

WATER PERMIT NO. 5806-3

Phone: _____

Name of Applicant: Keith Krull

Post Office Address: 20850 318th Ave, Harrold SD 57536

Amount of Water Claimed: 76.6 AF Total Acres: NA

Source of Water Supply: runoff

Water to be used for: livestock/wildlife production County: Hughes

About 17 miles S, 2W of Harrold

PRIORITY Date Received: 3-1-94 Fee: \$150 Remarks: _____

Corrected Application Received: _____ Period of Annual Use: April 1 - Nov 30

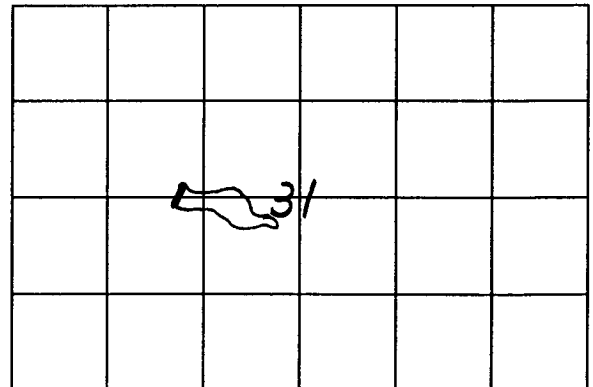
WATER QUALITY APPROVAL RECEIVED: NA APPROVED/CONDITIONAL (Circle one)

WI-1 Description same as Application YES _____ NO _____ REMARKS: _____

Diversion Point: NW 1/4 SW 1/4, SW 1/4 NW 1/4

Section 31-T110N-R74W

Land to be Irrigated: _____



Well Log: Driller: _____ Licensed YES _____ NO _____

Depth of Well: _____ REMARKS: _____

Type of Map: aerial PREPARED BY: Kevin Paulsen Reviewed and the Number

Assigned on: 3-2-94 By: Karen Schlaak

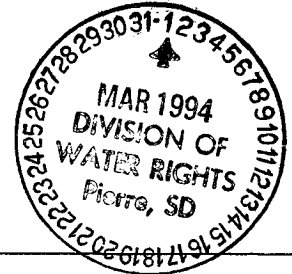
Mail to: Water Rights Div.
523 E. Capitol
Pierre, SD 57501
(605) 773-3352

No. 5806-3 Hydrologic Unit 10140101
Map No. _____ Basin Missouri River
Newspaper Capital Journal, PO Box 878

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

Check use of water: Industrial ☐ Commercial ☐ Municipal ☐ Other Common Distribution System ☐
Rural Water System ☐ Suburban Housing ☐ Geothermal Heat ☐ Institutional ☐ Recreational ☐
Domestic ☐ (above 18gpm) Other ☒ Livestock

Type of Application: Check one or more of the following



New ☒ Vested Right ☐ Future Use ☐ Change Use ☐

☐ Amend Permit No. _____ with old priority date retained

Change diversion point(s) ☐ Add diversion point(s) ☐ Other ☐ _____

☐ Application to: Change diversion point(s) ☐ Add diversion point(s) ☐ on Permit No. _____

☐ Construction to use water reserved by Future Use Permit No. _____

1. Name of Applicant Keith Krull Phone No. _____

Post Office Address 20850 318th Av. Harold State SD Zip Code 57536
(Street, RR or Box) (City)

2. Amount of water claimed 77 ~~7700~~ Ac. Ft.

3. Source of water supply Runoff

4. Location of point of diversion NW 1/4 SW 1/4 and SW 1/4 NW 1/4 Sec 31 T.110 N. R. 74 W

water impounded: N 1/2 SW 1/4 and S 1/2 NW 1/4 Sec 31-T110N-R74W

County Hughes

5. Counties where water will be used Hughes

6. Annual period during which water is to be used Apr - Nov. Jan 1 - Dec 31

7. 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)

Dam will be constructed to enhance wild life production, and provide livestock water.

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 _____) ss

I, Keith Krull the applicant, certify that I have read this application; have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Signed Keith Krull

JAMES E. MEIDINGER, NOTARY PUBLIC
MY COMMISSION EXPIRES 8-31-1999

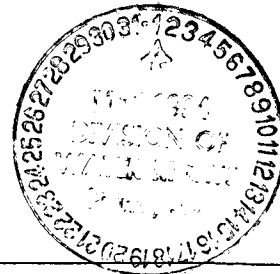
Subscribed and sworn to before me this

1 day of MARCH 19 94

James E. Meidinger
Notary Public

Supplemental Information

(type or print in ink)



1. Well Information - Proposed construction

- a) Drill Hole Diameter _____ Depth _____
- b) Casing Type _____ Diameter _____ Thickness _____
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack Thickness _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material _____
- f) Depth to Water (ground surface to water level) _____
- g) Distance to nearest existing domestic well: _____
- On applicants property _____ On property owned by others _____

2. Dugout Information Estimates

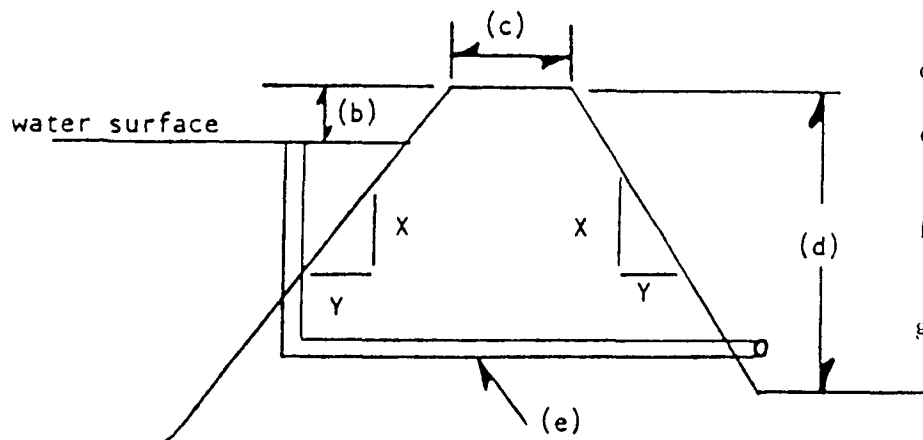
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

