

WATER PERMIT NO. 1723-1

Name of Applicant: James F Silbernagel

Address: HCR 82 Box 163A, Box Elder SD 57719 Phone: 605 754-6445

Amount of Water Claimed: 37.1 acre-feet Total Acres: NA

Source of Water Supply: runoff

Water to be used for: fish & wildlife propagation County: Meade

Type of Waste Disposal System:

Location: 7 miles northwest of Box Elder

PRIORITY Date Received: 4-24-2000 Fee: \$150

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

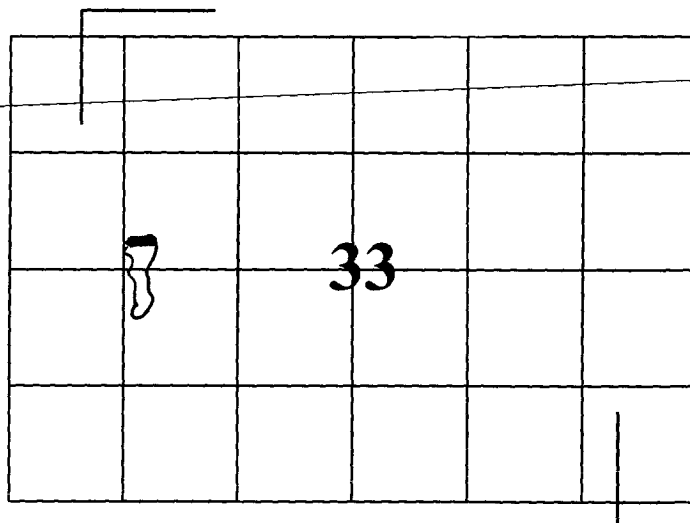
Remarks:

Diversion Point: SW ¼ NW ¼

Section 33-T3N-R10E

Water Impounded: SW ¼ NW ¼, NW ¼ SW ¼

Section 33-T3N-R10E



Depth of Well: NA

Well Driller: :

Remarks:

Type of Map: topo

Prepared by: Nell M Heying, NRCS

Reviewed and the Number Assigned on: 5-3-2000

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 1723-1**

Date of first receipt of application April 24, 2000.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1723-1 to James F Silbernagel, HCR 82, Box 163A, Box Elder SD 57719 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. 1723-1 authorizes impoundment of 37.1 acre-feet of water from runoff by constructing a dam located in the SW ¼ NW ¼ Section 33 with water impounded in the SW ¼ NW ¼, NW ¼ SW ¼ Section 33; all in T3N-R10E. This permit authorizes impoundment of sufficient water to maintain water at the outlet elevation.
2. The water appropriated shall be used for the purpose of providing habitat for 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. 1723-1 is June 26, 2000.
5. The date from which applicant may claim right is April 24, 2000.
6. One-fifth of the construction is to be completed on or before December 26, 2002.
7. All construction is to be completed on or before June 26, 2005.
8. Water is to be put to beneficial use on or before June 26, 2009.
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. 1723-1 authorizes a dam with storage capacity of 37.1 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

AUG 02 2000

date



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

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>1723-1</u>	(office use only) Hydrologic Unit <u>10/20/11</u>
	Basin <u>Upper Cheyenne</u>	
	Newspaper <u>Meade Co. Times-Tribune, Sturgis, SD</u>	



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	

Type of Application: ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
(check one) ☐ 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 James F. Silbernagel Phone (605) 754-6445
(check one) ☐ Owner ☐ Tenant/lessee
Mailing Address HCR 82, Box 163A, Box Elder State SD 57719
(Street, RR. or Box) (Zip Code)
- Amount of water claimed _____ *CFS or _____ **GPM 37.1 ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable
- Source of water supply runoff
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) 2,442 ft. south and 198 ft. east of the NW corner of sec. 33 township 3N, range 10E (SW1/4 NW1/4)
Water Impounded: SW1/4 NW1/4, NW1/4 SW1/4, sec. 33-T3N- Range 10E County Meade
- County or counties where water will be used Meade
- Annual period during which water is to be used Jan. 1 thru 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)

STATE OF SOUTH DAKOTA)
County of Meade) SS

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

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

Signed

James F. Silbernagel
4 day of April 19 2000

Subscribed and sworn to before me this

Supplemental Information

(type or print in ink)

Notary Public

MY COMMISSION EXPIRES SEPTEMBER 30, 2003

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 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) _____ 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) _____

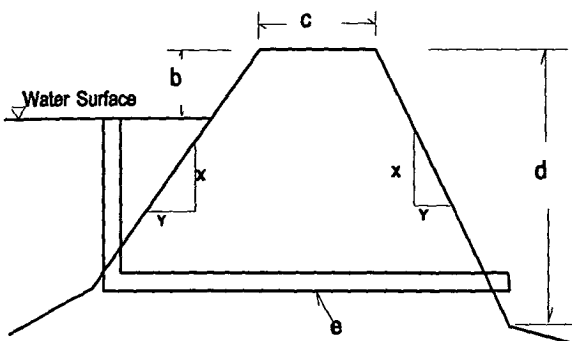
4. Water Storage Dams

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:

Natural Resources Conservation Service

Rapid City, SD 57702



- b) Freeboard 3 ft.
- c) Crest Width 12 ft.
Crest Length 750 ft.
- d) Height 19.5 ft.
- e) Primary Outlet Capacity N/A
If pipe, diameter 0
- f) Secondary Spillway Capacity 375 cfs
Spillway Width 60 ft.
- g) X & Y Slope
Upstream 3 : 1
Downstream 2.5 : 1
- h) Surface Area of Impoundment 6.8
- i) Storage 37.1 Acre Feet
- j) Drainage Area Above Dam 283 Acres



1723-1

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

Nº 416484

Pierre, April 25, 2000

RECEIVED OF James F. Silbernagel, HCR 82, Box 163A, Box Elder, SD 57719
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>1723-1</u> to Appropriate Water, to construct and to put water to beneficial use _____	150	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>1723-1</u> _____	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	200 00

By Harold E. Eble
Chief Engineer

Water Permit Application # 1723-1
James F. Silbannagel

Top of Dam Elev. - 105
Spillway Elev. - 102 } Ht. = 19.5
D/S Toe Elev. - 85.5 } Cat. 3 - Low Hazard Dam

Maximum Storage Capacity = 62 Ac-Ft
Normal Storage Capacity = 37 Ac-Ft

Max. Capacity x Ht. = $67 \times 19.5 = 1306 < 3000 \therefore$ 25 year
Minimum Spillway Design

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

$$DA = 283 \text{ Ac} = 0.44 \text{ mi}^2$$

$$\text{Slope} = 175 \text{ ft/mi}$$

$$SI = 1.76$$

$$\begin{aligned} Q_{25} &= 83.4 A^{.6} S^{.44} S_i^{-.72} \\ &= 83.4 (.44)^{.6} (.175)^{.44} (1.76)^{-.72} \\ &= 83.4 (.611) (9.70) (.666) \\ &= \underline{330 \text{ cfs}} \end{aligned}$$

$$\begin{aligned} Q_{50} &= 106 A^{.63} S^{.45} S_i^{-.69} \\ &= 106 (.44)^{.63} (.175)^{.45} (1.76)^{-.69} \\ &= 106 (.596) (10.22) (.677) \\ &= \underline{437 \text{ cfs}} \end{aligned}$$

