

WATER PERMIT NO. 2675-2

Name of Applicant: **Travis Hendricks**

Address: **28739 248th St, Vivian SD 57576** Phone: **605 683-6202**

Amount of Water Claimed: **112.8 AF** Total Acres: **NA**

Source of Water Supply: **runoff**

Water to be used for: **fish & wildlife propagation** County: **Jones**

Type of Waste Disposal System:

Location: **12 miles southeast of Draper**

PRIORITY Date Received: **10-4-11**

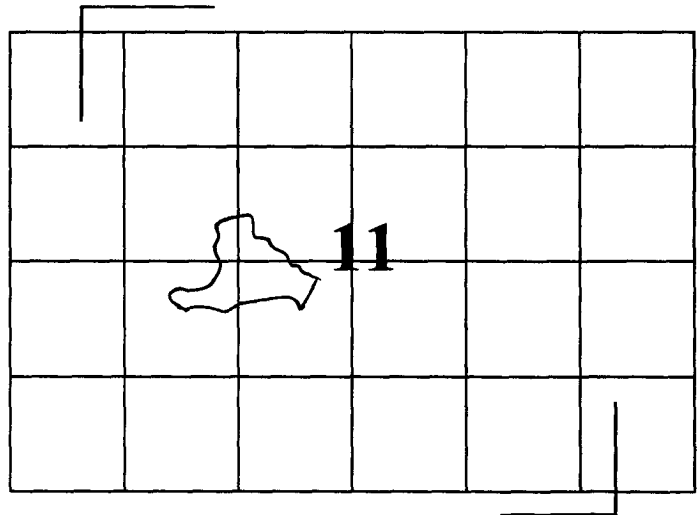
Application/License Fee: **\$700**

Corrected Application Received: Period of Annual Use: **January 1 – December 31**

Remarks:

Diversion Point: **NE ¼ SW ¼ Sec 11-T3S-R31E**

Water Impounded: **N1/2 SW ¼, S ½ NW ¼ Sec 11**
and N 11/2 SE ¼ Sec 10; all in T3S-R31W



Depth of Well: **NA**

Well Driller:

Remarks:

Type of Map: **plat**

Prepared by: **Dave F Konechne, PE**

Reviewed and the Number Assigned on: **10-5-11**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

FORM 2: Application for uses other than irrigation
(type or print)

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>2673-2</u> (office use only) Hydrologic Unit <u>1014D204</u>
	Basin <u>White River</u>
	Newspaper <u>Mundo Coyote PO Box 465</u> <u>605-669-2271</u> <u>Mundo 57559</u>

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WATER RIGHTS
PROGRAM

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

Check use(s) of water:

☐ Municipal	☐ Suburban Housing	☐ Recreational	☐ Institutional
☐ Rural Water System	☐ Commercial	☒ Fish & Wildlife	☐ Geothermal Heat
☒ Domestic (over 18 gpm)	☐ Industrial	☒ Other <u>Livestock</u>	

Type of Application:
(check one)

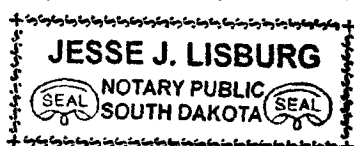
☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____
☐ Amendment/Correction to Permit No. _____

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

- Name of Applicant Travis Hendricks Phone 605-683-6202
(check one) ☐ Owner ☒ Tenant/lessee
Mailing Address PO Box 24 28739 24th St. Vivian SD 57558 57576
(Address) (City) (State) (Zip Code)
- Amount of water claimed 113 AF
(*CFS or **GPM ***AF)
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Dry Draw Runoff
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Jones
Dam is in the NE1/4SW1/4 Section 11-T3S R31E. Water will be impounded in the NE1/4SW1/4, SE1/4NW1/4, SW1/4NW1/4, NW1/4SW1/4 11-T3S R31E and the NE1/4SE1/4, NW1/4SE1/4 10-T3S R31E
- County or counties where water will be used Jones
- Annual period during which water is to be used Jan 1 - Dec. 31
- Give a description of the 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)
The project will repair a dam with an original location notice dated February 27, 1953 showing a 12.1 surface acre pond capable of storing 100.8 ac./ft annually. Damage has occurred causing failure and loss of ponding. The repaired pond will be 25.9 surface acres storing 113 ac./ft. Engineering plans and specs are included with this application.

STATE OF SOUTH DAKOTA)
County of Jones)

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Also, attach map and any other technical information. (see instructions)

I, Travis Hendricks, 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.Applicant's signature Travis HendricksSubscribed and sworn to before me this 3rd day of October 20 11

Jesse J. Lisburg
Notary Public signature

**SOUTH DAKOTA
WATER PERMIT NO. 2675-2**

Date of first receipt of application October 4, 2011.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2675-2 to Travis Hendricks, 28739 248th St, Vivian SD 57576 authorizing the construction of the dam and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 2675-2 authorizes impoundment of 113 acre-feet of water from runoff by reconstructing an existing dam located in the NE 1/4 SW 1/4 Section 11 with water impounded in the N 1/2 SW 1/4, S 1/2 NW 1/4 Section 11 and N 1/2 SE 1/4 Section 10; all in T3S-R31E.
2. The water appropriated shall be used for the purpose of fish and wildlife propagation and livestock water and may not exceed the amount of water needed for beneficial use.
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. 2675-2 is November 21, 2011.
5. The date from which applicant may claim right is October 4, 2011.
6. One-fifth of the construction is to be completed on or before May 21, 2014.
7. All construction is to be completed on or before November 21, 2016.
8. Water is to be put to beneficial use on or before November 21, 2020.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

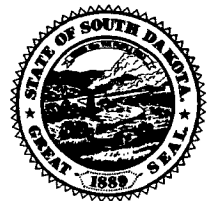
QUALIFICATIONS

1. Water Permit No. 2675-2 authorizes a dam with a storage capacity of 113 acre feet of water and sufficient water annually to maintain the water level to the outlet elevation.
2. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

WATER MANAGEMENT BOARD

By: Garland Erbele
Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JAN 10 2012
date



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 _____ 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 applicant's property _____ On property owned by others _____

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field)
- b) System Capacity (gallons) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System

3. Dugout Information

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

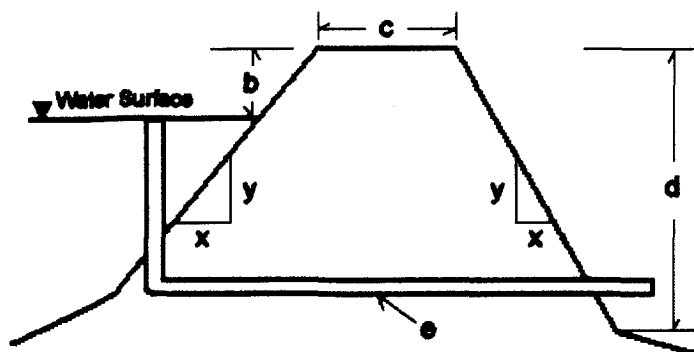
4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to 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:

Konechne Engineering
104 Capitol Hill Drive
Pierre, SD 57501
(605) 224-7092

- b) Freeboard 6.0'
- c) Crest Width 12.0'
Crest Length 760'
- d) Height 17.3
- e) Primary Outlet Capacity 203 cfs
If pipe, diameter 48" CMP
- f) Secondary Spillway Capacity 3638 cfs
Spillway Width 100'
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
Upstream 3:1
Downstream 3:1
- h) Surface Area of Impoundment 25.9
- i) Storage 113.0 Acre Feet
- j) Drainage Area Above Dam 6,094.0 Acres



DENR - Water Rights
523 E Capitol Ave
Pierre SD 57501

INVOICE

October 4, 2011
Invoice No. JL-1004

US Fish & Wildlife Service
Attn: Sandy
Brookings SD 57006

Water Permit application for: Susan Hattel \$700.00
Water Permit application for: Travis Hendricks \$700.00

DO NOT WRITE

ABOVE THIS LINE

SANDRA J. HUBBARD

XXXX XXXX XXXX 1309

EXPIRATION
☒ DATE
CHECKED

10/11

SIGN HERE

X

The issuer of the card identified on this item is authorized to pay the amount shown as TOTAL upon proper presentation. I promise to pay such TOTAL (together with any other charges due thereon) subject to and in accordance with the agreement governing the use of such card.

↑ PLEASE DO NOT WRITE ABOVE THIS LINE ↑

1	WATER PERMIT APP.		700.00
	SUSAN HATTEL INV. JL-1004		
1	WATER PERMIT APP.		700.00
	TRAVIS HENDRICKS JL-1004		
DATE	10/04/11	AUTHORIZATION	053717
REFERENCE NO.	001	SUB TOTAL	1400.00
ID/FOLIO/CHECK NO./LIC. NO. STATE	REG./DEPT. CLERK	TAX	
		TIP	
		MSC	
TOTAL			1400.00

SALES SLIP
ORIGINAL

Jones County
County

1953 FWRP
Program Year

LOCATION NOTICE

RECEIVED

OCT - 4 2011

WATER RIGHT
PROGRAM

White River

2070 - 2

Dry Draw Number

47-038 260-243

ACP Farm Serial No.

KNOW ALL MEN BY THESE PRESENTS:

OFFICE OF STATE ENGINEER

That Herman Hendricks
whose post office is Vivian, South Dakota, a citizen of the
United States, above the age of 21 years, being in possession of the land covered
by the above ACP farm serial number, of which the land upon which the works
described below are to be constructed is a part, in Jones County,
South Dakota, availing him self of the right granted him under the provisions
of Section 61.0133 South Dakota Code of 1939, has located and claims the right
to construct a certain dam across a dry draw situated on the SE 1/4 of the
NW 1/4 of Section 11 township 38 range 31, and has located and claims
the right to construct ditches and flumes for the purpose of directing flood
waters from said dam for irrigation of the land first above described and for
Live Stock Purposes, and claims the right of way across any land for the purpose
of conveying water for said purposes.

Said locator claims for the above purpose 100.8 acre feet of water annually.

Estimated surface area of storage basin 12.1 acres.

Estimated drainage area 4500 acres.

The location of the point of diversion of the reservoir is as follows:

From the northwest corner of Section 11, Township 3 South, Range 31,
120 rods east and 150 rods south.

The ditch will run in a direction to and on said land
for a distance of feet.

Said location was made on the 27th day of February 19 53
Witness my hand and seal this 27th day of February 19 53

Herman Hendricks
Locator

Herewith is enclosed one dollar for filing in the State Engineer's Office as
required under Section 55.1806 of the South Dakota Code of 1939.

STATE OF SOUTH DAKOTA)
County of Jones) ss.

On the 27th day of February 19 53, before me Dolphino Kruse
 , a Notary Public in and for the County and State aforesaid,
personally appeared Herman Hendricks to me personally known to be
the person who executed the foregoing instrument and acknowledged that he
executed the same for the use and purposes therein set forth.