3. Water Storage Dams

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

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

Soil Conservation Service
314 So. Cotman



- b) Freeboard 3.0'
- c) Crest Width 12.0'
Crest Length 317.0'
- d) Height 23.3'
- e) Primary Outlet Capacity _____
If Pipe, diameter _____
- f) Secondary Spillway Capacity 392 CFS
Spillway width 75' Bott
- g) X & Y Slope
Upstream 3:1
Downstream 3:1

Surface Area of Impoundment 6.0

Storage 76.4 acre feet

Drainage area above dam 1,140 Acres

Keith Krull

Signature of Applicant

**SOUTH DAKOTA
WATER PERMIT NO. 5806-3**

Date of first receipt of application March 1, 1994.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 5806-3 to Keith Krull, 20850 318th Ave, Harrold SD 57536 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. 5806-3 impounds 77 acre-feet of runoff water by constructing a dam. The dam site is to be located in the NW 1/4 SW 1/4, SW 1/4 NW 1/4 Section 31 with water impounded in the N 1/2 SW 1/4 and the S 1/2 NW 1/4 Section 31; all in T110N-R74W.
2. The water appropriated shall be used for the purpose of supplying water for wildlife production habitat and livestock water and may not exceed the amount of water needed for beneficial use for wildlife production habitat and livestock watering purposes.
3. The water is to be used during the following described annual period: January 1 - December 31.
4. The date of approval of Permit No. 5806-3 is April 11, 1994.
5. The date from which applicant may claim right is March 1, 1994.
6. One-fifth of the construction is to be completed on or before October 11, 1994.
7. All construction is to be completed on or before April 11, 1999.
8. Water is to be put to beneficial use on or before April 11, 2003.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.
2. Approval of Water Permit No. 5806-3 authorizes storage of up to 77 acre-feet of water annually.

WATER MANAGEMENT BOARD

By: 
John Hatch, Chief Engineer
Water Rights Division
Department of Environment and Natural Resources

OCT 4 1994
date

UNITED STATES
DEPARTMENT OF
AGRICULTURE

SOIL
CONSERVATION
SERVICE

SUITE #103
316 SOUTH COTEAU
PIERRE, SD 57501
PHONE 224-1694

February 23, 1994



Attn: Tim Schaal
Division of Water Rights
Joe Foss Building
Pierre, South Dakota 57501

RE: Keith Krull Impoundment Risk Assessment

Mr Schaal,

The Soil Conservation Service encourages your support and approval for the planned impoundment on the Keith Krull farm that is located in NW1/4, SW1/4, Sec 31-110-74 of Hughes County. the impoundment has been designed by registered engineers and shall be constructed to meet USDA Soil Conservation Service standards. The pond shall be used for livestock water and shall store 76 acre feet of water if filled to capacity.

It is classified as a low hazard Class 'A' dam by the SCS being located in a rural pasture where failure would not damage any buildings, roads, utilities or other development. The downstream area is all pasture land with Lake Oahe being located approximately eight miles away via channel flow.

If you have any questions concerning this impoundment, please contact this office at your convenience.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lowell P. Noeske".

Lowell P. Noeske
District Conservationist

cc: Keith Krull, Harrold
David Konechne, SCS, Pierre

RECEIPT

414065

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____, March 1, 19 94

RECEIVED OF Keith Krull, HCR 2 Box 13, Harrold, SD 57536

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

Fee for Application for Permit No. <u>5806-3</u> to Appropriate Water, to construct and to put water to beneficial use _____	150	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 _____		

(Any Other Work Provided by Law)	Total	150 00

By John Hatch
Chief Engineer

RECEIPT

415193

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, _____ November 27 _____, 19 96

RECEIVED OF Keith Krull, 20850 318th Ave, Harrold SD 57536

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 _____		
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>5806-3</u>	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	50 00

By John Hatch
Chief Engineer

JOHN HATCH

25

Water Permit Application #5806-3
Keith Krull

Top of Dam Elev. - 100
 Spillway Elev. - 97
 Bottom - 79

Cat. 3 - Low Hazard Dam

Dam Height = 21 to 23 ft
 Eff. Height = 18 ft.

$$\text{Eff. Ht.} \times \text{Int. Storage} = 18 \times 77 = 1386$$

$$1386 < 3000 \therefore 25 \text{ year M.M.}$$

Spillway Design Flood

Normal Capacity = 77 Ac.-Ft.
 Max. Capacity = 97 Ac.-Ft.

$$DA = 1140 \text{ Ac} = 1.78 \text{ sq mi} \quad \text{Slope} = 2\% = 100' \text{ mile} \quad S_i = 3.70$$

From USGS "Tech. for Est. Floods..."

