No. 5832-3 Hydrologic Unit 10170101
Map No. _____ Basin Vermillion River
Newspaper see attached list

Mail to: Water Rights Div.
523 E. Capitol
Pierre, SD 57501
(605)773-3352

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

Check use of water: Industrial ☐ Commercial ☐ Municipal ☒ Other Common Distribution System ☐
Rural Water System ☒ Suburban Housing ☐ Geothermal Heat ☐ Institutional ☐ Recreational ☐
Domestic ☐ (above 18 gpm) Other ☐

Type of Application: Check one or more of the following:
New ☒ Vested Right ☐ Future Use ☒ Change Use ☐
☐ Amend Permit No. _____ with old priority date retained.
Change diversion point(s) ☐ Add diversion point(s) ☐ Other ☐ _____
☐ Application to: Change diversion point(s) ☐ Add diversion point(s) ☐ on Permit No. _____
☐ Construction to use water reserved by Future Use Permit No. _____.

1. Name Of Applicant Lewis & Clark Rural Water System Phone No. (605) 336-8688
Post Office Address 300 N. Dakota Ave., Suite 206, Sioux Falls State SD 57102
(Street, RR, or Box) (City) (Zip Code)
2. Amount of water claimed (c.f.s.) 36.36 CFS 23.5 MGD 27,000 acre-feet
3. Source of water supply ~~Missouri River~~ 3 radial collector wells (approx 80 feet deep)
4. Location of point of diversion: Diversion points along the Missouri River between points at the North section line of Section 15 to the approximate SW corner Section 23; all in T32N-R4E (Nebraska survey). This would include portions of Section 1 and Section 2-T92N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota survey). This area is known locally as Mulberry Point. County Clay
5. Counties where water will be used SD: Lincoln, Clay, Union, Turner, McCook, Lake, Minnehaha;
MN: Rock and Nobles; IA: Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson
6. Annual Period during which water is to be used January through December (year round) Jan 1 - Dec 31
7. Give a brief description of proposed 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).

This diversion is for wholesale of water only. Water will be sold to municipalities and Rural Water Systems that are members of Lewis & Clark Rural Water System. Refer to the Engineering Report "Feasibility Level Evaluation of a Missouri River Regional Water Supply for SD, IA and MN", dated Sept. '93 for more detail.

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map (see instruction)

STATE OF SOUTH DAKOTA)
County of Minnehaha) ss

I, Pamela A. Bonrud 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.

Signed Pamela A Bonrud

Subscribed and sworn to before me this 7th day of July 1994

Carol A McJuly
Notary Public

Comm expires 7/17/98

4-87

SOUTH DAKOTA
FUTURE USE WATER PERMIT NO. 5832-3

Date of first receipt of application July 8, 1994.

The Water Management Board approved Water Permit Application No. 5832-3 on July 6, 1995 for Lewis & Clark Rural Water System, 300 N Dakota Ave, Suite 206, Sioux Falls SD 57102 subject to the following limitations, conditions and qualifications:

1. Water Permit No. 5832-3 appropriates 27,000 acre-feet of water annually from 3 radial collection wells, (Missouri:Elk Point) 80 feet deep, to be constructed adjacent to the Missouri River. The areas to be reserved for future water use are the diversion points along the Missouri River between points at the North section line of Section 15 to the approximate southwest corner Section 23; all in T32N-R4E (Nebraska survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota survey). The area is know locally as Mulberry Point. The water is to be reserved for the purpose of providing future water supplies for the Lewis & Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobeles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa. Municipalities to be served by the proposed system include: Beresford, Centerville, Harrisburg, Lennox, Madison, Parker, Sioux Falls and Tea in South Dakota; Boyden, Hull, Sheldon, Sibley, Sioux Center in Iowa and Laverne and Worthington in Minnesota. This permit does not authorize construction of works or application of water to beneficial use.

2. The water appropriated shall be used for the purpose of supplying water for the rural water system and may not exceed the amount of water needed for beneficial use for rural water system use.

3. The water is to be used during the following described annual period: January 1 - December 31.

4. The date from which applicant may claim right is July 8, 1994.

5. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. Approval of Permit No. 5832-3 reserves 27,000 acre-feet of water annually.

2. That Future Use Permit No. 5832-3 is approved with the stipulation that the Permit to appropriate water is subject to review by the Water Management Board as to accomplishment thereunder upon expiration of seven (7) years.

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.

(continued)

4. This permit is approved for groundwater from the Missouri Elk Point Aquifer. Radial collection wells will be approximately 80 feet deep.

WATER MANAGEMENT BOARD

By: _____ SEP 5 1995

John Hatch, Chief Engineer — date
Water Rights Program
Department of Environment and Natural Resources

PARTIES OF RECORD

FUTURE USE PERMIT APPLICATION NO. 5832-3
Lew & Clark Rural Water System

APPLICANT:

Pamela Bonrud
Lewis & Clark Rural Water System
300 N. Dakota Ave., Suite 206
Sioux Falls, SD 57102

PETITIONERS:

Shyrl Corbly
Rte 1, Box 160
Colton, SD 57018

Frank Orr
RR. 1, Box 182
Volin, SD 57072

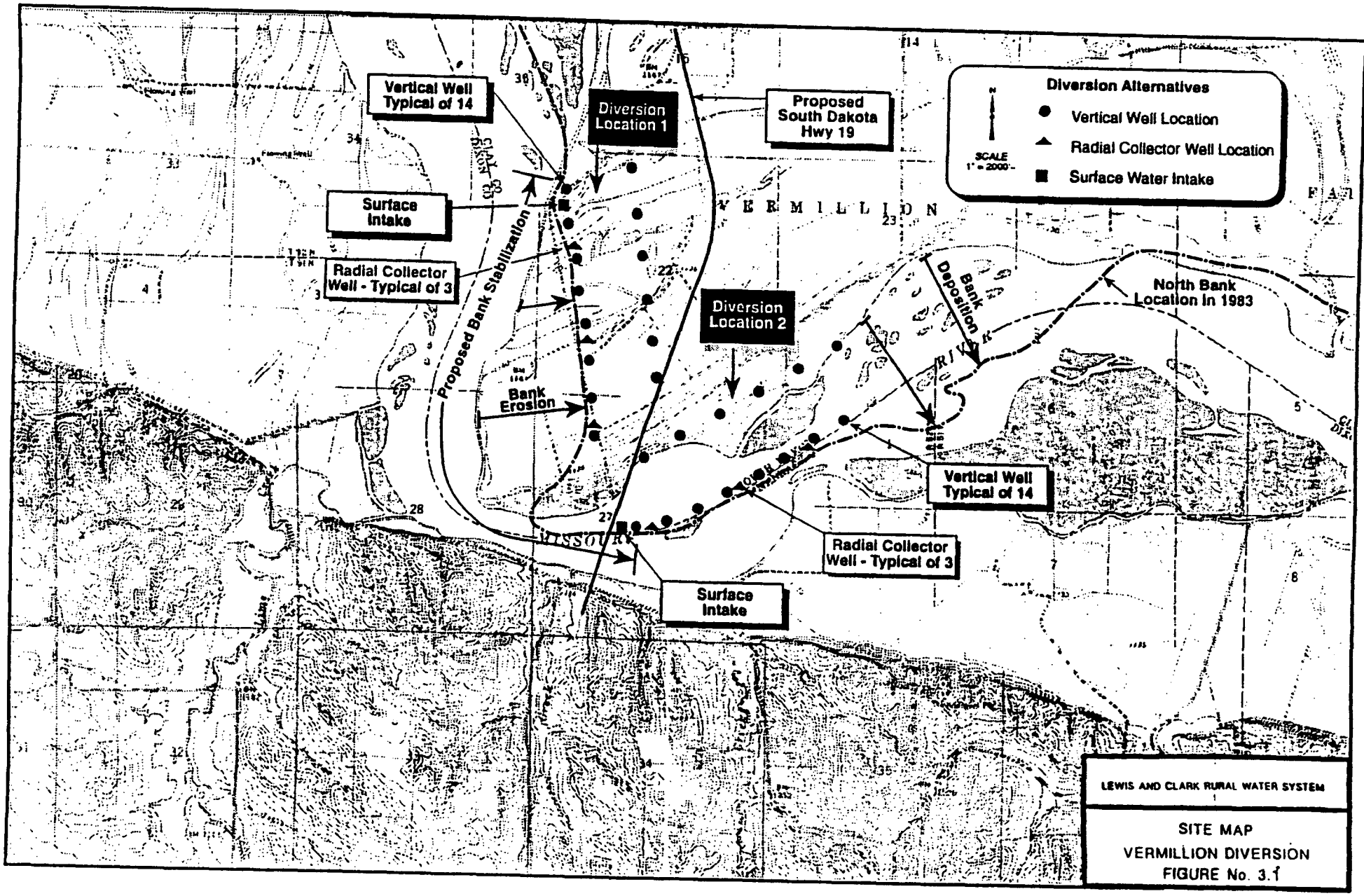

Vertical Well Typical of 14
Diversion Location 1
Proposed South Dakota Hwy 19
Diversion Alternatives
Vertical Well Location
Radial Collector Well Location
Surface Water Intake
SCALE 1" = 2000'
Surface Intake
Radial Collector Well - Typical of 3
Proposed Bank Stabilization
VERMILLION
Bank Deposition
North Bank Location in 1983
Diversion Location 2
Bank Erosion
Vertical Well Typical of 14
Radial Collector Well - Typical of 3
Surface Intake
LEWIS AND CLARK RURAL WATER SYSTEM
SITE MAP
VERMILLION DIVERSION
FIGURE No. 3.1

TABLE 1-1

LIST OF MEMBER ENTITIES

MUNICIPALITIES	MEMBERSHIP CLASS
SOUTH DAKOTA	
Beresford	B
Centerville	B
Harrisburg	B
Lennox	B
Madison	A
Parker	B
Sioux Falls	A
Tea	B
IOWA	
Boyden	B
Hull	B
Sheldon	A
Sibley	B
Sioux Center	A
MINNESOTA	
Luverne,	A
Worthington,	A

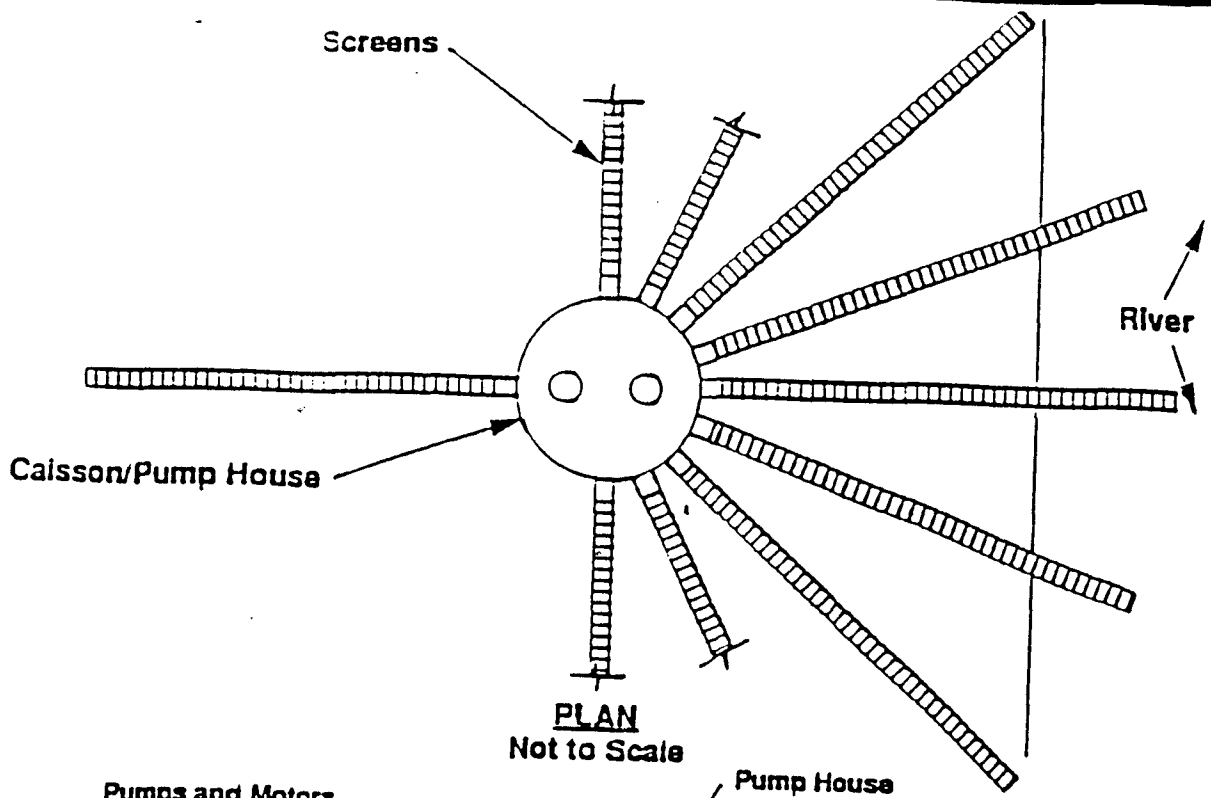
RURAL WATER SYSTEMS	MEMBERSHIP CLASS
SOUTH DAKOTA	
Lincoln County	A
Minnehaha CWC	A
S. Lincoln RWS	A
IOWA	
Clay County RWS	A
Rural Water System #1, Hospers	A
MINNESOTA	
Lincoln-Pipestone RWS	A
Rock County RWS	A

3.2.3.2 Alternative Diversion Locations. The locations of two diversion sites are shown on Figure 3.1: Site Map - Vermillion Diversion. Diversion Locations 1 and 2 would be located on an unchannelized reach of the Missouri River immediately south of Vermillion. Both sites are located on the north bank and situated downstream of the confluence of the James and Missouri Rivers. Location 1 is situated at approximate river mile 777 (1960). Location 2 is situated at approximate river mile 775 (1960).

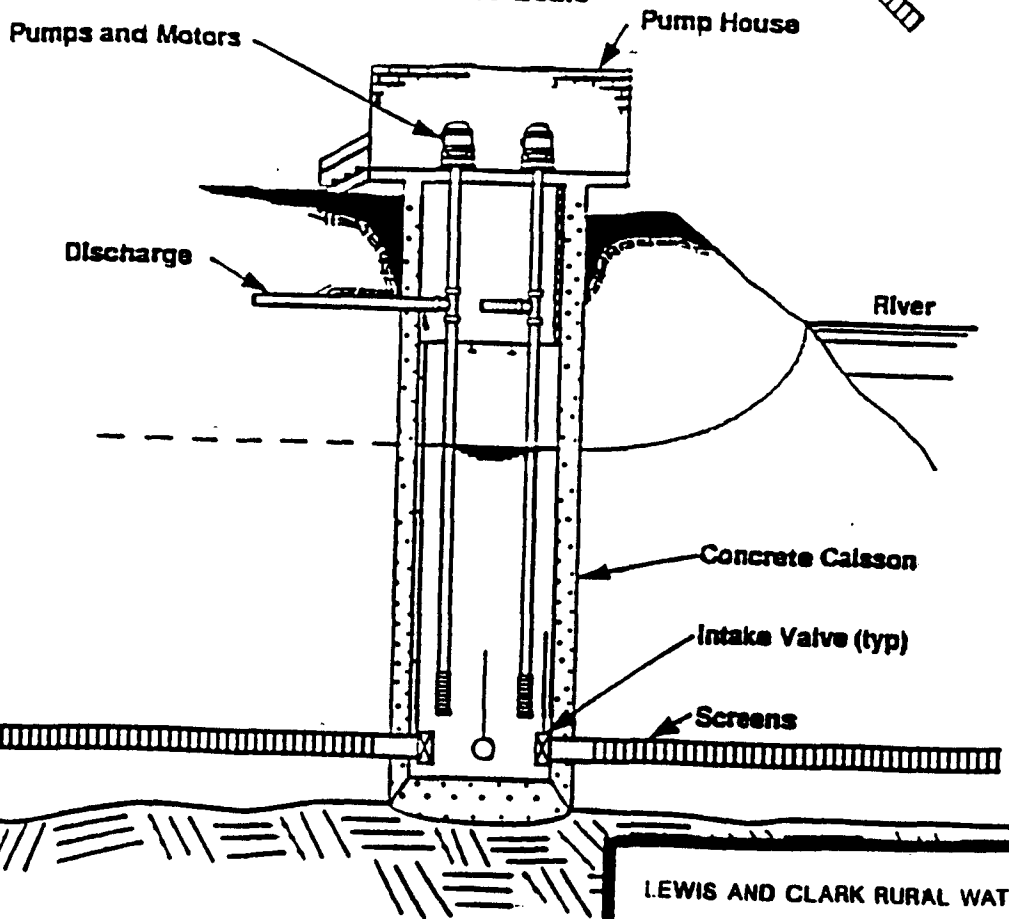
3.2.3.3 Alternative Diversion Concepts. Previously identified diversion concepts include vertical wells, radial collector wells, and a surface intake. Any one of the diversion alternatives would incorporate pumping water to a treatment facility. This section addresses the various diversion alternatives including required pumping facilities, but does not address transmission facilities or treatment facilities.

Vertical Wells A field of conventional vertical wells could be situated along the north bank of the Missouri River at either location 1 or 2 to pump groundwater from alluvial river deposits. Individual wells with depths of approximately 80 feet in this alluvium are expected to have a capacity of approximately 2 mgd. Approximately 14 wells will be required to supply a firm 26 mgd design capacity. Figure 3.2: Typical Vertical Well, presents a conceptual profile for vertical wells at either Location 1 or 2.

Radial Collector Wells Radial collector wells (Ranney Wells) could be situated along the north bank of the Missouri River at either location 1 or 2 to pump groundwater from alluvial river deposits. Individual collector wells with depths of approximately 80 feet in this alluvium are expected to have a capacity of approximately 9 mgd. Three collector wells with three pumps at each well will be required to supply the 26 mgd design capacity. Figure 3.3: Typical Radial Collector Well, presents a conceptual plan and profile for radial collector wells at either Location 1 or 2.



PLAN
Not to Scale



SECTION
Not to Scale

LEWIS AND CLARK RURAL WATER SYSTEM

TYPICAL RADIAL COLLECTOR WELL

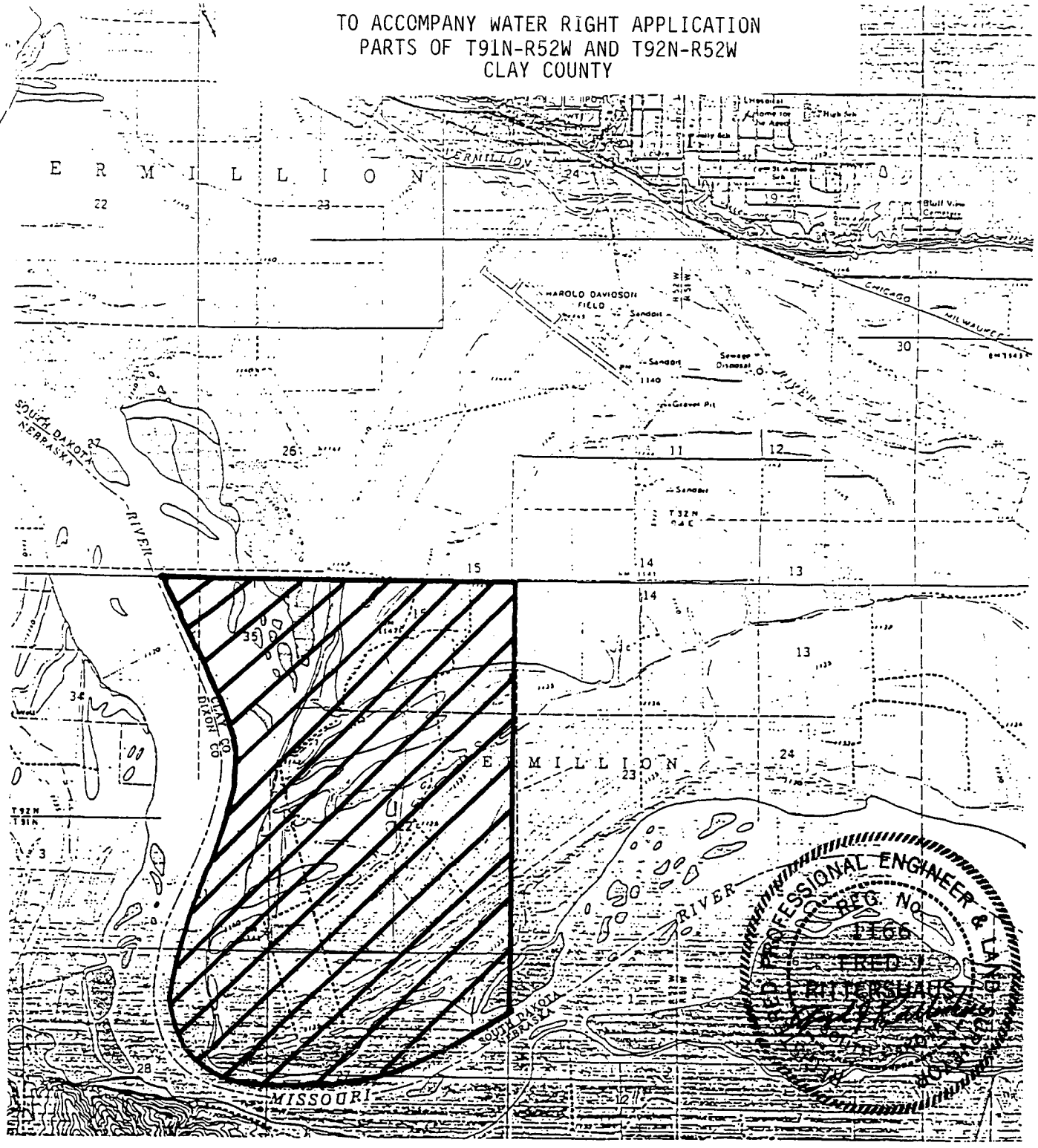
FIGURE NO. 3.3

quality of the underlying aquifer. If the bank protection measures for the proposed South Dakota Highway 19 bridge project are constructed, the radial collector well that is located closest to the bridge site would be protected from bank erosion. The radial collector well located further downstream would not be protected by the bank stabilization. However, historic data indicates that the north bank is not eroding but instead accumulating sediment. Therefore, the downstream radial collector well would probably not be lost due to bank erosion. The cost of radial collectors at Location 2 would be more expensive than at Location 1, because Location 2 is approximately 8000 feet further from the proposed treatment plant site and would require more pipe.

3.2.3.10 Recommended Diversion Alternative The recommended diversion alternative is the radial collector wells at Location 1. This diversion alternative was preferred for cost, reliability, and environmental reasons. Specific advantages of this alternative are:

- No effects from channel changes and degradation or water surface lowering.
- Protection from bank erosion provided that bank stabilization measures for the proposed South Dakota Highway 19 bridge project are constructed.
- No impact to fish.
- Better water quality than vertical wells or a surface intake (lower TDS than vertical wells and lower TSS than a surface intake).
- No presettling needed, resulting in lower treatment costs.

TO ACCOMPANY WATER RIGHT APPLICATION
PARTS OF T91N-R52W AND T92N-R52W
CLAY COUNTY

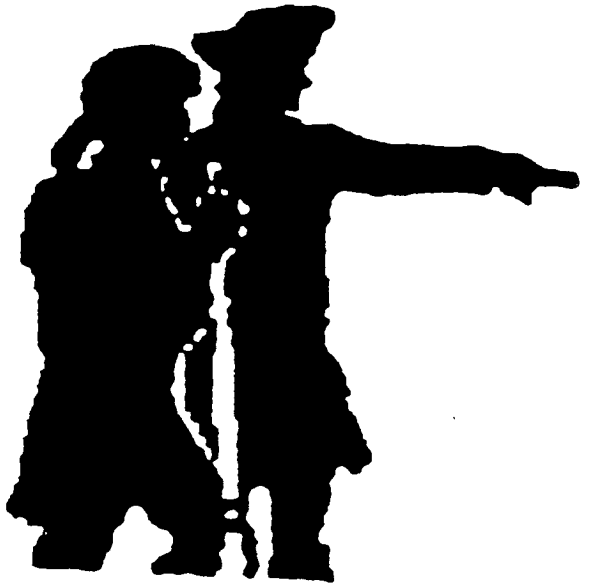


SURVEYOR'S CERTIFICATION

I, Fred Rittershaus, a Registered Land Surveyor in the State of South Dakota, do hereby certify that at the request of the Lewis and Clark Rural Water System, Sioux Falls, South Dakota, I did preparethe map on this sheet from existing Information and that I did survey and locate the sites for which application for and appropriate water rights to withdraw from underground, Missouri River waters for municipal and rural supply purposes is made, and that this map is a true representation thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 23rd day of June, 1994.

Fred J. Rittershaus, P.E. & L.S.
Registered Land Surveyor #1166



Lewis and Clark
Rural Water System

Executive Summary

June 1994

Lewis and Clark Rural Water System
Members and 1990 Service Population

South Dakota	
Beresford	1,849
Centerville	887
Harrisburg	727
Lennox	1,767
Madison	6,257
Parker	984
Sioux Falls	100,814
Tea	786
Lincoln County RWS	3,610
Minnehaha Comm Water Corp	17,870
S. Lincoln RWS	3,400
Iowa	
Boyden	651
Hull	1,724
Sheldon	4,904
Sibley	2,815
Sioux Center	5,047
Clay County RWS	5,250
Rural Water System No. 1	4,100
Minnesota	
Luverne	4,382
Worthington	9,977
Lincoln-Pipestone RWS	240
Rock County RWS	2,240

Contents

Section		Page
1	**Introduction**	**1-1**
	The Problem	1-1
	The Solution	1-2
2	**Summary of Needs**	**2-1**
	Service Area Boundaries	2-2
	Population and Water Demands	2-4
3	**Alternatives Evaluation**	**3-1**
	Source of Supply	3-1
	Missouri River	3-1
4	**Water Management and Conservation Plan**	**4-1**
	Member Plans	4-1
	Monitoring System	4-1
5	**Feasibility Evaluation**	**5-1**
	Proposed Project	5-1
	Project Costs	5-4
	Project Financing Plan	5-4
	Project Implementation Plan	5-7
6	**Environmental Mitigation and Enhancement**	**6-1**
	Mitigation	6-1
	Enhancement	6-3

Figures

Number		
1	Lewis & Clark Rural Water System	2-3
2	Lewis & Clark Rural Water System	5-2
3	Preliminary Project Schedule	5-8

Section 1
Introduction

The Problem

Population growth and industrial development in counties in southeast South Dakota, southwest Minnesota, and northwest Iowa have increased demands on water resources in the tri-state area. Shallow aquifers that provide most of the present supply are being used to the point that they are no longer capable of meeting the regional needs and have become increasingly susceptible to surface contamination and drought.

Simultaneously, changes in regulations governing drinking water have significantly added to treatment requirements, and a greater awareness of water quality issues has reduced the number of sources that are suitable for use as a public water supply.

South Dakota

One of the areas of greatest need is the greater Sioux Falls, South Dakota area. In addition to the susceptibility of the shallow aquifers serving the area, the South Dakota Department of Environment and Natural Resources has established limits on the total annual volume of water that can be withdrawn from the Big Sioux aquifer system in the Sioux Falls area. At the present time, the Sioux Falls management unit of the Big Sioux Aquifer is fully appropriated, no additional water rights can be granted within this area.

Sioux Falls has imposed lawn watering restrictions every year since 1987. The Lincoln County Rural Water System, just south of Sioux Falls, has turned away requests for 175 taps over the past few years because of inadequate capacity. The town of Tea, southwest of Sioux Falls, exceeded their allotment of water on May 23, 1994. Residents were without water and fire protection for the remainder of the day.

Minnesota

Adjoining counties in southwest Minnesota are experiencing similar problems with water supply. The shallow surficial aquifers in southwest Minnesota have limited capacity. Water source investigations conducted in Rock and Nobles Counties in Minnesota have not identified a suitable municipal water supply to supplement the present water supplies. The Rock County Rural Water System lost a well because of flooding on the Rock River a year ago. Residents of Luverne were subjected to water restrictions in June 1994 because of problems at the water treatment plant.

Iowa

Water supplies in northwest Iowa include both surficial aquifer supplies and deep aquifer supplies. Numerous investigations over a period of several years have concluded that an alternative water supply is necessary if water quality is to be improved to meet recommended standards. Sioux Rapids has nitrate concentrations at levels approaching these standards associated with hemoglobinemia but can not be hooked on to the Clay County Rural Water System because of inadequate capacity.

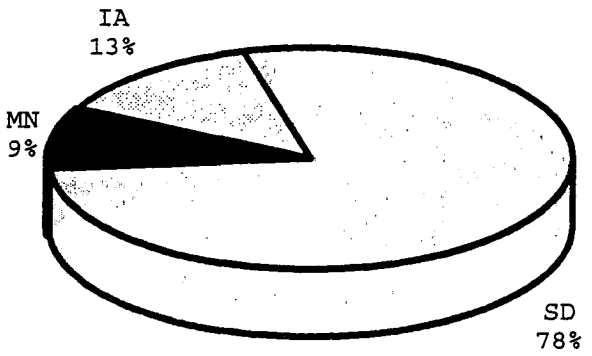
The Solution

Lewis and Clark Rural Water System

On April 18, 1990, various public water supply utilities and companies met in Sioux Falls, South Dakota to formally organize the Southeastern South Dakota Water Supply System, now known as the Lewis and Clark Rural Water System. The goal of the Lewis and Clark Rural Water System is to develop alternative and/or supplemental water supplies for the benefit of its membership.

Members of the Lewis and Clark Rural Water System and their service populations are identified on the inside cover of this document. Collectively, the members supply an average of nearly 30 million gallons per day of water to approximately 180,000 people. The figure shows the geographic distribution of the service population by state.

Service Population Distribution



Feasibility Evaluation

A Feasibility Evaluation completed for the Lewis and Clark Rural Water System by Banner Associates presents a plan to develop the Missouri River as an alternative and/or supplemental source, thereby eliminating the significant problems that presently exist. An average of 16.5 million gallons per day of water, and up to 23.5 million gallons per day of water during the maximum month, would be diverted from the river, treated, and distributed to Lewis and Clark Rural Water System members.

Costs

Capital costs for the proposed regional system are estimated to be $282.9 million. Approximately $4.7 million of annual costs will be incurred for system operation and maintenance. A combination of local, state, and federal funding is being sought for the project.

Water Management/ Conservation and Environmental Mitigation/Enhancement

Water management and conservation, and environmental mitigation and enhancement are key elements of the proposed plan. The water conservation and management element reflects the scarcity of water resources and the considerable cost of their development. The environmental mitigation and enhancement element goes well beyond the necessary environmental mitigation activities during construction to include specific environmental enhancement projects as well.

Executive Summary

This Executive Summary highlights information from the Feasibility Study and related documents. Information is presented in the following sections.

- Section 2: Summary of Needs
- Section 3: Alternatives Evaluation
- Section 4: Water Management and Conservation Plan
- Section 5: Feasibility Evaluation
- Section 6: Environmental Mitigation and Enhancement

Section 2
Summary of Needs

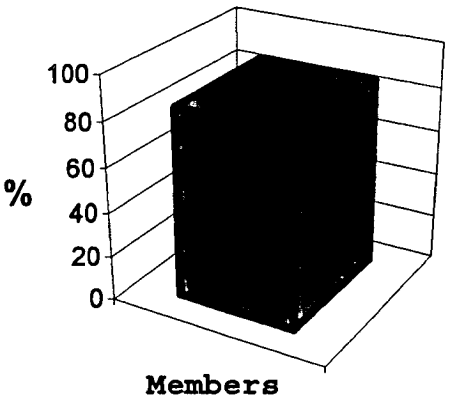
Significant water needs exist in the southeast South Dakota, southwest Minnesota, and northwest Iowa tri-state area prompting the formation of the Lewis and Clark Rural Water System. The scope and nature of those needs have been identified using previous studies, published data on public water systems, population and demographics information provided by state and local planning agencies, and information provided by each of the Lewis and Clark Rural Water System members.

Specific information regarding the 22 Lewis and Clark Rural Water System member's needs is presented as an attachment to this Executive Summary. Generally, the needs fall into three categories.

1. **A need for adequate quantities of water to meet present water demands of the existing water systems.** Ten of the 22 members, representing 85 percent of the population, find it necessary to enact water restrictions due to an inadequate supply of water.

2. **A need for better quality water for potable use.** Nine of the 12 members have water quality below

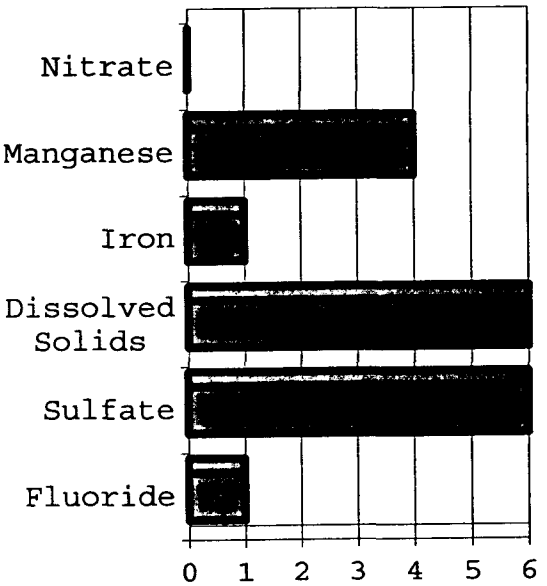
Water Use Restrictions



the proposed primary or secondary standards for potable water quality. Of these, six have sulfate concentrations which are greater than the proposed primary standard of 500 mg/L. Seven have increasing nitrate concentrations that are still below drinking water standards but over 1 mg/L.

3. **A need for an alternative source of water in the event of contamination of or in lieu of new regulatory driven treatment facilities for shallow aquifers currently serving as the public water supply.** Fifteen of the 22 members depend on water from shallow aquifers such as the Big Sioux Aquifer, the Rock River alluvium, and the Vermillion River alluvium. The Surface Water Treatment Rule will likely categorize these sources as groundwater under the influence of

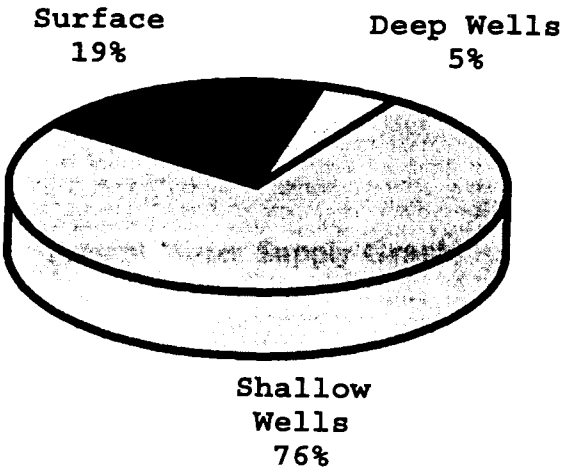
Secondary Water Quality Violations



surface water necessitating that treatment facilities be provided. In any case, the shallow aquifer water supplies are vulnerable to contamination by surface pollution from fertilizers, pesticides, and chemical and fuel spills. The nitrate concentrations mentioned above are not an immediate danger but indicate the presence of contamination due to surface activity.

Many of the existing industries in the tri-state area are food product industries that provide a market for the raw agricultural materials produced in the

Present Water Supply



area. The economic stability of these industries is closely tied to the availability of a reliable supply of quality water.

Service Area Boundaries

Figure 1 shows the service area of Lewis and Clark Rural Water System members. It covers 5,900 square miles including seven counties in southeast South Dakota, two counties in southwest Minnesota, and six counties in northwest Iowa. Four additional counties in Minnesota receive water from one of the Lewis and Clark members but will not receive water from the Lewis and Clark Rural Water System.

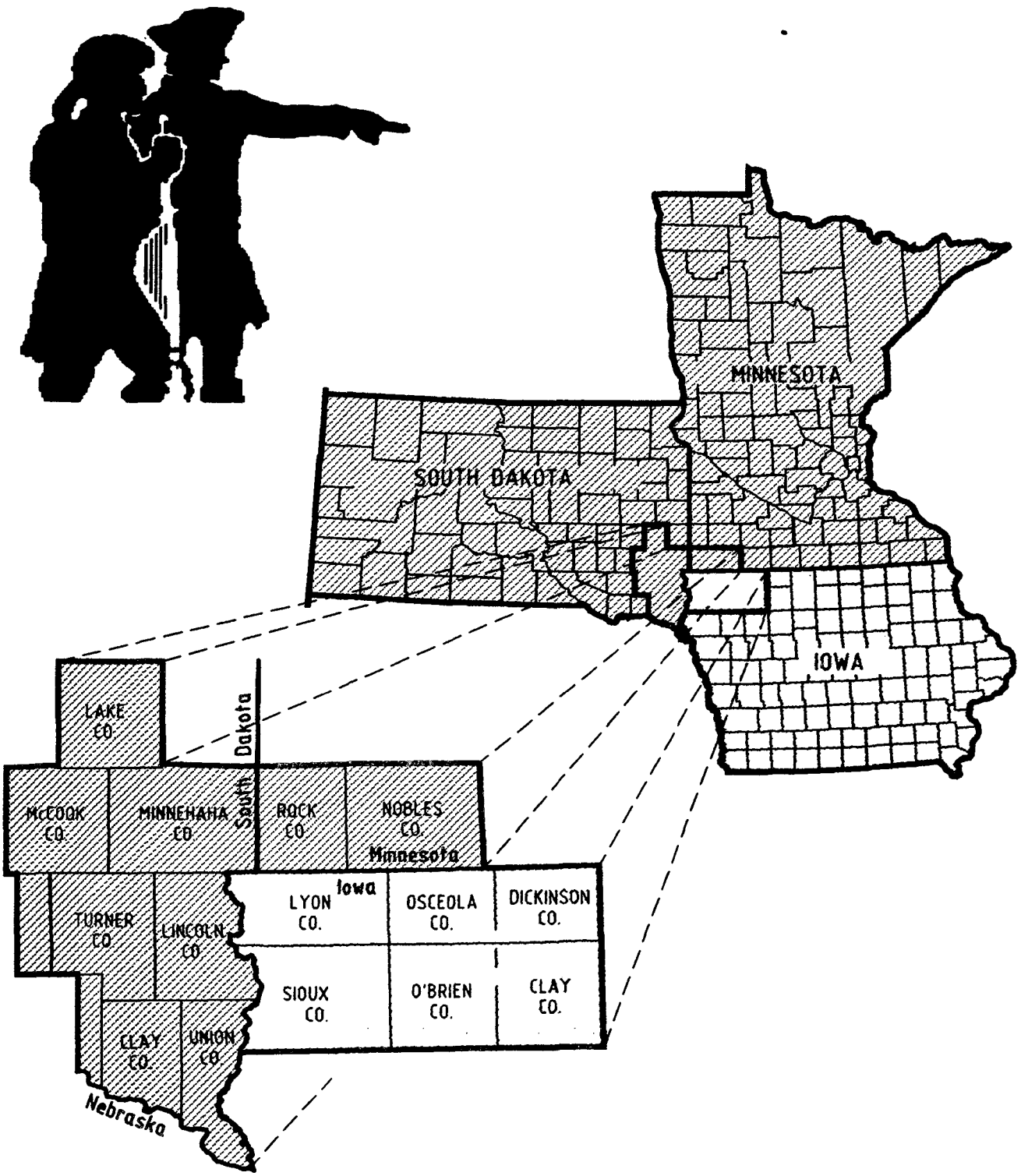
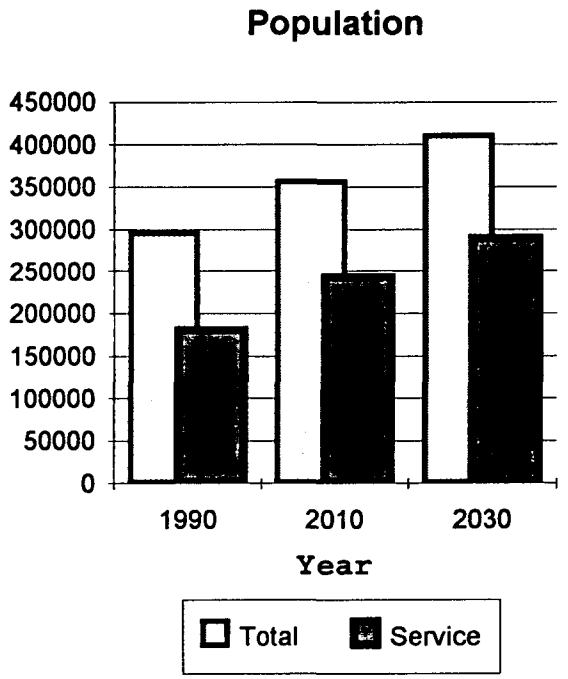


FIGURE 1

LEWIS & CLARK RURAL WATER SYSTEM

Population and Water Demands

The accompanying figures compare the service population of Lewis and Clark Rural Water System members to the total population of the 15 county service area, and compare water demands on the proposed project to the total water demands of the Lewis and Clark Rural Water System members.



As indicated, the population served by Lewis and Clark Rural Water System members was about 180,280 in 1990, approximately 60 percent of the total population of the service area. Growth is occurring primarily in the Sioux Falls, South Dakota and Worthington, Minnesota areas. The population served by rural water systems is also increasing as more and more rural residents and communities are connecting to rural water systems. Rural residents are connecting for a variety of reasons but primarily the following:

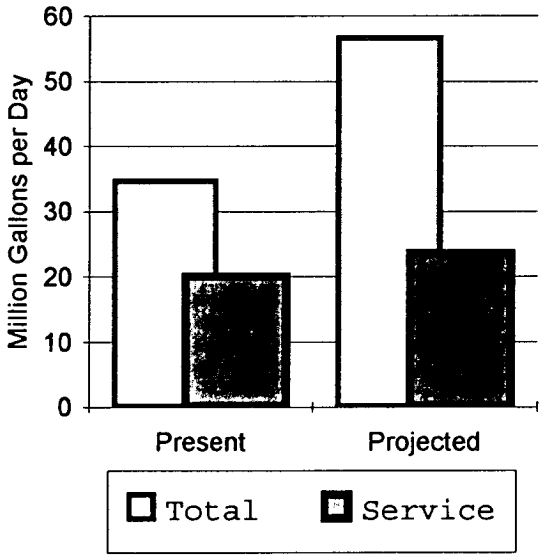
- Contamination of private wells
- Need for repair or replacement of private wells
- Increase in ability required to determine presence of contamination through more sophisticated testing
- Increase in number of chemicals/ contaminants regulated by EPA
- Decrease in the proposed allowable maximum contaminant levels
- Increased costs of individualized testing and monitoring
- Availability of high quality water from a rural water system

In the next 40 years, both the total population and the percentage of the population served by members are anticipated to grow. At that time, the service population is projected to be 289,120, approximately 73 percent of the total population.

As indicated, the total water demand for Lewis and Clark Rural Water System

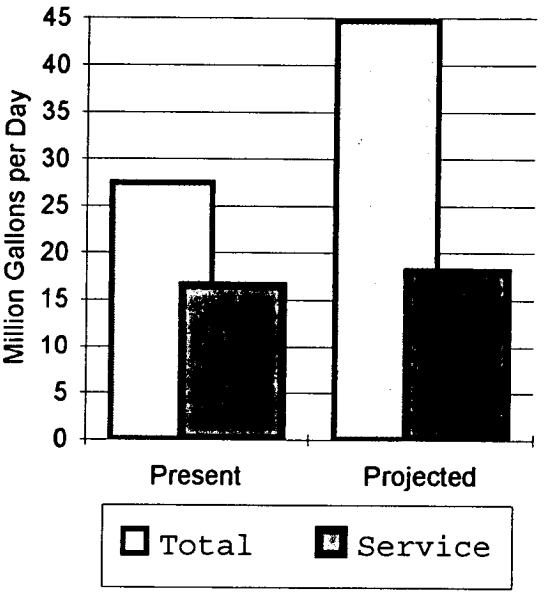
members is presently 27.4 million gallons per day on the average and 34.7 million gallons per day maximum month. These demands are projected to increase to 44.7 million gallons per day average and 56.6 million gallons per day maximum month.

Maximum Month Water Demands



Presently, member entities would like to satisfy approximately 60 percent of their demands (16.5 million gallons per day average; 20 million gallons per day maximum month) with water from the proposed Lewis and Clark Rural Water System. Also, members would like to satisfy about 40 percent of projected future demands (18.0 million gallons per day average; 23.5 million gallons per day maximum month) with water from the proposed project.

Average Water Demands



Section 3
Alternatives Evaluation

Alternative sources of water supply and alternatives to develop the Missouri River have been evaluated.

Source of Supply

Each Lewis and Clark Rural Water System member has considered alternatives, some more formally than others. Separate studies resulting in published reports were conducted by the following Lewis and Clark Rural Water System members to identify and evaluate alternative water supplies.

- Sioux Falls, South Dakota
- Madison, South Dakota
- Luverne, Minnesota
- Worthington, Minnesota
- Sibley, Iowa
- Lincoln-Pipestone Rural Water System, Minnesota
- Minnehaha Community Water Corporation, South Dakota
- Rock County Rural Water, Minnesota

Together, these members constitute over 70 percent of the water demand for the proposed Lewis and Clark Rural Water System.

After considering the alternatives available, each member determined that the Lewis and Clark Rural Water System using water from the Missouri River is the most practical alternative for their future water needs.

Missouri River

The proposed Lewis and Clark Rural Water System is the best of numerous alternatives considered for using Missouri River water. Three different locations for diversion from the river, three different types of diversion systems, four different treatment concepts, and fourteen alternatives for distribution system routes and configurations were evaluated with respect to cost, reliability, environmental impact, and technical feasibility. The proposed system was further optimized by an independent value engineering study. Literally every mile of the proposed system location has been field inspected.

Components of the optimized Lewis and Clark Water Supply System are described in Section 5.

Section 4
Water Management and Conservation Plan

Given the scarcity of water resources in the tri-state area and the cost for their development, management and conservation of the water to be provided by the Lewis and Clark Rural Water System is essential.

Member Plans

The Lewis and Clark Rural Water System will require and assist each member in developing and implementing a Water Management and Conservation Plan. Planned policy requirements are identified in the accompanying table.

Customers to be served by the Lewis and Clark Rural Water System are already accustomed to wise use of water as a limited resource. Present usage by member entities tends to be well below normal per capita usage. Approximately 85 percent of the population to be served are already subjected to water use restrictions. Sioux Falls, the biggest member, has "accounted for" water losses on the order of 7 percent, much less than industry standards. Industrial customers have substantially increased production volumes over the past 10 years with little or no increase in water use because of water conservation and reuse programs.

Minimum Policy Requirements All Members

- Meters for all customers
- Meter replacement and repair program
- Conservation-oriented rate structure
- Local water management and conservation plans targeting both indoor and outdoor use
- Education program
- Local water audit procedures and plans for reduction of unaccounted-for water use
- Leak detection and repair program

Monitoring System

System water losses and "unaccounted for" water will be determined on an ongoing basis as part of the overall water management strategy. The required data will be readily available through the monitoring system required for billing and operations purposes. Billing

requirements dictate that the water delivered to each member entity be metered by the Lewis and Clark Rural Water System. Beyond that, raw water flows to the treatment plant, treated water flows to the distribution system, and flows at booster pump stations within the distribution system will be metered to enable system operation. All flow information will be transmitted to a single location for recordkeeping purposes.

Section 5
Feasibility Evaluation

The Feasibility Evaluation identifies necessary facilities, presents and opinion of probable costs, assesses water rate impacts, describes funding needs, and proposes a plan for implementation. It is based on the water demands each member committed to in project participation agreements with the Lewis and Clark Rural Water System. Water demands for each entity are identified in the accompanying table.

Proposed Project

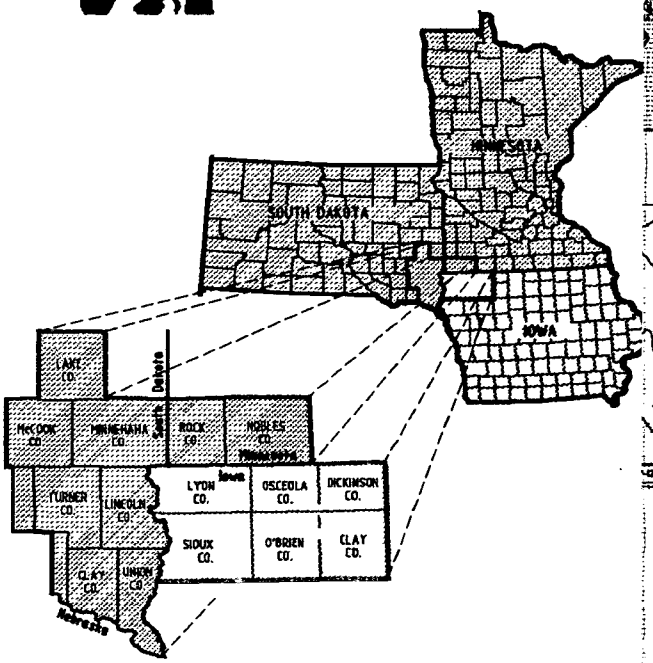
The proposed Lewis and Clark Rural Water Supply System will provide 16.5 million gallons per day of water average day and 23.5 million gallons per day of water maximum day. The necessary raw water will be diverted from a point on the Missouri River near Vermillion, South Dakota just upstream of a location proposed for a new bridge spanning the Missouri River. Primary components include a diversion system, a water treatment plant, and an extensive treated water distribution system (see Figure 2).

Member Water Demands	
Member Name	Average/ Peak (mgd)
South Dakota	
Beresford	0.20/0.25
Centerville	0.10/0.22
Harrisburg	0.07/0.25
Lennox	0.20/0.40
Madison	0.80/1.00
Parker	0.15/0.49
Sioux Falls	10.0/10.0
Tea	0.30/0.33
Lincoln County RWS	0.45/0.90
Minnehaha Comm Water Corp	0.10/2.00
S. Lincoln RWS	0.15/0.15
Iowa	
Boyden	0.10/0.10
Hull	0.17/0.30
Sheldon	0.10/1.00
Sibley	0.45/0.65
Sioux Center	0.60/0.60
Clay County RWS	0.30/1.00
Rural Water System No. 1	0.05/1.00
Minnesota	
Luverne	0.50/0.50
Worthington	1.37/1.73
Lincoln-Pipestone RWS	0.30/0.30
Rock County RWS	0.05/0.30
Total Water Demand	16.51/23.47

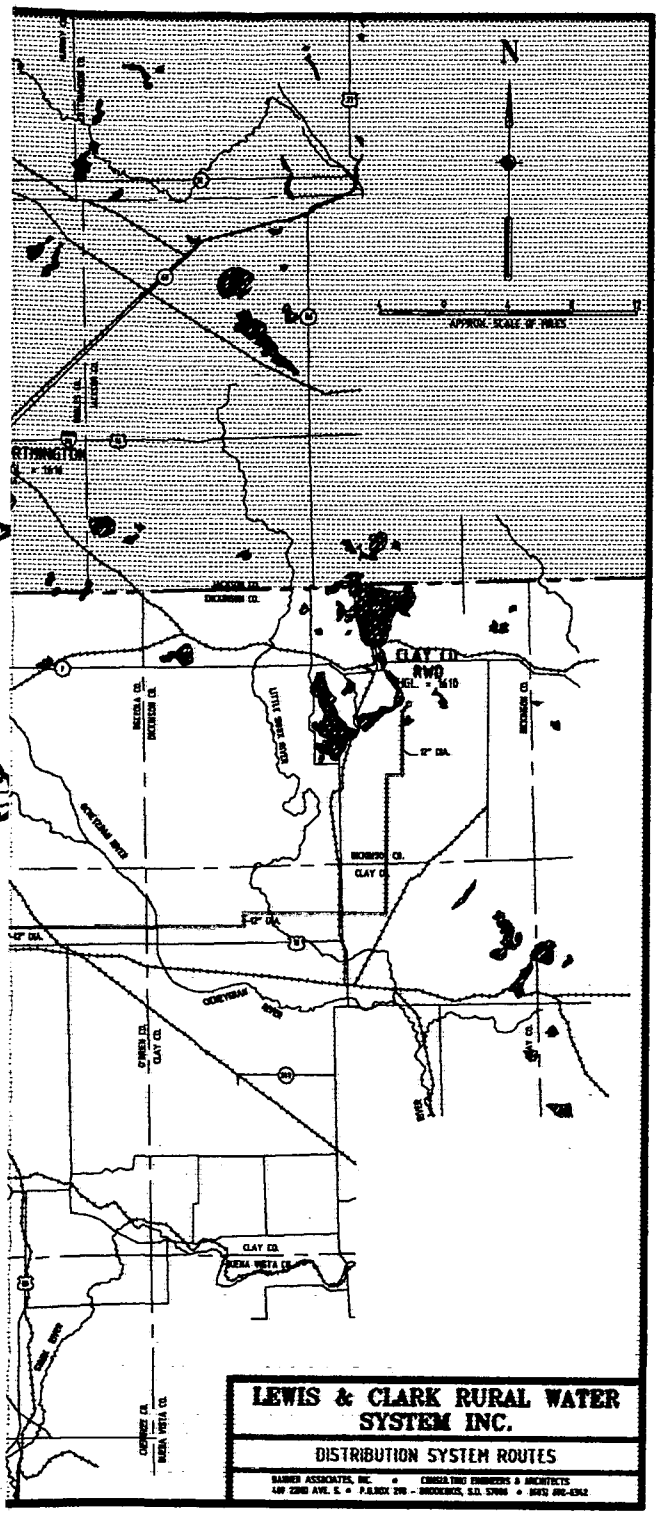
Diversion System

A radial collector system will be constructed on the South Dakota side of





LEWIS & CLARK
RURAL WATER SYSTEM



SYSTEM

the Missouri River in a reach downstream of the Gavins Point Dam, below the confluence of the James River, and upstream of the confluence of the Vermillion River. The location is within the erosion control area for the proposed bridge to avoid the adverse impacts associated with a location where the river might meander over time.

An estimated 18,500 acre-feet per year of water will be withdrawn from sand and gravel deposits adjacent to and beneath the Missouri River. Withdrawals will have a negligible effect on Missouri River flows. Average rates of withdrawal (16.5 million gallons per day; 25.6 cubic feet per second) represent less than 0.5 percent of the lowest Missouri River flow rate recorded between 1955 and 1988. The maximum rate of withdrawal (23.5 million gallons per day; 36.5 cubic feet per second) represents less than 0.3 percent of the minimum river flow rate during the concurrent navigation season. These impacts are within the +/- 1 percent accuracy of measurement for Missouri River flows, therefore it is likely that Lewis and Clark Rural Water Supply System withdrawals will not even be detectable.

Treatment System

A conventional water treatment plant using lime/soda ash flocculation and sedimentation, multi-media filtration, and chlorine disinfection processes will be located on a 160 acre site near Vermillion. Trace concentrations of organic materials that contribute to taste and odor will be adsorbed or oxidized using powdered activated carbon (PAC) or a chemical such as potassium permanganate or ozone. Anticipated treated water quality is as indicated in the accompanying table.

Treated Water Quality	
Alkalinity	100 mg/L
Hardness	130 mg/L
Ca Hardness	80 to 100 mg/L
Mg Hardness	30 to 50 mg/L
pH	8.5 to 8.7
TDS	400 mg/L
Sulfates	200 mg/L
Sodium	70 to 80 mg/L
Chloride	10 to 15 mg/L
Fluoride	1.2 mg/L

Distribution System

Treated water will be distributed throughout the tri-state service area using a non-looped distribution system consisting of the following components

- Four hundred miles of 48- to 6-inch piping
- Storage reservoirs
- Metering and chlorination systems for each utility service connection
- Pumping stations

- Telemetry and controls

A looped system was originally contemplated for increased reliability. Through value engineering, it was determined that the looped system added 10 to 15 percent to the overall project costs. The added costs were not considered justifiable.

Project Costs

An opinion of probable total project costs was prepared to determine total budget requirements, including both system development and subsequent operation and maintenance, and to provide a basis for estimating the resulting water rates necessary for the system to function. As shown in the accompanying table, the total capital cost of the Lewis and Clark Rural Water Supply System is estimated to be $282.9 million. An estimated $4.7 million will be required annually for ongoing operation, maintenance, and replacement of the system.

Probable Annual O&M Costs (July 1993 Dollars)

Power and Chemicals	$2,730,000
Labor and Administration	985,000
Travel, Supplies, Laboratory Fees, Equipment, Repairs, and Replacement	992,000
Total	**$4,707,000**

Probable Capital Costs (July 1993 Dollars)

Construction Costs	
• Diversion System	$13,700,000
• Water Treatment	26,600,000
• Distribution System	161,000,000
Construction Subtotal	$201,300,000
• Construction Contingencies	30,200,000
Engineering Costs	25,400,000
Legal and Administrative	
• BOR Administrative Oversight, NEPA Compliance, and Cultural Resources Inventory	6,000,000
• Legal and Administrative	1,000,000
Legal and Administrative Subtotal	$7,000,000
Land and Easement Acquisition	6,900,000
Environmental	
• Enhancement Activities	10,100,000
• Mitigation Activities	2,000,000
Environmental Subtotal	12,100,000
Probable Total Capital Budget	**$282,900,000**

Project Financing Plan

Development of the Lewis and Clark Rural Water System involves a major investment of funds. Project sponsors worked with the U.S. Bureau of Reclamation to investigate the end users willingness and ability to pay, and to identify direct tax revenues generated through project construction. This information was in turn used to determine grant funding.

Assessment of Ability and Willingness to Pay

The Bureaus investigations are summarized in two studies.

- Ability and Willingness to Pay, Piper, BOR Denver, 1993.

- Assessment of Tax Revenues and Employment, Piper, BOR, Denver, 1993.

The ability and willingness to pay study consisted of analysis of surveys of water rates and average monthly water bills rates for area water utilities and questionnaires distributed to area water utility customers.

The "ability to pay" was determined by median household income and an economic factor relating utility costs to household income. Current water utility bills were found to average $26.31 per month, ranging from a low of $14.00 to a high of $67.60 per month. Using the economic factor and household income data, the Bureau estimates an average ability to pay at $36.48 per month, an average increase of $10.17 per month. Such an increase would generate revenues of $6.1 million per year for debt service retirement and operation and maintenance costs, and result in average monthly water utility bills ranging from $22.05 to $69.22 per month.

The "willingness to pay" portion of the study assessed whether or not water utility customers perceived a need for an alternate water supply and whether or not they would be willing to pay a higher monthly water bill to pay for the alternate supply. The results indicate that a majority of the water utility customers would be willing to pay a higher monthly water bill for an alternative water supply. The Bureau estimates this willingness to pay at about $4.60 per month, roughly half the estimated ability to pay. Applied uniformly, additional revenues of $2.7 million per year would be generated for debt service retirement and operation and maintenance costs with such an increase.

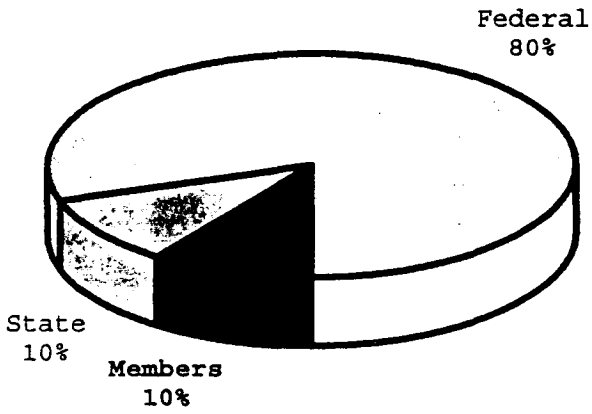
Assessment of Project Participation Required

The $6.1 million of additional revenue produced by increasing water rates according to ability to pay is sufficient for an annual debt service payment of $1.4 million in addition to the $4.7 million annual system operation and maintenance cost. Assuming a 6 percent 40 year loan, this equates to an ability to fund $20.3 million, or about 7.2 percent of the project's estimated capital cost.

The project participation agreements with the Lewis and Clark Rural Water System commit each member to funding 10 percent of the project's estimated capital cost. In other words, nearly 40 percent more than the Bureau's ability to pay analysis would indicate. Grant funding is required for the remaining 90 percent of the project's estimated capital cost. Using the formula

authorized in legislation passed by the sponsoring states, the state governments would fund 10 percent ($28.3 million), leaving 80 percent funding ($226.32 million) for the federal government.

Project Funding



Water Rates

The bulk water rate projections in the accompanying table were developed for the Lewis and Clark Rural Water System based on the members commitment to fund 10 percent of the projects capital cost with 40 year financing at 6 percent interest, and 100 percent of the projects operation and maintenance cost.

Debt service costs will be fixed by the capital cost of the project and the amount and financial terms for funds borrowed to finance the project. They are independent of the amount of water produced and will be assessed proportional to the system capacity reserved by each member. Operation and maintenance costs are the annual costs for labor, power, chemicals, equipment repair and replacement, and administration of the system. To a large extent operation and maintenance costs are related to the amount of water produced and delivered, and will be assessed proportional to each member's actual water usage.

The water rate projections allowed individual members to confirm the economic feasibility in terms of possible costs per thousand gallons of water purchased and associated impact on water bills.

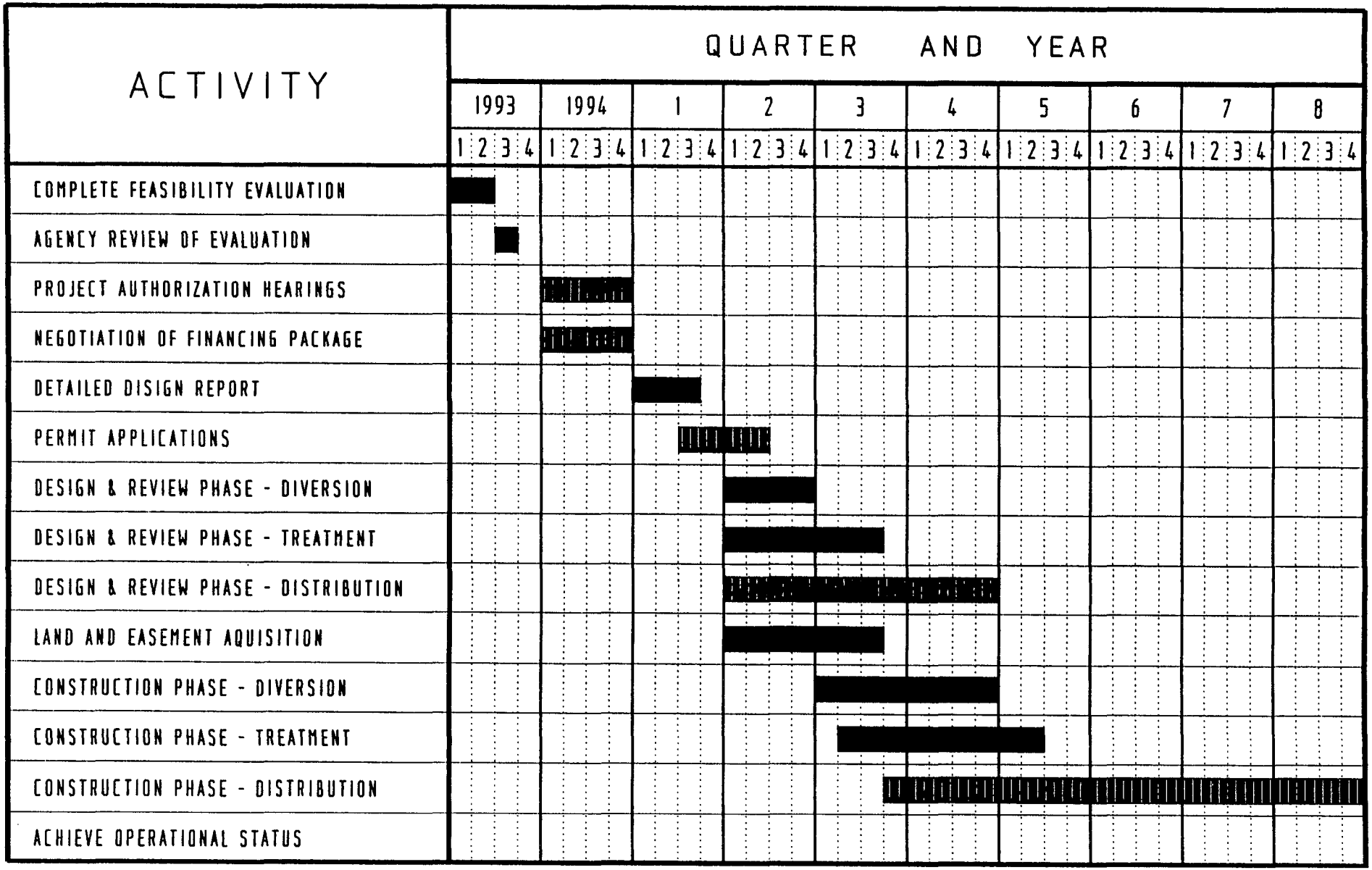
Preliminary Water Rate Estimates

Member Entity	Cost Per 1,000 Gal ($)	Average Cost Per Account ($)
South Dakota		
Beresford	1.08	8.62
Centerville	1.42	12.19
Harrisburg	1.92	18.31
Lennox	1.35	10.94
Madison	1.08	10.35
Parker	1.81	21.99
Sioux Falls	0.99	10.36
Tea	1.02	29.30
Lincoln County RWS	1.35	14.01
Minnehaha Comm Water Corp	7.87	9.44
S. Lincoln RWS	0.99	3.65
Iowa		
Boyden	0.99	12.09
Hull	1.26	9.77
Sheldon	4.25	6.01
Sibley	1.15	13.36
Sioux Center	0.99	8.89
Clay County RWS	1.83	9.16
Rural Water System No. 1	7.87	11.13
Minnesota		
Luverne	0.99	8.56
Worthington	1.08	11.07
Rock County RW	2.80	8.20
Lincoln-Pipestone RWS	0.99	6.78

As shown, The Lewis and Clark Rural Water System is projected to increase average water bills for member's customers from a minimum of $3.66 per month to a maximum of $29.30 per month. Most average increases are in an $8 to $12 per month range, similar to the $10.17 per month increase derived from the Bureau's "ability to pay" analysis.

Project Implementation Plan

As shown in Figure 3, the preliminary project schedule, design and construction of the Lewis and Clark Rural Water System will require an estimated 8 years once project financing is in place. Assuming the financing is in place in late 1994, construction will begin in early 1997, the first portions of the system will be operational in year 2000, and the system will be fully operational in early 2003. However, the schedule is critically linked to project funding and can not be accurately defined until funding is in place.



PROJECT SCHEDULE
FIGURE 3

Section 6
Environmental Mitigation and Enhancement

The Lewis and Clark Rural Water System project presents a significant opportunity to go beyond mitigation of construction related impacts and actually enhance the project area's wildlife, deliver improved water quality and quantity, and enhance regional visual and recreational values.

Mitigation

Design features and procedures will be implemented throughout the project area to avoid or mitigate project impacts. The following design features and procedures would be implemented throughout the project area to avoid or mitigate project impacts:

- Pipeline routes and facility sites would be selected and designed to minimize disturbances to areas of high wildlife habitat value, including state and federal wildlife production areas, wetlands and riparian areas, shelterbelts, windrows, hedgerows, and woodlots.
- Cemeteries and farmsteads would be avoided.
- Residential areas would be avoided, where possible.
- Construction access roads not required for operation and maintenance would be permanently blocked, contoured, and revegetated.
- Removal or disturbance of vegetation would be kept to a minimum through construction site management (i.e., use previously disturbed areas, use existing easements when feasible, designate limited equipment/materials storage yards and staging areas, etc.).
- A minimum of 10 inches of topsoil would be segregated from subsoils during trenching operations and would be returned to the surface upon completion of backfilling.
- Vegetation removed would be replaced on an acre-for-acre basis with plants of equal value using procedures recommended by the U.S. Soil Conservation Service (SCS) (personal communication, January 1991, with Brian Top, District Conservationist. SCS,

Sioux Falls, South Dakota) including:

- Grassland and highway ROW reseeding would be completed prior to May 15, where feasible.

- If spring reseeding of upland grasses is not feasible, fall reseeding would be performed between August 15 and September 15.

- Revegetation of disturbed grassland areas would be accomplished primarily using cool season grasses, due to their ease in establishment

- Reed canary grass and Garrison creeping foxtail could be used for wetland vegetation reestablishment.

- To reduce erosion, water bars would be installed on disturbed slopes with grades of 6 percent or greater.

- Vegetation and soil removal would be accomplished in a manner that would prevent erosion and sedimentation.

- Where wetlands, streams, or rivers must be crossed, the following measures would be employed (personal communication, December 1990 and June 1993, with Stan Zschomler, South Dakota State Director, U.S. Fish and Wildlife Service):

  - Wetland areas would be crossed during dry conditions (i.e., winter months).

  - Streams and wetlands impacted during project construction would be restored to pre-project conditions. If impermeable soils contributed to wetland formation, soils above the pipeline would be compacted to reestablish impermeability.

  - Stream crossings and intake facilities would not be constructed during fish spawning periods (i.e., April, May, June).

  - Streams would be crossed perpendicular to flow.

  - Grading and appropriate/adapted species would be used to revegetate wetland banks to aid in soil stabilization.

  - Revegetation operations would begin in the first appropriate season after trench backfilling in wetland and other native areas.

  - Any impacted trees and shrubs would be replaced at a rate of at least two trees replanted for every one tree destroyed.

- Temporary erosion control measures such as mulch, jute netting, or other appropriate methods would be used to prevent erosion and sedimentation until vegetation becomes established.

Enhancement

A preliminary assessment of the options for enhancing wetlands and other wildlife habitats within the project area evaluated the potential for wetland and wildlife habitat enhancement along the proposed pipeline routes and in the region. Efforts are now underway to define specific enhancement projects. The top priorities for wildlife enhancement are protection and enhancement of existing wetlands and restoration of former wetland areas, as well as acquisition and enhancement of uplands for waterfowl nesting. These goals will augment population of water fowl and other wildlife species and will provide valuable benefits such as erosion control and water quality improvement.

The wildlife enhancement component of the plan for the proposed LCR project will consider the following:

- Use of Lewis and Clark Rural Water System Water for wetlands and wildlife enhancement
- Acquisition, development, enhancement, and restoration of wetlands
- Acquisition, development, enhancement, and restoration of uplands

All of the resource managers contacted in the tri-state region indicated that an excellent base of planning and technical experts already exists for enhancing wetland and wildlife values in the project area. Resources include the USFWS's North American Waterfowl Plan, USFWS biologies, and personnel from the tri-state wildlife agencies, all of whom have technical expertise and knowledge of the needs and potential values of specific areas.

Included in the project's construction budget is approximately $8.5 million that is solely dedicated to environmental enhancement projects. A prorated share of the enhancement funds will be used for specific projects in each state. All costs associated with environmental enhancement activities will be entirely from nonreimburseable federal funds. Every effort is being made to identify projects that benefit migratory waterfowl or threatened and endangered species. It is Lewis and Clark's intent to include environmental enhancement opportunities as project construction features that will become federally authorized in conjunction with the project.

Attachment

Summary of Needs

Summary of Water Needs				Page 1 of 3
Name	**Present Supply**	**Water Use Restrictions**	**Description of Need**	**Intended Use of Water from Lewis and Clark RWS**
South Dakota Systems				
Beresford	Surficial Aquifer	No	Supplemental source as standby supply and source for growing water demands	Water from Lewis and Clark RWS will be used as a supplement to present supply
Centerville	Deep Aquifer	No	Need alternative source for improved water quality	Water from Lewis and Clark RWS would be used as primary water supply
Harrisburg	Surficial Aquifer and Lincoln Co. RWS	No	Need alternative source to handle growing water demands	Water from Lewis and Clark RWS would be used as primary water supply
Lennox	Deep wells	No	Need alternative source for improved water quality, present water supply has excessive sulfates and TDS	Water from Lewis and Clark RWS would be used as primary water supply
Madison	Upper Skunk Creek Aquifer and Howard Aquifer	Yes	Need a supplemental water source for blending to reduce sulfate concentrations	Lewis and Clark RWS would be a supplemental source to blend with the present water supply
Parker	Deep wells, Parker-Centerville Aquifer	Yes	Need an alternate supply with better water quality and more capacity	Lewis and Clark RWS would be primary water supply
Sioux Falls	Big Sioux, Skunk Creek, and Split Rock aquifers	Yes	Need an additional water supply to meet growing water demands	Lewis and Clark RWS would be a supplement to existing supplies
Tea	Lincoln County RWS, supplied by City of Sioux Falls	Yes	Need an alternative source of water to reduce demand on RWS	Lewis and Clark RWS would be primary water supply
Lincoln County RWS	City of Sioux Falls	Yes	Need an alternative source of water to reduce demands on City	Lewis and Clark RWS would be primary water supply

Summary of Water Needs				Page 2 of 3
Name	**Present Supply**	**Water use Restrictions**	**Description of Need**	**Intended Use of Water from Lewis and Clark RWS**
Minnehaha Community Water Corporation	Big Sioux Aquifer	Yes	Need an additional supply to meet growing water demands	Lewis and Clark RWS would be supplement to existing supply
South Lincoln RWS	Dakota Sandstone	No	Need an additional supply to meet growing water demands	Lewis and Clark RWS would be supplemental to existing supply
Iowa Systems				
Boyden	Wells	No	Need an alternative supply for improved water quality	Lewis and Clark RWS would be supplement to existing supply
Hull	Deep Wells	NA	Need an alternative supply for improved water quality	Lewis and Clark RWS would be primary water supply
Sheldon	Shallow Surficial Aquifers and Dakota Sandstone	NA	Need for an additional water supply to handle growing water demands	Lewis and Clark RWS would be a supplemental source
Sibley	Deep Wells	Yes	Need for an alternative water supply to replace present poor quality water	Lewis and Clark RWS would be the primary water supply for the community
Sioux Center	Surficial Aquifer, Floyd River outwash	Yes	Need for an additional water supply to handle growing water demands	Lewis and Clark RWS would be a supplemental source
Clay County RWS	Surficial Aquifer near Spencer, Iowa	NA	Need for an additional water supply to handle growing water demands	Lewis and Clark RWS would be a supplemental source
Rural Water System #1	1 Deep Well, 9 Shallow Wells	No	Need for an additional water supply to handle growing water demands	Lewis and Clark RWS would be a supplemental source
Minnesota Systems				
Luverne	Surficial Aquifer, Rock River Outwash deposits	Yes	Need additional water to meet growing water demands and an emergency water supply	Lewis and Clark RWS would be a supplemental water supply
Worthington	Surficial Aquifer, Lake Bella outwash deposits	Yes	Need additional water to meet growing water demands and an emergency water supply	Lewis and Clark RWS would be a supplemental water supply

Summary of Water Needs				Page 3 of 3
Name	**Present Supply**	**Water use Restrictions**	**Description of Need**	**Intended Use of Water from Lewis and Clark RWS**
Lincoln-Pipestone RWS	Surficial Aquifers near Verdi and Holland, Minnesota	No	Need a supplemental water supply to serve customers in Nobles County	Lewis and Clark RWS would be the primary supply for Nobles County Area
Rock County RWS	Surficial Aquifer, Rock River outwash deposits	No	Need alternative water supply in event of flooding of well field or loss of river crossing pipe	Lewis and Clark would be used as a standby system

JUL 1994
DIVISION OF
WATER RIGHTS
Pierre, SD

Township No. 92 N; Range No. 52 West 5th

Sec. 6. A640.16
Sec. 5. A640.00
Sec. 4. A640.00
Sec. 3. A640.00
Sec. 2. A640.00
Sec. 7. A639.58
Sec. 8.
Sec. 9.
Sec. 10.
Sec. 11
Sec. 18. A637.46
Sec. 17
Sec. 16.
Sec. 15.
Sec. 14
Sec. 19. M A192.01
Sec. 20.
Sec. 21.
Sec. 22.
Sec. 23.
Sec. 28.
Sec. 27.
Sec. 26.
Sec. 33. A307.15
Sec. 34. A632.60
Sec. 35. A132.93

Cheyenne R.
Medicine Knoll Cr.
Bottleareek
Indian Field
D. Severson's Claim.
S. E. Phelps
Indian Field

The Island in Section 24 as represented on the above Plat of Township No. 92 North of Range No. 52 West of the 5th Principal Meridian Dakota Territory is strictly conformable to the field notes of the Survey thereof on file in this office, which have been examined and approved.

Surveyor Generals office
Yankton D.T. Nov 19. 1867

William Tripp
Surv. Genl.

