

WATER PERMIT NO. 8094-3

Name of Applicant: Kyle Suelzt

Address: 39605 120th St, Columbia SD 57433 Phone: 605 396-7418

Amount of Water Claimed: 1.33 cfs Total Acres: 120 acres

Source of Water Supply: Mocassin
Mocassin Creek

Water to be used for: irrigation County: Brown

Type of Waste Disposal System:

Location: 5 miles southeast of Aberdeen

PRIORITY Date Received: 2-5-15 Application/License Fee: \$ 950

Corrected Application Received: Period of Annual Use: May 1 – October 1

Remarks:

Diversion Point: NW 1/4 NE 1/4 Sec 27-T122N-
R63W

Land to be Irrigated: NE 1/4 Sec 27-T122N-R63W

Depth of Well: NA

Well Driller:

Remarks:

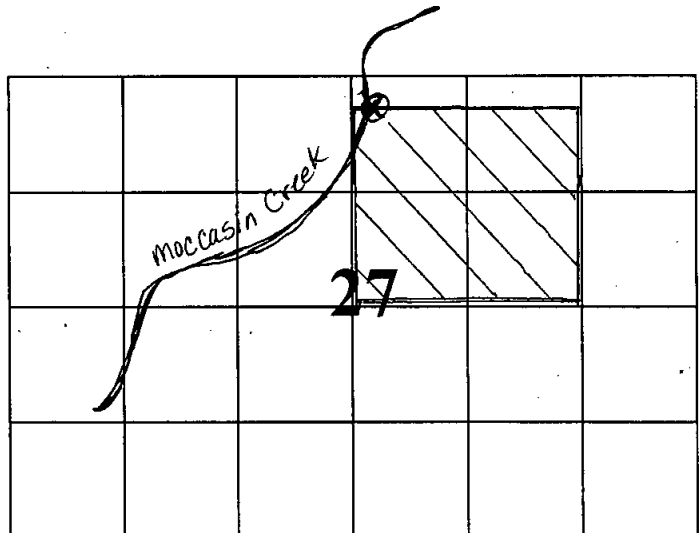
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 2-5-15

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



FORM 2: Application for irrigation in South Dakota

(type or print)

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8094-3</u> (office use only) Hydrologic Unit <u>10160003</u>
	Basin <u>James River</u>
	Newspaper <u>American News</u> <u>605-225-4100</u>
	<u>P.O. Box 4430 Aberdeen 57402</u>

RECEIVED

FEB 05 2015

WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____

(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

1. Name to Appear on Irrigation Permit Kyle Sueltz
(check one) ☐ Owner ☒ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)Mailing Address 39605 120th St Columbia SD 57433
(Address) (City) (State) (Zip Code)Home Phone 396-2418 Cell 396-7418 Email ksueltz79@hotmail.com2. Amount of water claimed 1.33 *CFS or 600 **GPM ***AF Total Acreage 120
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)3. Source of water supply Mocassin Creek4. Location of point of diversion NW corner of NE 27 T122N-63W
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)County Brown5. County or counties where water will be used Brown6. Annual period during which water is to be used May 1 - October 17. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>NE 27 122N-63W</u>	<u>120</u>		

8. Give a description of the project. (Attach sheet if more space is needed)

Install pivot to irrigate up to 120 acres. Pump water from Mocassin Creek located in NW corner of quarter.

I, Kyle Sueltz Kyle Sueltz, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

**SOUTH DAKOTA
WATER PERMIT NO. 8094-3**

Date of first receipt of application February 5, 2015.