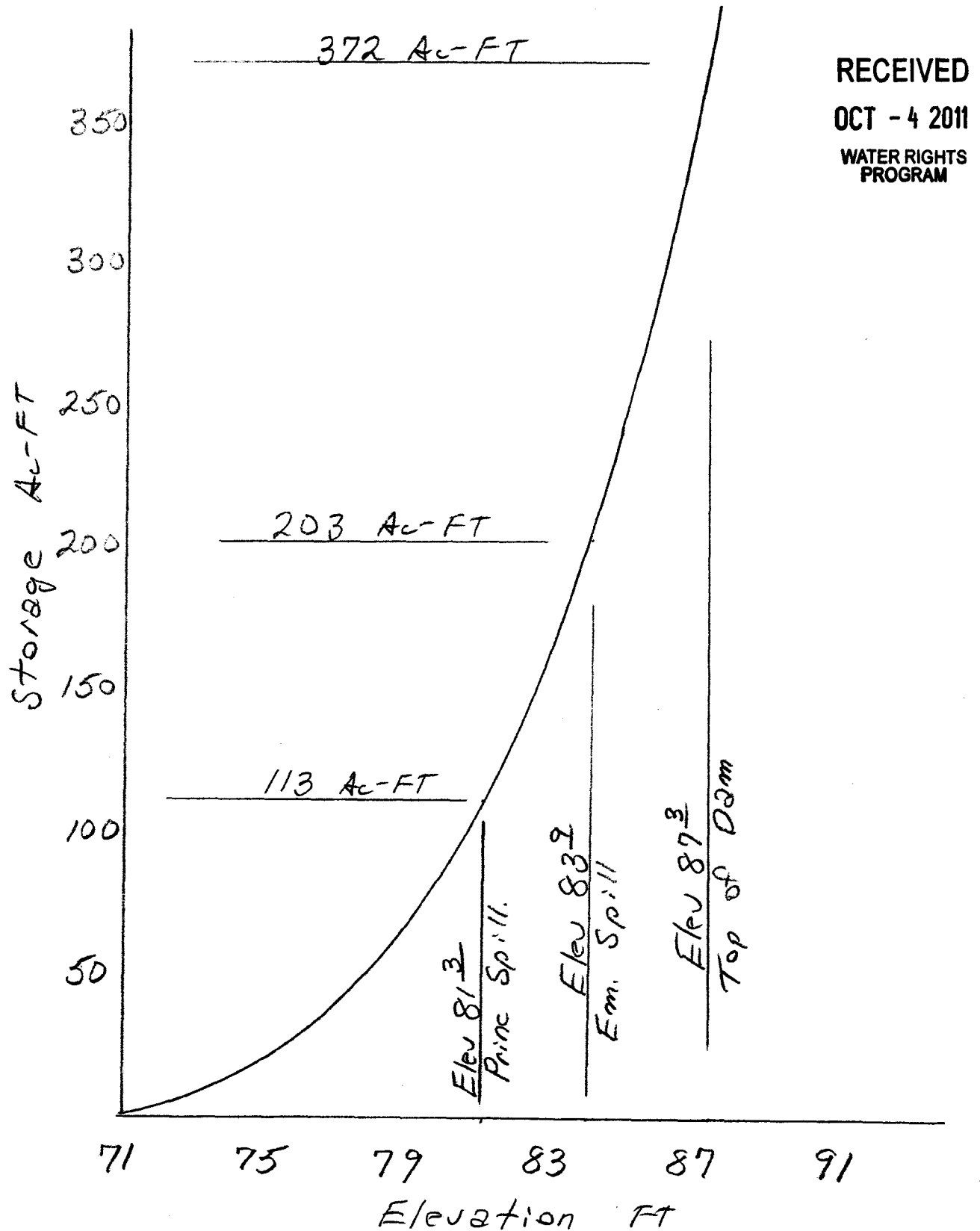
Witness my hand and official seal the day and date above written.

(Seal)
My Commission Expires 9-9-56

Dolphino Kruse
Notary Public

COMPUTATION SHEET

BY	DATE	PROJECT	SHEET ____ OF ____
CHKD BY	DATE	FEATURE <i>Travis Hendricks</i>	
DETAILS <i>Stage - Storage</i>			



1*****
SITES XEQ 09/20/2011 WATER RESOURCE SITE ANALYSIS COMPUTER PROGRAM
VER 2005.1.04 (USER MANUAL - DATED DECEMBER 2005)
TIME 14:37:36

***** 80-80 LIST OF INPUT DATA *****

SITES 01/01/2005 Travis Hendricks sec11, T3S,R39.521875 H5
SAVMOV 0 101
SAVMOV 101 1 1
STRUCTURE

72 0
81.3 25.9
83.9 40.3
87.3 56.8

ENDTABLE

WSDATA 5A1 AC 85 6094 39948 3.4
PDIRECT 3.4 4.00
POOLDATA ELEV 81 81 72 72 SC
PSINLET 1 15.7
PSDATA 1 84 48 .025 73
ASDATA 41 100 50 2 .08 2
ASINSURF 41 .035
ASINLET 41 0.0 80 0.0 3
180 10

ENDTABLE

ASEXSURF 41 .035
.65 0
3
2 0
.02

ENDTABLE

ASEXIT 41 N 80
BTMWIDTH FEET 100
GRAPHICS I
GO,DESIGN HL 6 378 6
SAVMOV 2 101 1
ENDJOB

***** MESSAGE - ALTERNATE STRUCTURE ID (S 1) BEING USED
SINCE USER DID NOT INPUT AN ID.

***** MESSAGE - ALTERNATE SUBWATERSHED ID (A) BEING USED SINCE
USER DID NOT INPUT AN ID.

***** MESSAGE - DRAINAGE AREA FROM WSDATA CONTROL BEING CONVERTED FROM
ACRES TO SQUARE MILES FOR COMPUTATION PURPOSES.

1SITES -----
XEQ 09/20/2011 Travis Hendricks sec11, T3S,R3 WSID=
VER 2005.1.04 SUBW= A
TIME 14:37:36 SITE = S 1 PASS= 1 PART= 1

***** BASIC DATA *****

CLIMATE AREA - NOT DEFINED

DESIGN CLASS A1 = LT 3000.

STORM DISTRIBUTION USED FOR AUXILIARY SPILLWAY IS;
NRCS DESIGN STORM RAINFALL DISTRIBUTION (CHAPTER 21, NEH4 & TR-60).

PRECIP. - P-PS,1-DAY	P-PS,10-DAY	P-SD	P-FB	
3.40	0.00	0.00	4.00	
WSDATA - CN	DA-SM	TC/L	-/H	QRF
85.00	9.52	39948.00	3.40	0.00
SITEDATA- PERM POOL	CREST PS	FP SED	VALLEY FL	378?
81.00	81.00	0.00	72.00	YES
BASEFLOW	INITIAL EL	EXTRA VOL	SITE TYPE	
0.00	0.00	0.00	DESIGN	
PSDATA - NO. COND	COND L	DIA/W	-/H	
1.00	84.00	48.00	0.00	
PS N	KE	WEIR L	TW EL	
0.025	1.00	15.70	73.00	
2ND STG	ORF H	ORF L	START AUX.	
0.00	0.00	0.00	0.00	
ASCRESTS - AUX.1	AUX.2	AUX.3	AUX.4	AUX.5
0.00	0.00	0.00	0.00	0.00
AUX.DATA - REF.NO.	RETARD. Ci	TIE STATION	INLET LENGTH	
41	0.00	100.00	50	
AUX.DATA - INLET N	SIDE SLOPE	EXIT N	EXIT SLOPE	ACTUAL AUX?
0.035	2.00	0.035	0.080	NO
BTM WIDTH - BW1	BW2	BW3	BW4	BW5
ft 100.00	0.00	0.00	0.00	0.00

AUXILIARY SPILLWAY RATING DEVELOPED USING WSPVRT.

1SITES -----
XEQ 09/20/2011 Travis Hendricks sec11, T3S,R3 WSID=
VER 2005.1.04 SUBW= A
TIME 14:37:36 SITE = S 1 PASS= 1 PART= 2

***** WARNING - Q10-DAY TO Q24-HR RATIO LESS THAN 1.0,USED 1.0.

PERM POOL	81.00 FT	112.8 ACFT	25.06 AC	0.0 CFS
CREST PS	81.00 FT	112.8 ACFT	25.06 AC	0.0 CFS
SED ACCUM	81.00 FT	112.8 ACFT	25.06 AC	0.0 CFS
START ELEV	81.00 FT	112.8 ACFT	25.06 AC	0.0 CFS

>>>>> MINIMUM DEPTH (1.00 FT) USED FOR NHCP378 RUN - CREST PS TO CREST AUX.

NRCS-PSH DE 240.00 HR P= 1.00 IN Q= NaN IN DA= 9.52 SM
TC= 4.65 HR CN= 85.00 VOL= 0.0 ACFT

PEAK = 0.0 CFS, AT 255.0 HRS.

ROUTED RESULT - HYD TYPE EMAX VOL-MAX AMAX QMAX
NRCS-PSH 82.00 FT 139.9 ACFT 29.78 AC 49.5 CFS

PS STORAGE 27.1 ACFT, BETWEEN AUX. CREST AND SED. ACCUM ELEVATIONS.

DRAWDOWN (DDT) TEST 81.00 FT 112.8 ACFT 0.00 CFS
CONTROL IS 0.000 DETENTION STORAGE

DRAWDOWN TIME = 4.85 DAYS, TO 0.0 CFS (LIMIT = 10.00 DAYS)

RATING TABLE DEVELOPED, SITE = S 1:
BY PROGRAM FOR PS AND AUX. SPILLWAYS
AUX. RATING USED WSPVRT METHOD.

RATING TABLE NUMBER 1

	ELEV. FEET	Q-TOTAL CFS	Q-PS CFS	Q-AUX. CFS	VOLUME AC-FT	AREA ACRE
1	81.00	0.00	0.00	0.00	112.79	25.06
2	81.58	21.54	21.54	0.00	127.92	27.45
3	82.16	60.92	60.92	0.00	144.80	30.67
4	82.74	111.92	111.92	0.00	163.55	33.89
					FULL CONDUIT FLOW, ELEV = 83.32 FT	
5	83.32	172.32	172.32	0.00	184.16	37.10
6	83.82	176.46	176.46	0.00	203.29	39.86
7	84.32	180.47	180.47	0.00	223.73	42.32
8	84.81	184.39	184.39	0.00	245.37	44.74
9	85.31	188.23	188.23	0.00	268.21	47.15
10	85.81	191.99	191.99	0.00	292.25	49.56
11	86.31	195.68	195.68	0.00	317.49	51.97
12	86.80	199.31	199.31	0.00	343.93	54.39
13	87.30	202.86	202.86	0.00	371.56	56.80

1SITES

XEQ 09/20/2011 Travis Hendricks sec11, T3S,R3 WSID=
VER 2005.1.04 SUBW= A
TIME 14:37:36 SITE = S 1 PASS= 1 PART= 3

AUX. CREST 82.00 FT 139.9 ACFT 29.78 AC 49.5 CFS

PS STORAGE 27.1 ACFT, BETWEEN AUX. CREST AND SED. ACCUM ELEVATIONS.

START ELEV 81.00 FT 112.8 ACFT 25.07 AC 0.0 CFS

EFFECTIVE HEIGHT(H)= 10.0 FEET, PRODUCT= 1399. (H * STORAGE AT CREST AUX.).

