

2681A-2
RECEIVED
OCT 05 2017
WATER RIGHTS
PROGRAM

MAY ADAM

— Since 1881 —

WWW.MAYADAM.NET

ROBERT B. ANDERSON
TIMOTHY M. ENGEL
MICHAEL F. SHAW
BRETT KOENECKE
CHRISTINA L. KLINGER
JUSTIN L. BELL
DOUGLAS A. ABRAHAM
KARA C. SEMMLER
KATIE J. HRUSKA
TERRA M. FISHER

October 3, 2017

OF COUNSEL
CHARLES M. THOMPSON
GLENN W. MARTENS 1881-1963
KARL GOLDSMITH 1885-1966
BRENT A. WILBUR 1949-2006
TELEPHONE
605 224-8803
FAX
605 224-6289

Email: tme@mayadam.net

PMB 2020
DENR - Water Rights Program
523 E. Capital Ave.
Pierre, SD 57501-3182

Re: Farm Credit Services of America/O'Neill
MAGT file: 6768.10

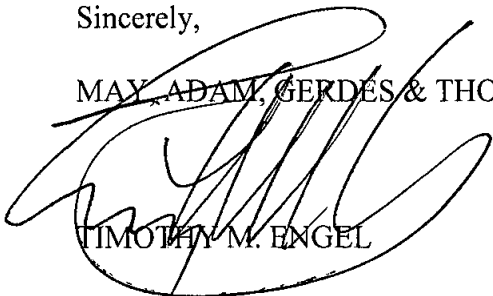
Dear Sir/Madam:

Enclosed please find an original Notice of Transfer of Ownership and our firm's check for the \$50 filing fee.

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

Sincerely,

MAY, ADAM, GERDES & THOMPSON LLP



TIMOTHY M. ENGEL

TME:drm

Enclosures

cc/enc. via email: Laura Ask
Rob Meadors
Jay Jolley

MAY, ADAM, GERDES & THOMPSON LLP
503 SOUTH PIERRE STREET • P.O. BOX 160
PIERRE, SOUTH DAKOTA 57501-0160

Received
10-5-17
(Will be sending
amended form)

For assistance call (605) 773-3352

Mail to: PMB 2020
DENR - Water Rights Program
523 E. Capital Ave.
Pierre, SD 57501-3182

Water Right/Permit No. 2681-2
Date: _____

I/We request that Water Right/Permit No. 2681-2 formerly owned by:

Justin Edwards be transferred to:

New Owner Name: Farm Credit Services of America, PCA

Address: 5015 S. 118th Street

City, State, Zip: Omaha, NE 68137

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

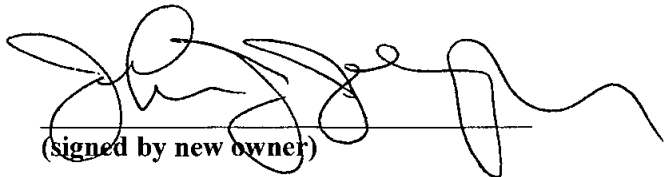
S1/2 Sec 4, SE1/4 Sec 8, NW1/4 Sec 9, S1/2, S1/2NE1/4 Sec 16, SW1/4 Sec 15, S1/2
Sec 10, S1/2 Sec 11 and NW1/4 Sec 14; all in T43N-R27W

☒ I understand that the validity of Water Right/Permit No. 2681-2 has not been determined by this transfer action. If I have any questions on validity, I understand that only the Water Management Board has the authority to determine if a water right/permit is valid (see note below.)

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

A fee of Fifty Dollars (\$50.00) is included to cover the filing fee as required by SDCL 46-2-13.

I, John J. Jolley, Jr., Assistant Corporate Secretary of Farm Credit Services of America, PCA, the new owner, certify that the above information is true and correct.


(signed by new owner)

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

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

RECEIVED 2681A-2

OCT 23 2017

WATER RIGHTS
PROGRAM

MAY ADAM

— Since 1881 —

WWW.MAYADAM.NET

ROBERT B. ANDERSON
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CHRISTINA L. KLINGER
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TERRA M. FISHER

October 20, 2017

OF COUNSEL
CHARLES M. THOMPSON
GLENN W. MARTENS 1881-1963
KARL GOLDSMITH 1885-1966
BRENT A. WILBUR 1949-2006
TELEPHONE
605 224-8803
FAX
605 224-6289

Email: tme@mayadam.net

South Dakota Department of Environment and Natural Resources
ATTN: Genney McMath
Water Rights Program
c/o 500 E. Capital Ave.
Pierre, SD 57501

Re: Farm Credit Services of America, PCA/White River Farms/Justin Edwards
MAGT file: 6768.10

Dear Genney:

As we discussed several days ago, enclosed please find an Amended Notice of Transfer of Ownership relating to Water Right 2681-2. We have amended the legal description to exclude one tract that was not transferred to the new owner, and the one tract that is not listed on the existing Water Right (and which is not currently being irrigated).

I have also enclosed our check for \$50 for the filing fee. If no new filing fee is necessary, please return the check to me.

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

Best regards.

Sincerely,

MAY, ADAM, GERDES & THOMPSON LLP

TIMOTHY M. ENGEL

TME:drm

Enclosure

cc/enc. via email: Jay Jolley

MAY, ADAM, GERDES & THOMPSON LLP
503 SOUTH PIERRE STREET • P.O. Box 160
PIERRE, SOUTH DAKOTA 57501-0160

RECEIVED

OCT 23 2017

WATER RIGHTS
PROGRAM

SD EForm - 0495LD V2

AMENDED NOTICE OF TRANSFER OF OWNERSHIP

For assistance call (605) 773-3352

2681A-2

Mail to: PMB 2020
DENR - Water Rights Program
523 E. Capital Ave.
Pierre, SD 57501-3182

Water Right/Permit No. 2681-2
Date: _____

I/We request that Water Right/Permit No. 2681-2 formerly owned by:

Justin Edwards be transferred to:

New Owner Name: Farm Credit Services of America, PCA

Address: 5015 S. 118th Street

City, State, Zip: Omaha, NE 68137

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

S1/2 Sec 4; SE1/4 Sec 8; NW1/4 Sec 9; S1/2, S1/2NE1/4 Sec 16; S1/2 Sec 10; S1/2 Sec 11; all in T43N-R27W

☒ I understand that the validity of Water Right/Permit No. 2681-2 has not been determined by this transfer action. If I have any questions on validity, I understand that only the Water Management Board has the authority to determine if a water right/permit is valid (see note below.)

