

WATER PERMIT NO. 8038-3

Name of Applicant: **Ronald W Marone**

Address: **21856 405th Ave, Cavour SD 57324** Phone: **605 3503907**

Amount of Water Claimed: **2.28 cfs** Total Acres: **160**

Source of Water Supply: **groundwater (one existing well)**

Water to be used for: **irrigation** County: **Beadle**

Type of Waste Disposal System:

Location: **approximately 5 miles southeast of Huron**

PRIORITY Date Received: **7-16-14** Application/License Fee: **\$1050**

Corrected Application Received: Period of Annual Use: **May 1 – October 1**

Remarks: **Cancelled Permit No. 2480A-3 once covered irrigation of these acres**

Diversion Point: **center SW 1/4 Sec 35-T110N-R61W**

Land to be Irrigated: **SW 1/4 Sec 35-T110N-R61W**

Depth of Well: **80 feet deep**

Well Driller: **Huron Drilling**

Remarks:

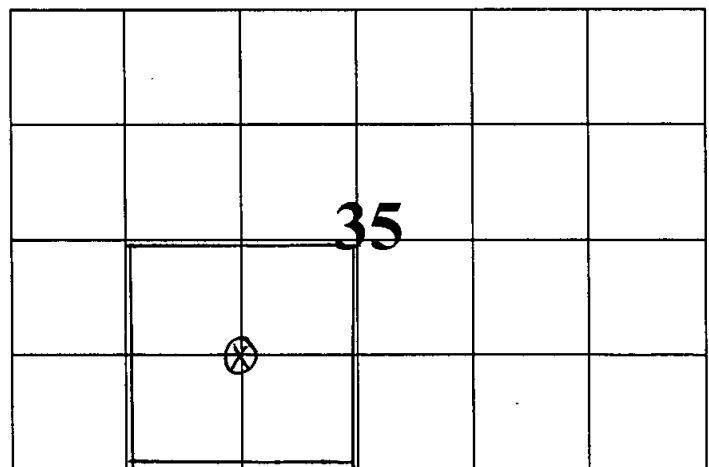
Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **7-17-14**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



FORM 2: Application for irrigation in South Dakota
(type or print)

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8038-3</u> (office use only) Hydrologic Unit <u>10160006</u>
	Basin <u>James River</u>
	Newspaper <u>Plainsman P.O. Box 1278</u>
	<u>Huron 57350 605-353-7401</u>

RECEIVED
JUL 16 2014
WATER RIGHTS
PROGRAM

Application For Permit To Appropriate Water For Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____
(Use predates Mar 2, 1955)

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

1. Name to Appear on Irrigation Permit RONALD W MARONE

(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent

(name and complete address if different than above name)

Mailing Address 21536 405th AVE (Address) Cavour (City) SD (State) 57324 (Zip Code)

Home Phone 605-352-5515 Cell 605-350-3907 Email 2rmarone@gmail.com

2. Amount of water claimed 2.28 *CFS or **GPM ***AF Total Acreage 160
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply GROUNDWATER

4. Location of point of diversion CENTER OF SW1/4 SEC 35 T110N-R61W

(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County Beadle

5. County or counties where water will be used BEADLE

6. Annual period during which water is to be used MAY1 TO OCT1

7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
NW1/4 OF SW1/4 SEC35 T110N-R61W	40		
NE1/4 OF SW1/4 SEC 35 T110N-R61W	40		
SW1/4 OF SW1/4 SEC 35 T110N-R61W	40		
SE1/4 OF SW1/4 SEC 35 T110N-R61W	40		

8. Give a description of the project. (Attach sheet if more space is needed)
THIS WILL BE A CENTER PIVOT LOW PRESURE DROP NOZEL SYSTEM.

I, Ronald W Marone, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

**SOUTH DAKOTA
WATER PERMIT NO. 8038-3**

Date of first receipt of application July 16, 2014.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8038-3 to Ronald W Marone, 21536 405th Ave, Cavour SD 57324 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. 8038-3 appropriates 2.28 cubic feet of water per second from one existing well completed into the Floyd:East James Aquifer (80 feet deep) located in the center of the SW 1/4 Section 35 for irrigation of 160 acres located in the SW 1/4 Section 35; all in T110N-R61W.
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: May 1 – October 1.
3. The date from which applicant may claim right is July 16, 2014.
4. The date of approval of Permit No. 8038-3 is October 6, 2014.
5. One-fifth of the construction is to be completed on or before April 6, 2017.
6. All construction is to be completed on or before October 6, 2019.
7. Water is to be put to beneficial use on or before October 6, 2023.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Permit No. 8038-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: 

Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

OCT 15 2014

date



Supplemental Information

(type or print)

1. Well Information

(check one or both as applicable) ☐ Drilling new well(s) ☒ Using existing well(s)

- a) If new wells, how many _____ Have test holes been drilled ☐ Yes ☐ No Drilled by _____
(if yes, please provide copies of logs)
- b) If existing wells, how many 1 Provide copy of log(s), if available. Drilled by _____
- c) Well Depth _____ Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____
- d) Distance to nearest existing domestic well _____
On applicant's 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

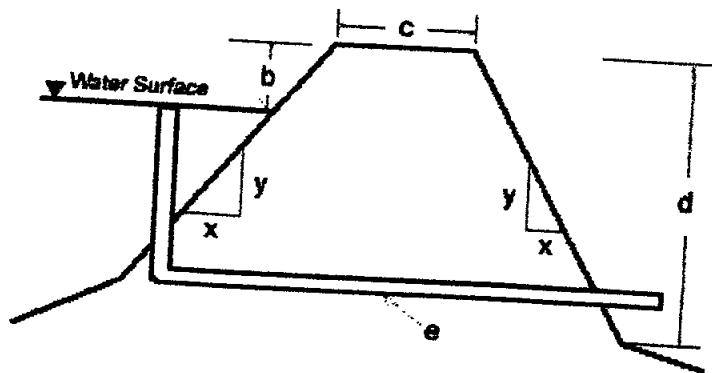
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

