

Considered: _____

WATER PERMIT NO. 1870-2

MAP No. 1870-2

Name of Applicant PERRY OR CAROLINE GUPTILL

Post Office Address Box 142, Interior, SD 57750

Amount of Water Claimed 1.57 Total Acres 110.40

Source of Water Supply White River

Water to be used for IRR County Jackson

About 1 miles south of Interior

PROOF OF PUBLICATION: Received 10X 6-14-84 Not Received _____

APPLICATION: Approved 7-11-84 Subject to revised qualification

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

PRIORITY 3/1/84 Date Received 3/1/84 Fee 225.00 Remarks _____

Corrected Application ^{Map} Received 3/19/84 Period of Annual Use 3/1 thru 11/30

WATER QUALITY APPROVAL RECEIVED 3/26/84 APPROVED/CONDITIONAL/(Circle one)

WI-1 Description same as Application YES ^{xx}NO _____ REMARKS _____

Diversion Point _____

Along the river Lots 2 and 3, Section 17 and
Lot 2, Section 8 both in T4S-R18E

Land to be Irrigated _____

SW $\frac{1}{4}$ SE $\frac{1}{4}$ & Lot 2, Section 8; Lot 2 and 3,
Section 17 all in T4S,R18E

Well Log: Driller _____ Licensed YES _____ NO _____

Depth of Well _____ REMARKS _____

Type of Map aerial PREPARED BY Stanton Uhler, ASCS Reviewed and the Number
assigned on 3/28/84 By Billy Westlund

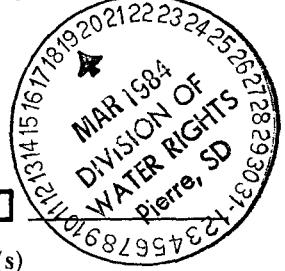
Hansen/Helson

Mail to: Water Rights Div.
DWNRR, Foss Bldg.
Pierre, SD 57501
(605) 773-3352

No. 1870-2 Hydrologic Unit 10140202
Map No. 1870-2 Basin WR
Newspaper Press, By 309, Kadoka 57543

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

Type of Application: Check one or more of the following:



- New ☒ Vested Right ☐ Future Use ☐
☐ Application to amend Permit No. _____ with old priority date retained
☐ Change diversion point(s) ☐ Add diversion point(s) ☐ Change acreage ☐ Other ☐
☐ Application to: ☐ Change use ☐ Change diversion point(s) ☐ Add diversion point(s)
☐ Add Acreage ☐ Increase diversion rate ☐ Other _____ See Permit No. _____
☐ Application to: ☐ Use ☐ Transfer water reserved by Future Use Permit No. _____

1. Name of Applicant Perry or Caroline Guptill Phone No. 433-5354
Post Office Address Box 142, Interior State SD Zip Code 57750
(Street, RR or Box)
2. Amount of water claimed (c.f.s) 1.57 Total acres irrigated 110.40
3. Source of Water supply White River
4. Location of point of diversion Along the river bank where it adjoins Lots 2 and 3, Section 17-4S-R18. Along the river bank where it adjoins Lot 2, Section 8-4S-R18. County Jackson
5. Counties where water will be used Jackson
6. Annual period during which water is to be used March through November.
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.
SW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 8-4S-18	31.60
Lot 2, Sec. 8-4S-18	16.20
Lot 2, Sec. 17-4S-18	29.90
Lot 3, Sec. 17-4S-18	32.70

Land Description	No. Acres Irr.

Attach sheet if more space is needed

8. Give a brief description of proposed project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)
Slope bank enough to place crisafilli pump into river at different locations along river bank. Build ditches to carry water to diked in areas. Build dikes around approximate 10 acre fields to flood irrigate.

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map (see instruction)

STATE OF SOUTH DAKOTA)
County of _____)

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

Signed Perry Guptill
the 5th day of March 1984
LaVonne O. Green

LaVONNE O. GREEN
NOTARY PUBLIC
SOUTH DAKOTA
Subscribed and sworn to before me this 6th day of March 1984

WATER PERMIT

The Water Management Board hereby approves Water Permit Application No. 1870-1
Perry & Caroline Gupthill Box 142 Interior
 (Applicant) (Post Office Address)
South Dakota 57750 With the following qualifications.
 (State) (Zip Code)

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed. This permit authorizes the diversion of water from the White River for irrigation to the land directly until June 1, after June 1 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. Diversions under this permit shall be in accordance with the written orders issued by the Board or its representative.

The permit is approved subject to the irrigation water use questionnaire being submitted each year.

Date of first receipt of application March 1, 1984.

Date of return to applicant for correction, amendments or changes required —, 19—.

Date of receipt of corrected application —, 19—. Approved July 11, 1984.

The Water Management Board hereby approves this Water Permit No. 1870-1 authorizing the construction of the water use system and the placing of water to beneficial use as stated in the Application and as qualified in the Water Permit approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is March 1, 1984.
2. One-fifth of the work is to be completed on or before January 11, 1987.
3. The whole of said work is to be completed on or before July 11, 1989.
4. The time limit for proof of beneficial use of water is July 11, 1993.
5. The water appropriated shall be used for the purpose of Irrigation.
6. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be unlawfully impaired by this appropriation.
7. The amount of the appropriation herein granted shall not exceed 1.57 cubic feet per second; neither shall it exceed the capacity of the above described water supply system nor shall it exceed the amount of water needed for beneficial uses served. For irrigation purposes said appropriation must be limited to not more than 2 acre feet per acre per year and be limited to not more than one-seventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is actually and beneficially applied for irrigation on or before July 11, 1993; said water to be used during the following described annual period: March 1st to November 30.

WATER MANAGEMENT BOARD

By: John Hotal
 Chief Engineer

Division of Water Rights
 Dept. of Water and Natural Resources

August 6, 1984

Jackman to ASCS
by Stanton Hill
P.O.D.

S. 8 T. 4 R. 18



Appl/Map # 1870-2

RECEIPT

Division of Water Rights

No 4 9564 -

South Dakota Department of Water and Natural Resources

Pierre, March 1, 1984

RECEIVED OF Perry or Caroline Guptill, Box 142, Interior, SD 57750

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

Fee for Application for Permit No. <u>1870-2</u> to Appropriate Water, to construct works and to put water to beneficial use	225	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	225 00

By

Chief Engineer

John Hatch
JOHN HATCH ms

March 2, 1984

Perry Guptill
Box 142
Interior, S.D. 57750

Dear Mr. Guptill:

Enclosed is a partially completed typed new application form to appropriate 1.57 cfs of water, maximum allowable, from the White River to irrigate 110.4 acres.