Island Survey
Accepted:

Commissioner's letter "H"
dated Dec. 23. 1867

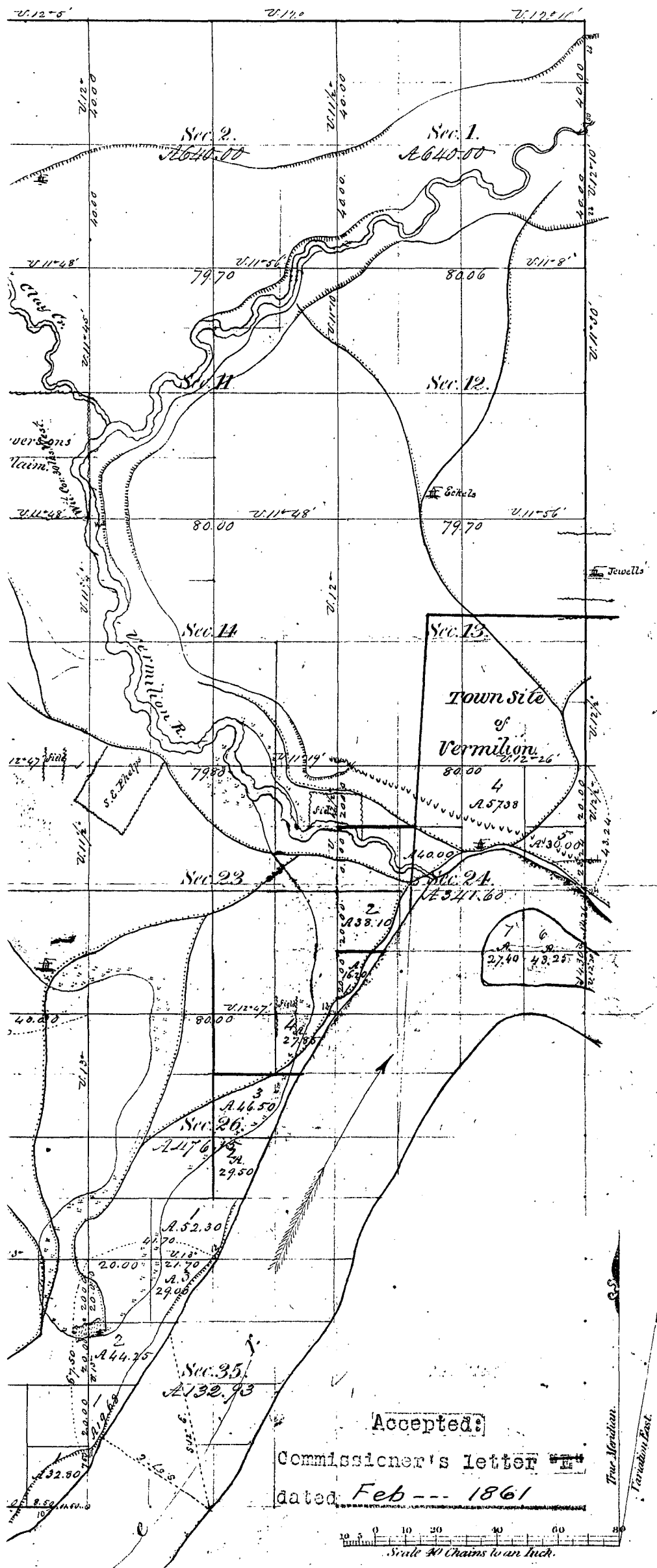
Surveys Designated.	By Whom Surveyed.	Date of Contract.	Amount of Surveys M. Ch.s Lk.s	When Surveyed.	When Charged in the Sur.r Gen.ls Acc.t
Township lines.	Isham Bell	Augst 1st 1860	15. 01. 74	October 1860	
Subdivisions.	" "	" 3 "	49. 33. 70	Octo & Nov 1860	
Island in section 24	George N. Proffer	October 23d 1867		Nov 1867	

Total number of Acres 16997.31 16327.39

The above ... Principal ... of the survey ... Surveyor Ge ... Dubuque

...est 5th Mer. Dakota.

...ship North, Range 52 West



Accepted:
Commissioner's letter [illegible]
dated Feb --- 1861

Meanders of Missouri River.

Posts	Courses	Ch.s Lk.s	Posts	Courses	Ch.s Lk.s	Posts	Courses	Ch.s Lk.s
	West bank Dawn stream			Meanders of Island in section 24				
1	N. 48 E.	18 00	12	N. 48½ W	5 50			
	N. 32½ E.	23 00		N. 50° W	9 00			
	N. 55 E.	42 00		N. 59° W	2 70			
2	N. 61 E.	10 20		N. 78½ W	3 50			
				S 86 W	2 20			
3	N. 59 E.	8 60		S 74 W	1 20			
				S 70 W	3 20			
	N. 65½ E.	35 00		S 55 W	8 00			
	N. 73 E.	26 70		S 31½ W	6 00			
	N. 79½ E.	14 00		S 13° W	8 30			
4	N. 84 E.	9 00		S 7° E	6 00			
				East	22 50			
	N. 87 E.	16 50	13	S 87½ E	12 00			
	S. 77 E.	15 00						
	S. 71 E.	31 00			Mls Chs Lks			
5	S. 49 E.	26 00	Total		1 10 10			
	S. 41 E.	10.30						
	S. 29 E.	7 00						
	S. 18 E.	4 00						
	S. 23½ E.	8 00						
	S. 44½ E.	37 00						
6	S. 7 E.	18.00						
	S. 10 W.	34.00						
7	S. 27½ W.	30.50						
8	S. 29½ E.	22.34						
	S. 64 W.	68.00						
9	S. 29 W.	27.00						
10 & 11	N. 42¾ E.	17.00						
	N. 23 E.	11.00						
	N. 38 E.	110 00						
	N. 29 E.	16.50						
12	N. 39 E.	12.00						
	N. 27 E.	2.50						
	N. 33 E.	61.00						
13	N. 31 E.	25.50						
	00	00 00						
	N. 42 E.	11.00						
	N. 34 E.	29.50						
	N. 38 E.	13.00						
	00	00 00						
	N. 68 E.	5.40						
	N. 53 E.	6.70						
	N. 74 E.	8.00						
	00	00.00						
	N. 83 E.	4.00						
	S. 66 E.	18.00						
	S. 60 E.	8.00						
14	S. 40 E.	5.00						
				Mls	Chs	Lks		
Total				10	35	24		

Changed in Gen.l Acc.t

The above Map of Township No. 92 N. of Range No. 52 West 5th Principal Meridian Dakota is strictly conformable to the field notes of the survey thereof on file in this Office which have been examined and approved.

Surveyor Generals Office
Dubuque Feby 4th 1861

Warner Lewis
Sur.r Gen.l

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9

REPORT ON WATER PERMIT APPLICATION NO. 5832-3
for Lewis and Clark Rural Water System
July 21, 1994

Application No. 5832-3 proposes to appropriate 27,000 acre feet of water annually from wells approximately 80 feet deep located next to the Missouri River. The area includes the S 1/2 of section 15, E 1/2 of section 21, E 1/2 of section 28, N 1/2 of section 27, all of section 22; all in T32N R4E (Nebraska Survey). This would be portions of section 1 and 2, T91N R52W and section 35 and 36 of T92N R52W (South Dakota Survey). Locally this area is known as Mulberry Point. All lands are in Clay County.

AQUIFER - MISSOURI ELK POINT (M-EP)

The Missouri Elk Point is an alluvium mantled outwash (sand and gravel) under basically water table conditions in this area. Information for the aquifer indicates that the upper part consists of silts, sands and clays (Jorgensen, 1969) which could potentially behave like a confining layer. Well logs and test holes (Christensen, 1967) in the immediate area indicate that the alluvium is predominantly sand and would not be a confining layer. The Missouri Elk Point underlies 74,500 acres and contains an estimated 1.12 million acre feet of recoverable water in storage in Clay County (Hedges, 1982). The aquifer is hydraulically connected to the Missouri Elk Point aquifer in Yankton County to the west and into Union County to the east and also to the Upper Vermillion Missouri aquifer to the north. The Missouri and Vermillion rivers also are hydraulically connected to the aquifer. The proximity of the diversion points for this application to the Missouri River and the general location on the inside of bend in the river means that the flow of the Missouri River will maintain the ground water levels.

The Division of Water Rights does monitor one observation well CL-80C which is located 1 to 2 miles north of this application. Water levels for this well show good response with climatic conditions, that is, rising water levels during wet years and gradually declining water levels during dry years. The water level record indicates that the aquifer is capable of sustaining additional withdrawals (Water Rights, 1994). Water levels in this observation well appear to have declined about 2 feet over the period of record. This may be due to the down cutting of the Missouri River which would alter the ground water flow system. Other observation wells located at a greater distance from the river do not exhibit this phenomena.

REVIEW OF EXISTING WATER PERMITS/RIGHTS

There is one existing Water Right No. 5541-3 which is partially located within the future use area outlined by this application. In addition to the existing irrigation right, there are four other irrigation rights which are located directly adjacent to the proposed future use area. It appears that there is one existing

irrigation well (Water Right No. 5541-3) that is located within the proposed future use area. Even though the proposed diversion is large no adverse impacts on existing water permits/rights are expected. Effects of pumping would be masked by the Missouri River which would be a permanent recharge boundary that is more than capable of sustaining this diversion.

CONCLUSIONS

1. Water is available from the Missouri Elk Point aquifer.

2. Interference is not expected to be a concern. The close proximity of the Missouri River and the hydraulic connection between the aquifer and the river will limit drawdown and the effects of pumping. The aquifer is unconfined and under water table conditions.

3. Even though the Missouri River is in hydraulic connection with the aquifer this is still a ground water permit.

4. This is a future use permit and does not authorize construction or putting water to beneficial use.

5. Even though this diversion is in South Dakota, some of the water will be used in two other states (Iowa and Minnesota). This is acceptable under South Dakota water law.

6. The future request is for 27,000 acre feet annually. This request must be submitted to the legislature for approval prior to final action by the Water Management Board.

James A Goodman
Natural Resources Engineer

BIBLIOGRAPHY

Christensen, C.M., J.C. Stephens, 1970, Geology and Water Resources of Clay County South Dakota, Bulletin 19, SD DENR, SDGS, Vermillion, SD, 57069.

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

Jorgensen, D.G., 1969, Geology and Shallow Ground Water Resources of the Missouri Valley Between North Sioux City and Yankton, South Dakota, RI No. 86, SD DENR, SDGS, Vermillion, SD, 57069.

Water Rights, 1994, Unpublished Observation Well Records for Clay County, SD DENR, Division of Water Rights, Pierre, SD, 57501.

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 5832-3, Lewis & Clark Rural Water System

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 5832-3, Lewis & Clark Rural Water System, c/o Pamela Bonrud, 300 N Dakota Ave, Ste 206, Sioux Falls, SD 57102.

The Chief Engineer is recommending APPROVAL of Application No. 5832-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) that the quantity of water reserved will be needed by the Lewis & Clark Rural Water System, 3) the proposed use is a beneficial use and 4) in the public interest with the following qualifications:

1. Approval of Permit No. 5832-3 reserves 27,000 acre-feet annually.

2 That Future Use Permit No. 5832-3 is approved with the stipulation that the Permit to appropriate water is subject to review by the Water Management Board as to accomplishment thereunder upon expiration of seven (7) years.

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.

4. This Permit is approved for groundwater from the Missouri Elk Point Aquifer. Radial collection wells will be approximately 80 feet deep.

See report on application for additional information.

JOHN HATCH, Chief Engineer
July 27, 1994

NOTE: Pursuant to SDCL 46-5-20.1 and Water Management Board Rule 74:02:01:15.04, after a hearing on Application No. 5832-3, the Board will submit the application and a summary of the hearing testimony with a recommendation to the Legislature for approval prior to the Board taking final action on the application.

LEWIS & CLARK
RURAL WATER SYSTEM, INC.
300 North Dakota Avenue, Suite 206 • Sioux Falls, South Dakota 57102 • 605/336-8688 • Fax 605/336-8696

Pamela A. Bonrud
Executive Director



July 7, 1994

John Hatch, Director
Division of Water Rights
DENR
523 E. Capitol
Pierre, SD 57501

Dear John:

Enclosed is an application from the Lewis and Clark Rural Water System for a future use water right to the Missouri River. Lewis and Clark is seeking a Missouri River future use water right for the amount of 36.36 cfs. As I understand it, our request will require approval by the South Dakota Legislature as it is greater than 10,000 acre feet. Please let me know what Lewis and Clark can do to help this process along.

I trust the information included with our future water use permit application will meet your needs. Do not hesitate to call if you have additional questions or need more information.

Sincerely,

Pam

Pamela A. Bonrud
Executive Director

Enclosures (2)

Water Rights Division - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Lewis & Clark RWS

ADDRESS: COUNTY: Minnehaha County

DATE: 7/18/94 TELEPHONE: 336-8688

RE: Call from Pam Bonrud

COMMENTS:

Pam called to inform me that the amount of water to be requested by their future use permit application is 27,000 acre feet of water annually. The application filing fee will be $580 and she will be sending it to the Water Rights Division.

I stated that I was still waiting the plat map from archives to better define the location of the point of diversion.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: Eric Gronlund

Water Rights Division - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Lewis & Clark RWS

ADDRESS: COUNTY: Minnehaha County

DATE: 7/19/94 TELEPHONE: 624-4261

RE: Discussion on legal description from Clay County Assessor's Office

COMMENTS:

I received a call back from the assessor's office regarding how they define the area known as Mulberry Point on the tax assessment list. They indicated that this is a real confusing area for them from a legal description aspect. However, the Mulberry Point area is all referenced in terms of T32N, R4E in their records. This is the Nebraska survey reference.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: Eric Gronlund

Water Rights Division - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Lewis and Clark RWS - FU Application No. 5832-3

ADDRESS: COUNTY:

DATE: 7/20/94 TELEPHONE: 692-6342

RE: Discussion with Dave Odens, Banner & Associates

COMMENTS:

Mr. Odens and I discussed the legal description of the points of diversion for the future use permit application for the Lewis & Clark RWS. After discussion of the South Dakota and Nebraska survey we concluded the following would be the best was to describe the area.

> Diversion points along the Missouri River between points at the North section line of Section 15 to the approximate SW corner Section 23; all in T32N, R4E (Nebraska survey). This would include portions of Section 1 and Section 2, T91N, R52W and Section 35 and Section 36, T92N, R52W (South Dakota survey). This area is known locally as Mulberry Point.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: Eric Grenlund

LEWIS & CLARK
RURAL WATER SYSTEM, INC.
300 North Dakota Avenue, Suite 206 • Sioux Falls, South Dakota 57102 • 605/336-8688 • Fax 605/336-8696

Pamela A. Bonrud
Executive Director

JUL 1994
DIVISION OF
WATER RIGHTS
Pierre, SD

July 18, 1994

Eric Gronlund
Division of Water Rights
DENR
523 E. Capital
Pierre, SD 57501

Dear Eric:

Enclosed is a check from Lewis and Clark to cover the Future Use Permit application fee for our request of 27,000 acre feet from the Missouri River. I apologize for not including the payment with our application.

Please do not hesitate to call me or Dave Odens if you have additional questions regarding our Future Use Permit application.

Sincerely,

Pam

Pamela A. Bonrud
Executive Director

Enclosure

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 1, 1994

Nels Sorenson
RR 3, Box 23
Vermillion, SD 57069

Dear Mr. Sorenson:

Future Use Permit Application No. 5832-3 has been filed by the Lewis & Clark Rural Water System to reserve 27,000 acre feet of water annually from the Missouri:Elk Point Aquifer at points adjacent to the Missouri River. As a holder of a water right/permit in this general area, I am providing you a copy of the notice of hearing, report and recommendation for this application. The notice will be published August 4 and 11, 1994, in the Sioux Valley News, Elk Point Leader-Courier, The New Era, Canistota Clipper, Daily Leader and The Argus Leader and on August 5 and 12, 1994, in the Plain Talk.

The Water Management Board will consider Application No. 5832-3 at 8:30 am, September 1, 1994 in the Conference Room, Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave., Pierre, SD 57501. Anyone wishing to present testimony at this hearing must file a petition to intervene in the hearing.

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

Sincerely,

Eric Gronlund

Eric Gronlund
Natural Resources Engineer III
Water Rights Division
(605) 773-3352

enclosures

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 1, 1994

Francis Heine
RR 3
Vermillion, SD 57069

Dear Mr. Heine:

Future Use Permit Application No. 5832-3 has been filed by the Lewis & Clark Rural Water System to reserve 27,000 acre feet of water annually from the Missouri:Elk Point Aquifer at points adjacent to the Missouri River. As a holder of a water right/permit in this general area, I am providing you a copy of the notice of hearing, report and recommendation for this application. The notice will be published August 4 and 11, 1994, in the Sioux Valley News, Elk Point Leader-Courier, The New Era, Canistota Clipper, Daily Leader and The Argus Leader and on August 5 and 12, 1994, in the Plain Talk.

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

Sincerely,

Eric Gronlund

Eric Gronlund
Natural Resources Engineer III
Water Rights Division
(605) 773-3352

enclosures

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 1, 1994

Daniel Heine
Rt 3
Vermillion, SD 57069

Dear Mr. Heine:

Future Use Permit Application No. 5832-3 has been filed by the Lewis & Clark Rural Water System to reserve 27,000 acre feet of water annually from the Missouri:Elk Point Aquifer at points adjacent to the Missouri River. As a holder of a water right/permit in this general area, I am providing you a copy of the notice of hearing, report and recommendation for this application. The notice will be published August 4 and 11, 1994, in the Sioux Valley News, Elk Point Leader-Courier, The New Era, Canistota Clipper, Daily Leader and The Argus Leader and on August 5 and 12, 1994, in the Plain Talk.

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

Sincerely,

Eric Gronlund

Eric Gronlund
Natural Resources Engineer III
Water Rights Division
(605) 773-3352

enclosures

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 1, 1994

G. M. Collins
113 S. Valley View
Vermillion, SD 57069

Dear Mr. Collins:

Future Use Permit Application No. 5832-3 has been filed by the Lewis & Clark Rural Water System to reserve 27,000 acre feet of water annually from the Missouri:Elk Point Aquifer at points adjacent to the Missouri River. As a holder of a water right/permit in this general area, I am providing you a copy of the notice of hearing, report and recommendation for this application. The notice will be published August 4 and 11, 1994, in the Sioux Valley News, Elk Point Leader-Courier, The New Era, Canistota Clipper, Daily Leader and The Argus Leader and on August 5 and 12, 1994, in the Plain Talk.

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

Sincerely,

Eric Gronlund

Eric Gronlund
Natural Resources Engineer III
Water Rights Division
(605) 773-3352

enclosures

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 1, 1994

Jeffrey Pederson, City Manager
City of Vermillion
25 Center Street
Vermillion, SD 57069-2196

Dear Mr. Pederson:

Future Use Permit Application No. 5832-3 has been filed by the Lewis & Clark Rural Water System to reserve 27,000 acre feet of water annually from the Missouri:Elk Point Aquifer at points adjacent to the Missouri River. As a holder of a water right/permit in this general area, I am providing you a copy of the notice of hearing, report and recommendation for this application. The notice will be published August 4 and 11, 1994, in the Sioux Valley News, Elk Point Leader-Courier, The New Era, Canistota Clipper, Daily Leader and The Argus Leader and on August 5 and 12, 1994, in the Plain Talk.

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

Sincerely,

Eric Gronlund

Eric Gronlund
Natural Resources Engineer III
Water Rights Division
(605) 773-3352

enclosures

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 1, 1994

Fritz Moritz
RR 3, Box 72
Vermillion, SD 57069

Dear Mr. Moritz:

Future Use Permit Application No. 5832-3 has been filed by the Lewis & Clark Rural Water System to reserve 27,000 acre feet of water annually from the Missouri:Elk Point Aquifer at points adjacent to the Missouri River. As a holder of a water right/permit in this general area, I am providing you a copy of the notice of hearing, report and recommendation for this application. The notice will be published August 4 and 11, 1994, in the Sioux Valley News, Elk Point Leader-Courier, The New Era, Canistota Clipper, Daily Leader and The Argus Leader and on August 5 and 12, 1994, in the Plain Talk.

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

Sincerely,

Eric Gronlund

Eric Gronlund
Natural Resources Engineer III
Water Rights Division
(605) 773-3352

enclosures

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

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

July 28, 1994

Pam Bonrud
Lewis & Clark Rural Water System
300 North Dakota Avenue, Suite 206
Sioux Falls, SD 57102

Dear Pam:

Water Permit Application No. 5832-3 for rural water system use has been examined and found to comply with the South Dakota Water Laws and applicable rules. Notices of hearing have been sent to the Publishers of the Sioux Valley News printed at Canton, SD (Ph # 987-2631), Plain Talk printed at Vermillion, SD (Ph # 624-2695), Elk Point Leader-Courier printed at Elk Point, SD (Ph # 356-2632), The New Era printed at Parker, SD (Ph # 297-4419), Canistota Clipper printed at Canistota, SD (Ph # 296-3181), Daily Leader printed at Madison, SD (Ph # 256-4555), and The Argus Leader printed at Sioux Falls, SD (Ph # 331-2200). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspapers to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the papers can eliminate delays. The publishers have been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspapers have been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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

c: Dave Odens, Banner & Associates, PO Box 298, Brookings, SD 57006-0298



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

July 28, 1994

Sioux Valley News
Box 255
Canton, SD 57013-0255

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 5832-3 to be published twice. Please publish the first notice on August 4, 1994, with the second publication 7 days later.

The APPLICANT MUST VERIFY TO YOU THAT THE NOTICE IS TO BE PUBLISHED, before you make the first publication. Please BILL the APPLICANT for the cost of publication. The APPLICANT is Lewis & Clark RWS, c/o Pamela Bonrud, 300 N Dakota Ave, Ste 206, Sioux Falls, SD 57102 (Ph # 605-336-8688).

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. No action may be taken on the permit application until proof of publication has been received.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

FIRST TRANSMITTAL NOTICE

No._____

Date_____

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

We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application No._____ which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ Name

_____ Newspaper

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

July 28, 1994

Plain Talk
Box 256
Vermillion, SD 57069-0256

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 5832-3 to be published twice. Please publish the first notice on August 5, 1994, with the second publication 7 days later.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

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_____ _____
Name Newspaper



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

July 28, 1994

Elk Point Leader-Courier
Box 310
Elk Point, SD 57025-0310

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 5832-3 to be published twice. Please publish the first notice on August 4, 1994, with the second publication 7 days later.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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FIRST TRANSMITTAL NOTICE

No._____

Date_____

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

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_____ _____
Name Newspaper



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

July 28, 1994

The New Era
Box 577
Parker, SD 57053-0577

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 5832-3 to be published twice. Please publish the first notice on August 4, 1994, with the second publication 7 days later.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

FIRST TRANSMITTAL NOTICE

No._____

Date_____

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

We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application No._____ which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____
Name Newspaper

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

July 28, 1994

Canistota Clipper
Box 128
Canistota, SD 57012-0128

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 5832-3 to be published twice. Please publish the first notice on August 4, 1994, with the second publication 7 days later.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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FIRST TRANSMITTAL NOTICE

No._____

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

Date_____
We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application No._____ which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____
Name Newspaper



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

July 28, 1994

Daily Leader
PO Box 348
Madison, SD 57042-0348

ATTENTION: Legal Department

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Sincerely,

Eric Gronlund

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

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_____ Newspaper

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

July 28, 1994

The Argus Leader
PO Box 5034
Sioux Falls, SD 57117-5034

ATTENTION: Legal Department

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Sincerely,

Eric Gronlund

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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FIRST TRANSMITTAL NOTICE

No._____

Date_____

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

We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application No._____ which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____
Name Newspaper

#5

Instruction to Newspaper - Publish first Notice on August 4, 1994 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 5832-3 to Reserve Water for Future Use

Notice is given that the Lewis & Clark Rural Water System, 300 North Dakota Avenue, Suite 206, Sioux Falls, SD 57102 has filed an application for a future use permit to appropriate 27,000 acre-feet of water annually from 3 radial collection wells, (Missouri:Elk Point) 80 feet deep, to be constructed adjacent to the Missouri River. The areas to be reserved for future water use are the diversion points along the Missouri River between points at the North section line of Section 15 to the approximate SW corner Section 23; all in T32N-R4E (Nebraska survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota survey). This area is known locally as Mulberry Point. The water is to be reserved for the purpose of providing future water supplies for the Lewis & Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobeles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa. Municipalities to be served by the proposed system include: Beresford, Centerville, Harrisburg, Lennox, Madison, Parker, Sioux Falls and Tea in South Dakota; Boyden, Hull, Sheldon, Sibley, Sioux Center in Iowa and Laverne and Worthington in Minnesota. 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. 5832-3 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.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Division, 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 August 22, 1994. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider this application at 8:30 a.m., September 1, 1994, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the Board. Pursuant to SDCL 46-5-20.1 and Board Rule 74:02:01:15.04, after a hearing on Application No. 5823-3, the Board will submit the application and a summary of the hearing testimony with a recommendation on the application to the Legislature for approval prior to the Board taking final action. Disapproval of the application by the Legislature constitutes disapproval by the Board and no further action need be taken by the Board. Following approval by the Legislature, the Board will schedule a time and place for final consideration of the application. The Board is then authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The September 1, 1994, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by August 22, 1994.

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This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; 46-5-38 thru 46-5-40; 46-5-20.1, 46-5-8.1; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; 74:02:01:24 thru 74:02:01:25; 74:02:01:15.02 thru 74:02:01:15.05. Robert E. Roberts, Secretary, Department of Environment and Natural Resources.

Affidavit of Publication

STATE OF SOUTH DAKOTA
COUNTY OF LINCOLN

OK

Connie Renli
being first duly sworn on her oath says; that the Sioux Valley News is a legal weekly newspaper of general circulation as required by South Dakota Code of Nineteen Hundred Thirty-Nine, and any acts amendatory thereto, printed and published by the Sioux Valley News, Inc., in Canton, in said county and State, and has been such legal newspaper during the time hereinafter mentioned; that she is and during all of said time was bookkeeper of said newspaper and has personal knowledge of the facts stated in this affidavit; that the advertisement headed:

NOTICE OF HEARING on Application No. 5832-3 to Reserve Water for Future Use

a printed copy of which is hereto attached, was printed and published in said newspaper for **one** successive weeks upon the following dates, to-wit:

August 4, 1994

that the full amount of the fees charged for publishing the same to-wit: the sum of **$70.74** inures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for any division of this sum has been made with any other person; and that no part of said sum has been agreed to be paid to any person whomsoever.

Connie Renli

Subscribed and sworn to before me this **4th** day of **August, 1994.**

Sandra Lundstrom
Notary Public, South Dakota

(Seal)

SANDRA LUNDSTROM
MY COMMISSION
EXPIRES 9-27-2001



NOTICE OF HEARING
on Application No. 5832-3
to Reserve Water
For Future Use

Notice is given that the Lewis & Clark Rural Water System, 300 North Dakota Avenue, Suite 206, Sioux Falls, SD 57102 has filed an application for a future use permit to appropriate 27,000 acre-feet of water annually from 3 radial collection wells, (Missouri:Elk Point) 80 feet deep, to be constructed adjacent to the Missouri River. The areas to be reserved for future water use are the diversion points along the Missouri River between points at the North section line of Section 15 to the approximate SW corner Section 23; all in T32N-R4E (Nebraska survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota survey). This area is known locally as Mulberry Point. The water is to be reserved for the purpose of providing future water supplies for the Lewis & Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobeles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa. Municipalities to be served by the proposed system include: Beresford, Centerville, Harrisburg, Lennox, Madison, Parker, Sioux Falls and Tea in South Dakota; Boyden, Hull, Sheldon, Sibley, Sioux Center in Iowa and Laverne and Worthington in Minnesota. 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. 5832-3 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.

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The Water Management Board will consider this application at 8:30 a.m., September 1, 1994, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the

Board. Pursuant to SDCL 46-5-20.1 and Board Rule 74:02:01:15.04, after a hearing on Application No. 5823-3, the Board will submit the application and a summary of the hearing testimony with a recommendation on the application to the Legislature for approval prior to the Board taking final action. Disapproval of the application by the Legislature constitutes disapproval by the Board and no further action need be taken by the Board. Following approval by the Legislature, the Board will schedule a time and place for final consideration of the application. The Board is then authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The September 1, 1994, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by August 22, 1994.

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This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; 46-5-38 thru 46-5-40; 46-5-20.1, 46-5-8.1; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; 74:02:01:24 thru 74:02:01:25; 74:02:01:15.02 thru 74:02:01:15.05. Robert E. Roberts, Secretary, Department of Environment and Natural Resources.

(8-4. 11)

Form 8



PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) ss
County of Clay)

I, Sharon Brewer

certify that the attached printed Notice was

taken from the Plain Talk

printed and published in Vermillion

County of Clay and State of

South Dakota. The notice was published in the newspaper on the following two dates:

August 5, 1994

August 12, 1994

Cost of Printing: $69.62

Sharon Brewer
(Signature)

Secretary
(Title)

August 12, 1994
(Date Signed)

NOTICE OF HEARING
on Application No. 5832-3 to Reserve Water for Future Use

Notice is given that the Lewis & Clark Rural Water System, 300 North Dakota Avenue, Suite 206, Sioux Falls, SD 57102 has filed an application for a future use permit to appropriate 27,000 acre-feet of water annually from 3 radial collection wells, (Missouri: Elk Point) 80 feet deep, to be constructed adjacent to the Missouri River. The areas to be reserved for future water use are the diversion points along the Missouri River between points at the North section line of Section 15 to the approximate SW corner Section 23; all in T32N-R4E (Nebraska survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota survey). This area is known locally as Mulberry Point. The water is to be reserved for the purpose of providing future water supplies for the Lewis & Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobeles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa. Municipalities to be served by the proposed system include: Beresford, Centerville, Harrisburg, Lennox, Madison, Parker, Sioux Falls and Tea in South Dakota; Boyden, Hull, Sheldon, Sibley, Sioux Center in Iowa and Laverne and Worthington in Minnesota. 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. 5832-3 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.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Division, 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 August 22, 1994. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider this application at 8:30 a.m., September 1, 1994, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the Board. Pursuant to SDCL 46-5-20.1 and Board Rule 74:02:01:15.04, after a hearing on Application No. 5823-3, the Board will submit the application and a summary of the hearing testimony with a recommendation on the application to the Legislature for approval prior to the Board taking final action. Disapproval of the application by the Legislature constitutes disapproval by the Board and no further action need be taken by the Board. **Following approval by the Legislature, the Board will schedule a time and place for final consideration of the application. The Board is then authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing.** The September 1, 1994, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by August 22, 1994.

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Robert E. Roberts, Secretary,
Department of Environment and Natural Resources
Publish: August 5 & 12, 1994

Form 8

PROOF OF PUBLICATION



STATE OF SOUTH DAKOTA)
) ss
County of Union)

I, Lester E. Emerson

certify that the attached printed Notice was

taken from the

The Leader-Courier

printed and published in Elk Point

County of Union and State of

South Dakota. The notice was published in the newspaper on the following two dates:

August 4, 11

Cost of Printing: 77.15

Lester E. Emerson
(Signature)

Publisher
(Title)

August 11, 1994
(Date Signed)

NOTICE OF HEARING ON APPLICATION NO. 5832-3 TO RESERVE WATER FOR FUTURE USE

Notice is given that the Lewis & Clark Rural Water System, 300 North Dakota Avenue, Suite 206, Sioux Falls, SD 57102, has filed an application for a future use permit to appropriate 27,000 acre-feet of water annually from 3 radial collection wells, (Missouri: Elk Point) 80 feet deep, to be constructed adjacent to the Missouri River. The areas to be reserved for future water use are the diversion points along the Missouri River between points at the North section line of Section 15 to the approximate SW corner Section 23; all in T32N-R4E (Nebraska survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota survey). This area is known locally as Mulberry Point. The water is to be reserved for the purpose of providing future water supplies for the Lewis & Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobeles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa. Municipalities to be served by the proposed system include: Beresford, Centerville, Harrisburg, Lennox, Madison, Parker, Sioux Falls and Tea in South Dakota; Boyden, Hull, Sheldon, Sibley, Sioux Center in Iowa and Laverne and Worthington in Minnesota. The application does not authorize construction of works or application of water to beneficial use.

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Pub. Aug. 4, 11, 1994

Form 8



PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) ss
County of Turner)

I, Deone Winnepenninckx

certify that the attached printed Notice was

taken from the New Era

printed and published in Parker

County of Turner and State of

South Dakota. The notice was published in the newspaper on the following two dates:

Aug 4, 1994

Aug 11, 1994

Cost of Printing: $69.08

Deone Winnepenninckx
(Signature)

graphic artist
(Title)

August 11, 1994
(Date Signed)

NOTICE OF HEARING on Application No. 5832-3 to Reserve Water for Future Use

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(Publish 8-4 & 11.)

Affidavit of Publication

STATE OF SOUTH DAKOTA)

:ss

COUNTY OF McCOOK)

The undersigned, being first duly sworn, on his oath says: THE CANISTOTA CLIPPER is a weekly newspaper of general circulation, printed and published in the City of Canistota, McCook County, South Dakota, by WENDELL ANDERSON, and has been such newspaper during the times hereinafter mentioned; that it has bona fide circulation of more than 200 copies weekly; that it has been published within said County of McCook in the English language and admitted to the United States mail under the second class mailing privilege for more than one year next prior to the publication of the notice hereinafter mentioned, and has been printed during such period and at the present time in part in an office maintained at the said place of publication; that I, the undersigned, am either "the publisher" or "an employee of the said publisher" of said newspaper, and have personal knowledge of all the facts stated in this affidavit; that the advertisement

headed Notice of Hearing

a printed copy of which is hereto attached, was printed and published in said newspaper for two successive weeks; that said notice was published in the issues of said paper on the dates as follows, to-wit:

The first publication being made on 8-4-94;

the second publication on 8-11-94;

the third publication on .....;

the fourth publication on .....;

the fifth publication on .....;

the sixth publication on .....;

the seventh publication on .....;

the eighth publication on .....;

the ninth publication on .....;

that ..... being the full amount of the fee for publication of the annexed notice, insures solely to the benefit of the publisher of the said newspaper; that no agreement or understanding for the division thereof have been made with any other person and that no part thereof has been agreed to be paid to any person whomsoever, and that said newspaper is a legal newspaper under the laws of the State of South Dakota.

Wendell Anderson

Subscribed and sworn to before me this 11 day of August, 1994.

Mary Ann Peterl

(SEAL) Notary Public, South Dakota

My Commission Expires 7-30-98

NOTICE OF HEARING

On Application No. 5832-3 To Reserve Water For Future Use

Notice is given that the Lewis & Clark Rural Water System, 300 North Dakota Avenue, Suite 206, Sioux Falls, SD 57102 has filed an application for a future use permit to appropriate 27,000 acre-feet of water annually from 3 radial collection wells, (Missouri: Elk Point) 80 feet deep, to be constructed adjacent to the Missouri River. The areas to be reserved for future water use are the diversion points along the Missouri River between points at the North section line of Section 15 to the approximate SW corner Section 23; all in T32N-R4E (Nebraska survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota survey). This area is known locally as Mulberry Point. The water is to be reserved for the purpose of providing future water supplies for the Lewis & Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobeles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa. Municipalities to be served by the proposed system include: Beresford, Centerville, Harrisburg, Lennox, Madison, Parker, Sioux Falls and Tea in South Dakota; Boyden, Hull, Sheldon, Sibley, Sioux Center in Iowa and Laverne and Worthington in Minnesota. 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. 5832-3 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.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Division, 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 August 22, 1994. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider this application at 8:30 a.m., September 1, 1994, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the Board. Pursuant to SDCL 46-5-20.1 and Board Rule 74:02:01:15.04, after a hearing on Application No. 5823-3, the Board will submit the application and a summary of the hearing testimony with a recommendation on the application to the Legislature for approval prior to the Board taking final action. Disapproval of the application by the Legislature constitutes disapproval by the Board and no further action need be taken by the Board. Following approval by the Legislature, the Board will schedule a time and place for final consideration of the application. The Board is then authorized to 1) approve, 2) approve with qualifications, 3) deter, or 4) deny this application based on the facts presented at the public hearing. The September 1, 1994, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by August 22, 1994.

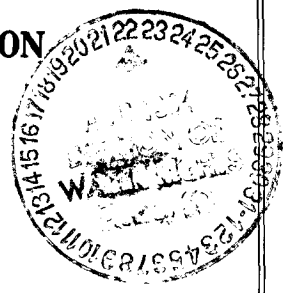
Any hearing will be an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlund by August 22, 1994, at the above Water Rights Division address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-1-17; 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; 46-5-38 thru 46-5-40; 46-5-20.1, 46-5-8.1; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; 74:02:01:24 thru 74:02:01:25; 74:02:01:15.02 thru 74:02:01:15.05. Robert E. Roberts, Secretary, Department of Environment and Natural Resources.

8-4-2tc.



AFFIDAVIT OF PUBLICATION



STATE OF SOUTH DAKOTA }
} ss.
County of Lake }

.....Deanna Bergheim..... of the City of Madison, County of Lake, State of South Dakota, being first duly sworn on oath, deposes and says:

The Madison Daily Leader is a daily legal newspaper of general circulation, printed and published in the City of Madison, in said County of Lake, by Hunter Publishing, Inc., Jon M. Hunter, publisher, and has been such legal newspaper during the times hereinafter mentioned; that the said Madison Daily Leader has been in existence as such legal newspaper for more than one year prior to the publication of the notice hereunto attached, and has during all of said time had, and now has, more than 200 bona fide subscribers; that the undersigned, the affiant, is the Secretary... of the said newspaper, in charge of the advertising department thereof and has personal knowledge of all the facts stated in this affidavit and the advertisement headed

..Notice of Application No 5832-3 To Reserve.....
Water for Future Use/Lewis & Clark.....

printed copy of which hereunto attached, was printed and published in the said newspaper for two successive weeks, once each week and on the same day of the week, on the following dates, to-wit:

On Thursday, the 4th day of August, 1994;
On Thursday, the 11th day of August, 1994;
On ....., the ..... day of ....., 19 .....;
On ....., the ..... day of ....., 19 .....;
On ....., the ..... day of ....., 19 .....;
On ....., the ..... day of ....., 19 .....;
On ....., the ..... day of ....., 19 .....;
On ....., the ..... day of ....., 19 .....;

That $ ....78.74..... being the full amount of the fees for publication of the attached notice inures solely for the benefit of the publisher of the said newspaper; that no arrangement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.

Deanna Bergheim

Subscribed and sworn to before me this 18th day of August, 19 94

Cheryl Wiseman
Notary Public, Lake County, South Dakota:

CHERYL WISEMAN
SEAL NOTARY PUBLIC
SOUTH DAKOTA

Thursday, Aug. 4 & 11

NOTICE OF HEARING ON APPLICATION NO. 5832-3 TO RESERVE WATER FOR FUTURE USE

Notice is given that the Lewis and Clark Rural Water System, 300 North Dakota Avenue, Suite 206, Sioux Falls, SD 57102 has filed an application for a future use permit to appropriate 27,000 acre-feet of water annually from 3 radial collection wells, (Missouri: Elk Point) 80 feet deep, to be constructed adjacent to the Missouri River. The areas to be reserved for future water use are the diversion points along the Missouri River between points at the North section line of Section 15 to the approximate SW corner Section 23; all in T32N-R4E (Nebraska survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota survey). This area is known locally as Mulberry Point. The water is to be reserved for the purpose of providing future water supplies for the Lewis & Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobeles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa. Municipalities to be served by the proposed system include: Beresford, Centerville, Harrisburg, Lennox, Madison, Parker, Sioux Falls and Tea in South Dakota; Boyden, Hull, Sheldon, Sibley, Sioux Center in Iowa and Laverne and Worthington in Minnesota. 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. 5832-3 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.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Division, 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 August 22, 1994. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider this application at 8:30 a.m..

Publi
Notai
Received payment,

.....

In ... of ...

September 1, 1994, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the Board. Pursuant to SDCL 46-5-20.1 and Board Rule 74:02:01:15.04, after a hearing on Application No. 5832-3, the Board will submit the application and a summary of the hearing testimony with a recommendation on the application to the Legislature for approval prior to the Board taking final action. Disapproval of the application by the Legislature constitutes disapproval by the Board and no further action need be taken by the Board. Following approval by the Legislature, the Board will schedule a time and place for final consideration of the application. The Board is then authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The September 1, 1994, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by August 22, 1994.

Any hearing will be an adversa proceeding. Any person filing a petiti and/or the applicant have the right to f represented by a lawyer and m present evidence or cross-exami witnesses according to SDCL 1- These and other due process rights v be forfeited if not exercised. Decisions the Board may be appealed to t Circuit Court and State Supreme Co as provided by law. Contact E Gronlund by August 22, 1994, at t above Water Rights Division address request copies of information pertain to this application, to assure access the hearing by the handicapped or d obtain an interpreter for the heari impaired.

This application is made pursuant SDCL 46-1-1 thru 46-1-9, 46-1-12 thr 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2 13, 46-2-17; 46-2A-1 thru 46-2A-10, 46- 2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46- 2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46- 5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6- 6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; 46-5-38 thru 46-5-40; 46-5-20.1, 46-5-8.1; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15; 74:02:01:24 thru 74:02:01:25; 74:02[redacted] 74:02:01:15.05.

ROBERT E. ROBERTS
Secretary, Department of
[redacted]

AFFIDAVIT OF PUBLICATION

AFFIDAVIT OF PUBLICATION

pd 8/15/94 CK# 2325 PAID

STATE OF SOUTH DAKOTA, } SS.

COUNTY OF MINNEHAHA

Diana Reicher

.....being duly sworn, says: That the Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper as defined by SDCL 17-2-21, as amended published at Sioux Falls, Minnehaha County, South Dakota, by Sioux Falls Newspapers, Inc.; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached, was published in said newspaper upon

Thursday, the 4 day of August, 19 94,

Thursday, the 11 day of August, 19 94,

_____, the _____ day of _____, 19___,

_____, the _____ day of _____, 19___,

_____, the _____ day of _____, 19___,

_____, the _____ day of _____, 19___,

_____, the _____ day of _____, 19___,

and that $ 157.03 was charged for publishing the same including a $2.00 affidavit fee.

D Reicher

Subscribed and sworn to before me August 11, 1994.

N. A. Buckley

Notary Public, South Dakota

N. A. BUCKLEY
SEAL NOTARY PUBLIC SOUTH DAKOTA

My commission expires 2/12/2001, 20____.

NOTICE OF HEARING on Application No. 5892-3 to Reserve Water for Future Use

Notice is given that the Lewis & Clark Rural Water System, 300 North Dakota Avenue, Suite 206, Sioux Falls, SD 57102 has filed an application for a future use permit to appropriate 27,000 acre-feet of water annually from 3 radial collection wells, (Missouri: Elk Point) 80 feet deep, to be constructed adjacent to the Missouri River. The areas to be reserved for future water use are the diversion points along the Missouri River between points at the North section line of Section 15 to the approximate SW corner Section 23; all in T32N-R4E (Nebraska survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota survey). This area is known locally as Mulberry Point. The water is to be reserved for the purpose of providing future water supplies for the Lewis & Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobeles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa. Municipalities to be served by the proposed system include: Beresford, Centerville, Harrisburg, Lennox, Madison, Parker, Sioux Falls and Tea in South Dakota; Boyden, Hull, Sheldon, Sibley, Sioux Center in Iowa and Laverne and Worthington in Minnesota. 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. 5892-3 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.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Division, 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 August 22, 1994. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

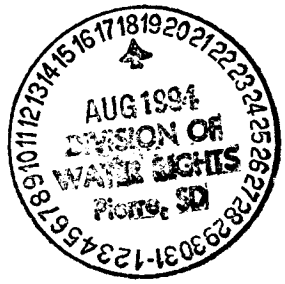
The Water Management Board will consider this application at 8:30 a.m., September 1, 1994, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol, Pierre, SD. The Chief Engineer's recommendation is not final or binding upon the Board. Pursuant to SDCL 46-5-20.1 and Board Rule 74:02:01:15.04, after a hearing on Application No. 5823-3, the Board will submit the application and a summary of the hearing testimony with a recommendation on the application to the Legislature for approval prior to the Board taking final action. Disapproval of the application by the Legislature constitutes disapproval by the Board and no further action need be taken by the Board. Following approval by the Legislature, the Board will schedule a time and place for final consideration of the application. The Board is then authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The September 1, 1994, hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by August 22, 1994.

Any hearing will be an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlunc by August 22, 1994, at the above Water Rights Division address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26; 46-5-38 thru 46-5-40; 46-5-20.1, 46-5-8.1; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15, 74:02:01:24 thru 74:02:01:25; 74:02:01:15.02 thru 74:02:01:15.05. Robert E. Roberts, Secretary, Department of Environment and Natural Resources.

4042 Aug. 4, 11, 1994

AUG 1994
DIVISION OF
WATER RIGHTS
Pierre, SD



August 11, 1994

Chief Engineer
Water Rights Division
Foss Building
523 E. Capitol
Pierre, S.D.

Dear Chief Engineer,

I am an interested party on the development of the Reserve Water for Future Use. I disagree with the application No. 5832-3 to reserve water for future use. I do not fully understand the issue but I think that taking water from such a distance is too expensive and unfair to those down stream on the Missouri River. The aquifers support us if they are taken care of through farming, industry, city, occupants of city dwellings and individuals. The safety of our drinking water for the future use of all people and wildlife is the duty of everyone. Water is one of the four basics of life. Water, food, shelter, and knowledge of the land we live on is the concern of all. May God help those who serve on this board to make the right decision for the future generation and not fall into a bureaucratic situation with no sense of direction.

Considerations:
1. Unappropriated water is available. Dams and setimentation basins should be used above and below city water supplies to insure water quality.
2. Existing rights will not be unlawfully impaired - the state of South Dakota should be held responsible along with the governing boards, both local and state, to educate people for a cleaner water supply and to look at the laws as they change in time by the state laws.
3. Is it a beneficial use of water? It is in the best interest of the people of South Dakota to care and use our water wisely.
4. It is in the public interest to care for all rivers, streams, city wasteland street water, lawn contamination, industry waste, wells, ponds and aquifers in areas of South Dakota and Iowa through the safe us of the above.
5. Education of the people is an ongoing issue.

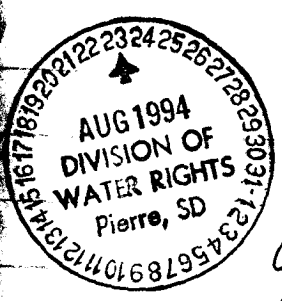
Are we making the best use of the water in the areas needed before we go to the expense of diverting water a great distance and depleting water needed in those areas down stream and caring for the rivers, aquifers, and other bodies of water in eastern South Dakota.

Please reconsider this issue.

Sincerely,
Frank Orr

Frank Orr
RR. 1 Box 182
Volin, S.D. 57072
605-267-2182

To Secretary, Department of Environment and Natural Resources — State of South Dakota.



Petition:

This petition is in opposition, of Application # 5832-3, notice of hearing by Lewis & Clark Rural Water System, Sioux Falls, S.D.

Sioux Falls has drilled 13 wells from the peoples aquifer (Split Rock Creek) without the approval of the people. This is taking our water for use in Sioux Falls is unlawful.

Also, this petition, opposing the drilling of an 80 ft well, (adjacent) by, the Missouri River, as stated, as a reserve; we know that we don't need the Missouri River water; we have the largest water supply in the world, below this State.

By law (in part) it states "nor shall any alterations of any kind be made, in any of them (the States) unless such alterations be agreed to in Congress and confirmed by the Legislature, of every State."

The Missouri River begins & borders on many States, with their Rights to the water.

Each State retains it's Sovereignty, not to be regionalized!

This Petition is, also, a request to

Petition

the Chief Engineer for an automatic delay.

Also, send copies of information, pertaining to application # 5832-3; published Aug 4, & 11th, 1994 (year of our Lord God, with Jesus Christ)

The petitioner's interest is, also, expressed by the people of this community — Minnehaha County, South Dakota and any other county, which includes the towns & counties, stated in the "Notice of Hearing", # 5832-3.

Dated this 19th day of August, 1994 (y of our Lord God, with Jesus Christ.)

Shyrl Carlby

Shyrl Carlby,
(Petitioner)
Box # 160, R 1,
Colton, S. Dak.,
57018.

Certificate of Service:

Copies of petition, in opposition, have been mailed to Lewis & Clark System, 300 N Dak. Sioux Falls SD., Chief Engineer, 523 E Capitol, Pierre SD. & Eric Gronlund, 523 E Capitol, Pierre, SD. 57501. Postage prepaid.

Shyrl Carlby
Petitioner.

Dated this 19th day of August, 1994 (year of our Lord God with Jesus Christ) (2 of 3)

Petition application - #5832-3-.

[signature]

Notary Public:

Subscribed before me a Notary Public this 20th. day of August, 1994. (year of our Lord God, with Jesus Christ.)

Notary Public
John Haller
6204 Hummingbird Rd.
Sioux Falls, S.D. 57107 USA

Seal:

JOHN HALLER
SEAL NOTARY PUBLIC SOUTH DAKOTA SEAL
My Commission Expires May 22, 1995

My Commission Expires:
5/22/95.

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

August 23, 1994

NOTICE

TO: Pamela Bonrud
Lewis & Clark Rural Water System
300 N. Dakota Ave., Suite 206
Sioux Falls, SD 57102
and Parties of Record (see attached list)

FROM: for John Hatch, Chief Engineer
Water Rights Division
605 773-3352

SUBJECT: Automatic Delay of Future Use Permit Application No. 5832-3, Lewis & Clark Rural Water System

Petitions to Future Use Permit Application No. 5832-3 have been filed with the Water Rights Division. The petition filed by Shyrl Corbly also requested an automatic delay of the August 31, 1994 hearing. Therefore, the hearing on Application No. 5832-3 is automatically delayed pursuant to SDCL 46-2A-4 and 46-2A-5 and will not be held on September 1, 1994.

The hearing on Application No. 5832-3 will be scheduled for a future Water Management Board meeting. The next regularly scheduled Board meeting is November 30, 1994, and December 1, 1994. Future notice of the exact date, time and place of the hearing for Application No. 5832-3 will be provided to all parties of record.

A copy of the report and Chief Engineer's recommendation is enclosed in this mailing to the petitioners. Please contact Eric Gronlund at (605) 773-3352, if you have any questions.

enclosure

c: Diane Best, Assistant Attorney General

CERTIFICATION

I hereby certify that on August 23, 1994, I have personally deposited with the United States Mail at Pierre, South Dakota, First Class postage, prepaid envelopes containing a Notice dated August 23, 1994, regarding Automatic Delay of Future Use Permit Application No. 5832-3, Lewis & Clark Rural Water System addressed to:

Pamela Bonrud
Lewis & Clark RWS
300 N Dakota Ave Ste 206
Sioux Falls, SD 57102
and Parties of Record (as shown on the attached list)

A copy of the Notice was also sent by inter-office mail to:

Diane Best, Assistant Attorney General

Eric Gronlund
ERIC GRONLUND
Natural Resources Engineer

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 30th day of August, 1994.

JOHN HATCH
NOTARY PUBLIC SOUTH DAKOTA
SEAL SEAL

John Hatch
Notary Public

JOHN HATCH, Notary Public
My Commission Expires
April 1, 2001

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

September 21, 1994

NOTICE

TO: Pamela Bonrud, Executive Director
Lewis & Clark Rural Water System
300 N. Dakota Ave., Suite 206
Sioux Falls, SD 57102
and Parties of Record (see attached list)

FROM: John Hatch, Chief Engineer
Water Rights Division
605 773-3352

SUBJECT: Rescheduling Consideration of Future Use Permit Application No. 5832-3, Lewis & Clark Rural Water System

The Water Management Board will consider Future Use Permit Application No. 5832-3 on October 27, 1994 at 9:00 am in the Conference Room, Floyd Matthew Training Center, Joe Foss Building, 523 East Capitol Ave., Pierre, SD. The September 1, 1994 hearing on this application was automatically delayed by a petitioner in opposition to the application.

Applicable provisions of the Notice of Hearing published August 4 and 11, 1994, in the Madison Daily Leader, The Leader-Courier, The Canistota Clipper, Sioux Valley News, The New Era and The Argus Leader and August 5 and 12, 1994 in the Vermillion Plain Talk will still apply at this hearing. This hearing is an adversary proceeding. Any party of record 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.

Contact Eric Gronlund, by October 17, 1994, at (605) 773-3352 to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

c: Diane Best, Assistant Attorney General
Jim Feeney, DENR

I got the flu late last night or rather when I woke up to drive to Pierre & be there at 9 o'clock. I fully intended to be there &

PARTIES OF RECORD

FUTURE USE PERMIT APPLICATION NO. 5832-3
Lew & Clark Rural Water System

APPLICANT:

Pamela Bonrud
Lewis & Clark Rural Water System
300 N. Dakota Ave., Suite 206
Sioux Falls, SD 57102

PETITIONERS:

/Shyrl Corbly
Rte 1, Box 160
Colton, SD 57018

Frank Orr
RR. 1, Box 182
Volin, SD 57072

I doubt have time to send someone in my place.
I will send to you my grievances, pertain to our Water Rights just as soon as I can.
Probably you'll receive it by Monday. I'm sending this answer to you so you know I would have been there.

Sincerely,
Shyrl Corbly
Colton, S.D.
#57018

One thing I would have told you is you don't have the right to take or regulate my free water without (the people) my permission! a letter will follow.

CERTIFICATION

I hereby certify that on September 21, 1994, I have personally deposited with the United States Mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated September 21, 1994, along with a copy of the Parties of Record List, regarding Rescheduling Consideration of Future Use Permit Application No. 5832-3, Lewis & Clark Rural Water System, addressed as stated below:

Pamela Bonrud, Executive Director, Lewis & Clark Rural Water System, 300 N. Dakota Ave., Suite 206, Sioux Falls, SD 57102.

Shyrl Corbly, Rt 1, Box 160, Colton, SD 57018.

Frank Orr, RR 1, Box 182, Volin, SD 57072.

Copy Sent Inter-office to:

Diane Best, Assistant Attorney General, Capitol Building.

Copy Hand Delivered to:

Jim Feeney, DENR/Water Resources Management, Joe Foss Building.

Cheryl F. Frost

Cheryl F. Frost
Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 4th day of October, 1994

Notary Public

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

October 6, 1994

Pamela Bonrud, Executive Director
Lewis & Clark Rural Water System
300 N. Dakota Ave., Suite 206
Sioux Falls, SD 57102

Re: Water Management Board hearing on Future Use Permit Application No. 5832-3, Lewis & Clark Rural Water System

Dear Ms. Bonrud:

Lewis & Clark Rural Water System's Future Use Permit Application No. 5823-3 will be considered by the Water Management Board on October 27, 1994 in Pierre. The following is the planned order of presentation for the hearing before the Board.

The Division staff will first present to the Board the report and recommendation prepared on the application including the location of the proposed diversion point, the water source (aquifer) and a review of existing water permits in the area. Lewis & Clark Rural Water System will then present the Board information on the proposed project. You may have consultants provide expert testimony on the proposed project. Lewis & Clark Rural Water System should also be prepared to address concerns raised by petitioners. Finally, petitioners will be provided an opportunity to testify on their opposition to the application. Throughout the hearing process, the Division, applicant and petitioners may cross examine anyone presenting testimony before the Board.

Please feel free to contact Eric Gronlund at 773-3352 if you have any questions.

Very truly yours,

John Hatch, Chief Engineer
Water Rights Division
605 773-3352

c: Diane Best, Assistant Attorney General
Jim Feeney, DENR

Dear Mr. Gronlund,

As I intend to be a the hearing for, "Consideration of Future Use Permit," at 9. A.M., October 27th; your letter indicated, if I had handicap people, I was to let you know.

I have 2 handicapped people in wheel chairs that will be there, with me.

Sincerely,
Sheryl Corbly

Sheryl Corbly,
B160., Rt.,
Colton, S.D.,
57018.

LEWIS & CLARK
RURAL WATER SYSTEM, INC.
300 North Dakota Avenue, Suite 206 • Sioux Falls, South Dakota 57102 • 605/336-8688 • Fax 605/336-8696

VERBAL TESTIMONY
OF
PAMELA A. BONRUD
EXECUTIVE DIRECTOR
LEWIS AND CLARK RURAL WATER SYSTEM
SIOUX FALLS, SD

BEFORE THE
SOUTH DAKOTA BOARD OF WATER MANAGEMENT

ON
LEWIS AND CLARK RURAL WATER SYSTEM, INC.
MISSOURI RIVER FUTURE USE PERMIT
APPLICATION NO. 5823-3

OCTOBER 27, 1994
PIERRE, SD

GOOD MORNING MR. CHAIRMAN AND MEMBERS OF THE BOARD. MY NAME IS PAM BONRUD AND I AM THE EXECUTIVE DIRECTOR OF THE LEWIS AND CLARK RURAL WATER SYSTEM. I APPRECIATE THE OPPORTUNITY TO TESTIFY BEFORE THIS BOARD ABOUT THE LEWIS AND CLARK PROJECT AND OUR MISSOURI RIVER FUTURE USE PERMIT APPLICATION.

LEWIS AND CLARK WILL BE A TREATED, BULK WATER DELIVERY SYSTEM FOR 22 RURAL WATER SYSTEMS AND COMMUNITIES LOCATED IN SOUTHEASTERN SOUTH DAKOTA, NORTHWESTERN IOWA, AND SOUTHWESTERN MINNESOTA. ONCE IT IS CONSTRUCTED, OVER 180,500 PEOPLE WILL RECEIVE TREATED DRINKING WATER FROM LEWIS AND CLARK. WATER DELIVERED BY LEWIS AND CLARK WILL BE FOR DOMESTIC USES ONLY. NO PROVISIONS HAVE BEEN MADE FOR IRRIGATION USAGE. THE MISSOURI RIVER WILL SERVE AS THE SOURCE OF WATER FOR THE PROJECT.

LEWIS AND CLARK IS DESIGNED TO DELIVER 23.5 MGD FOR A PEAK MONTH OF WATER USE. THE AVERAGE DEMAND ON THE SYSTEM WILL BE 16.5 MGD. APPROXIMATELY 406 MILES OF PIPELINE WILL BE NEEDED TO DELIVER WATER TO OUR MEMBERSHIP. OUR WATER TREATMENT PROCESS IS DESIGNED TO TREAT SURFACE WATER, COMPLY WITH THE SAFE DRINKING WATER ACT AND INCLUDES LIME SOFTENING. MISSOURI RIVER WATER WILL BE DIVERTED THROUGH THE USE OF THREE RADIAL COLLECTORS LOCATED ALONG THE SHORELINE. AT EACH POINT OF CONNECTION, CHLORINE INJECTION WILL BE DONE TO MAINTAIN AN APPROPRIATE CHLORINE LEVEL. ALL POINTS OF CONNECTION WILL BE METERED.

LEWIS AND CLARK IS ATTEMPTING TO BECOME A FEDERALLY AUTHORIZED WATER SUPPLY SYSTEM. OVER THE PAST FOUR YEARS, THE PROJECT'S MEMBERSHIP EVALUATED THE FEASIBILITY OF BUILDING A PIPELINE FROM THE MISSOURI RIVER TO DELIVER TREATED DRINKING WATER IN THE TRI-STATE AREA. IN SEPTEMBER OF 1993, AN ENGINEERING FEASIBILITY STUDY WAS COMPLETED AND SERVES AS THE BASIS FOR LEWIS AND CLARK'S FEDERAL AUTHORIZATION LEGISLATION. THIS REPORT CONCLUDED THAT LEWIS AND CLARK WAS TECHNICALLY AND ECONOMICALLY FEASIBLE.

INCLUDED IN THE FEASIBILITY STUDY ARE DESCRIPTIONS OF DRINKING WATER NEEDS; ESTIMATED PROJECT CONSTRUCTION COSTS; AN EVALUATION OF ALTERNATIVES FOR WATER DELIVERY, TREATMENT AND

DIVERSION; AND PROJECT FINANCING. ALSO INCLUDED IN OUR ENGINEERING FEASIBILITY STUDY IS A WATER CONSERVATION PROGRAM, ENVIRONMENTAL REPORT, AND ENVIRONMENTAL ENHANCEMENT PROPOSAL.

THE NEED FOR LEWIS AND CLARK RESULTS FROM POOR QUALITY WATER SOURCES, INADEQUATE SUPPLIES, POPULATION GROWTH, INCREASING FEDERAL DRINKING WATER REGULATIONS, AND A NEED FOR EMERGENCY OR BACK-UP WATER SUPPLIES.

LEWIS AND CLARK'S MEMBERSHIP IS HAVING DIFFICULTY MEETING SECONDARY DRINKING WATER STANDARDS ESTABLISHED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY. IN MANY CASES, DRINKING WATER DELIVERED BY THE PUBLIC WATER SYSTEMS EXCEED SECONDARY DRINKING WATER STANDARDS FOR IRON, MANGANESE, SULFATES AND TOTAL DISSOLVED SOLIDS.

IN ADDITION TO SECONDARY DRINKING WATER STANDARDS, THE PROJECT'S MEMBERSHIP IS CONCERNED ABOUT FUTURE DRINKING WATER STANDARDS THAT ARE UNDER CONSIDERATION BY THE EPA. IT APPEARS THAT A NEW PRIMARY DRINKING WATER STANDARD OF 500 MG/L FOR SULFATES WILL SOON BE APPROVED BY EPA. IF THIS SULFATE STANDARD IS ENFORCED, ALMOST ONE-THIRD OF LEWIS AND CLARK'S MEMBERSHIP WILL BE IN VIOLATION. IT IS THE INTENTION OF THOSE MEMBERS TO USE WATER FROM LEWIS AND CLARK TO BLEND WITH THEIR EXISTING WATER SUPPLIES TO REDUCE SULFATE LEVELS.

PRELIMINARY INFORMATION ON GROUNDWATER SUPPLIES IN THE PROJECT AREA INDICATES THAT RADIONUCLIDES COULD BE A PROBLEM. WE ALREADY KNOW THAT SOME SOUTH DAKOTA COMMUNITIES AND RURAL WATER SYSTEMS IN THE PROJECT AREA USING AQUIFERS LOCATED WITHIN THE SIOUX QUARTZITE, ARE SEEING ELEVATED LEVELS OF RADIONUCLIDES IN THEIR WATER. IF THE PROPOSED MCL OF 300 piC/L IS APPROVED, WE CAN EXPECT THAT OTHER COMMUNITIES OR RURAL WATER SYSTEMS WILL HAVE TO FIND A NEW SOURCE OF WATER.

A LACK OF ADEQUATE WATER SUPPLIES IS A PARTICULARLY TROUBLESOME CONCERN FOR LEWIS AND CLARK'S MEMBERS. INCREASING POPULATION GROWTH IS TAXING THE ABILITY OF OUR EXISTING WATER SUPPLIES TO

PROVIDE WATER FOR PRESENT AND FUTURE NEEDS. IN A STUDY COMPLETED BY THE SOUTH DAKOTA GEOLOGICAL SURVEY IN 1989, IT STATES, FOR THE CITY OF SIOUX FALLS THAT "THE PORTION OF THE BIG SIOUX AQUIFER PRESENTLY USED BY THE CITY WILL NOT MEET THE FUTURE WATER REQUIREMENT OF THE CITY." THIS SAME STUDY CONCLUDED THAT ANY REMAINING WATER RESOURCES IN SOUTHEASTERN SOUTH DAKOTA WERE UNSUITABLE IN QUALITY AND COULD NOT PROVIDE ENOUGH WATER FOR FUTURE WATER DEMANDS. IT WAS THE SOUTH DAKOTA GEOLOGICAL SURVEY'S RECOMMENDATION THAT THE PUBLIC WATER SUPPLIES IN THIS AREA OF SOUTH DAKOTA GO TO THE MISSOURI RIVER FOR A FUTURE WATER SUPPLY.

THE SOUTHWEST CORNER OF MINNESOTA DIFFERS GREATLY FROM THE REST OF THE STATE OF 10,000 LAKES. IT IS NOT WATER RICH. ROCK COUNTY, WHERE TWO OF OUR MEMBERS ARE LOCATED, IS THE ONLY COUNTY IN THE STATE THAT DOES NOT HAVE A LAKE. LUVERNE, MN HAS A POPULATION OF 4500. IT RELIES ON SEVENTEEN SHALLOW, SURFICIAL WELLS TO PROVIDE ITS DRINKING WATER. WORTHINGTON, MN, WITH A POPULATION OF 10,000, DEVELOPED IT LAST WELL IN 1989. SINCE THAT TIME, THE COMMUNITY IS SPENDING BETWEEN $50,000 TO $75,000 A YEAR LOOKING FOR ANOTHER SOURCE OF WATER. THEIR EFFORTS HAVE YIELDED DISMAL RESULTS. AS THE WORTHINGTON CITY WATER SUPERINTENDENT COMMENTED, "I'VE GOT A CABINET FULL OF WORK DONE BY HYDROLOGISTS. WE JUST CAN'T FIND ANYTHING LARGE ENOUGH TO DEVELOP."

INADEQUATE WATER SUPPLIES ARE ALSO FORCING THE USE OF WATER RESTRICTIONS ON A SEASONAL BASIS BY TEN OF OUR MEMBER UTILITIES. SIOUX FALLS HAS IMPOSED WATER RESTRICTIONS FOR EACH YEAR SINCE 1987, THIS YEAR INCLUDED. THE COMMUNITY OF TEA RAN OUT OF WATER ON MAY 26 AND ITS WATER TOWER WAS COMPLETELY EMPTIED. THE MINNEHAHA COMMUNITY WATER CORPORATION ASKED THEIR CUSTOMERS TO CONSERVE WATER THIS PAST SUMMER AS WELL, DUE TO CONCERNS OVER RUNNING OUT OF WATER.

THE DEMAND OF RURAL CITIZENS FOR SAFE, QUALITY DRINKING WATER IS TAXING THE ABILITY OF EXISITNG RURAL WATER SYSTEMS TO MEET THOSE NEEDS. FOR EXAMPLE, THE SOUTH LINCOLN RURAL WATER IN SOUTH DAKOTA TURNED DOWN OVER 175 APPLICATIONS TO CONNECT RURAL

CITIZENS TO THEIR SYSTEM OVER THE PAST FEW YEARS. THE MINNEHAHA COMMUNITY WATER CORPORATION ALSO HAS A MORATORIUM ON NEW CONNECTIONS TO THEIR SYSTEM IN SEVERAL AREAS. THESE DENIALS FOR SERVICE ARE A DIRECT RESULT OF THEIR INABILITY TO PROVIDE MORE DRINKING WATER FROM THEIR CURRENT SUPPLIES.

SHALLOW AQUIFERS, THE PRIMARY SOURCES OF WATER FOR LEWIS AND CLARK'S MEMBERSHIP, ARE EXTREMELY VULNERABLE TO SURFACE ACTIVITIES AND DROUGHT. ONE MAJOR CONTIMINATION EVENT COULD WIPE OUT THE WATER SUPPLY FOR AN ENTIRE AREA. DETERIORATION IN THE QUALITY OF THESE SOURCES IS BEING EVIDENCED THROUGH THE DETECTION OF NITRATE LEVELS. THIRTY ONE PERCENT OF OUR MEMBERS MEASURED NITRATE LEVELS THAT EXCEED ONE MILLIGRAM PER LITER. WHILE THESE LEVELS DO NOT VIOLATE THE PRIMARY DRINKING WATER STANDARD OF 10 MILLIGRAMS PER LITER, THEY DO INDICATE THAT THE WATER QUALITY OF OUR AQUIFERS HAS BEEN COMPROMISED.

RURAL WATER SYSTEMS ARE BEING ASKED TO MEET THE DRINKING WATER NEEDS OF MORE AND MORE SMALL COMMUNITIES. THE CLAY COUNTY RURAL WATER SYSTEM IN IOWA HAS BEEN CONTACTED BY COMMUNITIES LOCATED IN THE LITTLE SIOUX RIVER VALLEY ABOUT THE POSSIBILITY OF BEING SERVED. THIS AREA OF IOWA IS EXPERIENCING PROBLEMS WITH NITRATES AND SYNTHETIC ORGANIC COMPOUND CONTAMINATION. THE LINCOLN-PIPESTONE RURAL WATER SYSTEM IN SOUTHWEST MINNESOTA IS PROPOSING TO SERVE A RURAL AREA IN NOBLES COUNTY WHICH IS IN DESPERATE NEED FOR BETTER QUALITY DRINKING WATER. HOWEVER, UNTIL LEWIS AND CLARK IS CONSTRUCTED, THE NEED FOR BETTER QUALITY DRINKING WATER IN THESE RURAL AREAS WILL GO UNMET.

WORKING WITH LEWIS AND CLARK DURING THE FEASIBILITY STAGE WAS THE BUREAU OF RECLAMATION. RECLAMATION PROVIDED TECHNICAL OVERSIGHT AND REVIEWS OF OUR ENGINEERING STUDY, ENVIRONMENTAL REPORT, WATER CONSERVATION PROGRAM AND ENVIRONMENTAL ENHANCEMENT PROPOSAL. IT IS EXPECTED THAT RECLAMATION WILL ALSO BE THE LEAD FEDERAL AGENCY DURING PROJECT CONSTRUCTION.

IT IS ESTIMATED THAT $282.9 MILLION WILL BE NEEDED TO BUILD LEWIS AND CLARK. LEWIS AND CLARK'S MEMBERSHIP MADE A COMMITMENT TO PAY FOR

10 PERCENT OF THE PROJECT CONSTRUCTION COSTS. EACH MEMBER SIGNED A LETTER OF COMMITMENT TO THE PROJECT THAT LEGALLY OBLIGATES THEM TO PAY FOR THEIR PRORATED SHARE OF THE CONSTRUCTION COSTS. IN TURN, LEWIS AND CLARK HAS ASKED THE STATES OF SOUTH DAKOTA, MINNESOTA, AND IOWA TO MATCH THE MEMBERSHIP'S COST SHARE FOR CONSTRUCTION.

IN 1993, THE LEGISLATURES IN SOUTH DAKOTA AND IOWA PASSED LEGISLATION AUTHORIZING LEWIS AND CLARK FOR CONSTRUCTION. THESE PIECES OF LEGISLATION ALSO INCLUDED A STATE COMMITMENT TO MATCH THE LOCAL COST SHARE. IN 1994, THE MINNESOTA LEGISLATURE PASSED LEGISLATION THAT DESIGNATED A LEAD STATE AGENCY, RECOGNIZED THAT THE STATE'S SHARE OF THE NON FEDERAL COST SHARE WOULD NOT EXCEED FIFTY PERCENT, AND AUTHORIZED THE MINNESOTA MEMBERSHIP TO SEEK FEDERAL PARTICIPATION IN THE PROJECT.

LEWIS AND CLARK IS SEEKING AN EIGHTY PERCENT FEDERAL GRANT TO ASSIST THE MEMBERSHIP IN BUILDING THE PROJECT. OUR COST SHARE PROPOSAL IS BASED ON AN ABILITY AND WILLINGNESS TO PAY STUDY THAT WAS COMPLETED BY THE BUREAU OF RECLAMATION ON OUR BEHALF. ACCORDING TO THE BUREAU'S STUDY, THE MEMBERSHIP HAS AN ESTIMATED AVERAGE ABILITY TO PAY FOR 7.2 PERCENT OF THE PROJECT CONSTRUCTION COSTS. WE HAVE ALREADY MADE THE LEGAL COMMITMENT TO EXCEED OUR ESTIMATED AVERAGE ABILITY TO PAY AND PAY FOR 10 PERCENT OF THE CONSTRUCTION COSTS.

AN AGREEMENT WAS REACHED WITH THE MIDWEST ELECTRIC CONSUMERS ASSOCIATION AND OTHER PREFERENCE POWER PROVIDER REPRESENTATIVES TO MAKE PICK-SLOAN PROJECT POWER AVAILABLE TO LEWIS AND CLARK. PICK-SLOAN PROJECT POWER WILL BE USED FOR LEWIS AND CLARK'S PUMPING AND INCIDENTAL OPERATIONAL NEEDS DURING THE SUMMER ELECTRICAL SEASON.

LEWIS AND CLARK ALSO HAD THE OPPORTUNITY TO MEET WITH THE MISSOURI RIVER BASIN ASSOCIATION. THIS ASSOCIATION REPRESENTS ALL OF THE STATES WITHIN AND ALONG THE MISSOURI RIVER AND THE AMERICAN INDIAN TRIBES OF THE REGION. AS A RESULT OF THESE DISCUSSIONS, A LETTER OF SUPPORT FOR LEWIS AND CLARK'S EFFORTS TO

BECOME A FEDERALLY AUTHORIZED WATER SUPPLY SYSTEM WAS APPROVED. I HAVE ATTACHED A COPY OF THIS LETTER TO MY WRITTEN COMMENTS FOR THE RECORD.

INCLUDED IN OUR ENGINEERING FEASIBILITY REPORT ARE A WATER CONSERVATION PROGRAM, ENVIRONMENTAL REPORT AND ENVIRONMENTAL ENHANCEMENT PROPOSAL. THE WATER CONSERVATION PROGRAM DESCRIBES TASKS THAT WILL BE UNDERTAKEN BY LEWIS AND CLARK AS A SYSTEM TO USE AND CONSERVE WATER WISELY. EXAMPLES INCLUDE METERING AT ALL POINTS OF CONNECTION, AGGRESSIVE LEAK DETECTION EFFORTS, USE OF A WATER CONSERVATION RATE STRUCTURE, AND PUBLIC EDUCATION. LEWIS AND CLARK'S MEMBERSHIP WILL ALSO BE REQUIRED TO IMPLEMENT WATER CONSERVATION STRATEGIES AT THE LOCAL LEVEL.

WORKING WITH OUR ENGINEERING CONSULTANT THROUGHOUT THE FEASIBILITY EVALUATION HAS BEEN AN ENVIRONMENTAL CONSULTING FIRM. AN ENVIRONMENTAL REPORT IS DRAFTED THAT SETS THE STAGE FOR ADDITIONAL ENVIRONMENTAL WORK ONCE LEWIS AND CLARK BECOMES A FEDERALLY AUTHORIZED PROJECT. OUR ENVIRONMENTAL CONSULTANT WALKED AND DROVE EVERY MILE OF THE PROPOSED PIPELINE ROUTE. INFORMATION GATHERED DURING THESE ACTIVITIES WAS PROVIDED TO OUR ENGINEERS SO THAT ENVIRONMENTALLY SENSITIVE AREAS COULD BE AVOIDED WHEN DESIGNING A PRELIMINARY PIPELINE ROUTE. ALSO, THIS REPORT WILL BE USED TO ASSIST US IN PREPARING AN ENVIRONMENTAL ASSESSMENT OR ENVIRONMENTAL IMPACT STATEMENT ONCE THE PROJECT RECEIVES FEDERAL AUTHORIZATION.

INITIALLY WE STRUCTURED OUR ENVIRONMENTAL ENHANCEMENT PROPOSAL TO INCLUDE A TRUST FUND. MONEYS FROM THE TRUST FUND WOULD BE USED TO FINANCE WETLAND AND WILDLIFE ENHANCEMENT PROJECTS WITHIN THE LEWIS AND CLARK SERVICE AREA. AFTER ADDITIONAL CONSIDERATION, LEWIS AND CLARK DECIDED TO CHANGE THE FORMAT OF OUR ENHANCEMENT PROPOSAL TO IDENTIFY SPECIFIC PROJECTS THAT WILL RECEIVE FUNDING THROUGH LEWIS AND CLARK'S FEDERAL AUTHORIZATION. WE ARE IN THE PROCESS OF FINALIZING THOSE CHANGES NOW.

LEWIS AND CLARK ENJOYS STRONG SUPPORT AT THE LOCAL AND STATE

LEVELS. THE STATE OF SOUTH DAKOTA PROVIDED $500,000 IN GRANTS BEGINNING IN 1990 TO DATE. FROM IOWA, LEWIS AND CLARK RECEIVED GRANTS FOR THE AMOUNTS OF $14,000 IN 1992 AND $40,000 IN 1994. IN 1993, THE STATE OF MINNESOTA PROVIDED A $28,000 GRANT AND FOR 1994, APPROVED A $50,000 GRANT. IN EACH CASE, ANY GRANT DOLLARS LEWIS AND CLARK RECEIVES FROM THE STATES ARE MATCHED ON A DOLLAR FOR DOLLAR BASIS BY THE MEMBERSHIP. LOCAL COST SHARE HAS BEEN MET THROUGH CASH AND IN-KIND CONTRIBUTIONS.