$$Q_{25} = 83.4 A^{.6} S^{.44} S_i^{-.72}$$

$$= 83.4 (1.78)^{.6} 100^{.44} 3.70^{-.72}$$

$$= 83.4 (1.41) (7.59) (0.39)$$

$$Q_{25} = 348 \text{ cfs}$$

$$Q_{50} = 495 \text{ cfs}$$

$$Q_{100} = 669 \text{ cfs}$$

SCS Routing $Q_{25} = 392$
 $Q_{50} = 486$
 $Q_{100} = 604$

75 foot wide Earthcut Spillway - $Q = C L H^{3/2}$ $C = 2.6$
 $L = 75'$

$$Q \text{ w/ 1' Head} = 195 \text{ cfs}$$

$$Q \text{ w/ 2' Head} = 552 \text{ cfs}$$

$$Q \text{ w/ 3' Head} = 1000 \text{ cfs}$$

Section 74:02:08:09SCS Annual Yield

1. Topo & legal Description - OK
2. Dam axis Profile - OK
3. Max. X-Sec. of Dam - OK
4. Area - Capacity - OK
5. Outlet Detail - N/A - OK
6. Spillway Routing - p. 8/8 - OK
7. Spillway Detail - OK
8. Specs. - SCS - OK
9. EPP - Cat 3 N/A - OK

$$CN = 75$$

$$DA = 1140 \text{ Ac}$$

Isogram 2

$$50\% = 0.37 \text{ Ac-In/Ac.}$$

$$0.37 \times 1140 \div 12 = 35 \text{ Ac.-Ft.}$$



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 3, 1994

Keith Krull
20850 318th Ave
Harrold SD 57536

Dear Mr. Krull:

Enclosed is the aerial photo submitted with your application for a 76.6 acre-feet storage dam. The application states the location of the diversion point to be in the NW 1/4 SW 1/4 of Section 31-T110N-R74W. On the aerial photo we have drawn in the quarter-quarter lines. It appears that the dam will be located in both the NW 1/4 SW 1/4 and the SW 1/4 NW 1/4 of Section 31 with water impounded in the N 1/2 SW 1/4 and the S 1/2 NW 1/4 Section 31.

If you disagree with these locations, please let us know. If we do not hear from you, we will proceed with processing the application. Please contact this office, if you have any questions.

Sincerely,

Karen Schlaak
Environmental Scientist
605 773-3352

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 16, 1994

Lowell P. Noeske
Soil Conservation Service
316 South Coteau, Suite 103
Pierre, SD 57501

Dear Mr. Noeske:

We have reviewed the plans and specifications for the Keith Krull Dam located in the NW 1/4 SW 1/4 and the SW 1/4 NW 1/4 of Section 31-T110N-R74W, in Hughes County. The plans and specifications as submitted are approved. Approval of the plans and specifications does not authorize construction of the project. No construction may begin until Water Permit Application No. 5806-3 is approved.

Our review was to determine compliance with the requirements of the Water Management Board Safety of Dams Rules, Chapter 74:02:08. Approval of these plans and specifications does not release Mr. Krull as owner of the dam, from the responsibility for operating and maintaining the dam in good repair to assure the safety of the dam.

The Krull Dam will be classified as a small size Category 3 dam with a dam height of 23 feet and a normal storage capacity of 77 acre-feet and a maximum storage capacity of 97 acre-feet.

If you have any questions, please feel free to contact us.

Sincerely,

Gale N. Selken, P.E.
Natural Resources Engineer IV
for John Hatch, Chief Engineer
Water Rights Division
605 773-3352

c: Keith Krull

REPORT ON
WATER PERMIT APPLICATION No. 5806-3
Keith Krull
March 11, 1994

Water Permit Application No. 5806-3 has been filed by Keith Krull to impound 77 acre-feet of water in a dam. The dam will be located in the NW 1/4 SW 1/4 and the SW 1/4 NW 1/4 of Section 31-T110N-74W. The water will be used for livestock watering and wildlife production.

Discussion:

The Krull Dam will be classified as a Category 3, Low Hazard dam. The dam has been designed by the Soil Conservation Service (SCS) and the plans and specifications have been approved; although, construction can not start until Water Permit Application No. 5806-3 is approved.

The Krull Dam will be 23 feet high with a normal storage capacity of 77 acre-feet with a reservoir level at the primary spillway elevation, and a maximum storage capacity of 97 acre-feet with the reservoir level at the top of dam elevation. A dam of this size and hazard classification is required to have a minimum spillway design capable of passing a 25 year frequency event.

The Krull Dam is designed to have a 75 foot wide earthcut spillway. The dam has a drainage area of 1.78 square miles which produces a peak runoff from a 25 year event of approximately 400 cfs. A 100 year event produces a peak runoff of approximately 670 cfs. The capacity of the 75 foot wide secondary spillway is approximately 1000 cfs.

The annual yield for this drainage with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be approximately 35 acre-feet.

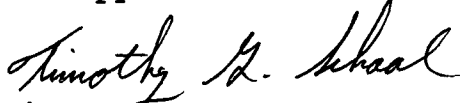
The Krull Dam is located on a tributary of South Chapelle Creek about 2.5 miles upstream of the confluence of South Chapelle Creek and the tributary, and about 7.5 miles upstream of the confluence of Chapelle Creek and the Missouri River. There are no existing Water Permits/Rights on this portion of South Chapelle Creek.

Conclusions:

1. Water Permit Application No. 5806-3 should be approved since unappropriated water is available and approval will not have any adverse effects on existing Water Permits/Rights.

page 2
Application No. 1595-1

2. If approved, the low flow bypass requirement for downstream domestic use should be a qualification on Water Permit Application No. 5806-3.



Timothy G. Schaal, P.E.
Natural Resources Engineer III

Approved by:



Gale N. Selken, P.E.
Natural Resources Engineer IV

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 5806-3, Keith Krull

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 5806-3, Keith Krull, 20850 318th Avenue, Harrold, SD 57536.

The Chief Engineer is recommending APPROVAL of Application No. 5806-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest with the following qualifications:

1. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.
2. Approval of Water Permit No. 5806-3 authorizes storage of up to 77 acre-feet of water annually.

See report on application for additional information.