Check over the application, complete where checked in red, sign, notarize and return to this office.

Also enclosed is your map which must be signed by your local ASC Agent. Your receipt No. 4-9564 in the amount of \$225.00 is on file in our office.

Upon receipt of the above and the soil/water compatibility approval from the State Conservation Commission further processing of your application will proceed. If you have any questions feel free to contact this office.

Sincerely,

BETTY WESTLUND
Natural Resource Analyst III

bw/Encl: As stated

*Received March 19, 1984
Signed map & appl
BW*

8093

Conditional Approval

SOUTH DAKOTA DEPARTMENT OF AGRICULTURE
DIVISION OF CONSERVATION

NAME OF APPLICANT: John Suptill

LEGAL DESCRIPTION: Portions of Sec 8-4-18
Portions of Sec 17-4-18



SOIL RESTRICTIONS:

THE SOIL(S) LISTED BELOW CANNOT BE IRRIGATED:

THE SOILS(S) LISTED BELOW CAN BE IRRIGATED
WITH THE FOLLOWING RESTRICTIONS:

The soils must be kept in grass, alfalfa, or small grains when irrigated.

RECOMMENDED MANAGEMENT:

In developing your flood system, we recommend the runs be short to achieve a more uniform average with the water. We also recommend that a monitoring soil program be used, to monitor the effects of this water on the soil and improve the water management system.

SIGNATURE

DATE

3-20-84



Received Mar. 22, 1984 Sw

Department of Agriculture

DIVISION OF CONSERVATION

Anderson Building, Room 322 • Pierre, South Dakota 57501
Phone 605/773-3258

March 20, 1984

Perry Guptill
Box 142
Interior, SD 57750

Dear Mr. Guptill:

As stated in John Bischoff's previous letter the water quality of the White River is marginal for irrigation purposes. Without proper management you will have problems with the soil crusting and poor infiltration due to the high amount of sodium and suspended clay particles in the water. It is for the above reasons that the following restrictions have been placed on your Soil/Water Compatibility Permit.

RESTRICTIONS:

These soils must be kept in alfalfa, grass or small grains when irrigated.

MANAGEMENT RECOMMENDATIONS:

In developing your flood system, we recommend the runs be short to achieve a more uniform average with the water. We also recommend that a monitoring soil program be used, to monitor the effects of this water on the soil and improve the water management system.

Your application will be brought before the Commission for their review at their March 22, 1984 meeting. If you have any questions please feel free to contact this office.

Sincerely,

Martin Gertonson
Land Management Specialist

cf

cc: Division of Water Rights

CONSERVATION

SOIL/WATER COMPATIBILITY PERMIT APPLICATION FORM

STATE CONSERVATION COMMISSION

SOUTH DAKOTA DEPARTMENT OF AGRICULTURE

OWNERS NAME: Perry or Caroline Guptill OWNERS ADDRESS: Box 142
Interior, So. Dak. 57750COUNTY LAND LOCATED IN: Jackson PHONE: 433-5354

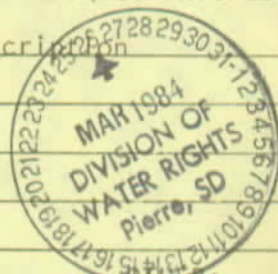
TENANT'S NAME AND ADDRESS: (If Other Than Owner) _____

In accordance with State Law SDCL 46-5-6.5, if a water permit is granted with a conditional Soil/Water Compatibility permit, a copy of such conditional soil/water compatibility permit must be filed with the County Register of Deeds. This action must be taken by the holder of a water permit within 6 months of receipt of such water permit.

LEGAL DESCRIPTION: (Show Legal Description to Nearest 10 Acres)

1. WELL LOCATION OR DIVERSION POINT: Along Riverbank on Lots 243 S.17 and Lot 2 S.8
2. SURFACE WATER SOURCE: White River
3. LOCATION OF AREA TO BE IRRIGATED. NOTE: SOILS INFORMATION FOR THIS AREA MUST ACCOMPANY THE APPLICATION. (See instruction sheet)

Legal Description	Acres	Legal Description	Acres
<u>SW 1/4, SE 1/4, S.8, T4, R18</u>	<u>31.6</u>		
<u>Lot 2 S.8, T4, R18</u>	<u>16.2</u>		
<u>Lot 2 S.17, T4, R18</u>	<u>29.9</u>		
<u>Lot 3 S.17, T4, R18</u>	<u>32.7</u>		



4. TYPE OF IRRIGATION: GRAVITY: _____ TOWLINE: _____ CENTER PIVOT: _____ GUN: _____ (Specify) Flood
5. CROPS TO BE IRRIGATED: Alfalfa - Hay - Small grains
6. SHOW ANY PORTION OF LAND THAT PRESENTLY HOLDS AN IRRIGATION PERMIT: YEAR OBTAINED: _____
LEGAL DESCRIPTION: _____
IN WHAT NAME: _____

WATER QUALITY: (TO BE COMPLETED BY SDSU WATER QUALITY LABORATORY)

7. WATER SAMPLE NUMBER: _____
8. SALINITY (EC X 10⁶): _____
9. SODIUM (SAR): _____
10. ADJUSTED (SAR): _____

see attached
copy of water quality information

I hereby certify that I personally obtained or that I personally observed the taking of a sample of the water to be used in irrigating the above-described land. I also hereby certify that the required procedures for the taking of the sample (see instruction sheet) were followed, and that the sample was taken at _____ a.m./p.m., on _____, 19____, at the following location: _____ by _____ (individual who took sample if other than applicant). I also hereby certify that the water sample taken has NOT been adulterated or tampered with in any manner, and is TRULY REPRESENTATIVE of the water which will be used in irrigating the above-described land.

I understand that the Division of Conservation or agents thereof may obtain another water sample for the purpose of validating the water sample analysis taken at the time of application (SDCL 46-5-6.4).

SUBSCRIBED AND SWORN BEFORE ME THIS

DAY OF February, 1984.

(NOTARY PUBLIC)

IMPORTANT

APPLICANT'S SIGNATURE

Director, Division of Conservation

APPROVED

DISAPPROVED

X CONDITIONALLY APPROVED

Action by the Department of Agriculture or the State Conservation Commission is not the final action on any application. In all cases a WATER PERMIT must be obtained from the Board of Water Management.