QUESTIONS HAVE BEEN RAISED REGARDING THE IMPACT OF LEWIS AND CLARK TO FLOWS OF THE MISSOURI RIVER. USING DATA FROM THE CORPS OF ENGINEERS, WE LOOKED AT A WORSE CASE SCENARIO WHERE YOU WOULD HAVE A SITUATION OF THE LOWEST DISCHARGE RATE ON RECORD FROM GAVINS POINT DAM AND LEWIS AND CLARK USING ITS PEAK DEMAND. IN THIS CASE, WE WOULD USE LESS THAN 0.3 PERCENT OF THE WATER. ON AN ANNUAL BASIS, LEWIS AND CLARK WOULD USE LESS THAN 0.2 PERCENT OF THE MEDIAN FLOW OF THE MISSOURI RIVER. THE AMOUNT OF WATER THAT WOULD BE USED BY LEWIS AND CLARK IS IMMEASURABLE. IT IS ALSO IMPORTANT TO KEEP IN MIND THAT A MAJORITY OF THE WATER DIVERTED FROM THE MISSOURI RIVER WILL BE RETURNED TO THE RIVER BASIN THROUGH THE WASTEWATER STREAM. CARE HAS BEEN TAKEN IN COINCIDING LEWIS AND CLARK'S BOUNDARIES WITHIN THE MISSOURI RIVER BASIN. THEREFORE, WE EXPECT THAT LEWIS AND CLARK WILL NOT NEGATIVELY IMPACT MISSOURI RIVER FLOWS.

FEDERAL LEGISLATION TO AUTHORIZE LEWIS AND CLARK WAS INTRODUCED ON MAY 3RD. COSPONSORSHIP OF THE LEWIS AND CLARK RURAL WATER SYSTEM ACT OF 1994 IN THE SENATE INCLUDED SENATORS PRESSLER, DASCHLE, WELLSTONE, DURENBERGER, HARKIN AND GRASSLEY. CONGRESSMEN JOHNSON, GRANDY AND MINGE COSPONSORED THE HOUSE VERSION. ON JUNE 28, CHAIRMAN GARY HANSON WAS INVITED TO TESTIFY BEFORE THE SENATE WATER AND POWER SUBCOMMITTEE ABOUT LEWIS AND CLARK. SUPPORTING TESTIMONY WAS SUBMITTED IN WRITING FROM ALL THREE GOVERNORS. ALSO TESTIFYING IN SUPPORT OF LEWIS AND CLARK BEFORE THE SUBCOMMITTEE WERE SENATORS DASCHLE AND PRESSLER FROM SOUTH DAKOTA.

RECENTLY YOU MAY HAVE SEEN ARTICLES IN THE NEWSPAPER ABOUT

SUBCOMMITTEE ACTION IN RELATION TO OUR FEDERAL LEGISLATION. I WANT TO EMPHASIZE THAT THE SUBCOMMITTEE'S DECISION NOT TO TAKE ACTION ON OUR LEGISLATION THIS YEAR WAS NOT UNEXPECTED. LEWIS AND CLARK DID NOT EXPECT TO RECEIVE AUTHORIZATION ON OUR FIRST TRY. PROJECTS OF SIMILAR SIZE AND SCOPE IN SOUTH DAKOTA ALL HAD TO INTRODUCE FEDERAL LEGISLATION ON MORE THAN ONE OCCASION. THIS PROCESS IS NORMAL FOR THESE TYPES OF PROJECTS. IN EACH CASE, OUR PREDECESSORS WERE SUCCESSFUL IN ACHIEVING FEDERAL AUTHORIZATION, AND EVENTUALLY, FEDERAL DOLLARS TO CONSTRUCT. THERE IS NO REASON TO EXPECT THAT LEWIS AND CLARK WILL NOT BE AS SUCCESSFUL. AT A MINIMUM, IT CAN TAKE US AS LONG AS TWO TO FOUR MORE YEARS TO WORK OUR WAY THROUGH THE CONGRESSIONAL PROCESS.

AN UNIQUE OPPORTUNITY PRESENTS ITSELF WITH THE LEWIS AND CLARK PROJECT. WATER QUALITY AND QUANTITY PROBLEMS DO NOT SEE THE LINES THAT ARE DRAWN BETWEEN STATES ON A MAP. NOR SHOULD REASONABLE SOLUTIONS RECOGNIZE STATE BOUNDARIES. THE REGIONALIZED APPROACH PRESENTED BY LEWIS AND CLARK TO SOLVE DRINKING WATER QUALITY AND QUANTITY PROBLEMS IN A THREE STATE AREA IS ONE WHOSE TIME HAS COME. TO USE PUBLIC DOLLARS IN A PIECE MEAL MANNER TO SOLVE DRINKING WATER ON AN UTILITY BY UTILITY BASIS DOES NOT MAKE SENSE. IT IS MORE PRUDENT TO USE PUBLIC DOLLARS TO THE BEST AVAILABLE ADVANTAGE. IN OTHER WORDS, GET THE BIGGEST BANG FOR THE BUCK. IF EACH MEMBER OF LEWIS AND CLARK WERE TO GO IT ALONE IN SOLVING THEIR INDIVIDUAL DRINKING WATER PROBLEM, A GREATER EXPENDITURE OF PUBLIC FUNDS WOULD RESULT. IT MAKES SENSE FOR US TO WORK TOGETHER IN SOLVING OUR DRINKING WATER ISSUES AND POOL OUR LIMITED PUBLIC FUNDS TOGETHER.

LEWIS AND CLARK RESPECTFULLY REQUESTS THE BOARD'S SUPPORT OF OUR APPLICATION FOR A FUTURE USE PERMIT FROM THE MISSOURI RIVER. LEWIS AND CLARK PROVIDES AN ECONOMICAL SOLUTION THAT IS TECHNICALLY FEASIBLE FOR ELIMINATING EXISTING DEFICIENCIES IN OUR MEMBERSHIP'S DRINKING WATER SUPPLIES.

THANK YOU MR. CHAIRMAN FOR THIS OPPORTUNITY TO TESTIFY ON OUR MISSOURI RIVER FUTURE USE PERMIT APPLICATION. I WILL BE HAPPY TO ANSWER ANY QUESTIONS AT THIS TIME.

MRBA

Missouri River Basin Association

April 4, 1994

The Honorable Pat Williams
U.S. House of Representatives
Washington DC 20515-2701

Dear Congressman Williams:

During the week beginning April 25, 1994, federal legislation will be introduced that provides for the authorization of the Lewis and Clark Rural Water System. The members of the Missouri River Basin Association are asking for your support of this important piece of federal legislation.

The Lewis and Clark Rural Water System is a treated, bulk water delivery system for southeastern South Dakota, northwestern Iowa, and southwestern Minnesota. Twenty-two rural water systems and communities in the tri-state project area signed Letters of Commitment to the Lewis and Clark Rural Water System. Approximately 200,000 people will receive treated drinking water from Lewis and Clark.

A lack of water and poor quality water supplies led to the formation of Lewis and Clark. Because water quality and quantity problems do not recognize state boundaries, the project evolved into a regional water supply system for the tri-state area. The states of Minnesota, Iowa, and South Dakota have all participated in providing state funds to assist the local project sponsors in developing an engineering feasibility study. In 1993, the states of South Dakota and Iowa authorized Lewis and Clark for construction and state funding.

The Missouri River Basin Association, a coalition of states and Indian tribes in the Missouri Basin, supports projects that utilize the Missouri River to supply safe, dependable drinking water to residents of the Missouri River Basin. The Lewis and Clark Rural Water System represents a sound approach to solving drinking water problems on a regional basis.

Thank you for considering this legislation.

Sincerely,

J. Edward Brown, President
Missouri River Basin Association

P.O. BOX 9193 MISSOULA, MONTANA 59807 406-542-6272 FAX 406-542-7585

printed on recycled paper

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

November 8, 1994

Shyrl Corbly
Rte. 1, Box 160
Colton, SD 57018

Dear Ms. Corbly:

On October 27, 1994, the Water Management Board passed a motion to recommend approval of Future Use Water Permit Application No. 5832-3 for Lewis & Clark Rural Water System. The application will now be submitted to the State Legislature with the Board's approval recommendation and a summary of the testimony at the hearing.

You may advocate your position to the Legislature during the upcoming legislative session. If the Legislature approves of the application, the Board will schedule a time and place for final consideration of the application. Disapproval by the Legislature constitutes disapproval by the Board and no further action need be taken by the Board.

If the Legislature approves the application, you will receive notice of scheduling the Board's final consideration of this application.

Very truly yours,

John Hatch, Chief Engineer
Water Rights Division
(605) 773-3352

c: Diane Best, Assistant Attorney General
Pamela Bonrud, Executive Director, Lewis & Clark RWS

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

January 12, 1995

MEMORANDUM TO LEGISLATIVE TASK FORCE

SUBJECT: Legislative Action Required for Lewis and Clark Rural Water System's Future Use Water Right Permit Application

The enclosed letter to Lieutenant Governor Hillard and Representative Krautschun includes a draft joint resolution to approve a water right permit application by Lewis and Clark Rural Water System. The Lewis and Clark Rural Water System applied to appropriate 27,000 acre feet of water annually for future use from wells located adjacent to the Missouri River at a point known as Mulberry Point south of Vermillion.

SDCL 46-5-20.1 requires the Water Management Board to submit all water right permit applications which are in excess of 10,000 acre feet annually for legislative approval. The Water Management Board considered this application and is submitting the application to the Legislature with the Board's recommendation for approval. Therefore, I am preparing to submit a legislative resolution approving the future use application.

Let me know if this submittal is approved by the LTF. Thanks.

Steven M. Pirner
Acting Secretary

enclosure

JAN 1995
DIVISION OF
WATER RIGHTS
Pierre, SD

Do it
Jim H.
Jim Soyer

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

January 12, 1995

Lieutenant Governor Carole Hillard
President of the Senate
State Capitol Building
Pierre, SD 57501

Honorable Harvey Krautschun
Speaker of the House
State Capitol Building
Pierre, SD 57501

Dear Lieutenant Governor Hillard and Representative Krautschun:

SDCL 46-5-20.1 requires legislative approval of water permit applications appropriating more than 10,000 acre feet of water. Enclosed is a copy of Application No. 5832-3 by the Lewis and Clark Rural Water System to appropriate 27,000 acre feet annually for future use purposes from wells located adjacent to the Missouri River south of Vermillion. The application has been filed with the Water Management Board, advertised and a public hearing held. The Water Management Board is submitting the application to the Legislature with a recommendation for approval.

Copies of a draft joint resolution and the Water Management Board minutes of the hearing are also enclosed. In accordance with SDCL 46-5-20.1, I am respectfully requesting that you submit the draft resolution for legislative approval. Thank you for your help in this matter.

Sincerely,

Steven M. Pirner
Acting Secretary

enclosures

cy: Governor William J. Janklow
Dwayne A. Rollag, Chairman, Water Management Board
Pamela Bonrud, Executive Director, Lewis and Clark Rural Water System

A JOINT RESOLUTION, Approving future use water permit application number 5832-3.

BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES OF THE STATE OF SOUTH DAKOTA, THE SENATE CONCURRING THEREIN:

WHEREAS, pursuant to SDCL 46-5-20.1 the Lewis and Clark Rural Water System made application number 5832-3 to the chief engineer, division of water rights, department of environment and natural resources to appropriate twenty seven thousand acre-feet of water annually for future use from unappropriated water from the Missouri:Elk Point aquifer to be used for the purpose of providing future water supplies for the Lewis and Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa, and

WHEREAS, the chief engineer after study of the future use application and pursuant to SDCL 46-2A-2 recommended approval of future use application number 5832-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the quantity of water reserved will be needed by the Lewis and Clark Rural Water System, 3) the proposed use is a beneficial use and 4) in the public interest, with qualifications, and

WHEREAS, the water management board following a public hearing at its regular meeting held October 27, 1994, in Pierre, South Dakota, recommended that the Legislature approve the application with the following qualifications:

1) Approval of Permit No. 5832-3 reserves 27,000 acre-feet annually.

2) That Future Use Permit No. 5832-3 is approved with the stipulation that the Permit to appropriate water is subject to review by the Water Management Board as to accomplishment thereunder upon expiration of seven (7) years.

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.

4) This Permit is approved for groundwater from the Missouri:Elk Point Aquifer. Radial collection wells will be approximately 80 feet deep.

NOW BE IT HEREBY RESOLVED that future use water permit application number 5832-3 is hereby approved and is hereby transmitted back to the water management board for final action.

EXCERPT FROM MINUTES OF THE 82ND MEETING OF THE WATER MANAGEMENT BOARD DULY CALLED BY CHAIRMAN ROLLAG FLOYD MATTHEW TRAINING CENTER, PIERRE, SD OCTOBER 26 & 27, 1994

Those present for the Water Management Board meeting were:

Board Members

Bernita Loucks, Marian Gunderson, Francis Brink, Dwayne Rollag, Joel Rickenbach and Leo Holzbauer. Rodney Freeman was not present for the meeting.

Deputy Attorney General

John Guhin

Assistant Attorney General

Diane Best

Future Use Water Permit No. 5832-3

Pam Bonrud, Sioux Falls, SD
David Odens, Brookings, SD

Consideration of Future Use Permit No. 5832-3, Lewis & Clark Rural Water System

Application is for a future use permit to appropriate 27,000 acre-feet of water annually from 3 radial collection wells, (Missouri:Elk Point Aquifer) 80 feet deep, to be constructed adjacent to the Missouri River approximately 4 miles southwest of Vermillion. The water is to be reserved for the purpose of providing future water supplies for the Lewis & Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake and Minnehaha counties in South Dakota; Rock and Nobeles counties in Minnesota and Lyon, Sioux, Osceola, O'Brien, Clay and Dickinson counties in Iowa. Municipalities to be served by the proposed system include: Beresford, Centerville, Harrisburg, Lennox, Madison, Parker, Sioux Falls and Tea in South Dakota; Boyden, Hull, Sheldon, Sibley, Sioux Center in Iowa and Laverne and Worthington in Minnesota. This application does not authorize construction of works or application of water to beneficial use. Staff recommendation is for APPROVAL with the following qualifications:

1. Approval of Permit No. 5832-3 reserves 27,000 acre-feet annually.

2. That Future Use Permit No. 5832-3 is approved with the stipulation that the Permit to appropriate water is subject to review by the Water Management Board as to accomplishment thereunder upon expiration of seven (7) years.

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.

4. This Permit is approved for groundwater from the Missouri Elk Point Aquifer. Radial collection wells will be approximately 80 feet deep.

Diane Best introduced the Division file into the record (Division Exhibit No. 1). The file includes the published Notice, application and maps that were filed, and objections of the intervenors. Ms. Best also introduced into the record a county highway map (Division Exhibit No. 2) and DENR Employee Description Form (Division Exhibit No. 3) of Jim Goodman.

Mr. Goodman stated that he sketched the area of the application on the county highway map. The sketched area is not to scale. Locally, this area is known as Mulberry Point.

Mr. Goodman presented his report to the Board. In his report, Mr. Goodman explained that the Missouri Elk Point is an alluvium mantled outwash for sand and gravel, which in this area is approximately 75-100 feet thick. In Clay county, the aquifer underlies 74,500 acres and contains an estimated 1.12 million acre-feet of recoverable water in storage.

The aquifer at this site is unconfined and underwater table conditions are directly influenced by the Missouri River. The aquifer is hydraulically connected to the Missouri Elk Point aquifer in Yankton County to the west and into Union County to the east and also to the Upper Vermillion Missouri aquifer to the north. The Missouri and Vermillion rivers are also hydraulically connected to the aquifer. The proximity of the diversion points for this application to the Missouri River and the general location on the inside of the bend in the river means that the flow of the Missouri River will maintain the ground water levels.

The Division of Water Rights does monitor one observation well (CL-80C) in the area. This observation well is located one to two miles north of the application. Water levels for this well rise during wet years and gradually decline during dry years. The water level record indicates that the aquifer is capable of sustaining additional withdrawals. Water levels in this

observation well appear to have declined about 2 feet over the period of record. This may be due to the down cutting of the Missouri River which would alter the ground water flow system. Other observation wells located at a greater distance from the river do not exhibit this phenomena.

Mr. Goodman's report also advised that there is one existing water right which is partially located within the future use area outlined by the application. In addition to the existing irrigation right, there are four other irrigation rights which are located directly adjacent to the proposed future use area. There is also one existing irrigation well that is located within the proposed future use area. Even though the proposed diversion is large, no adverse impacts on existing water permits/rights are expected. Effects of pumping would be masked by the Missouri River, which would be a permanent recharge boundary that is more than capable of sustaining this diversion.

Mr. Goodman explained that since the future use is for 27,000 acre-feet, South Dakota state law (SDCL 46-5-20.1) requires that any water appropriation over 10,000 acre-feet has to go before Legislature for approval.

Mr. Hatch pointed out to the Board that this future use application will come back before the Board after it goes before the Legislature. Prior to the rural water system placing the water to beneficial use, a water permit to construct will need to be obtained.

In answer to a question from Mr. Holzbauer, Mr. Goodman stated that the gradient of the aquifer is towards the river in the area of the application, but also has a component from west to east. Mr. Goodman believed, according to the records from the monitoring well, that this was a flow-through system because of the oxbow.

Mr. Guhin defined for the Board SDCL 46-5-20.1. "Any application for appropriation of water, pursuant to this chapter, in excess of ten thousand acre feet annually shall be presented by the water management board to the Legislature for approval prior to the board's acting upon the application . . ." Mr. Guhin asked the staff if this application was to appropriate water and if it was, what action was the Board being asked to take.

Ms. Best stated that the use of the word "Any" would indicate that the future use application would require Legislative approval. The staff is asking that the Board issue its preliminary approval to the Legislature.

In favor of the application

Chairman Rollag administered the oath to Pam Bonrud.

Ms. Bonrud, executive director for the Lewis and Clark Rural Water System, provided the Board her written testimony (on file) and Executive Summary of the Lewis and Clark Rural Water System (on file). Ms. Bonrud read her testimony into the record.

Chairman Rollag administered the oath to Dave Odens.

Mr. Odens, engineer for Banner Associates, stated he would address questions specifically relating to the point of diversion. The concept of using radial collector wells was selected for the reasons of cost and there would be less potential impact of threatening endangered species in the Missouri River. The type of collector well that is being proposed is a horizontal radial collector well, which will consist of a concrete caisson down 80 feet in the ground. Horizontal well streams will extend as much as 200 feet out underneath the river from the caisson.

The development plans are in progress at the present time to stabilize the river banks as part of the Nebraska and Vermillion bridge project. The plan for the Lewis and Clark project is to locate the collector wells in that portion of the river bank that will be stabilized by the bridge project.

The Mulberry Point area is eroding and moving east. Geological survey maps from 18 years ago show a substantial amount of erosion has occurred. The river bank has moved several hundred feet. The proposed wells will be in an area where the river banks are stabilized. This is one of the reasons a surface water intake is not being used.

The beneficial use of the water is a municipal water supply. The Lewis and Clark system will serve as a bulk water supply system, selling water to 22 communities and rural water systems. There will not be individual farm hookups. Water will only be sold to other systems, which is the reason only 400 miles of pipe for a 23.5 million gallon a day water system is needed.

In answer to a question from Mrs. Gunderson, Mr. Odens explained that water will be delivered to Parker and to South Lincoln Rural Water System. South Lincoln Rural Water System serves a few residents in the corner of McCook County.

This project was originally proposed to go as far west as Davison County and serve the T-M Rural Water System and Hanson Rural Water System. These systems approached the B-Y water district

west of Yankton to construct a pipeline to serve them. As a consequence of that, T-M rural water, Hanson rural water and the city of Freeman all dropped off the Lewis and Clark project and are on the B-Y water system now. There is a possibility that the city of Salem and other smaller communities could also be served from the T-M water system. The Lewis and Clark Rural Water System gave up the western edge of Davison County.

In answer to a question from Mr. Brink, Mr. Odens stated that the Lewis and Clark system includes 8 rural water systems. The rural water systems will deliver water to farms and small communities. The members of this system are communities who are dues paying members directly to Lewis and Clark.

In answer to a question from Mr. Rickenbach, Mr. Odens stated that the city of Sioux Falls has reserved a capacity of 10,000,000 gallons of water a day on the Lewis and Clark system. The city of Sioux Falls' overall annual water use is approximately 16.5 to 17 million gallons per day. In the summer, the peak demands are in excess of 30 million gallons per day. The Lewis and Clark system will provide a base line of 10,000,000 gallons of water per day to allow the city to use other resources to meet the fluctuations and demands.

Mr. Odens reported that a couple of communities were intending to use the Lewis and Clark system as their primary water supply. These communities have very poor water quality.

In answer to a question from Mr. Rickenbach, Mr. Odens stated that the water will be treated at the source. The plan is to distribute treated water. The water treatment plant is intended to be located just north of Vermillion.

The other rural water systems that have their own treatment plants will continue to use their plants. As an example, Minnehaha Community Water has a water treatment plant capacity and well field capacity to serve more people than are presently connected, but they do not have distribution system capacity. Every year they are building more distribution system capacity. This project would allow them to take the distribution system located east of Sioux Falls and serve the people from this pipe line, and allow Minnehaha Community Water to redirect existing water supplies to developments in other parts of the county which are also growing.

<u>In opposition of the application</u>

There was no one present at the meeting in opposition of the application.

Meeting recessed at 10:15 a.m.
Meeting reconvened at 10:31 a.m.

Mrs. Loucks MOVED, SECONDED by Mrs. Gunderson to recommend APPROVAL and submission to the Legislature of Future Use Water Permit No. 5832-3, with the staff recommended qualifications.

Mr. Holzbauer commented that the people in South Dakota have quality water and should be using it for beneficial uses and as long as the requirements and criteria are met so no one is jeopardized in the process, he is 100 percent behind the project.

MOTION CARRIED.

Dwayne Kollag, Chairman

Bernita Loucks, Secretary

SPEAKING POINTS FOR HJR 1002
LEWIS & CLARK'S FUTURE USE WATER PERMIT

State Law **SDCL 46-5-20.1 requires** the Water Management Board to submit water right applications which are in excess of 10,000 acre feet annually for legislative approval.

Lewis and Clark Rural Water System has applied to appropriate 27,000 acre feet annually for future use from wells to be located adjacent to the Missouri River south of Vermillion.

The application was public noticed and the Water Management Board conducted a public hearing on the application.

No person presented testimony in opposition to the application at the public hearing.

The future use permit establishes a priority date and reserves the water for when actual construction takes place.

The Water Management Board submits the application to the Legislature with a recommendation for APPROVAL with the following qualifications:

(1) The permit reserves 27,000 acre feet annually for future use.
(2) The permit is subject to Board review every seven years.
(3) A water permit is necessary to construct the project.
(4) The water will come from radial collection wells which will be 80 feet deep.

Upon legislative approval of this bill, the application will then be transmitted back to the Water Management Board for final action.

The Lewis and Clark Rural Water System will provide water to users in southeastern South Dakota, southwestern Minnesota and northwestern Iowa.

South Dakota will receive 68% of the water, Minnesota will receive 12%, and Iowa will receive 20%.

Southeastern South Dakota has enormous growth potential, especially since South Dakota's largest city, Sioux Falls, is located in this region.

The Water Management Board has set a maximum annual withdrawal limit on the Big Sioux Aquifer which supplies a majority of this area with its water.

Additional water supplies will be necessary to sustain continued increased water demands.

Without an additional water supply to meet the growing demands of the region, economic development and growth will be hampered.

A JOINT RESOLUTION, Approving a future use water permit application by the Lewis and Clark Rural Water System.

BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES OF THE STATE OF SOUTH DAKOTA, THE SENATE CONCURRING THEREIN:

WHEREAS, pursuant to § 46-5-20.1, the Lewis and Clark Rural Water System submitted application number 5832-3 to the chief engineer, Division of Water Rights, Department of Environment and Natural Resources to appropriate twenty seven thousand acre-feet of water annually for future use from unappropriated water from the Missouri:Elk Point aquifer to be used for the purpose of providing future water supplies for the Lewis and Clark Rural Water System to be located in Lincoln, Clay, Union, Turner, McCook, Lake, and Minnehaha counties in South Dakota; Rock and Nobles counties in Minnesota; and Lyon, Sioux, Osceola, O'Brien, Clay, and Dickinson counties in Iowa; and

WHEREAS, the chief engineer after study of the future use application and pursuant to § 46-2A-2 recommended approval of future use application number 5832-3 because (1) there is reasonable probability that unappropriated water is available for the applicant's proposed use, (2) the quantity of water reserved will be needed by the Lewis and Clark Rural Water System, (3) the proposed use is a beneficial use, and (4) the proposed use is in the public interest, with qualifications; and

WHEREAS, the Water Management Board following a public hearing at its regular meeting held October 27, 1994, in Pierre, South Dakota, recommended that the Legislature approve the application with the following qualifications:

(1) Approval of Permit No. 5832-3 reserves 27,000 acre-feet annually;

(2) The permit to appropriate water is subject to review by the Water Management Board as to accomplishment under the permit upon expira-

tion of seven years;

(3) When definite plans are made to construct works and put the water reserved by the permit to beneficial use, specific application for all or any part of the reserved water shall be submitted before construction of facilities pursuant to § 46-5-38.1; and

(4) The permit is approved for groundwater from the Missouri:Elk Point aquifer. Radial collection wells shall be approximately 80 feet deep.

NOW BE IT HEREBY RESOLVED that future use water permit application number 5832-3 is hereby approved and is hereby transmitted back to the Water Management Board for final action.

Approving a future use water permit application by the Lewis and Clark Rural Water System.

I certify that the attached Resolution originated in the HOUSE
as HOUSE
Joint Resolution No. 1002

Karen Verdes
Chief Clerk

Speaker of the House

Attest:

Karen Verdes
Chief Clerk

President of the Senate

Attest:

Lee Jacobsen
Secretary of the Senate

STATE OF SOUTH DAKOTA,
ss.
Office of the
Secretary of State

Filed February 10, 19 95
at 8:35
o'clock A M.

Secretary of State

By Thomas D. Lerbey
Asst. Sec'y of State

House Joint Resolution No. 1002
File No. 72
Chapter No. _____

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

May 22, 1995

NOTICE

TO: Pamela Bonrud, Executive Director
Lewis & Clark Rural Water System
300 N. Dakota Ave., Suite 200A
Sioux Falls, SD 57102
and Parties of Record (see attached list)

FROM: John Hatch, Chief Engineer
Water Rights Division
(605) 773-3352

SUBJECT: Scheduling of Final Consideration of Future Use Water Permit No. 5832-3, Lewis & Clark Rural Water System

On October 27, 1994, the Water Management Board passed a motion recommending approval of Future Use Water Permit No. 5832-3. Pursuant to SDCL 46-5-20.1 the application along with the Water Management Board's recommendation was presented to the South Dakota State Legislature. The Legislature passed House Joint Resolution No. 1002 approving Application No. 5832-3 and transmitted the application back to the Water Management Board for final action. A copy of House Joint Resolution No. 1002 is enclosed.

The Water Management Board will consider Application No. 5832-3 on July 6, 1995 at 9:30 am in the Tanglewood Room, Ramkota Inn, 1901 9th Ave. SW, Hwy 212 West, Watertown, SD. The agenda time is an estimate and may be delayed due to prior agenda items.

Applicable provision of the Notice of Hearing Published August 4 and 11, 1994 in the Madison Daily Leader, The Leader-Courier, The Canistota Clipper, Sioux Valley News, The New Era and The Argus Leader and August 5 and 12, 1994 in the Vermillion Plain Talk will still apply at this hearing. The hearing is an adversary proceeding. Any party of record 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.

Contact Eric Gronlund, by June 28, 1995, at (605) 773-3352 to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

c: Diane Best, Assistant Attorney General
Jim Feeney, DENR

enclosure

CERTIFICATION

I hereby certify that on May 22, 1995, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated May 22, 1995, regarding Scheduling of Final Consideration of Future Use Water Permit No. 5832-3, Lewis & Clark Rural Water System, along with a copy of the Parties of Record List, and a copy of the Joint House Resolution No. 1002, addressed as stated below:

Pamela Bonrud, Executive Director, Lewis & Clark Rural Water System, 300 N. Dakota Ave., Suite 200A, Sioux Falls, SD 57102.

Shyrl Corbly, Rt 1, Box 160, Colton, SD 57018.

Frank Orr, RR 1, Box 182, Volin, SD 57072.

Copies Sent Inter-office to:

Diane Best, Assistant Attorney General, Capitol Building.

Jim Feeney, DENR/ Water Resources Management, Joe Foss Building.

Cheryl F. Frost
Secretary

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 24th day of May, 1995

JOHN HATCH
NOTARY PUBLIC
SOUTH DAKOTA
SEAL SEAL

Notary Public

JOHN HATCH, Notary Public
My Commission Expires
April 1, 2001

RECEIPT

414226

Division of Water Rights

South Dakota Department of Environment and Natural Resources

Pierre, July 20, 19 94

RECEIVED OF Lewis & Clark R.W.S., Inc., 5009 W 12th St., Ste. 5, Sioux Falls, SD 57106

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

Fee for Application for Permit No. 5832-3 to Appropriate Water, to construct and to put water to beneficial use	580	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No.		
Fee for Filing Transfer Form		
Fee for Filing Extension Request		
Fee for		
(Any Other Work Provided by Law) **Total**	580	00

By John Hatch CE
Chief Engineer

DIVISION #1

WATER PERMIT NO. 5832-3

Phone: 605 336-8688

Name of Applicant: Lewis & Clark Rural Water System

Post Office Address: 300 N Dakota Ave, Suite 206, Sioux Falls SD 57102

Amount of Water Claimed: 36.36 cfs - 27,000 AF Total Acres: _____

Source of Water Supply: ~~Missouri River~~ Missouri: Elk Point Aquifer

Water to be used for: rural water system use County: Clay

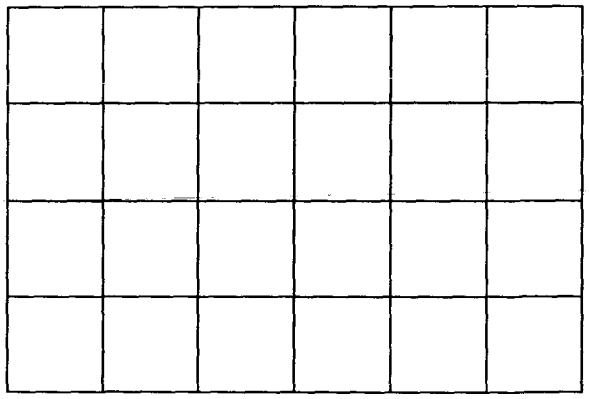
Location: southwest of Vermillion

PRIORITY Date Received: 7-8-94 Fee: _____

Corrected Application Received: _____ Period of Annual Use: Jan 1 - Dec 31

Remarks: For submission to the 1995 Legislature.

Future Use Area: Point along Missouri River in ~~T92N R52W~~ (Mulberry Point) between NW¼ Section 15, T32N, R4E and SW corner Section 23, T32N, R4E (Nebraska Survey



Well Log: Driller: _____ Licensed: YES ____ NO ____

Depth of Well: _____ REMARKS: _____

Type of Map: topo Prepared By: Fred J. Rittershaus Reviewed and the Number Assigned on: 7-19-94 By: Karen Schlaak

GREAT FACES. GREAT PLACES.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

SEP 5 1995

Pamela Bonrud, Executive Director
Lewis & Clark Rural Water System
300 North Dakota Avenue, Suite 206
Sioux Falls, SD 57102

Dear Ms. Bonrud:

Enclosed is Future Use Permit No. 5832-3, as approved by the Water Management Board.

When plans for facilities are prepared to put any portion of the water granted in the future use permits to beneficial use, an application covering such facilities and water use should be submitted to this office before construction is initiated.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Program
(605)773-3352

Enclosure

c: Shyrl Corbly, Rt 1 Box 160, Colton, SD 57018

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

March 27, 2002

Pamela Bonrud, Executive Director
Lewis & Clark Rural Water System
~~300 N Dakota~~ Ave 401 E 8th St.
Suite ~~206~~ 306
Sioux Falls SD 57102

Dear Ms. Bonrud:

I am writing in regard to the seven year review of Future Use Water Permit No. 5832-3 from collection wells (Missouri:Elk Point Aquifer) which is held by the Lewis & Clark Rural Water System. By law, all future use permits are to be reviewed by the Water Management Board every seven years. The permit reserves water for future water supply needs for the rural water system. Currently, our records show that 27,000 acre-feet remain in reserve under this future use permit issued in 1995.

Please respond in writing by May 1, 2002, 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. 5832-3 will then be public noticed a the system's expense and scheduled for review before the Water Management Board pursuant to SDCL 46-5-38.1. 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.

Please contact Eric Gronlund, if you have any questions.

Sincerely,

Karen Schlaak

Karen Schlaak
Environmental Scientist
Water Rights Program
605 773-3352

LEWIS & CLARK
RURAL WATER SYSTEM, INC.
401 East 8th Street, Suite 306 • Sioux Falls, SD 57103 • 605/336-8688 • Fax 605/336-8696

April 26, 2002

RECEIVED
APR 29 2002
WATER RIGHTS
PROGRAM

Department of Environment and Natural Resources
Water Rights Program
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

Attn. Karen Schlaak

RE: Renewal of Future Use Permit
Number 5832-3 for the
Lewis and Clark Rural Water System

Dear Ms. Schlaak:

The Lewis and Clark Rural Water System (LCRWS) Board of Directors has passed a resolution authorizing a request for renewal of Future Use Permit No. 5832-3 for the Lewis and Clark Rural Water System. The permit reserves water for an annual use of up to 27,000 acre-feet of water per year for municipal use by the Lewis and Clark Rural Water System. A copy of the resolution is attached.

The Lewis and Clark Rural Water System is a Federally authorized project and has received federal funds pursuant to that authorization in each of the last three federal fiscal years. The project engineers and environmental consultants are currently working to complete the Final Engineering Report and Environmental Assessment. The reports will be submitted to the appropriate reviewing agencies in May 2002. A ground breaking for the initial phase of construction is anticipated in the fall of 2002.

The project is being planned with capacity to provide a supplemental water supply for 23 public water systems in South Dakota, Iowa, and Minnesota. The participating water systems have requested that the system be designed to meet a peak day water demand of 27.2 million gallons per day. The treated water demands, as listed below, serve as the basis for the Final Engineering Report for the project.

South Dakota	11 utilities	18.46 MGD	68% of total demand
Iowa	8 utilities	4.95 MGD	18% of total demand
Minnesota	4 utilities	3.78 MGD	14% of total demand
Total	23 utilities	27.19 MGD	100%

The Lewis and Clark Rural Water System intends to develop water supply pumping capacity of 29 to 32 million gallons per day in order to meet the treated water

demands listed. The water demands of the membership are expected to fully utilize the capacity reserved under permit 5832-3 when the system is fully operational. A series of wells including vertical wells and one or more radial collector wells will be used.

The proposed construction area for wells in the area defined by Permit No. 5832-3 has been investigated in a series of geotechnical and hydro-geological investigations conducted by the Lewis and Clark Rural Water System. Nine test holes were drilled in the area in April and May of 2001. A production pump test well and observation wells were constructed in August and September 2001 at one of the proposed radial collector well sites. The production pump tests permitted an assessment of the yield of the aquifer at the site tested. It is estimated that a radial collector well at the site tested could provide up to 7000 gallons per minute on a long-term basis with average river stages. The production pump test demonstrated the hydraulic connection between the aquifer and the river at that location. Additional hydro-geological testing is planned for the summer of 2002 at another location within the area defined by Permit No. 5832-3.

The schedule for construction of the water system will be governed in large part by the level of funding provided through the state and federal grant programs established for the project. The project sponsors are anticipating a construction period of 8-12 years for the project. Construction of the wells, water treatment plant, and pipeline between the source and Sioux Falls is expected to take 5-8 years. When this section of construction is complete, water will be appropriated for municipal use.

In summary, the Lewis and Clark Rural Water System is diligently moving forward with the design and construction of the proposed water system, there is a need for the water, and the water will be appropriated for municipal, residential and industrial uses for delivery through existing public water systems. The Lewis and Clark Rural Water System hereby requests renewal of Future Use Permit 5832-3 for an appropriation of up to 27,000 acre-ft of water per year from the Missouri-Elk Point Aquifer.

If you have any questions, please contact me at 605-336-8688 or David Odens or Tim Conner at 605-692-6342.

Sincerely

Pamela A Bonrud

Pamela A. Bonrud
Executive Director

Attachment – Board Resolution Authorizing Renewal Request

LEWIS & CLARK
RURAL WATER SYSTEM, INC.
401 East 8th Street, Suite 306 • Sioux Falls, SD 57103 • 605/336-8688 • Fax 605/336-8696

RESOLUTION NO. 3-2002

WHEREAS, the LEWIS AND CLARK RURAL WATER SYSTEM was formed to construct a drinking water supply system for communities and rural water systems located in southeast South Dakota, northwest Iowa, and southwest Minnesota, and,

WHEREAS, the LEWIS AND CLARK RURAL WATER SYSTEM has been a non-profit organization in South Dakota since 1989, and,

WHEREAS, the LEWIS AND CLARK RURAL WATER SYSTEM is a priority water development project for South Dakota, Iowa, and Minnesota and is a federally authorized drinking water supply project, and,

WHEREAS, the LEWIS AND CLARK RURAL WATER SYSTEM will provide a quality drinking water supply to over 200,000 residents of South Dakota, Iowa, and Minnesota, and,

WHEREAS, the LEWIS AND CLARK RURAL WATER SYSTEM currently holds South Dakota Future Use Permit number 5832-3 issued in 1995.

NOW, THEREFORE, LET IT BE RESOLVED that the LEWIS AND CLARK RURAL WATER SYSTEM board of directors authorize the Executive Director of the LEWIS AND CLARK RURAL WATER SYSTEM to submit a project status report and a request for extension and renewal of Future Use Permit No. 5832-3.

Passed this 25th day of April, 2002

Charles Kuehl, Chairman

Witness

Murray Hulstein, Secretary

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

RECOMMENDATION OF CHIEF ENGINEER FOR FUTURE USE WATER PERMIT NO. 5832-3, Lewis & Clark Rural Water System, Inc.

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. 5832-3, Lewis & Clark Rural Water System, Inc., 401 East 8th St, Suite 306, Sioux Falls SD 57103.

The Chief Engineer is recommending that Future Use Permit No. 5832-3 REMAIN in EFFECT for 27,000 acre-feet annually because 1) there is reasonable probability that there may be development of the water reserved under Permit No. 5832-3, 2) the system has demonstrated a reasonable need for the water reserved by Permit No. 5832-3, 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. 5832-3 is subject to payment of the $580 fee pursuant to SDCL 46-2-13(2) within 60 days of notice to the system after the Board hearing.

Garland Erbele, Chief Engineer
May 29, 2002

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

Shyrl Corbly
Rt. 1, Box 160
Colton SD 57018

Dear Ms. Corbly:

I am writing in regards to the future use permit held by the Lewis & Clark Rural Water System. This permit was approved in 1995 to reserve 27,000 acre feet of water from the Missouri:Elk Point Aquifer) located along the Missouri River. At the time the application was up for consideration, you petitioned in opposition to the issuing the future use permit.

State law requires that a future use permit be reviewed every seven years for progress made in development of the water reserved by the permit. We are currently conducting the seven year review of this future use permit. The Water Management Board is scheduled to consider whether to allow the permit to remain in effect on July 10, 2002. Please find enclosed a copy of the public notice that will be published in the seven SD counties that would be served by the rural water system

This information is being sent to you because of you past interest in the future use permit application. Please feel free to contact me if you have any questions.

Sincerely,

Eric Gronlund
Water Rights Program
(605) 773-3352

enclosure

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

Frank Orr
RR 1 Box 182
Volin SD 57072

Dear Mr. Orr:

I am writing in regards to the future use permit held by the Lewis & Clark Rural Water System. This permit was approved in 1995 to reserve 27,000 acre feet of water from the Missouri:Elk Point Aquifer) located along the Missouri River. At the time the application was up for consideration, you petitioned to express your views regarding issuing the future use permit.

State law requires that a future use permit be reviewed every seven years for progress made in development of the water reserved by the permit. We are currently conducting the seven year review of this future use permit. The Water Management Board is scheduled to consider whether to allow the permit to remain in effect on July 10, 2002. Please find enclosed a copy of the public notice that will be published in the seven SD counties that would be served by the rural water system

This information is being sent to you because of you past interest in the future use permit application. Please feel free to contact me if you have any questions.

Sincerely,

Eric Gronlund
Water Rights Program
(605) 773-3352

enclosure

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

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

Pamela A Bonrud, Executive Director
Lewis & Clark Rural Water System, Inc.
401 E 8th St, Suite 306
Sioux Falls SD 57103

Dear ~~Ms. Bonrud~~ Pam:

Future Use Permit No. 5832-3 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 each county where water will be diverted or used. The notice of this review has been sent to the Publisher of the following papers:

Sioux Valley News, Canton 605 764-2000
Leader-Courier, Elk Point 605 356-3626
Salem Special, Salem 605 425-2361
Argus Leader, Sioux Falls 605 331-2200
Plain Talk, Vermillion 605 624-2695
The New Era, Parker 605 297-4419
Daily Leader, Madison 605 256-4555

For your information, a copy of the recommendation of the Chief Engineer 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 NEWSPAPERS IMMEDIATELY TO AUTHORIZE PUBLICATION OF THE NOTICE OF HEARING AND TO ARRANGE FOR PAYMENT. Early contact with the papers can eliminate delays. The publishers have been instructed to publish the notice once each week for two consecutive weeks with the last publication to occur at least twenty days before the board meeting. We must receive Proof of Publication before the future use review can be considered by the Water Management Board.

Sincerely,

Eric

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

Sioux Valley News
PO Box 255
Canton SD 57013-0255

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 6, 2002 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Lewis & Clark Rural Water System, c/o Pamela Bonrud, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at 605 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of May 29, 2002 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____
Name Newspaper

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

Plain Talk
PO Box 256
Vermillion SD 57069-0259

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 7, 2002 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Lewis & Clark Rural Water System, c/o Pamela Bonrud, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of May 29, 2002 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____
Name Newspaper

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

Leader-Courier
PO Box 310
Elk Point SD 57025-0310

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 6, 2002 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Lewis & Clark Rural Water System, c/o Pamela Bonrud, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of May 29, 2002 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____

Name Newspaper

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

The New Era
PO Box 579
Parker SD 57053-0579

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 6, 2002 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Lewis & Clark Rural Water System, c/o Pamela Bonrud, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of May 29, 2002 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____

Name Newspaper

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

Salem Special
PO Box 220
Salem SD 57058-0220

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 6, 2002 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication**. The APPLICANT is Lewis & Clark Rural Water System, c/o Pamela Bonrud, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of May 29, 2002 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____

Name Newspaper

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

Daily Leader
PO Box 348
Madison SD 57042-0348

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 5, 2002 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Lewis & Clark Rural Water System, c/o Pamela Bonrud, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at 605 773-4068. Publication errors can invalidate the public notice.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of May 29, 2002 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____

Name Newspaper

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 29, 2002

Argus Leader
PO Box 5034
Sioux Falls SD 57117-5034

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 5, 2002 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Lewis & Clark Rural Water System, c/o Pamela Bonrud, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of May 29, 2002 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____

Name Newspaper

Affidavit of Publication

STATE OF SOUTH DAKOTA } :ss

COUNTY OF TURNER }

OK

I, Sarah Ebeling of the City of Parker, County of Turner, State of South Dakota, State of South Dakota, being first duly sworn on oath, deposes and says:

The New Era is a weekly legal newspaper of general circulation, printed and published in the City of Parker, in said County of Turner, by The New Era, Lyon-Sioux Press, publishers, and has been such legal newspaper during the times hereinafter mentioned; that the said newspaper has been in existence as such legal newspaper for more than one year prior to the publication of the notice hereunto attached, and has during all of said publication of the notice hereunto attached, and has during all of said time had, and now has, more than 200 bona fide subscribers; that the

undersigned, the affiant, is the **Office Manager** of the said newspaper, in charge of the advertisement department thereof and has personal knowledge of all the facts stated in this affidavit and the advertisement headed:

#289 - notice of hearing

printed copy of hereto attached, was printed and published in the said

newspaper for Two successive weeks, once each week and on the same day of the week, on the following dates, to-wit:

On Thursday, the 6 day of June, 2002;

On Thursday, the 13 day of June, 2002;

On Thursday, the _____ day of _____, 200___;

On Thursday, the _____ day of _____, 200___;

On Thursday, the _____ day of _____, 200___;

That $ 66.51 being the full amount of the fees for publication of the attached notice insures solely for the benefits of the publishers of the said newspaper; that no arrangement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.

Sarah Ebeling

PAUL R. HARMS
NOTARY PUBLIC SOUTH DAKOTA
SEAL SEAL

Subscribed and sworn to before me this 26th day of June, 2002.

My Commission Expires: 02/02/2006

Paul R Harms
Notary Public, Turner County, South Dakota

RECEIVED
JUN 28 2002
WATER RIGHTS PROGRAM

Notice of Hearing to Review Future Use Water Permit No. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by the Lewis & Clark Rural Water System, Inc., 401 E 8 St, Suite 306, Sioux Falls, S.D. 57103 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. 5832-3. This permit was approved in 1995 and currently reserves 27,000 acre feet from collection wells (Missouri:Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section I and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide for future supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 27,000 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. 5832-3 at the Floyd Mathew Training Center, Joe Foss Bldg, 523 E Capitol, Pierre SD on July 10, 2002 at 10:00 am.

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 June 28, 2002. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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.

Publication Fees .. $_____

Notary Fees ..... $_____

Total ... $ 66.51

Received Payment,

_____

The hearing to review Future Use Permit No. 5832-3 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 may be an adversarial 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 June 28, 2002. 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 June 28, 2002. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

(#2819, 6/06/02, 6/13/02, The New Era)

Affidavit of Publication

STATE OF SOUTH DAKOTA
COUNTY OF LINCOLN

JULIE GERBER

being first duly sworn on her oath says; that the Sioux Valley News is a legal weekly newspaper of general circulation as required by South Dakota Code of Nineteen Hundred Thirty-Nine, and any acts amendatory thereto, printed and published by the Sioux Valley News, Inc., in Canton, in said county and State, and has been such legal newspaper during the time hereinafter mentioned; that she is and during all of said time was bookkeeper of said newspaper and has personal knowledge of the facts stated in this affidavit; that the advertisement headed:

NOTICE OF HEARING
WATER PERMIT NO. 5832-3

a printed copy of which is hereto attached, was printed and published in said newspaper for **TWO** successive weeks upon the following dates, to-wit:

JUNE 6, 2002
JUNE 13, 2002

that the full amount of the fees charged for publishing the same to-wit: the sum of **$58.57** insures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for any division of this sum has been made with any other person; and that no part of said sum has been agreed to be paid to any person whomsoever.

Julie Gerber

Subscribed and sworn to before me this **13th** day of **JUNE, 2002.**

Jeanne M. Limoges

Notary Public, South Dakota

(Seal)

Jeanne M. Limoges
My Commission Expires
November 18, 2003

RECEIVED
JUN 17 2002
WATER RIGHTS
PROGRAM

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by the Lewis & Clark Rural Water System, Inc., 401 E 8th St., Suite 306, Sioux Falls SD 57013 for progress made in development of the water reserved by the Permit and future plans for development of the water reserved by Permit No. 5832-3. This permit was approved in 1995 and currently reserves 27,000 acre feet from collection wells (Missouri: Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide for future supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 27,000 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. 5832-3 at the Floyd Mathew Training Center, Joe Foss Bldg, 523 E Capitol, Pierre SD on July 10, 2002 at 10:00 a.m.

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 June 28, 2002. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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. 5832-2 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 may be an adversarial 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 June 28, 2002. 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 June 28, 2002. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.
(6-6, 13)

Form 8

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
County of Lake)

I, Deanna D. Bergheim

certify that the attached printed Notice was taken

from the Madison Daily Leader

printed and published in Madison, SD

County of Lake and

state of South Dakota. The notice was published

in the newspaper on the following two dates:

Wednesday, June 5, 2002

Wednesday, June 12, 2002

Cost of Printing 73.12

Deanna D Bergheim
(Signature)

Secretary
(Title)

6-14-2002
(Date Signed)

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by the Lewis & Clark Rural Water System, Inc., 401 E 8th St, Suite 306, Sioux Falls SD 57103 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. 5832-3. This permit was approved in 1995 and currently reserves 27,000 acre feet from collection wells (Missouri:Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52 W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide for future supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 27,000 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. 5832-3 at the Floyd Mathew Training Center, Joe Foss Bldg, 523 E. Capitol, Pierre, SD on July 10, 2002 at 10:00 am.

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 June 28, 2002. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners interest in the future use permit, the reasons for petition'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 is obtained. The permit owner need not file a petition.

The hearing to review Future Use Permit No. 5832-3 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 may be an adversarial 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 June 28, 2002. 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 June 28, 2002. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

RECEIVED
JUN 17 2002
WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION-
Customer Number: 078340
Invoice Number: 29571

DEPT. OF ENVIRONMENT & NAT. RES.

Argus Leader
AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUNTY OF MINNEHAHA } ss

Beth Buchanan being duly sworn, says: That The Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper as defined by SDCL 17-2-21, as amended published at Sioux Falls, Minnehaha County, South Dakota; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached, was published in said newspaper upon

Wednesday ,the 5 day of June 2002 ,

Wednesday ,the 12 day of June 2002 ,

_____ ,the _____ day of _____ 2002 ,

_____ ,the _____ day of _____ 2002 ,

_____ ,the _____ day of _____ 2002 ,

_____ ,the _____ day of _____ 2002 ,

_____ ,the _____ day of _____ 2002 ,

and that $154.52 was charged for publishing the same including A $5.00 affidavit fee.

Beth Buchanan

Subscribed and sworn to before 6/12/2002 .

JOAN STAHL
SEAL NOTARY PUBLIC SOUTH DAKOTA SEAL

Joan Stahl
Notary Public, South Dakota

My Commission expires June 30th, 2005

NOTICE OF HEARING
TO REVIEW FUTURE USE
WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit no. 5832-3 held by the Lewis & Clark Rural Water System, Inc., 401 E 8th St, Suite 306, Sioux Falls SD 57103 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. 5832-3. This permit was approved in 1995 and currently reserves 27,000 acre feet from collection wells (Missouri: Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide for future supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 27,000 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. 5832-3 at the Floyd Matthew Training Center, Joe Foss Bldg., 523 E. Capitol, Pierre, SD on July 10, 2002 at 10:00 am.

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 June 28, 2002. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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. 5832-3 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.

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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 June 28, 2002. 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 June 28, 2002. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

29571 June 5, 12; 2002

State Notices

RECEIVED
JUN 17 2002
WATER RIGHTS PROGRAM

Form 8

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
County of Union)

I, Susan Odson

certify that the attached printed Notice was taken

from the Leader-Courier

printed and published in Elk Point

County of Union and

state of South Dakota. The notice was published

in the newspaper on the following two dates:

June 6, 2002

June 13, 2002

Cost of Printing $ 66.45

Susan Odson
(Signature)

Affidavits Coordinator
(Title)

6-13-02
(Date Signed)

61

RECEIVED
JUN 17 2002
WATER RIGHTS PROGRAM

NOTICE OF HEARING TO REVIEW FUTURE USE OF WATER PERMIT NO. 5832-3

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Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 27,000 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. 4673-3 at the Floyd Mathew Training Center, Joe Foss Bldg, 523 E Capitol, Pierre SD on July 10, 2002 at 10:00 am.

The recommendation of the Chief Engineer is not final or binding upon the Board and the Board in 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 written petition with BOTH the permit owner and the Chief Engineer by June 28, 2002. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petioners 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.

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Steven M. Pirner, Secretary
Department of Environment and Natural Resources

Publish June 6 and 13, 2002
23-5-107

Public Notice

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by the Lewis & Clark Rural Water System, Inc., 401 E. 8th St., Suite 306, Sioux Falls, SD 57103 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. 5832-3. This permit was approved in 1995 and currently reserves 27,000 acre-feet from collection wells (Missouri: Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide for future supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 27,000 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. 5832-3 at the Floyd Mathew Training Center, Joe Foss Bldg, 523 E. Capitol, Pierre, SD, on July 10, 2002 at 10:00 a.m.

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 June 28, 2002. The Chief Engineer's address is "Water Rights Program," Joe Foss Building, 523 E. Capitol Ave., Pierre, SD 57501 (605-733-3352) and the permit holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners interest in the future use permit, the reasons of 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.

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Steven M. Pirner, Secretary,
Department of Environment
and Natural Resources
6/6, 6/13

RECEIVED
JUN 20 2002
WATER RIGHTS
PROGRAM

; Affidavit of Publication

AFFIDAVIT OF PUBLICATION

(OF SOUTH DAKOTA)
)SS
Y OF McCOOK)

SCHWANS of said County and State, being first duly sworn on h, says THE SALEM SPECIAL is a weekly newspaper of circulation, printed and published in Salem, McCook County te of South Dakota, and has been such newspaper during the ereinafter mentioned; that the said newspaper is a legal per, that it has a bonafide circulation of more than 200 copies that it has been published within said County of McCook for an fifty-two successive weeks prior to the publication of the ereinafter mentioned and has been printed during said period the present time, in whole in an office maintained at said f publication; and that I, the undersigned, am publisher or e of said newspaper, in charge of the advertising department and have personal knowledge of all facts in this affidavit;

advertisement headed Notice of hearing review future use water permit No. 5832-3

d copy of which is hereto attached, was printed and published ewspaper for 2 weeks; that said notice was published in es of said paper on the dates as follows, to wit:

t publication being made on June 6 ,2002

the second publication on June 13 ,2002

the third publication on ,20

the fourth publication on ,20

the fifth publication on ,20

the sixth publication on ,20

and the last publication on ,20

that $ 71.68 being the full amount of the fees for publication of the annexed notice, insures solely to the benefit of the publisher of the said newspaper; that no agreement or understanding for a division thereof has been made with any person and that no part thereof has been agreed to be paid to any person whomsoever.

Subscribed and sworn to before me this 14
day of June ,2002
Laurie A. Schwans
Notary Public, McCook County
commission expires 12-31-02

REGISTER OF DEEDS McCOOK COUNTY SOUTH DAKOTA

AFFIDAVIT OF PUBLICATION

State of South Dakota, County of Clay, ss.

Candi Jensen

Being first duly sworn, deposes and says: That he/she is a resident of the County of Clay and State of South Dakota; that

THE PLAIN TALK

is a legal newspaper of general circulation, printed and published in Vermillion, in said County and State, by Broadcaster Press, Inc., and is now and has been such newspaper continuously during all the times hereinafter mentioned; that affiant is and was during all the time hereinafter mentioned in charge of the advertising department thereof, and has personal knowledge of all the facts stated in this affidavit: and that the notice and advertisement headed:

Review Future use Water Permit, Lewis and Clark Rural Water

a printed copy of which is hereunto attached and made a part hereof, was printed and published in the said newspaper at least once in each week

for 2 successive weeks; that said newspaper at the time of the first publication of said notice hereinafter stated, had, and still has, a bona fide circulation of over two-hundred paid copies weekly, and had been published in the said county of Clay for more than one year immediately prior to the date of the said publication of said notice, and that said newspaper during said times, was, and is, printed in part in an office maintained at said city of Vermillion, the said place of publication; that the first publication of said notice in said newspaper as aforesaid

was on Friday, the June day of 7 20 02,
and that the succeeding publications were severally

on Friday, the June day of 14, 20 02,

on Friday, the _____ day of _____, 20 _____,

on Friday, the _____ day of _____, 20 _____,

on Friday, the _____ day of _____, 20 _____,

that the fees charged for the printing and publication of the said notice and advertisement in said newspaper as aforesaid were

Sixty seven dollars and 07 cents

and that said fees for the printing and publishing of said notice and advertisement have been fully paid; that the full amount of the fee charged for the publishing of the said attached annexed notice and advertisement inures to the benefit of the publisher of the 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 other person whomsoever.

Candi Jensen

Subscribed and sworn to before me

this 14th day of June, 2002

Joan E. Wiebrock

Notary Public

My Commission Expires
April 17, 2005

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

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Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 27,000 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. 5832-3 at the Fle[illegible]athew Training Center, Joe F[illegible]dg., 523 E. Capitol, Pierre, SD [illegible], 2002 at 10:00 a.m.

The recommendation of the C[illegible]ngineer is not final or binding [illegible]e Board and the Board is authori[illegible] 1) allow the permit to remain [illegible]ect, 2) amend the permit by [illegible]ualifications, 3) cancel the permit fo[illegible]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 June 28, 2002. 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.

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WATER RIGHTS PROGRAM

Board Rules ARSD 74:02:01:25.01. thru 74:02:01:25.03 and contested case procedures contained in SDCL 1-26.

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Publish: June 7 & 14, 2002

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DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

July 12, 2002

NOTICE

Pamela Bonrud, Executive Director
Lewis & Clark Rural Water System
300 N Dakota Ave
Suite 206
Sioux Falls SD 57102

Dear Ms. Bonrud:

I am writing in response to action taken by the Water Management Board at the hearing on July 10, 2002 to review Future Use Permit No. 5832-3. The Board allowed the permit to remain in effect for 27,000 acre-feet of water annually. Future Use Permit No. 5832-3 is subject to another review in seven years.

The fee for maintaining the effectiveness of Future Use Permit No. 5832-3 is $580.00 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,

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

CERTIFICATION

I hereby certify that on July 12, 2002 , I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated July 12, 2002 regarding Notice Future User Permit No 449-3 & 3981-3, Future Use Permit No. 1442-2, Future Use Permit No. 4673-3, Future Use Permit No. 5155-3, Future Use Permit No. 5832-3 addressed as stated below:

449-3 & 3981-3
Lyle D Johnson, Public Works Director
City of Sioux Falls
224 W 9th St
Sioux Falls SD 57102

1442-2
West River Water Development District
Mike Kurle, Manager
PO Box 523
Murdo SD 57559

4673-3
Dawn Glover, Finance Officer
City of Elk Point
PO Box 280
Elk Point, SD 57025-0280

5155-3
Dennis Larson, Manager
Lincoln County Rural Water System
PO Box 36
Harrisburg SD 57032

5832-3
Pamela Bonrud, Executive Director
Lewis & Clark Rural Water System
300 N Dakota Ave
Suite 206
Sioux Falls, SD 57102

Eric Gronlund
Natural Resource Engineer
Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 15th day of July, 2002.

Karen Schlaak
Karen Schlaak
Notary Public
My Commission expires April 1, 2007

KAREN SCHLAAK
SEAL NOTARY PUBLIC SOUTH DAKOTA SEAL

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

No. 417264

Pierre, August 2, 2002

RECEIVED OF Lewis & Clark Rural Water System Inc., 401 E 8th St. Ste 306, Sioux falls SD 57103 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 _____		
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. 5832-3 after period of seven years.	580	00
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		
(Any Other Work Provided by Law) **Total**	580	00

By Darland Erbele
Chief Engineer

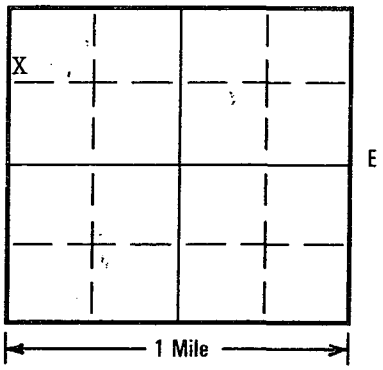
gm

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 28 Twp 92N Rg 52W

County CLAY

Please mark well location with an "X"



Well Completion Date 4/19/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE U1

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
SCH 40 LB/FT	IN	88 FT	+2 FT	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 chips		lb./gal	20 ft	0 ft
		lb./gal	ft	ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 4 IN Length 10 FEET
Material PVC
Slot Size 20 Set From 88 Feet to 98 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

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand, tan, silty	0	5
Clay, dark brown, silty	5	7.5
Sand, brown, fine	7.5	37.5
Sand, gray, fine	37.5	52.5
Sand, gray, fine-medium	52.5	61
Clay, gray	61	66
Silt, dark gray, sandy	66	87.5
Sand, gray-brown, fine-coarse	87.5	99.2
Bedrock, shale, dark brown	99.2	105

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 - 2 2002
WATER RIGHTS PROGRAM

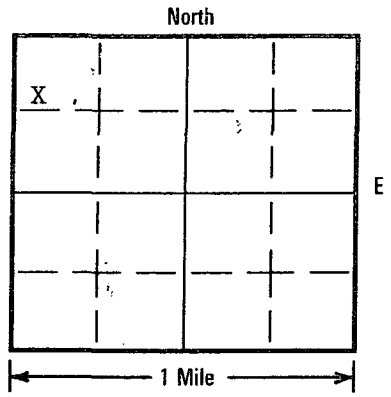
This well was drilled under license # 513
And this report is true and accurate.
Drilling firm Layne-Western Company
Signature of License Representative:
Signature of Well Owner or Equitable Property Holder:
Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 28 Twp 92N Rg 52W

County CLAY

Please mark well location with an "X"



Well Completion Date 4/28/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE - W3

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand, brown, fine	0	14
Sand, gray, fine-medium w/ fine gravel	14	20
Sand, gray, fine-med-coarse	20	50
Sand, gray, fine-medium	50	75
Sand, gray, fine-med w/coarse sand	75	80
Sand, gray, fine-medium	80	94
Bedrock, some pyrite (bit broke)	94	

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
SCH 40 LB/FT	4 IN	76.5 FT	+2 FT	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 chips		lb./gal	20 ft	0 ft
		lb./gal	ft	ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 4 IN Length 10 FEET

Material PVC

Slot Size 20 Set From 76.5 Feet to 86.5 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

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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Drilling firm Layne-Western Company

Signature of License Representative:

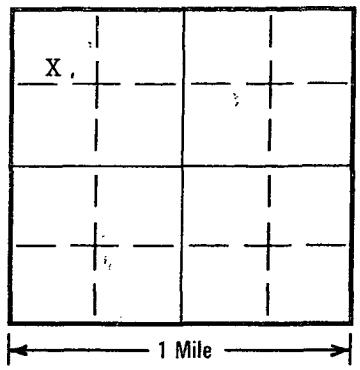
Signature of Well Owner or Equitable Property Holder:

Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 22 Twp 32N Rg 4~~W~~ E
County: CLAY

Please mark well location with an "X"



Well Completion Date: 8/25/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM
Business Name:
Address: SITE B - P3

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand, fine, silty	0	70
Clay, dark gray	70	72
Sand, gray, coarse, w/med-coarse gravel	72	90
Gravel, coarse to very coarse	90	105

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
SCH 40 LB/FT	IN	75 FT	+2.2 FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
gravel pack		lb./gal	85 ft	20 ft
bentonite chips		lb./gal	20 ft	0 ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 2 IN Length 10 FEET
Material PVC
Slot Size 20 Set From 75 Feet to 85 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

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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Drilling firm Layne-Western Company
Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

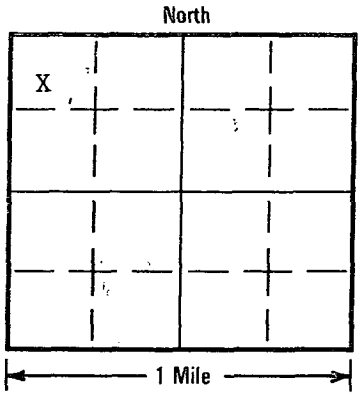
Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 22 Twp 32N Rg 4 E

County CLAY

Please mark well location with an "X"



Well Completion Date 8/26/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE B - P2

WELL LOG:

FORMATION	DEPTH FROM	TO
Sand, brown, fine, silty	0	65
Sand, gray, coarse, sm. gravel	65	75
Sand, gray, coarse, some fine	75	80
Sand, gray, coarse w/gravel & cobbles	80	90
Sand, gray, fine-coarse w/fine-med gravel	90	110

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
SCH 40 LB/FT	IN	95 FT	+2 FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
gravel pack		lb./gal	105 ft.	20 ft.
bentonite chips		lb./gal	20 ft.	0 ft.

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 IN Length 10 FEET

Material PVC

Slot Size 20 Set From 95 Feet to 105 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

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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This well was drilled under license # 513

And this report is true and accurate.

Drilling firm Layne-Western Company

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

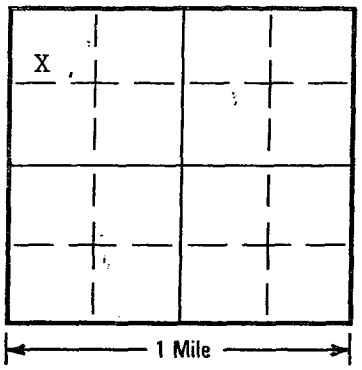
Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 22 Twp 32N Rg 4W E

County CLAY

Please mark well location with an "X"



Well Completion Date 8/26/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE B - P1

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
SCH 40 LB/FT	IN	80 FT	+2 FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
gravel pack		lb./gal	90 ft	20 ft
bentonite chips		lb./gal	20 ft	0 ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured
Diameter 2 IN Length 10 FEET
Material PVC
Slot Size 20 Set From 80 Feet to 90 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

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Fill	0	3
Trees and debris	3	10
Sand, gray, fine-med, silty	10	67
Sand, gray, coarse, gravel	67	90
Gravel, coarse-very coarse	90	105

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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WATER RIGHTS PROGRAM

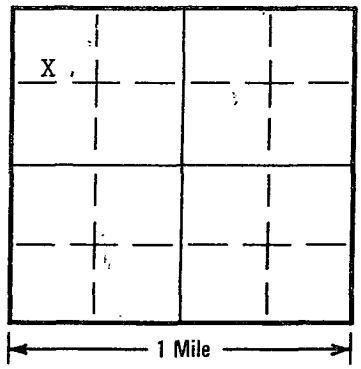
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And this report is true and accurate.
Drilling firm Layne-Western Company
Signature of License Representative:
Signature of Well Owner or Equitable Property Holder:
Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 22 Twp 32N Rg 4WE

County: CLAY

Please mark well location with an "X"



Well Completion Date: 8/24/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE B - R1

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Topsoil, tan-brown, silty	0	1
Sand, gray, fine-medium	1	60
Sand, gray, coarse & gravel, fine	60	75
Sand, gray, coarse & gravel, fine-coarse	75	105

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
SCH 40 LB/FT	IN	80 FT	+1.86 FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
gravel pack		lb./gal	90 ft.	20 ft
bentonite chips		lb./gal	20 ft.	0 ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 IN Length 10 FEET

Material PVC

Slot Size 20 Set From 80 Feet to 90 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

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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WATER RIGHTS PROGRAM

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And this report is true and accurate.

Drilling firm Layne-Western Company

Signature of ~~License~~ Representative:

Signature of Well Owner or Equitable Property Holder:

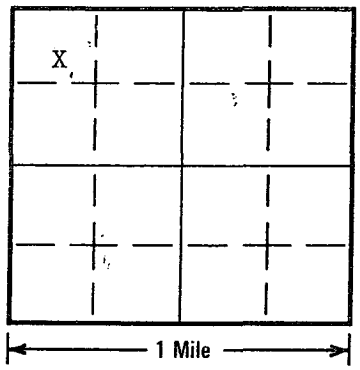
Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 22 Twp 32N Rg 4WE

County: CLAY

Please mark well location with an "X"



Well Completion Date: 10/3/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE B - R2A

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Topsoil, dark brown, silty	0	10
Sand, tan, very fine, silty	10	20
Sand, gray, very fine	20	25
Sand, tan, very fine	25	40
Sand, gray, very fine	40	60
Sand, brownish gray, silty	60	75
Sand, very fine, gray, silty w/ gravel	75	90
Sand, very fine, gray, silty w/ coarse sand-fine gravel	90	100

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
SCH 40 LB/FT	IN	71 FT	+1.89 FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
gravel pack		lb./gal	91 ft.	20 ft.
bentonite chips		lb./gal	20 ft.	0 ft.

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 6 IN Length 20 FEET

Material PVC

Slot Size 10 Set From 71 Feet to 91 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

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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PROGRAM

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And this report is true and accurate.

Drilling firm Layne-Western Company

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

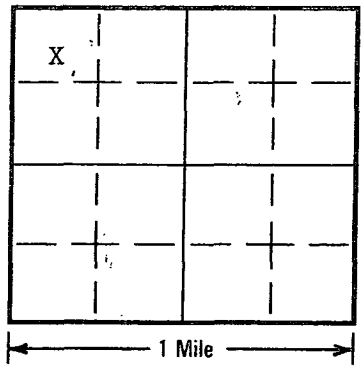
Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 22 Twp 32N Rg 4 ~~W~~ E

County CLAY

Please mark well location with an "X"



Well Completion Date 8/23/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE B - R3

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand, brown, fine	0	30
Sand, gray, fine-coarse	30	58
Sand, coarse and gravel	58	60
Sand, gray, coarse & gravel	60	105
Cobbles & boulders	105	107

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
SCH 40 LB/FT	IN	85 FT	+1.75 FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
gravel pack		lb./gal	95 ft.	20 ft
bentonite chips		lb./gal	20 ft.	0 ft

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 2 IN Length 10 FEET

Material PVC

Slot Size 20 Set From 85 Feet to 95 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

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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Signature of Well Owner or Equitable Property Holder:

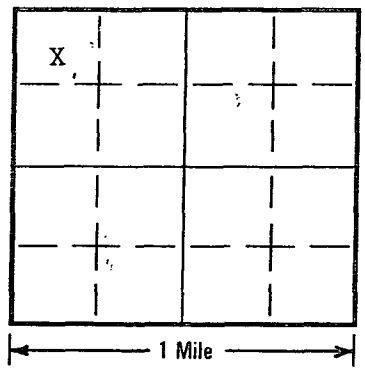
Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 22 Twp 32N Rg 4W E

County CLAY

Please mark well location with an "X"



Well Completion Date 8/23/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE B - L1

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Trees and roots	0	6
Sand, fine-medium	6	40
Sand, gray, fine-coarse	40	71
Sand, gray, coarse, some gravel	71	90

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
SCH 40 LB/FT	IN	58 FT	+2 FT	IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
gravel pack		lb./gal	98 ft.	20 ft.
bentonite chips		lb./gal	20 ft.	0 ft.

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 6 IN Length 40 FEET

Material PVC

Slot Size 10 Set From 58 Feet to 98 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

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 - 2 2002
WATER RIGHTS PROGRAM

This well was drilled under license # 513

And this report is true and accurate.

Drilling firm Layne-Western Company

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

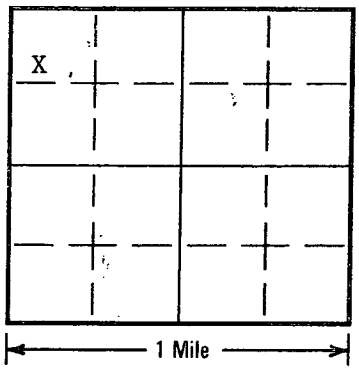
Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location NW ¼ NW ¼ Sec 22 Twp 32N Rg 4W E

County: CLAY

Please mark well location with an "X"



Well Completion Date: 5/3/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE B - TH4

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand, brown, fine	0	5
Clay, brown, silty	5	10
Sand, gray, fine-medium	10	50
Sand, gray, coarse, fine gravel	50	55
Gravel, w/ coarse sand	55	85
Gravel, coarse-very coarse	85	102
Gravel, cobbles, boulders	102	110
Bedrock	110	115

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
SCH 40 LB/FT	IN	75 FT	+3 FT	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 chips		lb./gal	20 ft.	0 ft.
		lb./gal	ft.	ft.

Describe grouting procedure:

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 4 IN Length 10 FEET

Material PVC

Slot Size 20 Set From 75 Feet to 85 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

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 - 2 2002
WATER RIGHTS PROGRAM

This well was drilled under license # 513

And this report is true and accurate.

Drilling firm Layne-Western Company

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

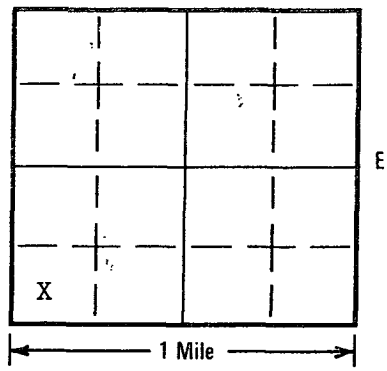
Date:

SOUTH DAKOTA WATER WELL COMPLETION REPORT 07-92

Location SW ¼ SW ¼ Sec 22 Twp 32N Rg 4NE

County CLAY

Please mark well location with an "X"



Well Completion Date 5/7/01

Well Owner: LEWIS & CLARK RURAL WATER SYSTEM

Business Name:

Address: SITE D - TH5

WELL LOG:

FORMATION	DEPTH FROM	DEPTH TO
Sand, brown, fine	0	4
Clay, brown, silty	4	9
Sand, brown, very fine, silty	9	25
Sand, gray, fine-med.-coarse	25	50
Sand, gray, fine-coarse some gravel	50	60
Sand, gray, fine-med.-coarse	60	63
Sand, gray, fine-coarse some gravel	63	75
Sand, gray, coarse & broken	75	95
Bedrock, limestone	95	100

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
SCH 40 LB/FT	IN	75 FT	+3 FT	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 chips		lb./gal	20 ft.	0 ft.
		lb./gal	ft.	ft.

Describe grouting procedure

SCREEN: ☐ Perforated pipe ☒ Manufactured

Diameter 4 IN Length 10 FEET

Material PVC

Slot Size 20 Set From 75 Feet to 85 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

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 - 2 2002
WATER RIGHTS PROGRAM

This well was drilled under license # 513

And this report is true and accurate.

Drilling firm Layne-Western Company

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

8-5-02

United States Department of the Interior

BUREAU OF RECLAMATION
Dakotas Area Office
P.O. Box 1017
Bismarck, North Dakota 58502

IN REPLY REFER TO:
DK-500 (Weigel)

JUN 13 2002

RECEIVED
JUN 17 2002
WATER RIGHTS
PROGRAM

Dear Interested Party:

The Bureau of Reclamation, Dakotas Area Office, has available for review and comment a draft environmental assessment (EA) for the Standing Rock Irrigation Project, Cannonball, Kenel, and Rock Creek Units.

The purpose of the proposed action is to deliver water to crops on arable lands, as identified in the Irrigation Suitability Land Classification Report, November 2000, Standing Rock Irrigation Project, Garrison Diversion Unit, North Dakota.

In a memorandum dated August 2, 2001, the Commissioner of the Bureau of Reclamation and the Assistant Secretary - Water and Science, concurred that the land classification is adequate to support the determination of irrigability for lands in the Cannonball, Kenel, and Rock Creek Units identified in the Irrigation Suitability Land Classification Report.

The draft EA evaluates the No Action Alternative and the potential impacts to the human and natural environment associated with the Alternative 2: Selective Build – To construct, operate and maintain irrigation systems in the Cannonball, Kenel and Rock Creek Units.

The 1986 Garrison Diversion Unit Reformulation Act (Public Law 99-294, 101 Stat. 421) authorized development of 2,380 acres of irrigated farmland on the Standing Rock Sioux Reservation. As part of the authorized development, the proposed action would provide irrigation water from the Missouri River and Grand River to 2,380 acres of crops in the Cannonball, Kenel, and Rock Creek Units of the project. With the proposed action, Standing Rock Farms, Inc., would manage the irrigation project for the Tribe and be responsible for construction, operation and maintenance. The Standing Rock Sioux Tribe, through an agreement with the U.S. Department of the Interior, Bureau of Reclamation, is conducting planning, design, environmental, and construction activities. As the lead federal agency, Reclamation is responsible for compliance with the National Environmental Policy Act (NEPA).

If you are interested in reviewing a copy of the draft EA, please contact me at (701) 250-4242 extension 3408. The review period will be open until July 8, 2002.

Sincerely,

James Weigel

James Weigel
Engineer, Technical Services

U.S. Department of the Interior

Bureau of Reclamation
Dakotas Area Office

June 2002

Draft Environmental Assessment for the Lewis and Clark Water Supply Project, South Dakota, Minnesota, and Iowa



MISSION STATEMENT

It is the mission of the Bureau of Reclamation to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public and the mission of the Dakotas Area Office to provide technical assistance and leadership in the responsible development and management of water and related resources to enhance the quality of life in North Dakota and South Dakota.

DK-700-02-01

United States Department of the Interior

BUREAU OF RECLAMATION
Dakotas Area Office
P.O. Box 1017
Bismarck, North Dakota 58502

IN REPLY REFER TO:
DK-600R (Streier)
ENV-6.00

JUN - 3 2002

RECEIVED
JUN 14 2002
WATER RIGHTS
PROGRAM

Subject: Notification of the Completion of a Draft Environmental Assessment for the Lewis and Clark Rural Water Supply Project in South Dakota, Iowa, and Minnesota

Dear Interested Party:

The Bureau of Reclamation, Dakotas Area Office has prepared a draft Environmental Assessment (EA) for the Lewis and Clark Rural Water Supply Project. As the lead federal agency, Reclamation is responsible for ensuring compliance with environmental and cultural resource laws. The enclosed EA is also intended to satisfy requirements of Section 106 of the National Historic Preservation Act as specified in 36 CFR Part 800.8 (1)(i).

The proposed action is to construct a groundwater collector system, water supply pipelines, associated pump stations, a treatment plant, and storage facilities. The project would be constructed in southeastern South Dakota, southwestern Minnesota, and northwestern Iowa. The proposed pipeline would run from near the Missouri River in southeastern South Dakota to connection points throughout the project area. This draft EA evaluates the potential impacts to the human and natural environment associated with the proposed action and a no-action alternative.

