

WATER PERMIT NO. 7393-3

Name of Applicant: Lincoln Pipestone Rural Water

Address: E Hwy 14, Box 18, Lake Benton MN 56149

Phone: 507 368-4248

Amount of Water Claimed: 614 acre-feet

Total Acres: NA

Source of Water Supply: groundwater

Water to be used for: rural water system use

County: Brookings

Type of Waste Disposal System:

Location: 2 miles south of Elkton

PRIORITY

Date Received: 8-8-12

Application/License Fee: \$ 115

Corrected Application Received:

Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: N ½ Section 34-T109N-R47W

Land to be Irrigated: NA

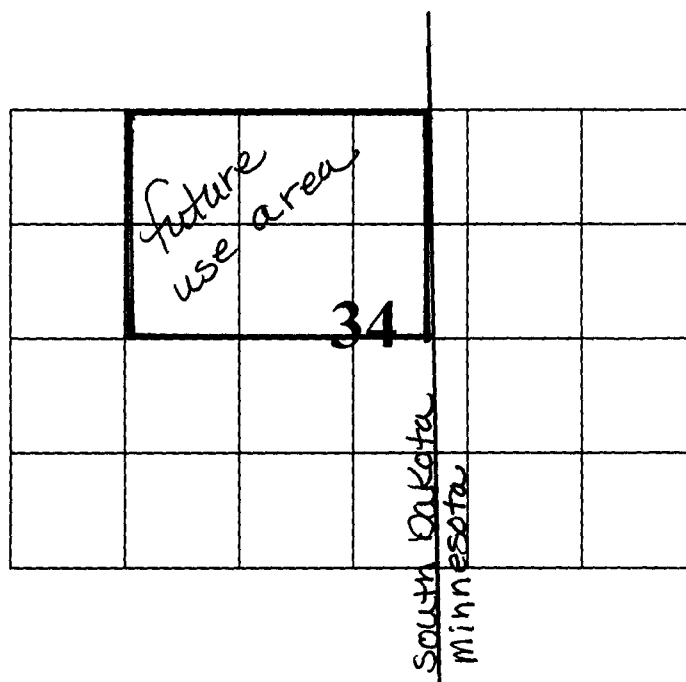
Depth of Well: 70 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by: John C Lichter, PE



Reviewed and the Number Assigned on: 8-8-12

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	No. <u>7393-3</u> (office use only) Hydrologic Unit <u>10170203</u>
	Basin <u>Sioux River</u>
	Newspaper <u>Brookings Register PO Box 177</u>
	<u>605-692-6271</u> <u>57006</u>

RECEIVED
AUG 08 2012
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.)

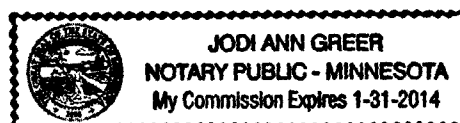
- Name of Applicant Lincoln Pipestone Rural Water, Attention: Dennis Healy Phone (507) 368-4248
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address East Highway 14, Box 18 Lake Benton MN 56149
(Address) (City) (State) (Zip Code)
- Amount of water claimed 600 *CFS or 614 AF/Yr **GPM ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Big Sioux Aquifer
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Brookings
1 well in N1/2 of section 34-T109N-R47W
- County or counties where water will be used Lincoln, Lyon, Murray and Pipestone Counties, Minnesota
- Annual period during which water is to be used Year Round
- 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)
The project will involve construction of one new well to augment Lincoln Pipestone Rural Water Verdi Well field Production. The water will be treated for iron and manganese, disinfected and then used to supply Lincoln Pipestone Rural Water customers.

STATE OF MINNESOTA

County of Lincoln

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, Dennis Healy, 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 Dennis B. Healy, CEOSubscribed and sworn to before me this 6th day of August 20 12Notary Public signature Jodi Ann Greer

**SOUTH DAKOTA
FUTURE USE PERMIT NO. 7393-3**

Date of first receipt of application August 8, 2012.

The Chief Engineer, on behalf of the Water Management Board, issues Future Use Permit No. 7393-3 to Lincoln Pipestone Rural Water, E Hwy 14, Box 18, Lake Benton MN 56149 subject to the following limitations, conditions and qualifications:

1. Future Use Permit No. 7393-3 appropriates and reserves 614 acre-feet of water annually from the Big Sioux:Aurora Aquifer. The area to be reserved for future water use is to be located in the N 1/2 Section 34-T109N-R47W. Lincoln Pipestone Rural Water serves users in Lincoln, Lyon, Murray and Pipestone Counties in Minnesota.
2. The water appropriated shall be used for the purpose of rural water system use 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. 7393-3 is November 12, 2012.
5. The date from which applicant may claim right is August 8, 2012.
6. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

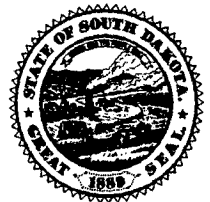
QUALIFICATIONS

1. Permit No. 7393-3 reserves 614 acre feet of water annually from the Big Sioux:Aurora Aquifer.
2. Future Use Permit No. 7393-3 is approved with the stipulation that this Permit is subject to review by the Water Management Board as to accomplishment in developing reserved water upon expiration of seven (7) years. This Permit shall be subject to cancellation if the Water Management Board determines during the review that the holder cannot demonstrate a reasonable need for the Permit.
3. At such time as definite plans are made to construct works and put the water reserved by this permit to beneficial use, specific application for all or any part of the reserved water must be submitted prior to construction of facilities pursuant to SDCL 46-5-38.1.

WATER MANAGEMENT BOARD

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

DEC 19 2012
date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 24-inches Depth +/- 70 feet
- b) Casing Type LCS Diameter 18-inches Thickness 0.625 inch
- c) Screen Type 304 Stainless Diameter 16-inches Thickness 1.2 inch
- d) Gravel Pack Native Fm Length of Gravel Pack N/A
- e) Depth to Top of Water Bearing Material 5 to 10 feet
- f) Depth to Water (ground surface to water level) 15 feet
- g) Distance to nearest existing domestic well:

On applicant's property N/A On property owned by others 1,100

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

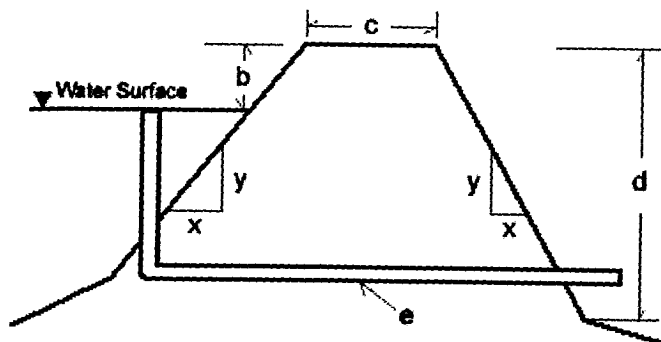
3. Dugout Information

- 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

**FRAMEWORK STUDY
WATER SOURCE ALTERNATIVES**

FOR

**LINCOLN PIPESTONE RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA**

February 2011

DRAFT
2/8/11

DGR Project No. 800917

FRAMEWORK STUDY
WATER SOURCE ALTERNATIVES
LINCOLN PIPESTONE RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA

February 2011

	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. By _____ Gordon B. Krause, P.E. (date) License Number <u>16007</u> My license renewal date is June 30, 2012 Pages or sheets covered by this seal: <u>All</u> _____ _____
--	---

DGR Project No. 800917

DEWILD GRANT RECKERT & ASSOCIATES COMPANY
CONSULTING ENGINEERS

ROCK RAPIDS, IA
(712) 472-2531

• **SIOUX FALLS, SD**
(605) 339-4157

• **SIOUX CITY, IA**
(712) 266-1554

FRAMEWORK STUDY
WATER SOURCE ALTERNATIVES
LINCOLN PIPESTONE RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA
LINCOLN PIPESTONE RURAL WATER

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FRAMEWORK STUDY

WATER SOURCE ALTERNATIVES

LINCOLN PIPESTONE RURAL WATER SYSTEM LAKE BENTON, MINNESOTA

INTRODUCTION

Lincoln Pipestone Rural Water System (LPRW) was founded during the 1970's by a dedicated group of rural residents who needed a reliable and high quality water supply for their homes and farms in Lincoln and Pipestone Counties of Minnesota. Initial construction of the system centered around the Verdi Water Source (Verdi) consisting of shallow wells located near the City of Verdi in southwest Lincoln County. The system continued to grow in membership, in water use, and areas served, and subsequently added major water supply sources known as the Burr Water Source (Burr) west of Canby and the Holland Water Source (Holland) north of the City of Pipestone. After expansion of the system into western Nobles County, arrangements were also made to purchase a supplemental supply from the City of Adrian.

The System's most recently developed water supply is the purchase up to 1.2 million gallons per day from an adjacent Iowa rural water system located immediately south of eastern Nobles County. This Osceola Source began providing water for construction purposes during the summer of 2010 and is now available for service to customers in Nobles County. LPRW was also one of the founding members of the Lewis and Clark Rural Water System, a water supply project that will deliver water to LPRW from wells and a water treatment plant along the Missouri River near Vermillion, South Dakota. This system is currently under construction but a reliable date of service to LPRW has not yet been determined.

LPRW continues to expand its service area in response to requests from rural and municipal customers adjacent to its present service area. Drawing 1 shows the areas currently being served or under consideration for expansion. Each of the expansion areas will require the construction of a new water source or an increase in capacity of an existing source. In addition, the Minnesota Department

of Natural Resources (DNR) has concerns as to the long term consequences of large groundwater withdrawals at Burr and has asked LPRW to investigate new source options that would allow reductions of withdrawals at Burr.

Various source and delivery alternatives are being considered and this Framework Study was commissioned by LPRW to identify the most cost effective service alternative for each area. This study is referred to as a "Framework Study" because it develops a preliminary design of the primary or core facilities (framework) needed to provide service to an area and uses the estimated cost of these facilities to compare and select the preferred alternatives.

STUDY OBJECTIVES

1. To estimate the future water needs within the existing service boundaries of LPRW and within areas being considered for future expansion.
2. To identify potential new water sources that might supply portions of the existing or expansion areas of the system and then to develop and compare service alternatives that utilize the water sources to provide service to the existing and potential expansion areas of the system.
3. To identify the preferred service alternatives and use them as the basis for continued developmental steps to achieve future service to all existing and potential expansion areas of the system.

WATER NEEDS

Historic Water Needs:

A summary of water used within the existing LPRW system during 2008 is provided in Tables 1 through 3 with a separate table for each of Verdi, Burr and Holland, followed by Table 4, a summary table. 2008 data was used because it represents a relatively recent year with average to above average water use. Because of cooler weather and higher precipitation, 2009 and 2010 water use has been lower and thus less representative of the established needs

of the system. In the four tables, both water sold and water pumped is reported. Water sold is divided into three categories: Municipal, Large Rural, and Small Rural. This breakdown allowed the calculation of average monthly water use per rural connection, which was utilized in projecting water use in the growth areas of the system. The available data provided annual water use amounts and therefore, daily average use amounts could be calculated. An estimate of peak day water use was made from the average day water use value by multiplying average day use by a peaking factor. The peaking factor used is shown in the tables and was estimated from an analysis of more detailed water use of the system.

Within each of the existing service areas it is expected that new customers will be added in the future as some existing farm and rural residences opt for rural water service, and as new home construction occurs in the LPRW service area. LPRW has made an estimate of the number of rural residents that are currently unserved and might be added to the system in the future. Those quantities are reported for each of the existing service areas in Tables 1 through 3. The historic 2008 water use and number of unserved residents was used in a calculation in the right-hand column of each of the tables to project the future water needs of the service areas.

Expansion Area Water Needs:

Five expansion areas have been identified and will be referred to as the Murray County Service Area (Murray County), Redwood County Service Area (Redwood County), Lac Qui Parle County Service Area (Lac Qui Parle County), Yellow Medicine County Service Area (Yellow Medicine County), and the Jackson and Nobles County Service Area (Jackson/Nobles Subsystem). Within each of these areas the number of potential rural residences was estimated from a variety of sources including TAMS atlases, census data, windshield surveys, and aerial photography. A count of possible rural connections in each of the areas is shown in Tables 5 through 9.

Within each of the expansion areas all of the communities were identified and a judgment made as to their likelihood of eventually wanting to secure rural water service. In general, this decision was made on the basis of population and past experience with specific

communities, which also includes an understanding of the strength and viability of each community's present water source. These communities are listed in the Tables 5 through 9 for each area.

After a count was completed of the potential rural residents, water needs for those residents was estimated based on an assumed average monthly water use. The assumed average monthly water use was selected based on the expansion area's comparison to areas already served by Lincoln Pipestone. Murray County rural water needs were estimated using an average of 22,000 gallons per month for rural residents, Redwood County, Lac Qui Parle County and Yellow Medicine County were estimated using 15,000 gallons per rural resident per month, and finally, the Jackson-Nobles area water needs were estimated utilizing 30,000 gallons per rural resident per month. The estimate of the number of users and average monthly use allowed the calculation of annual use and average day use. Peak day use was then estimated from the average day use using a peaking factor typical for LPRW rural users. That factor is shown in each of the five tables.

Municipal water use estimates were based on the census population of each community and an assumed average day water use of 75 gallons per capita per day. Peak day use was calculated from average day use using a peaking factor of 2.5. Both of these parameters are considered typical for smaller communities in Southwest Minnesota.

Tables 5 through 9 summarize and total the average day and peak day needs for the respective service areas. Three estimates are provided, identified as 100%, 75%, and 50% potential. Three are provided because a typical rural water system grows and matures in the number of connections served over a period of years. Many rural water systems begin service to approximately 50% of the potential rural connections in that area, and usually within a five year period are serving at least 70% to 75% of the residents. Over a period of 20 or more years the typical rural water system approaches service to 100% of the connections. Therefore, the numbers reported in Tables 5 through 9 give the reader a picture of the progression of water needs for an expansion area over the short and long term. For the purposes of this study, in evaluating and developing water source and service alternatives, the

100% potential water needs number was used so that facilities would be capable of providing not only the short term but also the long term needs of a service area. A decision on the actual capacity to construct for water source, transmission, and related facilities will be left to specific Preliminary Engineering Reports at the time individual facilities are planned.

WATER SOURCES

Groundwater Assessment:

Investigating the availability of adequate groundwater supplies has always been a priority throughout the development of LPRW. The system is currently working with Leggette, Brashears, and Graham, Inc. (LBG), a groundwater consultant located in St. Paul, Minnesota. LBG was directed to complete a hydrogeologic assessment of five areas of the system and delivered a report dated May 28, 2008 that identified the best locations to investigate within each of the five areas. For Area 2, Wood Lake, in the northeast corner of the LPRW service area, LBG identified potential groundwater resources east of the City of Wood Lake. We will refer to this as the Wood Lake Water Source (Wood Lake). Subsequent test drilling and test pumping have confirmed a potentially significant water source at that location. More extensive test pumping is currently planned and permitting of the wells by the Minnesota Department of Natural Resources will be pursued. The location of this source is shown in Drawing 1, and will be used in the development of supply alternatives later in this report.

LBG Area 1, City of Dawson Area, shows the potential for an approximately 600 gpm capacity source to the east of the City of Dawson. At this time, additional exploratory test drilling and other assessments have not been conducted. In the report sections that follow, we'll refer to this as the Dawson Water Source (Dawson). The location of this source is also shown in Drawing 1.

A final source that will be used in the report alternatives will be referred to as the Talcot Lake Water Source (Talcot Lake), and is located east of the City of Fulda on the east side of lake Talcot Lake within the Red Rock Rural Water System service area. Several high capacity irrigation wells operate in that area and indicate that an adequate quantity of water is available

to support a public water supply, however, limited information is available on the quality of the water. Talcot Lake is also shown in Drawing 1.

WATER SUPPLY ALTERNATIVES

Lac Qui Parle County:

As detailed in Table 7, Lac Qui Parle County has a potential of over 1,000 rural connections and two small communities and a projected peak day water need of approximately 850,000 gallons per day, or about 650 gallons per minute. Three potential water supply sources were considered for this area, Dawson, Burr, and Brookings Deuel Rural Water in South Dakota. The three alternatives will be referred to as Alternative L-D: Lac Qui Parle County from Dawson, Alternative L-B: Lac Qui Parle County from Burr, and Alternative L-BD-A&B: Lac Qui Parle County from Brookings Deuel.

Alternative L-D: Lac Qui Parle County from Dawson:

The location of this supply is immediately east of the City of Dawson and is shown in Drawing 2. At this location new wells and a water treatment plant would be constructed. The LBG report indicates that there is potential for wells of this capacity in this area with water quality rated as "fair". The LBG report indicates an estimated hardness of 600-700 mg/l (35-40 gpg) with sulfates in the range of 400-500 mg/l. Cost estimates in this report will be based on constructing a lime softening water treatment plant to deliver water of comparable quality to the rest of the system. Sulfates, while on the high side, are still within what is considered acceptable for most livestock watering needs.

Drawing 2 shows the core facilities needed to provide service to Lac Qui Parle County from Dawson. From the source, 10" mainline would be built to a point approximately 14 miles west to a booster station. The station would pump north approximately 9 miles to an elevated storage reservoir that would pressurize the area north of the booster. The booster would also pump south and west approximately 19 miles to a ground storage reservoir (GSR) located on relatively high ground near the

South Dakota border north of Burr. The GSR would pressure the remaining service area.

Alternative L-B: Lac Qui Parle County from Burr:

Burr is located 8 miles south of the Lac Qui Parle County line and is at a high enough elevation so that service can be provided by gravity from the Burr water treatment plant clearwell. Drawing 3 shows the core facilities needed to provide service to Lac Qui Parle County from Burr. Because Burr is at a substantially higher elevation than the Lac Qui Parle County service area, three mainline pressure reducing valve stations are needed to manage the pressure and allow the use of standard pressure class pipe. The remaining facilities shown in the drawing are approximately 47 miles of 6" through 12" size mainline pipe.

In order to accomplish the Minnesota DNR goal of reducing Burr water use, the amount of water used in Lac Qui Parle County under this alternative will need to be more than offset by a reduction of use elsewhere in the present Burr service area. This can be achieved by utilizing Wood Lake in the area now supplied by Burr north of the Green Valley Booster. Drawing 5 shows the facilities needed to deliver water into the existing Burr service area from Wood Lake. Approximately 20 miles of 12" mainline pipe west and north from Wood Lake and a new booster station near Hazel Run would be required. These facilities will be able to deliver the current needs of the Green Valley Booster service area which is now served by Burr as well as the growth needs, including the Yellow Medicine County service area. Tables 11 and 11A provide more detail on the potential benefit of offsetting Burr water use with transfer of water from Wood Lake.

Alternative L-BD-A&B: Lac Qui Parle County from Brookings Deuel:

Brookings Deuel Rural Water System (Brookings Deuel) provides service to the area immediately west of the Burr Water treatment Plant in South Dakota. The area is supplied from wells and a water treatment plant three miles east and one mile north of Clear Lake, South Dakota. This water source includes six wells, four of them

shallow and two deep and an iron and manganese removal water treatment plant. The source has some excess capacity, is expandable, and Brookings Deuel has indicated a willingness to sell water to LPRW. Water quality is comparable to the Burr source with hardness of approximately 24 gpg and low sulfates.

Two route alternatives were considered from the Brookings Deuel Clear Lake WTP to the Lac Qui Parle area and are illustrated in Drawings 4A and 4B.

Route A: This route was selected to allow delivery of water from Brookings Deuel to the Burr Water Source Clearwell which would pressurize the Lac Qui Parle service area in the same way as planned for Alternate L-B. La Qui Parle would also be pressurized from a new GSR located south and east of the Clear Lake WTP. A control building north of Burr would regulate the filling of the Burr clearwell and reduces the pressure delivered to Lac Qui Parle from the new GSR. The components of the system north of the control building are the same as those utilized in Alternate L-B shown in Drawing 3. The Route A alternative allows water from Brookings Deuel to be delivered to Lac Qui Parle or to the Burr WTP clearwell where it can be delivered throughout the Burr WTP service area if needed.

Route B: This route is illustrated in Drawing 4B and is a more direct route to Lac Qui Parle; however, no connection is made to the Burr WTP. Water is pumped north from the Clear Lake WTP to a GSR which pressurizes Lac Qui Parle by gravity. The components of the system north of the connection point of the South Dakota delivery main are the same as those utilized in Alternate L-B shown in Drawing 3.

Yellow Medicine County:

The Yellow Medicine County area includes approximately 570 potential new rural connections and several communities, of which Wood Lake is included in water use projections in Table 8 as a possible new connection. An initial portion of the distribution

system for the Yellow Medicine County expansion area is currently being constructed as an extension of the Burr supplied Green Valley Booster service area. As stated in the previous section, in order to reduce the amount of water pumped from Burr, if a Wood Lake source of adequate capacity can be developed, this portion of the Burr service area will be supplied from Wood Lake.

Redwood County:

The Redwood County area includes approximately 2,270 rural connections and 18 communities, 9 of which are included as potential connections to LPRW. Water needs for the area are estimated in Table 6. The only source that has currently been identified as a supply for Redwood County is Wood Lake. The Wood Lake source is located about seven miles from Redwood County, and Redwood County is one of the logical service areas to be supplied by this source. Because Wood Lake is also an alternative source for Murray County, the facilities needed to deliver water to Redwood County will increase significantly in size if Murray County is served. Drawing 6 shows the facilities needed to provide service to Redwood County from Wood Lake. Approximately 15 miles of 16" and 14" pipe would deliver water directly south from Wood Lake to a booster station. The booster would pump through 21 miles of 12" pipe, south and west to a GSR located at a relatively high elevation south of Marshall. The GSR would pressure the entire Redwood County service area.

Murray County:

Murray County includes approximately 1,020 rural connections and 14 communities, of which 8 are included as possible connections in the water use estimates presented in Table 5. Three source alternatives were considered to supply Murray County. Alternatives were developed to supply this area from Wood Lake, Talcot Lake, and Verdi. Alternatives M-W: Murray County from Wood Lake, Alternative M-T: Murray County from Talcot Lake, and Alternate M-V: Murray county from Verdi were developed and are detailed below.

Alternative M-W: Murray County from Wood Lake:

Wood Lake is a significant distance from Murray County. In order to deliver water to Murray County from Wood Lake, approximately 70 miles of mainline would be

required and because of the distance, several booster stations and GSRs would also be needed. These facilities are illustrated in Drawing 7. Mainline, booster, and storage facilities in the Redwood County service area have the same location as those needed to serve Redwood County alone, but are larger in size. In the Murray County alternative, 20" and 18" pipe would replace the 16" and 14" pipe in the Redwood County alternative. Within Redwood County, the Murray County alternative booster and GSR are at the same location as the Redwood County alternative. From the GSR in Redwood County, a second booster station would pump south through 11 miles of 16" pipe to a third booster near Garvin. This booster would pump through 11 miles of 14" pipe to a GSR north of Slayton. A fourth booster would deliver water from the GSR south and west through 17 miles of 14" pipe to the existing LPRW Chandler Tower south of Chandler. The Murray County service area would be pressurized primarily from the existing Chandler Tower. The Chandler Tower would continue to pressurize it's current service area with a supply from the Holland source. The Murray County from Wood Lake alternative would also provide approximately 0.42 million gallons per day (MGD) to the Chandler Tower to supplement its needs in the Holland service area.