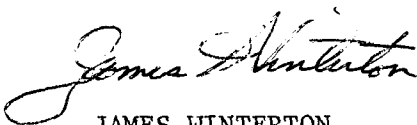
REPORT ON APPLICATION NO. 1870-2
PERRY OR CAROLINE GUPTILL

May 22, 1984

Application No. 1870-2 is to appropriate 1.57 cfs from the White River to irrigate 110.4 acres. The points of diversion are to be located between Lot 3 of Section 17 and Lot 2 of Section 8, T4S, R18E. The location is on the White River near the western edge of Jackson County.

The Water Management Board has been approving permits for water from the White River with a June 1 cutoff date and a low flow bypass qualification. I believe it is time to update the information which is available on the White River. I suggest that we conduct a depletion analysis and a flow frequency analysis of the White River. We need this information to adequately assess the availability of unappropriated water in the White River and to determine whether or not the June 1 cutoff is a reasonable qualification.

In order to have adequate time to put the information together, Application No. 1870-2 should be deferred until the September 26 & 27, 1984 Board meeting.

A handwritten signature in cursive script, reading "James Winterton".

JAMES WINTERTON
Water Resources Engineer

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT

APPLICATION NO. 1870-2, Perry or Caroline Guptill

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water & Natural Resources concerning Water Permit Application No. 1870-2, Perry or Caroline Guptill, PO Box 142, Interior SD.

The Chief Engineer is recommending DEFERRAL of Application No. 1870-2 because there is not enough information available to determine if 1) 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.

See the attached report for additional information.



JOHN HATCH, Chief Engineer
May 22, 1984

Instruction to Newspaper - Publish first publication of the following Notice on or before May 31, 1984 with 2nd publication 1 week later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 1870-2 to Appropriate Water
and/or to Amend Water Permit or Water Rights No. _____

Notice is hereby given that Perry or Caroline Guptill whose mailing address is Box 142, Interior, South Dakota has made an application for a permit to appropriate 1.57 cubic feet per second of water from the White River. The point of diversion to be along the river between Lots 2 and 3 Section 17 and Lot 2 Section 8 all in T4S-R18E. The water is to be used to irrigate 110.40 acres located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ and Lot 2 in Section 8; Lots 2 and 3 Section 17, all in T4S-R18E.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Division recommends deferral of Application No. 1870-2 because There is not enough information to determine if 1) unappropriated water is available, 2) will be no unlawful impairment of existing rights, 3) is beneficial use of water and 4) is in the public interest.

This application will be considered by the Water Management Board at Foss Building
Room 216, 523 E. Capitol, Pierre, South Dakota, July 11' 19 84 at 10:00 am.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to make a determination on this application after it reaches a conclusion based upon facts presented at the public hearing. Any interested person who may be affected by a Board decision and who intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with BOTH the Applicant and the Chief Engineer by June 29, 1984. The petition may be informal, but it must include a statement describing the petitioner's interest in the application, the reason for the petitioner's opposition to or support of the application, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The applicant need not file a petition.

This application is made pursuant to the provisions of 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, 46-5-1 thru 46-5-16, 46-5-24, 46-5-25, 46-5-30.2, 46-5-31; 46-2A-1 thru 46-2A-10, 46-2A-12; (ground) ~~46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14; (future use) 46-5-38 thru 46-5-40; (transfer lands) 46-5-30.4, 46-5-33 thru 46-5-35; (10,000 AFA) 46-5-20.1, 46-5-8.1; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; (future use) 74:02:01:24 thru 74:02:01:25; (10,000 AFA) 74:02:01:15:02 thru 74:02:01:15:05.~~

This hearing is an adversary proceeding. The applicant or any person, after filing a petition, 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.

Any person wishing a copy of the Chief Engineer's recommendation, further information on this application or to assure access to the hearing by the handicapped can contact the Water Rights Division, DWNR, Joe Foss Bldg, Pierre SD (605 773-3352) for assistance prior to the hearing date. The time of the hearing will be automatically extended for at least twenty days upon written request of the applicant or any person who has filed a petition to oppose or support the application. The request for extension must be filed with the Chief Engineer by June 29, 1984.

Form 8 - Proof of Publication - Notice of
Intent to Appropriate Water

Any person wishing a copy of the Chief Engineer's recommendation, further information on this application or to assure access to the hearing by the handicapped can contact the Water Rights Division, DWR, Joe Foss Bldg., Pierre, SD (605 773-3352) for assistance prior to the hearing date. The time of the hearing will be automatically extended for at least twenty days upon written request of the applicant or any person who has filed a petition to oppose or support the application. The request for extension must be filed with the Chief Engineer by June 29, 1984.
Pub. May 31-June 7

1870-2

STATE OF SOUTH DAKOTA)
County Jackson) ss.

I, L. G. Parkinson hereby

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

Water was taken from the Kadoka Press

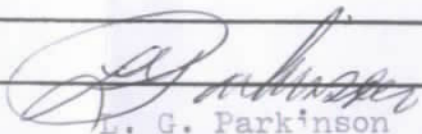
A newspaper which during the whole time of publication of said notice herein after stated, has been and is printed and published in the _____

City Kadoka of _____

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

Thursday, May 31, 1984

Thursday, June 7, 1984


L. G. Parkinson

(Signature)

Editor

(Title)

June 7, 1984

(Date Signed)



Cost of Printing: / 95 lines of 8-point type
11 picas wide at legal rate of 21.7c
per line first issue, 80% second issue
Total Cost of: \$37.10

NOTICE OF HEARING
ON APPLICATION NO. 1870-2
TO APPROPRIATE WATER

Notice is hereby given that Perry or Caroline Guptill whose mailing address is Box 142, Interior, South Dakota, has made an application for a permit to appropriate 1.57 cubic feet per second of water from the White River. The point of diversion to be along the river between Lots 2 and 3, Section 17 and Lot 2, Section 8 all in T4S, R18E. The water is to be used to irrigate 110.40 acres located in the SW 1/4 SE 1/4 and Lot 2 in Section 8; Lots 2 and 3, Section 17, all in T4S, R18E.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Division recommends deferral of Application No. 1870-2 because 1) There is not enough information to determine if unappropriated water is available, 2) will be no unlawful impairment of existing rights, 3) is beneficial use of water and 4) is in the public interest.

This application will be considered by the Water Management Board at Foss Building, Room 216, 523 E. Capitol, Pierre, South Dakota, July 11, 1984 at 10:00 a.m.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to make a determination on this application after it reaches a conclusion based upon facts presented at the public hearing. Any interested person who may be affected by a Board decision and who intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with BOTH the Applicant and the Chief Engineer by June 29, 1984. The petition may be informal, but it must include a statement describing the petitioner's interest in the application, the reason for the petitioner's opposition to or support of the application, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The applicant need not file a petition.