DRAWDOWN USING FREEBOARD STORM FOLLOWS, STARTING AT ELEVATION 82.00 FT.

DRAWDOWN (DDT) TEST 81.00 FT 112.8 ACFT 0.00 CFS
CONTROL IS 0.000 DETENTION STORAGE

DRAWDOWN TIME = 4.12 DAYS, TO 0.0 CFS (LIMIT = 10.00 DAYS)

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	AUX.-HP FT	VOL-AUX. ACFT
NRCS-FBH	100.0	86.44	324.6	52.6	4.44	184.6

PEAK - CFS DISCHARGE =	Q-PS	Q-AUX.	Q-TOT.
	197.	2589.	2786.

	CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-Sc FT/FT	25% OF Q Sc FT/FT
AUXILIARY SPILLWAY ---	2.70	9.10	0.013	0.018

EROSIONALLY EFFECTIVE STRESS FOR STABILITY ANALYSIS OF AUX. EXIT CHANNEL
(Refer to Ag. Handbook 667, Chapt. 3, for allowable stresses.)

Aux. Spillway Discharge = 2589. cfs; Bottom Width = 100. ft

REACH NO.	FROM STA	TO STA	SLOPE %	MANNING'S n	VELOCITY ft/s	TOTAL STRESS lb/ft^2	EFFECTIVE STRESS lb/ft^2
2	100.	180.	8.00	0.035	15.89	7.89	4.797

AUXILIARY SPILLWAY DURATION FLOW = 14.7 HOURS
ATTACK, OE/B = 10.5 ACFT/FT

***** MESSAGE - NHCP378 CRITERIA USED BUT AUXILIARY SPILLWAY RATING NOT
BASED ON ASFILE RATINGS.

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 15.9 FT/SEC
EXIT SLOPE = 0.080 FT/FT
FLOW DEPTH = 1.6 FT

>>>> NHCP378 RUN - MINIMUM DEPTH, DESIGN FLOW TO TOP OF DAM; 1.00 FT REQUIRED
FOR THIS PASS. NEW TOP OF DAM ELEVATION = 87.44.

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	AUX.HP FT	VOL-AUX. ACFT
MINIMUM AUX.	100.0	87.44	379.2	57.5	5.43	239.3

PEAK - CFS DISCHARGES =	Q-PS	Q-AUX.	Q-TOT.
	203.8	3638.8	3842.6

	CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-Sc FT/FT	25% OF Q Sc FT/FT
AUXILIARY SPILLWAY ---	3.37	10.11	0.012	0.016

***** WARNING - SOLUTION EXCEEDED MAX. INPUT ELEVATION (87.30) BY 0.13 FT.

Inflow Hyd 1 FBH-Peak = 2785.55 CFS at 7.27 hrs., Location Point
HYDOUT 1

1SITES.....JOB NO. 1 COMPLETE.

Travis Hendricks sec11, T3S,R3

0 SUBWATERSHED(S) ANALYZED.

1 STRUCTURE(S) ANALYZED.

2 HYDROGRAPHS ROUTED AT LOWEST SITE.

0 TRIALS TO OBTAIN BOTTOM WIDTH FOR SPECIFIED STRESS OR VELOCITY.

SITES.....COMPUTATIONS COMPLETE

>>>	SITE ID	SUBWS ID	SUBWS DA (SQ MI)	CURVE NO.	TC (HRS)	TOTAL DA (SQ MI)	TYPE DESIGN	STRUC CLASS	<<<
	S 1	A	9.52	85.	4.65	9.52	378CR	A1	

PASS NO.	DIA./ WIDTH (IN/FT)	AUX.CREST ELEV (FT)	BTM. WIDTH (FT)	MAX. HP (FT)	MAX. ELEV (FT)	EMB. VOL. (CY)	INTEGR.* DIST. (FT)	EXIT* VEL. (FT/SEC)	TYPE HYD
1	48.0	82.0	100.0	5.4	87.4	0.	0.	15.9	MIN. AUX.

* INTEGRITY DIST. AND EXIT VEL. ARE BASED ON THE ROUTED HYDROGRAPH
AND WILL NOT RELATE TO THE MAX. ELEV. (TOP OF DAM),
WHICH IS SET BY MINIMUM DESIGN CRITERIA.

SITES.....SUMMARY TABLE 1 COMPLETED.

NRCS SITES VERSION 2005.1.04 ,01/01/2005
FILES

INPUT = C:\Hendricks11\60-48-100es.D2C
OUTPUT = C:\Hendricks11\60-48-100es.OUT
DATED 09/20/2011 14:37:36

NE1/4SW1/4 sec. 11-3S-31E

•6,094 Acre Watershed

•The Longest Flow Length is
39,948.1 Feet

•The Average Slope for the
Watershed is 3.38 %

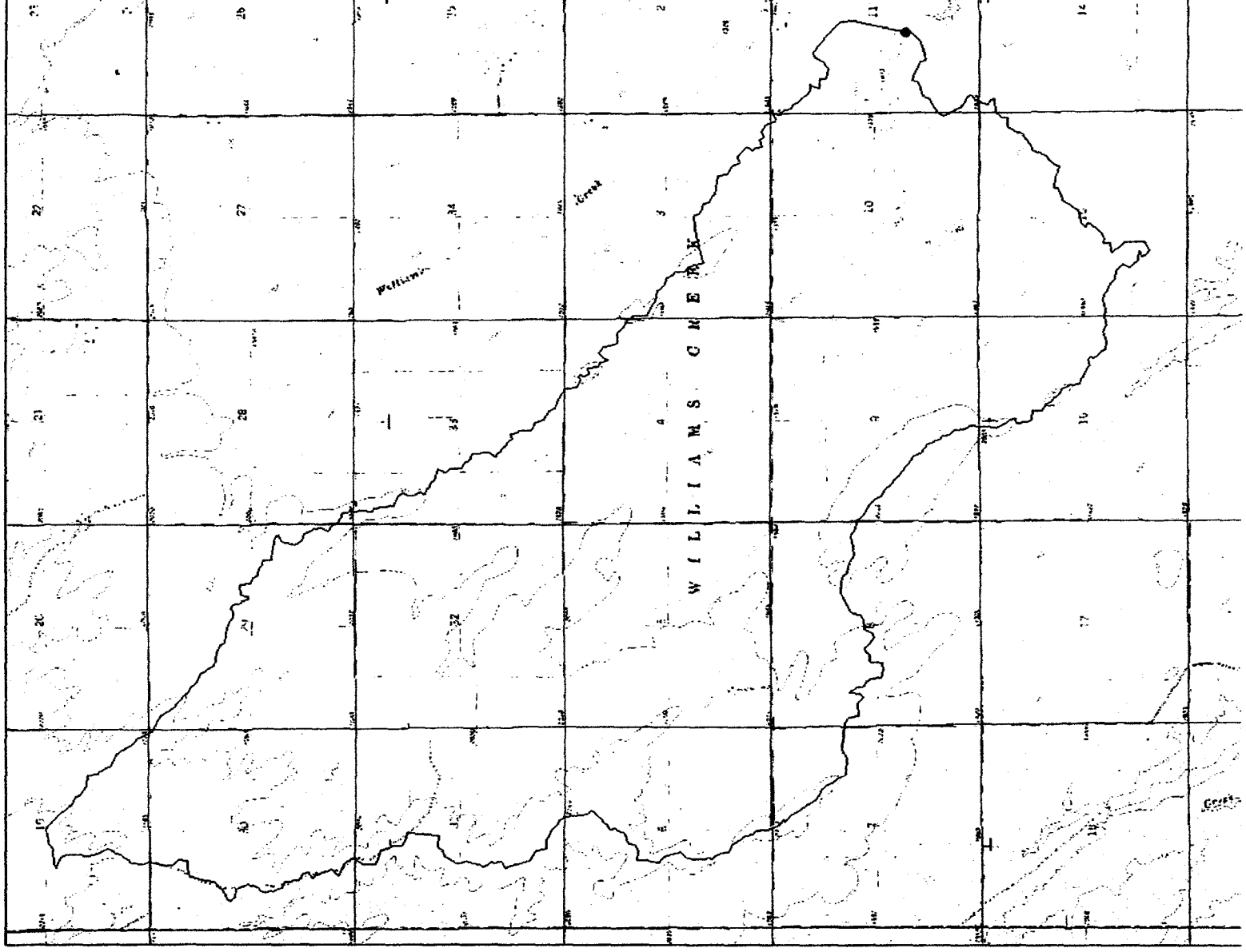
•Site has a very nice e. spillway on
south end.

CN-85

10yr - 3.4

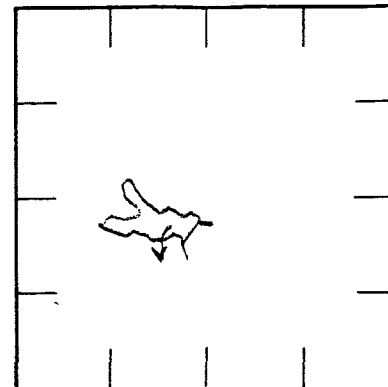
25yr - 4.0

Travis Hendricks



DRAINAGE AREA	ANNUAL YIELD	PEAK RUNOFF	EMERG. SPLY. CAPACITY	WATER DEPTH	SURFACE AREA	SEDIMENT STORAGE	TOTAL STORAGE
ACRES	50% AC. FT.	<i>cfs</i> 25-YR.	C.F.S.	FEET	ACRES	AC. FT.	AC. FT.
6094	457	2952	3638	10	25.9	—	113

Top of D2m 372

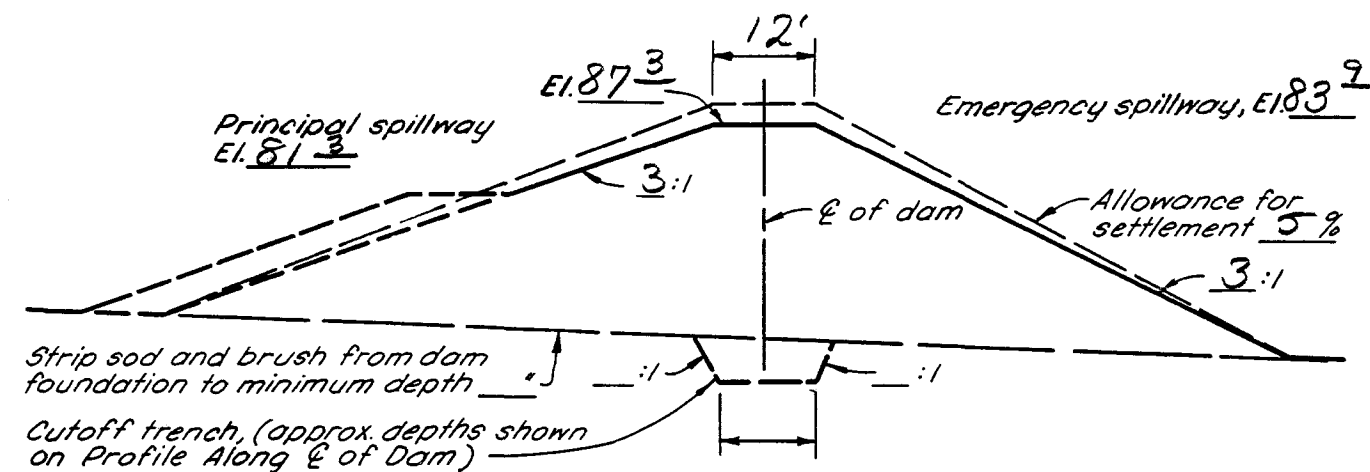


NESW Sec. 11 T. 3 S R. 31 E
Jones County

RECEIVED

OCT - 4 2011

WATER RIGHTS PROGRAM

[illegible]

