

WATER PERMIT NO. 1919-1

Name of Applicant: Croell Redi-Mix Inc.

Address: PO box 1352, Sundance WY 82729 Phone: 307 283-2221

Amount of Water Claimed: 1.33 cfs Total Acres: NA

Source of Water Supply: 2 dugouts (1.38 AF storage)

Water to be used for: industrial use County: Butte

Type of Waste Disposal System:

Location: 1 mile east of Belle Fourche

PRIORITY Date Received: 12-27-10 Application/License Fee: \$1550.00

Corrected Application Received: Period of Annual Use: January 1 - December

Remarks: Water from primary dugout will be pumped to feed wash plant. Recycled water will discharged to second dugout, then recirculated back to primary dugout

Diversion Point: SE ¼ SW ¼ Sec 13-T8N=R2E

Land to be Irrigated: NA

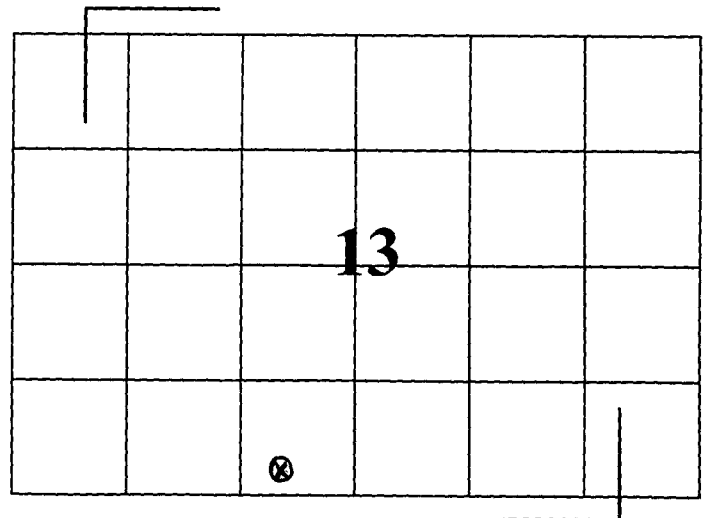
Depth of Well: NA

Well Driller:

Remarks:

Type of Map: aerial

Prepared by: Julie Ollerich, BU-LA Co FSA



Reviewed and the Number Assigned on: 1-3-11

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

Mail to: PMB 2020 DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	(office use only)	
	No. <u>1919-1</u>	Hydrologic Unit <u>10120203</u>
	Basin <u>Belle Fourche River</u>	
	Newspaper <u>Butte County Post 614 State St.</u> <u>605-892-2528 Belle Fourche 57717</u>	

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DEC 27 2010

WATER RIGHTS
PROGRAM

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

Check use(s) of water:

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

Type of Application:

(check one)

☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation

☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____

☐ Amendment/Correction to Permit No. _____

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

N/A

- Name of Applicant Credell Redi-Mix Inc. Phone 307-283-2221
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address PO Box 1352 Sundance WY 82729
(Address) (City) (State) (Zip Code)
- Amount of water claimed 1.33 *CFS or 1000 **GPM 1.33 ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (**Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Ground Water 1.00AF Consumptive Storage
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Butte
Dugouts located Section 13 T8N R2E (SE 1/4 SW 1/4)
- County or counties where water will be used Butte
- Annual period during which water is to be used 2011 Jan 1 - Dec 31
- Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

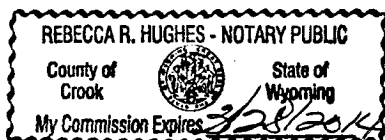
2 Dugouts will be constructed. Ground Water from the primary Dugout will be pumped to feed a wash plant. Recycled water from the wash plant will be discharged to the Secondary Dugout. Recycled water from the Secondary Dugout will then be recirculated back into the primary.

STATE OF SOUTH DAKOTA)

County of Crook) SS

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

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

Applicant's signature Julie EwingSubscribed and sworn to before me this 22nd day of December 20 10Notary Public signature Rebecca R. Hughes

**SOUTH DAKOTA
WATER PERMIT NO. 1919-1**

Date of first receipt of application December 27, 2010.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1919-1 to Croell Redi-Mix, Inc., PO Box 1352, Sundance WY 82729 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. 1919-1 authorizes the consumptive use of 1.0 acre feet of water annually from two dugouts (1.38 acre-feet total storage capacity) constructed into the alluvium located in SE ¼ SW ¼ Section 13-T8N-R2E. The water will be diverted from the primary dugout at a rate of 1.33 cubic feet of water per second for use at the wash plant. Water from the wash plant will be discharged to the second dugout prior to being recirculated back to the primary dugout for recycle/reuse. Water use is primarily non-consumptive with the 1.0 acre foot of water appropriated to account for losses associated with the operation.
2. The water appropriated shall be used for the purpose of industrial use at a wash plant and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 1919-1 is March 28, 2011.
5. The date from which applicant may claim right is December 27, 2010.
6. One-fifth of the construction is to be completed on or before September 28, 2013.
7. All construction is to be completed on or before March 28, 2016.
8. Water is to be put to beneficial use on or before March 28, 2020.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATION

Permit No. 1919-1 does not authorize diversion of water from Redwater River at any time.

WATER MANAGEMENT BOARD

By: Garland Erbele

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

APR 26 2011

date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction N/A

- 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 applicant's property _____

On property owned by others _____

2. Wastewater Disposal System Information N/A

- 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 30' wide x 100' long (x2) Depth 10' deep (x2)
- b) Depth to water (ground surface to water level) approximately 4 feet

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)