Reclamation will use this draft EA and any review comments to determine whether the project will have any significant impacts on the human and natural environment. If no significant issues are identified, Reclamation will issue a final EA and a Finding of No Significant Impacts. If any significant issues are identified, we will proceed in the preparation of an Environmental Impact Statement.

We would appreciate your review and comments on the draft EA. The review period will be open until July 18, 2002. Comments may be submitted in writing to Faye Streier, Rapid City Field Office, 515 9th Street, Room 101, Rapid City, South Dakota 57701, (605) 394-9757

extension 3005. Please retain this copy of the draft EA because changes or additions may be incorporated as an addendum rather than redistributing the entire document.

Sincerely,

Dennis E. Breitzman
Area Manager

Enclosure

cc: Ms. Pam Bonrud
Executive Director
Lewis and Clark Rural Water System
401 E. 8th Street - Suite 306
Sioux Falls, SD 57103
(w/encl)

Mr. Dave Odens
Project Manager
Banner Associates, Inc.
P.O. Box 298
Brookings, SD 57006
(w/encl)

Mr. Peter J. Guernsey
Project Manager
TRC Mariah
605 Skyline Drive
Laramie, WY 82070
(w/o encl)

DRAFT ENVIRONMENTAL ASSESSMENT, LEWIS AND CLARK WATER SUPPLY PROJECT, SOUTH DAKOTA, MINNESOTA, AND IOWA

Prepared for

Bureau of Reclamation
Dakotas Area Office
Bismarck, North Dakota
Rapid City, South Dakota

By

TRC Mariah Associates Inc.
Laramie, Wyoming
MAI Project 27487

June 2002

TABLE OF CONTENTS

Page

LIST OF ACRONYMS ix

1.0 INTRODUCTION 1
1.1 FEDERAL ACTION 5
1.2 PURPOSE AND NEED 6
1.3 CONFORMANCE AND AUTHORIZING ACTIONS 9
1.4 RELATED PROJECTS AND PREVIOUS REPORTS 9
1.5 LAND AND RESOURCE MANAGEMENT ISSUES/SCOPING SUMMARY 11

2.0 PROPOSED ACTION AND ALTERNATIVES 15
2.1 NO ACTION 17
2.2 PROPOSED ACTION 17
2.2.1 Construction 27
2.2.2 Project-wide Environmental Commitments and Mitigation Measures 35
2.2.3 Operation and Maintenance 43
2.2.4 Work Force 44
2.2.5 Traffic 44
2.3 ALTERNATIVES CONSIDERED BUT REJECTED 44
2.4 SUMMARY OF ENVIRONMENTAL IMPACTS 45

3.0 AFFECTED ENVIRONMENT 51
3.1 PHYSICAL RESOURCES 52
3.1.1 Climate 52
3.1.2 Topography/Physiography 52
3.1.3 Geology 54
3.1.3.1 Mineral Resources 55
3.1.3.2 Geologic Hazards 55
3.1.3.3 Paleontological Resources 56
3.1.4 Soils 56
3.1.4.1 Prime Farmland Soils 58
3.1.4.2 Wetland Soils 58
3.1.5 Water Resources 58
3.1.5.1 Surface Water 58
3.1.5.2 Ground Water 65
3.1.6 Air Quality 67
3.1.7 Noise 68
3.2 BIOLOGICAL RESOURCES 69
3.2.1 Vegetation 69
3.2.2 Wildlife and Fisheries 72

TABLE OF CONTENTS (CONTINUED)

Page

3.2.2.1 Big Game, Upland Game, and Furbearing Species 72
3.2.2.2 Waterfowl 75
3.2.2.3 Raptors and Other Birds 75
3.2.2.4 Fisheries 76
3.2.3 Threatened and Endangered (T&E), and State-Listed Species 76
3.2.3.1 Bald Eagle 78
3.2.3.2 Least Tern 78
3.2.3.3 Piping Plover 80
3.2.3.4 Pallid Sturgeon 80
3.2.3.5 Topeka Shiner 81
3.2.3.6 American Burying Beetle 82
3.2.3.7 Scaleshell Mussel 83
3.2.3.8 Western Prairie Fringed Orchid 84
3.2.3.9 Prairie Bush-clover 85
3.2.3.10 State-listed Species 85
3.3 WILD AND SCENIC RIVERS 86
3.4 CULTURAL/HISTORIC RESOURCES 86
3.4.1 Literature Search 92
3.4.2 Indian Trust Assets 92
3.4.3 Traditional Cultural Properties/Native American Sacred Sites 93
3.5 SOCIOECONOMICS 93
3.5.1 Demography 93
3.5.2 Industry 96
3.5.2.1 Iowa 96
3.5.2.2 Minnesota 99
3.5.2.3 South Dakota 99
3.6 LAND USE 101
3.6.1 Agriculture 102
3.6.2 Mining 102
3.6.3 Recreation Facilities and Wildlife Production Areas 102
3.6.4 Road Systems 103
3.6.5 Utilities 103
3.7 VISUAL RESOURCES 104
3.8 ENVIRONMENTAL JUSTICE 104

4.0 ENVIRONMENTAL CONSEQUENCES, MITIGATION MEASURES, AND CUMULATIVE IMPACTS 105
4.1 PHYSICAL RESOURCES 106
4.1.1 Topography/Physiography 106
4.1.1.1 Impact Evaluation Criteria 106
4.1.1.2 The No Action Alternative 106

TABLE OF CONTENTS (CONTINUED)

Page

4.1.1.3 The Proposed Action 106
4.1.1.4 Mitigation 107
4.1.1.5 Cumulative Impacts 107
4.1.2 Geology (Geologic Hazards, Mineral Resources, and Paleontological Resources) 107
4.1.2.1 Impact Evaluation Criteria 107
4.1.2.2 The No Action Alternative 107
4.1.2.3 The Proposed Action 109
4.1.2.4 Mitigation 109
4.1.2.5 Cumulative Impacts 110
4.1.3 Soils (Steep Slopes, Prime Farmland, Wetland Soils) 110
4.1.3.1 Impact Evaluation Criteria 110
4.1.3.2 The No Action Alternative 110
4.1.3.3 The Proposed Action 110
4.1.3.4 Mitigation 111
4.1.3.5 Cumulative Impacts 112
4.1.4 Surface Water 112
4.1.4.1 Impact Evaluation Criteria 112
4.1.4.2 No Action Alternative 112
4.1.4.3 Proposed Action 113
4.1.4.4 Mitigation 114
4.1.4.5 Cumulative Impacts 114
4.1.5 Ground Water 115
4.1.5.1 Impact Evaluation Criteria 115
4.1.5.2 No Action Alternative 115
4.1.5.3 The Proposed Action 115
4.1.5.4 Mitigation 116
4.1.5.5 Cumulative Impacts 117
4.1.6 Air Quality 117
4.1.6.1 Impact Evaluation Criteria 117
4.1.6.2 No Action Alternative 117
4.1.6.3 The Proposed Action 117
4.1.6.4 Mitigation 118
4.1.6.5 Cumulative Impacts 118
4.1.7 Noise 118
4.1.7.1 Impact Evaluation Criteria 118
4.1.7.2 No Action Alternative 118
4.1.7.3 The Proposed Action 119
4.1.7.4 Mitigation 119
4.1.7.5 Cumulative Impacts 119

TABLE OF CONTENTS (CONTINUED)

Page

4.2 BIOLOGICAL RESOURCES 120
4.2.1 Vegetation 120
4.2.1.1 Impact Evaluation Criteria 120
4.2.1.2 No Action Alternative 120
4.2.1.3 The Proposed Action 120
4.2.1.4 Mitigation 122
4.2.1.5 Cumulative Impacts 122
4.2.2 Wildlife and Fisheries 123
4.2.2.1 Impact Evaluation Criteria 123
4.2.2.2 No Action Alternative 123
4.2.2.3 The Proposed Action 123
4.2.2.4 Mitigation 124
4.2.2.5 Cumulative Impacts 124
4.2.3 Threatened and Endangered (T&E), and State-Listed Species 125
4.2.3.1 Impact Evaluation Criteria 125
4.2.3.2 No Action Alternative 125
4.2.3.3 The Proposed Action 125
4.2.3.4 Mitigation 126
4.2.3.5 Cumulative Impacts 129
4.3 WILD AND SCENIC RIVERS 129
4.3.1 Impact Evaluation Criteria 129
4.3.2 No Action Alternative 129
4.3.3 The Proposed Action 130
4.3.4 Mitigation 131
4.3.5 Cumulative Impacts 131
4.4 CULTURAL/HISTORIC RESOURCES 131
4.4.1 Impact Evaluation Criteria 131
4.4.2 No Action Alternative 131
4.4.3 The Proposed Action 132
4.4.4 Mitigation 133
4.4.5 Cumulative Impacts 134
4.5 SOCIOECONOMICS 134
4.5.1 Impact Evaluation Criteria 134
4.5.2 The No Action Alternative 134
4.5.3 Proposed Action 135
4.5.4 Mitigation 137
4.5.5 Cumulative Impacts 138
4.6 LAND USE 138
4.6.1 Impact Evaluation Criteria 138
4.6.2 No Action Alternative 139
4.6.3 The Proposed Action 139

TABLE OF CONTENTS (CONTINUED)

Page

4.6.4 Mitigation 140
4.6.5 Cumulative Impacts 140
4.7 VISUAL RESOURCES 140
4.7.1 Impact Evaluation Criteria 140
4.7.2 No Action Alternative 140
4.7.3 The Proposed Action 141
4.7.4 Mitigation 141
4.7.5 Cumulative Impacts 142

5.0 RECORD OF PERSONS, GROUPS, AND GOVERNMENTAL AGENCIES CONTACTED 143

6.0 LITERATURE CITED 151

APPENDIX A: INTERAGENCY ENVIRONMENTAL REVIEW TEAM GUIDELINES

APPENDIX B: MAJOR FEDERAL, STATE, AND LOCAL PERMITS, APPROVALS, AND AUTHORIZING ACTIONS

APPENDIX C: SCOPING NOTICE

APPENDIX D: STATE-LISTED THREATENED AND ENDANGERED SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT AREA

APPENDIX E: DRAFT CULTURAL RESOURCES PROGRAMMATIC AGREEMENT

APPENDIX F: KNOWN CULTURAL RESOURCE SITES

LIST OF MAPS

Page

Map 1.1 General Location, Lewis and Clark Water Supply Project, 2002 2

Map 1.2 Project Region, Lewis and Clark Water Supply Project, 2002 3

LIST OF MAPS (CONTINUED)

		Page
Map 1.3	Pipeline Routes and Connection Points, Lewis and Clark Water Supply Project, 2002	4
Map 2.1	Proposed Facility Site Locations, Lewis and Clark Water Supply Project, 2002	18
Map 2.2	Well Field Area Near Vermillion, South Dakota, Lewis and Clark Water Supply Project, 2002	20
Map 2.3	Test Drill and Aquifer Testing Program Near Vermillion South Dakota, Lewis and Clark Water Supply Project, 2002	21
Map 2.4	Tentative Project Construction Phases, Lewis and Clark Water Supply Project, 2002	28
Map 3.1	Major Physiographic Features of the Project Region, Lewis and Clark Water Supply Project, 2002	53
Map 3.2	Major Surface Water Resources, Lewis and Clark Water Supply Project, 2002	60
Map 3.3	Surficial Aquifers of the Project Region, Lewis and Clark Water Supply Project, 2002	66
Map 3.4	Approximate Original Areas of the Major Natural Vegetation Types of the Lewis and Clark Water Supply Project Area, 2002	70

LIST OF TABLES

		Page
Table 1.1	Projected Water Demand Summary, Lewis and Clark Water Supply Project, 2002	5
Table 1.2	Lewis and Clark Rural Water System Member Entities, 2002	7
Table 2.1	Surface Disturbance Summary, Lewis and Clark Water Supply Project, 2002	16

LIST OF TABLES (CONTINUED)

		Page
Table 2.2	Major Drainageway Crossings, Lewis and Clark Water Supply Project, 2002	31
Table 2.3	Summary of Potential Impacts and Associated Mitigation Measures	46
Table 3.1	Surface Water Quality for Selected Rivers, Creeks, and Lakes in or Immediately Adjacent to the Lewis and Clark Water Supply Project Area, 2002	62
Table 3.2	Representative Regional Pollutant Concentrations (Sioux Falls Area), and National Ambient Air Quality Standards, Lewis and Clark Water Supply Project, 2002	68
Table 3.3	Noxious Weeds by State, Lewis and Clark Rural Water Supply Project, 2002	73
Table 3.4	Federal Threatened and Endangered Species and Their Potential Occurrence and Habitat, Lewis and Clark Water Supply Project, 2002	77
Table 3.5	Drainageways Known to or with a High Potential to Support Topeka Shiner in the Vicinity of the Lewis and Clark Water Supply Project, 2002	82
Table 3.6	County Socioeconomic Data, Lewis and Clark Water Supply Project, 2002	94
Table 3.7	Employment by Earnings and Industry, Lewis and Clark Water Supply Project, 2002	97
Table 4.1	Maximum Number of Wetland Crossings and Disturbance Area Acreages by State, Lewis and Clark Water Supply Project, 2002	108
Table 4.3	Summary of Potential Impacts and Mitigation Measures to T&E Species	127
Table 4.4	Potential Socioeconomic Impacts, Lewis and Clark Water Supply Project, 2002	133
Table 5.1	Record of Persons, Groups, and Governmental Agencies Contacted	141
Table 5.2	List of Preparers	147

LIST OF FIGURES

		Page
Figure 2.1	Example Radial Collector Well, Lewis and Clark Water Supply Project, 2002	22
Figure 2.2	Example Vertical Well, Lewis and Clark Water Supply Project, 2002	23
Figure 2.3	Example Angled Well, Lewis and Clark Water Supply Project, 2002	24
Figure 2.4	General Pipeline Construction Sequence, Lewis and Clark Water Supply Project, 2002	29
Figure 2.5	Example Trenched Drainage Crossing Methods, Lewis and Clark Water Supply Project, 2002	32

LIST OF ACRONYMS

APE	Area of potential effect
APLIC	Avian Power Line Interaction Committee
ARSD	Administrative Rules of South Dakota
B.P.	Before present
BA	Biological assessment
Banner	Banner Associates, Inc.
C.F.R.	*Code of Federal Regulations*
cfs	Cubic feet per second
CEC	Categorical Exclusion Checklist
CEQ	Council of Environmental Quality
CO	Carbon monoxide
COE	Corps of Engineers
CWA	*Clean Water Act*
dBA	A-weighted decibel
DOT	U.S. Department of Transportation
EA	Environmental assessment
EIS	Environmental impact statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	*Endangered Species Act*
FLPMA	*Federal Land Policy and Management Act of 1976*
FONSI	Finding of No Significant Impact
gpm	gallons per minute
HDR	HDR Engineering
I-29	Interstate 29
I-90	Interstate 90
IAC	Iowa Administrative Code
IDNR	Iowa Department of Natural Resources
IERT	Interagency Environmental Review Team
ISU	Iowa State University
ITA	Indian trust assets
LCC	Layne Christensen Company
LOP	Life-of-Project
Mariah	Mariah Associates, Inc.
MDNR	Minnesota Department of Natural Resources
MGD	Million gallons per day

LIST OF ACRONYMS (CONTINUED)

NAAQS	National Ambient Air Quality Standards
NEPA	*National Environmental Policy Act of 1969*, as amended
NHPA	*National Historic Preservation Act*
NNL	National Natural Landmarks
NO_2	Nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
O_3	Ozone
ORV	Outstanding Remarkable Value
P.L.	Public Law
Pb	Lead
PM_{10}	Particulate matter less than 10 microns
Project	Lewis and Clark Water Supply Project
PSD	Prevention of significant deterioration
PVC	Polyvinyl chloride
Reclamation	U.S. Bureau of Reclamation
ROW	Right-of-way
SCS	Soil Conservation Service
SDCL	South Dakota Codified Law
SDDENR	South Dakota Department of Environmental and Natural Resources
SDDGFP	South Dakota Department of Game, Fish, and Parks
SDNHP	South Dakota Natural Heritage Program
SDWA	*Safe Drinking Water Act*
SHPO	State Historic Preservation Office
SMN	State of Minnesota
SO_2	Sulfur dioxide
System	Lewis and Clark Rural Water System, Inc.
T&E	Threatened and endangered
TDS	Total dissolved solids
TRC Mariah	TRC Mariah Associates Inc.
U.S.C.	*United States Code*
USDI	U.S. Department of Interior
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

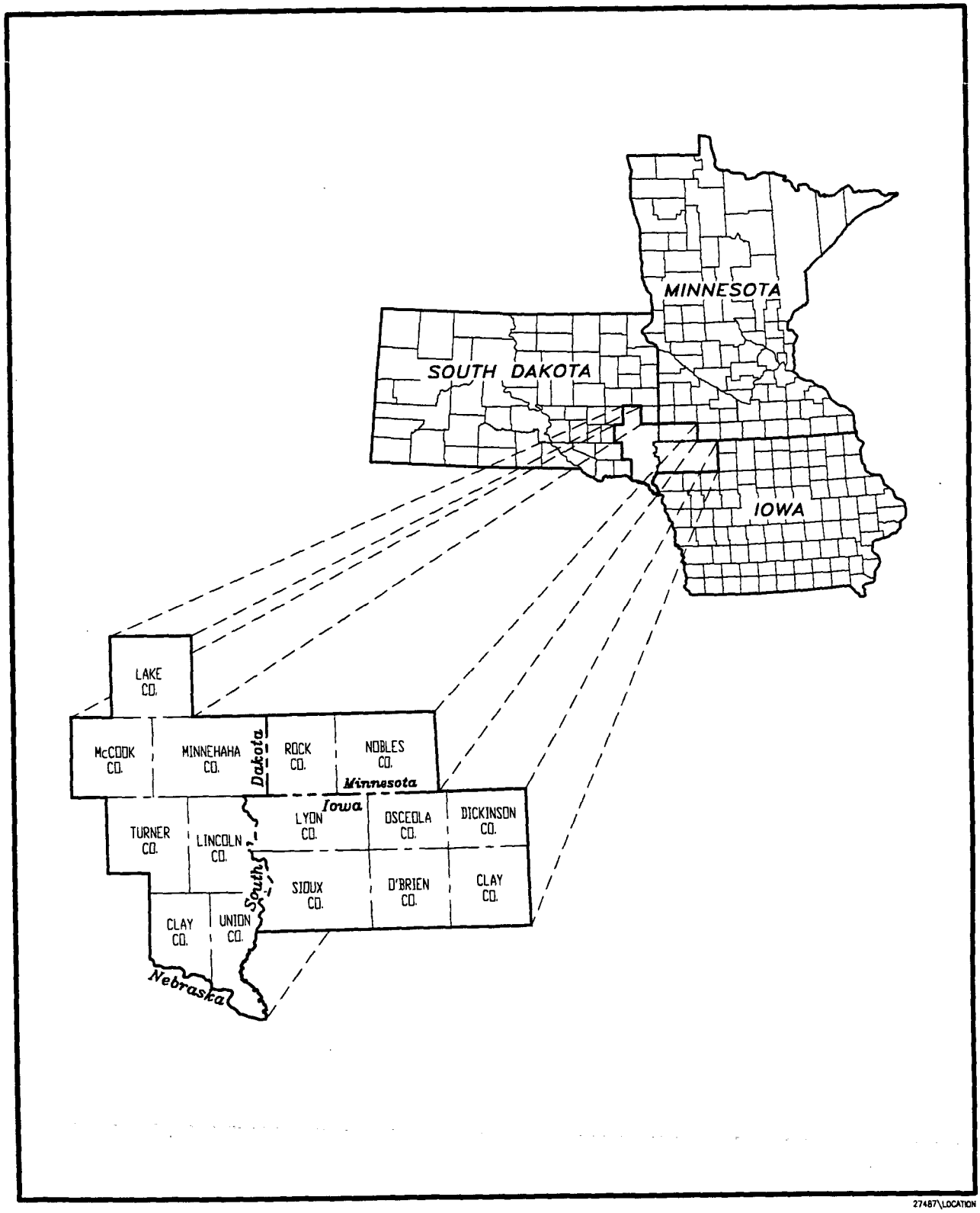
1.0 INTRODUCTION

Lewis and Clark Rural Water System, Inc. (System), a nonprofit corporation composed of 22 municipalities and rural water systems, proposes to construct a water supply pipeline and associated well field, pump stations, treatment plant, and storage reservoirs throughout southeastern South Dakota, southwestern Minnesota, and northwestern Iowa. Maps 1.1 and 1.2 show the general location of the proposed Lewis and Clark Water Supply Project (Project). The U.S. Bureau of Reclamation (Reclamation) is the lead federal agency for funding portions of Project construction and is responsible for Project regulatory oversight and for ensuring compliance with environmental and other related laws.

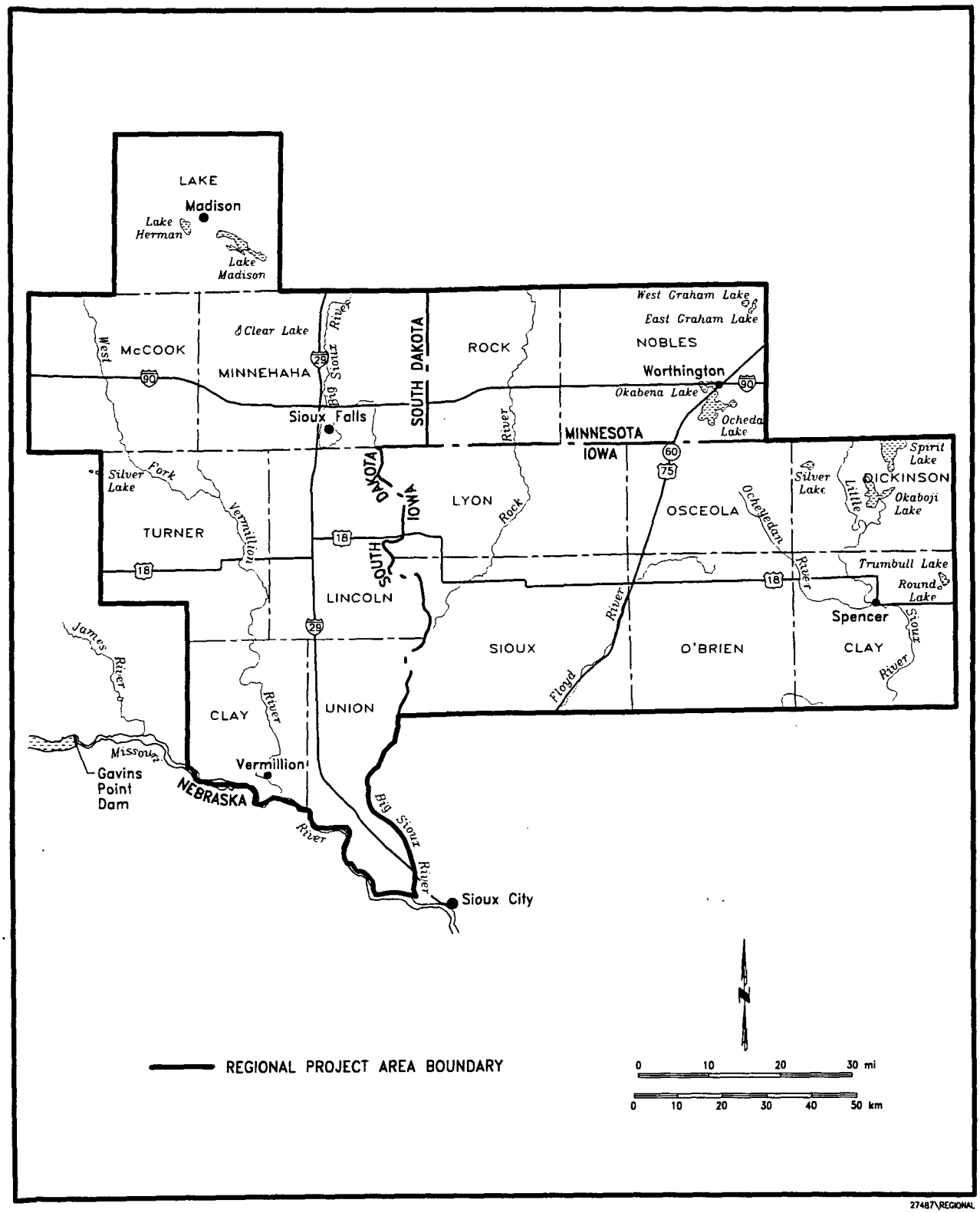
The Project pipeline would run from a newly developed well field beside the Missouri River in southeastern South Dakota to various existing water system connection points located throughout the region and is a modification of the system proposed in 1993 (Banner Associates, Inc. [Banner] et al. 1993). The pipeline system would be approximately 400 miles in length (Map 1.3). Pipeline diameters would range from approximately 6 to 54 inches. Average flow within the system is expected to be approximately 22 to 23 million gallons per day (MGD) (Table 1.1); whereas maximum flow would be approximately 29 to 32 MGD.

The System was organized in 1989. In 1990, a needs assessment study was initiated, and a Project feasibility study (Banner et al. 1991, 1993) and an environmental report (Mariah Associates Inc. [Mariah] 1993a) were completed. Federal authorization and funding efforts began in the early 1990s, and the Project was authorized by Congress in 2000. Public Law 106-246 authorized expenditures in the form of a federal grant for Project planning and construction. Approximately 78% of Project planning and construction costs would be funded by a federal grant under Public Law 106-246. The remaining costs necessary to complete construction would be provided by local and state Project sponsors.

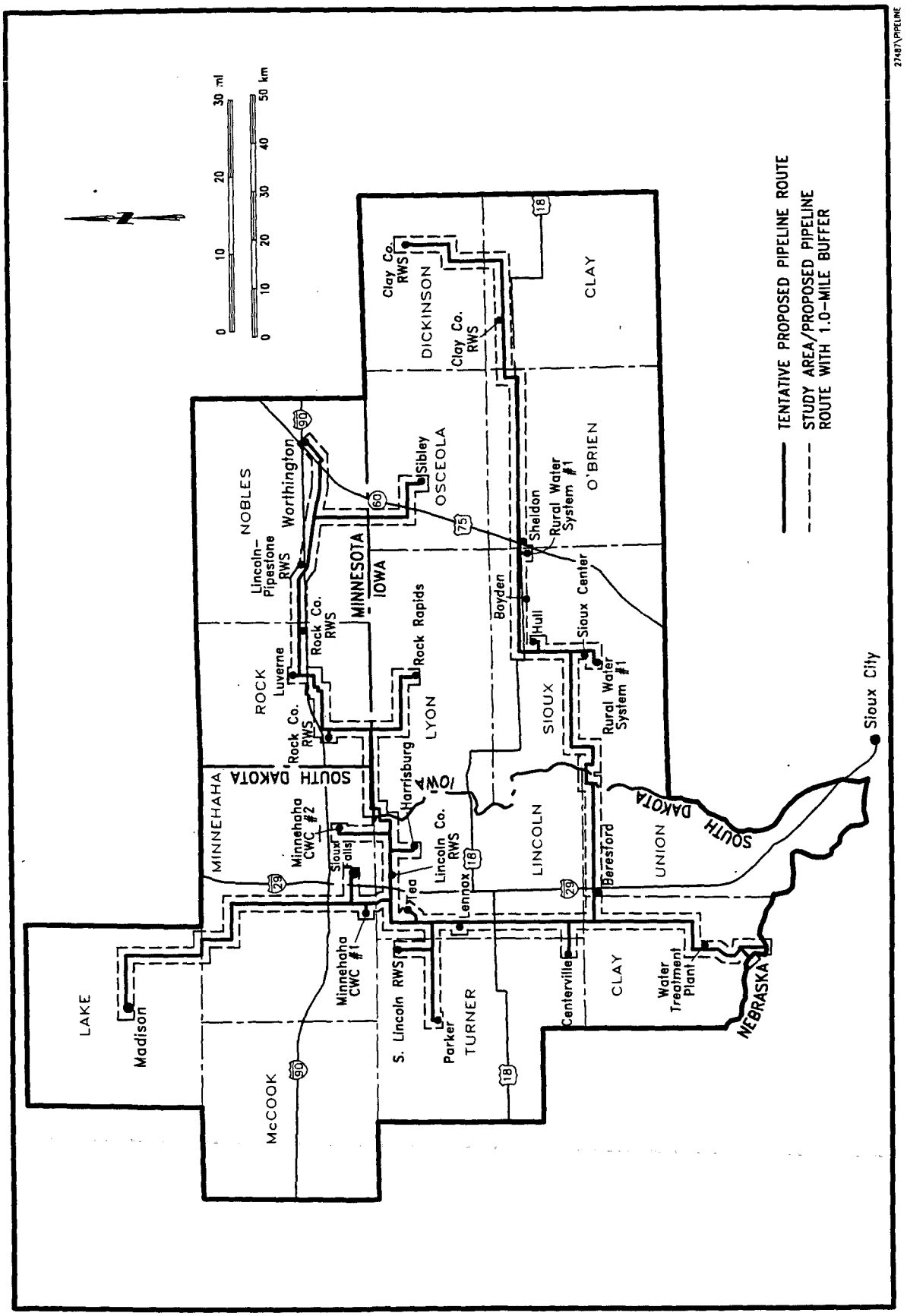
The Project would provide a high-quality, reliable domestic water supply to residents of 14 counties in southeastern South Dakota, northwestern Iowa, and southwestern Minnesota. The



Map 1.1 General Location, Lewis and Clark Water Supply Project, 2002.



Map 1.2 Project Region, Lewis and Clark Water Supply Project, 2002.



Map 1.3 Pipeline Routes and Connection Points, Lewis and Clark Water Supply Project, 2002.

Table 1.1 Projected Water Demand Summary, Lewis and Clark Water Supply Project, 2002.

State	Total Affected County Population (2000)[1]	Projected County Population (2025)[2]	Projected Average Project Water Demand (MGD)[3] (2030)
South Dakota	224,490	257,584	14.8-15.5
Iowa	99,253	103,109	3.4-3.5
Minnesota	30,553	32,810	3.8-4.0
Total	354,296	393,466	22.0-23.0

[1] Adapted from U.S. Bureau of the Census (2001a).
[2] County information derived from state projections (U.S. Bureau of the Census 2001b). Growth rates for all affected counties assumed to be the same as for their respective states: Iowa growth rate = 1.039; Minnesota growth rate = 1.074; South Dakota growth rate = 1.147. See Table 3.6 for detailed county projections.
[3] MGD = million gallons per day.

counties proposed for Project construction include (in South Dakota) Lake, Minnehaha, Turner, Lincoln, Clay, and Union; (in Iowa) Lyon, Osceola, Dickinson, Sioux, O'Brien, and Clay; and (in Minnesota) Rock and Nobles (see Maps 1.1 and 1.2).

Most lands along the proposed route are used for agriculture, transportation (state, county, and local roads), utilities (pipelines, power lines, telecommunications cables), wildlife habitat, and recreation.

1.1 FEDERAL ACTION

The proposed federal action is to provide Project funding and construction oversight of water supply pipelines and associated well field and other facility construction.

In compliance with the *National Environmental Policy Act of 1969*, as amended (NEPA) and the Council of Environmental Quality (CEQ) regulations for implementing NEPA, Reclamation has determined that an environmental assessment (EA) is required to evaluate the proposed

Project. The purpose of the EA is to identify impacts associated with Project alternatives and allow the responsible federal official to determine whether the Project would have any significant impacts on the human and natural environment. If no significant impacts are identified, Reclamation will issue a final EA and a Finding of No Significant Impact (FONSI). If any significant impacts are identified, Reclamation would proceed with the preparation of an environmental impact statement (EIS). This EA also is intended to be used for scoping/consultation with Native American Tribes and other interested parties in partial fulfillment of the *National Historic Preservation Act* (NHPA) requirements using the consultation and compliance processes described in 36 *Code of Federal Regulations* (C.F.R.) 800.8 - Coordination with the NEPA.

This EA is intended to be programmatic since various Project components (e.g., final pipeline alignments, facility locations) may be modified during the estimated 10 to 15 years required to complete Project construction. Comprehensive site-specific inventories would be conducted annually during Project construction (see Appendix A) to minimize the potential for adverse environmental effects. These multi-agency site-specific inventories would be conducted to assess the reclamation status of past construction actions, to identify appropriate remedial actions where problems may be found, and to develop appropriate location and design criteria for upcoming Project construction actions.

1.2 PURPOSE AND NEED

The Project would provide adequate supplies of good-quality drinking water to areas where current water supplies are insufficient, are at risk of contamination, or are of inferior quality. Project water would supplement or replace water used in existing water systems. The alluvial aquifers of the Missouri River south of Vermillion, South Dakota, would serve as the raw water source, and the Project would furnish water via pipelines connected to currently operational water supply systems to serve the current and projected needs of the System's current 22 member entities (water user groups) (Table 1.2). The pipeline system allows for projected increases in

Table 1.2 Lewis and Clark Rural Water System Member Entities, 2002.

State	Water User Group	
South Dakota	Beresford	Centerville
	Harrisburg	Lennox
	Lincoln County RWS[1]	Madison
	Minnehaha CWC[2]	Parker
	Sioux Falls	South Lincoln RWS[1]
	Tea	
Iowa	Boyden	Clay Regional RWS[1]
	Hull	Sheldon
	Sibley	Sioux Center
	Rural Water No. 1	Rock Rapids[3]
Minnesota	Lincoln-Pipestone County RWS[1]	Luverne
	Rock County RWS[1]	Worthington

[1] RWS = Rural Water System.
[2] CWC = Community Water Corporation.
[3] Rock Rapids is currently negotiating to become a System member.

the consumptive water demands of its users until the year 2030, thus allowing area residents and businesses to maintain existing conditions (quality of life) while sustaining anticipated regional population growth.

The Project has been designed to address concerns expressed by local residents regarding the low quality, vulnerability, and insufficient supply of water throughout the area. Water quantity problems are presently experienced by at least 12 of the 22 System member entities (Banner et al. 1993); however, as regional population increases, water quantity concerns will likely become more prevalent. Many member entities already impose water use restrictions on their customers during the hotter and drier months of the year when water demands can exceed current supply capacities. At the present time, member entities obtaining water from the Sioux Falls Management Unit portion of the Big Sioux River and its aquifer system (e.g., Sioux Falls) cannot develop further capacity since water rights in this aquifer system are fully appropriated; projections by the City of Sioux Falls show that water needs will exceed available supplies by

2012. Furthermore, the City of Worthington acquires its water from the Lake Bella well field, and on average, Worthington withdrawals exceed recharge in 3 out of 10 years.

Implementation of restrictions and guidelines proposed in the U.S. Environmental Protection Agency (EPA) *Safe Drinking Water Act* (SDWA) are making water quality issues increasingly important to rural water system operators and users. Banner et al. (1993) identified water quality problems among member entities that include:

- iron concentrations above SDWA-recommended limits (0.3 mg/l);
- managanese concentrations above SDWA-recommended limits (0.05 mg/l);
- sulfate concentrations above SDWA-suggested limits (500 mg/l);
- total dissolved solids (TDS) concentrations above SDWA-recommended limits (1,000 mg/l);
- nitrate concentrations that exceed 1 mg/l, indicating potential future nitrate contamination problems; and
- radon concentrations exceeding 300 picocuries/l.

Member entities whose water supplies do not presently meet one or more of the primary or secondary SDWA potable water standards may use the water provided by the Project as their primary water source or may blend their current water supply with Project water to achieve compliance. Those users currently having acceptable water quality would utilize the newly supplied water to supplement their existing systems. Further details on SDWA standards, the current water quality of System member entities, and Missouri River alluvial aquifer water quality are presented in Banner et al. (1993).

Many System member entities utilize shallow aquifers for their present water supply (Banner et al. 1993), and these aquifers are becoming increasingly vulnerable to contamination. Contamination sources include nitrates from fertilizers and animal waste, herbicides and pesticides, septic systems, and fuel spills. While water quality from Missouri River alluvium may vary over time due to seasonal water quality variations in the Missouri River, its susceptibility to extreme contamination is considerably lower than that of existing member

entity ground water supply systems since most existing ground water supply sources do not have a continuous recharge source like the Missouri River, which has a continuous flow, is relatively large in size, and has protective legislation barring the discharge of hazardous materials into its waters. The subsequent dilution of potential contaminants within Missouri River alluvial aquifer waters also reduces potential adverse contaminant concentrations.

Maintaining adequate quantities of good quality water for consumptive use is essential to area residents and businesses, and the Project would provide both current and future citizens of the region with just such a water source. Benefits to the region include an improved water supply (quantity and quality) for current residents and businesses, as well as for anticipated future residents and businesses based upon projected regional growth and development.

1.3 CONFORMANCE AND AUTHORIZING ACTIONS

The Project would comply with all relevant federal, state, and local laws and regulations. A listing of environmental statutes and authorizing actions (e.g., permitting requirements) relevant to this Project is provided in Appendix B.

1.4 RELATED PROJECTS AND PREVIOUS REPORTS

A feasibility study (Banner et al. 1993) and environmental report (Mariah 1993a) for this Project were prepared in 1993 to facilitate Project authorization and alternative selection/rejection. Additionally, a final engineering report, detailing final design criteria for the Project, is currently in preparation and is anticipated for completion in May 2002 (Banner et al. 2002).

The following provides a summary list of important documents used for Project authorization and design, alternative development, and environmental reviews. Relevant authorization, design, and alternative development documents include:

- *Feasibility Level Evaluation of a Missouri River Regional Water Supply for South Dakota, Iowa, and Minnesota* (Banner 1991);

- *Feasibility Level Evaluation of Missouri River Regional Water South Dakota, Iowa, and Minnesota* (Draft, July 1993) (Banner et al. 1993);
- *Phase I Hydrogeologic Investigation to Evaluate Ranney Collector Well Feasibility for Lewis and Clark Water Supply Project, Clay County, South Dakota* (Layne Christensen Company [LCC] 2001a);
- *Report of Site B Mulberry Point Hydrogeologic Investigations to Determine Water Supply Development Potential from Radial Collector Well for Lewis and Clark Rural Water Supply System, Clay County, South Dakota* (LCC 2001b);
- *Cooperative Agreement between the Department of the Interior - Bureau of Reclamation and Lewis and Clark Rural Water System, Inc. for Planning and Construction of the Lewis and Clark Rural Water System.* Agreement No. 01FC601519 (U.S. Department of the Interior [USDI], Bureau of Reclamation 2001); and
- *Final Engineering Report. Lewis and Clark Water Supply Project.* (Banner et al. 2002).

Relevant environmental analysis documents include:

- *NEPA Handbook* (Reclamation 1990);
- *Department Manual 516, Environmental Quality* (USDI 1990);
- *Biological Assessment: Southeast South Dakota Water Supply System in South Dakota* (Reclamation 1991);
- *Environmental Report, Lewis and Clark Rural Water Supply System* (Mariah 1993a);
- *Wetlands and Wildlife Enhancement for the Lewis and Clark Rural Water System* (Mariah 1993b);
- *Final Environmental Assessment and Section 4(f) Evaluation. South Dakota Project DP 0019(20)0 PCEMS 238H. Nebraska Project STPD-57-4(108). Missouri River Bridge Near Vermillion, Clay County, South Dakota. Cedar and Dixon Counties, Nebraska* (U.S. Department of Transportation [DOT] 1995);

- *Preliminary Section 7(a) Evaluation, Wild and Scenic Rivers Act, Proposed New Crossing of the Missouri National Recreational River, Vermillion-Newcastle Bridge. An evaluation of the impact of the proposed bridge on the valves for which the Missouri National Recreational River was included in the National Wild and Scenic Rivers System* (National Park Service 1999);
- *Final General Management Plan Environmental Impact Statement, Missouri National Recreational River, Cedar and Dixon County, Nebraska and Yankton, Clay, and Union Counties, Sough Dakota* (USDI et al. 1999);
- *National Environmental Policy Act Handbook. Public Review Draft.* (Reclamation 2000); and
- *Biological Assessment, Lewis and Clark Water Supply Project, South Dakota, Minnesota, and Iowa* (TRC Mariah Associates Inc. [TRC] 2002).

The aforementioned documents provide relevant Project design, resource, and environmental data and were used where relevant to the Proposed Action and No Action alternatives. Additionally, these and other documents are used, as appropriate, for cumulative impact analysis. Copies of these reports are available for review at Reclamation's Dakotas Area Office in Rapid City, South Dakota, and the System office in Sioux Falls, South Dakota.

1.5 LAND AND RESOURCE MANAGEMENT ISSUES/SCOPING SUMMARY

Pursuant to NEPA, Reclamation conducted internal and public scoping processes in May and June of 2001 to identify issues and concerns associated with the Project. A Scoping Notice (Appendix C) was provided to approximately 512 federal, state, and local government agencies/representatives, individuals, and environmental groups. In addition, the notice and a press release were issued to 52 regional media/news outlets, and 23 potentially affected Native American Tribes were contacted. Public scoping meetings were held during the period of May 14-18, 2001, in Vermillion and Sioux Falls, South Dakota; Sioux Center and Sheldon, Iowa; and Luverne, Minnesota.

The following issues specific to the Project were identified during scoping for this EA.

- **Project Design/Permitting:**
  - compatibility with existing regional land use/management plans and objectives;
  - acquisition of appropriate construction and operation permits and licenses (e.g., U.S. Army Corps of Engineers [COE] 404 permits, Minnesota Department of Natural Resources [MDNR] license for state protected water crossings);
  - road/highway right-of-way (ROW) easements;
  - proposed reconstruction of Iowa Highway 60;
  - existing and proposed system water quality;
  - suitability of water quality for consumption and discharge;
  - dependability of proposed water supply source; and
  - location of pipeline route to avoid the Vermillion/Clay County Landfill and the potential for clay acquisition for the landfill site.

- **Water Resources:**
  - promotion of water conservation;
  - transportation of water across drainage basins;
  - stream and wetland crossings;
  - Project design to avoid construction in and/or minimize adverse affects to 100-year floodplains and Project features constructed within floodplains (e.g., well field pump houses) should be flood-proofed to a level above the 100-year flood elevation;
  - avoidance of construction in floodways;
  - ground water impacts;
  - ground water protection;
  - maintenance of existing irrigation well function;
  - impacts to and protection of existing water drainage systems (e.g., waterways and surface and subsurface drains); and
  - Missouri River flow depletions.

- **Soils/Vegetation Resources:**
  - assurance that where pipelines must cross flood plains, lines are buried sufficiently below drainageway beds to prevent exposure from erosion during periods of high flow;
  - protection of prairie remnants/presence of rare plants;
  - agricultural lands (prime farmland issues);
  - restoration/revegetation;
  - noxious weeds; and
  - erosion control.

- **Fish and Wildlife Resources:**
  - fish and wildlife protection;
  - potential effects on federal threatened and endangered (T&E), state-listed, and other sensitive species; and
  - game production areas.

- **Cultural/Historic Resources:**
  - cultural and historic resources including responsibilities under the NHPA, Section 106;
  - Native American consultation; and
  - potential effects to Spirit Mound.

- **Aesthetics:**
  - noise levels and visual obstructions from Project features (e.g., booster pump stations, collector wells, treatment plant, storage facilities/reservoirs);
  - visual resource impacts/aesthetics at Spirit Mount, Missouri National Recreational River, Nebraska Highway 190 overlook;
  - Missouri National Recreational River/Wild and Scenic River;

- impacts to wild and scenic river values (i.e., recreation, fish and wildlife, and historic, archaeological, and cultural resources); and
- potential effects to National Natural Landmarks (NNLs) (i.e., Dewey Pasture, Smith Slough, and Cayler Prairie).

- **Other:**
  - socioeconomic effects;
  - health and safety issues;
  - reporting and material stockpiling and sampling to determine appropriate disposal requirements of pre-existing contaminated soils encountered during construction; and
  - cumulative impacts.

All identified issues regarding the Project were considered during preparation of this EA.

2.0 PROPOSED ACTION AND ALTERNATIVES

This section discusses the Proposed Action (i.e., the proposed Project) and No Action (i.e., the Project is not built) alternatives. Further detail on the Proposed Action alternative and alternative system designs considered but rejected is provided in Banner et al. (1993, 2002). The Proposed Action is the preferred alternative.

For the purpose of this discussion, the following areas potentially impacted by the Project have been defined:

- Project area (water service area) - the area defined by the outermost boundaries of counties in which a portion of the Project would be constructed (approximately 7,110 square miles [see Maps 1.1 and 1.2]);
- study area - an area with a 1-mile radius surrounding sites receiving direct Project impacts as shown on Map 1.3 for the Project (approximately 813 square miles); and
- impact area - the area which would receive direct surface disturbance impacts from Project construction and operation (approximately 7,700 acres [12.0 square miles] [Table 2.1]).

These areas will be referred to throughout this EA and will serve to clarify the areas which may be impacted by the Project. The majority of environmental impacts would occur within the impact area; however, some impacts (e.g., ground water, socioeconomics) would occur at locations more distant from the impact area but primarily within the Project area. The study area was developed to facilitate project planning such that minor locational changes to pipeline routes and facility site locations could be made to avoid important environmental resources within the study area without notably changing the assessment provided herein.

Table 2.1 Surface Disturbance Summary, Lewis and Clark Water Supply Project, 2002.

	Disturbance Acreage							
	South Dakota		Iowa		Minnesota		Total	
Project Feature	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term
Pipeline								
Large-diameter[1]	1,577	0	0	0	0	0	1,577	0
Medium-diameter[2]	1,029	0	876	0	754	0	2,659	0
Small-diameter[3]	1,194	0	1,086	0	238	0	2,518	0
Well Site[4]	32	7	0	0	0	0	32	7
Treatment Facility[5]	200	200	0	0	0	0	200	200
Pump Stations/ Reservoirs/Service Connectors[6]	11	11	11	11	7	7	29	29
Construction Staging Areas/Storage Yards[7]	360	0	220	0	100	0	680	0
Total	4,403	218	2,193	11	1,099	7	7,695	236

1 Conservatively assumes pipe diameters of >36 inches (42-54 inches) for approximately 63 miles, and a 200-foot construction disturbance width, and that all disturbed areas would be adequately reclaimed. Also includes a 5% increase in total pipeline length to accommodate avoidance of existing obstructions (e.g., houses, cemeteries, etc.).

2 Conservatively assumes pipe diameters of 18-36 inches for approximately 135 miles, and a 150-foot construction disturbance width, and that all disturbed areas would be adequately reclaimed. Also includes a 5% increase in total pipeline length to accommodate avoidance of existing obstructions (e.g., houses, cemeteries, etc.).

3 Conservatively assumes pipe diameters of <18 inches for approximately 200 miles, a 100-foot construction disturbance width, and that all disturbed areas would be adequately reclaimed. Also includes a 5% increase in total pipeline length to accommodate avoidance of existing obstructions (e.g., houses, cemeteries, etc.).

4 Includes all areas necessary for well field exploration, testing, and development in the short-term and only the area required for the well pump houses and access in the long-term.

5 Includes the maximum acreage anticipated for the entire fenced treatment plant site; actual ground surface disturbance will likely be less.

6 Pump stations, reservoirs, and service connections may occur together at some locations. Includes pump stations and reservoirs of various sizes/capacities (pump stations = 10.0 MGD to 0.25 MGD; reservoirs = 15 million gallons to 1 million gallons), and excludes stations and reservoirs to be located at the treatment facility.

7 The locations and sizes of staging areas and storage yards would be determined during pre-construction/construction phase planning. It is assumed that approximately 34 20-acre locations would be required and that no more than six locations would be used at any one time.

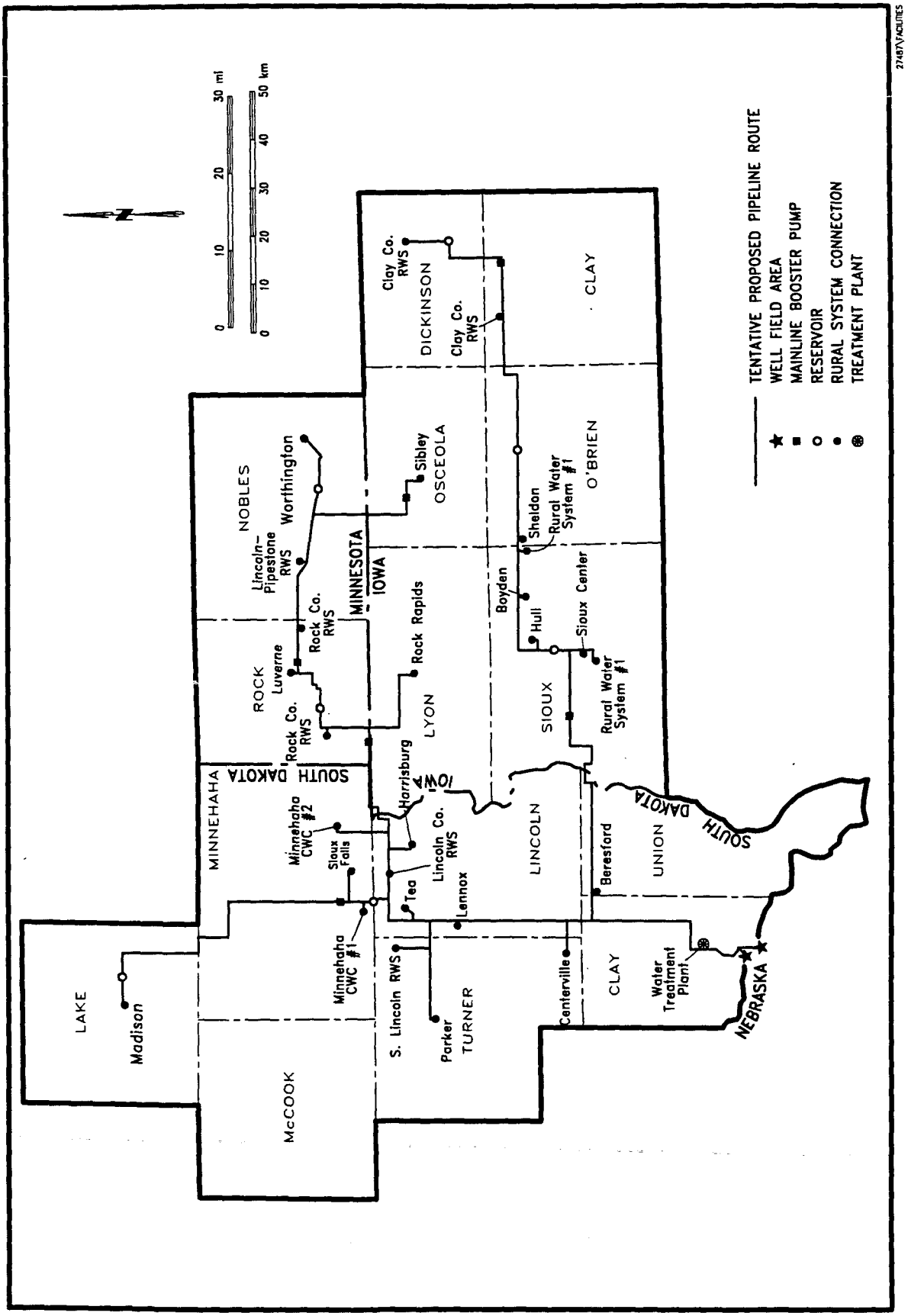
2.1 NO ACTION

Under the No Action alternative, the pipeline and associated facilities would not be constructed. System members would continue to utilize existing water sources and facilities, and would continue to experience water quality and quantity problems. The Project-proposed water conservation program would not be implemented under the No Action alternative.

2.2 PROPOSED ACTION

The Proposed Action is to construct, operate, and maintain a buried water transmission pipeline and associated water supply wells, treatment plant, water storage reservoirs, service connection facilities, and pumping facilities (Map 2.1). The proposed water treatment and pipeline transmission system would connect with various existing water user systems in southeastern South Dakota, southwestern Minnesota, and northwestern Iowa. The transmission pipeline would run from the Missouri River in southeastern South Dakota to connection points throughout the Project area. The pipeline system would be approximately 400 miles in length, and pipe diameters would range from 6 to 54 inches. Approximately 7,700 acres would be disturbed for pipeline construction, and all of this disturbance would be reclaimed for the long-term (Table 2.1).

Flows within the system would vary seasonally as a reflection of user demand, with an anticipated average demand of approximately 22 to 23 MGD (see Table 1.1). Maximum anticipated flows would be from 29 to 32 MGD. Upon completion of Project construction, annual flow rates likely would remain relatively constant over the 50-year or more life of the Project (LOP). The Project is designed to provide uniform water delivery over a 24-hr period to member entities; peak capacity would be the responsibility of individual members through additional supplies and/or storage.

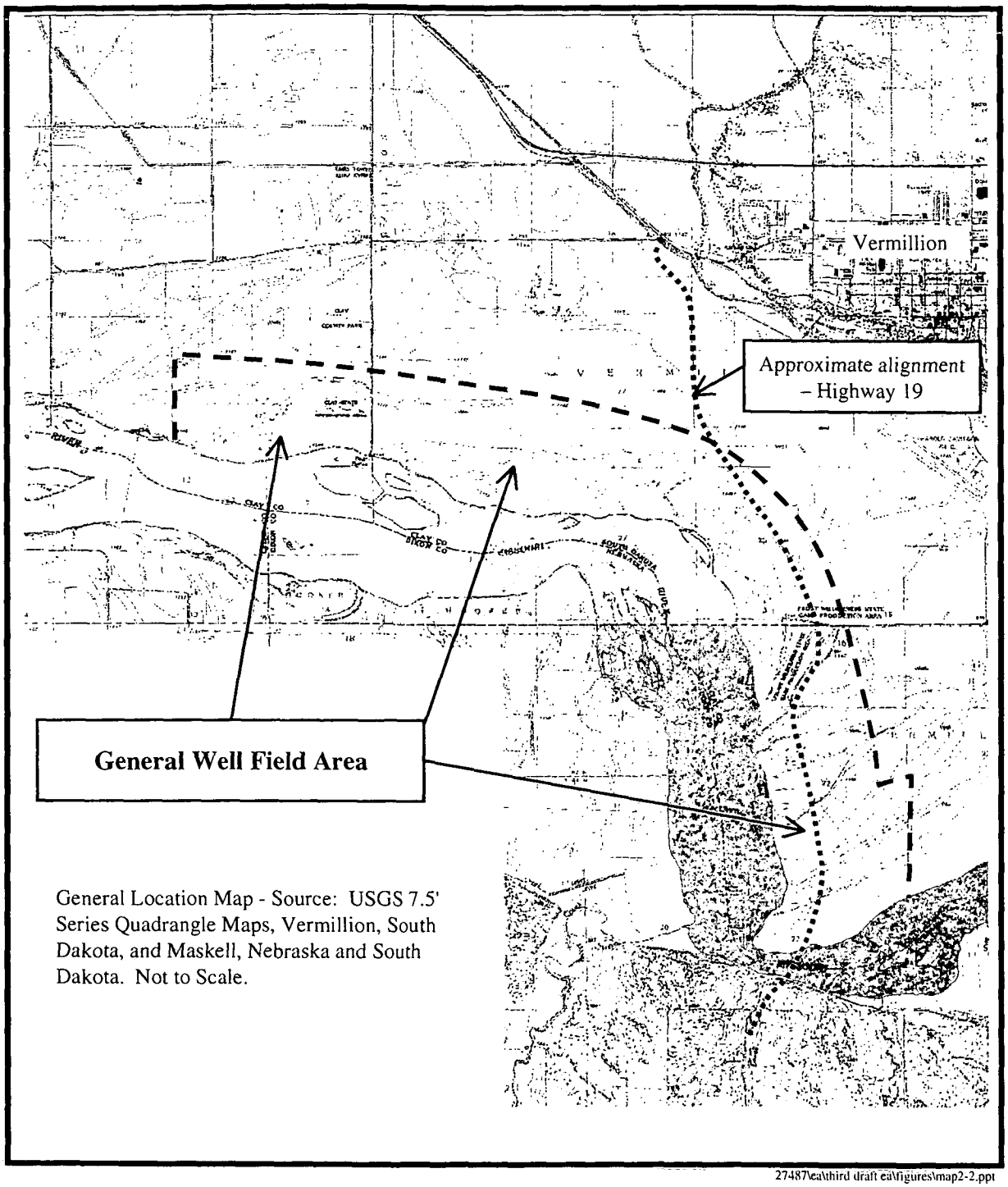


Map 2.1 Proposed Facility Site Locations, Lewis and Clark Water Supply Project, 2002.

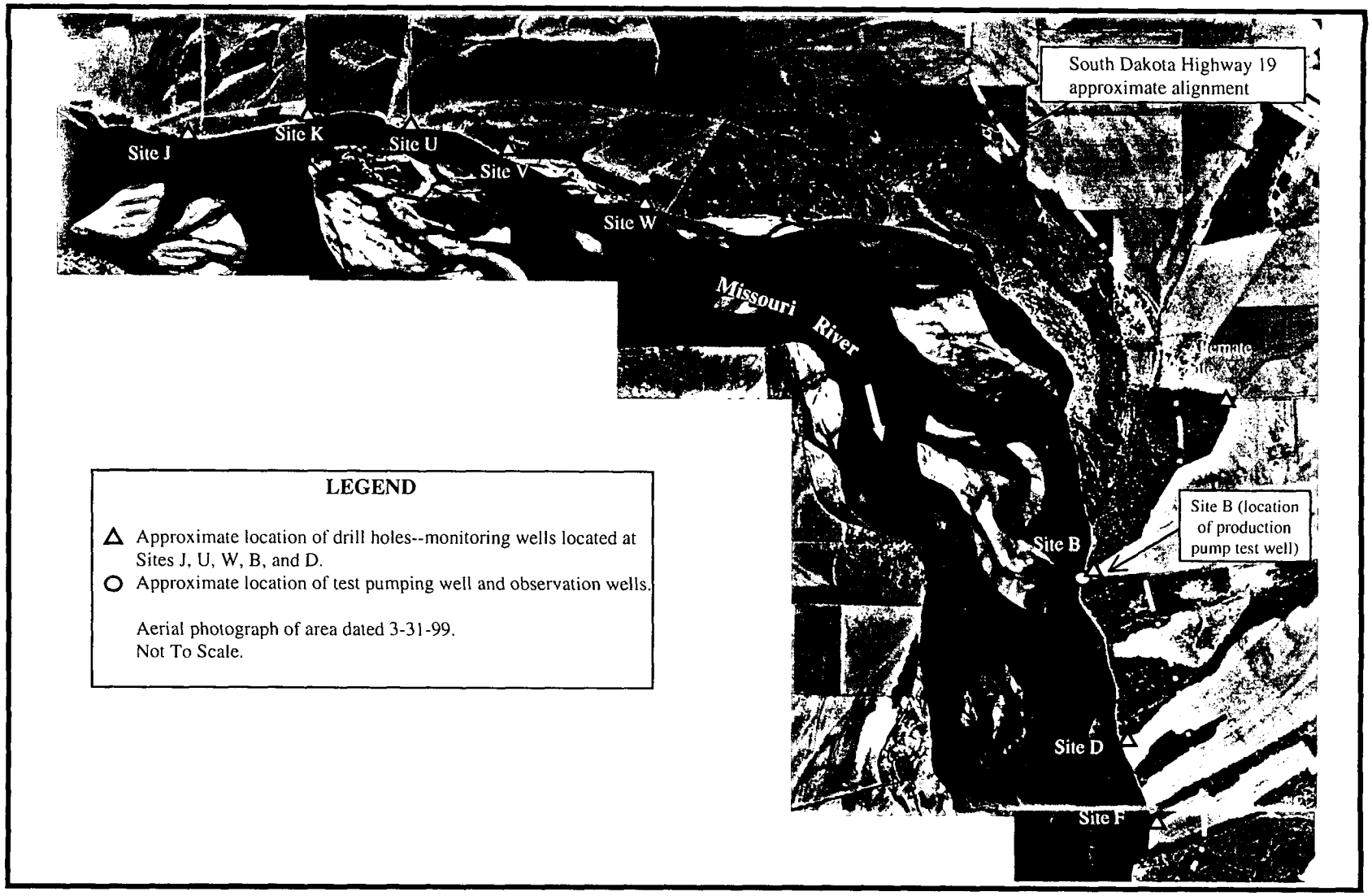
Water for the Project would be withdrawn from alluvial aquifers adjacent to the Missouri River (Maps 2.2 and 2.3) via radial collector, vertical, and/or angled wells along the river's northern bank (Figures 2.1, 2.2, and 2.3). The development of these ground water resources is currently proceeding. An exploratory drilling (aquifer testing) program to identify specific characteristics of the alluvial aquifers adjacent to the Missouri River south of Vermillion, South Dakota, has been completed, and sites with the greatest potential to provide a large-capacity ground water supply have been identified (LCC 2001a; Reclamation Categorical Exclusion Checklist [CEC] Number DK-700-01-04). Additionally, detailed aquifer testing has also been conducted to determine the hydraulic and water quality characteristics of the alluvial aquifer and potential drawdown levels (LCC 2001b; Reclamation CEC Number DK-700-01-28), and further hydrogeologic testing and evaluation will continue in 2002.

The intake facility would consist of multiple wells (Banner et al. 2002). Wells would be approximately 80 to 100 feet deep and be enclosed in pump houses. Pump houses would be bermed as necessary to limit visibility from the Missouri River. Wells would be protected from the impacts due to Missouri River bank erosion through the use of bank stabilization measures (e.g., sheet piling, riprap, revetment) as necessary. It is anticipated that at least one well would be located in the area currently protected from erosion by the bank stabilization activities associated with the construction of South Dakota Highway 19. Approximately 32 acres would be required to test and develop the well field, and an estimated 7 acres, including access roads, would be required for the LOP (Table 2.1).

A single water treatment facility, anticipated to be located northwest of Vermillion, South Dakota (see Map 2.1), would treat water for the entire system, and detailed information on this facility is provided in Banner et al. (2002). The water treatment process would likely consist of a conventional filtration system with lime/soda ash treatment or a membrane filtration system. Both potential treatment systems would provide appropriate disinfection and removal/reduction of turbidity, pathogens, hardness, total dissolved solids, iron, and manganese. The maximum area required for the water treatment facility during both construction and for the LOP would



Map 2.2 Well Field Area Near Vermillion, South Dakota, Lewis and Clark Water Supply Project, 2002.



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Map 2.3 Test Drill and Aquifer Testing Program Near Vermillion South Dakota, Lewis and Clark Water Supply Project, 2002.

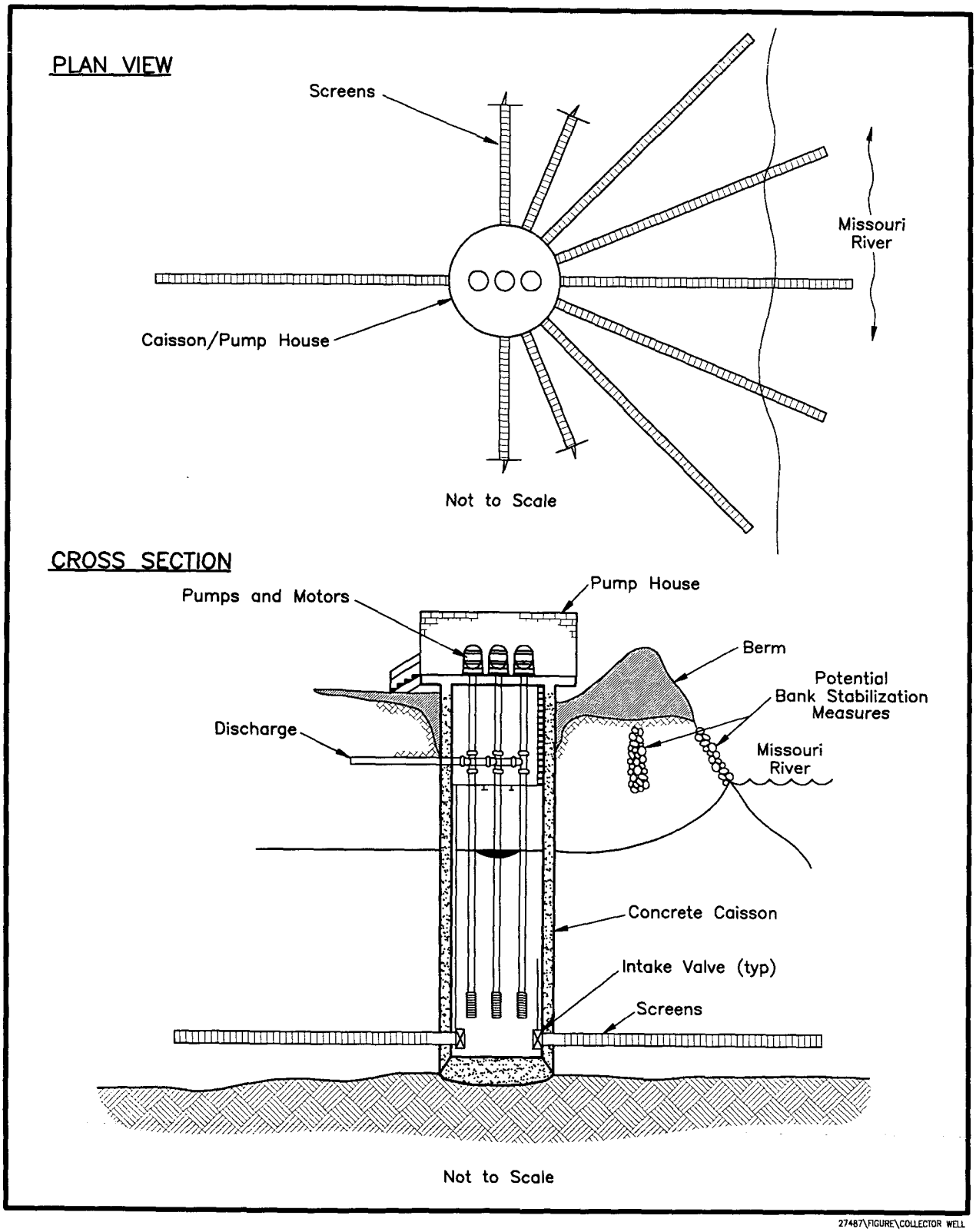


Figure 2.1 Example Radial Collector Well, Lewis and Clark Water Supply Project, 2002.

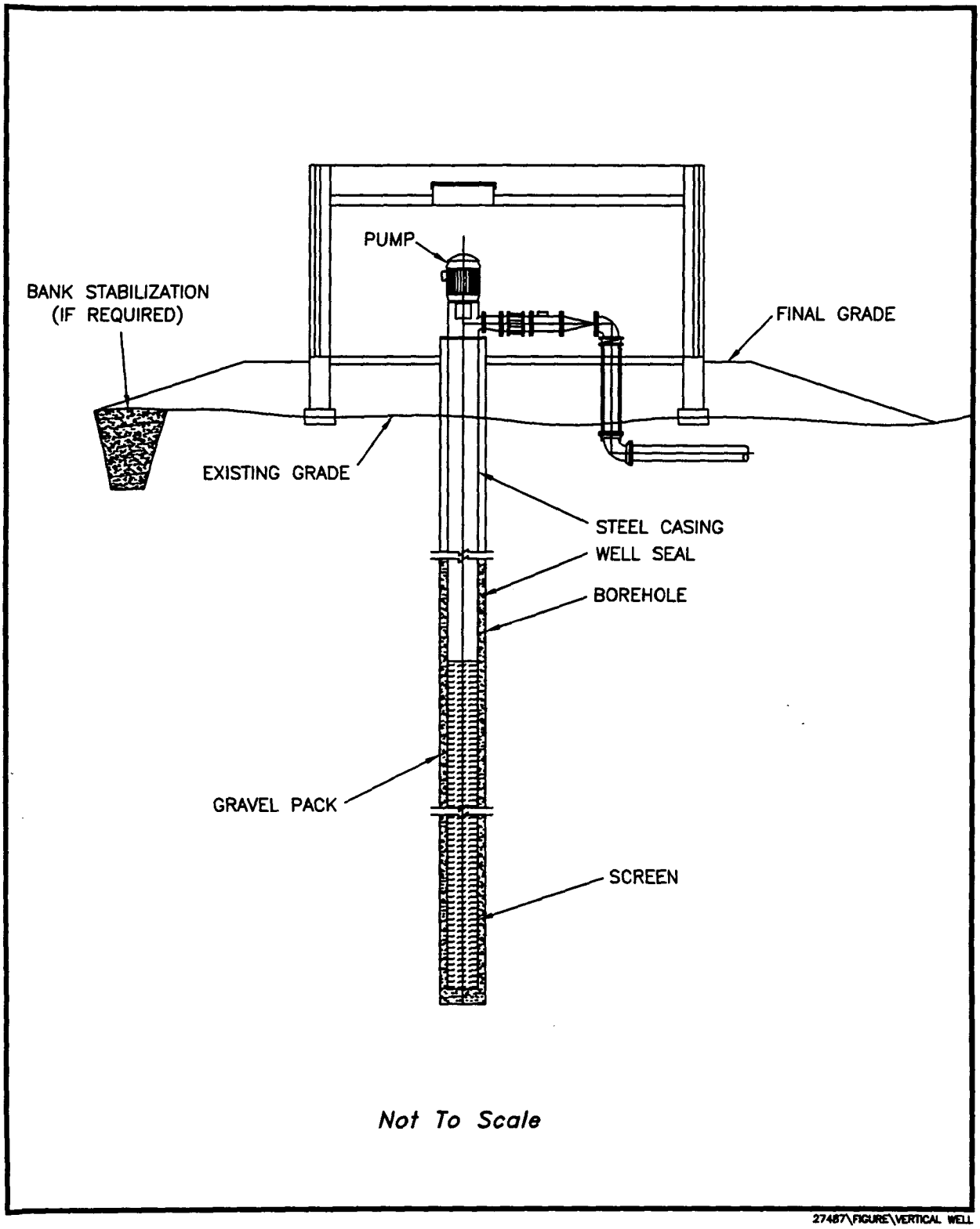


Figure 2.2 Example Vertical Well, Lewis and Clark Water Supply Project, 2002.

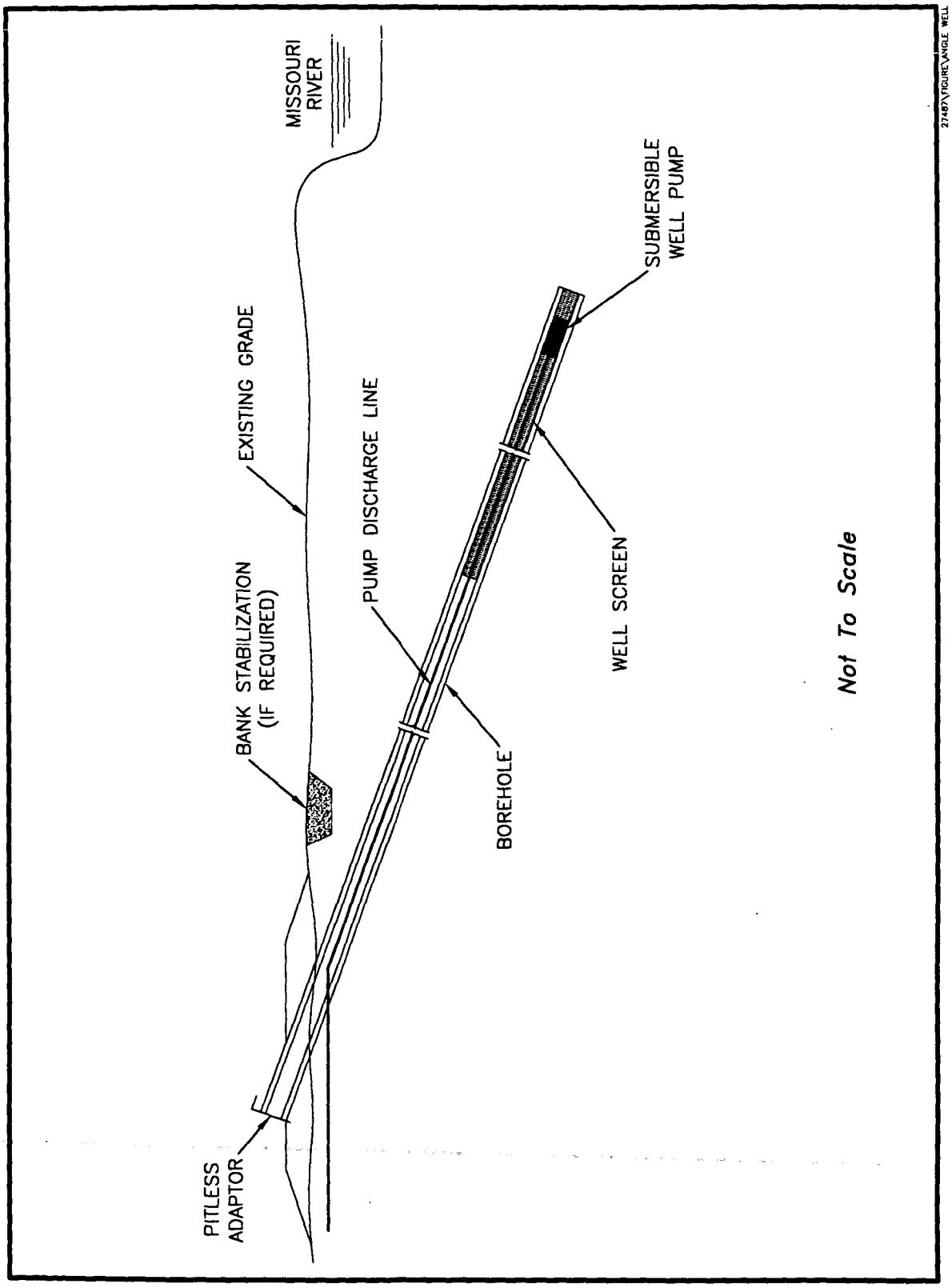


Figure 2.3 Example Angled Well, Lewis and Clark Water Supply Project, 2002.

be approximately 200 acres (Table 2.1), which would include all areas necessary for construction activities, treatment facilities, pumping equipment, treated water reservoirs, access roads, washwater reclaim facilities, sludge drying and storage lagoons, and the fenced area around the treatment plant site.

The water treatment plant would require sludge drying and storage lagoons and fuel and chemical storage tanks. Sludge lagoons would be constructed to meet state design standards for seepage rates, and fuel and chemical storage facilities would be built with secondary containment features. Information on sludge volumes and treatment plant chemical requirements is provided in Banner et al. (2002). Sludge generated during water treatment has the potential to be re-used as a soil amendment and, in any event, would be disposed of at an appropriate off-site facility.

Approximately 17 pump stations would be required along the pipeline route (see Map 2.1). Less than 1 acre generally would be required for each booster pump station. Pump stations would be aboveground structures of masonry or precast concrete panels and may be located with water storage reservoirs and/or service connectors. Each station would contain pumps connected directly to the pipeline to permit operation as an in-line booster station. In addition, each station would house telemetry, instrumentation, control panels, electrical, and surge protection systems and may also include backup power facilities and chemical storage and feed equipment at some locations. The stations would generally be located near storage reservoirs, and their size, based upon pipeline capacities, would range from approximately 0.25 MGD to approximately 10.00 MGD.

To provide system reliability and anticipated demand capability, an estimated eight water storage reservoirs at seven sites would be constructed (see Map 2.1 and Table 2.1). Reservoirs and pump stations may, in some cases, be located together. Storage reservoirs generally would be less than 4 acres in size, and would consist of aboveground precast and prestressed concrete or factory-coated, bolted steel tanks. Reservoir storage capacity would be approximately equal to the peak one-day water demand requirement, and reservoirs, excluding those at the treatment

plant are anticipated to range in capacity from 1 million gallons to approximately 10 million gallons.

Connections to local water systems (27 total) would be housed in buildings (see Map 2.1). These sites generally would require less than 1 acre. Local water system connections remote from water treatment plants may require chlorination and/or ammonia feed capabilities. If chlorination is required, the system would be vacuum operated with flow-paced feeders capable of automatic operation. Member entities planning to blend Project-provided water with their existing water supply may also require pH adjustment capabilities.

Temporary construction staging areas and storage yards for pipeline and associated facility construction would vary in size depending upon pipeline diameters or the space required for facility construction. The exact sizes and specific locations of these areas would be determined during pre-construction phase planning and are presently unknown; however, for the purpose of this analysis it is assumed that these areas would require an average of 20 acres each, as many as 34 areas may be necessary, no more than six locations would be used at any one time, and a total of 680 acres may be required (see Table 2.1). Acquisition and management of staging areas and storage yards would be the responsibility of pipeline construction contractors. These areas would be reclaimed once their use during construction is no longer necessary.