S.D. CONSTRUCTION AND MATERIAL SPECIFICATIONS:

SD-2 Clearing
SD-7s Earth Fill
SD-9 Drain Fill
SD-12B Concrete
SD-15 CMP
SD-16 Timber Fabrication
SD-19 PVC

OPERATOR: Travis Hendricks

CONSERVATION DISTRICT: _____

Class "A" Hazard

Designed _____	DATE	Approved by _____
Drawn _____		Title _____
Traced _____		Title _____
Checked _____	Sheet _____	Drawing No. _____
	No _____	
	of _____	



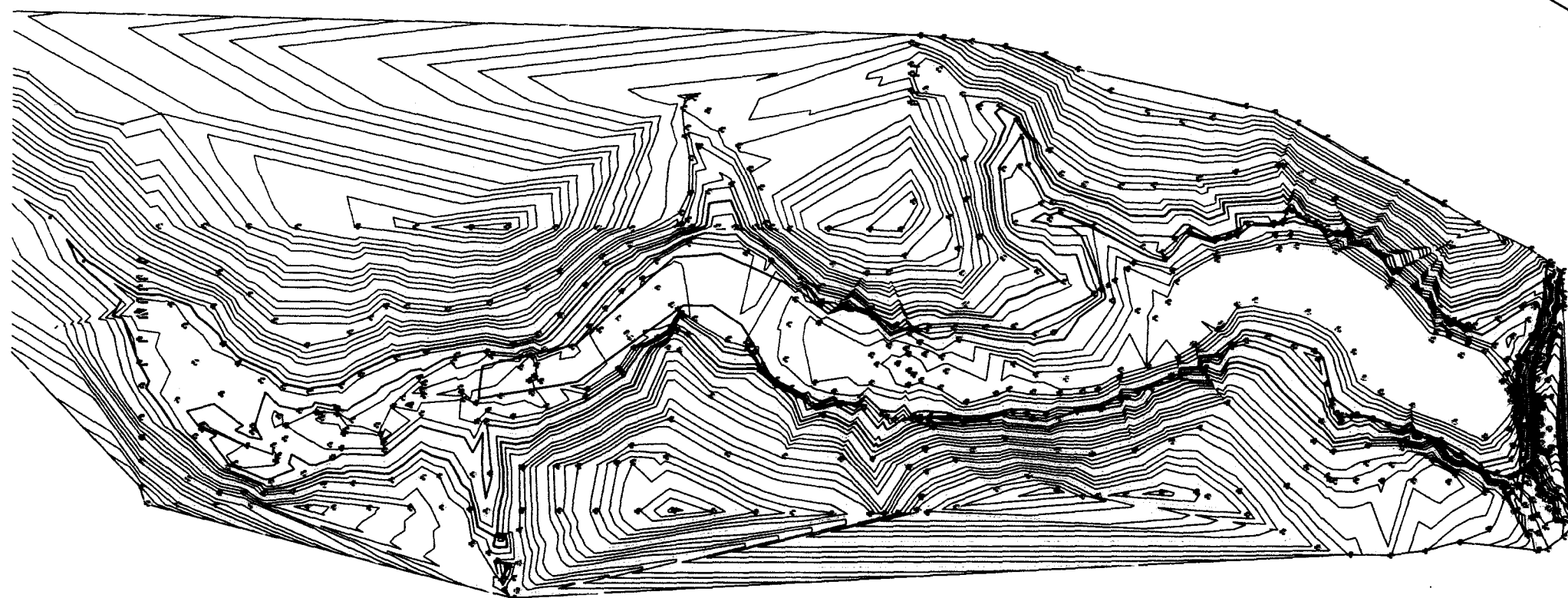
SKETCH PLAN OF DAM AND RESERVOIR AREA

Approximate scale 1" = _____

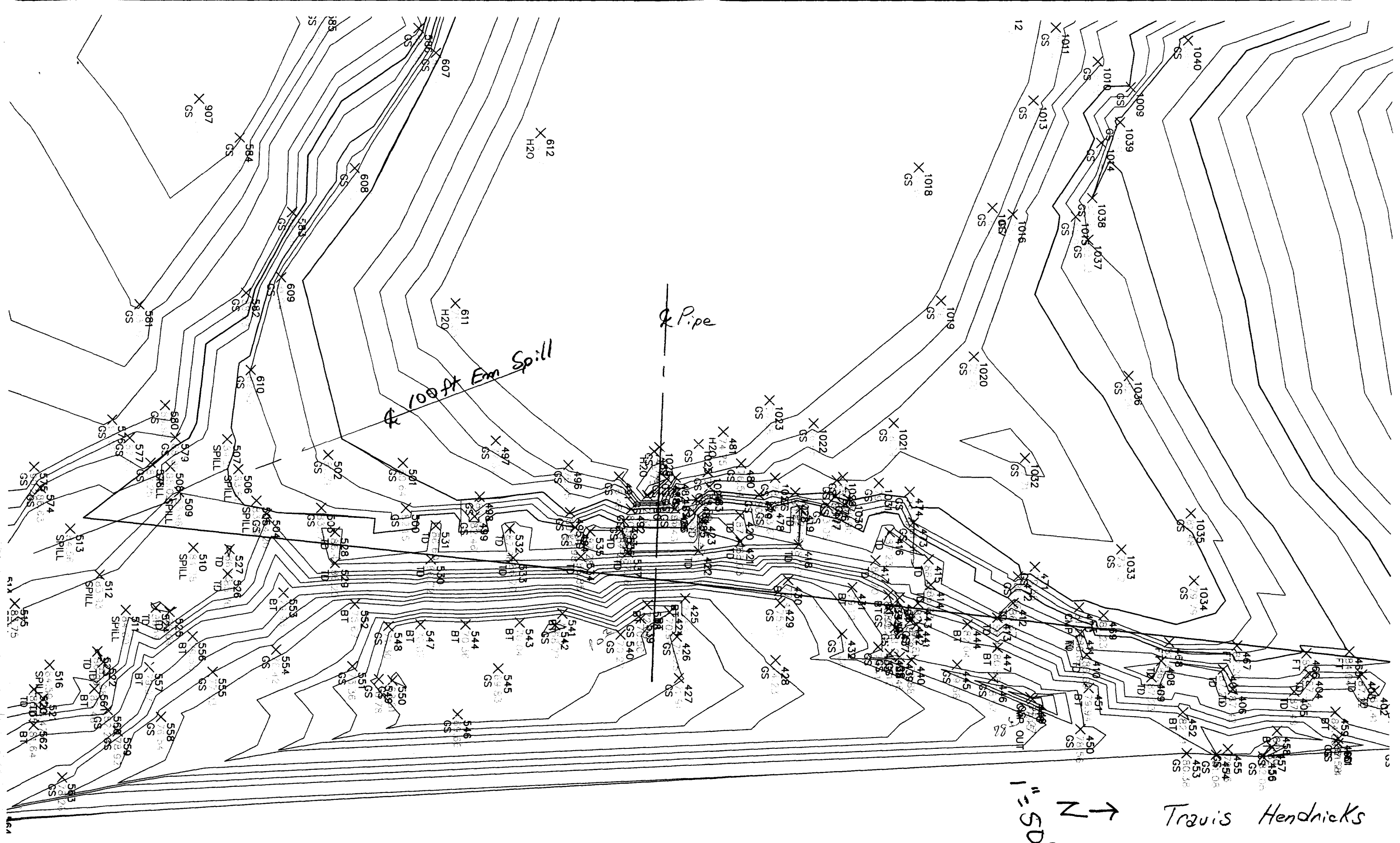
REFERENCE: GUIDE PLAN NO. 1.0

JOB PLAN NO. 1.0

(Rev. 4-73) 5, N-29, 073.1a(1.



↑
N
1" = 500'
Travis Hendricks pond
11-35-31E



Q Pipe Station

90

80

70

10 ft Berm to be
constructed
Elev. 81.3

87.3

Estimate yardage

$$\frac{270' \times 10' \times 5'}{27} = 500 \text{ cy}$$

Date

Designed

Drawn

Checked

Approved

Travis Hendricks

CAD file:
NE900-10-002a.dwg

Drawing No.

Sheet of

Locate principal spillway pipe
at $\angle$ of dam sta. 0 + 0, at
an angle of 0 to the $\angle$ of
the dam.

Trash rack and baffle plate
not shown. See job plan
no. 604

Top of dam after
settlement El. 87³

Note: Allowance for settlement 5 %

Emergency spillway El. 83⁷

Principal spillway El. 81³

Berm, if required 3:1
slope normal to CL of
dam _____

—: slope normal
to $\mathbb{C}$ of dam —

60" dia. riser, see
job plan no. 5.3

Antiseep collars sand seep coll 2-
J.P. 3.8

✓ 3:1 slope normal
to ϕ of dam

El. 74

3.3 % gr

74' of 48" dia. pipe

CROSS SECTION OF DAM ALONG C OF PRINCIPAL SPILLWAY
(Not to scale)

Prefabricated elbow

El.

El.

OUTLET DETAIL WITHOUT PIPE SUPPORT

Prefabricated elbow _____°

Pipe support, see job plan no. 4.0

El. 71.0

El. 70.2

6'

OUTLET DETAIL WITH
PIPE SUPPORT

Sec. _____, T. _____, R. _____
County _____

LOCATION

CORRUGATED METAL PIPE
DROP INLET PRINCIPAL SPILLWAY

OPERATOR Travis Hendricks

CONSERVATION DISTRICT

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed _____

Drawn _____

Traced _____

Checked _____

1	
---	--

Approved by

--- } Title. ---

Title _____

Sheet	Draw
-------	------

No

of

SPECIFICATION NOTES

1. ELBOW, IF REQUIRED, MAY BE FABRICATED BY CONTINUOUS WELDING SEPERATE PIPE SECTIONS OR BY FABRICATING A CONTINUOUS WELDED JOINT ON THE UPSTREAM END OF LAST SECTION OF PIPE.
2. PIPE WALL THICKNESS SHALL BE 10 GAGE OR 0.136 INCHES.