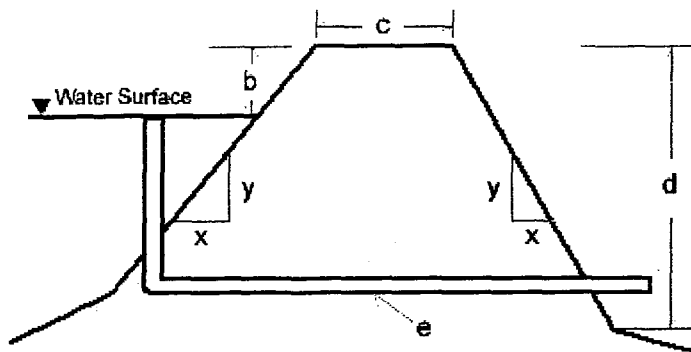
Upstream _____

Downstream _____

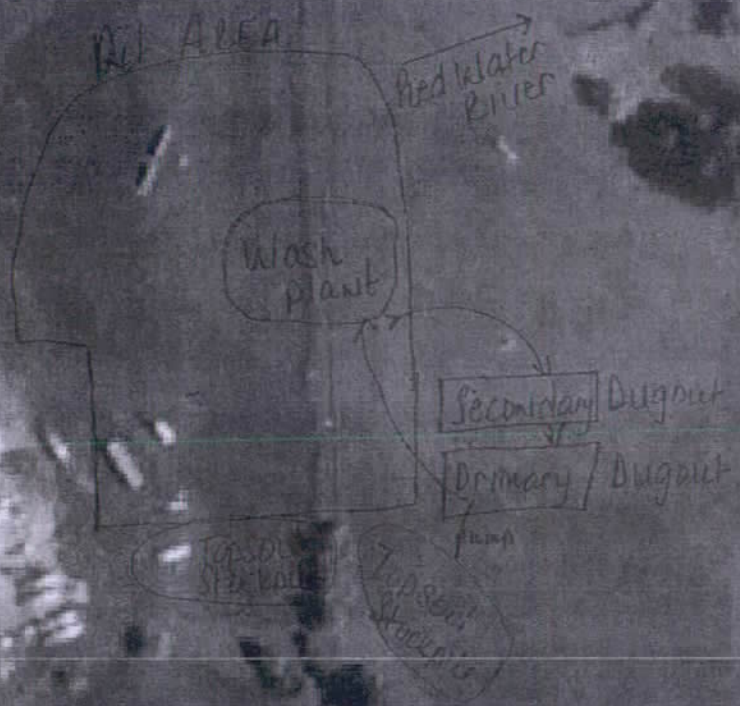
h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres



Julie Allred
Program Technician
Butte-Lawrence FSH Office



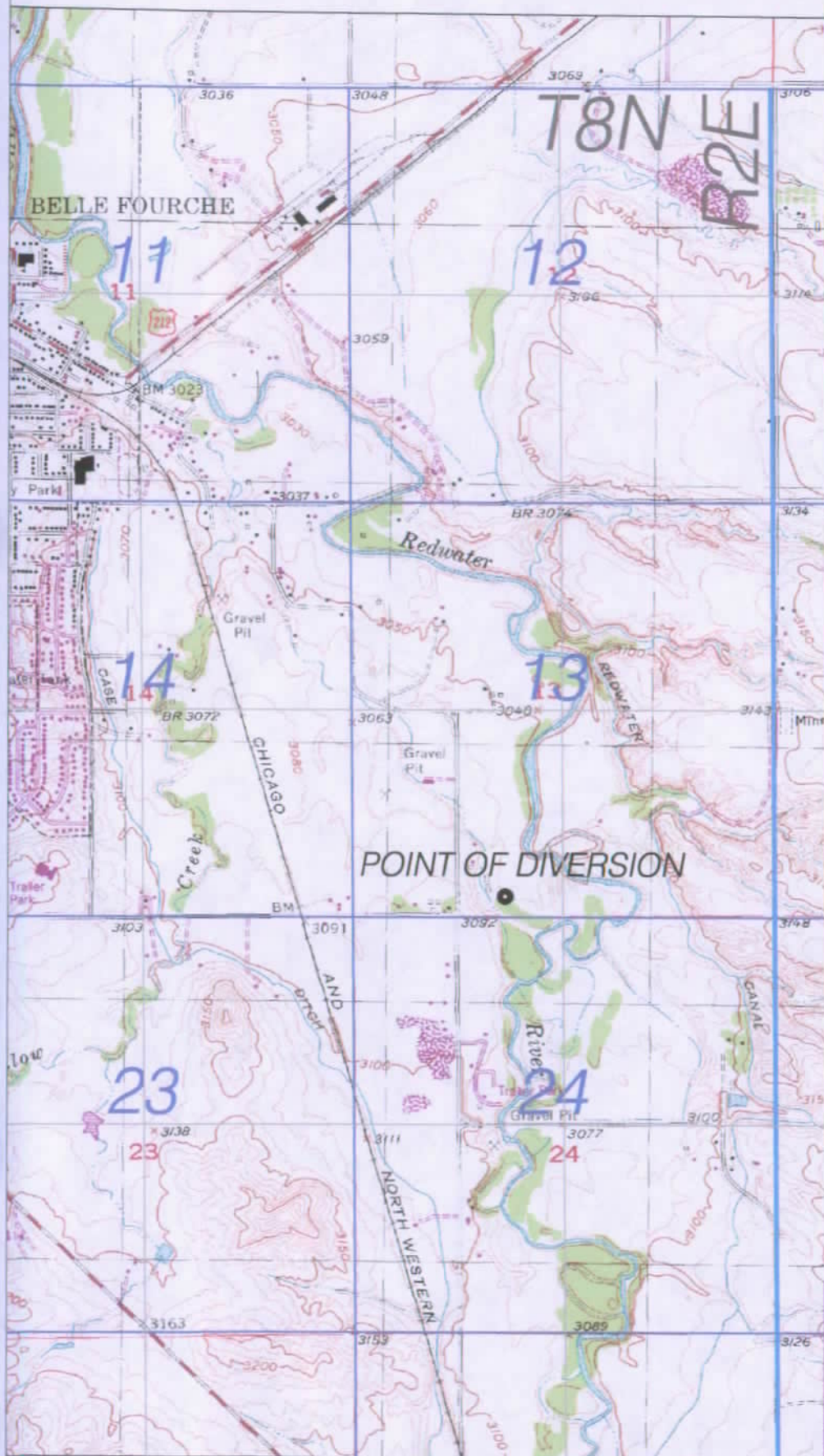
LEGEND

Section Lines

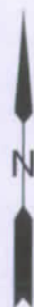
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WATER RIGHT
PROGRAM



POINT OF DIVERSION



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PLAN VIEW MAP

DRAWN				
DATE	BY			
1/22/2010	ESI			
REVISED				
DATE	BY			
APPROVED				
DATE	BY			

CROELL Redi-Mix

P.O. Box 1352, 2719 S. Hwy 585, Sundance, WY 82729

Location Map

Klinger Pit - CROELL Redi-Mix

Butte County, South Dakota

CONTOUR INTERVAL 20 ft	SCALE 1" = 2000 ft	FILE NO.	SHEET NO. 1 of 1
----------------------------------	---------------------------	----------	-------------------------

T8N

LEGEND

Section Lines

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WATER RIGHTS
PROGRAM

R2E

Redwater

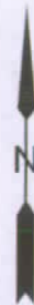
BR 3074

13

13

Gravel Pit

POINT OF DIVERSION



Section 13 T8N R2E PLAN VIEW MAP

CROELL Redi-Mix

P.O. Box 1352, 2719 S. Hwy 585, Sundance, WY 82729

Location Map

Klinger Pit - CROELL Redi-Mix

Butte County, South Dakota

DRAWN
DATE BY
CHECKED BY
REVISED
DATE BY

APPROVED
DATE BY

CONTOUR
INTERVAL
20 ft

SCALE
1" = 1000 ft

FILE NO.