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

A fee of Fifty Dollars (\$50.00) is included to cover the filing fee as required by SDCL 46-2-13.

The undersigned, an authorized representative of Farm Credit Services of America, PCA, the new owner, certify that the above information is true and correct.

Farm Credit Services of America, PCA

By: _____

John J. Jolley, Jr.

Its: Assistant Corporate Secretary

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

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



2681A-2
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

October 23, 2017

2681-2

Tim Engel
MAY, ADAM, GERDES & THOMPSON LLP
PO Box 160
Pierre, SD 57501 – 0160

Dear Mr. Engel:

I am writing to acknowledge receipt of the AMENDED transfer form and filing fee submitted for changing ownership on Water Permit No. 2681-2.

The additional fee is not required. I am returning the check to your law firm. The secretary already stamped the back of the check "for deposit only" however it was not submitted for processing.

Prior to finalizing the ownership change, I need to follow up with the owner of the NW ¼ Section 14. Upon verification of ownership for that portion of land, the water permit will need to be divided and reissued as 2681A-2 (Farm Credit Services) and 2681B-2 (Mr. Edwards or other owner if already sold).

You have done everything you need to do for the ownership change; I will complete processing of it soon. Thank you and if you have any questions, please let me know.

Sincerely,

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

enclosure

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date October 5, 2017

RECEIVED OF Law Firm of May Adam Gerdes & Thompson Pierre 57501

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____ 2681-2		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	50 00

No. **08349**

By

Jeanne Goodman
Chief Engineer

zm



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

MAR 19 2018

2681A-2

Tim Engel
MAY, ADAM, GERDES & THOMPSON LLP
PO Box 160
Pierre SD 57501-0160

RE: Farm Credit Services – Ryan Edwards

Dear Mr. Engel:

On October 23rd and December 13th, 2017, ownership changes were filed with Water Permit No. 2681-2. Based on these ownership changes, the permit has been divided and reissued as follows:

- **Water Permit No 2681A-2, Farm Credit Services of America, PCA, 5015 S 118th St, Omaha NE 68137:** authorizing 12.92 cfs from the White River located between the SW $\frac{1}{4}$ Section 2 to the NW corner Section 4; all in T43N-R27W to irrigate 964 acres located in portions of the S $\frac{1}{2}$ Section 4, SE $\frac{1}{4}$ Section 8, NW $\frac{1}{4}$ Section 9, S $\frac{1}{2}$ Section 10, S $\frac{1}{2}$ Section 11 and S $\frac{1}{2}$, S $\frac{1}{2}$ NE $\frac{1}{4}$ Section 16; all in T43N-R27W.
- **Water Permit No. 2681B-2, Ryan Edwards, 25331 Yellow Eagle Road, White River SD 57579:** authorizing 1.48 cfs from the White River located between the SW $\frac{1}{4}$ Section 2 to the NW corner Section 4; all in T43N-R27W to irrigate 110 acres located in the NW $\frac{1}{4}$ Section 14, T43N, R27W.

Enclosed is Water Permit No. 2681A-2, issued to Farm Credit Services of America PCA and Receipt No. 08349 in the amount of \$50. If you have any questions concerning the enclosed water permit, please contact our office.

Sincerely,

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

enclosures

SOUTH DAKOTA
REISSUED WATER PERMIT NO. 2681A-2
DIVISION OF WATER PERMIT NO. 2681-2 INTO 2681A-2 AND 2681B-2

The Chief Engineer, on behalf of the Water Management Board, issued Water Permit No. 2681-2 to Justin Edwards, 25330 Yellow Eagle Road, White River SD 57579 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. 2681-2 appropriates 14.4 cubic feet of water per second (cfs) from the White River located between the SW ¼ Section 2 to the NW corner Section 4; all in T43N-R27W. This permit authorizes irrigation of 1,074 acres located in portions of the S ½ Section 4, SE ¼ Section 8, NW ¼ Section 9, S ½ Section 10, S ½ Section 11 and NW ¼ Section 14 and S ½, S ½ NE ¼ Section 16; all in T43N-R27W. The project will incorporate two dams to act as settling ponds prior to application of water for irrigation. The dams are located in the NE ¼ SE ¼ Section 10 capable of storing 28 acre feet and the NE ¼ SW ¼ Section 4 capable of storing 20 acre feet of water; all in T43N, R27W.

Based on ownership changes filed October 23, 2017 and December 13, 2017, Water Permit No. 2681-2 is being divided and reissued as follows:

Water Permit No 2681A-2, Farm Credit Services of America, PCA, 5015 S 118th St, Omaha NE 68137: appropriates 12.92 cfs from the White River located between the SW ¼ Section 2 to the NW corner Section 4; all in T43N-R27W to irrigate 964 acres located in portions of the S ½ Section 4, SE ¼ Section 8, NW ¼ Section 9, S ½ Section 10, S ½ Section 11 and S ½, S ½ NE ¼ Section 16; all in T43N-R27W. The project will incorporate two dams to act as settling ponds prior to application of water for irrigation. The dams are located in the NE ¼ SE ¼ Section 10 capable of storing 28 acre feet and the NE ¼ SW ¼ Section 4 capable of storing 20 acre feet of water; all in T43N, R27W.

Water Permit No. 2681B-2, Ryan Edwards, 25331 Yellow Eagle Road, White River SD 57579: appropriates 1.48 cfs from the White River located between the SW ¼ Section 2 to the NW corner Section 4; all in T43N-R27W to irrigate 110 acres located in the NW ¼ Section 14, T43N, R27W. The project will incorporate two dams to act as settling ponds prior to application of water for irrigation. The dams are located in the NE ¼ SE ¼ Section 10 capable of storing 28 acre feet and the NE ¼ SW ¼ Section 4 capable of storing 20 acre feet of water; all in T43N, R27W.