This application is made pursuant to the provisions of 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, 46-5-1 thru 46-5-16, 46-5-24, 46-5-25, 46-5-30.2, 46-5-31; 46-2A-1 thru 46-2A-10, 46-2A-12; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

This hearing is an adversary proceeding. The applicant or any person, after filing a petition, 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 pro-

June 11, 1984

Dept. of Water and Natural Resources
Water Rights Division
Chief Engineer

Dear Sir:

This is my written petition to appear before the Water Management Board at their July 11 meeting. This is in regard to my application No. 1870-2.

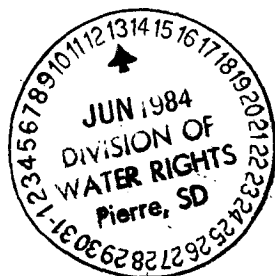
after recently speaking to Mr. Winterton, I have hopes that my permit can be approved at the July meeting. This would let me begin work on the project before late fall.

Sincerely yours,

Perry Gupthill

Box 142

Interior, S.D. 57750



REPORT ON APPLICATION NO. 1870-2

PERRY/CAROLINE GUPTILL

July 10, 1984

I recommend that Application No. 1870-2 be approved with the White River qualification. The reasons for changing the initial recommendation from Defer to Approve are as follows:

- (1) The attached flow frequency data shows unappropriated water to be available. This information was not available at the time of the initial recommendation. The data from the Kadoka stream gauging stations indicates water to be available in most years to June 1 and also many years beyond June 1.
- (2) The water rights have been tabulated below the applicant's point of diversion. A total of 220 cfs of appropriations are on record. Assuming a 40 to 50% usage of the water at any one time, the flows necessary to serve these water rights would range from 88 cfs to 110 cfs.

Further analysis of the flows on the White River will be conducted to determine if the June 1 cutoff date for White River water rights is reasonable and if the cutoff date could be extended to later in the summer.



JAMES E WINTERTON
Water Resources Engineer

39 year period - Beginning October 1944

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

REVISED RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1870-2, Perry/Caroline Guptill

Pursuant to SDCL 46-2A-2, the following is the revised recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 1870-2, for Perry/Caroline Guptill.

The Chief Engineer is recommending APPROVAL of Application No. 1870-2 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:

Low flows as needed for downstream domestic use, including livestock watering and prior water rights must be bypassed. This permit authorizes the diversion of water from the White River for irrigation to the land directly until June 1, 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. Diversions under this permit shall be in accordance with the written orders issued by the Board or its representative.

The permit is approved subject to the irrigation water use questionnaire being submitted each year.

See the attached report for additional information.

A handwritten signature in cursive script, appearing to read "John Hatch".

JOHN HATCH, Chief Engineer
July 10, 1984



Department of Water & Natural Resources

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

Water Rights Division
605 773-3352

June 28, 1985

1870-2

Perry Guptill
Box 142
Interior SD 57750

Dear Mr. Guptill:

As a follow-up to our telephone conversation the morning of the 28th of June, 1985 I understand that you wish to pump from the White River for a few days under permit No. 1870-2.

You are hereby authorized to divert water through July 3, 1985. If prior existing rights are adversely affected by your diversions, we will then have to rescind this authorization prior to July 3, 1985. You may wish to consult with downstream irrigators in your local area to see if any problems may arise from your proposed pumping.

If you have any questions, please do not hesitate to contact us.

Very truly yours,

JAMES WINTERTON
Natural Resources Administrator

JW:ks

NOTICE OF COMPLETION OF WORKS AND/OR
APPLICATION OF WATER TO BENEFICIAL USEPost Office Interior, SD.Date 2-26-88TO: Water Rights
Joe Foss Building
Pierre, South Dakota 57501

Dear Sirs:

This is to inform you that I have completed the construction of the water diversion system and/or that I have put the water to beneficial use to maximum extent it is going to be used, not exceeding the amounts as specified in Water Right No.

1870-1

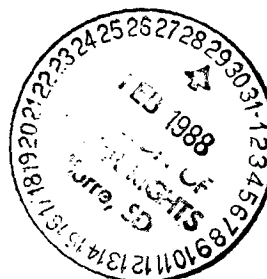
Water Right Permit No. 1870-1 states that the diversion system is to be constructed by July 11, 1989, and that the water is put to beneficial use by July 11, 1993.

The diversion system was completed on 8-1986. Applying the water to beneficial use was completed on 5-1987.

You may schedule an inspection so that ~~the Certificate of Construction and/or~~ the Water License may be issued, thus completing my acquisition of a water right.

Perry Muphill
(Signature)

Box 142



 **Department of
Water & Natural Resources**

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

May 5, 1989

1870-2

Perry or Caroline Guptill
Box 142
Interior, SD 57750

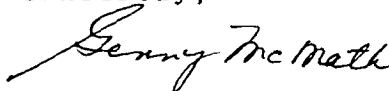
Dear Mr. & Mrs. Guptill:

The inspection of your water use system and the inspection of the extent of the application of water to beneficial use, as developed under your Water Permit No. 1870-2 has been completed. Your final water right document, the Water License, can now be issued.

Statutes require that we charge a \$50.00 fee for the inspection and issuance of the Water License. Upon receipt of the \$50.00 fee from you, your Water License will be sent to you.

South Dakota Water Law 46-5-30.1 requires that a permit holder may not divert water until this \$50.00 license fee has been paid. Please contact us if you have any questions.

Sincerely,



GENNY MCMATH
Natural Resources Analyst
(605) 773-3352

NOTE: On check or money order, please specify your permit number. This will insure proper handling of the fee.



RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

Pierre, May 12, 1989

RECEIVED OF Perry Guntill, 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 _____		
Fee for Application for Permit No. _____ to Appropriate Water for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>Permit No. 1870-2</u>	50	00
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	50 00

By

Chief Engineer

John Hatch/gra

Report Of Examination Of Works And/Or Application Of Water To Beneficial Use

I have this day made a thorough examination of the water use system constructed by Perry or
Caroline Gupta of Box 142 Interior, SD holder of
Permit No. 1870-2, bearing the priority of March 1 1984 authorizing
the diversion of 1.57 cu. ft. per second of the waters of White River
for Irrigation purposes, in Jackson County.

