

WATER PERMIT NO. 6086-3

Name of Applicant: Art Geyer

Address: 529 Hwy 25, DeSmet SD 57231

Phone: 605 854-3975

Amount of Water Claimed: 27.2 AF

Total Acres: NA

Source of Water Supply: runoff

Water to be used for: livestock watering

County: Kingsbury

Type of Waste Disposal System: NA

Location: 8 miles west of DeSmet

PRIORITY Date Received: 6-12-1998

Fee: \$150

Corrected Application Received: NA

Period of Annual Use: January 1 - December 31

Remarks:

Diversion Point: SW ¼ NW ¼

Sec 29-T111N-R57W

Water Impounded: SW ¼ NW ¼

Sec 29-T111N-R57W

Depth of Well: NA

Well Driller:

Remarks:

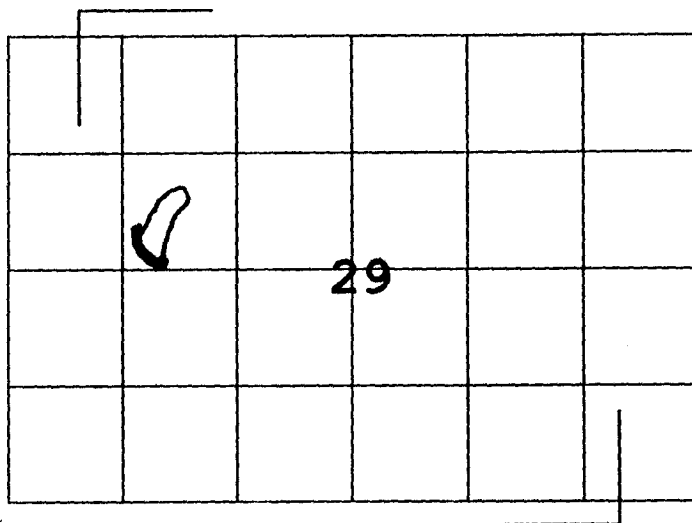
Type of Map: aerial

Prepared by: Craig Olson, NRCS

Reviewed and the Number Assigned on: 6-15-1998

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



SOUTH DAKOTA
WATER PERMIT NO. 6086-3

Date of first receipt of application June 12, 1998.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6086-3 to Art Geyer, 529 Hwy 25, DeSmet SD 57231 authorizing the construction of a dam and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 6086-3 authorizes impoundment of 27.2 acre-feet of water from runoff by constructing a dam located in the SW ¼ NW ¼ Section 29 with water impounded in the SW ¼ NW ¼ Section 29; all in T111N-R57W.
2. The water appropriated shall be used for the purpose of providing water for livestock and may not exceed the amount of water needed for beneficial use for livestock watering purposes.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 6086-3 is July 20, 1998.
5. The date from which applicant may claim right is June 12, 1998.
6. One-fifth of the construction is to be completed on or before January 20, 2001.
7. All construction is to be completed on or before July 20, 2003.
8. Water is to be put to beneficial use on or before July 20, 2007.
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. 6086-3 authorizes a dam with storage capacity of 27.2 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: _____

John Hatch
John Hatch, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

SEP 3 1998

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>6086-3</u>	(office use only) Hydrologic Unit <u>10160006</u>
	Basin <u>Pamun River</u>	
	Newspaper <u>De Smet News, De Smet, 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 <u>Livestock</u>	

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.) _____

1. Name of Applicant Art Geyer Phone 605-854-3975
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 529 Hwy 25, De Smet State SD 57231
(Street, RR, or Box) (Zip Code)

2. Amount of water claimed 27.2 AF @ P.S. ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable

3. Source of water supply run off

4. Location of point of diversion (example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

SW 1/4 sec 29 T111N R57W
Water Impounded: SW 1/4 NW 1/4 sec 29-T111N-R57W County Kingsbury

5. County or counties where water will be used Kingsbury

6. Annual period during which water is to be used Jan 1 - Dec 31
Storage would be year round

7. 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)

This is a dam for livestock water. Please see attached design forms. (Tim Shaw already has them.)

STATE OF SOUTH DAKOTA)
County of Kingsbury 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, Arthur Geyer, 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 Arthur Geyer
9 day of June 19 98

Subscribed and sworn to before me this

Kathy Bischoff
Notary Public

Supplemental Information

(type or print in ink)



1. Well Information - Proposed Construction

- a) Drill Hole Diameter _____ Depth _____
- b) Casing Type _____ Diameter _____ Thickness _____
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack _____ 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) _____

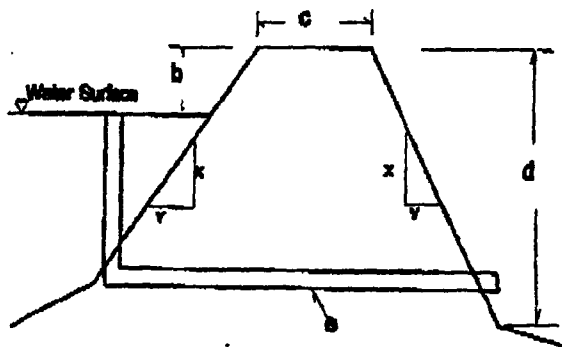
4. Water Storage Dams

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:

Pete Anderson NRCS Engineer

520 3rd Ave Brookings SD
57006



- b) Freeboard 4.6 feet
- c) Crest Width 10 feet
Crest Length 250 L.F.
- d) Height 13.8
- e) Primary Outlet Capacity 9.4 CFS
If pipe, diameter 12 inches
- f) Secondary Spillway Capacity 110.0 CFS
Spillway Width 80' bottom (mostly Natural)
- g) X & Y Slope
Upstream 3:1
Downstream 2.5:1
- h) Surface Area of Impoundment 10.1 Acres
- i) Storage 27.2 Acre Feet @ R.S.
- j) Drainage Area Above Dam 382 Acres

Water Permit Application #6086-3
Art Geyer

Cat. 3 - Low Hazard Dam

Top of Dam Elev. - 103.6
P. Spillway Elev. - 99
2nd Spillway Elev. - 100.7
Dis Toe Elev. - 89.8

Height = 13.8 ft.

Normal Storage Capacity - 27.2
Int. Storage Capacity - 43.1
Max. Storage Capacity - 70.8

Int. Storage Capacity x Eff. Height = $43.1 \times 10.9 = 470 < 3000 \therefore$
25 year Flood Minimum Spillway Design

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

DA = 382 A_c = 0.6 mi.²
Slope = 60 ft/mile
SI = 2.99

$$Q_{15} = 83.4 A^{.644} S^{.72}$$

$$= 83.4 (0.6)^{.644} (60)^{.72} (2.99)$$

$$= 83.4 (.74) (6.58) (0.45)$$

$$= \underline{170 \text{ cfs}}$$

$$Q_{100} = 132 A^{.6546} S^{.67}$$

$$= 132 (0.6)^{.6546} (60)^{.67} (2.99)$$

$$= 132 (.72) (6.58) (0.48)$$

$$= \underline{300 \text{ cfs}}$$

Secondary Spillway Flow

$$Q = C L H^{3/2} \quad C = 2.6 \quad L = 80 \quad H = 2.9$$

$$= 2.6 (80) (2.9)^{1.5}$$

$$= \underline{1027 \text{ cfs}}$$

Section 74:02:08:09

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

NRCS Annual Yield

DA = 382 A_c, CN = 75 Iso = 2 1/2

$$80\% = 0.18$$

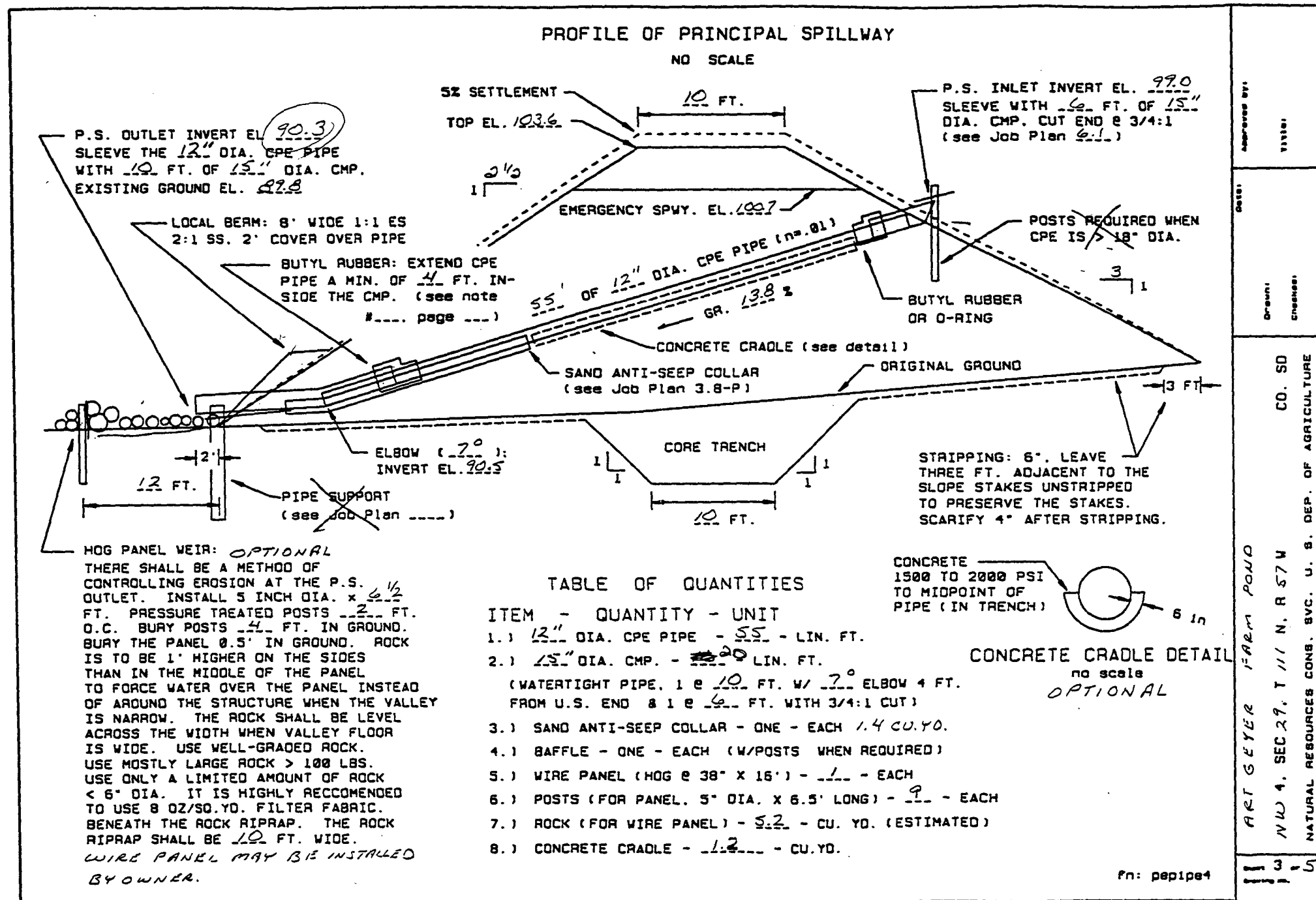
$$0.18 \times 382^{3/2} = \underline{5.6 \text{ A. - Ft.}}$$