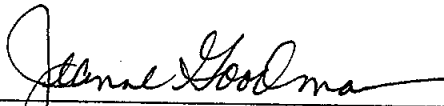
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8094-3 to Kyle Sueltz, 39605 120th St, Columbia SD 57433 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8094-3 appropriates 1.33 cubic feet of water per second from Moccasin Creek located in the NW 1/4 NE 1/4 Section 27 for irrigation of 120 acres located in the NE 1/4 Section 27; all in T122N-R63W.
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: May 1 – October 1.
3. The date from which applicant may claim right is February 5, 2015.
4. The date of approval of Permit No. 8094-3 is April 13, 2015.
5. One-fifth of the construction is to be completed on or before October 13, 2017.
6. All construction is to be completed on or before April 13, 2020.
7. Water is to be put to beneficial use on or before April 13, 2024.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. This permit does not authorize diversion of water any time Moccasin Creek's flow is obviously low, unless written orders have been issued by the Chief Engineer. Diversions under this permit are subject to downstream domestic use and written orders including shutoff orders issued by the Chief Engineer.
2. The irrigation intake in Moccasin Creek for this irrigation project shall be constructed so that the intake velocities at the intake point do not exceed 0.50 feet per second and the intake is screened with ¼ inch diameter or 3/16 inch slotted stainless steel or corrosion resistant screen to avoid entrainment and impinging fish.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: 

Jeanne Goodman, Chief Engineer
Water Rights Program

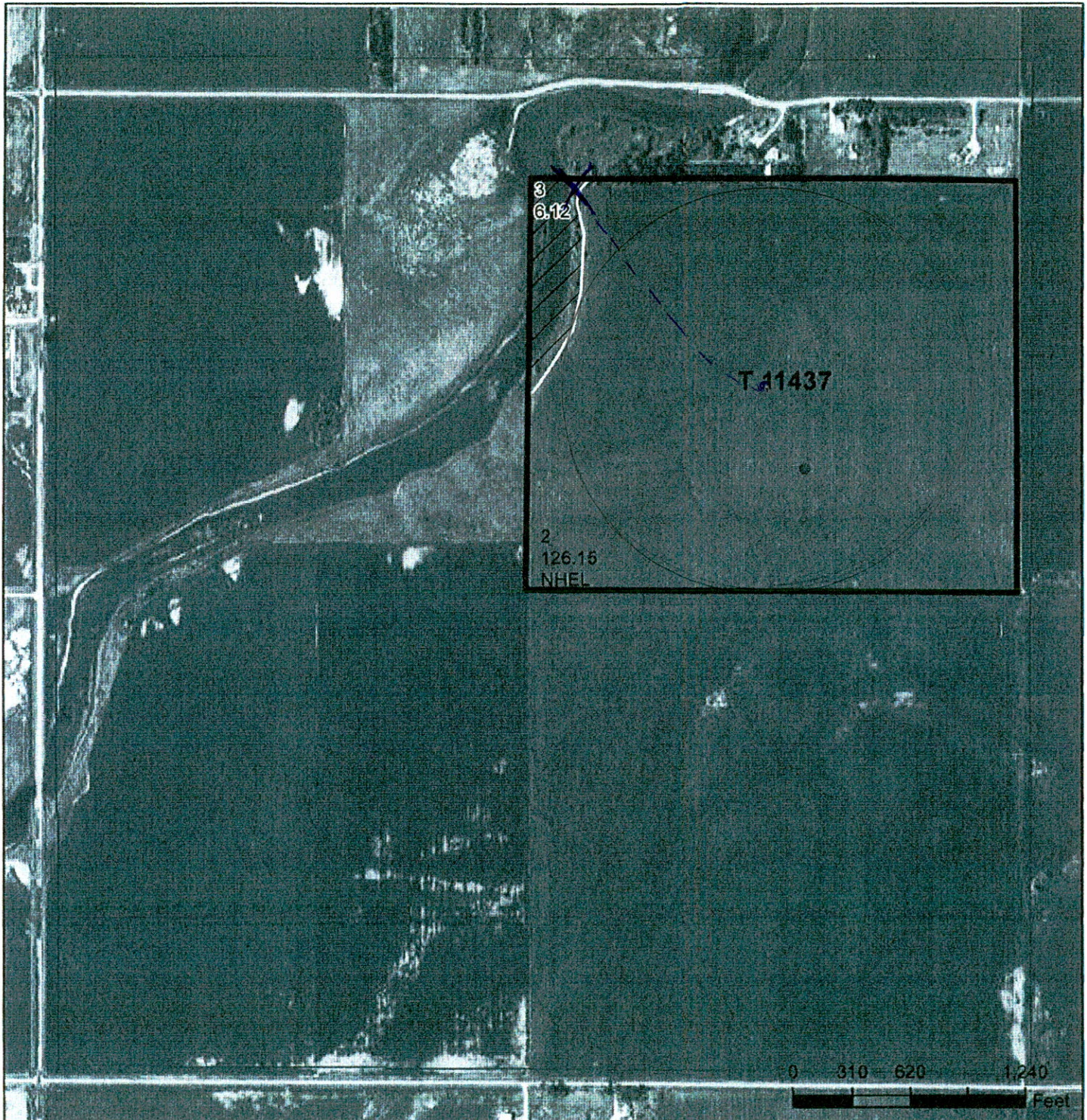
Department of Environment and Natural Resources

