

WATER PERMIT NO. 6913-3

Name of Applicant: **Murphy Farms Partnership**

Address: **7252 Tartan Curve, Eden Prairie MN 55346**

Phone: **612 877-1255**

Amount of Water Claimed: **80 AF**

Total Acres: **NA**

Source of Water Supply: **runoff**

Water to be used for: **recreation, fish and wildlife propagation**

County: **Codington**

Type of Waste Disposal System:

Location: **3 miles north of Henry**

PRIORITY

Date Received: **11-13-07**

Application/License Fee: **\$200**

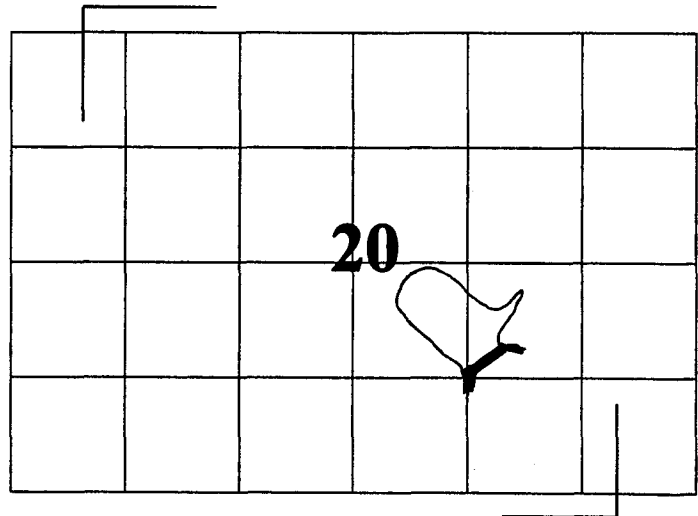
Corrected Application Received:

Period of Annual Use: **Jan 1 - Dec 31**

Remarks:

Diversion Point: **NE ¼ SE ¼ Sec 20-T117N-R55W**

Water Impounded: **N ½ SE ¼ Sec 20-T117N-R55W**



Depth of Well: **NA**

Well Driller:

Remarks:

Type of Map: **plat**

Prepared by: **Dave Konechne, PE**

Reviewed and the Number Assigned on: **11-13-07**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>6913-3</u> (office use only)	Hydrologic Unit <u>10170201</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Public Opinion P O Box 10 Watertown</u>	
	<u>605-886-6901</u> <u>52201</u>	

RECEIVED

NOV 13 2007

WATER RIGHTS
PROGRAM

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

Check use(s) of water:

- | | | | |
|---|---|---|--|
| ☐ Municipal | ☐ Suburban Housing | ☒ Recreational | ☐ Institutional |
| ☐ Rural Water System | ☐ Commercial | ☒ Fish & Wildlife | ☐ Geothermal Heat |
| ☐ Domestic (over 18 gpm) | ☐ Industrial | ☐ Other | |

Type of Application: (check one)

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

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

1. Name of Applicant Murphy Farms Partnership c/o Dan Murphy Phone (612) 877-1255
(check one) ☐ Owner ☐ Tenant/lessee
Mailing Address 7252 Tartan Curve Eden Prairie State MN 55346
(Street, RR, or Box and City) (Zip Code)
2. Amount of water claimed _____ *CFS or _____ **GPM 80 ***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 watershed above embankment
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Codington
embankment in NE1/4SE1/4 Section 20, T. 117 N., R. 55 W. Water Impounded: NE1/2 SE1/4
Sec 20 T117N R55W
5. County or counties where water will be used Codington
6. Annual period during which water is to be used annually Jan 1 - Dec 31
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)

See Sketch Plan of Dam and Reservoir Area

STATE OF SOUTH DAKOTA)

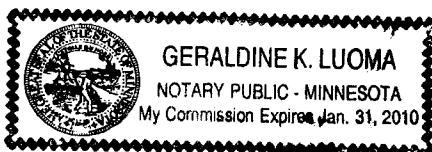
County of Codington SS

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

Applicant's signature Daniel T Murphy

Subscribed and sworn to before me this 8th day of NOV 20 07



Geraldine K. Luoma
Notary Public signature

**SOUTH DAKOTA
WATER PERMIT NO. 6913-3**

Date of first receipt of application November 13, 2007.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6913-3 to Murphy Farms Partnership, c/o Dan Murphy, 7252 Tartan Curve, Eden Prairie MN 55346 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. 6913-3 authorizes impoundment of 80 acre-feet of water from runoff in an existing dam located in the NE ¼ SE ¼ Section 20 with water impounded in the N ½ SE ¼ Section 20; all in T117N-R55W.
2. The water appropriated shall be used for the purpose of fish and wildlife propagation, recreational use and livestock watering 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. 6913-3 is January 7, 2008.
5. The date from which applicant may claim right is November 13, 2007.
6. One-fifth of the construction is to be completed on or before July 7, 2010.
7. All construction is to be completed on or before January 7, 2013.
8. Water is to be put to beneficial use on or before January 7, 2017.
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. 6913-3 authorizes a dam with a storage capacity of 80 acre feet of water and sufficient water annually to maintain the water level to the outlet elevation.
2. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

WATER MANAGEMENT BOARD

By: Garland Erbele

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

JAN 25 2008

date



(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

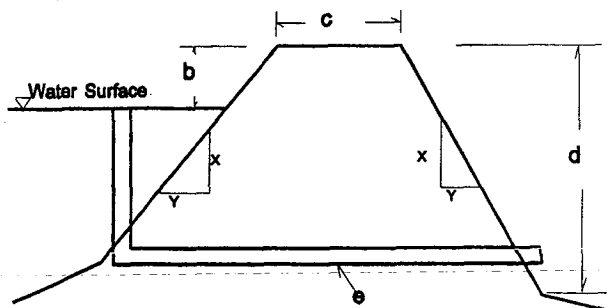
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