Alternate M-T: Murray County from Talcot Lake:

Records of existing wells and irrigation permits indicate the possibility of an adequate ground water source located immediately east of lake Talcot Lake just within the west boundary of the adjacent Red Rock Rural Water System. This alternative would develop wells and a water treatment plant at this location and deliver water to Murray County. Additional water exploration and water quality testing would be needed to determine if the Talcot Lake source is viable. Water quality from other wells in the same vicinity indicate that the water is relatively hard and high enough in sulfates to make it undesirable for livestock use; however, a test of a water sample from an irrigation well in that area may show different results. The Talcot Lake water source would be utilized to provide service to Murray County with some water delivered to the Chandler Tower to supplement Holland. Drawing 8 shows the facilities needed which include the source, mainline, pumping facilities, and a GSR. From the water

source, 16" pipe would deliver water approximately 16 miles west to a GSR and pumping station near Iona. The booster station would deliver water via 16" main west into the Chandler Tower. The Chandler Tower would pressurize Murray County, except for the area east of the GSR, which would be pressurized from the GSR.

Alternate M-V: Murray County from Verdi:

This alternative would increase the capacity of the Verdi source by adding wells and high service pumping capacity and deliver water to Murray County via 26 miles of 14 inch pipeline along a route beginning one mile south of Verdi and continuing directly east to Murray County. The facilities withing Murray County are similar to those for Alternative M-W: Murray County from Wood Lake, but the mainline is shifted several miles west so that it is a more direct route to the Chandler Tower. Drawing 9 shows the facilities needed for this alternative.

The Verdi source alternative would require an addition of approximately 1,600 gpm of capacity to this existing water source. In order to secure this much additional capacity, it is likely that wells would need to be located within South Dakota. Brookings Deuel Rural Water System provides service to that area and is willing to work with LPRW to construct and permit wells in that area.

Jackson/Nobles Subsystem:

The area included in the Jackson/Nobles Subsystem is shown in Drawing 1 and includes potential service to approximately 1,270 rural connections and 8 communities. The water needed for this expansion area is estimated in Table 9 and is up to 2.6 MGD. Holland currently supplies the adjacent area and would be part of a total supply for the expansion area as well. Projected water use for the Holland service area (Table 3) is up to 2.5 MGD and therefore, together, the water needs of the current Holland service area and Jackson/Nobles Subsystem are 5.1 MGD. Holland can supply 2.0 MGD but the delivery mains are currently able to move only 1.7 MGD into the system. LPRW is also dealing with discharge permitting concerns for this source. Other supplies identified for this area are water purchased from the

City of Adrian (0.2 MGD), Osceola (1.2 MGD), Lewis and Clark (1.1 MGD) and water delivered to the Chandler Tower from Wood Lake or Talcot Lake under the Murray County supply alternatives (0.4 MGD). Together, these supply sources can contribute 4.9 MGD versus an estimated demand of 5.1 MGD. Because the currently identified supply sources for this area can approximate the future demands of the Jackson/Nobles Subsystem area, and because no other source options have been identified at this time, it is reasonable to continue to develop the Jackson/Nobles Subsystem with the presently identified sources while monitoring total water needs and making appropriate adjustments to proposed expansion plans if necessary.

COMPARISON OF ALTERNATIVES

Cost estimates were prepared for each of the alternatives and other improvements described earlier in this report, and were used to compare alternatives that would provide service to the same area. The facilities considered are referred to as core facilities and include the water source, booster stations, storage facilities, and the larger diameter mainline pipe used to deliver water from the source to the storage locations as well as larger diameter pipe extending into the distribution system. Smaller diameter pipe and other facilities within the distribution system were not considered and are not included in the cost estimates. Table 24 summarizes the cost of all of the alternatives and provides a cost comparison between alternatives in each area.

Lac Qui Parle County Service Area:

The Lac Qui Parle County service area alternatives include Alternative L-D: Lac Qui Parle County from Dawson, Alternative L-B: Lac Qui Parle County from Burr and Alternate L-BD-A&B: Lac Qui Parle County from Brookings Deuel. The cost of the core facilities for each alternative are estimated in Tables 12, 13, and 14 respectively. A review of these tables and Table 24 indicates that Alternative L-B: Lac Qui Parle County from Burr is substantially lower in cost than the other alternatives. The implementation of the lower cost Burr supplied alternative, however, is contingent on an adequate quantity of water being available from Burr. The potential water needs for Lac Qui Parle County are detailed in Table 7 with a projected peak day demand of 0.85 MGD and an average day demand of 0.55 MGD. The facilities described earlier in the report that would deliver water into the Burr service area

from Wood Lake would reduce demands from Burr by approximately 0.71 MGD on a peak day or 0.47 MGD on an average day. The costs of the facilities needed to accomplish this delivery are estimated in Table 15.

Tables 11 and 11A were prepared to evaluate Burr capacity available for growth. Three scenarios were considered in the two tables. Scenario One would add the Yellow Medicine County service area to the Burr service area and deliver water from Wood Lake into the Burr service area. The net effect would be to reduce the demands to Burr below 2008 demand levels. Note that Table 11 is based on adding 100% of the potential demand for Yellow Medicine County and Table 11A is based on adding 75% of the potential demand.

Scenario Two builds on Scenario One by adding the demands of the Lac Qui Parle County service area to those included in Scenario One. Table 11 adds 100% of the potential demand and Table 11A adds 75%. An examination of the two tables indicates that there is currently insufficient Burr capacity to sustain Scenario Two.

Scenario Three subtracts water used by the Marshall Municipal Utilities (MMU) from the water needs included in Scenario Two. If water sales were discontinued to MMU, the tables indicate that adequate Burr capacity is available for initial development (up to 75% of potential - Table 11A) but not enough to satisfy the ultimate, 100% potential demands (Table 11).

The availability of water from Burr for the initial needs of the Lac Qui Parle County service area opens up the possibility of phased development of this area with the initial needs delivered from Burr and the long term needs met by developing Dawson, possibly purchasing supplemental water from a municipality in the service area such as Madison or the City of Dawson, or purchasing water from Brookings Deuel. The challenge to the phased scenario is to design and build the core facilities so that they function efficiently with a supply either from Burr or an alternate water source.

Next in cost to the Burr source alternative is Alternative L-BD-B: Lac Qui Parle County from Brookings Deuel, Route B. The advantage of utilizing this source is that Burr capacity could be utilized elsewhere or net withdrawals at Burr reduced. The Route A variation of this alternative is more costly, but would increase the supply available to the Burr service area and reduce withdrawals from the Burr wells.

Murray County:

Murray County, under Alternative M-W, would be served from Wood Lake, as compared to Alternative M-T, which would provide service from Talcot Lake and Alternative M-V which would provide service from Verdi. The cost of each alternative is estimated in Tables 17, 18 and 19 and summarized in Table 24. Because the facilities needed to provide service to Murray County from Wood Lake would also provide service to Redwood County, as detailed in Table 16, the cost of the facilities needed for Redwood County are subtracted from those shown in Table 17 for both counties resulting in a net cost to provide service just to Murray County from Wood Lake. A cost comparison of the alternatives indicates that the Verdi source alternative is the least costly followed by the Talcot Lake source alternative with the Wood Lake source alternative the most costly. Selection of a preferred alternative should therefore be made after more information on water quality and availability is obtained for Verdi and Talcot Lake and the available capacity of Wood Lake is confirmed.

RECOMMENDATIONS

Water Source Development:

Exploration for new or expanded ground water resources has been and should continue to be an ongoing priority for LPRW. In particular, we recommend proceeding with test drilling, and if successful, test well construction, and test pumping in the area identified by LBG near the City of Dawson in Lac Qui Parle County. Additional assessment work should also be done in the Talcot Lake area. Better definition of the viability of both sources will allow LPRW to select the most appropriate source alternative and/or adopt a phased development strategy with the assurance of adequate source capacity to satisfy the long term needs of the system.

Water exploration activities at the Verdi well field are also recommended. Increased capacity at Verdi, if available, might be used for a Murray County source or internally to supplement the Holland source which is currently having difficulty with RO discharge permitting issues. Water exploration extending into South Dakota and contact with Brookings Deuel Rural Water and the South Dakota Department of Environment and Natural Resources is recommended. Discussions with Brookings Deuel Rural Water regarding water sales to LPRW from the Clear Lake WTP are also recommended.

Burr Water Source Management:

On the 2008 peak day, 2,233,000 gallons were produced by Burr. That amount exceeded by 73,000 gallons the design capacity of Burr (1,800 gpm in a 20-hour day or 2,160,000 gallons). To deliver the peak day needs the plant operated 21 hours, leaving little time available for filter backwash, routine maintenance, unexpected mechanical failure, or other events. Total annual water pumped from Burr in 2008 was 543,475,000 gallons versus an appropriations permit of 550,000,000 gallons, a margin of 6,525,000 gallons (1.2%).

Since 2008, the development of the Yellow Medicine County area continues with Burr as the supply source. The project currently under construction, North Area Expansion - Phase 1, includes service to 83 rural residents, and the City of Seaforth will be added in 2011. The rural users and Seaforth have a combined estimated peak day demand of 76,000 gallons and their projected annual water use is 17,048,000 gallons. Because Burr is already at capacity and water needs from Burr continue to grow, it is urgently important to proceed with planning and management steps to reduce the water demands from Burr. This might include hastening the development of Wood Lake, reduction in water sales to MMU, greater transfer of water into the Burr service area from existing sources, or other strategies. Purchasing water from Brookings Deuel and construction Alternative L-BD - Route A would also reduce the demand on the Burr source.

Development of Wood Lake:

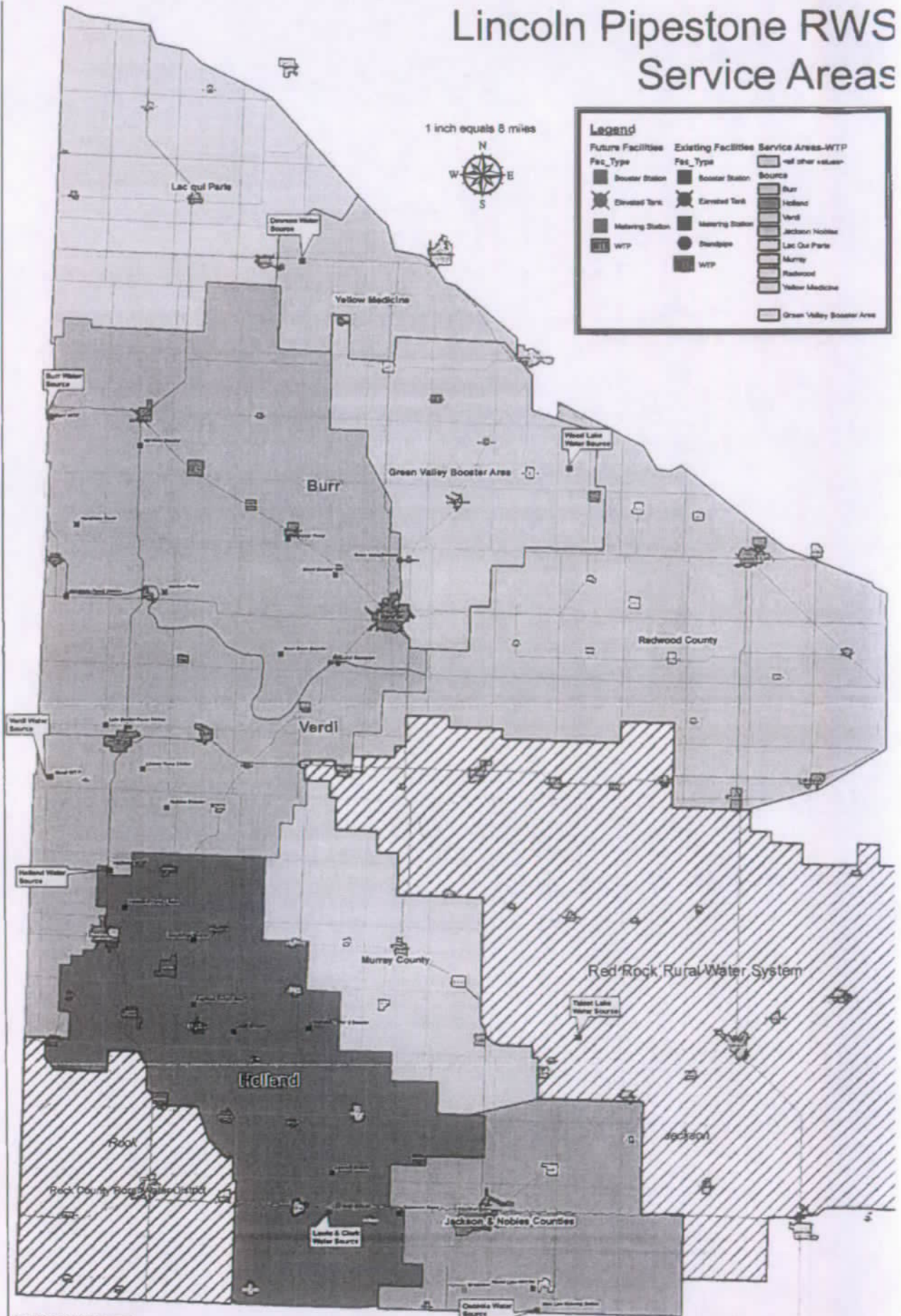
Wood Lake can be a long term solution to the Burr capacity problem. Besides the Brookings Deuel water purchase alternative, it is the only solution that is currently being considered that can be implemented in a timely way. Developmental steps include test pumping and permitting of the wells, funding, which includes the preparation of a Preliminary Engineering Report and an Environmental Assessment, followed by design, bidding, and construction. All of these steps will take time and even if expedited, it is likely that the new source will not be available until some time in 2014, three years from now. It is therefore important to proceed as quickly as possible with current test pumping activities, to define an initial construction project, and authorize the preparation of a Preliminary Engineering Report so that funding can be pursued.

Additional Planning Activities:

Unresolved in the current study is the best way to provide service to Lac Qui Parle County and Murray County. Information helpful to making these decisions includes confirmation or elimination of Dawson, Verdi, Brookings Deuel or Talcot Lake as adequate water sources. If the viability of these sources is known, planning steps can proceed with both the Lac Qui Parle County and Murray County service areas. This information will also be important to determine the size and phasing of Wood Lake and the design and phasing of service to Redwood County.

DRAWINGS

Lincoln Pipestone RWS Service Areas



P:\08009000\GIS\framework

Project Number:
80091

Phone (712) 472-2331

Project Manager: Denis Schiller

Designer: Gordon Kruse

Drawing

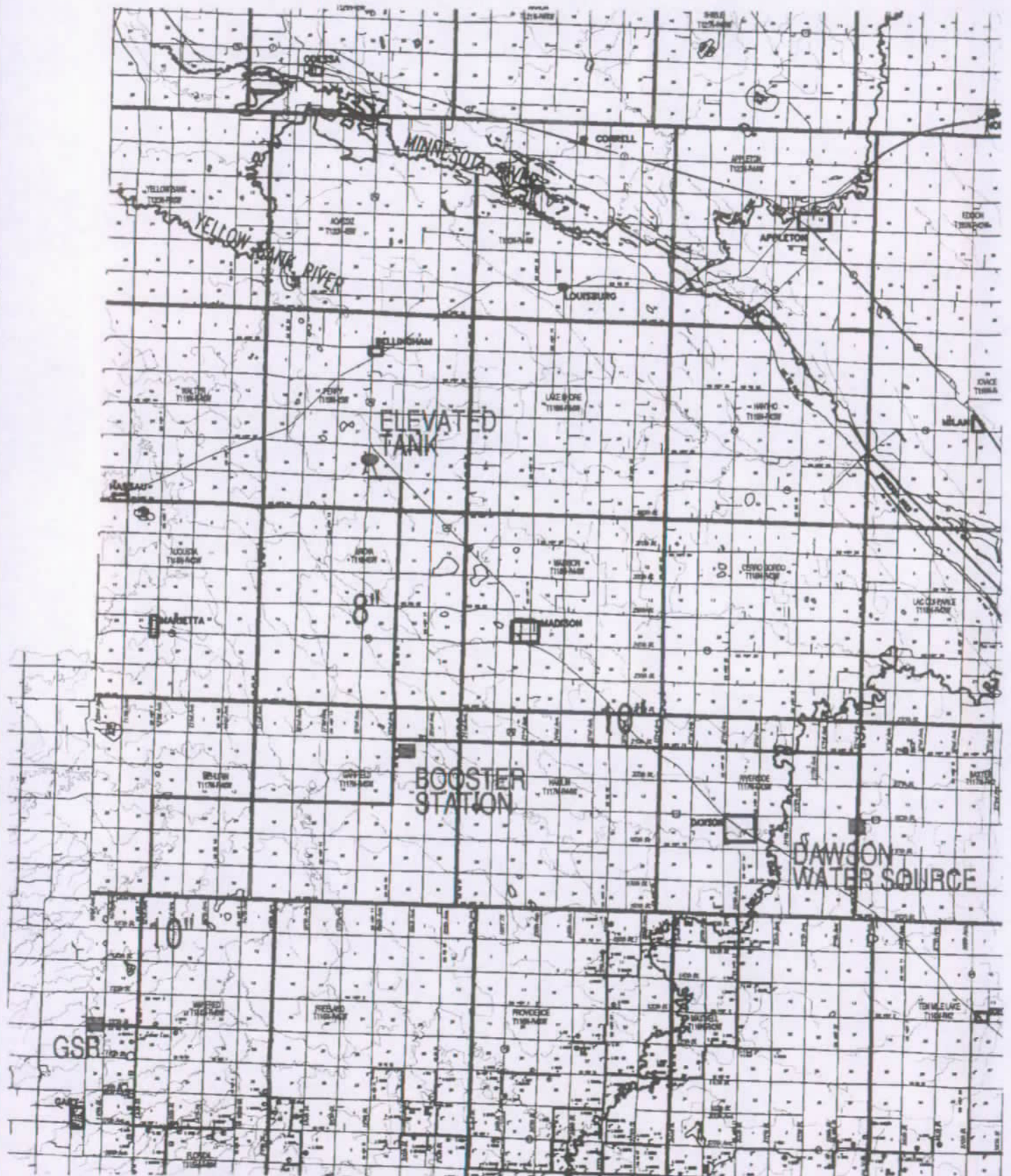
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Rochester, MN - Sioux City, IA - Sioux Falls, SD

Screen

LINCOLN PIPESTONE
RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA



ALTERNATIVE L-D: LAC QUI PARLE FROM DAWSON

DRAWING 2



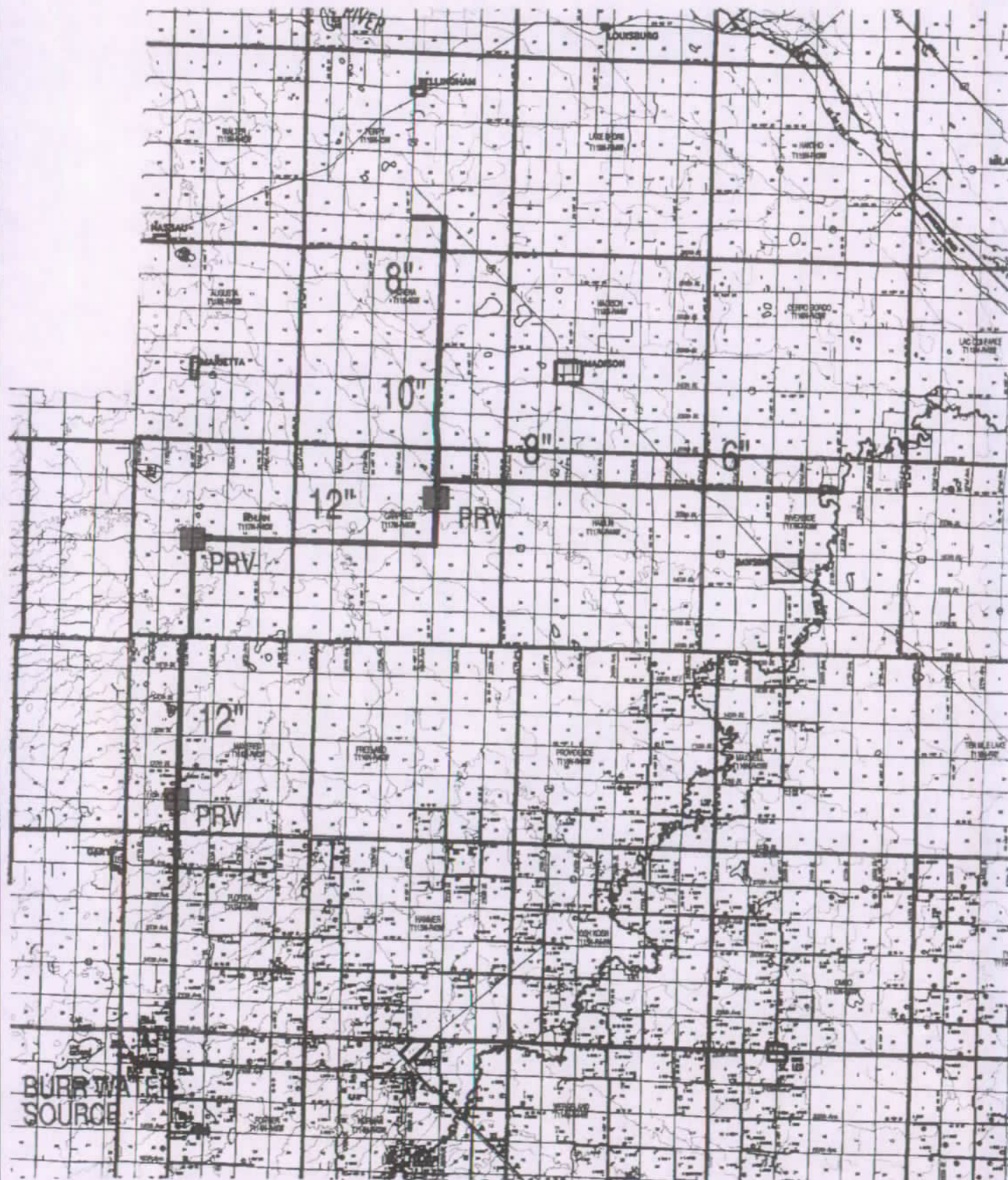
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Date: NOV 2018
Designed By: GBK
Project Manager: DLS
Project Number: 800917
Plot Date: 11/9/18

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LINCOLN PIPESTONE
RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA



ALTERNATIVE L-B: LAC QUI PARLE FROM BURR

DRAWING 3



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Plot Date: 2/2/11

REV	DATE

LINCOLN PIPESTONE
RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA



ALTERNATIVE L-BD-A: BROOKINGS DEUEL ROUTE A

DRAWING 4A

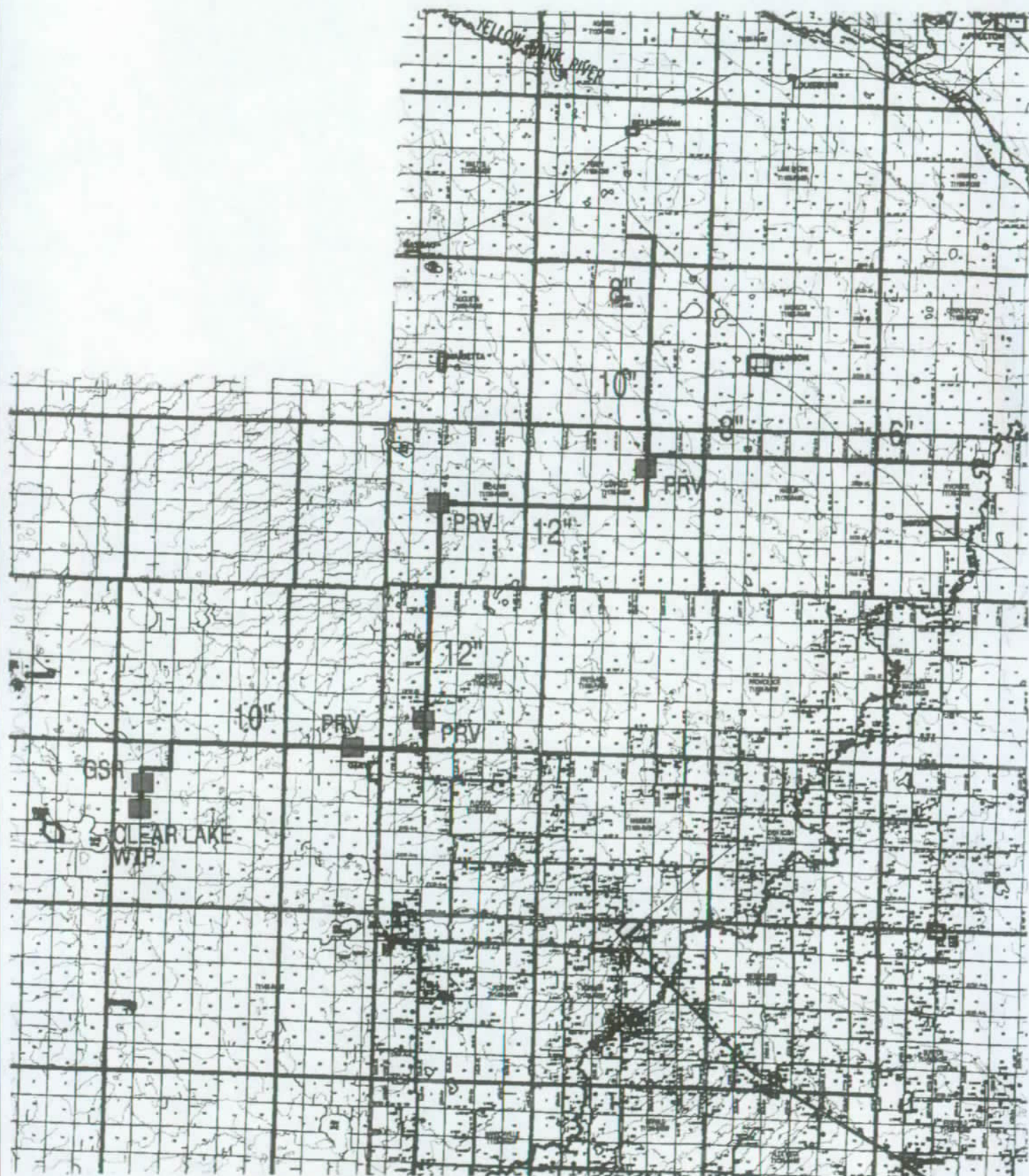


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Rock Rapids, IA - Sioux City, IA - Sioux Falls, SD

Date: JAN 2011
Designed By: GBK
Project Manager: DLS
Project Number: 800917
Plot Date: 2/2/11

REV	DATE

LINCOLN PIPESTONE
RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA



ALTERNATIVE L-BD-B: BROOKINGS DEUEL ROUTE B

DRAWING 4B



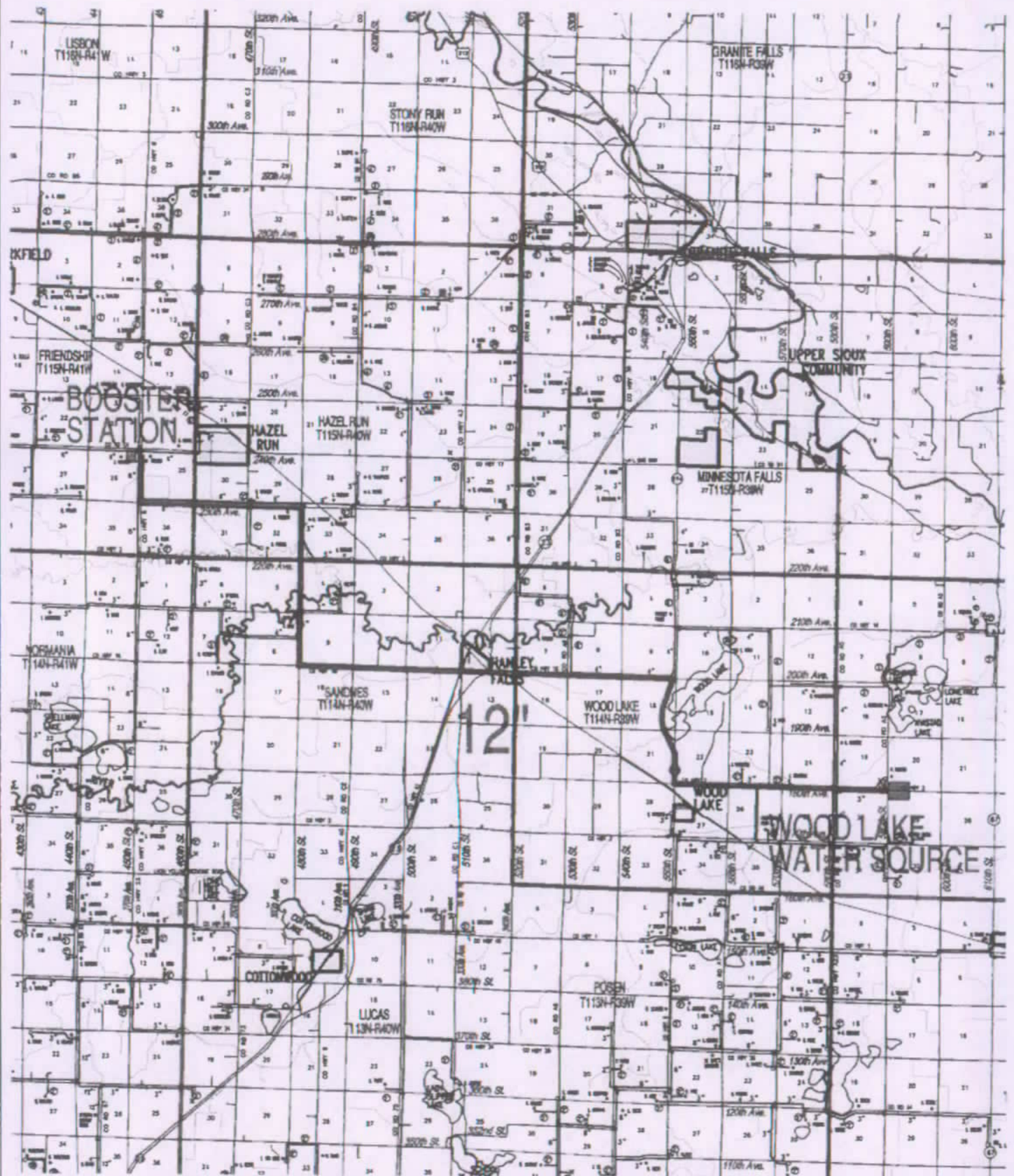
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Rock Rapids, IA - Sioux City, IA - Sioux Falls, SD

Date: JAN 2017
Designed By: GBK
Project Manager: DLS
Project Number: 800917
Plot Date: 2/3/11

REV	DATE

LINCOLN PIPESTONE
RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA



TRANSFER WATER TO BURR SERVICE AREA FROM WOOD LAKE DRAWING 5



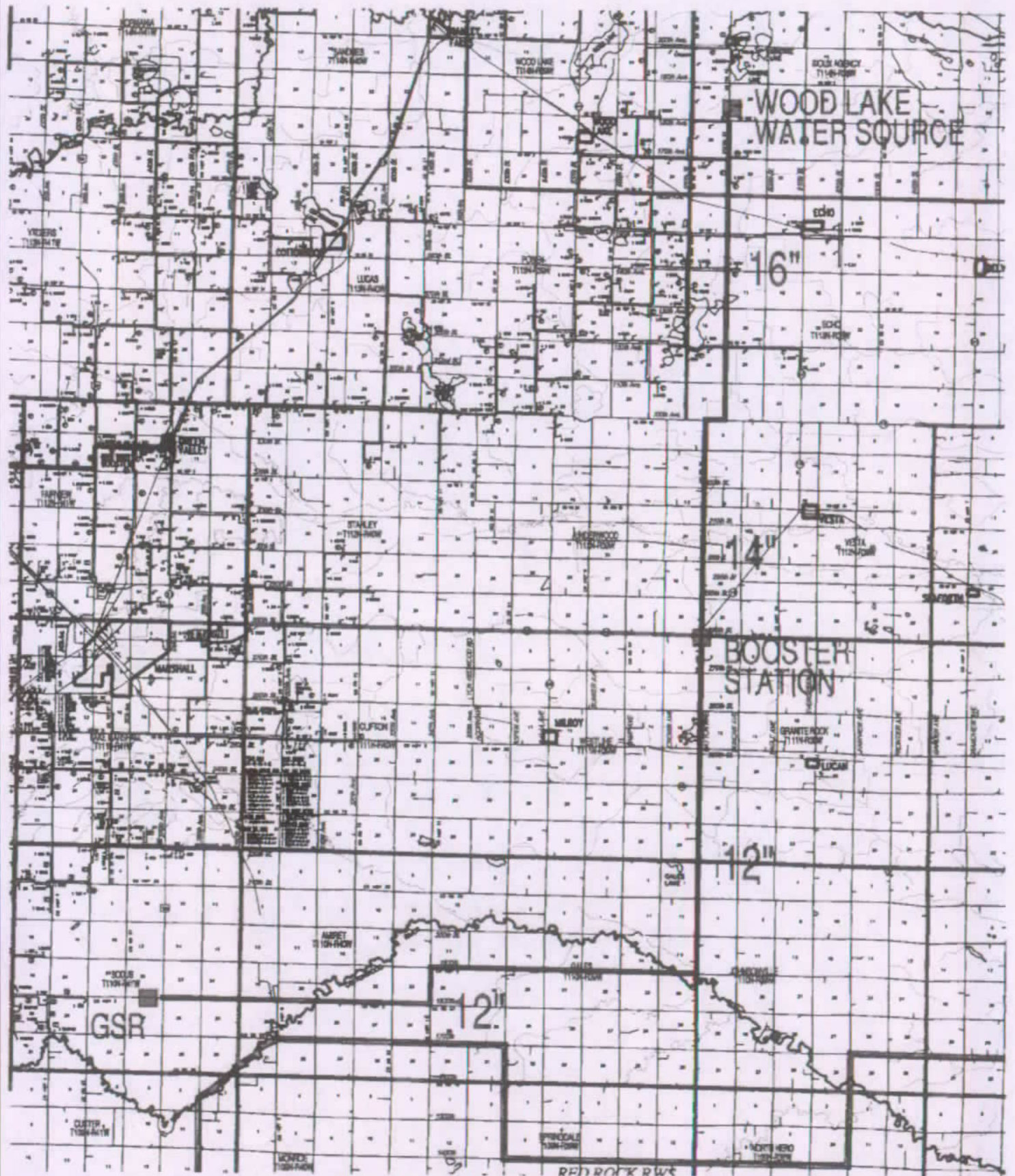
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Project Manager: DLS
Project Number: 800917
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LINCOLN PIPESTONE
RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA



SERVICE TO REDWOOD COUNTY

DRAWING 6

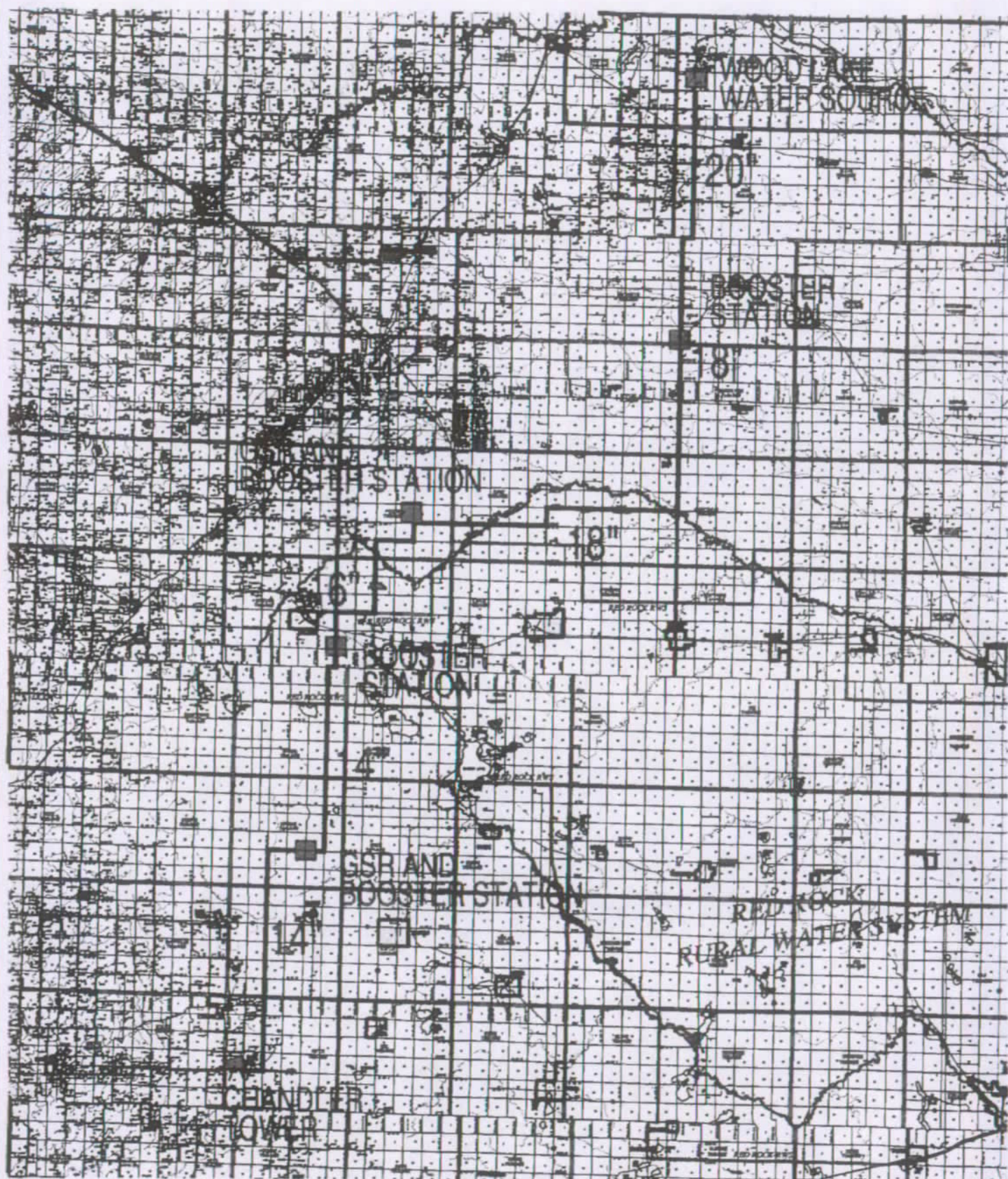


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Project Manager: DLS
Project Number: 800917
Plot Date: 1/27/11

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LINCOLN PIPESTONE
RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA



ALTERNATE M-W: MURRAY COUNTY FROM WOOD LAKE

DRAWING 7



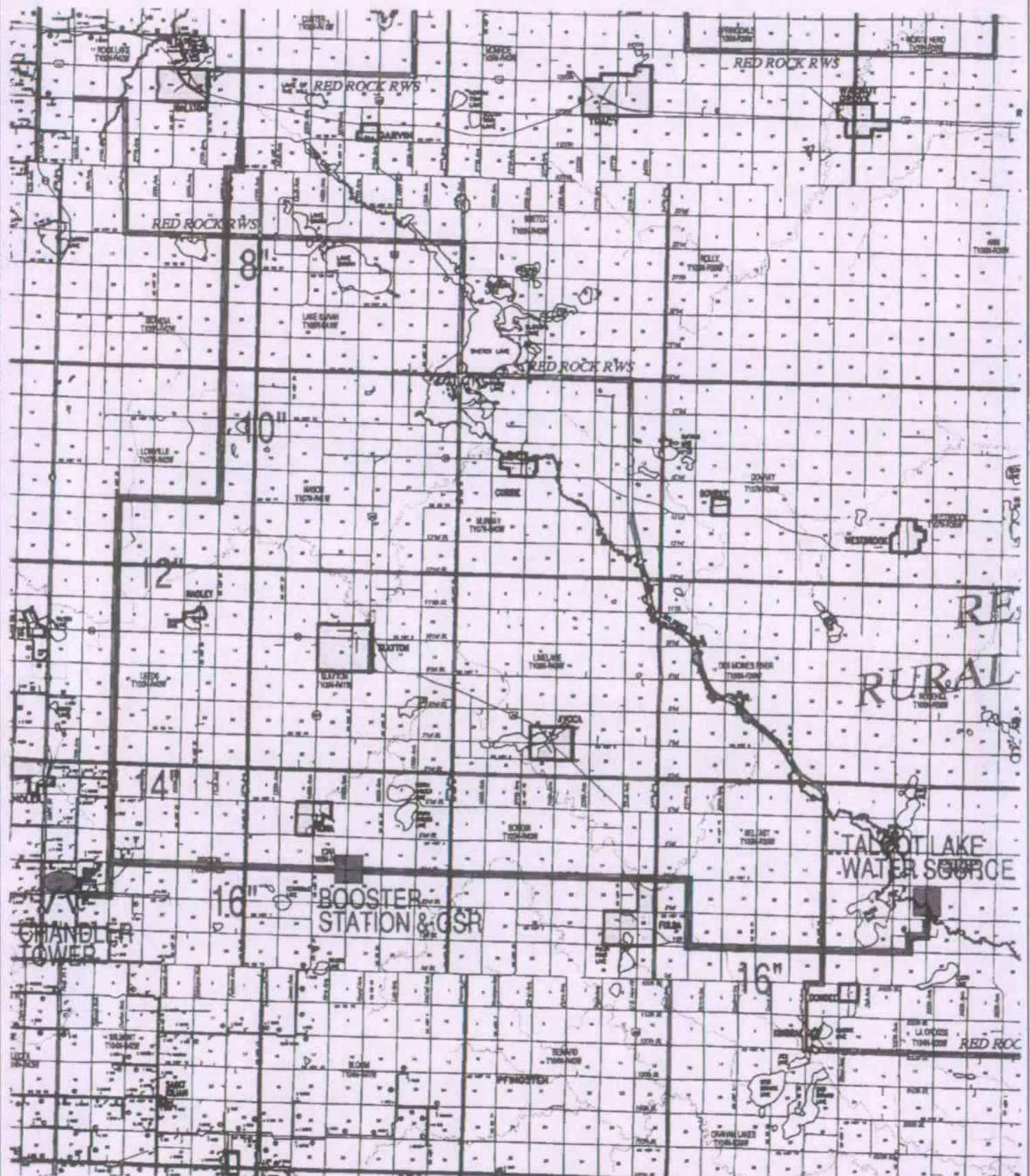
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Rock Rapids, IA - Sioux City, IA - Sioux Falls, SD

Date: JAN 2011
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Project Manager: DLS
Project Number: 800917
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LINCOLN PIPESTONE
RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA



ALTERNATE M-T: MURRAY COUNTY FROM TALCOT LAKE

DRAWING 8



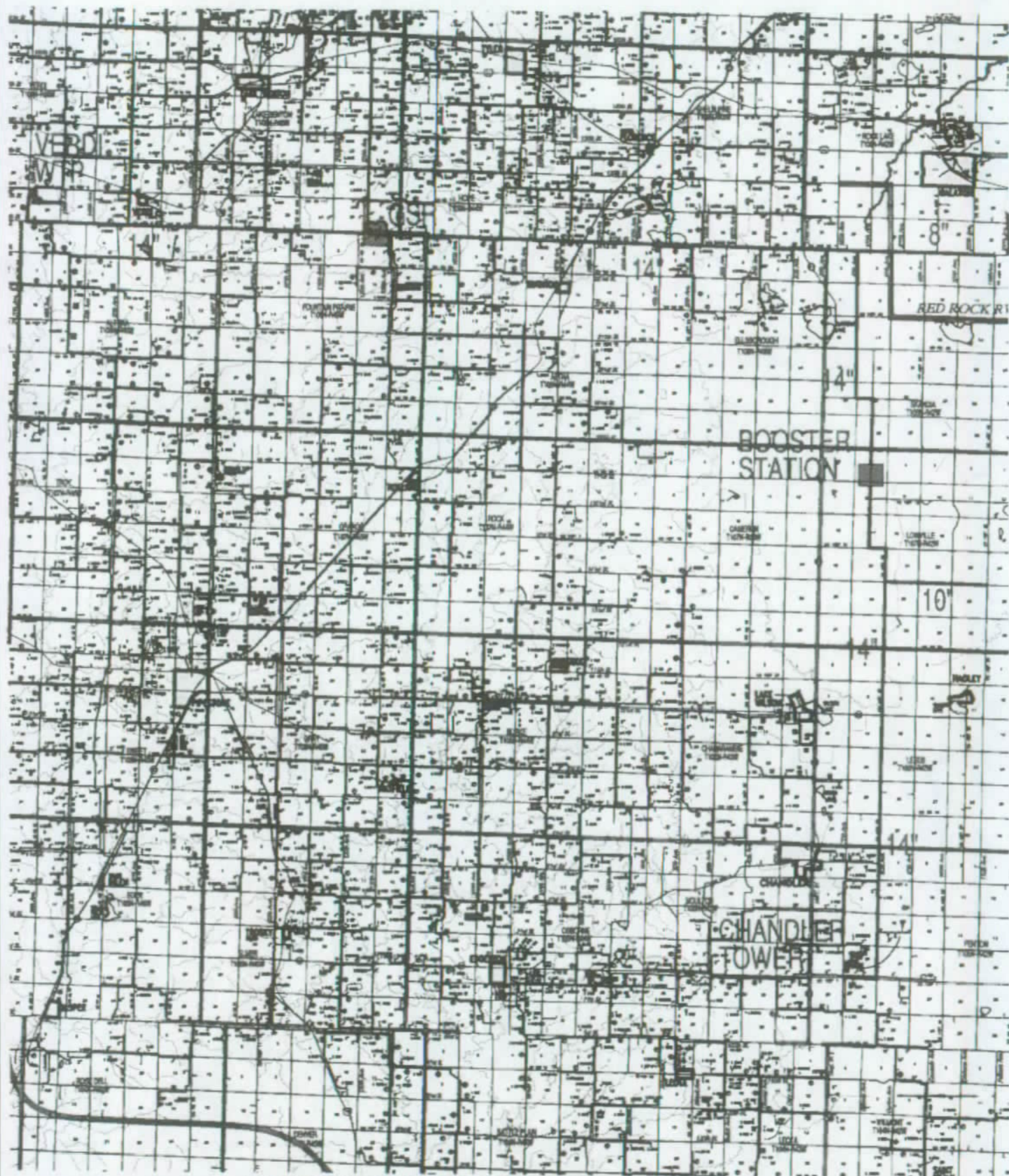
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Rock Rapids, IA - Sioux City, IA - Sioux Falls, SD