JOHN HATCH, Chief Engineer
March 14, 1994



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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

March 16, 1994

Keith Krull
20850 318th Avenue
Harrold, SD 57536

Dear Mr. Krull:

Water Permit Application No. 5806-3 for livestock watering and wildlife production use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Capital Journal printed at Pierre, SD (Ph # 224-7301). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

March 16, 1994

Capital Journal
PO Box 878
Pierre, SD 57501-0878

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 5806-3 to be published twice. Please publish the first notice on March 23, 1994, with the second publication 7 days later.

The APPLICANT MUST VERIFY TO YOU THAT THE NOTICE IS TO BE PUBLISHED, before you make the first publication. Please BILL the APPLICANT for the cost of publication. The APPLICANT is Keith Krull, 20850 318th Avenue, Harrold, SD 57536.

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

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. No action may be taken on the permit application until proof of publication has been received.

Sincerely,

Eric Gronlund
Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----
FIRST TRANSMITTAL NOTICE TO: Eric Gronlund
Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____

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

Name _____

Newspaper _____

Instruction to Newspaper - Publish first Notice on March 23, 1994, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 5806-3 to Appropriate Water

Notice is given that Keith Krull, 20850 318th Avenue, Harrold, SD 57536 has filed an application for a water permit to impound 77 acre-feet of runoff water by constructing a dam. The dam site is to be located in the NW 1/4 SW 1/4, SW 1/4 NW 1/4 Section 31 with water impounded in the N 1/2 SW 1/4 and the S 1/2 NW 1/4 Section 31; all in T110N-R74W. The water will be used to provide habitat for wildlife production and livestock watering.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 5806-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the chief engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the chief engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and chief engineer. The applicant must file a petition if contesting the chief engineer's recommendation. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 11, 1994.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Division address to request copies of information pertaining to this application. Russell L. Stone, Acting Secretary, Department of Environment and Natural Resources.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Hughes) ss

I, Peggy Warner
certify that the attached printed Notice was
taken from the Capital Journal

printed and published in Pierre

County of Hughes and State of
South Dakota. The notice was published in
the newspaper on the following two dates:

March 23, 1994
March 30, 1994

Cost of Printing: 37.23

Peggy Warner
(Signature)

Legal Ad Representative
(Title)

March 31, 1994
(Date Signed)

No. 7492 2dly 3/23, 3/30
NOTICE OF APPLICATION
NO. 5806-3

TO APPROPRIATE WATER

Notice is given that Keith Krull, 20850 318th Avenue, Harrold, S.D. 57536 has filed an application for a water permit to impound 77 acre-feet of runoff water by constructing a dam. The dam site is to be located in the NW 1/4 SW 1/4, SW 1/4 NW 1/4 Section 31 with water impounded in the N 1/2 SW 1/4 and

the S 1/2 NW 1/4 Section 31; all in T110N-R74W. The water will be used to provide habitat for wildlife production and livestock watering.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 5806-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the chief engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the chief engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and chief engineer. The applicant must file a petition if

contesting the chief engineer's recommendation. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E. Capitol, Pierre, S.D. 57501 (605-773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by April 11, 1994.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Division address to request copies of information pertaining to this application.

Russell L. Stone
Acting Secretary,
Department of Environment
and Natural Resources.





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

OCT 4 1994

Keith Krull
20850 318th Avenue
Harrold, SD 57536

Dear Mr. Krull:

Enclosed is Water Permit No. 5806-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

Very truly yours,

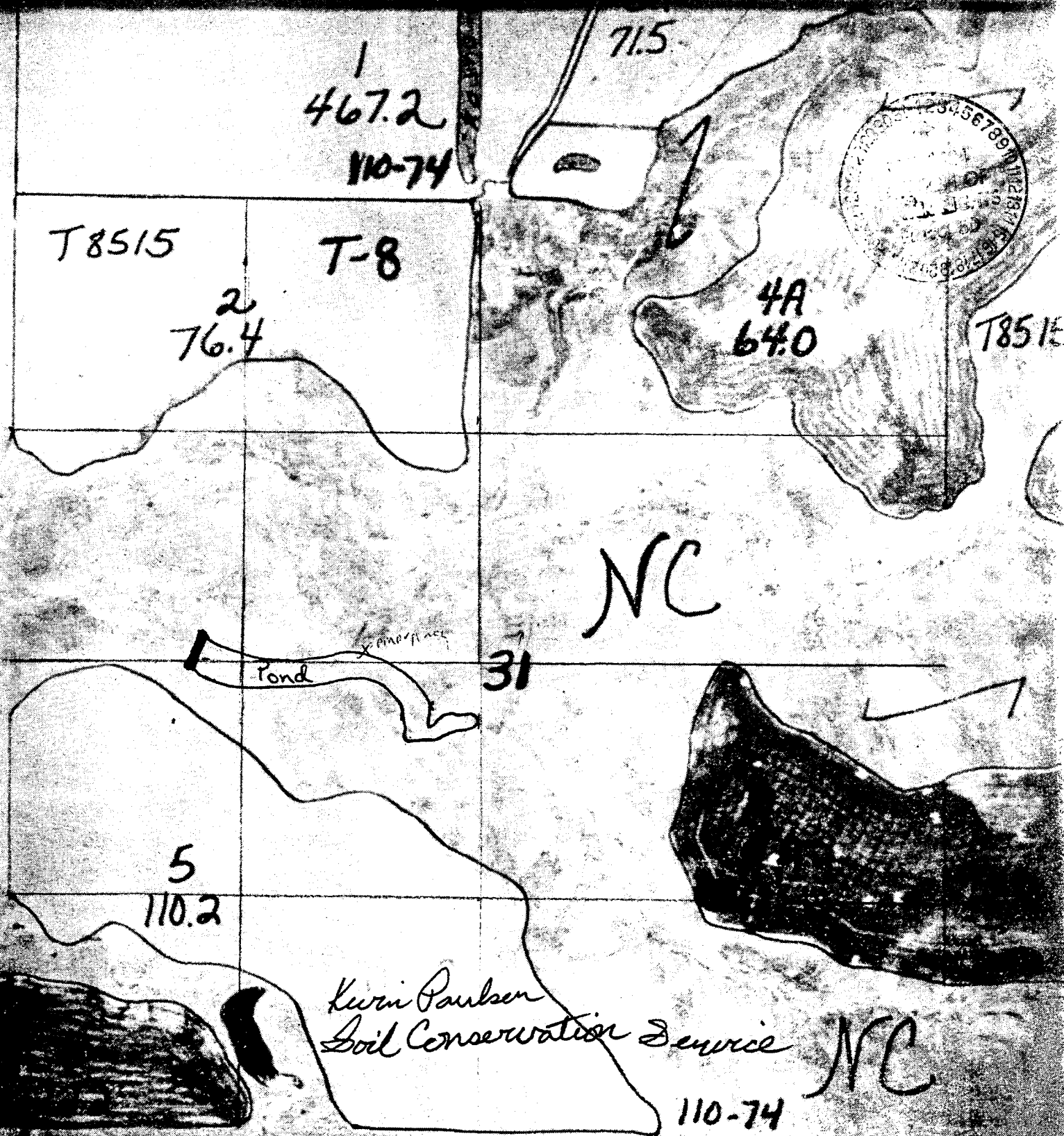
JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