All pipe to be vinyl clad
Spiral

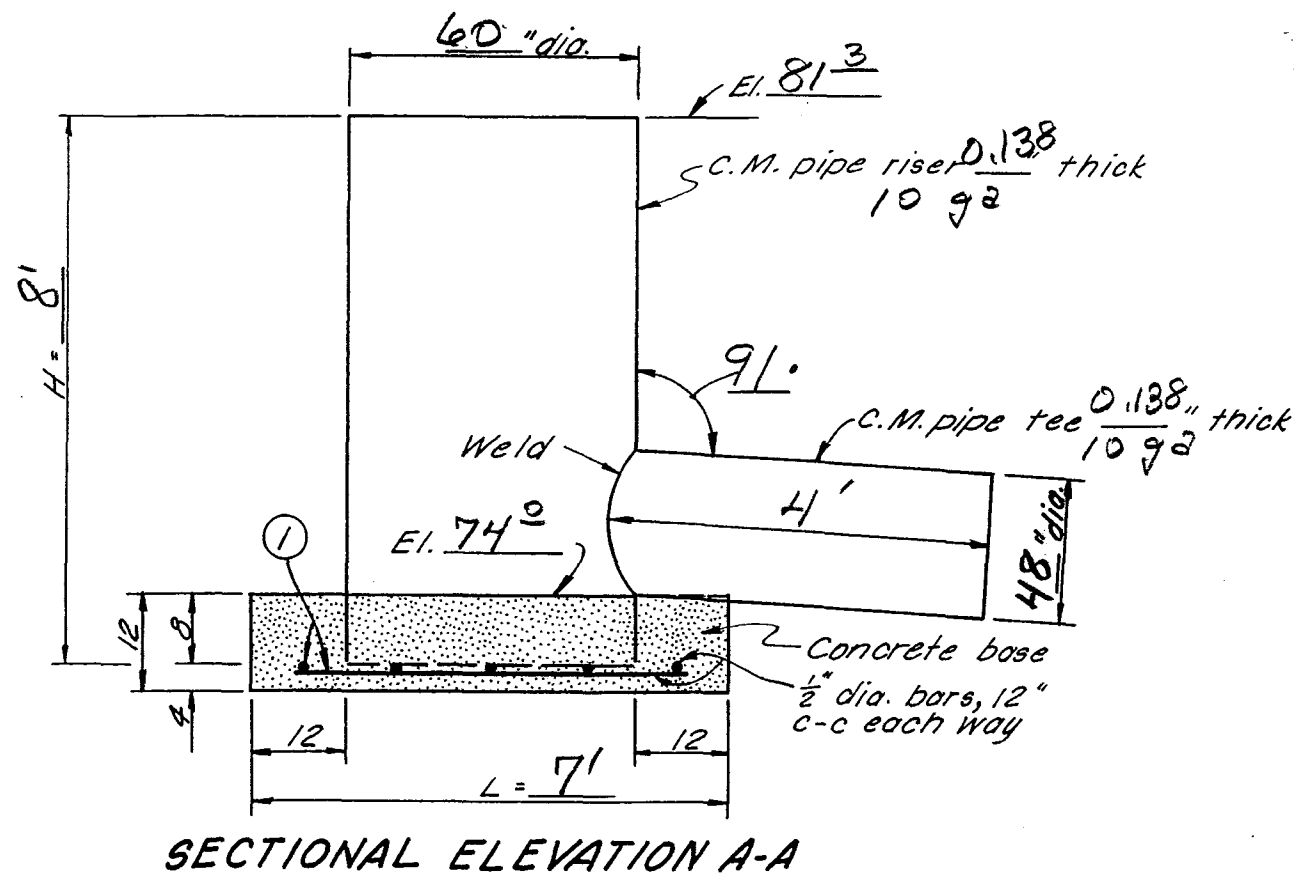
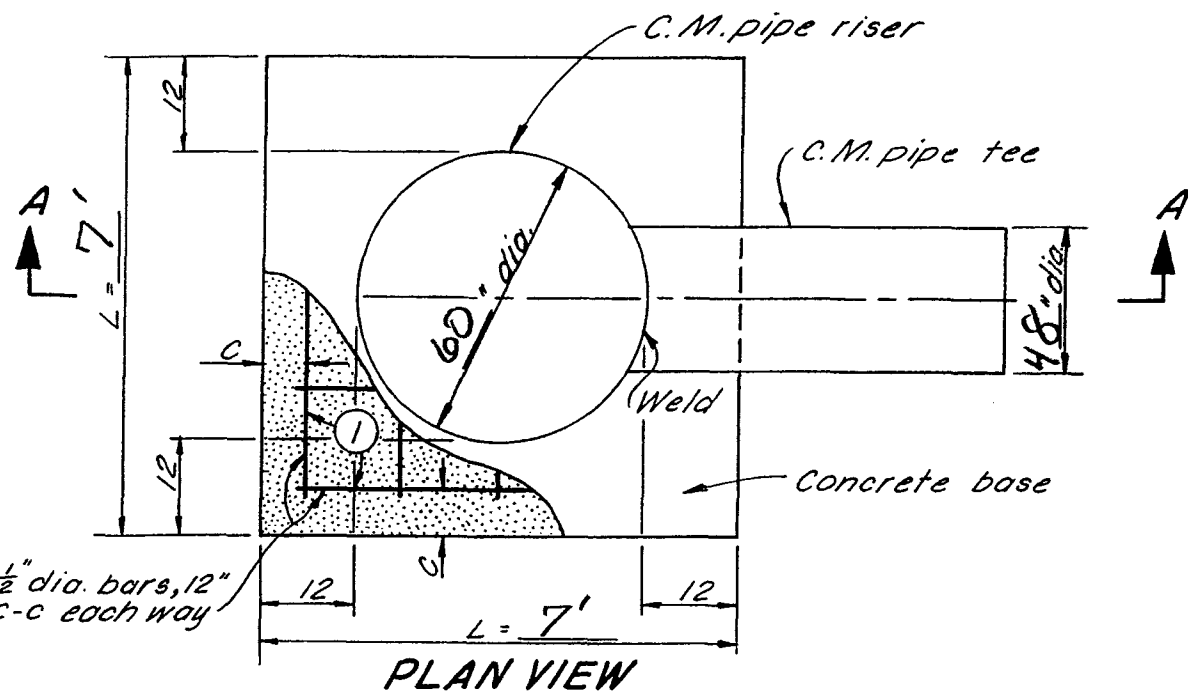
TABLE OF QUANTITIES

[illegible]

APPLICABLE STANDARD S.C.S. SPECIFICATIONS

Rev. 8/80
JOB PLAN NO. 2.0

REFERENCE: GUIDE PLAN NO. 2.0



STEEL SCHEDULE

RISER DIA. IN.	BAR SIZE	MARK	TYPE	NO. REQ'D.	LENGTH FT.-IN.	TOTAL LENGTH FT.-IN.	TOTAL WT. LB.	C IN.	L FT.-IN.
60	4	1	STR.	14	6-6	91-0	61	6	7-0

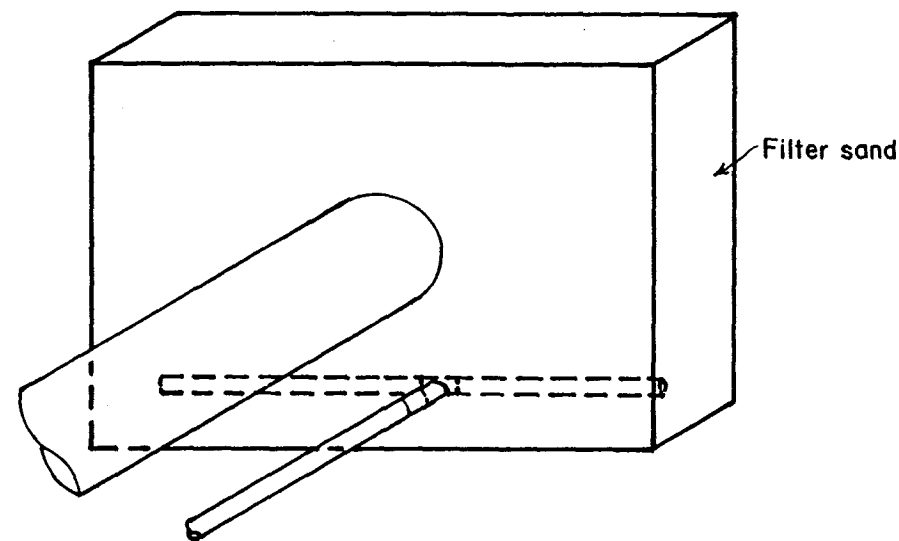
TABLE OF QUANTITIES

ITEM	UNIT	QUANTITY
CONCRETE	CU. YD.	1.9
REINFORCING STEEL	LB.	61

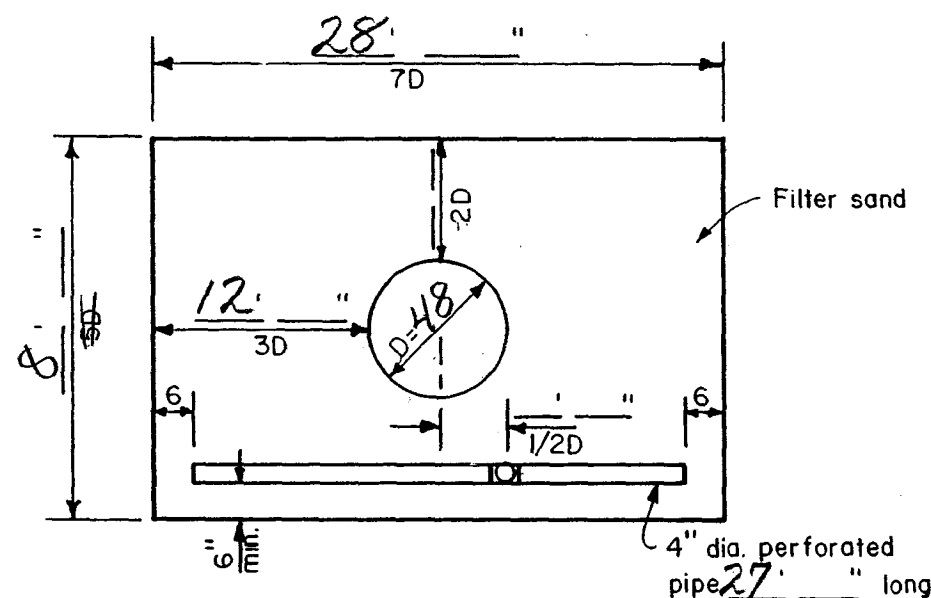
NOTE:

C.M. PIPE RISER WITH FABRICATED TEE

OPERATOR: <u>Travis Hendricks</u>	
CONSERVATION DISTRICT: _____	
Designed _____	Date _____
Drawn _____	Approved by _____
Traced _____	Title _____
Checked _____	Title _____
	Sheet _____
	Drawing No. _____
	No. _____
	of _____