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:

Konechene Engineering
Dave Konechene, PE
104 Capitol Hill Drive
Pierre, SD 57501



- b) Freeboard _____ 3
- c) Crest Width _____ 12
Crest Length _____ 247
- d) Height _____ 15.5
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____ 20
- g) X & Y Slope _____
Upstream _____ 3:1
Downstream _____ 3:1
- h) Surface Area of Impoundment _____ 16.0
- i) Storage _____ 80.0 Acre Feet
- j) Drainage Area Above Dam _____ 155.0 Acres

1*****
SITES XEQ 10/13/2007 WATER RESOURCE SITE ANALYSIS COMPUTER PROGRAM
VER 2000 (USER MANUAL - DATED MAY 2001)
TIME 15:47:26

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

SITES 05/01/2000 Murphy Farms - South 0.2421875 H4
SAVMOV 0 101
SAVMOV 101 1 1
STRUCTURE
87 0
97 16
100 20.6
ENDTABLE
WSDATA 5A1 AC 72 155 2920 2.4
PDIRECT .00 4.40
POOLDATA ELEV 97 87 86 87 NH
ASDATA 41 100 150 3 .04 2
ASCREST ELEV 97
ASINSURF 41 .035
ASINLET 41 0.0 0.0 100 0.0 3
120 5
ENDTABLE
ASEXSURF 41 .035
.65 0
3
2 0
.02
ENDTABLE
ASEXIT 41 N 50
BTMWIDTH FEET 20
GRAPHICS I
GO,DESIGN HL TYPE2 24 TYPE2378 24
SAVMOV 2 101 1
ENDJOB

*No principal
spillage*

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

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

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

1SITES _____
XEQ 10/13/2007 Murphy Farms - South WSID=
VER 2000 SUBW= A
TIME 15:47:26 SITE = S 1 PASS= 1 PART= 1

***** BASIC DATA *****
CLIMATE AREA - NOT DEFINED DESIGN CLASS A1 = LT 3000.

STORM DISTRIBUTION-PSH 24 HOUR TYPE II RAINFALL DISTRIBUTION

STORM DISTRIBUTION AUX. -24 HOUR TYPE II RAINFALL DISTRIBUTION

PRECIP. - Q-PS,1-DAY Q-PS,10-DAY P-SD P-FB
0.00 0.00 0.00 4.40

WSDATA - CN DA-SM TC/L -/H QRF
72.00 0.24 2920.00 2.40 0.00

SITEDATA- PERM POOL CREST PS FP SED VALLEY FL 378?
97.00 87.00 0.00 87.00 YES

BASEFLOW INITIAL EL EXTRA VOL SITE TYPE
0.00 0.00 0.00 DESIGN

PSDATA - NO. COND COND L DIA/W -/H
0.00 0.00 0.00 0.00

PS N KE WEIR L TW EL
0.000 0.00 0.00 0.00

2ND STG ORF H ORF L START AUX.
0.00 0.00 0.00 0.00

ASCRESTS - AUX.1 AUX.2 AUX.3 AUX.4 AUX.5
97.00 0.00 0.00 0.00 0.00

AUX.DATA - REF.NO. RETARD. Ci TIE STATION INLET LENGTH
41 0.00 100.00 150

AUX.DATA - INLET N SIDE SLOPE EXIT N EXIT SLOPE ACTUAL AUX?
0.035 3.00 0.035 0.040 NO

BTM WIDTH - BW1 BW2 BW3 BW4 BW5
ft 20.00 0.00 0.00 0.00 0.00

AUXILIARY SPILLWAY RATING DEVELOPED USING WSPVRT.

1SITES _____
XEQ 10/13/2007 Murphy Farms - South WSID=
VER 2000 SUBW= A
TIME 15:47:26 SITE = S 1 PASS= 1 PART= 2

PERM POOL 97.00 FT 80.0 ACFT 16.00 AC 0.0 CFS →

CREST PS 87.00 FT 0.0 ACFT 0.00 AC 0.0 CFS

SED ACCUM 87.00 FT 0.0 ACFT 0.00 AC 0.0 CFS

START ELEV 87.00 FT 0.0 ACFT 0.00 AC 0.0 CFS

1SITES

XEQ 10/13/2007 Murphy Farms - South WSID=
VER 2000 SUBW= A
TIME 15:47:26 SITE = S 1 PASS= 1 PART= 3

AUX. CREST 97.00 FT 80.0 ACFT 16.00 AC 0.0 CFS

PS STORAGE 80.0 ACFT, BETWEEN AUX. CREST AND SED. ACCUM ELEVATIONS.

START ELEV 97.00 FT 80.0 ACFT 16.00 AC 0.0 CFS

EFFECTIVE HEIGHT(H)= 11.0 FEET, PRODUCT= 880. (H * STORAGE AT CREST AUX.).

INPUT DESIGN CLASS = A1 = LT 3000. PRODUCT.

NRCS-FBH D= 24.00 HR P= 4.40 IN Q= 1.75 IN DA= 0.24 SM
TC= 1.02 HR CN= 72.00 VOL= 22.6 ACFT

25-yr yield

PEAK = 138.7 CFS, AT 12.5 HRS.

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.