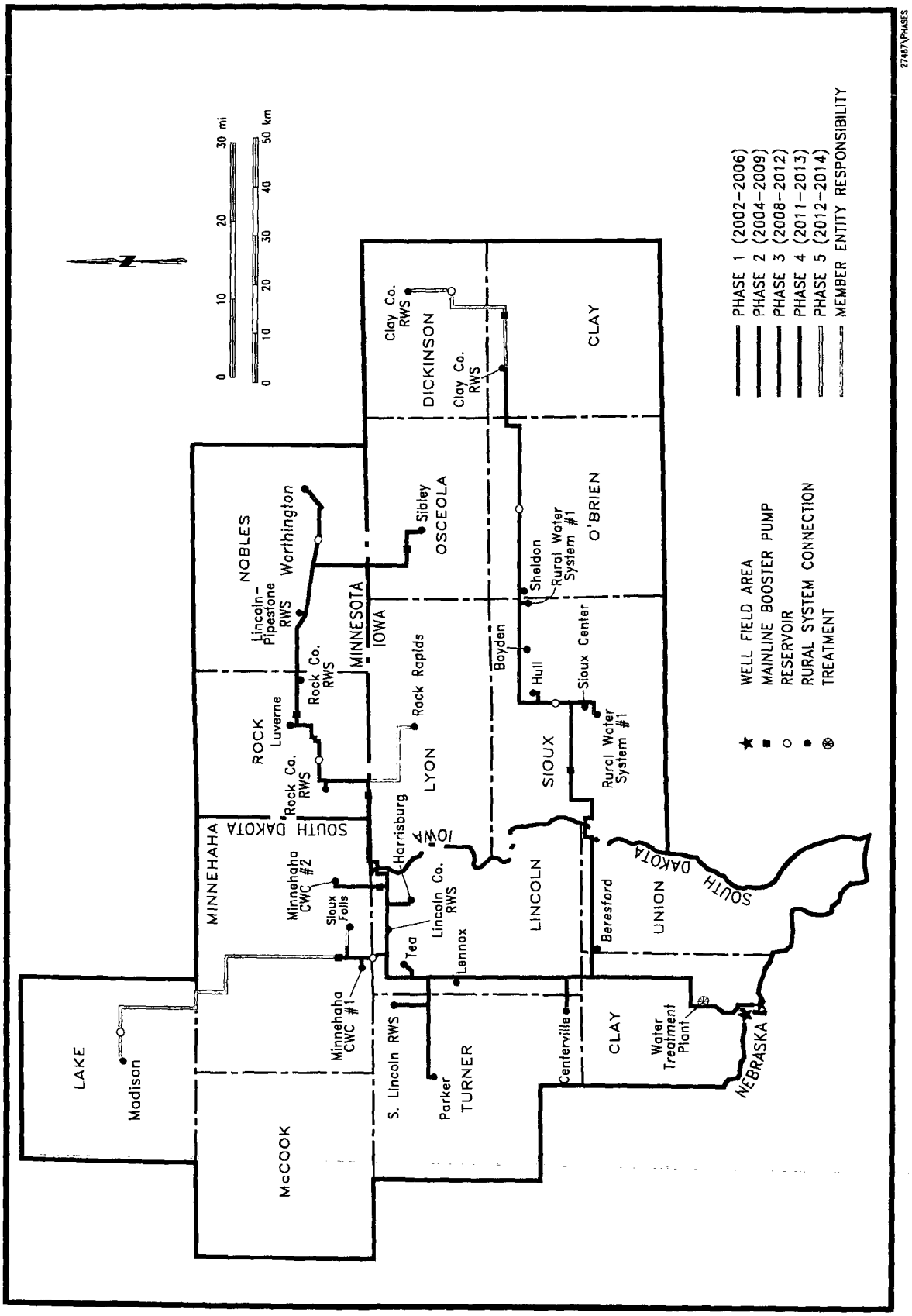
Total short-term construction-related disturbance is estimated to be approximately 7,700 acres (see Table 2.1), and over 90% of this disturbance would occur on currently farmed lands. Due to construction phasing not all of this disturbance would occur at one time. Most short-term construction-related disturbance would occur in South Dakota (approximately 4,400 acres) with approximately 2,200 acres in Iowa and 1,100 acres in Minnesota. An estimated maximum of approximately 240 acres of disturbance would be required for the LOP (220 acres in South Dakota, 10 acres in Iowa, and 10 acres in Minnesota), and most of this long-term acreage would be associated with the treatment plant, and occur on currently farmed lands.

2.2.1 Construction

An estimated 2 years would be necessary to complete Project design, permitting, and construction planning work, and given the size and types of work required for the Project, construction phasing would be necessary (Map 2.4). Design, permitting, and construction planning activities would continue throughout Project construction. The length of time to design and construct the Project would be approximately 10 to 15 years, and construction is estimated for completion in 2014 provided federal funding is appropriated. Various pipeline segments, pump stations, and storage reservoirs would be constructed concurrently, and construction operations would be conducted year-round, as appropriate. Construction phasing would provide that only those areas slated for immediate assembly would be disturbed, thereby limiting the length of time that construction impacts would last at any one site.

Pipeline construction easement corridors (i.e., impact areas) are assumed to be 200 feet for pipelines greater than 36 inches in diameter, 150 feet for pipelines of 18 to 36 inches in diameter, and 100 feet for pipelines less than 18 inches in diameter (see Table 2.1). In all instances, surface disturbance would be limited to the space necessary to maintain a safe work area for equipment and construction workers. Easements would exceed the actual width of disturbance necessary for construction; however, for the purpose of this analysis entire construction easement corridors are anticipated to be disturbed.

The general pipeline construction sequence is provided in Figure 2.4. Prior to construction all vegetation and sufficient topsoil would be stripped from proposed disturbance areas. These materials would be salvaged by windrowing or sidecasting along the edge of the pipeline construction easement or stored in stockpiles associated with facility sites. Topsoil materials would be protected from erosion, contamination, and disturbance during construction. All cleared material, such as shrubs and trees that are not suitable for placement with topsoil, would be disposed of appropriately.



Map 2.4 Tentative Project Construction Phases, Lewis and Clark Water Supply Project, 2002.

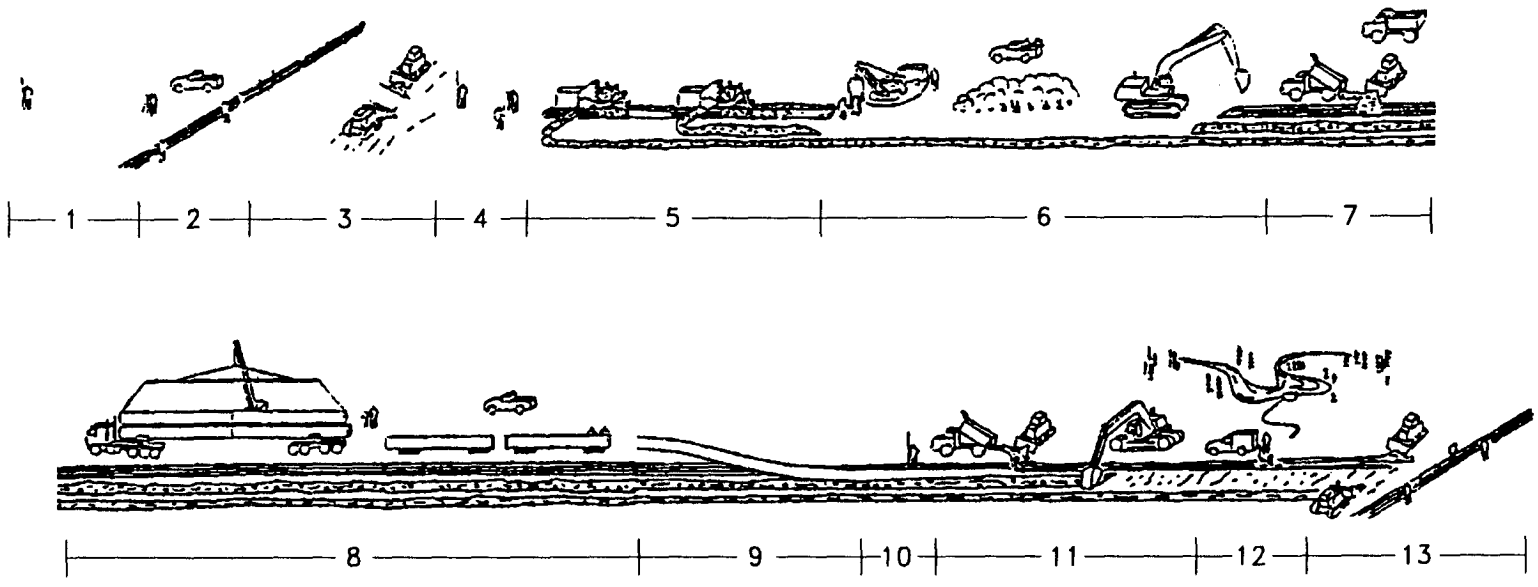


Figure 2.4 General Pipeline Construction Sequence, Lewis and Clark Water Supply Project, 2002.

Trenching operations would not be initiated until pipeline easements are in place. A ditch of appropriate width and depth for the size of pipe being installed would be centered on a line approximately in the middle of the easement. A minimum work zone width of 25 feet would be situated along one side of the trench, while an area of comparable size along the opposite side of the trench would be used for topsoil and spoil placement. A minimum of 5 feet would be maintained between the spoil pile and the trench. To eliminate the possibility of freezing, all pipelines would be buried with 6.0 to 6.5 feet of spoil and soil cover.

The trench would be excavated mechanically with a backhoe or trenching machine. Spoil would be placed in a windrow along one side of the trench. The ditch typically would be open for no more than 7 days at any one location, allowing sufficient time for construction even in areas where extensive rock is encountered. Open trenches would be limited to 1 mile in length, and in most cases a 500-feet opening would be provided between areas of open trench. Special precautions would be taken for public safety and erosion control along excavated portions of the trench.

Driveways and other frequently used access points along the pipeline trench would be backfilled immediately upon pipe installation to minimize travel and access impacts, and horizontal drilling and/or boring techniques would be employed when crossing active railroads and major roadways. Additional access ways across the ditch would be spaced at convenient intervals so that landowners and animals are able to cross the construction area with relative ease.

A listing of active railroad, major roadway, and major drainage crossings is provided in Banner et al. (2002); major drainageway crossings are listed in Table 2.2. Drainage crossings would be trenched unless otherwise determined during Interagency Environmental Review Team (IERT) environmental reviews of route segments (see Appendix A, IERT Guidelines) and/or during COE 404 permitting. Where technically and economically feasible, directional drilling or boring techniques may be used at some crossings to minimize impacts to wetlands, T&E species, water quality, sedimentation, or access. Example trenching procedure schematics are provided in Figure 2.5. Trenching of larger waterways, if conducted, would require flow diversion to one

Table 2.2 Major Drainageway Crossings, Lewis and Clark Water Supply Project, 2002.

Clay Ditch	Little Sioux River	Big Sioux River (2)[1]
Vermillion River	East Fork Vermillion River (2)[1]	Kanaranzi Creek
Baptist Creek	West Fork Vermillion River (3)[1]	Floyd River (2)[1]
Ocheyedon River	Skunk Creek (2)[1]	Willow Creek (2)[1]
Waterman Creek	Buffalo Creek	Rock River (2)[1]
Stoney Drainage	Brandt Lake	Little Rock River

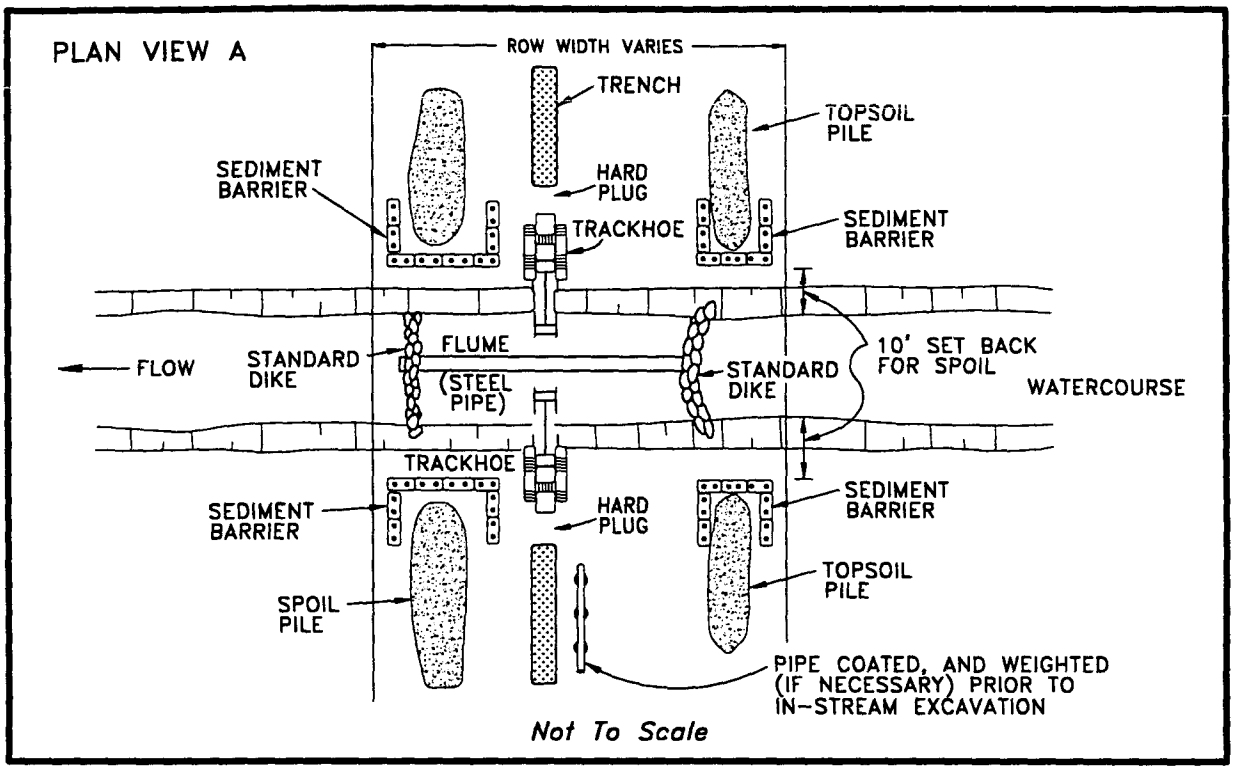
[1] ( ) indicates number of crossings.

side of the existing channel; installation of pipe beneath the exposed channel bed; re-diversion of flow to the portion of the channel above the installed pipe; installation of pipe beneath the remaining portion of the channel bed; and re-establishment of predisturbance channel flows.

It is anticipated that rock excavation and trench dewatering would be required along some sections of the pipeline route. In areas where solid rock is encountered, trenching would be performed by drilling and controlled blasting, followed by backhoe excavation. Explosives would be used in accordance with all applicable state and federal permits and authorizations, as well as local ordinance stipulations. Fly-rock would be controlled by matting, including, but not limited to, fabricated mats, overburden in situ, and sand-pad matting, as well as through blast design.

Dewatering procedures would be employed in areas where the water table is higher than the bottom of the pipeline trench. Sump pumping methods would be used in areas of clay soils, whereas dewatering wells and/or sand points may be necessary in sandy soils. Excess water would be discharged in compliance with local, state, and federal regulations in suitable areas away from the open trench.

Underground utility lines and other pipelines along the easement would be identified and flagged immediately prior to construction. Trenching operations in the vicinity of all such utilities would proceed only after the exact location of existing lines has been determined.



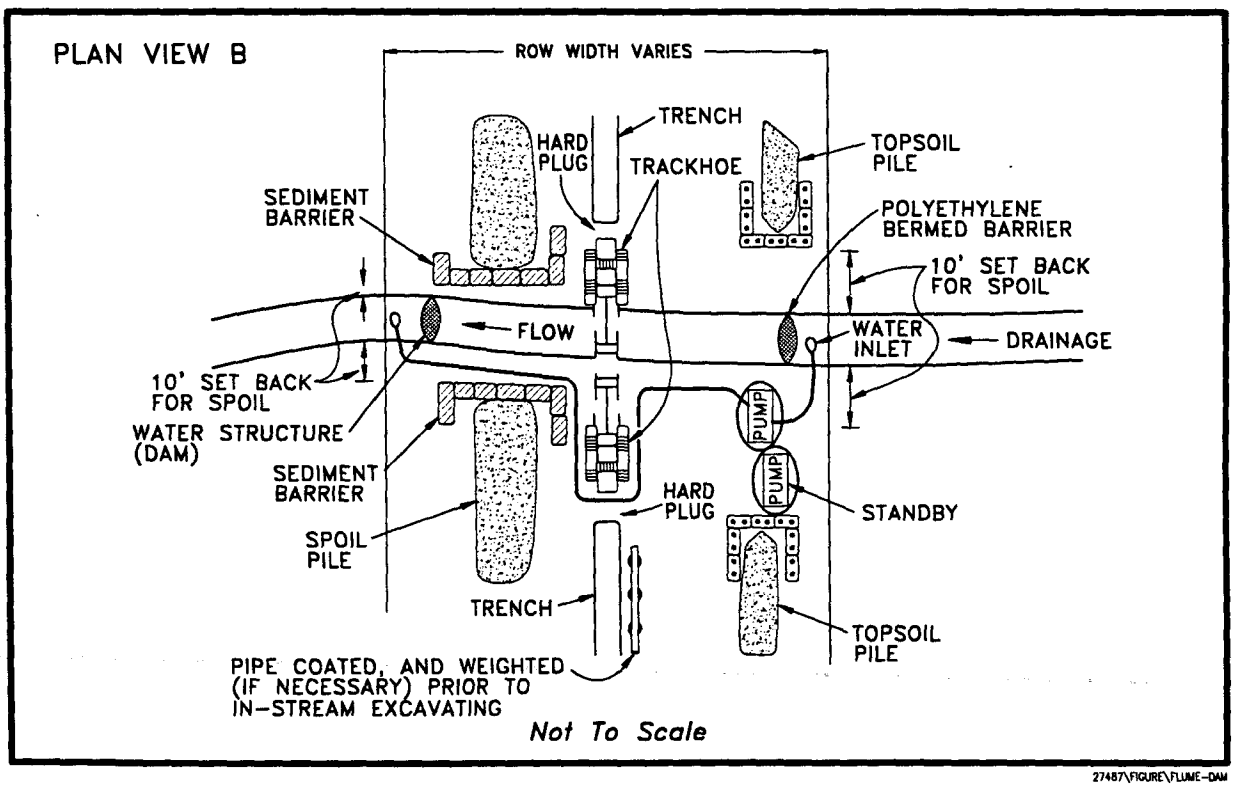


Figure 2.5 Example Trenched Drainage Crossing Methods, Lewis and Clark Water Supply Project, 2002.

Water lines would generally be deflected around existing gas lines. Where a larger water pipeline crosses an existing water line or sewage main, the existing water line or sewage main would be relocated or deflected if possible. Other utilities such as underground power lines, telephone lines, fiber optic lines, and cable television systems are generally buried at depths shallower than would be required for the water line, and these utilities would remain in place and above the water pipeline.

Draintile systems are common in agricultural areas crossed by the Project. Where possible, pipeline/draintile crossings would be flagged immediately prior to construction; however, many tile systems have not been mapped. In most instances, the draintile would be at depths shallower than the proposed water line and therefore would remain above the pipe. If the draintile occurs at depths greater than 6 feet, the pipeline would be diverted to avoid the tile. All unmapped draintiles damaged or otherwise encountered during pipeline construction would be repaired, as necessary, and returned to serve in the same or better condition as soon as practical after completion of construction.

All construction materials would be hauled to work sites by truck. Pipelines may be either steel, ductile iron, or polyvinyl chloride (PVC) or other approved pipe materials depending on the size and cost of materials. Materials would be stored at staging areas or strung out along the easement as they arrive. Staging areas would be located in a manner designed to minimize interference with the normal use of the land and located and constructed such that they do not accelerate erosion or sedimentation.

Once the pipe has been strung and lined up, the pipe would be lowered into the trench and pipe segments joined together. The pipe would be placed in a granular envelope on gravel bedding as required. Once the pipe joints are joined in the trench, suitable spoil would be placed incrementally in the trench and compacted. The granular envelope around the pipe would be consolidated to prevent stress to the pipe. Excess excavation material generally would be crowned on top of the backfill to compensate for further settlement. Where materials exceed amounts recommended for crowning and/or in areas where crowning is impractical (e.g., farmed

fields), surplus materials would be feathered over the area, or blended from easement to easement, and/or removed from the site and disposed of appropriately.

Prior to being put into service, the pipeline would be tested and disinfected with water, in accordance with state standards and contract specifications. Testing and disinfection would involve pressurizing incremental segments of the pipe to not less than 1.5 times the pipe's designed maximum operating pressure with chlorinated/treated (50 mg chlorine/liter) water for 8 hours. If leaks are detected, the pipeline segment would be repaired prior to going online. Upon completion of testing and disinfection, waters used during the process would be discharged into system reservoirs and disposed of following appropriate state and/or federal guidelines. Test waters would be dechlorinated prior to being discharged to live waters.

Following the completion of pipeline testing, the areas traversed by the pipeline and associated staging and facilities construction areas would be restored taking into account the reasonable recommendations of landowners and in accordance with the requirements of agencies having jurisdiction. All disturbed areas would be recontoured so that they blend into the surrounding terrain, topsoils would be spread evenly on the surface of the backfill, and pipeline markers would be installed at intervals along the pipeline route.

All pastureland, native prairie, and natural wetland areas along the pipeline corridor disturbed by project activities would be reseeded using appropriate seed mixtures and seeding rates according to reasonable landowner requests and/or regulatory agency specifications. Forested/treed areas crossed by the pipeline, including windrows and wood lots, would be re-established along outer portions of the construction easement and/or at alternate locations after construction such that two trees would be established for each one removed. No trees would be planted directly over the pipeline. Areas used for row cropping that are disturbed by the Project would be returned to their original condition (e.g., bare ground) following pipeline installation unless otherwise directed by the landowner. Developed areas disturbed by the Project (e.g., parks, lawns, etc.) would be returned to their original condition. Seed would be planted using a drill. In areas not suitable for drilling, the seed would be broadcast and raked or chained to cover the seed.

2.2.2 Project-wide Environmental Commitments and Mitigation Measures

The following design features and procedures would be implemented by the System throughout the Project area to avoid, minimize, or mitigate Project construction and operation impacts. Exceptions to project-wide mitigation measures may be made on a case-by-case basis by Reclamation in consultation with the IERT if a thorough analysis determines that the mitigation measure is unnecessary. Further site-specific mitigation measures may be identified during the on-site Project reviews described in Appendix A. To provide compliance with the mitigation measures presented in this EA, the System or its designated contractor would have qualified individuals available during construction operations who would consult with Reclamation on a case-by-case basis as necessary during construction.

The proposed Project-wide mitigation/environmental protection measures identified in this EA section would be implemented on all Project-affected lands (public and private) to avoid or mitigate potential Project impacts. Development activities would be conducted in accordance with all appropriate federal, state, county, and municipal laws, rules, and regulations (see Appendix B).

Project Planning

- The System would support and implement activities as defined in the IERT Guidelines during pre-construction site-specific field reviews (see Appendix A). Comprehensive site-specific inventories would be conducted annually prior to Project construction to minimize the potential for adverse environmental effects. These multi-agency site-specific inventories would be conducted to assess the reclamation status of past construction actions, to identify appropriate remedial actions where problems may be found, and to develop appropriate location and design criteria for upcoming Project construction actions.
- Where practical, pipeline routes and facility sites have been/would be selected and designed to minimize disturbances to areas of high wildlife habitat value,

including state and federal wildlife production areas, wetlands and riparian areas, shelterbelts, native prairie, windrows, hedgerows, and woodlots.

- The Project would be designed to avoid construction in 100-year floodplains and/or minimize adverse affects to 100-year floodplains, and Project features constructed within floodplains (e.g., well field pump houses) would be flood-proofed to an elevation above the 100-year flood.
- Where pipelines must cross floodplains, lines would be buried deep enough below drainageway beds to prevent exposure from erosion during periods of high flow.
- All appropriate construction and operation permits and licenses (e.g., COE 404 permits, affected state-agency permits, MDNR license for state-protected water crossings) and easements would be obtained prior to construction.
- Cemeteries would be avoided.
- Residential areas would be avoided, where practical.
- Construction access roads not required for operation and maintenance would be permanently blocked, contoured, and revegetated to preclude unauthorized use.

Threatened and Endangered (T&E) Species

- The System would comply with all decisions reached during informal consultation between Reclamation and the U.S. Fish and Wildlife Service (USFWS) regarding T&E species (see the Biological Assessment [BA] [TRC Mariah 2002]).
- In areas not previously surveyed or cleared for T&E species, a qualified biologist/botanist would conduct surveys for these species in areas of potential habitat prior to disturbance. Surveys would focus on species known to occur on the area, as well as those potentially occurring on the area. If T&E species are found, consultation with the USFWS would be initiated, as necessary, to determine appropriate avoidance and/or protection measures; construction activities would be delayed until Reclamation, USFWS, and the System concur

on which activities may be implemented so that no adverse effects to T&E species would occur.

- Habitats where T&E animal or plant species are found would be avoided, where practical.
- Surveys for nesting piping plovers and least terns would be performed prior to any construction near the Missouri River if construction activities are scheduled to occur during the breeding or nesting season (April 15 and August 15). In the event an active nest is found, consultation with the USFWS would be initiated and activities that are determined to potentially disrupt or otherwise adversely affect breeding or nesting activities would not take place within 0.25 mile or other USFWS-identified distance of active nests.
- To avoid impacts to raptors and other migratory birds, easement clearing actions involving the removal of trees would be scheduled to avoid the nesting season, and two trees would be established for each tree removed.
- In the event active migratory bird nests must be removed, all appropriate permits would be obtained.
- All Project features would be selected and designed to avoid disturbance to known raptor nest sites.
- Raptor nest surveys would be conducted by a qualified biologist prior to disturbance as deemed necessary during IERT reviews if construction activities are proposed to be conducted between January 1 and July 31.
- All surface-disturbing activities would be seasonally restricted from January 15 to August 1 within 0.25 mile of any active bald eagle nest.
- No construction work would occur during January and February of any year within 0.5 mile of identified bald eagle communal roost areas or within 0.25 mile of any active bald eagle forage, perch, or roost trees. Construction activities may occur in these areas from November 15 to December 31 or March 1 to March 15 only between the hours of 10:00 a.m. and 3:00 p.m. and only when temperatures exceed 20°F.

- Additional mitigations for nesting raptors and/or other migratory birds may be provided on a site-specific basis during construction in consultation with Reclamation, USFWS, and state wildlife agencies.
- In areas with visual resource concerns (e.g., adjacent to the Missouri River), all permanent and temporary power or communication lines associated with the Project would be buried, where practical. If burial is not possible, the lines would be designed and located to avoid raptor collisions and/or electrocutions pursuant to Avian Power Line Interaction Committee (APLIC) protocol (APLIC 1994, 1996). Expanded protection measures for aboveground power lines would also include: provision of greater than 90-inch spacing between conductors or grounding features; appropriate insulation of exposed conducting features; use of anti-perching devices as appropriate; avoidance of steel pole use where practical; and appropriate use of line aviation markers where power lines may occur adjacent to or cross wetlands/waterways.
- Construction activities would be avoided from May 15 to July 31 in potential Topeka shiner habitat.
- Substrate disturbance in streams occupied by Topeka shiner and/or with a high potential to be occupied by the species (see Section 3.2.3.5) would be minimized and would only occur after July 31 and before May 15 in any year. No removal of stream bottom substrates for construction material would occur.
- Surface disturbance would be minimized at stream locations, with the majority of the work occurring above high-water lines.
- Trenched crossings of intermittent streams would occur only in dry areas and/or during periods of flow outside of the spawning period.
- The System would implement comprehensive and effective erosion and sediment controls. These methods would be implemented and maintained for the LOP and would be considered during Project planning and design. Close attention to the placement and maintenance of temporary erosion control measures at construction sites would be implemented to minimize sediment loading. Erosion/sediment control techniques would be designed to keep sediments from

entering waterways and would remain in place until work areas become revegetated and stable.

- To minimize adverse effects to the American burying beetle, western prairie fringed orchid, and prairie bush-clover and their habitats, the final location of the pipeline and associated facilities would be preceded by consultation with the USFWS during IERT annual Project reviews to develop criteria for defining potential species habitat in the Project area.
- A reconnaissance of potential species habitats would be conducted as directed by Reclamation and/or the USFWS during IERT reviews by a qualified biologist familiar with the species life history and habitat requirements to determine if any of the areas appear to have a high probability of species occurrence.
- All areas determined by the biologist to exhibit a high probability for the species occurrence would be avoided where practical. Where habitat must be affected, surveys would be conducted following USFWS-approved survey protocol (e.g., USFWS 1991), and if a species is found, further consultation with the USFWS would be conducted to develop additional procedures designed to avoid adverse effects to the species.

Other Wildlife

- Areas potentially hazardous to wildlife would be adequately protected (e.g., fenced, netted) to prevent access by wildlife.
- To protect plant populations and wildlife habitat, Project-related travel would be restricted to existing roads and Project easements; no off-road travel would be allowed, except in emergencies.
- Wildlife-proof fencing would be utilized on reclaimed areas if it is determined that wildlife species and/or livestock are impeding successful vegetation establishment.
- Potential impacts to fisheries would be minimized by using proper erosion control techniques.

Vegetation, Soils, and Watersheds

- Removal or disturbance of vegetation would be kept to a minimum through construction site management (e.g., utilizing previously disturbed areas, using existing easements when feasible, designating limited equipment/materials storage yards and staging areas).
- Sufficient topsoil to facilitate revegetation and/or existing land uses would be segregated from subsoils during trenching operations and would be returned to the surface upon completion of backfilling.
- Vegetation or features that provide important wildlife habitat (e.g., riparian/wetland areas, native grasslands, woodlands) that are permanently removed for facility sites would be replaced on an acre-for-acre basis with habitats of equal value at alternate locations.
- Areas requiring revegetation would be seeded or planted during the first appropriate season after redistribution of topsoil. If reseeding cannot be accomplished within 10 days of topsoil replacement, erosion control measures would be implemented to limit soil loss.
- Grassland and highway ROW reseeding would be completed prior to May 15, where feasible.
- If spring reseeding is not feasible, fall reseeding would be performed between August 15 and October 15 (prior to ground freezing).
- Two trees would be established for each tree removed.
- Revegetation of disturbed grassland areas would be accomplished primarily utilizing native grass species.
- To reduce erosion, water bars would be installed at specified intervals depending upon soil type, grade, and terrain on disturbed slopes with grades of 6% or greater. Water bars would not be used in areas of row cropping.
- Vegetation and soil removal would be accomplished in a manner that would prevent erosion and sedimentation.

- Wetland areas would be crossed during dry conditions (e.g., winter months), where practical.
- Streams and wetlands impacted during Project construction would be restored to pre-Project conditions. If impermeable soils contributed to wetland formation, soils above the pipeline would be compacted to reestablish impermeability.
- Impermeable soils and/or plugs may be used in the pipeline trench to eliminate water leakage within trench bedding materials at wetland crossings.
- Trenched stream crossings would not be constructed during fish spawning periods (i.e., April through June).
- Streams would be crossed perpendicular to flow, where practical.
- Grading and appropriate/adapted native species would be used to revegetate wetland banks to aid in soil stabilization.
- Revegetation operations would begin in the first appropriate season (spring or fall) after trench backfilling in wetland and other native areas.
- Pursuant to 40 C.F.R. 112, an appropriate stormwater discharge permit would be obtained prior to construction, and sampling, flow measurement structures, and detention basins would be constructed as necessary.
- Boring and/or directional drilling techniques may be used where technically and economically feasible to avoid or minimize adverse effects to wetlands, T&E species, water quality, fisheries, sedimentation, and/or access
- Temporary erosion control measures (e.g., silt fences, straw bale dikes, water bars, mulch, jute netting) would be used to reduce potential erosion and sedimentation until vegetation becomes established.
- Erosion and sediment controls would be monitored daily during construction for effectiveness, particularly after storm events, and only the most effective techniques would be utilized.
- Additional erosion control measures (e.g., diversion terraces, riprap, matting, water bars) may be used in some areas.

- Construction methods that temporarily block drainage flows would be limited in duration. If temporary blocks are necessary, flexible water barriers would be used (see Figure 2.5, Plan View B).
- Exposed stream banks would be stabilized as soon as practical after construction activities.
- Exposed and erodable surfaces (e.g., stream banks) would be appropriately protected as soon as practical after construction. If rain is predicted, no construction would commence unless surfaces are treated with geotextile fabric, mulch, seeding, or other techniques to stabilize the bank or exposed areas to decrease potential erosion..
- Erosion repair and stream bank restoration would use appropriate bioengineering solutions.
- The System would be responsible for weed control and plant establishment on Project-disturbed areas within established easements, and would coordinate with landowners and/or agencies having jurisdiction to determine appropriate weed control and plant establishment methods.

Cultural and Historic Resources

- Cultural and historic resources would be protected pursuant to the NHPA Section 106 process and in compliance with the Programmatic Agreement for this Project (see Appendix E).
- Where identified through continued coordination with Native American groups under NEPA/NHPA guidance, Native American concerns, including Indian Trust Assets (ITAs), sacred sites, and traditional cultural properties, would be considered during Project design and construction pursuant to the Project Programmatic Agreement (see Appendix E).

Hazardous Materials

- The System would develop and implement a hazardous materials safety protocol.
- All temporary storage facilities for petroleum products, other fuels, and chemicals would be located and protected to prevent accidental spills from entering waterways.
- The System would complete a Level 1 Contaminant Survey checklist of Project-required lands (USDI-Reclamation 2001).
- In the event preexisting contaminated soils are encountered during construction, the appropriate state agency would be notified..

Other Resources

- Noise levels and visual obstructions from Project features (e.g., booster pump stations, well pump houses, treatment plant, storage facilities/reservoirs) would be minimized through appropriate facility site location and design.
- A Project-wide water conservation program would be prepared and implemented (Banner et al. 2002; USDI-Reclamation 2001).
- Existing irrigation and domestic wells in the vicinity of the proposed well field would be monitored, and in the event adverse impacts are detected, state guidelines would be followed.
- Potential impacts to NNLs, the Missouri National Recreational River, prime farmlands, state game production areas, and other protected areas would be minimized through appropriate Project design and avoidance procedures.

2.2.3 Operation and Maintenance

The pipeline and associated facilities would routinely be inspected for problems. Pipeline routes would be patrolled on foot or using vehicles to identify potential problems such as erosion, pipe exposure, unauthorized encroachment on the easement, and any other situations that may cause

a safety hazard or require preventive maintenance. If damage occurs to the pipe from internal or external sources, the affected portion would be repaired. Repair procedures generally would be implemented following procedures outlined herein for construction and identified in Banner et al. (2002), and would occur in adherence with the commitments and mitigation measures specified in Section 2.2.2 of this EA. Detailed line break and emergency procedures would be included as part of routine operational procedures by the System.

2.2.4 Work Force

An estimated average of approximately 60 workers would be required during each phase of construction, ranging from approximately 40 (Phase 5) to 90 (Phase 3) (see Map 2.2). Phase 1 construction is schedule to begin in 2002, and construction would continue through Phase 5, with completion estimated to occur in 2014. An estimated total of 520 worker-years (one worker-year equals 2,080 hours of labor; 40 hours/week for 52 weeks) would be required to complete Project construction. Project operation and maintenance for the LOP would require approximately 15 workers.

2.2.5 Traffic

During construction, traffic on local area roads would increase. Single vehicles would be utilized for multiple tasks as much as practical. The actual number of vehicles working on-site would vary from phase to phase and would depend on the location and needs for a particular area. Minimal additional traffic would continue throughout the LOP.

2.3 ALTERNATIVES CONSIDERED BUT REJECTED

Banner (1991) and Banner et al. (1993) analyzed a number of potential alternatives for the Proposed Action. Three intake facility sites and three water withdrawal methods were initially considered, as were four treatment plant alternatives and looped and non-looped pipeline routes. All alternatives were ranked on the basis of their environmental, technical, and cost merits.

Emphasis was placed on environmental considerations (i.e., the likelihood of the system causing significant environmental impacts). Alternatives were also evaluated based on their ranking in terms of reliability (i.e., the ability of the system to provide adequate supplies of water) and cost. The Proposed Action was the only alternative found to have minimal environmental impact, good reliability, and low cost; therefore, the other alternatives were abandoned. Further detail on alternatives analysis is provided in Banner et al. (2002).

All initially identified pipeline routes were reviewed by TRC Mariah and Reclamation personnel to assess potential impacts on important habitat and other key environmental features (e.g., wetlands, native prairie, preservation and wildlife production areas, significant cultural resource sites). Initial corridors were evaluated based on field reconnaissance of wetlands identified on USFWS Wetland Inventory Maps, and other specialized use areas (e.g., cemeteries) occurring along the pipeline routes. Pipelines were rerouted as necessary to avoid the majority of critical features. Where wetland crossings were unavoidable, routes were selected to minimize effects on undisturbed and permanent wetlands; temporarily or seasonally flooded, drained, or excavated wetlands were chosen for the pipeline route over high-value wetland areas. Additionally, minor diversions along the proposed pipeline routes, but within the study area, would be implemented pursuant to IERT reviews to further avoid wetlands, native prairie, man-made structures, major urban centers, windbreaks, and other important environmental features.

2.4 SUMMARY OF ENVIRONMENTAL IMPACTS

Table 2.3 presents a summary of the potential environmental impacts of the Proposed Action and No Action alternatives. A detailed analysis of Project impacts and mitigation measures is provided in Chapter 4.0.

Table 2.3 Summary of Potential Impacts and Associated Mitigation Measures.

Environmental Resource	Potential Impacts: No Action	Potential Impacts: Proposed Action	Mitigation Measures
Physical Resources			
Climate	No impact	No impact.	None
Topography/ Physiography	No impact	Temporary watercourse alterations.	Use appropriate stream crossing procedures during construction
Geology			
Minerals	No impact	Small localized loss of potential resource areas.	Avoid actively mined areas.
Earthquakes	No impact	Potential for impact to pipeline and facilities from earthquakes.	It would not be economically feasible to design a pipeline and facilities that would be impervious to damage by earthquakes; however, the potential for an earthquake occurring in the area is low.
Flooding	No impact	Impact due to disturbance and increased sedimentation.	Avoid floodplains where practical; restrict construction to low flow periods; re-establish existing contours; revegetate disturbed areas; use appropriate erosion and sediment control techniques.
Paleontological Resources	No impact	Direct: loss of significant fossils during construction.	Monitor excavations in areas of paleontological potential; halt construction if fossils are discovered.
		Indirect: increased access to fossils if features remain exposed.	Fence significant features left exposed.
Soils			
Steep Slopes	No impact	Potential erosion during construction.	Construct water bars and revegetate disturbed areas
Prime Farmland and Wetland Soils	No impact	Potential soil loss and erosional feature development; loss of impervious soil layer beneath wetland soils; compaction/mixing resulting in decreased productivity of topsoil.	Segregate topsoil during construction and replace at surface; use appropriate erosion and sediment control techniques; revegetate disturbed areas; compact soils surrounding pipe; scarify surface soils; properly dispose of excess soils.
Surface Water			
Missouri River	No impact	Minimal flow reduction (32 MGD maximum anticipated withdrawal, 0.8% of minimum flow over Gavins Point dam [6,000 ft^3/second]).	None; the majority of water would remain in the Missouri River watershed.
		Temporary increase in erosion and sedimentation at/near well sites.	Implement revegetation and bank stabilization; appropriate structure design.

Table 2.3 (Continued)

Environmental Resource	Potential Impacts: No Action	Potential Impacts: Proposed Action	Mitigation Measures
Other Surface Waters	Continued use of surface water resources currently used by or in connection with existing member entity water supply sources	Less reliance of existing members on current surficial aquifer water sources; local increases in surface water availability.	Pipelines routed to avoid/minimize disturbance to these features, where practical.
		Bank damage; increased erosion and sedimentation; decreased water quality.	Bank stabilization; properly dispose of excess soils; implement erosion control: water bars, mulching, netting, revegetation, wetland restoration; construction during low flows; use appropriate crossing techniques.
		Hazardous material spills during construction; decreased water quality.	Keep staging and maintenance away from waterways; properly dispose of wastes.
Other Wetlands and Floodplains	No impact	Temporary loss of wetlands.	Avoid wetlands through routing modifications; institute bank stabilization, erosion control, and revegetation; maintain hydrologic integrity of wetlands through appropriate reclamation, restoration, and avoidance.
Ground Water			
Quantity	Continued use of ground water resources currently used by or in connection with existing member entity water supply sources	Decreased ground water in Missouri River alluvial aquifers (Mulberry Point area); less reliance of existing members on current ground water aquifer water sources; local increases in ground water availability.	Support local and regional efforts in water conservation and aquifer/wellhead protection; System development and distribution of information on a Water Conservation program.
Quality	Continued degradation through increased concentrations of contaminants in existing member-entity utilized groundwater systems	No impact.	Support local and regional efforts in water conservation and aquifer/wellhead protection; System development and distribution of information on a Water Conservation Program.
Air Quality	No impact	Equipment emissions and fugitive dust.	Keep vehicles well-maintained; dust control on disturbed areas, as necessary.
Noise	No impact	Increased levels during Project construction.	Notification of work to local residents; use mufflers on all internal combustion construction equipment; appropriate equipment maintenance.
		Increased levels adjacent to ancillary facilities.	Use appropriate construction materials designed to reduce noise levels; appropriate equipment maintenance.

Table 2.3 (Continued)

Environmental Resource	Potential Impacts: No Action	Potential Impacts: Proposed Action	Mitigation Measures
Biological Resources			
Vegetation	No impact	Temporary loss of approximately 7,668 acres during construction.	Adhere to IERT guidelines (Appendix A); avoid wetland and native prairie areas, where practical; revegetate with native/adaptive species; establish two trees for each tree removed; replace lost habitat with habitat of equal value, acre-for-acre; use proper erosion and sediment control techniques; no net loss of wetlands, wooded areas, or native prairie.
		LOP loss of vegetation at facility sites (approximately 236 acres).	Adhere to IERT guidelines (Appendix A); avoid wetland and native prairie areas for facilities sites.
		Spread of noxious weeds.	Prompt reclamation; reclamation monitoring; weed control.
Wildlife	No impact	Disturbance/displacement during construction (noise, human presence); temporary loss of habitat including cover, forage, and nesting sites (maximum of approximately 7,700 acres); minimal LOP habitat loss (approximately 236 acres); minor disturbance/ displacement during operations.	Adhere to IERT guidelines (Appendix A); avoid wetland and native prairie areas for facilities sites; avoid construction during crucial periods and in important habitats, where practical; replace important habitat loss with habitat of equal value, acre-for-acre; establish two trees for each tree removed.
Fisheries	No impact	Decreased flow (Missouri River); habitat damage through siltation, increased turbidity.	Appropriate location of well field; appropriate stream crossing procedures; appropriate reclamation.
T&E Species	No impact	Disturbance and habitat loss during construction.	Adhere to IERT guidelines (Appendix A) and Biological Assessment (TRC Mariah 2002); avoid areas of potential occurrence; if areas must be crossed, survey for species prior to construction and avoid as necessary; implement native revegetation; construct specific Project features outside breeding, nesting, roosting, and spawning periods, where practical.
Wild and Scenic Rivers	No impact	Decreased flows; visual and noise impacts.	Appropriate design and location of well field to minimize visual and noise impacts

Table 2.3 (Continued)

Environmental Resource	Potential Impacts: No Action	Potential Impacts: Proposed Action	Mitigation Measures
Cultural Resources	No impact	Direct: loss of significant cultural features during construction.	Adhere to IERT guidelines and Programmatic Agreement (Appendices A and E); avoid all sites identified in Class I survey; conduct Class III survey prior to construction; implement trench and disturbed area monitoring in areas with high cultural resource potential; halt construction if artifacts discovered; test potentially significant sites; mitigate affected sites as identified by Reclamation.
		Indirect: increased access to features remaining exposed.	Protect significant features left exposed.
Socioeconomics	Loss of positive economic benefits.	Direct: good quality and sufficient quantity of water increasing quality of life and accommodating anticipated regional economic growth.	Appropriate development planning by local governments.
		Direct: inconvenience of closed roadways and blocked driveways.	Notification of construction times; design detours within urban areas; expeditious construction.
		Direct: loss of agriculturally productive lands.	Purchase easements and property; appropriate remediation for loss of crop; avoid and/or reestablish subsurface drainage systems (drain tiles); undertake construction during winter, where practical.
		Direct: changed water rates for System members.	Project water may be "softer" than water currently used by some System members, resulting in a decreased need for water softeners and associated member cost savings
		Indirect: potential increase in surface and ground water availability in some locations.	None
		Indirect: potential retirement of some existing water treatment facilities.	None
Land Use			
Agriculture	No impact	Short-term construction-phase loss of productivity and minimal long-term loss (236 acres).	Provide compensation to farmers for loss; construct during winter periods, where practical; avoid and/or reestablish subsurface drainage systems (drain tiles); segregate soils and replace in order; compact/scarify soil surfaces as appropriate; revegetate pasturelands.

Table 2.3 (Continued)

Environmental Resource	Potential Impacts: No Action	Potential Impacts: Proposed Action	Mitigation Measures
Mining	No impact	Small localized loss of opportunity.	Avoid actively mined areas.
Recreation Sites	No impact	Minimal loss of opportunity during construction.	Avoid recreation areas, where practical; undertake construction in important recreation areas during periods of low use; implement appropriate revegetation; expeditious construction.
Wildlife Production Areas	No impact	Minimal loss of productivity during construction.	Avoid where practical; replace lost habitat, acre-for-acre.
Prior Rights (Easements)	No impact	Disruption of travel (roads).	Provide public notification of work periods; determine easements, prior rights, and pipeline locations prior to work; appropriate construction at crossings (road, pipeline, power line); inform appropriate authorities.
Visual Resources	No impact	Localized impairment of views on Missouri River; fugitive dust.	Visually screen well field pump houses; use appropriate vegetation plantings, building design, and coloration; construct during periods of low use, where practical; dust control as necessary.

3.0 AFFECTED ENVIRONMENT

This section describes the existing study area environment. Major organizational headings include:

- physical resources - climate, topography/physiography, geology (including paleontology), soils (e.g., prime farmlands), water resources (e.g., sole source drinking water), air quality, and noise;
- biological resources - vegetation (including wetlands/riparian zones and noxious weeds), wildlife and fisheries, and T&E species and state-sensitive species;
- wild and scenic rivers;
- cultural resources;
- socioeconomics - demography, industry, infrastructure;
- land use - agriculture, mining, recreation facilities and wildlife production areas, road systems, and utilities;
- visual resources; and
- environmental justice.

The Project area (water service area) is considered to be the entire 14 counties through which the pipeline would pass and including McCook County, South Dakota (see Maps 1.1 and 1.2). A 1-mile wide area on each side of the actual impact area (e.g., pipeline and facility site work areas) was established as the study area boundary (see Map 1.3). The study area size was established such that sensitive environmental areas (e.g., wetlands, native prairie, wooded areas, residences, important wildlife habitat) would be considered during routing design and construction (see Appendix A, IERT Guidelines).

Information regarding study area environmental resources was gathered from existing data sources, field reconnaissance, and inquiries to management agency personnel. No detailed, on-the-ground, resource-specific studies have been conducted; however, detailed site-specific investigations would be conducted annually prior to construction (see Appendix A). A

geographic information system (GIS) database for the study area is currently being prepared and will be available for use during IERT investigations.

3.1 PHYSICAL RESOURCES

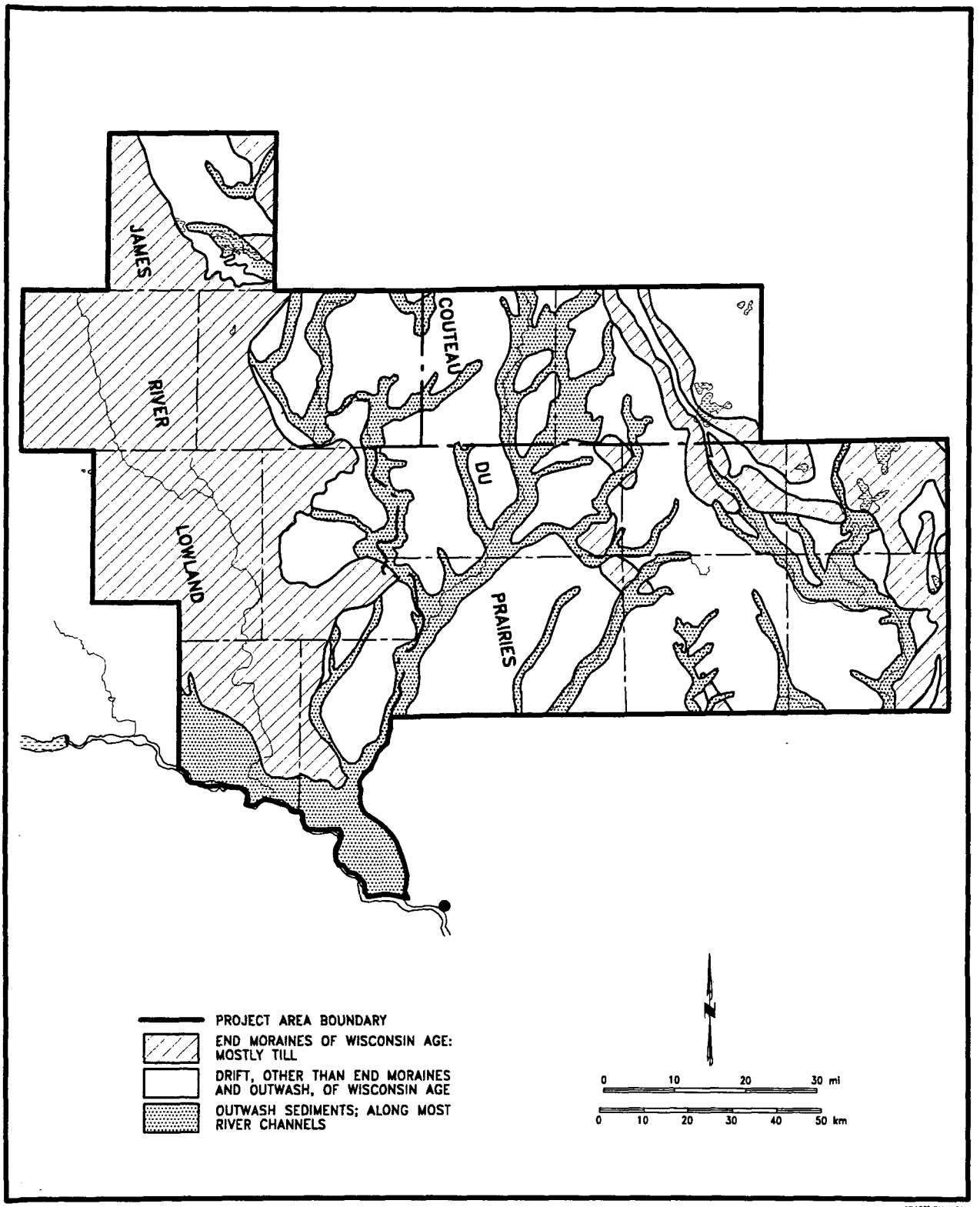
3.1.1 Climate

Climate in the Project area is temperate humid, with warm, humid summers and cold winters (Trewartha and Horn 1980). The frost-free period is typically five to six or more months, making this a very productive agricultural region. July temperatures average 75°F, and midday temperatures are commonly between 90 and 100°F. Summer days with high temperatures typically occur with high relative humidity; this norm is occasionally interrupted by cool polar fronts and associated thunderstorms. January temperatures average 25°F. Total annual precipitation averages approximately 27 inches, with 75% falling as rain from April through September. Prevailing winds are from the northwest. Wind speeds average 10 to 15 miles per hour and are highest in spring (O'Connor 1990; Genrich 1988).

3.1.2 Topography/Physiography

The two major physiographic features of the Project area are the James River lowland in southeastern South Dakota and the Coteau du Prairies (Prairie Hills) in southwestern Minnesota and northwestern Iowa (Map 3.1) (Ojakangas and Matsch 1982). Elevations range from 1,200 feet above sea level in the James River lowland to over 2,000 feet in the Coteau du Prairies. Slopes throughout the Project area tend to be gentle; however, slopes of 40% may occur along the river valleys. These areas are referred to as river breaks.

The topography of the study area is strongly influenced by the four glaciations that covered much of the Midwest during the Pleistocene (Anderson 1983; Ojakangas and Matsch 1982). Much of the present surface material is derived from the most recent glaciation, which occurred during the Wisconsin glacial period. The last ice to retreat from the area was the Des Moines



Map 3.1 Major Physiographic Features of the Project Region, Lewis and Clark Water Supply Project, 2002.

lobe (approximately 14,000 years before present [B.P.]), which left four moraines that are important topographic features in the region: Bemis, Altamont, Humboldt, and Algona (Flint et al. 1959; Ojakangas and Matsch 1982). These moraines now give the landscape its characteristic features of knobby hills and poorly drained swales. Much of the Project area's drainage is strongly influenced by the Bemis and Altamont moraines, and many of the wetlands common throughout the area were formed as a result of this glaciation (Kantrud et al. 1989).

Loess, another product of glaciation, is also an important surface parent material over much of the Project area. Loess consists of fine-grained silts and clays which were formed when rocks were pulverized beneath thick ice sheets and subsequently transported by wind and deposited over large portions of the region. Loess deposits range from 5 feet to greater than 20 feet thick (O'Connor 1990).

Outwash sediments occur along most of the river channels within the Project area. These sediments were originally deposited by meltwater streams emanating from the retreating glaciers that once covered the area.

3.1.3 Geology

Glacial drift (surface materials deposited by glaciers [i.e., till and outwash]) and aeolian (wind-deposited) loess and sand at the ground surface are underlain by a series of flat-lying sedimentary rocks across the Project area. These flat-lying rocks are underlain by Precambrian igneous and metamorphic rocks, which together comprise part of the stable continental craton (large immobile surface). Only the Precambrian Sioux Quartzite and Cretaceous sediments outcrop in the area. The Sioux Quartzite is a fine- to coarse-grained, tightly cemented quartzite, with inclusions of conglomerate and red mudstone. The red mudstone, a unique rock type, can be found at Pipestone National Monument, Minnesota. Cretaceous sandstones, shales, conglomerates, and lignites are the only sedimentary rocks present at the surface in the Project area and include the Colorado Group and the Dakota Group. These sediments were laid down in and adjacent to an ancient advancing sea.

The Dakota Group outcrops along the Missouri River and is an important aquifer in Iowa and South Dakota. The Dakota Group is overlain by the Colorado Group, which outcrops near Sioux City.

3.1.3.1 Mineral Resources

The most important mineral resources in the region are sand and gravel excavated from river alluvium and glacial drift (Anderson 1983; Ojakangas and Matsch 1982). Clays excavated from former glacial riverbeds and shales from the Colorado Group have been mined near Sioux City, Iowa, and are used for the manufacture of brick, tiles, and ceramics. However, most clay processing facilities are currently inoperative (Mariah 1993b). Peatlands formed in ancient glacial lakes provide peat that is used primarily for horticultural practices.

Granite quarries along the Minnesota River north of the Project area produce crushed and broken stone for construction materials and blocks of dimension stone for buildings. While limestone is the leading mineral resource in the state of Iowa, there are no limestone quarries currently operating in the northwestern part of the state (Mariah 1993b). The Sioux Quartzite is currently being mined as a gravel source and for building materials in Spencer, Iowa, and Sioux Falls, South Dakota, and is also being explored for uranium. No mining for uranium has occurred. There are no commercially important sources of coal, oil and gas, or metals in the region.

3.1.3.2 Geologic Hazards

There are no significant geologic hazards in the Project area (Mariah 1993b). The principal geologic hazard would be associated with slope instability due to the presence of slippage planes in stratified outwash and glacial till. Gully erosion may also be a concern in some areas (Bettis 1983).

In southwestern Minnesota, seismic activity has been limited to an earthquake (magnitude 3.4 on the Richter scale) that occurred in 1964 with an epicenter in Pipestone County (Mooney

1979). The last earthquake in Iowa occurred in 1947 and had a magnitude of approximately 3.0 (Mariah 1993b). The Project area is located within seismic zones 0 and 1 (1988 *Uniform Building Code*). The Cretaceous sedimentary rocks which underlie portions of the Project area are faulted, but this faulting probably occurred during the retreat of glacial ice, approximately 8,000 years ago. There are no other known geologic hazards within the Project area.

Many rivers within and adjacent to the Project area are subject to periodic flooding; therefore, numerous flood control projects have been completed or proposed along the major rivers of the region. The rolling topography of the area contributes to rapid runoff resulting in frequent, large floods in some areas (Lara and Giglierano 1987). Flash flooding in these areas may also be common. The 100-year and 500-year flood elevations along the Missouri River in the vicinity of the proposed well field are approximately 1,131-1,132 feet and 1,133-1,134 feet, respectively (COE 1981).

3.1.3.3 Paleontological Resources

There are no major Paleontological resources within the Project area (Mariah 1993b). The two principal fossil-bearing bedrock formations in the area are the Dakota and Colorado Groups, both of Cretaceous age. Both groups outcrop in the vicinity of Sioux City, Iowa, outside of the Project area. The Dakota Group contains silicified wood, casts of deciduous trees, and fossils of angiosperm leaves including willow, poplar, and magnolia. This group also contains fossils of brackish-water mollusks, shells and impressions of pelecypods, oysters, and fish remains. The Colorado Group contains foraminifera, gastropods, ammonoid cephalopods, pelecypods, and fish remains.

3.1.4 Soils

Since farming is the chief economic enterprise of the region, soil is one of the area's most valuable natural resources. For the purpose of pipeline route selection and impact determination, soils have been divided into four groups: nearly level upland soils, sloping soils,

bench and terrace soils, and bottomland soils. Detailed soil maps produced by the Soil Conservation Service (SCS), now referred to as the Natural Resource Conservation Service (NRCS), are available for all Project area counties.

The soil characteristics of each of the four soil categories are strongly influenced by parent material. Principal parent materials in the area are loess, alluvium, glacial drift, and sandy aeolian material. Loess, deposited as silt, sand, and clay, covers approximately 75% of the area. Also common are alluvium--a sediment deposited by water along stream channels--and glacial drift--rock material, including outwash and till, deposited by glacial ice. Sandy aeolian material similar to loess, but having a higher sand content, is not as common in the region as the other three parent materials.

Soils on level/nearly level uplands are the most abundant regionally and range from well-drained to poorly drained, depending on parent materials. These soils were formed in glacial till, glacial outwash, loess, and lacustrine (lake) sediments. Production of row crops is the principal use of these soils, and management concerns include maintaining soil tilth and fertility.

Soils on slopes are generally well-drained and often calcareous and were formed in glacial till and loess. Because of steep slopes, these soils are not well-suited for use as cropland and are primarily used for pasture, woodland/wildlife habitat, and recreation. Some row crops are produced, but the soils tend to be dry, and the erosion hazard is severe. The main management concerns are controlling erosion, preventing gully formation, and maintaining fertility.

Soils on benches and terraces are generally moderately to excessively well-drained and were formed in silty sediments on outwash plains and/or in loamy or sandy alluvial sediments. They are typically used for pasture, woodland/wildlife habitat, and recreation. Some areas are used for crops, but these soils tend to be dry and often have sand and gravel near the surface. Terraces and benches are a major source of sand and gravel for the region. Management concerns include water and wind erosion and maintaining fertility.

Soils in bottomlands are poorly drained and were generally formed in calcareous loess and glacial till. Excessive wetness and flooding are major factors limiting the usefulness of these soils as cropland; thus, they are most commonly used for pasture.

3.1.4.1 Prime Farmland Soils

Prime farmland soils are physically and chemically well-suited for production of feed, forage, fiber, and oilseed crops (Vobora and Kristoff 1988). Specific criteria used to identify potential prime farmland soils include available water-holding capacity, potential for irrigation, temperature and length of growing season, pH, salinity, flooding, erodability, permeability, and texture. Approximately 80 to 90% of soils in the Project area are classified as prime farmland soils. Area soils that are not prime farmland soils are generally too steep, too wet, and/or have low available water-holding capacity.

3.1.4.2 Wetland Soils

Wetlands, common throughout the Project area, contain primarily undrained wetland soils. Wetland soils in their undrained condition are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions favoring the growth and regeneration of hydrophytic vegetation. The development of wetland soils depends largely on the duration of flooding, water quality, and the relative position of the wetland basin with respect to the ground water table (Kantrud et al. 1989).

3.1.5 Water Resources

3.1.5.1 Surface Water

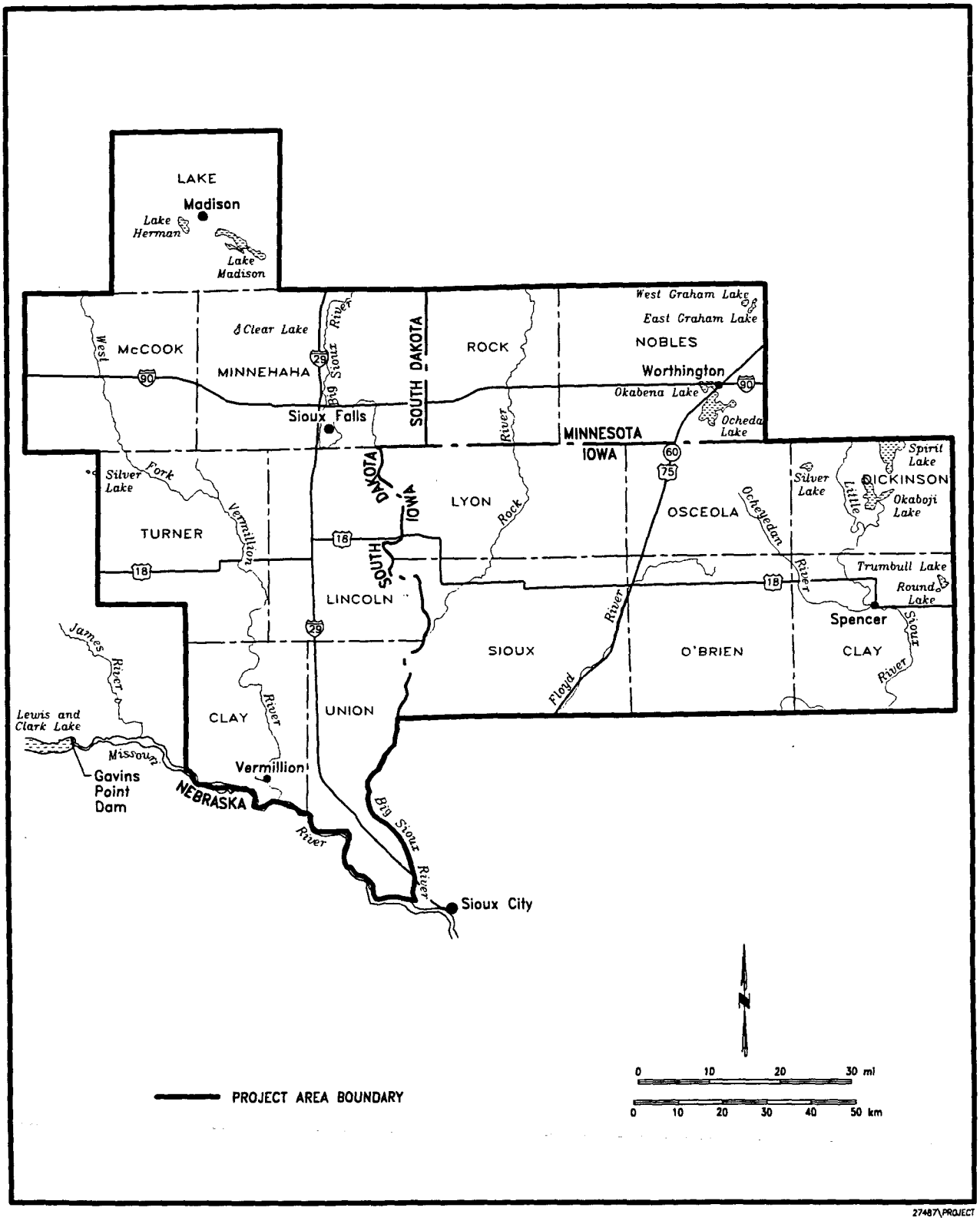
Surface water drainage from the Project area is primarily to the Missouri River via numerous waterways (e.g., Vermillion River, Big Sioux River, Rock River, Floyd River), except for eastern portions of Nobles County, Minnesota, which drains northeast into the Des Moines River

(Map 3.2). Principal watersheds within or immediately adjacent to the Project area are the Big Sioux River, Des Moines River, Floyd River, James River, Little Sioux River, Missouri River, Ocheyedan River, Rock River, and Vermillion River watersheds.

Surface water is used primarily for recreation (i.e., fishing and boating). Most streams and rivers have highly variable flows, ranging from little or no flow in late summer, fall, and winter to flood-stage flows in spring during snowmelt. Because water availability is highly variable, the smaller rivers have only limited use for irrigation or fisheries development.

The Missouri River is the largest body of water in the Project area and flows southeast with a gradient of 1 foot per mile along the southern border of the Project area in South Dakota (Westin et al. 1959). Seasonal river flows in the vicinity of the proposed well field vary and are regulated by upstream reservoirs. Peak flows occur in June and are caused by snowmelt, and low flows occur in winter when much of the water is trapped as ice. Prior to the construction of Gavins Point Dam in 1955, flows of the Missouri River at Yankton, South Dakota ranged from less than 2,000 cubic feet per second (cfs) to approximately 480,000 cfs (U.S. Geological Survey [USGS] 2001). Flow rates are currently regulated by a main stem reservoir system consisting of a series of six dams designed to control flooding and produce hydroelectric power. Currently, peak discharges generally range from 40,000 to 80,000 cfs (USGS 2001), with minimum and maximum daily flows at Yankton, South Dakota, of 6,000 and 80,000 cfs, respectively. At Sioux City, Iowa, minimum and maximum flows are 6,200 and 103,000 cfs, respectively.

Lewis and Clark Lake, created by Gavins Point Dam and located west of the Project area (Map 3.2), is the southernmost impoundment in the Missouri River reservoir system. The surface area of Lewis and Clark Lake varies from 25,000 to 31,000 acres, depending on pool level. The volume of water stored also varies with pool elevation; maximum storage is approximately 492,000 acre-ft (COE 1982).



Map 3.2 Major Surface Water Resources, Lewis and Clark Water Supply Project, 2002.

Natural lakes, another important surface water resource in the region, were originally formed during the melting of glacial ice. These lakes are currently maintained by runoff and ground water and are used primarily for recreation. The larger lakes in the Project area include Lake Herman, Lake Madison, Ocheda Lake, Okabena Lake, East Okaboji Lake, Prairie Lake, Spirit Lake, and Trumbull Lake (Map 3.2).

Lakes in the region tend to be shallow, therefore rich in nutrients and subject to contamination from human activities (Mariah 1993b). Many of these lakes are adversely affected by nonpoint source pollution. Effects of this pollution include oxygen depletion, eutrophication, bacterial contamination, increases in nitrate and total suspended solids, algal blooms, bottom sedimentation, and turbidity. Contamination is probably related to agricultural and industrial activities, septic systems, and storm sewers. Selected surface water classifications are presented in Table 3.1.

Within South Dakota, defined beneficial surface water uses are defined as follows (South Dakota Administrative Rules, Chapters 74:51:01:42 and 74:51:03:02 [State of South Dakota 2002a]):

1. domestic water supply;
2. cold-water permanent fish life propagation;
3. cold-water marginal fish life propagation;
4. warm-water permanent fish life propagation;
5. warm-water semipermanent fish life propagation;
6. warm-water marginal fish life propagation;
7. immersion recreation;
8. limited contact recreation;
9. fish and wildlife propagation, recreation, and stock watering;
10. irrigation; and
11. commerce and industry waters.

Table 3.1 Surface Water Quality for Selected Rivers, Creeks, and Lakes in or Immediately Adjacent to the Lewis and Clark Water Supply Project Area, 2002.

Source	Water Quality Class[1]
South Dakota[2]	
Rivers and Streams	
Missouri River (including Lewis and Clark Lake)	1, 4, 7, 8, 9, 10, 11
James River	5, 8, 9, 10
Vermillion River (Missouri River to confluence of Vermillion River's East and West Forks)	5, 8, 9, 10
Vermillion River (West Fork of Vermillion River from Vermillion River to the McCook-Miner County line)	6, 8, 9, 10
Vermillion River (East Fork of Vermillion River from Vermillion River to the McCook-Lake County line)	6, 8, 9, 10
Big Sioux River (from Missouri River to the confluence with Sioux Falls Diversion Ditch)	5, 7, 8, 9, 10
Big Sioux River (from the confluence with the Sioux Falls Diversion Ditch to Section 2, T104N,R49W of the fifth principal meridian)	1, 5, 7, 8, 9, 10
Big Sioux River (from Section 2, T104N, R49W of the fifth principal meridian to Lake Kampeska)	1, 5, 8, 9, 10
Creeks	
Skunk Creek (from Big Sioux River to outlet of Brant Lake)	6, 8, 9, 10
Lakes	
Lake Mitchell	1, 4, 7, 8, 9
Lake Madison	5, 7, 8, 9
Iowa[3]	
Rivers and Streams	
Floyd River (confluence with West Branch Floyd River to confluence with North Fork)	B(LR)
Big Sioux River (mouth to Iowa-Minnesota state line)	A, B(WW)
Little Rock River (mouth in Lyon County to the Iowa-Minnesota state line)	B(LR)
Ocheyedan River (mouth in Clay County to the Iowa-Minnesota state line)	B(LR)
Little Sioux River (West Line in Clay County to confluences with the West Fork Little Sioux River, Dickenson County)	B(WW)
Little Sioux River (Linn Grove Dam to Clay County, near Spencer)	B(WW), HQR

Table 3.1 (Continued)

Source	Water Quality Class[1]
Creeks	
Kanaranzi Creek (mouth to the Iowa-Minnesota state line)	B(LR)
Rock Creek (mouth in Sioux County to the confluence with Kanaranzi Creek)	B(WW)
Rock Creek (confluence with Kanaranzi Creek to the Iowa-Minnesota state line)	B(LR)
Lakes	
East Okoboji Lake	A, B(LW), HQ
Big Spirit Lake	A, B(LW), C, HR
Trumbull Lake	A, B(LW)
Prairie Lake	B(LW)
Minnesota[4]	
Rivers and Streams	
Little Rock River (source to Iowa border)	2C, 3B
Rock River (source to Iowa border)	2C, 3B, 7
Creeks	
Skunk Creek	2C
Okabena Creek (Worthington, Worthington Lagoons, and Allied Mills)	7
Fens	
Westside Fen (Nobles County; T102N, R43W, Section 11)	2D

[1] Water Quality Classes are explained by state within the EA text.
[2] South Dakota Administrative Rules, Chapters 74:51:01:42 and 74:51:03:02. Data obtained from http//legis.state.sd.us/rules/rules/7451.htm#74:51:01:42. Data accessed February 6, 2002.
[3] Adapted from Iowa Administrative Code, Chapter 61, Water Quality Standards (1996). Data obtained from http://www.state.ia.us/dnr/organiza/epd/wtresrce/wquality/index.htm. Data accessed February 7, 2002.
[4] Adapted from Minnesota Pollution Control Agency (2002).

In Iowa, there are eight classes of surface waters for water quality protection. These classes are:

1. primary contact recreation (Class A);
2. cold water aquatic life (Class B[CW]);
3. high quality water (Class HQ);
4. high quality resource water (Class HQR);
5. significant resource warm water (Class B[WW]);
6. limited resource warm water (B[LR]);
7. lakes and wetlands (Class B[LW]); and
8. drinking water supply (Class C).

Class A waters are protected for primary contact recreation. Class B waters are protected for wildlife, fish, aquatic and semiaquatic life, and secondary contact water uses. Class C waters are protected as a raw water source of potable water. High-quality waters in Iowa are afforded special protection based on the characteristics that initially determined their high-quality status.

The Minnesota Pollution Control Agency has developed a surface water quality classification system based on intended use:

1. domestic consumption;
2. aquatic life and recreation;
3. industrial consumption;
4. agriculture and wildlife;
5. aesthetic enjoyment and navigation;
6. other uses; and
7. limited resource value.

These seven classes are further subdivided into types A, B, and C. Standards for subclasses A, B, and C vary depending on the primary classification (1 through 7).

Minnesota rivers within the Project area are generally Class 2C or 3B waters, with the exception of a segment of Rock River and Okabena Creek, which have Class 7 designations.

Calcareous fens (marshes) also occur within the Project area, and these areas are classified as Outstanding Resource Value (ORV) Waters. The West Side Fen is classified as a calcareous fen and a Class 2D water (Minnesota Pollution Control Agency 2002).

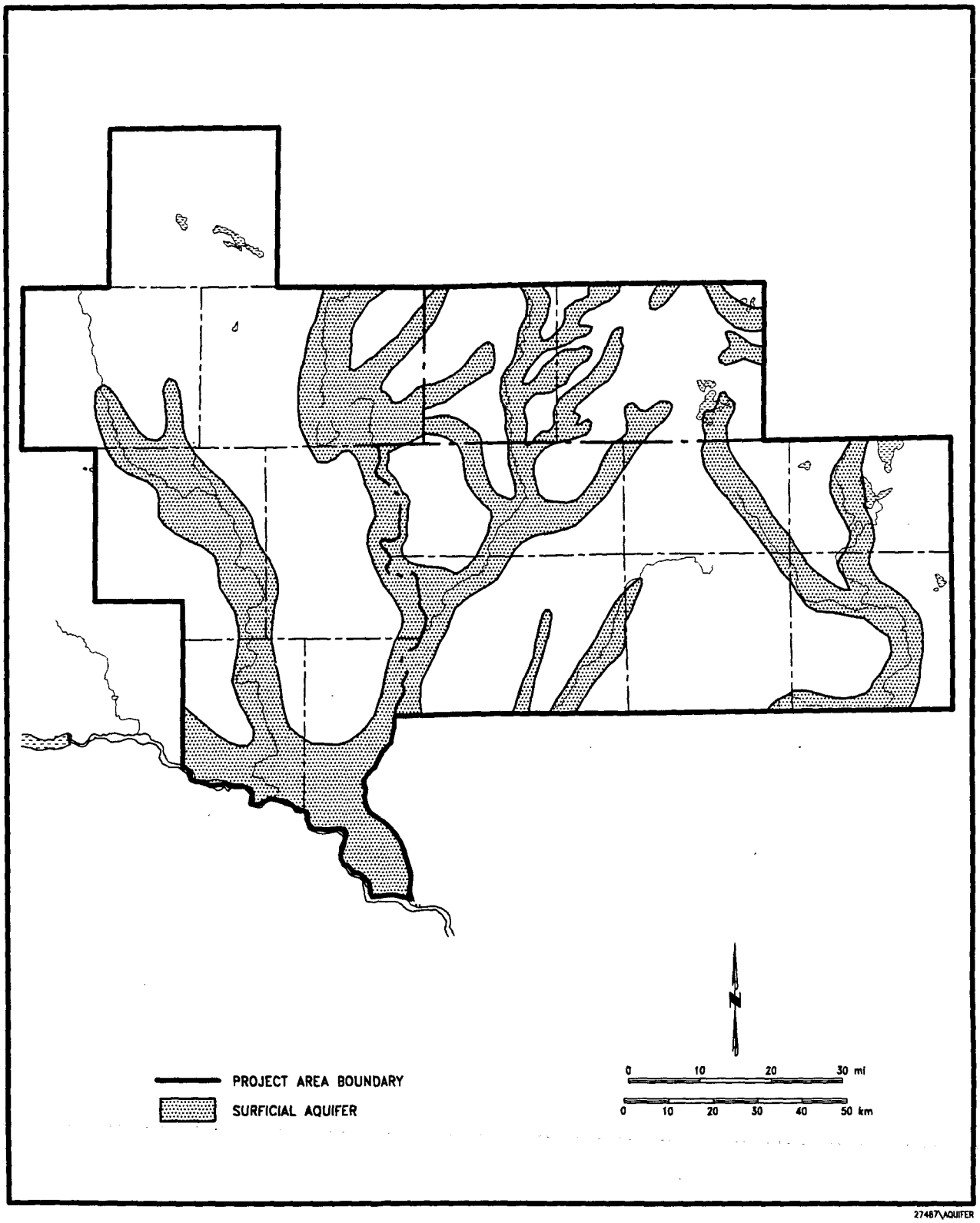
3.1.5.2 Ground Water

Surficial aquifers (Map 3.3) and bedrock aquifers occur in the area and provide the majority of water used by municipalities and rural water systems. Surficial aquifers are found in three types of material: 1) alluvial fill adjacent to present stream valleys, 2) outwash and alluvial deposits in buried channels, and 3) thin, discontinuous sand bodies within glacial drift. The first two sources provide moderate to large amounts of water. The smaller sand bodies yield less water but are widespread and important for rural water supply (Adolphson 1983; Anderson 1983; Rodis 1963). The principal surficial aquifers in the region occupy the alluvial channels of major rivers and include the Missouri, Big Sioux, Floyd, Rock, Nobles, and Des Moines aquifers (Maps 3.2 and 3.3).

Surficial aquifers are typically 0.5 to 2.0 miles wide, are up to 110 feet thick, and have a saturated thickness of up to 80 feet. Well yields may be as high as 1,000 gallons per minute (gpm) (Adolphson 1983).