enclosures

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

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

NOT TO SCALE



5806-B

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service

[illegible]

Client : Keith Krull

County : Hughes

State: SD

By: klp

Date: 09-29-93

Practice: Pond NE1/4, SW1/4 Sec.31

Checked: _____

Date: _____

Drainage Area : 1140 * Acres
 Curve Number : 75 *
 Watershed Length : 16000 Feet
 Watershed Slope : 2 Percent
 Time of Concentration: 4.00 Hours
 Rainfall Type : II

Storm Number	1	2	3	4	5	6	7
Frequency (yrs)	1	2	5	10	25	50	100
24-Hr Rainfall (in)	1.8	2.2	3	3.5	4.1	4.6	5.2
Ia/P Ratio	0.37	0.30	0.22	0.19	0.16	0.14	0.13
Runoff (in)	0.29	0.48	0.96	1.30	1.74	2.13	2.61
Unit Peak Discharge (cfs/acre/in)	0.157	0.174	0.187	0.193	0.197	0.200	0.203
Peak Discharge (cfs)	52	96	205	286	392	486	604

* - Value(s) provided by CN subroutine (F9)

Client : Keith Krull

County : Hughes

Practice: Pond NE1/4, SW1/4 Sec.31

State: SD

By: klp

Checked: _____

Date: 09-29-93

Date: _____

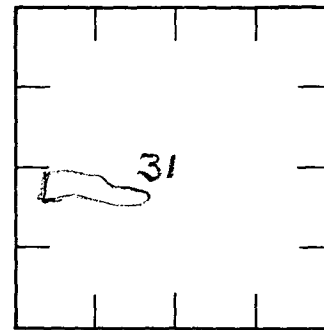
COVER DESCRIPTION		Hydrologic Soil Group			
		A	B	C	D
		Acres (CN)			
OTHER AGRICULTURAL LANDS					
Pasture, grassland or range	good	- 200(61)	240(74)	700(80)	
Total Area (by Hydrologic Soil Group)		200	240	700	
		=====	=====	=====	

TOTAL DRAINAGE AREA: 1140 Acres

WEIGHTED CURVE NUMBER: 75

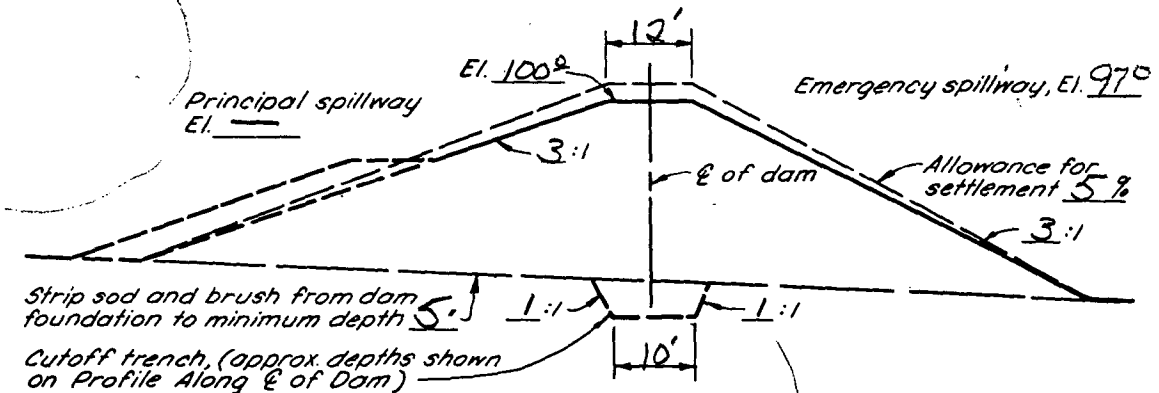
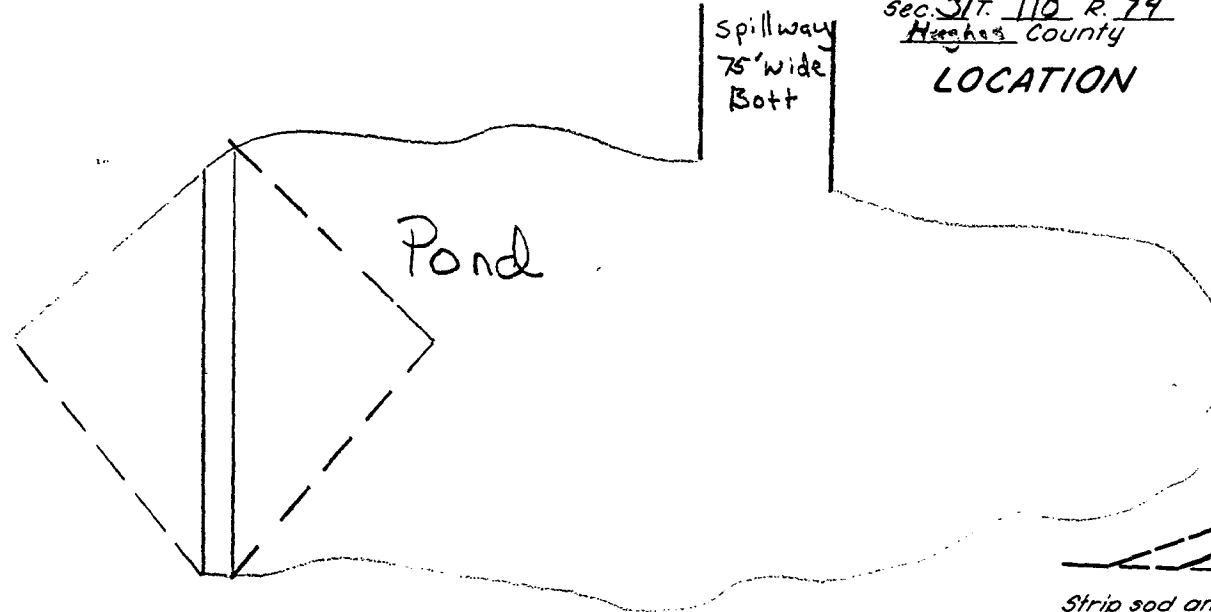
TABLE OF QUANTITIES