RATING TABLE NUMBER 2

	ELEV. FEET	Q-TOTAL CFS	Q-PS CFS	Q-AUX. CFS	VOLUME AC-FT	AREA ACRE
1	87.00	0.00	0.00	0.00	0.00	0.00
2	87.83	0.00	0.00	0.00	0.56	1.33
3	88.67	0.00	0.00	0.00	2.22	2.67
4	89.50	0.00	0.00	0.00	5.00	4.00
5	90.33	0.00	0.00	0.00	8.89	5.33
6	91.17	0.00	0.00	0.00	13.89	6.67
7	92.00	0.00	0.00	0.00	20.00	8.00
8	92.83	0.00	0.00	0.00	27.22	9.33
9	93.67	0.00	0.00	0.00	35.56	10.67
10	94.50	0.00	0.00	0.00	45.00	12.00
11	95.33	0.00	0.00	0.00	55.56	13.33
12	96.17	0.00	0.00	0.00	67.22	14.67
13	97.00	0.00	0.00	0.00	80.00	16.00
14	97.15	1.83	0.00	1.83	82.42	16.23
15	97.30	3.66	0.00	3.66	84.87	16.46
16	97.57	11.01	0.00	11.01	89.37	16.87
17	97.90	27.74	0.00	27.74	95.02	17.38
18	98.50	80.11	0.00	80.11	105.73	18.30
19	99.25	173.38	0.00	173.38	119.88	19.45

20 100.00 301.69 0.00 301.69 134.90 20.60

SUMMARY OF AUXILIARY SPILLWAY SURFACE CONDITIONS USED IN COMPUTATIONS BY REACH

REACH	FROM STA (ft)	TO STA (ft)	SLOPE (%)	RETARDANCE CURVE INDEX@	VEGETAL COVER FACTOR	MAINT. CODE (ft)	ROOTING DEPTH *	REACH LOCATION
1	-50.	0.	-25.0	0.035	**	**	**	INLET
2	0.	100.	0.0	0.035	**	**	**	CREST
3	100.	150.	4.0	0.035	0.65	3	2.0	EXIT !

@ The program interprets retardance curve index entries of less than 1 as Manning's n values.

* Upper case indicates a reach of constructed spillway channel.

** The program does not use vegetal cover factor, maintenance code, and rooting depth for inlet and crest reaches in computations.

! Reach 3 used in computing exit channel velocities.

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	AUX.-HP FT	VOL-AUX. ACFT
NRCS-FBH	20.0	97.74	92.3	17.1	0.74	12.3

PEAK - CFS Q-PS Q-AUX. Q-TOT.
DISCHARGE = 0.0 19.8 19.8

	CRITICAL DEPTH	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-Sc FT/FT	25% OF Q Sc
AUXILIARY SPILLWAY —	0.31	3.08	0.027	0.036

EFFECTIVE STRESS FOR STABILITY ANALYSIS OF AUX. EXIT CHANNEL

(Refer to Ag. Handbook 667, Chapt. 3, for allowable stresses.)

Aux. Discharge = 20. cfs; Bottom Width = 20. ft

REACH FROM TO SLOPE MANNING'S VELOCITY STRESS

NO.	STA	STA	%	n	ft/s	lb/ft^2
3	100.	150.	4.00	0.035	3.47	0.415

AUXILIARY SPILLWAY DURATION FLOW = 104.4 HOURS

ATTACK, OE/B = 1.1 ACFT/FT

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

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 3.5 FT/SEC

EXIT SLOPE = 0.040 FT/FT

FLOW DEPTH = 0.3 FT

***** WARNING - USER SUPPLIED RATING CURVE DID NOT MEET CRITERIA FOR

MINIMUM FLOW THROUGH AUXILIARY SPILLWAY (117.80 CFS).

>>>> NHCP378 RUN - MINIMUM DEPTH, CREST AUX. TO TOP OF DAM IS 2.00 FT.
NEW TOP OF DAM ELEVATION = 99.00.

ROUTED	BTM WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.HP	VOL-AUX.
RESULTS	FT	FT	ACFT	AC	FT	ACFT
MINIMUM AUX.	20.0	99.00	115.2	19.1	2.01	35.2

PEAK - CFS	Q-PS	Q-AUX.	Q-TOT.
DISCHARGES =	0.0	142.3	142.3

	CRITICAL	CRITICAL	CRITICAL	25% OF Q
	DEPTH	VELOCITY	SLOPE-Sc	Sc
AUXILIARY	FT	FT/SEC	FT/FT	FT/FT
SPILLWAY —	1.10	5.56	0.018	0.024