APR 23 2015

date



Landowner: Patricia Suelz
7415 S. Brookside Place
Sioux Falls, SD 57108
605-380-4459



Common Land Unit
Cropland / Non-cropland
Conservation Reserve Program
Wetland Determination Identifiers
● Restricted Use
▽ Limited Restrictions
□ Exempt from Conservation
Compliance Provisions
Tract Boundary Section Line



2012 Ortho-Photography - not to scale

RECEIVED 2014 Program Year
Map Created February 28, 2014
FEB 05 2015 Farm 10710
WATER RIGHTS PROGRAM 27 -122N -63W

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 2/5, 20 15

RECEIVED OF Kyle Sueltz 39605 120th St Columbia SD 57433

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

Fee for Application for Permit No. <u>8094-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	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. <u>8094-3</u>	200	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law) TOTAL	950	00

No. 07250

By Jeanne Goodman
Chief Engineer

8094-3

02-16-15

$$S_i = 2.99$$

Class = C - Calculated using USDA-NRCS We Soil Survey

$$CN = 85$$

$$80\% \text{ row crops - good condition } 88(.8) = 70.4$$

$$20\% \text{ pasture - good condition } 74(.2) = 14.8$$

$$85.2$$

Isogram Map No. = $2\frac{1}{2}$ 2 $2\frac{1}{4}$

10% 2.2 1.8 2.00 Total surface annual runoff

20% 1.35 1.05 1.20 (acre-inches/acre)

50% 0.43 .37 0.40

80% 0.18 .13 0.15

$$\text{Subwatershed} = 25,584 \text{ acres} = 40 \text{ mi}^2$$

$$10\% \quad 1.8 \text{ in/ac } (25,584 \text{ ac}) / 12 = 3837.6 \text{ ac ft}$$

$$1.2 \quad 2558.4$$

$$0.4 \quad 852.8$$

$$0.15 \quad 319.8$$



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8094-3, Kyle Sultz**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 8094-3, Kyle Sultz, 39605 120th Street, Columbia SD 57433.

The Chief Engineer is recommending APPROVAL of Application No. 8094-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) as conditioned the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. This permit does not authorize diversion of water any time Moccasin Creek's flow is obviously low, unless written orders have been issued by the Chief Engineer. Diversions under this permit are subject to downstream domestic use and written orders including shutoff orders issued by the Chief Engineer.
2. The irrigation intake in Moccasin Creek for this irrigation project shall be constructed so that the intake velocities at the intake point do not exceed 0.50 feet per second and the intake is screened with ¼ inch diameter or 3/16 inch slotted stainless steel or corrosion resistant screen to avoid entrainment and impinging fish.
3. This permit is approved subject to the irrigation water use questionnaire being submitted every year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
March 25, 2015

REPORT ON WATER PERMIT APPLICATION NO. 8094-3

KYLE SUELTZ

February 19, 2015

Kyle Suelztz has filed Water Permit Application No. 8094-3 to appropriate 1.33 cubic feet per second (cfs) of water from Moccasin Creek to irrigate 120 acres of land. The land is located in the NE¼ and the diversion point will be located in the NW¼ NE¼; all in Section 27, T122N-R63W. The annual period during which water is to be used is May through September.