Date: JAN 2011
Designed By: GBK
Project Manager: DLS
Project Number: 800917
Plot Date: 1/22/11

REV	DATE

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RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA



ALTERNATE M-V: MURRAY COUNTY FROM VERDI

DRAWING 9



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Rock Rapids, IA - Sioux City, IA - Sioux Falls, SD

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Designed By: GBK
Project Manager: DLS
Project Number: 900917
Plot Date: 1/23/11

REV	DATE

LINCOLN PIPESTONE
RURAL WATER SYSTEM
LAKE BENTON, MINNESOTA

TABLES

Table 1
2008 and Projected Water Use - Burr Service Area
(all water use quantities are gallons)

Service Area	2008	Unserved Rural Residents	Total Served and Unserved
Municipal Connections	11		11
Rural Connections			
Large	59		
Small	1,550		
Total	1,609	270	1,879
Annual Water Sold			
Municipal	202,000,000		202,000,000
Large Rural	107,500,000		
Small Rural	200,500,000		
Total Rural	308,000,000	52,000,000	360,000,000
Total Municipal and Rural	510,000,000	52,000,000	562,000,000
Average Annual Water Sales per Connection			
Municipal	18,363,636		
Large Rural	1,822,034		
Small Rural	129,355		
Average of Large and Small Rural	191,423		
Total	20,315,025		
Average Monthly Water Sold per Rural Connection	15,952	15,952	15,952
Average Day Water Sold			
Municipal	553,425		
Large Rural	294,521		
Small Rural	549,315		
Total Rural	843,836		
Total Municipal and Rural	1,397,260	142,466	1,539,726
Total Annual Water Pumped	543,475,000	55,413,000	598,888,000
Unsold Water	33,475,000	3,413,000	36,888,000
% Unsold Water	6%		6%
Average Day Water Pumped	1,488,973	151,816	1,640,789
Peaking Factor (estimated)	1.5	1.5	1.5
Peak Day Water Pumped (estimated)	2,233,459	227,725	2,461,184

Table 2
2008 and Projected Water Use - Verdi Service Area
(all water use quantities are gallons)

Service Area	2008	Unserved Rural Residents	Total Served and Unserved
Municipal Connections	10		10
Rural Connections			
Large	35		
Small	927		
Total	962	85	1,047
Annual Water Sold			
Municipal	143,451,000		143,451,000
Large Rural	66,544,000		
Small Rural	125,951,000		
Total Rural	192,495,000	17,000,000	209,495,000
Total Municipal and Rural	335,946,000	17,000,000	352,946,000
Average Annual Water Sales per Connection			
Municipal	14,345,100		
Large Rural	1,901,257		
Small Rural	135,869		
Average of Large and Small Rural	200,099		
Total	16,382,227		
Average Monthly Water Sold per Rural Connection	16,675	16,675	16,675
Average Day Water Sold			
Municipal	393,016		
Large Rural	182,312		
Small Rural	345,071		
Total Rural	527,384		
Total Municipal and Rural	920,400		
Total Annual Water Pumped	387,417,000	19,605,000	407,022,000
Unsold Water	51,471,000	2,605,000	54,076,000
% Unsold Water	13%		13%
Average Day Water Pumped	1,061,416	53,712	1,115,129
Peaking Factor (estimated)	1.5	1.5	1.5
Peak Day Water Pumped (estimated)	1,592,125	80,568	1,672,693

Table 3
2008 and Projected Water Use - Holland Service Area
(all water use quantities are gallons)

Service Area	2008	Unserved Rural Residents	Total Served and Unserved
Municipal Connections	10		10
Rural Connections			
Large	112		
Small	811		
Total	923	130	1,053
Annual Water Sold			
Municipal	36,838,000		36,838,000
Large Rural	208,058,000		
Small Rural	170,877,000		
Total Rural	378,935,000	53,000,000	431,935,000
Total Municipal and Rural	415,773,000	53,000,000	468,773,000
Average Annual Water Sales per Connection			
Municipal	3,683,800		
Large Rural	1,857,661		
Small Rural	210,699		
Average of Large and Small Rural	410,547		
Total	5,752,160		
Average Monthly Water Sold per Rural Connection	34,212	34,212	34,212
Average Day Water Sold			
Municipal	100,926		
Large Rural	570,022		
Small Rural	468,156		
Total Rural	1,038,178		
Total Municipal and Rural	1,139,104		
Total Annual Water Pumped	532,499,000	67,879,000	600,378,000
Unsold Water	116,726,000	14,879,000	131,605,000
% Unsold Water	22%		22%
Average Day Water Pumped	1,458,901	185,970	1,644,871
Peaking Factor (estimated)	1.5	1.5	1.5
Peak Day Water Pumped (estimated)	2,188,352	278,955	2,467,307

Table 4
2008 and Projected Water Use - Total Current System
(all water use quantities are gallons)

Service Area	2008	Unserved Rural Residents	Total Served and Unserved
Municipal Connections	31		31
Rural Connections			
Large	206		
Small	3,288		
Total	3,494	485	3,979
Annual Water Sold			
Municipal	382,289,000		382,289,000
Large Rural	382,102,000		
Small Rural	497,328,000		
Total Rural	879,430,000	122,000,000	1,001,430,000
Total Municipal and Rural	1,261,719,000	122,000,000	1,383,719,000
Average Annual Water Sales per Connection			
Municipal	12,331,903		
Large Rural	1,854,864		
Small Rural	151,255		
Average of Large and Small Rural	251,697		
Total	14,338,023		
Average Monthly Water Sold per Rural Connection	20,975	20,975	20,975
Average Day Water Sold			
Municipal	1,047,367		
Large Rural	1,046,855		
Small Rural	1,362,542		
Total Rural	2,409,397		
Total Municipal and Rural	3,456,764		
Total Annual Water Pumped	1,463,391,000	141,500,000	1,604,891,000
Unsold Water	201,672,000	19,500,000	221,172,000
% Unsold Water	14%		14%
Average Day Water Pumped	4,009,290	387,671	4,396,962
Peaking Factor (estimated)	1.5	1.5	1.5
Peak Day Water Pumped (estimated)	6,013,936	581,507	6,595,442

Table 5
Estimated Water Use - Murray County
(all water use quantities are gallons)

Rural	100% Potential	75% Potential	50% Potential
Potential Connections	1,019	764	510
Avg Month/conn, gal	22,000	22,000	22,000
Avg Day/conn, gal	733	733	733
Avg Day Demand	747,267	560,267	374,000
Peaking Factor	1.5	1.5	1.5
Peak Day Demand	1,120,900	840,400	561,000

Towns/Wholesale	Population	Avg Day	Peak Day
Avoca	146	10,950	27,375
Chandler	276	20,700	51,750
Current Lake	--		
Currie	225	16,875	42,188
Dovray (RRRWS)	67		
Fulda	1,283		
Hadley	81	6,075	15,188
Iona	173	12,975	32,438
Lake Wilson	270	20,250	50,625
Lime Creek	--		
Red Rock Rural Water		240,000	360,000
Chandler Tower Service Area		280,720	421,080
Slayton	2,072		
Wirock	--		
Total Towns		608,545	1,000,643

Combined	Avg Day	Peak Day
100% Potential		
Rural	747,267	1,120,900
Towns	608,545	1,000,643
	1,355,812	2,121,543
75% Potential		
Rural	560,267	840,400
Towns	456,409	750,482
	1,016,675	1,590,882
50% Potential		
Rural	374,000	561,000
Towns	304,273	500,321
	678,273	1,061,321

Table 6
Estimated Water Use - Redwood County
(all water use quantities are gallons)

Rural	100% Potential	75% Potential	50% Potential
Potential Connections	2,272	1,704	1,136
Avg Month/conn, gal	15,000	15,000	15,000
Avg Day/conn, gal	500	500	500
Avg Day Demand	1,136,000	852,000	568,000
Peaking Factor	1.5	1.5	1.5
Peak Day Demand	1,704,000	1,278,000	852,000

Towns	Population	Avg Day	Peak Day
Belview	412	30,900	77,250
Clements	191	14,325	35,813
Delhi	69	5,175	12,938
Gilfillan	--		
Lamberton	859		
Lucan	226	16,950	42,375
Milroy	271	20,325	50,813
Morgan	903		
North Redwood	--		
Redwood Falls	5,459		
Revere	100		
Rowena	--		
Sanborn	434		
Seaforth	77	5,775	14,438
Vesta	339	25,425	63,563
Wabasso	643	48,225	120,563
Walnut Grove	599		
Wanda	103	7,725	19,313
Total Towns		174,825	437,063

Combined	Avg Day	Peak Day
100% Potential		
Rural	1,136,000	1,704,000
Towns	174,825	437,063
	1,310,825	2,141,063
75% Potential		
Rural	852,000	1,278,000
Towns	131,119	327,797
	983,119	1,605,797
50% Potential		
Rural	568,000	852,000
Towns	87,413	218,531
	655,413	1,070,531

Table 7
Estimated Water Use - Lac Qui Parle County
(all water use quantities are gallons)

Rural	100% Potential	75% Potential	50% Potential
Potential Connections	1,073	805	537
Avg Month/conn, gal	15,000	15,000	15,000
Avg Day/conn, gal	500	500	500
Avg Day Demand	536,500	402,500	268,500
Peaking Factor	1.5	1.5	1.5
Peak Day Demand	804,750	603,750	402,750

Towns	Population	Avg Day	Peak Day
Bellingham	205	15,375	38,438
Boyd (already served by LPRW)	210		
Cerro Gordo	--		
Dawson	1,539		
Haydenville	--		
Lac qui Parle	--		
Louisburg	26	1,950	4,875
Madison	1,768		
Marietta (Grant-Roberts)	174		
Nassau (Grant-Roberts)	83		
Providence	--		
Rosen	--		
Total		17,325	43,313

Combined	Avg Day	Peak Day
100% Potential		
Rural	536,500	804,750
Towns	17,325	43,313
	553,825	848,063
75% Potential		
Rural	402,500	603,750
Towns	12,994	32,484
	415,494	636,234
50% Potential		
Rural	268,500	402,750
Towns	8,663	21,656
	277,163	424,406

Table 8
Estimated Water Use - Yellow Medicine County
 (all water use quantities are gallons)

Rural	100% Potential	75% Potential	50% Potential
Potential Connections	566	425	283
Avg Month/conn, gal	15,000	15,000	15,000
Avg Day/conn, gal	500	500	500
Avg Day Demand	283,000	212,500	141,500
Peaking Factor	1.5	1.5	1.5
Peak Day Demand	424,500	318,750	212,250

Towns	Population	Avg Day	Peak Day
Clarkfield	944		
Cottonwood (Lyon Co.)	1,148		
Hanley Falls	323		
Wood Lake	436	32,700	81,750
Total		32,700	81,750

Combined	Avg Day	Peak Day
100% Potential		
Rural	283,000	424,500
Towns	32,700	81,750
	315,700	506,250
75% Potential		
Rural	212,500	318,750
Towns	24,525	61,313
	237,025	380,063
50% Potential		
Rural	141,500	212,250
Towns	16,350	40,875
	157,850	253,125

Table 9
Estimated Water Use - Jackson and Nobles Counties
(all water use quantities are gallons)

Rural	100% Potential	75% Potential	50% Potential
Potential Connections	1,272	954	636
Avg Month/conn, gal	30,000	30,000	30,000
Avg Day/conn, gal	1000	1000	1000
Avg Day Demand	1,272,000	954,000	636,000
Peaking Factor	1.5	1.5	1.5
Peak Day Demand	1,908,000	1,431,000	954,000

Towns	Population	Avg Day	Peak Day
Adrian	1,234	92,550	231,375
Bigelow (OCRWS)	231		
Brewster	502	37,650	94,125
Ellsworth	540	40,500	101,250
Okabena	185	13,875	34,688
Round Lake	424	31,800	79,500
Rushmore	376	28,200	70,500
Wilmont	332	24,900	62,250
Total		269,475	673,688

Combined	Avg Day	Peak Day
100% Potential		
Rural	1,272,000	1,908,000
Towns	269,475	673,688
	1,541,475	2,581,688
75% Potential		
Rural	954,000	1,431,000
Towns	202,106	505,266
	1,156,106	1,936,266
50% Potential		
Rural	636,000	954,000
Towns	134,738	336,844
	770,738	1,290,844

Table 10
Estimated Water Use - Summary of All Service Areas - 100% Potential
(all water use quantities are gallons)

Service Area	Average Day	Peak Day	Annual Use
Burr	1,641,000	2,461,000	598,965,000
Verdi	1,115,000	1,673,000	406,975,000
Holland	1,645,000	2,467,000	600,425,000
Subtotal - Existing System	4,401,000	6,601,000	1,606,365,000
Murray County	1,356,000	2,122,000	494,940,000
Redwood County	1,311,000	2,141,063	478,515,000
Lac Qui Parle County	554,000	848,000	202,210,000
Yellow Medicine County	316,000	506,000	115,340,000
Jackson and Martin Counties	1,541,000	2,582,000	562,465,000
Subtotal - Expansion Area	3,722,000	6,077,063	1,358,530,000
Total - Existing and Expansion	8,123,000	12,678,063	2,964,895,000
New Water Sources:			22 hr. gpm
Wood Lake 1			
Murray County		2,122,000	
Redwood County		2,141,063	
Burr Source Reduction		712,000	
Subtotal		4,975,063	3,800
Wood Lake 2			
Redwood County		2,141,063	
Burr Source Reduction		712,000	
Subtotal		2,853,063	2,200
Dawson (Lac Qui Parle)		848,000	600
Talcot Lake (Murray)		2,122,000	1,600

Table 11
Burr Source Water Use Alternatives
(all water use quantites are in gallons)

Service Area	Average Day	Peak Day	Annual Use
Current Burr 22 Hr. Capacity or Annual Permitted Use	1,507,000	2,376,000	550,000,000
Scenario One: Add Yellow Medicine County & Supply Green Valley Booster from Wood Lake:			
2008 Historic Burr Water Use	1,488,973	2,233,459	543,475,000
Yellow Medicine Co. (Table 8 - 100% Potential)	315,700	506,250	115,230,500
Minus Supplied from Wood Lake	(474,667)	(712,000)	(173,253,333)
Scenario One Total	1,330,000	2,028,000	485,452,000
Excess/(Deficit) vs. Capacity or Permitted	177,000	348,000	64,548,000
Scenario Two: Add Lac Qui Parle County to Scenario One:			
2008 Historic Burr Water Use	1,488,973	2,233,459	543,475,000
Yellow Medicine Co. (Table 8 - 100% Potential)	315,700	506,250	115,230,500
Minus Supplied from Wood Lake	(474,667)	(712,000)	(173,253,333)
Lac Qui Parle Co. (Table 7 - 100% Potential)	553,825	848,063	202,146,125
Scenario Two Total	1,884,000	2,876,000	687,598,000
Excess/(Deficit) vs. Capacity or Permitted	(377,000)	(500,000)	(137,598,000)
Scenario Three: Scenario Two With No Water To Marshall Municipal Utilities			
2008 Historic Burr Water Use	1,488,973	2,233,459	543,475,000
Yellow Medicine Co. (Table 8 - 100% Potential)	315,700	506,250	115,230,500
Minus Supplied from Wood Lake	(474,667)	(712,000)	(173,253,333)
Lac Qui Parle Co. (Table 7 - 100% Potential)	553,825	848,063	202,146,125
Minus MMU Water Use (2008)	(345,205)	(345,205)	(126,000,000)
Scenario Three Total	1,539,000	2,531,000	561,598,000
Excess/(Deficit) vs. Capacity or Permitted	(32,000)	(155,000)	(11,598,000)

Table 11A
Burr Source Water Use Alternatives Using 75% Potential
(all water use quantities are in gallons)

Service Area	Average Day	Peak Day	Annual Use
Current Burr 22 Hr. Capacity or Annual Permitted Use	1,507,000	2,376,000	550,000,000
Scenario One: Add Yellow Medicine County & Supply Green Valley Booster from Wood Lake:			
2008 Historic Burr Water Use	1,488,973	2,233,459	543,475,000
Yellow Medicine Co. (Table 8 - 75% Potential)	237,025	380,063	86,514,125
Minus Supplied from Wood Lake	(474,667)	(712,000)	(173,253,333)
Scenario One Total	1,251,000	1,902,000	456,736,000
Excess/(Deficit) vs. Capacity or Permitted	256,000	474,000	93,264,000
Scenario Two: Add Lac Qui Parle County to Scenario One:			
2008 Historic Burr Water Use	1,488,973	2,233,459	543,475,000
Yellow Medicine Co. (Table 8 - 75% Potential)	237,025	380,063	86,514,125
Minus Supplied from Wood Lake	(474,667)	(712,000)	(173,253,333)
Lac Qui Parle Co. (Table 7 - 75% Potential)	415,494	636,234	151,655,219
Scenario Two Total	1,667,000	2,538,000	608,391,000
Excess/(Deficit) vs. Capacity or Permitted	(160,000)	(162,000)	(58,391,000)
Scenario Three: Scenario Two With No Water To Marshall Municipal Utilities			
2008 Historic Burr Water Use	1,488,973	2,233,459	543,475,000
Yellow Medicine Co. (Table 8 - 75% Potential)	237,025	380,063	86,514,125
Minus Supplied from Wood Lake	(474,667)	(712,000)	(173,253,333)
Lac Qui Parle Co. (Table 7 - 75% Potential)	415,494	636,234	151,655,219
Minus MMU Water Use (2008)	(345,205)	(345,205)	(126,000,000)
Scenario Three Total	1,322,000	2,193,000	482,391,000
Excess/(Deficit) vs. Capacity or Permitted	185,000	183,000	67,609,000

Table 12
Cost Estimate
Alternative L-D: Lac Qui Parle from Dawson

Item	Unit Price	Estimated Units	Total Cost
10" SDR 21	\$ 10.01	74,348	\$ 744,199
10" SDR 26	\$ 8.47	102,076	\$ 864,532
8" SDR 26	\$ 5.86	46,532	\$ 272,552
Valves Crossings, Misc.	25%		\$ 470,321
322,000 Gallon Ground Storage Reservoir	\$ 335,000	1	\$ 335,000
250,000 Gallon Elevated Tank	\$ 620,000	1	\$ 620,000
Medium Size Booster Station	\$ 320,000	1	\$ 320,000
Dawson Water Source - 0.85 MGD			\$ 3,663,000
Total Estimated Construction Cost			\$ 7,290,000
Non-Construction Costs - 30%			\$ 2,187,000
Total Estimated Project Cost			\$ 9,477,000

Table 13
Cost Estimate
Alternative L-B: Lac Qui Parle from Burr

Item	Unit Price	Estimated Units	Total Cost
12" DR 18	\$ 16.61	36,554	\$ 607,030
12" SDR 21	\$ 13.52	76,042	\$ 1,027,964
12" SDR 26	\$ 11.41	26,480	\$ 302,168
10" SDR 21	\$ 10.01	21,382	\$ 214,027
8" SDR 21	\$ 6.84	37,296	\$ 255,035
8" SDR 26	\$ 5.86	19,676	\$ 115,248
6" SDR 21	\$ 4.48	31,848	\$ 142,641
Valves Crossings, Misc.	25%		\$ 666,028
PRV Stations	\$ 80,000	3	\$ 240,000
Total Estimated Construction Cost			\$ 3,570,000
Non-Construction Costs - 30%			\$ 1,071,000
Total Estimated Project Cost			\$ 4,641,000

Table 14
Cost Estimate
Alternative L-BD -A & B: Lac Qui Parle from Brookings Deuel

Item	Unit Price	Route A		Route B	
		Estimated Units	Total Cost	Estimated Units	Total Cost
12" DR 18	\$ 16.61	36,554	\$ 607,030	25,974	\$ 431,335
12" SDR 21	\$ 13.52	76,042	\$ 1,027,964	65,522	\$ 885,751
12" SDR 26	\$ 11.41	28,640	\$ 326,816	-	\$ -
10" DR 18	\$ 12.02	2,600	\$ 31,265	5,300	
10" SDR 21	\$ 10.01	34,372	\$ 344,052	42,172	\$ 422,128
10" SDR 26	\$ 8.47	45,000	\$ 381,127	44,900	
8" SDR 21	\$ 6.84	37,296	\$ 255,035	37,296	\$ 255,035
8" SDR 26	\$ 5.86	19,676	\$ 115,248	19,676	\$ 115,248
6" SDR 21	\$ 4.48	31,848	\$ 142,641	31,848	\$ 142,641
Valves Crossings, Misc.	25%		\$ 807,795		\$ 563,034
Control Station	\$ 150,000	1	\$ 150,000		
550,000 Gallon Ground Storage Reservoir	\$ 450,000	1	\$ 450,000	1	\$ 450,000
Brookings Deuel Water Source - 0.85 MGD			\$ 2,200,000		\$ 2,200,000
PRV Stations	\$ 80,000	3	\$ 240,000	4	\$ 320,000
Total Estimated Construction Cost			\$ 7,079,000		\$ 5,785,000
Non-Construction Costs - 30%			\$ 2,124,000		\$ 1,736,000
Total Estimated Project Cost			\$ 9,203,000		\$ 7,521,000

Table 15
Cost Estimate
Wood Lake to Burr Service Area

Item	Unit Price	Estimated Units	Total Cost
12" SDR 21	\$ 13.52	63,800	\$ 862,472
12" SDR 26	\$ 11.41	42,400	\$ 483,833
Valves Crossings, Misc.	25%		\$ 336,576
Medium Size Booster Station	\$ 320,000	1	\$ 320,000
Wood Lake Water Source - 0.71 MGD			<u>\$ 3,259,000</u>
Total Estimated Construction Cost			\$ 5,262,000
Non-Construction Costs - 30%			<u>\$ 1,579,000</u>
Total Estimated Project Cost			\$ 6,841,000

Table 16
Cost Estimate
Wood Lake to Redwood County

Item	Unit Price	Estimated Units	Total Cost
16" DR 25	\$ 20.56	50,000	\$ 1,027,981
14" DR 25	\$ 16.22	27,000	\$ 437,842
12" SDR 21	\$ 13.52	47,500	\$ 642,123
12" SDR 26	\$ 11.41	65,500	\$ 747,431
Valves Crossings, Misc.	25%		\$ 713,844
1,300,000 Gallon Ground Storage Reservoir	\$ 840,000	1	\$ 840,000
Medium Size Booster Station	\$ 320,000	1	\$ 320,000
Wood Lake Water Source - 2.85 MGD			<u>\$ 8,709,000</u>
Total Estimated Construction Cost			\$ 13,438,000
Non-Construction Costs - 30%			<u>\$ 4,031,000</u>
Total Estimated Project Cost			\$ 17,469,000

Table 17
Cost Estimate
Alternative M - W: Murray County from Wood Lake

Item	Unit Price	Estimated Units	Total Cost
20" DR 25	\$ 30.87	77,000	\$ 2,376,747
18" DR 18	\$ 36.17	53,000	\$ 1,917,242
18" DR 25	\$ 25.44	60,000	\$ 1,526,587
16" DR 18	\$ 28.91	14,000	\$ 404,754
16" DR 25	\$ 20.56	57,000	\$ 1,171,898
14" DR 18	\$ 22.34	87,900	\$ 1,963,445
14" DR 25	\$ 16.22	56,000	\$ 908,116
Valves Crossings, Misc.	25%		\$ 2,567,197
1,100,000 Gallon Ground Storage Reservoir	\$ 710,000	1	\$ 710,000
1,300,000 Gallon Ground Storage Reservoir	\$ 840,000	1	\$ 840,000
Medium Size Booster Station	\$ 320,000	1	\$ 320,000
Large Booster Station	\$ 550,000	3	\$ 1,650,000
Wood Lake Water Source - 5.00 MGD			<u>\$ 12,477,000</u>
Total Estimated Construction Cost			\$ 28,833,000
Non-Construction Costs - 30%			<u>\$ 8,650,000</u>
Total Estimated Project Cost			\$ 37,483,000
Minus Cost Allocated to Red Wood County Service Area			<u>\$ 17,469,000</u>
			\$ 20,014,000