INFLOW HYD 1 FBH-PEAK = 19.76 CFS AT 14.69 HRS, LOCATION POINT
HYDOUT 1

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

Murphy Farms - South

0 SUBWATERSHED(S) ANALYZED.

1 STRUCTURE(S) ANALYZED.

1 HYDROGRAPHS ROUTED AT LOWEST SITE.

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

SITES.....COMPUTATIONS COMPLETE

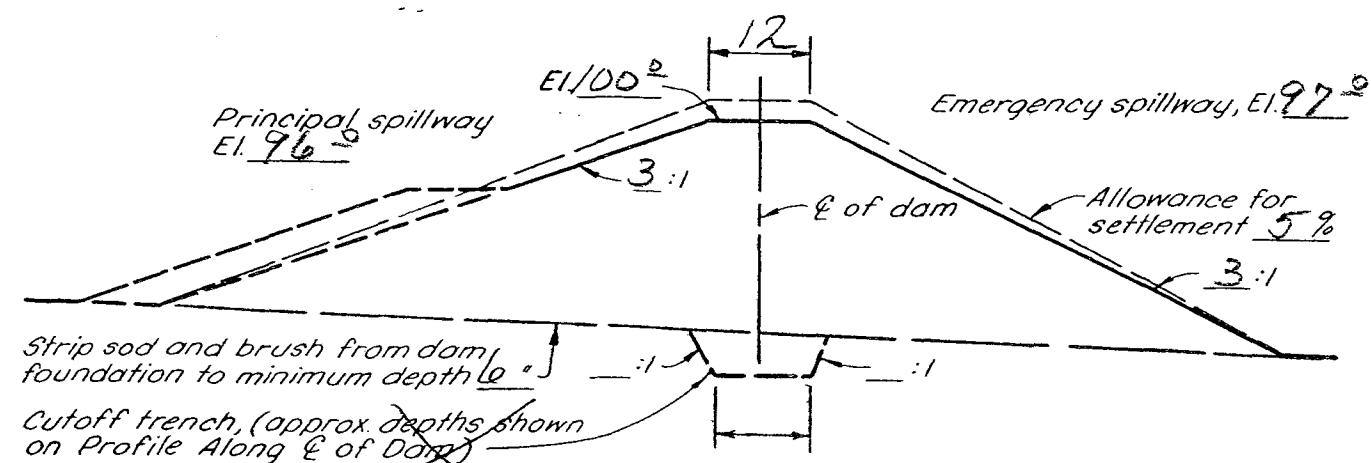
>>>	SITE	SUBWS	SUBWS	DA	CURVE	TC	TOTAL	DA	TYPE	STRUC	<<<
	ID	ID	(SQ MI)	NO.	(HRS)	(SQ MI)	DESIGN	CLASS			
	S 1	A	0.24	72.	1.02	0.24	378CR	A1			

PASS	DIA./	AUX.CREST	BTM.	MAX.	MAX.	EMB.	INTEGR.*	EXIT*	TYPE
NO.	WIDTH	ELEV	WIDTH	HP	ELEV	VOL.	DIST.	VEL.	HYD
	(IN/FT)	(FT)	(FT)	(FT)	(FT)	(CY)	(FT)	(FT/SEC)	
1	0.0	97.0	20.0	2.0	99.0	0.	0.	3.5	MIN. AUX.

DRAINAGE AREA	ANNUAL YIELD	PEAK RUNOFF Ac-Ft	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.
155	3	22.6	142	9	16	—	80



LOCATION

[illegible]

TYPICAL CROSS SECTION OF DAM

S.D. CONSTRUCTION AND MATERIAL SPECIFICATIONS:

EARTH DAM

OPERATOR: Murphy Farms

CONSERVATION DISTRICT: _____

Class "A" Hazard

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

SKETCH PLAN OF DAM AND RESERVOIR AREA

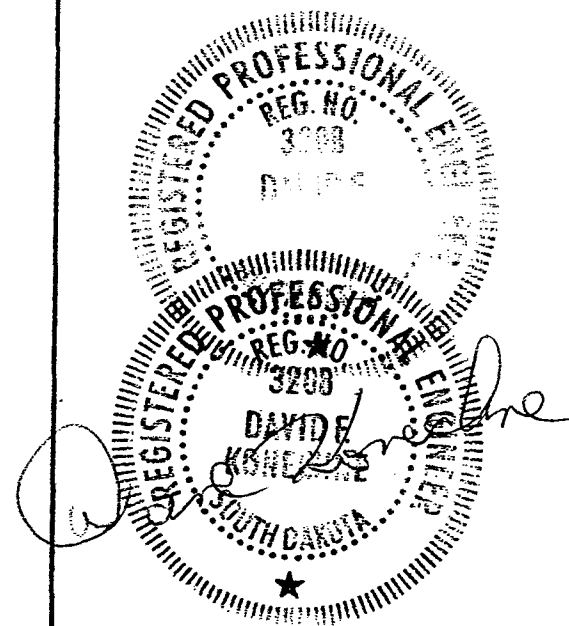
Approximate scale 1" =

REFERENCE: GUIDE PLAN NO. 1.0

JOB PLAN NO. 1.0

USDA-SCS-LINCOLN, NEBR. 1972

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



Water Permit Application No. 6913-3 Murphy Farms Partnership

Top of Dam Elev. - 100 }
 Spillway Elev. - 97 }
 D/S Emb. Toe Elev. - 84.5 } HT = 15.5 ft
Cat. 3 - Low Hazard Dam

No Principal Spillway!

Normal Storage Capacity - 80 A.-Ft.
 Max Storage Capacity - 135

HT x Max Capacity = $15.5 \times 135 = 2093 < 3000 \therefore 25 \text{ yr}$
Minimum Spillway Design

From USGS WRI 98-4055 "Tech. for Est. Peak Flows... in 50"
 Region A DA = 155 A. = 0.24 mi²
 $P_{II} = 0.975$

$$\begin{aligned} Q_{25} &= 218 CA^{.513} P_{II}^{.480} \\ &= 218 (0.24)^{.513} (0.975)^{.480} \\ &= 218 (0.4809) (0.8856) \\ &= \underline{93 \text{ cfs}} \end{aligned}$$

$$\begin{aligned} Q_{100} &= 362 CA^{.521} P_{II}^{.447} \\ &= 362 (0.24)^{.521} (0.975)^{.447} \\ &= 362 (0.4754) (0.8930) \\ &= \underline{154 \text{ cfs}} \end{aligned}$$