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: March 1 – October 31.
3. The date from which applicant may claim right is February 27, 2012.
4. The date of approval of Permit No. 2681-2 was June 18, 2012.
5. One-fifth of the construction was to be completed on or before December 18, 2014.
6. All construction was to be completed on or before June 18, 2017.
7. Water is to be put to beneficial use on or before June 18, 2021.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

continued

QUALIFICATIONS

The following qualifications, originally placed on Water Permit No. 2681-2, also pertain to Reissued Water Permit Nos. 2681A-2 and 2681B-2:

1. 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 1 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.
2. Diversions from the White River are authorized only when the flow at the USGS Gaging Station No. 06452000 –White River near Oacoma is at least 20 cfs while pumping under this permit.
3. Water Permit No. 2681-2 authorizes two dams with a combined storage capacity of 48 acre feet of water. Water may be diverted from the White River to the dams subject to qualification No.1. Diversion of stored water from the dams for irrigation of the authorized land is not subject to the June 1st shut-off.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: _____

Jeanne Goodman

Jeanne Goodman, Chief Engineer
Water Rights Program

Department of Environment and Natural Resources

MAR 19 2018

date



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.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date March 20, 20 18

RECEIVED OF Hartland Farms Inc. 2704 260th Street Doon, IA 51235

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form <u>2881A-2</u>		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____	50	00
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	

No. **08632**

By

Jeanne Goodman
Chief Engineer

3411

RECEIVED

MAR 20 2018

WATER RIGHTS
PROGRAM

NOTICE OF TRANSFER OF OWNERSHIP

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

No. 2681A-2
Date: 3-19-2018

I/We request that Water Permit No. 2681A-2

formerly owned by: Farm Credit Services of America

Corwin and Barry Harthorn
be transferred to: (name & address) 88809 429TH Ave
Ainsworth, NE 69210

Telephone No. 712-470-4620

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

964 acres - S ½ Section 4, SE ¼ Section 8, NW ¼ Section 9, S ½ Section 10, S ½ Section 11 and S ½,
S ½ NE ¼ Section 16; all in T43N-R27W.

I/We understand that the validity of Water Permit No. 2681A-2 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

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

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

Corwin And Barry

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

Corwin Harthorn Corwin Harthorn
Barry Harthorn Barry Harthorn
(Signed by new owner)

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

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



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 21, 2018

2681A-2

Corwin & Barry Harthoorn
88809 429th Ave
Ainsworth NE 69210

Dear Sirs:

I am writing to acknowledge receipt of the transfer form and filing fee you submitted for changing ownership on Water Permit No. 2681A-2. The ownership change has been completed. Water Permit No. 2681A-2, formerly held by Farm Credit Services of America is now listed in your names.

For informational purposes, each year irrigators in South Dakota are required to submit an irrigation questionnaire to report how much water was pumped during the season. The forms are mailed out from our office in October each year and are due back by December 1st. I am enclosing a copy of the report filed for Water Permit No. 2681A-2 for 2017. This will give you an idea of what the form looks like and what type of information is required.

I have also enclosed a copy of Water Permit No. 2681A-2 for your records. If you have any questions when reviewing the enclosed information, please let us know.

Sincerely,

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

enclosures: Copy of water permit; 2017 irrigation questionnaire and Receipt No. 08632



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

May 30, 2018

2681A-2

Corwin and Barry Harthoorn
88809 429th Ave
Ainsworth NE 69210

Dear Sirs:

This letter is in reference to your May 30, 2018, telephone request for an extension to pump water from the White River beyond the June 1 shutoff date. Flows in the White River continue to be strong. Because there is sufficient flow in the White River, I am granting your request to extend the shutoff date for your water permit out of the White River and allow you to divert until July 15, 2018. If you wish to continue pumping from the White River after July 15, you will need to make another request for an extension, and we will reevaluate water availability in the river at that time.

In the event dry climatic conditions cause river flows to significantly decrease and adversely affect domestic use before July 15, you will be contacted and provided orders to cease pumping. Realtime flows in the White River can be monitored by going to the following website: <https://waterdata.usgs.gov/sd/nwis/current/?type=flow>.

If you have any questions, please contact Mark Rath or Aaron Tieman of the Water Rights Program at phone (605) 773-3352.

Sincerely,

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

July 13, 2018

2681A-2

Corwin and Barry Harthoorn
88809 429th Ave
Ainsworth NE 69210

Dear Sirs:

This letter is in reference to your July 13, telephone request for an extension to pump water from the White River beyond the June 1 shutoff date. Flows in the White River continue to be strong. Because there is sufficient flow in the White River, I am granting your request to extend the shutoff date for your water permit out of the White River and allow you to divert until August 7, 2018. If you wish to continue pumping from the White River after August 7, you will need to make another request for an extension, and we will reevaluate water availability in the river at that time.

In the event dry climatic conditions cause river flows to significantly decrease and adversely affect domestic use before August 7, you will be contacted and provided orders to cease pumping. Realtime flows in the White River can be monitored by going to the following website: <https://waterdata.usgs.gov/sd/nwis/current/?type=flow>.

If you have any questions, please contact Mark Rath or Aaron Ticman of the Water Rights Program at phone (605) 773-3352.

Sincerely,

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

August 13, 2018

2681A-2

Corwin and Barry Harthoorn
88809 429th Ave
Ainsworth NE 69210

Dear Sirs:

This letter is in reference to your August 13, telephone request for an extension to pump water from the White River beyond the June 1 shutoff date. Flows in the White River continue to be strong. Because there is sufficient flow in the White River, I am granting your request to extend the shutoff date for your water permit out of the White River and allow you to divert until September 1, 2018. If you wish to continue pumping from the White River after September 1, you will need to make another request for an extension, and we will reevaluate water availability in the river at that time.

In the event dry climatic conditions cause river flows to significantly decrease and adversely affect domestic use before September 1, you will be contacted and provided orders to cease pumping. Realtime flows in the White River can be monitored by going to the following website: <https://waterdata.usgs.gov/sd/nwis/current/?type=flow>.

If you have any questions, please contact Mark Rath or Aaron Tieman of the Water Rights Program at phone (605) 773-3352.

Sincerely,

for Jeanne Goodman, Chief Engineer
Water Rights Program

Report of Examination of Works and/or Application of Water to Beneficial Use For Permits No. 2681A-2 & 2681B-2

I have this day, October 1, 2018 made a thorough examination of the water use system constructed by Corwin and Barry Harthoorn, 88809 429th Ave., Ainsworth, NE 69210 of Permit No. 2681A-2, bearing the priority of 2/27/2012 authorizing the diversion of 14.4 (2681A-2 – 12.92 cfs; 2681B-2 – 1.48 cfs) cu. ft. per second of water of the White River for irrigation purposes in Mellette County.