$$50\% = 0.49$$

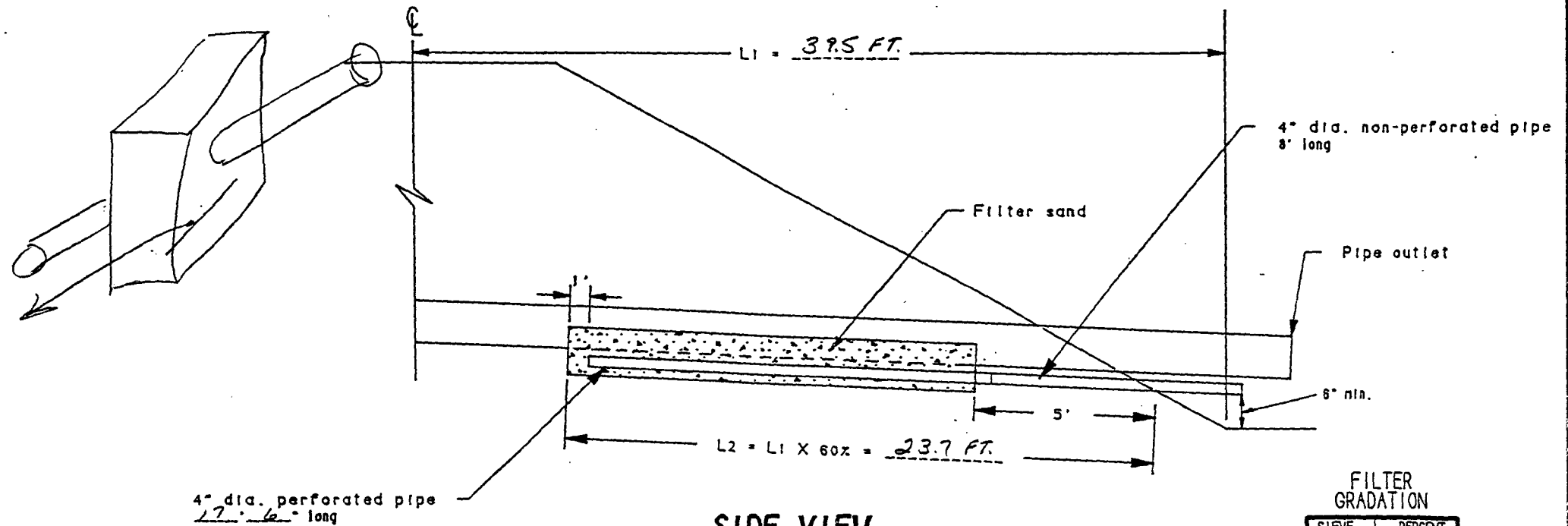
$$0.49 \times 382^{3/2} = \underline{16 \text{ A. - Ft.}}$$

$$10\% = 2.2$$

$$2.2 \times 382^{3/2} = \underline{70 \text{ A. - Ft.}}$$



Approved By: _____ Date: _____ Drawn: _____ Checked: _____	Title: _____ CO. SD ART GEYER FARM POND NW 1/4, SEC 27, T 11 N, R 57 W NATURAL RESOURCES CONSERV. SVC. U. S. DEPT. OF AGRICULTURE
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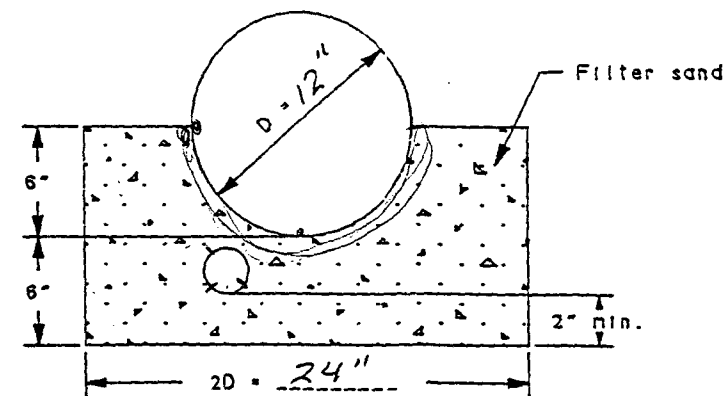


SIDE VIEW

QUANTITIES:
1.9 CU. YD.

FILTER
GRADATION

SIEVE SIZE	PERCENT PASSING
3/8"	100
4	95-100
8	90-100
16	50-85
30	25-60
50	10-30
100	2-10



UPSTREAM VIEW

- NOTE:
- THE 4" DIA. PIPE SHALL BE SDR 35 PVC, OR STRONGER
 - PROVIDE AN ANIMAL GUARD ON DRAIN OUTLET PIPE. DRILL 2 1/2" DIA. HOLES, ON 6" FROM END OF PIPE AND PLACE A 3/8" DIA., 5 1/2" LONG GALVANIZED STEEL BOLT THRU THEM AND SECURE WITH A NUT (PLACE BOLT HORIZONTAL).
 - FILTER SAND WILL BE CLEAN PEA AGGREGATE OR CONCRETE SAND.

SAND ANTISEEP DRAIN

OPERATOR ART GEYER

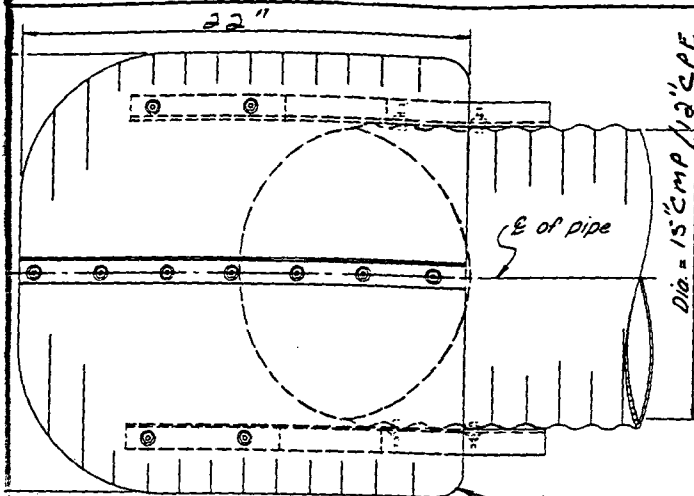
CONSERVATION DISTRICT KINGSBURY

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Designed RED 4/1/98 Date 4/1/98 Approved by _____
Drawn _____ Title _____
Traced _____ Title _____
Checked _____ Sheet No. 5 of 5 Dwg. No. _____

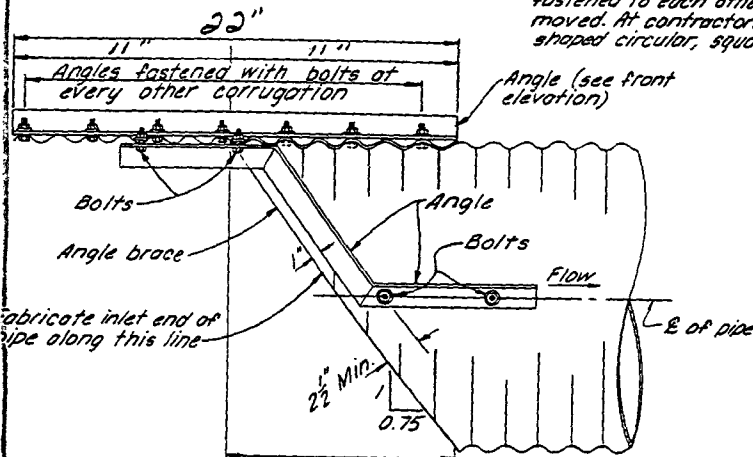
Rev. 3/98

JOB PLAN NO. 3.8-P

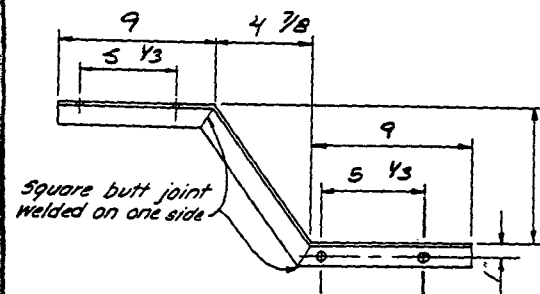


PLAN

Where metal baffle is fabricated of more than one piece of metal, the separate pieces shall be securely fastened to each other. Sharp corners shall be removed. At contractor's option, metal baffle may be shaped circular, square or as shown