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: _____

- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope (e.g. 3 to 1 is a typical slope)
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres

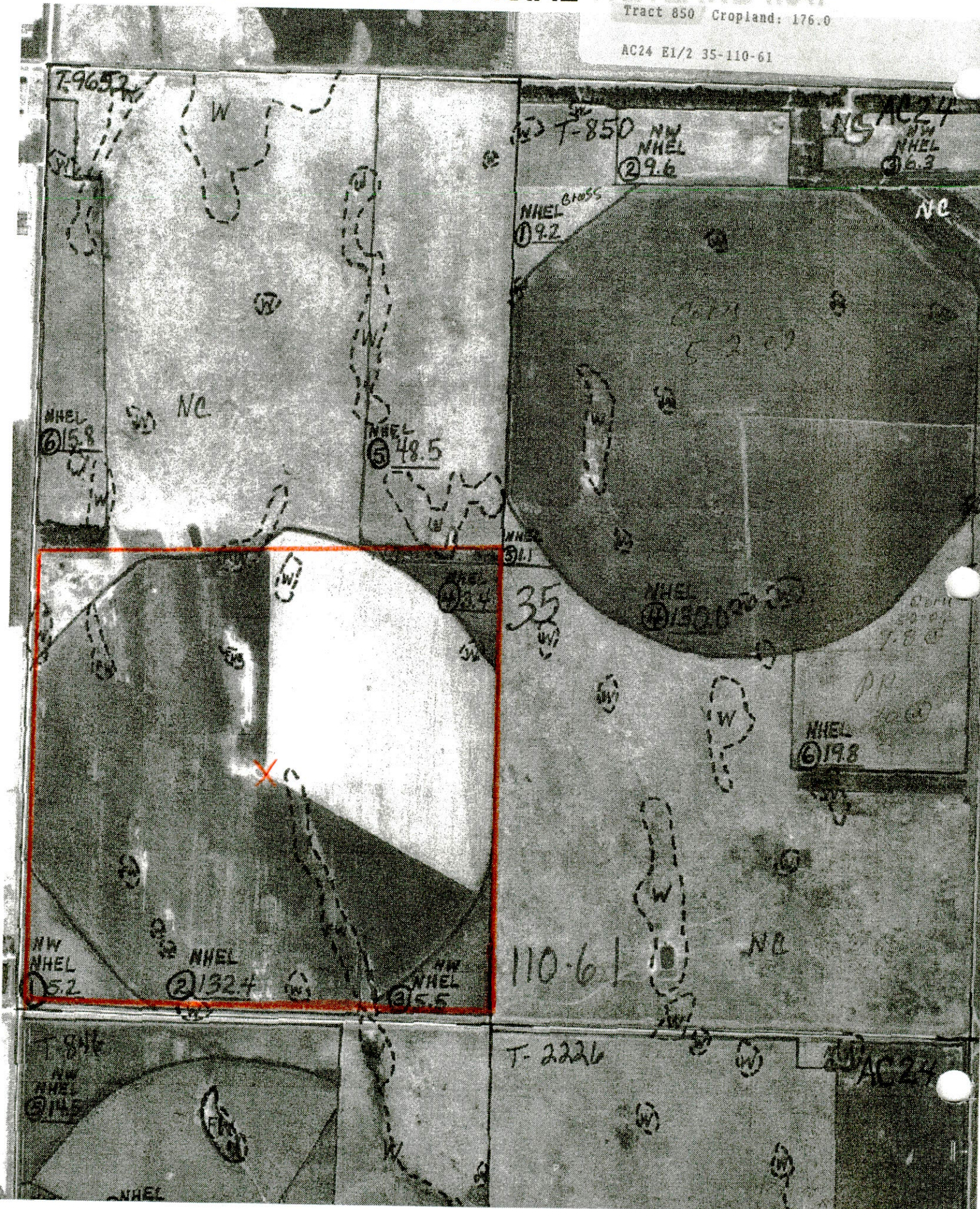


MAP NOT TO SCALE
THIS IS NOT AN OFFICIAL

2002 5056 RONALD MARONE

Tract 850 Cropland: 176.0

AC24 E1/2 35-110-61



Sec. 26, T110N, R61W

Well: SE $\frac{1}{4}$ NW $\frac{1}{4}$, 1400' E & 100' N of
SW corner of NW $\frac{1}{4}$,

78' deep, Plastic Casing, Steel Screen

Pump: Byron Jackson, Serial # 771P7107

Motor: General Electric, Model 5K6254XN501A,
60 H.P.

Pipe: 150' of buried 8" PVC to north pad

1320' of buried 8" PVC to south pad

Pivot: Zimmatic, Model 307, Serial # L14595,
7 towers, operated at 45 psi

Sec. 35, T110N, R61W

Well: Approx. Center SW $\frac{1}{4}$, ~~SE~~ 30' W & 10' N
of center of SW $\frac{1}{4}$

80' deep, 16" Plastic Casing, Plastic Screen

Pump: Aurora Vertiline, Type 10RHM, 6 Stage

Motor: General Electric, Model 5K6248XH4A
50 H.P.

Pipe: 35' of buried 8" PVC

Pivot: Electrogator, Model Z-6E5, Serial #
576C3308, 8 Towers, Operated at 80 psi

Sec. 35, T110N, R61W

NW $\frac{1}{4}$ SW $\frac{1}{4}$ - 33 acres

NE $\frac{1}{4}$ SW $\frac{1}{4}$ - 33 "

SE $\frac{1}{4}$ SW $\frac{1}{4}$ - 33 "

SW $\frac{1}{4}$ SW $\frac{1}{4}$ - 33 "

VICTORY DRILLING INC. WILLOUGHBY, OH

PAGE NO.