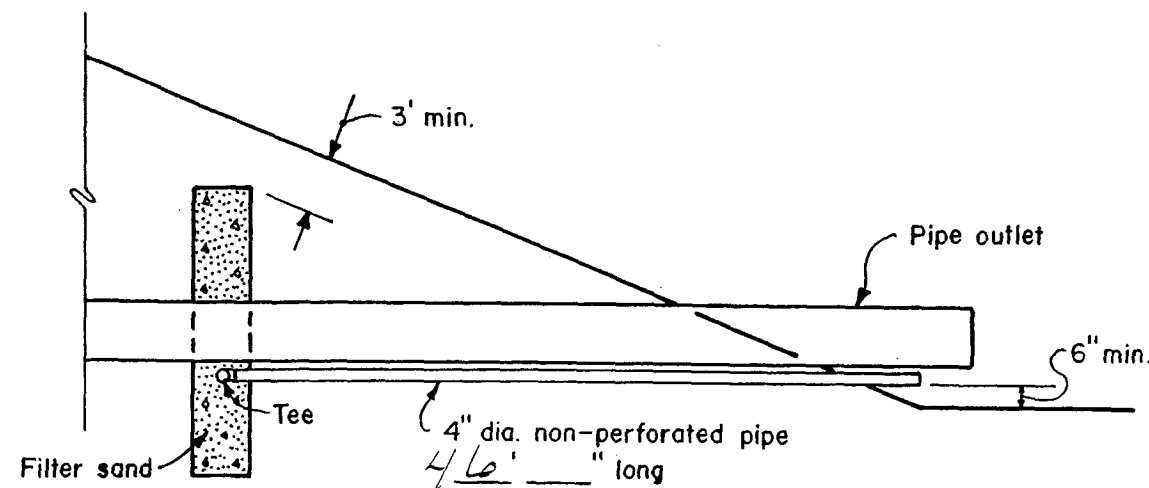
ISOMETRIC VIEW



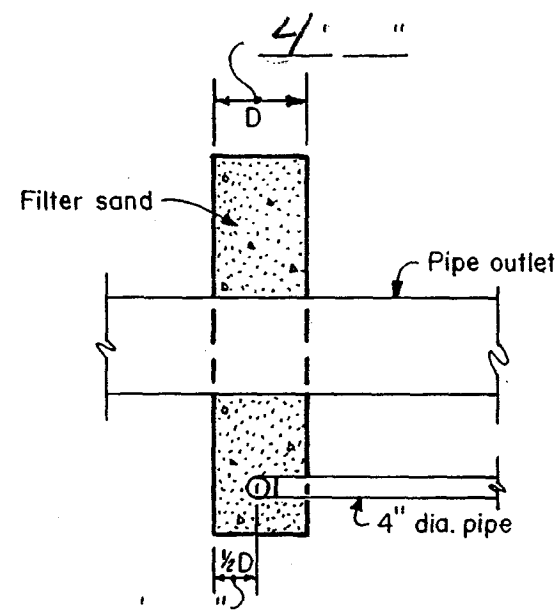
UPSTREAM VIEW

NOTE:

1. THE 4" DIA. PIPE SHALL BE ASTM D1785, SCHEDULE 40, PVC.
2. PROVIDE AN ANIMAL GUARD ON DRAIN OUTLET PIPE. DRILL 2, 1/2" DIA. HOLES, ON $\frac{1}{2}$ 6" FROM END OF PIPE AND PLACE A 3/8" DIA., 5 1/2" LONG GALVANIZED STEEL BOLT THRU THEM AND SECURE WITH A NUT (PLACE BOLT HORIZONTAL).



OUTLET DETAIL



SIDE VIEW

FILTER GRADATION

SIEVE SIZE	PERCENT PASSING
3/8"	100
4	95-100
8	80-100
16	50-85
30	25-60
50	10-30
100	2-10

see spec SD-9
33cy

Sec. _____, T. _____, R. _____

County _____
LOCATION

SAND ANTISEEP COLLAR

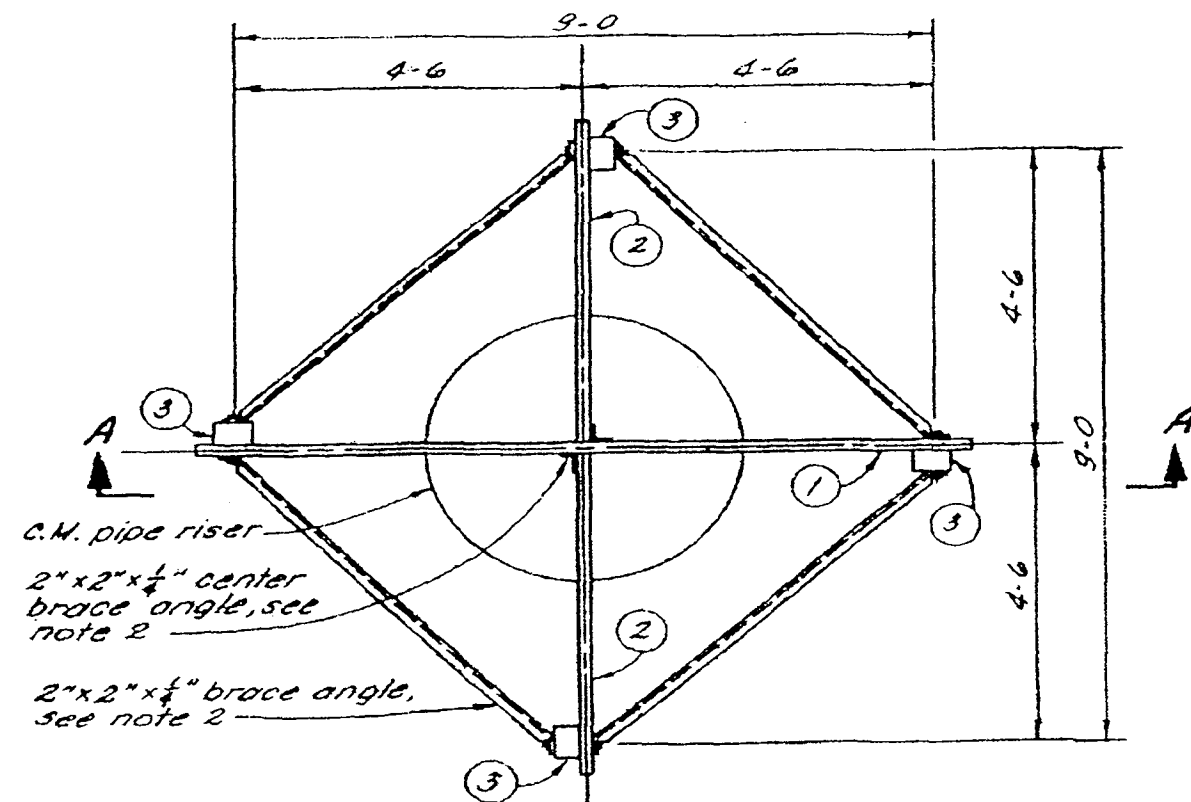
OPERATOR Travis Hendricks

CONSERVATION DISTRICT _____

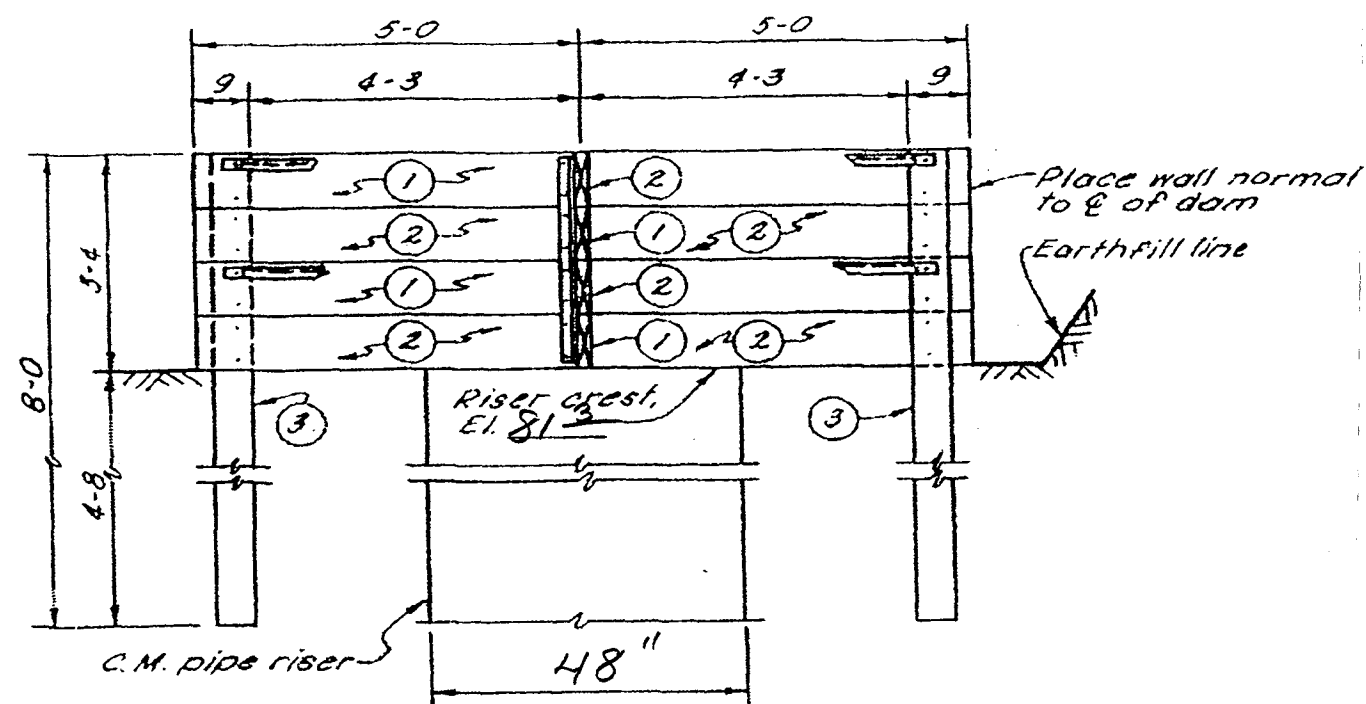
**U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE**

Designed _____	Date _____	Approved by _____
Drawn _____		Title _____
Traced _____		Title _____
Checked _____	Sheet _____	Drawing No. _____
	of _____	

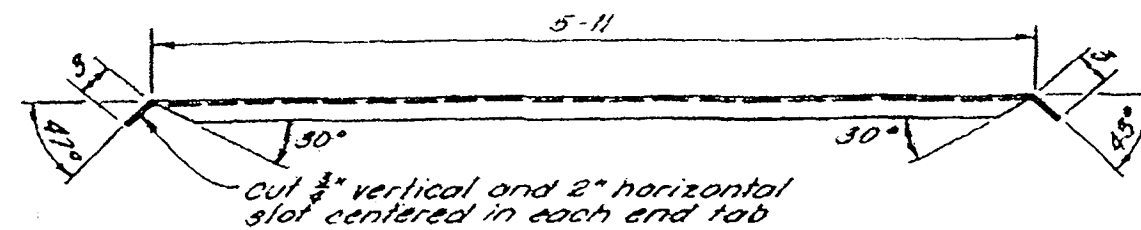
JOB PLAN NO. 3.8



PLAN VIEW



SECTIONAL ELEVATION A-A



PLAN VIEW OF BRACE ANGLE

TABLE OF QUANTITIES

ITEM	MARK	NO. REQ'D.	QUANTITY
2" X 10" X 10' PRESSURE TREATED LUMBER	1	4	67 BD. FT.
2" X 10" X 4'-11" PRESSURE TREATED LUMBER	2	8	66 BD. FT.
4" X 6" X 8' PRESSURE TREATED POST	3	4	64 BD. FT.
2" X 2" X 1/4" X 6'-5" STEEL ANGLE		8	164 LB.
2" X 2" X 1/4" X 3'-2" STEEL ANGLE		2	20 LB.
5/8" X 8" STEEL BOLTS, NUTS, 2 WASHERS		32	32 SETS
1/2" X 3" STEEL BOLTS, NUTS, 2 WASHERS		32	32 SETS

NOTES:

1. TO 4" X 6" POSTS (4 REQUIRED) BOLT 2" X 10" BOARDS USING TWO 5/8" X 8" BOLTS PER 2" X 10" BOARD. DO NOT PLACE BOLTS CLOSER THAN 1 1/2" FROM EDGE OF BOARD.
2. FOR CENTER BRACE ANGLES DRILL 8 - 9/16" HOLES 5/8" FROM OUTER EDGE OF EACH LEG OF EACH ANGLE AND CENTERED 5 1/4" APART ALONG THE LEG.
3. ATTACH BRACE ANGLES TO TOP BOLT ON TOP 2" X 10" BOARD AND TO TOP BOLT ON NEXT TO BOTTOM BOARD.