DRAINAGE AREA	ANNUAL YIELD	PEAK RUNOFF	EMERG. SPLWY. CAPACITY	WATER DEPTH	SURFACE AREA	SEDIMENT STORAGE	TOTAL STORAGE
ACRES	AC. FT.	25-YR.	C.F.S.	FEET	ACRES	AC. FT.	AC. FT.
1140	27.5	392	5.3 1/2	17	6.0	110	746



Sec. 31 T. 110 R. 74
Herk Co. County

LOCATION

[illegible]

Note: Storage is 76 Ac-Ft
 $\therefore$ a water right is required
 and approval from DENR
 for Safety of Dams.

TYPICAL CROSS SECTION OF DAM

Class "A" Hazard Dam
EARTH DAM

S.D. CONSTRUCTION AND MATERIAL SPECIFICATIONS:

SD-4 Stripping
SD-75 Earth Fill Class. 5

OPERATOR: Krull Ranch
CONSERVATION DISTRICT: Hughes Co.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

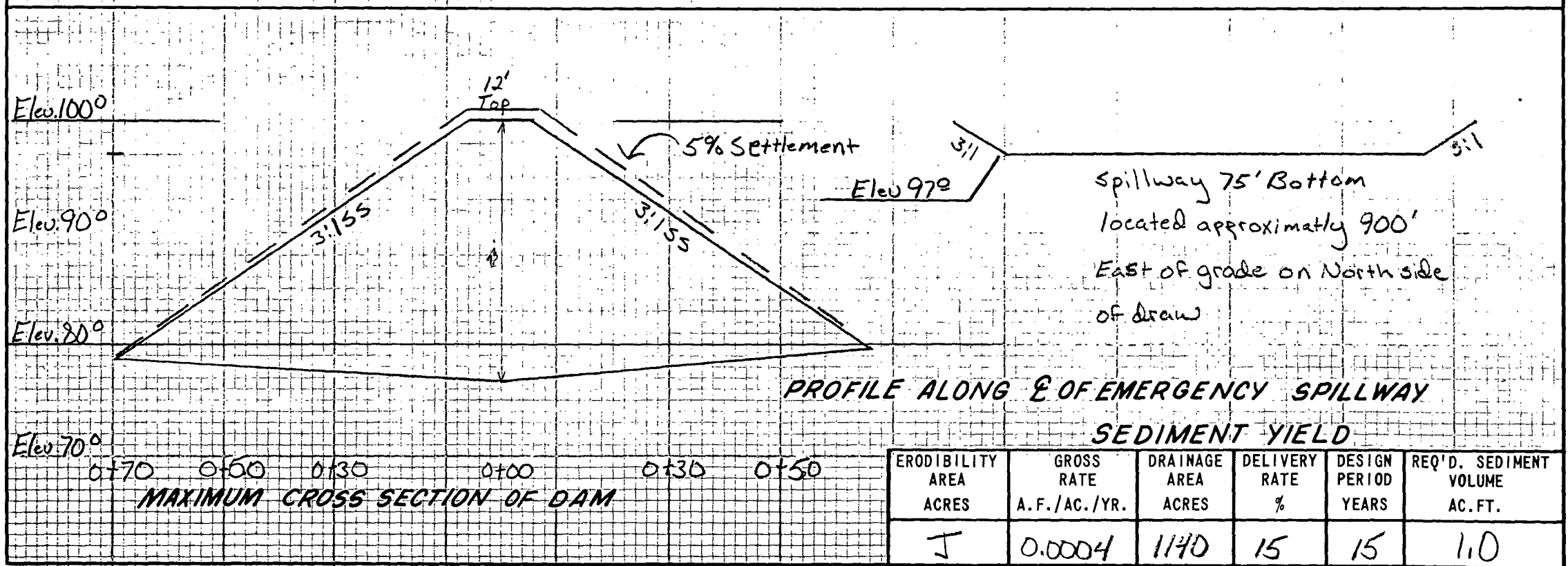
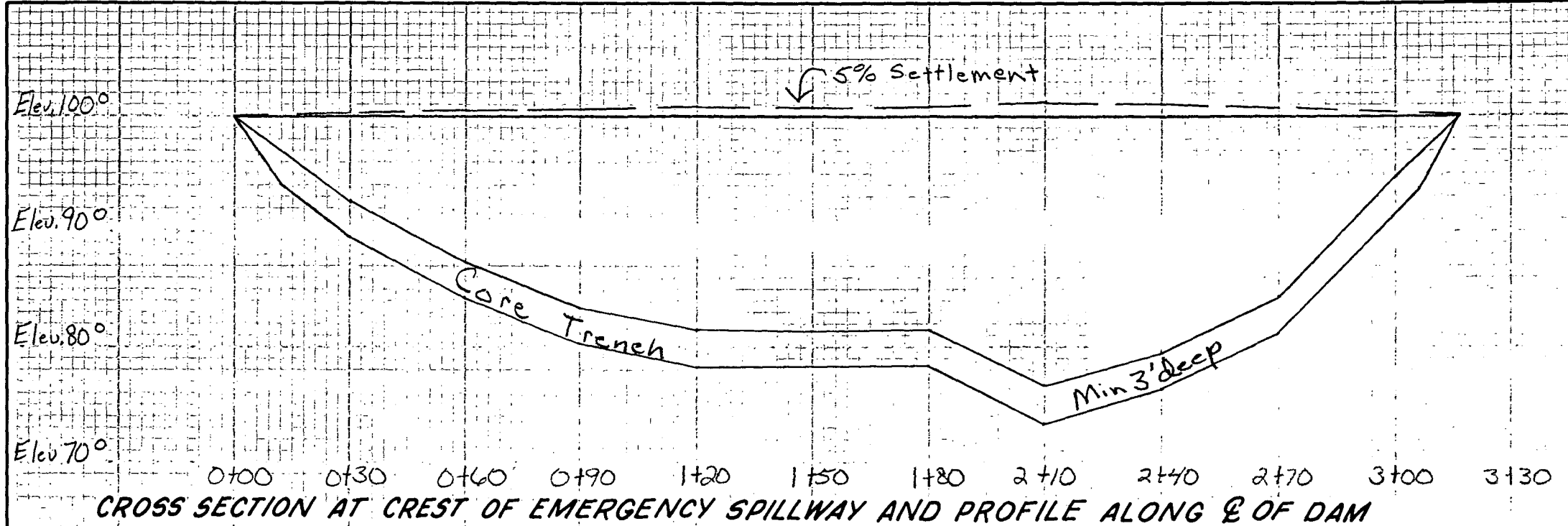
Designed	Kevin Paulsen	Date	10-9-93	Approved by	Kevin Paulsen
Drawn	Kevin Paulsen		10-9-93	Title	Ag Engr
Traced				Title	
Checked				Sheet No.	Drawing No.

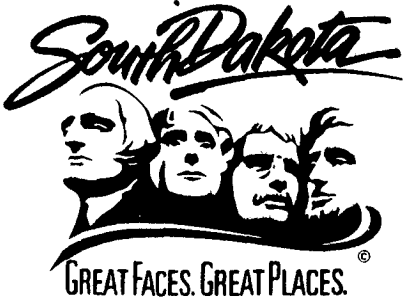
SKETCH PLAN OF DAM AND RESERVOIR AREA

Approximate scale 1" = NA

REFERENCE: GUIDE PLAN NO. 1.0

JOB PLAN NO. 1.0





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

August 22, 1996

5806-3

Keith Krull
20850 318th Ave.
Harrold, SD 57536

Dear Mr. Krull:

The inspection of your water use system and the inspection of the extent of application of water to beneficial use, as developed under Water Permit No. 5806-3, 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, we will begin processing your Water License.

**Please remit fee to:
Department of Environment & Natural Resources
Water Rights Program
523 E. Capitol
Pierre, SD 57501-3181**

Sincerely,

Cheryl F. Frost
Secretary
Water Rights Program
(605) 773-3352