Water in surficial aquifers is generally unconfined and hydraulically connected to surface water. Recharge occurs via infiltration of precipitation and inflow from streams and other aquifers, while discharge occurs through wells, springs, seepage to surface water or other aquifers, evaporation, and transpiration (Anderson 1983).

Several bedrock aquifers in the Project area are utilized as a water resource. Poorly cemented Cretaceous shales and sandstones underlying surficial deposits supply moderate to large quantities of water. In northwestern Iowa, the Dakota aquifer, a Cretaceous sandstone, is an important source of public, industrial, irrigation, and rural domestic water (Buchmiller and Squillance 1986).



Map 3.3 Surficial Aquifers of the Project Region, Lewis and Clark Water Supply Project, 2002.

While the quality of ground water from surficial aquifers in the Project area is generally adequate for consumptive use, most municipalities are required to treat ground water to meet federal water quality standards (Mariah 1993a). The most common characteristic of ground water in surficial aquifers is that it is quite hard, with values of 200 to 1,000 mg/l calcium carbonate (Buchmiller and Squillance 1986). Concentrations of compounds such as iron, manganese, sulfate, and dissolved solids may be high or even exceed EPA and/or state standards (SDWA; Buchmiller and Squillance 1986). Many of the surficial aquifers in the Project area provide water with one or more of the aforementioned undesirable characteristics. In addition, shallow aquifers are susceptible to contamination from human activities (Adolphson 1983). The four main types of ground water contaminants derived from human activities are nitrates, bacteria, pesticides, and other synthetic organic compounds.

Bedrock aquifers are less susceptible to contamination due to their greater depth; however, these waters also tend to be hard. In some cases, nitrates, pesticides, and organic compounds have been detected in bedrock aquifers nearest the surface (Buchmiller and Squillance 1986).

3.1.6 Air Quality

Air quality in the Project area is designated as Class II under prevention of significant deterioration (PSD) regulations (personal communications, February 2002, with Kyrik Rombough, Engineering specialist, South Dakota Department of Environmental and Natural Resources [SDDENR]; Gary Smith, Air Quality Bureau, Iowa Department of Natural Resources [IDNR]; and Gordon Anderson, Attainment/Non-attainment, Minnesota Pollution Control Agency). No federal Class I areas exist within 100 km (62 miles) of the Project area. The region is classified as attainment for all regulated pollutants, indicating that ambient pollutant concentrations are below National Ambient Air Quality Standards (NAAQS).

Sioux Falls, South Dakota, is the only major city within the Project area. South Dakota has adopted NAAQS to define acceptable levels of air quality, with a margin of safety, to protect the public health. NAAQS exist for six criteria pollutants: particulate matter less than

10 microns (PM_{10}), nitrogen dioxide (NO_2); sulfur dioxide (SO_2); carbon monoxide (CO); ozone (O_3); and lead (Pb). Monitored pollutant concentrations in the Sioux Falls area are representative of existing conditions in the region and are below the ambient air quality standards for regulated pollutants (personal communication, February 2002, with Brad Schultz, Senior Scientist, SDDENR, Air Quality Group). These monitored concentrations and corresponding NAAQS are shown in Table 3.2

3.1.7 Noise

Ambient noise levels throughout the majority of the Project area are rural to residential in nature, with the only appreciable noise being associated with wind and traffic along roadways.

Table 3.2 Representative Regional Pollutant Concentrations (Sioux Falls Area), and National Ambient Air Quality Standards, Lewis and Clark Water Supply Project, 2002.

Pollutant	Averaging Period	Monitored Concentration[1] ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
PM_{10}	24-hour[2]	53	150
	Annual	20	50
$PM_{2.5}$	24-hour[3]	32.6	65
	Annual[3]	10.1	15
NO_2	Annual	n/a[4]	100
SO_2	3-hour[2]	n/a	1,300 (secondary)
	24-hour[2]	n/a	365
	Annual	n/a	80
CO	1-hour[2]	n/a	40,000
	8-hour[2]	n/a	10,000
O_3	1-hour	0.172	235
	8-hour[3]	0.135	157
Lead (Pb)	Quarterly[5]	n/a	1.5

[1] Adapted from personal communication with Mr. Brad Schultz, SDDENR, February 2002.
[2] Not to be exceeded more than once per year.
[3] Standard not yet promulgated.
[4] n/a = not applicable.
[5] Not to be exceeded more than three times in three consecutive years at a single location.

Levels within the city of Sioux Falls may be greater due to higher levels of air traffic. An A-weighted decibel (dBA) measure is used to evaluate environmental noise. Common noise sources which affect ambient levels in rural and residential areas include agricultural equipment (90 dBA at 50 feet), motorboats (75 dBA at 100 feet), freeway traffic (70 dBA at 50 feet), and light automobile traffic (50 dBA at 100 feet).

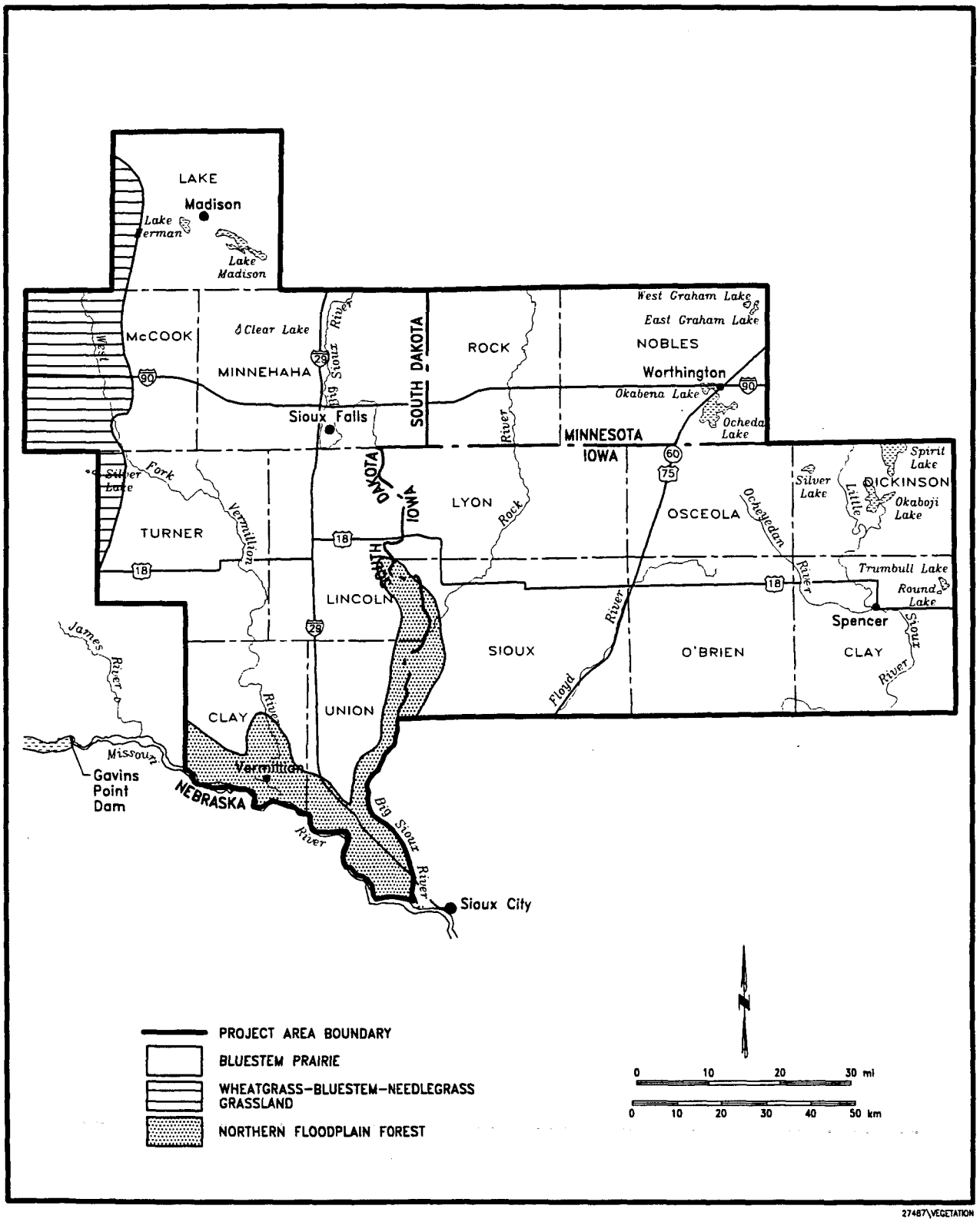
3.2 BIOLOGICAL RESOURCES

3.2.1 Vegetation

As a result of favorable climate and soil conditions, most of the native vegetation in the region has been converted to agricultural land (Yorks and McMullen 1980; Auclair 1976). Three broad natural vegetation types as defined by Kuchler (1964) originally dominated the area but now exist only as isolated patches of native prairie and woodland. These natural vegetation types are the bluestem prairie (tall grass prairie), the wheatgrass-bluestem-needlegrass prairie (mid-grass prairie), and the northern floodplain forest (Map 3.4). Wetlands, including riverine, lacustrine, and marsh or swamp habitats, also occur sporadically throughout the area.

The bluestem prairie once occurred over the majority of the Project area. In eastern South Dakota and southwestern Minnesota, 75% of the bluestem prairie is now cropland, and an additional 10 to 20% has been converted to improved pasture (Yorks and McMullen 1980). The remnant islands of remaining prairie are primarily dominated by tall grasses and forbs. The most common grasses are big and little bluestem, panic, and Indiangrass. Important forb species include leadplant, field pussytoes, fleabane spp., gayfeather spp., purple coneflower spp., and goldenrod spp. (Kuchler 1964; Risser et al. 1981). Productivity within the tall grass prairie type may be as high as 8,657 lb/acre (Kucera and Dahlman 1967).

West of the bluestem prairie is the wheatgrass-bluestem-needlegrass prairie (Map 3.4), which shares some vegetative similarities with the bluestem prairie system. Vegetation is primarily



Map 3.4 Approximate Original Areas of the Major Natural Vegetation Types of the Lewis and Clark Water Supply Project Area, 2002.

composed of medium and tall grasses, with the tall grasses occurring more frequently in lowlands and swales where soils are deeper and there is greater moisture availability (Yorks and McMullen 1980). The few remaining native mid-grass prairie areas in the western portion of the study area are dominated by big bluestem, western wheatgrass, and porcupine needlegrass. Important shrub species include fringed sagebrush, Louisiana sagewort, heath aster, purple coneflower, dotted gayfeather, silverleaf scurfpea, Arkansas rose, and goldenrod spp. (Kuchler 1964; Risser et al. 1981). Productivity within the mid-grass prairie may be as high as 3,743 lb/acre (Yorks and McMullen 1980).

Small areas adjacent to the major rivers on the Project area still have remnant tracts of the northern floodplain forest that have not been converted to agricultural uses. The approximated original distribution of these forests is shown in Map 3.4. Kuchler (1964) indicates that poplar spp., willow spp., elm spp., maple spp., and ash spp. are the more common tree species within these forests. Common species on the drier side slopes include bur oak, locust spp., and red mulberry (Ensz 1979); eastern red cedar is a common invader on these sites. Important understory species include American bittersweet, common hackberry, virginsbower, wildrye spp., Virginia creeper, and poison ivy (Kuchler 1964). This forest type is heavily used for wildlife-related recreation activities and livestock grazing, since it provides both shelter and forage in areas where these habitat features would otherwise be unavailable. Forage production may be as high as 2,430 lb/acre (Yorks and McMullen 1981). Most of these wooded areas produce little if any marketable timber (Fisher 1969).

Wetlands occur throughout the area and are generally associated with rivers, ponds and lakes, and/or landscape depressions (marshes and swamps). Considerably more wetland habitat was once present; however, many of these areas were drained during the 1960s and 1970s to increase the availability of agricultural lands (USFWS 1984). Ninety-nine percent of Iowa's original natural marshes have been lost, while Minnesota and South Dakota have lost 53% and 35% of their original wetlands, respectively (Salvesen 1990). Commonly occurring plant species at these sites include prairie cordgrass, cattail spp., bulrush spp., sedge spp., knotweed spp.,

arrowhead spp., naiad spp., annual wildrice, coontail spp., pondweed spp., and water milfoil spp. (Risser et al. 1981; Gerbig et al. 1987).

Windbreaks and environmental plantings have been established throughout the area to provide protection for livestock and buildings, to beautify and screen buildings, and to abate noise (Rolling 1979). These areas serve to diversify the landscape and can be important for numerous wildlife species. Commonly planted tree species include eastern red cedar, eastern poplar, maple spp., willow spp., elm spp., oak spp., and ash spp. Shrub plantings may include plum spp., dogwood spp., ceanothus spp., honeysuckle spp., currant spp., skunkbush sumac, and buffaloberry spp. (Ensz 1979; Fisher 1969; Johnson 1978; Rolling 1979).

Plants designated as noxious weeds in Iowa, South Dakota, and Minnesota are presented in Table 3.3 (Iowa Code, Section 317.1 [State of Iowa 2002]; Minnesota Rules, Section 1510.271 [State of Minnesota 2002]; South Dakota Administrative Rules 12:62:03:01:06 and 12:62:03:01:07 [State of South Dakota 2002b]).

3.2.2 Wildlife and Fisheries

The Project area supports numerous wildlife species typically associated with tall and mid-grass prairie, northern floodplain forest, wetland habitats, and extensive agricultural areas. Species associated with agriculture are the most common regionally, with those typical of native habitats restricted to the small areas where these habitats remain. Numerous fish and other aquatic species occur in the rivers, ponds, and lakes of the region. Information on wildlife species present in the area was obtained from state and federal land management agency personnel, including the USFWS, MDNR, South Dakota Department of Game, Fish, and Parks (SDDGFP), and IDNR. The wildlife resources of the area are discussed below by major group.

3.2.2.1 Big Game, Upland Game, and Furbearing Species

Game species within the Project area include one big game species (white-tailed deer) and five upland game bird species (wild turkey, ring-necked pheasant, gray partridge, northern bobwhite,

Table 3.3 Noxious Weeds by State, Lewis and Clark Rural Water Supply Project, 2002.[1]

Common Name	Scientific Name	State
Butterprint	*Abutilon theophrasti*	IA[2]
Quackgrass	*Agropyron repens*	IA
Common burdock	*Arctium minus*	SD
Absinth wormwood	*Artemisia absinthium*	SD
Wild mustard	*Brassica arvensis*	IA[2]
Hemp	*Cannabis sativa*	MN
Hoary cress	*Cardaria draba*	SD
Plumeless thistle	*Carduus acanthoides*	MN, SD
Musk thistle	*Carduus nutans*	MN, SD
Diffuse knapweed	*Centaurea diffusa*	SD
Spotted knapweed	*Centaurea maculosa*	SD
Russian knapweed	*Centaurea repens*	SD, MN, IA
Canada thistle	*Cirsium arvense*	SD, MN, IA
Thistle[3]	*Cirsium* spp.; *Carduus* spp.	IA
Bull thistle	*Cirsium vulgare*	MN, IA, SD
Poison hemlock	*Conium maculatum*	IA[2]
Field bindweed	*Convolvulus arvensis*	SD, MN, IA
Houndstongue	*Cynoglossum officinale*	SD
Wild carrot	*Daucus carota*	IA[2]
Teasel	*Dipsacus* spp.	IA[2]
Leafy spurge	*Euphorbia esula*	SD, MN, IA
Leafy spurge	*Euphorbia pseudovirgata*	SD
Wild sunflower	*Helianthus annus*	IA[2]
St. Johnswort	*Hypericum perforatum*	SD
Perennial peppergrass	*Lepidium draba*	MN, IA
Dalmation toadflax	*Linaria dalmatica*	SD
Yellow toadflax	*Linaria vulgaris*	SD
Purple loosestrife	*Lythrum salicaria*	SD
Scotch thistle	*Onopordum acanthium*	SD
Buckhorn	*Plantago lanceolata*	IA[2]
Buckthorn	*Rhamnus* spp.[4]	IA
Multiflora rose	*Rosa multiflora*	IA[2]
Sheep sorrel	*Rumex acetosella*	IA[2]
Smooth dock	*Rumex altissimus*	IA[2]
Sour dock	*Rumex crispus*	IA[2]
Horsenettle	*Solanum carolinense*	IA, SD
Perennial sowthistle	*Sonchus arvensis*	SD, MN, IA
Shattercane	*Sorghum bicolor*	IA[2]
Common tansy	*Tanacetum vulgare*	SD
Puncture vine	*Tribulus terrestris*	IA[2], SD
Common mullein	*Verbascum thapsus*	SD
Cocklebur	*Xanthium commune*	IA[2]

1 Adapted from State of Iowa (2002), State of Minnesota (2002), State of South Dakota (2002b)
2 Designated as secondary noxious weeds in Iowa.
3 Includes all species of thistles belonging to the genera *Cirsium* and *Carduus*.
4 Does not include *Rhamnus frangula*.

and mourning dove). Economically important furbearers found in the area include raccoon, mink, muskrat, and beaver; less economically important furbearers include striped skunk, opossum, and long-tailed weasel. Red fox and coyote also occur regionally. White-tailed deer, opossum, striped skunk, and raccoon were observed in the study area during reconnaissance.

White-tailed deer are found throughout the entire Project area. However, the predominance of agricultural land uses has reduced the areas that provide adequate cover for deer. Forested areas adjacent to major drainages provide habitat pockets sufficiently large for white-tailed deer populations. These areas are especially important during the winter months. Deer populations have remained stable in recent times with moderately high numbers. Both hunting pressure and success have been increasing in northwestern Iowa (Harr 1990).

Of the five game bird species found in the Project area, only three are native to the region: northern bobwhite, mourning dove, and wild turkey. The northern bobwhite may no longer occur in the area due to habitat loss, while mourning dove populations are large and healthy over the entire Project area (Dinsmore et al. 1984). Wild turkeys are well-established along the Big Sioux River and appear to be increasing in number and expanding their range. Ring-necked pheasant and gray partridge habitat (croplands, grasslands, and road ROWs) occurs across the region. Ring-necked pheasant populations appear to be increasing in spite of increased hunting pressure and success, while gray partridge populations remain relatively stable.

Furbearing species are concentrated primarily in wetland areas, while coyote and fox populations tend to be greatest in the hilly country adjacent to rivers. Coyote, beaver, and raccoon populations have increased in recent years, fox populations have remained relatively stable with high numbers, and muskrat and mink have declined. Hunting and trapping pressures on these species have dropped considerably in recent years.

3.2.2.2 Waterfowl

The Project area is located in, and is a small portion of, the prairie pothole geographic region of the northern U.S. and south-central Canada. This region produces 50 to 80% of the continent's important waterfowl species. Waterfowl are the most economically important migratory birds in North America, generating several billion dollars a year in direct expenditures. Large-scale reductions in the number and acreage of wetlands caused by agriculture, urban/industrial development, and drought have affected the abundance and distribution of several waterfowl species present in the region and have generated national concern. USFWS efforts to reduce wetland losses within the region include wetlands protection, restoration, management, and research (Mariah 1993b).

Numerous waterfowl species (ducks, geese, and swans) exist along rivers and at lakes and other wetlands across the Project area. Breeding occurs throughout, with the more easterly portions of the Project area in Iowa and Minnesota providing the best breeding sites (Musgrove and Musgrove 1953). Wooded areas along the Missouri and Big Sioux Rivers provide nesting sites for wood duck, mallard, and blue-winged teal. Wetlands also provide breeding and nesting areas for Canada geese. Waterfowl hunting is considered moderate in the area (Harr 1990). Waterfowl populations are expected to increase regionally as efforts to restore drained wetlands continue.

3.2.2.3 Raptors and Other Birds

Native woodland pockets and shelterbelt plantings provide important habitat for a variety of bird species during both nesting and wintering periods. Wooded bottom lands associated with the major rivers of the area are important spring and fall migration corridors for various songbirds. Raptors also use these corridors. Commonly nesting raptor species include red-tailed hawk, American kestrel, great horned owl, and screech owl; turkey vultures also nest along the Big Sioux River. Swainson's hawk and accipiters are rare (Harr 1990). Bald eagles are common migrants along the major river systems and winter in sheltered areas along the Missouri River.

Red-tailed hawks also winter in the Project area. Distribution and numbers of wintering raptors would be influenced by weather and food sources, since raptors are highly mobile during this period.

3.2.2.4 Fisheries

Economically important game fish species found in the Project area include walleye, northern pike, channel catfish, smallmouth bass, and carp. Other commonly occurring species include sauger, goldeye, white bass, and freshwater drum. Numerous non-game species and other aquatic animal life also occur throughout the Project area and are the primary species in many of the smaller tributary streams (e.g., Ocheyedan, Little Sioux, Floyd, Vermillion, and Rock Rivers). Channel catfish may also occur in some of these waters. Fish spawning areas occur throughout regional waters and are variable in nature depending upon species-specific habitat requirements. Fishing can be extensive at times along the Big Sioux, Little Sioux, and Missouri Rivers and is an important recreational activity on several of the larger lakes in the Project area. Smaller river systems receive very little fishing pressure in Iowa (Harr 1990).

3.2.3 Threatened and Endangered (T&E), and State-Listed Species

Nine federally listed T&E species occur or have the potential to occur in the Project area (Table 3.4)--bald eagle, least tern, piping plover, pallid sturgeon, Topeka shiner, American burying beetle, scaleshell mussel, western prairie fringed orchid, and the prairie bush-clover (see the Project BA for further detail on T&E species [TRC Mariah 2002]). No designated critical habitats for T&E species are known to occur in the study area; however, critical habitat for the piping plover is proposed for listing (personal communication with Scott Larson, USFWS South Dakota, December 2001 and April 2002). The majority of the T&E species occur primarily in wetland habitats. Information on federal- and state-listed species was obtained from letters received from USFWS state offices (USFWS 2001a), state Natural Heritage Program personnel, and internet web pages (USFWS 2001b, 2001c, 2001d, 2001e, 2001f, 2001g, 2001h, 2001i, 2001j, 2001k, 2001*l*, and 2001m).

Table 3.4 Federal Threatened and Endangered Species and Their Potential Occurrence and Habitat, Lewis and Clark Water Supply Project, 2002.[1]

Species		Federal Status[2]	Potential Occurrence[3] (County/State)	Habitat
Common Name	Scientific Name			
BIRDS				
Bald eagle	*Haliaeetus leucocephalus*	T	Lake, Minnehaha, Turner, Lincoln, Clay, Union/SD	Winter and nest in mature trees or cliffs near water
Least tern	*Sterna antillarum*	E	Lyon/IA Union, Clay/SD	Sparsely vegetated shorelines, interchannel sand bars, and islands; also bare alluvial and dredged spoil islands; sand/gravel areas around fly ash ponds
Piping plover	*Charadrius melodus*	T	Union, Clay/SD	Sparsely vegetated shorelines, interchannel sand bars, and islands; also bare alluvial and dredged spoil islands; sand/gravel areas around fly ash ponds
FISH				
Pallid sturgeon	*Scaphirhynchus albus*	E	Sioux/IA; Union, Clay/SD	Large rivers (Missouri)
Topeka shiner	*Notropis topeka*	E	Nobles, Rock/MN; Lyon, Osceola, Sioux/IA; Lake, Minnehaha, Turner, Lincoln, Clay, Union/SD	Small, first order prairie streams and adjacent off-channel areas
INVERTEBRATES				
American burying beetle	*Nicrophorus americanus*	E	Union/SD	Undisturbed, sandy, or sandy-loam grasslands interspersed with cottonwoods
Scaleshell mussel	*Leptodea leptodon*	E	Clay, Union/SD	Riffle habitats of rivers; rock to mud substrates; requires stable channels and good water quality
PLANTS				
Western prairie fringed orchid	*Platanthera praeclara*	T	Rock/MN; Clay, Dickinson/IA; Minnehaha, Turner, Lincoln, Clay, Union/SD	Mesic to wet prairies
Prairie bush-clover	*Lespedeza leptostachya*	T	Dickinson, Osceola, Sioux/IA	Dry to mesic prairies with gravelly soil

[1] Adapted from USFWS (2001a) and TRC Mariah (2002).
[2] T = threatened; E = endangered.
[3] Adapted from USFWS (2001a, 2001b, 2001c, 2001d).

3.2.3.1 Bald Eagle

The bald eagle, down-listed from endangered to threatened and now proposed for removal from federal listing (USFWS 2001g), occurs in the Project area along the Missouri River. The bald eagle is a state-listed endangered species in South Dakota (South Dakota Natural Heritage Program [SDNHP] 2001) and Iowa (IDNR 2001) (see Appendix D). In Minnesota, the bald eagle is a state species of concern (State of Minnesota [SMN] 2001). The bald eagle ranges over much of North America extending from the Aleutian Islands in Alaska south into Canada and throughout most of the U.S. Bald eagles are known to winter near Vermillion, South Dakota, along the Missouri River (U.S. Department of Transportation [DOT] 1995). This species is listed as breeding in Lyon and Sioux Counties in Iowa.

Breeding bald eagles are associated almost exclusively with shorelines of lakes, rivers, or seacoasts, where they build large nests in mature trees or cliffs. Adults tend to use the same breeding area and often the same nest each year. The diet of nesting bald eagles is mostly composed of fish and waterfowl, but they will also feed on carrion. Bald eagles forage over wide areas during the non-nesting season (fall and winter) and scavenge on animal carcasses.

Potential roosting sites and wintering areas are generally associated with lakes or rivers (Snow 1973; Call 1978; Steenhof 1978). The Missouri River often provides the primary winter open water habitat for wintering bald eagles in the vicinity of the Project. Wintering bald eagles use the tailwater areas below reservoirs along the Missouri River to feed on fish and dead, crippled, or otherwise vulnerable waterfowl (DOT 1995).

3.2.3.2 Least Tern

The least tern was listed by the USFWS as endangered throughout its historic breeding range on May 28, 1985 (USFWS 2001e), and least tern is a state-listed endangered species in Iowa (IDNR 2001) and in South Dakota (SDNHP 2001). Records indicate the least tern historically bred along portions of the Missouri, Platte, Red, Colorado, Arkansas, Mississippi, and Ohio

River systems from Montana southward through the central U.S. to Texas, New Mexico, central Louisiana, and central Mississippi (Reclamation 1991). Today the breeding population is only a remnant of its original size, having been reduced by the elimination and degradation of its riparian nesting habitat.

Migrating least terns begin arriving in the region in late April and early May from coastal wintering areas in Central and South America. Nesting activities begin as early as the first of May or, if the river is frozen or flows are unusually high, as late as early June (McPhillips 1991). Least terns generally nest on flat, open, sand or pebble beaches located within or in very close proximity to the floodplains of large rivers, lakes, and reservoirs. Although the species appears to prefer natural islands and sandbars, it also may nest on man-made surface-disturbed areas such as sand and gravel pits, dike fields, and dredge banks, when such sites are located in the immediate vicinity of the floodplain (Reclamation 1991). Least terns nest in a shallow hole scraped in an open sandy area, gravelly patch, or exposed flat, in small colonies of up to 20 nests (McPhillips 1991). Females lay from one to four eggs and both parents incubate. The chicks leave the nest a few days after hatching, but the adults continue to care for them, leading them to shelter in nearby grasses and bringing them food (USFWS 2001e). The young do not fledge and fend for themselves until mid- to late August (McPhillips 1991).

Surveys for least tern nesting along the reach of the Missouri River in the vicinity of the proposed well field are conducted annually by the COE (personal communication with Gregory Pavelka and Casey Kruise, April 9, 2002, COE). Surveys conducted during hte period of 1988-2001 found least tern nesting in the area during all but two years (1994 and 1995). During years when nesting has been noted, the number of least tern nests in the area has ranged from a low of two in 1992 to a high of 38 at four sites in 2001.

Dams, reservoirs, and other changes to river systems have eliminated most historic least tern habitat. In addition, recreational activities on rivers and sandbars disturb nesting terns, causing nest abandonment (USFWS 2001e).

3.2.3.3 Piping Plover

The piping plover was listed by the USFWS as a threatened species on December 11, 1985 (USFWS 2001d) and critical habitat for the species is currently proposed for listing. The species is state-listed as threatened in South Dakota (SDNHP 2001) and is state-listed as endangered in Iowa (IDNR 2001) and Minnesota (SMN 2001).

Three distinct piping plover breeding populations occur in North America: the northern Great Plains, the Great Lakes, and the Atlantic Coast populations. According to the last breeding census in 1996, the northern Great Plains population is the largest of the three breeding populations, numbering 1,372 breeding pairs (USFWS 2001f). Individuals from the northern Great Plains population are found in South Dakota.

Plovers arrive on the breeding grounds in the Great Plains from mid-March through mid-May and remain for 3 to 4 months. Piping plovers nest on open, sparsely vegetated beaches, sandbars, and dredged materials islands of large river systems. They lay three to four eggs in shallow scraped depressions lined with light colored pebbles and shell fragments. Both sexes incubate the eggs, which hatch within 30 days, and care for the young.

Surveys for piping plover nesting along the reach of the Missouri River in the vicinity of the proposed well field are conducted annually by the COE (personal communication with Gregory Pavelka and Casey Kruise, April 9, 2002, COE). Surveys conducted during the period of 1988-2001 found piping plover nesting in the area during all but two years (1994 and 1995). During years when nesting has been noted, the number of piping plover nests in the area has ranged from a low of one in 1992 and 1997 to a high of 31 at three sites in 2000.

3.2.3.4 Pallid Sturgeon

The pallid sturgeon was listed by the USFWS as endangered on September 6, 1990 (USFWS 2001h). In South Dakota and Iowa, it is a state-listed endangered species (IDNR 2001,

SDNHP 2001). The pallid sturgeon is confined to approximately 3,350 miles of riverine habitat (USFWS 2001h)--the mainstem Missouri River, the downstream portions of several of the Missouri 's larger tributaries, and the Mississippi River from the Illinois River confluence south to New Orleans (Reclamation 1991). Current studies indicate that pallid sturgeon are scarce in the upper Missouri River above Fort Peck Reservoir, scarce in the Missouri and Lower Yellowstone Rivers between Ft. Peck Dam and Lake Sakakawea, very scarce in the other Missouri River reservoir reaches, scarce in the Missouri River Downstream of Gavins Point Dam; scarce but slightly more common in the Mississippi and Atchafalaya Rivers, and absent from other tributaries (USFWS 2001h).

Pallid sturgeon evolved and adapted to inhabit the bottoms of large, silty rivers. Their preferred habitat has a diversity of depths and velocities formed by braided channels, sandbars, sand flats, and gravel bars. In recent years, extensive flood-control and navigational developments have greatly modified the flow regimes that historically maintained pallid sturgeon habitat.

3.2.3.5 Topeka Shiner

The USFWS designated the Topeka shiner as federally endangered on December 15, 1998 (USFWS 2001i). In Iowa, the Topeka shiner is a state-listed threatened species (IDNR 2001). The historic distribution of the Topeka shiner included portions of Iowa, Kansas, Minnesota, Missouri, Nebraska, and South Dakota. The species is now primarily restricted to a few scattered tributaries to the Missouri and Mississippi rivers and the Flint Hills region of Kansas. A listing of the waterways known to or with a high potential to support Topeka shiner is provided in Table 3.5.

Topeka shiner prefer small prairie (or formerly prairie) streams with pools containing clear, clean water and clean gravel, rock, or sand bottoms. Most Topeka shiner streams are perennial; however, some stop flowing during the summer months but are maintained by ground water seepage enabling the fish to survive. The Topeka shiner is susceptible to water quality changes

Table 3.5 Drainageways Known to or with a High Potential to Support Topeka Shiner in the Vicinity of the Lewis and Clark Water Supply Project, 2002.[1]

South Dakota	**Minnesota**	**Iowa**
Blind Creek	Rock River and several unnamed tributaries	Creeks within Lyon County
Camp Creek	Lake Okabena	
Long Creek	Little Rock Creek and several unnamed tributaries	
Saddle Creek	Ash Creek	
Ash Creek	Elk Creek	
Brule Creek	Mound Creek	
Vermillion River and its East and West Forks	Kanaranzi Creek, its east branch, and several unnamed tributaries	
Big Sioux River	Norwegian Creek	
Skunk Creek	Elk Creek	
Willow Creek	Mud Creek and several unnamed tributaries	
	Four-mile Creek	

[1] Adapted from USFWS (2000), MNDNR (2001, 2002), Dahle (2001), Wall et. al (2001) and IDNR (2001).

within its habitat and has disappeared from several sites because of increased sedimentation resulting from accelerated soil runoff from agricultural areas, urban developments, and highways (USFWS 2001i). Many populations have declined in numbers and are now geographically isolated, eliminating the possibility of genetic transfer between populations.

3.2.3.6 American Burying Beetle

The American burying beetle, listed in August 1989, is the only federally listed T&E insect species occurring regionally (USFWS 2001a). This species is not state-listed in South Dakota, Iowa, or Minnesota.

The American burying beetle has been recorded historically from 150 counties in 35 states in the eastern and central United States, as well as in southern portions of Ontario, Quebec, and Nova Scotia provinces in Canada. In the 1980s, entomologists documented the decreasing abundance of the American burying beetle across its range. Currently, the American burying beetle has been documented in four states: Nebraska, Rhode Island, Oklahoma, and Arkansas

(USFWS 2001j). In Nebraska, the American burying beetle seems to be largely restricted to areas undisturbed by human influence in habitats such as grassland prairie, forest edge, and scrubland.

The decline of this species appears to be the result of an interplay of several complex factors rather than a single cause. These factors include:

- artificial lighting that results in decreases of populations of nocturnally active insects;
- changing sources of carrion because of habitat alteration;
- isolation/fragmentation of preferred habitat because of land use changes;
- increased edge effect harboring more vertebrate competitors for carrion; and
- possibly reduced reproduction because of some unknown genetic characteristic of the species (USFWS 2001j).

The beetle is a carrion feeder which apparently utilizes a variety of habitats including mixed agricultural lands (pastures and mowed fields), second-growth forests, and primary-growth forests. Since specific habitat requirements for this species have not been identified, any area with significant humus or topsoil suitable for burying carrion is considered potential beetle habitat (USFWS 2001j).

3.2.3.7 Scaleshell Mussel

On October 9, 2001, the USFWS announced its decision to list the scaleshell mussel as endangered under the ESA, and the species was listed as endangered in early 2002. The scaleshell mussel historically occurred across most of the eastern United States. Although this species once inhabited 55 rivers or streams in 13 states, it is now limited to 14 rivers primarily in Missouri, Arkansas, and Oklahoma (USFWS 2001k). A single valve (half shell) was found on an exposed sandbar about 0.5 mile below Gavins Point Dam in the late 1980s; however, no live specimens have been found in the Missouri River in South Dakota (Reclamation 1991).

The scaleshell lives in medium-sized and large rivers with stable channels and good water quality. Scaleshell mussels bury themselves in sand and gravel river bottoms with just the edge of their partially opened shells exposed to siphon water for food.

Threats to the scaleshell mussel include poor water quality due to pollution and sedimentation, loss and alternation of habitat through damming of waterways, dredging and channelization of rivers, sand/gravel mining, and competition with non-native species like the zebra mussel. Mussels are particularly vulnerable because they tend to stay in one place and do not move away from potential threats.

3.2.3.8 Western Prairie Fringed Orchid

The western prairie fringed orchid was listed as federally threatened on September 28, 1989, and is state-listed as endangered in Minnesota (SMN 2001) and threatened in Iowa (IDNR 2001). This species is restricted to west of the Mississippi River and is known from about 75 sites in Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, and in Manitoba (USFWS 2001*l*). The orchid occurs most often in mesic to wet unplowed tallgrass prairie and meadows but also has been found in old fields and roadside ditches (USFWS 2001*l*).

Preferred soils are usually calcareous silt loam or subirrigated sand (Reclamation 1991). Populations tend to occur in stable, late successional or climax communities void of woody vegetation that may shade the shade-intolerant orchid (Freeman and Brooks 1989). It is thought that wildfires may play a role in maintaining the open habitat the species appears to require (USFWS 1988, 1989).

The western prairie fringed orchid is a perennial herb that regenerates in May from a tuberous rootstock (USFWS 1988). However, annual emergence of vegetative shoots is erratic and appears to be largely dependent on local moisture conditions. Drought conditions are known to cause dormancy, and periods of high precipitation may stimulate flowering and fruiting in the species (Freeman and Brooks 1989). When favorable conditions exist, showy flower clusters

appear from late June to early July throughout most of its range (USFWS 1988; U.S. Department of Agriculture, Forest Service [USFS] 1989). After fertilization, capsules ripen and release thousands of minute seeds (USFS 1989), typically in mid-to-late-September (Freeman and Brooks 1989). Individuals are suspected to be long-lived (USFS 1989). The main threat to the species is the modification of its prairie habitats. Grazing (during seasons of growth and flowering), intensive hay mowing, drainage, fire suppression, and conversion of habitat to cropland have reduced the species' original range by 60 percent (USFWS 1989).

3.2.3.9 Prairie Bush-clover

The prairie bush-clover was federally listed as threatened in February 1987 (USFWS 2001m), and is state-listed as threatened in both Iowa and Minnesota (IDNR 2001; SMN 2001). This species only occurs in the tallgrass prairie region of the Upper Mississippi River Valley in Iowa, Illinois, Minnesota, and Wisconsin. The decline of this species is due to the loss of tallgrass prairie habitat primarily to cropland. At the time of early European settlement, native prairie covered almost all of Illinois and Iowa, a third of Minnesota, and 6% of Wisconsin. Today, only scattered remnants of native prairie can be found within this historic range. Approximately 40% of the known prairie bush-clover sites are protected as state nature preserves, scientific preserves, or natural areas managed by private conservation organizations such as the Nature Conservancy.

The prairie bush-clover blooms in mid-July and prefers mesic moderately damp to dry prairie.

3.2.3.10 State-listed Species

Numerous state-listed amphibians, reptiles, insects, mollusks, snails, birds, mammals, fish, and plant species occur or have the potential to occur in the Project area (see Appendix D). In addition, calcareous fens and mesic prairies, state-endangered natural communities in Minnesota, are present in the vicinity of the Project area (Minnesota Department of Natural Resources 2001). A complete listing is presented in Appendix D.

South Dakota lists five mammal, eight bird, 11 fish, and four reptile species (SDNHP 2001); Iowa lists eight mammal, 11 bird, 17 fish, four amphibian, 15 reptile, seven butterflies, and 23 mollusk species (IDNR 2001); and Minnesota lists one mammal (the spotted skunk), one fish (paddlefish), 13 birds, one amphibian (the Northern cricket frog), four reptiles, eight butterflies and moths, five tiger beetles, and one caddis fly (SMN 2001). Numerous plant species are listed in Minnesota and Iowa. South Dakota currently does not list any plant species. Many of the state-listed species occur in native prairie habitats.

3.3 WILD AND SCENIC RIVERS

The Missouri River below the Gavins Point Dam in South Dakota, where it defines the southern boundary of the Project area in Clay and Union Counties, is classified as a recreational river under the authority of Section 3(a)(22) of the *Wild and Scenic Rivers Act* (16 *United States Code* [U.S.C.] 1271-1287; Public Law [P.L.] 90-542). This legislation references COE descriptions of the river's ORVs which are its recreational, fish and wildlife, historical, and cultural values. The *Wild and Scenic Rivers Act* mandates that this section of the Missouri River receive additional considerations when potential impacts may affect the river's recreational qualities. The National Park Service will implement a Section 7 analysis for this Project, focusing on ORVs and related resources including scenic values, visual and noise impacts, water withdrawals (relative to flows), and T&E species. The Section 7 analysis results will be included in the decision document for this EA.

3.4 CULTURAL/HISTORIC RESOURCES

The Project area lies within the transition zone of the northernmost central plains, the Northwest Iowa Plains, and the archaeologically defined Prairie Lake Region (Anfinson 1997). The proposed pipeline route crosses four archaeological regions in South Dakota (Winham and Hannus 1991a, 1991b). These regions include Yankton (Region #15), Vermillion Basin (Region #21), Lower Big Sioux (Region #22), and Upper Big Sioux (Region #23). A large portion of the area has been described as a "topographic and cultural gateway to the High Plains, reflecting

developments common to both the Coteau des Prairies of southwestern Minnesota and eastern South Dakota and the Missouri River Valley" (Alex 2000). The following discussion combines these archaeological regions to create a single cultural-temporal (human lifeways through time) scheme for the Project area.

Although the number of Paleoindian sites (11,500-8,000 years B.P.) investigated in Iowa (Shutler et al. 1974; Alex 2000) and Minnesota (Anfinson 1997) have been few, Paleoindian localities in South Dakota have been less rare, with most occurring in the western portion of the state (Sellet and Fosha 2001). Several radiocarbon dated components are located in the Black Hills (Miller and Church 1996). Paleoindian sites throughout the Project area are largely limited to isolated surface finds. The limited number of these site types may be accounted for by recently deposited sediments which have buried the Late Wisconsin or early Holocene deposits. Within the archaeological regions defined for the Project, four Paleoindian sites have been recorded in South Dakota. Surface finds in Iowa include Clovis, Agate Basin, and Dalton/Meserve projectile points (Alex 2000). Late Paleoindian occupations in western Iowa are best represented by the Cherokee Sewer site (Site 13CK405), a multicomponent excavation located immediately south of the Project area. Horizon III of the site has been dated to 9,600-9,200 years B.P. and yielded lanceolate and stemmed projectile points along with features characteristic of intensive faunal processing, a hallmark of a more Archaic lifeway (Alex 2000). Clovis points have been surface collected in Rock and Nobles County, Minnesota, as well.

The transition from the Paleoindian to the Archaic period coincides with a well-documented shift in environmental conditions. This shift, known as the Altithermal, is characterized by a change from a moist, cool climate to a drier and warmer climate. In response to this climate change, Archaic peoples began to exploit more local ecological niches, since the big game hunting practiced previously was no longer the most efficient method for procuring food. Instead, cultural adaptations began to differ from region to region, adapting to local conditions with smaller territorial ranges since they no longer followed herds of big game animals over large areas. Increased exploitation of smaller animals, fish, and plants necessitated a larger and more specialized tool kit including a great variety of stemmed, corner-notched, and side-notched

projectile points; development of the atlatl; and groundstone, bone awls, and spears. Typical Archaic sites often include stone-lined hearths, cache pits, and groundstone that suggests that Archaic foragers returned to the same campsites on a seasonal round of hunting and gathering.

Southeastern South Dakota may have continued a more Paleoindian lifestyle during the Archaic period since climatic changes were not as dramatic as the western areas of the Plains, and therefore conditions were more favorable to still follow herds of bison (Zimmerman 1985). A few other South Dakota sites with lithic scatters have nondescript projectile points which can either be placed in the Middle or Late Archaic periods (see Winham 1990; Winham and Hannus 1991a, 1991b). Sites classified as Late Archaic within the four South Dakota archaeological regions of the Project area have generally been classified as Besant based on projectile point styles. Aside from two isolated Besant projectile point locations (Sites 39BK39 and 39LK39), most of these sites are located along the Big Sioux River or its major tributary creeks and are relatively large and/or dense campsites. As in western Iowa, in southwest Minnesota, "focal bison hunting continued" the Late Archaic lifeway (Anfinson 1997:42) predominant in the Project area. People in other areas of the region were adopting a lacustrine subsistence pattern that would continue into the Woodland period, reflecting the "strong regionalization" of resource utilization developed through the complex mix of changed environment, differing faunal resource bases, and the ever increasing population (Anfinson 1997:122). Another defining aspect of the Late and terminal Archaic in the region was the advent of communal burial sites (Alex 2000), which may have been the precursor of the classic Woodland burial mound.

At the advent of the Woodland period in the Project area, the climate of the region became much more stable and more like present conditions. However, unlike the Paleoindian/Archaic transition, the development of Woodland cultures in the northeastern Plains was not primarily determined by climate but also by intruding cultures from the eastern Woodlands--either by physical migration or by diffusion of cultural traits--perhaps as early as 500 B.C. but probably about 1 A.D. (Lehmer 1971). Typically, Woodland occupations are found in or near stream valleys where people would exploit the wooded bottomlands for deer and small game and the occasional bison. The influences reaching the northeast plains appear to have been "modest"

(Alex 2000:112) with the majority of the groups there continuing the broad-based subsistence practices established during the Archaic. With the exception of the introduction of small, triangular, notched projectile points to be used with a bow and arrow, the remainder of the tool kit of the Woodland peoples was similar to that of the Archaic and included scrapers, knives, fleshers, awls, needles, and groundstone (Lass 1981). The three major hallmarks of the Woodland period included plant cultivation, the production of pottery, and the construction of burial mounds (Zimmerman 1981, 1985; Alex 2000).

The most conspicuous aspect of the Woodland cultures are large burial mounds. Eastern Woodland mounds vary in size and shape with most being quite large, and by the Late Woodland, animal effigy mounds were being constructed in the Ohio and Illinois River valleys. Several hundred mounds are found within the borders of South Dakota, Iowa, and Minnesota, most along the Big Sioux and James Rivers, and throughout the counties adjacent to the state lines (Lass 1981). As of 1990, 20 sites with single mounds and 17 mound group sites were recorded within the Lower and Upper Big Sioux archaeological regions (Winham 1990). Numerous mound groups are also present in the Iowa and Minnesota portions of the Project area, most notably in Rock and Nobles Counties, Minnesota. The highest concentrations of mounds within the Project area are situated in northern Lincoln and southern Minnehaha Counties of South Dakota and northwestern Lyon County in Iowa (Anfinson 1997).

By the end of the Woodland period, the climate in northeast plains was warmer and moister--a distinct advantage for the spread of horticultural groups. However, this climatic period known as the Neo-Atlantic climatic episode is no longer thought to be the primary impetus for the increase in semi-permanent settlements dependent on corn production. Rather, resource depletion, socio-political events, and the continued influx of eastern Mississippian peoples, especially those living at Cahokia (Zimmerman 1985), are thought to have encouraged the spread of these early horticultural villages (Alex 2000). Nonetheless, the early Plains Village tradition in the region was a slow transition from the preceding Woodland period.

The Great Oasis culture, one of the earliest Plains Village traditions in the area, was a fairly widespread phenomenon, first appearing about 900 A.D. and ranging from Mobridge, South Dakota, to Des Moines, Iowa, and from southwestern Minnesota to northeastern Nebraska (Lass 1981). The sites of this culture are commonly found around glacial lakes in the Coteau region and also along river valleys and tributary streams (Alex 1981). The Great Oasis people have been described by archaeologists as "conservative" (Lass 1981; Zimmerman 1985; Alex 2000); that is, their lifestyles tended to resemble those of their Late Woodland ancestors while showing little Mississippian influences.

The Mill Creek culture was quite similar to their Great Oasis contemporaries, except that the village sites were larger with much more evidence of horticultural subsistence practices. Mill Creek sites have a more limited distribution than Great Oasis sites, being mostly confined to the larger river valleys or the lower tributaries of these valleys in areas that would be favorable to flood plain horticulture (Alex 1981). Mill Creek sites are thought of as a true Initial Middle Missouri Variant since similar artifact assemblages are noted within the Missippian cultures located to the east and south. At one time, archaeologists believed that Mill Creek communities represented the actual migration of Middle Mississippian peoples; however, Alex (2000:166) notes that recent radiocarbon and ceramic cross dating indicate that some Mill Creek sites are as early as their supposed prototypes in the Mississippi Valley. Therefore, Mississippian items found at Mill Creek sites are likely the result of direct contact with eastern and southern groups.

It is apparent, however, that Mill Creek sites were much more intensively occupied than Great Oasis sites. Often there is extensive evidence for the re-use of village sites with lodges built on the same spot or overlapping older lodges resulting in a midden or mound of village debris (Zimmerman 1985). Additionally, many Mill Creek sites had fortification ditches against possible attacks from neighboring groups; however, direct evidence of violent encounters is almost nonexistent (Alex 2000).

Oneota sites have been found throughout the northeastern Plains, usually in areas where floodplain forest, upland forest, and prairie meet. This provided the Oneota peoples with a wide

resource base in which large and small game hunting, wild plant harvesting, and wetland exploitation for marsh and water species, as well as intensive horticulture of maize, beans, and squash, could occur. With such a wide geographic range, the Oneota are thought to represent numerous individual societies with specific histories and many distinctive customs (Alex 2000).

Prehistoric Oneota sites are essentially a blend of the Woodland tradition (characterized by burial mounds and grit-tempered pottery), the Great Oasis and Mill Creek cultures (which were already in place and practicing a mixed hunter-gatherer/horticultural subsistence), and the Mississippian tradition (characterized by platform mounds, shell-tempered pottery, and an intensification of agriculture). These sites have been documented, especially in Iowa spanning the prehistoric/protohistoric time period. Some of the hallmarks of an Oneota occupation include shell-tempered globular-shaped pottery, many small triangular unnotched projectile points, scapula hoes, and abundant large storage pits. Occasionally, decorative items such as catlinite pipes and tablets with inscribed anthropomorphic animal or mythical figures may be present.

The protohistoric period is known as the Post-contact Coalescent Variant and began a number of years prior to actual contact with Euro-Americans. Many different peoples were well established within the Project area, but two representative cultural groups, the Ioway/Oto in northwest Iowa and southwest Minnesota and the Arikara in eastern South Dakota, are among the best documented both historically and in the archaeological record (Alex 2000).

Southeast South Dakota, including Vermillion and Yankton, were among the first areas in the Dakotas to be occupied by Euro-Americans, with the largest influx of settlers arriving in the 1860s. The late 1870s witnessed the first large population boom, with most of these people settling between the Missouri and James Rivers for mostly small-scale agricultural operations. At the same time, western South Dakota was mostly cattle ranching (Brooks and Jacon 1994). Emigration to Iowa from Europe came in two distinct waves: the first arriving between 1820 and 1900, and the second between 1900 and 1920. The first group came primarily from western Europe and the British Isles during a time of territorial and industrial expansion; the second

phase involved more people from southern and eastern Europe fleeing poverty and political tension. Many African-American communities were also established during this period, particularly after the Civil War. In 1850, there were 20,969 foreign-born people in the state; by 1880 the number had reached 261,650 (Sage 1974; Schwieder 1996). Although immigration to Minnesota in significant numbers did not begin until the 1850s, by 1865 there were 250,000 people in the state, with a total of 1,751,394 people by 1900. The census of 1880 revealed that, of the 780,773 people in residence, 267,676 of them were foreign born and the majority were from western and northern Europe, with 71% of the total population representing either first or second generation European heritage. This reflects both the massive waves of emigrants reaching across the nation as a whole and the efforts of those who were actively promoting immigration in their home countries (Blegan 1975; Fridley 1966).

3.4.1 Literature Search

In 2001, a Level I literature search (Class I cultural resource survey--SHPO file search) was conducted for the study area in each of the three states within the Project area. A summary of the cultural resource sites within a 2-mile wide corridor of project feature locations (i.e., area of potential effect [APE]) is provided in Appendix F. In addition, Level I inventory reports for each state APEs are currently being prepared. These reports will be completed and updated prior to any Level III surveys (Class III--field surveys) of specific Project phase APEs. While no cultural landscapes (e.g., pioneer settlement areas) were identified during literature searches, they may be identified during Level III surveys and if found would be recorded and evaluated pursuant to SHPO guidelines.

3.4.2 Indian Trust Assets

Indian trust assets (ITAs) are properties, interests, or assets of an Indian tribe or individual Indian over whom the federal government also has an interest through administration or direct control. Examples of ITAs include lands, minerals, and timber, as well as water rights, hunting rights, fishing rights, and other treaty rights. The sovereignty of tribes and the trust relationship

with the federal government have been established and validated through treaties, court decisions, legislation, regulations, and policies. Reclamation's policy on ITAs is that impacts must be determined and considered when implementing Reclamation actions. No known ITAs occur within the study area; therefore, ITAs are not discussed further in this EA.

3.4.3 Traditional Cultural Properties/Native American Sacred Sites

Coordination activities with Native American groups conducted during EA scoping did not reveal the presence of any known traditional cultural properties or Native American sacred sites within the study area; pipeline routes were selected in part to avoid these features. Consultation and coordination with Native American groups will continue through Project development such that if any known traditional cultural properties or sacred sites are identified, they would be considered prior to construction.

3.5 SOCIOECONOMICS

The geographic area considered for socioeconomic analysis includes Sioux, Lyon, O'Brien, Osceola, Clay, and Dickinson Counties in Iowa; Nobles and Rock Counties in Minnesota; and Minnehaha, Lake, Lincoln, Turner, Clay, and Union Counties in South Dakota. Socioeconomic data for the Project area were obtained from available census data and personal communications with involved and interested parties.

3.5.1 Demography

Table 3.6 presents population and unemployment rate estimates for all Project area counties. The population of the Project area in 2000 was over 354,000 and trends in population between 1990 and 2000 suggest a population influx to many counties in the region (Table 3.6). Minnehaha County, South Dakota, is the most populous county in the Project area (148,281) and McCook County, South Dakota, is the least populous (5,832). The population of the Project area increased between 1990 and 2000; only five counties experienced population decreases.

Table 3.6 County Socioeconomic Data, Lewis and Clark Water Supply Project, 2002.

State and County	Population (2000)[1]	Change in Population (1990-2000) (%)[1]	Population Density (persons/mi²)[1]	Projected Population (2025)[2]	Median Household Income (1997)[1]	Personal Per Capita Income (2000)[3]	Unemployment Rate (%)	Population Below Poverty Level (1997) (%)[11]
Iowa	2,926,324	5.4	52.4	3,040,000	$35,427	$26,431	2.8[4]	9.9
Clay County	17,372	-1.2	30.5	18,047	$37,019	$27,311	2.8[5]	8.4
Dickinson County	16,424	10.2	43.1	17,062	$36,739	$29,742	1.5[5]	8.0
Lyon County	11,763	-1.6	20.0	12,220	$35,180	$22,424	2.1[5]	8.9
O'Brien County	15,102	-2.2	26.4	15,689	$35,048	$24,327	1.7[5]	8.5
Osceloa County	7,003	-3.6	17.6	7,275	$34,804	$24,359	2.7[5]	8.9
Sioux County	31,589	5.6	41.1	32,816	$40,895	$25,335	2.1[5]	7.0
Minnesota	4,919,479	12.4	61.8	5,282,840	$41,591	$31,935	3.4[4]	8.9
Nobles County	20,832	3.7	29.1	22,371	$32,516	$23,550	3.1[6]	10.9
Rock County	9,721	-0.9	20.1	10,439	$34,775	$25,108	1.7[6]	7.9
South Dakota	754,844	8.5	9.9	866,000	$31,354	$25,958	3.7[7]	14.0
Clay County	13,537	2.7	32.9	15,530	$31,147	$24,145	1.9[7]	19.1
Lake County	11,276	6.9	20.0	12,936	$34,130	$25,168	4.6[7]	10.9
Lincoln County	24,131	56.4	41.7	27,684	$45,830	$23,284	1.9[7]	5.7
McCook County	5,832	2.5	10.1	6,691	$32,417	$24,787	5.2[7]	12.0
Minnehaha County	148,281	19.8	183.1	170,116	$39,992	$31,891	2,8[7]	8.7
Turner County	8,849	3.2	14.3	10,152	$32,510	$24,196	4.5[7]	11.0
Union County	12,584	23.5	27.4	14,437	$40,373	$35,295	4.5[7]	8.2
Affected Counties	354,296[9]	8.3[10]	37.2[10]	393,466[9]	$36,225[10]	$26,061[10]	2.9[10]	9.6[10]

1 U.S. Bureau of the Census (2001a).
2 U.S. Bureau of the Census (2001b). wCounty information derived from state projections. Growth rates for all affected counties assumed to be the same as for their respective states: Iowa growth rate = 1.039; Minnesota growth rate = 1.074; South Dakota growth rate = 1.147.
3 Bureau of Economic Analysis (2002a).
4 U.S. Department of Labor, Bureau of Labor Statistics (2001)
5 Iowa Workforce Information Network (2001).
6 Minnesota Department of Economic Security (2001).
7 South Dakota Department of Labor (2002).
9 Total of affected counties.
10 Average of affected counties.
11 U.S. Bureau of the Census (2002).

The greatest outflux occurred in Osceola County, Iowa, where the population decreased by 3.6%. The majority of growth within the Project area occurred in Lincoln County, South Dakota, where population increases exceeded 56%.

The median household income in the Project area is approximately $36,200, while personal per capita income averages approximately $26,000. The highest median household income occurs in Lincoln County, South Dakota ($45,830), and the lowest occurs in Clay County, South Dakota ($31,147). McCook County, South Dakota, has the highest unemployment rate in the Project area (5.2%), while the highest personal per capita income ($35,295) is in Union County, South Dakota. The lowest unemployment rate occurs in Lyon County, Iowa (1.5%), which also has the lowest personal per capita income ($22,424).

Following the Office of Management and Budget's Statistical Policy Directive 14, the U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is poor. If a family's total income is less than that family's threshold, then that family, and every individual in it, is considered poor. The poverty thresholds do not vary geographically, but they are updated annually for inflation using the Consumer Price Index. The official poverty definition counts money income before taxes and does not include capital gains and noncash benefits (such as public housing, Medicaid, and food stamps). Poverty is not defined for people in military barracks, institutional group quarters, or for unrelated individuals under age 15 (such as foster children); they are excluded from the poverty universe--that is, they are considered neither as "poor" nor as "nonpoor" (Dalaker and Proctor 2000). According to the U.S. Census Bureau, for a family of four (i.e., two adults and two children), the poverty threshold would occur at an annual income of $17,960 (U.S. Bureau of the Census 2002).

Throughout the Project area, 9.6% of the population lives below the poverty level. In Clay County, South Dakota, more that 19.1% of the population lives below the poverty level, whereas only 5.7% of the population in Lincoln County, South Dakota, lives below the poverty level (U.S. Bureau of the Census 2002).

3.5.2 Industry

Non-farm industry and services provide the majority of jobs (94.48%) and personal income (96.66%) in the region (Table 3.7). Minnehaha County, South Dakota, had the highest total income ($4.4 billion) in the Project area, more than 48.8% of the total income for the Project area ($9.2 billion). McCook County, South Dakota, had the least income in the Project area ($129 million, less than 1.4% of total income in the Project area). Brief descriptions of county income and industry were developed from data compiled by the Iowa State University (ISU), Department of Economics (ISU 2001) and are presented below.

3.5.2.1 Iowa

Clay County, Iowa. The largest industries in 1999 were services (21.4% of earnings), retail trade (13.5 %), and state and local government (13.3%). In 1989, the largest industries were services (19.3% of earnings), farm (12.9%), and retail trade (12.3%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was durable goods manufacturing (10.5% of earnings in 1999), with an annual average increase of 3.3%; the fastest growing was transportation and public utilities (9.1% of earnings in 1999), with an average annual increase of 6.2% (ISU 2001).

Dickinson County, Iowa. The largest industries in 1999 were durable goods manufacturing (26.7% of earnings), services (21.3%), and retail trade (14.2%). In 1989, the largest industries were services (22.2% of earnings), durable goods manufacturing (18.3%), and retail trade (13.7%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was state and local government (10.2% of earnings in 1999), with an average annual increase of 5.9%; the fastest growing was durable goods manufacturing with an average annual increase of 10.5% (ISU 2001).

Lyon County, Iowa. The largest industries in 1999 were farm (18.4% of earnings), services (16.6%), and state and local government (12.4%). In 1989, the largest industries were farm

Table 3.7 Employment by Earnings and Industry, Lewis and Clark Water Supply Project, 2000.[1]

County	Employment[2] (number of jobs)		Total Employment (number of jobs)	Percentage of Total Employment		Income (thousands of dollars)[3]		Total Income (thousands of dollars)	Percentage of Total Income	
	Farm	Non-farm		Farm	Non-farm	Farm	Non-farm		Farm	Non-farm
Iowa										
Clay	737	11,705	12,442	5.92	94.08	14,592	426,171	440,763	3.31	96.69
Dickinson	546	11,905	12,451	4.39	95.61	4,894	456,283	461,177	1.06	98.94
Lyon	1,371	4,787	6,158	22.26	77.74	21,730	213,246	234,976	9.25	90.75
O'Brien	1,132	8,469	9,601	11.79	88.21	17,285	323,272	340,557	5.08	94.92
Osceola	707	3,250	3,957	17.87	82.13	24,781	131,050	155,831	15.90	84.10
Sioux	2,432	19,949	22,381	10.87	89.13	53,628	658,793	712,421	7.53	92.47
Minnesota										
Nobles	1,403	12,731	14,134	9.93	90.07	16,442	444,370	460,812	3.57	96.43
Rock	952	4,521	5,473	17.39	82.61	18,348	207,203	225,551	8.13	91.87
South Dakota										
Clay	467	7,922	8,389	5.57	94.43	7,870	301,193	309,063	2.55	97.45
Lake	591	6,544	7,135	8.28	91.72	18,119	243,055	261,174	6.94	93.06
Lincoln	914	7,799	8,713	10.49	89.51	27,701	484,619	512,320	5.41	94.59
McCook	673[4]	2,340[4]	3,013	22.34	77.66	24,885[5]	104,298[5]	129,183	19.26	80.74
Minnehaha	1,280	127,460	128,740	0.99	99.01	29,571	4,448,651	4,478,222	0.66	99.34
Turner	942	3,462	4,404	21.39	78.61	27,550	173,645	201,195	13.69	86.31
Union	696	12,186	12,882	5.40	94.60	23,944	379,556	403,500	5.93	94.07
Total Region	14,136	241,780	255,916	5.52	94.48	306,559	8,864,335	9,170,914	3.34	96.66

[1] Most current information available dated from 1999.
[2] Bureau of Economic Analysis (2001b).
[3] Bureau of Economic Analysis (2001c).
[4] Bureau of Economic Analysis (2002a).
[5] Bureau of Economic Analysis (2002b).

(36.1% of earnings), services (12.7%), and state and local government (10.4%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was farm, which declined at a rate of 4.9% annually; the fastest growing was construction (5.3% of earnings in 1999), which increased at an average annual rate of 7.5% (ISU 2001).

O'Brien County, Iowa. The largest industries in 1999 were services (22.5% of earnings), state and local government (14.2%), and wholesale trade (9.4%). In 1989, the largest industries were farm (28.5% of earnings), services (18.0%), and state and local government (10.5%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was farm (9.0% of earnings in 1999), with an average annual decrease of 9.0%; the fastest growing was construction (5.9% of earnings in 1999), with an average annual increase of 6.5% (ISU 2001).

Osceola County, Iowa. The largest industries in 1999 were farm (26.3% of earnings), nondurable goods manufacturing (14.2%), and services (11.3%). In 1989, the largest industries were farm (33.2% of earnings), nondurable goods manufacturing (15.9%), and services (11.7%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was farm with an average annual increase of 2.8%; the fastest growing was durable goods manufacturing (5.6% of earnings in 1999), which increased at an average annual rate of 24.2% (ISU 2001).

Sioux County, Iowa. The largest industries in 1999 were services (16.8% of earnings), durable goods manufacturing (12.9%), and nondurable goods manufacturing (12.4%). In 1989, the largest industries were farm (24.9% of earnings), services (15.1%), and nondurable goods manufacturing (13.4%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was farm (10.9% of earnings in 1999), with an average annual decrease of 3.8%; the fastest growing was construction (8.1% of earnings in 1999), with an average annual increase of 10.4% (ISU 2001).

3.5.2.2 Minnesota

Nobles County, Minnesota. The largest industries in 1999 were nondurable goods manufacturing (percentage not revealed to avoid disclosure of confidential information, but the estimates for this item were included in the totals from which ISU derived standing), state and local government (15.8% of earnings), and services (15.2%). In 1989, the largest industries were farm (24.0% of earnings), nondurable goods manufacturing (15.5%), and state and local government (12.7%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was farm (5.3% of earnings in 1999), which decreased at an average annual rate of 12.1%; the fastest was construction (6.8% of earnings in 1999), with an average annual increase of 11.6% (ISU 2001).

Rock County, Minnesota. The largest industries in 1999 were state and local government (19.3% of earnings), services (18.6%), and farm (15.9%). In 1989, the largest industries were farm (41.3% of earnings), state and local government (11.0%), and services (10.9%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was farm (an average annual decrease of 8.2%); the fastest growing was state and local government with an average annual increase of 6.8% (ISU 2001).

3.5.2.3 South Dakota

Clay County, South Dakota. The largest industries in 1999 were state and local government (36.8% of earnings), durable goods manufacturing (percentage not revealed to avoid disclosure of confidential information, but the estimates for this item were included in the totals from which ISU derived standings), and services (13.0%). In 1989, the largest industries were state and local government (48.0% of earnings), services (15.3%), and retail trade (10.6%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was retail trade (6.9% of earnings in 1999), with an average annual increase of 3.4%; and the fastest growing was durable goods manufacturing (ISU 2001).

Lake County South Dakota. The largest industries in 1999 were services (18.0% of earnings), durable goods manufacturing (14.4%), and state and local government (14.4%). In 1989, the largest industries were farm (16.8% of earnings), services (16.0%), and state and local government (15.1%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was farm (11.3% of earnings in 1999), with an average annual increase of 1.6%; the fastest growing was construction (6.7% of earnings in 1999), with an average annual increase of 11.5% (ISU 2001).

Lincoln County, South Dakota. The largest industries in 1999 were services (19.8% of earnings), farm (14.1%), and retail trade (11.1%). In 1989, the largest industries were farm (23.9% of earnings), services (15.1%), and durable goods manufacturing (11.4%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was farm, with an average annual increase of 1.2%; and the fastest was construction (10.4% of earnings in 1999), with an average annual increase of 11.5% (ISU 2001).

McCook County, South Dakota. The largest industries in 1999 were farm (36.6% of earnings), services (13.0%), and state and local government (9.4%). In 1989, the largest industries were farm (22.8% of earnings), services (13.4%), and state and local government (11.8%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was wholesale trade (6.1% of earnings in 1999), which increased at an average annual rate of 2.3%; the fastest growing industry was farm, which increased at an average annual rate of 10.8%.

Minnehaha County, South Dakota. The largest industries in 1999 were services (29.7% of earnings); finance, insurance, and real estate (13.3%); and retail trade (10.2%). In 1989, the largest industries were services (27.6% of earnings); retail trade (10.9%); and finance, insurance, and real estate (10.7%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was nondurable goods manufacturing (5.5% of earnings in 1999), with an average annual increase of 4.1%; the fastest growing was durable goods

manufacturing (7.8% of earnings in 1999), with an average annual increase of 14.5% (ISU 2001).

Turner County, South Dakota. The largest industries in 1999 were farm (30.0% of earnings), services (15.3%), and state and local government (10.0%). In 1989, the largest industries were farm (39.3% of earnings), services (13.4%), and state and local government (10.8%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was farm with an average annual increase of 1.0%; the fastest growing was construction (8.9% of earnings in 1999), with an average annual increase of 11.8% (ISU 2001).

Union County, South Dakota. The largest industries in 1999 were durable goods manufacturing (percentage not revealed), services (14.5% of earnings), and nondurable goods manufacturing (percentage not revealed). In 1989, the largest industries were farm (21.8% of earnings), transportation and public utilities (12.7%), and durable goods manufacturing (12.1%). Of the industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1989 to 1999 was nondurable goods manufacturing; the fastest growing was durable goods manufacturing (ISU 2001).

3.6 LAND USE

Landownership in the Project area is primarily private, but there are state and federal lands in the area. Private lands, especially in rural areas, are operated predominantly as farms, while within corporate limits, most private lands serve as domiciles or businesses. State and federal lands serve primarily as wildlife production areas, road ROWs, and recreation sites.

Land uses in the Project area include agriculture, extractive mining operations, recreation and wildlife preservation/production areas, road systems, and utilities. These land uses are discussed in the following sections.

3.6.1 Agriculture

Farms throughout the region generally produce a mixture of grain crops and livestock. The vast majority of lands serve for the production of row crops, primarily corn and soybeans; over 90% of the Project area is farmland. Other locally important field crops include oats, wheat, alfalfa, barley, rye, sorghum, and hay crops. The abundance of prime farmland soils across the Project area facilitates the high levels of crop productivity achieved and probably constitutes the most significant natural resource of the area. Crop yields per acre tend to be higher in eastern portions of the Project area, probably as a result of increased moisture availability. In Osceola County, Iowa, anticipated corn yields range from 53 to 139 bushels/acre (Vobora and Kristoff 1988).

Regionally, hog, beef, and sheep operations are the most important livestock activities. Dairy cattle, horses, and chickens are also important livestock in some areas.

3.6.2 Mining

Mines in the Project area are generally small and primarily consist of sand and gravel operations. In some areas, river clays, limestone, and peat are also excavated. The materials removed from these locations are, for the most part, used locally for construction purposes. Additional information on mining is provided in Section 3.1.3.1.

3.6.3 Recreation Facilities and Wildlife Production Areas

Numerous state and federally maintained wildlife production areas are scattered across the Project area. These areas essentially serve as refuges for the natural production of wildlife resources. Wildlife of primary concern in these areas include white-tailed deer, ring-necked pheasant, and numerous waterfowl species.

The Missouri River downstream of the Gavins Point Dam is classified as a National Recreational River under the authority of the *Wild and Scenic Rivers Act*, due to the area's relatively undisturbed nature and its outstanding recreational, fish and wildlife, aesthetic, historical, and cultural resources (see also Section 3.3). The area is administered by the U.S. Secretary of the Interior in a manner that will protect and enhance the values of the river which allowed its inclusion within the Wild and Scenic Rivers System (e.g., recreation). The National Park Service and COE manage this river reach. The area is also traversed by the Lewis and Clark National Historic Trail. This trail was designated by the *National Trails System Act* (16 U.S.C. 1241-1251; P.L. 90-543) and amended by the *National Parks and Recreation Act of 1978* (P.L. 95-625). The trail is managed in accordance with the Missouri National Recreational River Management Plan and the general management plan for the Lewis and Clark National Historic Trail (Heritage Conservation and Recreation Service 1979). No NNLs are present in the Project area.

The proposed pipeline route also parallels a snowmobile trail along the Rock-Nobles County Railroad in Minnesota, and likely crosses other snowmobile trails (within road rights-of-way) at other locations. A hiking trail (Rails to Trails program) occurs along the route near Sibley, Iowa.

3.6.4 Road Systems

Two interstate highways cross the Project area (I-29 north and south and I-90 east and west). Numerous smaller state and federal highways also cross the area, as well as gravel county roads along most section boundaries. Road densities are greatest within city limits. Railroads also serve some of the larger Project area municipalities.

3.6.5 Utilities

Utility corridors occur throughout the Project area and generally parallel existing roadways; many of these corridors actually occur within road ROWs. Buried and overhead electrical lines

and telephone lines, as well as natural gas, water, and sewer lines, are present. Utility lines are more predominant within municipalities; however, they are present throughout the Project area.

3.7 VISUAL RESOURCES

The most outstanding visual resources within the Project area are associated with the Missouri River. Rolling hills, wooded areas, and wetlands occur along the river's reach. The presence of these features below the Gavins Point Dam contributed to the river's classification within the Wild and Scenic Rivers System. Similarly, wooded areas along the Vermillion, Big Sioux, and other major waterways also contribute to the visual resources within the Project area.

Wetland habitats (palustrine, lacustrine, and riverine) are common. These habitats often provide the only native/natural areas within this extensively farmed region and therefore are visually important. Additionally, woodlots planted for wind shelter and wildlife habitat are commonly associated with dwellings in the Project area. These features also contribute to the Project area's visual diversity.

3.8 ENVIRONMENTAL JUSTICE

The environmental justice policy requires that direct or indirect effects of the alternatives, including the equitable distribution of benefits and risks on minority or low-income populations and communities, be identified and evaluated during scoping and Project planning processes.

No environmental justice issues were identified during scoping or Project planning. The alternatives for this Project would not exclude, either by intention or design, any minority or low income populations within the Project area from benefits associated with the action. Additionally, a decision to implement any alternative would not subject any minority or low income populations to a disproportionate share of project-related environmental or health risks or to an inequitable share of Project costs.

4.0 ENVIRONMENTAL CONSEQUENCES, MITIGATION MEASURES, AND CUMULATIVE IMPACTS

Environmental consequences resulting from the construction, operation, and maintenance of the Project are discussed on a resource-by-resource basis for the No Action and Proposed Action alternatives. Potentially affected resources include topography/physiography, geology, soils, surface and ground water resources, air quality, noise, vegetation, wildlife and fisheries (including federal- and state-listed species), wild and scenic rivers, cultural resources, socioeconomics, land use, and visual resources. Mitigation measures and residual impacts are discussed where appropriate. Resources not affected by the No Action or Proposed Action alternative include climate and environmental justice, therefore, these resources are not discussed further in this EA.

An environmental consequence or impact is defined as a modification of the existing environment brought about as a result of the an action or inaction. Impacts can be beneficial or adverse; can be a primary result of the action (direct) or a secondary result (indirect); and can be long-term or short-term. Impacts also may vary in intensity from only a slightly discernible change to a total change in the environment.

Impact evaluation criteria have been established for each potentially affected resource and potential project impacts were assessed for significance based on these criteria. Impact evaluation criteria were developed using reasonable agency expectations and current policy guidelines as well as existing federal, state, and local laws, rules, and regulations.

Short-term impacts are effects on the environment that occur during construction and/or last only a few years after construction. Although short in duration, such impacts are normally obvious and disruptive. For this Project, short-term impacts are defined as lasting 12 years or less; however, should Project construction take longer than 12 years, these impacts would be felt for the entire construction period. Impacts from construction will be present only during the period of construction activity and at specific locations of work. Long-term impacts are changes

made in the environment during construction and operation of the Project that remain longer than 12 years and perhaps for the LOP and beyond.

Cumulative impacts are those which result from the incremental impacts of an action added to other past, present, and reasonably foreseeable actions, regardless of who is responsible for such actions. These impacts are described for each potentially affected resource. Cumulative impact assessment areas vary depending on the resource.

4.1 PHYSICAL RESOURCES

4.1.1 Topography/Physiography

4.1.1.1 Impact Evaluation Criteria

Impacts to topography/physiography would be significant if Project facilities or activities resulted in a change in the overall appearance of the landscape.

4.1.1.2 The No Action Alternative

Under the No Action alternative, the pipeline and associated facilities would not be constructed. There would be no Project-related impacts to physiography/topography from the No Action alternative because no ground would be disturbed.

4.1.1.3 The Proposed Action

No long-term impacts to physiography/topography are anticipated because all but 236 acres of disturbed areas (Table 2.1) would be promptly reclaimed and any temporary disruption in drainage patterns from the Project would be restored. Pipeline construction operations that involve stream or river crossings have the potential to cause short-term disruption of drainages. Approximately 640 wetland areas occur within the study area (proposed pipeline and facilities

sites and a 1.0-mile buffer) (Table 4.1); however, wetland areas were avoided to the maximum extent possible during Project planning. Additional avoidance would occur during IERT reviews (see Appendix A), and any wetland crossings would be conducted in compliance with all appropriate federal and state legislation and IERT guidance. Therefore, impacts to drainages are anticipated to be less than significant.

4.1.1.4 Mitigation

No additional mitigation measures beyond those described in Section 2.2.2 are recommended for topography/physiography.

4.1.1.5 Cumulative Impacts

No cumulative impacts to physiography/topography are anticipated from the Project.

4.1.2 Geology (Geologic Hazards, Mineral Resources, and Paleontological Resources)

4.1.2.1 Impact Evaluation Criteria

Impacts to geology would be significant if Project activities resulted in landslides, subsidence, or increased flooding. Impacts to minerals, specifically quartzite and limestone quarries, sand and gravel pits, and clay and peat beds, would be significant if Project activities resulted in the inability to mine these resources. Impacts to paleontological resources would be significant if important fossils would be directly lost or destroyed during construction or indirectly lost or destroyed due to private collection or vandalism.

4.1.2.2 The No Action Alternative

Under the No Action alternative, there would be no construction (e.g., well development, ground disturbance) at this time, and geologic resources would remain unchanged from their existing condition except as modified by natural causes or otherwise impacted by other non-Project related activities.

Table 4.1 Maximum Number of Wetland Crossings and Disturbance Area Acreages by State, Lewis and Clark Water Supply Project, 2002.[1]

	Iowa		Minnesota		South Dakota		Total[2]	
Impacted Wetland Type	No. of Crossings	Acres[2]	No. of Crossings	Acres	No. of Crossings	Acres	No. of Crossings	Acres
PEMA[3]	16	5.52	5	3.36	50	55.15	71	64.03
PEMC[4]	34	10.40	29	11.67	92	34.99	155	57.06
Forested[5]	0	0.00	1	2.03	15	3.18	16	5.21
Riverine[6]	13	8.37	8	1.51	11	1.36	32	11.24
Other Natural Wetlands[7]	6	1.47	5	3.57	10	10.30	21	15.34
Man-altered Wetlands[8]	45	17.10	18	10.42	282	261.54	345	289.06
Total	114	42.86	66	32.56	460	366.52	640	441.94

[1] This table indicates the maximum level of wetland impacts that could result from the Project. The actual number and acreage of wetland crossings will be substantially less than those indicated herein since the majority of wetlands would be avoided during IERT reviews (see Appendix A).