SHEET NO.
1 of 1

Trailer Park

Gravel Pit

24

24

3077

3111

3091

3092

3063

3048

3050

3100

3100

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RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 12/29, 20 10

RECEIVED OF Croell Redi-Mix Inc PO Box 1352 Sundance WY 82729

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use.	1350	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. _____	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	1550 00

No.

04771

By

Garland Ethell
Chief Engineer

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Water Permit 7215-3, Morris Inc.

ADDRESS: Box 1162, Pierre SD COUNTY: Sully

DATE: January 6, 2011 TELEPHONE:

RE: Acre Feet Annually requested

Julie Ewing with Croell's redi-mix informed me that the use of water at the wash plant will largely be non-consumptive. They estimate the annual consumptive use to be 270,000 gallons. Upon my recommendation Ms. Ewing agreed that the annual acre foot consumptively used be 1.0 acre foot and she requested the application be amended accordingly.

The diversion rate from the dugout/pond will be 600 gallons per minute to the wash plant with water being returned to a secondary (settling) pond prior being diverted again.

NAME: Eric Tronkard



**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. 1919-1, Croell Redi-Mix**

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. 1919-1, Croell Redi-Mix, Inc., c/o Julie Ewing, PO Box 1352, Sundance WY 82729.

The Chief Engineer is recommending APPROVAL of Application No. 1919-1 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualification:

Permit No. 1919-1 does not authorize diversion of water from Redwater River at any time.

See report on application for additional information.

Garland Erbele, Chief Engineer
March 2, 2011

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 1919-1
CROELL REDI-MIX INC.
JANUARY 19, 2011

Water Permit Application No. 1919-1 proposes to appropriate 1.0 acre feet of water annually from two dugouts (1.38 acre-feet total storage capacity) constructed into the alluvium located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 13, T8N-R2E. The water will be diverted from a primary dugout at a rate of 1.33 cubic feet of water per second for industrial use at a wash plant. Water from the wash plant will be discharged to a second dugout prior to being recirculated back to the primary dugout for reuse. This proposed water use is essentially non-consumptive with the losses (consumption) associated with the operation totaling 1.0 acre-foot per year.

AQUIFER: Quaternary Alluvium (ALQ)

GEOLOGY AND AQUIFER CHARACTERISTICS:

Alluvium is a general term for unconsolidated (not cemented together into a solid rock) sediments laid down in river beds and flood plains during relatively recent times. Alluvium is typically made up of a variety of rock types and sizes. There is approximately 74 square miles of alluvium along the Belle Fourche River and its major tributaries upstream of the Belle Fourche Reservoir (see Plate I). This application proposes to appropriate water from dugouts in the alluvium along the Redwater River about 350 feet from the river. The Redwater River alluvium consists mainly of local material that merges into hillside wash on adjoining slopes (Darton and O'Harra, 1909). The alluvial deposits along the Redwater River average about a mile in width and 25 feet in thickness, although the thickness "varies irregularly from place to place" (Darton and O'Harra, 1909). Wells completed into the alluvium in the general vicinity of this project area report a saturated thickness of the aquifer ranging from 3-23 feet (Water Rights, 2011c). Water in the alluvial aquifer is usually under unconfined conditions with the water table at approximately the same elevation as the stage of the river. The alluvial aquifer is probably hydrologically connected to the river and in general the river is a gaining stream, (i.e. water from the aquifer contributes to the base flow of the river.) The alluvial aquifer is recharged through precipitation falling directly on its surface, runoff from adjacent areas and streamflow losses when the stage of the creeks and rivers crossing it is higher than the level of the groundwater. Average annual recharge to the alluvial aquifer has not been quantified.

The DENR-Water Rights Program does not monitor any observation wells completed into the Redwater River alluvium but does monitor two observation wells completed into the Spearfish Creek alluvium. Hydrographs for the observation wells are shown in figures 1 & 2.

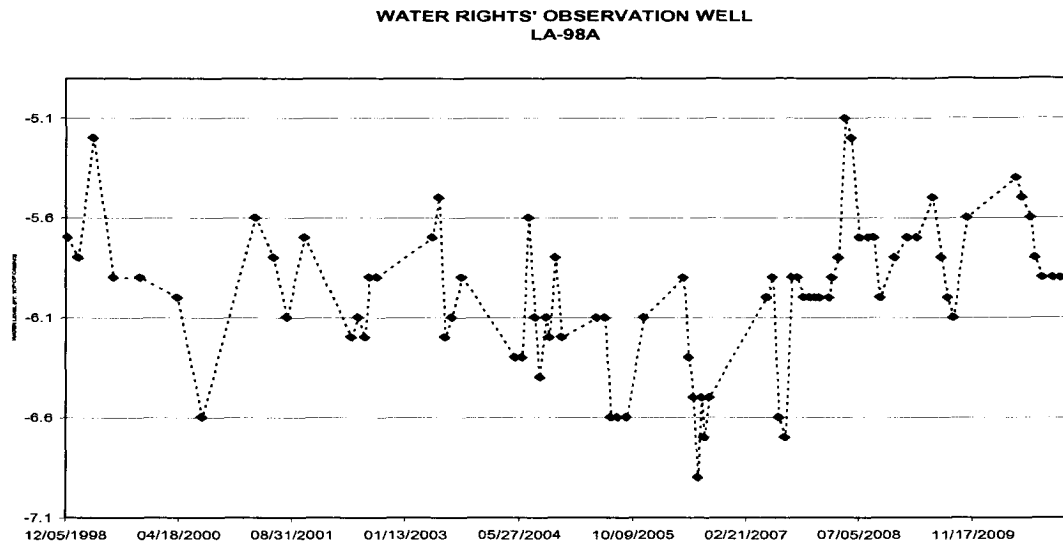


Figure 1. Water Rights' observation well completed into the alluvium along Spearfish Creek approximately one mile south of the Spearfish Creek/Redwater River confluence (approximately five miles southwest of the project area proposed by Application No. 1919-1).