Spillway Flow

$$\begin{aligned} Q &= CLH^{3/2} \quad C = 2.6 \quad L = 60 \quad H = 3 \text{ ft} \\ &= 2.6(60)(3)^{1.5} \\ &= \underline{810 \text{ cfs}} \end{aligned}$$

$$\begin{aligned} Q_{100} &= 132 A^{.65} S^{.46} S_i^{-.67} \\ &= 132 (.44)^{.65} (.175)^{.46} (1.76)^{-.67} \\ &= 132 (.586) (10.76) (.685) \\ &= \underline{570 \text{ cfs}} \end{aligned}$$

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 - NA - OK
6. Spillway Discharge - OK
7. Spillway Details - OK
8. Specs - S&H NRCS - OK
9. EPP - NA Cat. 3 - OK

NRCS Annual Yield

$$DA = 283 \text{ Ac} \quad ISO = 1\frac{1}{2} \quad CN = 82$$

$$\begin{aligned} 80\% \text{ chance} &= 0.23 \\ 0.23 \times 283\frac{1}{2} &= \underline{5.5 \text{ Ac-Ft}} \end{aligned}$$

$$\begin{aligned} 50\% \text{ chance} &= 0.42 \\ 0.42 \times 283\frac{1}{2} &= \underline{10 \text{ Ac-Ft}} \end{aligned}$$

$$\begin{aligned} 10\% \text{ chance} &= 2.3 \\ 2.3 \times 283\frac{1}{2} &= \underline{55 \text{ Ac-Ft}} \end{aligned}$$



United States
Department of
Agriculture

Natural Resources
Conservation
Service

Federal Building, Room 239
515 9th Street
Rapid City, SD 57701-2663

February 9, 2000

Tim Schaal
DENR, Safety of Dams
Foss Building
523 East Capitol
Pierre, SD 57501-3182



Tim,

Attached for review and approval by your staff is a set of plans and specifications for a diversion/wildlife dam for Jim Silbernagel in the SW1/4, NW1/4, S33 T3N R10E Meade County South Dakota. The dam is classified as "hazard class a" as per NRCS criteria. The dam is designed to divert runoff around the dairy lots located immediately below the structure with the primary purpose being to reduce the chance of feedlot runoff entering the watercourse. This structure qualifies for the Category 3 Spillway Design Flood Exception. Structure Data is as follows:

Drainage Area - 283ac.

Storage - principal spillway - none

emergency spillway elev. 102.0 - 37.1 ac-ft.

top of dam elev. 105 - 62.0 ac-ft.

Fill Height - 20.0 ft.

Water Depth - 17 ft.

Storage X Height - 631

Emergency Spillway Design Storm - 50 yr.

Steve Quissell
Agricultural Engineer,
Natural Resources Conservation Service
1530 Samco Rd, suite 4
Rapid City, SD 57702-8007

cc. Darrell Vig, DC, NRCS, Sturgis SD

1*****
 SITES XEQ-10/26/99 WATER RESOURCE SITE ANALYSIS COMPUTER PROGRAM
 VER 96.1 (USER MANUAL - DATED MAY 1996)
 TIME 13:25:11

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

SITES 03/01/96 Jim Silbernagel
 STRUCTURE

		86.0		0.000
		88.00		0.19
		90.00		0.99
		92.00		2.29
		94.00		4.71
		96.00		8.95
		98.00		15.36
		100.0		24.74
		102.0		37.12
		104.0		52.0
		105.0		67.0

STORAGE
 VOLUME
 AC-FT.

Class A or
 Cat. 3

NO
 PRINCIPAL
 SPILLWAY

ENDTABLE						
WSDATA	2A101	AC	82.0	283	0.73	25YR.
PDIRECT					3.4	3.8
*POOLDATA	ELEV		101.0	101.0	101.0	
*PSDATA	1		900	15	.009	86.5
*PSINLET	ELEV		1.0	12.0		
*PSHOOD	900			86.0	.6	.6
CLPROFILE			-0.50			
	0		110	30	104	100
	280		99	295	98	365
	450		87	480	85.5	540
	620		94	670	96	780
	781		110			103

Design based on 500' Level Crest

ENDTABLE						
ASDATA	1	500	.04	3.0	.04	3
ASCREST	ELEV	102.0				
BTMWIDTH	FEET	40	50	60		
*	EMERGENCY SPILLWAY	25 YR				
*						
MINDEPTH	1.0	3.0	0.0	3.0		
*						
GO, DESIGN NEL	TYPE2	24				
ENDJOB						

 ***** MESSAGE - ALTERNATE STRUCTURE ID (S 1) 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.

***** WARNING - CONTROL WORD INVALID - FOLLOWING DATA RECORD IGNORED:

*POOLDATA ELEV 101.0 101.0 101.0

SPILLWAY --- .70 4.66 .027 .036

AUXILIARY SPILLWAY DURATION FLOW = 31.3 HOURS
ATTACK, OE/B = .8 ACFT/FT

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 4.8 FT/SEC
EXIT SLOPE = .030 FT/FT
FLOW DEPTH = .7 FT

***** WARNING - SOLUTION EXCEEDED MAX. INPUT ELEVATION (104.00) BY
.00 FT.

>>>> MINIMUM DEPTH IN AUX. TO TOP OF DAM IN TR60 IS 3.000 FEET.

ROUTED AUX.	BTM WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.-HP	VOL-
RESULTS	FT	FT	ACFT	AC	FT	ACFT
MIN. AUX.	60.0	105.00	59.4	.0	3.00	
22.3						

***** WARNING - SOLUTION EXCEEDED MAX. INPUT ELEVATION (104.00) BY
1.00 FT.

EMBANKMENT QUANTITIES *SLOPES 3:1 2.5:1*
VOLUME FILL= 13339. CY, MAX. HEIGHT = 20.0 FT
TOP WIDTH = 12.0 FT, TOP LENGTH = 757.9 FT
AREA OF DAM= 1.13 AC, AREA TO SEED= 1.13 AC (PROJECTED
HORZ. AREA)

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

SILBERNA Jim Silbernagel

0 SUBWATERSHED(S) ANALYZED.

1 STRUCTURE(S) ANALYZED.

6 HYDROGRAPHS ROUTED AT LOWEST SITE.

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

SITES.....COMPUTATIONS COMPLETE

1
96.1

SUMMARY TABLE 1

SITES VERSION

03/01/1996

DATED

PS N	KE	WEIR L	TW EL	
.000	.00	.00	.00	
2ND STG	ORF H	ORF L	START AUX.	
.00	.00	.00	.00	
ASCRESTS - AUX.1	AUX.2	AUX.3	AUX.4	AUX.5
102.00	.00	.00	.00	.00
AUX.DATA - REF.NO.	RETARD. Ci	TIE STATION	INLET LENGTH	
1	.00	.00	500	
AUX.DATA - INLET N	SIDE SLOPE	EXIT N	EXIT SLOPE	ACTUAL AUX?
.040	3.00	.040	.030	NO
BTM WIDTH - BW1	BW2	BW3	BW4	BW5
ft 40.00	50.00	60.00	.00	.00

AUXILIARY SPILLWAY RATING DEVELOPED USING WSPVRT.