Review of Water Source

The water source for this project is Moccasin Creek in Brown County at a point 8 miles southeast of Aberdeen, SD. Moccasin Creek has a large watershed which includes the town of Aberdeen. The contributing watershed above the point of diversion is 135 square miles; the more immediate watershed above the diversion point is 40 square miles. For the purposes of this report the more immediate watershed will be used to estimate water availability.

A gage currently exists on Moccasin Creek in Aberdeen, which is located several river miles upstream of and would not reflect the flow near the proposed project. The U.S. Geological Survey did operate a gage on Moccasin Creek near Warner, approximately 8.5 river miles upstream of the proposed project. The gage operated from 1976 to 1981 and has since been discontinued. This is a limited amount of data. Over the years that data was collected the annual precipitation was less than the average for the area and shows water availability during dryer times. The historical data from 1976 to 1981 for the Moccasin Creek stream flow gage indicates there is a 50-percent probability that monthly mean flow could range from 3 to 9-cfs May through September of any given year. There is a 75-percent probability that monthly mean flow could range from 0.6 to 2-cfs May through September of any given year (Table 1 and Hydrograph 1).

Table 1. Percent Chance of Moccasin Creek Monthly Mean Flow (cfs)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
25% chance	0.18	0.00	33.70	84.33	18.23	13.93	43.45	8.16	5.79	3.43	4.32	1.47
50% chance	0.00	0.00	2.57	19.07	9.01	4.24	2.96	4.07	2.65	1.83	0.96	0.16
75% chance	0.00	0.00	0.52	5.76	2.00	1.61	0.62	0.83	1.46	0.39	0.16	0.00

Hydrograph 1.

