

WATER PERMIT NO. 1764-1

Name of Applicant: Donna Clausen

Address: Box 432, Eagle Butte SD 57625

Phone: 605 964-7891

Amount of Water Claimed: 67.5 acre-feet

Total Acres: NA

Source of Water Supply: runoff

Water to be used for: fish & wildlife propagation, recreation, livestock water

County: Dewey

Type of Waste Disposal System:

Location: 10 miles northwest of Eagle Butte

PRIORITY Date Received: 10-3-01

Fee: \$150

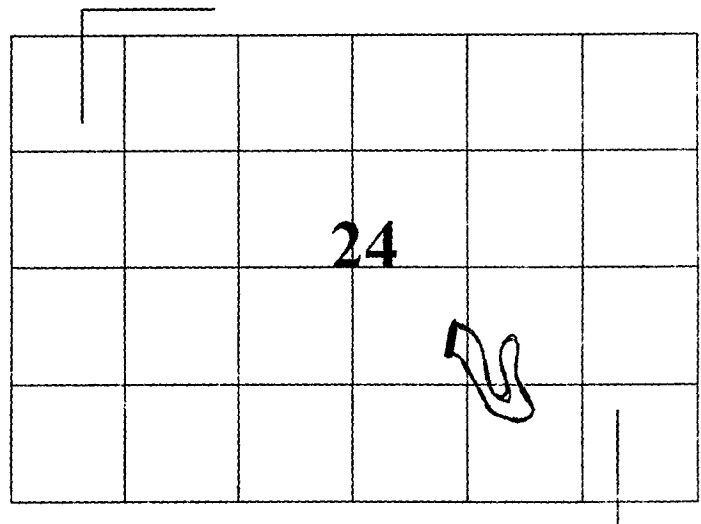
Corrected Application Received: 2-7-02

Period of Annual Use: January 1 - December 31

Remarks:

Diversion Point: NW ¼ SE ¼ Sec 24-T13N-R22E

Water Impounded: NW ¼ SE ¼, E ½ SE ¼ Sec
24-T13N-R22E



Depth of Well: NA

Well Driller: : NA

Remarks:

Type of Map: topo

Prepared by: Thomas VerHelst, NRCS

Reviewed and the Number Assigned on: 2-8-02

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 1764-1

Date of first receipt of application October 3, 2001.

Date of return to applicant for corrections, amendments or changes January 9, 2002.

Date of receipt of corrected application January 14, 2002.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1764-1 to Donna Clausen, Box 432, Eagle Butte SD 57625 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. 1764-1 authorizes impoundment of 67.5 acre-feet of water from runoff by constructing a dam located in the NW ¼ SE ¼ Section 24 with water impounded in the NW ¼ SE ¼, E ½ SE ¼ Section 24; all in T13N-R22E.
2. The water appropriated shall be used for the purpose of fish and wildlife propagation, recreation 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. 1764-1 is March 25, 2002.
5. The date from which applicant may claim right is January 14, 2002.
6. One-fifth of the construction is to be completed on or before September 25, 2004.
7. All construction is to be completed on or before March 25, 2007.
8. Water is to be put to beneficial use on or before March 25, 2011.
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. 1764-1 authorizes a dam with a storage capacity of 67.5 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

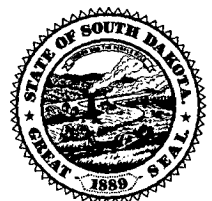
Garland Erbele, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

APR 16 2002

date



No. 1764-1 Hydrologic Unit 10130306
Basin Moreau River
Newspaper Eagle Butte News, Eagle Butte
(office use only)

7-92

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. Wastewater Disposal System Information

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

3. Dugout Information

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

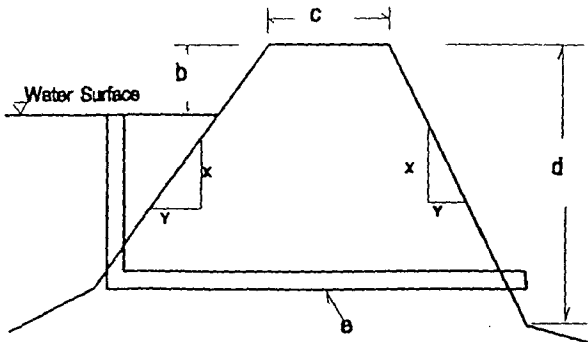
4. Water Storage Dams

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:

Cheyenne River Tribal Office
Teton Mall, PO Box 590
Eagle Butte, SD 57625

- b) Freeboard 3'
- c) Crest Width 12'
Crest Length 238'
- d) Height 25.9'
- e) Primary Outlet Capacity N/A
If pipe, diameter _____
- f) Secondary Spillway Capacity 670 cfs
Spillway Width 60'
- g) X & Y Slope
Upstream 3:1
Downstream 3:1
- h) Surface Area of Impoundment 7.8
- i) Storage 67.5 Acre Feet
- j) Drainage Area Above Dam 1202 Acres



SSER DAM

R22E

R23E

QUAD - Lantry SE

DA - 1202 Ac
SLOPE - 1.7%
T_L - 13500
G - 74

EMERGENCY
SPILLWAY

SURVEY EL	-	84.0	94.0	97.0	104.0
QUAD EL	-	2290	2300	2303	2310
Depth	-	8	18	21	28
P.A.	-	.76	6.2	9.8	12.4
Storage	-	2.4	44.6	67.5	138.9

T13N

5774 III SW
(LANTRY)

MAP PREPARED BY:
THOMAS D. Ver Helst
Ag Engineer, NRCS
Thomas D. Ver Helst

1764-1

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

N^o 417045

Pierre, January 14, 2002

RECEIVED OF Donna Clausen, Box 432, Eagle Butte, SD 57625

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 _____

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. _____

50 00

Fee for Filing Transfer Form _____

Fee for Filing Extension Request _____

Fee for _____

(Any Other Work Provided by Law)

Total

200 00

By

Darland Ebele

Chief Engineer

gm



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 9, 2002

Donna Clausen
Box 432
Eagle Butte SD 57625

Dear Ms. Clausen:

On October 3, 2001, you submitted an *Application for Permit to Appropriate Water Within the State of South Dakota* for a 67.5 acre-feet storage dam. To date, we have not received the \$200 application filing fee.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
Phone: (605) 773-3352



*Karen,
Sorry for this delay - my fault -
Thank you
Loraine*



February 5, 2002

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

Tom VerHelst
Natural Resource Conservation Service
1847 5th Ave S
Belle Fourche SD 57717-2086

Dear Mr. VerHelst:

In reference to your phone conversation with Tim Schaal this morning, enclosed is the topo map submitted with the *Application for a Permit to Appropriate Water* for Donna Clausen.

Please sign and return the map. If you have any questions, please contact me.

Sincerely,

Karen Schlaak
Water Rights Program
605 773-3352

enclosure

RECEIVED
FEB - 8 2002
**WATER RIGHTS
PROGRAM**

Tim,

I don't have any the drawings at my office so I'm hoping the landowner sent you the ones I had included in his packet. I do have the DAMSZ routing output and data used in that routing.

This is all for the
Donna Claussen Dam
in Dewey Co.

TOM

1DAMS2 XEQ 01/12/** STRUCTURE SITE ANALYSIS COMPUTER PROGRAM
 REV 01/01/90 SCS TECHNICAL RELEASE 48, (USER MANUAL) DATED JAN. 1990
 TIME 13:37:50

***** THIS PROGRAM IS IN TEST STATUS *****

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

DAMS2 01/01/90 TYPICAL DESIGN RUN -378
 STRUCTURE MULTI-PURPOSE DAM CLAUSSEN SEC24,T13N-R22E
 0.0 0.000
 8.00 2.4
 18.0 44.6
 21.0-EMERGENCY SPILLWAY 67.5
 28.00 138.9 *98 A-F*
QUAD 2303 *SURVEY 97.0*
100 24-
 ENDTABLE
 WSDATA 2A101 AC 74.0 1202 3.89
 PDIRECT 2.1 3.9 3.9
 POOLDATA ELEV 21.0 21.0 1.0
 ESCREST ELEV 21.0
 ESDATA 01 50 0.035 3 0.035 1.5
 BTMWIDTH FEET 40
 GO,DESIGN TYPE 2 24 TYPE2 378 24
 ENDJOB

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

1DAMS2 -----
 XEQ 01/12/** SIGH RUN -378 WSID= TYPICAL
 REV 01/01/90 OSE DAM CLAUSSEN SEC24,T13N-R22E SUBW= 01
 TIME 13:37:50 SITE = MULTI PASS= 1 PAGE= 1