Table 18
Cost Estimate
Alternative M - T: Murray County from Talcot Lake

Item	Unit Price	Estimated Units	Total Cost
16" DR 18	\$ 28.91	79,826	\$ 2,307,850
16" DR 25	\$ 20.56	73,299	\$ 1,506,999
14" DR 25	\$ 16.22	21,019	\$ 340,852
12" SDR 21	\$ 13.52	36,909	\$ 498,950
10" SDR 21	\$ 10.01	47,311	\$ 473,568
8" SDR 17	\$ 8.02	28,454	\$ 228,149
Valves Crossings, Misc.	25%		\$ 1,339,092
1,100,000 Gallon Ground Storage Reservoir	\$ 710,000	1	\$ 710,000
Medium Size Booster Station	\$ 320,000	1	\$ 320,000
Talcot Lake Water Source - 2.10 MGD			\$ 6,432,000
Total Estimated Construction Cost			\$ 14,157,000
Non-Construction Costs - 30%			\$ 4,247,000
Total Estimated Project Cost			\$ 18,404,000

Table 19
Cost Estimate
Alternative M - V: Murray County from Verdi

Item	Unit Price	Estimated Units	Total Cost
14" DR 18	\$ 22.34	209,100	\$ 4,670,721
14" DR 25	\$ 16.22	54,000	\$ 875,683
10" DR 18	\$ 12.02	21,200	\$ 254,929
8" DR 14	\$ 9.96	15,900	\$ 158,313
Valves Crossings, Misc.	25%		\$ 1,489,912
1,300,000 Gallon Ground Storage Reservoir	\$ 840,000	1	\$ 840,000
Medium Size Booster Station	\$ 320,000	1	\$ 320,000
Verdi Water Source Expansion - 2.10 MGD			<u>\$ 3,786,000</u>
Total Estimated Construction Cost			\$ 12,396,000
Non-Construction Costs - 30%			<u>\$ 3,719,000</u>
Total Estimated Project Cost			\$ 16,115,000

Table 20
Cost Estimate
Wood Lake Water Source

Item	Unit Price	0.71 MGD		2.85 MGD		5.00 MGD	
		Estimated Units	Total Cost	Estimated Units	Total Cost	Estimated Units	Total Cost
Work Completed or Under Contract							
Exploratory Drilling - Steffl Drilling & Pump, Inc.		\$ 118,303		\$ 118,303		\$ 118,303	
Construction and Test Pumping of 3 Production Wells		\$ 270,726		\$ 270,726		\$ 270,726	
Hydrogeological Services		\$ 268,343		\$ 268,343		\$ 268,343	
Construction of Additional Wells	\$ 90,242	-		2	\$ 180,484	3	\$ 270,726
Well Pumps, Pitless Adapters, Site Work	\$ 60,000	3	\$ 180,000	5	\$ 300,000	6	\$ 360,000
Raw Water Main							
16/DR 25	\$ 20.56			2,700	\$ 55,511	2,700	\$ 55,511
14/DR 25	\$ 16.22	19,700	\$ 319,462	19,700	\$ 319,462	19,700	\$ 319,462
Valves Crossings, Misc.	25%		\$ 79,866		\$ 93,743		\$ 93,743
Wood Lake Water Treatment Plant			\$ 2,680,000		\$ 7,102,000		\$ 10,720,000
Total Estimated Construction Cost			\$ 3,259,000		\$ 8,709,000		\$ 12,477,000
Non-Construction Costs - 30%			\$ 978,000		\$ 2,613,000		\$ 3,743,000
Total Estimated Project Cost			\$ 4,237,000		\$ 11,322,000		\$ 16,220,000

Table 21
Cost Estimate
Talcot Lake Water Source

Item	Unit Price	Estimated Units	Total Cost
Exploratory Drilling			\$ 100,000
Production Well Construction	\$ 90,000	3	\$ 270,000
Hydrogeological Services			\$ 100,000
Well Pumps, Pitless Adapters, Site Work	\$ 60,000	3	\$ 180,000
Raw Water Main			
14" DR 25	\$ 16.22	5,300	\$ 85,947
12" SDR 21	\$ 13.52	2,650	\$ 35,824
Valves Crossings, Misc.	25%		\$ 30,443
Talcot Lake Water Treatment Plant - 2.10 MGD			<u>\$ 5,630,000</u>
Total Estimated Construction Cost			\$ 6,432,000
Non-Construction Costs - 30%			<u>\$ 1,930,000</u>
Total Estimated Project Cost			\$ 8,362,000

Table 22
Cost Estimate
Dawson Water Source

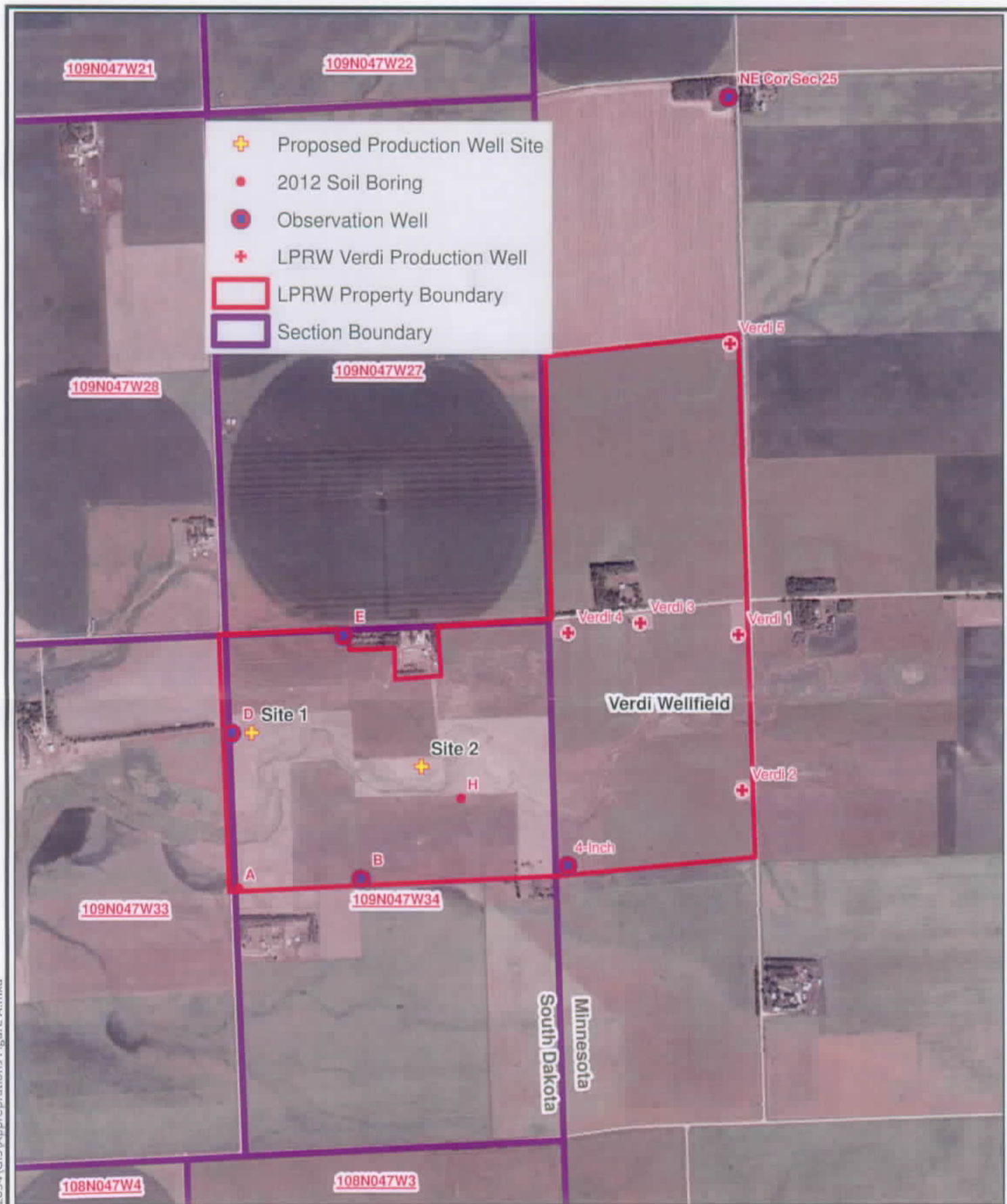
Item	Unit Price	Estimated Units	Total Cost
Exploratory Drilling			\$ 100,000
Production Well Construction	\$ 80,000	3	\$ 240,000
Hydrogeological Services			\$ 100,000
Well Pumps, Pitless Adapters, Site Work	\$ 50,000	3	\$ 150,000
Raw Water Main			
12" SDR 21	\$ 13.52	5,300	\$ 71,647
10" SDR 21	\$ 10.01	2,650	\$ 26,526
Valves Crossings, Misc.	25%		\$ 24,543
Dawson Water Source - 0.85 MGD			<u>\$ 2,950,000</u>
Total Estimated Construction Cost			\$ 3,663,000
Non-Construction Costs - 30%			<u>\$ 1,099,000</u>
Total Estimated Project Cost			\$ 4,762,000

Table 23
Cost Estimate
Verdi Water Source Improvements

Item	Unit Price	Estimated Units	Total Cost
Exploratory Drilling			\$ 25,000
Production Well Construction	\$ 80,000	5	\$ 400,000
Hydrogeological Services			\$ 100,000
Well Pumps, Pitless Adapters, Site Work	\$ 50,000	5	\$ 250,000
Raw Water Main			
14" DR 25	\$ 16.22	10,600	\$ 171,893
12" SDR 21	\$ 13.52	5,300	\$ 71,647
10" SDR 21	\$ 10.01	5,300	\$ 53,051
Valves Crossings, Misc.	25%		\$ 74,148
1,300,000 Gallon Ground Storage Reservoir	\$ 840,000	1	\$ 840,000
High Service Pumping and Building Addition			\$ 1,800,000
Total Estimated Construction Cost			\$ 3,786,000
Non-Construction Costs - 30%			\$ 1,136,000
Total Estimated Project Cost			\$ 4,922,000

Table 24
Cost Estimate
Comparison of Alternatives

Item	Total Cost
Lac Qui Parle Alternatives	
Alternative L-D: Lac Qui Parle from Dawson	\$ 9,477,000
Alternative L-B: Lac Qui Parle from Burr	\$ 4,641,000
Alternative L-BD -A & B: Lac Qui Parle from Brookings Deuel	
Route A	\$ 9,203,000
Route B	\$ 7,521,000
Murray County Alternatives	
Alternative M - W: Murray County from Wood Lake	\$ 20,014,000
Alternative M - T: Murray County from Talcot Lake	\$ 18,404,000
Alternative M - V: Murray County from Verdi	\$ 16,115,000



Source: MS Virtual Earth
Projection: NAD83 UTM Zone 15N

0 500 1,000 Feet



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LPRW - 2012 Exploration

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LPRW Well and Boring Locations

Figure
1



8/2/2012

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Liesch Associates, Inc. ■ 13400 15th Avenue North ■ Minneapolis, MN 55441
Phone: (763) 489-3100 ■ Toll Free: (800) 338-7914 ■ Fax: (763) 489-3101

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Memorandum

To: Lincoln Pipestone Rural Water - Board of Commissioners and
Dennis Healy, CEO Lincoln Pipestone Rural Water

From: Jim de Lambert, CPG – Liesch

Date: August 1, 2012

Re: LPRW – Verdi Wellfield Testing



This memorandum has been prepared to provide a brief update on the drilling activities completed on the recently acquired property near the Verdi Wellfield. Ervin Well Company was contracted for test drilling and installed five test holes on the South Dakota property between April 16 and 19, 2012. Observation wells were installed in three of the test holes to facilitate collection of water samples and water level measurements over time. An additional test hole was advanced on a separate property located north of the Verdi Wellfield in Minnesota. An observation well was also installed in this test hole. The locations for all test holes and wells drilled are shown on the attached **Figure 1**.

Test Drilling

Test holes were drilled at five locations on the recently purchased parcel in South Dakota. Eight locations were originally cleared for utility locates and five were ultimately drilled to keep the project within the established budget. These test holes, in combination with previous drilling conducted in the area, provide a sufficient level of detail to characterize the hydrogeology of the parcel.

The table below provides a comparison of the shallow aquifer depth at the existing Verdi production wells, the recently drilled test holes and the 4-inch test well installed in the southwest corner of the Verdi Wellfield. Test holes D and H encountered aquifer materials to similar depths as the existing Verdi wells and, on this basis, may represent potential production well sites. The location of the 4-inch test hole also appears favorable on the basis of aquifer depth and thickness.

Test holes A through H encountered clayey deposits from the surface to depths ranging from five to eight feet which is generally less than that reported at existing Verdi wells. Below the surficial clay the aquifer material was generally observed to be yellow/orange in color which can be an indication of oxidization of iron compounds.

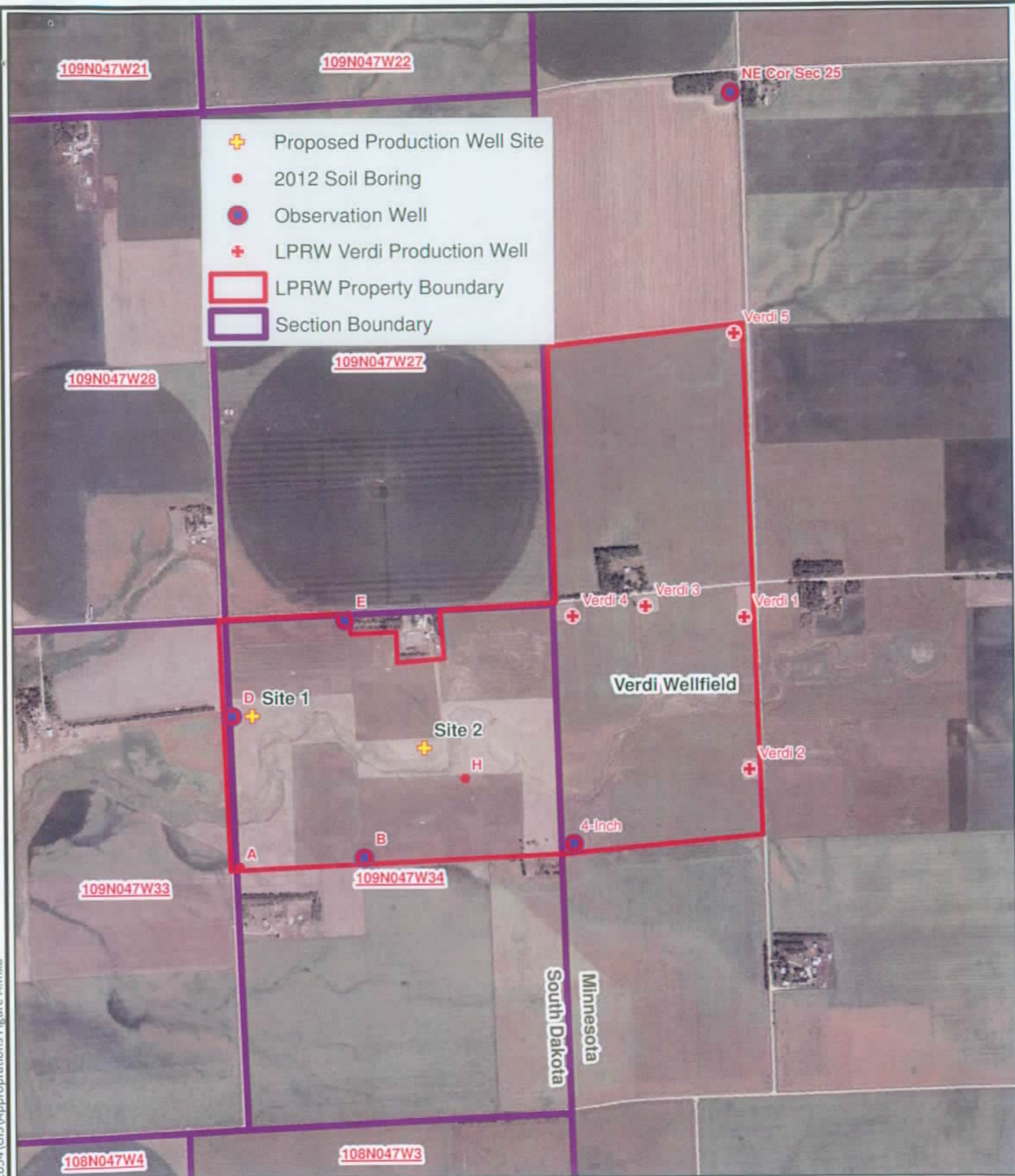
Well/Test Hole Name:	PW-1	PW-2	PW-3	PW-4	PW-5	A	B	D	E	H	4-inch	Sec 25
Aquifer Depth (ft.):	62	57.5	67	60	69	33	50	72	47	67	80	100

Note: Test Holes C, F and G were alternate locations that were not drilled

The test hole advanced in the northeast corner of section 25 appeared to be a favorable potential well site until testing indicated unacceptable water quality.

Test hole H was advanced to assess the potential for a deeper aquifer at the Verdi Wellfield. At this location, bedrock that appears to correlate with the Sioux Quartzite was encountered at a depth of 297 feet. The glacial deposits below the depth of the Verdi wells at this location do not appear favorable for development of high capacity wells.

W:\ws\12054\GIS\Appropriations Figure A.mxd



Source: MS Virtual Earth
Projection: NAD83 UTM Zone 15N

0 500 1,000 Feet



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LPRW - 2012 Exploration

LPRW Well and Boring Locations

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Figure
1

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location 1/4 1/4 Sec. 34 Twp. 109N Rg. 47W

County

North

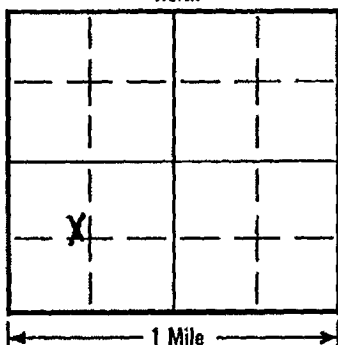
Brookings

Please mark well location with an "X"

Site B

See attached map W

Well Completion Date

04/18/2012

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from _____ (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:

Mud Rotary

CASING DATA: ☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
3.66 LB/FT	2" IN	0 FT	50 FT	6 1/2 IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	_____	_____ lb./gal	0 ft	40 ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure Grouted from the bottom up with a tremi lineSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 2 IN Length 10 FEETMaterial Stainless SteelSlot Size 10 Set From 40 Feet to 50 Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

YES, How: _____

☒ NO, Why Not? _____

Laboratory sent to for water quality analysis

Not a potable well

Well Owner: Lincoln Pipestone Rural WaterBusiness Name: SameAddress: East Hwy 14 P.O. Box 188
Lake Benton, MN. 56149

WELL LOG:

DEPTH

FORMATION	FROM	TO
Topsoil Brown	0	1
Sandy yellow clay	1	8
Orange/rust gravel	8	20
Rusty Sand/Gravel	20	27
Rust Gravel	27	50
Blue Clay	50	60

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____☐ Bailed _____☐ Other _____

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

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And this report is true and accurate.

Drilling firm Ervin Well Company, Inc.

Signature of License Representative:

Dan Ervin

Signature of Well Owner or Equitable Property Holder:

Date: 4/27/12

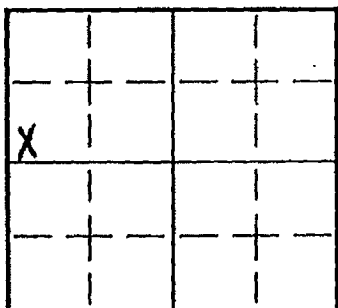
SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location _____ 1/4 _____ 1/4 Sec 34 Twp 109N Rg 47W
County _____ North

Brookings

Please mark well location with an "X"
Test Hole D
See Attached Map W



Well Completion Date _____

Well Owner: Lincoln Pipestone Rural Water

Business Name: Same

Address: East Hwy 14 P.O. Box 188
Lake Benton, MN. 56149

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
topsoil Black	0	1
Yellow Clay	1	6
Sandy Yellow Clay	6	11
Orange rusty gravel	11	40
Orange rusty sand	40	52
Orange rusty sand/gravel	52	72
Blue sand & clay	72	74
Blue Clay	74	80

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from _____ (identify source).

PROPOSED USE:

- ☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:

Mud rotary

CASING DATA:

☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>3.66 LB/FT</u>	<u>2 IN</u>	<u>0 FT</u>	<u>61 FT</u>	<u>6 1/2 IN</u>
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite</u>	_____	_____ lb./gal	<u>0</u> ft	<u>57</u> ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure _____

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 IN Length 10 FEET

Material Stainless Steel

Slot Size 10 Set From 61 Feet to 71 Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

_____ YES, How: _____

X NO, Why Not? _____

Laboratory sent to for water
quality analysis _____

Not Potable well

STATIC WATER LEVEL 13 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____

☐ Bailed _____

☐ Other _____

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

RECEIVED

AUG 08 2012

WATER RIGHTS
PROGRAM

This well was drilled under license # 684

And this report is true and accurate.

Drilling firm Ervin Well Company, Inc.

Signature of License Representative:

Dan Ervin

Signature of Well Owner or Equitable Property Holder:

Date: 4/27/12

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location 1/4 1/4 Sec 34 Twp 109N Rg 47W
County Brookings North

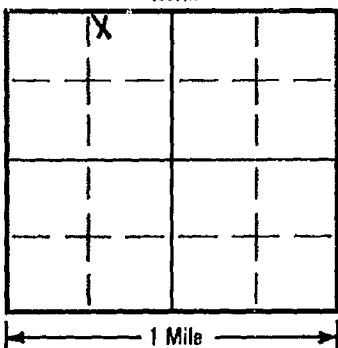
Please mark well location with an "X"

Site E

See attached Map

Well Completion Date

04/17/2012



LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from _____ (identify source).

PROPOSED USE:

- ☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☒ Monitoring well

METHOD OF DRILLING:

Mud Rotary

CASING DATA: ☒ Steel ☐ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
3.66 LB/FT	2 IN	0 FT	37 FT	6 1/2 IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	_____	_____ lb./gal	0 ft	40 ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure Grouted from the bottom to the top with a tremi lineSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 2 IN Length 10 FEETMaterial Stainless SteelSlot Size 10 Set From 37 Feet to 47 Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

YES, How: _____

Laboratory sent to for water quality analysis

X NO, Why Not? Not a Potable WellWell Owner: Lincoln Pipestone Rural WaterBusiness Name: SameAddress: East Highway 14 P.O. box 188
Lake Benton, MN. 56149

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Brown Topsoil	0	1
Yellow Clay	1	5
Dirty Sand & Gravel	5	12
Yellow/Orange Gravel	12	47
Blue Clay	47	60

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____☐ Bailed _____☐ Other _____

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

RECEIVED

AUG 08 2012

WATER RIGHTS PROGRAM

This well was drilled under license # 684

And this report is true and accurate.