1SITES -----
 XEQ 10/26/99 m Silbernagel WSID= SILBERNA
 VER 96.1 SUBW= 01
 TIME 13:25:11 SITE = S 1 PASS= 1 PART= 2

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 ARRAY LIMIT(86.00).

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 ARRAY LIMIT(86.00).

START ELEV .00 FT .0 ACFT .00 AC .0 CFS

1SITES -----
 XEQ 10/26/99 m Silbernagel WSID= SILBERNA
 VER 96.1 SUBW= 01
 TIME 13:25:11 SITE = S 1 PASS= 1 PART= 3

AUX. CREST 102.00 FT 37.1 ACFT .00 AC .0 CFS

***** MESSAGE - INPUT(.00) TO INTERPOLATION ROUTINE IS BELOW
 ARRAY LIMIT(86.00).

PS STORAGE 37.1 ACFT, BETWEEN AUX. CREST AND SED. ACCUM ELEVATIONS.

START ELEV 102.00 FT 37.1 ACFT .00 AC .0 CFS

EFFECTIVE HEIGHT(H)= 17.0 FEET, PRODUCT= 631. (H * STORAGE AT CREST AUX.).

INPUT DESIGN CLASS = A1 = LT 3000. PRODUCT.

NRCS-SDH D= 24.00 HR P= 3.40 IN Q= 1.70 IN DA= .44 SM
TC= .73 HR CN= 82.00 VOL= 40.1 ACFT

PEAK = 312.3 CFS, AT 12.4 HRS. 25 yr. PEAK

NRCS-FBH D= 24.00 HR P= 3.80 IN Q= 2.03 IN DA= .44 SM
TC= .73 HR CN= 82.00 VOL= 47.9 ACFT

PEAK = 374.2 CFS, AT 12.4 HRS. 50 yr. PEAK.

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

***** MESSAGE - THE PS RATING CONTAINS NO OR INSIGNIFICANT FLOW VALUES.

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RATING TABLE NUMBER 2

	ELEV. FEET	Q-TOTAL CFS	Q-PS CFS	Q-AUX. CFS	VOLUME AC-FT	AREA ACRE
1	.00	.00	.00	.00	.00	.00
2	8.50	.00	.00	.00	.00	.00
3	17.00	.00	.00	.00	.00	.00
4	25.50	.00	.00	.00	.00	.00
5	34.00	.00	.00	.00	.00	.00
6	42.50	.00	.00	.00	.00	.00
7	51.00	.00	.00	.00	.00	.00
8	59.50	.00	.00	.00	.00	.00
9	68.00	.00	.00	.00	.00	.00
10	76.50	.00	.00	.00	.00	.00
11	85.00	.00	.00	.00	.00	.00
12	93.50	.00	.00	.00	4.11	.00
13	102.00	.00	.00	.00	37.12	.00
14	102.10	1.57	.00	1.57	37.86	.00
15	102.20	3.13	.00	3.13	38.61	.00
16	102.38	5.95	.00	5.95	39.95	.00
17	102.60	10.52	.00	10.52	41.58	.00
18	103.00	32.91	.00	32.91	44.56	.00
19	103.50	75.77	.00	75.77	48.28	.00
20	104.00	136.65	.00	136.65	52.00	.00

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ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	AUX.-HP FT	VOL-AUX. ACFT
NRCS-SDH	40.0	103.99	51.9	.0	1.99	14.8

25 yr.

40' E.S. will work, but borderline
for 25 yr w/ 3' between E.S. crest
& Top of Dam

PEAK - CFS Q-PS Q-AUX. Q-TOT.
DISCHARGE = .0 135.0 135.0

	CRITICAL DEPTH	CRITICAL VELOCITY	CRITICAL SLOPE-Sc	25% OF Q Sc
AUXILIARY	FT	FT/SEC	FT/FT	FT/FT
SPILLWAY ---	.69	4.62	.027	.036

AUXILIARY SPILLWAY DURATION FLOW = 39.2 HOURS

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 4.8 FT/SEC
EXIT SLOPE = .030 FT/FT
FLOW DEPTH = .7 FT

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ARRAY LIMIT(86.00).

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	AUX.-HP FT	VOL-AUX. ACFT
NRCS-FBH	40.0	104.30	54.2	.0	2.30	17.1

50 yr. storm

PEAK - CFS Q-PS Q-AUX. Q-TOT.
DISCHARGE = .0 173.2 173.2

	CRITICAL DEPTH	CRITICAL VELOCITY	CRITICAL SLOPE-Sc	25% OF Q Sc
AUXILIARY	FT	FT/SEC	FT/FT	FT/FT.
SPILLWAY ---	.82	4.99	.026	.034

AUXILIARY SPILLWAY DURATION FLOW = 38.5 HOURS
ATTACK, OE/B = 1.2 ACFT/FT

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 5.3 FT/SEC
EXIT SLOPE = .030 FT/FT
FLOW DEPTH = .8 FT

***** WARNING - SOLUTION EXCEEDED MAX. INPUT ELEVATION (104.00) BY .30 FT.

>>>> MINIMUM DEPTH IN AUX. TO TOP OF DAM IN TR60 IS 3.000 FEET.

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	AUX.-HP FT	VOL-AUX. ACFT
MIN. AUX.	40.0	105.00	59.4	.0	3.00	22.3

***** WARNING - SOLUTION EXCEEDED MAX. INPUT ELEVATION (104.00) BY 1.00 FT.

EMBANKMENT QUANTITIES

VOLUME FILL= 12431. CY, MAX. HEIGHT = 20.0 FT
TOP WIDTH = 12.0 FT, TOP LENGTH = 757.9 FT
AREA OF DAM= 1.05 AC, AREA TO SEED= 1.05 AC (PROJECTED HORZ. AREA)

***** MESSAGE - INPUT(.00) TO INTERPOLATION ROUTINE IS BELOW
ARRAY LIMIT(86.00).

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

***** MESSAGE - THE PS RATING CONTAINS NO OR INSIGNIFICANT FLOW VALUES.

***** MESSAGE - INPUT(.00) TO INTERPOLATION ROUTINE IS BELOW
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RATING TABLE NUMBER 3

	ELEV. FEET	Q-TOTAL CFS	Q-PS CFS	Q-AUX. CFS	VOLUME AC-FT	AREA ACRE
1	.00	.00	.00	.00	.00	.00
2	8.50	.00	.00	.00	.00	.00
3	17.00	.00	.00	.00	.00	.00
4	25.50	.00	.00	.00	.00	.00
5	34.00	.00	.00	.00	.00	.00
6	42.50	.00	.00	.00	.00	.00
7	51.00	.00	.00	.00	.00	.00
8	59.50	.00	.00	.00	.00	.00
9	68.00	.00	.00	.00	.00	.00
10	76.50	.00	.00	.00	.00	.00
11	85.00	.00	.00	.00	.00	.00
12	93.50	.00	.00	.00	4.11	.00
13	102.00	.00	.00	.00	37.12	.00
14	102.10	1.94	.00	1.94	37.86	.00
15	102.20	3.88	.00	3.88	38.61	.00
16	102.38	7.37	.00	7.37	39.95	.00
17	102.60	13.12	.00	13.12	41.58	.00
18	103.00	40.93	.00	40.93	44.56	.00
19	103.50	93.97	.00	93.97	48.28	.00
20	104.00	169.00	.00	169.00	52.00	.00