SIDE ELEVATION



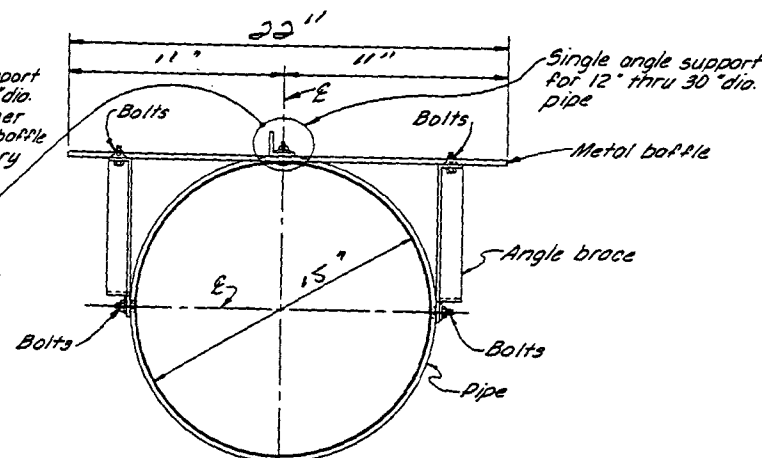
ANGLE BRACE DETAIL
(1 left and 1 right required)

REFERENCE: GUIDE PLAN NO. 6.1

PIPE DIA. INCHES	THICKNESS IN INCHES OF BAFFLE	ANGLE BRACE DIMENSIONS, INCHES					BOLT SIZE INCHES	HOLE SIZE INCHES	ANGLE IRON SIZE INCHES	WEIGHT OF ANGLE IRON LB.
		a	b	c	d	e				
15	0.064	9	4 7/8	9	6 1/2	5 1/3	3/8 x 1 1/2	7/16	1 1/2 x 1 1/2 x 1/4	15

DIMENSIONS

Two angles back to back for support of metal baffle for 36" to 48" dia. pipe. Bolt angles to each other with 3 bolts. Bolt angles to baffle with bolts staggered of every other corrugation



FRONT ELEVATION

NOTES:

1. ALL BOLTS SHALL HAVE NUT AND SPLIT WASHERS.
2. ALL NUTS, BOLTS, AND WASHERS SHALL BE GALVANIZED, CADMIUM PLATED, OR STAINLESS STEEL.
3. ALL CUTS SHALL BE SAW OR SHEAR CUTS.
4. HOLES IN THE ANGLE BRACE SHALL BE SPACED AND LOCATED TO MATCH CORRUGATIONS IN PIPE AND BAFFLE.
5. ALL GALVANIZING DAMAGED BY CUTTING, DRILLING OR WELDING SHALL BE REPAIRED BY PAINTING WITH TWO COATS OF ZINC DUST-ZINC OXIDE PRIMER.

HOODED INLET AND BAFFLE

OPERATOR: <u>ART GEYER</u>	
CONSERVATION DISTRICT: <u>KINGSBURY</u>	
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	
Designed: <u>PEA</u>	Drawn by: <u>6/11/78</u>
Drawn: _____	Title: _____
Traced: _____	Sheet: <u>6</u>
Checked: _____	Drawing No: _____

JOB PLAN NO. 6.1

5, N-29,073.6-1a

added 6/8/98

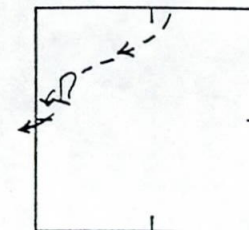
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STRUCTURE DATA

DRAINAGE AREA ACRES	ANNUAL YIELD @ 80% AC.FT.	PEAK RUNOFF 25 YR. CFS.	EMERG. SPVY. 25 YR. CFS.	WATER DEPTH @ P.S. FT.	SURFACE AREA @ P.S. ACRES	SEDIMENT STORAGE AC.FT.	STORAGE		
							@ P.S. AC.FT.	@ E.S. AC.FT.	@ TOP OF DAM AC.FT.
382	5.6	271	87	10	10.1	20	27.2	43.1	70.8

CONSTRUCTION & DESIGN NOTES:

1. S.D. LAW STATES: "NO EXCAVATOR MAY BEGIN ANY EXCAVATION WITHOUT FIRST NOTIFYING THE ONE-CALL NOTIFICATION CENTER AT THE NUMBER 1-888-781-7474 OR FAX 612-454-9170".
2. LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL LAWS.
3. THIS IS A CLASS A HAZARD STRUCTURE AS DEFINED BY NRCS.
4. THIS PROJECT IS X IS NOT — CLASSIFIED AS A "DAM" BY S.D. LAW. S.D. "DAM" DEFINITION: > EITHER 25' HIGH (TOP TO D.S. TOE). OR 30 AC.FT. STORAGE TO TOP OF DAM. EXCEPT NOT A "DAM" IF: < 6' HIGH OR STORAGE < 15 AC.FT.
5. IF CULTURAL RESOURCES ARE DISCOVERED, DISCONTINUE CONSTRUCTION AND NOTIFY THE LOCAL NRCS OFFICE.



NW 4 SEC. 29 T 111 R 57
LOCATION MAP

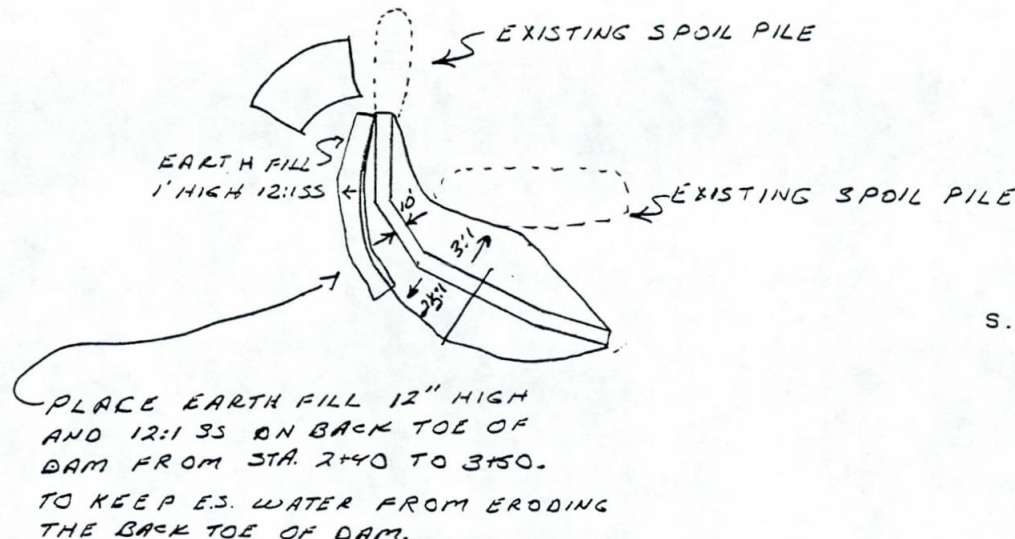
TABLE OF QUANTITIES

ITEM	UNIT	QUANT.	AS BUILT
EXCAVATION - CORE TRENCH	CY	363	
EXCAVATION - STRIPPING	CY	196	
EXCAVATION - E.S.	CY		
EARTH FILL - EMBANKMENT	CY	2,752	
SEEDING	AC		
SEE SHEET #3 FOR P.S.			

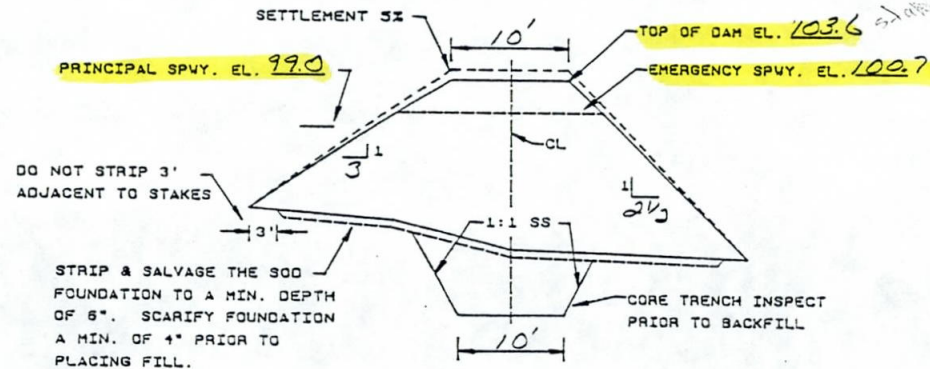
NOTE: ABOVE QUANTITIES MAY BE ESTIMATED.

(min. 102.8)

E.S. 80' WIDE



PLAN VIEW OF DAM & POOL AREA
approximate scale 1" = 100 ft.



