

WATER PERMIT NO. 6538-3

Name of Applicant: City of Eureka

Address: PO Box 655, Eureka SD 57437

Phone: 605 284-2441

Amount of Water Claimed: 0.56 cfs

Total Acres: 62 acres

Source of Water Supply: Eureka Lake

Water to be used for: irrigation

County: McPherson

Type of Waste Disposal System:

Location:

PRIORITY

Date Received: 8-28-01

Application/License Fee: \$275

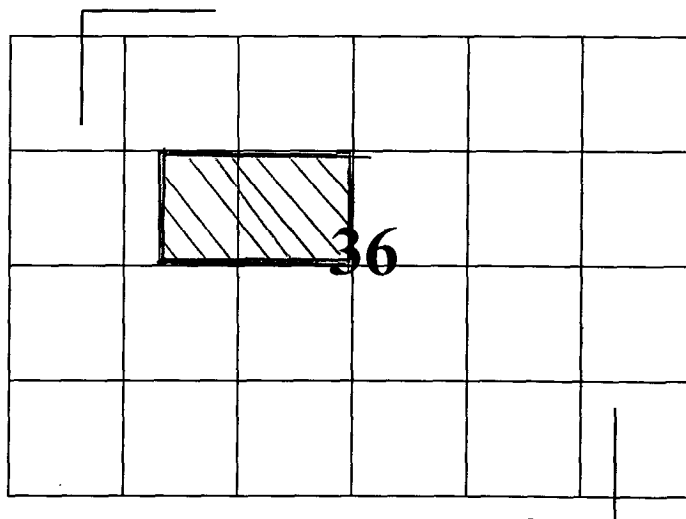
Corrected Application Received: 8-30-04

Period of Annual Use: April 1 – October 31

Remarks: Water from the well authorized by No. 723A-3 and 6538-3 flows into the lake and then diverted from the lake to the golf course.

Diversion Point: NW ¼ SW ¼ Sec 35-T127N-R73W

Land to be Irrigated: S ½ NW ¼ Sec 36-T127N-R73W



Depth of Well: 2700 feet deep

Well Driller:

Remarks:

Type of Map: plat

Prepared by: Terry D Helms PE

Reviewed and the Number Assigned on: 8-30-04

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

Application For Permit To Appropriate Water For Irrigation

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

lag 12-8-2003

**SOUTH DAKOTA
WATER PERMIT NO. 6538-3**

Date of first receipt of application August 28, 2001.

Date of return to applicant for corrections, amendments or changes August 29, 2001.

Date of receipt of corrected application August 30, 2004.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6538-3 to the City of Eureka, PO Box 655, Eureka SD 57437-0655 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 6538-3 appropriates 0.56 cfs from Eureka Lake located in the NW ¼ SW ¼ Section 35 to irrigate 62 acres of the golf course located in the S ½ NW ¼ Section 36; all T127N-R73W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – October 31.
3. The date from which applicant may claim right is August 30, 2004.
4. The date of approval of Permit No. 6538-3 is December 6, 2004.
5. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATION

This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

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

JAN 18 2005

date



Supplemental Information

(Complete applicable portions only)

(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.

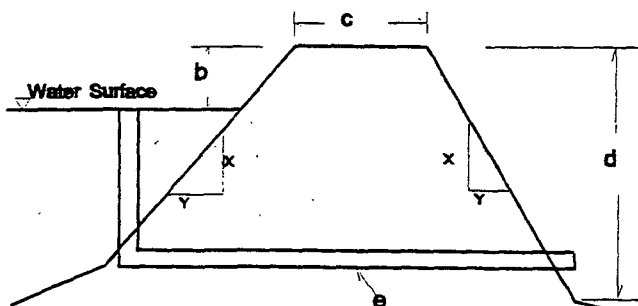
- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

Spillways only

Helms & Associates

P.O. Box 111

Aberdeen, SD 57402



Note: City will increase secondary spillway width to 150'.

- b) Freeboard 1.0'
- c) Crest Width 10'
Crest Length 150'
- d) Height 13'
- e) Primary Outlet Capacity 380 cfs
If pipe, diameter 48"
- f) Secondary Spillway Capacity 724cfs
Spillway Width 150ft.
- g) X & Y Slope _____
Upstream 1:6
Downstream 1:4
- h) Surface Area of Impoundment 136 Ac.
- i) Storage 1,262 Acre Feet
- j) Drainage Area Above Dam 7089 Acres

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

DL 416907

Pierre, August 28, 20 01

RECEIVED OF City of Eureka, PO Box 655, Eureka, SD 57437
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>6538-3</u> to Appropriate Water, to construct and to put water to beneficial use _____	225	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>6538-3</u> _____	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	275 00

By

Darland Erbele
Chief Engineer
gm

SPILLWAY WIDTH = 150 FEET

Page 1

131 KK J85SP ROUTE RESEVOIR #5 FROM J85 TO SPILLWAY

138 KO OUTPUT CONTROL VARIABLES
IPRNT 1 PRINT CONTROL
IPLOT 2 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

HYDROGRAPH ROUTING DATA

132 RS STORAGE ROUTING
NSTPS 1 NUMBER OF SUBREACHES
ITYP ELEV TYPE OF INITIAL CONDITION
RSVRIC 1844.25 INITIAL CONDITION
X 0.00 WORKING R AND D COEFFICIENT

136 SA AREA 14.5 27.6 42.1 57.5 84.0 98.9 125.6 133.4 136.3 142.5

137 SE ELEVATION 1830.00 1832.00 1834.00 1836.00 1838.00 1840.00 1842.00 1844.00 1846.00 1848.00

133 SL LOW-LEVEL OUTLET
ELEV 1844.20 ELEVATION AT CENTER OF OUTLET
CAREA 30.25 CROSS-SECTIONAL AREA
COQL 0.82 COEFFICIENT
EXPL 0.50 EXPONENT OF HEAD