***** BASIC DATA *****
 HUMID- SUBHUMID CLIMATE AREA DESIGN CLASS A1 =LT 3000

STORM DISTRIBUTION-PSH 24 HOUR TYPE II RAINFALL DISTRIBUTION

STORM DISTRIBUTION ESH...24 HOUR TYPE I RAINFALL DISTRIBUTION

PRECIP.- P-PS1 DAY P-PS10 DAY P-ES P-FB
 2.10 .00 3.90 3.90

WSDATA- CN DA-SM TC/L -/H
 74.00 1.88 3.89 .00

SITEDATA- PERM POOL CREST PS FP SED QRF
 21.00 21.00 .00 .00

BASEFLOW INITIAL EL EXTRA VOL.
 .00 .00 .00

PSDATA- NO. COND. COND L D/W -/H
 .00 .00 .00 .00



PS N	KE	WEIR L	TW EL	
.000	.00	.00	.00	
2ND STG	ORF H	ORF L	START ES	
.00	.00	.00	.00	
CRESTS-	ES1	ES2	ES3	ES4
	21.00	.00	.00	.00
				ES5
				.00
EMG DATA-	SIDE SLOPE	EXIT N	EXIT SLOPE	
	30.00	.035	.015	
EMG DATA-	ES TYPE	ES LENGTH	ES ENTRANCE N	
	1	50	.035	
BTM WIDTH-	BW1	BW2	BW3	BW4
	40.00	.00	.00	.00
				BW5
				.00

***** NOTE - THIS IS ONLY A PRELIMINARY EMG RATING CURVE OF DISCHARGE/FT
OF WIDTH AND DOES NOT INCLUDE SIDESLOPE CORRECTION OR
REVISED RATING USING ACTUAL EMG. CONFIGURATION.

EMG ID CODE	01	ELEVATION INCREMENT (FT) = 1.000		
DISCHARGES-Q1	Q2	Q3	Q4	
2.021	6.885	13.602	21.837	
Q5	Q6	Q7	Q8	
31.295	41.832	53.364	65.821	
Q9	Q10	Q11	Q12	
79.105	93.188	108.024	123.576	

1DAMS2 -----

XEQ 01/12/**	SIGH RUN -378			WSID= TYPICAL
REV 01/01/90	OSE DAM	CLAUSSEN	SEC24,T13N-R22E	SUBW= 01
TIME 13:37:50	SITE = MULTI		PASS= 1	PAGE= 2

PERM POOL	21.00 FT	67.5 ACFT	.00 AC	.0 CFS
CREST PS	21.00 FT	67.5 ACFT	.00 AC	.0 CFS
SED ACCUM	21.00 FT	67.5 ACFT	.00 AC	.0 CFS
STARTING E	21.00 FT	67.5 ACFT	.00 AC	.0 CFS

1DAMS2 -----

XEQ 01/12/**	SIGH RUN -378			WSID= TYPICAL
REV 01/01/90	OSE DAM	CLAUSSEN	SEC24,T13N-R22E	SUBW= 01
TIME 13:37:50	SITE = MULTI		PASS= 1	PAGE= 3

ES CREST	21.00 FT	67.5 ACFT	.00 AC	.0 CFS
----------	----------	-----------	--------	--------

PS STORAGE .0 ACFT BETWEEN ES CREST AND SED ACCUM ELEVATIONS

STARTING E 21.00 FT 67.5 ACFT .00 AC .0 CFS

EFFECTIVE HEIGHT(H) = 20.0 FEET, PRODUCT = 1350. (H * STORAGE AT CREST EMG.)

INPUT DESIGN CLASS = A1 =LT 3000

SCS-ESH D= 24.00 HR P= 3.90 IN Q= 1.52 IN DA = 1.88 SM
TC= 3.89 HR CN= 74.00 VOL= 152.6 ACFT

Qu' PEAK = 226.7 CFS, AT 12.9 HRS.

SCS-FBH D= 24.00 HR P= 3.90 IN Q= 1.52 IN DA = 1.88 SM
TC= 3.89 HR CN= 74.00 VOL= 152.6 ACFT

PEAK = 226.7 CFS, AT 12.9 HRS.

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	EMG. HP FT	VOL-ES ACFT
SCS-ESH	40.0	22.29	80.6	.0	1.29	13.1

PEAK - CFS DISCHARGE =	Q-PS	Q-ES	Q-TOT
	.0	215.7	215.7

	CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-S/C FT/FT	25% OF S/C FT/FT
EMERGENCY SPILLWAY----	.79	4.30	.021	.027

	DURATION FLOW HRS	ATTACK OE/B ACFT/FT	SUMMATION VEL**2 DELTA T (FT/SEC)**2 HRS
EMERGENCY SPILLWAY----	27.2	3.8	174.8

***** MESSAGE - ES378 CRITERIA USED BUT EMERGENCY SPILLWAY NOT BASED ON RETARDANCE.

EXIT CHANNEL FLOW SUBCRITICAL: MAX VELOCITY= 23.08 FT/SEC
EXIT SLOPE = .015 FT/FT

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	EMG. HP FT	VOL-ES ACFT
SCS-FBH	40.0	22.29	80.6	.0	1.29	13.1

PEAK - CFS DISCHARGE =	Q-PS	Q-ES	Q-TOT
	.0	215.7	215.7

	CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-S/C FT/FT	25% OF S/C FT/FT
EMERGENCY SPILLWAY----	.79	4.30	.021	.027

	DURATION FLOW HRS	ATTACK OE/B ACFT/FT	SUMMATION VEL**2 DELTA T (FT/SEC)**2 HRS
EMERGENCY			

SPILLWAY----- 27.2 3.8 174.8

***** MESSAGE - ES378 CRITERIA USED BUT EMERGENCY SPILLWAY NOT BASED
ON RETARDANCE.

EXIT CHANNEL FLOW SUBCRITICAL: MAX VELOCITY= 23.08 FT/SEC
EXIT SLOPE = .015 FT/FT

***** WARNING - USER SUPPLIED RATING CURVE DID NOT MEET CRITERIA FOR
MINIMUM FLOW THROUGH EMERGENCY SPILLWAY (323.37 CFS) .

***** ES378 RUN - MINIMUM DEPTH, CREST EMG TO TOP OF DAM IS 2.00 FT
NEW TOP OF DAM ELEVATION = 23.00 +1 = 24

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	EMG. HP FT	VOL-ES ACFT
MINIMUM ES	40.0	23.00	87.9	.0	2.00	20.4
PEAK - CFS DISCHARGES =		Q-PS .0	Q-ES 531.2	Q-TOT 531.2		
		CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-S/C FT/FT	25% OF S/C FT/FT	
EMERGENCY SPILLWAY----		1.28	5.27	.019	.023	

***** ES378 RUN - MINIMUM DEPTH, DESIGN FLOW TO TOP OF DAM, REQUIRED
FOR THIS PASS. NEW TOP OF DAM ELEVATION = 23.29

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	EMG. HP FT	VOL-ES ACFT
MINIMUM ES	40.0	23.29	90.8	.0	2.29	23.3
PEAK - CFS DISCHARGES =		Q-PS .0	Q-ES 747.4	Q-TOT 747.4		
		CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-S/C FT/FT	25% OF S/C FT/FT	
EMERGENCY SPILLWAY----		1.53	5.67	.018	.022	