JOB NAME		S.E. 1/4, 15-110-61 S.W. 1/4, 26-110-61		DATE		RIG NO.		Cory Peterson FOREMAN	
DEPTH	TIME	Test Hole # 1		REMARKS					
1	20	0-8 Sand Yellow Clay @ 8		S.E. & S.W. 35-110-61 Bradley County					
2	40	10-20 Rock							
3	60	25-35 Sand & Gravel							
4	80	35 Blue Clay							
5	95	40-60 BB size gravel good stuff							
		60-80 BB size gravel good stuff		S.W. & N.W. 26-110-61 Bradley County					
		80-85 BB size gravel good stuff							
		85-95 Shale							
		Test Hole # 2 Cased Up							
		Yellow Clay							
1	20	15 Blue Clay Rock @ 15 Small		S.W. & N.W. 26-110-61 Bradley County					
2	40	35-40 Gravel Good							
3	60	40-60 Gravel							
4	80	60-75 Gravel							
		75-80 Shale							
		Time-1 day		S.W. & N.W. 26-110-61 Bradley County					
		2 Slotted Plastic							
		2 Blank Plastic							
		Water Head 15 ft. Pumped 2.0 GPM							
		2000# Conc. sand							
		Test Hole # 3		S.W. & N.W. 26-110-61 Bradley County					
1	20	0-20 Sand Some Yellow Clay							
2	40	20-40 Sand-dark red f. ss							
3	60	40-60 Coarser than above							
4	80	60-75 Coarser than above							
		75-80 Shale		S.W. & N.W. 26-110-61 Bradley County					
		Test Hole # 4							
1	20	0-12 Sand Yellow							
2	40	Rock @ 12							
3	60	12-20 Sand Yellow							
4	80	20-30 Sand Yellow		S.W. & N.W. 26-110-61 Bradley County					
5	92	30-31 Gravel streak							
		31-40 Dark Sand							
		40-60 Sand w/some gravel streaks							
		60-80 Good Gravel							
		80-82 Shale							

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date July 17, 20 14
Ronald Marone, 21536 405 th Ave, Cavour SD 57324

RECEIVED OF _____

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

Fee for Application for Permit No. <u>8038-3</u> to Appropriate Water, to construct and to put water to beneficial use	850	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>8038-3</u>	200	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	1050.00

No. **06904**

By Jeanne Goodson
Chief Engineer JKS



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov



**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8038-3, Ronald W Marone**

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. 8038-3, Ronald W Marone, 21356 405th Avenue, Cavour SD 57324.

The Chief Engineer is recommending APPROVAL of Application No. 8038-3 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. The well approved under Permit No. 8038-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

Jeanne Goodman, Chief Engineer
September 15, 2014

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 8038-3
RONALD W MARONE
SEPTEMBER 11, 2014

Water Permit Application No. 8038-3 proposes to appropriate water at a maximum diversion rate of 2.28 cubic feet of water per second (cfs) from an existing well (80 feet deep) completed into the Floyd: East James aquifer in the approximate center of the SW ¼ Section 35 for the irrigation of 160 acres located in the SW ¼ Section 35; all in T110N-R61W in Beadle County. Cancelled Water Permit No. 2480A-3 previously authorized the irrigation of the same acres as this application.

AQUIFER: East James management unit of the Floyd aquifer (F: EJ)

Aquifer Characteristics:

The Floyd: East James aquifer is a complex system of interconnected outwash deposits that is confined by till (Hansen, 1983). The aquifer underlies approximately 374,600 acres of Beadle, Hanson, Kingsbury, McCook, Miner, and Sanborn counties (Buhler, 2012). The aquifer has a variable thickness that can be up to 118 feet thick with an average of approximately 30 feet (Buhler, 2012). The aquifer is predominantly under confined conditions with static water levels ranging from approximately 70 feet below ground surface to flowing at ground surface (Water Rights, 2014a).

The well log submitted with the application identified yellow and blue clay from 0 to 35 feet below grade, sand and gravel from 35 to 75 feet below grade and shale from 75 to 80 feet below ground surface. At the well site, the static water level is approximately 20 to 30 feet below grade (Water Rights, 2014a and 2014c).

South Dakota Codified Law (SDCL) 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for this applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water and effects on existing rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY:

This application proposes to appropriate water from the Floyd: East James aquifer. If this application is approved, average annual water use will likely be less than 145 acre-feet annually (ac-ft/yr). The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source." If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a

permit, the Board need not consider the recharge/withdrawal issue. In this case, the aquifer is not stratigraphically lower than the Greenhorn Formation and the applicant is not a public water system.

In applying SDCL 46-6-3.1, the Sixth Judicial Circuit Court ruled in 2005 that if the Water Management Board uses average annual recharge, then it should also use average annual withdrawals to determine if unappropriated water is available from the aquifer (*Hines v. South Dakota Dept. of Environ. and Nat'l Resources, Hughes County 04-37*) (Memorandum Decision, April 29, 2005).

A 2012 First Judicial Circuit Court's rulings ultimately stated that data must be present to show it is probable the average annual recharge exceeds the average annual discharge by at least the amount requested by the water permit application being considered (*Hanson County Dairy v. Robert Bender and Stace Nelson*) (Memorandum Decision, April 11, 2012).

Later in 2012, the First Judicial Circuit Court stated that in deciding whether or not it is probable that the quantity of water withdrawn will exceed the quantity of the average estimated annual recharge is to be based according to the best information reasonably available, and that nothing in South Dakota law requires a recharge study (*Longview Farms, LLP v. South Dakota Dept. of Environ. and Nat'l Resources*) (Memorandum Decision, May 17, 2012).

Observation Well Data:

Administrative Rule of South Dakota Section 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DENR-Water Rights Program monitors 51 observation wells completed into the Floyd: East James aquifer (Water Rights, 2014a). A map of the project area including observation wells and water rights/permits authorized to withdraw water from the Floyd: East James aquifer is shown in Figure 1. The hydrographs for the nearest of the observation wells are shown in Figures 2, 3, and 4. The hydrographs for observation wells completed into the Floyd: East James aquifer show stable or increasing water levels over the period of record (Water Rights, 2014a).

The water levels in the observation well hydrographs show in this report are representative of the aquifer. The water level in the observation wells shows good response to climatic conditions. The water level rises (recharge) during wet years and gradually declines during dry years. The climatic effects on water level greatly mask the temporal impacts of well withdrawals. Therefore, recharge to and natural discharge from the Floyd: East James aquifer can be captured for pumping, and the hydrographs document that unappropriated water is available for this proposed appropriation.