134 SS SPILLWAY
CREL 1845.00 SPILLWAY CREST ELEVATION
SPWID 150.00 SPILLWAY WIDTH
COCW 2.80 WEIR COEFFICIENT
EXFW 1.50 EXPONENT OF HEAD

135 ST TOP OF DAM
TOPEL 1846.00 ELEVATION AT TOP OF DAM
DAMWID 1375.00 DAM WIDTH
COQD 0.97 WEIR COEFFICIENT
EXPD 1.50 EXPONENT OF HEAD

COMPUTED STORAGE-ELEVATION DATA

STORAGE	0.00	41.41	110.60	209.83	350.47	533.08	756.97	1015.86	1285.53	1564.30
ELEVATION	1830.00	1832.00	1834.00	1836.00	1838.00	1840.00	1842.00	1844.00	1846.00	1848.00

COMPUTED OUTFLOW-ELEVATION DATA

(EXCLUDING FLOW OVER DAM)

OUTFLOW	0.00	0.00	292.57	267.91	247.09	229.27	213.85	200.37	188.49	177.94
ELEVATION	1830.00	1844.20	1846.36	1846.01	1845.74	1845.53	1845.36	1845.21	1845.10	1845.00
OUTFLOW	205.18	251.36	330.92	452.57	625.19	857.71	1159.26	1539.00	2006.20	2570.18
ELEVATION	1845.11	1845.24	1845.41	1845.64	1845.91	1846.23	1846.60	1847.02	1847.49	1848.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

(INCLUDING FLOW OVER DAM)

STORAGE	0.00	41.41	110.60	209.83	350.47	533.08	756.97	1015.86	1042.56	1285.53
OUTFLOW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	666.90
ELEVATION	1830.00	1832.00	1834.00	1836.00	1838.00	1840.00	1842.00	1844.00	1844.20	1846.00
STORAGE	1335.18	1368.03	1426.02	1491.38	1564.30					
OUTFLOW	1252.20	1780.97	2910.99	4420.66	6342.60					
ELEVATION	1846.36	1846.60	1847.02	1847.49	1848.00					

HYDROGRAPH AT STATION J85SP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
4	0100	1	45.	1049.3	1844.3	* 5	1100	35	345.	1209.6	1845.4	* 6	2100	69	24.	1044.4	1844.2			
4	0200	2	151.	1120.0	1844.8	* 5	1200	36	345.	1209.7	1845.4	* 6	2200	70	19.	1043.7	1844.2			
4	0300	3	244.	1179.4	1845.2	* 5	1300	37	341.	1208.6	1845.4	* 6	2300	71	15.	1043.3	1844.2			
4	0400	4	387.	1220.6	1845.5	* 5	1400	38	333.	1206.4	1845.4	* 7	0000	72	12.	1043.1	1844.2			
4	0500	5	467.	1239.6	1845.7	* 5	1500	39	321.	1203.2	1845.4	* 7	0100	73	11.	1043.0	1844.2			
4	0600	6	474.	1241.3	1845.7	* 5	1600	40	307.	1199.1	1845.4	* 7	0200	74	10.	1042.9	1844.2			
4	0700	7	439.	1233.2	1845.6	* 5	1700	41	291.	1194.4	1845.3	* 7	0300	75	9.	1042.9	1844.2			
4	0800	8	387.	1220.6	1845.5	* 5	1800	42	274.	1189.2	1845.3	* 7	0400	76	9.	1042.8	1844.2			
4	0900	9	334.	1206.8	1845.4	* 5	1900	43	257.	1183.8	1845.3	* 7	0500	77	8.	1042.8	1844.2			
4	1000	10	287.	1193.3	1845.3	* 5	2000	44	240.	1178.2	1845.2	* 7	0600	78	8.	1042.8	1844.2			
4	1100	11	247.	1180.7	1845.2	* 5	2100	45	224.	1172.5	1845.2	* 7	0700	79	7.	1042.7	1844.2			
4	1200	12	216.	1169.2	1845.1	* 5	2200	46	210.	1166.7	1845.1	* 7	0800	80	7.	1042.7	1844.2			
4	1300	13	192.	1158.7	1845.1	* 5	2300	47	196.	1160.8	1845.1	* 7	0900	81	7.	1042.7	1844.2			
4	1400	14	192.	1158.9	1845.1	* 6	0000	48	185.	1154.8	1845.0	* 7	1000	82	7.	1042.7	1844.2			
4	1500	15	219.	1170.6	1845.2	* 6	0100	49	177.	1148.5	1845.0	* 7	1100	83	7.	1042.7	1844.2			
4	1600	16	231.	1174.9	1845.2	* 6	0200	50	171.	1141.9	1844.9	* 7	1200	84	6.	1042.7	1844.2			
4	1700	17	222.	1171.7	1845.2	* 6	0300	51	165.	1134.9	1844.9	* 7	1300	85	6.	1042.7	1844.2			
4	1800	18	249.	1181.2	1845.2	* 6	0400	52	159.	1127.7	1844.8	* 7	1400	86	6.	1042.7	1844.2			
4	1900	19	337.	1207.5	1845.4	* 6	0500	53	152.	1120.4	1844.8	* 7	1500	87	6.	1042.7	1844.2			
4	2000	20	452.	1236.2	1845.6	* 6	0600	54	144.	1113.1	1844.7	* 7	1600	88	6.	1042.7	1844.2			
4	2100	21	538.	1255.2	1845.8	* 6	0700	55	137.	1105.8	1844.7	* 7	1700	89	6.	1042.7	1844.2			
4	2200	22	571.	1262.3	1845.8	* 6	0800	56	129.	1098.7	1844.6	* 7	1800	90	5.	1042.7	1844.2			
4	2300	23	561.	1260.2	1845.8	* 6	0900	57	121.	1091.8	1844.6	* 7	1900	91	6.	1042.7	1844.2			
5	0000	24	525.	1252.4	1845.8	* 6	1000	58	112.	1085.2	1844.5	* 7	2000	92	5.	1042.7	1844.2			
5	0100	25	477.	1241.9	1845.7	* 6	1100	59	104.	1079.0	1844.5	* 7	2100	93	6.	1042.7	1844.2			
5	0200	26	428.	1230.6	1845.6	* 6	1200	60	95.	1073.3	1844.4	* 7	2200	94	5.	1042.7	1844.2			
5	0300	27	385.	1220.0	1845.5	* 6	1300	61	87.	1068.0	1844.4	* 7	2300	95	6.	1042.7	1844.2			
5	0400	28	352.	1211.6	1845.5	* 6	1400	62	78.	1063.1	1844.4	* 8	0000	96	5.	1042.7	1844.2			
5	0500	29	332.	1206.1	1845.4	* 6	1500	63	69.	1058.8	1844.3	* 8	0100	97	6.	1042.7	1844.2			
5	0600	30	323.	1203.6	1845.4	* 6	1600	64	61.	1055.1	1844.3	* 8	0200	98	5.	1042.7	1844.2			
5	0700	31	322.	1203.4	1845.4	* 6	1700	65	52.	1051.9	1844.3	* 8	0300	99	6.	1042.7	1844.2			
5	0800	32	327.	1204.7	1845.4	* 6	1800	66	44.	1049.2	1844.2	* 8	0400	100	5.	1042.7	1844.2			
5	0900	33	333.	1206.5	1845.4	* 6	1900	67	37.	1047.1	1844.2	* 8	0500	101	5.	1042.7	1844.2			
5	1000	34	340.	1208.4	1845.4	* 6	2000	68	30.	1045.5	1844.2	* 8								