16" dia. Crisafulli Pump, 16" dia. Gator Pump
Model - 16 HL, Model - Shark 79
Serial No. 8218, Serial No. 101

Dikes & Ditches

Water spreading

The point of diversion is located Along the White River where it adjoins Lots 2 & 3
Sec. 17-T45-R18E and Lot 2 Sec. 8-T45-R18E

The works are capable of diverting and conveying to the place of use 10,000 gpm - Approx 22 cfs
cu. ft. per second of water which is to be used for Irrigation

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

SW¹/₄ SE¹/₄ Sec. 8-T4S-R18E - 31.6 Acres
 Lot 2 Sec. 8-T4S-R18E - 16.2 Acres
 Lot 2 Sec. 17-T4S-R18E - 29.9 Acres
 Lot 3 Sec. 17-T4S-R18E - 32.7 Acres

comprising a total of 110.4 acres of land and the license should be issued for 1.57 cfs

Applicable permit qualifications have been complied with X Yes No

Exceptions to compliance are: _____ Date April 26, 1989

Timothy H. Neal
(signature)

LICENSE FOR PERMIT NUMBER 1870-2

1. ^{Point of Diversion}
~~Legal location of wells:~~ Along the White River where it adjoins
Lots 2 & 3 Sec. 17-T45-R18E and Lot 2 Sec. 8-T45-R18E

dams & structures: _____

2. Well Information: Well Drilling Firm _____

No. of wells _____ Depth _____

Casing a) diameter _____ Screen a) type _____
b) length _____ b) length _____
c) type _____ Static Water Level _____

Pump a) make Crisafulli Motor a) make International Tractor PTO
b) model 16" HL b) model no. 1086
c) size 16" Dia c) horsepower rating 130 Hp
d) capacity 10,000 GPM d) motor efficiency rating _____

e) turbine pump
no. of stages _____

f) Serial No. 8218

3. Distribution lines:

a) size of lines _____
b) type _____
c) length _____

And

Gator Pump 16" dia.
Model Shark 79
Serial No. 101
Capacity 10,000 gpm

4. Dam information:

a) height to crest _____
b) height to spillway _____
c) crest width _____
d) crest length _____
e) spillway length _____
f) spillway width _____
g) approx. storage _____

- i) Outlet tubes:

1) diameter _____
2) type _____
3) valued (Y/N) _____
4) valve type _____
5) location on structure _____

- h) Distribution lines or canals:

1) size _____
2) type _____
3) length _____

5. System Type: a) sideroll:

1) length _____ feet
2) diameter of pipe _____
3) make, model & number of sprinklers _____
4) spacing of sprinklers _____
5) nozzle size _____

- b) towline:

1) length _____ feet
2) make, model & number of sprinklers _____
3) spacing of sprinklers _____
4) nozzle size _____

5. System Type: c) center pivot

- 1) make _____
- 2) number of towers _____
- 3) distance between towers _____
- 4) overall length _____
- 5) End gun (Y/N) _____
- 6) high or low pressure _____
- 7) make & size of nozzles _____
- 8) PSI reading while system is running _____
- 9) GPM _____

g) Gun

- 1) make _____
- 2) serial number _____
- 3) nozzle size _____
- 4) capacity (GPM) _____
- 5) PSI _____
- 6) hose size _____
- 7) hose length _____

d) Gate Pipe

- 1) length _____
- 2) diameter _____
- 3) spacing of gates _____

e) Siphons

- 1) number _____
- 2) size _____

f) Portable boom

- 1) make _____
- 2) serial number _____
- 3) nozzle size _____
- 4) capacity (GPM) _____
- 5) PSI _____

h) Hydromatic

- 1) make _____
- 2) model _____
- 3) serial number _____
- 4) length _____
- 5) nozzle size _____
- 6) spacing _____
- 7) PSI _____
- 8) capacity (GPM) _____

YES

NO

Check Items

X

1. Soil and water permit lands agree with lands being irrigated and lands listed on permit.

X

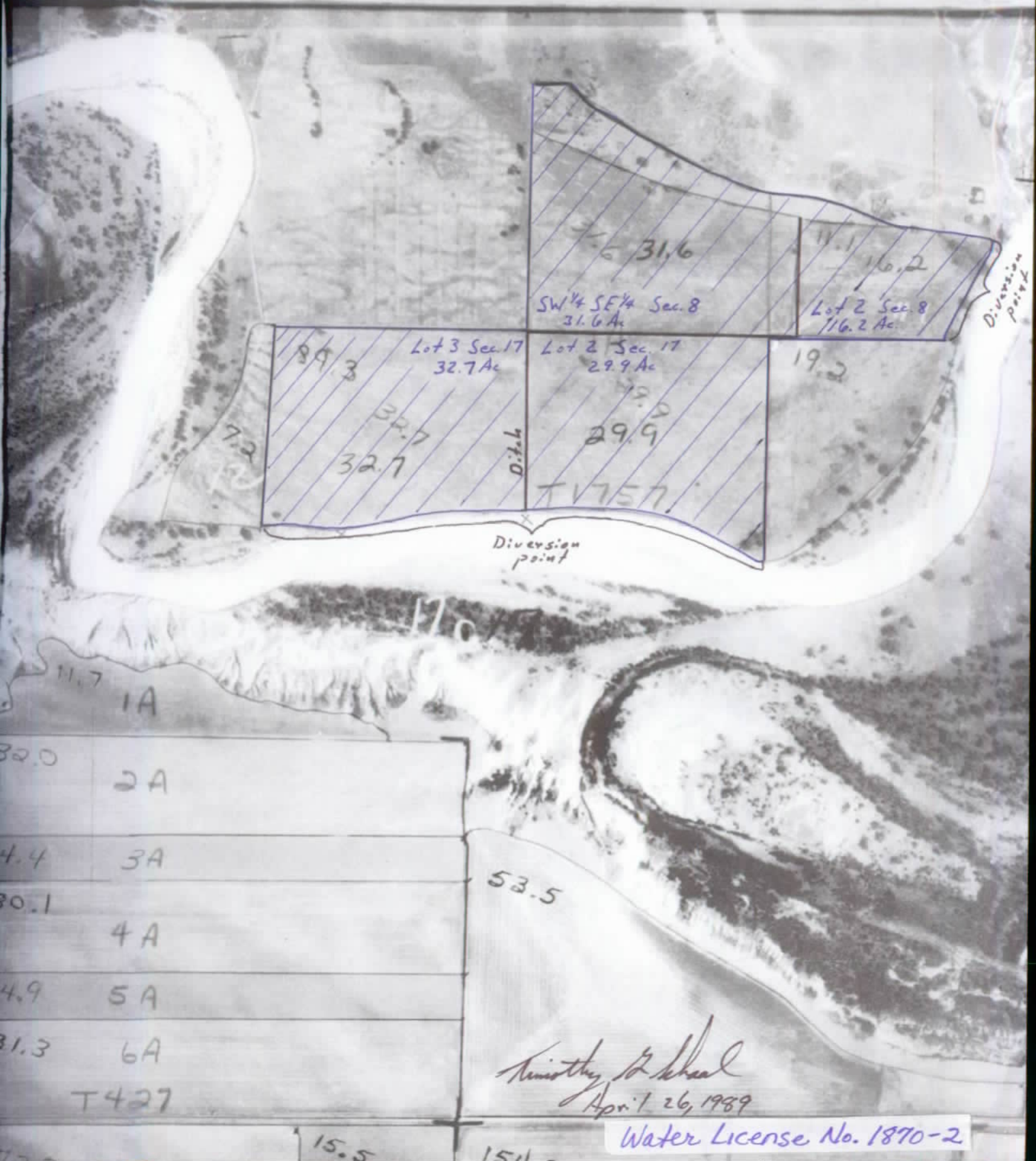
2. Special Qualifications to permit being abided by.