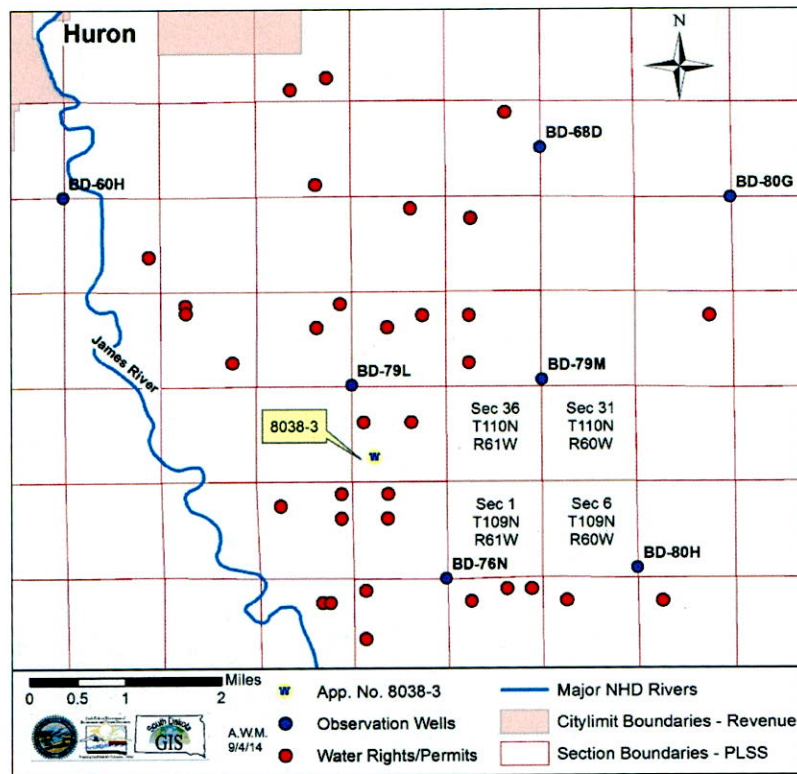


Figure 1- Map of the area of App. No. 8038-3 including observation wells and water rights/permits (Water Rights, 2014a and 2014b)

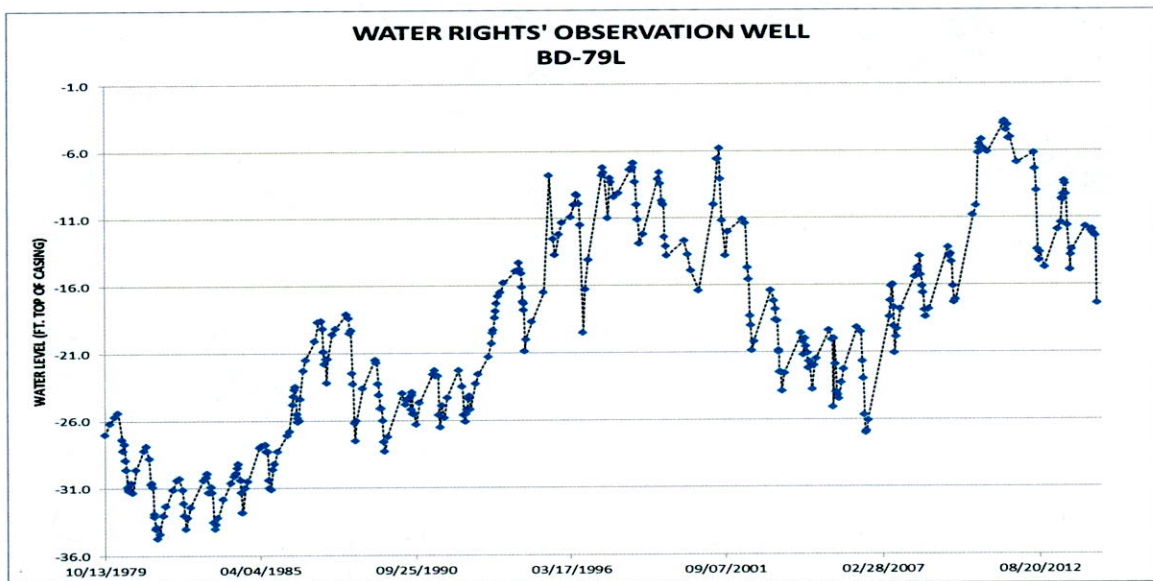


Figure 2- Hydrograph for observation well BD-79L (Water Rights, 2014a)

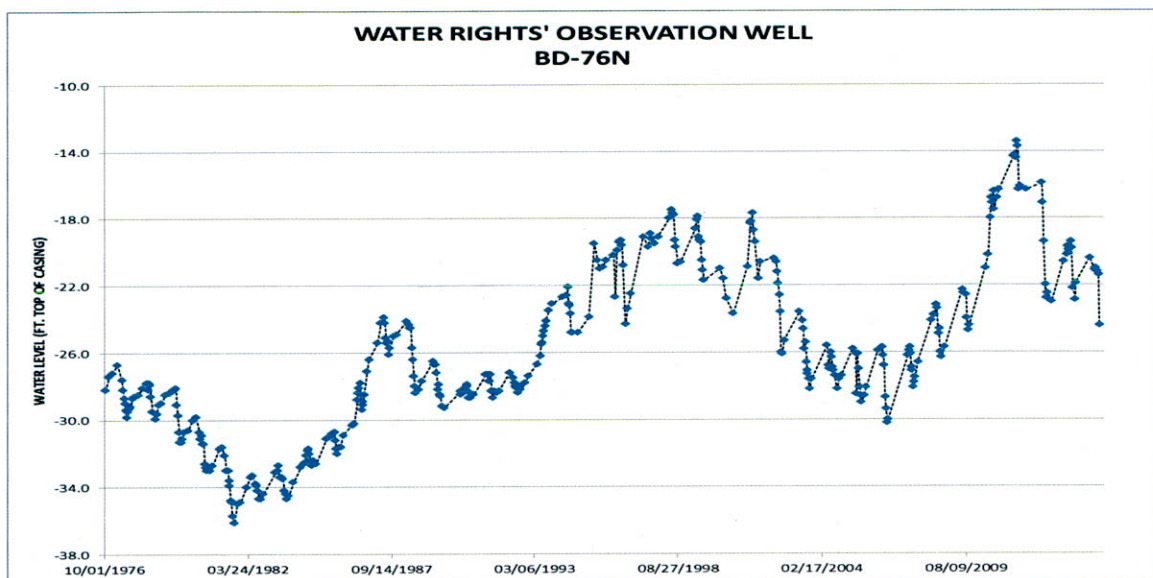


Figure 3- Hydrograph for observation well BD-76N (Water Rights, 2014a)