PEAK OUTFLOW IS 571. AT TIME 21.00 HOURS

PEAK FLOW	TIME		6-HR	24-HR	72-HR	100.00-HR
+	(CFS)	(HR)				
		(CFS)				
+	571.	21.00	519.	381.	245.	178.
		(INCHES)	0.435	1.279	2.466	2.492
		(AC-FT)	257.	756.	1457.	1472.

PEAK STORAGE	TIME		6-HR	24-HR	72-HR	100.00-HR
+	(AC-FT)	(HR)				
	1262.	21.00	1251.	1218.	1159.	1126.

PEAK STAGE	TIME		6-HR	24-HR	72-HR	100.00-HR
+	(FEET)	(HR)				
	1845.83	21.00	1845.75	1845.50	1845.07	1844.82

CUMULATIVE AREA = 11.08 SQ MI

[illegible]

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+	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
					6-HOUR	24-HOUR	72-HOUR			
+	HYDROGRAPH AT	30	118.	14.00	63.	20.	7.	0.28		
+	HYDROGRAPH AT	15	168.	14.00	89.	28.	9.	0.38		
+	2 COMBINED AT	J50	286.	14.00	152.	47.	16.	0.66		
+	ROUTED TO	J50J55	281.	14.00	151.	48.	16.	0.66		
+	HYDROGRAPH AT	5	469.	14.00	268.	88.	30.	1.30		
+	HYDROGRAPH AT	1	292.	14.00	154.	48.	16.	0.69		
+	2 COMBINED AT	J71	761.	14.00	422.	136.	45.	1.99		
+	ROUTED TO	J71J70	111.	34.00	107.	72.	26.	1.99	1861.17	34.00
+	ROUTED TO	J70J55	111.	34.00	107.	72.	26.	1.99		
+	HYDROGRAPH AT	80	245.	14.00	98.	28.	9.	0.45		
+	3 COMBINED AT	J55	526.	14.00	249.	108.	51.	3.10		
+	ROUTED TO	J55J80	300.	17.00	190.	95.	46.	3.10	1852.03	17.00
+	ROUTED TO	J80J85	270.	18.00	178.	92.	46.	3.10		
+	HYDROGRAPH AT	100	852.	14.00	438.	135.	45.	1.90		
+	HYDROGRAPH AT	200	249.	14.00	113.	33.	11.	0.48		
+	HYDROGRAPH AT	300	412.	14.00	217.	69.	23.	1.02		
+	HYDROGRAPH AT	400	253.	14.00	109.	31.	10.	0.46		
+	4 COMBINED AT	J2	1765.	14.00	877.	268.	90.	3.86		
+	ROUTED TO	J2J5	357.	25.00	313.	130.	44.	3.86	1840.73	25.00
+	ROUTED TO	J5J10	357.	25.00	310.	130.	44.	3.86		

+	HYDROGRAPH AT	500	201.	14.00	139.	52.	17.	0.81		
+	2 COMBINED AT	J10	380.	25.00	335.	176.	62.	4.67		
+	ROUTED TO	J10J15	379.	25.00	330.	175.	62.	4.67		
+	ROUTED TO	J15J20	385.	25.00	330.	169.	59.	4.67	1840.79	25.00
+	ROUTED TO	J20J25	381.	25.00	329.	169.	59.	4.67		
+	HYDROGRAPH AT	700	253.	14.00	118.	35.	12.	0.57		
+	HYDROGRAPH AT	800	225.	14.00	91.	26.	9.	0.36		
+	HYDROGRAPH AT	600	469.	14.00	219.	64.	21.	1.09		
+	HYDROGRAPH AT	950	199.	14.00	80.	23.	8.	0.34		
+	5 COMBINED AT	J25	1147.	14.00	586.	311.	108.	7.03		
+	ROUTED TO	J25J30	960.	1.00	698.	343.	183.	7.03	1849.00	0.00
+	HYDROGRAPH AT	20	222.	14.00	96.	30.	10.	0.31		
+	ROUTED TO	J33J85	3.	100.00	3.	3.	1.	0.31	1841.07	100.00
+	HYDROGRAPH AT	900	242.	14.00	97.	28.	9.	0.39		
+	HYDROGRAPH AT	10	91.	14.00	52.	17.	6.	0.25		
+	5 COMBINED AT	J85	960.	1.00	699.	438.	244.	11.08		
+	ROUTED TO	J85SP	571.	21.00	519.	381.	245.	11.08	1845.83	21.00