TYPICAL CROSS SECTION OF DAM

S. D. CONSTR. & MATERIAL SPECS.

- SD - 4 STRIPPING
- SD - 5 EXCAVATION
- SD - 75 EARTH FILL CLASS "S"
- SD - 10 SALVAGING & SPREADING TOPSOIL
- SD - 15 50 C.H.P.
- SD - 16 TIMBER FAB. & INSTALLATION
- SD - 17 METAL FAB. & INSTALLATION
- SD - 28 SEEDING

SD-50
SD-208

EARTH DAM

ART GEYER FARM POND
KINGSBURY CO.
SW 4, NW 4 S 29, T 111, R 57

U. S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Date 5/8/98
Designed by PEA
Title Ag. Eng.
Sheet 1 of 6
Drawing No. Pn: jpl1

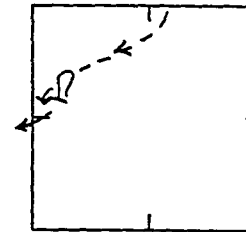
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STRUCTURE DATA

DRAINAGE AREA ACRES	ANNUAL YIELD C 882 AC.FT.	PEAK RUNOFF 25 YR. CFS.	EMERG. SPVY. 25 YR. CFS.	WATER DEPTH C P.S. FT.	SURFACE AREA C P.S. ACRES	SEDIMENT STORAGE AC.FT.	STORAGE		
							C P.S.	C E.S.	C TOP OF DAM AC.FT.
382		271	87	10	10.1	20	27.2	43.1	70.8

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3. THIS IS A CLASS A HAZARD STRUCTURE AS DEFINED BY NRCS.
4. THIS PROJECT IS X IS NOT CLASSIFIED AS A "DAM" BY S.D. LAW. S.D. "DAM" DEFINITION: > EITHER 25' HIGH (TOP TO D.S. TOE). OR 58 AC.FT. STORAGE TO TOP OF DAM. EXCEPT NOT A "DAM" IF: < 6' HIGH OR STORAGE < 15 AC.FT.
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NW 4 SEC. 29 T 111 R 57

LOCATION MAP

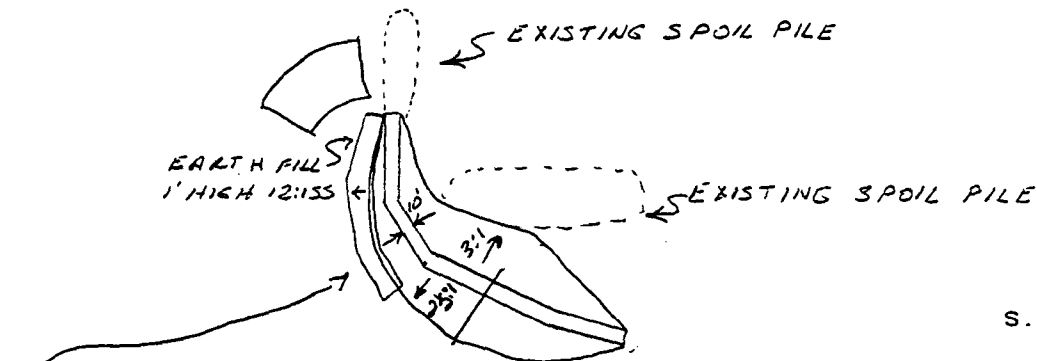
TABLE OF QUANTITIES

ITEM	UNIT	QUANT.	AS BUILT
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EXCAVATION - STRIPPING	CY	196	
EXCAVATION - E.S.	CY		
EARTH FILL - EMBANKMENT	CY	2,752	
SEEDING	AC		
SEE SHEET #3 FOR P.S.			

NOTE: ABOVE QUANTITIES MAY BE ESTIMATED.

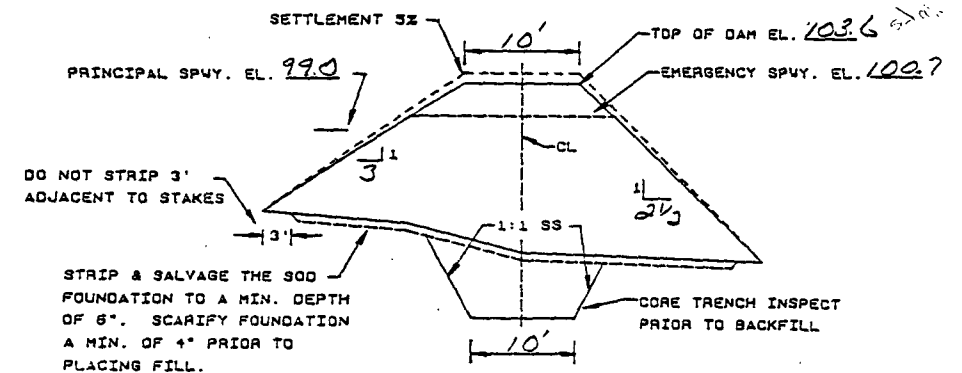
(min. 102.8)

E.S. 80' WIDE



PLACE EARTH FILL 12" HIGH AND 12:1 SS ON BACK TOE OF DAM FROM STA. 2+40 TO 3+50. TO KEEP E.S. WATER FROM ERODING THE BACK TOE OF DAM.

PLAN VIEW OF DAM & POOL AREA
approximate scale 1" = 100 ft.



TYPICAL CROSS SECTION OF DAM

S. D. CONSTR. & MATERIAL SPECS.

- SD - 4 STRIPPING
- SD - 5 EXCAVATION
- SD - 79 EARTH FILL CLASS "S"
- SD - 18 SALVAGING & SPREADING TOPSOIL
- SD - 13 50 C.M.P.
- SD - 16 TIMBER FAB. & INSTALLATION
- SD - 17 METAL FAB. & INSTALLATION
- SD - 28 SEEDING

SD-50
SD-20B

EARTH DAM

ART GEYER FARM POND
KINGSBURY CO.
SW 4, NW 4 S 29, T 111, R 57

U. S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Date: 5/98
Designed: Anderson
Drawn: _____
Checked: _____
Approved by: P.E.A.
Title: Agr. Eng.
Sheet: 1 of 6
Drawing No. 1
Pn: 1011

JOB PLAN 1A

CONSTRUCTION NOTES:

- 1.) Ground where earth fill is to be placed shall be stripped 6 inches and then scarified to a depth of 4 inches. Salvage and spread topsoil.
- 2.) Seed above HWL., the top and backslope of dam, the E. S., all dikes, and all disturbed areas designated by the engineer. Seeding is to be performed by owner.
- 3.) According to NEM. 210-520.21 this is a class "A" hazard structure located in a rural agriculture area. This structure is to be maintained in accordance with Operation and Maintenance Guidelines.
- 4.) 12 inch diameter CPE pipe shall conform to AASHTO M-294 Type S and the material compound shall conform to ASTM D-3350. The CPE pipe shall have annular corrugations. The CPE pipe shall be smooth on the inside and corrugated on the outside and have an "n" value of 0.010. CPE pipe shall be Hancor "Sure-Lok" 10.8 or equal.
- 5.) The stripping and scarifying should be inspected and approved by the authorized personnel prior to backfill.
- 6.) CPE pipe joints shall be watertight. Pipe Joint couplers shall be Hancor Hi-Q Sure-Lok 10.8 or equal.
- 7.) The two joints between the CPE and CMP (US @ inlet & DS @ outlet) shall be essentially watertight. Essential watertightness may be obtained by using O-ring's supplied by the manufacturer. Make an eight inch cut on the top of the CMP pipe and clamp the CMP securely to the O-rings on the CPE using a 0.5" dia. rod and lug. File the edges of the cut smooth and seal the cut with butyl-rubber. An alternate method is to wrap the joint with an industrial grade tape and then wrap with butyl-rubber. Overlap the butyl-rubber at least 1/2 of the pipe circumference, and extend the butyl-rubber 8" to 12" on each pipe. Securely attach the butyl-rubber to the pipe to obtain essential watertightness and exclude soil particles.
- 8.) When a concrete cradle is not used, the critical compaction of earth fill around the pipe occurs from the midpoint of the pipe to the bottom of the pipe. Care is to be taken to assure proper compaction in this zone. There should be full time inspection when the P. S. is installed.
- 9.) In order to stop erosion at the pipe outlet, three choices are available. Choice #1: - Hog panel as shown, choice #2 - excavate stilling basin 8' wide x 12' long x 2' deep and fill with large non-rounded rock (size varies 10-600 lb., mostly large rock), choice #3 - place two "U" gabion basket 6'x12'x9". Place gabion 0.3' in ground with 8 oz./sq.yd. filter fabric beneath basket. Options #1 & #2 should also have 8 oz. filter fabric beneath the rock. May substitute 2 layers of weed control netting (not preferred) for filter fabric (note: 8 oz./sq.yd. filter fabric is recommended over the weed control netting).

Art Geyer
FARM POND
Kingsbury Co. SD

Sheet 4 of 6

June 3, 1998

DENR
% Tim Shaw
Joe Foss Building
523 E. Capitol
Pierre, SD 57501



Dear Tim:

Pete Anderson, NRCS Engineer asked me to send you a copy of his livestock dam design for Art Geyer in Kingsbury County. The construction on the dam could start in the next week or two. If you have any questions please contact Pete Anderson at 692 2344 or myself at 692 8003.

Sincerely,

Craig Olson
NRCS Technician, Brookings

C:Pete Anderson

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

19 415799

Pierre, June 12, 19 98

RECEIVED OF Art Geyer, 529 Hwy. 25, LeSmet, SD 57231
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>6656-3</u> to Appropriate Water, to construct and to put water to beneficial use _____	150	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	150 00

By _____
Chief Engineer

John Hatch

added 6/8/98

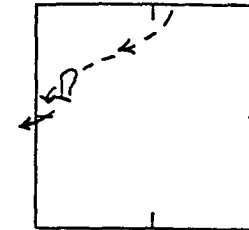
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STRUCTURE DATA

DRAINAGE AREA ACRES	ANNUAL YIELD C 88Z AC.FT.	PEAK RUNOFF 25 YR. CFS.	EMERG. SPVY. 25 YR. CFS.	WATER DEPTH E P.S. FT.	SURFACE AREA E P.S. ACRES	SEDIMENT STORAGE AC.FT.	STORAGE		
							E P.S. AC.FT.	E E.S. AC.FT.	E TOP OF DAM AC.FT.
382	5.6	271	87	10	10.1	20	272	43.1	70.8

CONSTRUCTION & DESIGN NOTES:

1. S.D. LAW STATES: "NO EXCAVATOR MAY BEGIN ANY EXCAVATION WITHOUT FIRST NOTIFYING THE ONE-CALL NOTIFICATION CENTER AT THE NUMBER 1-800-781-7474 OR FAX 612-454-8178".
2. LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL LAWS.
3. THIS IS A CLASS A HAZARD STRUCTURE AS DEFINED BY NRCS.
4. THIS PROJECT IS X IS NOT CLASSIFIED AS A 'DAM' BY S.D. LAW. S.D. "DAM" DEFINITION: > EITHER 25' HIGH (TOP TO D.S. TOE). OR 50 AC.FT. STORAGE TO TOP OF DAM. EXCEPT NOT A 'DAM' IF: < 5' HIGH OR STORAGE < 15 AC.FT.
5. IF CULTURAL RESOURCES ARE DISCOVERED, DISCONTINUE CONSTRUCTION AND NOTIFY THE LOCAL NRCS OFFICE.