1DAMS2....JOB NO. 1 COMPLETE

TYPICAL SIGH RUN -378

0 SUBWATERSHED(S) ANALYZED

1 STRUCTURE(S) ANALYZED

2 HYDROGRAPHS ROUTED AT LOWEST SITE

0 TRIALS TO OBTAIN BOTTOM WIDTH FOR SPECIFIED VELOCITY(S)

1

DAMS2 VERSION 01/01/90

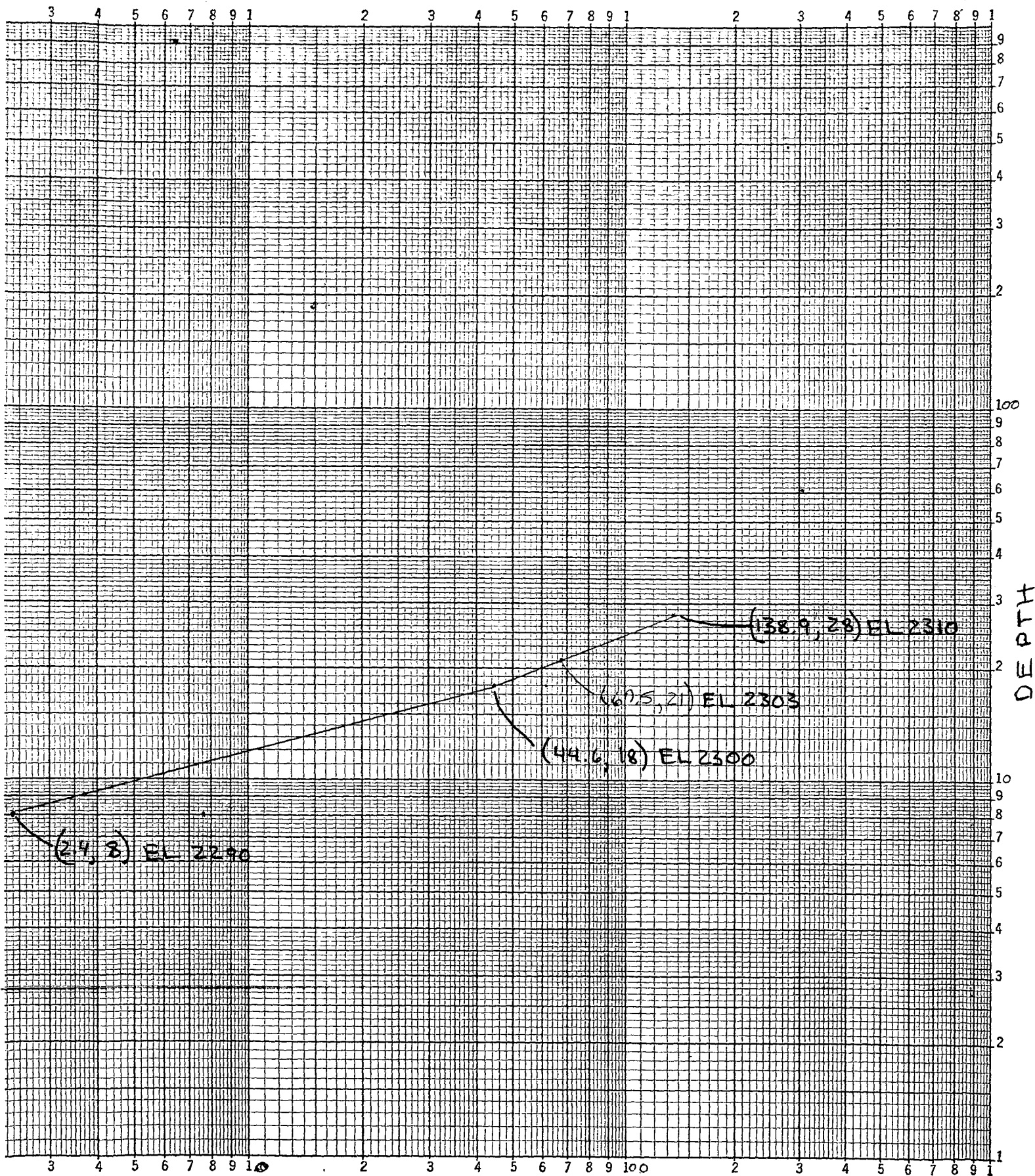
PASS NO.	DIA/ WIDTH (IN/FT)	ES CREST ELEV (FT)	BTM WIDTH (FT)	MAX HP (FT)	MAX ELEV (FT)	YARDAGE EMB (CY)	OE/B* (AF/FT)	EXIT* VELOCITY (FT/SEC)	TYPE HYD
1	.0	21.00	40.00	2.29	23.29	0.	3.8	23.08	MINIMUM ES

DAMS2.....SUMMARY TABLE 1 COMPLETED

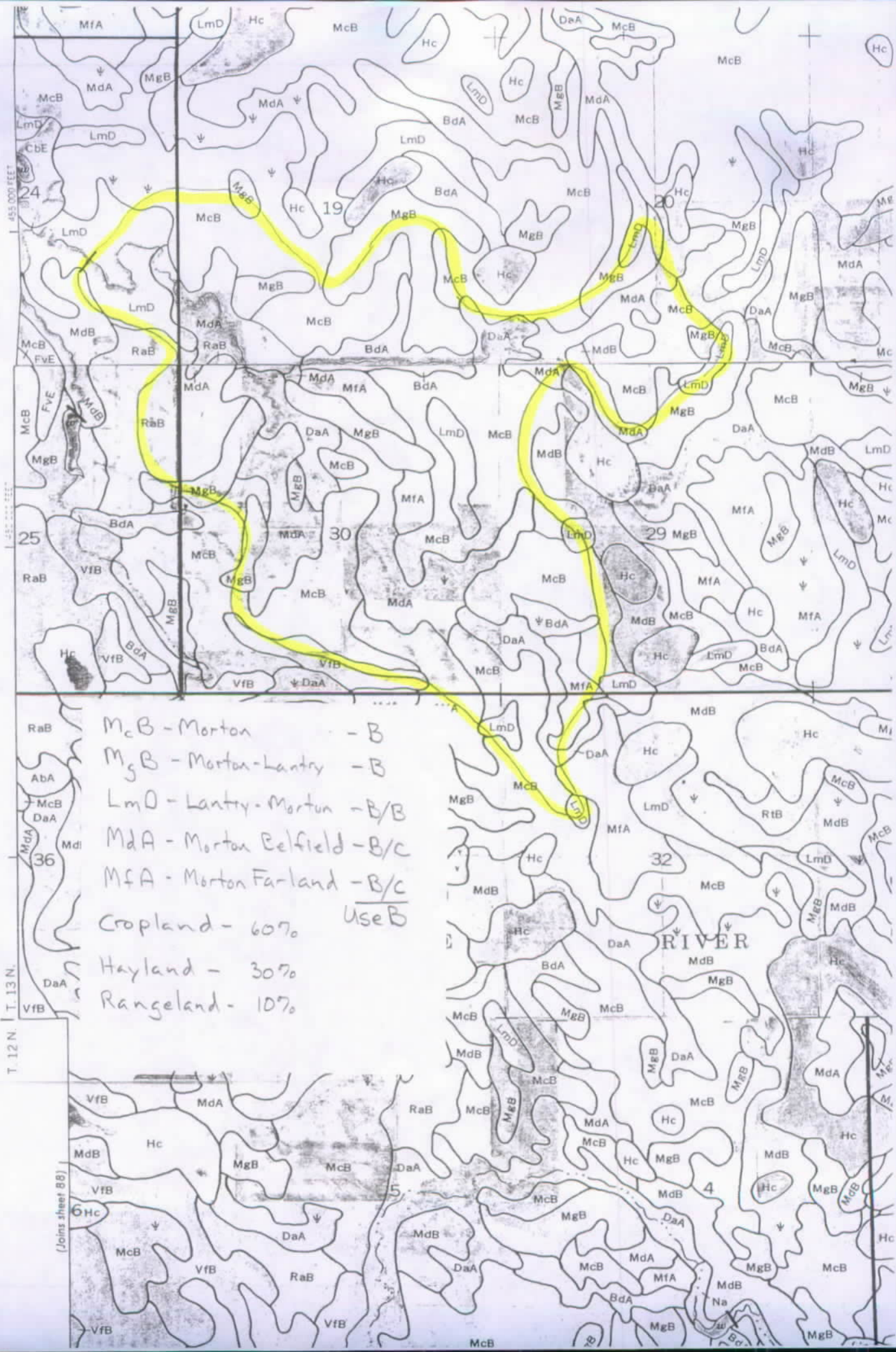
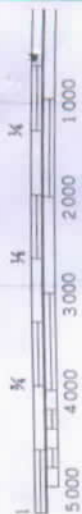
```
INPUT      = claussen
OUTPUT     = claussen.out
```

DATED 01/12/** 13:37:50

CLAUSSEN DAM STAGE/STORAGE CURVE



STORAGE



McB - Morton - B
 MgB - Morton-Lantry - B
 LmD - Lantry-Morton - B/B
 MdA - Morton Belfield - B/c
 MfA - Morton Farland - B/c
 Cropland - 60% Use B
 Hayland - 30%
 Rangeland - 10%

Client : CLAUSSEN
County : DEWEY
Practice: DAM

State: SD

By: TVH
Checked: _____

Date: _____
Date: _____

Drainage Area : 1202 Acres
Curve Number : 74 *
Watershed Length : 13500 Feet
Watershed Slope : 1.7 Percent
Time of Concentration: 3.89 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	2.1	2.8	3.4	3.9	4.4	4.9
Ia/P Ratio	0.39	0.33	0.25	0.21	0.18	0.16	0.14
Runoff (in)	0.26	<u>0.40</u>	0.78	1.17	1.52	1.90	2.28
Unit Peak Discharge (cfs/acre/in)	0.155	0.169	0.186	0.194	0.198	0.202	0.205
Peak Discharge (cfs)	49	81	176	273	363	460	562

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

Tim Schaal

Here IS ALL THE DATA
I have on Donna
Clansens Pond. I discussed
With Tom Ver Helst - NRCS
Engineer - Belle Fourche
He thinks he sent every-
thing to Donna but
she cant remember
where it is. If you
need anything let
me know.