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT (MIN)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	INTERPOLATED TO COMPUTATION INTERVAL			
						DT (MIN)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)
J50J55	MANE	3.72	284.39	843.93	2.69	60.00	280.90	840.00	2.70
CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9454E+02 EXCESS=0.0000E+00 OUTFLOW=0.9454E+02 BASIN STORAGE=0.1480E-02 PERCENT ERROR= 0.0									
J70J55	MANE	12.77	111.07	2056.40	1.48	60.00	111.04	2040.00	1.48
CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1569E+03 EXCESS=0.0000E+00 OUTFLOW=0.1569E+03 BASIN STORAGE=0.4186E-01 PERCENT ERROR= 0.0									
J80J85	MANE	6.00	270.93	1086.00	1.67	60.00	270.26	1080.00	1.66
CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2772E+03 EXCESS=0.0000E+00 OUTFLOW=0.2757E+03 BASIN STORAGE=0.3360E+00 PERCENT ERROR= 0.4									
J5J10	MANE	5.80	356.82	1496.43	1.28	60.00	356.54	1500.00	1.28
CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2637E+03 EXCESS=0.0000E+00 OUTFLOW=0.2636E+03 BASIN STORAGE=0.1187E-01 PERCENT ERROR= 0.0									
J10J15	MANE	18.97	379.55	1498.33	1.48	60.00	379.24	1500.00	1.48

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3680E+03 EXCESS=0.0000E+00 OUTFLOW=0.3677E+03 BASIN STORAGE=0.4083E-01 PERCENT ERROR= 0.1

J20J25 MANE 3.78 381.72 1500.81 1.41 60.00 381.17 1500.00 1.41

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3514E+03 EXCESS=0.0000E+00 OUTFLOW=0.3513E+03 BASIN STORAGE=0.9440E-02 PERCENT ERROR= 0.0

1

SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION J85SP
(PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED DURING BREACH FORMATION)

PLAN 1		INITIAL VALUE	SPILLWAY CREST	TOP OF DAM			
	ELEVATION	1844.25	1845.00	1846.00			
	STORAGE	1049.	1150.	1286.			
	OUTFLOW	45.	178.	687.			
	RATIO OF PMF	MAXIMUM RESERVOIR W.S.ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS
	1.00	1845.83	0.00	1262.	571.	0.00	21.00
							0.00

*** NORMAL END OF HEC-1 ***



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

August 29, 2001

Terry Helms
Helms & Associates
PO Box 111
Aberdeen SD 57402

RE: Application for City of Eureka

Dear Mr. Helms:

We have received the *Application for a Permit to Appropriate Water* for City of Eureka's golf course. In order to complete the application the following is required.

Item No. 3 of the application states the water supply will be surface drainage and well. From the map submitted with the application, the point of diversion appears to be on the northern edge of east Eureka Lake. Where is the location of the well or are you referring to the well which flows into Eureka Lake? If this is a different well, the construction will need to be completed on the enclosed Form 2A.

On the map, please outline the 62 acres to be irrigated. Also, the map must be signed by one of the following: Registered Land Surveyor, Registered Professional Engineer or by any other government employee who normally prepares maps as a part of his assigned duties.

The application also stated the amount of water claimed to be 235 acre-feet. State statutes allow no annual volume to be greater than three acre-feet per acre delivered to the land which equates to 186 acre-feet. What is the proposed diversion rate (gallons per minute) from the point of diversion at the lake and the well.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352

enclosures

c: City of Eureka



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

October 30, 2001

Terry Helms
Helms & Associates
PO Box 11
Aberdeen SD 57402

RE: Application for City of Eureka

Dear Mr. Helms:

On August 28, 2001, we received an Application for Permit to Appropriate Water Within the State of South Dakota for the City of Eureka's golf course. You were notified what additional information was required to complete the application. A copy of that letter is enclosed. To date, we have not received the required information.

If you have any questions, please contact me.

Sincerely,

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

enclosure

c: Tonya Maier, City of Eureka

Helms & Associates

Civil Engineers & Land Surveyors

221 Brown Co. Hwy 19
P.O. Box 111

Aberdeen, S.D. 57402
Telephone (605)225-1212

August 27, 2004

Karen Schlaak
Water Rights Program
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181

Re: Water Right Application
Eureka, SD
A-3670

RECEIVED

AUG 30 2004

WATER RIGHTS
PROGRAM

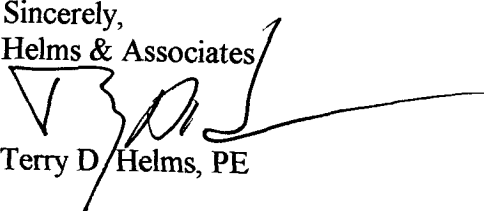
Dear Ms. Schlaak;

In response to your letter dated August 29, 2001 regarding the city of Eureka's application for a permit to Appropriate Water for the city golf course I am submitting the following information:

1. The amount of water requested by the city for irrigation of the golf course shall be 60.0 acre feet.
2. The maximum diversion rate will be 250 gpm.
3. The well is the well that flows into the lake.
4. I have attached a map showing the 62 acres to be irrigated. The map has been signed by a Registered Land Surveyor.

If you require any additional information please contact this office.