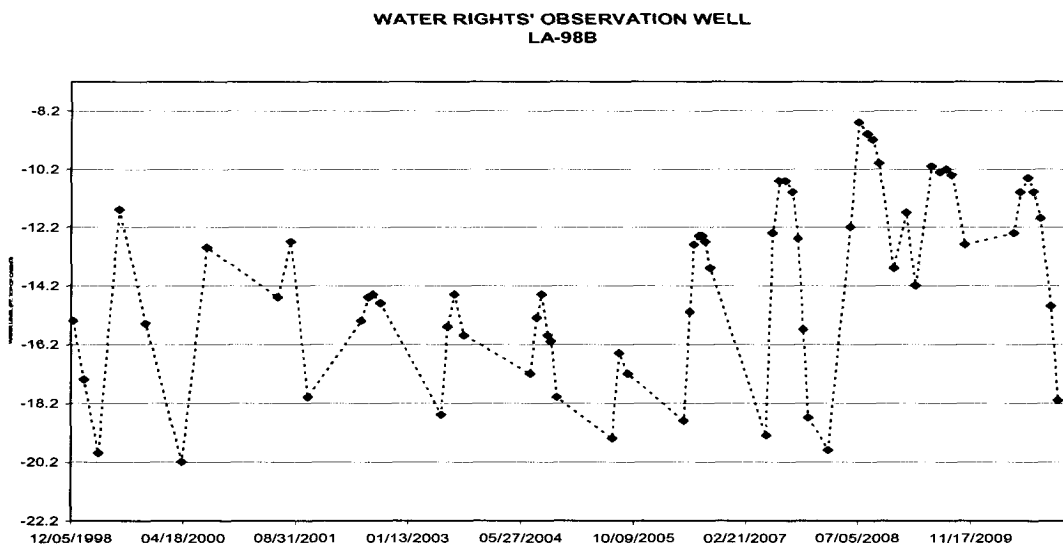


Figure 2. Water Rights observation well completed into the alluvium along Spearfish Creek located immediately north of I-90 (approximately 9 miles southwest of the project area proposed by Application No. 1919-1).

The data for LA-98A identifies a total water level fluctuation of less than two feet over the period of record. The water levels probably mirror the stage of Spearfish Creek and climatic conditions. The hydrograph for LA-98B displays total water fluctuations of over 11 feet. The increased amplitude of fluctuations at LA-98B as compared to LA-98A is probably due to locally confined conditions at LA-98B. The alluvial aquifer in the area of this proposed appropriation is expected to react similarly to the aquifer near LA-98A, with only a few feet of total fluctuation corresponding to the stage of the Redwater River.

Although average annual recharge to the alluvium in this area has not been quantified the hydrographs document that, in general the amount of water in storage in the aquifer is the same now as it was in 1998, and withdrawals from the aquifer have not exceed the recharge to the alluvial aquifers in this area.

EXISTING WATER RIGHTS

There are 18 Water Rights/Permits appropriating water from the alluvium of the Belle Fourche River and its tributaries from the loss zones of the rivers and creeks to the Belle Fourche Reservoir diversion channel (see Plate I and Table 1). The total diversion authorized by these appropriations is 7.93 cfs. In addition Future Use Permit No. 369-1 reserves 1,238 ac-ft annually from the Spearfish Creek Alluvium.

PERMIT NO	NAME	PRIOR DATE	STATUS	USE	CFS	BASIN
1141-1	ROBERT R SCHNEIDER	06/28/1977	LC	COM	0.07	Spearfish Cr.
1227-1	LOURIE LANE HOMEOWNERS	07/23/1981	LC	SHD	0.22	Spearfish Cr.
1253-1	THOMPSON ABERNATHY DEV #1	05/07/1982	LC	SHD	0.05	Spearfish Cr.
1356-1	STANLEY D AINSWORTH	01/01/1955	LC	COM	0.02	Spearfish Cr.
1377-1	GARY OR DOROTHY HUNT	12/22/1986	LC	COM	0.05	Spearfish Cr.
1430-1	APPLE VALLEY HOMEOWNERS	12/03/1987	LC	SHD	0.07	Spearfish Cr.
1494-1	ALFRED WILLIAMS	06/15/1990	LC	COM	0.20	Redwater Rv.
1537-1	B & C WAGNER INC	01/01/1951	LC	INS	0.03	Spearfish Cr.
1539-1	STEVE SHARP	01/01/1955	LC	COM	0.16	Spearfish Cr.
1665-1	W B ABERNATHY	06/08/1998	LC	SHD	0.07	Spearfish Cr.
1668-1	APPLE VALLEY HOMEOWNERS	04/10/1998	PE	SHD	0.10	Spearfish Cr.
1733-1	FRAWLEY RANCHES INC	07/21/2000	PE	COM	0.06	Polo Cr.
1756-1	FRAWLEY RANCHES INC	10/02/2001	PE	COM	0.06	Polo Cr.
1839-1	FARRAR COMPANIES INC	03/15/2005	LC	GEO	0.03	Spearfish Cr.
645-1	BELLE FOURCHE	06/10/1877	LC	MUN	4.64	Spearfish Cr.
730A-1	FOOTHILLS RANCH INC	04/01/1952	LC	IRR (70 acres)	1.00	False Bottom Cr.
967-1	US BUREAU SPORT/FISHERIES	06/15/1972	LC	FWP	1.11	Spearfish Cr.
PE= Water Permit, LC= Water Right, COM= Commercial, SHD= Suburban housing Development, INS= Institutional , GEO= Geothermal, MUN= Municipal, IRR= Irrigation, FWP=Fish & Wildlife Propagation						

Table 1. Water Rights/Permits appropriating water from the alluvial aquifer associated with the Belle Fourche River and its tributaries above the Belle Fourche Reservoir (Water Rights, 2011b)

The nearest existing water right/permit appropriating water from the Redwater alluvium, Water Right No. 1494-1, is located approximately one mile north of this proposed diversion point. The distance between the project area proposed by Application No. 1919-1 and the well that supplies Water Right No. 1494-1 is sufficient to ensure that interference between the diversions will not be significant.

In addition to the appropriations listed above, the DENR-Water Rights Program has record of a number of domestic wells completed into the alluvial aquifer associated with the Belle Fourche River and its tributaries (Water Rights, 2011b). The distance between this project area and any domestic wells will minimize the impact this appropriation would have to domestic wells and any interference would not be adverse.

As stated earlier, the alluvial aquifer in this area is hydrologically connected to the adjoining surface waters. At times, the DENR-Water Rights Program, the Water Management Board and their predecessors have dealt with the conjunctive nature of surface water and groundwater in different ways. A good example of the diverse thoughts on conjunctive use through the years can be seen with Future Use Permit No. 369-1 for the City of Belle Fourche. In 1959 the future use permit was approved to reserve 8.0 cfs from groundwater along Spearfish Creek. In 1970, in response to an inquiry from the City of Belle Fourche, the Water Rights Commission confirmed that the future use permit reserved groundwater in the same area as the city's infiltration gallery. However, in 1975, Water Resources Commission staff informed Belle Fourche that it was "doubtful that the Commission could approve permits under this withdrawal [Future Use Permit No. 639-1] for the shallow waters adjacent to Spearfish Creek for use during the irrigation season". Although the surface/groundwater interaction was recognized and accounted for in 1975, the future use permit was amended in 1984, to specify a reservation of 4 cfs from **alluvium**, 2 cfs from the Minnelusa aquifer and 2 cfs from the Madison aquifer. In 1992, the future use permit was again reviewed and this time the reservation was quantified to 1,238 ac-ft/yr from Spearfish Creek Alluvium and 620 ac-ft/yr each from the Minnelusa and Madison Formations. The future use permit has been reviewed two more times (in 1999 and 2006) and allowed to remain in effect with a reservation of water from the alluvium, the Minnelusa and the Madison. As with Future Use Permit No. 369-1, there have been times or situations in which the affects of groundwater withdrawals to surface water rights were considered but for the most part, groundwater and surface water have been considered as separate systems.