David Psicka
964-8118 P.O. Box 590
Eagle Butte, SD

Cooperator: Donna Clawson

Address:

Legal Desc.: NW 1/4 Sec. 24 T13N R22E

Type of Survey: Design of layout
notes

Date: 07-09-01

Survey Party: T.J. White Eyes

Weather: Hot

B.A. Holy Bear
R. Roach

B.M.1 50' downstream from Sta 2+38

B.M.2

Backup (702) 2104

Drainage Area: 238 acs.

Yield: 19.8 ac.ft. "Q" =

11,165 ws length

Storage "Q" (Spillway) =

Capacity:

Storage Area:

Cheyenne River Sioux Tribe
Prairie Management Program

To: Tom Ver Helst
From: Bonita Richter

Comments:

As Requested.
If you need anymore
give me a call.

Thanks

Total 16 pages.



Sta.	B.S.	H.I.	F.S.	Elev.	Shrinkage
Bm	1.4	101.4	+1.4	100.0	
0+00		101.4	+1.4	100.0	
40					
0+40		101.4	+1.4	100.0	+0.4
35					
0+75		101.4	+1.4	100.0	+0.9
40					
1+03					
1+15		101.4	+1.4	100.0	+0.9
50					
1+45		101.4	+1.4	100.0	+0.5
50					
2+15		101.4	+1.4	100.0	+0.2
23					
2+38		101.4	+1.4	100.0	
Natural spillway					
0+00					
10					

Elevation - Crest of Spillway 77.0			Upstream		
Left S.S.	311	121	Right S.S.	211	
		TOP			
F0.0 - 6.0			F0.0 - 6.0		
F9.7 - 35.1			F8.9 - 32.0		
F17.9 - 59.7			F17.9 - 59.7		
F25.5 - 83.7			F23.7 - 77.1		
F19.3 - 42.9			F18.9 - 42.0		
F10.8 - 38.4			F9.5 - 32.0		
F3.7 - 17.1			F3.3 - 15.9		
F0.0 - 6.0			F0.0 - 6.0		
21.1			4.1		
4.4			4.6		
00.0 - 27.0			00.0 - 27.0		

Cheyenne River Sioux Tribe
Prairie Management Program

[illegible][illegible]

Cheyenne River Sioux Tribe
Prairie Management Program

Project _____ Operator _____

CD _____ County _____

Computations by: _____ Date: _____

[illegible]

Project CORE TRENCH Cooperator Downer Construction

Computations by: JULIE / KTB : Date JULY 10, 2001

Sheet of _____

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

HYDROLOGIC DATA SHEET

Operator: Donna Clausen Farm No. _____

Structure or Practice: New Stockwater Pond

Location: NW 1/4 SE 1/4 Sec. 24 T13N R22E County: Dewey

Computations by: J. White Eyes Date: 07-09-01

PEAK RATE AND VOLUME OF RUNOFF

(See Chapt. 2 Engineer Field Manual)

Soil Group	LAND USE AND CONDITION	CURVENUMBER	ACRES	CN X ACRES
D	Range Fair	84	238	

TOTAL: 238

Weighted CN = 84

Average Watershed Slope 1.0% Slope Factor Moderate

Weighted CN	Design Storm	P Inches Rainfall	Q Inches Runoff	qp cfs Peak Flow	Storm Volume Ac.-In.
84	25yr	3.8	2.20		

ANNUAL YIELD

% Chance	Freq.	Isogram No.	Area Acres	Inches	Ac. - Inc.	Ac.-Ft.
50%	24r/24hr	2	238	1.0	238.0	19.8

HYDRAULIC DATA

SPILLWAYS - EARTH OR VEGETATED

Crest Elev.	Crest Length	Permissible Velocity	Hp (ft.)	qx (cfs/ft.)	Width (ft.)	Velocity at Control Section	Q cfs
97.0	16'	5.0	4.0			5.0	

CHANNELS (DITCHES, DIVERSIONS, WATERWAYS, ETC.)

[illegible]

PRINCIPAL SPILLWAYS

[illegible]

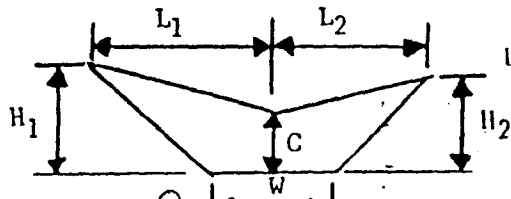
CULVERTS

Type	Dia. (in.)	Length (ft.)	Inlet Control		Outlet Control		Q-CFS
			Head-Ft.	Q-cfs	Head-Ft.	Q-cfs	

WATERWAYS-DIVERSIONS (FROM TABLES)

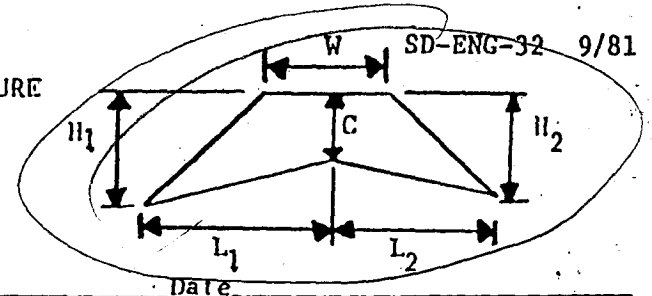
[illegible]

Fill



UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

EARTHWORK COMPUTATION SHEET
for Three Level Section



Owner or Operator Donna Clausen

Plan or Job No. _____

Date _____

Calculations by * Bonita J. Richter

Checked by * Rechecked Quantities of J.W.E. w/add. station

1	2	3	4	5	6	7	8	9	10	11
Station (ft.)	$\frac{C}{2}$ (ft.)	$L_1 + L_2$ (ft.)	Product of Cols. 2 & 3 (sq. ft.)	$\frac{W}{4}$ (ft.)	$H_1 + H_2$ (ft.)	Product of Cols. 5 & 6 (sq. ft.)	End area Sum of Cols. 4 & 7 (sq. ft.)	Sum of End Areas (sq. ft.)	Distance Between Stations (ft.)	Product of Cols. 9 & 10 (cu. ft. x ?)
0+00	0.0	12.0	0.0	3.0	0.0	0.0	0.0			
								359.1	40	14,364.0
0+40	4.45	68.1	303.0	3.0	18.7	56.1	359.1	1629.5	35	57032.5
0+75	9.3	124.5	1157.9	3.0	37.5	112.5	1270.4	3477.4	28	97,367.2
1+03	12.8	160.8	2058.2	3.0	49.6	148.8	2207.0	3518.0	12	42216.0
1+15	9.5	126.0	1197.0	3.0	38.0	114.0	1311.0	1723.6	50	86,180.0
1+65	4.8	73.2	351.4	3.0	20.4	61.2	412.6	489.7	50	24,485.0
2+15	1.7	33.0	56.1	3.0	7.0	21.0	77.1	77.1	23	1,773.3
2+38	0.0	12.0	0.0	3.0	0.0	0.0	0.0			
										303,418 $\div 54 =$
									Fill	5989.2
									Cone	227.0
									Shipping	349.0
									5% $\div$	392.3

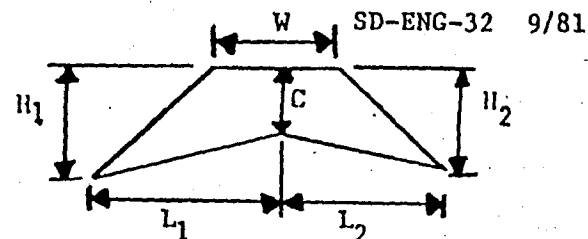
Divide total of Column #11 by 54 to get cu.yds.

6957.5 TOTAL yds

A diagram of a trapezoidal channel cross-section. The top width is divided into two segments, L_1 and L_2 , by a vertical dashed line. The left height is H_1 and the right height is H_2 . The bottom width is W . The depth of the channel is C . The word "UNITE" is written on the right side.

EARTHWORK COMPUTATION SHEET

for Three Level Section



Donna Clausen

Plan or Job No.