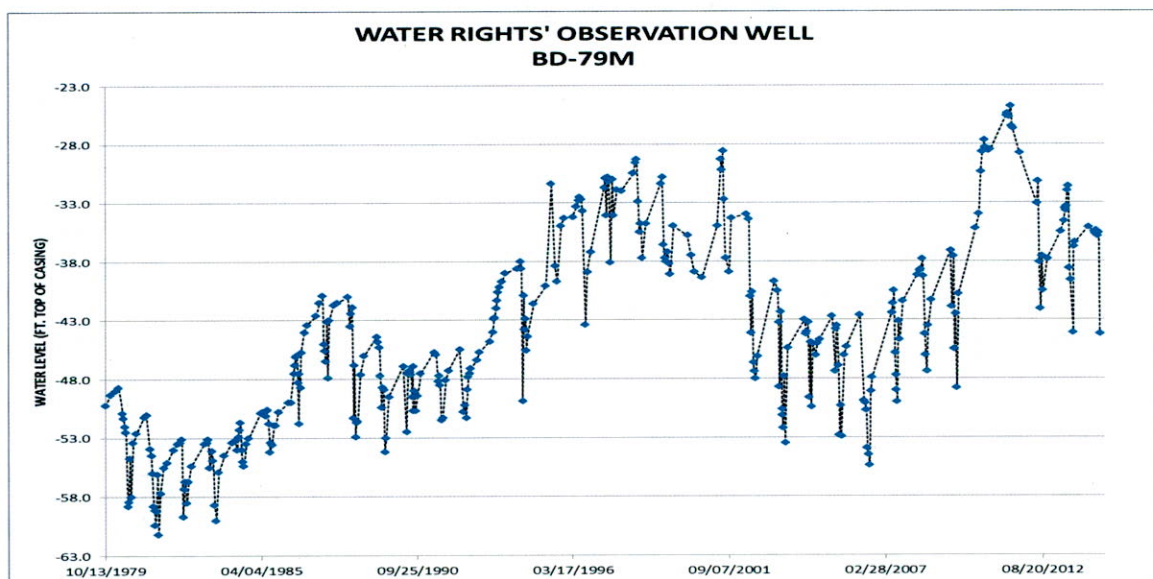


Figure 4- Hydrograph for observation well BD-79M (Water Rights, 2014a)

Recharge and Discharge:

Recharge:

Recharge to the Floyd: East James is primarily from the underlying bedrock. The aquifer is underlain by the Carlile Shale, Niobrara Marl, Pierre Shale, and Sioux Quartzite. The Floyd: East James aquifer is hydraulically connected to the Niobrara and Codell (a member of the Carlile Shale) aquifers in Miner County (McGarvie, 1983). Recharge also comes from leakage from the Sioux Quartzite Wash aquifer in Hanson County (Hansen, 1983). The thickness of the overlying glacial till likely prevents the direct infiltration of much of the precipitation. However, some recharge to the Floyd: East James aquifer may occur by direct infiltration and runoff into permeable surface deposits and percolation into the aquifer (Howells and Stephens, 1968).

Publication	Method	Recharge Rate (in/yr)	Estimated Volume (ac-ft)
Hedges et. al, 1985	Regional flow-net analysis (confined portion only)	0.3	9,365
	Observation well analysis (unconfined portion only)	3.4	area undefined
Emmons, 1988	Digital simulation (range)	0.24-0.72	7,492-22,475
	Digital simulation (steady state)	0.487	15,202
Buhler, 2012	Flow-net	0.42	13,213

Table 1- Estimated average annual recharge to the Floyd: East James aquifer (modified from: Buhler, 2012)

Discharge:

Discharge from the aquifer occurs through groundwater outflow and well withdrawals (Howells and Stephens, 1968). Currently, there are 67 water rights/permits authorized to appropriate water from the Floyd: East James aquifer (Water Rights, 2014b). There are six water rights for non-irrigation purposes (see Table 2). The amount of water that can be expected to be withdrawn by non-irrigation appropriation is estimated by assuming pumping at the maximum permitted diversion rate for 60 percent of the time.

Permit No.	Name	County	Status	Use	CFS	Est. Volume (ac-ft)
5397-3	OUR HOME INC	BD	LC	INS/DOM	0.056	24.3
5488-3	FAITH MENNONITE CHURCH	BD	LC	INS	0.05	21.7
5734-3	CITY OF HURON	BD	LC	MUN	0.02	8.7
6025-3	EDNEY DISTRIBUTING CO	BD	LC	COM	0.022	9.6
6290-3	LINDBERG SPECIALTIES LLC	BD	LC	COM	0.022	9.6
6321-3	CITY OF HURON	BD	LC	MUN	0.04	17.4
BD= Beadle, LC= Water Rights, INS= Institutional, Dom= Domestic, MUN= Municipal, COM= Commercial						

Table 2- Non-irrigation water rights authorized to appropriate from the Floyd: East James aquifer and the estimated annual water use (Water Rights, 2014b)

Historic irrigation pumpage from the Floyd: East James aquifer is shown in Table 3. Estimated average annual appropriative withdrawal from the Floyd: East James aquifer in South Dakota is 2,445.4 ac-ft/yr.