***** MESSAGE - INPUT(.00) TO INTERPOLATION ROUTINE IS BELOW
ARRAY LIMIT(86.00).

ROUTED RESULTS NRCS-SDH	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	AUX.-HP FT	VOL-AUX. ACFT
	50.0	103.87	51.0	.0	1.87	13.9

PEAK - CFS	Q-PS	Q-AUX.	Q-TOT.
DISCHARGE =	.0	148.8	148.8

	CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-Sc FT/FT	25% OF Q Sc FT/FT
AUXILIARY SPILLWAY ---	.64	4.46	.028	.037

AUXILIARY SPILLWAY DURATION FLOW = 34.5 HOURS

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 4.6 FT/SEC

EXIT SLOPE = .030 FT/FT
FLOW DEPTH = .6 FT

***** MESSAGE - INPUT(.00) TO INTERPOLATION ROUTINE IS BELOW
ARRAY LIMIT(86.00).

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	AUX.-HP FT	VOL-AUX. ACFT
NRCS-FBH	50.0	104.14	53.0	.0	2.14	15.9

PEAK - CFS Q-PS Q-AUX. Q-TOT.
DISCHARGE = .0 190.0 190.0

	CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-Sc FT/FT	25% OF Q Sc FT/FT
AUXILIARY SPILLWAY ---	.75	4.82	.026	.035

AUXILIARY SPILLWAY DURATION FLOW = 34.2 HOURS
ATTACK, OE/B = 1.0 ACFT/FT

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 5.0 FT/SEC
EXIT SLOPE = .030 FT/FT
FLOW DEPTH = .7 FT

***** WARNING - SOLUTION EXCEEDED MAX. INPUT ELEVATION (104.00) BY .14 FT.

>>>> MINIMUM DEPTH IN AUX. TO TOP OF DAM IN TR60 IS 3.000 FEET.

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	AUX.-HP FT	VOL-AUX. ACFT
MIN. AUX.	50.0	105.00	59.4	.0	3.00	22.3

***** WARNING - SOLUTION EXCEEDED MAX. INPUT ELEVATION (104.00) BY 1.00 FT.

EMBANKMENT QUANTITIES

SLOPES 2.5:1 2.5:1
VOLUME FILL= 12431. CY, MAX. HEIGHT = 20.0 FT
TOP WIDTH = 12.0 FT, TOP LENGTH = 757.9 FT
AREA OF DAM= 1.05 AC, AREA TO SEED= 1.05 AC (PROJECTED HORZ. AREA)

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

***** MESSAGE - THE PS RATING CONTAINS NO OR INSIGNIFICANT FLOW VALUES.

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RATING TABLE NUMBER 4

	ELEV.	Q-TOTAL	Q-PS	Q-AUX.	VOLUME	AREA
	FEET	CFS	CFS	CFS	AC-FT	ACRE
1	.00	.00	.00	.00	.00	.00
2	8.50	.00	.00	.00	.00	.00
3	17.00	.00	.00	.00	.00	.00
4	25.50	.00	.00	.00	.00	.00
5	34.00	.00	.00	.00	.00	.00
6	42.50	.00	.00	.00	.00	.00
7	51.00	.00	.00	.00	.00	.00
8	59.50	.00	.00	.00	.00	.00
9	68.00	.00	.00	.00	.00	.00
10	76.50	.00	.00	.00	.00	.00
11	85.00	.00	.00	.00	.00	.00
12	93.50	.00	.00	.00	4.11	.00
13	102.00	.00	.00	.00	37.12	.00
14	102.10	2.31	.00	2.31	37.86	.00
15	102.20	4.62	.00	4.62	38.61	.00
16	102.38	8.79	.00	8.79	39.95	.00
17	102.60	15.71	.00	15.71	41.58	.00
18	103.00	48.95	.00	48.95	44.56	.00
19	103.50	112.19	.00	112.19	48.28	.00
20	104.00	201.38	.00	201.38	52.00	.00

***** MESSAGE - INPUT(.00) TO INTERPOLATION ROUTINE IS BELOW
ARRAY LIMIT(86.00).

ROUTED	BTM WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.-HP	VOL-AUX.
RESULTS	FT	FT	ACFT	AC	FT	ACFT
NRCS-SDH	60.0	103.76	50.2	.0	1.76	13.1

PEAK - CFS Q-PS Q-AUX. Q-TOT.
DISCHARGE = .0 158.9 158.9

CRITICAL CRITICAL CRITICAL 25% OF Q
DEPTH VELOCITY SLOPE-Sc Sc
AUXILIARY FT FT/SEC FT/FT FT/FT
SPILLWAY --- .60 4.32 .028 .038

AUXILIARY SPILLWAY DURATION FLOW = 31.3 HOURS

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 4.4 FT/SEC
EXIT SLOPE = .030 FT/FT
FLOW DEPTH = .6 FT

***** MESSAGE - INPUT(.00) TO INTERPOLATION ROUTINE IS BELOW
ARRAY LIMIT(86.00).

ROUTED	BTM WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.-HP	VOL-AUX.
RESULTS	FT	FT	ACFT	AC	FT	ACFT
NRCS-FBH	60.0	104.00	52.0	.0	2.00	14.9

PEAK - CFS Q-PS Q-AUX. Q-TOT.

Try for 60' wide E.S.
to allow for 50 yr. capacity with
1' FREEBOARD DO TO PROXIMITY TO

DISCHARGE = .0 202.0 202.0

	CRITICAL DEPTH	CRITICAL VELOCITY	CRITICAL SLOPE-Sc	25% OF Q Sc
AUXILIARY	FT	FT/SEC	FT/FT	FT/FT
SPILLWAY ---	.70	4.66	.027	.036

AUXILIARY SPILLWAY DURATION FLOW = 31.3 HOURS
ATTACK, OE/B = .8 ACFT/FT

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 4.8 FT/SEC
EXIT SLOPE = .030 FT/FT
FLOW DEPTH = .7 FT

***** WARNING - SOLUTION EXCEEDED MAX. INPUT ELEVATION (104.00) BY .00 FT.

>>>> MINIMUM DEPTH IN AUX. TO TOP OF DAM IN TR60 IS 3.000 FEET.