Inspection contact & relationship to permit holder : **Barry Harthoorn , co-owner**
712-470-4620 (cell)

A. Works used to divert the water:

Pump 1:

- 1) Make Cornell
- 2) Model 5HH-EM16 (2 each)
- 3) Size centrifugal, 16" impeller
- 4) RPM 1,800
- 5) Capacity 1,400 gpm each @ 275' TDH - 2,800 gpm total (6.24 cfs)

Power:

- 1) Source Diesel (1 Isuzu, 1 Perkins)
- 2) Horsepower rating 140 hp each

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

Water is piped from the White River to a 12 acre-foot settling/regulating pond through approximately 1,275' of 18" steel pipe which transitions to 4,565' of 18" PVC pipe for the remaining distance to the (east) pond. From the east pond, two 100 hp diesel engines supply four center pivot systems through 8" and 10" PVC. A third diesel engine pumps to a second settling/regulating pond (west) of 13 acre-feet capacity through 12" PVC. At the west pond, two diesel pumps were installed to supply two subsurface irrigated fields through 8" and 10" PVC. At the distribution point at the head of each subsurface system, self-flushing sand filters were installed for sediment removal. The diesel pumps (3) and the sand filters supplying the subsurface systems had been removed prior to the current owners taking possession, rendering the subsurface systems inoperable at the time of the inspection.

C. Works used to apply water to beneficial use:

Center Pivot – P1

- 1) Make Reinke
- 2) Machine length 1,293.0 feet
- 3) Number of towers 8 End Gun Yes
- 4) Capacity 800 gpm
- 5) Acres 140.0

Center Pivot – P3

- 6) Make Reinke
- 7) Machine length 981 feet
- 8) Number of towers 6 End Gun Yes
- 9) Capacity 500 gpm
- 10) Acres 83.2

Center Pivot – P2

- Make Reinke
Machine length 1,293.0 feet
Number of towers 8 End Gun Yes
Capacity 600 gpm
Acres 107.6 (78% circle)

Center Pivot – P4

- Make Reinke
Machine length 1,293.0 feet
Number of towers 8 End Gun Yes
Capacity 800 gpm
Acres 141.6

Subsurface Irrigation Systems:

SE ¼ Section 8: 125.8 acres

5 zone Subsurface Drip Irrigation system

600 gpm/zone @ 8 psi operating pressure

Each zone is operated individually

S ½ Section 16: 222 acres

5 zone Subsurface Drip Irrigation system

1,100 gpm/zone @ 11 psi operating pressure

Each zone is operated individually

Dams: Two small earth fill dams built prior to 1960 for stock water use have been repurposed as settling/regulating ponds.

East Pond: surface area 3.3 acres

approximate depth 9 feet

storage 12 acre feet

West Pond: surface area 2.4 acres

approximate depth 13 feet

storage 13 acre feet

D. Chemigation Equipment: operator does not chemigate

E. 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**
- 3) List any extended period of nonuse: **none**
- 4) Exceptions to compliance are: **none**

F. Condition and Location:

1. The system is in **good** condition with the point of diversion located as follows:
1,268' N and 1,797' E of the SW corner Section 2 T43N R27W (43.72833, -100.503452).
2. The works are capable of diverting and conveying to the place of use **6.24** cfs of water (2,800 gpm) which is to be used for **irrigation**. Water has been put to beneficial use to the maximum extent as follows:

<u>Section 8 T43N R27W</u>		<u>Section 10 T43N R27W</u>	
NW ¼ SE ¼	36.9 acres	NW ¼ SW ¼	27.5 acres
NE ¼ SE ¼	40.0 acres	NE ¼ SE ¼	29.5 acres
SW ¼ SE ¼	36.9 acres	NE ¼ SW ¼	10.0 acres
SE ¼ SE ¼	12.0 acres	SW ¼ SW ¼	27.8 acres
		SW ¼ SE ¼	30.9 acres
		SE ¼ SW ¼	38.9 acres
		SE ¼ SE ¼	39.0 acres

Report of Examination of Works

Permit No. 2681A-2

Section 11 T43N R27W
NW ¼ SW ¼ 1.2 acres
NE ¼ SW ¼ 35.6 acres
SW ¼ SW ¼ 23.2 acres
SE ¼ SW ¼ 38.0 acres
NW ¼ SE ¼ 19.5 acres
SW ¼ SE ¼ 9.5 acres

S14 T43N R27W
NW ¼ NW ¼ 40.0 acres
NE ¼ NW ¼ 38.7 acres
SW ¼ NW ¼ 12.6 acres
SE ¼ NW ¼ 12.5 acres

S16 T43N R27W
NW ¼ SW ¼ 36.5 acres
NE ¼ SW ¼ 18.7 acres
SW ¼ SW ¼ 34.4 acres
SE ¼ SW ¼ 36.5 acres
NW ¼ SE ¼ 26.4 acres
NE ¼ SE ¼ 36.8 acres
SW ¼ SE ¼ 21.9 acres
SE ¼ SE ¼ 10.8 acres

comprising a total of 820.2 acres of land and the license should be issued for 6.24 cfs from the White River and 9.80 from the ponds to apply to the irrigated acres.

All structures, wells and lands on map: Yes

G. Comments or other permits associated with the project:

Water Permit No. 2681-2 was split into 2681A-2 and 2681B-2 based on an ownership change. The center pivot identified as P4 totaling 141.6 acres and located in the S ½ SW ¼ Section 11 and NW ¼ Section 14 all in T43N, R27W was authorized under Permit No. 2681B-2. Harthoorn's now own the land irrigated under both water permits therefore it is appropriate to incorporate both permits into one water license.



Steven Quissell
Water Rights Inspector
DENR, Water Rights Program

Date report completed: 10/24/2018



Pump installation on White River



Floating pump intake and trash screen



East settling pond



Diesel pump station supplying pivots
Pump station supplying subsurface acres removed
(far right)



Subsurface system control valves



Supply appurtenances for subsurface drip system at
pad installed for sand filters

Water Right No. 2681A-2
Corwin and Barry Harthoorn
October 1, 2018

Sec 4
T043N
R27W

Sec 3
T043N
R27W

Sec 2
T043N
R27W

Diversion point
Lat: 43.72833 Lon: -100.503452

Sec 8
T043N
R27W

NW SE S8
36.9 acres

NE SE S8
40 acres

SW SE S8
36.9 acres

SE SE S8
12.0 acres

Sec 9
T043N
R27W

Sec 10
T043N
R27W

NW SW S10
27.5 acres

NE SW S10
38.0 acres

NW SE S10
29.5 acres

SW SW S10
27.8 acres

SE SW S10
38.9 acres

SW SE S10
30.9 acres

SE SE S10
39.0 acres

NE SE S10
10.0 acres

NW SW S11
1.2 acres

NE SW S11
35.6 acres

NW SE S11
19.5 acres

Sec 11
T043N
R27W

SW SW S11
23.8 acres

SE SW S11
38.0 acres

SW SE S11
9.5 acres

NW NW S14
40.0 acres

NE NW S14
38.7 acres

SW NW S14
12.6 acres

SE NW S14
12.5 acres

Sec 14
T043N
R27W

Sec 17
T043N
R27W

Sec 16
T043N
R27W

NW SW S16
36.5 acres

NE SW S16
18.7 acres

NW SE S16
26.4 acres

NE SE S16
36.8 acres

SW SW S16
34.4 acres

SE SW S16
36.5 acres

SW SE S16
21.9 acres

SE SE S16
10.8 acres

Sec 15
T043N
R27W

Sec 21
T043N
R27W

Sec 22
T043N
R27W

Sec 23
T043N
R27W

Steven Quissell

Steven Quissell
Water Rights Inspector
DENR Water Rights Program

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Water Right #2681A-2
Corwin and Barry Harthorn
October 1, 2018