[2] Acreage computed by multiplying the linear distance of the wetland type crossed by the width of the construction corridor (200 feet for pipes >36 inches; 150 feet for pipes 18-36 inches; and 100 feet for pipes <18 inches); for crossings too short to be measured, the length of the crossing was estimated at approximately 10 feet.

[3] PEMA = Palustrine Emergent Temporarily Flooded.

[4] PEMC = Palustrine Emergent Seasonally Flooded.

[5] Includes:
PFOA = Palustrine Forested Temporarily Flooded.
PFOC = Palustrine Forested Seasonally Flooded.
PFO/SS1 = Palustrine Forested/Scrub Shrub Broadleaf Deciduous.

[6] Includes:
R2UBG = Riverine Lower Perennial Unconsolidated Bottom Intermittently Exposed.
R2USA = Riverine Lower Perennial Unconsolidated Shore Temporarily Flooded.
R4SBF = Riverine Intermittent Streambed Semipermanently Flooded.

[7] Includes:
PEM/ABF = Palustrine Emergent/Aquatic Bed Semipermanently Flooded.
PEMF = Palustrine Emergent Semipermanently Flooded.
PEM/FO = Palustrine Emergent/Forested.
PEM/SS1A = Palustrine Emergent/Scrub Shrub Broadleaf Deciduous Temporarily Flooded.
PSSA = Palustrine Scrub Shrub Temporarily Flooded.
PUB/EMF = Palustrine Unconsolidated Bottom Emergent Semipermanently Flooded.
PUBF = Palustrine Unconsolidated Bottom Semipermanently Flooded.
PUBG = Palustrine Unconsolidated Bottom Intermittently Exposed.

[8] Includes:
PABFx = Palustrine Aquatic Bed Semipermanently Flooded Excavated.
PEM/ABFx = Palustrine Emergent/Aquatic Bed Semipermanently Flooded Excavated.
PEMAd = Palustrine Emergent Temporarily Flooded Partially Drained Ditched.
PEMAx = Palustrine Emergent Temporarily Flooded Excavated.
PEM/ABFd = Palustrine Emergent/Aquatic Bed Semipermanently Flooded Partially Drained Ditched.
PEMCd = Palustrine Emergent Seasonally Flooded Partially Drained Ditched.
PEMCx = Palustrine Emergent Seasonally Flooded Excavated.
PEMFd = Palustrine Emergent Semipernamently Flooded Partially Drained/Ditched.
PEMFx = Palustrine Emergent Semipermanently Flooded Excavated.
PFOAx = Palustrine Forested Temporarily Flooded Excavated.
PFOCx = Palustrine Forested Seasonally Flooded Excavated.
PUBGx = Palustrine Unconsolidated Bottom Intermittently Exposed Excavated.
PUBHh = Palustrine Unconsolidated Bottom Permanently Flooded Diked/Impounded.
R2UBGx = Riverine Lower Perennial Unconsolidated Bottom Intermittently Exposed Excavated.
R4SBFx = Riverine Intermittent Streambed Semipermanently Flooded Excavated.

4.1.2.3 The Proposed Action

There would be little or no impact to the geology of the area from Project construction. Active mining operations including quartzite and limestone quarries, sand and gravel pits, and clay and peat beds have been avoided during Project planning and would be further avoided during the siting of facilities and final pipeline routes.

While floodplains and flooding may be temporarily impacted by Project construction through bank destabilization and the loss of vegetation within floodplain areas, mitigation activities implemented during construction would alleviate the potential for severe impacts (see Section 2.2.2). The construction, operation, and maintenance of the Proposed Action would not increase the flooding hazard. With appropriate facility design, flooding along the Missouri River in the vicinity of the proposed well field is not expected to adversely impact the Project.

Since no major paleontological resources are known to occur within the Project region (Mariah 1993a), potential impacts, both direct and indirect, are anticipated to be less than significant. Possible direct impacts could result from the disturbance/destruction of fossil information during construction and indirect disturbance could result from the loss of important fossil materials due to private collection or vandalism facilitated by potential increased public access; however, most of the land within the area is privately owned and, therefore, public access is restricted, limiting potential indirect impacts to paleontological materials.

4.1.2.4 Mitigation

No additional mitigation measures beyond those described in Section 2.2.2 are recommended for geologic hazards or mineral resources.

To reduce direct impacts to paleontological materials, further study of Project-affected outcrops of fossil-bearing formations may be conducted prior to construction, as deemed necessary by Reclamation and the System in consultation with qualified paleontologists. Avoidance of

known paleontological localities may be required, and if avoidance would not be feasible, important localities may be surveyed and monitored during construction, and recovery programs may be required. If paleontological materials are found during construction, all activities in the immediate area would cease, and appropriate personnel would be notified immediately to provide proper handling of the discovery by qualified paleontologists.

4.1.2.5 Cumulative Impacts

No adverse cumulative impacts to geology are anticipated from Project-related activities.

4.1.3 Soils (Steep Slopes, Prime Farmland, Wetland Soils)

4.1.3.1 Impact Evaluation Criteria

Impacts to soils would be significant if a reduction in soil productivity and/or increased erosion would prevent successful reclamation.

4.1.3.2 The No Action Alternative

Under the No Action alternative, there would be no construction/soil disturbance at this time and soils would remain unchanged from their existing condition except as modified by natural causes or otherwise impacted by other non-Project related activities.

4.1.3.3 The Proposed Action

Short-term construction-related impacts would occur on disturbed areas. Construction would increase erosion potential and result in soil loss. However, with the implementation of mitigation measures (see Section 2.2.2), no significant soil impacts are anticipated.

In areas where Project features would affect wetlands and prime farmlands, potential impacts may include soil loss and erosion, soil modification resulting in the loss of the hydrologic integrity of wetlands, and topsoil compaction or mixing resulting in decreased productivity.

Impacts to prime farmland and wetland soils would be minimized primarily by avoiding placement of permanent facilities in these areas, where practical. Where prime farmlands are lost as a result of this Project, landowners would be compensated at the fair market value for these losses (i.e., crop-loss remediation, land acquisition). Pipeline routes are currently located such that they cross the fewest number of identified wetlands in the Project area, and further pipeline routing modifications would occur during IERT reviews (see Appendix A) such that the majority of wetlands currently within the study area would be avoided. The maximum total area of wetlands impacted by the Project is identified in Table 4.1; however, the majority of these wetlands would be avoided through minor routing modifications conducted during IERT review.

4.1.3.4 Mitigation

Segregated topsoil would be returned to the surface upon construction completion to facilitate successful revegetation and or maintenance of predisturbance crop/vegetation productivity.

Wetlands affected during Project construction would be reclaimed or otherwise mitigated as determined during COE and state permitting actions such that there would be no net loss of wetlands. Impermeable soils and/or plugs may be used in the pipeline trench at wetland crossings to eliminate water leakage within trench bedding materials. If wetland replacement is required, it may involve restoration of drained wetlands, water augmentation of existing wetlands, or wetland creation.

No additional mitigation measures beyond those described in Section 2.2.2 would be required.

4.1.3.5 Cumulative Impacts

The Project would only minimally contribute to the cumulative impacts associated with existing soil loss from farming, urban development, road construction, mining, and other regional activities. A total of 236 acres would be required for the LOP.

4.1.4 Surface Water

4.1.4.1 Impact Evaluation Criteria

Impacts to surface waters would be significant if surface water quality declined such that the existing surface water quality classes (see Section 3.1.5.1) would be downgraded or if surface water quantities were depleted such that the water rights of current users (i.e., irrigation) would be violated.

4.1.4.2 No Action Alternative

Under the No Action alternative, there would be no construction/surface disturbance at this time and surface water resources would remain unchanged in the Missouri River and continue to be depleted in other areas where they provide an existing source of drinking water. Due to the existing water quality and quantity problems associated with existing water systems and anticipated increases in water demand, additional water resources would eventually be required. The anticipated increase in the number of water users throughout the region and the subsequent increase in water demand indicate that additional water resources will eventually be required (COE 1989a, 1989b). Additionally, tentative increased standards in the SDWA will require that some existing water users secure alternative or further processed waters. These actions may include further tapping of surficial or deep aquifers or piping water from alternate surface water locations. Impacts resulting from these actions may be more detrimental to the environment than the Project. In addition, the flexibility to transport water throughout the region to meet

current and future demands for water would be lost as would the opportunity to sustain current and projected regional economic growth and development (see also Section 4.1.5.2).

4.1.4.3 Proposed Action

No significant impacts are anticipated under the Proposed Action.

Generally, there would be no impact to the lakes or ponds within the Project area since these features would be avoided during pipeline routing. Many lakes and ponds in the area are maintained by ground water discharge. Decreased localized use of ground water by system member entities may augment water levels in some of these surface waters, providing a positive impact.

Numerous rivers and streams would be crossed during pipeline construction (see Table 4.1). River and stream crossings would be conducted in compliance with all appropriate federal and state legislation. Potential adverse impacts to these waters would be temporary and include bank damage, associated increases in erosion and sedimentation, modification of streambeds supporting aquatic biota, loss of riparian habitat, and fuel spills during construction. Impacts from erosion would be short-term and moderate in intensity during Project construction. Fuel spills are unlikely and present a short-term low potential impact during Project construction.

Decreased dependence on surficial aquifers throughout the Project area may have a long-term beneficial effect to rivers and streams. Since many of the surficial aquifers currently utilized to provide water to system member entities are associated with the rivers of the area, decreased use of these waters may increase surface water availability along some stream reaches.

It is assumed that the water pumped from the alluvial aquifers adjacent to the Missouri River by this Project would eventually be lost to the Missouri River while being used for the Project. Therefore, river flow rate reduction concerns associated with pumping surface water directly from the river are equally valid for pumping water from the collector wells (personal

communication, July 2001, Wayne Werkmeister, National Park Service). Potential impacts to the Missouri River would include decreased flow rates and minimal levels of increased erosion and sedimentation associated with the well field. The estimated maximum withdrawal of 32 MGD of water from the Missouri River alluvial aquifer amounts to less than 0.8% of the minimum allowable flow from the Gavins Point Dam, and peak Project demand is not anticipated to coincide with periods of low flow within the river. In addition, the majority of water withdrawn from the Missouri River aquifer would be redischarged as purified wastewater elsewhere within the watershed. The impact potential of decreased flows, therefore, is considered low, as are impacts associated with erosion and sedimentation due to the application of appropriate mitigation measures (see Section 2.2.2).

4.1.4.4 Mitigation

No additional mitigation measures beyond those described in Section 2.2.2 are recommended.

4.1.4.5 Cumulative Impacts

Surface water resource cumulative impacts include the diversion of water from the Missouri River aquifer. The projected average water withdrawal from the Missouri River aquifer of approximately 22 to 23 MGD, which is less than 0.7% of the minimum allowable flow from Gavins Point Dam (i.e., 6,000 cfs), would not represent a significant contribution to overall depletions within the river and, therefore, would have negligible effects to fisheries, recreational values, or navigational capabilities. The majority of water utilized for the Project would eventually return to Missouri River tributaries from wastewater treatment facilities, and the potential lowered use of surface waters and surficial aquifers within the area would also augment flows within these tributaries. Only the waters used at Worthington, Minnesota, that are treated by the city sewage system would be lost from the Missouri River watershed; however, the small volume of this loss would be insignificant even in the event of further water withdrawals from the Missouri River due to future regional actions.

4.1.5 Ground Water

4.1.5.1 Impact Evaluation Criteria

Impacts to ground water resources would be significant if water quality and quantity declined such that the water rights of current users and/or state standards (beneficial uses) would be violated, and/or ground water levels in the vicinity of the well field decline to the point where permanent changes to riparian vegetation occurs.

4.1.5.2 No Action Alternative

Under the No Action alternative, the current use of both surficial and deep water aquifers would continue and some existing member entities currently utilize aquifers with little or no natural recharge which will eventually be depleted. Additionally, contaminant concentrations may continue to increase in concentration in these aquifers as aquifer water volumes decline. While existing efforts in ground water and surface water conservation and protection will assist in promoting and maintaining water quality and quantity, these efforts will be inadequate as populations increase. The water conservation program proposed for development under the Proposed Action would not be implemented under the No Action alternative. There would be no impact to the alluvial aquifers adjacent to the Missouri River since no wells would be developed.

4.1.5.3 The Proposed Action

The majority of impacts to ground water resulting from the Project would be long term and beneficial. Lowered use of some aquifers within the Project area would allow greater aquifer recharge and subsequently increase the quantity and quality (dilution effects) of ground water within these systems. Water users drawing upon these aquifers as their primary source of drinking water would benefit through greater water availability and quality.

Of notable concern within the Project region is the potential for ground water resources to become further limited and for continued ground water contamination from surface sources; for example, the ground water resources within the Big Sioux River aquifer (Sioux Falls management unit) have been fully appropriated. By providing adequate supplies of good quality water to the region, current activities in ground water conservation and protection may be lost, further threatening these resources. While the potential for these problems would be long term, the implementation of mitigation measures including a Project-specific water conservation program are anticipated to result in impacts that are less than significant.

Detailed information on the potential draw down of ground water in the vicinity of the well field is provided in LLC (2001b) and Banner et al. (2002). While some draw down is anticipated, no effects to riparian vegetation are anticipated since ground water levels in the area are generally greater than 15 feet deep.

4.1.5.4 Mitigation

The proposed water treatment plant would have drying lagoons for sludge and fuel and chemical storage tanks. To prevent impacts to ground water beneath these facilities, sludge lagoons would be constructed to meet state design standards for seepage rates, and fuel and chemical storage facilities would be built with secondary containment features. If a spill were to occur, clean-up in accordance with applicable federal and state guidelines would be implemented.

The System would continue promoting ground water conservation and protection efforts among its membership. Efforts would include dissemination of information about conservation, which may include lawn watering restrictions and household conservation measures. Additional efforts may be required by System member entities or respective states to continue aquifer protection practices.

No additional measures beyond those described in Section 2.2.2 are recommended.

4.1.5.5 Cumulative Impacts

Most of the projected water withdrawal from the alluvial aquifers adjacent to the Missouri River would eventually return to Missouri River tributaries. Only the waters distributed to Worthington, Minnesota, would be lost from the watershed. This loss would be less than significant even in the event of further water withdrawals from the Missouri River due to future regional actions.

4.1.6 Air Quality

4.1.6.1 Impact Evaluation Criteria

Impacts to air quality would be significant if they resulted in a violation of federal and/or state air quality attainment standards.

4.1.6.2 No Action Alternative

Under the No Action alternative, there would be no construction at this time and air quality would remain unchanged from existing conditions except as modified by natural causes or otherwise impacted by other non-Project related activities.

4.1.6.3 The Proposed Action

Air quality impacts resulting from the Project would primarily be short term (occurring during construction) and occur at low levels and therefore be less than significant; most long-term Project facilities would be electrically powered using the existing power infrastructure. Impacts primarily would result from equipment emissions and fugitive dust and would be mitigated by keeping all construction vehicles well-maintained and by watering construction areas during dry periods. At least one well site, the treatment plant, and some of the pump stations would have generators which would be operated primarily for exercise purposes, in the event of electrical -

service interruption, and/or to reduce Project electrical costs (peak shaving). These and other long-term Project facilities would be appropriately permitted such that ambient air quality standards would not be exceeded.

4.1.6.4 Mitigation

No additional mitigation measures beyond those described in Section 2.2.2 are recommended.

4.1.6.5 Cumulative Impacts

Cumulative impacts to air quality would be negligible because pipeline construction would be temporary and would occur over a 12-year period. The well field facility, treatment plant, and pump stations primarily would be powered electrically through the existing power infrastructure and, therefore, cumulative impacts to air quality would occur within the parameters of existing power plant air quality permit obligations.

4.1.7 Noise

4.1.7.1 Impact Evaluation Criteria

Impacts to noise would be significant if long-term Project activities would exceed the federal 55-dBA standard for noise at residences and/or other noise-sensitive locations such as piping plover and interior least tern nests during breeding and nesting seasons and winter bald eagle roost sites.

4.1.7.2 No Action Alternative

Under the No Action alternative, there would be no construction at this time and noise levels would remain unchanged from their existing condition except as modified by natural causes or otherwise impacted by other non-Project related activities.

4.1.7.3 The Proposed Action

Noise levels within the Project area could exceed background noise levels during Project construction, and these noise levels could be as high as 100 dBA for short periods; ; however, no long-term noises greater than 55 dBA are anticipated at residences or other noise sensitive locations. Noise impacts would occur during construction and be moderate in intensity but are not expected to exceed levels produced by existing farm machinery presently used in the area. While the majority of area residents would be located at a sufficient distance from noise sources such that noise levels would not be an annoyance, some residents may be disturbed by noise levels. However, due to the temporary nature of construction noise increases, impacts are anticipated to be less than significant.

The operation of the treatment plant and pump stations would also generate noise throughout the LOP. Pumps and generators would be housed within facility structures. To contain the noise generated at facility sites determined to be in noise-sensitive areas (e.g., well field pump houses), cavity-walled, sound-absorbing masonry units and/or insulation would be used and the level of noise escaping from these facilities would be negligible. It is anticipated that the noise generated by pumps and generators at the well field would be less than the noise from boats on the Missouri River, and that the noise generated by the treatment plant would be less than the noise from nearby operating farm equipment. Therefore, LOP noise increases are anticipated to be less than significant.

4.1.7.4 Mitigation

No additional mitigation measures beyond those described in Section 2.2.2 are recommended.

4.1.7.5 Cumulative Impacts

Cumulative impacts to noise would be negligible because pipeline construction would be temporary and occur over a 10- to 12-year period. The well facility, treatment plant, and pump

stations would also generate noise throughout the LOP; however, it is not anticipated to be cumulatively significant.

4.2 BIOLOGICAL RESOURCES

4.2.1 Vegetation

4.2.1.1 Impact Evaluation Criteria

Impacts to vegetation would be significant if there was a long-term reduction in vegetation productivity or a permanent change in species composition. Impacts to wetlands and riparian areas would be significant if there would be a violation of Section 404 of the *Clean Water Act* or Executive Orders 11988 or 11990. Project impacts would be significant if they resulted in the unreasonable spread of invasive non-native species (noxious weeds).

4.2.1.2 No Action Alternative

Under the No Action alternative, there would be no construction/surface disturbance at this time, and vegetation, wetlands, and riparian areas would remain undisturbed from existing conditions except as modified by natural causes or otherwise impacted by other non-Project related activities. Since no vegetation would be disturbed, areas suitable for the spread of noxious weeds would not be present, and no increase in the abundance or distribution of noxious weeds would occur.

4.2.1.3 The Proposed Action

Croplands would constitute the vast majority of Project-affected lands; however, some pasturelands, grasslands, woodlots/windbreaks, riparian forests, and wetlands would be impacted. Where possible, grasslands, native prairie areas, woodlots/windbreaks, riparian

forests, and wetlands would be avoided during construction and for permanent facility sites. Therefore, no significant impacts to vegetation are anticipated.

Construction would result in the temporary removal and/or the alteration of vegetation within the construction ROW (approximately 7,700 acres [see Table 2.1]). Removal of vegetation, changes in vegetation type (e.g., forest to grassland), potential for accelerated erosion, and the increased likelihood for noxious weed invasion on disturbed areas constitute potential short-term impacts to the vegetation on Project-disturbed areas.

Riparian vegetation would be impacted where pipelines cross rivers, streams, and other wetlands (see Table 4.1); however, the majority of these areas would be avoided during routing most wetland areas. No effects to riparian vegetation in the vicinity of the well field as a result of ground water draw down are anticipated (see Section 4.1.5.3). Therefore, impacts are anticipated to be insignificant. Crossings of these areas would follow COE best management practices as identified in Section 404 permit regulations; a project-wide national 404 permit should be sufficient for all wetland crossings. Section 10 permits would be required for river crossings as per Section 10 regulations of the *Rivers and Harbors Act of 1899* (33 U.S.C. 403).

Vegetation would be permanently lost from facility sites (approximately 236 acres [see Table 2.1]). To minimize potential impacts from these Project components, facilities, would not be located on wetland, native prairie, or other natural areas, where practical. The well field and associated access roads would, by necessity, be constructed in a relatively undisturbed area on the northern bank of the Missouri River, resulting in the long-term transformation of approximately 7 acres. However, impacts from the well field would be considerably less than those from the scattered existing developments in this area which include cropping, road ROWs, material borrow areas, and houses.

4.2.1.4 Mitigation

Topsoil would be segregated from subsoils during all construction operations requiring excavation. Segregated topsoil would be returned to the surface upon completion of operation to facilitate the likelihood of successful revegetation and or maintenance of predisturbance crop/vegetation productivity.

Wetlands and other important habitats that may be affected as a result of Project construction would be reclaimed/replaced such that there would be no net loss of wetlands or other important habitats. Wetland replacement may involve restoration of drained wetlands, water augmentation of existing wetlands, or wetland creation; whereas other important habitats (e.g., wooded locations at the proposed well field) would be replaced using methods identified during IERT review, which may include habitat improvements, land acquisitions, and/or land preservation actions at alternative sites.

No additional mitigation measures other than those described in Section 2.2.2 are recommended.

4.2.1.5 Cumulative Impacts

Vegetation conversions/loss would occur at permanent facility sites. However, most Project disturbance would occur on previously disturbed areas (i.e., croplands, road and railroad ROWs), and most newly disturbed areas would be reclaimed soon after disturbance. Construction of facilities would result in the permanent land use change of approximately 236 acres. While immediate habitat loss could result in wildlife displacement leaving animals more susceptible to disease, predation, and hunting pressures, important habitats lost for permanent facility sites (e.g., the 7 acres at the well field) would be replaced on an acre-for-acre basis with habitat of equal value at alternative locations. Cumulative vegetation losses, therefore, would be negligible and occur only during the period required for most areas to reach pre-disturbance growth stages.

Adverse cumulative impacts as a result of the spread of noxious weeds would not be significant because of the application of appropriate weed control measures.

4.2.2 Wildlife and Fisheries

4.2.2.1 Impact Evaluation Criteria

Impacts to wildlife and fisheries resources would be significant if they prevent realization of wildlife population objectives or result in the loss of a population of any species.

4.2.2.2 No Action Alternative

Under the No Action alternative, there would be no construction/surface disturbances at this time and impacts to wildlife populations would likely remain unchanged from their existing condition except as modified by natural causes or otherwise impacted by other non-Project related activities.

4.2.2.3 The Proposed Action

Impacts to the wildlife resource from Project construction would generally be from temporary loss of habitat and short-term disruption during construction. While approximately 236 acres of land would experience a change in use, only along the Missouri River would an area of important wildlife habitat be permanently removed (approximately 7 acres), and this lost habitat would be replaced on an acre-for-acre basis with habitat of equal value using methods developed during IERT review which may include habitat improvements, land acquisitions, and/or land preservation at alternate sites. All other required permanent facilities would be located on lands away from native/natural areas and, therefore, would not require replacement.

Direct Project impacts would include the direct mortality of wildlife caused by construction activities (e.g., ground nesting and burrowing species) and displacement of organisms within the immediate vicinity of construction sites. Given the higher concentrations of wildlife in

riparian areas, construction activities at river, stream, and wetland crossings would be expected to have the greatest impact to wildlife.

Localized increases in turbidity and sediment loads associated with construction activities at river and stream crossings would have a short-term low-level impact on Project-area fisheries. These impacts are expected to be minimal since fish and other non-sessile aquatic organisms would avoid areas of temporary disturbance, and sessile organisms such as mollusks and other benthic invertebrates are adapted to fluctuating turbidity and would respond accordingly. Since local increases in turbidity are transient and would be minimized with proper construction practices (see Section 2.2.2), fish and other displaced aquatic organisms are expected to return to areas impacted during construction.

Potential habitat loss from Missouri River flow depletion would be long-term but is anticipated to be insignificant. No mitigations would be employed since the maximum estimated flow rate reduction would be less than 0.8% of the minimum allowable river flow, and the majority of waters removed from the river would be returned to the watershed as treated wastewaters at alternative locations. The decreased reliance on surficial aquifers and surface waters at other locations within the Project area would probably augment surface water availability proximal to these areas. Impacts to wildlife and wildlife habitats are anticipated to be less than significant.

4.2.2.4 Mitigation

No additional mitigation measures beyond those described in Section 2.2.2 are recommended.

4.2.2.5 Cumulative Impacts

Construction of facilities would result in the permanent land use change of approximately 236 acres. While immediate habitat loss could result in wildlife displacement leaving animals more susceptible to disease, predation, and hunting pressures, all important habitats (e.g., wetlands, native prairie, woodlands) lost would be replaced on an acre-for-acre basis with habitats of equal value as identified during IERT reviews. In addition, most of the proposed

disturbance would occur on previously disturbed areas (i.e., croplands, road and railroad ROWs), and most newly disturbed areas would be reclaimed soon after disturbance. Cumulative losses, therefore, would be negligible.

4.2.3 Threatened and Endangered (T&E), and State-Listed Species

4.2.3.1 Impact Evaluation Criteria

Any action that would adversely affect or jeopardize federally listed T&E species or their critical habitat, and/or any recovery program for such species, would be a significant impact. Any construction action that would be the primary cause of a state-listed species to become federally listed would be a significant impact.

4.2.3.2 No Action Alternative

Under the No Action alternative, there would be no construction, surface disturbance, or Missouri River water withdrawals at this time, and impacts to federal- and state-listed species would continue at levels determined by current non-Project related activities.

4.2.3.3 The Proposed Action

Numerous federally listed species may be present within the Project area, and potential habitat for these species may be temporarily altered during Project construction. Since some of these species may be affected, Section 7 of the *Endangered Species Act* is being implemented (see the BA for this Project [TRC Mariah 2002]). As a precursor to implementation of Section 7, USFWS offices were contacted to comment on the potential for this Project to negatively affect federally listed species. Further detail on potential Project effects is provided in TRC Mariah (2002).

By utilizing appropriate mitigation measures (see Section 2.2.2) during Project construction, the proposed Project is not likely to adversely affect any T&E species; however, if impacts are identified during Project implementation, Project activities would be temporarily suspended and further consultation with the USFWS would be initiated. Table 4.3 summarizes the potential impacts, anticipated effects, and mitigation measures for T&E species which are fully discussed in the BA (TRC Mariah 2002). Mitigations involving habitat avoidance; construction outside of breeding, nesting, roosting, and spawning periods; avoidance of native prairie/natural areas and wildlife production areas; and the use of appropriate construction technologies would facilitate the protection of these species.

Specific habitat requirements limit the distribution of many of the federal- and state-listed species present in the Project area. Habitat of aquatic species is limited in the area as a result of stream channelization, reductions in discharge, and changes in water quality. Habitat of terrestrial and avian species is primarily limited by the conversion of native/natural areas to alternative types of land uses (e.g., agricultural, residential). Since alterations in streamflows and water quality would be minimal, and the replacement of native/natural areas would be on an acre-for-acre or greater basis with habitat of equal value, these factors are not considered to be significant impacts.

4.2.3.4 Mitigation

The system would support and implement activities as defined in the IERT Guidelines (see Appendix A). Comprehensive site-specific inventories would be conducted annually during Project construction to minimize the potential for adverse environmental effects. These multi-agency site-specific inventories would be conducted to assess the reclamation status of past construction actions, to identify appropriate remedial actions where problems may be found, and to develop appropriate location and design criteria for upcoming Project construction actions.

Table 4.3 Summary of Potential Impacts and Mitigation Measures to T&E Species.

Species	Species Occurrence[1] and Level of Potential Impact Without Mitigation[2] — Month												Potential Impacts	Anticipated Effect	Mitigation Measures[3]
	J	F	M	A	M	J	J	A	S	O	N	D			
Bald eagle	C H	C H	C H	C H	u M	u M	u M	u M	u M	C H	C H	C H	Loss of roosts/perches; disturbance from noise and activities; increased human access to winter use sites; power line electrocution and strike hazards	Not likely to adversely affect	Identify and avoid roost, nest, perch, and winter use sites; restrict public access to access/maintenance roads; bury power lines or design them to minimize strike and electrocution hazards (APLIC 1994, 1996)
Least tern	x O	x O	x O	C H	C H	C H	C H	C H	x O	x O	x O	x O	Disturbance during nesting season; increased public access to nest sites	Not likely to adversely affect	Avoid construction during nesting season within 0.25 mi of potential nesting habitat; restrict public access to access/maintenance roads
Piping plover	x O	x O	C H	C H	C H	C H	C H	C H	x O	x O	x O	x O	Disturbance during nesting season; increased public access to nest sites	Not likely to adversely affect	Avoid construction during nesting season within 0.25 mi of potential nesting habitat; restrict public access to access/maintenance roads
Pallid sturgeon	r L	r L	r L	r M	r M	r M	r M	r L	r L	r L	r L	r L	Potential sedimentation in waterways; disturbance during spawning	No effect	Use best management practices as described in Section 2.2.2; avoid construction during spawning seasons.
Topeka shiner	C L	C L	C L	C M	C M	C M	C M	C L	C L	C L	C L	C L	Potential sedimentation in waterways; disturbance during spawning	Not likely to adversely affect	Use best management practices as described in Section 2.2.2; avoid construction during spawning seasons.
American burying beetle	x L	x L	x L	x L	x L	x L	x L	x L	x L	x L	x L	x L	Loss of individuals and habitat possible but unlikely	Not likely to adversely affect	Survey potential habitat to determine presence/absence; avoid individuals or populations if found; avoid potential habitat, where practicable
Scaleshell mussel	r O	r O	r O	r O	r O	r O	r O	r O	r O	r O	r O	r O	No impact is expected	No effect	None

Table 4.3 *(Continued)*

Species	Species Occurrence[1] and Level of Potential Impact Without Mitigation[2] — Month J	F	M	A	M	J	J	A	S	O	N	D	Potential Impacts	Anticipated Effect	Mitigation Measures[3]
Western prairie fringed orchid	x L	x L	x L	x L	x L	x L	x L	x L	x L	x L	x L	x L	Destruction of individuals and habitat possible but unlikely	Not likely to adversely affect	Survey potential habitat to determine presence/absence; avoid individuals or populations if found; avoid potential habitat, where practical
Prairie bush-clover	x L	x L	x L	x L	x L	x L	x L	x L	x L	x L	x L	x L	Destruction of individuals and habitat possible but unlikely	Not likely to adversely affect	Survey potential habitat to determine presence/absence; avoid individuals or populations if found; avoid potential habitat, where practical

[1] Species Occurrence = a relative measure of the species' "presence" in the Project's impact area.
- C = Locally common. Species could occur in abundant numbers, but only in widely scattered or isolated populations. Populations or individuals probably would be encountered during construction, but only at one or two sites in the Project area. Species could be present for a significant part of the year (e.g., breeding season, summer resident) or the entire year.
- u = Uncommon. Species may be present in the Project area, but in such low numbers or in such small and widely-scattered populations that an encounter during construction is unlikely. The species could be present for a significant part of the year (e.g., breeding season, summer resident) or the entire year.
- r = Rare. Species occurrence on the Project area likely would be limited to a few days or hours (e.g., stopping over during migration) or the species has only occasionally or rarely been sighted in the Project area. Encounters during construction are very unlikely.
- x = Unlikely. There has been no recent historical record of the species' occurrence in the Project area. The probability of encountering the species during construction is unlikely.

[2] Level of potential impact without mitigation = a relative measure of the intensity or seriousness of the Project's potential impacts on the species without mitigation. Adapted from Reclamation (1991).
- H = high
- M = moderate
- L = low
- O = no impact

[3] Mitigation measures are presented in detail for each species in Section 2.2.2.

Once exact locations of pipeline routes and facility sites have been identified, further research into the possibility of federal- and state-listed species presence within the impact or study area would be conducted (e.g., least tern and piping plover nesting habitat in the area of the proposed intake facility). Areas providing potential T&E species habitat may be surveyed prior to construction to verify species presence or absence. The need to conduct surveys would be based on consultation with USFWS, state agencies, and the IERT. If T&E species are found to be present, the Project features would be relocated or otherwise appropriately mitigated under IERT guidance to avoid adverse effects.

Site-specific investigations for state-listed species may be required prior to Project construction as determined during IERT reviews. No additional mitigation measures beyond those described in Section 2.2.2 are recommended.

4.2.3.5 Cumulative Impacts

Since areas providing potential federal- and state-listed species habitat would be identified during IERT annual field reviews and these areas would be avoided or surveyed prior to construction, no cumulative impacts to these species are anticipated from the Project.

4.3 WILD AND SCENIC RIVERS

4.3.1 Impact Evaluation Criteria

Impacts to the Missouri River would be significant if Project-related activities resulted in a violation of its National Recreational River designation under the *Wild and Scenic Rivers Act*.

4.3.2 No Action Alternative

Under the No Action alternative, there would be no construction/water withdrawals at this time; therefore, the recreational quality of the Missouri River would remain unchanged from its

existing condition except as modified by natural causes or otherwise impacted by other non-Project related activities.

4.3.3 The Proposed Action

The Missouri River downstream of Gavins Point Dam to the Ponca State Park is classified as a recreational river under the *Wild and Scenic Rivers Act*, and the U.S. Secretary of the Interior is mandated to protect and enhance the river's recreational values, as directed by the National Park Service and COE. There would be direct impacts to the river as a result of decreased flows; however, this flow reduction would be less than significant and essentially masked by the flow management actions implemented at Gavins Point Dam. The minimum and maximum daily flows from the Gavins Point Dam at the beginning of the wild and scenic river reach are approximately 6,000 cfs and 80,000 cfs, respectively. The maximum water intake for the proposed Project is estimated to be 32 MGD or approximately 0.8% of the minimum flow, and the average Project water intake would be 22 to 23 MGD or less than 0.7% of Missouri River minimum flows. Additionally, peak demands are not anticipated to coincide with minimum flows.

Potential decreases in flow rates within this section of the Missouri River would be minimal, long term, and less than significant.

Development and operation of the proposed well field has the potential to create visual and noise impacts in the vicinity of the field, potentially affecting ORVs including the river's recreational qualities (scenic values/visual resource), and noise, surface disturbance, and potential erosion/sedimentation impacts may also affect T&E and other fish and wildlife resources. However, with the implementation of the mitigation measures described in Section 2.2.2, these impacts would be less than significant.

4.3.4 Mitigation

No additional mitigation measures beyond those described in Section 2.2.2 are recommended.

4.3.5 Cumulative Impacts

Since the U.S. Secretary of the Interior is charged with protecting and enhancing the Missouri River's recreational values, which would include appropriate flow regulation and appropriate development restrictions along the River's recreational reach, cumulative water withdrawal impacts from the combination of existing, proposed, and reasonably foreseeable developments would be minimized. Well field facilities including potential erosion protection actions also would contribute to the cumulative loss of recreational qualities (scenic values) and fish and wildlife resources in the area; however, with the implementation of appropriate IERT recommendations to maintain ORVs, these impacts would be held to less than significant levels.

4.4 CULTURAL/HISTORIC RESOURCES

4.4.1 Impact Evaluation Criteria

Significant impacts to cultural/historic resources can occur if NRHP-eligible or -listed historic properties are impacted such that their value as cultural resources is diminished or their historic property integrity is diminished by Project activities. Significant impacts could also occur where Project activities result in unwanted effects to ITAs, traditional cultural properties, and/or areas identified by Native American groups as sensitive.

4.4.2 No Action Alternative

Under the No Action alternative, no additional impacts to cultural and historic resources would occur since there would be no new ground disturbance.

4.4.3 The Proposed Action

Potential direct impacts to cultural resources including cultural/historic landscapes from the Project would be limited to the impact area and would include the loss of historic properties during construction. These impacts would be short-term. Mitigation would hold potential impacts to less than significant levels and would include the avoidance of all NRHP-eligible or -unevaluated sites identified in the Level I surveys, where practical (see Section 3.4), implementation of a Level III survey prior to construction activities, and adherence to IERT Guidelines (Appendix A) and the Programmatic Agreement for this Project (Appendix E). Appropriate testing/data recovery would be initiated if significant sites cannot be avoided. Trench monitoring would be conducted in areas with high cultural resource potential, and construction activities would cease in the immediate area if significant artifacts are discovered.

Indirect cultural resource impacts may also result from the Project. These impacts would also be less than significant; however, they would be long-term in duration, resulting from increased access to sites left exposed after completion of construction. Most of the land within the area is privately owned, thereby restricting public access and limiting potential indirect cultural resource impacts to low levels.

Furthermore, consultation with Native American groups would be conducted if religious or culturally important sites are identified within affected areas, and Reclamation would review the potential impacts on a site-specific basis to determine what measures are necessary to prevent or mitigate impacts to religious or culturally important areas. No ITAs, sacred sites, or traditional cultural properties are known for the impacted areas; therefore, they would not be impacted. While the proposed treatment plant may be visible from Spirit Mound, the plant would be located in an area currently having power lines, roads, farmed fields, and other developments such that it likely would not be recognizable from Spirit Mound. Surveys to determine the presence of eligible cultural resources, applicant-committed practices (see Section 2.2.2), implementation of the Programmatic Agreement (see Appendix E), and

continued consultation with Native American groups, as necessary, would hold potential impacts to cultural resources from the Project to less than significant levels.

4.4.4 Mitigation

Impacts to cultural resources would be mitigated following procedures as specified in 36 C.F.R. 800 and/or the Programmatic Agreement developed for the System (see Appendix E). Database and field inventories would be conducted prior to disturbance on all lands. Where landowners deny access, alterative cultural resource mitigation resolution methodologies may be applied. In selective areas identified by Reclamation in consultation with the IERT, testing to determine site significance may be required. All resources identified during these inventories would be evaluated for eligibility to the NRHP by Reclamation, and SHPO would be consulted as necessary under state protocols. In addition, all eligible or listed sites identified in the inventories would be avoided or mitigated. If any NRHP-eligible or -listed sites found within proposed disturbance areas cannot be avoided, a data recovery program or other mitigation would be implemented as deemed appropriate by Reclamation in consultation with SHPO, the Advisory Council on Historic Preservation (as necessary), and the System. Cultural sites identified during inventories would be avoided, where practical.

In addition to database and field inventories, construction activities in areas where Reclamation believes there is a high potential for buried cultural deposits may be monitored by an archaeologist. If historic or prehistoric materials are discovered during construction, further surface-disturbing activities within 100-ft would cease immediately, and appropriate Reclamation personnel would be notified by the System to assure proper handling of the discovery by qualified archaeologists. An evaluation would be made by Reclamation in consultation with SHPO to determine appropriate actions to prevent the loss of significant cultural resources. The System may be responsible for the cost of site evaluation and mitigation, and any decision as to proper mitigation measures (e.g., data recovery) would be made by Reclamation after consulting with SHPO, the Advisory Council on Historic Preservation, as appropriate, and the System.

Reclamation may require that all field personnel be informed by the System of the importance of cultural resources and the regulatory obligations to protect such resources. Any cultural resource (historic or prehistoric site or object) discovered on public land by the System or any person working on their behalf would be immediately reported to Reclamation. Reclamation may require the System to instruct field personnel not to disturb cultural resource sites or collect artifacts and that disturbance and collection of cultural materials is prohibited by law.

No additional measures beyond those described in Section 2.2.2, Appendix A, and Appendix E are recommended.

4.4.5 Cumulative Impacts

No cumulative impacts to cultural/historic resources are expected from disturbance and/or loss of unidentified sites or artifacts, since these resources would be identified, inventoried, and appropriately protected prior to disturbance, and/or mitigated.

4.5 SOCIOECONOMICS

4.5.1 Impact Evaluation Criteria

Impacts to socioeconomics would be significant if they increased demand for housing or local government facilities in excess of availability.

4.5.2 The No Action Alternative

Impacts to socioeconomic resources under the No Action alternative would occur as a result of the continued use of increasingly inadequate water supplies by System member entities, and these supplies may not be adequate to accommodate anticipated population and industrial growth in the Project area. Water quality from ground water sources would continue to need

expensive alternative treatment, and greater demands would be placed on surface water resources over the long term.

For the No Action alternative, there would be no increase in employment and/or local sales and use taxes to cities, counties, and states (Table 4.4). Operation and maintenance expenses for existing water supply systems would continue to rise under the No Action alternative due to the costs of multiple supply and treatment facilities. However, communities still retiring debt on their facilities would continue to receive revenues with which to service that debt. The No Action alternative would not provide the beneficial socioeconomic impacts that would be realized by the Project and adverse socioeconomic impacts would continue.

To meet SDWA guidelines and user demands, some water user groups will have to take actions to secure and/or process additional water. These actions may include further tapping of surficial (shallow) or deep aquifers or piping water from alternate surface and/or ground water source locations. Impacts resulting from these actions may be more detrimental to the environment than the Proposed Action. In addition, the flexibility to transport water throughout the region to meet current and future quantity and quality water demands would be lost as a result of the No Action alternative, as would opportunities to sustain current and projected regional economic growth and development.

Under the No Action alternative, poor quality/limited quantity drinking water would continue to be consumed by member entities.

4.5.3 Proposed Action

It is anticipated that most of the materials used to build the Project would come from outside the region. However, each state would directly benefit from sales taxes paid on materials used in Project construction even though they may be purchased outside the region. Local area economies would also directly benefit from contractor excise taxes, taxes paid for fuel used to operate construction equipment, and income taxes on construction worker wages. Additionally,

Table 4.4 Potential Socioeconomic Impacts, Lewis and Clark Water Supply Project, 2002.

Category	Proposed Action	No Action
Type of Project	Rural Water System	None
Construction Duration	12 years	None
Construction Employment	562.4 worker-years	None
Operation/Maintenance Employment	15 workers for 50-year LOP	None
Payrolls	Increased regional work force payrolls	None
Population	No change/most workers would be local hires	Same as Proposed Action
Housing	No change/no large-scale increase in immigration for the Project	Same as Proposed Action
Schools	Increased revenue availability/no large-scale influx of new students	Same as Proposed Action
Local Sales and Use Taxes	Increased revenues	None
Water Rates	May increase	Loss of fees to municipalities
Water Softening Treatment	May decrease due to "softer" water	Continued expense for water softening treatment
Easements/Land Acquisitions	Appropriate payments to land owners	None
Social Indicators	Decreased unemployment; adequate quality and quantity water supply to accommodate anticipated regional growth	No change in unemployment; increased inability to sustain growth; increased demands on lower quality and quantity water supply; increased need to develop alternative water supplies and treatment systems
Communities Directly Affected	15 counties in Iowa, Minnesota, and South Dakota with a current population of approximately 354,300	Same as Proposed Action

state economies would benefit from the multiplier effect that would result from increased capital expenditures. While a relatively large number of skilled and unskilled laborers would be required during Project construction, the available labor supply within the region appears to be sufficient for Project needs. State economies would benefit from the multiplier effect that would result from construction worker income. Because the magnitude of expenditures for operation and maintenance is smaller than for construction, the total LOP impacts due to increased regional payrolls would be less than that occurring during construction. These activities would, however, last for the duration of the Project; consequently, their impacts on state and local economies would be of longer duration.

No additional demands to housing or school systems would occur as a result of the Project.

The rate of regional development is not expected to increase as a result of the Project; the Project is designed only to accommodate anticipated growth by member entities.

An additional indirect socioeconomic impact resulting from the Project would be the potential retirement of existing water treatment facilities. Only a single water treatment plant would be required for the Project, and some existing treatment facilities would be redundant and unnecessary. Additionally, altered rates paid for water may also result from Project implementation, and changes in fee schedules may be substantial for some users. However, Project water may be "softer" than the water currently used by some System members, resulting in a decreased need for water softeners and associated member cost savings.

No significant adverse affects to socioeconomic resources are anticipated as a result of the Project.

4.5.4 Mitigation

No additional mitigation measures beyond those described in Section 2.2.2 are recommended.

4.5.5 Cumulative Impacts

The Project can generally be envisioned as growth-accommodating, rather than growth-inducing. Because of the tenuous connection between the provision of a dependable potable water supply and the development of new industries, economic impacts associated with the development of new industries resulting from this Project have not been evaluated. The expansion of existing industries as a consequence of the improved water supply has also not been extensively evaluated; however, it is anticipated that numerous beneficial cumulative impacts similar to those described for the Proposed Action (see Section 4.5.3) would occur as a result of the Project.

Two long-term beneficial socioeconomic impacts would result from the implementation of the Project. First, access to good quality and a sufficient quantity of water by area residents would directly increase their quality of life and accommodate anticipated regional economic growth and development. Second, the potentially greater availability of surface water resulting from decreased demands on the water resource at various Project area locations would indirectly allow for alternative/increased use of existing surface water resources. Continued developmental planning by counties and communities would occur to accommodate anticipated regional population growth.

4.6 LAND USE

4.6.1 Impact Evaluation Criteria

Impacts to land use would be significant if Project activities and/or features precluded current land uses for the long term, permanently reduced agricultural productivity (i.e., farming, grazing), resulted in the long-term loss of recreational opportunities on the Missouri River, and/or permanently disrupted transportation activities (i.e., roads, railroads).

4.6.2 No Action Alternative

There would be no impacts from the No Action alternative because there would be no Project-required change in surface use.

4.6.3 The Proposed Action

Construction of Project facilities (i.e., well field, facilities, pump stations, treatment plant, reservoirs, service connection facilities) would permanently alter existing land use on approximately 236 acres. The majority of this land use change would occur on agricultural lands.

The loss of current land use on certain areas would occur. Land use impacts would include the short-term (i.e., during construction) and long-term (facility sites) loss of some areas from agricultural production. Short-term losses during construction would be mitigated through landowner compensation (i.e., System easement purchase and appropriate payment for lost crop revenues) and implementation of construction outside cropping periods, where practical. Long-term losses resulting at permanent facilities sites would be mitigated through land acquisition at fair market prices, and the avoidance of prime farmlands for facility sites, where practical. Impacts would also be tempered where practical by using appropriate soil segregation and replacement, implementing soil scarification or compaction as necessary, and using appropriate revegetation practices. Some mining opportunities may also be lost.

During pipeline construction, some area residents may experience traffic delays or property access problems. Additionally, snowmobile and hiking trails may be impacted at pipeline crossing locations. These short-term low-level impacts would be mitigated through prior notification of residents regarding work schedules, appropriate detour design in urban areas, and expeditious construction.

With the application of the mitigation measures proposed in Section 2.2.2, no significant impacts to land use are anticipated from the Project.

4.6.4 Mitigation

Where practical, wildlife production areas (e.g., federal waterfowl production areas) and actively mined areas would be avoided for all permanent facilities.

Topsoil would be segregated from subsoils during all construction operations requiring excavation. Segregated topsoil would be returned to the surface upon completion of operations to facilitate successful revegetation and/or maintenance of predisturbance crop/vegetation productivity.

No additional mitigation measures beyond those desired in Section 2.2.2 are recommended.

4.6.5 Cumulative Impacts

Because most impacts to land use would be short term, they would not significantly contribute to existing and reasonably foreseeable cumulative land use impacts.

4.7 VISUAL RESOURCES

4.7.1 Impact Evaluation Criteria

Impacts to visual resources would be significant if they result in permanent adverse effects to the Missouri River corridor.

4.7.2 No Action Alternative

Under the No Action alternative, there would be no project-related impacts to visual resources, and landscape visual resource characteristics would remain unchanged.

4.7.3 The Proposed Action

Factors determining the extent of the visual impacts associated with the Project would include changes in vegetative cover, the extent of natural screening of construction areas and permanent facilities, viewing distance, duration of construction activities, and Project effects on existing visible scenic (e.g., wooded) areas (most notably at the well field adjacent to the Missouri River).

Project-wide visual resource impacts would be greatest during Project construction; however, most of these impacts would be short term. Long-term visual impacts would occur at permanent facility sites and would be greatest for the proposed water treatment facility. Pipeline routes would primarily parallel existing roadways and, upon revegetation, would be virtually unnoticeable. Since the proposed treatment plant site is within an area of existing visual perturbation (farmed lands, houses, and other man-made features are present), visual resource impacts from this facility (notably at Spirit Mound) are not anticipated to be significant. Visual resource impacts associated with permanent well field features (pump houses) are not anticipated to be significant due to the application of the mitigation measures described in Section 2.2.2, which would limit the visibility of these features from the Missouri River.

4.7.4 Mitigation

Visually important features (e.g., wooded areas) located within the Project area would be preserved by avoidance as deemed necessary during IERT reviews (see Appendix A). No additional mitigation measures other than those described in Section 2.2.2 are recommended. These measures include: avoidance of disturbance to most native grassland, wetland, and riparian areas and appropriate revegetation to reduce visual impacts (annually cultivated cropland would not be revegetated); minimization of construction area size; visual screening of permanent facilities utilizing natural topographic features or vegetation; landscaping permanent facility sites with trees, shrubs, and grasses; and designing permanent facility form and coloration to match that of surrounding areas.

4.7.5 Cumulative Impacts

Because most of the route would be constructed within or adjacent to existing linear disturbances and/or on currently farmed lands and fugitive dust would be controlled, Project impacts are not anticipated to notably contribute to regional cumulative visual impacts.

5.0 RECORD OF PERSONS, GROUPS, AND GOVERNMENTAL AGENCIES CONTACTED

Table 5.1 Record of Persons, Groups, and Governmental Agencies Contacted.

Agency/Organization	Individual	Position
FEDERAL AGENCIES		
Advisory Council on Historic Preservation	Don Klima	--
U.S. Bureau of Reclamation	Maryanne Bach	Great Plains Regional Director
	Kimball Banks	Tribal consultation
	Dennis Breitzman	Area Manager
	Ted Hall	Civil Engineer
	Gerald Heiser	Natural Resource Specialist
	James Kangas	Area Archaeologist
	Richard Nelson	Environmental Specialist
	Signe Snortland	Archaeologist
	Faye Streier	Natural Resource Specialist, Team Leader
U.S. Department of Agriculture, Natural Resources Conservation Service	Scott Osborn	--
U.S. Department of the Army, Corps of Engineers, Omaha, Nebraska	Brian Baker	Engineer
	Gail Campos	--
	Candace Gorton	Chief
	Becky Latka	--
	Steve Naylor	--
U.S. Fish and Wildlife Service (USFWS), Rock Island, Illinois	Richard C. Nelson	Supervisor
	Heidi Woeber	--
USFWS, Twin Cities Ecological Services Field Office, Minnesota	Phil Delphey	--
	Gary Wege	--
USFWS, Pierre, South Dakota	Pete Gober	Field Supervisor
	Scott Larson	Biologist
U.S. National Park Service (Missouri National Scenic Riverways)	Phil Campbell	--
	David Given	--
	Paul Hendren	--
	Wayne Werkmeister	--

Table 5.1 (Continued)

Agency/Organization	Individual	Position
NATIVE AMERICAN TRIBES		
Blackhawk Community	--	Tribal Chairman
Cheyenne River Sioux Tribe	Gregg Bouland	Chairman
Crow Creek Sioux Tribe	Roxanne Sazue	Chairwoman
Flandreau Santee Sioux	Thomas Ranfranz	President
Lower Brule Sioux Tribe	Michael Jandreau	Chairman
Lower Sioux Indian Community of Minnesota	Roger Prescott	President
Oglala Sioux Tribe	John Yellowbird Steele	President
Omaha Tribe of Nebraska and Iowa	Elmer Black Bird	Chairman
Otoe-Missouria Tribe	James Grant	Chairman
Ponca Tribe of Nebraska	Fred LeRoy	Chairman
Prairie Island Indian Community of Minnesota	Audrey Kohnen	President
Rosebud Sioux Tribe	William Kindle	President
Sac and Fox Tribe of the Mississippi in Iowa	Talbert Davenport	Chairman
Sac and Fox Nation of Missouri	Deanne Bahr	NAGPRA Contact Representative
	Sandra Keo	Tribal Chairwoman
Santee Sioux Tribal Council	Roger Trudell	Chairman
Shakopee Mdewakanton Sioux Community of Minnesota	Stanley Crooks	Chairman
Sisseton-Wahpeton Sioux	Andrew Grey	Chairman
Standing Rock Sioux Tribe	Charles Murphy	Chairman
Upper Sioux Community of Minnesota	Dallas Ross	Chairman
Winnebago Tribe of Nebraska	John Blackhawk	Chairman
Yankton Sioux Tribe	Madonna Archambeau	Chairwoman

Table 5.1 (Continued)

Agency/Organization	Individual	Position
IOWA		
Iowa Department of Natural Resources (IDNR)	Mike Anderson	--
	Keith Dohrmann	Environmental Specialist and Data Manager
	Doug Harr	Biologist
	John Pearson	--
	Steve Pennington	--
IDNR, Air Quality Bureau	Karen Coon	--
	Gary Smith	--
IDNR, Parks, Recreation and Preservation Division	Chris Schwake	--
	Arnold Sohn	--
	Wayne Wiksell	--
	Michelle Wilson	--
IDNR, Wastewater Permit Section	Ruth Rosdail	--
	Steve Williams	--
IDNR, Water Permit Branch	Mike Anderson	--
IDNR, Water Supply Section	Roy Ney	--
	Mike Wiemann	--
Iowa Department of Transportation	Brent Klaahsen	Maintenance Operations Assistant
	James Rost	Director
Iowa State Historic Preservation	Bret Giesler	--
	Daniel Higginbottom	Archaeologist
	Douglas Jones	--
	Lowell Soike	Deputy State Historic Preservation Officer
MINNESOTA		
Minnesota Department of Natural Resources (MDNR)	Rich Baker	--
	Naoko Meyer	--
	Victoria Poage	Regional Environmental Assessment Ecologist
	Jim Sehl	--
	Ken Wald	--

Table 5.1 (Continued)

Agency/Organization	Individual	Position
MDNR, Division of Lands and Minerals	Jean Zoch	--
MDNR, Natural Heritage and Nongame Program	Sarah Hoffman	Environmental Review Coordinator/ Ecologist
MDNR, Water Appropriation Permit Program	Jim Japs	--
Minnesota Pollution Control Agency	Gordon Anderson	--
	Peggy Bartz	--
	Keith Cherryhome	--
	Marilyn Hegwart	--
	Charlotte Morrison	--
Minnesota State Historic Preservation Office	Scott Anfinson	Archaeologist
	Britta Bloomberg	Deputy State Historic Preservation Officer
	Mark Dudzik	State Archaeologist
Noble County Environmental Services	Judy Peterson	--
Rock County Environmental Services, Land Management Office	John Burgers	--
SOUTH DAKOTA		
South Dakota Department of Environment and Natural Resources (SDDENR), Surface Discharge Program	Kelli Buscher	Engineering Director
	Stacy Reed	Natural Resources Engineer
	Al Spangler	Pretreatment Coordinator
SDDENR, Water Rights Program	Genny McMath	Environmental Scientist
SDDENR, Air Quality Program	Brian Gustafson	Natural Resources Engineer
	Kyrik Rombough	Engineering Specialist
	Brad Schultz	Senior Scientist
SDDENR, Ground Water Quality Program	Sheldon Hamann	Senior Hydrologist
SDDENR, Surface Water Quality Program	John Miller	Environmental Program Specialist
	David Ryan	Water Specialist
	Mitchel Williams	
SDDENR, Division of Water Rights	Eric Gronlund	Natural Resources Engineer

Table 5.1 (Continued)

Agency/Organization	Individual	Position
SDDENR, Solid Waste/Hazardous Waste Program	Vonnie Kallenmeyer	
South Dakota Department of Game, Fish, and Parks	Doug Backlund	Resource Biologist
	John Kirk	Senior Biologist
	Dave McGuigan	--
South Dakota Department of Transportation	Greg Alberg	Engineer
	James Nelson	Environmental Engineer
	Ron Peterson	Engineer
South Dakota State Historical Preservation Office	Jim Haug	State Archaeologist
	Steve Littlefield	Review and Compliance Officer
	Jay Vogt	State Historic Preservation Officer
Clay County Building and Zoning	Dave Waherry	--
Lake County Building and Zoning	Deb Reinickle	--
Lake County Highway Department	Scott Mathison	Superintendent
Lincoln County Building and Zoning	Alisa Van Bockern	--
Lincoln County Highway Department	Mary Romereim	--
Minnehaha County Building and Zoning	Dave Queal	Zoning Administer
Minnehaha County Highway Department	Bob Meister	Highway Superintendent
Turner County Building and Zoning	Bob Luke	--
Union County Building and Zoning	Dennis Henzey	--
City of Vermillion	Phyllis Packard	Solid Waste Director City of Vermillion
PRIVATE ENTITIES		
Banner Associates, Inc.	Tim Conner	Engineer
	Dave Odens	Engineer
Dickinson County News	Paul Wahl	--
Dorsey & Whitney	B. Andrew Brown	Attorney
	Jay Cook	Attorney
Earth Science Information Office	Dennis Swartwout	--

Table 5.1 (Continued)

Agency/Organization	Individual	Position
PRIVATE ENTITIES (cont.)		
HDR Engineering	Bill Brinker	Engineer
	Glenn Dostal	Engineer
KVHT Radio	Kevin Culhane	--
Layne Geosciences	Kathryn Epp	Hydrogeologist
Plain Talk	Dave Lias	--
Public Meeting Attendees	Red Arndt	--
	Al Erickson	--
	Gene Den Hartog	--
	Vern Hasenbank	--
	Harold Holoch	--
	Murray Hulstein	--
	Frank Luepke	--
	Diane Odens	--
	Scott Osborn	--
	Mark Postma	--
	Eldor Schuerman	--
	Kevin Smith	--
	Jean Still	--
	Derrick Vander Waal	--
	Kevin Welsh	--
Staubach	Toni Gaiser	--
The Stratton Group, Inc.	Randy Stratton	--

Table 5.2 List of Preparers.

Firm/Company	Name	Responsibility
Bureau of Reclamation, Dakotas Area Office, Rapid City, South Dakota	Gerald Heiser	Natural Resource Specialist
	Jim Kangas	Cultural Resources, Programmatic Agreement
	Faye Streier	Natural Resource Specialist, Team Leader
Bureau of Reclamation, Pierre Field Office, Pierre, South Dakota	Ted Hall	Civil Engineer
Lewis and Clark Rural Water Supply, Sioux Falls, South Dakota	Pam Bonrud	Executive Director
TRC Mariah Associates Inc., Laramie, Wyoming	S.L. Tiger Adolf	Attorney, Socioeconomics, Technical Editor, Document Production
	Genial DeCastro	Document Production, Quality Control
	Susan Eatinger	Air Quality
	Peter Guernsey	Project Management, Scoping, Quality Assurance
	Jan K. Hart	Document Preparation, Biology, Water
	Darek Huebner	EA Preparation, Wetlands
	Tamara Keefe	GIS database
	Tamara Linse	Technical Editor
	Suzanne Luhr	Cartography
	Steven Rehbaum	GIS database
	Russell Richards	Cultural Resources
	Ed Schneider	Cultural Resources, Scoping
	Roger Schoumacher	Quality Assurance

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6.0 LITERATURE CITED

Adolphson, D.G. 1983. Availability and Chemical Quality of Water from Surficial Aquifers in Southwest Minnesota. U.S. Geological Survey Water Resources Investigations Report 83-4030, St. Paul. 37 pp.

Alex, L.M. 2000. Iowa's Archaeological Past. University of Iowa Press, Iowa City.

Alex, R.A. 1981. Village Sites off the Missouri River. *In* The Future of South Dakota's Past. Edited by L.J. Zimmerman and L.C. Stewart. Special Publication of the South Dakota Archaeological Society, Number 2. The University of South Dakota Archaeological Laboratory, Vermillion.

Anderson, W.I. 1983. Geology in Iowa. Iowa State University Press, Ames. 268 pp.

Anfinson, S.F. 1997. Southwestern Minnesota Archaeology: 12,000 Years in the Prairie Lake Region. Minnesota Historical Society Press, St. Paul.

Avian Power Line Interaction Committee. 1994. Mitigating Bird Collisions with Power Lines: The State of the Art in 1994. Edison Electric Institute. Washington, D.C. 78 pp. + append.

_____. 1996. Suggested practices for raptor protection on power lines: The state of the art in 1996. Edison Electric Institute/Raptor Research Foundation. Washington, D.C.

Auclair, A.N. 1976. Ecological Factors in the Development of Intensive-Management Ecosystems in the Midwestern United States. Ecology 57:431-444.

Banner Associates, Inc. 1991. Feasibility Level Evaluation of a Missouri River Regional Water Supply for South Dakota, Iowa, and Minnesota. Prepared by Banner Associates, Inc., Brookings, South Dakota; CH2M-Hill, Englewood, Colorado; and Mariah Associates, Inc., Laramie, Wyoming, for Board of Directors, Lewis and Clark Rural Water System, Inc.

Banner Associates, Inc., CH2M Hill, and Mariah Associates, Inc. 1993. Feasibility Level Evaluation of a Missouri River Regional Water South Dakota, Iowa, and Minnesota (Draft, July 1993). Prepared by Banner Associates, Inc., Brookings, South Dakota; CH2M-Hill, Englewood, Colorado; and Mariah Associates, Inc., Laramie, Wyoming, for Board of Directors, Lewis and Clark Rural Water System, Inc.

Banner Associates, Inc., HDR Engineering, and TRC Mariah Associates Inc. 2002 (In Progress). Final Engineering Report. Lewis and Clark Water Supply Project. Prepared by Banner Associates, Inc., Brookings, South Dakota; HDR Engineering, Omaha,

Nebraska, and TRC Mariah Associates, Inc., Laramie, Wyoming, for Board of Directors, Lewis and Clark Rural Water System, Inc.

Bettis, E.A. 1983. Gully Erosion. Iowa Geology 8:12-15.

Blegan, T.C. 1975. Minnesota: A history of the state. University of Minnesota Press, St. Paul.

Brooks, A., and S. Jacon. 1994. Homesteading and Agricultural Development Context. South Dakota State Historical Preservation Center, Vermillion.

Buchmiller, R.C., and P.J. Squillance. 1986. Iowa Ground Water Quality. U.S. Geological Survey Water-Supply Paper 2325:251-258.

Bureau of Economic Analysis. 2001a. Regional Accounts Data, Local Area Personal Income, May 2001. Data accessed November 5, 2001. http://www.bea.doc.gov/bea/regional/reis.

_____. 2001b. Regional Accounts Data, Local Area Personal Income (Table CA25), May 2001. Data accessed November 26, 2001, http://www.bea.doc.gov/bea/regional/reis.

_____. 2001c. Regional Accounts Data, Local Area Personal Income (Table CA05), May 2001. Data accessed November 26, 2001. http://www.bea.doc.gov/bea/regional/reis.

_____. 2002a. Regional Accounts Data, Local Area Personal Income (Table CA25), May 2002. Data accessed May 6, 2002, http://www.bea.doc.gov/bea/regional/reis.

_____. 2002b. Regional Accounts Data, Local Area Personal Income (Table CA05), May 2002. Data accessed May 6, 2002. http://www.bea.doc.gov/bea/regional/reis.

Call, M.W. 1978. Nesting Habitats and Surveying Techniques for Common Western Raptors. U.S. Department of the Interior, Bureau of Land Management, Technical Note No. 316. 115 pp.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service. WS/OBS-79/31.

Dahle, S.P. 2001. Studies of Topeka shiner (*Notropsis topeka*) life history and distribution in Minnesota, M.S. Thesis, University of Minnesota, St. Paul. 66 pp.

Dalaker, J., and B.D. Proctor. 2000. U.S. Census Bureau, Current Population Reports, Series P60-210, Poverty in the United States: 1999. U.S. Government Printing Office. Washington, D.C.

Dinsmore, J.J., T.H. Kent, D. Koenig, P.C. Petersen, and D.M. Roosa. 1984. Iowa Birds. Iowa State Univ. Press, Ames. 355 pp.

Dobbs, C.A., compiler. n.d.a Outline of Historic Contexts for the Prehistoric Period (ca. 12,000 B.P. - A.D. 1700). A document in the series Minnesota History in Sites and Structures: A Comprehensive Planning Series. Institute for Minnesota Archaeology Reports of Investigations Number 37. Institute for Minnesota Archaeology, in cooperation with Minnesota State Historic Preservation Office and Minnesota Historical Society.

_____. n.d.b Historic Contexts Outlines: The Contact Period Contexts (ca. 1630 A.D. - 1800 A.D.). A document in the series Minnesota History in Sites and Structures: A Comprehensive Planning Series. Institute for Minnesota Archaeology Reports of Investigations Number 39. Institute for Minnesota Archaeology, in cooperation with Minnesota State Historic Preservation Office and Minnesota Historical Society.

Ensz, E.H. 1979. Soil Survey of Yankton County, South Dakota. U.S. Department of Agriculture, Soil Conservation Service. 172 pp. + maps.

Environmental Protection Agency. 2001a. Office of Water, 305B State Water Quality Fact Sheet for Iowa. Updated 06/20/2001. 13:58:57, http://www.epa.gov/305b/98report/ia.html. Data accessed December 7, 2001.

_____. 2001b. Office of Water, 305B State Water Quality Fact Sheet for South Dakota. Updated 06/20/2001 13:59:12, http://www.epa.gov/305b/98report/sd.html. Data accessed December 7, 2001.

Fisher, C.S. 1969. Soil Survey of Clay County, Iowa. U.S. Department of Agriculture, Soil Conservation Service. 102 pp. + maps.

Flint, R.F., R.B. Coulton, R.P. Goldthwarte, and R.P. Willman, eds. 1959. Glacial Map of the United States East of the Rocky Mountains, West Half. Geological Society of America, New York.

Freeman, C.C., and R.E. Brooks. 1989. Status report on *Platanthera praeclara* Sheviak & Bowles (western prairie fringed orchid) in Kansas, Nebraska, and South Dakota. Unpublished report submitted to USFWS, Denver, Colorado. Contract No. 14-16-0006-88-043. Kansas Natural History Program, Kansas Biological Survey. Lawrence, Kansas.

Fridley, R.W. 1966. Minnesota: A students' guide to localized history. Teachers College Press, Columbia University, New York.

Genrich, R.G. 1988. Soil Survey of Jackson County, Minnesota. U.S. Department of Agriculture, Soil Conservation Service. 116 pp. + maps.

Gerbig, B., D. Milles, and S. Fecht. 1987. Minnesota's Protected Waters and Wetlands Permit Program. Minnesota Department of Natural Resources Publication, St. Paul, Minnesota.

Harlan, J.R., and E.B. Speaker. 1956. Iowa Fish and Fishing. Iowa State Conservation Commission. 377 pp.

Harr, D.C. 1990. Wildlife, Fisheries, and Habitat Concerns for the Proposed SSDWSS Pipeline Route Corridor in Iowa. Unpublished enclosure to letter of December 5, 1990. 3 pp. + maps.

Henning, E.R.P. 1985. Initiating the Resource Protection Planning Process in Iowa. Iowa State Historical Department, Division of Historic Preservation. Prepared for U.S. Department of the Interior, Purchase Order No. A-9534(80)a.

Heritage Conservation and Recreation Service. 1979. Missouri National Recreational River Management Plan - Gavins Point Dam, South Dakota to Ponca State Park, Nebraska. U.S. Department of the Interior.

Houtcooper, W.C., D.J. Ode, J.A. Pearson, and G.M. Vandel III. 1985. Rare Animals and Plants of South Dakota. Prairie Naturalist 17(3):143-165.

Iowa Department of Natural Resources. 2001. Iowa's Threatened and Endangered Species. Data accessed November 15, 2001. http://www.state.ia.us/dnr/organiza/ppd/species.htm.

Iowa Natural Heritage Program. 2001. Threatened, Endangered, and Candidate Species information for the vicinity of Lewis and Clark Rural Water Supply Project. Iowa Department of Natural Resources.

Iowa State University. 2001. Summary of Economic Trends by County 1989-1999. Iowa PROfiles, Public Resources Online. Iowa State University, Department of Economics. http://www.profiles.iastate.edu/data/bea/bf10. Data accessed November 26, 2001 and May 6, 2002.

Iowa Workforce Information Network. 2001. Unemployment rate, September 2001. Data accessed November 5, 2001. http://iwin.iwd.state.ia.us/websaras/index.asp.

Johnson, W.F. 1978. Soil Survey of Hanson and Hutchinson Counties, South Dakota. U.S. Department of Agriculture, Soil Conservation Service. 129 pp. + maps.

Kallemeyn, L. 1983. Status of the Pallid Sturgeon, *Scaphirhynchus albus*. Fisheries 8(1):3-9.

Kantrud, H.A., G.L. Krapu, and G.A. Swanson. 1989. Prairie Basin Wetlands of the Dakotas: A Community Profile. U.S. Department of the Interior, Fish and Wildlife Service.

Kucera, C.L., and R.C. Dahlman. 1967. Total Net Productivity and Turnover on an Energy Basis for Tallgrass Prairie. Ecology 48(4):536-540.

Kuchler, A.W. 1964. Potential Natural Vegetation of the Conterminous United States. American Geographic Society Special Publication No. 36. 38 pp. + map and descriptions.

Lara, O.G., and J.D. Giglierano. 1987. Regional Flood Patterns: The Influence of Topography. Iowa Geology 12:22-23.

Lass, B. 1981. South Dakota Prehistory: An Overview. *In* The Future of South Dakota's Past. Edited by L.J. Zimmerman and L.C. Stewart. Special Publication of the South Dakota Archaeological Society, Number 2. The University of South Dakota Archaeological Laboratory, Vermillion.

Layne Christensen Company. 2001a. Phase I Hydrogeologic Investigation to Evaluate Ranney Collector Well Feasibility for Lewis and Clark Water Supply Project, Clay County, South Dakota. Prepared by Layne Christensen Company, Sudbury, Ohio. January 2001. 23 pp. + appendices.

_____. 2001b. Report of Site B Mulberry Point hydrogeologic investigations to determine water supply development potential from radial collector well for Lewis and Clark Rural Water Supply System, Clay County, South Dakota. Prepared for HDR Engineering, Omaha, Nebraska; Banner Associates, Inc., Brooking, South Dakota, and Lewis and Clark Rural Water Supply System, by Layne Christensen Company, Sundbury, Idaho. 39 pp. + figures, tables, and append.

Lehmer, D.J. 1971. Introduction to Middle Missouri Archaeology. National Park Service, U.S. Dept. of the Interior, Washington, D.C.

Mariah Associates, Inc. 1993a. Environmental Report, Lewis and Clark Rural Water Supply System. Prepared for Lewis and Clark Rural Water Supply, Inc., Sioux Falls, South Dakota, by Mariah Associates, Inc., Laramie, Wyoming, in cooperation with Banner Associates, Inc., Brookings, South Dakota. MAI Project 798, April 1991, Revised September 1993.

_____. 1993b. Wetlands and Wildlife Enhancement for the Lewis and Clark Rural Water System. Prepared for Banner Associates, Inc. Brookings, South Dakota, and Lewis and Clark Rural Water System, Inc., Sioux Falls, South Dakota, by Mariah Associates, Inc., Laramie, Wyoming. 19 pp. + append.

Miller, M., and T. Church. 1996. Chronological Studies. *In* Cultural Resources Overview of the Black Hills National Forest. Edited by L. Rom, T. Church, and M. Church. Black Hills National Forest, Custer.

Minnesota Department of Economic Security. 2001. Unemployment rate, September 2001. Minnesota Department of Economic Security, Research and Statistics Office, 390 North Robert Street, St. Paul, Minnesota 55101. Data accessed November 5, 2001. http://www.mnworkforcecenter.org/lmi/laus/county.htm.

Minnesota Department of Natural Resources. 2001. Natural Heritage Information for vicinity of Proposed Lewis and Clark Rural Water Supply System: Rock and Nobles County, Minnesota Department of Natural Resources. Natural Heritage and Nongame Research Program.

Minnesota Pollution Control Agency. 2001. Ground Water Profile, Southwest Region. Data accessed December 7, 2001. http://www.pca.state.mn.us/water/southwest-gwp.html.

_____. 2002. Chapter 7050: MPCA Classification and Standards for Waters of the State. Data accessed February 5, 2002. http://www.revisor.leg.state.mn.us/arule/7050/0470.htm.

Minnesota State Demographic Center. 1998. Minnesota State Demographic Center, Minnesota Planning, June 1998. County Population Projections 1995 to 2025. http://www.mnplan.state.mn.us/demography/demog_3c.html.

Missouri Department of Conservation. 1981. Abundance and Life History of the Lake, Pallid, and Shovelnose Sturgeons in Missouri. Final report. Endangered Species Project SE-1-6, Sturgeon Studies in Missouri, Job No. 1. 63 pp.

Mooney, H.M. 1979. Earthquake History of Minnesota. Minnesota Geological Survey. Report of investigations 23, ISSN 0076-9177. 20 pp.

Musgrove, J.W., and M.R. Musgrove. 1953. Waterfowl in Iowa. State of Iowa, Des Moines. 124 pp.

National Park Service. 1999. Preliminary Section 7(a) Evaluation, Wild and Scenic Rivers Act, Proposed New Crossing of the Missouri National Recreational River, Vermillion-Newcastle Bridge. An evaluation of the impact of the proposed bridge on the valves for which the Missouri National Recreational River was included in the National Wild and Scenic Rivers System. 44 pp.

O'Connor, T. 1990. Soil Survey of Sioux County, Iowa. U.S. Department of Agriculture, Soil Conservation Service. 145 pp. + maps.

Ojakangas, R.W., and C.L. Matsch. 1982. Minnesota Geology. University of Minnesota Press, Minneapolis. 5 pp.

Parker, S.P., ed. 1989. McGraw-Hill Dictionary of Scientific and Technical Terms. Fourth Edition. McGraw-Hill Book Company, New York. 2,139 pp.

Pflieger, W.L. 1975. The Fishes of Missouri. Missouri Department of Conservation, Jefferson City.

Press, F., and R. Siever. 1978. Earth. W.H. Freeman and Company, San Francisco. 649 pp.

Risser, P.G., E.C. Birney, H.D. Blocker, S.W. May, W.J. Parton, and J.A. Wiens. 1981. The True Prairie Ecosystem. US/IBP Synthesis Series 16. Hutchinson Ross Publ. Co., Stroudsburg, Pennsylvania. 557 pp.

Rodis, H.G. 1963. Geology and Occurrence of Ground Water in Lyon County, Minnesota. U.S. Geological Survey Water-Supply Paper 1619-N. 41 pp.

Rolling, R.E. 1979. Soil Survey of Cottonwood County, Minnesota. U.S. Department of Agriculture, Soil Conservation Service. 142 pp. + maps.

Sage, L.L. 1974. A History of Iowa. Iowa State University Press, Ames.

Salvesen, D. 1990. Wetlands: Mitigating and Regulating Development Impacts. The Urban Land Institute, Washington, D.C. 117 pp.

Schwieder, D. 1996. Iowa, the Middle Land. Iowa State University Press, Ames

Scott, W.B., and E.J. Crossman. 1973. Freshwater Fishes of Canada. Department of the Environment, Fisheries Research Board, Ottawa. 966 pp.

Sellet, F., and M. Fosha. 2001. New Paleo Finds from Western South Dakota, Implications for Black Hills Prehistory. Paper presented at the Ninth Island in the Plains Symposium, Rapid City, South Dakota.

Shutler, R., Jr., D.C. Anderson, G.A. Hallber, B.E. Hoyer, G.A. Miller, K.E. Butler, H.A. Semken, Jr., D.A. Baerreis, R.C. Koeppen, L.A. Conrad, and J.A. Tiffany. 1974. The Cherokee Sewer Site (13CK405). *In* A Preliminary Report of a Stratified Paleoindian Archaic Site in Northwestern Iowa. Edited by D.R. Henning. Journal of the Iowa Archaeological Society 21.

Snow, C. 1973. Habitat Management Series of Endangered Species. Report No. 5: Southern Bald Eagle (*Haliaeetus leucocephalus leucocephalus*) and Northern Bald Eagle (*Haliaeetus leucocephalus alascanus*). U.S. Department of the Interior, Bureau of Land Management, Technical Note No. 171. 58 pp.

South Dakota Department of Environment and Natural Resources. 1990. South Dakota monitoring data (including air quality data).

South Dakota Department of Labor. 2002. Labor Force & Labor Supply, South Dakota, Areas & Counties, Not Seasonally Adjusted, March 2002. South Dakota Department of

Labor, Labor Market Information Center. Data accessed May 6, 2002. http://www.state.sd.us/dol/lmic/ccntylf.htm.

South Dakota Natural Heritage Program. 2001. Threatened, Endangered, and Candidate Species of South Dakota. South Dakota Natural Heritage Program, South Dakota Department of Game, Fish, and Parks. Pierre, South Dakota March, 8, 2001.

State of Iowa. 2002. Iowa Code 1999. Section 317.1, Noxious Weeds. http://www2.legis.state.ia.us.IACODE/1999/317/1.html. Data accessed February 5, 2002.

State of Minnesota. 2001. Minnesota Rules 6134.0200. State-listed Threatened and Endangered species. http://www.revisor.leg.state.mn.us/arule/6134/0200.html 11/15/01.

_____. 2002. Minnesota Rules, Section 1510.271. Prohibited Weed Seeds. http://www.revisor.leg.state.mn.us/arule/1510/0271.html. Data accessed February 5, 2002.