Date _____

Calculations by

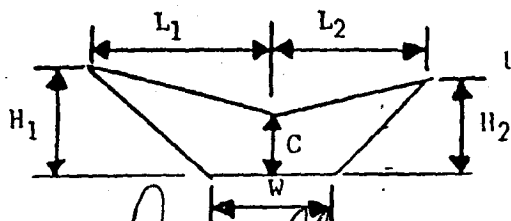
* Bonita I. Ricketts

Checked by:

*Rechecked Quantities of J.W.E. w/add. station

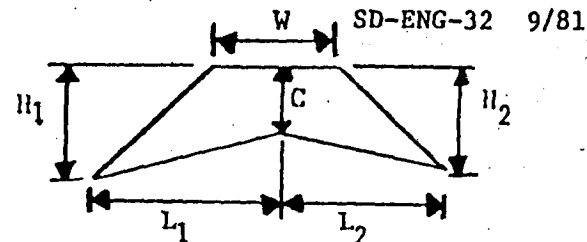
1	2	3	4	5	6	7	8	9	10	11
Station (ft.)	$\frac{C}{2}$ (ft.)	$L_1 + L_2$ (ft.)	Product of Cols. 2 & 3 (sq. ft.)	$\frac{W}{4}$ (ft.)	$H_1 + H_2$ (ft.)	Product of Cols. 5 & 6 (sq. ft.)	End area Sum of Cols. 4 & 7 (sq. ft.)	Sum of End Areas (sq. ft.)	Distance Between Stations (ft.)	Product of Cols. 9 & 10 (cu. ft. x 2)
0+00	0.0	0.0	0.0	3.0	0.0	0.0	0.0			
0+40	1.0	16.0	16.0	3.0	4.0	12.0	28.0	28.0	40	1120
0+75	1.0	16.0	16.0	3.0	4.0	12.0	28.0	56.0	35	1960
1+03	1.5	18.0	27.0	3.0	6.0	18.0	45.0	73.0	28	2044
1+15	1.0	16.0	16.0	3.0	4.0	12.0	28.0	73	12	876.0
1+65	1.0	16.0	16.0	3.0	4.0	12.0	28.0	56.0	50	2800
2+15	1.0	16.0	16.0	3.0	4.0	12.0	28.0	56.0	50	2800
2+38	0.0	0.0	0.0	3.0	0.0	0.0	0.0	28.0	23	644
										12,244 / 54 =
									cone	227.0
Divide total of Column #11 by 54 to get cu.yds.										

Stripping



UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

EARTHWORK COMPUTATION SHEET
for Three Level Section



SD-ENG-32 9/81

Owner or Operator Donna Clauson

Plan or Job No. _____

Date _____

Calculations by *Bonita J. Richter

Checked by *Rechecked Quantities of F.U.E. w/add. Station

1	2	3	4	5	6	7	8	9	10	11
Station (ft.)	$\frac{C}{2}$ (ft.)	$L_1 + L_2$ (ft.)	Product of Cols. 2 & 3 (sq. ft.)	$\frac{W}{4}$ (ft.)	$H_1 + H_2$ (ft.)	Product of Cols. 5 & 6 (sq. ft.)	End area Sum of Cols. 4 & 7 (sq. ft.)	Sum of End Areas (sq. ft.)	Distance Between Stations (ft.)	Product of Cols. 9 & 10 (cu. ft. x 2)
0+00	.5	12.0					6.0			
0+40	.5	68.1					34.1	40.1	40	1604.0
0+75	.5	124.5					62.3	96.4	35	3374.0
1+03	.5	160.8					80.4	142.7	28	3995.6
1+15	.5	126.0					63.0	143.4	12	1720.8
1+65	.5	73.2					36.6	99.6	50	4980.0
2+15	.5	33.0					16.5	53.1	50	2655.0
2+38	.5	12.0					6.0	22.5	23	517.5
										18846.9
										54
									Stripping	349.0
Divide total of Column #11 by 54 to get cu.yds.										

$$609.6 \div 8 = 76.2$$

$$76.2 \times 278 = 21,183.6 \text{ sq. ft.} \times .5 = 10,591.8 \text{ cu. ft.} \div 27 = 392.3$$

Client : Donna Clausen
 County : Dewey
 Practice: EQIP Dam

State: SD

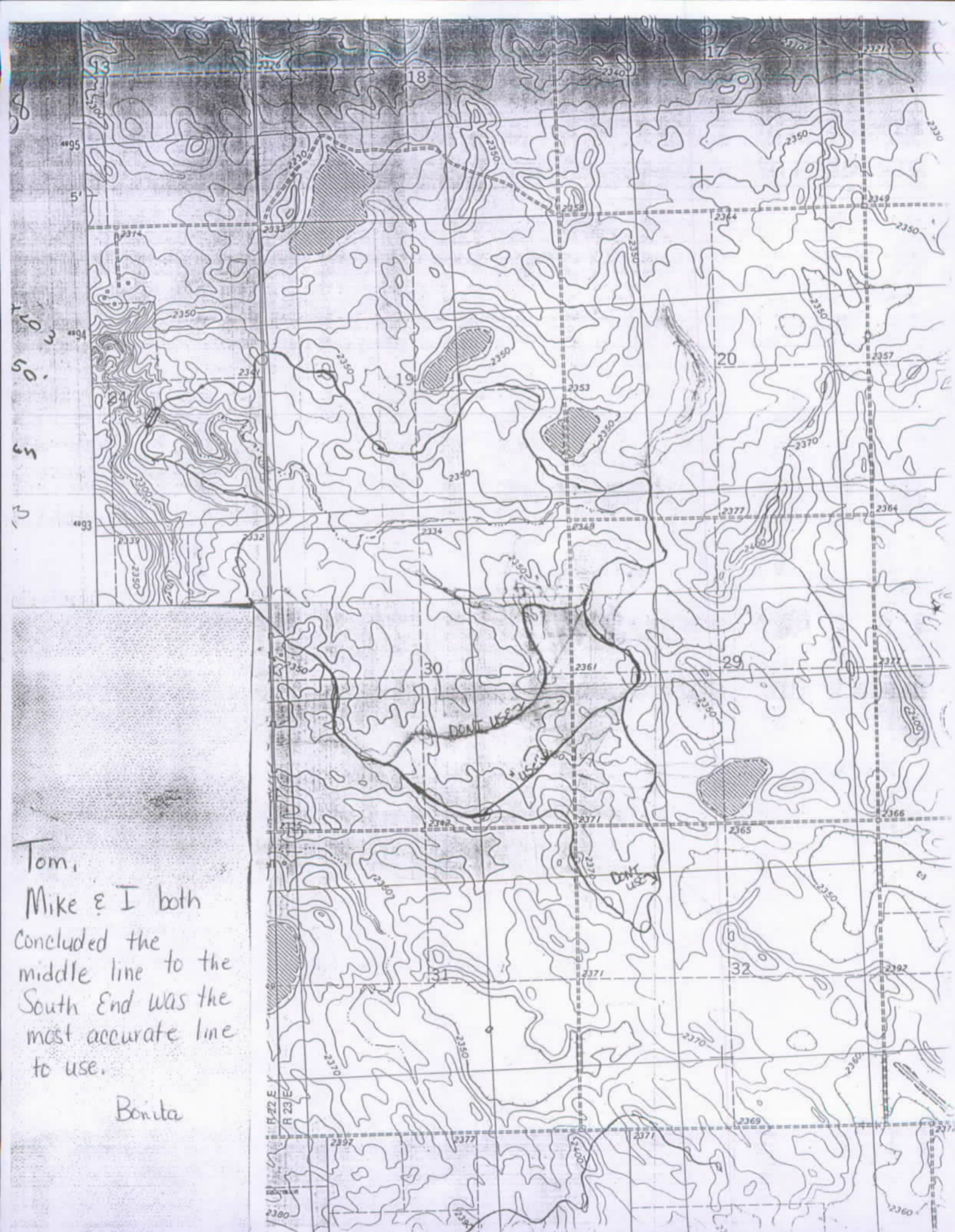
By: bfr
 Checked: _____

Date: 08/22/99
 Date: _____

Drainage Area : 913 Acres
 Curve Number : 84
 Watershed Length : 11165 Feet
 Watershed Slope : 6 Percent
 Time of Concentration: 1.31 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	2.1	2.8	3.4	3.9	4.4	4.9
Ia/P Ratio	0.21	0.18	0.14	0.11	0.10	0.09	0.08
Used	0.21	0.18	0.14	0.11	0.10	0.10	0.10
Runoff (in)	0.61	0.82	1.35	1.85	2.28	2.73	3.18
Unit Peak Discharge (cfs/acre/in)	0.422	0.435	0.454	0.465	0.470	0.470	0.470
Peak Discharge (cfs)	233	324	562	786	980	1170	1364

$\div 5.0 = 196 \text{ ft. Spwy.}$



Tom,
Mike & I both
Concluded the
middle line to the
South End was the
most accurate line
to use.