X

3. All Structures, wells and lands on map.

REMARKS:

NOT TO SCALE



STATE OF SOUTH DAKOTA
WATER LICENSE NO. 1870-2

(1) Perry or Caroline Guptill of Box 142, Interior, South Dakota, 57750-0142 made Application No. 1870-2, March 1, 1984 for a water permit to appropriate 1.57 cubic feet of water per second from the White River, Jackson County, South Dakota for irrigation purposes. Permit No. 1870-2 with a priority date of March 1, 1984 was approved July 11, 1984 and issued to applicant(s) for diversion of water with construction of the described water supply system to be completed on or before July 11, 1989 and for the application to beneficial use of said water on or before July 11, 1993.

(2) It is certified that the applicant has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.57 cubic feet of water per second for beneficial use. The location of the diversion points is: along the White River where it adjoins Lots 2 and 3 Section 17 and Lot 2 Section 8, T4S, R18E.

(3) The applicant has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

T4S, R18E Section 8 SW1/4	SE1/4	31.6 acres
	Lot 2	16.2 acres
Section 17	Lot 2	29.9 acres
	Lot 3	32.7 acres
	Total	110.4 acres

(4) Pursuant to Section 46-5-30.1 Perry or Caroline Guptill of Box 142, Interior, South Dakota 57750-0142 the holder(s) and/or owner(s) of Water Permit No. 1870-2 is issued a license to appropriate water, the right to use 1.57 cubic feet of water per second from the White River with a priority date of March 1, 1984 from the location specified in (2) of this license. The water is to be conducted to and upon lands specified in (3) of this license for the purpose of irrigation. This license is subject to any limitations or qualifications listed in Water Permit No. 1870-2 and subject to South Dakota State Law.



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

SEP 14 1989



Department of Water & Natural Resources

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

1870-2

SEP 14 1989

Perry or Caroline Guptill
Box 142
Interior, SD 57750-0142

Dear Mr. & Mrs. Guptill:

Enclosed is Water License No. 1870-2. This is the final water right document completing your process of obtaining a water right. Enclosed is Receipt No. 411775 in the amount of \$50.00 which you paid for the inspection and issuance of the water license.

As long as you use the water beneficially, as state in the Water License, the State Water Laws provide that you have a continuing right to use the water.

Very truly yours,

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

enclosures





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

June 2, 1994

1870-2

Perry Guptill
Box 142
Interior, SD 57750

Dear Mr. Guptill:

Pursuant to your June 2, 1994, telephone conversation with Tim Schaal, you are hereby authorized to divert water under Water Right No. 1870-2 through June 15, 1994.

If prior existing rights are adversely affected by your diversions, we will have to rescind this authorization prior to June 15th. You may wish to consult downstream irrigators in your local area to see if any problems may arise from your proposed pumping.

If you have any questions, please contact us.

Very truly yours,

Ron Duvall, Natural Resources Engineer
for John Hatch, Chief Engineer
Water Rights Division
(605) 773-3352



**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.

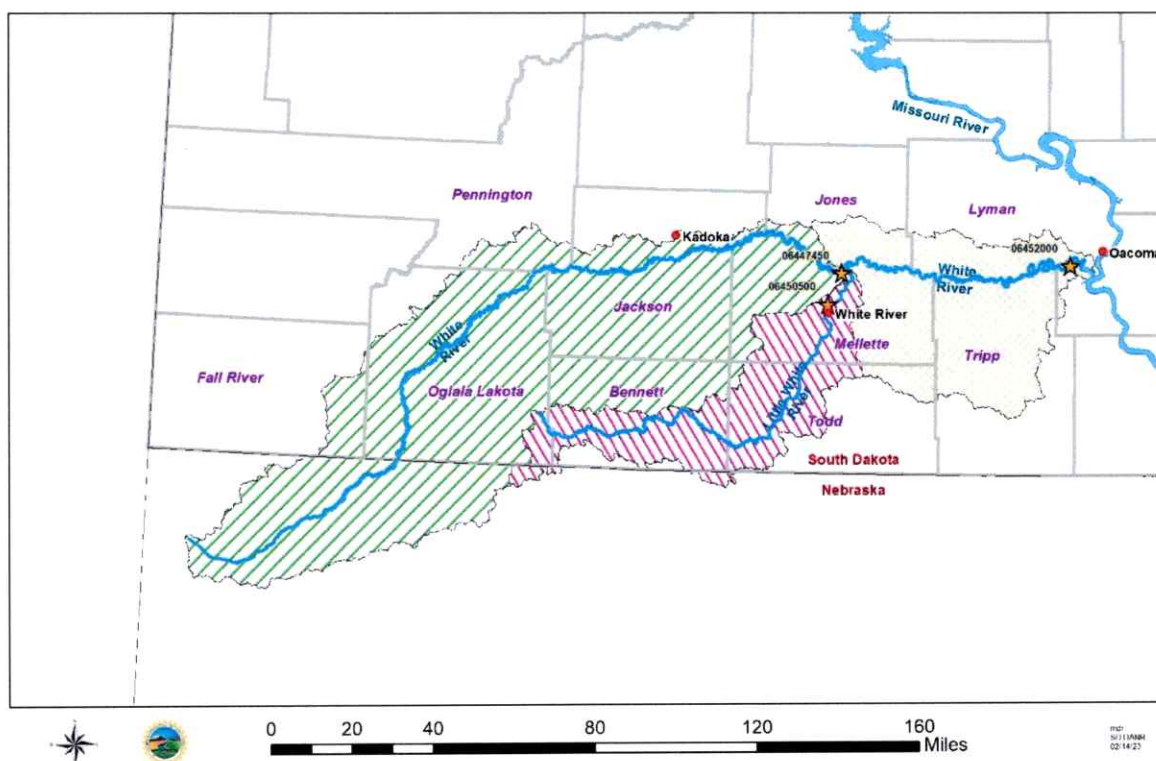


Figure 1. White River Watershed Map.