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



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

November 19, 1996

SECOND NOTICE
Permit No. 5806-3

NOTICE OF WATER LICENSE INSPECTION FEE REQUIREMENT

Keith Krull
20850 318th Ave.
Harrold, SD 57536

Dear Mr. Krull:

On August 22, 1996, you were notified the final inspection fee of \$50.00 is due before Water License No. 5806-3 can be issued. As of this date, the fee has not been received.

The fee is a final step in the legal process of obtaining and perfecting a water right and is required by SDCL 46-2-13(3). Upon receipt of the \$50.00 fee, your Water License will be sent to you. This is the final document for the perfection of your Water Right. A perfected water right is similar to a property right and once a water right is perfected, it cannot be lost as long as the water is used.

Please remit fee to:
Department of Environment & Natural Resources
Water Rights Program
523 E. Capitol
Pierre, SD 57501-3181

According to South Dakota Water Law 46-5-30.1, you may not divert water until the License fee is paid. Please submit the required fee immediately to avoid jeopardizing your water permit.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Program
(605) 773-3352

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

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

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

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

5806-3

Keith Krull
20850 318th Ave.
Harrold, SD 57536

4a. Article Number

P 378 080 538

4b. Service Type

- | | |
|---|---|
| ☐ Registered | ☒ Certified |
| ☐ Express Mail | ☐ Insured |
| ☐ Return Receipt for Merchandise | ☐ COD |