Drilling firm Ervin Well Company, Inc.

Signature of License Representative:

Don Eslin

Signature of Well Owner or Equitable Property Holder:

Date: 4/27/12

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location 1/4 1/4 Sec 34 Twp 109N Rg. 47W
 County Brookings North

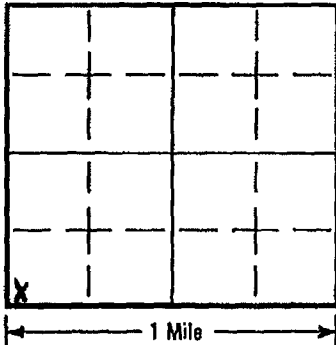
Please mark well location with an "X"

Test hole A

SEE ATTACHED MAP

Well Completion Date

04/16/2012



LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from _____ (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Mud Rotary

CASING DATA: ☐ Steel ☐ Plastic ☐ OtherIf other describe NONE

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
_____ LB/FT	_____ IN	_____ FT	_____ FT	6 1/2 IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	_____	_____ lb./gal	0 ft	60 ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure Grouted with Tremi Pipe
From the bottom to the top.

SCREEN: ☐ Perforated pipe ☐ Manufactured NONE

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

YES, How: _____

X NO, Why Not? _____

Laboratory sent to for water quality analysis

HOLE SealedWell Owner: Lincoln Pipestone Rural WaterBusiness Name: Same

Address: East Hwy 14 P.O. Box 188
Lake Benton, MN 56149

WELL LOG:

DEPTH

FORMATION	FROM	TO
Clay Yellow	0	4
Sandy yellow clay	4	7
Yellow Gravel	7	13
Yellow Sand	13	14
Yellow Sand/Gravel	14	29
Sand Yellow	29	33
Green/Blue Clay	33	52
Gray Clay	52	60

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____☐ Bailed _____☐ Other _____

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

RECEIVED

AUG 08 2012

WATER RIGHTS PROGRAM

This well was drilled under license # 684

And this report is true and accurate.

Drilling firm Ervin Well Company, Inc.

Signature of License Representative:

Don Ervin

Signature of Well Owner or Equitable Property Holder:

Date: 4/27/12

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location 1/4 1/4 Sec 34 Twp 109N Rg 47W
County Brookings North

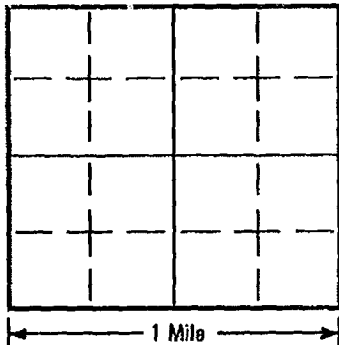
Please mark well location with an "X"

Site H

See attached map W E

Well Completion Date

04/18/2012



LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? _____ ft. from _____ (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Mud Rotary

CASING DATA: ☐ Steel ☐ Plastic ☐ OtherIf other describe NONE

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
_____ LB/FT	_____ IN	_____ FT	_____ FT	<u>6 1/2</u> IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite</u>	_____	_____ lb./gal	<u>0</u> ft	<u>297</u> ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure Grouted from the bottom to the top with tremi lineSCREEN: ☐ Perforated pipe ☐ Manufactured

Diameter _____ IN Length _____ FEET

Material _____

Slot Size _____ Set From _____ Feet to _____ Feet

Other information _____

WAS A PACKER OR SEAL USED? ☐ YES ☒ NO

If so, what material? _____

Describe packer(s) and location? _____

DISINFECTION: Was well disinfected upon completion?

_____ YES, How: _____

Laboratory sent to for water quality analysis

X NO, Why Not? The hole was sealedWell Owner: Lincoln Pipestone Rural WaterBusiness Name: SameAddress: East hwy 14 P.O. Box 188
Lake Benton, MN. 56149

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Brown Topsoil	0	1
Yellow Clay	1	5
Gravel	5	17
Sand	17	30
Gravel/Sand	30	61
Clean Sand	61	67
Clay Blue	67	73
Silty sand	73	74
Clay Gray	74	92

Continued on next page

STATIC WATER LEVEL _____ Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☐ Pumped Describe: _____☐ Bailed _____☐ Other _____

Pumping Level Below Land Surface

_____ ft. After _____ Hrs. pumped _____ GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

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AUG 08 2012

WATER RIGHTS PROGRAM

This well was drilled under license # 684

And this report is true and accurate.

Drilling firm Ervin Well Company, Inc

Signature of License Representative:

Dan Ervin

Signature of Well Owner or Equitable Property Holder:

Date: 4/27/12

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

Location 1/4 1/4 Sec Twp 109N Rg 47W
 County 34 North

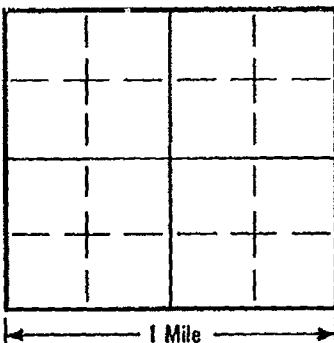
~~XXXXXX~~

Brookings

Please mark well location with an "X"

Site H

See attached map

Well Completion Date 

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? ft. from (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test Holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Mud Rotary

CASING DATA: ☐ Steel ☐ Plastic ☐ OtherIf other describe NONE

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u> </u> LB/FT	<u> </u> IN	<u> </u> FT	<u> </u> FT	<u>6 1/4</u> IN
<u> </u> LB/FT	<u> </u> IN	<u> </u> FT	<u> </u> FT	<u> </u> IN
<u> </u> LB/FT	<u> </u> IN	<u> </u> FT	<u> </u> FT	<u> </u> IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Bentonite</u>	<u> </u>	<u> </u> lb./gal	<u>0</u> ft	<u>297</u> ft
<u> </u>	<u> </u>	<u> </u> lb./gal	<u> </u> ft	<u> </u> ft

Describe grouting procedure Grouted from the bottom
to the top with a tremi line

SCREEN: ☐ Perforated pipe ☐ ManufacturedDiameter IN Length FEETMaterial Slot Size Set From Feet to FeetOther information WAS A PACKER OR SEAL USED? ☐ YES ☒ NOIf so, what material? Describe packer(s) and location?

DISINFECTION: Was well disinfected upon completion?

YES, How: X NO, Why Not? Hole wasLaboratory sent to for water quality analysis SealedWell Owner: Lincoln Pipestone Rural WaterBusiness Name: SameAddress: E Hwy 14 P.O. Box 188Lake Benton, MN. 56149

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Light Gray Clay	240	257
Tan/Red Clay	257	260
Pink Clay	260	267
Silty Pink Clay	267	272
Pink Clay	272	285
Pink Clay	285	292
Sioux Quarts	292	297

STATIC WATER LEVEL FeetIf flowing: closed in pressure PSIGPM flow through inch pipeControlled by ☐ Valve ☐ Reducers ☐ Other Reduced Flowrate GPMCan well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: ☐ Bailed ☐ Other

Pumping Level Below Land Surface

 ft. After Hrs. pumped GPM ft. After Hrs. pumped GPMIf pump installed, pump rate GPM

REMARKS

RECEIVED**AUG 08 2012****WATER RIGHTS
PROGRAM**This well was drilled under license # 684

And this report is true and accurate.

Drilling firm Ervin Well Company, Inc. 1383

Signature of License Representative:

Don Ervin

Signature of Well Owner or Equitable Property Holder:

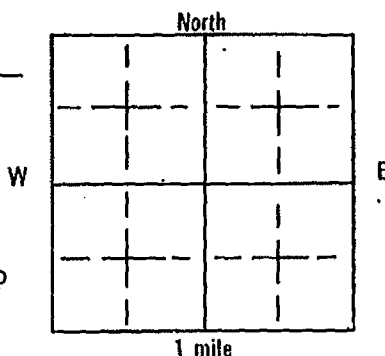
Date: 4/27/12

SOUTH DAKOTA WELL AND TEST HOLE PLUGGING REPORT

10-85

Location $\frac{1}{4}$ $\frac{1}{4}$ Sec 34 Twp 109N Rg 47W

County

BrookingsPlease mark well
location with
an "X"Site A
See attached map

Well Owner:

Name Lincoln Pipestone Rural WaterAddress East Hwy 14 P.O. Box 188Lake Benton, MN. 56149Plugging completion Date 04/16/2012

CHECK APPROPRIATE BOX

EXISTING WELL

☐

TEST HOLE

☒

Well depth _____

Casing material _____

Casing size(s) _____

Casing condition _____

Hole depth 60Hole size 6 1/4Describe plugging procedure: Grouted Hole with benonite from the bottom upWith a tremi lineDescribe grout or plugging material: Bentonite Grout

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AUG 08 2012

WATER RIGHTS
PROGRAM

Type of non-slip plug: _____

This well or test hole was plugged under license # 684 And this report is true and accurate.Drilling firm Ervin Well Company, Inc.Signature of Licensed Representative Dan Ervin

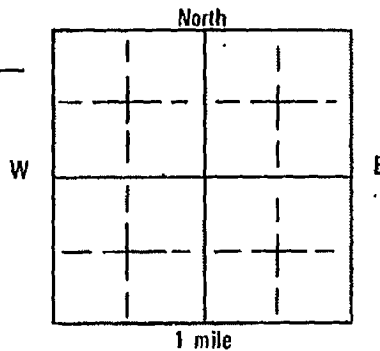
Signature of Well Owner _____

Date

4/27/12

SOUTH DAKOTA WELL AND TEST HOLE PLUGGING REPORT

10-85

Location 1/4 1/4 Sec 34 Twp 109N Rg 47WCounty
BrookingsPlease mark well
location with
an "X"

Well Owner:

Name Lincoln Pipestone Rural WaterAddress East Hwy 14 P.O. BOX 188Lake Benton, MN. 56149Plugging completion Date 04/18/2012

CHECK APPROPRIATE BOX

EXISTING WELL ☐TEST HOLE ☒

Well depth _____

Casing material _____

Casing size(s) _____

Casing condition _____

Hole depth 297Hole size 6 1/4Describe plugging procedure: Grouted hole with bentonite grout from the bottom
to the top with a tremi lineDescribe grout or plugging material: Bentonite grout

RECEIVED

AUG 08 2012

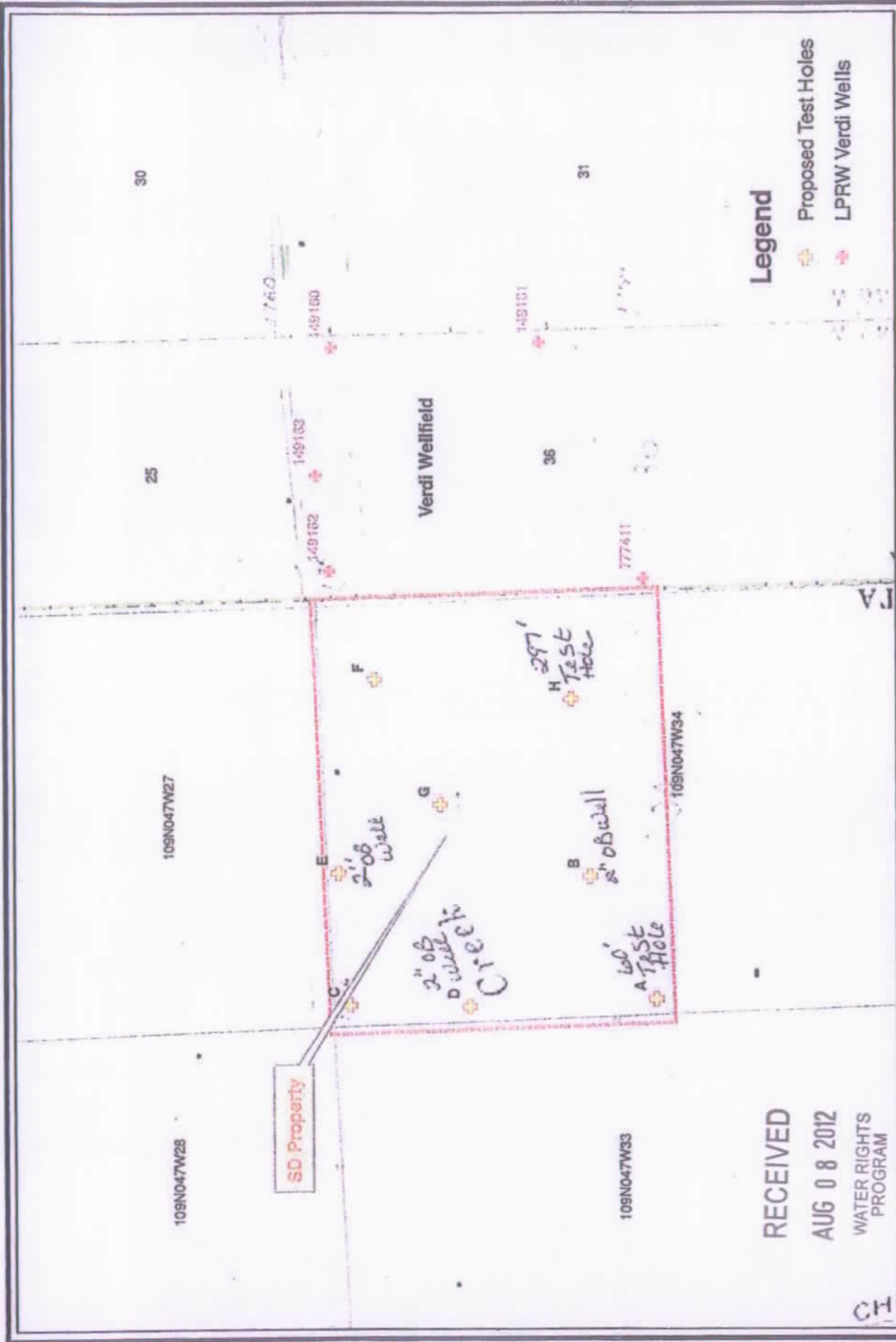
WATER RIGHTS
PROGRAM

Type of non-slip plug: _____

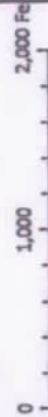
This well or test hole was plugged under license # 684 And this report is true and accurate.Drilling firm Ervin Well Company, Inc.Signature of Licensed Representative Don Ervin

Signature of Well Owner _____

Date 4/27/12



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AUG 08 2012
WATER RIGHTS
PROGRAM



Source: MS Virtual Earth
Projection: NAD83 UTM Zone 14N

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LPRW 2012 Exploration

Mar 12

Property Location

Figure
1

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 8/8, 20 12

RECEIVED OF Lincoln Pipestone Rural Water PO Box 188 Lake Benton MN 56149

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	115	00
Fee for Application for Permit No. <u>7393-3</u> to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for _____		
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	115 00

No. **05523**

By *Halal Erskine* 29
Chief Engineer

Lincoln Pipestone Rural Water

East Highway 14, Box 188
Lake Benton, Minnesota 56149-0188
(507) 368-4248 or (800) 462-0309
FAX: (507) 368-4573
MINNESOTA RELAY: 771 or 1-800-627-3529
Email: lprw@itctel.com

RECEIVED

AUG 08 2012

WATER RIGHTS
PROGRAM

August 3, 2012

Mr. Eric Gronlund
Water Rights Program
Joe Foss Building
523 East Capitol
Pierre SD 57501

RE: Lincoln Pipestone Rural Water – Verdi Wellfield

Dear Mr. Gronlund:

Enclosed please find two applications for appropriation of groundwater from the shallow aquifer near Lincoln Pipestone Rural Water's (LPRW) Verdi Wellfield. The Verdi Wellfield is LPRW's primary water source in terms of production and is the only water source that does not require any treatment to meet state and federal standards or the needs of our users. For these reasons, and the fact that the wellfield is centrally located in LPRW's service area, this water source is critical to LPRW.

LPRW purchased the parcel of land directly west of the existing wellfield early in 2012 and test drilling was conducted during the spring of 2012. The results of the test drilling (South Dakota Water Well Completion Reports are attached) indicate that at least two potential well sites are available but the quality of the water may require treatment for iron and manganese. LPRW currently plans to install a new raw water line from the proposed well sites in South Dakota to the Verdi Pumping Station where iron and manganese removal facilities will be constructed. LPRW's existing Well 5, located in Minnesota, will also be connected to this raw water line as we currently need to blend the water from this well to maintain acceptable levels of iron and manganese for distribution.

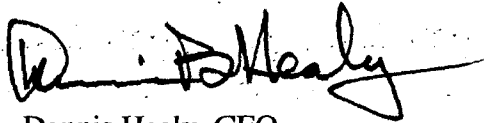
The first application is for appropriation of water from two wells, which will be used to provide raw water to the Verdi Pumping Station for treatment and distribution to LPRW customers. LPRW is requesting an annual volume of up to 614 acre feet (200 million gallons per year) under this permit. We anticipate that each well will be equipped to operate at rates of up to 600 gallons per minute (gpm) and we expect to normally operate one well to obtain the authorized volume of water with the other well in a standby position. Under emergency conditions it may be necessary to operate both wells for limited periods of time, so the maximum requested rate of appropriation is 1200 gpm. Regardless of the instantaneous rate, LPRW will limit annual pumping to the volume authorized by the permit.

In addition, LPRW is projecting increased demand for water within the LPRW service area and we are currently searching for new sources of water supply. Depending on the success of these efforts, LPRW may need to develop additional supply in the Verdi area. For this reason we are submitting a second application for a future use permit to reserve an additional 614 acre feet per year for use by LPRW.

Along with the applications (two of each are enclosed) we have enclosed the appropriate fees, a summary of the test drilling conducted by LPRW during the spring of 2012, a map showing the proposed production well locations and the location of the property owned by LPRW including the existing and proposed LPRW facilities.

Please process our applications at the earliest opportunity and advise if any additional information is required. If you have questions or require further information please contact me.

Sincerely,
Lincoln Pipestone Rural Water

A handwritten signature in black ink, appearing to read "D. Healy", with a stylized flourish at the end.

Dennis Healy, CEO

enclosures:

Permit Application Costs

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Increment	Permit Application Cost	Future Use Application Cost
First 120 acre feet per year (\$500.00)	\$500.00	\$50.00
Second 120 acre feet per year (\$250.00)	\$250.00	\$25.00
4 additional 120 acre feet per year increments (\$100.00)	\$400.00	\$40.00
Final Inspection/Licensing Fee (\$200.00)	\$200.00	-
Totals	\$1,350.00	\$115.00

Gronlund, Eric

From: Dennis Healy <lprw@itctel.com>
Sent: Wednesday, September 19, 2012 8:37 AM
To: Gronlund, Eric
Subject: Re: Lincoln Pipestone Rural Water future use permit application
Attachments: FrameworkStudyDraft02.pdf

Eric,

I have attached a study completed by our engineers that discusses our system-wide water issues. Since this report was completed the Wood Lake and Talcot Lake water sources are no longer options available to LPRW. Although this draft study is no longer completely up to date, it does provide a good picture of our long-range growth potential and future water needs.

Dennis B. Healy, CEO
Lincoln Pipestone Rural Water
East Highway 14
P.O. Box 188
Lake Benton, MN 56149-0188
(507)368-4248 or (800)462-0309
Fax (507)368-4573
Email lprw@itctel.com

As you are aware, SD DENR is reviewing Lincoln Pipestones' water permit application to develop new wells and its future use permit to reserve water for future development. The letter accompanying the application states that LPRW is projecting increased demand for water within the LPRW service area. SD state law states water may be reserved for contemplated future needs. Has LPRW had a study completed projecting future water needs that can be submitted to document contemplated future needs in accordance with SD's criteria for issuance of a future use reservation?

Eric Gronlund
Water Rights Program, DENR
605 773-3352
eric.gronlund@state.sd.us



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

October 23, 2012

Skip Wright, Regional Hydrologist
Minnesota Dept of Natural Resources
261 Highway 15 South
New Ulm MN 56073

Dear Mr. Wright:

Enclosed is a copy of the report, recommendation and public notice for South Dakota Water Permit Application No. 7392-3 and Future Use Permit Application No. 7393-3 filed by Lincoln Pipestone Rural Water. The public notice is scheduled to be published October 31, 2012 in the Brooking Register.

If you have any questions regarding the review of the applications please contact the SD Water Rights Program at (605) 773-3352.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR FUTURE USE WATER PERMIT
APPLICATION NO. 7393-3, Lincoln Pipestone Rural Water**

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 Future Use Water Permit Application No. 7393-3, Lincoln Pipestone Rural Water, Dennis Healy, CEO, East Highway 14, Box 18, Lake Benton MN 56149.

The Chief Engineer is recommending APPROVAL of Application No. 7393-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) Lincoln Pipestone Rural Water has demonstrated a reasonable need for the water reserved, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. Permit No. 7393-3 reserves 614 acre feet of water annually from the Big Sioux:Aurora Aquifer.
2. That Future Use Permit No. 7393-3 is approved with the stipulation that this Permit is subject to review by the Water Management Board as to accomplishment in developing reserved water upon expiration of seven (7) years. This Permit shall be subject to cancellation if the Water Management Board determines during the review that the holder cannot demonstrate a reasonable need for the Permit.
3. At such time as definite plans are made to construct works and put the water reserved by this permit to beneficial use, specific application for all or any part of the reserved water must be submitted prior to construction of facilities pursuant to SDCL 46-5-38.1.

See report on application for additional information.

Garland Erbele, Chief Engineer
October 23, 2012

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7392-3
AND
FUTURE USE PERMIT APPLICATION NO. 7393-3
LINCOLN PIPESTONE RURAL WATER
SEPTEMBER 17, 2012

Water Permit Application No. 7392-3 proposes to appropriate 614 acre-feet annually (ac-ft/yr) at a maximum diversion rate of 2.67 cubic feet of water per second (cfs) from two wells to be completed into the Aurora management unit of the Big Sioux aquifer. The proposed wells are to be approximately 70 feet deep and located in the N½ Section 34, T109N-R47W. Water will be used by the rural water system to supply users in Lincoln, Lyon, Murray and Pipestone Counties in Minnesota.

Future Use Permit Application No. 7393-3 proposes to appropriate and reserve for future use 614 ac-ft/yr from the Aurora management unit of the Big Sioux aquifer. The area to be reserved for future water use is to be located in the N½ of Section 34, T109N-R47W. The water is to be reserved for the purpose of providing future water supplies to the rural water system to serve users in Lincoln, Lyon, Murray and Pipestone Counties in Minnesota. This application does not authorize construction of works or the application of water to beneficial use.

South Dakota Codified Law (SDCL) 46-1-13

Pursuant to SDCL 46-1-13, "A water right may be granted for uses outside this state on the same basis and subject to the same terms and conditions as water rights are granted to persons for use of water within this state..."

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the 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.

SDCL 46-2A-10

Pursuant to SDCL 46-2A-10, A reservation for a future use may be approved only if there is a reasonable probability that unappropriated water is available for appropriation, that the quantity of water reserved will be needed by the entity and that the proposed use will be a beneficial use and in the public interest.

The Water Management Board has consistently found that the use of water for a rural water system is a beneficial use of water and in general is in the public interest. This report will address the availability of unappropriated water and existing rights from a sub-unit of the Aurora management unit of the Big Sioux aquifer and if the quantity of water to be reserved for future use will be needed by Lincoln Pipestone Rural Water.