TRASH RACK AND BAFFLE
FOR RISER DIA. 36" THRU 60"

OPERATOR: Travis Hendricks
CONSERVATION DISTRICT: _____

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed _____	Date _____	Approved by _____
Drawn _____		Title _____
Traced _____		Scale _____
Checked _____		Drawing No. _____

JOB PLAN NO. 6.4

5, N-29, 073.6-40

Water Permit Application No. 2675-2

Travis Hendricks

Top of Dam Elev. - 87.3
 2nd Spillway Elev. - 83.9
 P. Spillway Elev. - 81.3
 Dis Emb. Toe Elev. - 70

Cat. 3 - Low Hazard Dam

Ht. = 17.3 ft

Normal Storage Capacity - 113 A.-Ft
 Int. Storage Capacity - 203
 Max. Storage Capacity - 372

Int. Capacity x Eff. Ht. = $203 \times 10 = 2030 < 3000$ $\therefore$ 25 year
Minimum Spillway Design

From USGS WRI 98-4055 "Tech. for Est. Flood Peaks ... in SD"
 Region C $DA = 6094 \text{ Ac} = 9.52 \text{ mi}^2$

$$Q_{15} = 207 CA^{.573}$$

$$= 207 (9.52)^{.573}$$

$$= \underline{750 \text{ cfs}}$$

$$Q_{100} = 379 CA^{.566}$$

$$= 379 (9.52)^{.566}$$

$$= \underline{1357 \text{ cfs}}$$

Secondary Spillway Capacity

$$Q = CLH^{3/2} \quad C = 2.6$$

$$= 2.6 (100)^{1/2} (3.4)^{3/2} \quad L = 100 \quad H = 3.4$$

$$= \underline{1630 \text{ cfs}}$$

NRCs Annual Yield

$$DA = 6094 \quad CN = 85 \quad ISO = 2$$

Section 74:02:08:09

1. Topo Map - OK
2. Dam Axis Profile - OK
3. Dam Max X-Sec. - OK
4. Area Capacity - OK
5. Outlet Details - OK
6. Spillway Rating - OK
7. Spillway Details - OK
8. Specs - OK
9. EPP - N/A - Cat. 3 - OK

$$80\% \text{ chance} = 0.5$$

$$0.5 \times 6094 = \underline{250 \text{ A.-Ft}}$$

$$50\% \text{ chance} = 1.1$$

$$1.1 \times 6094 = \underline{558 \text{ A.-Ft}}$$

$$10\% \text{ chance} = 3.5$$

$$3.5 \times 6094 = \underline{1775 \text{ A.-Ft}}$$



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

October 24, 2011

Travis Hendricks
28739 248th St.
Vivian, SD 57576

Dear Mr. Hendricks:

We have reviewed the plans and specifications for your dam repair project (Hendricks No. 4, SD ID No. SD01643) located in the NE ¼ SW¼ of Section 11-T3S-R31E, in Jones County. The plans and specifications for the project are approved. Approval of the plans and specifications does not authorize repair of the dam. The repair of the dam may not begin until Water Permit No. 2675-2 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 you, as owner of the dam, from the responsibility for operating and maintaining the dam in good repair to ensure the safety of the dam.

The Hendricks No. 4 Dam (SD01643) will be classified as a small size Category 3, Low Hazard dam with a dam height of 17 feet and a normal storage capacity of 113 acre-feet and a maximum storage capacity of 372 acre-feet.

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

Sincerely,

Timothy G. Schaal, P.E.
Natural Resources Engineering Specialist
for Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

c: Dave Konechne, Pierre



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2675-2, Travis Hendricks**

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. 2675-2, Travis Hendricks, 28739 248th Street, Vivian SD 57576.

The Chief Engineer is recommending APPROVAL of Application No. 2675-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. Water Permit No. 2675-2 authorizes a dam with a storage capacity of 113 acre feet of water and sufficient water annually to maintain the water level to the outlet elevation.
2. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

See report on application for additional information.

Garland Erbele, Chief Engineer
October 21, 2011

REPORT ON
WATER PERMIT APPLICATION NO. 2675-2
Travis Hendricks
October 20, 2011

Water Permit Application No. 2675-2 has been filed by Travis Hendricks to impound 113 acre-feet of water from runoff by reconstructing an existing dam (Hendricks No. 4, SD ID NO. SD01643) located in the NE ¼ SW ¼ of Section 11-T3S-R31E, in Jones County. The application also requests impoundment of sufficient water to maintain water to the outlet elevation. The water will be used for fish and wildlife production and livestock water purposes.

Discussion:

The dam will be classified as a small size, Category 3, Low Hazard dam. The repair has been designed by Konechne Engineering. The plans and specifications have been reviewed and will be approved; however, repair of the dam can not begin until Water Permit Application No. 2675-2 is approved.

The dam will be 17 feet high with a normal storage capacity of 113 acre-feet with a reservoir level at the primary spillway elevation, and a maximum storage capacity of 372 acre-feet with a 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.

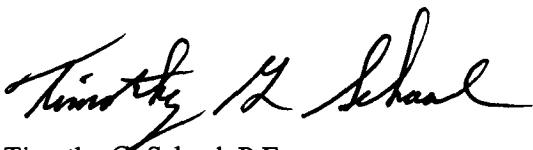
The dam has a drainage area of 6094 acres or 9.52 square miles. The dam has a 60 inch diameter CMP riser and a 48 inch diameter CMP barrel with 6.0 feet of freeboard as the primary spillway, and a 100 foot wide earthcut secondary spillway with 3.6 feet of freeboard. A 25 year frequency event produces a peak runoff of approximately 750 cfs and a 100 year frequency event produces a peak runoff of approximately 1357 cfs. The earthcut spillway will have a capacity of approximately 1630 cfs.

The annual yield for this drainage area with an 80 percent chance of occurrence, or 8 out of 10 years is expected to be 250 acre-feet; the annual yield with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be 558 acre-feet; and the annual yield with a 10 percent chance, or 1 out of 10 years, is expected to be 1775 acre-feet.

Water Permit Application No. 2675-2 has been filed to impound 113 acre-feet of water from runoff by reconstructing an existing dam located in the NE ¼ SW ¼ of Section 11-T3S-R31E. The existing dam was authorized under Location Notice No. 7010-2, which was filed in 1953. The dam is located on an unnamed tributary to Williams Creek, about 3.5 miles upstream of the confluence of the unnamed tributary and Williams Creek, and about 7 miles upstream of the confluence of Williams Creek and the White River. There are no existing Water Rights/Permits filed on the unnamed tributary or Williams Creek between the Hendricks Dam No. 4 and the White River.

Conclusions:

1. Water Permit Application No. 2675-2 should be approved since unappropriated water is available and approval should not have any adverse effect on existing Water Permits/Rights.
2. If approved, the low flow bypass requirement for domestic use should be a qualification on Water Permit Application No. 2675-2.



Timothy G. Schaal, P.E.
Natural Resources Engineering Specialist

RECEIVED

NOV 03 2011

WATER RIGHTS
PROGRAM

PUBLISHER'S AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

)ss

COUNTY OF JONES

Pam Daum, of said County and State, being duly sworn, on oath says: THE MURDO COYOTE is a weekly newspaper of general circulation, printed and published in MURDO, in said County and State and has been such newspaper during the times hereinafter mentioned; that the said THE MURDO COYOTE is a legal newspaper and has been in existence for more than one year immediately preceding the first publication herein mentioned; and has more than 200 bonified subscribers; that I, the undersigned am Legal Advertising Manager of said newspaper, and in charge of the advertising department thereof, and have personal knowledge of all facts stated in this affidavit; and that the advertisement headed

Notice of Application #2675-2 to Appropriate Water
Travis Hendricks

a printed copy of which is hereto attached, was printed and published in said newspaper for 2 successive issues, the first publication being on the 3rd day of November, 2011, and the last publication on the 10th day of November, 2011, that \$ 46.78 being publication of the annexed notice solely to the benefit of the applicant and that no arrangement or understanding for a division thereof has been agreed to by the applicant and that no part thereof has been agreed to be paid by any other person.

**Notice of Application
No. 2675-2 to
Appropriate Water**

Notice is given that Travis Hendricks, 28739 248th St, Vivian, SD 57576 has filed an application for a water permit to impound 113 acre-feet of water from runoff by reconstructing an existing dam located in the NE 1/4 SW 1/4 Section 11 with water impounded in the N 1/2 SW

1/4, S 1/2 NW 1/4 Section 11 and N 1/2 SE 1/4 Section 10; all in T3S-R31E. This application requests impoundment of sufficient water to maintain water to the outlet elevation. The water is for fish and wildlife propagation and livestock water purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2675-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. 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.

Subscribed and sworn to before me this 10th day of November, 2011.

Tamara Lawless

Notary Public, State of South Dakota
My Commission Expires
January 24, 2014

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 November 21, 2011.

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 Program address to request copies of information pertaining to this application. Steven M.

Pirner, Secretary, Department of Environment and Natural Resources.

Published November 3 & 10, 2011, at the total approximate cost of \$46.78.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

October 25, 2011

Murdo Coyote
PO Box 465
Murdo SD 57559

ATTENTION: Legal Public Notice

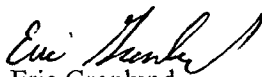
Enclosed is a Notice on Application No. 2675-2 to Appropriate Water to be published twice. Please publish the first notice on November 3, 2011 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Travis Hendricks, 28739 248th St., Vivian SD 57576 (Ph # 605-683-6202).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** 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

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

No. 2675-2

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of October 25, 2011 enclosing Notice to Appropriate Water by Application No. 2675-2 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denn

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

October 25, 2011

Travis Hendricks
28739 248th St
Vivian SD 57567

Dear Mr. Hendricks:

Water Permit Application No. 2675-2 for fish & wildlife & livestock watering use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Murdo Coyote printed at Murdo SD (Ph # 605-669-2271). You will need to contact the newspaper 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 to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. 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
eric.gronlund@state.sd.us

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 first Notice on November 3, 2011 with the second publication 7 days later. 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.

NOTICE OF APPLICATION NO. 2675-2 to Appropriate Water

Notice is given that Travis Hendricks, 28739 248th St, Vivian SD 57576 has filed an application for a water permit to impound 113 acre-feet of water from runoff by reconstructing an existing dam located in the NE ¼ SW ¼ Section 11 with water impounded in the N ½ SW ¼, S ½ NW ¼ Section 11 and N ½ SE ¼ Section 10; all in T3S-R31E. This application requests impoundment of sufficient water to maintain water to the outlet elevation. The water is for fish and wildlife propagation and livestock water purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2675-2 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. 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 November 21, 2011.