Sincerely,
Helms & Associates


Terry D. Helms, PE

Cc: City Of Eureka

REPORT ON WATER PERMIT APPLICATION NOS. 6537-3 AND 6538-3
For the City of Eureka
October 29, 2004

Application No. 6537-3 proposes to change the location of a well and appropriate an additional 0.32 cfs from the new well. Water Right No. 723A-3 authorizes 0.44 cfs from a well completed into the Inyan Kara Group (approximately 2,100 feet deep) located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of section 35, T127N R73W in McPherson County. This application proposes to increase the diversion rate from the new well located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ of section 35, T127N R73W from 0.44 cfs to 0.76 cfs. The water is for municipal, fire protection, irrigation and recreational use.

Application No. 6538-3 proposes to appropriate 0.56 cfs from Eureka Lake with the diversion point located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ of section 35 to irrigate 62 acres of the golf course located in the S $\frac{1}{2}$ NW $\frac{1}{4}$ of section 36; all in T127N R73W in McPherson County.

AQUIFER – INYAN KARA GROUP (INKR)

The Inyan Kara aquifer consists of sand, sandstone and shale which is under artesian conditions in this area. The aquifer underlies 1,157 square miles and contains an estimated 6.1 million acre-feet of recoverable water in storage in McPherson County (Hedges, 1982). The aquifer also extends into the surrounding counties and into North Dakota. The aquifer (also called the Fall River Formation by Hamilton) reportedly is recharged by inflow from the west and upward leakage from deeper formations (Hamilton, 1982). Hamilton also reported water levels for the aquifer are probably declining in this area.

The City of Eureka over the years has had three wells completed into the Inyan Kara aquifer (Fall River Formation), drilled in 1923, 1960, and 1983. All three of these wells have been plugged with the last (1983) well being plugged in October of this year (2004). The best information available is from the 1960 well. This well was completed to a depth of 2,085 feet and was capable of free flowing 342 gpm when drilled (Steffen, 1975). The shut in pressure has been estimated at about 125 psi.

Water level information is not available for this area. The nearest observation well completed into the Inyan Kara aquifer is located about 47 miles southeast of Eureka (Water Rights, 2004). This water level record at that site indicates that the Inyan Kara does not change much but then at this distance the water levels are probably not representative of the area around Eureka.

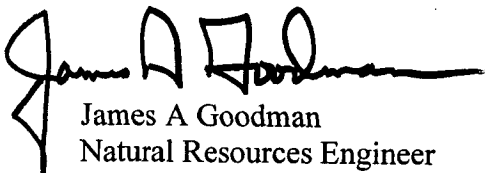
REVIEW OF EXISTING WATER PERMITS/RIGHTS

The town of Eureka presently holds water right No. 723A-3. This water right authorizes a diversion rate of 0.44 cfs (198 gpm) from the well to discharge into Eureka Lake. There are no other water rights in this area obtaining water from the Inyan Kara. The

nearest water right/permit is located about 22 miles west of this application. Interference is not expected to be a concern. In addition, there may be a few domestic wells which obtain water from the Inyan Kara in this region.

CONCLUSIONS

1. Water is available from the Inyan Kara aquifer.
2. The aquifer is confined and under artesian conditions at this site. In fact, a production well will free flow in this area. Until the well is completed this rate will not be known. The new well must be controlled in order to prevent the waste of water. The new well will be a replacement for the well recently plugged and authorized by Water Right No. 723A-3. The city is already authorized to discharge 0.44 cfs into the lake by that water right. This application would allow an additional 0.32 cfs of discharge for a total diversion rate of 0.76 cfs. In theory this rate could yield a volume of 550 acre-feet annually.
3. This well must be constructed in accordance with SD Well Construction Standards. This means grouting from the top of the aquifer to the land surface.
4. Allowing this well to flow into a lake simply to maintain the lake level is not a wise use of ground water. Eureka already has storage water right Nos. 6049-3 (885 acre-feet) and 6068-3 (224 acre-feet) for the west and east Eureka lakes, respectively. The conditions on those permits require that no water can discharge from the well into the lake if west Eureka lake is spilling (both lakes are connected by a channel). That condition would have to be maintained for this application.
5. Application No. 6538-3 proposes to use 0.56 cfs from Eureka Lake to irrigate 62 acres (golf course). This permit also requests a volume of 60 acre-feet annually. This water is already appropriated by the City of Eureka and they can manage the lake, well and golf course. This application can be approved with conditions existing on the other water permits/rights. The City needs to be aware that the water quality from the well is of poor quality and the city should consult with a soil scientist to determine the best use of the lake, well water mix for use on the golf course.



James A Goodman
Natural Resources Engineer

BIBLIOGRAPHY

Hamilton, L.J., 1982, Geology and Water Resources of McPherson, Edmunds, and Faulk Counties, South Dakota, Bulletin 26, Part II Water Resources, SD DENR, SDGS, Vermillion, SD, 57069.

Hedges, L.S., and others, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River South Dakota and Iowa, for US Army Corps of Engineers, SD DENR, SDGS, Vermillion, SD, 57069.

Steffen, L.J., A. Barrari, 1975, Ground-Water Investigation of the City of Eureka, SD DENR, SDGS, Vermillion, SD, 57069.

Water Rights, 2004, Unpublished Observation Well Records for the Inyan Kara Aquifer, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.



**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. 6538-3, City of Eureka**

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. 6538-3, City of Eureka, Mayor Mark Opp, PO Box 655, Eureka SD 57437-0655.