Secondary Spillway Capacity

$$\begin{aligned} Q &= CLH^{3/2} \quad C = 2.6 \\ &= (2.6)(20)(3)^{1.5} \quad L = 20 \\ &= \underline{270 \text{ cfs}} \quad H = 3 \end{aligned}$$

NRCS Annual Yield

DA = 155 CN = 72 ISO = 2 1/2

Section 74:02:08:09

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

80% chance = 0.11

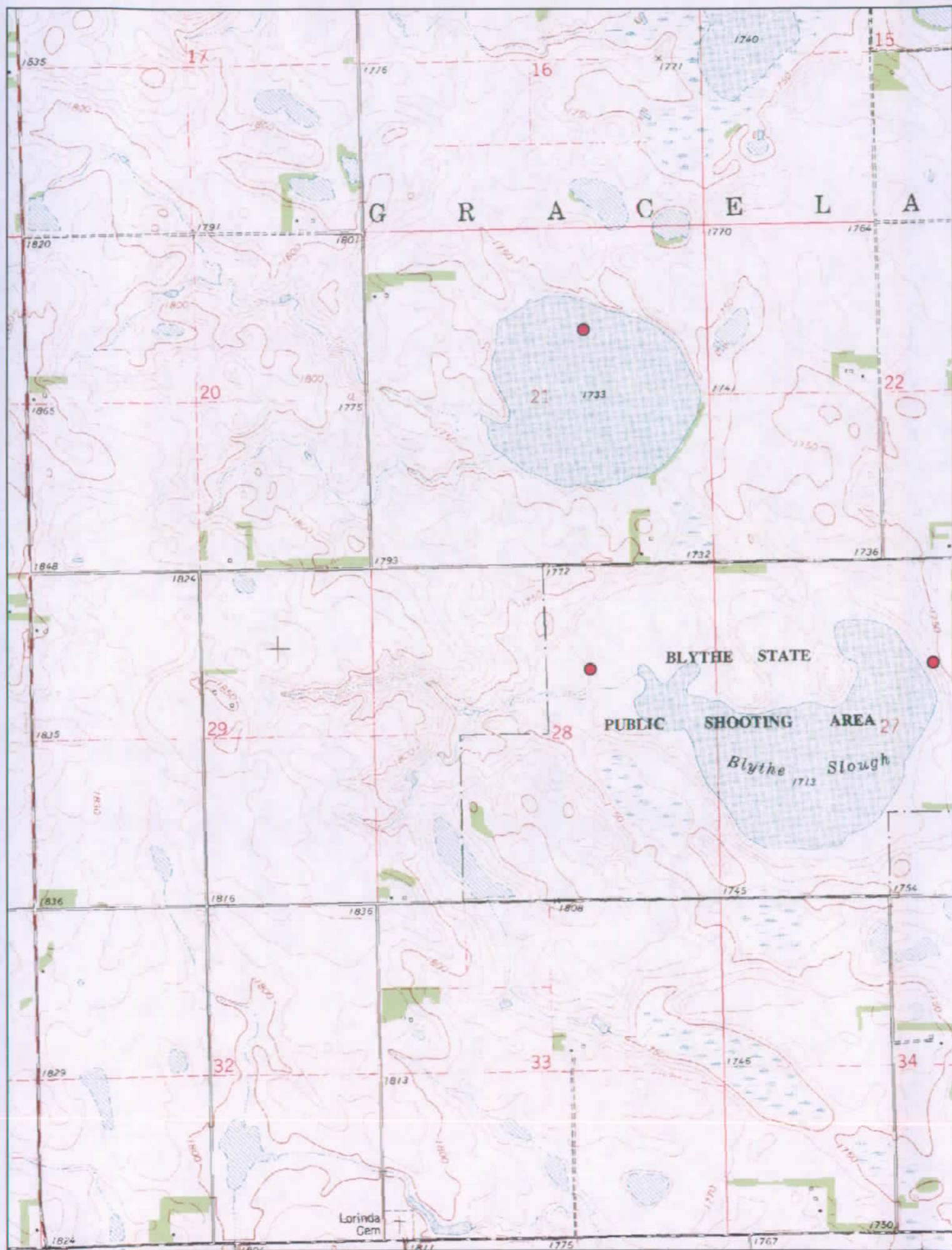
$$0.11 \times 155^{1/2} = \underline{1.5 \text{ A.-Ft}}$$