Sec 5
T043N
R27W

Sec 4
T043N
R27W

Sec 3
T043N
R27W

Sec 2
T043N
R27W

Diversion point
Lat: 43.72833 Lon: -100.503452

Sec 8
T043N
R27W

subsurface drip system
125.8 acres

Sec 9
T043N
R27W

Sec 10
T043N
R27W

Pivot P1
140.0 acres

Pivot P2
107.6 acres

Sec 11
T043N
R27W

Pivot P3
83.2 acres

Pivot P4
141.6 acres

13 ac-ft pond and pump
site for subsurface systems

Sec 16
T043N
R27W

subsurface drip system
222 acres

Sec 15
T043N
R27W

Sec 14
T043N
R27W

Sec 17
T043N
R27W

Sec 21
T043N
R27W

Sec 22
T043N
R27W

Sec 23
T043N
R27W

Steven Quissell

Steven Quissell
Water Rights Inspector
DENR Water Rights Program

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

2681A-2



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

MAR 18 2019

2681A-2
2681B-2

Corwin & Barry Harthoorn
88809 429th Ave
Ainsworth NE 69210

Dear Sirs:

Enclosed is Water License No. 2681A-2. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

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

Sincerely,

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

enclosures

Note: At the time of licensing, the applicable portions of Water Permit No. 2681B-2 were incorporated into Water License No. 2681A-2.

STATE OF SOUTH DAKOTA WATER LICENSE NO. 2681A-2

(1) The originating Water Permit No. 2681-2, issued to Justin Edwards, appropriated 14.4 cubic feet of water per second (cfs) from the White River, Mellette County, South Dakota for irrigation of 1,074 acres. Based on ownership changes filed October 23, 2017 and December 13, 2017, the permit was divided and reissued as Water Permit No. 2681A-2 (Farm Credit Services of America PCA) and 2681B-2 (Ryan Edwards). Both permits carry a priority date of February 27, 2012. All construction was to be completed on or before June 18, 2017 with the application of water to beneficial use to be completed by June 18, 2021.

On March 20, 2018, Water Permit No. 2681A-2 was transferred from Farm Credit Services of America PCA to Corwin and Barry Harthoorn. On November 8, 2018, Water Permit No. 2681B-2 was transferred from Ryan Edwards to Corwin and Barry Harthoorn.

The inspection of the water use system was completed in October, 2018. With both permits held by Corwin and Barry Harthoorn, the applicable portions of Water Permit No. 2681B-2 will be incorporated into No. 2681A-2.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the water supply system and are entitled to divert 6.24 cubic feet of water per second for beneficial use when pumping from the White River. A diversion rate of 9.80 cfs is authorized when pumping from the regulating ponds to the irrigated acres.

The location of the White River diversion point is:

- 1,268'N and 1,797'E of the SW corner of Section 2, T43N, R27W (SE ¼ SW ¼)
Latitude 43.72833, Longitude -100.503452

The two regulating ponds are located in the NE ¼ SE ¼ Section 10, T43N, R27W (storing 12 acre feet) and NE ¼ NE ¼ Section 16, T43N, R27W (storing 13 acre feet)

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

Section 8, T43N, R27W		Section 10, T43N, R27W			
NW ¼ SE ¼	36.9 acres	NW ¼ SW ¼	27.5 acres	NW ¼ SE ¼	29.5 acres
NE ¼ SE ¼	40.0 acres	NE ¼ SW ¼	38.0 acres	NE ¼ SE ¼	10.0 acres
SW ¼ SE ¼	36.9 acres	SW ¼ SW ¼	27.8 acres	SW ¼ SE ¼	30.9 acres
SE ¼ SE ¼	12.0 acres	SE ¼ SW ¼	38.9 acres	SE ¼ SE ¼	39.0 acres
Section 11, T43N, R27W		Section 14, T43N, R27W		Section 16, T43N, R27W	
NW ¼ SW ¼	1.2 acres	NW ¼ NW ¼	40.0 acres	NW ¼ SW ¼	36.5 acres
NE ¼ SW ¼	35.6 acres	NE ¼ NW ¼	38.7 acres	NE ¼ SW ¼	18.7 acres
SW ¼ SW ¼	23.2 acres	SW ¼ NW ¼	12.6 acres	SW ¼ SW ¼	34.4 acres
SE ¼ SW ¼	38.0 acres	SE ¼ NW ¼	12.5 acres	SE ¼ SW ¼	36.5 acres
NW ¼ SE ¼	19.5 acres			NW ¼ SE ¼	26.4 acres
SW ¼ SE ¼	9.5 acres			NE ¼ SE ¼	36.8 acres
				SW ¼ SE ¼	21.9 acres
				SE ¼ SE ¼	10.8 acres

Total 820.2 acres

continued

Water License No. 2681A-2

Page 2

(4) Pursuant to South Dakota Water Law 46-5-30.1 Barry & Corwin Harthoorn, 88809 429th Ave, Ainsworth NE 69210 the holders and/or owners of Incorporated Water Right No. 2681A-2 are issued a license to appropriate water, the right to use 6.24 cubic feet of water per second from the White River with a priority date of February 27, 2012 from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 2681A-2 and subject to the following qualifications:

The following qualifications, originally placed on Water Permit No. 2681-2, also pertain to Incorporated Water Right Nos. 2681A-2 and 2681B-2:

1. 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 1 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.
2. Diversions from the White River are authorized only when the flow at the USGS Gaging Station No. 06452000 –White River near Oacoma is at least 20 cfs while pumping under this permit.
3. Water Permit No. 2681-2 authorized two dams with a combined storage capacity of 48 acre feet of water (*The inspection of the water use system found the regulating ponds to impound 25 acre feet of water*). Water may be diverted from the White River to the dams subject to qualification No.1. Diversion of stored water from the dams for irrigation of the authorized land is not subject to the June 1st shut-off.
4. 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

MAR 18 2019

date





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

July 15, 2019

2681A-2

Corwin and Barry Harthoorn
88809 429th Ave
Ainsworth NE 69210

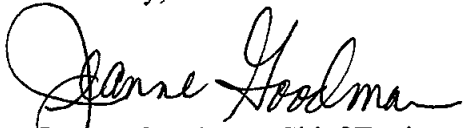
Dear Sirs:

This letter is in reference to your July 15, 2019, telephone request for an extension to pump water from the White River beyond the June 1 shutoff date. Flows in the White River continue to be strong. Because there is sufficient flow in the White River, I am granting your request to extend the shutoff date for your water permit out of the White River and allow you to divert until September 1, 2019. If you wish to continue pumping from the White River after September 1, you will need to make another request for an extension, and we will reevaluate water availability in the river at that time.