MOCCASIN CREEK GAGE NEAR WARNER, SD 1976 - 1981

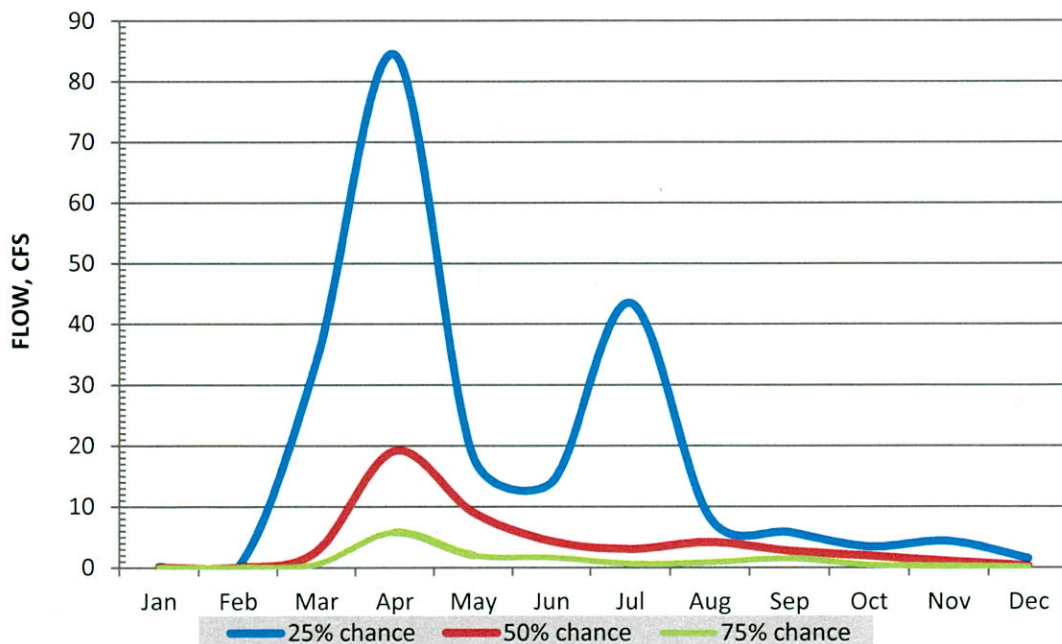


Table 1 and Hydrograph 1 indicate that Moccasin Creek is not a reliable source of water for the time period of May through September. The limited data shows that only 25% of the time flows above 5-cfs may be expected through September.

More recent years have seen an increase in precipitation in the area of this application. The current climatic conditions would increase the chances of having flow available during normal to wet years. During the years 1976 to 1981 the total precipitation during the time period of May through September was below the average 80% of the years. During the years 1992 to 2010 the total precipitation, May through September, was above the average 74% of the years (Figure 1 and Figure 2).

Figure 1. TOTAL PRECIP FOR ABERDEEN MAY - SEP, 1976 - 1981

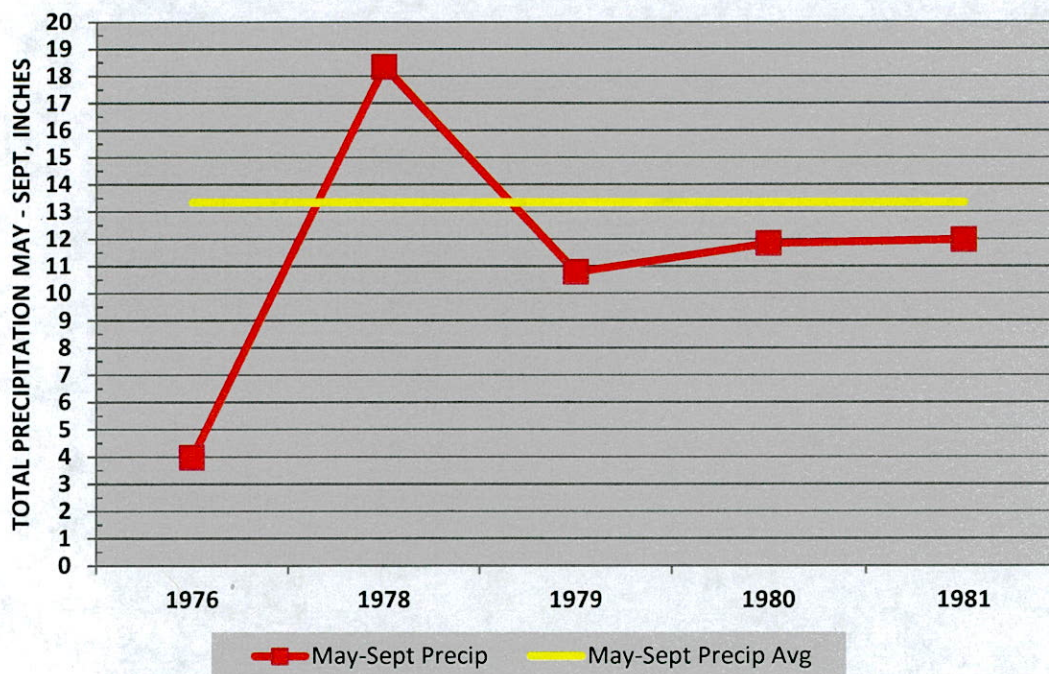
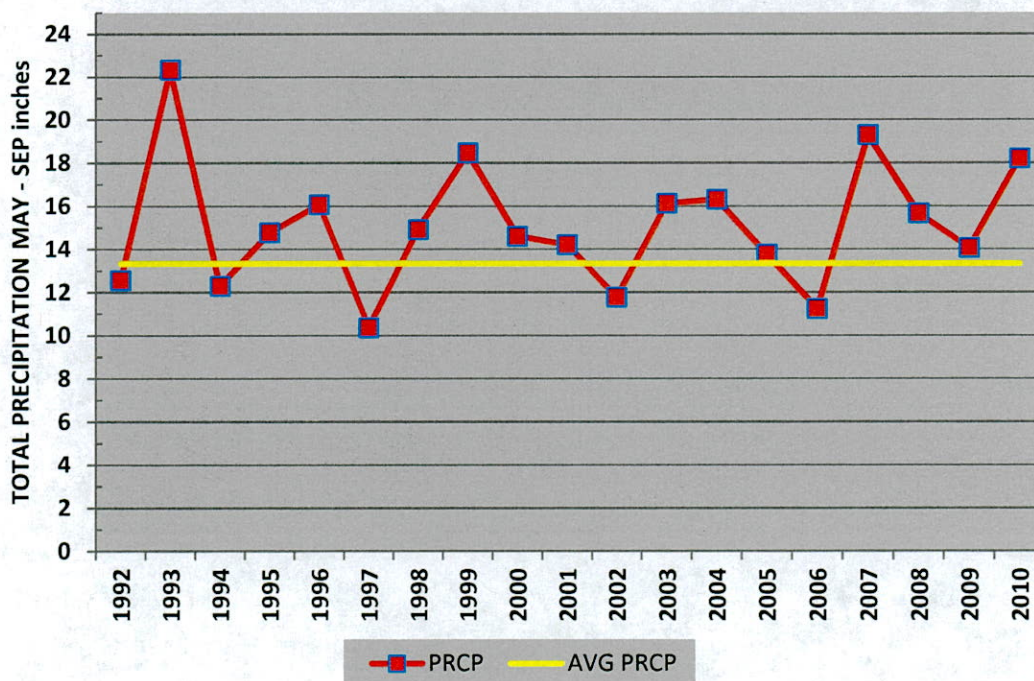


