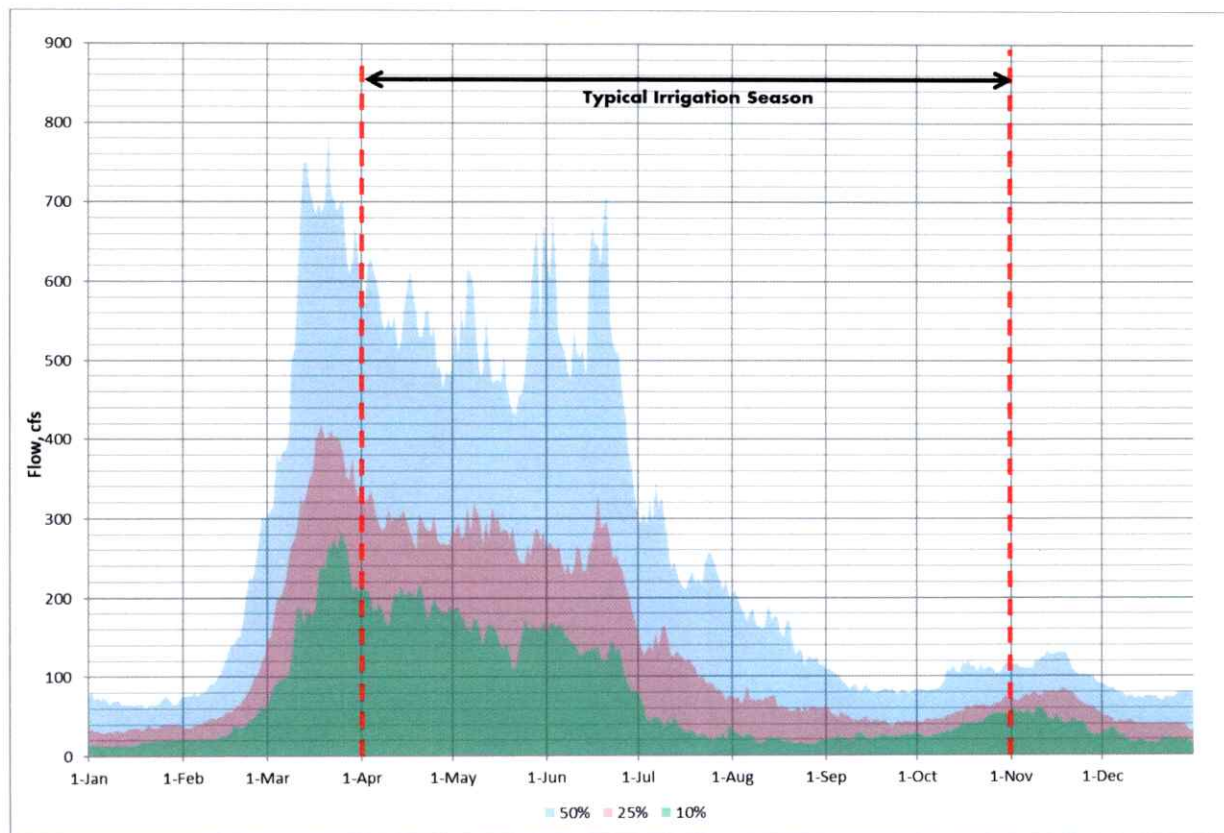


Figure 4. Daily percentile flow hydrographs for the USGS White River near Oacoma, 1928-2022, contributing drainage area 7,697 mi² (USGS, 2023).

The Water Management Board Authority

SDCL 46-1-14 gives the Water Management Board the authority to amend water right permits. Water permits issued by the board may be amended by the board with priority retained upon amendment. The board may alter terms, conditions, restrictions, qualifications, or quantifications.

South Dakota Codified Law

46-1-14. Terms and conditions of permits and licenses--Amendment. The Water Management Board may issue any permit or license subject to terms, conditions, restrictions, qualifications, quantifications, or limitations on perpetuity consistent with this chapter which it considers necessary to protect the public interest and which are related to matters within the jurisdiction of the board. Water rights issued pursuant to this section may be amended by the board and priority is retained upon amendment. Upon amendment the board may alter terms, conditions, restrictions, qualifications, or quantifications consistent with this chapter.