In the event dry climatic conditions cause river flows to significantly decrease and adversely affect domestic use before September 1, you will be contacted and provided orders to cease pumping. Realtime flows in the White River can be monitored by going to the following website: <https://waterdata.usgs.gov/sd/nwis/current/?type=flow>.

If you have any questions, please contact Mark Rath or Aaron Tieman of the Water Rights Program at phone (605) 773-3352.

Sincerely,


Jeanne Goodman, Chief Engineer
Water Rights Program



**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.

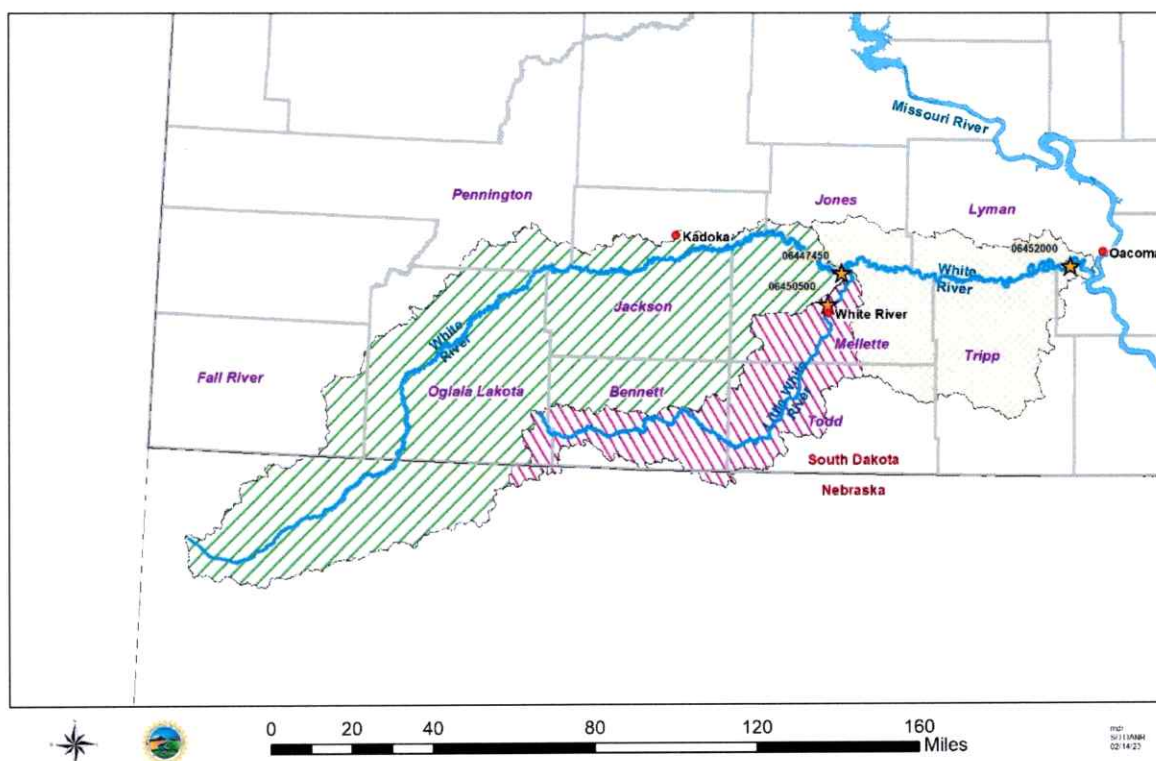


Figure 1. White River Watershed Map.

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.

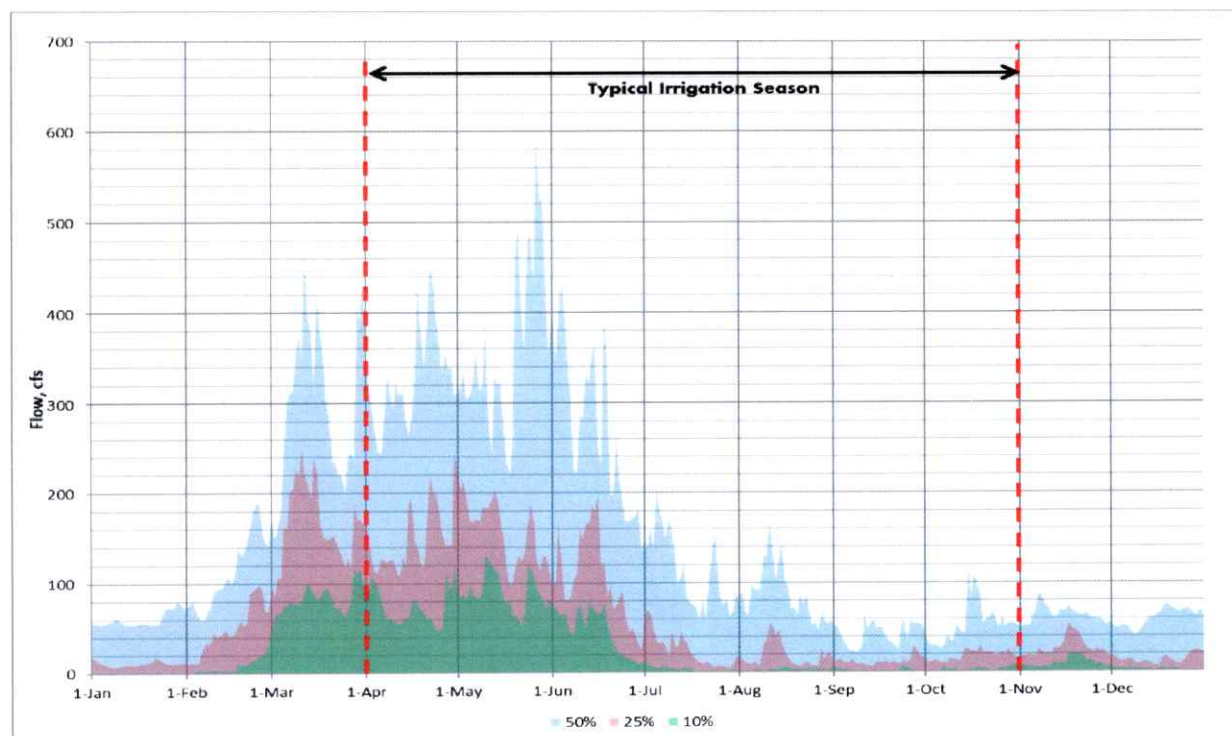


Figure 2. Daily percentile flow hydrographs for the USGS White River near White River 2001-2022, contributing drainage area 6202 mi² (USGS, 2023).