ROUTED	BTM WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.-HP	VOL-AUX.
RESULTS	FT	FT	ACFT	AC	FT	ACFT
MIN. AUX.	60.0	105.00	59.4	.0	3.00	22.3

***** WARNING - SOLUTION EXCEEDED MAX. INPUT ELEVATION (104.00) BY 1.00 FT.

EMBANKMENT QUANTITIES

Includes 0.5' stripping but not 5% settlement
VOLUME FILL= 12431. CY, MAX. HEIGHT = 20.0 FT
TOP WIDTH = 12.0 FT, TOP LENGTH = 757.9 FT
AREA OF DAM= 1.05 AC, AREA TO SEED= 1.05 AC (PROJECTED HORZ. AREA)

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

SILBERNA m Silbernagel

0 SUBWATERSHED(S) ANALYZED.

1 STRUCTURE(S) ANALYZED.

6 HYDROGRAPHS ROUTED AT LOWEST SITE.

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

SITES.....COMPUTATIONS COMPLETE

WATERSHED ID	RUN DATE	RUN TIME
SILBERNA	10/26/99	13:25:11

>>>	SITE ID	SUBWS ID	SUBWS DA (SQ MI)	CURVE NO.	TC (HRS)	TOTAL DA (SQ MI)	TYPE DESIGN	STRUC CLASS	<<<
	S 1	01	.44	82.	.73	.44	TR60	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	.0	102.0	40.0	3.0	105.0	12431.	0.	5.3	MIN. AUX.
1	.0	102.0	50.0	3.0	105.0	12431.	0.	5.0	MIN. AUX.
1	.0	102.0	60.0	3.0	105.0	12431.	0.	4.8	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.

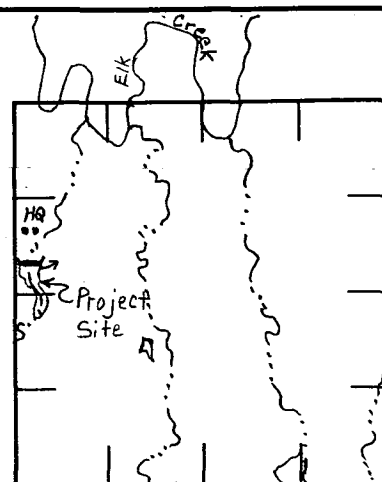
SITES.....SUMMARY TABLE 1 COMPLETED.

NRCS SITES VERSION 96.1 ,03/01/96
SILBERNA FILES

INPUT
C:\ENGINEER\SITES\PROJECTS\SILBERNA

OUTPUT - DATED 10/26/99 13:25:11
C:\ENGINEER\SITES\PROJECTS\SILBERNA.OUT

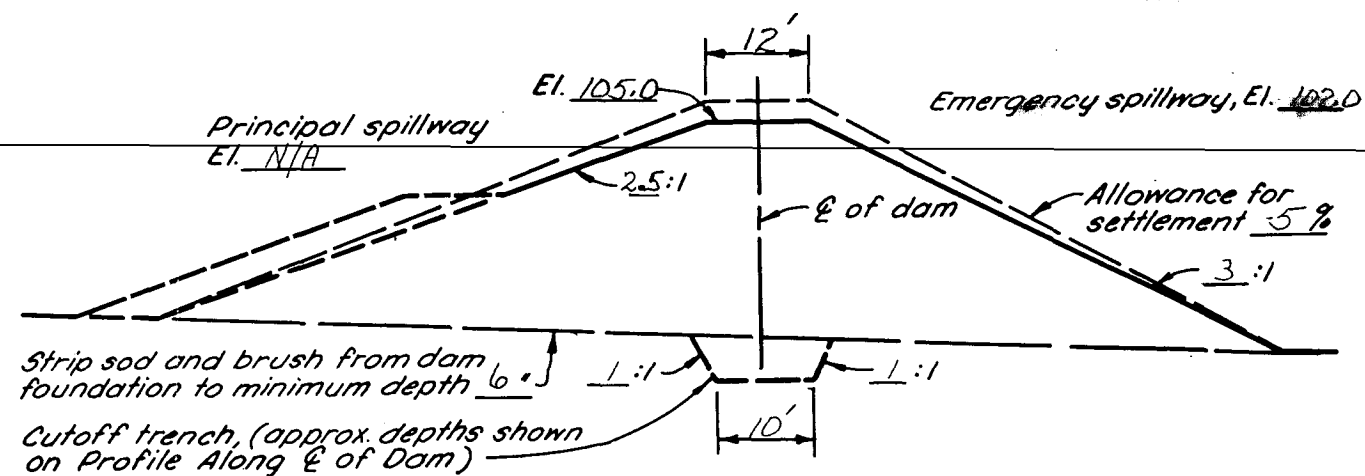
DRAINAGE AREA	ANNUAL YIELD	PEAK RUNOFF	EMERG. SPLWY. CAPACITY	WATER DEPTH	SURFACE AREA	SEDIMENT STORAGE	TOTAL STORAGE
ACRES	AC. FT.	25-YR.	C. F. S.	FEET	ACRES	AC. FT.	AC. FT.
283	12.3	312.3	375	17	6.8	9.6	37.1



Sec. 33 T. 3 N R. 10 E
Meade County

TABLE OF QUANTITIES

ITEM	UNIT	QUANTITY
Fill (Includes 6" Base Stripping)	Cy.	13339.0
5% Settlement	Cy.	667.0
Core Trench	Cy.	662.0
Trail Dike (6' Top 3:1 SS)	Cy.	661.0
TOTAL	Cy	15,329.0



TYPICAL CROSS SECTION OF DAM

S.D. CONSTRUCTION AND MATERIAL SPECIFICATIONS:

SD-4 Stripping
SD-5 Excavation
SD-7s Earth Fill class 5

EARTH DAM

OPERATOR: Jim Silbernagel
CONSERVATION DISTRICT: Elk Creek
SWNW 33 T3N R10E Meade Co., So. Dak.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed <i>Tell Haying</i>	Date <i>3/10</i>	Approved <i>[Signature]</i>
Drawn <i>N. Haying</i>	<i>3/10</i>	Title <i>Engineer</i>
Traced		Title
Checked		Sheet <i>1</i>
		Drawing No.