The flows of the Belle Fourche River and its tributaries are considered fully/over appropriated upstream of the channel that diverts water to the Belle Fourche Reservoir, and permit applications for new surface water diversions have been denied. Denial of applications for surface water use has been fairly universal. In fact, in 1990, the Water Management Board even denied Water Permit Application No. 1462-1, City of Spearfish, which was a proposed non-consumptive use of 1.67 cfs of Spearfish Creek through Rebbe Ditch for "aesthetic and therapeutic purposes for residents adjacent to the ditch."

The alluvial aquifer associated with the Belle Fourche River and its tributaries is not considered fully appropriated and there have not been any applications to divert water from the alluvium denied. Viewed as a separate system, unappropriated water is available as long as withdrawals from the alluvial aquifer do not exceed recharge to the aquifer. Since recharge through streamflow losses can increase with increased withdrawals from the aquifer, unappropriated water is probably available after the time when there are no surface water flows. It is likely that water rights/permits appropriating surface water would be adversely impacted before water availability would be a concern. Surface water rights could be affected either directly from a groundwater diversion or from the cumulative impact of the groundwater withdrawals from the alluvium. Each diversion from the alluvium must be evaluated individually on a case-by-case basis.

Most of the appropriations from the alluvium associated with the Belle Fourche River and its tributaries are small (see table 1) and individually would have a nearly immeasurable impact to surface water flows. The transmissivity of the alluvium along the Redwater River is expected to be fairly low since the material is probably poorly sorted. The low transmissivity coupled with the fact that the alluvium is relatively thin (saturated thickness of less than 25 feet), will reduce the area impacted by any groundwater diversion. This is because the steep gradient required to move groundwater in this low permeability material cannot extend far due to the thinness of the aquifer. Water simply can not drain through the

alluvium well enough for a very large area to be affected. When pumped hard enough, the aquifer will be dewatered at the diversion point but will not be affected a short distance away. Unless a groundwater diversion is immediately adjacent to the Redwater River, surface water flows will not be captured. For example, Water Right No. 645-1 for the City of Belle Fourche authorizes diversion of 4.64 cfs from an infiltration gallery along Spearfish Creek. A portion of the water diverted is probably groundwater but undoubtedly most of the water is captured creek flow. In fact a portion of the appropriation originated as a surface water right (from Cook Ditch) and was transferred to the gallery. The dugouts proposed by this application should be sufficient distance (approximately 350 feet) from the Redwater River that flows will not be impacted by the diversion.

The cumulative impact of enough groundwater withdrawals from the alluvium could eventually have an impact on surface water users. Increased stream flow recharge induced by greater groundwater withdrawals would be accompanied with a shortening of the duration or stretch the streams remain live. This would reduce the amount of water that would otherwise be available to down stream water right holders. Up to a point, the practical result of additional groundwater appropriations from the alluvium would be to maximize the beneficial use of the system with very little if any measurable impact to prior surface water rights. Especially when considering the amount and variability of the surface water flows. A case in point, the mean annual flows of the Redwater River from 1946-2011, above Belle Fourche ranged from 57.1 cfs to over 251.1 cfs ("USGS 06433000 Redwater River above Belle Fourche"). The level of development that the system could tolerate has not been determined so each additional groundwater appropriation must be considered individually and collectively. This application proposes a basically non-consumptive use of water (one ac-ft/yr total); therefore its approval would not have a measurable impact to the overall surface water /groundwater water balance.

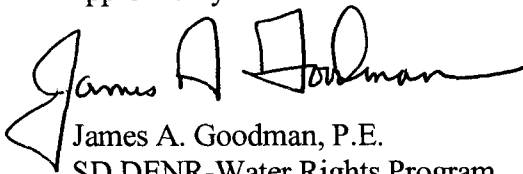
CONCLUSIONS:

1. This application proposes to divert from dugouts in the alluvium along the Redwater River approximately 350 feet from the River.
2. This application proposes to recirculate water and have a total consumptive use one acre-foot annually.
3. The alluvium along the Redwater River is a viable aquifer and unappropriated water is available.
4. The alluvium along the Redwater River is hydrologically connected to the river.
5. The Chief Engineer considers the flows in the Redwater River to be fully/over appropriated.
6. Approval of this application should not have an adverse impact to existing users.



Ken Buhler
SD DENR-Water Rights Program

approved by



James A. Goodman, P.E.
SD DENR-Water Rights Program

REFERENCES:

Ahadi, M.R. 1990, Report on Water Permit Application No. 1495-1, George Bean: SD DENR-Water Rights Program Water Permit Application No. 1491-1 file

Redwater River above Belle Fourche, SD, USGS Surface-Water Annual Statistics for South Dakota. February 14, 2011 <<http://waterdata.usgs.gov/sd/nwis/annual/>>

Darton, N.H., and O'Harra, C.C., 1909, Belle Fourche Folio, South Dakota, Geologic Atlas of the United States Folio No. 164, 1 atlas (9p., [4]leaves of plates)

Martin, J.E., Sawyer, J.F., Fahrenbach, M.D., Tomhave, D.W., Schulz, L.D., 2004, Geologic Map of South Dakota: South Dakota Geological Survey General Map 10, scale 1:500,000

Water Rights, 2011a, DENR-Water Rights Program Observation Well Data: SD DENR-Water Rights Program unpublished records

Water Rights, 2011b, SD Water Well Completion Reports: SD DENR-Water Rights Program