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.

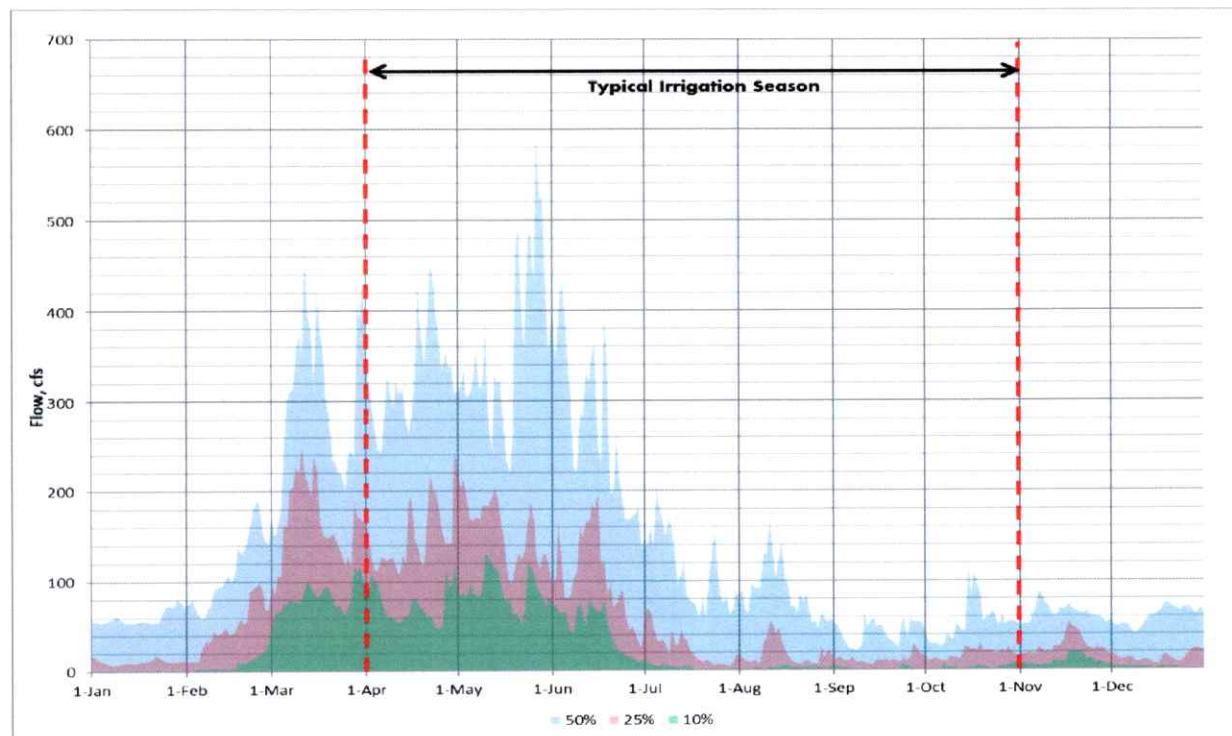


Figure 2. Daily percentile flow hydrographs for the USGS White River near White River 2001-2022, contributing drainage area 6202 mi² (USGS, 2023).

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.

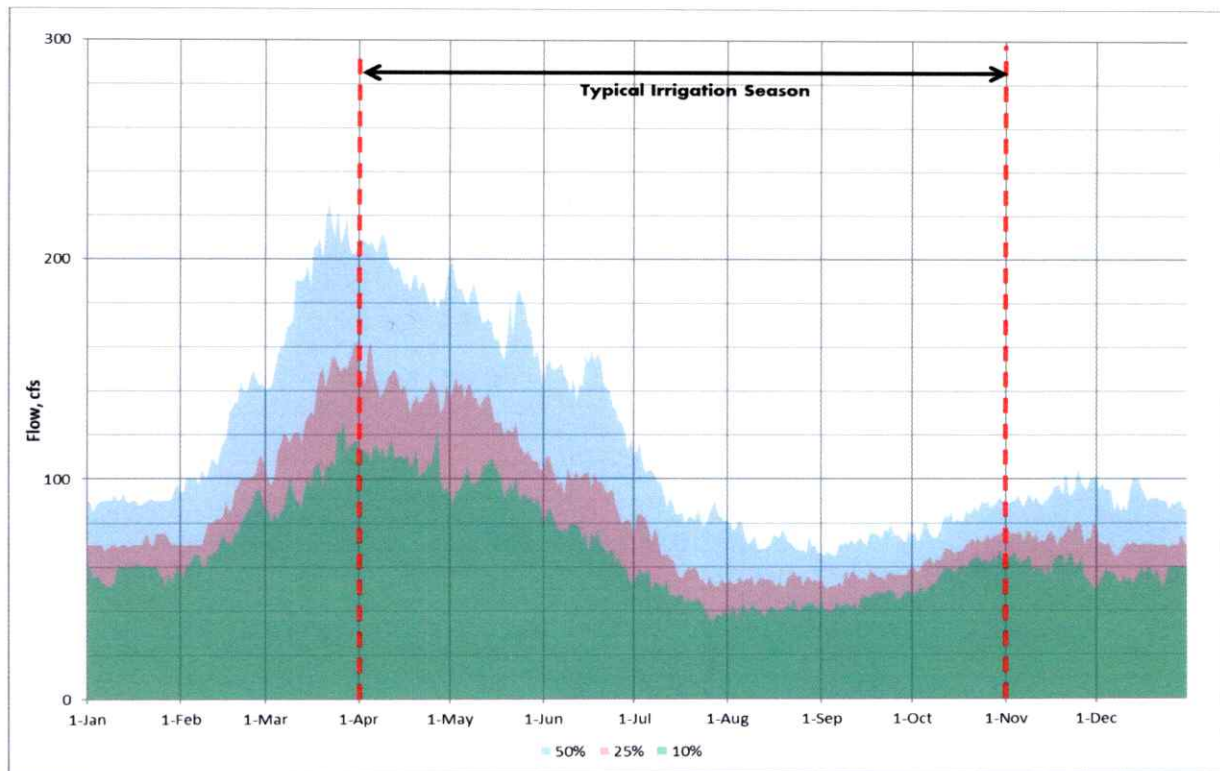


Figure 3. Daily percentile flow hydrographs for the USGS Little White River near White River, 1949-2022, contributing drainage area 1,495 mi² (USGS, 2023).

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.