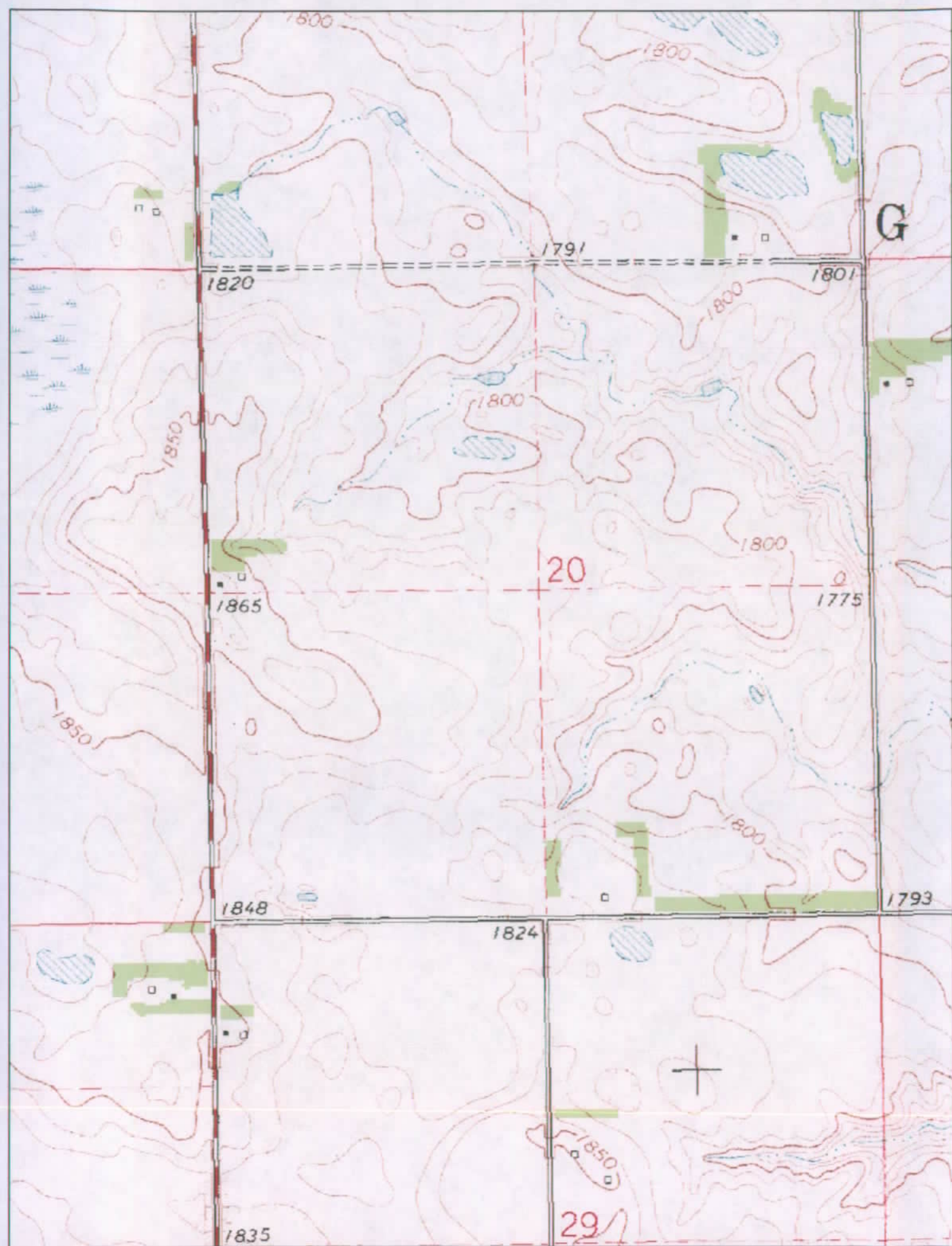
50% chance = 0.33

$$0.33 \times 155^{1/2} = \underline{4.25 \text{ A.-Ft}}$$

10% chance = 1.80

$$1.80 \times 155^{1/2} = \underline{23.25 \text{ A.-Ft}}$$







2006



RECEIPT
WATER RIGHTS PROGRAM
South Dakota Department of Environment and Natural Resources

Date 11/13, 20 07

RECEIVED OF Daniel T Murphy 7252 Tartan Curv Eden Prairie MN 55346

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

Fee for Application for Permit No. <u>6913-3</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. <u>6913-3</u>	50	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)		
TOTAL	200	00

No.

03199

By *Harold Erbe*
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6913-3, Murphy Farms Partnership**

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. 6913-3, Murphy Farms Partnership, c/o Dan Murphy, 7252 Tartan Curve, Eden Prairie MN 55346.

The Chief Engineer is recommending APPROVAL of Application No. 6913-3 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. 6913-3 authorizes a dam with a storage capacity of 80 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
December 12, 2007



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

December 12, 2007

Murphy Farms Partnership
C/o Dan Murphy
7252 Tartan Curve
Eden Prairie, MN 55346

Dear Mr. Murphy:

We have reviewed the plans and specifications for your dam project located in the NE ¼ SE ¼ of Sec. 20-T117N-R55W, in Codington County. The plans and specifications for your dam are approved.

Our review was to determine compliance with the requirements of the Water Management Board Safety of Dams Rules, Chapter 74:02:08. Approval of these plans and specifications does not release you, as owner of the dam, from the responsibility for operating and maintaining the dam in good repair to ensure the safety of the dam.

The Murphy Farms Dam will be classified as a small size Category 3, Low Hazard dam with a dam height of 15.5 feet and a normal storage capacity of 80 acre-feet and a maximum storage capacity of 135 acre-feet.

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

Sincerely,

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

c: Dave Konechne, Konechne Engineering

REPORT ON
WATER PERMIT APPLICATION NO. 6913-3
Murphy Farms Partnership
November 27, 2007

Water Permit Application No. 6913-3 has been filed by Murphy Farms Partnership, c/o Dan Murphy, to impound 80 acre-feet of water from runoff in an existing dam located in the NE ¼ SE ¼ of Section 20-T117N-R55W, in Codington County. The application also requests impoundment of sufficient water to maintain water to the outlet elevation. The water will be used for fish and wildlife production, recreation and livestock watering purposes.

Discussion:

The dam will be classified as a small size, Category 3, Low Hazard dam. The plans and specifications have been submitted by Konechne Engineering. The plans and specifications have been reviewed and will be approved.