There are a number of domestic wells completed into the Floyd: East James aquifer (Water Rights, 2014c). Buhler (2012) estimated the domestic use to range from 88 to 243 ac-ft/yr. Considering the methodology, how recent the data is, and the wide range, Buhler's (2012) estimate for domestic use from the aquifer is valid.

Hydrologic Budget:

Estimated annual appropriative use is 2,536.7 ac-ft/yr plus 88 to 243 ac-ft/yr for domestic use. Estimated average annual recharge ranges from 7,492 to 22,475 ac-ft/yr. Considering the relatively low use compared to the estimated recharge to the aquifer, there is a reasonable probability that unappropriated water is available for this proposed appropriation.

Year	No. of Permits Reporting	Appropriation (ac-ft)	Pumpage Reported (ac-ft)
2013	55	22330	2234.45
2012	52	21500	2911.63
2011	52	21018	703.01
2010	50	20882	312.05
2009	53	21896	1203.88
2008	53	21944	2356.11
2007	54	22122	2403.5
2006	54	22122	3799.91
2005	54	22124	2982.73
2004	55	22332	2704.98
2003	50	20899	3393.92
2002	48	20508	3591.92
2001	46	19868	1875
2000	46	19793	1535.38
1999	46	19936	1258
1998	46	19936	1718.61
1997	48	20575	1580
1996	47	20050	2412.31
1995	48	20683	1326.21
1994	47	20062	2636.75
1993	48	20399	303.3
1992	49	20737	1774.5
1991	53	22319.2	2994.1
1990	55	22325.2	2146.7
1989	54	22981.2	4158.4
1988	55	23386.2	4782.2
1987	57	24454.2	2470
1986	63	27027.2	1078
1985	65	28815.2	1680
1984	68	32877.2	1842
1983	56	24943.2	3337.73
1982	57	25059.2	2228
1981	93	44923	5180
1980	83	42399	2854
1979	78	40002	2628
Min	46	19793	303.3
Max	93	44923	5180.0
Avg	55.4	24092.2	2354.2

Table 3- Irrigation water use from the Floyd: East James aquifer in South Dakota (Water Rights, 1980-2014)

EXISTING WATER RIGHTS:

There are 11 water rights/permits authorizing wells completed into the Floyd: East James aquifer within approximately 1.5 miles of the well site (see Figure 1) (Water Rights, 2014b). The nearest well to the well site authorized by an appropriative right completed into the Floyd: East James aquifer is approximately 0.4 miles away from the well site. There are a number of domestic wells on file with the SD DENR-Water Rights Program within approximately 1.5 miles of the well site that appear to be completed into the Floyd: East James aquifer (Water Rights, 2014c).

Both observation well BD-79L and BD-76 N are within approximately one mile of at least four high capacity irrigation wells, as shown in Figure 1. The hydrographs for the observation wells are shown in Figures 2 and 3, respectively. The hydrographs document there is very minimal effects from pumping on the water level of the aquifer. Therefore, an adequate well as defined in ARSD 74:02:04:20(6) should not be adversely impacted by pumping this proposed diversion.

SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery and the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. To balance interests between irrigation use and delivery of water by artesian pressure, the Water Management Board defined an "adversely impacted domestic well" in ARSD 74:02:04:20(7) as:

"a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner's needs"

Depending on the specific characteristics of the Floyd: East James aquifer at the well site proposed by this application, some existing well owners may need to lower their pumps to accommodate for deeper water levels. However, when considering the statute (SDCL 46-6-6.1) and rule (ARSD 74:02:04:20(7)), well interference from this proposed appropriation is not likely to cause a significant impact. Therefore, there is a reasonable probability that any interference will not be adverse.

CONCLUSIONS:

1. This application proposes to appropriate water from the Floyd: East James aquifer at a maximum diversion rate of 2.28 cfs for the irrigation of 160 acres in Beadle County.
2. There is a reasonable probability that unappropriated water is available from the Floyd: East James aquifer for this proposed appropriation.
3. There is a reasonable probability that the diversion proposed by this application can be made without adversely impact existing appropriative or domestic users.



Adam Mathiowetz
SD DENR-Water Rights Program

Approved by:



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Buhler, K.A. 2012. Report on Water Permit Application No. 7239-3 Hanson County Dairy. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, South Dakota.
- Circuit Court of South Dakota, First Judicial Circuit, 2012, May 17, 2012 Memorandum Decision re: Longview Farms, LLP v. South Dakota Dept. of Environ. and Nat'l. Resources.
- Circuit Court of South Dakota, First Judicial Circuit, 2012, April 12, 2012 Memorandum Decision re: Hanson County Dairy v. Robert Bender and Stace Nelson.
- Circuit Court of South Dakota, Sixth Judicial Circuit, 2005, April 29, 2005 Memorandum Decision re: HU04-37 Hines v. SD Department of Environment and Natural Resources.
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- McGarvie, S.D. 1983. Major Aquifers in Miner County, South Dakota. SD DENR-Geological Survey Information Pamphlet No. 20. SD DENR-Geological Survey, Vermillion, SD.
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- Water Rights. 2014a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2014b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2014c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

PRINTER'S AFFIDAVIT

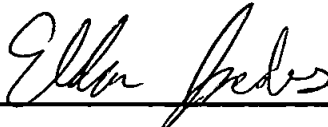
STATE OF SOUTH DAKOTA,
COUNTY OF BEADLE: ss

RECEIVED
OCT 07 2014
WATER RIGHTS
PROGRAM

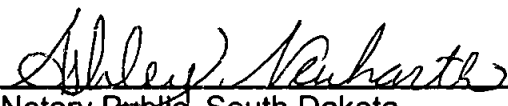
I, ELDON JACOBS, being duly sworn on oath say that the PLAINSMAN is a daily paper published at Huron, Beadle County, South Dakota, and that said newspaper has a bona fide circulation of at least 250 copies daily; that said newspaper has been published within said county for fifty-two consecutive weeks immediately prior to this date, that said newspaper is printed in whole or in part, in an office maintained at said place of publication; that I am Legal Advertising Coordinator of said newspaper and know the facts herein state. The annexed notice headed:

**SD ENVIRONMENTAL & NATURAL –
WATER RIGHTS – RON MARONE**

was published for one day, in said newspaper, and not in any supplement of the said newspaper, the publication was of the 24TH day SEPT 2014. That the full amount of the fee charged for publishing is: THIRTY-FOUR & 12/00 dollars insures to the benefit of the publisher of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whom so ever.