Bonita

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCS Dewey		Date	8/21/01
Field Office Timberlake			
Name Donna Clausen			
Individual	Group	Unit of Govt.	
(circle one)			
Job EQP Dam			
Design Sgr.		Const. Layout	
Const. Check		Other	
Ident. No.		Field No.	
N ↑ 24 			
Scale 1" =			
Legal Description			
Sec SE 24 T 13 R 22			
or			
Location:			

Sta.	B.S.	I.I.	F.S. or Grade Rod	Elev. or Planned Elev.
BM	6.4	106.4		100.0
0+00				
40				
0+40				
35				
0+75				
28				
1+03				
12				
1+15				
50				
1+65				
50				
2+15				
23				

up	9	Down
	5.5	
	5.4	
	4.9	
$\frac{19.7}{20.0 \text{ ft.}}$	$\frac{13.2}{25.0 \text{ ft.}}$	$\frac{4.7}{7.0}$
	$\frac{4.7}{7.0 \text{ ft.}}$	$\frac{4.7}{7.0 \text{ ft.}}$
	$\frac{13.2}{25.0 \text{ ft.}}$	$\frac{24.0}{29.4 \text{ ft.}}$
	4.7	
	5.2	
	5.9	

Station	B.S.	I.I.	F.S. or grad rod	Elev. or planned elev.
Bm	6.4	106.4		100.0
2+38				
Nat. Spwy Approx 40 ft. wide				
0+00				
50				
0+50				
50				
1+00				
50				
1+50				
50				
2+00				

NRCS-ENG-29

NRCS-ENG-29
Rev. 10-97

9.2

6.0

11.7

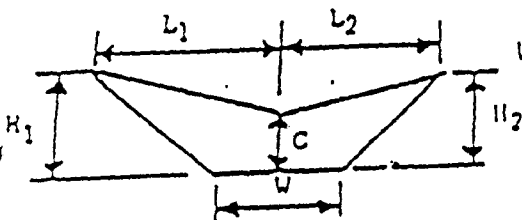
10.4

9.8

9.5

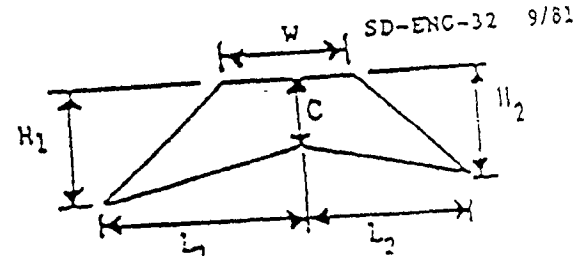
10.4

CORE 214
 Fill 5297
 50% 265



UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

EARTHWORK COMPUTATION SHEET for Three Level Section



Operator Down Claw

Plan or Job No.

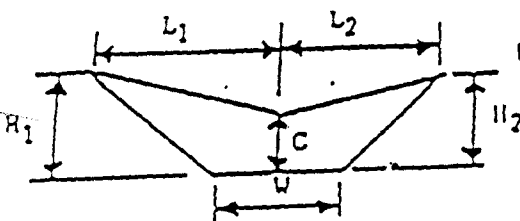
24:5

Calculations by.

Checked by _____

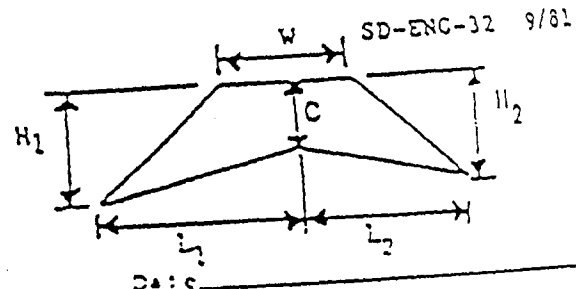
Calculations by _____				Checked by _____						
1	2	3	4	5	6	7	8	9	10	11
Station (ft.)	$\frac{C}{2}$ (ft.)	$L_1 + L_2$ (ft.)	Product of Cols. 2 & 3 (sq. ft.)	$\frac{W}{E}$ (ft.)	$H_1 + H_2$ (ft.)	Product of Cols. 5 & 6 (sq. ft.)	End area Sum of Cols. 4 & 7 (sq. ft.)	Sum of End Areas (sq. ft.)	Distance Between Stations (ft.)	Product of Cols. 9 & 10 (cu. ft. x 2)
0+00	—	12.0	—	3.0	—	—	—	359.15	40	14,366.00
0+40	4.45	68.1	303.05	3.0	18.7	56.1	359.15	1629.50	35	57,032.50
0+75	9.3	124.5	1157.85	3.0	37.5	112.5	1270.35	2575.05	40	10,3002.00
1+15	9.45	126.0	1190.70	3.0	38.0	114.0	1304.70	1713.60	50	85,680.00
1+65	4.75	73.2	347.70	3.0	20.4	61.2	408.90	484.35	50	24,217.50
2+15	1.65	33.0	54.45	3.0	7.0	21.0	75.45	75.45	23	1735.35
2+38	—	12.0	—	3.0	—	—	—	—	54	286033.35
										5297 cy
										264.84
										<u>265 cy</u>
Divide total of Column #11 by 54 to get cu. yds.										

Fill 5297cy
 5% 265cy
 Core 214cy
 5776cy



UNITED STATES DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE

EARTHWORK COMPUTATION SHEET
 for Three Level Section



Owner or Operator _____

Plan or Job No. _____

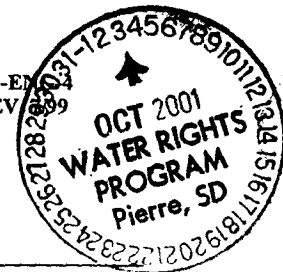
Date _____

Calculations by _____

Checked by _____

1	2	3	4	5	6	7	8	9	10	11
Station (St.)	$\frac{C}{2}$ (ft.)	$L_1 + L_2$ (ft.)	Product of Cols. 2 & 3 (sq. ft.)	$\frac{W}{4}$ (ft.)	$H_1 + H_2$ (ft.)	Product of Cols. 5 & 6 (sq. ft.)	End area Sum of Cols. 4 & 7 (sq. ft.)	Sum of End Areas (sq. ft.)	Distance Between Stations (ft.)	Product of Cols. 9 & 10 (cu. ft. x 7)
0+00	—	12.0	—	3.0	—	—	—	359.15	40	14366.00
0+40	4.45	68.1	303.05	3.0	15.7	56.1	359.15	1629.50	35	57032.50
0+75	7.3	124.5	1157.85	3.0	37.5	112.5	1270.35	2575.05	40	103002.00
1+15	9.45	124.0	1190.70	3.0	38.0	114.0	1304.70	1713.60	50	85680.00
1+65	4.75	73.2	347.70	3.0	20.4	61.2	408.90	484.35	50	24217.50
2+15	1.65	33.0	54.45	3.0	7.0	21.0	75.45	75.45	23	1735.35
2+38	—	12.0	—	3.0	—	—	—	—	54	286033.35
										5297 cy
										265 cy

Divide total of Colnn #11 by 54 to get cu.yds.



CERTIFICATION STATEMENTS REGARDING STATE WATER LAWS

Practice or Structure Pond

Legal Description _____ Sec. 24 T. 13N R. 22E

Approximate Location 1600' ~~feet~~ west and 1900' ~~feet~~ north
of the southeast corner of said section in Dewey County.

GPS (if available) _____

Amount of water claimed _____ cubic feet per second.

or 67.5 _____ acre feet per year.

Source of water supply Runoff

Point of diversion (if applicable) _____

Use of water Livestock & wildlife

Reservoir storage capacity 67.5 _____ acre-feet.

Reservoir surface area 7.8 _____ acres.

Watershed area 1202 _____ acres.

Watered or irrigated area N/A _____ acres.

1. For dams and dugouts across a dry draw storing 25-acre feet or less. Use Exhibit "C" in General Manual Sec. 450, Part 405.

A properly completed Location Notice ^{1/} will be distributed and posted according to South Dakota State Water Laws.

Date _____ Signature of Applicant _____

Mailing Address _____

- * 2. For all dams storing more than 25 acre feet of water for any beneficial use. Use Exhibit "D" in General Manual, Sec. 450, Part 405.

A water right application will be (or has been) submitted to the South Dakota Department of Water and Natural Resources.

Date 10-01-01 Signature of Applicant [Signature]

Mailing Address Box 432, Eagle, South Dakota 57625

3. For all irrigation wells and storage reservoirs used for any form of irrigation, including waterspreading. Use Exhibit "E" in General Manual, Sec. 450, Part 405.

A permit (No. _____) dated _____ to appropriate _____ cfs and/or store _____ ac. ft. of water has been received from the South Dakota Department of Environment and Natural Resources.

Date _____ Signature of Applicant _____

Mailing Address _____

To: Owner or Operator of Water Development facility –

- I. Location Notice – State Laws and Regulations require that a Location Notice must be filed when proposing to construct a dam or dugout storing – 25 acre feet or less across a dry/draw.
- II. Permits to appropriate water within the State of South Dakota – state laws require application for this type of permit for all beneficial uses except those listed below.
 1. Dams or dugouts constructed on a dry draw and storing 25 acre feet or less.
 2. Domestic uses, including livestock water, or 26,000 gal/day.
 3. Irrigation water for one acre of land.
 4. Maximum pump capacity is 25 gpm for domestic uses listed in Items 2 and 3 above.
- III. Application for Soil/Water Compatibility Permit and Permit to Appropriate Water – state laws and regulations require application of this type permit for all irrigation uses in excess of one acre.