Figure 2. TOTAL PRECIP FOR ABERDEEN MAY - SEP, 1992 - 2010



In addition to the analysis above, the percent chance of annual runoff volumes were estimated using the USDA-NRCS method. This method uses very general characteristics of the watershed. On an annual basis there is sufficient water for this application (Table2).

Table2. USDA – NRCS estimate of annual surface water yield for streams.

% CHANCE	80%	50%	20%	10%
ANNUAL RUNOFF AC-FT	320	853	2558	3838

Flow in Moccasin Creek for May through September is very unreliable during drier climatic periods. More recent precipitation values indicate a better chance of water availability in the May through September time period. Annual surface water yields indicate sufficient water for the project most of the time. The importance when looking at annual volumes is the timing of the flow. Given these three parameters, Moccasin Creek cannot be considered a reliable source of water during drier climatic periods.

Review of Existing Water Rights

There are no existing water rights/permits utilizing surface water in the Moccasin Creek watershed downstream of this project, therefore, no existing rights would be adversely affected by this application. Moccasin Creek is a tributary to the James River with the nearest existing water right on the James River, approximately 13 miles downstream of this project. If this application is approved adverse effects on this downstream water right would be negligible.

Discussion

This project proposes to pump at a rate of 1.33 cfs (600 gpm) from Moccasin Creek. The most likely time water will be available is in the spring. Although there are no existing water rights located downstream from this project on Moccasin Creek, pumping during the lower flow summer months could adversely affect domestic use, which includes livestock watering. If approved the permit should include the following qualification to address periods of low flow.

1. This permit does not authorize diversion of water any time Moccasin Creek flow is obviously low. Diversions under this permit are subject to downstream domestic use and written orders issued by the Chief Engineer.