NW 1/4 SEC. 29 T 111 R 57

LOCATION MAP

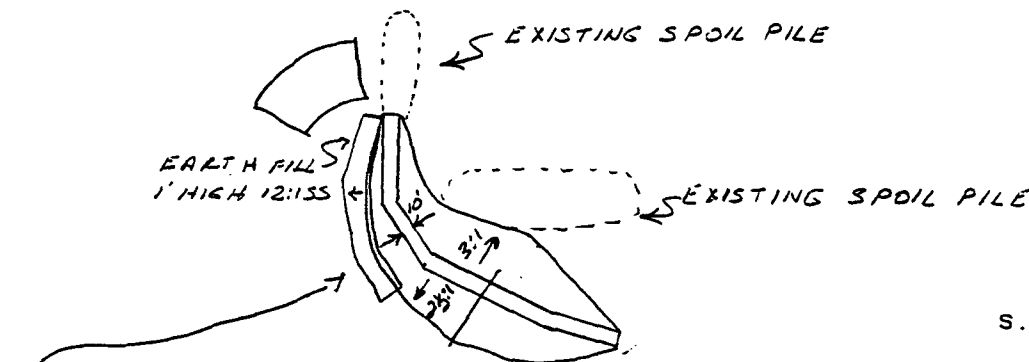
TABLE OF QUANTITIES

ITEM	UNIT	QUANT.	AS BUILT
EXCAVATION - CORE TRENCH	CY	363	
EXCAVATION - STRIPPING	CY	196	
EXCAVATION - E.S.	CY		
EARTH FILL - EMBANKMENT	CY	2,752	
SEEDING	AC		
SEE SHEET #3 FOR P.S.			

NOTE: ABOVE QUANTITIES MAY BE ESTIMATED.

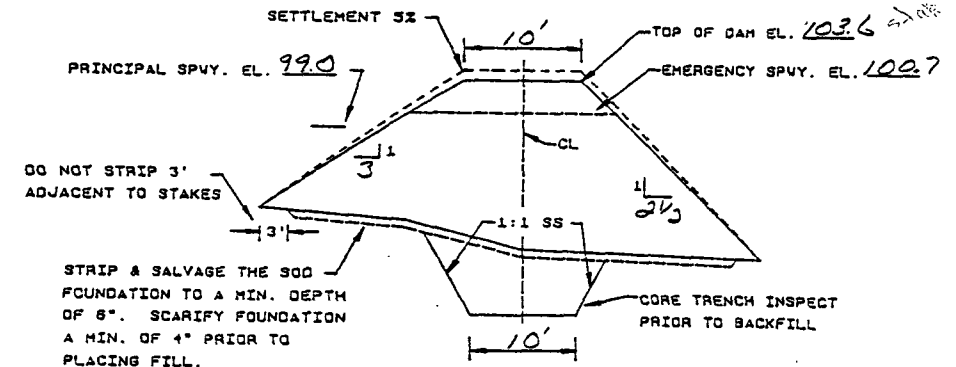
(min. 102.8)

E.S. 80' WIDE



PLACE EARTH FILL 12" HIGH AND 12:1 SS ON BACK TOE OF DAM FROM STA. 2+40 TO 3+50. TO KEEP E.S. WATER FROM ERODING THE BACK TOE OF DAM.

PLAN VIEW OF DAM & POOL AREA
approximate scale 1" = 100 ft.



TYPICAL CROSS SECTION OF DAM

S. D. CONSTR. & MATERIAL SPECS.

- SD - 4 STRIPPING
- SD - 5 EXCAVATION
- SD - 79 EARTH FILL CLASS "S"
- SD - 10 SALVAGING & SPREADING TOPSOIL
- SD - 15 50 C.H.P.
- SD - 16 TIMBER FAB. & INSTALLATION
- SD - 17 METAL FAB. & INSTALLATION
- SD - 28 SEEDING

SD-50
SD-208

EARTH DAM

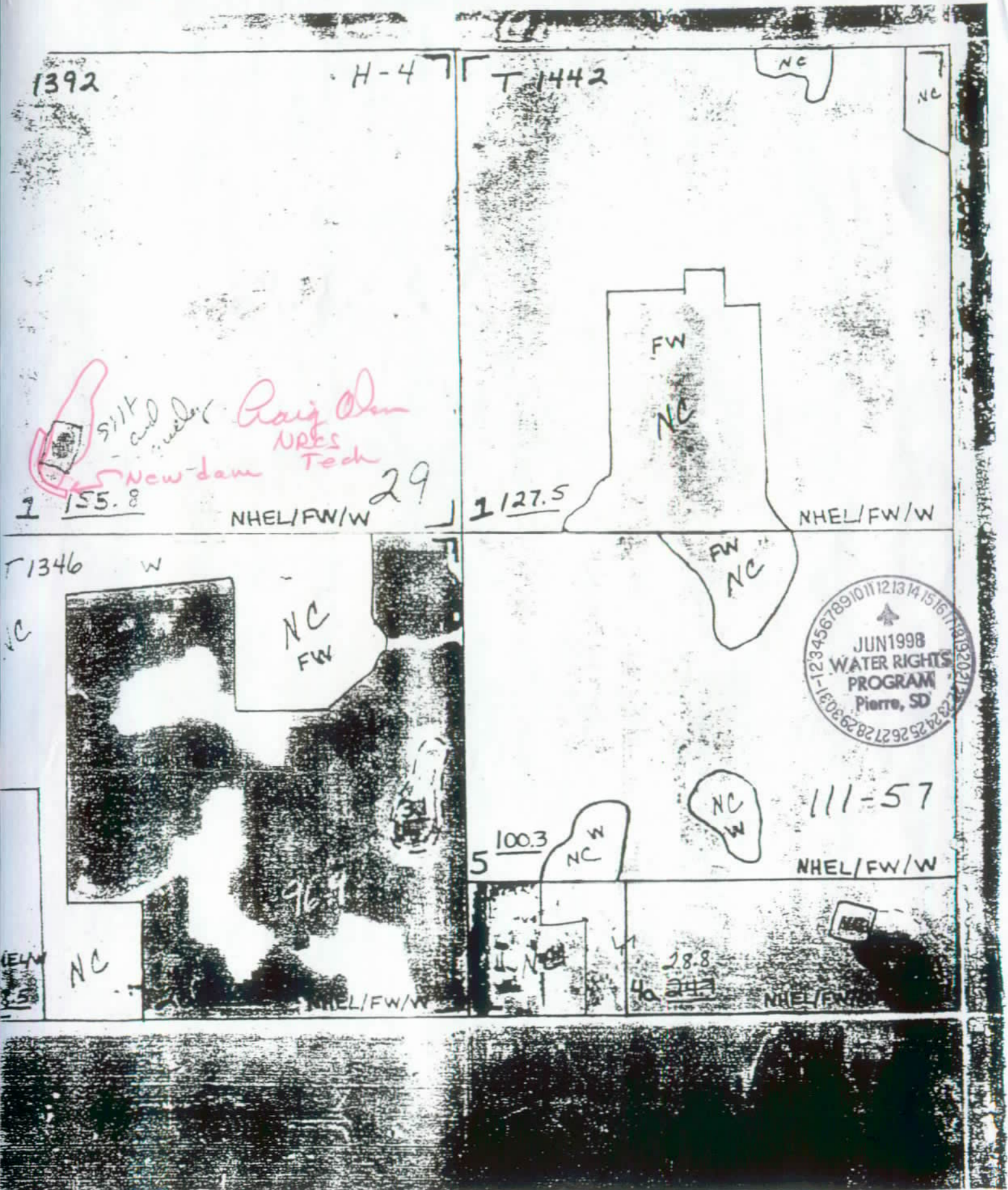
ART GEYER FARM POND
KINGSBURY CO.
SW 1/4, NW 1/4 S 29, T 111, R 57

U. S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

Date	5/98	Approved by	P.E.A.
Designed	Anderson	Title	Ag. Eng.
Drawn		Sheet	1
Checked		Of	6
		Drawing No.	PN: 511