The Chief Engineer is recommending APPROVAL of Application No. 6537-3 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 qualification:

This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Garland Erbele, Chief Engineer
November 8, 2004

Note: An important consideration in irrigating is assessing the compatibility of the soils with the quality of the water used for irrigation. The staff report on this application indicates that water from the Inyan Kara Formation may be of marginal quality for irrigation uses. Damage to the soil structure may occur without proper irrigation management. A soil/water analysis may prove valuable in formulating an irrigation management plan to maintain the suitability of soil and optimize the irrigation of the golf course. I encourage the city to consult with a soil scientist to assist in developing an irrigation management plan.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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

November 9, 2004

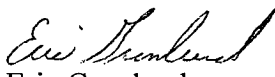
City of Eureka
% Mark W Opp, Mayor
PO Box 655
Eureka SD 57437-0655

Dear Mayor Opp:

Water Permit Application Nos. 6537-3 & 6538-3 for municipal use have 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 Northwest Blade printed at Eureka, SD (Ph # 605-284-2631). 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 a report 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 Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the applications.

Sincerely,


Eric Gronlund
Natural Resources Engineer
(605) 773-3352

c: Terry Helms, Helms & Associates

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendations, 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 applications.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

November 9, 2004

Nothwest Blade
PO Box 797
Eureka SD 57437-0797

ATTENTION: Legal Public Notice

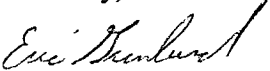
Enclosed is a Notice on Application Nos. 6537-3 & 6538-3 to Appropriate Water to be published twice. Please publish the first notice on November 17, 2004 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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 City of Eureka. % Mark Opp, Mayor, PO Box 655, Eureka SD (Ph # 605-284-2441).

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. 6537-3

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

Date _____

We are in receipt of your letter of November 9, 2004 enclosing Notice to Appropriate Water by Application No. 6537-3 & 6538-3 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 November 17, 2004 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NOS. 6537-3 and 6538-3 to Appropriate Water

Notice is given that the City of Eureka, PO Box 655, Eureka SD 57437-0655 has filed the following applications for a water permit.

Application No. 6537-3 proposes to change the location of the well and appropriate an additional 0.32 cubic feet of water per second (cfs) from the one well authorized by Water Right No. 723A-3. Water Right No. 723A-3 authorizes 0.44 cfs from a well completed into the Inyan Kara (approximately 2100 feet deep) located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 35-T127N-R73W. This application proposes to increase the diversion rate from the well from 0.44 cfs to 0.76 cfs. A replacement well is proposed to be constructed in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 35-T127N-R73W. The water is for municipal and recreational use. Discharge from the well is used to maintain the water level of East and West Eureka Lake. The well is also used for fire protection.

Application No. 6538-3 proposes to appropriate 0.56 cfs from Eureka Lake located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 35 to irrigate 62 acres of the golf course located in the S $\frac{1}{2}$ NW $\frac{1}{4}$ Section 36; all T127N-R73W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 6537-3 and 6538-3 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 applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the applications or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting these applications 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 December 6, 2004.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, 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 these applications. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Form 8

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS

County of McPherson)

I, Arlo C. Mehnhaff

certify that the attached printed Notice was taken

from the The Northwest Blade

printed and published in Eureka, SD

County of McPherson and

state of South Dakota. The notice was published

in the newspaper on the following two dates:

Nov. 17, 2004

Nov. 24, 2004

Cost of Printing 55.13

Arlo C. Mehnhaff
(Signature)

Publisher
(Title)

11-29-04
(Date Signed)

NOS. 6537-3 AND 6538-3 TO APPROPRIATE WATER

Notice is given that the City of Eureka, P. O. Box 655, Eureka, S. D. 57437-0655 has filed the following application for a water permit.

Application No. 6537-3 proposes to change the location of the well and appropriate an additional 0.32 cubic feet of water per second (cfs) from the one well authorized by Water Right No. 723-A-3. Water Right No. 723A-3 authorizes 0.44 cfs from a well completed into the Inyan Kara (approximately 2,100 feet deep) located in the SW 1/4 Section 35-T127N-R73W. This application proposes to increase the diversion rate from the well from 0.44 cfs to 0.76 cfs. A replacement well is proposed to be constructed in the SW 1/4 SW 1/4 Section 35-T127N-R73W. The water is for municipal and recreational use. Discharge from the well is used to maintain the water level of East and West Eureka Lake. The well is also used for fire protection.

Application No. 6538-3 proposes to appropriate 0.56 cfs from Eureka Lake located in the NW 1/4 SW 1/4 Section 35 to irrigate 62 acres of the golf course located in the S 1/2 NW 1/4 Section 36; all T127N-R73W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application Nos. 6537-3 and 6538-3 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 applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting these applications 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, S. D. 57501 (605-773-3352)" and the applicant's mailing

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WATER RIGHTS
PROGRAM

address is given above. A petition filed by either an interested person or the applicant must be filed by December 6, 2004.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, 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 these applications.

STEVEN M. PIRNER, Secretary
Department of Environment
and Natural Resources
11 - 17-24 - 2004

Water Rights Program - File Documentation

NAME: City of Eureka

ADDRESS: Eureka SD

DATE: 12-1-04 **COUNTY:** McPherson **TELEPHONE:**

RE: Publication Notice

COMMENTS:

The publication notice had an error in the legal description of the existing well authorized by Water Right No. 723-A3. Staff believes that this error would not invalid the notice because the location of the replacement well is correct.

Karen Schlaak

Karen Schlaak
Environmental Scientist



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

JAN 18 2005

City of Eureka
%Mark Opp, Mayor
PO Box 655
Eureka SD 57437

Dear Mayor Opp:

Enclosed are Water Permit Nos. 6537-3 & 6538-2 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

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

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

Sincerely,

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

enclosures

Permit No. 6538-3
Missouri 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, **September 17, 2007**, made a thorough examination of the water use system constructed by the **City of Eureka** of **PO Box 655, Eureka, SD 57437** holder of Permit No. **6538-3**, bearing the priority of **August 30, 2004** authorizing the diversion of **0.56** cu. ft. per second of the waters of **Eureka Lake** for **Irrigation** purposes, in **McPherson** County.