46-2-3.1. Delegation of authority to chief engineer--Restrictions. The Water Management Board may delegate to the chief engineer authority to act on its behalf concerning the quasi-judicial functions of interpreting,

applying, and enforcing existing rules and laws and ordering action or abatement of action. The board may not delegate any other quasi-judicial functions as defined in § 1-32-1, except as otherwise provided by law. The board may promulgate rules pursuant to chapter 1-26 to delegate to the chief engineer the authority to issue permits pursuant to § 46-1-14.

46-2-17. Chief engineer's general enforcement authority. The chief engineer may:

- 1) Investigate the use of the waters of the state and compliance with the provisions of water permits, licenses, rules, regulations, and laws relating to water rights.
- 2) Institute enforcement and other proceedings before the Water Management Board;
- 3) Enforce orders of the board; and
- 4) Perform other acts authorized by statute or regulation.

46-2-18. Chief engineer's authority to order discontinuance of water use. The provisions of chapter 1-26 notwithstanding, the chief engineer may, after appropriate investigation, issue an order to any person to shut off or limit the person's use of surface or groundwater, or to plug or otherwise control a well. The order may be issued only to protect another user who has higher or earlier priority or to cause a user of water to discontinue the use of water to which the user has no legal right. Upon a refusal to obey the order, the chief engineer may request a court of proper jurisdiction to issue a temporary restraining order or injunction to effectuate the provisions of the order.

Review of Existing Water Rights and Reported Use

A review of Water Right Program files shows there have been 200 water permits/rights issued from either the White or Little White rivers, some with priority dates going back to 1901. Many of these have been cancelled due to abandonment or forfeiture, some have been incorporated into other water permits, and some remain active. Currently, there are 82 existing permits/rights appropriating 190.9 cfs from the White River. Eighty of the existing permits/rights are for irrigation use and the other two are for small dams used for domestic and recreation purposes. Figure 5 shows a comparison between the water appropriated for irrigation use and the annual reported use by these irrigators for the years 1995 to 2021. As this figure indicates except for three years in the early 2000's, less than 10% of the water appropriated annually for irrigation was reported to be used (Water Rights. 2023).

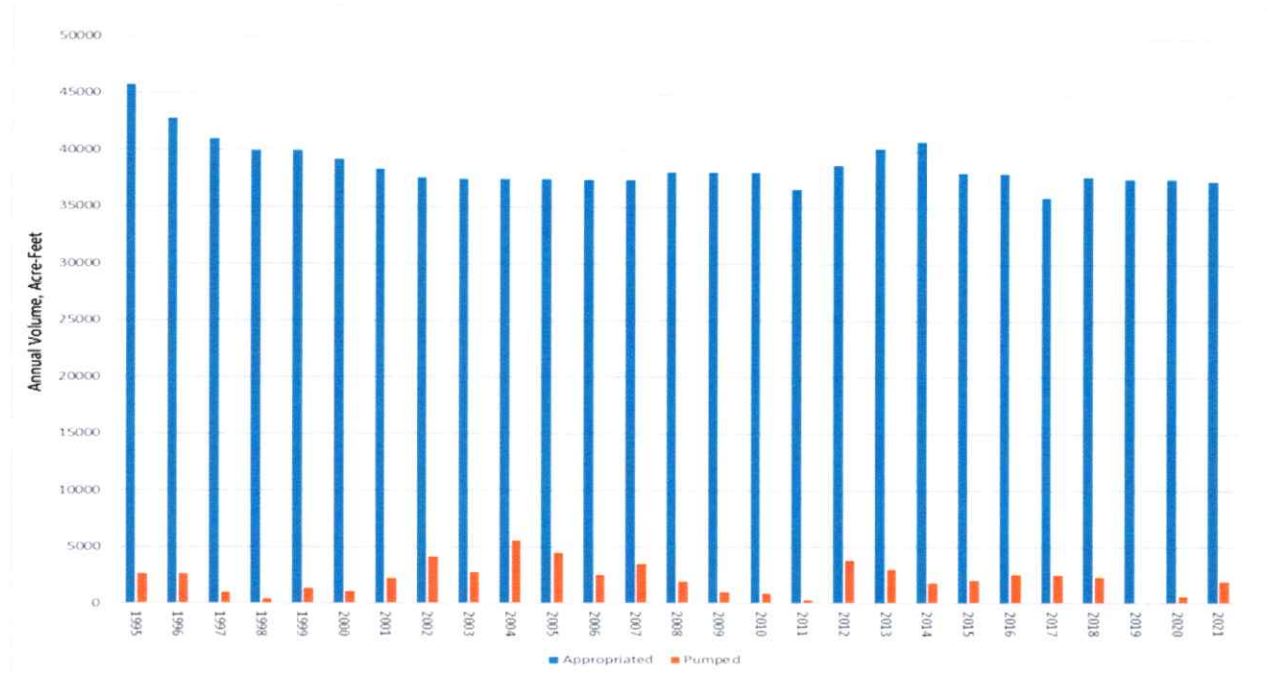


Figure 5. Total irrigation allocation and reported use from the White River (Water Rights, 2023).