AQUIFER: Aurora Management Unit of the Big Sioux Aquifer (BS: A)

AQUIFER CHARACTERISTICS:

The Big Sioux aquifer is a major glacial-drift aquifer consisting of alluvium-mantled outwash (silt, fine to coarse sand and gravel) that extends over most of the length of the Big Sioux River basin along the Big Sioux River and its tributaries. The Aurora management unit of the Big Sioux aquifer underlies approximately 83,000 acres of southeastern Brookings and northwestern Moody Counties, South Dakota and western Lincoln and Pipestone Counties, Minnesota (see figure 1) (Anderson, 1976; Hamilton, 1989; Hanson, 1986; and Hedges and others 1982). The potentiometric surface map for the Big Sioux aquifer identifies an area, approximately in the center of T109N-R47W (near Elkton), where groundwater north of the area flows to the west and groundwater south of the area flows to the southwest (Hamilton, 1989). This groundwater divide produces an area that is isolated from the main body of the aquifer, essentially creating a sub-unit of the Big Sioux: Aurora aquifer. The sub-unit of the Big Sioux: Aurora aquifer which contains the well sites proposed by Application No. 7392-3 and the area to be reserved for future use by Future Use Permit Application No. 7393-3 encompasses approximately 20,000 acres and is shown in figure 1.

The Aurora management unit is a surficial aquifer under unconfined conditions in this area (Hamilton, 1989). Test wells and test holes completed for the applicant indicate the depth to the top of the aquifer is 5-11 feet below ground surface and the thickness of aquifer material ranges from 26-61 feet.

WATER AVAILABILITY:

Water Permit Application No. 7392-3 proposes to appropriate 614 ac-ft/yr and Future Use Permit Application No. 7393-3 proposes to reserve 614 ac-ft/yr from the Aurora management unit of the Big Sioux aquifer. 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."

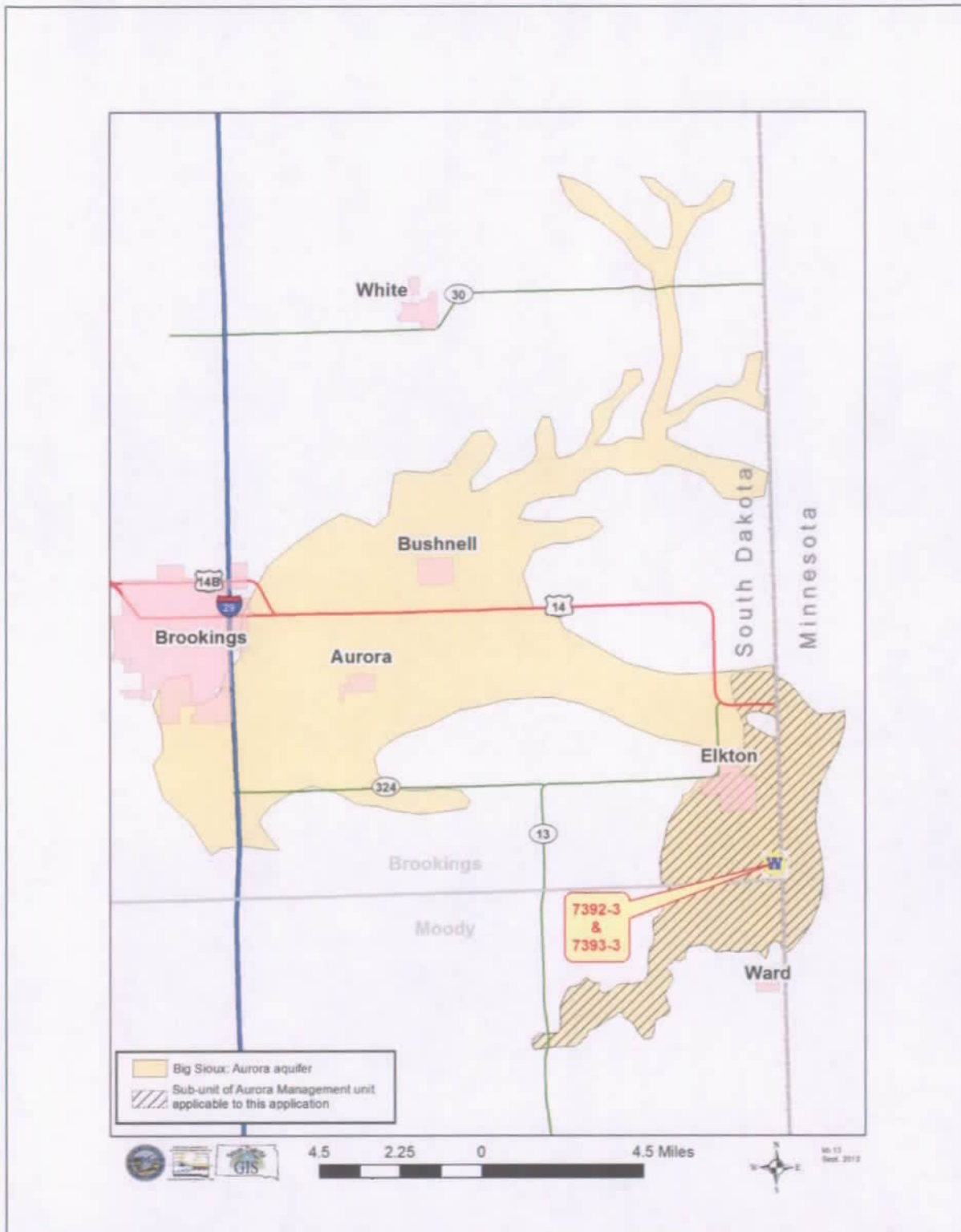


Figure 1. The extent of the Big Sioux: Aurora aquifer, the sub-unit of the Aurora management unit applicable to these applications, the location of the well sites proposed by Application No. 7392-3 and the area proposed by Future Use Permit Application No. 7393-3. Modified from (Anderson, 1976; Hamilton, 1989; Hanson, 1986; and Hedges and others 1982)

Recharge versus Discharge:

Recharge:

Recharge to the Big Sioux: Aurora aquifer in this area is by infiltration of precipitation and seepage from Spring Creek and its tributaries. The average annual recharge rate to the Big Sioux: Aurora aquifer was estimated to be 5.0 inches per year based on observation well analysis (Hedges and others, 1985). Hedges and others (1985) also reported a computer model analysis "best fit" recharge rate for the Aurora management unit, of 3.6 inches per year. A finite-difference method digital model used to simulate the Big Sioux aquifer in Brookings and Hamlin Counties (Koch, 1980), did not include the sub-unit of the Big Sioux: Aurora aquifer that contains the sites proposed by these applications, but modeled an area within approximately five miles of this well sites. The model used an average annual recharge rate of 6.57 inches per year to the water table portion of the Big Sioux aquifer, to simulate steady state conditions using average annual water levels for 1970-1976 as the potentiometric head in the aquifer (Koch, 1980). The average annual recharge to the sub-unit of the Big Sioux: Aurora aquifer that contains the sites proposed by these applications, based on the recharge rate estimates is shown in Table 1.

IVESTIGATOR	RECHARGE RATE (inches per year)	AVERAGE ANNUAL RECHARGE Assuming aquifer area = 20,000 acres (acre-feet per year)
Hedges and others, 1985, (Observation well analysis)	5.0	8,333
Hedges and others, 1985, (Computer model "best fit")	3.6	6,000
Koch, 1980	6.57	10,950

Table 1. Estimated average annual recharge to the sub-unit of the Big Sioux: Aurora aquifer that contains the well site proposed by this application

Discharge:

Discharge from the sub-unit of the Big Sioux: Aurora aquifer that contains the sites proposed by these applications occurs through evapotranspiration, seepage to Spring Creek and its tributaries and well withdrawals. Wells withdrawals are for domestic use (expected to be minor) and appropriative uses including irrigation and rural water system use. South Dakota Water Rights/Permits appropriating water from this sub-unit of the Big Sioux: Aurora aquifer are shown in Table 2 and in Figure 2. In addition, the Lincoln Pipestone Rural Water System maintains a well field known as the Verdi Well Field consisting of five production wells completed into this aquifer just east of the Minnesota/South Dakota border. Lincoln Pipestone Rural Water System is currently permitted through the State of Minnesota for combined maximum withdrawals of 683 MGY (2,096.05 acre-feet per year) (Healy).

PERMIT NO	NAME	STATUS	USE	CFS	ACRES
2332-3	HEARTLAND HBI	IL	IRR	NA	NA
2574-3	LOWELL CHRISTENSEN	LC	IRR	1.31	92
3185-3	WITTE AG PARTNERSHIP #1	LC	IRR	1.41	99
3496-3	MINNIE VAN DYKE	LC	IRR	0.52	37
4038-3	CITY OF ELKTON	LC	MUN	0.72	NA
4295-3	LARRY W MOULTON	IL	IRR	NA	NA
4295-3A	ALICE MOULTON	LC	IRR	1.34	136
4332-3	ALICE MOULTON	LC	IRR	1.34	125
4523-3	JAMES STUEFEN	LC	IRR	1	71
4726-3	WITTE AG PARTNERSHIP #3	LC	IRR	1.56	115
4763-3	MARY ELLEN MCGILL TRUST	LC	IRR	2.44	234
4877-3	LARRY O/CAROL J OLSON	IL	IRR	NA	NA
5558-3	LARRY OLSON	IL	IRR	NA	NA
5558A-3	LARRY OLSON	LC	IRR	1.78	268
5804-3	HEARTLAND HBI	LC	IRR	1.78	177
658-3	HEARTLAND HBI	IL	IRR	NA	NA
7178-3	JOS FAMILY FARMS	PE	IRR	4.44	400
7219-3	ELKTON SCHOOL DISTRICT	PE	IRR	0.178	2.3
7228-3	JOS FAMILY FARMS	PE	IRR	1.71	120
7317-3	JOS FAMILY FARMS	PE	IRR	1.78	180
LC= Water Right, IL= Incorporated, PE= Water Permit, IRR= Irrigation, MUN= Municipal					

Table 2. Water Rights/Permits appropriating water from the sub-unit of the Big Sioux: Aurora aquifer that contains the well sites proposed by this application (Water Rights, 2012c)

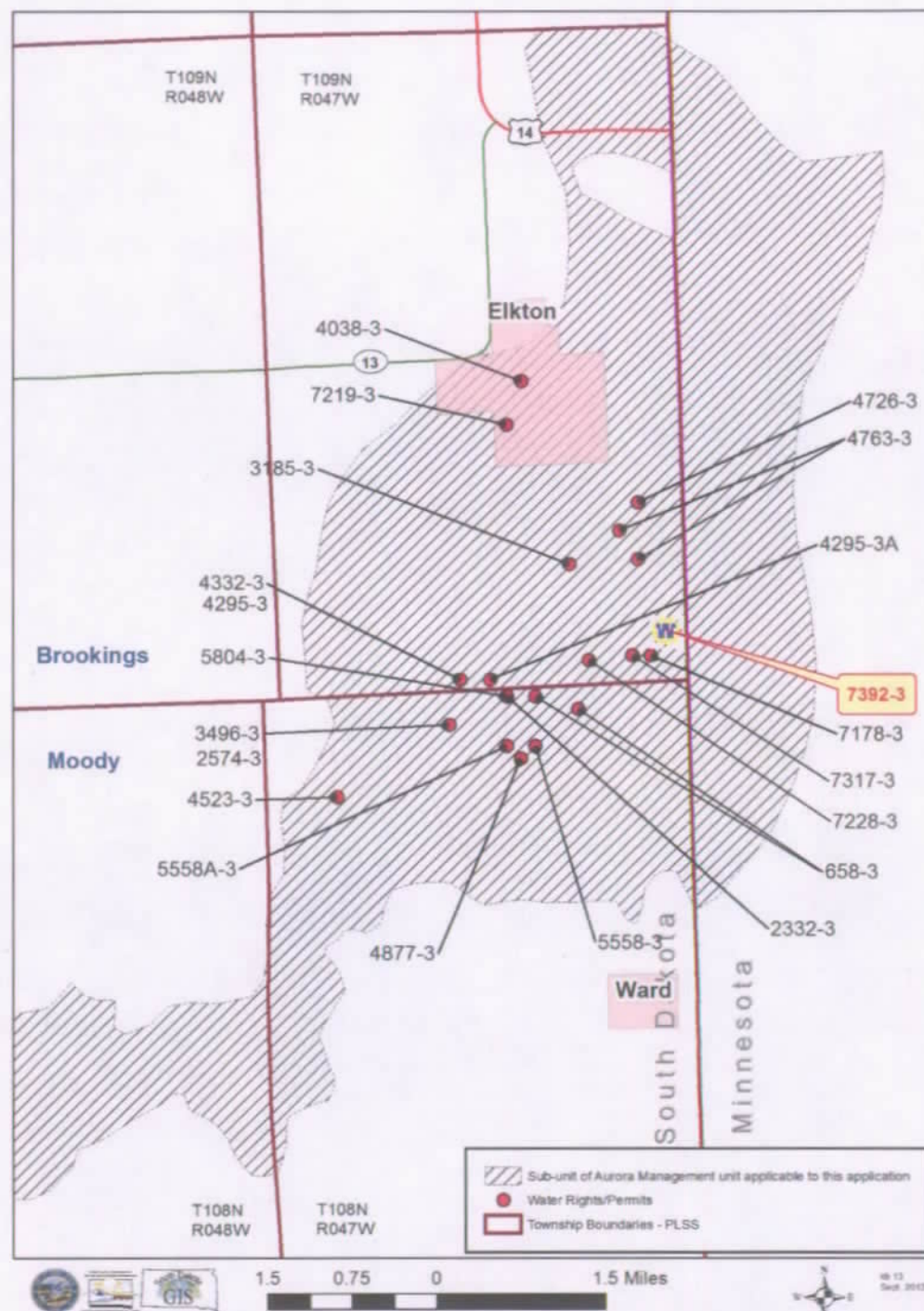


Figure 2. Water Rights/Permits appropriating water from the sub-unit of the Big Sioux: Aurora aquifer that contains the well sites proposed by this application (Water Rights, 2012c)

The City of Elkton has been supplied by Brookings-Deuel Rural Water System since 1991 and maintains Water Right No. 4038-3 as a backup source only (Friedeman). Therefore, irrigation use is the only appropriate water use from this aquifer in South Dakota. The irrigation use from the sub-unit of the Big Sioux: Aurora aquifer that contains the sites proposed by these applications is shown in table 3

YEAR	ACRES IRRIGATED	ACRE-FEET PUMPED	APPLICATION RATE (in/yr)
1979	661	281.83	5.12
1980	396	228.12	6.91
1981	737	404.1	6.58
1982	958	421.88	5.28
1983	1247	686.73	6.61
1984	1040	487.1	5.62
1985	1125	515.7	5.50
1986	798	163.6	2.46
1987	966	437.6	5.44
1988	1176	1025.3	10.46
1989	1193	739.9	7.44
1990	1302	607	5.59
1991	1161	605	6.25
1992	654	167.86	3.08
1993	450	131.9	3.52
1994	1368.8	461.07	4.04
1995	548	153.13	3.35
1996	1075.8	398	4.44
1997	1164.8	862	8.88
1998	1378.8	1322.4	11.51
1999	1094.8	545.55	5.98
2000	1366.6	796.12	6.99
2001	1316.8	1161.53	10.59
2002	1389.8	1078.25	9.31
2003	1290.8	1193.3	11.09
2004	1036.8	813.01	9.41
2005	1068	347.88	3.91
2006	1350	835.11	7.42
2007	1354	946.59	8.39
2008	1354	1040.27	9.22
2009	1031	549.27	6.39
2010	857	165.28	2.31
2011	1843	569.7	3.71

Table 3. Irrigation use from the sub-unit of the Big Sioux: Aurora aquifer that contains the well site proposed by this application (Water Rights, 1980-2012a; and Water Rights, 1980-2012b)

There are currently 2,056.3 acres authorized for irrigation by South Dakota water rights/ permit from this aquifer. At the average application rate of 6.45 inches per year, the average annual withdrawal for irrigation can be expected to be approximately 1,105.3 acre-feet annually.

In addition to domestic use of water from the Minnesota portion of this aquifer, the only other water user is the Lincoln Pipestone Rural Water System (Youngsma). Well withdrawals from the Lincoln Pipestone Rural Water System Verdi well field are shown in Table 4. The system is estimating 2012 withdrawals will be 445 million gallons per year (MGY) (1,365.7 acre-feet).

YEAR	MGY	ACRE- FEET/YR
2005	330.61	1014.6
2006	396.872	1218.0
2007	421.389	1293.2
2008	415.044	1273.7
2009	386.915	1187.4
2010	404.493	1241.3
2011	440.089	1350.6

Table 4. Withdrawals from the Lincoln Pipestone Rural Water System Verdi well field (Healy)

Assuming the LPRWS will fully develop their Minnesota permit 683 MGY (2,096.05 acre-feet per year), the total of the well withdrawals from the sub-unit of the Big Sioux: Aurora aquifer that contains the well sites proposed by Application No. 7392-3 and the future use area proposed by Future Use Permit Application No. 7393-3 is expected to be approximately 3,200 acre-feet per year under current appropriations.

A comparison between the estimated average annual recharge (see Table 1) and the estimated average annual well withdrawals indicates that there is currently at least 2,800 ac-ft/yr unappropriated water from this is sub-unit of the Big Sioux: Aurora aquifer.

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 to the aquifer”.

The DENR-Water Rights Program monitors one observation well, BG-78H, located approximately one mile southwest of the sites proposed by these applications (Water Rights, 2012a). A hydrograph for the observation well is shown in Figure 3.

The hydrograph shows that although the potentiometric surface in the sub-unit of the Big Sioux: Aurora aquifer that contains the sites proposed by these applications fluctuates with the climate, the amount of water in the aquifer has trended upward by approximately 0.438 inches per year over the period of record. Most importantly, the observation well data shows that at the current level of development, climatic conditions greatly mask the temporal effects of well withdrawals. Therefore, the observation well data documents that recharge to and natural discharge from this aquifer significantly exceeds pumping. The hydrograph documents that there is unappropriated water available from the aquifer to support this appropriation.

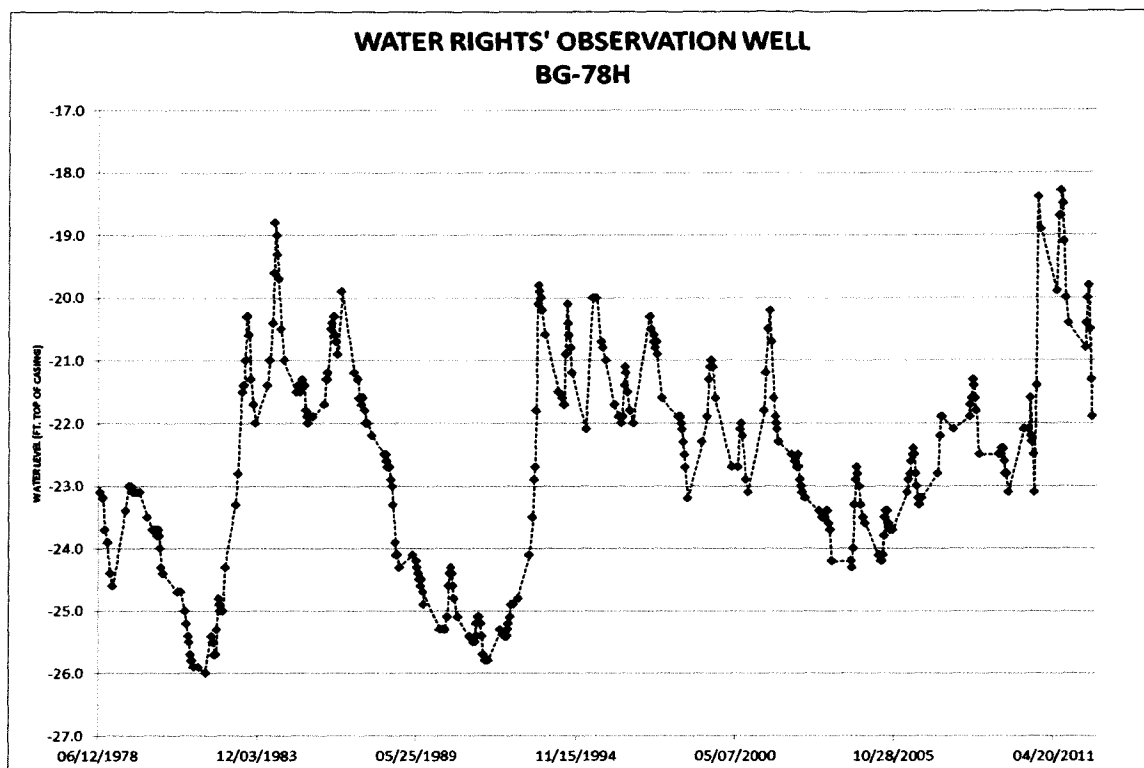


Figure 3. Hydrograph for an observation well completed into the sub-unit of the Big Sioux: Aurora aquifer located approximately one mile southwest of the well sites proposed by these applications.

EXISTING WATER RIGHTS:

The existing South Dakota appropriations from the sub-unit of the Big Sioux: Aurora aquifer that contains the well sites proposed by this application are shown in Table 2 and in Figure 2. The nearest water permit, No. 7178-3, Jo's Family Farms, appropriates 4.44 cfs from three wells approximately 60 feet deep, located in the S½ of Section 34, T109N-R47W. Test holes submitted with Application No. 7178-3 and Application No. 7392-3, along with test holes and completion reports on file with the DENR-Water Rights Program (Water Rights, 2012b); indicate as much as 61 feet of aquifer material consisting mainly of gravel in this area. The saturated thickness of the aquifer in this area appears to exceed 40 feet in places. The transmissivity of the Big Sioux: Aurora aquifer as a whole ranges from 20,000 to 42,000 ft²/d (Hamilton, 1989) and this sub-area of the aquifer should be no exception. "The effects of withdrawals from wells that tap the Big Sioux aquifer generally are small because of extensive recharge and unconfined conditions. Drawdown of water levels is temporary and a few feet at most at a distance of about a mile from large-capacity wells." (Hamilton, 1989). The observation well hydrograph (see Figure 3) verifies that drawdown from nearby irrigation wells is not significant. If Application No. 7392-3 is approved, well interference is not expected to be an issue and there is a reasonable probability that existing users will not be unlawfully impaired.

NEED FOR FUTURE USE RESERVATION:

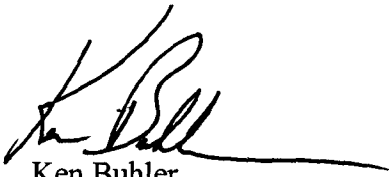
Lincoln Pipestone Rural Water's application includes a statement that "LPRW is projecting increased demand for water within the LPRW service area and we are currently searching for new sources of water supply. Depending on the success of these efforts, LPRW may need to

develop additional supply in the Verdi area. For this reason we are submitting a second application for a future use permit to reserve an additional 614 acre feet per year for use by LPRW."

The applicant submitted a draft "framework study of water source alternatives" prepared by their consultant. That study includes an alternative for the addition of approximately 1600 gpm of capacity that would likely need to be located in South Dakota.