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.

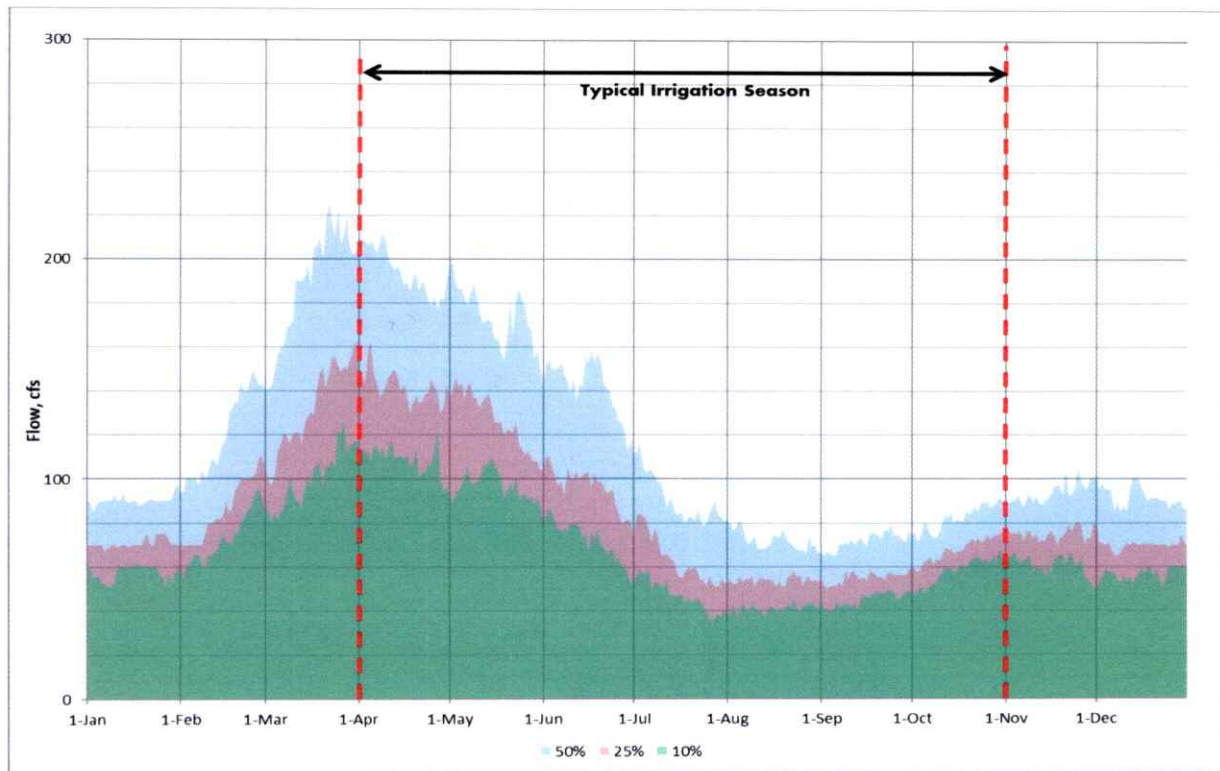


Figure 3. Daily percentile flow hydrographs for the USGS Little White River near White River, 1949-2022, contributing drainage area 1,495 mi² (USGS, 2023).

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.

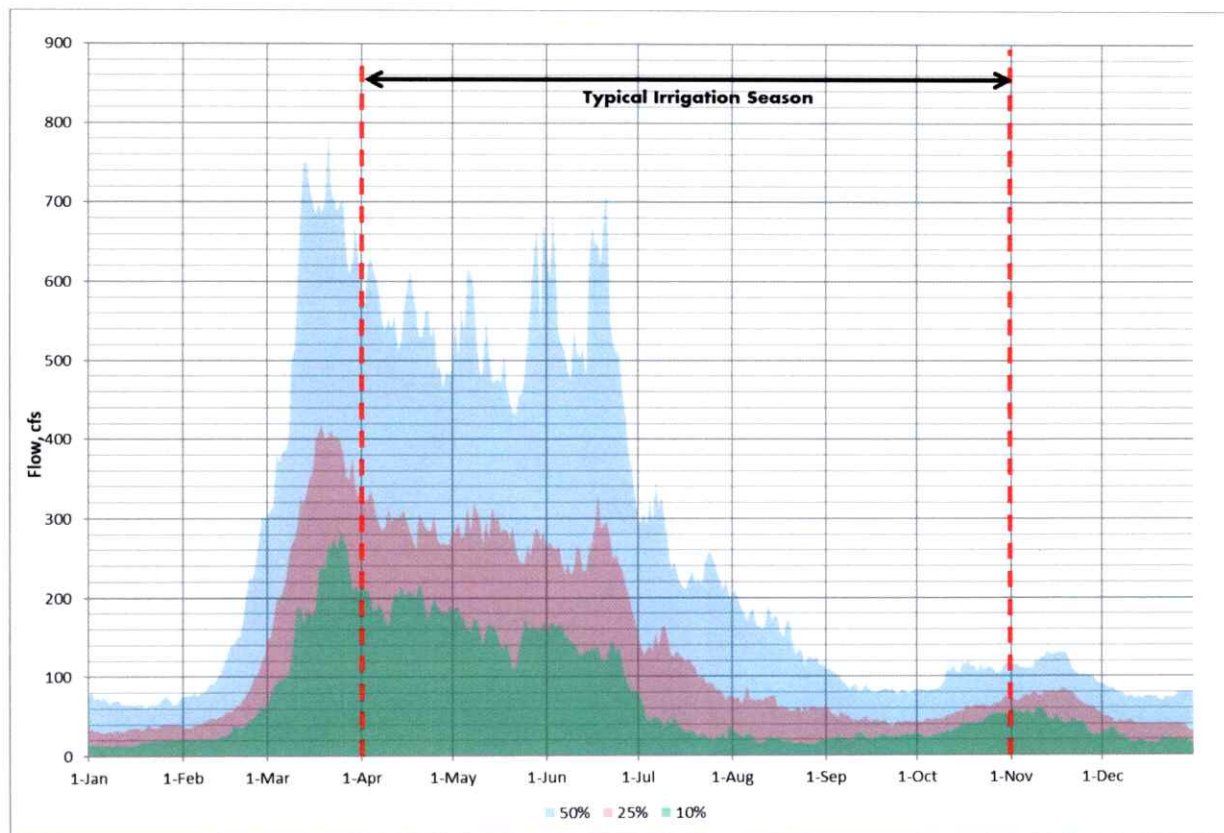


Figure 4. Daily percentile flow hydrographs for the USGS White River near Oacoma, 1928-2022, contributing drainage area 7,697 mi² (USGS, 2023).