Water Rights, 2011c, Water Right/Permit files: SD DENR-Water Rights Program

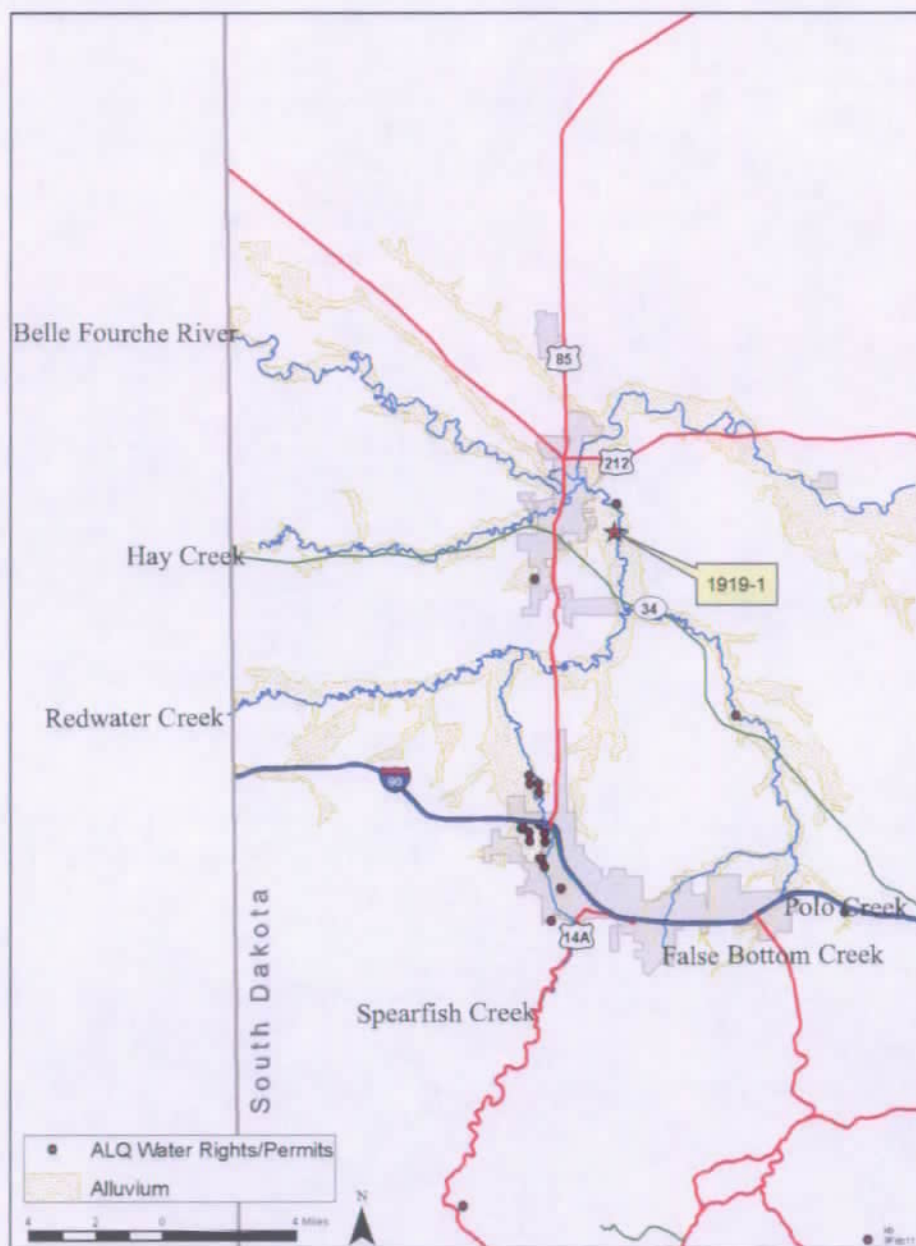


Plate I. Alluvium associated with the Belle Fourche River and its major tributaries upstream of the Belle Fourche Reservoir (modified from Martin and others, 2004)

Affidavit of Publication

State of South Dakota
County of Butte

Karen L. Wallace, being duly sworn, says: That the *Butte County Post* is, and during all times hereafter mentioned, was a legal newspaper as deemed in SDCL 17-2-2, as amended, published at Belle Fourche, Butte County, South Dakota, By *Rapid City Journal*; that affidavit is and, during all of said times, was employed by the publisher of such newspaper and has personal knowledge of the facts stated in the affidavit; that the notice, order or advertisement, a printed copy of which is attached, was published in said newspaper for successive issues, bearing the following date(s):

\$25.94 Wed. March 9, 2011

\$20.76 Wed. March 16, 2011

_____, 2011

_____, 2011

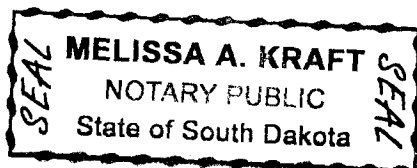
That the full amount of the fee charged for publishing the same, to with, that of \$ 46.70, insures solely to the benefit of the publisher of said newspaper that no agreement or understanding for the division of the fee has been made with any person, and that no part of the fee has been agreed to be paid to any other person.

Karen Wallace
Karen Wallace, Office Manager

Subscribed and sworn to before me this 16th day of March, 2011.

Melissa A. Kraft
Notary Public, South Dakota

My commission expires _____
My Commission Expires
August 13, 2011



RECEIVED
MAR 18 2011
WATER RIGHTS
PROGRAM

**NOTICE OF APPLICATION
NO. 1919-1 to Appropriate
Water**

Notice is given that Croell Redi-Mix, Inc., PO Box 1352, Sundance WY 82729 has filed an application for a water permit to appropriate a consumptive use of 1.0 acre feet of water annually from two dugouts (1.38 acre-feet total storage capacity) constructed into the alluvium located in SE 1/4 SW 1/4 Section 13-T8N-R2E. The water will be diverted from the primary dugout at a rate of 1.33 cubic feet of water per second for industrial use at a wash plant. Water from the wash plant will be discharged to the second dugout prior to being recirculated back to the primary dugout for recycle/reuse. Water use is primarily non-consumptive with the 1.0 acre foot of water appropriated to account for losses associated with the operation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1919-1 because:

- 1) unappropriated water is available;
- 2) existing rights will not be unlawfully impaired;
- 3) it is a beneficial use of water, and
- 4) it is in the public interest.

In accordance with SDCL 46-2A-23, the Chief Engineer will act on 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~~ Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

OK
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 March 28, 2011.

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 twice at the total approximate cost of \$46.70.

**Published Wed., March 9
and Wed., March 16, 2011
Butte County Post**



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

March 3, 2011

Butte County Post
614 State St
Belle Fourche SD 57717

ATTENTION: Legal Public Notice

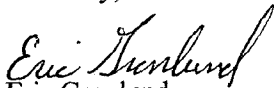
Enclosed is a Notice on Application No. 1919-1 to Appropriate Water to be published twice. Please publish the first notice on March 9, 2011 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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 Croell Redi-Mix Inc., c/o Julie Ewing, PO Box 1352, Sundance WY 82729 (Ph # 307-283-2221).

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. 1919-1

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

Date _____

We are in receipt of your letter of March 3, 2011 enclosing Notice to Appropriate Water by Application No. 1919-1 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

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

March 3, 2011

Croell Redi-Mix Inc
Julie Ewing
PO Box 1352
Sundance WY 82729

Dear Ms. Ewing:

Water Permit Application No. 1919-1 for industrial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Publisher of the Butte County Post printed at Belle Fourche SD (Ph # 605-892-2528). You will need to contact the newspaper 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 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 application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352
eric.gronlund@state.sd.us

enclosures

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

Instruction to Newspaper - Publish first Notice on March 9, 2011 with the second publication 7 days later. 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. 1919-1 to Appropriate Water

Notice is given that Croell Redi-Mix, Inc., PO Box 1352, Sundance WY 82729 has filed an application for a water permit to appropriate a consumptive use of 1.0 acre feet of water annually from two dugouts (1.38 acre-feet total storage capacity) constructed into the alluvium located in SE ¼ SW ¼ Section 13-T8N-R2E. The water will be diverted from the primary dugout at a rate of 1.33 cubic feet of water per second for industrial use at a wash plant. Water from the wash plant will be discharged to the second dugout prior to being recirculated back to the primary dugout for recycle/reuse. Water use is primarily non-consumptive with the 1.0 acre foot of water appropriated to account for losses associated with the operation.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1919-1 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on 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 March 28, 2011.