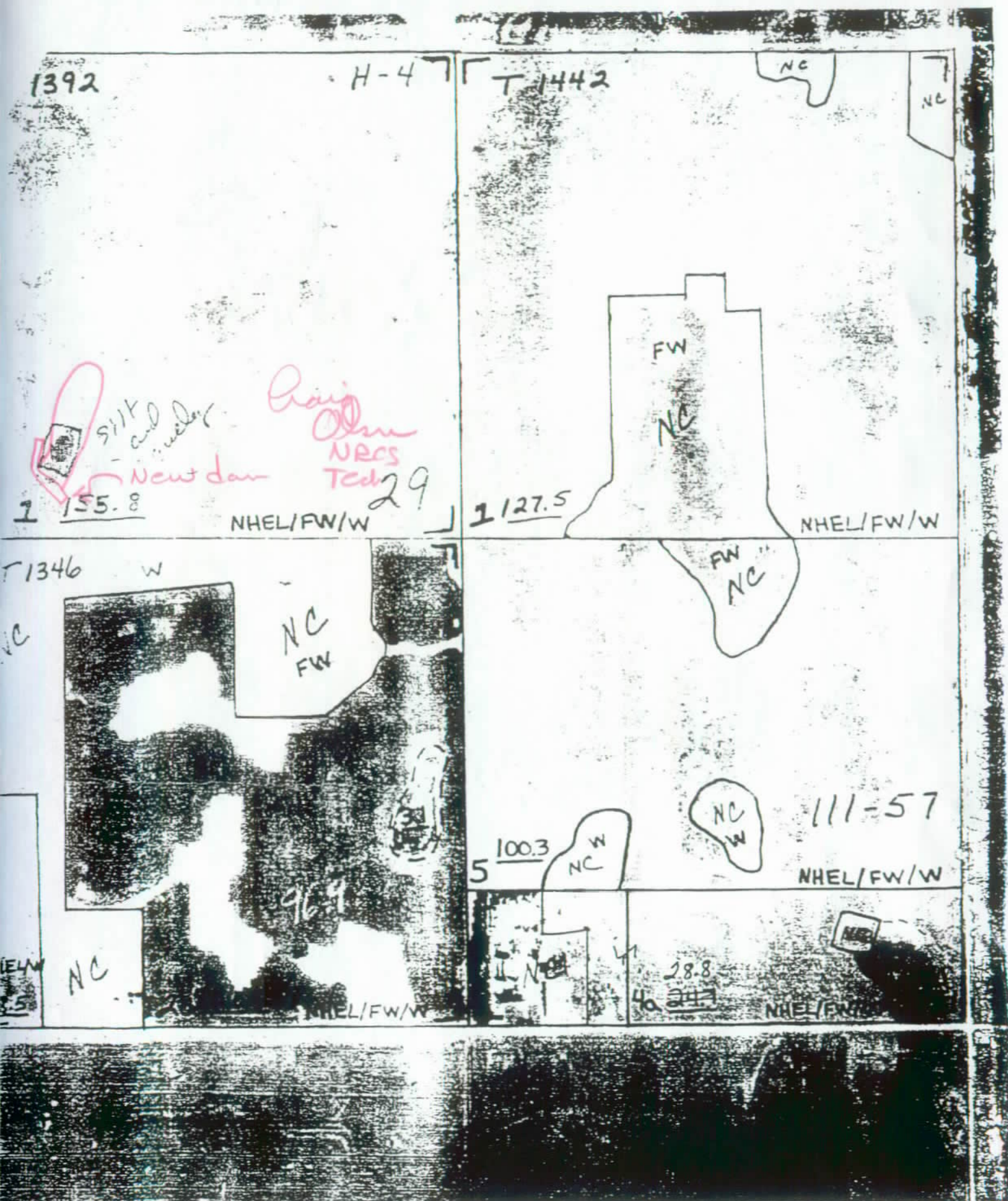
JOB PLAN 1A

MAP NOT TO SCALE Art Seyer
S IS NOT AN OFFICIAL WETLAND MAP. 2-24-92



6086-3

MAP NOT TO SCALE *Art Seyer*
S IS NOT AN OFFICIAL WETLAND MAP. *2-24-92*



Hydrology and Hydraulic Design -- Emergency Spillway
 *** Hydro-Yardage Version 3.1 Dated: 9/28/90 ***
 Landowner: Art Geyer Site: 1
 Location: NW 4 S 29 T 111 R 57 in Brookings, SD

Computer Operator: PETE ANDERSON -- Routed on 05-28-1998 @ 13:23:49

<< Hydrology Input >>

Drainage Area = 382 acres -- P - 25 24 Hour Rainfall = 4.6 Inches

Type II Storm

Runoff Curve Number = 75

Time of Concentration = 2.00 Hours

<< Principal Spillway Data for a Hood Inlet >< Pipe type = SPP >>

Pipe Diameter = 12 Inches

Type of Principal Spillway Outlet >> Cantilever

Estimated Conduit Length = 70 Feet Mannings roughness coefficient = 0.010

Inlet Elevation = 99.0 Principal spillway outlet = 90.3

Elevation of the ditch bottom at the centerline of fill = 89.3

Storage below crest = 27.21 ac. ft. Aer. sediment storage = 0.00 ac. ft.

<< Elevation-Storage-Outflow Table >>

Elevation (Ft.)	Storage (Ac. Ft.)	Outflow (CFS)	*	Elevation (Ft.)	Storage (Ac. Ft.)	Outflow (CFS)
99.0	0.00	0.00	*	103.7	55.32	1079.56
100.0	9.41	2.20	*	104.0	61.61	1328.31
100.7	17.02	9.44	*	104.2	65.07	1533.98
101.0	20.27	39.93	*	105.0	78.89	2205.57
101.2	22.73	60.14	*	106.0	98.25	3143.42
101.7	28.89	111.08	*	107.0	119.69	4246.71
102.0	32.58	144.15	*	108.0	143.21	5533.95
102.2	35.33	135.34	*	109.0	168.81	7073.89
102.7	42.20	394.28	*	110.0	196.49	8886.36
103.0	46.33	569.49	*	111.0	226.25	11008.38
103.2	47.81	705.12	*	112.0	258.09	13477.59
103.5	53.75	912.74	*	113.0	292.01	16332.35

Elevation of the emergency spillway = 100.7

Bottom width of the emergency spillway = 80 feet

Vegetated Retardance = ' B ' Crest Length = 100 feet

Flow depth of the water in the emergency spillway = 1.10 feet

Emergency spillway flow = 110.0 cfs with a velocity of 3.0 ft./sec.

Minimum exit slope = 1% -- Maximum exit slope = 7 %

Maximum water surface in the emergency occurs at elevation 101.8

The P- 25 year rainfall of 4.6 inches
 produces a peak runoff of 271 cfs

The total storage to the top of fill elevation 102.8 equals 70.8 acre feet

DeSmet

Hydrology and Hydraulic Design -- Principal Spillway
*** Hydro-Yardage Version 3.1 Dated: 9/28/90 ***
Landowner: Art Geyer Site: 1
Location: NW 4 S 29 T 111 R 57 in Brookings, SD

Computer Operator: PETE ANDERSON -- Routed on 05-28-1998 @ 13:23:49

<< Hydrology Input >>

Drainage Area = 382 acres -- P - 2 24 Hour Rainfall = 2.6 Inches

Type II Storm

Runoff Curve Number = 75

Time of Concentration = 2.00 Hours

GOOD

<< Principal Spillway Data for a Hood Inlet >< Pipe type = SPP >>

Pipe Diameter = 12 Inches

Type of Principal Spillway Outlet >> Cantilever

Estimated Conduit Length = 70 Feet Mannings roughness coefficient = 0.010

Inlet Elevation = 99.0 Principal spillway outlet = 90.3

Elevation of the ditch bottom at the centerline of fill = 89.3

Storage below crest = 27.21 ac. ft. Aer. sediment storage = 0.00 ac. ft.

<< Elevation-Storage-Outflow Table >>

Elevation (Ft.)	Storage (Ac. Ft.)	Outflow (CFS)	*	Elevation (Ft.)	Storage (Ac. Ft.)	Outflow (CFS)
99.0	0.00	0.00	*	106.0	98.25	13.45
100.0	9.41	2.20	*	107.0	119.69	13.89
100.7	17.02	9.44	*	108.0	143.21	14.31
101.0	20.27	11.00	*	109.0	168.81	14.73
102.0	32.58	11.53	*	110.0	196.49	15.13
103.0	46.33	12.04	*	111.0	226.25	15.52
103.5	53.75	12.29	*	112.0	258.09	15.90
104.0	61.61	12.53	*	113.0	292.01	16.27
105.0	78.89	13.00	*	113.5	309.75	16.46

The emergency spillway is set at elevation << 100.7 >>
with a temporary storage of << 15.93 >> acre feet
and a total storage to this elevation of << 43.14 >> acre feet

The <<TR-60>> product for this structure
is 488 and the effective fill height is 11.3 feet

The P- 2 year rainfall of 2.6 inches
produces a peak runoff of 80 cfs

<< Structure Summary >>

Sheet 1 of 2

*** Hydro-Yardage Version 3.1 Dated: 9/28/90 ***

Computed by: PETE ANDERSON on 05-28-1998 @ 13:23:49

Owner's Name ----- Art Geyer
Site name or number ----- 1
District ----- Brookings, SD
Location ----- NW 4 S 29 T 111 R 57
Drainage area ----- 382 Acres

Permanent pond area ----- 8.68 acres
Permanent storage below crest ----- 27.21 acre feet
Temporary storage to the emergency spillway ----- 15.93 acre feet
Total storage to the emergency spillway ----- 43.14 acre feet
Total storage to the top of fill ----- 70.79 acre feet

Fill height at centerline of fill ----- 13.5 feet
Effective fill height ----- 11.4 feet
Overall fill height to downstream toe ----- 13.7 feet

TR-60 product > > > 488 < < <

<< Principal Spillway Hydrology Design >>

Rainfall Distribution Type >>II << Runoff Curve Number 75

P 2 - 24 hr. rainfall = 2.6 inches - Time of concentration = 2.00 hr.

Peak runoff = 80 cfs -- Peak runoff volume = 22.59 ac. ft.

<< Principal Spillway >>

(Note: Pipe length shown is the centerline of pipe
perpendicular to the centerline of fill)

Pipe length used in the routing = 70.0 lin. ft.