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).

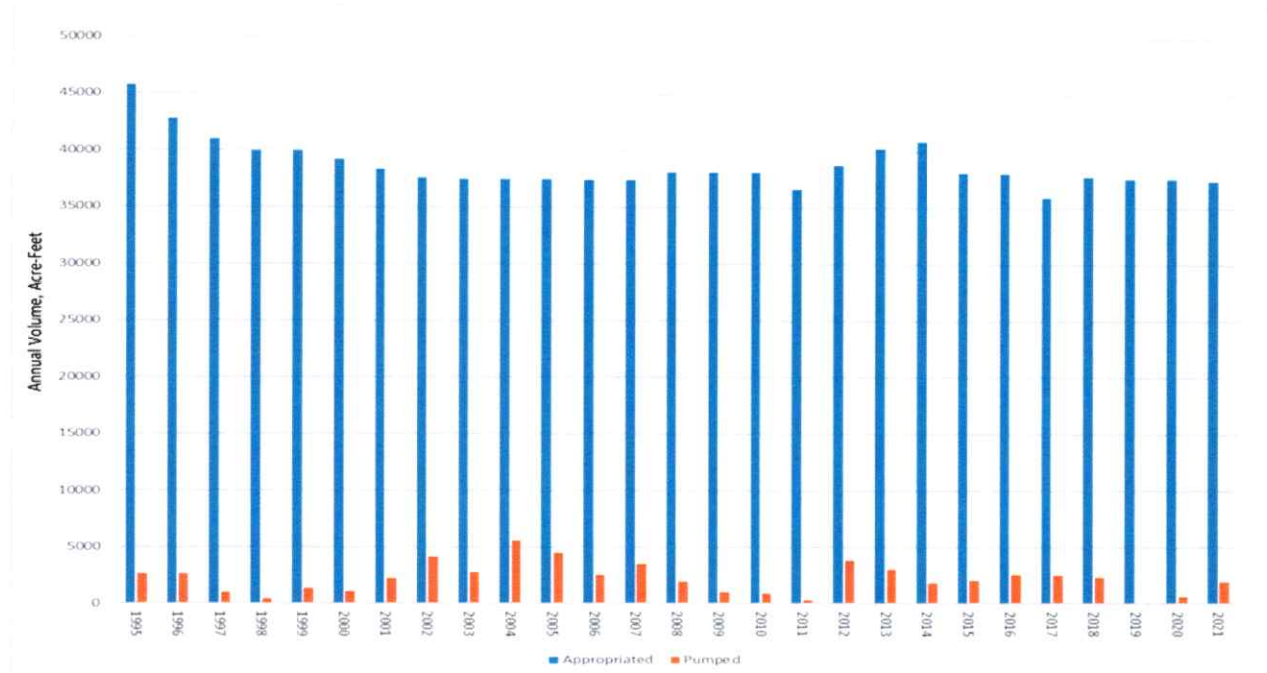


Figure 5. Total irrigation allocation and reported use from the White River (Water Rights, 2023).

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

CORWIN & BARRY HARTHOORN
88809 429TH AVE
AINSWORTH NE 69210

Subject: Amendment of the Mandatory Shutoff Qualification on White River Water Right No. 2681A-2

Dear Mr. Harthoorn,

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 on the White River. The Chief Engineer is recommending amending those water rights with the mandatory June 1 shutoff qualification located downstream of the Little White River's confluence with the White River. This involves amending 11 water rights. The intent is to allow more efficient use of water when it is available by replacing the June 1 shutoff qualification with a 20 cubic feet of water per second (cfs) bypass qualification as measured at a USGS stream flow gaging station. Water Right(s) that you own or operate are included in those to be amended. Water Rights that did not have the June 1 shutoff qualification or are located above the Little White River confluence with the White River remain unchanged.

Attached is the qualification to be deleted from the water right(s) and the proposed new qualifications.

Based on a review of historical flow records, in most years, 20 cfs of flow is available in the White River after June 1 as measured at the USGS Oacoma streamflow gaging station. The amendment designates a US Geological Survey gaging station as the measuring point to determine if pumping is allowed. The gaging station has real time flow information that can be accessed online at <https://waterdata.usgs.gov/sd/nwis/rt>.

A hearing before the Water Management Board is scheduled at 9:45 AM (Central Time), 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 7 counties that the White River flows through. This notice provides information on filing a petition opposing the proposed amendment or providing a comment. A petition must be postmarked by April 24, 2023, and allows you to participate in the May 3, 2023, hearing before the Board.

The staff report including affected water rights and the proposed changes is 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

Proposed Qualification Revisions

In order to standardize the bypass qualifications for the existing water rights/permits containing a mandatory June 1 shutoff in the White River reach between the Little White River confluence and the Missouri River, the following changes are proposed.

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.



**DEPARTMENT of AGRICULTURE
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May 5, 2023

CORWIN & BARRY HARTHOORN
88809 429TH AVE
AINSWORTH NE 69210

Subject: Water Management Board removes the mandatory June 1 shutoff qualification and adds a streamflow bypass qualification on White River Water Right No. 2681A-2

Dear Mr. Harthoorn,

This is a follow-up letter to my April 14, 2023, letter concerning the proposed qualification changes to your White River water right. On May 3, 2023, the SD Water Management held a hearing to amend your junior priority date water right and made the following change:

Delete Qualification:

Water Permit No. 2681A-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.

Qualifications to be included on Water Right No 2681A-2:

- 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 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>.

If you have any questions concerning this change, please contact Mark Rath at 605 773-3352 or mark.rath@state.sd.us.

Sincerely,

Chief Engineer
Water Rights Program, DANR