Qualification Status

An examination of water right files found the Water Resources Commission, a predecessor to the Water Management Board, placed the first low flow bypass qualification, on a White River water permits in Lyman and Jackson counties in 1964. (Water Rights, 2023). In January of 1977, the Water Rights Commission, another predecessor to the Water Management Board, approved several deferred White River applications with priority dates going back to April 12, 1976, and placed a June 1 cutoff qualification on them. This same qualification has been placed on all White River permits issued since then.

In 2012, the Water Rights Program received an application for a water permit to irrigate from the White River in the river reach downstream from the Little White confluence. The analysis for that application resulted in a qualification to the issued water permit that the permit holder may request written authorization from the Chief Engineer to allow the irrigator to continue irrigating after the June 1 shutoff date. Prior to issuing the written authorization, the Chief Engineer would determine whether an appropriate base flow level was present. A 20 cfs bypass has been used in on other major rivers in South Dakota to provide for a base flow to insure domestic/livestock water needs are satisfied. It was determined a minimum base flow of 20 cfs bypass after pumping, as measured at the USGS gaging station, White River near Oacoma, was needed to allow the Chief Engineer to provide written authorization to continue using water. The permit was issued with the following qualifications (Water Rights. 2023).

1. This Permit authorizes the diversion of water from the dugout adjacent to the White River until June 1 of each calendar year. After June 1, there shall be no diversions under this Permit unless written authorization is issued by the Chief Engineer. Diversion under this Permit shall be in accordance with any written orders issued by the Chief Engineer.

2. Diversions from the dugout adjacent to the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs while pumping under this Permit.

Since that water permit was issued in 2012, the 20 cfs bypass as measured at the Oacoma stream gage criteria has been utilized multiple times when issuing written authorization to allow pumping after the June 1 cutoff in this river reach. This criterion has worked well.

Analysis and Proposed Qualification Revisions

The original cutoff date and the later adopted bypass requirement were analyzed to determine whether the 20 cfs bypass requirement would be a more effective means of managing active water rights going forward in the lower reach of the White River rather than a June 1 mandatory shutoff date. The review took into consideration the existing water rights, the qualifications, the authorized use, the location of the diversion points, the annual period of use, and historic stream flow data.

Upper White River

Water rights/permits with priority dates junior to April 11, 1976, located on the upper White River in the river reach upstream from the confluence with the Little White River contain the June 1 mandatory shutoff qualification.

The percentile hydrograph for USGS Stream Gaging No. 06447450 White River near White River, SD shown in Figure 2, indicates a decline in flow during the month of June at the three percentile levels shown (USGS. 2023). At the 10 and 25 percentile levels, corresponding to daily flow values at or below the indicated level on average one out of four years and one out of ten years respectively, show expected flow levels falling to a range of 20 cfs or below. At this time the current June 1 cutoff qualification appears to be working well, with irrigators requesting pumping variances when needed. A review of Water Rights Program files indicates this occurs sporadically with it most recently happening in the summer of 2022. An irrigator near Kadoka requested a temporary variance to pump runoff from a large upstream thunderstorm (Water Rights. 2023). At this time the recommendation is to leave the existing qualification requirements in place for current and future water rights/permits located in this river reach because the current qualification is working well.

Lower White River

Water rights/permits with priority dates junior to April 11, 1976, located on the lower White River in the river reach downstream from the confluence with the Little White River, contain the June 1 mandatory shutoff qualification.

In 2012, the Water Rights Program received Water Permit Application No. 2681-2, to divert water for irrigation from the lower White River reach. The analysis for that application determined that based upon historical flow data, there was a likelihood that water would be available many years in this reach after June 1 and there was a possibility the permit holder would be asking for a variance to allow pumping after the mandatory shutoff date. For the Chief Engineer to be able to grant written authorization to allow pumping and protect the base flow of the river, a new qualification was adopted (Water Rights. 2023).

- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs.

Since 2012, the June 1 mandatory shutoff and the 20 cfs bypass qualifications have been placed on water permits issued in the lower White River reach. The Water Rights Program has received numerous requests from these permit holders over multiple years to allow diversions from the river after June 1. Based upon the experience the Water Rights Program has gained managing use based off the 20 cfs bypass qualification, we found this qualification to be an effective water management tool for this lower reach of the White River.

There are 32 water permits/rights appropriating 86.81 cfs from the White River reach downstream of the Little White River confluence. Of these, there are 11 water permits/rights appropriating 29.54 cfs containing the qualification requiring diversions cease after June 1st of each calendar year (Water Rights. 2023). Based upon the review of the stream gaging, reported water use, and our experience with using the White River stream gage near Oacoma to regulate water diversions, I recommend for the water permits/rights located in the lower White River reach, the June 1st mandatory shutoff qualification be removed and the qualification requiring a 20 cfs bypass as measured at the White River near Oacoma stream gage be added to those water permits/rights that do not already have it.

Specific Proposed Qualification Revisions by Water Permit

To standardize the bypass qualifications for the existing water permits containing a June 1 mandatory shutoff qualification in the lower White River reach downstream from the Little White River confluence to Missouri River, the following changes are proposed:

Amendment to the qualifications contained in Water Right No. 1474-2

Delete Qualification:

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be by-passed. This permit authorizes the diversion of water from the White River for either to the land directly or off-stream storage until June 1 of each calendar year. After June 1, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Water Rights Commission or its legally appointed representative. Diversion under this permit shall be in accordance with any written orders issued by the Commission or its Representative.

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs.
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.

Amendment to the qualifications contained in Water Right No. 1501-2

Delete Qualification:

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be by-passed. This permit authorizes the diversion of water from the White River for either to the land directly or off-stream storage until June 1 of each calendar year. After June 1,

there shall be no diversions from the White River under this Permit unless written authorization is issued by the Water Rights Commission or its legally appointed representative. Diversion under this permit shall be in accordance with any written orders issued by the Commission or its Representative.

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs.
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.

Amendment to the qualifications contained in Water Right No. 1504-2

Delete Qualification:

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be by-passed. This permit authorizes the diversion of water from the White River for irrigation to the land directly until June 1 of each calendar year. After June 1, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Water Rights Commission or its legally appointed representative. Diversion under this permit shall be in accordance with any written orders issued by the Commission or its Representative.

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs.
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.

Amendment to the qualifications contained in Water Right No. 1529-2

Delete Qualification:

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be by-passed. This permit authorizes the diversion of water from the White River for irrigation to the land directly until June 1 of each calendar year. After June 1, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Water Rights Commission or its legally appointed representative. Diversion under this permit shall be in accordance with any written orders issued by the Commission or its Representative.

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs.
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.

Amendment to the qualifications contained in Water Right No. 1557-2

Delete Qualification:

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be by-passed. This permit authorizes the diversion of water from the White River for irrigation to the land directly until June 1 of each calendar year. After June 1, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Water Rights Commission or its legally appointed representative. Diversion under this permit shall be in accordance with any written orders issued by the Commission or its Representative.

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs.
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.

Amendment to the qualifications contained in Water Right No. 1630-2

Delete Qualification:

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be by-passed. This permit authorizes the diversion of water from the White River for off-stream storage until June 1st of each calendar year. After June 1st, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Water Management Board or its legally appointed representative. Diversion under this permit shall be in accordance with any written orders issued by the Board or its representative.

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs.
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.

- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.

Amendment to the qualifications contained in Water Right No. 1765-2

Delete Qualification:

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be by-passed. This permit authorizes the diversion of water from the White River for either to the land directly or off-stream storage until June 1 of each calendar year. After June 1, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Water Rights Commission or its legally appointed representative. Diversion under this permit shall be in accordance with any written orders issued by the Commission or its Representative.

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs.
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.

Amendment to the qualifications contained in Water Right No. 2312-2

Delete Qualification:

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be by-passed. This permit authorizes the diversion of water from the White River for irrigation to the land directly until June 1 of each calendar year. After June 1, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Water Rights Commission or its legally appointed representative. Diversion under this permit shall be in accordance with any written orders issued by the Commission or its Representative.