The existing dam is 15.5 feet high with a normal storage capacity of 80 acre-feet with a reservoir level at the primary spillway elevation, and a maximum storage capacity of 135 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 155 acres or 0.24 square miles. The dam has a 20 foot wide earthcut spillway with 3.0 feet of freeboard. A 25 year frequency event produces a peak runoff of approximately 93 cfs and a 100 year frequency event produces a peak runoff of approximately 154 cfs. The earthcut spillway has a capacity of approximately 270 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 1.5 acre-feet. The annual yield with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be 4.25 acre-feet and the annual yield with a 10 percent chance, or 1 out of 10 years, is expected to be 23.25 acre-feet.

The Murphy Farms Dam is located in the NE ¼ SE ¼ of Section 20-T117N-R55W on an unnamed tributary to Sasse Slough, about 0.5 miles upstream and to the West of Sasse Slough. Sasse Slough is located in Section 21-T117N-R55W and the Department of Game, Fish & Parks hold Vested Right Claim No. 1852-3 for 426 acre-feet of water in Sasse Slough. The Murphy Farms Dam has a drainage area of 155 acres and Sasse Slough has approximately an additional 1500 acres of drainage area, with more if an existing wetland to the west fills up and overflows. The Murphy Farms Dam will also contribute runoff to Sasse Slough once it fills up and overflows. The dam has been in existence for a several years and evidentially has very little or no adverse effect on Sasse Slough.

Conclusions:

1. Water Permit Application No. 6913-3 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 domestic use should be a qualification on Water Permit Application No. 6913-3.



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

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JAN - 2 2008

WATER RIGHTS
PROGRAM

Watertown Public Opinion AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

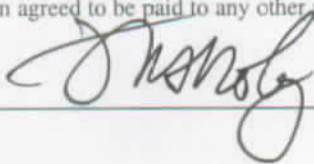
COUNTY OF CODINGTON } ss

Mark S Roby, being duly sworn says: That Watertown Public Opinion is, and during all the times hereafter mentioned was, a daily legal newspaper as defined in SDCL 17-2-2.1 through 17-2-2.4, as amended, published at Watertown, Codington County, South Dakota, by Watertown Public Opinion; that affiant is and during all of said times was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is attached, was published in said newspaper upon:

_____ Wednesday _____ the _____ 19th _____ day of _____ December _____ 2007

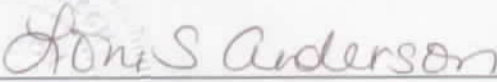
_____ Wednesday _____ the _____ 26th _____ day of _____ December _____ 2007

that the full amount of the fee charged for publishing the same, including a \$5.00 affidavit fee, to-wit, the sum of \$93.90 insures solely to the benefit of the publisher of said newspaper; that no agreement or understanding for the division of the fee has been made with any person, and that no part of the fee has been agreed to be paid to any other person.



Subscribed and sworn to before me this 26th day of December, A.D. 2007.

(Seal)



Notary Public, South Dakota

My commission expires May 10, 2008

DENR

NOTICE OF APPLICATION
NO. 6913-3 to Appropriate
Water

Notice is given that Murphy Farms Partnership, c/o Dan Murphy, 7252 Tartan Curve, Eden Prairie MN 55346 has filed an application for a water permit to impound 80 acre-feet of water from runoff in an existing dam located in the NE1/4 SE1/4 Section 20 with water impounded in the N1/2 SE1/4 Section 20; all in T117N-R55W. This application requests impoundment of sufficient water to maintain water to the outlet elevation. The water is for fish and wildlife propagation, recreational use and livestock watering.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6913-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation.

If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendations 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 January 7, 2008.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pimer, Secretary, Department of Environment and Natural Resources.

(December 19 & 26, 2007)



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

December 12, 2007

Public Opinion
PO Box 10
Watertown SD 57201-0010

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 6913-3 to Appropriate Water to be published twice. Please publish the first notice on December 19, 2007 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Dan Murphy, Murphy Farms Partnership, 7252 Tartan Curve, Eden Prairie, MN 55346 (Ph # 612-877-1255).

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. 6913-3

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

Date _____

We are in receipt of your letter of December 12, 2007 enclosing Notice to Appropriate Water by Application No. 6913-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

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

December 12, 2007

Dan Murphy
Murphy Farms Partnership
7252 Tartan Curve
Eden Prairie MN 55346

Dear Mr. Murphy:

Water Permit Application No. 6913-3 for fish & wildlife, recreational and livestock watering use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Public Opinion printed at Watertown SD (Ph # 605-886-6901). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendations of the Chief Engineer and reports on the applications 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 Notices and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the applications.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

Instruction to Newspaper - Publish first Notice on December 19, 2007 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6913-3 to Appropriate Water

Notice is given that Murphy Farms Partnership, c/o Dan Murphy, 7252 Tartan Curve, Eden Prairie MN 55346 has filed an application for a water permit to impound 80 acre-feet of water from runoff in an existing dam located in the NE ¼ SE ¼ Section 20 with water impounded in the N ½ SE ¼ Section 20; all in T117N-R55W. This application requests impoundment of sufficient water to maintain water to the outlet elevation. The water is for fish and wildlife propagation, recreational use and livestock watering.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6913-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendations 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 January 7, 2007. 8

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

JAN 25 2008

Murphy Farms Partnership
Dan Murphy
7252 Tartan Curve
Eden Prairie MN 55346

Dear Mr. Murphy:

Enclosed is Water Permit No. 6913-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures

6913-3

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FEB - 7 2008

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 1-29-08TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181FROM: Dan Murphy
(name)
7252 Tartan Curve
(address)
Eden Prairie MN 55346 952-937-2053
(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.