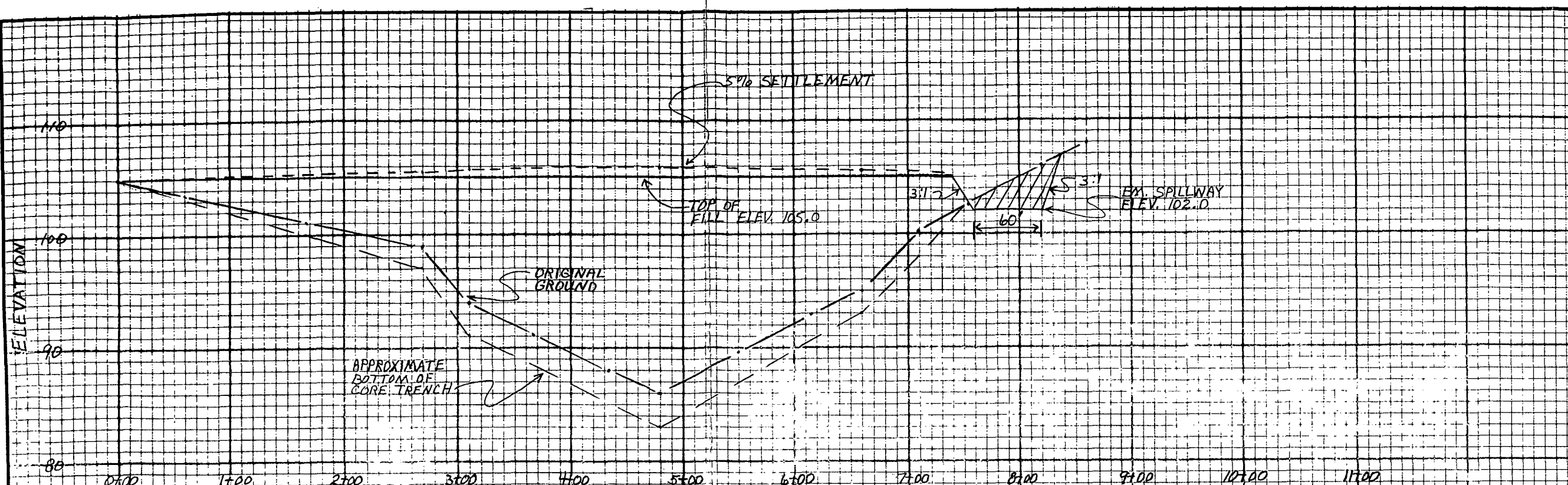
SEE ATTACHED SHEET

SKETCH PLAN OF DAM AND RESERVOIR AREA

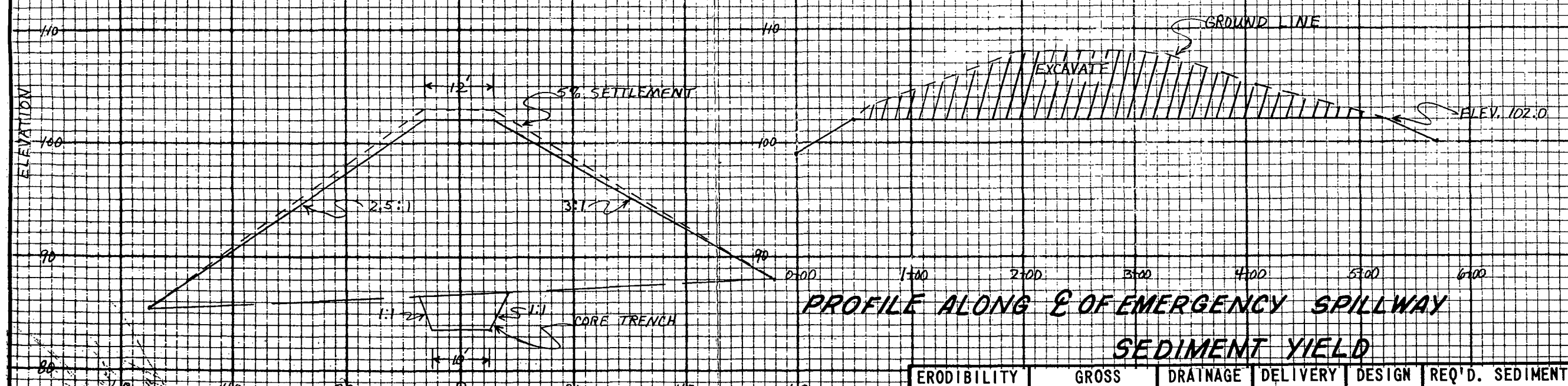
Approximate scale 1" = _____

REFERENCE: GUIDE PLAN NO. 1.0

JOB PLAN NO. 1.0



CROSS SECTION AT CREST OF EMERGENCY SPILLWAY AND PROFILE ALONG $\mathcal{C}$ OF DAM



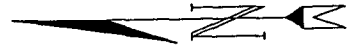
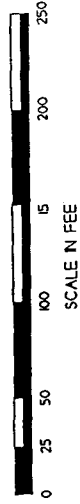
PROFILE ALONG $\mathcal{C}$ OF EMERGENCY SPILLWAY

MAXIMUM CROSS SECTION OF DAM

SEDIMENT YIELD

ERODIBILITY AREA ACRES	GROSS RATE A.F./AC./YR.	DRAINAGE AREA ACRES	DELIVERY RATE %	DESIGN PERIOD YEARS	REQ'D. SEDIMENT VOLUME AC.FT.
P	0.0057	283	0.3	20	9.6

PLAN VIEW



FEEDLOT AREA

EMERGENCY
SPILLWAY
ELEV. 102.0

TOP OF DAM
ELEV. 105.0

FENCE LINE

POOL AREA
6.8 AC.

FENCE LINE

JIM SILBERNAGEL
FISH POND
MEADE COUNTY SODAK.
SW 1/4 NW1/4 S.33 T.3N R.10E

USDA U.S. Department of Agriculture
Natural Resources Conservation Service

DESIGNED . . . J. Silbernagel	APPROVED BY . . .
DRAFTED . . . J. Silbernagel	TITLE . . .
DATE . . . 1/99	SHEET . . . 2 of 2

SILBERNAGEL

File No. XXX

Water Rights Division -DENR
Conversation or File Documentation

NAME OF PERSON OR FILE: Jim Silbernagel

ADDRESS: XXXXXXXXXXXXXX

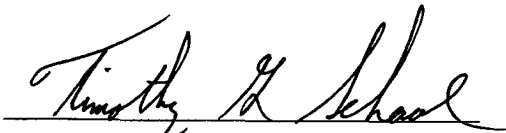
COUNTY: Meade

DATE: March 31, 2000

TELEPHONE: XXXXXXX

RE: NRCS P&S

I talked to Nell Heying from the NRCS in Rapid City (342-0301) today about the P&S we received on the diversion/wildlife dam for Jim Silbernagel. I told her we received the P&S, but also needed a Water Permit Application for this dam. She said they completed application forms for him and he was going to send them to us. She was going to talk to him again and remind him to send them to us.



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

June 1, 2000

James F. Silbernagel
HCR 82, Box 163A
Box Elder, SD 57719

Dear Mr. Silbernagel:

We have reviewed the plans and specifications for your diversion/wildlife dam project located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 33-T3N-R10E, in Meade County. The plans and specifications as submitted are approved. Approval of the plans and specifications does not authorize construction of the dam. The construction may not begin until Water Permit Application No. 1723-1 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 Silbernagel Dam will be classified as a small size Category 3, Low Hazard dam with a dam height of 20 feet and a normal storage capacity of 37.1 acre-feet and a maximum storage capacity of 62 acre-feet.

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

Sincerely,

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

c: Steve Quissell, NRCS, Rapid City
Darrell Vig, NRCS, Sturgis

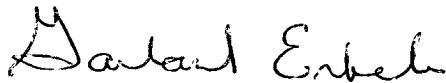
**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1723-1, James Silbernagel**

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. 1723-1, James Silbernagel, HCR 82, Box 163A, Box Elder, SD 57719.

The Chief Engineer is recommending APPROVAL of Application No. 1723-1 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. 1723-1 authorizes a dam with storage capacity of 37.1 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
May 30, 2000

REPORT ON
WATER PERMIT APPLICATION NO. 1723-1
James F. Silbernagel
May 9, 2000

Water Permit Application No. 1723-1 has been filed by James F. Silbernagel to impound 37.1 acre-feet of water from runoff by constructing a dam located in the SW 1/4 NW 1/4 of Section 33-T3N-R10E, in Meade 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 and livestock watering.

Discussion:

The dam will be classified as a small size, Category 3, Low Hazard dam. The diversion/wildlife dam project has been designed by the Natural Resources Conservation Service (NRCS). The plans and specifications have been reviewed and will be approved; however, construction of the dam can not begin until Water Permit Application No. 1723-1 is approved.