Natural Resources Conservation Service

STATE WATER LAWS STATE THAT THE LOCATION NOTICE IS TO BE POSTED AT THE SITE
BEFORE WORK IS STARTED ON THE PROJECT.

Water Permit Application No. 1764-1

Donna Clausen

Top of Dam Elev. - 100
 Spillway Elev. - 97
 O/S Toe Elev. - 74 } Ht = 26 ft

Cat. 3 - Low Hazard Dam

Normal Storage Capacity = 67.5 Ac-Ft
 Max Storage Capacity = 98

Max Capacity $\times$ Ht = $98 \times 26 = 2548 < 3000 \therefore$ 25 year
Minimum Spillway Design

From USGS WRI 80-80 - "Tech. for Est. Flood Peaks ... in SD"

DA = 1203 Ac = 1.88 mi²

Slope = 25 ft/mi

SI = 2.50

$$\begin{aligned} Q_{25} &= 83.4 A^{.64} S^{.72} \\ &= 83.4 (1.88)^{.64} (25)^{.72} (2.50)^{.72} \\ &= 83.4 (1.46) (4.12) (0.52) \\ &= \underline{260 \text{ cfs}} \end{aligned}$$

$$\begin{aligned} Q_{100} &= 132 A^{.65} S^{.67} \\ &= 132 (1.88)^{.65} (25)^{.67} (2.50)^{.67} \\ &= 132 (1.51) (4.42) (0.54) \\ &= \underline{475 \text{ cfs}} \end{aligned}$$

Spillway Flow

$$\begin{aligned} Q &= C L H^{3/2} \\ &= (2.6)(40)(3)^{1.5} \\ &= \underline{540 \text{ cfs}} \end{aligned} \quad \begin{aligned} C &= 2.6 \\ L &= 40 \\ H &= 3 \end{aligned}$$

NRCS Annual Yield

Section 74:02:08:09

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

DA = 1203, CN = 74 FFS = 2

$$\begin{aligned} 80\% \text{ chance} &= 0.11 \\ 0.11 \times 1203/12 &= \underline{11 \text{ Ac-Ft}} \end{aligned}$$

$$\begin{aligned} 50\% \text{ chance} &= 0.32 \\ 0.32 \times 1203/12 &= \underline{32 \text{ Ac-Ft}} \end{aligned}$$

$$\begin{aligned} 10\% \text{ chance} &= 1.70 \\ 1.70 \times 1203/12 &= \underline{170 \text{ Ac-Ft}} \end{aligned}$$



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

February 27, 2002

Donna Clausen
PO Box 432
Eagle Butte, SD 57625

Dear Ms. Clausen:

We have reviewed the plans and specifications for your dam located in the NW 1/4 SE 1/4 of Section 24-T13N-R22E, in Dewey County. The plans and specifications as submitted are 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 Clausen Dam will be classified as a small size Category 3, Low Hazard dam with a dam height of 26 feet and a normal storage capacity of 67.5 acre-feet and a maximum storage capacity of 98 acre-feet.

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

Sincerely,

Gale N. Selken, P.E.
Natural Resources Engineer Director
for Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

c: Tom Ver Helst, NRCS, Belle Fourche
David Pesicka, Tribal Office, Eagle Butte

REPORT ON
WATER PERMIT APPLICATION No. 1764-1

Donna Clausen
February 22, 2002

Water Permit Application No. 1764-1 has been filed by Donna Clausen to impound 67.5 acre-feet of water by constructing a dam located in the NW 1/4 SE 1/4 of Section 24-T13N-R22E, in Dewey County. The application also requests impoundment of sufficient water to maintain water at the outlet elevation. The water will be used for fish and wildlife production, recreation and livestock use.

Discussion:

The dam will be classified as a small size, Category 3, Low Hazard dam. The Natural Resources Conservation Service (NRCS) has designed the dam. The plans and specifications have been reviewed and will be approved.

The Clausen Dam will be 26 feet high with a normal storage capacity of 67.5 acre-feet with a reservoir level at the spillway elevation, and a maximum storage capacity of 98 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.

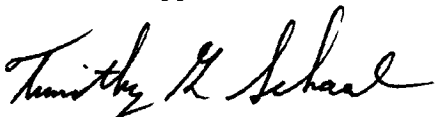
The dam has a drainage area of 1203 acres or 1.88 square miles. A 25-year frequency event for this drainage area produces a peak runoff of approximately 260 cfs. A 100-year frequency event produces a peak of approximately 475 cfs. The dam is designed to have a 40 foot wide earthcut spillway with 3.0 feet of available freeboard. The 40 foot wide earthcut spillway will have a capacity of approximately 540 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 11 acre-feet. The annual yield with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be 32 acre-feet and the annual yield with a 10 percent chance, or 1 out of 10 years, is expected to be 170 acre-feet.

The Clausen Dam will be located in the NW 1/4 SE 1/4 of Section 24-T13N-R22E, on an unnamed tributary to Bear Creek about two and one-half miles upstream of its confluence with Bear Creek and about nine miles upstream of the confluence of Bear Creek and the Moreau River. There are no existing Water Permit/Rights located between the proposed dam and the Moreau River.

Conclusions:

1. Water Permit Application No. 1764-1 should be approved since unappropriated water is available and approval should not have an adverse effect on existing Water Permits/Rights.
2. If approved, the low flow bypass requirement for downstream domestic use should be a qualification on Water Permit Application No. 1764-1.



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

Approved by:



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



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1764-1, Donna Clausen**

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. 1764-1, Donna Clausen, Box 432, Eagle Butte SD 57625.

The Chief Engineer is recommending APPROVAL of Application No. 1764-1 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. 1764-1 authorizes a dam with a storage capacity of 67.5 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
February 27, 2002



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

February 27, 2002

Eagle Butte News
PO Box 210
Eagle Butte, SD 57625-0210

ATTENTION: Legal Public Notice

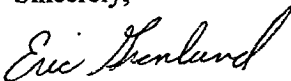
Enclosed is a Notice of Hearing on Application No. 1764-1 to Appropriate Water to be published twice. Please publish the first notice on March 7, 2002 with the second publication 7 days later.

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 Donna Clausen, Box 432, Eagle Butte, SD 57625 (Ph # 605-964-7891 or 605-964-3333).

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. 1764-1

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

Date _____

We are in receipt of your letter of February 27, 2002 enclosing Notice of Hearing to Appropriate Water by Application No. 1764-1 which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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

February 27, 2002

Donna Clausen
Box 432
Eagle Butte, SD 57625

Dear Ms. Clausen:

Water Permit Application No. 1764-1 for recreational 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 Eagle Butte News printed at Eagle Butte, SD (Ph # 605-964-2100). 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 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. Upon receiving authorization, 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 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 first Notice on March 7, 2002 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 1764-1 to Appropriate Water

Notice is given that Donna Clausen, Box 432, Eagle Butte SD 57625 has filed an application for a water permit to impound 67.5 acre-feet of water from runoff by constructing a dam located in the NW ¼ SE ¼ Section 24 with water impounded in the NW ¼ SE ¼, E ½ SE ¼ Section 24; all in T13N-R22E This application requests impoundment of sufficient water to maintain water to the outlet elevation. The water is for fish and wildlife propagation, recreation and livestock water purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1764-1 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 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 March 25, 2002.

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.

NOTICE OF APPLICATION NO.**1764-1 to Appropriate Water**

Notice is given that Donna Clausen, Box 432, Eagle Butte, SD 57625 has filed an application for a water permit to impound 67.5 acre-feet of water from run-off by constructing a dam located in the NW1/4 SE1/4 Section 24 with water impounded in the NW1/4 SE1/4, E1/2 SE1/4 Section 24; all in T13N-R22E. This application requests impounded of sufficient water to maintain water to the outlet elevation. The water is for fish and wildlife propagation, recreation and livestock water purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1764-1 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 of 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 the application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition of 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 March 25, 2002.

The petition may be informal, but must include a statement describing the petition's on 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 Grounland 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 in the Eagle Butte News, March 7 and 14, 2002.)

Affidavit of Publication

STATE OF SOUTH DAKOTA,
COUNTY OF POTTER, ss.