CONCLUSIONS:

1. Water Permit Application No. 7392-3 proposes to appropriate 614 acre-feet annually at a maximum diversion rate of 2.67 cubic feet of water per second from two wells to be completed into a sub-unit of the Aurora management unit of the Big Sioux aquifer.
2. SDCL 46-1-13 allows water rights to be granted for uses outside the state.
3. Future Use Permit Application No. 7393-3 proposes to reserve for future use 614 ac-ft/yr from a sub-unit of the Aurora Management Unit of the Big Sioux aquifer.
4. The sub-unit of the Aurora management unit of the Big Sioux aquifer this application proposes to appropriate water from underlies approximately 20,000 acres of Brookings and Moody Counties, South Dakota; and Lincoln and Pipestone Counties, Minnesota.
5. There is a reasonable probability that unappropriated water is available from this aquifer for the appropriation proposed by Application No. 7392-3 and the future use reservation proposed by Future Use Permit Application No. 7393-3.
6. There is a reasonable probability that this appropriation can be developed without unlawful impairment of existing rights.
7. It is not clear if the proposed future use reservation or a portion of the reservation is needed by the applicant.



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Anderson, H.W., 1976, Water Resources of the Rock River Watershed, Southwestern Minnesota: U.S. Geological Survey Hydrologic Atlas 555, 14 maps on 3 sheets
- Hamilton, L.J., 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report: 88-4185, 82 p.
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- Healy, Dennis. "Verdi well field into." Email to Ken Buhler. 12 Sept. 2012

- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185
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- Koch, N.C., 1980, Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations 80-100, 46 p.
- Friedeman, Barbara, Environmental Scientist II, South Dakota Department of Environment and Natural Resources. Personal interview. 14 Sept. 2012
- Koch, N.C., 1980, Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota: U.S. Geological Survey Water Resources Investigations 80-100, 46 p.
- Water Rights, 1980-2012a, Irrigation Questionnaires 1980-2011, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 1980-2012b, Irrigation Questionnaire Summaries 1980-2011, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
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- Water Rights, 2012b, Water Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2012c, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Youngsma, Lucas. CFM. Area Hydrologist, Minnesota DNR. telephone interview. 14 Sept. 2012

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NOV - 5 2012

WATER RIGHTS
State of South Dakota

Affidavit of Publication

ss

County of Brookings

Chaylee Duis of said county, first duly sworn, on oath, says: That she is the office clerk of THE BROOKINGS REGISTER, a daily newspaper, printed and published in the City of Brookings, in said County of Brookings, and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper and has a bona fide circulation of at least two hundred copies of each issue daily; that said newspaper has been published within the said County of Brookings and State of South Dakota, for more than one year prior to the first publication of Exhibit "A," hereto attached and herein mentioned, and was and is printed that the

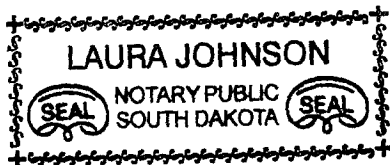
Leg#753 Notice on App to Appropriate Water

same was published, is hereto attached marked Exhibit said newspaper for _____ 1 times, to-wit:

October 31, 2012

said Exhibit "A" inures to the sole benefit for the publishers 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 whomsoever; that the fees charged for the publication thereof are:

thirty-three dollars and eight cents \$33.08



Laura Johnson

1st day of

November

2012

Chaylee Duis

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires August 3, 2017.

Legal 753, 1x, 10/31
NOTICE OF APPLICA-
TION NOS. 7392-3 and
7393-3

Notice is given that Lincoln Pipestone Rural Water, c/o Dennis Healy, E Hwy 14, Box 18, Lake Benton MN 56149 has filed the following applications.

Application No. 7392-3 proposes to appropriate 2.67 cubic feet of water per second (614 acre-feet annually) from two wells to be completed into the Big Sioux:Aurora Aquifer (70 feet deep) located in the N 1/2 Section 34-T109N-R47W for rural water system use. Lincoln Pipestone Rural Water serves users in Lincoln, Lyon, Murray and Pipestone Counties in Minnesota.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7392-3 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.

Future Use Application No. 7393-3 proposes to appropriate and reserve 614 acre-feet of water annually from the Big Sioux:Aurora Aquifer. The area to be reserved for future water use is to be located in the N 1/2 Section 34-T109N-R47W. The water is to be reserved for the purpose of providing future water supplies to the rural water system to serve those users listed above. This application does not authorize construction of works or application of water to beneficial use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Future Use Application No. 7393-3 because 1) there is reasonable probability that there may be development of the water reserved under this permit 2) Lincoln Pipestone Rural Water has demonstrated a reasonable need for the water reserved by this permit, 3) the proposed use will be 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 these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled

and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. 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 November 12, 2012.

The petition may be informal, but must include a statement describing the petitioner's interest in the applications, the petitioner's reasons for opposing or supporting the applications, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to these applications. Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published once at the total approximate cost of \$33.08.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

October 23, 2012

Brookings Register
PO Box 177
Brookings SD 57006

ATTENTION: Legal Public Notice

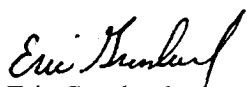
Enclosed is a Notice on Application Nos. 7392-3 and 7293-3 to Appropriate Water. Please publish the notice once on October 31, 2012. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

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 Lincoln Pipestone Rural Water, c/o Dennis Healey, E Hwy 14, Box 18, Lake Benton MN 56149 (Ph # 507-368-4248).

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



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

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

October 23, 2012

Lincoln Pipestone Rural Water
Dennis Healy
W Hwy 14 Box 18
Lake Benton MN 56149

Dear Mr. Healy:

Water Permit Application Nos. 7392-3 and 7393-3 for rural water system use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Brookings Register printed at Brookings SD (Ph # 605-692-6271). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendations of the Chief Engineer and reports on the applications are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper(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(s) has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the applications.

Sincerely,


Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

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

Instruction to Newspaper - Publish the Notice on October 31, 2012. 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 NOS. 7392-3 and 7393-3

Notice is given that Lincoln Pipestone Rural Water, c/o Dennis Healy, E Hwy 14, Box 18, Lake Benton MN 56149 has filed the following applications.

Application No. 7392-3 proposes to appropriate 2.67 cubic feet of water per second (614 acre-feet annually) from two wells to be completed into the Big Sioux:Aurora Aquifer (70 feet deep) located in the N ½ Section 34-T109N-R47W for rural water system use. Lincoln Pipestone Rural Water serves users in Lincoln, Lyon, Murray and Pipestone Counties in Minnesota.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7392-3 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.

Future Use Application No. 7393-3 proposes to appropriate and reserve 614 acre-feet of water annually from the Big Sioux:Aurora Aquifer. The area to be reserved for future water use is to be located in the N ½ Section 34-T109N-R47W. The water is to be reserved for the purpose of providing future water supplies to the rural water system to serve those users listed above. This application does not authorize construction of works or application of water to beneficial use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Future Use Application No. 7393-3 because 1) there is reasonable probability that there may be development of the water reserved under this permit 2) Lincoln Pipestone Rural Water has demonstrated a reasonable need for the water reserved by this permit, 3) the proposed use will be 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 these applications, as recommended, unless a petition is filed opposing the applications or the applicant files a petition contesting the Chief Engineer's recommendations. If a petition opposing the applications or contesting the recommendations is filed, then a hearing will be scheduled and the Water Management Board will consider these applications. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting these applications or recommendations must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendations. 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 November 12, 2012.

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



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

DEC 19 2012

Lincoln Pipestone Rural Water
Dennis Healy, CEO
E Hwy 14, Box 18
Lake Benton MN 56149

Dear Mr.Healy:

Enclosed are Water Permit No. 7392-3 and Future Use Water Permit No. 7393-3.

Water Permit No. 7392-3 authorizes 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.

When plans for facilities are prepared to put any portion of the water granted in Future Use Permit No. 7393-3 to beneficial use, an application covering such facilities and water use should be submitted to this office before construction is initiated.

Sincerely,

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

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

August 7, 2019

Lincoln Pipestone Rural Water
Jason Overby, Manager
PO Box 188
Lake Benton MN 56149

Dear Mr. Overby:

I am writing in regard to the seven year review of Future Use Water Permit No. 7393-3 from the Big:Sioux Aurora Aquifer held by Lincoln Pipestone Rural Water. By law, all future use permits are to be reviewed by the Water Management Board every seven years to determine whether a reasonable need exists for the reserved water. The permit reserves water for future water supply needs for the city. Currently, our records show that 614 acre-feet remain in reserve under this future use permit that was issued in 2012.

Please respond in writing by October 1, 2019 regarding the system's intention for the future use permit. If the system plans to retain the permit, then the response should outline a reasonable need for retaining the future use permit, including an estimate of future needs.

Permit No. 7393-3 will then be public noticed at the system's expense and scheduled for review before the Water Management Board pursuant to SDCL 46-5-38.1. The review will probably be scheduled for the December Board meeting. Notice will be given of the hearing time and place at a future date. The purpose of this review is to determine if a reasonable need exists for retaining the permit. A fee will be charged if the Board allows the permit to remain in effect after the hearing. The fee to be assessed will be dependent upon the amount of water allowed to remain in reserve. If the entire 614 acre-feet remain in reserve, the fee will be \$115.00.

Please contact Eric Gronlund, if you have any questions.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us



RECEIVED

SEP 30 2019

WATER RIGHTS
PROGRAM

September 27, 2019

Karen Schlaak
Water Rights Program
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

RE: LPRW Request for Renewal of Future Use Water Permit No. 7393-3.

Dear Ms Schlaak,

Lincoln-Pipestone Rural Water (LPRW) System would like to retain the Future Use Permit No. 7393-3 from the Big Sioux Aurora Aquifer that is currently on reserve and held by LPRW.

Over the past several years, LPRW continues to see growth in demand for water within its service area supplied by the existing South Dakota permit. The number of accounts within this service area has increased from 1,245 (2016), to 1,264 (2017), to 1,279 in (2018). Along with the addition of new customers, our demand from existing customers continues to increase. Production from our existing PWS wells under Permit No. 7392-3 has increased to our maximum allowable limit under this permit, as indicated in the table below.

Year:	Total Annual Pumping	
	Gallons	Acre-feet
2016	121,537,000	372.98
2017	187,420,000	575.17
2018	198,549,000	609.33
2019	199,953,000	613.63

LPRW has previously completed wellfield improvements to allow for full production capabilities to its distribution system. LPRW is currently under construction of a new pump station and two 500,000-gallon reservoirs to improve delivery of potable water to its customer base.

Address: 415 E Benton St., PO Box 188 Lake Benton, MN 56149 • Office: 507-368-4248 or 800-462-0309 Fax: 507-368-4573
Email: lpw@itctel.com • Visit the LPRW Web Site at www.lprw.com • MINNESOTA RELAY: 771 or 800-627-3529

Lincoln Pipestone Rural Water is an equal opportunity provider and employer.

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.

In the future, new transmission lines and improvements to outlying pump stations are scheduled as part of our continued Capital Improvement Plan. Furthermore, LPRW is currently conducting a wellfield optimization study on the Verdi Wellfield to assess groundwater flows, improve modeling, and develop a long-term monitoring program. A geophysical survey is scheduled in early October 2019. LPRW is investigating the possibility of additional production capability from this resource with the intent to utilize Permit No. 7393-3.

In closing, with continued growth and demand from this service area and production from the Verdi Wellfield, progressive improvements to wellfield and distribution infrastructure for the future, and proactive information gathering on this valuable and renewable resource, LPRW strongly desires to renew and maintain the Future Use Permit No. 7393-3.

Please contact myself with any questions or concerns you may have. Thank you.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Jason Overby". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jason Overby, GM
Lincoln-Pipestone Rural Water System

CC: Eric Gronlund, SD-DENR
Darin Schreiber, DGR



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

RECOMMENDATION OF CHIEF ENGINEER FOR FUTURE USE WATER PERMIT
NO. 7393-3, Lincoln Pipestone Rural Water

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 Future Use Water Permit No. 7393-3, Lincoln Pipestone Rural Water, Jason Overby, Manager, PO Box 188, Lake Benton MN 56149.

The Chief Engineer is recommending that Future Use Permit No. 7393-3 REMAIN in EFFECT for 614 acre-feet annually because 1) there is reasonable probability that there may be development of the water reserved under Permit No. 7393-3, 2) the city has demonstrated a reasonable need for the water reserved by Permit No. 7393-3, 3) the proposed use will be a beneficial use and 4) it is in the public interest.

Maintaining the effectiveness of Future Use Permit No. 7393-3 is subject to payment of the \$115.00 fee pursuant to SDCL 46-2-13(2) within 60 days of notice to the city after the Board hearing.


Jeanne Goodman, Chief Engineer
November 4, 2019

Affidavit of Publication

State of South Dakota

ss

County of Brookings

Katherine Foiles of said county, first duly sworn, on oath, says: That she is the office clerk of THE BROOKINGS REGISTER, a daily newspaper, printed and published in the City of Brookings, in said County of Brookings, and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper and has a bona fide circulation of at least two hundred copies of each issue daily; that said newspaper has been published within the said County of Brookings and State of South Dakota, for more than one year prior to the first publication of Exhibit "A," hereto attached and herein mentioned, and was and is printed that the

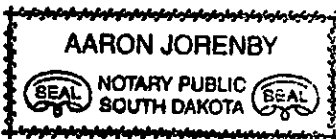
Leg#327 DENR Permit NO. 7393-3 Future Water Use

same was published, is hereto attached marked Exhibit said newspaper for _____ 1 times, to-wit:

November 13, 2019

said Exhibit "A" inures to the sole benefit for the publishers 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 whomsoever; that the fees charged for the publication thereof are:

Forty-Seven Dollars and Seventy-Three Cents \$47.73



Kmfoiles

14 day of

November

2019

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires February 22, 2020.

RECEIVED

NOV 18 2019

WATER RIGHTS PROGRAM

Legal 327 1X
11/13

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 7393-3

Notice is given that the Water Management Board will review Future Use Permit No. 7393-3 held by the Lincoln Pipestone Rural Water, c/o Jason Overby, Manager, PO Box 188, Lake Benton MN 56149 for progress made in the development of the water reserved by the Permit and future plans for development of the water reserved by Permit No. 7393-3. This permit was approved in 2012 and currently reserves 614 acre-feet of water annually from the Big Sioux-Aurora Aquifer located in the N 1/2 Section 34-T109N-R47W for rural water system use serving users in Lincoln, Murray and Pipestone Counties in Minnesota. Pursuant to SDCL 46-2-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 7393-3 REMAIN IN EFFECT for 614 acre-feet annually because 1) the reserved water may be developed, 2) there is need for the reserved water 3) the proposed use will be a beneficial use and 4) it is in the public interest. The Water Management Board will conduct the hearing to review Future Use Permit No. 7393-3 at 11:00 am CST, December 3, 2019, Floyd Matthew Training Center, Joe Foss Bldg, 523 E Capitol, Pierre SD. The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to 1) allow the permit to remain in effect, 2) amend the permit by adding qualifications, 3) cancel the permit for no development or no planned future development, or 4) take no action after it reaches a conclusion based upon facts presented at the public hearing. Any interested person who may be affected by a Board decision and who

intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with BOTH the permit owner and the Chief Engineer by November 25, 2019. The Chief Engineer's address is "Water Rights Program", Joe Foss Building, 523 E Capitol Ave, Pierre SD 57501 (605 773-3352) and the permit holder's

mailing address is given above. The petition may be informal, but it must include a statement describing the petitioner's interest in the future use permit, the reasons for petitioner's opposition to or support of continuing the future use permit, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The permit owner need not file a petition.

The hearing to review Future Use Permit No. 7393-3 will be conducted pursuant to the provisions of SDCL 46-1-14, 46-2-5, 46-2-9, 46-2-11, 46-5-38.1; Board Rules ARSD 74:02:01:25.01 thru 74:02:01:25.03 and contested case procedures contained in SDCL 1-26.

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

Any person wishing a copy of the Chief Engineer's recommendation, further information on this permit, to assure access to the hearing by the handicapped or obtain an interpreter for the hearing impaired may contact Eric Gronlund, Water Rights Program, (605 773-3352) by November 25, 2019. The time of the hearing will be automatically delayed for at least 20 days upon written request of the permit owner or any person who has filed a petition to oppose or support continuance of the Future Use Permit. The request for a delay must be filed with the Chief Engineer by November 25, 2019.

According to SDCL 1-26-18.3, parties to a contested case may use the Office of Hearing Examiners to conduct a hearing if either a property right is being terminated or the dollar amount in controversy exceeds \$2,500.00. If any party chooses to use the Office of Hearing Examiners rather than the hearing procedure described above, then you need to notify the Chief Engineer (Water Rights Program 523 E Capitol Ave, Pierre SD) by November 25, 2019. Published 1X at the total approximate cost of \$47.73.

Instruction to Newspaper - Publish the following Notice on November 13, 2019. Lincoln Pipestone Rural Water is responsible for payment.

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 7393-3

Notice is given that the Water Management Board will review Future Use Permit No. 7393-3 held by the Lincoln Pipestone Rural Water, c/o Jason Overby, Manager, PO Box 188, Lake Benton MN 56149 for progress made in the development of the water reserved by the Permit and future plans for development of the water reserved by Permit No. 7393-3. This permit was approved in 2012 and currently reserves 614 acre-feet of water annually from the Big Sioux:Aurora Aquifer located in the N 1/2 Section 34-T109N-R47W for rural water system use serving users in Lincoln, Murray and Pipestone Counties in Minnesota.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 7393-3 REMAIN in EFFECT for 614 acre-feet annually because 1) the reserved water may be developed, 2) there is need for the reserved water 3) the proposed use will be a beneficial use and 4) it is in the public interest.

The Water Management Board will conduct the hearing to review Future Use Permit No. 7393-3 at 11:00 am CST, December 3, 2019, Floyd Matthew Training Center, Joe Foss Bldg, 523 E Capitol, Pierre SD.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board is authorized to 1) allow the permit to remain in effect, 2) amend the permit by adding qualifications, 3) cancel the permit for no development or no planned future development, or 4) take no action after it reaches a conclusion based upon facts presented at the public hearing.

Any interested person who may be affected by a Board decision and who intends to participate in the hearing before the Board and present evidence or cross-examine witnesses according to SDCL 1-26, must file a written petition with BOTH the permit owner and the Chief Engineer by November 25, 2019. The Chief Engineer's address is "Water Rights Program", Joe Foss Building, 523 E Capitol Ave, Pierre SD 57501 (605 773-3352) and the permit holder's mailing address is given above. The petition may be informal, but it must include a statement describing the petitioner's interest in the future use permit, the reasons for petitioner's opposition to or support of continuing the future use permit, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained. The permit owner need not file a petition.

The hearing to review Future Use Permit No. 7393-3 will be conducted pursuant to the provisions of SDCL 46-1-14, 46-2-5, 46-2-9, 46-2-11, 46-5-38.1; Board Rules ARSD 74:02:01:25.01 thru 74:02:01:25.03 and contested case procedures contained in SDCL 1-26.

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

Any person wishing a copy of the Chief Engineer's recommendation, further information on this permit, to assure access to the hearing by the handicapped or obtain an interpreter for the hearing impaired may contact Eric Gronlund, Water Rights Program, (605 773-3352) by November 25, 2019. The time of the hearing will be automatically delayed for at least 20 days upon written request of the permit owner or any person who has filed a petition to oppose or support continuance of the Future Use Permit. The request for a delay must be filed with the Chief Engineer by November 25, 2019.

According to SDCL 1-26-18.3, parties to a contested case may use the Office of Hearing Examiners to conduct a hearing if either a property right is being terminated or the dollar amount in controversy exceeds \$2,500.00. If any party chooses to use the Office of Hearing Examiners rather than the hearing procedure described above, then you need to notify the Chief Engineer (Water Rights Program 523 E Capitol Ave, Pierre SD) by November 25, 2019. Published once at the approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

November 4, 2019

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

Lincoln Pipestone Rural Water
c/o Jason Overby, Manager
PO Box 188
Lake Benton MN 56149

Dear Mr. Overby:

Future Use Permit No. 7393-3 will be reviewed for progress in the development and future plans for use of the water reserved. Water rights law requires publication of a notice in the county where water will be diverted or used. Notice of this review has been sent to the Brookings Register (605 692-6271). For your information, a copy of the Chief Engineer's recommendation is enclosed. Please review this notice prior to publication and notify this office, if you have any corrections or questions.

BE SURE TO CONTACT THE ABOVE NEWSPAPER IMMEDIATELY TO AUTHORIZE PUBLICATION OF THE NOTICE OF HEARING AND TO ARRANGE FOR PAYMENT. Early contact with the paper can eliminate delays. The publisher has been instructed to publish this notice on November 13, 2019. We must receive Proof of Publication before the future use review can be considered by the Water Management Board.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

Schlaak, Karen

From: Schlaak, Karen
Sent: Monday, November 4, 2019 11:35 AM
To: registerclassifieds (registerclassifieds@brookingsregister.com)
Subject: 7393-3, Lincoln Pipestone Rural Water
Attachments: 7393-3notice.doc; FORM8.FRM.doc

Attached is a notice to be published on November 13, 2019.

Lincoln Pipestone Rural Water, c/o Jason Overby, Mgr, PO Box 188, Lake Benton MN 56149 (507 368-4248) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak
SD DENR, Water Rights Program
(605) 773-3352





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

December 4, 2019

NOTICE OF ENTRY OF ORDER

Lincoln Pipestone Rural Water
Jason Overby, Manager
PO Box 188
Lake Benton MN 56149

Dear Mr. Overby:

I am writing in response to action taken by the Water Management Board at the hearing on December 3, 2019 to review Future Use Permit No. 7393-3. The Board allowed the permit to remain in effect for 614 acre-feet of water annually. Future Use Permit No. 7393-3 is subject to another review in seven years.

The fee for maintaining the effectiveness of Future Use Permit No. 7393-3 is \$115.00 pursuant to SDCL 46-2-13(2). Please remit the fee within 60 days.

Please contact Eric Gronlund, staff engineer, if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Jeanne Goodman". The signature is fluid and cursive, with the first name "Jeanne" and last name "Goodman" clearly distinguishable.

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

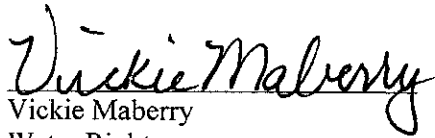
CERTIFICATION

I hereby certify that on December 4, 2019, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelope(s) containing a Notice dated December 4, 2019, regarding Notice of 7393-3 1492-2 and 512-2 addressed as stated below:

Lincoln Pipestone Rural Water, Jason Overby, Manager, PO Box 188, Lake Benton MN 56149

City of Rapid City, Dale Tech, Public Works Director, 300 6th St., Rapid City SD 57701

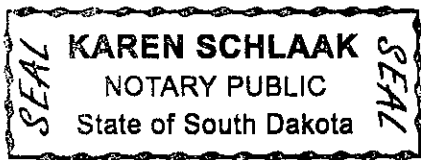
City of Hot Springs, Terry Bastian, Public Works Director, 303 N River St., Hot Springs SD 57747


Vickie Maberry
Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 4th day of December, 2019.


Karen Schlaak
Notary Public
My Commission expires April 1, 2019



RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date December 13, 2019

RECEIVED OF Lincoln Pipestone Rural Water PO Box 188 Lake Benton MN 56149

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	115	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. <u>7393-3</u> after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for _____		
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. _____	115	00
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	
	115	00

No. 09272

By

Jeanne Goodman
Chief Engineer
JMG