Inspection contact & relationship **Ron Emmingson**
to permit holder, if applicable:

A. Works used to divert the water:

Pump:

- 1) Make **Aurora**
- 2) Model **06-1419327**
- 3) Capacity **140** GPM

Motor:

- 1) Make **Marathon Electric**
- 2) Horsepower rating **10** hp

B. Works used to apply water to beneficial use:

Series of underground pipe with sprinklers

Chemigation Equipment:

- 1) Does chemigate **N**

C. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by **Y**
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period **Y**
- 3) Exceptions to compliance are: **None**

The system is in **Good** condition with the point(s) of diversion located as follows:

Approximately 2480 feet north and 1245 east of the SW corner of Section 35-T127N-R73W
(N 45.77401, W -99.63014) (NW ¼ SW ¼)

The works are capable of diverting and conveying to the place of use **0.31** cu. ft. per second of water which is to be used for **Irrigation of the Golf Course**.

Report of Examination of Works

Permit No. 6538-3

Water has been put to beneficial use to the maximum extent as follows:

Section 36-T127N-R73W

SW ¼ NW ¼ - 7 acres

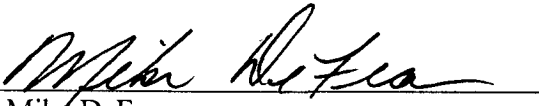
SE ¼ NW ¼ - 14 acres

comprising a total of **21** acres of land and the license should be issued for **0.31** cfs. *(0.3 cfs is statutory limit for 21 acres)*

All structures, wells and lands on map **Y**

Comments or other permit(s) associated with the project:

Water from the well authorized by Water Right No. 723A-3, Water Permit Nos. 6537-3 and 6735-3, flows into the lake to maintain water levels in both east and west Eureka Lakes. Water is then diverted from the lake to the golf course.



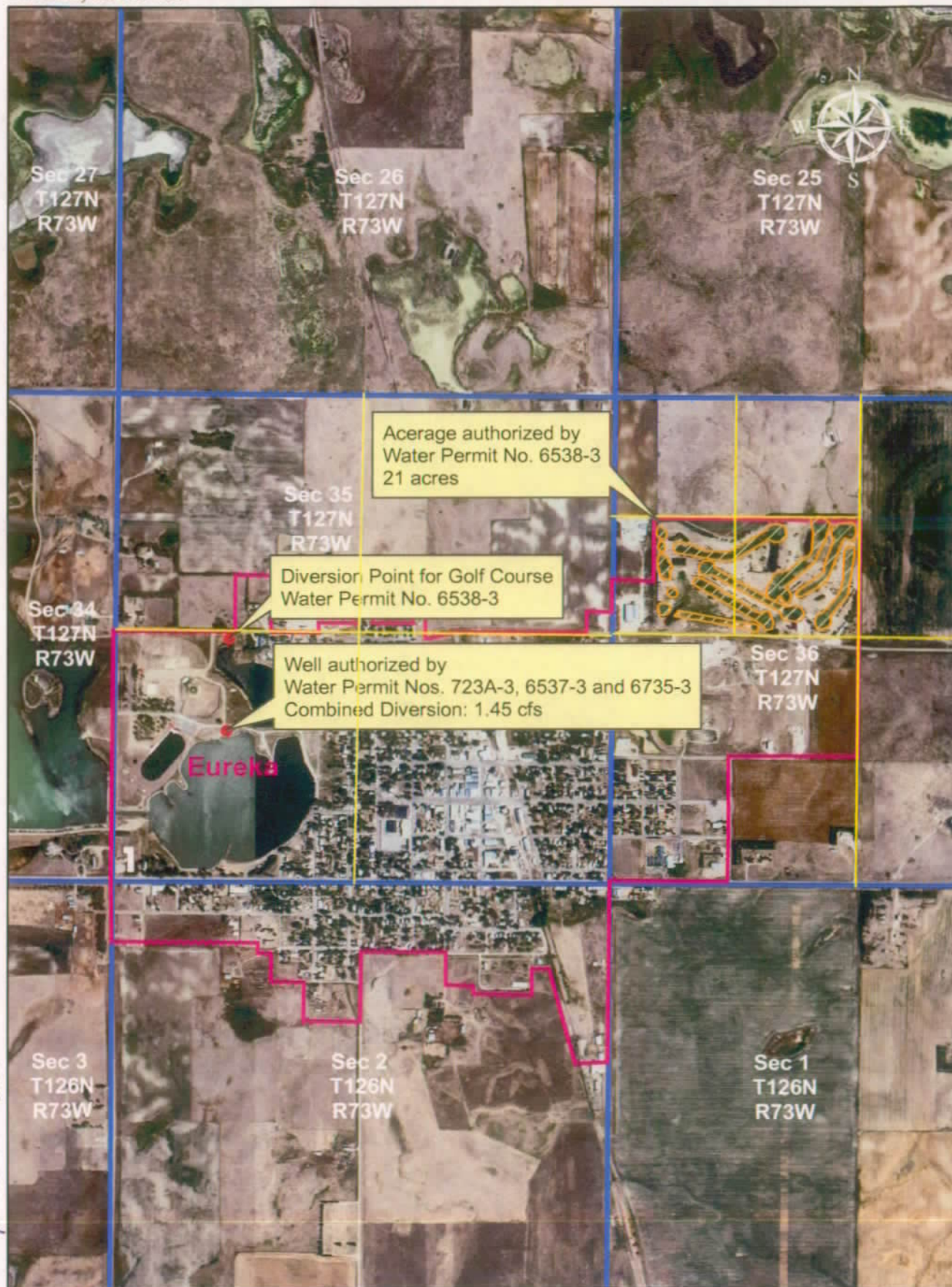
Mike DeFea

Natural Resources Project Engineer
DENR, Water Rights Program

Date report completed: **January 2, 2008**

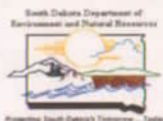
City of Eureka
PO Box 655
Eureka, SD 57437