The Silbernagel Dam will be 20 feet high with a normal storage capacity of 37.1 acre-feet with a reservoir level at the primary spillway elevation, and a maximum storage capacity of 62 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 0.44 square miles. A 25-year frequency event for this drainage area produces a peak runoff of approximately 437 cfs. A 100-year frequency event produces a peak of approximately 570 cfs. The dam is designed to have a 60 foot wide earth spillway with 3 feet of available freeboard. The 60 foot wide spillway will have a capacity of approximately 810 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 5.5 acre-feet. The annual yield with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be 10 acre-feet and the annual yield with a 10 percent chance, or 1 out of 10 years, is expected to be 55 acre-feet.

The Silbernagel Dam will be located in the SW 1/4 NW 1/4 of Section 33-T3N-R10E on an unnamed tributary of Elk Creek about one-half mile upstream of its confluence with Elk Creek. There are no existing Water Permits/Rights located on the unnamed tributary between the proposed dam and Elk Creek. The nearest permit below the dam would be Water Right No. 642-2, held by Walter D. Miller. This permit is located on Elk Creek about four miles below the confluence of the unnamed tributary, and appropriates 8.40 cfs from Elk Creek to irrigate 578 acres of lands. Approval of Water Permit Application No. 1723-1 should not have any adverse effect on Water Right No. 642-2.

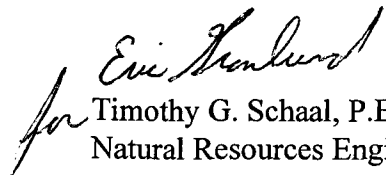
Page 2

Application No. 1723-1

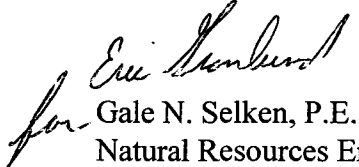
James F. Silbernagel

Conclusions:

1. Water Permit Application No. 1723-1 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 downstream domestic use should be a qualification on Water Permit Application No. 1723-1.


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

Approved by:


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



**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.

June 1, 2000

James F. Silbernagel
HCR 82, Box 163A
Box Elder, SD 57719

Dear Mr. Silbernagel:

Water Permit Application No. 1723-1 for fish & wildlife propagation 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 Meade Co. Times-Tribune printed at Sturgis, SD (Ph # (605) 347-2503). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

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

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

June 1, 2000

Meade Co. Times-Tribune
Box 69
Sturgis, SD 57785-0069

ATTENTION: Legal Public Notice

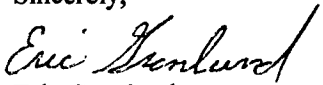
Enclosed is a Notice of Hearing on Application No. 1723-1 to Appropriate Water to be published twice. Please publish the first notice on June 7, 2000, with the second publication 7 days later.

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 James F. Silbernagel, HCR 82, Box 163A, Box Elder, SD 57719 (Ph # (605) 754-6445).

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

-----CU T HERE-----

No. 1723-1

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

Date _____

We are in receipt of your letter of May 31, 2000, enclosing Notice of Hearing to Appropriate Water by Application No. 1723-1 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper

Instruction to Newspaper - Publish first Notice on June 7, 2000, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 1723-1 to Appropriate Water

Notice is given that James F Silbernagel, HCR 82 Box 163A, Box Elder SD 57719 has filed an application for a water permit to impound 37.1 acre-feet of water from runoff by constructing a dam located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 33 with water impounded in the SW $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 33; all in T3N-R10E. This application requests impoundment of sufficient water to maintain water at the outlet elevation and is to be used to provide habitat for fish and wildlife propagation and livestock water.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1723-1 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 June 26, 2000.

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. Nettie H. Myers, Secretary, Department of Environment and Natural Resources.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
 County of Meade)

I, Joan Lewis

certify that the attached printed Notice was taken

from the Meade County Times

printed and published in Sturgis

County of Meade and

state of South Dakota. The notice was published

in the newspaper on the following two dates:

June 7, 2000

June 14, 2000

Cost of Printing 39.31

Joan M. Lewis
 (Signature)

Bookkeeper
 (Title)

6/23/00
 (Date Signed)

**Water application****NOTICE OF APPLICATION**
NO. 1723-1 to Appropriate Water

Notice is given that James F Silbernagel, HCR 82 Box 163A, Box Elder SD 57719 has filed an application for a water permit to impound 37.1 acre-feet of water from runoff by constructing a dam located in the SW 1/4 NW 1/4 Section 33 with water impounded in the SW 1/4 NW 1/4, NW 1/4 SW 1/4 Section 33; all in T3N-R10E. This application requests impoundment of sufficient water to maintain water at the outlet elevation and is to be used to provide habitat for fish and wildlife propagation and livestock water.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1723-1 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.

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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. Nettie H. Myers, Secretary, Department of Environment and Natural Resources.

Publ June 7 and 14, 2000
Meade County Times-Tribune



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

AUG 02 2000

James F. Silbernagel
HCR 82, Box 163A
Box Elder, SD 57719

Dear Mr. Silbernagel:

Enclosed is Water Permit No. 1723-1 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

NOTICE OF COMPLETION OF WORKS AND APPLICATION OF WATER TO BENEFICIAL USE

Date

9-11-00

TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181



FROM:

James F. Silberwageh
(name)

22232 Brehm Road
(address)

Box Elder, SD 57719 605-754-6445
(city, state, zip) (phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 1723-1 states that the water use system is to be constructed by

6-26-05
(date)

, and water is to be put to beneficial use by

6-26-09
(date)

The water use system was completed on

9-8-00
(date)

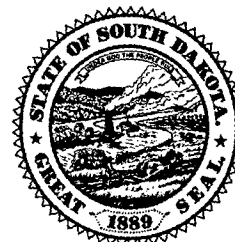
Applying the water to beneficial use was completed on

?

(date)

You may schedule an investigation so that the water license may be issued.

James F. Silberwageh
(signature)



REPORT ON INSPECTION OF PERMIT NO. 1723-1

Other permit(s) associated with the project: XXXX

DATE OF INSPECTION: August 29, 2001

NAME & ADDRESS OF INSPECTION CONTACT/ Don Rhodes

RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE: son-in-law

NAME & ADDRESS OF PERMIT HOLDER: James F. Silbernagel, 22232 Brehm Road,
Box Elder, SD 57719

DIVERSION POINT LEGAL LOCATION: 2300 ft. south & 200 ft. east of the NW corner of
Section 33-T3N-R10E (SW 1/4 NW 1/4)

DAM INFORMATION:

- 1) Height to crest 19.5 feet
- 2) Height to primary spillway 16.5 feet
- 3) Height to secondary spillway N/A feet
- 4) Crest width 12 feet
- 5) Crest length 750 feet
- 6) Spillway length XXX feet
- 7) Spillway width 60 feet
- 8) Approx. storage (Normal) 37.1 acre-feet
- 9) Approx. storage (Maximum) 62 acre-feet
- 10) Date constructed: September 8, 2000

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

Permit No. 1723-1
Upper Cheyenne 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, August 29, 2001, made a thorough examination of the water use system constructed by James F. Silbernagel of 22232 Brehm Road, Box Elder, SD 57719 holder of Permit No. 1723-1, bearing the priority of April 24, 2000 authorizing the storage of 37.1 acre-feet of the waters of runoff for fish & wildlife production and livestock watering purposes, in Meade County.