64 Lin. Feet of 12 inch diam. SPP with a Hood inlet
Mannings Friction value 'n' = 0.0100

<< Emergency Spillway Hydrology Design >>

P 25 - 24 hr. rainfall = 4.6 inches

Peak runoff = 271 cfs -- Peak runoff volume = 67.77 ac. ft.

<< Emergency Spillway >>

Bottom width of the emergency spillway = 80 feet

Vegetated Retardance = ' B ' Crest Length = 100 feet

Emergency spillway flow = 110.0 cfs

Velocity = 3.0 ft./sec.

Minimum exit slope = 1% -- Maximum exit slope = 7%

<< Structure Summary continued >>

Sheet 2 of 2

*** Hydro-Yardage Version 3.1 Dated: 9/28/90 ***

Computed by: PETE ANDERSON on 05-28-1998 @ 13:23:50

Owner's Name ----- Art Geyer
Site name or number ----- 1

District ----- Brookings, SD
Location ----- NW 4 S 29 T 111 R 57

(Note: Dimensions shown are for the centerline of pipe
perpendicular to the centerline of fill)

Pipe length used in the routing = 70.0 lin. ft.

Top of constructed fill = 103.5

Settled top of fill = 102.8

Upstream fill slope = 3.0:1

Emergency spillway = 100.7

Pipe outlet = 90.3

Elevation of crest = 99.0

Frontslope dimension = 13.5 feet

Length of pipe beyond toe = 2.0 feet

Length of pipe from pipe outlet to elbow = 12.0 feet

Fabricate a 7 degree elbow located 12.0 feet from the outlet

**** Cost Estimate ****

2807 cubic yards earth fill @ 1.00 = 2807.08

410 cubic yards core trench @ 1.50 = 615.15

64 lin. ft. of 12 in. diameter SPP conduit @ 9.36 = 599.04

Total estimated cost 4021.27

Client : Art Geyer By: CAO Date: 01-08-98
 County : Kingsbury State: SD Checked: Date: _____
 Practice: 378 Livestock Dam under ECP cost share

Drainage Area : 382 * Acres
 Curve Number : 75 *
 Watershed Length : 8600 Feet
 Watershed Slope : 2.2 Percent
 Time of Concentration: 2.32 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)	2	2.5	3.3	3.8	4.4	5	5.6
Ia/P Ratio	0.33	0.27	0.20	0.18	0.15	0.13	0.12
Runoff (in)	0.38	0.65	1.16	1.52	1.97	2.45	2.94
Unit Peak Discharge (cfs/acre/in)	0.245	0.270	0.288	0.295	0.302	0.307	0.311
Peak Discharge (cfs)	36	67	128	171	227	287	350

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



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

June 24, 1998

Art Geyer
529 Hwy 25
DeSmet, SD 57231

Dear Mr. Geyer:

We have reviewed the plans and specifications for your proposed dam located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 29-T111N-R57W, in Kingsbury County. The plans and specifications as submitted are approved. Approval of the plans and specifications does not authorize construction of the project. Construction of the project may not begin until Water Permit Application No. 6086-3 is approved.

Our review was to determine compliance with the requirements of the Water Management Board Safety of Dams Rules, Chapter 74:02:08. Approval of these plans and specifications does not release 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.

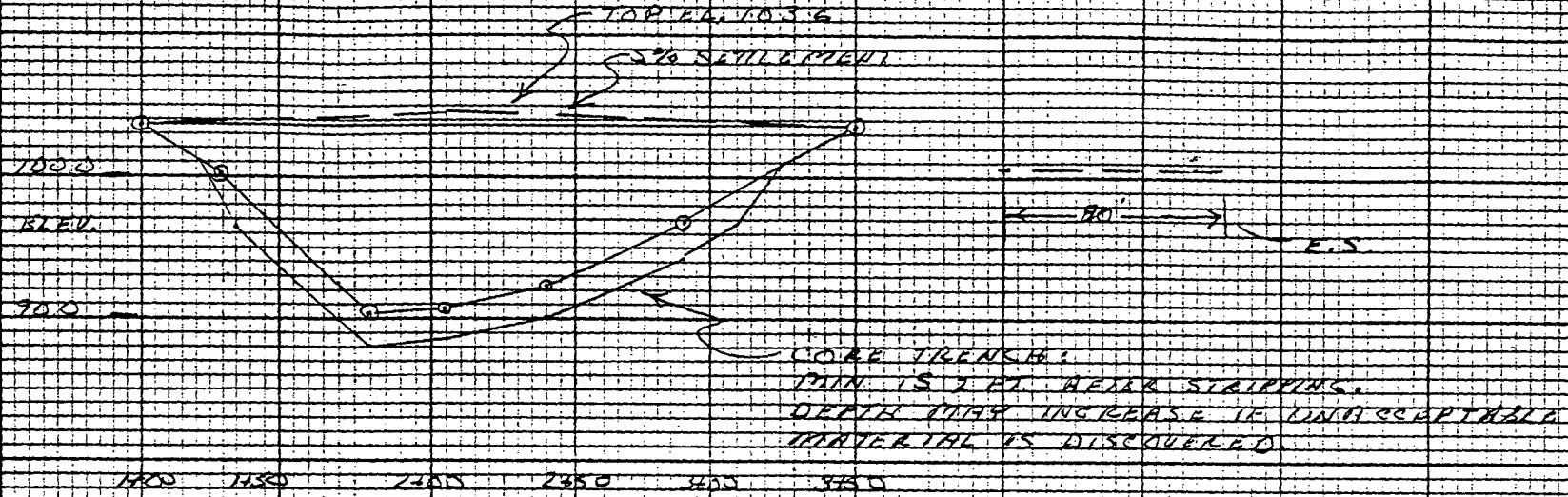
The Geyer Dam will be classified as a small size Category 3, Low Hazard dam with a dam height of 14 feet and a normal storage capacity of 27.2 acre-feet and a maximum storage capacity of 70.8 acre-feet.

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

Sincerely,

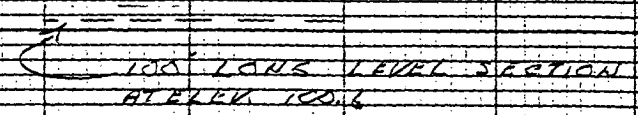
Gale N. Selken, P.E.
Natural Resources Engineer IV
for John Hatch, Chief Engineer
Water Rights Program
(605) 773-3352

c Craig Olson, NRCS Brookings



CROSS SECTION AT CREST OF EMERGENCY SPILLWAY AND PROFILE ALONG E OF DAM

NOTE: EXISTING GROUND IS HUMPSCKY.
GROUND IS TO BE LEVELLED 100' LONG
BY 80' WIDE AT ELEV. 100.6



PROFILE ALONG E OF EMERGENCY SPILLWAY

AIR GATER
FARM POND
SHEET 2 OF 6

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.

REPORT ON
WATER PERMIT APPLICATION NO. 6086-3
Art Geyer
June 23, 1998

Water Permit Application No. 6086-3 has been filed by Art Geyer to impound 27.2 acre-feet of water from runoff by constructing a dam located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 29-T111N-R57W, in Kingsbury County. The application also requests impoundment of sufficient water to maintain the reservoir at the outlet elevation. The water will be used for livestock watering.

Discussion:

The Art Geyer Dam will be classified as a Category 3, Low Hazard dam. It has been designed by the Natural Resources Conservation Service. The plans and specifications have been reviewed and will be approved; however, construction of the dam can not begin until Water Permit Application No. 6086-3 is approved.

The Geyer Dam will be 14 feet high with a normal storage capacity of 27.2 acre-feet with a reservoir level at the spillway elevation, and a maximum storage capacity of 70.8 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 is designed to have a 12 inch diameter CPE conduit with 4.6 feet of available head as the primary spillway and a 80 foot wide earthcut secondary spillway with 2.9 feet of available head. The dam will have a drainage area of 382 acres (0.60 square miles). A 25-year frequency event will produce a peak of approximately 170 cfs and a 100-year frequency event will produce a peak of approximately 300 cfs. The 80 foot wide earthcut secondary spillway will have a capacity of approximately 1000 cfs.

The annual yield for this drainage area with a 10 percent chance of occurrence, or 1 out of 10 years, is expected to be 70 acre-feet. The annual yield with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be 16 acre-feet and the annual yield with a 80 percent chance of occurrence, or 8 out of 10 years, is expected to be 5.6 acre-feet.

The Art Geyer Dam will be located in the NW $\frac{1}{4}$ of Section 29-T111N-R57W on an unnamed tributary to Redstone Creek about 500 feet upstream of the confluence of the unnamed tributary and Redstone Creek. There are no existing Water Permits/Rights located on the unnamed tributary. The Department of Game, Fish and Parks holds Water Right No. 1043-3 for 660 acre-feet of water annually in Lake Carthage Dam, which is located on Redstone Creek about 14 miles downstream of the proposed dam. Lake Carthage Dam has a drainage area of 160 square miles and approval of Water Permit No. 6086-3 should not have any adverse effect on Water Permit No. 1043-3.

Conclusions:

1. Water Permit Application No. 6086-3 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. 6086-3.

Timothy G. Schaal /cf

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

Approved by:

Gale N. Selken

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6086-3, Art Geyer**

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. 6086-3, Art Geyer, 529 Hwy 25, DeSmet, SD 57231.

The Chief Engineer is recommending APPROVAL of Application No. 6086-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. Water Permit No. 6086-3 authorizes a dam with storage capacity of 27.2 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.

A handwritten signature in black ink, appearing to read "John Hatch", with a stylized, cursive script.