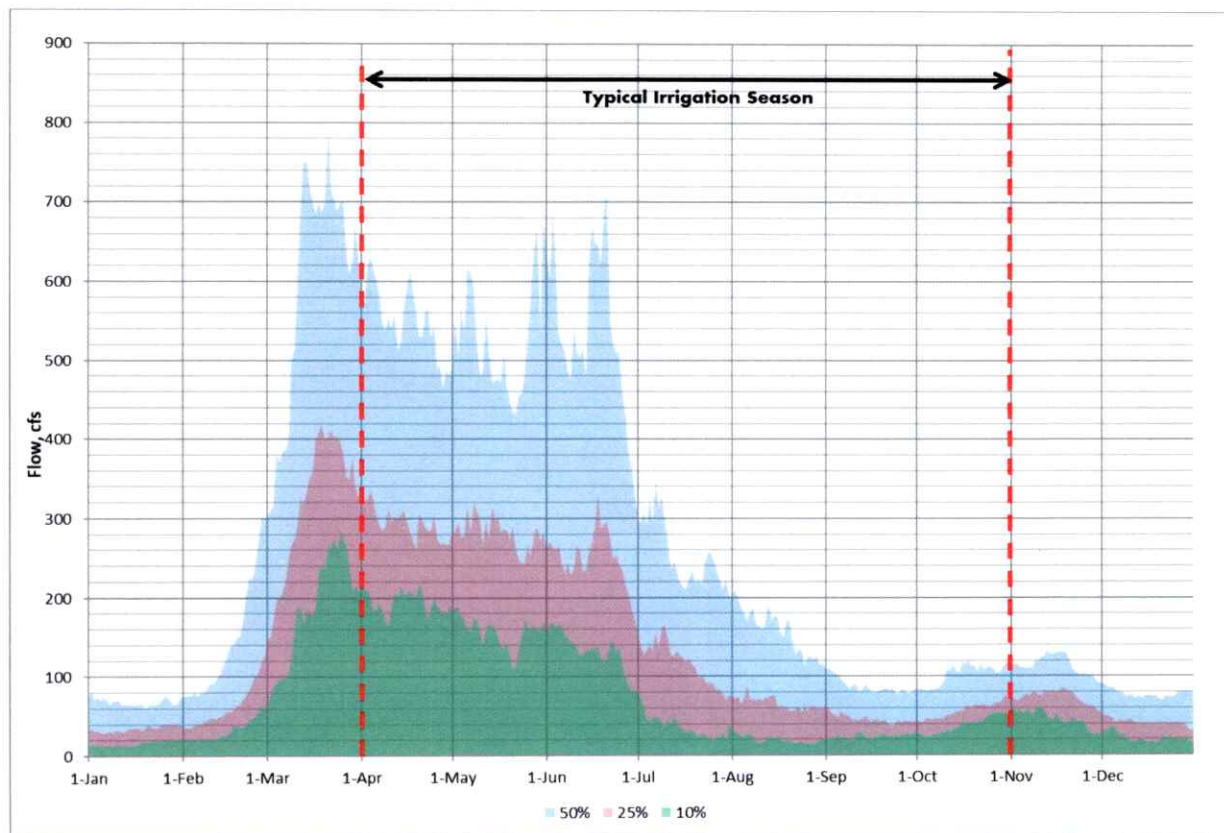


Figure 4. Daily percentile flow hydrographs for the USGS White River near Oacoma, 1928-2022, contributing drainage area 7,697 mi² (USGS, 2023).

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).

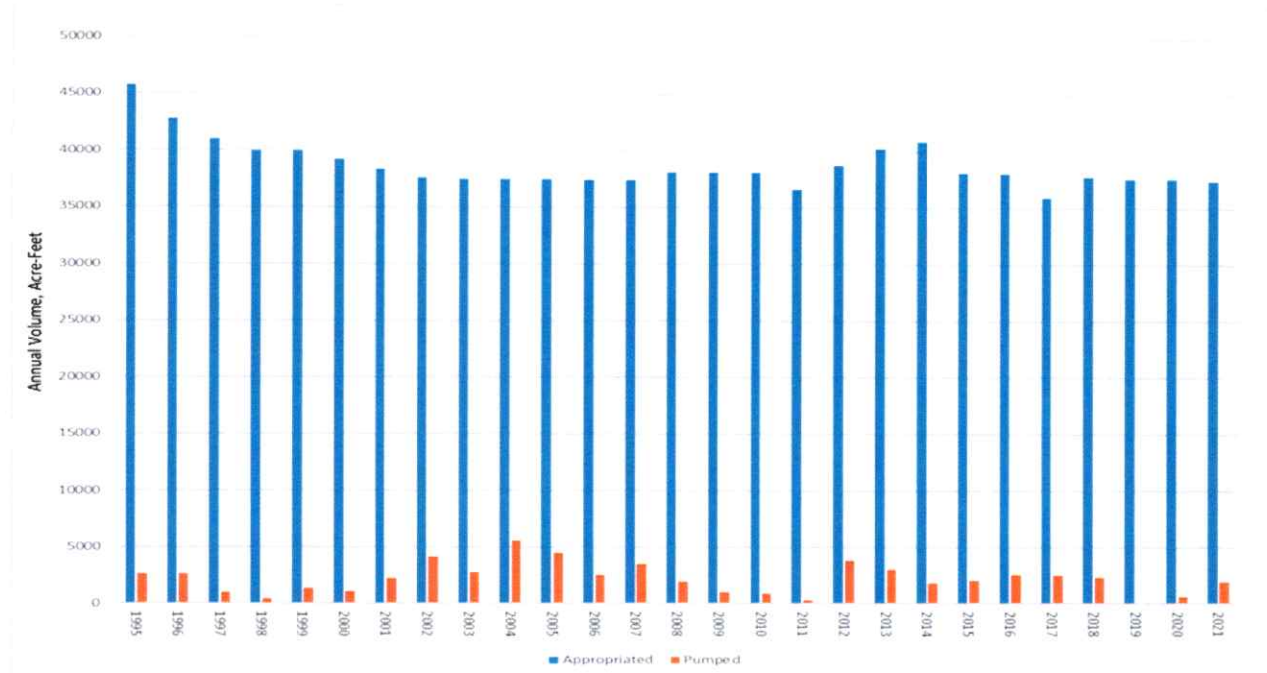


Figure 5. Total irrigation allocation and reported use from the White River (Water Rights, 2023).

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

Ellis, M. J. and D.G. Adolphson. 1971. Hydrologic Atlas 357, Hydrogeology of the Pine Ridge Indian Reservation, South Dakota. United States Geologic Survey Publication Warehouse.

USGS. 2023. United States Geological Survey, National Water Information System – Stream Gaging Station Network for South Dakota.

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