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs.
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.

The water rights/permits listed below were issued with a separate qualification that should be retained:

- Diversions from the White River are authorized only when flow at the USGS Gaging Station No. 06452000 – White River near Oacoma is at least 20 cfs while pumping under this water right.

Amendment to the qualifications contained in Water Right No. 2681A-2

Delete Qualification:

Water Permit No. 2681-2 authorizes the diversion of water from the White River for irrigation to the land directly or to two storage dams until June 1st of each calendar year. After June 1st, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Chief Engineer. Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.

Amendment to the qualifications contained in Water Right No. 2701-2

Delete Qualifications:

Water Permit No. 2701-2 authorizes the diversion of water from the White River for irrigation to the land directly or to the existing dugout and storage dam authorized by Water Right No. 1415A-2 and Water Permit No. 2647-2 until June 1st of each calendar year. After June 1st, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Chief Engineer. Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer. *(Water Right No. 1415A-2 and Water Permit No. 2647-2 have been incorporated and are now licensed under No. 2647-2.)*

Water from the White River may be diverted to the dugout and existing dam authorized by Water Right No. 1415A-2 and Water Permit No. 2647-2 subject to qualifications Nos. 1 and 2. Diversion of stored water from either the dugout or the dam for irrigation of the authorized land is not subject the June 1st shut-off. *(Water Right No. 1415A-2 and Water Permit No. 2647-2 have been incorporated and are now licensed under No. 2647-2.)*

Add Qualifications:

- Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed.
- Water Right No. 2701-2 authorizes the diversion of water from the White River for irrigation to the land directly or to the existing dugout and storage dam authorized by Water Right No. 2647-2
- Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board is retaining jurisdiction of this permit in the event additional information shows that adjustments need to be made to the bypass requirements.

Amendment to the qualifications contained in Water Permit No. 2835-2

Delete Qualification:

This permit authorizes the diversion of water from the dugout adjacent to the White River until June 1 of each calendar year. After June 1, there shall be no diversions from the White River under this Permit unless written authorization is issued by the Chief Engineer. Diversion under this permit shall be in accordance with any written orders issued by the Chief Engineer.

Add Qualifications:

- This permit authorizes the diversion of water from the dugout adjacent and hydraulically connected to the White River. Diversion of water under this permit shall be in accordance with any written orders issued by the Chief Engineer.
- The Water Management Board retains jurisdiction of this water right in the event additional information shows that adjustments need to be made to the bypass requirements.



Mark D. Rath
Natural Resources Engineer III

References

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Water Rights. 2023. Water Right/Permit Files. SD DANR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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April 14, 2023

Subject: Amendment of the Mandatory Shutoff Qualification on White River Water Rights

Dear White River Water Right Holder,

The SD Department of Agriculture and Natural Resources has reviewed all White River water rights and the historical, United States Geological Survey (USGS) stream flow records. The Chief Engineer is recommending amending the mandatory June 1 shutoff qualification on 11 junior priority White River water rights located in the reach between the Little White River confluence and the Missouri River. The intent is to allow for more efficient use of water when it is available by utilizing a bypass requirement as measured at a USGS stream flow gaging station for those water users.

The proposed amendment to those water rights would replace the mandatory June 1 shutoff qualification with a 20 cfs of flow bypass measured at the USGS Oacoma streamflow gaging station. This amendment would not be expected adversely impact your use of the White River as authorized by your water right(s). The amendment designates a US Geological Survey streamflow gaging station as the measuring point to determine if pumping is allowed. The gaging station has real time flow information that can be accessed on-line at <https://waterdata.usgs.gov/sd/nwis/rt>.

A hearing before the Water Management Board is scheduled at 9:45 AM, Wednesday, May 3, 2023, in the Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre SD. Enclosed is the notice to be published on or before April 13, 2023, in one newspaper from each of the 9 counties that the White River flows through. This notice provides information on filing a petition in either support or opposition to the proposed amendment. The filing of a petition must be postmarked by April 24, 2023. Additionally filing a petition affords you the opportunity to participate in the May 3rd hearing before the Board if you choose.

The staff report including affected water rights and the proposed changes are available at <http://danr.sd.gov/public> or contact Mark Rath at 605 773-3352 or mark.rath@state.sd.us. If you have questions; please call. DANR is willing to work to answer any questions.

Sincerely,

Chief Engineer

Water Rights Program, DANR