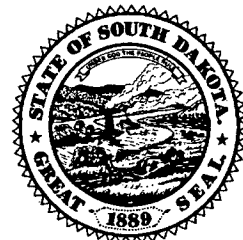
Water Permit No. 6913-3 states that the water use system is to be constructed by
1-7-2013 , and water is to be put to beneficial use by 1-7-2017
(date) (date)

The water use system was completed on 10-1-98
(date)

Applying the water to beneficial use was completed on 10-1-98
(date)

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

Daniel T. Murphy
(signature)





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

February 7, 2008

6913-3

Dan Murphy
7252 Tartan Curve
Eden Prairie MN 55346

Dear Mr. Murphy:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that your system was completed back in 1998.

Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. I am returning the copy of the water permit to you. You may keep this for your records. If you have any questions, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

enclosure

Permit No. 6913-3
Sioux 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, **December 3, 2008**, made a thorough examination of the water use system constructed by **Murphy Farms Partnership** of **7252 Tartan Curve, Eden Prairie, MN 55346** holder of Permit No. **6913-3**, bearing the priority of **November 13, 2007** authorizing the storage of **80** acre-feet of the waters of **runoff** for **recreation, fish and wildlife propagation** purposes, in **Codington** County.

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

A. Works used to divert the water:

A 15.5 foot high earthen dam with a normal storage capacity of 80 acre-feet.

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

N/A

C. Works used to apply water to beneficial use:

A 15.5 foot high earthen dam with a normal storage capacity of 80 acre-feet.

The system is in the following condition **good**. The point of diversion is located **1400 ft. North & 650 ft. West of the SE corner of Sec. 20-T117N-R55W, (NE ¼ SE ¼), (Lat. 44.923736 & Long. -97.455709)**. The works are capable of storing **80** acre-feet of water which is to be used for **recreation, fish and wildlife propagation**. Water has been put to beneficial use to the maximum extent as follows:

A 15.5 foot high earthen dam with a normal storage capacity of 80 acre-feet.

and the license should be issued for 80 acre-feet of storage.

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

Exceptions to compliance are: **none** Date Report Completed: **February 2, 2009**



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

REPORT ON INSPECTION OF PERMIT NO. 6913-3

DATE OF INSPECTION: **December 3, 2008**

NAME & ADDRESS OF INSPECTION CONTACT/ **Dan Murphy, Murphy Farms Partnership,
7252 Tartan Curve, Eden Prairie, MN 55346**

RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE: **owner**

NAME & ADDRESS OF PERMIT HOLDER: **same**

**DIVERSION POINT LEGAL LOCATION: 1400 ft. North & 650 ft. West of the SE corner of
Sec. 20-T117N-R55W, (NE ¼ SE ¼), (Lat. 44.923736 & Long. -97.455709).**

DAM INFORMATION:

- 1) Height to crest **15.5** feet
- 2) Height to primary spillway **12.5** feet
- 3) Height to secondary spillway **N/A** feet
- 4) Crest width **12** feet
- 5) Crest length **247** feet
- 6) Spillway length **XXX** feet
- 7) Spillway width **20** feet
- 8) Approx. storage (Normal) **80** acre-feet
- 9) Approx. storage (Maximum) **135** acre-feet
- 10) Date constructed: **1998**

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. 6913-3



Timothy G. Schaal 2/2/09
Timothy G. Schaal, P.E.
Natural Resources Engineering Specialist
SD DENR, Water Rights Program



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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PIERRE SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

FEB 13 2009

6913-3

Dan Murphy
Murphy Farms Partnership
7252 Tartan Curve
Eden Prairie MN 55346

Dear Mr. Murphy:

Enclosed is your Water License No. 6913-3. Included with the license is a map prepared by the staff engineer who conducted the inspection. Water License No. 6913-3 is the final document which completes the 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

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 6913-3

(1) Murphy Farms Partnership % Dan Murphy, 7252 Tartan Curve, Eden Prairie MN 55346 made Application No. 6913-3, November 13, 2007 for a water permit to impound 80 acre feet of runoff water in an existing dam, located in Codington County, South Dakota for recreation, fish & wildlife propagation and domestic use purposes. Permit No. 6913-3, with a priority date of November 13, 2007 was approved January 7, 2008 and issued to the applicant for diversion of water with construction to be completed on or before January 7, 2013 and the application to beneficial use of said water on or before January 7, 2017.

The Permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on February 7, 2008. The "*Notice*" stated the water use system was completed and water placed to beneficial use in 1998.

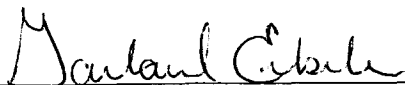
(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion and application of water to beneficial use and is entitled to impound 80 acre feet of water annually for beneficial use. The location of the storage dam (spillway) is 1,400 feet north and 650 feet west of the SE corner of Section 20, T117N, R55W (NE ¼ SE ¼). Water is impounded in the N ½ SE ¼ Section 20, T117N, R55W.

(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 Murphy Farms Partnership % Dan Murphy, 7252 Tartan Curve, Eden Prairie MN 55346 the holder and/or owner of Water Right No. 6913-3 is issued a license to appropriate water, the right to impound 80 acre feet of water from runoff into a storage dam with a priority date of November 13, 2007 from the location specified in (2) of this license for recreation, fish & wildlife propagation and domestic use purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 6913-3 and subject to the following qualifications:

- Water Right No. 6913-3 authorizes a dam with a storage capacity of 80 acre feet of water and sufficient water annually to maintain the water level to the outlet elevation.
- Low flows as needed for downstream domestic use, including livestock water and prior water rights must be bypassed.


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

FEB 13 2008
date