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 twice at the total approximate cost of _____.

April 26, 2011

PAYMENT REQUEST FORM

PAYEE: Croell Redi-Mix Inc
PO Box 1352
Sundance WY 82729

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

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Refund on overpayment of Water Right Permit #1919-1

AMOUNT: \$850.00

FUNDING SOURCE:

GENERAL: X

FEDERAL:

COMMENTS:

AUTHORIZATION:

 4/24/11

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

APR 26 2011

Croell Redi-Mix Inc.
Julie Ewing
PO Box 1352
Sundance WY 82729

Dear Ms. Ewing:

Enclosed is Water Permit No. 1919-1 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

This permit was submitted with a \$1,550.00 fee. The correct fee is \$700.00. Therefore, \$850.00 will be refunded to you. The refund check should be received within the next couple of weeks.

A 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 information 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

**Water Rights Program - DENR
Conversation File Documentation**

NAME OF PERSON OR FILE: Kristi Chamley
Environmental Coordinator
Croell Redi-Mix

ADDRESS: PO Box 1352, Sundance, Wyo.

COUNTY: Butte County

DATE: October 19, 2016 **TELEPHONE:** (307) 283-2221

RE: Licensing of Water Permit No. 1919-1

COMMENTS: I made a site visit 10/19/16 for a licensing inspection for permit #1919-1. I stopped at the Redi-Mix plant (SW ¼ S13) and was informed that Chamley was waiting at a gravel pit in the NE ¼ of S13 and I met her there to do the licensing inspection. At the time of the inspection a pump was installed on the bank of the Redwater Canal with piping leading to one of the excavated dugouts. One of the qualifications of the permit was that no water was to be diverted from the Redwater Creek. I asked Chamley about the pump and she was not sure how much it was used but said that she thought Croell owned all of Section 13 and that they had irrigation rights. I did not get into the legality of the pumping use at that time and I told her I would check their water permits when I got back to the office. When I got back to the office, Aaron Tieman and I discussed Croell's permits as they pertain to the Redwater and it was at that time that I realized after plotting the GPS coordinates that the gravel pit location inspected was not the location permitted. I then emailed Chamley and tentatively rescheduled a follow-up inspection at the Redi-Mix plant. After looking into water permits in S13 T8N R2E, I did not find an industrial use permit for Croell.



Pump on Redwater Canal 10/19/16



Pump location

The follow-up inspection was made on 10/24/16 at the Redi-Mix plant location in the SW ¼ of Section 13. A dozer was working at the site and was in the process of filling and reclaiming the area where the two ground water dugouts had been constructed. An aerial photo from 2014 showed the dugouts. The dozer had nearly completed the filling operation except for a small portion of each on the far east end. Chamley stated that these pits had been used in the wash plant operation in processing material brought in from other sites and that Croell wished to keep the water right.

I told Chamley that in checking on other water rights in section 13, the only water rights were for irrigation use and that using water from the Redwater Canal would be a change of use not permitted. She said they have an agreement with the Redwater Canal to use the water but did not recall the name of the contact person they made the agreement with. I said I didn't think the irrigation use for the Redwater canal could be changed to use the water for commercial use. Chamley said she had contacted the regional supervisor for Croell and they had a water right. We did not discuss the issue further.



west end of reclaimed area of dugouts permitted under 1919-1



portions of dugouts visible at far east end of area being reclaimed

NAME: Steven Quissell, Water Rights Inspector



Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 1919-1

I have this day, October 24, 2016 made a thorough examination of the water use system constructed by Croell Redi-Mix, PO Box 1352, Sundance, WY 82729 of Permit No. 1919-1, bearing the priority of 12/27/2010 authorizing the consumptive use of 1.0 acre feet of ground water for industrial purposes, in Butte County.

Inspection contact & relationship to permit holder, if applicable: **Kristi Chamley**
Environmental Coordinator
307-283-2221

A. Works used to divert the water:

Dugout Information:

- 1) Size (2) 120' X 30' each (from aerial photo)
- 2) Depth approx. 10 ft. (from permit application)
- 3) Volume 0.5 acre feet (total @ 6' ground water depth)
1.0 acre feet (total @ 10' depth)

Pump:

- 1) Make Berkeley
- 2) Model B4JOBH
- 3) Size 4" X 5" with 13.5" impeller
- 4) Capacity 600 gpm (varies with rpm)

Power:

- 5) Source diesel
- 6) Horsepower required <20 hp

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

The wash plant is no longer used at this location. While in operation the plant washed gravel brought in from other locations. At the time of the site inspection a dozer was working at the site and was in the process of filling and reclaiming the area where the two ground water dugouts had been constructed. An aerial photo from 2014 showed the dugouts. The dozer had nearly completed the filling operation except for a small portion of each on the east end. The pump listed is currently being used at another location.

C. Works used to apply water to beneficial use:

Water was pumped periodically from the primary dugout to feed the wash plant. Water from the wash plant was then discharged to the second dugout for settling and recirculated back to the primary dugout.

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Yes
list any extended period of nonuse: none
- 2) Exceptions to compliance are: none

Construction was completed prior to March 28, 2016 and water was put to beneficial use prior to March 28, 2020.

E. Condition and Location:

1. The point of diversion was located as follows:
164' N and 2,323' E of the SW corner Section 13 T8N R2E (44.648614, -103.820333).
2. The works are capable of diverting and conveying to the place of use 1.33 cu. ft. per second of water which is to be used for industrial use. Water has been put to beneficial use to the maximum extent as follows:
sand and gravel washing operation

The license should be issued for 1.33 cu. ft. per second and 1.0 acre feet of consumptive use.

3. All structures, wells and lands on map: No former diversion point only

F. Comments or other permit(s) associated with the project: The operator requests the water right remain in intact for potential future use.