Subscribed and sworn to me before this 24TH day of SEPT 2014.



Notary Public, South Dakota

My term expires 10/25/2017
Legal #1453

F.P. 09-24-14

**NOTICE OF
APPLICATION
NO. 8038-3 to**

Appropriate Water

Notice is given that Ronald W. Marone, 21536 405th Ave, Cavour SD 57324 has filed an application for a water permit to appropriate 2.28 cubic feet of water per second from one existing well completed into the Floyd East James Aquifer (80 feet deep) located in the center of the SW 1/4 Section 35 for irrigation of 160 acres located in the SW 1/4 Section 35; all in T110N-R61W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8038-3 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 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 October 6, 2014.

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.

No. 1453 (adv.)
Published once at the total approximate cost of \$34.12.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov



September 15, 2014

Plainsman
PO Box 1278
Huron SD 57350

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 8038-3 to Appropriate Water. Please publish the notice once on September 24, 2014. 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 and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Ronald W Marone, 21356 405th Ave, Cavour SD 57324 (Ph # 605-352-5515).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

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

Ruby (Newman) Crandall
Creative Services Supervisor

Plainsman/Payday/Print Shop
49 3rd Street SE
Huron, SD 57350

605-353-7412

1-800-859-3045, ext. 412

fax: 605-353-7422

newman.plainsman@midconetwork.com

On Sep 16, 2014, at 8:17 AM, Schlaak, Karen wrote:

Attached is a Notice of Application No. 8038-3 to be published on September 24, 2014. The applicant is Ronald W Marone, 21356 405th Ave, Cavour SD 57324 (h-605 352-5515 or c-605 350-3907) Mr. Marone has been notified to contact you to authorize publication and arrange for payment.

Thanks,

Karen Schlaak

Water Rights Program
523 E Capitol Ave
Pierre SD 57501
Phone: 605 773-3352

<8038-3public.short.docx>

<8038-3public.short.docx>



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



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

September 15, 2014

Ronald W Marone
21356 405th Ave
Cavour SD 57324

Dear Mr. Marone:

Water Permit Application No. 8038-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Plainsman printed at Huron SD (Ph # 605-353-7401). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352
enclosures

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

Instruction to Newspaper - Publish the Notice on September 24, 2014. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 8038-3 to Appropriate Water

Notice is given that Ronald W Marone, 213⁵³⁶~~56~~ 405th Ave, Cavour SD 57324 has filed an application for a water permit to appropriate 2.28 cubic feet of water per second from one existing well completed into the Floyd:East James Aquifer (80 feet deep) located in the center of the SW 1/4 Section 35 for irrigation of 160 acres located in the SW 1/4 Section 35; all in T110N-R61W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8038-3 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 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 October 6, 2014.

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.

Published once at the total approximate cost of _____.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
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PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



OCT 15 2014

Ronald W Marone
21536 405th Ave
Cavour SD 57324

Dear Mr. Marone:

Enclosed is Water Permit No. 8038-3 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,


Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8038-3

I have this day, June 9, 2025, made a thorough examination of the water use system constructed by Ronald Marone, 21536 405th Ave, Cavour, SD 57324 of Permit No. 8038-3, bearing the priority of July 16, 2014 authorizing the diversion of 2.28 cu. ft. per second of the waters of the Floyd:East James Aquifer for irrigation purposes, in Beadle County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Huron Drilling
- 2) No. of Wells 1
- 3) Depth(s) 80 feet
- 4) Well log is available N If no, explain in comments

Comments: Nothing in DANR data base

Casing:

- 1) Diameter 16 inches
- 2) Length Unknown feet
- 3) Type Plastic

Screen:

- 1) Type Plastic
- 2) Length Unknown feet
- 3) Static water level Unknown feet

Pump:

- 1) Make Turbine - Western Land Roller
- 2) Model Unknown
- 3) Size Unknown
- 4) Capacity 650 GPM

Motor:

- 1) Make Unknown
- 2) Model No. Unknown
- 3) Horsepower rating 50 ? (hard to read) hp

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

- 1) Type Above ground Aluminum
- 2) Size 6 inches
- 3) Length 60 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Zimmatic
- 2) Overall length 1300 feet
- 3) Number of towers 7
- 4) End gun Y
- 5) Capacity 650 GPM

Chemigation Equipment:

- 1) Does chemigate N

D. 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

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: WELL LOCATION
From the SW corner Sec 35, T110N, R61W, 1360 ft N & 1260 ft E, Lat 44.28695 Long -98.12953
(approx. center of the SW 1/4).
2. The works are capable of diverting and conveying to the place of use 1.45 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:
legal description/acreage
All land in Sec 35 T110N R61W
NW 1/4 SW 1/4 - 34 acres
NE 1/4 SW 1/4 - 34 acres
SE 1/4 SW 1/4 - 34 acres
SW 1/4 SW 1/4 - 34 acres
comprising a total of 136 acres of land and the license should be issued for 1.45 cfs.
3. All structures, wells and lands on map Y

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

Used FSA maps and ArcGIS to estimate irrigated acres and construct the inspection map.