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

A. Works used to divert the water:

A 19.5 feet high dam with a 60 foot wide earth spillway, that stores 37.1 acre-feet of water.

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

N/A

C. Works used to apply water to beneficial use:

A 19.5 feet high dam with a 60 foot wide earth spillway, that stores 37.1 acre-feet of water.

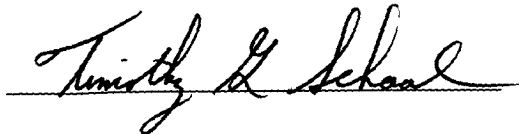
The system is in the following condition good. The point of diversion is located 2300 ft. south & 200 ft. east of the NW corner of Section 33-T3N-R10E (SW 1/4 NW 1/4). The works are capable of storing 37.1 acre-feet of water which is to be used for fish & wildlife production and livestock watering. Water has been put to beneficial use to the maximum extent as follows:

A 19.5 feet high dam with a 60 foot wide earth spillway, that stores 37.1 acre-feet of water.

and the license should be issued for 37.1 acre-feet of storage.

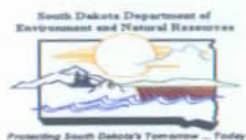
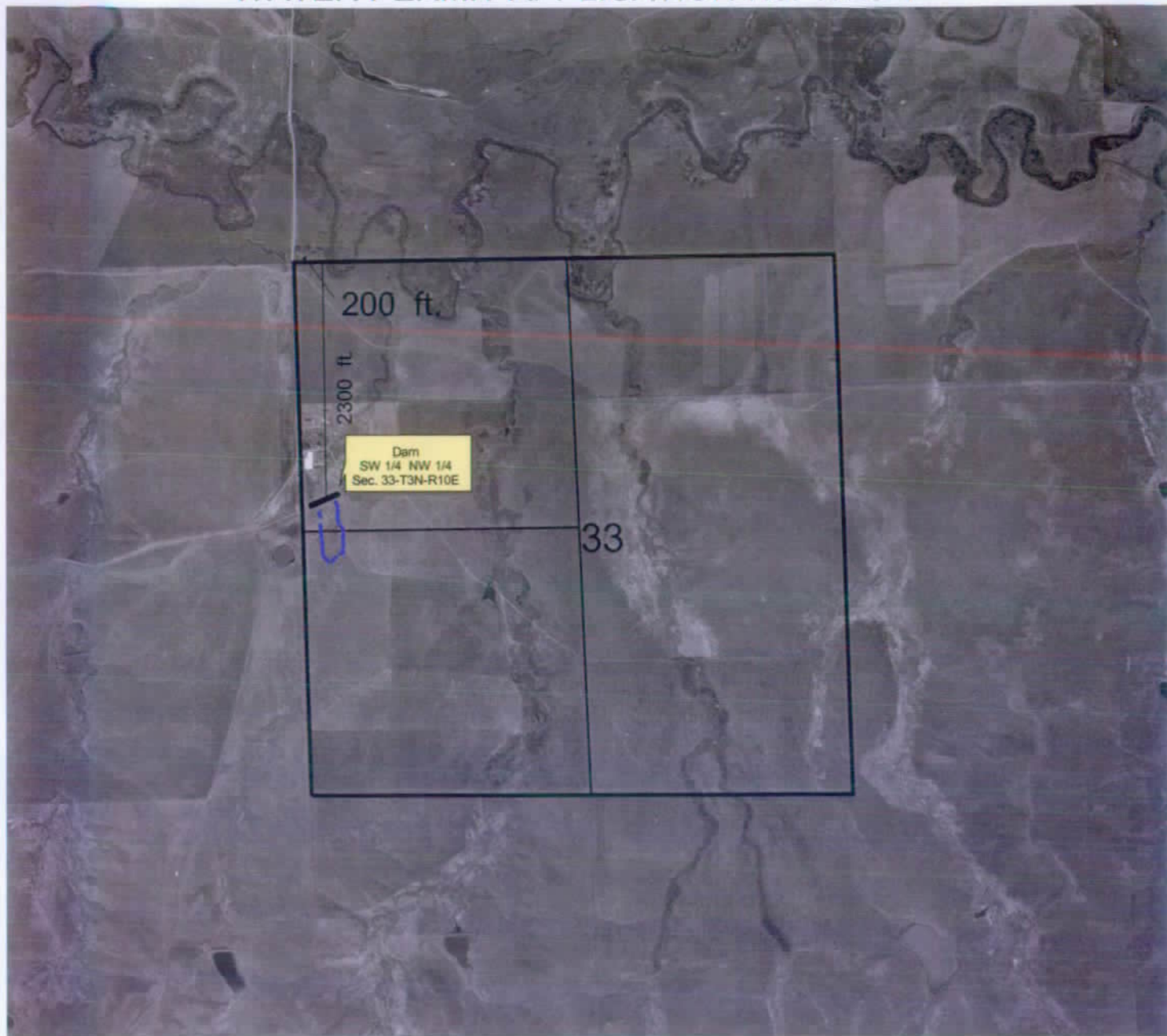
Applicable permit qualifications have been complied with: Yes X

Exceptions to compliance are: none. Date Report Completed: January 18, 2002



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

WATER PERMIT APPLICATION No. 1723-1



Timothy G. Schaal
Timothy G. Schaal, P.E. 11/18/02
Natural Resources Engineer Specialist
Water Rights Program

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1723-1

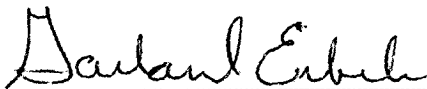
(1) James R. Silbernagel, 22232 Brehm Road, Box Elder SD 57719 made Application No. 1723-1, April 24, 2000 for a water permit to impound 37.1 acre-feet of water from runoff, Meade County, South Dakota for fish & wildlife propagation and livestock watering purposes. Permit No. 1723-1, with a priority date of April 24, 2000 was approved June 26, 2000 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 26, 2005 and for the application to beneficial use of said water on or before June 26, 2009.

The permit holder submitted a *Notice of Completion of Works and Application of Water to Beneficial Use* on September 14, 2000. The *Notice* stated the dam was completed on September 8, 2000.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the storage dam and is entitled to impound 37.1 acre-feet of water for beneficial use with sufficient water annually to maintain the water level to the outlet elevation. The location of the storage dam (spillway) is 2,300 feet south and 200 feet east of the northwest corner of Section 33-T3N-R10E (SW ¼ NW ¼).

(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~~ James R. Silbernagel, 22232 Brehm Road, Box Elder SD 57719 the holder and/or owner of Water Right No. 1723-1 is issued a license to appropriate water, the right to impound 37.1 acre-feet of water from runoff with sufficient water annually to maintain the water level to the outlet elevation with a priority date of April 24, 2000 from the location specified in (2) of this license for fish & wildlife propagation and livestock watering. This license is subject to any limitations or qualifications listed in Water Right No. 1723-1 and subject to South Dakota State Law.



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

MAR 04 2002

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

MAR 04 2002

1723-1

James R. Silbernagel
22232 Brehm Road
Box Elder, SD 57719

Dear Mr. Silbernagel:

Enclosed is Water License No. 1723-1. 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