Water Permit Nos. 6537-3, 6538-3 and 6753-3



Mike DeFea

Mike DeFea
Natural Resources Engineer
DENR, Water Rights Program
January 2, 2008



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DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

AUG 24 2009

723A-3
6538-3
6735-3

City of Eureka
Mark Opp, Mayor
PO Box 655
Eureka SD 57437

Dear Mayor Opp:

Enclosed are Water License Nos. 6538-3 and 6735-3. These are the final water right documents completing city's process of obtaining a Water Right. Also, included with the licenses is a map prepared by the staff engineer who conducted the investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 6735-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water Licenses, the State Water Laws provide that the city has a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

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

Note: The applicable portions of Water Right No. 723A-3 are incorporated into Water License No. ~~6538-3~~ ⁶⁷³⁵⁻³.

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 6538-3

(1) City of Eureka, PO Box 655, Eureka SD 57437 made Application No. 6538-3, August 28, 2001 for a water permit to divert 0.56 cubic feet of water per second from Eureka Lake, McPherson County, South Dakota for irrigation purposes. Permit No. 6538-3, with a priority date of August 30, 2004 was approved December 6, 2004 and issued to the applicant for diversion of water with construction of the described water supply system and the application to beneficial use of water completed.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 6538-3 is issued a license, bearing a priority date of August 30, 2004 to appropriate 0.30 cubic feet of water per second from Eureka Lake to irrigate 21 acres.

The diversion point is located: approximately 2,480 feet north and 1,245 feet east of the southwest corner of Section 35-T127N-R73W. The acres authorized for irrigation are as follows:

Section 36-T127N-R73W	SW $\frac{1}{4}$ NW $\frac{1}{4}$	7 acres
	SE $\frac{1}{4}$ NW $\frac{1}{4}$	14 acres
	Total	21 acres

Water from the well authorized by Water Right No. 6735-3, flows into the lake to maintain water levels in both east and west Eureka Lakes. Water is then diverted from the lake to the golf course.

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 6538-3 including the following now applicable qualifications:

- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

Garland Erbele

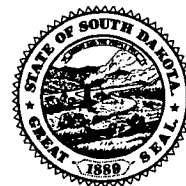
Garland Erbele, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

AUG 24 2009

date





DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

January 19, 2024

NOTICE

TO: CITY OF EUREKA, LLOYD MILLER, MAYOR, PO BOX 655, EUREKA, SD 57437 0655

FROM: Ron Duvall, Engineer III
for Eric Gronlund, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2023 Irrigation Questionnaire(s)

Our records indicate your 2023 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 6538-3. The request for the Questionnaire was dated October 20, 2023. The Water Management Board has directed owners of water permits who have not submitted the 2023 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 6538-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, March 6, 2024 at 9:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 6538-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 6, 2024** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Amanda Dewell at (605) 773-3352 or email at amanda.dewell@state.sd.us. **If you prefer, you can complete the questionnaire online at the following link: <https://danr.sd.gov/iq> using this password: WEBJDS**

NOTE: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

February 9, 2024

6538-3

City of Eureka
c/o Lloyd Miller, Mayor
PO BOX 655
Eureka SD 57437

Dear Mr. Miller:

I am writing to acknowledge the receipt of your 2023 irrigation questionnaire(s).

You may disregard the January 19, 2024, "Notice" concerning the reporting requirements for Water Permit No(s). 6538-3. The information was received prior to the March 6, 2024, Water Management Board meeting and this permit number has been removed from the agenda.

If you have any questions, please contact me.

Sincerely,

Amanda Dewell
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

May 2, 2024

6538-3

City of Eureka
c/o Lloyd Miller
PO Box 655
Eureka SD 57437

Dear Mr. Miller:

I am writing in regard to Water Right No. 6538-3. The water right authorizes diversion 0.3 cfs (approx. 135 gpm) of water from Eureka Lake, for the irrigation of 21 acres in the S $\frac{1}{2}$ NW $\frac{1}{4}$ Section 36, T127N-R73W, McPherson County.

In reviewing your 2023 irrigation questionnaire, we have found discrepancies in the amount of water used and have some concerns. Enclosed is a copy of your questionnaire for reference purposes.

Water Right No. 6538-3 allows you to use up to 2 acre-feet (ac-ft) (24 inches) of water, per acre, per year. On the questionnaire you reported substantially more water use. The following information is what was reported and what is authorized:

- 21 acres irrigated
- Reported water use – 74.25 ac-ft of water (approximately 42.5 inches)
- Authorized water use – 42 acre-feet (21 acres x 2 ac-ft per year)

We realize that water use depends greatly on climactic conditions and may vary year to year. However, it is very rare that irrigators come close to the 24 inches per acre that is authorized. Typical water use is between 8 and 12 inches per acre. The information we receive each year from irrigators across the state is very valuable. The water use data supplied by irrigators is one of the tools we use to help determine whether an aquifer or stream is nearing full appropriation.

If you do in fact apply as much water as claimed on your questionnaire, you are exceeding the limits of your water right and will have to reduce your discharge to stay within the authorized limit. If you simply estimated your water use, we ask that you please ensure the information reported is as accurate as possible. As stated before, the information you provide to us is very valuable. If you have any questions, please contact me.

Sincerely,

Amanda Dewell
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us

NOTE: Water Right No. 6538-3 authorizes a diversion rate of 0.3 cubic feet or water per second (approx. 135 gallons per minute). The 2023 irrigation questionnaire you submitted lists a pump rate of 475 gpm. A new permit would be required to increase the rate of diversion from 0.3 cfs to 1.05 cfs.

enclosure