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 Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published twice at the total approximate cost of _____.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

JAN 10 2012

Travis Hendricks
28739 248th St
Vivian SD 7576

Dear Mr. Hendricks:

Enclosed is Water Permit No. 2675-2 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,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 2675-2

I have this day, September 17, 2018 made a thorough examination of the water use system constructed by Travis Hendricks, 28739 248th St., Vivian, SD 57576 of Permit No. 2675-2, bearing the priority of 10/4/2011 authorizing the diversion and storage of 113 acre-feet of runoff water from a dry draw tributary of Williams Creek for fish, wildlife and livestock water purposes in Jones County.

Inspection contact & relationship to permit holder, if applicable:

Travis Hendricks, Owner
605-683-6202

A. Dam Information:

- 1) Height to crest 17.1 feet from downstream toe
- 2) Height to primary spillway 11.1 feet from downstream toe
- 3) Height to secondary spillway 13.7 feet from downstream toe
- 4) Crest width 12 feet
- 5) Crest length 760 feet
- 6) Primary Spillway diameter 48 inch
- 7) Secondary Spillway width 100 feet
- 8) Approx. storage to primary spillway 113 ac-ft
- 9) Approx. storage to crest 371 ac-ft

Date constructed: July 2012

B. Works used to put water to beneficial use:

This is an earth fill embankment utilizing a 60" CMP riser and 48" CMP barrel with a vegetated earth spillway. The water impounded in the reservoir is put to beneficial use in-place.

C. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by: Yes

Low flows as needed for downstream domestic use including livestock and prior water rights must be by-passed. A permanent by-pass structure was not installed. Any by-pass of flows if needed will use temporary means.

Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period. N/A

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

- 2) Exceptions to compliance are: none

D. Condition and Location:

1. The system is in **good** condition with the point of diversion located as follows:
2,033' E and 2,156' N of the SW corner Section 11 T3S R31E (43.798032, -100.379064)

The works are capable of diverting to the place of use and storing **113.0** acre-feet of water which is to be used for **fish, wildlife and livestock use**. Water has been put to beneficial use to the maximum extent and the license should be issued for **113.0** acre-feet storage.

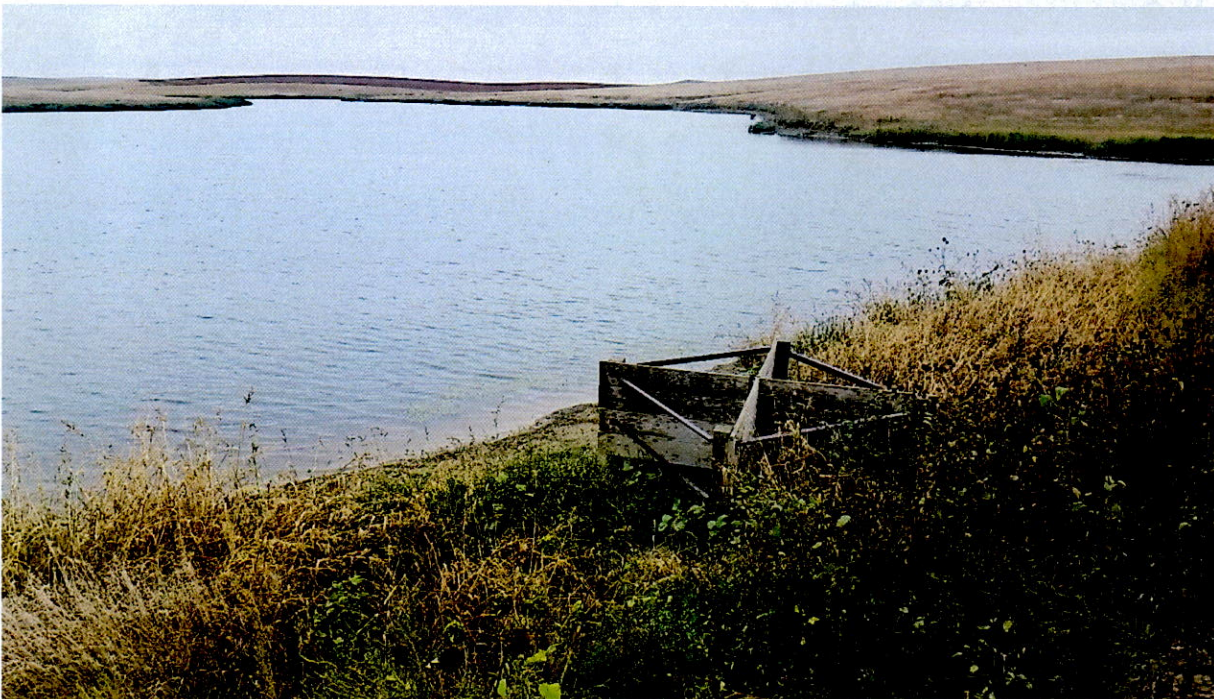
2. All structures, wells and lands on map **Yes**

E. Comments or other permit(s) associated with the project: none

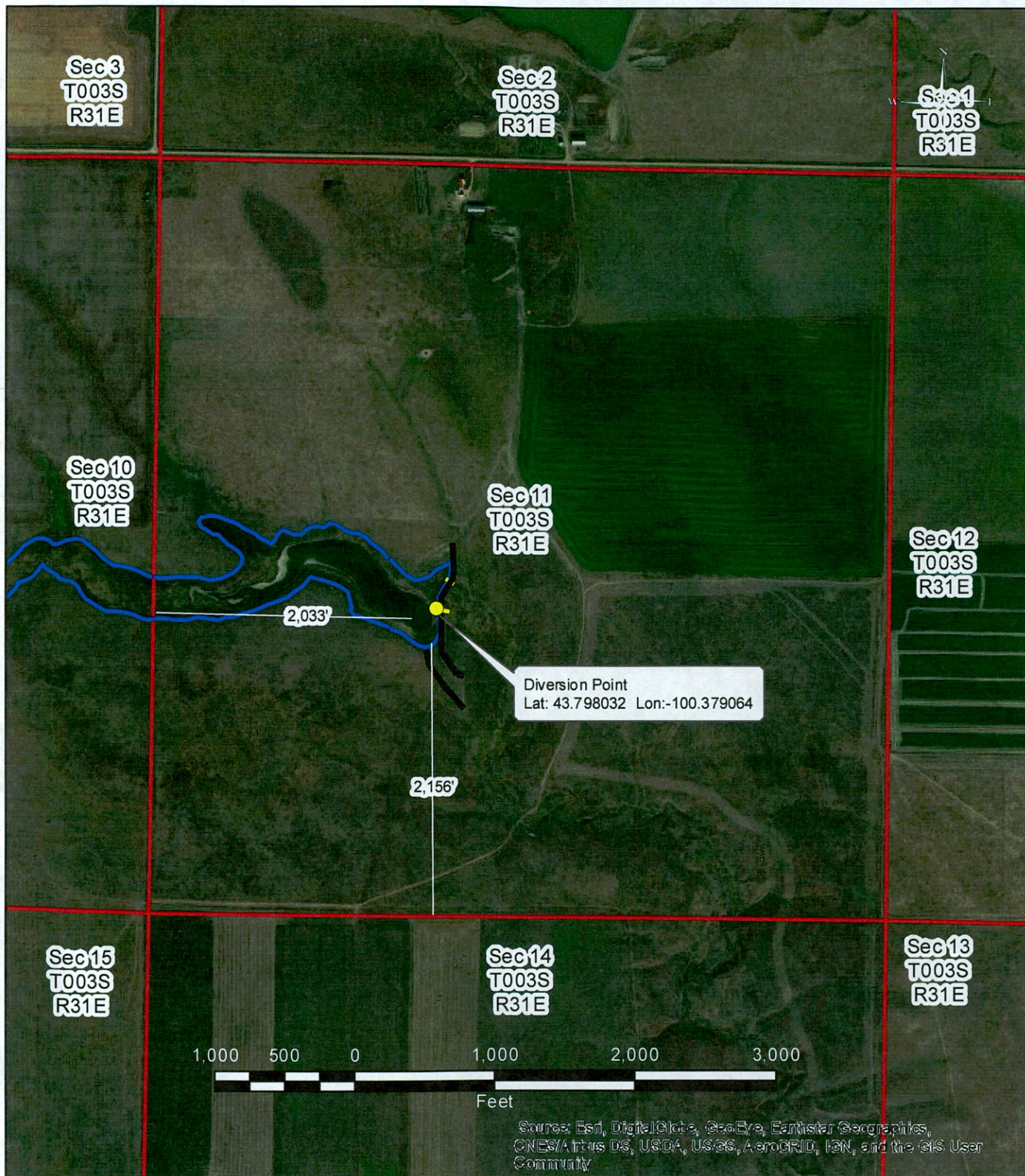


Steven Quissell
Water Rights Inspector
DENR, Water Rights Program

Date report completed: **9/18/2018**

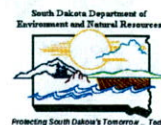


Water Right #2675-2
Travis Hendricks
9/17/2018



Steven Quissell

Steven Quissell
Water Rights Inspector
DENR Water Rights Program





DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

OCT 09 2018

2675-2

Travis Hendricks
28739 248th St
Vivian SD 57576

Dear Mr. Hendricks:

Enclosed is Water License No. 2675-2. 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

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 2675-2

(1) Travis Hendricks, 28739 248th St., Vivian SD 57576 made Application No. 2675-2, October 4, 2011 for a water permit to impound 113 acre feet of runoff water by reconstructing an existing dam located in Jones County, South Dakota for fish & wildlife propagation and livestock water purposes. Permit No. 2675-2, with a priority date of October 4, 2011 was approved November 21, 2011 and issued to the applicant for impoundment of water with construction of the described water supply system to be completed on or before November 21, 2016 and for the application to beneficial use of water on or before November 21, 2020.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the storage dam and is entitled to impound 113 acre feet of water for beneficial use.

The storage dam (spillway) is located:

- 2,033'E and 2,156'N of the SW corner of Section 11, T3S, R31E (NE ¼ SW ¼)
Latitude 43.798032, Longitude -100.379064

Water is impounded in the N ½ SW ¼, S ½ NW ¼ Section 11 and the N ½ SE ¼ Section 10, all in T3S, R31E.

(3) The permit holder 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 Travis Hendricks, 28739 248th St., Vivian SD 57576 the holder and/or owner of Water Right No. 2675-2 is issued a license to appropriate water, the right to impound 113 acre feet of runoff water in a storage dam with a priority date of October 4, 2011 from the location specified in (2) of this license for fish & wildlife propagation and livestock water purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 2675-2 and subject to the following qualifications:

- Water Right No. 2675-2 authorizes a dam with a storage capacity of 113 acre feet of water and sufficient water annually to maintain the water level to the outlet elevation.
- Low flows as needed for downstream domestic use, including livestock water and prior water rights must be bypassed.



Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

OCT 09 2018

date