Conclusions

1. Application No. 8094-3 proposes to appropriate 1.33 cfs of water from Moccasin Creek located in Brown County to irrigate 120 acres of land.
2. During dry periods, Moccasin Creek cannot be considered a reliable source of water.
3. There are no existing water rights/permits utilizing surface water in the Moccasin Creek watershed downstream of this application, therefore, no existing rights would be adversely affected by this application.
4. If approved the permit should include the following qualifications to address periods of low flow:
 - a. This permit does not authorize diversion of water any time Moccasin Creek flow is obviously low. Diversions under this permit are subject to downstream domestic use and written orders issued by the Chief Engineer.
5. Issuance of this permit does not preclude the permit holder from the responsibility of obtaining any other state or federal permits nor gives the permit holder any implied ability to disregard any other federal or state requirement.



Lynn Beck
Natural Resources Engineer III
DENR, Water Rights Program

Resources

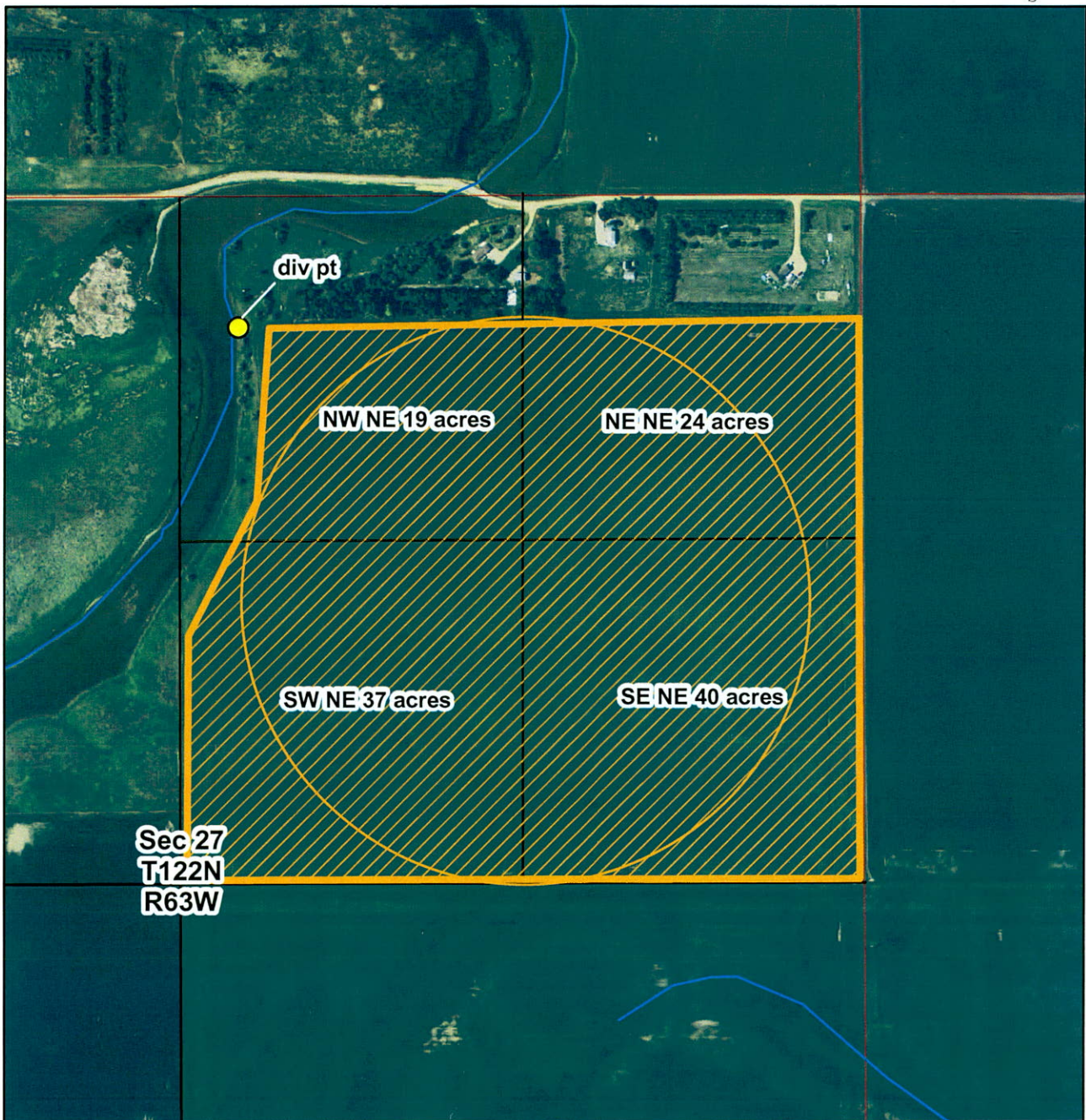
Techniques for Estimating Flood Peaks, Volumes, and Hydrographs on Small Streams in South Dakota, U.S. Geological Survey Water Resources Investigations 80-80, 1980.