DAVID B. CLAUSEN being first duly sworn, on oath says, that he is the publisher of the EAGLE BUTTE NEWS, a weekly newspaper published in Eagle Butte, County of Dewey, and has full and personal knowledge of all the facts herein stated; that said newspaper is a legal newspaper and has a bonafide circulation of at least two hundred copies weekly, and has been published within said county for fifty-two successive weeks next prior to the publication of the notice herein mentioned; that the

*Notice of Application No.
1764-1 to Appropriate Water*

a printed copy of which, taken from the paper in which same was published, is attached to this sheet, and is made a part of this Affidavit, was published in said newspaper at least once each week for 2 successive weeks, on the day of each week on which said newspaper was regularly published, to-wit:

March and 14, 2002

that the full amount of the fees for the publication

of the annexed notice is \$ 37.82

David Clausen

Subscribed and sworn to before me this 14th

day of March, 2002

Carol D Clausen

Carol D. Clausen, Notary Public

State of South Dakota

My commission expires Oct. 15, 2004

RECEIVED

MAR 25 2002

WATER RIGHTS
PROGRAM





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

Donna Clausen
Box 432
Eagle Butte, SD 57625

Dear Ms. Clausen:

Enclosed is Water Permit No. 1763-1 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

Permit No. 1764-1
Moreau 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

I have this day, **November 17, 2003**, made a thorough examination of the water use system constructed by **Donna Clausen** of **Box 432, Eagle Butte, SD 57625** holder of Permit No. **1764-1**, bearing the priority of **January 14, 2002** authorizing the storage of **67.5** acre-feet of the waters of **runoff** for **fish & wildlife propagation, recreation, and livestock water** purposes, in **Dewey** County.

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

A. Works used to divert the water:

A 26 foot high earthen dam with a normal storage capacity of 67.5 acre-feet.

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

N/A

C. Works used to apply water to beneficial use:

A 26 foot high earthen dam with a normal storage capacity of 67.5 acre-feet.

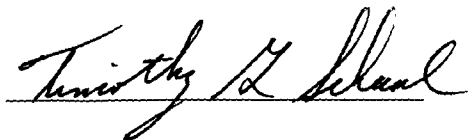
The system is in the following condition **good**. The point of diversion is located **2000 ft. north & 2000 ft. west of the SE corner of Sec. 24-T13N-R22E (NW ¼ SE ¼)**. The works are capable of storing **67.5** acre-feet of water which is to be used for **fish & wildlife propagation, recreation, and livestock water**. Water has been put to beneficial use to the maximum extent as follows:

A 26 foot high earthen dam with a normal storage capacity of 67.5 acre-feet.

and the license should be issued for **67.5** acre-feet of storage.

Applicable permit qualifications have been complied with: Yes **X**

Exceptions to compliance are: **none** Date Report Completed: **January 15, 2004**



Timothy G. Schaal, P.E.
Natural Resources Engineer Specialist
DENR, Water Rights Program

REPORT ON INSPECTION OF PERMIT NO. 1764-1

DATE OF INSPECTION: November 17, 2003

NAME & ADDRESS OF INSPECTION CONTACT/ Donna Clausen

RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE: owner

NAME & ADDRESS OF PERMIT HOLDER: Donna Clausen, Box 432, Eagle Butte, SD 57625

DIVERSION POINT LEGAL LOCATION: 2000 ft. north & 2000 ft. west of the SE corner of Sec. 24-T13N-R22E (NW ¼ SE ¼).

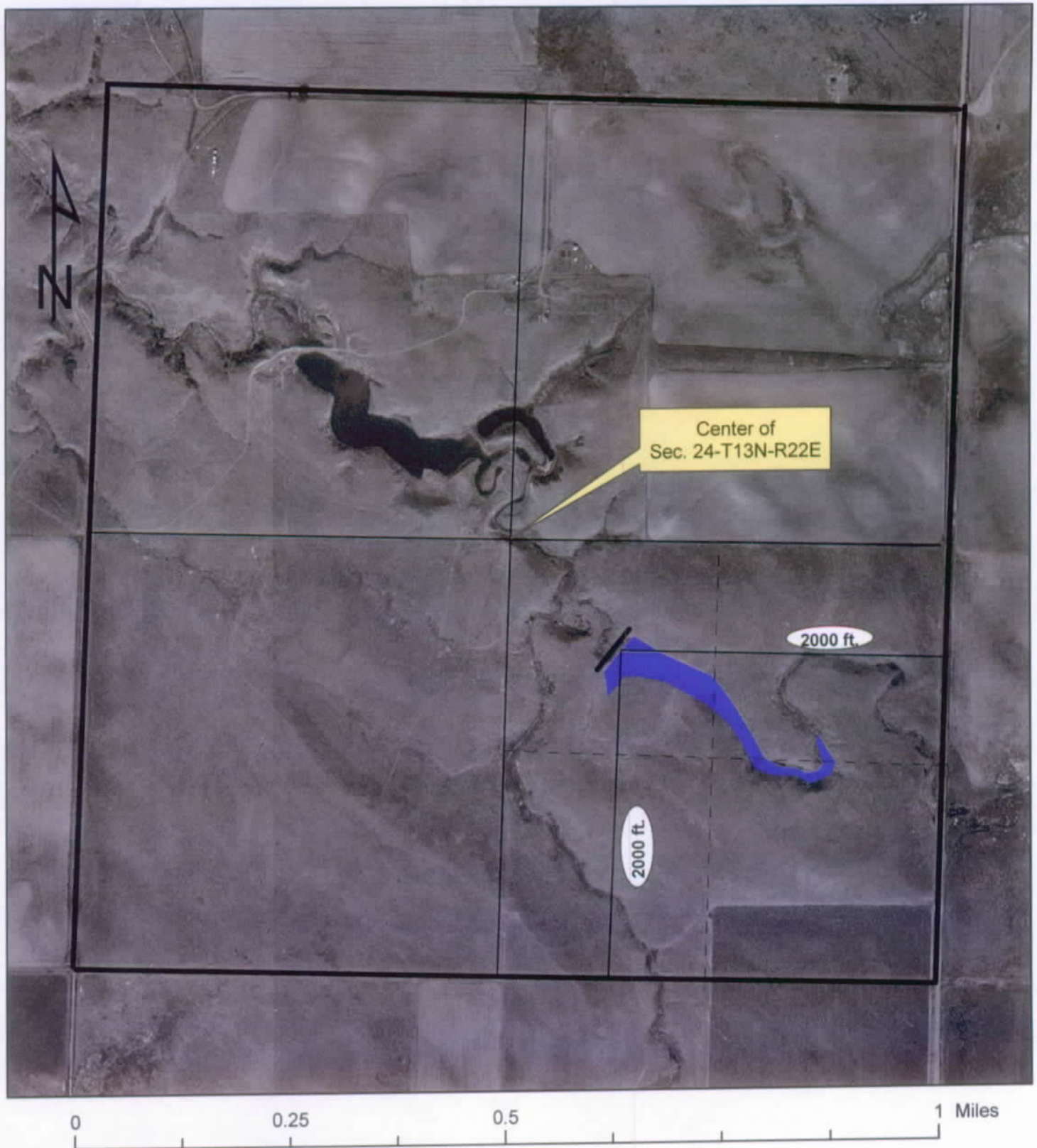
DAM INFORMATION:

- 1) Height to crest 26 feet
- 2) Height to primary spillway 23 feet
- 3) Height to secondary spillway N/A feet
- 4) Crest width 12 feet
- 5) Crest length 240 feet
- 6) Spillway length XXX feet
- 7) Spillway width 60 feet
- 8) Approx. storage (Normal) 67.5 acre-feet
- 9) Approx. storage (Maximum) 98 acre-feet
- 10) Date constructed: Fall 2002

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Soil and water permit lands agree with lands being irrigated and lands listed on permit N/A
- 2) Special qualifications to permit being abided by yes
- 3) All structures, wells and lands on map yes
- 4) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period N/A

Water Permit Application No. 1764-1



South Dakota Department of
Environment and Natural Resources



Protecting South Dakota's Tomorrow ... Today



Timothy G. Schaal
Timothy G. Schaal, P.E. 1/15/04
Natural Resources Engineer Specialist
Water Rights Program

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1764-1

(1) Donna Clausen, Box 432, Eagle Butte SD 57625 made Application No. 1764-1, October 3, 2001 for a water permit to impound 67.5 acre feet of water from runoff, Dewey County, South Dakota for fish and wildlife propagation, recreation and livestock watering purposes. Permit No. 1764-1, with a priority date of January 14, 2002 was approved March 25, 2002 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 25, 2007 and for the application to beneficial use of water on or before March 25, 2011.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 1764-1 is issued a license, bearing a priority date of January 14, 2002, to impound 67.5 acre feet of water.

The location of the storage dam (spillway) is 2,000 feet north and 2,000 feet west of the southeast corner of Section 24-T13N-R22E (NW ¼ SE ¼).

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 1764-1, including the following now applicable qualifications:

- Water Permit No. 1764-1 authorizes a dam with a storage capacity of 67.5 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 by-passed.

Garland Erbele

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

FEB 03 2004

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

FEB 03 2004

1764-1

Donna Clausen
Box 432
Eagle Butte SD 57625

Dear Ms. Clausen:

Enclosed is Water License No. 1764-1. This is the final water right document completing your 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.

Sincerely,

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

enclosures