7. Date of Delivery

11-22-96

5. Received By: (Print Name)

Carol P. Fogle

6. Signature: (Addressee or Agent)

X 

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

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

REPORT ON INSPECTION OF PERMIT NO. 5806-3, Keith Krull

DATE OF INSPECTION: July 31, 1996

Other permit(s) associated with the project: none

Contact Person & Address: Keith Krull, 20850 318th Ave., Harrold, SD 57536

DIVERSION POINT LOCATION: Dam - SW1/4 NW1/4, NW1/4 SW1/4 Section 31 T110N, R74W Impoundment S1/2 NW1/4, N1/2 SW1/4 Section 31, T110N, R74W

WATER SUPPLY Source: runoff

WELL INFORMATION: Not Applicable

DISTRIBUTION LINES OR CANALS: Not Applicable

SYSTEM TYPE: Not Applicable

DAM INFORMATION:

- | | |
|---|--|
| 1) Height to crest <u>approx. 25</u> feet | 2) Height to primary spillway <u>approx. 23</u> feet |
| 3) Height to secondary spillway <u>N/A</u> ft | 4) Crest width <u>approx. 15</u> feet |
| 5) Crest length <u>approx. 320</u> feet | 6) Spillway length <u>goes into nearby drainage</u> |
| 7) Spillway width <u>approx 90</u> feet | 8) Approx. storage <u>approx. 77</u> ac-ft |
| 9) Approx. storage to crest <u>#</u> ac-ft | 10) Date constructed: <u>1994</u> |
| 11) Outlet tubes: <u>None</u> | |
| 12) Category of Dam <u>3</u> | 13) Inspection Sheet Completed <u>#</u> |

CHEMIGATION EQUIPMENT: Not Applicable

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Special qualifications to permit being abided by Structure does not have a low flow bypass
- 2) All structures, wells and lands on map Yes
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Not Applicable

NOTE: The dam at the time of the licensing investigation appeared to have a larger surface area than the 6 acres listed on the original Form 2A. Mr. Krull and I estimated the size to be approximately 9 surface acres. This however does not affect the storage capacity as the I still estimate the storage at approximately 77 acre feet of water. The spillway have some erosion that Mr. Krull intended to have fixed.

Permit No. 5806-3
Missouri River - Water District

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

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

On, **July 31, 1996**, I made a thorough examination of the water use system constructed by **Keith Krull** of **20850 318th Ave., Harrold, SD 57536** holder of Permit No. **5806-3**, bearing the priority of **March 1, 1994** authorizing the diversion for the storage of **77** acre-feet of the runoff waters for **wildlife production habitat and livestock water** purposes, in **Hughes** County.

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

A. Works used to divert the water:

25 foot high dam

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

Not Applicable

C. Works used to apply water to beneficial use:

for livestock watering and wildlife production habitat

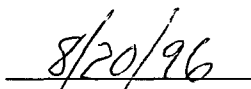
The system is in the following condition **good**. The point of diversion is located **Dam - SW1/4 NW1/4, NW1/4 SW1/4 Section 31 T110N, R74W Impoundment S1/2 NW1/4, N1/2 SW1/4 Section 31, T110N, R74W**. The works are capable of storing **77** acre-feet of water which is to be used for **for livestock watering and wildlife production habitat**. Water has been put to beneficial use and the license should be issued for **77** acre-feet of storage.

Applicable permit qualifications have been complied with: **yes**

Exceptions to compliance are: **The dam does not have mechanism to bypass low flow in the event it is necessary to bypass low flows. This does not mean the dam is out of compliance but does mean if a downstream domestic use was impaired that Mr. Krull will have to find a means to bypass inflow. It is doubtful that this will occur because this is a intermediate drainage and because of the close proximity to the Missouri River.**



Eric S. Gronlund
Natural Resources Engineer
DENR, Water Rights Program


Date

NOT TO SCALE

1
467.2
110-74

71.5



T8515

T-8

2
76.4

4A
64.0

T8515

NC

spillway

pond

31

dam
embankment

5
110.2

Kevin Paulsen
Soil Conservation Service

NC

110-74

Water Permit No: 5806-3
Map Prepared By: Eric Gronlund
Eric Gronlund
Natural Resources Engineer
DENR, Water Rights Program
Date Inspected: July 31, 1996

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 5806-3

(1) Keith Krull, 20850 318th Ave., Harrold, SD 57536 made Application No. 5806-3, March 1, 1994 for a water permit to impound 77 acre feet of water annually by construction of a dam in Hughes County, South Dakota for wildlife production habitat and livestock watering purposes. Permit No. 5806-3, with a priority date of March 1, 1994 was approved April 11, 1994 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before April 11, 1999 and for the application to beneficial use of said water on or before April 11, 2003.

(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 impound 77 acre feet of water annually for beneficial use. The location of the dam (spillway) is in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ and NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 31, T110N, R74W, with water impounded in the S $\frac{1}{2}$ NW $\frac{1}{4}$ and N $\frac{1}{2}$ SW $\frac{1}{4}$ Section 31.

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

(4) Pursuant to South Dakota Water Law 46-5-30.1 Keith Krull, 20850 318th Ave., Harrold, SD 57536 the holder and/or owner of Water Permit No. 5806-3 is issued a license to appropriate water, the right to impound 77 acre feet of water annually in a dam with a priority date of March 1, 1994 from the location specified in (2) of this license, for wildlife production habitat and livestock watering purposes. This license is subject to any limitations or qualifications listed in Water Permit No. 5806-3 and subject to South Dakota State Law.



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

DEC 26 1996

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

DEC 26 1996

5806-3

Keith Krull
20850 318th Ave.
Harrold, SD 57536

Dear Mr. Krull:

Enclosed is Water License No. 5806-3 and Receipt No. 415193 for \$50.00 which was assessed for an investigation and issuance of the license. Water License No. 5806-3 is the final document which completes the process of obtaining a water right.

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.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Program
(605) 773-3352

gm
enclosures