USDA – NRCS Annual Surface Water Yield Method A.

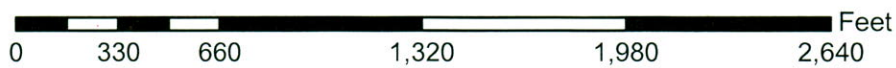
South Dakota Department of Environment and Natural Resources, Water Rights Program Records.

Climatology records, South Dakota State University Climate and Weather Website,
http://climate.sdstate.edu/climate_site/climate.htm

APPLICATION NO. 8094-3
KYLE SUELTZ
February, 12, 2015



SCALE



Lynn Beck

Lynn Beck
Natural Resources Engineer III
SD - DENR Water Rights Program



South Dakota
Department of Environment
& Natural Resources
Protecting SD's Tomorrow...Today

Form 8

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APR - 6 2015

WATER RIGHTS
PROGRAM

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)

County of Brown) SS

I, May Bash

certify that the attached printed Notice was taken

from the Aberdeen News

printed and published in Aberdeen

County of Brown and

state of South Dakota. The notice was published

in the newspaper on the following date:

4-2-15

Cost of Printing \$ 43.75

May Bash
(Signature)

Adv. Billing Specialist
(Title)

4-2-15

(Date Signed)

(No. 1937160)
(April 2, 2015 - 1T)

NOTICE OF APPLICATION NO. 8094-3 to Appropriate Water

Notice is given that Kyle Sueitz, 39805 120th St, Columbia SD 57433 has filed an application for a water permit to appropriate 1.33 cubic feet of water per second from Moccasin Creek located in the NW 1/4 NE 1/4 Section 27 for irrigation of 120 acres located in the NE 1/4 Section 27; all in T122N-R63W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8094-3 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 this 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 this 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 Program, 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 13, 2015.

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. Information concerning this application is available at <http://denr.sd.gov/public>. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pimer, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of \$43.75





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

March 25, 2015

American News
PO Box 4430
Aberdeen SD 57402

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 8094-3 to Appropriate Water. Please publish the notice once on April 2, 2015. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Kyle Suelztz, 39605 120th St, Columbia SD 57433 (Ph # 605-396-2418).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

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

March 25, 2015

Kyle Sueltz
39605 120th St
Columbia SD 57433

Dear Mr. Sueltz:

Water Permit Application No. 8094-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the American News printed at Aberdeen SD (Ph # 605-225-4100). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and 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(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also 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
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.

Instruction to Newspaper - Publish the Notice on April 2, 2015. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

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Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

APR 23 2015

Kyle Sueltz
39605 120th St
Columbia SD 57433

Dear Mr. Sueltz:

Enclosed is Water Permit No. 8094-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

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

enclosures