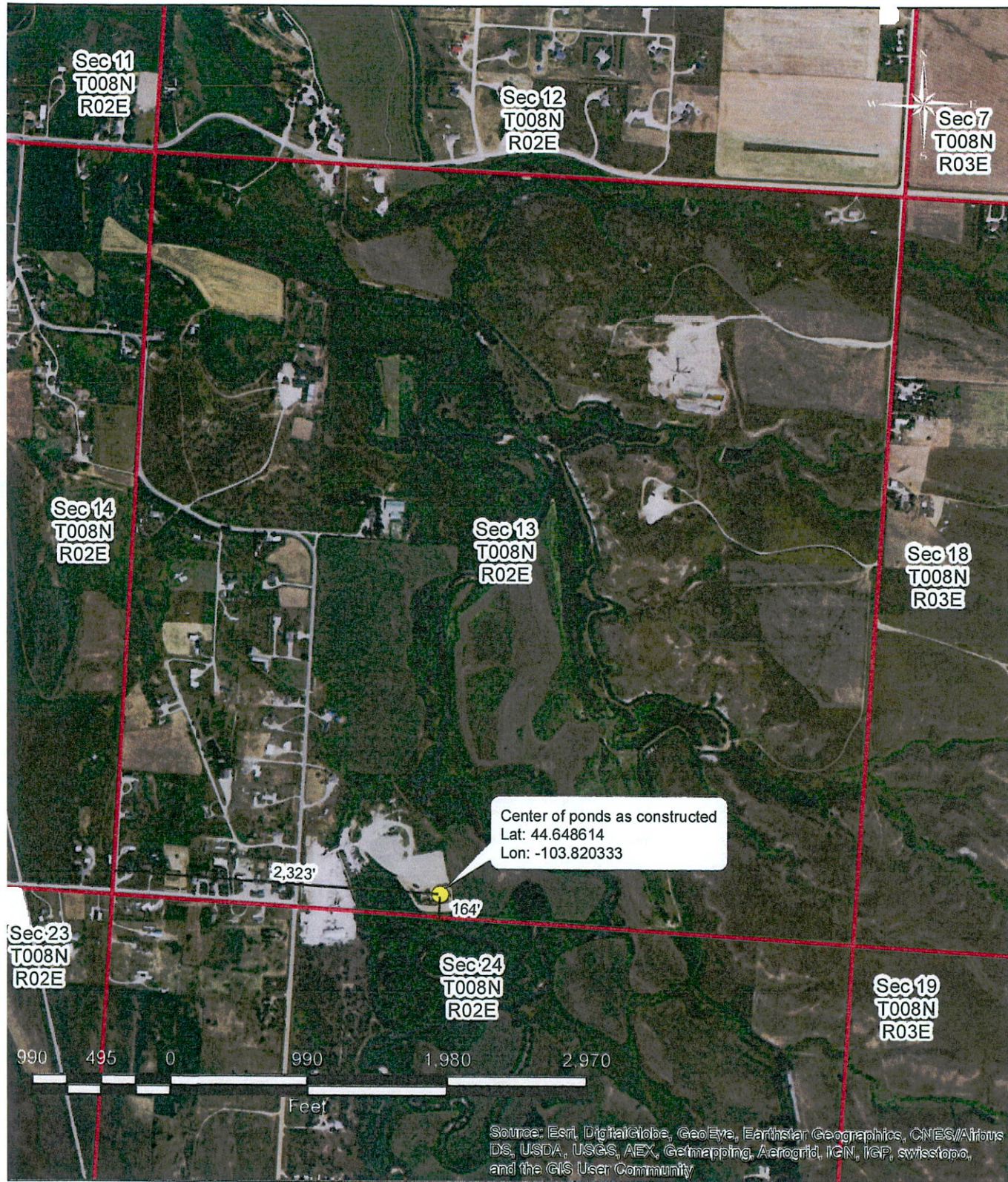
Steven Quissell
Water Rights Inspector
DENR, Water Rights Program

Date report completed: October 25, 2016



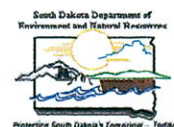
Portions of dugouts visible at east end of area being reclaimed

Croell Redi_Mix
10/24/2016



even Quissell

even Quissell
Water Rights Inspector
ENR Water Rights Program



Water Permit No. 1919-1**Water Rights Program - DENR
Conversation File Documentation**

NAME OF PERSON OR FILE: Croell Redi-Mix

ADDRESS: COUNTY: Butte County

DATE: November 3, 2016 TELEPHONE:

RE: discussion with Kyle Frisinger with Croell Redi-Mix

Kyle Frisinger with Croell returned my call. I asked if he was the regional supervisor for the Croell's Belle Fourche operation. He indicated he was supervisor of part of the operation but there were others that supervise other aspects. I indicated Steve Quissell had conducted a licensing investigation at their Belle Fourche sites and two issues arose.

1. Water Permit No. 1919-1 is in place for the diversion from two dugouts completed into the alluvium in the SW ¼ of Section 13. I explained at the time of Steve's on-site visit reclamation of the area where the two dugouts had been constructed was ongoing. Mr. Frisinger confirmed that reclamation was being conducted. At the time, Kristi Chamley explained that Croell wished to keep the water right. I further explained the forfeiture and abandonment statutes and the water right can not simply be held until a future date. Stated that there is a period of three years to use it from when water use stopped or any part that is unused is subject to forfeiture for nonuse. If the system is simply abandoned the water right can be subject to cancellation right now. At this time, it boils down to the intent of the company whether abandonment has occurred but certainly the three year forfeiture timeframe started when water was last used.
2. The second issue I explained was that the water rights inspector found a pump and intake into Redwater Canal (Redwater Irrigation Association) at Croell's site in the NE ¼ of Section 13. Our inspector was told Croell has an agreement with Redwater Canal. When inquired further the inspector was told the regional supervisor said they had a water right. Mr. Frisinger was informed that DENR believes this is an illegal use of water and the use must be discontinued unless Croell can provide documentation that the proper permitting is in place. Went on to inform Mr. Frisinger that irrigation rights by law can not be changed to commercial or industrial use and that having an agreement with Redwater Irrigation Association does not constitute a right to use the water. Mr. Frisinger was told that diversion of water from Redwater must cease unless Croell can provide a valid water right they are operating under. Went on to say that DENR staff had discussions with Kristi Chamley in 2014 regarding this type of issue and DENR. In that case it involved McClure ditch but Croell was told irrigation rights can not be changed for their proposed use. The Chief Engineer may be contemplating issuance of an order or a notice of violation but I first wanted to contact him, inform Croell of the illegal use of water and to discontinue the use unless they can provide proof that a water right is in place for industrial use.

About an hour later, Mr. Frisinger called back after talking with the Croell's General Manager and staff at the Belle Fourche operation. He learned that the diversion has not been running for a week, prior to that it was run intermediately. The plant is currently shutdown for the winter so no further diversions are planned for this year. He indicated that Kristi Chamley is out of the office so he is finding it difficult to recreate what had transpired that resulted in them believing they had a water right and diverting from the canal. He asked that I provide him any written documentation that was sent to Ms. Chamley in the past. I said what I have seen is only emails from Mark Rath to other staff informing us of his conversations with Ms. Chamley. Mr. Frisinger indicated he would get back to me once he learns more.

NAME: Eric Threlund