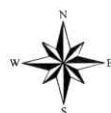
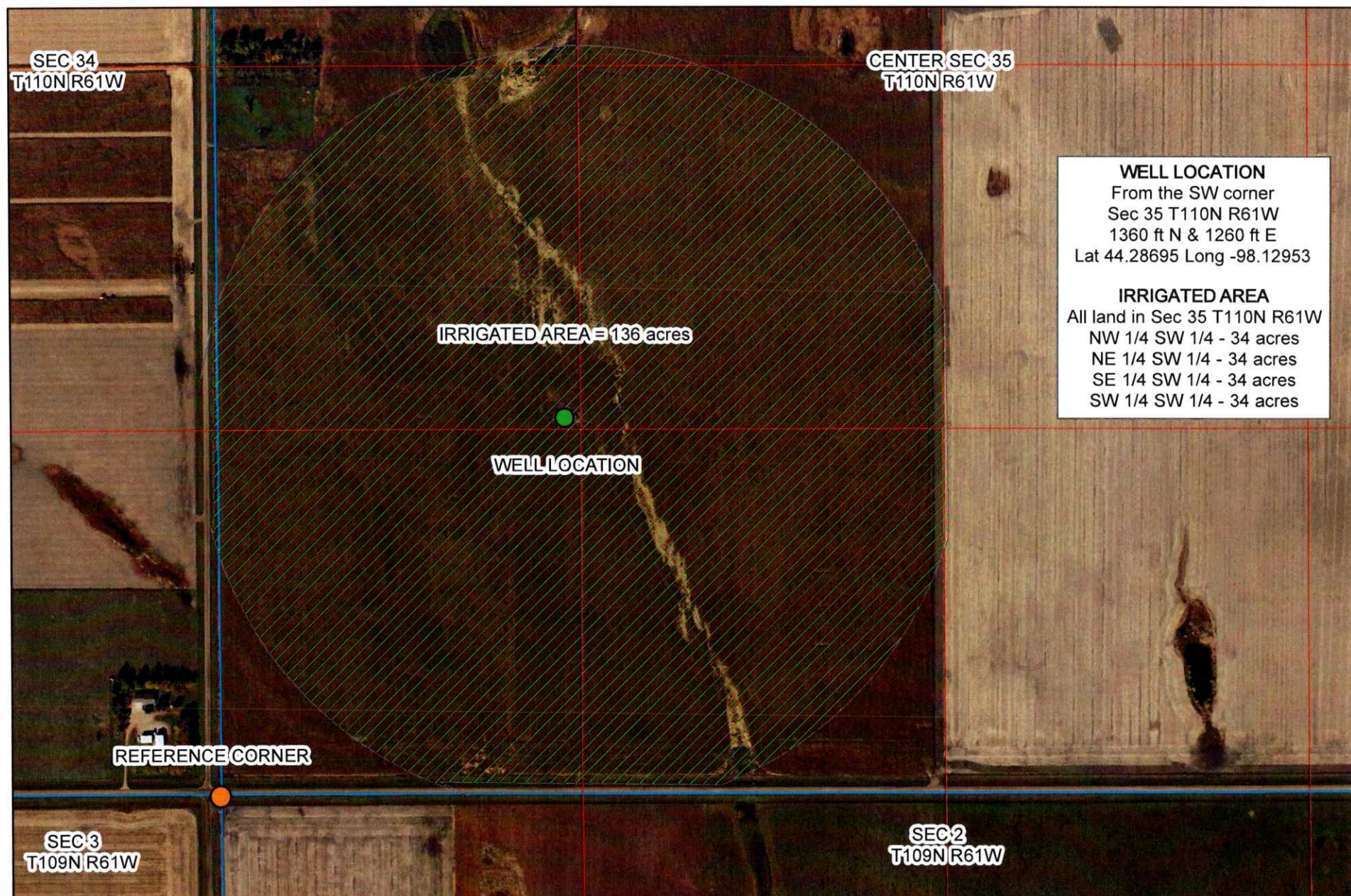
The pump rate reported in a recent Irrigation Questionnaire was used to establish the system flow capacity for the well.

The mailing address in the permit materials is current but the phone number for Mr. Ronald Marone is 605/350-3907 who was seen during the field inspection.



Darrell DeBoer
Water Rights Inspector
DENR, Water Rights Program

Date report completed: June 12, 2025



0 400 800 1,600 2,400 3,200 Feet



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

SEP 02 2025

8038-3

Ronald W Marone
21536 405th Ave
Cavour, SD 57324

Dear Mr. Marone:

Enclosed is Water License No. 8038-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, 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.

So 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. If you have any questions, please contact Amanda Dewell, Permitting Administrator, Water Rights Program (605) 773-3352.

Sincerely,

Mark Mayer, PE
Director of Office of Water
(605) 773-3352

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8038-3**

(1) Ronald W Marone, 21536 405th Ave, Cavour, SD 57324, made Application No. 8038-3, July 16, 2014, for a water permit to divert 2.28 cubic feet of water per second from groundwater, one well (Floyd: East James Aquifer), Beadle County, South Dakota for irrigation purposes. Permit No. 8038-3, with a priority date of July 16, 2014, was approved October 6, 2014, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before October 6, 2019, and for the application to beneficial use of water on or before October 6, 2023.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.45 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 1,360 feet N and 1,260 feet E from the SW corner of Section 35, T110N, R61W (approx. center SW $\frac{1}{4}$) (Latitude 44.28695 and Longitude -98.12953)

(3) The amount of 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: May 1 – October 1.

(4) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate to following land:

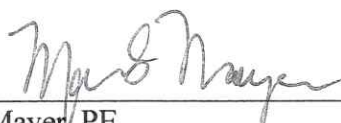
Section 35, T110N, R61W
NE $\frac{1}{4}$ SW $\frac{1}{4}$ - 34 acres
NW $\frac{1}{4}$ SW $\frac{1}{4}$ - 34 acres
SW $\frac{1}{4}$ SW $\frac{1}{4}$ - 34 acres
SE $\frac{1}{4}$ SW $\frac{1}{4}$ - 34 acres
Total – 136 acres

(5) Pursuant to South Dakota Water Law 46-5-30.1 Ronald W Marone, the holder and/or owner of Water Right No. 8038-3 is issued a license to appropriate water, the right to use 1.45 cubic feet of water per second from groundwater, one well (Floyd: East James Aquifer), with a priority date of July 16, 2014, from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8038-3 and subject to the following qualifications:

1. The well approved under Permit No. 8038-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

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



Mark Mayer, PE
Director of Office of Water

9/2/25
date