JOHN HATCH, Chief Engineer
June 24, 1998



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

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

June 24, 1998

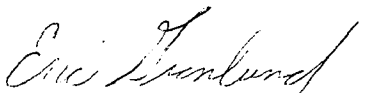
Art Geyer
529 Hwy. 25
DeSmet, SD 57231

Dear Mr. Geyer:

Water Permit Application No. 6086-3 for livestock watering 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 DeSmet News printed at DeSmet, SD (Ph # (605) 854-3331). 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 57501-3181
www.state.sd.us/denr

June 24, 1998

DeSmet News
Box 69
DeSmet, SD 57231-0069

ATTENTION: Legal Department

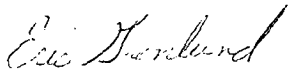
Enclosed is a Notice of Hearing on Application No. 6086-3 to Appropriate Water to be published twice. Please publish the first notice on July 1, 1998, with the second publication 7 days later.

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 Art Geyer, 529 Hwy. 25, DeSmet, SD 57231 (Ph # (605) 854-3975).

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. 6086-3

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

Date _____

We are in receipt of your letter of June 24, 1998, enclosing Notice of Hearing to Appropriate Water by Application No. 6086-3 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 July 1, 1998, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6086-3 to Appropriate Water

Notice is given that Art Geyer, 529 Hwy 25, DeSmet SD 57231 has filed an application for a water permit to impound 27.2 acre-feet of water from runoff by constructing a dam located in the SW ¼ NW ¼ Section 29 with water impounded in the SW ¼ NW ¼ Section 29; all in T111N-R57W. This application requests impoundment of sufficient water to maintain water at the outlet elevation and is to be used to provide livestock water.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6086-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the chief engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the chief engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and chief engineer. The applicant must file a petition if contesting the chief engineer's recommendation. The Chief Engineer's address is "Water Rights 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 July 20, 1998.

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.

Form 8



PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
County of Kingsbury)

I, Dale Blegen

certify that the attached printed Notice was taken

from the De Smet News

printed and published in De Smet

County of Kingsbury and

state of South Dakota. The notice was published

in the newspaper on the following two dates:

July 1, 1998

July 8, 1998

Cost of Printing 35.21

Dale Blegen
(Signature)

Publisher
(Title)

July 14, 1998
(Date Signed)

NOTICE OF APPLICATION NO. 6086-3 TO APPROPRIATE WATER

Notice is given that Art Geyer, 529 Hwy. 25, De Smet, SD 57231, has filed an application for a water permit to impound 27.2 acre-feet of water from runoff by constructing a dam located in the SW1/4 NW1/4 Section 29 with water impounded in the SW1/4 NW1/4 Section 29; all in T111N-R57W. This application requests impoundment of sufficient water to maintain water at the outlet elevation and is to be used to provide livestock water.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6086-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the chief engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the chief engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and chief engineer. The applicant must file a petition if contesting the chief engineer's recommendation. The Chief Engineer's address is "Water Rights 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 July 20, 1998.

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. 7-1-2wc-7-8

61x 32.07x 80 % =
19.56 WK1
15.65 WK2
35.21



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

SEP 3 1998

Art Geyer
529 Hwy. 25
DeSmet, SD 57231

Dear Mr. Geyer:

Enclosed is Water Permit No. 6086-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

Very truly yours,

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

enclosures

PLEASE NOTE: Certain changes may be made to your water permit usually without affecting the priority date. The location of a point of diversion may be changed or additional points of diversion may be approved if the water source remains unchanged; no additional water is appropriated; and, if irrigating, no additional land is irrigated. The change may be allowed without application or publication, if the Water Rights Program is contacted and the chief engineer makes a finding that the change does not increase the potential for interference with existing diversions.

A new water permit application is required to change water sources, increase the permitted diversion rate, or increase the irrigated acreage. If the application is approved, the water permit will receive a new priority date.

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



Date 6-14-00

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

FROM:

Art Hayer 529 S.D Highway 25 S
(name) (address)

DESMET S.D 57231 605-854-3975
(city) (state) (zip) (phone)

I have completed the construction of the water diversion system and I have put the water to beneficial use to the maximum extent it is going to be used. I have not exceeded the amounts specified in Water Permit No. 6086-3.

Water Permit No. 6086-3 states that the diversion system is to be constructed by 7-20-2003, and that the water is put to beneficial use by
(date)

7-20-2007
(date)

The diversion system was completed on 12-20-99.
(date)

Applying the water to beneficial use was completed on 5-1-00.
(date)

You may schedule an inspection so that the Water License may be issued.

Art Hayer
(signature)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

July 10, 2002

6086-3

Art Geyer
529 Hwy 25
DeSmet SD 57231

Dear Mr. Geyer:

On May 28, 2002 the investigation of your water use system, including the extent of application of water to beneficial use, as developed under Water Permit No. 6086-3, was completed by Tim Schaal, a staff engineer with our program. Your final water right document, the water license, can now be issued.

State law requires that we charge a \$50.00 fee for the investigation and issuance of the water license. Upon receipt of the \$50.00 fee from you, we will complete processing your water license. The check or money order for the fee should be made payable to the "Water Rights Program".

Your licensed water right will be similar to a property right that can not be lost as long as the water use continues and you abide by the permit requirements.

If you have any questions regarding the water permit, investigation of your water use system or payment of the fee, please contact Genny McMath with our program at (605) 773-3352.

Sincerely,

Karen Schlaak
Water Rights Program
(605) 773-3352

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

417226

Pierre, July 18, 2002

RECEIVED OF Geyer Livestock, 529 South Dakota Hwy 25 South, De Smet SD 57231
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use _____		
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. 6086-3	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	50 00

By J. Darland Eide
Chief Engineer gm

Permit No. 6086-3
James 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, **May 28, 2002**, made a thorough examination of the water use system constructed by **Art Geyer** of **529 SD Hwy 25, DeSmet SD, 57231** holder of Permit No. **6086-3**, bearing the priority of **June 12, 1998** authorizing the storage of **27.2** acre-feet of the waters of **runoff** for **livestock watering** purposes, in **Kingsbury** County.

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

A. Works used to divert the water:

14 foot high dam with 12 inch dia. CPE primary spillway and 80 foot wide earthcut secondary spillway that stores 27.2 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:

14 foot high dam with 12 inch dia. CPE primary spillway and 80 foot wide earthcut secondary spillway that stores 27.2 acre-feet of water.

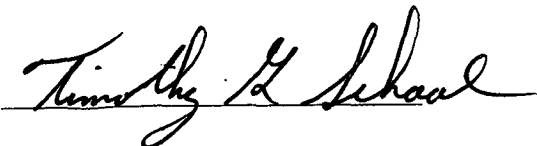
The system is in the following condition **good**. The point of diversion is located **920 ft. south & 400 ft. east of the NW corner of Sec. 29-T111N-R57W (SW 1/4 NW 1/4)**. The works are capable of storing **27.2** acre-feet of water which is to be used for **livestock watering**. Water has been put to beneficial use to the maximum extent as follows:

14 foot high dam with 12 inch dia. CPE primary spillway and 80 foot wide earthcut secondary spillway that stores 27.2 acre-feet of water.

comprising a total of **27.2** acre-feet of storage.

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

Exceptions to compliance are: **none** Date Report Completed: **July 8, 2002**



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

REPORT ON INSPECTION OF PERMIT NO. 6083-3

Other permit(s) associated with the project: XXXX

DATE OF INSPECTION: May 28, 2002

NAME & ADDRESS OF INSPECTION CONTACT/ Mrs. Art Geyer

RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE: wife

NAME & ADDRESS OF PERMIT HOLDER: Art Geyer, 529 Hwy 25, DeSmet, SD 57231

DIVERSION POINT LEGAL LOCATION: 920 ft. south & 400 ft. east of the NW corner of Section 29-T111N-R57W (SW 1/4 NW 1/4).

DAM INFORMATION:

- 1) Height to crest 14 feet
- 2) Height to primary spillway 9.2 feet
- 3) Height to secondary spillway 10.9 feet
- 4) Crest width 10 feet
- 5) Crest length 250 feet
- 6) Spillway length XXX feet
- 7) Spillway width 80 feet
- 8) Approx. storage (Normal) 27.2 acre-feet
- 9) Approx. storage (Maximum) 70.8 acre-feet
- 10) Date constructed: 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

Water Permit Application No. 6086-3



South Dakota Department of
Environment and Natural Resources



Protecting South Dakota's Tomorrow ... Today



Timothy G. Schaal

Timothy G. Schaal, P.E. 7/8/02
Natural Resources Engineer Specialist
Water Rights Program

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 6086-3

(1) Art Geyer, 529 SD Hwy 25 S, DeSmet SD 57231 made Application No. 6086-3, June 12, 1998 for a water permit to impound 27.2 acre-feet of water from runoff, Kingsbury County, South Dakota for livestock watering purposes. Permit No. 6086-3, with a priority date of June 12, 1998 was approved July 20, 1998 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before July 20, 2003 and for the application to beneficial use of said water on or before July 20, 2007.

(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 27.2 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 920 feet south and 400 feet east of the northwest corner of Section 29-T111N-R57W (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 Art Geyer, 529 SD Hwy 25 S, DeSmet SD 57231 the holder and/or owner of Water Right No. 6086-3 is issued a license to appropriate water, the right to impound 27.2 acre-feet of water from runoff with sufficient water annually to maintain the water level to the outlet elevation with a priority date of June 12, 1998 from the location specified in (2) of this license for livestock watering purposes. This license is subject to any limitations or qualifications listed in Water Right No. 6086-3 and subject to South Dakota State Law.



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

JUL 31 2002

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JUL 31 2002

6086-3

Art Geyer
529 SD Hwy 25 S
DeSmet SD 57231

Dear Mr. Geyer:

Enclosed is Water License No. 6086-3. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 417226 in the amount of \$50.00 which you paid for the investigation and issuance of the Water License.

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