State of South Dakota. 2002a. Chapters 74:51:01:42 and 74:51:03:02, Surface Water Quality, Data accessed February 6, 2002. http://legis.state.sd.us/rules/rules/7451.htm#74:51:01:42.

2002b. South Dakota Administrative Rules 12:62:03:01:06, Statewide Noxious Weeds, and 12:62:03:01:07, List of weeds for use in declaring locally declared noxious weeds. Data accessed February 5, 2002. http://www.state.sd.us/doa/das/W&Prules.htm.

Steenhof, K. 1978. Management of Wintering Bald Eagles. U.S. Fish and Wildlife Service FWS/OBS-78/79. 59 pp.

Tiner, R.W., Jr. 1984. Wetlands of the United States: Current Status and Recent Trends. U.S. Department of the Interior, Fish and Wildlife Service.

TRC Mariah Associates Inc. 2002. Biological Assessment, Lewis and Clark Water Supply Project, South Dakota, Minnesota, and Iowa. Prepared for Bureau of Reclamation, Dakotas Area Office, Bismarck, North Dakota, Rapid City, South Dakota, by TRC Mariah Associates Inc., Laramie, Wyoming. 50 pp. + appends.

Trewartha, G.T., and L.H. Horn. 1980. An Introduction to Climate. McGraw Hill, Inc. 416 pp.

U.S. Army Corps of Engineers. 1981. Missouri River Flooded Areas Profiles. Missouri River Gavins Point Dam to Rulo, Nebraska. Vol. IV, River Mile 780.4-770.4, Plate 5. Map.

_____. 1982. Embankment Criteria and Performance Report of Gavins Point Dam - Lewis and Clark Lake.

_____. 1989a. Water Resources Development in Iowa. U.S. Department of the Army. 87 pp.

_____. 1989b. Water Resources Development in Minnesota. U.S. Department of the Army. 93 pp.

U.S. Bureau of the Census. 2001a. State and County QuickFacts. Last Revised: Friday, 07-Sep-2001 13:30:25 EDT. Data accessed November 5, 2001. www.census.gov.

_____. 2001b. Projections of the Total Population of States: 1995 to 2025. Data accessed November 5, 2001. www.census.gov.

_____. 2002. U.S. Bureau of the Census, Current Population Survey. Poverty Thresholds for 2001, by Size of Family and Number of Related Children Under 18 Years (Dollars). Data accessed February 10, 2002. http://www.census.gov/hhes/poverty/threshld/thresh01.html

U.S. Bureau of Reclamation. 1990. NEPA Handbook. Chapter 2, Sections 2-4 - 2-10.

_____. 1991. Biological Assessment: Southeast South Dakota Water Supply System in South Dakota. Prepared by U.S. Bureau of Reclamation, Ecological Resources Division for Mariah Associates, Inc., Laramie, Wyoming.

_____. 1993. Analysis of Tax Revenues and Employment Generated by Construction of a Missouri River Regional Water Supply for South Dakota, Iowa, and Minnesota. 10 pp.

_____. 2000. National Environmental Policy Act Handbook. Public Review Draft. U.S. Department of the Interior, Bureau of Reclamation.

U.S. Department of Agriculture, Forest Service. 1989. Caring for our natural community: Region 1 - threatened, endangered & sensitive species program. U.S. Department of the Interior, U.S. Forest Service, Northern Region.

U.S. Department of Interior. 1990. Department Manual 516, Environmental Quality.

U.S. Department of the Interior, Bureau of Reclamation. 2001. Cooperative Agreement between the Department of the Interior-Bureau of Reclamation and Lewis and Clark Rural Water System, Inc. for Planning and Construction of the Lewis and Clark Rural Water System. Agreement No. 01FC601519. 20 pp. + attachments.

U.S. Department of the Interior, National Park Service and U.S. Army Corps of Engineers. 1999. Final General Management Plan Environmental Impact Statement, Missouri National Recreational River, Cedar and Dixon Counties, Nebraska and Yankton, Clay, and Union Counties, South Dakota. U.S. Department of the Interior, National Park Service and U.S. Army Corps of Engineers. 281 pp.

U.S. Department of Labor, Bureau of Labor Statistics. 2001. Local Area Unemployment Statistics, Not seasonally adjusted. Data accessed November 5, 2001. http://www.bls.gov/lau/home.htm.

U.S. Department of Transportation. 1995. Final Environmental Assessment and Section 4(f) Evaluation. Missouri River Bridge Near Vermillion, Clay County, South Dakota, Cedar and Dixon Counties, Nebraska. South Dakota Project DP 0019(20)0 PCEMS 238H, Nebraska Project. STPD-57-4(108). August 28, 1995. 24 pp. + attachments.

U.S. Environmental Protection Agency. 1986a. Maximum Contaminant Levels (Subpart B of Part 141, National Interim Primary Drinking Water Regulations): U.S. CFR, Title 40, Parts 100-149.

_____. 1986b. Secondary Maximum Contaminant Levels (Section 143.3 of Part 143, National Drinking Water Regulations): U.S. CFR, Title 40, Parts 100-149.

U.S. Fish and Wildlife Service. 1984. America's Endangered Wetlands. U.S. Department of the Interior, Fish and Wildlife Service. Pp. 439-807.

_____. 1988. Endangered species technical bulletin. Vol. XIII, Nos. 11-12. USDI, FWS. Washington, D.C.

_____. 1989. Endangered species technical bulletin. Vol. XIV, Nos. 9-10. U.S. Department of Interior, U.S. Fish and Wildlife Service, Washington, D.C.

_____. 1991. American burying beetle *Nicrophorus americanus* Recovery Plan, Appendix 2, survey protocol for *Nicrophorus americanus*, the American burying beetle. Newton Corner, Massachusetts. 80 pp.

_____. 2001a. Letter from Pete Gober (for Scott Larson), Field Supervisor to Dennis E. Breitzman, U.S. Bureau of Reclamation, Dakotas Area Office, Bismarck, North Dakota, in response to a request for threatened and endangered species information pertaining to the proposed Lewis and Clark Rural Water System. July 10, 2001.

_____. 2001b. Minnesota. County List of Federal Threatened (T), Endangered (E), and Proposed Species. 1999. January 31, 2001. http://www.fws.gov/r3pao/eco_serv/endangered/lists/minnesot.html

_____. 2001c. Distribution of Federally Threatened (T), Endangered (E), and Proposed Species in Iowa. 1999. January 31, 2001. http://www.fws.gov/r3pao/eco_serv/endangered/lists/Iowa.html.

_____. 2001d. Endangered Species by County List (updated January 25, 2001). U.S. Fish and Wildlife Service, South Dakota Field Office, Ecological Services, Pierre, South Dakota

_____. 2001e. Interior Least Tern Fact Sheet. Data accessed April 10, 2001. http://midwest.fws.gov/eco_serv/ endangrd/birds/tern.html.

_____. 2001f. All About Plovers. Data accessed April 10, 2001. http://plover.fws.gov/facts.html.

_____. 2001g. American Bald Eagle Information. Data accessed April 10, 2001. http://www.baldeagleinfo.com.

_____. 2001h. Pallid Sturgeon Fact Sheet. Data accessed April 10, 2001. http://midwest.fws.gov/eco_serv/endangrd/ fishes/palld_fc. html.

_____. 2001i. Topeka Shiner Fact Sheet. Data accessed April 10, 2001. http://www.r6.fws.gov/endspp/shiner/facts.html.

_____. 2001j. American Bury Beetle Fact Sheet. Data accessed April 10, 2001. htpp://ngp.ngpc.stste.ne.us/wildlife/beetle.html.

_____. 2001k. Scaleshell Mussell. Data accessed October 15, 2001. http://midwest.fws.gov/Endangered/clams/scmu_nr.html.

_____. 2001l. Prairie Fringed Orchids Fact Sheet. Data accessed April 10, 2001. htpp://midwest.fws.gov/eco_serv/endangrd/plants/prairief.html

_____. 2001m. Prairie Bush Clover Fact Sheet. Data accessed April 10, 2001. htpp://midwest.fws.gov/eco_serv/endangrd/plants/prairieb.html.

U.S. Geological Service. 2001. Peak Streamflow for the Nation, USGS 06467500 Missouri River at Yankton, South Dakota. Data accessed November 9, 2001. http://water.usgs.gov/nwis/peak/?site-no=06467500&agency_cd+USGS,

Vobora, R.J., and J. Kristoff, Jr. 1988. Soil Survey of Osceola County, Iowa. U.S. Department of Agriculture, Soil Conservation Service. 153 pp.

Wall, S.S., C.M. Blausey, J.A. Jenks, and C.R. Berry, Jr. 2001. Final Report Topeka shiner (*Notropis topeka*) population status and habitat conditions in South Dakota streams. Final report for Research Work Order #73 to U.S. Army Corps of Engineers, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Geological Survey.

Westin, F.C., L.F. Puhr, and G.J. Buntley. 1959. Soils of South Dakota. Agronomy Department, Agricultural Experiment Station, South Dakota State College, Brookings.

Winham, R.P. 1990. Lower and Upper Big Sioux Archaeological Regions: A Synthesis. On file at the South Dakota Archaeological Research Center, Rapid City, South Dakota.

Winham, R.P. 1991. Regional Cultural History - A Brief Overview. Prepared for Mariah Associates, Inc., Laramie, Wyoming; Banner Associates, Inc., Brooking, South Dakota; and Southeastern South Dakota Regional Water Supply System, Inc. Sioux Falls, South Dakota, by Archaeology Laboratory, Augustana College, Sioux Falls, South Dakota.

_____. 1993. A Class I Inventory of Selected Regions of Northwestern Iowa, Southwestern Minnesota, and Southeastern South Dakota. Prepared for Mariah Associates, Inc., Laramie, Wyoming, by R. Peter Winham, Archaeology Laboratory, Augustana College, Sioux Falls, South Dakota. 12 pp. + append.

Winham R.P., and L.A. Hannus. 1990. South Dakota State Plan for Archaeological Resources. Introduction and Overview to Historic Contexts and Archaeological Management Regions for Research and Planning: A Working Draft. Archaeology Laboratory, Augustana College, Sioux Falls, South Dakota. Prepared for South Dakota State Archaeological Research Center, Rapid City, Contract No. 89C-349, under a grant from the South Dakota State Historical Preservation Center, Vermillion.

_____. 1991a. South Dakota State Plan for Archaeological Resources. On file at the South Dakota Archaeological Research Center, Rapid City, South Dakota.

_____. 1991b. South Dakota State Plan for Archaeological Resources, 1990-1991 Update. Archaeology Laboratory, Augustana College, Sioux Falls, South Dakota. Prepared under a Grant-In-Aid (46-90-50121.015) from the South Dakota State Historical Preservation Center, Vermillion.

Yorks, T.P., and C. McMullen, eds. 1980. The Central and Eastern Grasslands. Vol. III of Descriptive Supplement to FRODAS: An Integrated Resource Data Analysis System for the Forest-Range. Colorado State University, Natural Resource Ecology Laboratory. 222 pp. + append.

_____. 1981. The Eastern Forests. Vol. IV of Descriptive Supplement to FRODAS: An Integrated Resource Data Analysis System for the Forest-Range. Colorado State University, Natural Resource Ecology Laboratory. 224 pp. + append.

Zimmerman, L.J. 1981. Some Perspectives on the Woodland Tradition in South Dakota. *In* The Future of South Dakota's Past. Edited by L.J. Zimmerman and L.C. Stewart. Special Publication of the South Dakota Archaeological Society, Number 2. The University of South Dakota Archaeological Laboratory, Vermillion.

_____. 1985. Peoples of Prehistoric South Dakota. University of Nebraska Press, Lincoln.

APPENDIX A:

INTERAGENCY ENVIRONMENTAL
REVIEW TEAM GUIDELINES

INTERAGENCY ENVIRONMENTAL REVIEW TEAM GUIDELINES
Lewis and Clark Water Supply Project

These guidelines will be followed in developing an agreement which will direct the activities of the Interagency Environmental Review Team (IERT).

I. Purpose

The purpose of the IERT is to provide assurance that Lewis and Clark Water Supply Project (Project) activities are completed concurrently and in full compliance with all environmental commitments described in *National Environmental Policy Act* (NEPA) documents (e.g., Environmental Assessment [EA] and Finding of No Significant Impact [FONSI]), *National Historic Preservation Act* (NHPA) documents, and *Endangered Species Act* (ESA) documents (i.e., Biological Assessment), as well as all other relevant and current state and federal environmental rules and regulations.

II. Organization

The IERT is comprised of officials from each of the following agencies and organizations:

- U.S. Bureau of Reclamation, Dakotas Area Office (Reclamation);
- Lewis and Clark Rural Water System, Inc. (System);
- U.S. Fish and Wildlife Service (USFWS) (South Dakota, Iowa, and Minnesota State Offices) ;
- National Park Service, Missouri National Recreational Rivers;
- U.S. Army Corps of Engineers;
- State Historic Preservation Officer (South Dakota, Iowa, and Minnesota Offices);
- South Dakota Department of Environment and Natural Resources;
- South Dakota Department of Game, Fish, and Parks;
- Iowa Department of Natural Resources; and
- Minnesota Department of Natural Resources.

Agencies may also be represented by technical consultants. When construction takes place on lands administered by agencies other than those listed above or on private lands, specialists of the other agencies or landowners would be invited to become members of the team for the Project components that potentially affect their lands.

III. Responsibilities, Goals, and Objectives

- Assist Reclamation and USFWS in all future ESA activities for construction of the water delivery system.
- Conduct and coordinate all other environmental aspects for the Project.

- Annually review and evaluate all water supply construction plans (e.g., pipeline routes, water storage facilities, booster stations, access roads) and specifications to identify, eliminate, or develop mitigation requirements on potential impacts to wildlife, including existing and new federally listed threatened and endangered, (T&E) species as well as state-listed species and their habitats.

- Conduct field reviews (annually or as needed) prior to construction to identify environmentally sensitive areas where site-specific mitigation may be required.

- Annually review construction plans (i.e., pipeline routes, water storage facilities, booster stations, access roads) to promote wetland avoidance where possible and, in areas where wetlands can't be avoided, to develop mitigation measures such that there will be no net loss of wetland habitat.

- Review construction plans to determine whether all required field surveys for wildlife, fish, T&E and state-listed species, and/or their habitats have been conducted within the appropriate survey time frames and whether surveys have been completed prior to Project disturbances.

- Review seed mixtures used for reclamation to determine whether pipeline easements are reclaimed with native species where required to reduce contrast between easement and undisturbed prairie.

- Consult with state and federal agencies to help identify site-specific environmental concerns.

- Review the previous year's construction activities to determine if required mitigation measures are sufficient and have been accomplished.

- Conduct cultural resource field studies (annually or as needed) prior to construction to identify National Register of Historic Places (NRHP) eligible properties.

- Review construction plans to determine whether all cultural resource field surveys have been conducted within appropriate survey time frames and have been conducted in compliance with 36 *Code of Federal Regulations* 800.4: *Identification of Historic Properties.*

- Make sure that any required mitigation measures for NRHP-eligible cultural properties (i.e., avoidance, boring, testing, data recovery) have been approved by Reclamation and the appropriate State Historic Preservation Office and have been implemented.

- Prepare an annual cultural resource progress/mitigation report for the Project.

- Prepare an annual environmental mitigation/progress report for the Project.

IV. Task/Functions

All IERT members will provide input and expertise during meetings and field reviews. Tasks may include such things as representing their respective agency or area of expertise, conducting site visits to identify potential environmental issues, developing mitigation plans, consulting with other agency personnel concerning environmental issues, researching regulations, and preparing reports. Delegation of duties will be agreed upon by the IERT.

V. Accountability

IERT members will participate in meetings whenever possible; will communicate openly about impact, mitigation, and enhancement issues; and will complete assignments.

IERT members may be called upon to provide an update of System environmental issues and Project activities to local interest groups.

VI. Scope and Boundaries

Mitigation of Project-related impacts and associated NEPA, ESA, and NHPA requirements are to be completed concurrently with Project construction. The IERT will complete activities in a timely manner and will provide appropriate guidance and oversight.

VII. Authority

The team will identify the problem or Project, will collect and analyze information, will formulate and assess alternatives, make decisions, and upon review/approval by the Team Sponsor will carry out the decisions.

VIII. Team Sponsor *(The Team Sponsor will be a member of the Reclamation Dakotas Area Office Leadership Team.)*

Key responsibilities of the Team Sponsor will be:

- to identify Project scope and boundaries;
- to provide the decision-making authority for the Team Leader and team members; and
- to review and approve recommended activities identified by the team.

IX. Team Leader *(The Team Leader will be a member of the Reclamation Dakotas Area Office Staff).*

Key responsibilities of the Team Leader will be:

- to schedule and facilitate IERT meetings and field reviews;
- to coordinate agenda items;
- to monitor assignments;
- to file minutes, reports, and products; and
- to report, as necessary to the System Board of Directors.

X. Ground Rules

- The IERT will meet as often as necessary but not less than once a year to accomplish its goals.
- Meetings may involve a field review.
- The Team Leader will call for agenda items. The agenda will be reviewed at the start of each meeting. Agenda items may be added or deleted at that time.
- Each IERT member is expected to represent their respective agency and area of expertise.
- Decisions will be made by consensus; individual IERT members may disagree with a decision of the IERT and go on record as such but will not block the implementation of IERT decisions.
- Action items and responsible IERT member(s) will be identified at the close of each meeting.
- An IERT member other than the Team Leader will be responsible for taking notes. This person will be identified at the start of each meeting. Once compiled, draft minutes will be provided to all team members and the Team Sponsor for review. The Team Leader will be responsible for finalizing the minutes.
- Individual IERT members are responsible for monitoring their own assignments.

XI. Information Management

Team minutes will be distributed to all IERT members. Official files will be maintained by the Team Leader and filed at the Reclamation Dakotas Area Office, Bismarck, North Dakota, or Rapid City, South Dakota.

APPENDIX B:

MAJOR FEDERAL, STATE, AND LOCAL
PERMITS, APPROVALS, AND AUTHORIZING ACTIONS

Table B.1 Major Federal, State, and Local Permits, Approvals, and Authorizing Actions, Lewis and Clark Water Supply Project, 2001.[1]

Agency	Permit, Approval, or Action	Authority
Federal		
U.S. Army Corps of Engineers (COE)	Nationwide permit/authorization for crossings and impacts to wetlands	Section 404 of the *Clean Water Act* [CWA] *of 1972*, as amended (33 *United States Code* [U.S.C.] 1344), (33 C.F.R. 320-330); Environmental Protection Agency- (EPA-) administered permit programs: Sections 318, 402, and 405 of the CWA, National Pollutant Discharge Elimination System (NPDES), as amended (33 U.S.C. 1251 et seq.), (40 C.F.R. 122); State Program Requirements (40 C.F.R. 123); Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Filled Material, as amended (40 C.F.R. 230); Protection of Wetlands, Executive Order (EO) 11990, as amended; Floodplain Management, EO 11988; *National Flood Insurance Act of 1968*, as amended (42 U.S.C. 4001 et seq.)
	Section 10 river crossing permits	*Rivers and Harbors Act of 1899* (33 U.S.C 403), (23 C.F.R. 650)
	Consult with state regarding certification of federal water projects	Section 401 of the CWA (33 U.S.C. 1341)
U.S. Bureau of Reclamation (Reclamation)	Compliance with environmental laws	*National Environmental Policy Act* (NEPA) (42 U.S.C. 4321 et seq.), 40 C.F.R. 1500-1508; 10 C.F.R. 1021; EO 11514, as amended by EO 11991; *Federal Land Policy and Management Act of 1976* (FLPMA), as amended (43 U.S.C. 1761-1771); Invasive Species, EO 13112; *Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990*, as amended (16 U.S.C. 4701 et seq.), *Lacey Act*, as amended (18 U.S.C. 42), *Federal Plant Pest Act* (7 U.S.C. 150aa et seq.), *Federal Noxious Weed Act of 1974*, as amended (7 U.S.C. 2801 et seq.), *Endangered Species Act of 1973* (ESA), as amended (16 U.S.C. 1531 et seq.)
	Compliance with cultural resource laws	Section 106 of the *National Historic Preservation Act* [NHPA], as amended (16 U.S.C. 470 et seq.); Advisory Council Regulations on Protection of Historic and Cultural Properties, as amended (36 C.F.R. 800); *Antiquities Act of 1906*, as amended (16 U.S.C. 431-433), 43 C.F.R. 3; *Archaeological Resources Protection Act of 1979*, as amended (16 U.S.C. 470aa-470*ll*); Protection and Enhancment of the Cultural Environment, EO 11593; *Archaeological and Historical Preservation Act of 1974*, as amended (16 U.S.C. 469 et seq.);
	Native American consultation	EOs 12866, 12988, 13007, 13175, and 13132; OMB Circular A-19; Executive Memorandum of April 29, 1994; *American Indians Religious Freedom Act of 1978* (42 U.S.C. 1996); *Native American Graves Protection and Repatriation Act*, as amended (25 U.S.C. 3001, et seq.)
	Environmental Justice	EO 12898, as amended

Table B.1 (Continued)

Agency	Permit, Approval, or Action	Authority
Federal (cont.)		
U.S. Fish and Wildlife Service (USFWS)	Coordination, consultation, and impact review on federally listed threatened and endangered (T&E) species	*Fish and Wildlife Coordination Act* (16 U.S.C. 661-666c); Section 7 of the ESA, as amended (16 U.S.C. 1536), 50 C.F.R. 17; *Bald Eagle Protection Act* (16 U.S.C. 668-668dd)
	Migratory bird impact coordination	*Migratory Bird Treaty Act* (16 U.S.C. 704)
National Park Service, Missouri National Recreational River	Regulatory review of actions that could affect protected areas	Section 7 of the *Wild and Scenic Rivers Act* (16 U.S.C. 1278), 36 C.F.R.297
U.S. Environmental Protection Agency	Consult with states regarding certification of new drinking water projects	*1996 Safe Drinking Water Act* (SDWA), as amended (42 U.S.C. 300f et seq.), 40 C.F.R. 141-142
U.S. Natural Resource Conservation Service	Farmland Protection	*Farmland Protection Policy Act*, as amended (7 U.S.C. 4201 et seq.)
Iowa		
State Historical Society of Iowa	Cultural resource protection, programmatic agreements, consultation; permit archaeological investigations	Section 106 of the NHPA, as amended (16 U.S.C. 470f); Advisory Council Regulations on Protection of Historic and Cultural Properties, as amended (36 C.F.R. 800)
Iowa Department of Natural Resources		
Water Quality Bureau, Waste Water Permits Section	NPDES storm water permit for runoff generated during construction activities; construction permit; NPDES permit for water discharges during hydrostatic testing	Iowa Code 455B.103A and 455B.171-192 ; 567 Iowa Administrative Code [IAC] 64; Sections 318, 402, and 405 of the CWA, NPDES, as amended (33 U.S.C. 1251 et seq.), 40 C.F.R. 122
Water Permit Branch	"One Year Usage Permit" Registration for temporary use of water during construction of the project	Iowa Code 455B.261-281; 567 IAC 50-53
Water Supply Section, Environmental Protection Division	Water Supply Construction Permit for the construction of public water supply's water facility, treatment, and distribution system	Iowa Code 455B.211-455B.224, 455B.171-455B.192 and 461A.4; 567 IAC 40-44, 50-53
Water Supply Section	Water Supply Operation Permit to operate the water supply system after construction is complete	Iowa Code 455B.211 et seq. 567 IAC 40-44, 80, 81
Parks, Recreation, and Preserves Division	Regulatory review Section 401 CWA, state review and certification of federal water projects (Water Quality Certification)	Iowa Code 455B.211-455B.224 and implementing regulations; Section 404 of the CWA, as amended (33 U.S.C. 1344), 33 C.F.R. 320-330; SDWA as amended (42 U.S.C. 300f et seq.), 40 C.F.R. 141-142
	Floodplains/floodways permits for construction within designated floodplains and floodways	Iowa Code 455B.261-455B.281, 461A.4-461A.8; 567 IAC 70-76
	Sovereign lands construction permit	Iowa Code 461A.4-461A.8; 571 IAC 13

Table B.1 (Continued)

Agency	Permit, Approval, or Action	Authority
Iowa (cont.)		
Iowa Department of Natural Resources (cont.)		
Parks, Recreation, and Preserves Division (cont.)	Wetland Permit for State Lands for construction activities on state land or fee title land that could impact wetlands (or when crossing state lands)	Iowa Code 455B, 455C, and 464B and implementing regulations
Natural Resource Commission and the Director of the Department of Natural Resources	Takings permits for T&E species	Iowa Code 481B; 571 IAC 77 and 111; ESA as amended (16 U.S.C. 1536) (50 C.F.R. 17)
Iowa Department of Transportation	Utility Accommodation permit for encroachment or crossings of state and county highways	Iowa Code 320.4-320.8; 761 IAC 115 (Note: Permit holder must obtain easement or permission from each drainage district for construction that will impact highway drainage per Iowa Code 468)
Sioux County	Construction, building, and/or zoning permits for project facilities	County code and zoning regulations
Lyon County	Construction, building, and/or zoning permits for project facilities	County code and zoning regulations
O'Brien County	Construction, building, and/or zoning permits for project facilities	County code and zoning regulations
Osceloa County	Construction, building, and/or zoning permits for project facilities	County code and zoning regulations
Clay County	Construction, building, and/or zoning permits for project facilities	County code and zoning regulations
Dickinson County	Construction, building, and/or zoning permits for project facilities	County code and zoning regulations
Minnesota		
Board of Water and Soil Resources	Administer *Minnesota Wetland Conservation Act* statewide	Minnesota Statutes 103G.222-.2373; Minnesota Rules 8420
Department of Administration	Permit to cross state-owned lands not under the jurisdiction of the Commissioner of Natural Resources or obtained for trunk highway purposes	Minnesota Statute 16B.26; Minnesota Rules 1245.0300
Department of Health	Regulatory review Section 401 CWA, state review and certification of federal water projects (Water Quality Certification)	SDWA (Minnesota Statutes 144.381 to 144.388, Minnesota Rules 4720.0200 to 4720.3970); Section 404 of the CWA, as amended (33 U.S.C. 1344), 33 C.F.R. 320-330; SDWA as amended (42 U.S.C. 300f et seq.), 40 C.F.R. 141-142

Table B.1 (Continued)

Agency	Permit, Approval, or Action	Authority
Minnesota (cont.)		
Department of Health (cont.)	Issue Water Certificate stating that the water supply system operator has met the requirements for the specified operator classification of the certification program	Minnesota Statute 115.71 to 115.77; Minnesota Rules 9400 (Note: the commissioner of health, upon application, may issue certificates without examination, in a comparable classification to any person who holds a certificate in any state, territory, or possession of the United States or any country, providing the requirements for certification of operators under which the person's certificate was issued do not conflict with the provisions of Minnesota Statutes 115.71 to 115.77 and are of a standard not lower than that specified by rules adopted under sections 115.71 to 115.77.)
Minnesota Historical Society (SHPO)	Cultural resource protection, programmatic agreements, consultation; permit archaeological investigations	Section 106 of the NHPA, as amended (16 U.S.C. 470f); Advisory Council Regulations on Protection of Historic and Cultural Properties, as amended (36 C.F.R. 800)
Department of Natural Resources (MDNR)	Takings permits for endangered species	Minnesota Statutes 84.0895; as Minnesota Rules 6134.0100-6130.0400 and 6212.1800-6212.2300; ESA, as amended (16 U.S.C. 1536) 50 C.F.R. 17
Division of Lands and Minerals	Utility Crossing Permit for utility line to cross state-owned lands or waters	Minnesota Statute 84.415; Minnesota Rules 6135
Water Appropriation Permit Program	Temporary Water Appropriations Permit for limited use of water for construction	Minnesota Statutes 103G.215-.315; Minnesota Rules 6115
Wetlands Program	Enforce *Minnesota Wetland Conservation Act*	Minnesota Statutes 103G.222-.2373; Minnesota Rules 8420
Pollution Control Agency	NPDES point source permits to pump water out from open ditches and permits to discharge water during hydrostatic testing; NPDES Storm Water Permit for runoff generated during construction activities	*State Water Pollution Control Act* (Minnesota Statutes 115.01-115.09); Minnesota Rules 7001.01 et seq.; Sections 318, 402, and 405 of the CWA, as amended, (33 U.S.C. 1344 et seq.) 33 C.F.R. 320-330; NPDES, as amended (33 U.S.C. 1251 et seq.), 40 C.F.R. 122
Department of Transportation, District 7	Encroachment Permits for encroachment or crossing of state lands (highways)	Minnesota Statutes 161.45; Minnesota Rules 8810.31- 8810.36
Nobles County, Public Works Department, Environmental Services	Land Use Permit Construction or building permit	County Ordinances and Building Codes
	Conditional Use Permit zoning permit	County Ordinances and Building Codes
	Utility Permit for crossing of county highway ROW (H-003)	Rules and Regulations of Board of County Commissioners for Utilities on County Highways
Nobles County Local Government Unit	Approve wetland replacement plans	Minnesota Statutes 103G.222-.2373; Minnesota Rules 8420
Rock County Environmental Services, Land Management Office	Land Use Permit, Building and/or zoning permit	County Ordinances and Building Codes

Table B.1 (Continued)

Agency	Permit, Approval, or Action	Authority
Minnesota (cont.)		
Rock County Local Government Unit	Approve wetland replacement plans	Minnesota Statutes 103G.222-.2373; Minnesota Rules 8420
South Dakota		
South Dakota State Historic Preservation Office	Cultural resource protection, programmatic agreements, consultation; permit for cultural resource work done on state lands	Section 106 of the NHPA as amended (16 U.S.C. 470f); Advisory Council Regulations on Protection of Historic and Cultural Properties, as amended (36 C.F.R. 800); *South Dakota Codified Law* (SDCL) 1-19A-11.1
South Dakota Department of Environment & Natural Resources		
Surface Water Discharge Program	General permit for temporary dewatering and a temporary water use permit for test well water discharge, dewatering of the pipe trench, and for discharge of hydrostatic test water	SDCL 34A-2; Administrative Rules of South Dakota (ARSD) 74:02; NPDES, as amended (33 U.S.C. 1251 et seq.), 40 C.F.R. 122
	Surface water discharge permit; general storm water permit for runoff generated during construction activities	SDCL 34A-2 ; ARSD 74:52:01-12; NPDES, as amended (33 U.S.C. 1251 et seq.), 40 C.F.R. 122
Water Rights Program	Temporary Dewatering Permit for water used during construction	SDCL 34A-2; SDCL 46-5; ARSD 74:52:02:09
	Permit to Appropriate Water for water used during construction	SDCL 46-2A; 46-5; ARSD 74:02
	Water Appropriation permit for project intake water wells/for ground water future use, appropriation, and beneficial use	SDCL 46-2; 46-5; 46-6; ARSD 74:02
Surface Water Quality Program	Regulatory review of Section 401 of the CWA, state review and certification of federal water projects (Water Quality Certification)	SDCL 34A-2-33 and 34A-2-34; ARSD 74:51:02:63-74:51:02:65
Waste Management Program	Solid waste disposal permit for water treatment plant	SDCL 34A-6; ARSD 74:27
Drinking Water Program	Construction and operating permit for the water treatment plant	SDWA, as amended (42 U.S.C. 300f et seq.); (40 C.F.R. 141-142); SDCL 34A-3A ; ARSD 74:04 et seq.
South Dakota Department of Transportation		
Yankton Area Office	Utility Form 200, permits for the encroachment or crossing of state highways	SDCL 31-26-22; ARSD 70
Sioux Falls Area Office	Utility Form 200, permits for the encroachment or crossing of state highways	SDCL 31-26-22; ARSD 70

Table B.1 (Continued)

Agency	Permit, Approval, or Action	Authority
South Dakota (cont.)		
The Secretary of Agriculture and the Secretary of Game, Fish, and Parks	Enforcement of endangered species statutes within the state	SDCL 34A-8-1 et seq.; ARSD 41:10; ESA, as amended (16 U.S.C. 1536), 50 C.F.R. 17
Minnehaha County		
Building and Zoning	Construction or building permit(s) for aboveground facilities	*1990 Revised Zoning Ordinance for Minnehaha County* (Ordinance MC16-90 [as amended])
Highway Department,	Utility Form 200, permits for the encroachment or crossing of county highways	*1990 Revised Zoning Ordinance for Minnehaha County* (Ordinance MC16-90 [as amended])
Lake County		
Building and Zoning	Construction or building permit(s) for aboveground facilities	County code and zoning ordinances
Highway Department	Encroachment permit(s) for the encroachment or crossing of county highways	County code and zoning ordinances
Lincoln County		
Building and Zoning	Construction permit(s), building permit(s), or conditional use permit(s) for above-ground facilities	County code and zoning ordinances
Highway Department	Encroachment Permit(s) for the encroachment or crossing of county highways	County code and zoning ordinances
Turner County Building and Zoning	Conditional Use Permit(s) for above-ground facilities	County code and zoning ordinances
Clay County Building and Zoning	Building and/or zoning permits or special exception permit for project facilities	County code and zoning ordinances
Union County Building and Zoning	Construction, building permit(s), and/or zoning permits for project facilities	County code and zoning ordinances

[1] This list is intended to provide an overview of the key regulatory requirements that would govern project implementation. Additional approvals, permits, and authorizing actions may be necessary.

APPENDIX C:

SCOPING NOTICE

United States Department of the Interior

BUREAU OF RECLAMATION
Dakotas Area Office
P.O. Box 1017
Bismarck, North Dakota 58502

IN REPLY REFER TO:
DK-700
ENV 6.00

MAY 0 4 2001

Subject: Notification of the Preparation of an Environmental Assessment (EA) the Lewis and Clark Rural Water Supply Project in South Dakota, Iowa, and Minnesota

Dear Interested Party:

The Bureau of Reclamation is the lead Federal agency for funding construction of the Lewis and Clark Rural Water Supply Project. The project would provide an adequate supply of good quality drinking water to approximately 172,000 users in parts of Lake, Minnehaha, Turner, Lincoln, Clay, and Union Counties in South Dakota; Lyon, Osceola, Dickinson, Sioux, O'Brien, and Clay Counties in Iowa; and Rock and Nobles Counties in Minnesota. Background information and a description of the proposed project are enclosed.

As the lead agency, Reclamation is responsible for ensuring compliance with environmental and cultural resource laws. To start the scoping process, we invite the public and interested local, tribal, State, and Federal agencies to identify and comment upon any environmental issues that may be affected by this project. We wish to identify concerns, solicit participation, and determine which issues are to be examined in detail in an EA.

Once completed, the draft EA will be available for public comment. Reclamation will then use this draft EA and any review comments to determine whether the project would have any significant impacts on the human and natural environment. If no significant issues are identified, Reclamation will issue a final EA and a Finding of No Significant Impact. If any significant issues are identified, we will proceed in the preparation of an environmental impact statement. Included with the enclosed is a list of the entities who were contacted in this initial scoping effort.

Sincerely,

FOR Richard D. Nelson

Dennis E. Breitzman
Area Manager

Enclosure

cc: Ms. Pam Bonrud
Executive Director
Lewis and Clark Rural Water System
300 N Dakota Avenue - Suite 313
Sioux Falls, SD 57103

Mr. Dave Odens
Project Manager
Banner Associates, Inc.
P.O. Box 298
Brookings, SD 57103

Mr. John Boehmke
Bureau of Reclamation
P.O. Box 36900
Billings, MT 59107-6900

Mr. Richard Nelson
Bureau of Reclamation
P.O. Box 1017
Bismarck, ND 58502

Ms. Faye Streier
Rapid City Field Office
515 9th Street - Room 101
Rapid City, SD 57701

SCOPING NOTICE

FOR

LEWIS AND CLARK RURAL WATER SUPPLY PROJECT, SOUTH DAKOTA, IOWA, AND MINNESOTA

Bureau of Reclamation
Dakotas Area Offices, Rapid City, South Dakota

I. PROJECT LOCATION AND DESCRIPTION

The Lewis and Clark Rural Water System, Inc. (LCRWS) proposes to construct a groundwater collector system, water supply pipelines, associated pump stations, a treatment plant, and storage facilities. The project would be constructed in southeastern South Dakota, southwestern Minnesota, and northwestern Iowa (see attached map). The proposed pipeline would run from near the Missouri River in southeastern South Dakota to linkage points throughout the project area. The pipeline system would be approximately 400 miles in length, and the pipeline diameter would range from 6 inches to 54 inches. A maximum of approximately 8,000 acres would be disturbed during construction. Flow capacity within the system is expected to be from 25 million to 33.9 million gallons per day. The water would be withdrawn from alluvial aquifers adjacent to the Missouri River.

The counties proposed for pipeline water supply system construction include: Lake, Minnehaha, Turner, Lincoln, Clay, and Union in South Dakota; Lyon, Osceola, Dickinson, Sioux, O'Brien, and Clay in Iowa; and Rock and Nobles in Minnesota.

Most land along the route is utilized for agriculture, transportation (state, county, and local roads), utilities (pipelines, power lines, telecommunications cables), wildlife habitat, and recreation.

II. SPONSORS

The project is sponsored by the LCRWS, a nonprofit regional affiliation of water user groups. The Bureau of Reclamation (Reclamation) is the lead Federal agency for funding construction of the project. As the lead agency, Reclamation is responsible for ensuring compliance with environmental and cultural resource laws. Approximately 78% of the project costs for planning and construction would be funded by a federal grant, whereas the remaining costs necessary to complete construction would be provided by local and state project sponsors.

III. WATER SOURCE AND PROJECT SUPPORT FACILITIES

The proposed water source for the LCRWS would be shallow aquifers adjacent to the Missouri River. A set of permanent radial collector wells along the northern bank of the river would be constructed for water intake. An exploratory drilling program and aquifer testing for the project is currently being conducted on private and state-owned properties near the new South Dakota Highway 19 right-of-way (ROW) leading to the Vermillion-Newcastle bridge over the Missouri River (see attached map). The final locations of the permanent radial well sites would be determined based on the results of the aquifer testing.

Maximum flow capacity within the system is expected to be approximately 33.9 million gallons per day (MGD) (this includes 1.0 MGD raw water for Vermillion, South Dakota).

The project would require booster pumps to maintain pressure within the pipe; water storage reservoirs; service connections; and a water treatment facility. Booster pump stations would generally be aboveground structures containing pumps connected directly to the pipeline to permit operation as an in-line booster station. In addition, each station would house telemetry, instrumentation, control panels, electrical, and surge protection systems. The stations would generally be located near storage reservoirs and would vary in size based upon pipeline capacities. Approximately 1 acre would be required for each booster pump station.

Water storage reservoirs would be constructed to provide system reliability and peak demand capability. These reservoirs generally would consist of aboveground, precast, prestressed concrete or welded steel tanks. Reservoir capacity would be approximately equal to the average day design flow of the pipeline, and each storage reservoir would require approximately 5 acres for construction, operation, and maintenance.

Connections to local water systems would be housed in concrete buildings, and local water system connections remote from existing water treatment plants may require chlorination capabilities. If chlorination is required, the system would likely be vacuum-operated with flow paced feeders capable of automatic operation. Space requirements for these facilities would be minimal.

IV. WATER TREATMENT FACILITIES

The 160-acre site for the water treatment facility is proposed for a location north of Vermillion, South Dakota, and would treat water for the entire system. The 160 acres required for the water treatment plant includes areas for all construction activities, treatment facilities, pumping station, treated water reservoirs, access roads, washwater reclaim facilities, sludge drying and storage lagoons, and a buffer space around the site. Lime/soda ash or alum/polymer may be used for flocculation and solids removal, filtration, and disinfection. The plant may require sludge drying and storage lagoons and fuel and chemical storage tanks. Treatment plant options are currently being considered.

V. PERMITS AND ENVIRONMENTAL REQUIREMENTS

The LCRWS would obtain all necessary federal, state, and local permits prior to starting construction.

VI. PROPOSED CONSTRUCTION SCHEDULE

Construction of the LCRWS is anticipated to begin in Spring 2001 with initial aquifer testing. Because of the size of the project, it will be constructed in phases over a period of 8 to 12 years.

VII. CONSTRUCTION OF THE WATER SUPPLY DISTRIBUTION SYSTEM

Prior to construction, appropriate easements or land acquisitions would be obtained, and all project-required lands would remain on local tax roles. A temporary 100-200-ft wide construction right-of-way (ROW) and a permanent 50-ft wide operating ROW would be requested from surface owners. Use authorizations (e.g., ROW authorizations and other permits) would be processed

through appropriate application processes. All construction disturbance would be contained within the construction ROW. Boring would be used at most paved road, railroad, and perennial water crossings to minimize disturbance of these areas. Maximum surface disturbance is estimated be approximately 18.2 acres per mile. Only those areas currently under construction would be disturbed.

Construction phasing would provide that only those areas slated for immediate connection would be disturbed, thereby limiting the extent of impacts associated with project construction to localized areas.

Construction would involve the following steps:

- surveying and staking;
- clearing;
- topsoil salvage;
- grading and trenching;
- pipe stringing and coupling;
- construction of pipeline appurtenances;
- backfilling and erosion control;
- hydrostatic testing; and
- regrading and revegetation.

Both temporary and permanent erosion control structures would be installed during construction to minimize the potential for soil loss due to wind and water erosion. Temporary structures would include sediment barriers, silt fences, culvert installations, water bars, and erosion control matting and would be utilized until permanent revegetation is deemed successful or other permanent structures have been installed. Permanent structures may include waterbars, culverts, rock check dams or other energy flow dissipaters, and riprap.

Detailed restoration specifications would be developed and applied to minimize impacts to existing land uses.

VIII. BENEFITS OF THE PROJECT

The LCRWS would provide a high quality, reliable domestic water supply to more than 172,000 (1990) residents of 14 counties in South Dakota, northwestern Iowa, and southwestern Minnesota. This supplemental water supply would allow these areas to maintain the existing quality of life and sustain the present rate of growth.

IX. COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) AND OTHER ENVIRONMENTAL LAWS

Pursuant to the National Environmental Policy Act of 1969 (NEPA), Reclamation is preparing an environmental assessment (EA) to determine if the project will have a significant impact on the human and natural environment. Preparation of this EA will include compliance with numerous other federal laws, including the Endangered Species Act, the National Historic Preservation Act, the Safe Drinking Water Act, and the Clean Water Act.

An interdisciplinary team has been formed to evaluate the Proposed Action, No Action, and any other viable alternatives based on the purpose and need for the project; issues and concerns associated with the project; and available data on affected resources. Public input is important so that all issues and concerns have been identified and evaluated in appropriate detail.

The following issues and concerns specific to the LCRWS have already been identified:

- compatibility with management plans and objectives;
- stream and wetland crossings;
- wild and scenic river values;
- game production areas;
- agricultural lands (prime farmland issues);
- cultural and historic resources;
- Native American concerns;
- water quality;
- flow depletions of the Missouri River;
- federal and state threatened, endangered, proposed candidate, and other sensitive species;
- noxious weeds;
- erosion control;
- maintenance of irrigation well function;
- health and safety;
- socioeconomics;
- restoration/revegetation; and
- cumulative impacts.

This list is intended as a starting point from which to identify any additional issues and concerns specific to the proposed project. Additional potential issues, concerns, and opportunities will likely be identified during scoping and preparation of the EA. All identified issues and concerns regarding the proposed project will be considered during the NEPA process.

X. RELATIONSHIP TO EXISTING LAND USE PLANS AND OTHER ENVIRONMENTAL DOCUMENTS

An environmental report was prepared to facilitate future preparation of an environmental assessment. This report is available from LCRWS.

Other environmental documents relevant to the proposed project include: Draft Environmental Report for the Lewis and Clark Rural Water System; Final Environmental Assessment and Section 4(f) Evaluation, and the Preliminary Section 7(a) Evaluation for the Wild and Scenic Rivers Act for the Missouri River Bridge Near Vermillion, Clay County, South Dakota and Cedar and Dixon Counties, Nebraska; and the Phase I Hydrogeologic Investigation to Evaluate Ranney Collection Well Feasibility for the LCRWS project. These documents provide resource and environmental data relevant to the proposed project and would be used where discussions are relevant to the Proposed Action, No Action Alternative, and other alternatives that may be developed. Additionally, these and other documents would be used, as appropriate, for cumulative impact analysis.

XI. SCHEDULE FOR PUBLIC INPUT

The public is encouraged to participate throughout the environmental analysis process. To assure that all concerns are considered in the analysis, Reclamation is requesting public input. Comments, questions, and identification of concerns are encouraged. Please submit comments as specified in the cover letter for this scoping notice. Comments must be received by June 4, 2001. Please send your comments to:

Faye Streier
Natural Resource Specialist
Bureau of Reclamation
Dakotas Area Office
Rapid City Field Office
515 9th St., Room 101
Rapid City, South Dakota 57701

If you do not wish to comment at this time, but do wish to remain on the mailing list for future information regarding the LCRWS, please return the enclosed postcard.

Public Scoping Meetings are scheduled for:

May 14, 2001
6:30 to 8:30 p.m.
Public Library
Vermillion, South Dakota

May 15, 2001
6:30 to 8:30 p.m.
City Hall/Community
Services Center
Sioux Center, Iowa

May 16, 2001
6:30 to 8:30 p.m.
Public Library, Basement
Sheldon, Iowa

May 17, 2001
6:30 to 8:30 p.m.
Public Library, Basement
Luvern, Minnesota

May 18, 2001
3:30 to 6:30 p.m.
Convention Center, Rooms 1 and 2
Sioux Falls, South Dakota

XII. SCOPING STATEMENT INITIAL MAILING AND DISTRIBUTION

This Notice has been sent to the following:

FEDERAL AGENCIES

U.S. Army Corps of Engineers
U.S. Bureau of Reclamation
National Park Service
U.S.D.A. Natural Resources Conservation Service
U.S. Representatives (SD, IA, MN)
U.S. Fish and Wildlife Service (SD, IA, MN)
U.S. Senators (SD, IA, MN)
U.S. Geologic Survey

STATE AGENCIES

Governors (SD, IA, MN)
State Engineer's Office (SD, IA, MN)
State Representatives
State Senators
Boards of Land Commissioners (SD, IA, MN)
Departments of Environmental Quality (SD, IA, MN)
Public Service Commissions (SD, IA, MN)
Departments of Transportation (SD, IA, MN)
Game and Fish Departments (SD, IA, MN)
Geologic Survey Offices (SD, IA, MN)
State Planning Coordinators (SD, IA, MN)
State Historic Preservation Offices (SD, IA, MN)

COUNTY GOVERNMENTS

County Commissioners
County Planning Commissions
County Road and Bridge Departments
County Engineer Offices
County Library Systems
County Zoning Offices

Of:

South Dakota Counties:
Lake, Minnehaha, Turner, Lincoln, Clay, and Union

Iowa Counties:
Lyon, Osceola, Dickinson, Sioux, O'Brien, and Clay

Minnesota Counties:
Rock and Nobles

MUNICIPALITIES

Mayors and City Planners of Affected Cities:

In South Dakota: Madison, Sioux Falls, Lennox, Centerville, Berefore, Canton, Parker, Lincoln, Tea, Harrisburg, Vermillion, Wentworth;

In Iowa: Sioux Center, Rock Valley, Hull, Boyden, Sheldon, Sanborn, Hartley, and Rock Rapid;

In Minnesota: Luverne, Magnolia, Adrian, Rushmore, and Worthington

NATIVE AMERICAN TRIBES

Yankton Sioux Tribe
Ponca Tribe of Nebraska
Omaha Tribe of Nebraska & Iowa
Lower Sioux Indian Community of Minnesota
Prairie Island Indian Community of Nebraska
Sac & Fox Tribe of the Mississippi in Iowa
Shakopee Mdewakanton Sioux Community of Minnesota
Upper Sioux Community of Minnesota
Flandreau Santee Sioux Executive Committee
Santee Sioux Tribal Council
Sisseton-Wahpeton Sioux Tribal Council
Otoe-Missouria Tribe of Indians
Winnebago Tribe of Nebraska
Sac and Fox Nation of Missouri

LOCAL MEDIA

A press release has been issued to local media.

OTHER AGENCIES, INDUSTRY REPRESENTATIVES, AND INDIVIDUALS

Audubon Society
National Wildlife Federation
The Nature Conservancy (SD, IA, MN)
Sierra Club
Association of Professional Archaeologists (SD, IA, MN)
Missouri Basin Association
Ducks Unlimited
Water Development Districts
Southwest Regional Development Commission
Association of State Conservation Districts
Conservation Board
Rural Water Systems
Clay Rural Water & TM
Association of Professional Historians (SD, IA, MN)
Farm Bureau Offices (SD, IA, MN)
Public Lands Councils (SD, IA, MN)
Sportsman's Associations (SD, IA, MN)
Wildlife Associations (SD, IA, MN)
Southeast Council of Governments (Planning Districts 1st & 3rd)
Mni Sose Intertribal Water Rights Coalition

APPENDIX D:

STATE-LISTED THREATENED AND ENDANGERED SPECIES POTENTIALLY OCCURRING WITHIN THE PROJECT AREA

Table D.1 State-listed Threatened and Endangered Species Potentially Occurring Within the Lewis and Clark Water Supply Project Area, 2002.

Species		State Status[1]		
Common Name	Scientific Name	South Dakota[2]	Iowa[3]	Minnesota[4]
Mammals				
Black bear	*Ursus americanus*	ST	--	--
Black-footed ferret	*Mustela nigripes*	SE	--	--
Bobcat	*Lynx rufus*	--	SE	--
Eastern spotted skunk	*Spilogale putorius*	--	ST	ST
Grasshopper mouse	*Onychomys leucogaster*	--	ST	--
Indiana bat	*Myotis sodalis*	--	SE	--
Least shrew	*Cryptotis parva*	--	ST	--
Mountain lion	*Felis concolor*	ST	--	--
Plains pocket mouse	*Perognathus flavescens*	--	SE	--
Red-backed vole	*Clethrionomys gapperi*	--	SE	--
River otter	*Lutra canadensis*	ST	ST	--
Swift fox	*Vulpes velox*	ST	--	--
Birds				
American dipper	*Cinclus mexicanus*	ST	--	--
Baird's sparrow	*Ammodramus bairdii*	--	--	SE
Bald eagle	*Haliaeetus leucocephalus*	SE	SE	--
Barn owl	*Tyto alba*	--	SE	--
Burrowing owl	*Speotyto cunicularia*	--	--	SE
Chestnut-collared longspur	*Calcarius ornatus*	--	--	SE
Common tern	*Sterna hirundo*	--	--	ST
Eskimo curlew	*Numenius borealis*	SE	--	--
Henslow's sparrow	*Ammodramus henslowii*	--	ST	SE
Horned grebe	*Podiceps auritus*	--	--	ST
Interior least tern	*Sterna antillarum athalassos*	SE	SE	--
King rail	*Rallus elegans*	--	SE	SE
Loggerhead shrike	*Lanius ludovicianus*	--	--	ST
Long-eared owl	*Asio otus*	--	ST	--

Table D.1 (Continued)

Species		State Status[1]		
Common Name	Scientific Name	South Dakota[2]	Iowa[3]	Minnesota[4]
Birds (cont.)				
Northern harrier	*Circus cyaneus*	--	SE	--
Osprey	*Pandion haliaetus*	ST	--	--
Peregrine falcon	*Falco peregrinus*	SE	SE	ST
Piping plover	*Charadrius melodus*	ST	SE	SE
Red-shouldered hawk	*Buteo lineatus*	--	SE	--
Short-eared owl	*Asio flammeus*	--	SE	--
Sprague's pipit	*Anthus spragueii*	--	--	SE
Trumpeter swan	*Cygnus buccinator*	--	--	ST
Whooping crane	*Grus americana*	SE	--	--
Wilsons phalarope	*Phalaropus tricolor*	--	--	ST
FISH				
American brook lamprey	*Lampetra appendix*	--	ST	--
Banded killifish	*Fundulus diaphanus*	SE	--	--
Black redhorse	*Moxostoma duquesnei*	--	ST	--
Blacknosed shiner	*Notropis heterolepis*	SE	ST	--
Bluntnose darter	*Etheostoma chlorosomum*	--	SE	--
Burbot	*Lota lota*	--	ST	--
Central mudminnow	*Umbra limi*	SE	--	--
Chestnut lamprey	*Ichthyomyzon castaneus*	--	ST	--
Finescale dace	*Phoxinus neogaeus*	SE	--	--
Freckled madtom	*Noturus nocturnus*	--	SE	--
Grass pickerel	*Esox americanus*	--	ST	--
Lake sturgeon	*Acipenser fulvescens*	--	SE	--
Least darter	*Etheostoma microperca*	--	SE	--
Longnose sucker	*Catostomas catostomas*	ST	--	--
Northern redbelly dace	*Phoxinus eos*	ST	--	--
Orangethroat darter	*Etheostoma spectabile*	--	ST	--
Paddlefish	*Polyodon spathula*	--	--	ST

Table D.1 (Continued)

Species		State Status[1]		
Common Name	Scientific Name	South Dakota[2]	Iowa[3]	Minnesota[4]
Fish (cont.)				
Pallid sturgeon	*Scaphirhynchus albus*	SE	SE	--
Pearl dace	*Margariscus margarita*	ST	SE	--
Pugnose shiner	*Notropis anogenus*	--	SE	--
Sicklefin chub	*Macrhybopsis meeki*	ST	--	--
Sturgeon chub	*Macrhybopsis gelida*	ST	--	--
Topeka shiner	*Notropis topeka*	--	ST	--
Trout-perch	*Percopsis omiscomaycus*	ST	--	--
Weed shiner	*Notropis texanus*	--	SE	--
Western sand darter	*ammocrypta clara*	--	ST	--
Amphibians				
Blue-spotted salamander	*Ambystoma laterale*	--	SE	--
Central newt	*Notophthalmus viridescens*	--	ST	--
Crawfish frog	*Rana areolata*	--	SE	--
Mudpuppy	*Necturus maculosus*	--	SE	--
Northern cricket frog	*Acris crepitans*	--	--	SE
Reptiles				
Blanding's turtle	*Emydoidea blandingii*	SE	--	ST
Copperhead	*Agkistrodon contortix*	--	SE	--
Diamondback water snake	*Nerodia rhombifera*	--	ST	--
Eastern hognose snake	*Heterodon platyrhinos*	ST	--	--
False map turtle	*Graptemys pseudogeographica*	ST	--	--
Great plains skink	*Eumeces obsoletus*	--	SE	--
Lined snake	*Tropidoclonion lineatum*	SE	--	--
Massasauga rattlesnake	*Sistrurus catenatus*	--	SE	SE
Ornate box turtle	*Terrapene ornata*	--	ST	--
Prairie rattlesnake	*Crotalus viridus*	--	SE	--
Slender glass lizard	*Ophisaurus attenuatus*	--	SE	--

Table D.1 (Continued)

Species		State Status[1]		
Common Name	Scientific Name	South Dakota[2]	Iowa[3]	Minnesota[4]
Reptiles (cont.)				
Smooth green snake	*Opheodrys vernalis*	--	ST	--
Speckled kingsnake	*Lampropeltis getulus*	--	SE	--
Stinkpot	*Sternotherus oderatus*	--	ST	--
Timber rattlesnake	*Crotalus horridus*	--	--	ST
Western hognose snake	*Heterodon nasicus*	--	SE	--
Western worm snake	*Carphophis amoneus*	--	ST	--
Wood turtle	*Clemmys insculpta*	--	SE	ST
Yellow mud turtle	*Kinosternon flavescens*	--	SE	--
Yellowbelly water snake	*Nerodia erythrogaster*	--	SE	--
Invertebrates				
Butterflies				
Assiniboia skipper	*Hesperia comma assiniboia*	--	--	SE
Baltimore	*Euphydryas phaeton*	--	ST	--
Byssus skipper	*Problema byssus*	--	ST	--
Dakota skipper	*Hesperia dacotae*	--	SE	ST
Garita skipper	*Oarisma garita*	--	--	ST
Karner blue	*Lycaeides melissa samuelis*	--	--	SE
Mulberry wing	*Poanes massasoit*	--	ST	--
Ottoe skipper	*Hesperia ottoe*	--	--	ST
Persius dusky wing	*Erynnis persius*	--	--	SE
Poweshieik skipperling	*Oarisma powesheik*	--	ST	--
Ringlet	*Coenonympha tullia*	--	SE	--
Silvery blue	*Glaucopsyche lygadmus*	--	ST	--
Uhlers artic	*Oeneis uhleri varuna*	--	--	SE
Uncas skipper	*Hesperia uncas*	--	--	SE
Mollusks				
Bluff vertigo	*Vertigo meramecensis*	--	SE	ST
Briarton pleistocene vertigo	*Vertigo briarensis*	--	SE	--

Table D.1 (Continued)

Species		State Status[1]		
Common Name	Scientific Name	South Dakota[2]	Iowa[3]	Minnesota[4]
Mollusks (cont.)				
Buckhorn	*Tritogonia verrucosa*	--	SE	--
Bullhead	*Plethobasus cyphus*	--	SE	--
Butterfly	*Ellipsaria lineolata*	--	ST	ST
Creek heelsplitter	*Lasmigona compressa*	--	ST	--
Cylinder	*Anodontoides ferussacianus*	--	ST	--
Ebonyshell	*Fusconaia ebena*	--	--	SE
Elephant-ear	*Elliptio crassidens*	--	--	SE
Elktoe	*Alasmidonta marginata*	--	--	ST
Ellipse	*Venustaconcha ellipsiformis*	--	ST	ST
Frigid ambersnail	*Catinella gelida*	--	SE	--
Higgin's-eye pearly mussel	*Lampsilis higginsii*	--	SE	SE
Iowa pleistocene ambersnail	*Novasuccinea n.* sp.	--	SE	SE
Iowa pleistocene snail	*Discus macclintocki*	--	SE	--
Iowa pleistocene vertigo	*Vertigo n.* sp.	--	SE	--
Midwest pleistocene vertigo	*Vertigo hubrichti*	--	ST	SE
Minnesota pleistocene ambersnail	*Novasuccinea n.* sp.	--	SE	ST
Monkeyface	*Quadrula metanevra*	--	--	ST
Mucket	*Actinonaias ligamentina*	--	--	ST
Occult vertigo	*Vertigo occulta*	--	ST	--
Ohio river pigtoe	*Pleurobema sintoxia*	--	SE	--
Pistolgrip	*Tritogonia verrucosa*	--	--	ST
Purple pimpleback	*Cyclonaias tuberculata*	--	ST	--
Purple wartyback	*Cyclonaias tuberculata*	--	--	ST
Rock pocketbook	*Arcidens confragosus*	--	--	SE
Round pigtoe	*Pleurobema coccineum*	--	--	ST
Salamander mussel	*Simpsonaias ambigua*	--	--	ST
Sheepnose	*Plethobasus cyphus*	--	--	SE
Slippershell	*Alasmidonta viridis*	--	SE	--
Slough sandshell	*Lampsilis teres teres*	--	SE	--

Table D.1 (Continued)

Species		State Status[1]		
Common Name	Scientific Name	South Dakota[2]	Iowa[3]	Minnesota[4]
Mollusks (cont.)				
Snuffbox	*Epioblasma triquetra*	--	--	ST
Spectacle case	*Cumberlandia monodonta*	--	SE	ST
Strange floater	*Strophitus undulatus*	--	ST	--
Variable pleistocene vertigo	*Vertigo hubrichti variabilis*	--	--	ST
Wartyback	*Quadrula nodulata*	--	--	SE
Washboard	*Megalonaias nervosa*	--	--	ST
Winged mapleleaf	*Quadrula fragosa*	--	--	SE
Yellow sandshell	*Lampsilis teres anodontoides*	--	SE	SE
Caddis Flies				
--[5]	*Chilostigma itascae*	--	--	SE
Tiger Beetles				
--[5]	*Cicindela denikei*	--	--	ST
--[5]	*Cicindela fulgida fulgida*	--	--	SE
--[5]	*Cicindela fulgida westbournei*	--	--	ST
--[5]	*Cicindela lepida*	--	--	ST
--[5]	*Cicindela limbata nympha*	--	--	SE
Plants				
Annual skeletonweed	*Lygodesmia rostrata*	--	SE	--
Beaked rush	*Rhynchospora capillacea*	--	ST	--
Beaked-sedge	*Rhynchospora capillacea*	--	--	ST
Bigroot pricklypear	*Opuntia macrorhiza*	--	SE	--
Blue giant-hyssop	*Agastache foeniculum*	--	SE	--
Bog willow	*Salix pedicellaris*	--	ST	--
Clustered broomrape	*Orobanche fasciculata*	--	SE	--
Dwarf dandelion	*Krigia virginica*	--	SE	--
Eared milkweed	*Asclepias engelmanniana*	--	SE	--

Table D.1 (Continued)

Species		State Status[1]		
Common Name	Scientific Name	South Dakota[2]	Iowa[3]	Minnesota[4]
Plants (cont.)				
Eastern prairie fringed orchid	*Platanthera leucophaea*	--	SE	--
Fragrant false indigo	*Amorpha nana*	--	ST	--
Frenchgrass	*Psoralea onobrychis*	--	SE	--
Golden corydalis	*Corydalis aurea*	--	ST	--
Hairy pinweed	*Lechea villosa*	--	ST	--
Hairy waterclover	*Marsilea vestita*	--	ST	--
Hooded ladies-tresses	*Spiranthes romanzoffiana*	--	ST	--
Kitten-tails	*Besseya bullii*	--	ST	ST
Leathery grapefern	*Botrychium multifidum*	--	ST	--
Long beechfern	*Thelypteris phegopteris*	--	SE	--
Low nutrush	*Scleria verticillata*	--	ST	--
Mud-plantain	*Heteranthera limosa*	--	--	ST
Northern currant	*Ribes hudsonianum*	--	ST	--
Northern wild monkshood	*Aconitum noveboracense*	--	ST	--
Pale false foxglove	*Agalinis skinneriana*	--	SE	--
Pennsylvania cinquefoil	*Potentilla pennsylvanica*	--	ST	--
Philadelphia panic-grass	*Panicum philadelphicum*	--	ST	--
Pink milkwort	*Polygala incarnata*	--	ST	--
Poppy mallow	*Callirhoe alcaeoides*	--	ST	--
Prairie bush-clover	*Lespedeza leptostachya*	--	ST	ST
Prairie quillwort	*Isoetes melanopoda*	--	--	ST
Prairie white fringed orchid	*Platanthera praeclara*	--	--	SE
Purple milkwort	*Polygala polygama*	--	SE	--
Ricebutton aster	*Aster dumosus*	--	SE	--
Rough-seeded fameflower	*Talinum rugospermum*	--	SE	--
Round-stemmed false foxglove	*Agalinis gattingerii*	--	ST	--
Running clubmoss	*Lycopodium clavatum*	--	SE	--
Rusty woodsia	Woodsia ilvensis	--	SE	--
Scarlet globemallow	*Sphaeralcea coccinea*	--	ST	--

Table D.1 (Continued)

Species		State Status[1]		
Common Name	Scientific Name	South Dakota[2]	Iowa[3]	Minnesota[4]
Plants (cont.)				
Shining willow	*Salix lucida*	--	ST	--
Showy lady's slipper	*Cypripedium reginae*	--	ST	--
Showy milkweed	*Asclepias speciosa*	--	ST	--
Silverweed	*Potentilla anserina*	--	ST	--
Slender beardtongue	*Penstemon gracilis*	--	ST	--
Slender plantain	*Plantago elongata*	--	--	ST
Slim-leaved panic-grass	*Dichanthelium linearifolium*	--	ST	--
Smooth or Sullivants milkweed	*Asclepias sullivantii*	--	--	ST
Valerian	*Valeriana edulis* ssp. *Ciliata*	--	--	ST
Western parsley	*Lomatium orientale*	--	ST	--
Western prairie fringed orchid	*Platanthera praeclara*	--	ST	--
Whiskbroom parsley	*Lomatium foeniculaceum*	--	SE	--
Whorled nut-rush	*Scleria verticillata*	--	--	ST
Woolly milkweed	*Asclepias lanuginosa*	--	ST	--
Yellow-eyed grass	*Xyris torta*	--	SE	--
Fescue sedge	*Carex festucacea*	--	--	ST
Douglas' hawthorn	*Crataegus douglasii*	--	--	ST
Shortpoint flatsedge	*Cyperus acuminatus*	--	--	ST

1 ST = State Threatened; SE = State Endangered; -- = No State Threatened or Endangered Status.
2 Adapted from South Dakota Natural Heritage Program (SDNHP) (2001).
3 Adapted from Iowa Department of Natural Resources (IDNR) (2001).
4 Adapted from State of Minnesota (2001).
5 -- = no known common name.

APPENDIX E:

DRAFT CULTURAL RESOURCES
PROGRAMMATIC AGREEMENT

Cooperative Agreement No.

PROGRAMMATIC AGREEMENT
BETWEEN
THE BUREAU OF RECLAMATION,
THE IOWA STATE HISTORIC PRESERVATION OFFICER,
THE MINNESOTA STATE HISTORIC PRESERVATION OFFICER,
THE SOUTH DAKOTA STATE HISTORIC PRESERVATION OFFICER,
AND THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
FOR THE IMPLEMENTATION OF
THE LEWIS AND CLARK RURAL WATER SUPPLY SYSTEM PROJECT

1-1. WHEREAS, the Bureau of Reclamation, Dakotas Area Office (Reclamation) proposes to administer and oversee the Lewis and Clark Water Supply System Project (Water Supply System) in northwest Iowa, southwest Minnesota and southeast South Dakota as authorized by the Lewis and Clark Water System Act of 2000 (Public Law 106-246), therefore, Reclamation is the federal agency responsible for complying with the National Historic Preservation Act (NHPA), as amended pursuant to 36 CFR Part 800.2(a); and

1-2. WHEREAS, Lewis & Clark Rural Water System, Inc. (Lewis and Clark), a South Dakota nonprofit corporation, will construct, operate, and maintain the project through Cooperative Agreement No. 01FC60159 with Reclamation, and Reclamation has invited Lewis and Clark to concur with this agreement pursuant to 36 CFR Part 800.2(c)(5); and

1-3. WHEREAS, the design plans for the entire Water Supply System have not been finalized, and Reclamation anticipates that these plans will change over the life of the project, and that the parties to this agreement recognize that the nature of this project prohibits a Level III cultural resources survey/inventory of the entire undertaking area of potential effects (APEs) for the Water Supply System prior to the onset of construction; and

1-4. WHEREAS, Reclamation has determined that construction, operation, and maintenance activities may have an effect on properties included in or eligible to be included in the National Register of Historic Places (historic properties), and has consulted with the Iowa State Historic Preservation Officer (IA-SHPO), Minnesota State Historic Preservation Officer (MN-SHPO), South Dakota State Historic Preservation Officer (SD-SHPO), and the Advisory Council on Historic Preservation (Council), and has included Lewis and Clark as an interested party pursuant to Section 800.5 of 36 CFR Part 800, the implementing regulations for Section 106 (16 U.S.C. 470f) and Section 110f of NHPA (16 U.S.C. 470h-2[f]); and

1-5. WHEREAS, in order for Reclamation to maintain the government-to-government relationship with the tribes having an interest for all activities under the NHPA and the Native American Graves Protection and Repatriation Act (NAGPRA) (PL 101-601), this document establishes a consultation protocol to ensure that Reclamation satisfies its trust responsibilities; and

1-6. NOW, THEREFORE Reclamation, the IA-SHPO, MN-SHPO, SD-SHPO, and the Council, with the concurrence of Lewis and Clark agree that the Water Supply System shall be administered in accordance with the following stipulations to satisfy Reclamation's Section 106 responsibilities as required by the National Historic Preservation Act (as amended 1999) for all activities associated with this project.

2. GENERAL STIPULATIONS

The following stipulations are applicable for the life of the project and for all ground disturbing activities associated with the construction and operation and maintenance of the Water Supply System.

2-1. Section 106 Consultation Procedure
Lewis and Clark shall provide to Reclamation pending construction schedules, and copies of maps depicting the construction rights of way. Reclamation shall then consult with the appropriate SHPO for pending construction schedules and will provide copies of maps depicting the construction rights-of way. Reclamation and the appropriate SHPO will review the survey design, and consult on the project APE to be inventoried for cultural resources. Reclamation shall ensure all cultural resource reviews, and appropriate field inventories and consultation with the appropriate SHPO shall be completed prior to the commencement of ground disturbing activities for the specific construction schedule APEs (36 CFR Part 800.2(c)). Reclamation shall ensure that compliance and consultation activities are carried out by or under the direct supervision of a person meeting the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738-9).

Reclamation will consult with those federally recognized tribes that may have an interest in the area where construction is proposed with respect to Section 3 of the Native American Graves Protection and Repatriation Act (NAGPRA), and to identify historic properties, including those of traditional religious and cultural importance. Those tribes will be afforded a reasonable opportunity to articulate its views on the effects of properties identified in the APE's, and participate in the resolution of adverse effects as required by 36 CFR Part 800.2 (c) (3) (i).

In the event that a project design or undertaking is amended after consultation and attendant compliance stipulations have been completed, and Reclamation determines the amendment results in a material addition or revision of any portion of the project or undertaking, Reclamation will consult with the appropriate SHPO, and, as necessary, carry out part or all of the steps described in Section 2 of this agreement. If the project design or undertaking is amended, but Reclamation determines the amendment does not result in a material addition or revision, a consultation is not required.

2-2. Survey Design and Inventory
Record and file searches (i.e. Phase I/Level I survey) of the Water Supply System APEs, 36 CFR Part 800.16(d), shall be conducted at the appropriate state repositories prior to the pedestrian field survey of a specific construction project APE. Copies of the record and file search will be provided to the appropriate SHPO. The purpose of these inventories is threefold:

1) to identify all previously known buildings, structures, sites, objects, districts and properties of traditional religious and cultural importance (cultural resources) within the APEs;

2) to identify all previous cultural resources investigations in the APEs; and,

3) to determine if previously recorded resources have been evaluated for their eligibility for listing on the National Register of Historic Places (NRHP). All cultural resource inventories shall comply with the *Secretary of the Interior's Standards/Guidelines for Identification (48FR190: 44720-44723).*

Reclamation and each SHPO have agreed that the following areas and conditions are exempt from pedestrian field survey inventories. These are: rights-of-way (ROW) in urban areas, ROWs that cross areas in which the Holocene soils have been removed (e.g. borrow ditches), soils in areas that have been thoroughly disturbed (e.g. the centerline of roads, borrow sources), inundated areas (e.g. wetlands), contemporary dumps and landfills, commercial feedlots and granaries. However, any building, structure, object, site, district or properties of traditional religious and cultural importance identified in these exempt areas or conditions during the Level I inventory shall be field-checked and the site forms updated.

2-3. Resource Documentation

Historic resources identified during pedestrian field cultural resource inventories shall be documented according to the *Secretary of the Interior's Standards/Guidelines for Historical Documentation* (48FR190: 44726-4473); architectural resources according to the *Secretary of the Interior's Standards/Guidelines for Architectural and Engineering Documentation* (48FR190: 44730-44734); and archaeological resources according to *Secretary of the Interior's Standards/Guidelines for Archeological Documentation* (48FR190:44734-44737). All archaeological and architectural cultural resources known or suspected to be greater than 50 years of age identified during the pedestrian field inventories will be recorded as required by the respective SHPO on site inventory forms.

Reclamation shall consult with Tribes with regard to identification and treatment of Traditional Cultural Places (TCP) and sacred sites that may be impacted by the Water Supply System. Properties of traditional religious and cultural importance may be documented with reference to *National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties*. Reclamation will ensure that information about traditional cultural properties, and spiritual places is kept confidential. In lieu of documentation to the level provided in the Bulletin 38 guidance, a minimal amount of information may be requested sufficient to minimize impacts on such places, and to maintain confidentiality.

2-4. Evaluation

All sites, buildings, structures, objects, and districts shall be evaluated for eligibility inclusion in the National Register of Historic Places in accordance with the *Secretary of the Interior's Standards for Evaluation* (48FR190: 44723-44726). Properties of traditional religious and cultural importance may be evaluated with reference to *National Register Bulletin 38:*

Guidelines for Evaluating and Documenting Traditional Cultural Properties. Properties less than 50 years in age and which do not qualify as an exception to that guideline shall be evaluated with reference to: *National Register Bulletin 22: Guidelines for Evaluating and Nominating Properties That Have Achieved Significance Within the Last 50 Years.*

Reclamation and each SHPO have determined that the following properties do not constitute historic properties, 36 CFR Part 800.16(l), and will not be recorded:

junkpiles/trash scatters less than 50 years in age
abandoned farm equipment
abandoned vehicles
metal granaries
quonset huts
windmills
wells
stock tanks
prefabricated storage sheds
isolated historic artifacts
foundations and/or parts of buildings
fencelines
field clearing rock piles
highways
modern roads
utility lines
drain tiles
culverts
signs
old bridge piers
isolated buildings, non-permanent or semi-permanent utilitarian structures
historic signs and monuments
survey markers and bench marks

2-5. Cultural Resource Treatment

The preferred method of treatment of historic properties will be the avoidance of adverse effects and the promotion of preservation. The project will be designed as technically, economically, and environmentally feasible to avoid or minimize the construction activities that may physically and visually affect historic properties. To the extent possible, physical avoidance will involve rerouting the project right-of-way and construction corridor so that all ground-disturbing activities are outside of and removed from the spatial boundaries of the historic property.

If historic properties will be affected, undertaking effects shall be assessed in accordance with 36 CFR Part 800.5, resolved according to 36 CFR Part 800.6 or if there is no resolution, according to 36 CFR Part 800.7, and documented in accordance with 36 CFR Part 800.11. Reclamation, in consultation with the SHPO, interested persons, and appropriate tribe, will develop treatment plans with a research design to mitigate the effects of the project on historic properties. These

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treatment plans will be documented in a memorandum of agreement, 36 CFR Part 800.16(o). Unless the SHPO and Council object within 30 days of receipt of the plans, Reclamation shall ensure that these plans are implemented. Activities on federal lands will follow the mandates of both NHPA and the Archaeological Resource Protection Act.

2-6. Collection and Disposition of Archeological Materials

The collection of artifacts and archaeological materials from surface pedestrian surveys is not to be considered a standard operating procedure under this agreement. However, the collection of diagnostic artifacts from sites shall be considered on a case by case basis. In addition to the specifications for site treatments defined in Section 2-5, a site treatment plan shall include a scope of collection statement consistent with the research design. The curation and deposition of artifacts and archaeological materials will vary according to the land ownership where the subject material is collected. Collections from federal lands, and from non-federal land in which the owner voluntarily surrenders the collection, will be curated by a facility meeting the standards of 36 CFR Part 79.

Private collections or materials collected from private land may be loaned for analysis by landowners. In such circumstances Reclamation shall ensure that all artifacts and other materials are maintained in accordance with 36 CFR 79 until analysis is complete, or after 90 days, whichever is sooner, they shall be returned to land owner or their heirs or assigns.

2-7. Project Monitoring

Ground disturbing activities in areas considered by Reclamation to have a high potential for buried paleosoils and cultural deposits, as defined by files and record searches and by the pedestrian field survey will be monitored by a professionally qualified archaeologist. If cultural resources are identified during monitoring, the stipulations in Section 2-8 Unanticipated Discovery shall apply.

2-8. Unanticipated Discovery

If a previously undiscovered cultural resource site is encountered during construction per 36 CFR Part 800.13 work within a minimum distance of 100 feet of the discovery will cease, except as necessary to secure and protect the discovery. Work will not resume until all activities to comply with 36 CFR Part 800.13 have been completed. If the discovery is on federal lands, Reclamation will consult with the appropriate federal land management agency, appropriate SHPO, and the Council to determine whether the discovery qualifies as a historic property. With acceptable planning for site treatment and avoidance and further avoidance of the site, work can continue in the project area at a minimum of 100 feet away.

If there is a discovery of human remains on federally managed land, the process described in Section 3 of the Native American Graves Protection and Repatriation Act (P.L. 101-601) shall be followed. If the discovery is on state or private lands, Reclamation will ensure compliance with state burial law. In all cases Reclamation will immediately notify local law enforcement and the appropriate State Archaeologist to determine procedures for securing and protecting the discovery, and for the treatment of the human remains. The same stipulations apply to human remains encountered during data recovery or any other activities subject to the terms of this Agreement. If the discovery is of a Native American, Reclamation shall notify the appropriate

tribes. In such cases Reclamation will consult with the State Archaeologist to have a tribal monitor present during the treatment of human remains.

2-9. Project Review

On or before January 1 of each year of active construction Reclamation shall provide an annual summary addressing the topics below. Copies will be made available to Lewis and Clark, the appropriate SHPO, and applicable tribes:

- ❑ Summary of the results of cultural resources surveys conducted in construction APEs.
- ❑ Summary of cultural resources sites identified, National Register of Historic Places (NRHP) eligibility and site treatment.
- ❑ Descriptions of unanticipated discovery of cultural resource sites and site treatment.
- ❑ Any changes that the agency believes should be made in implementation of this agreement.

A review of the annual report shall be conducted by the signatories to this agreement. Comments shall be provided to Reclamation within 30 days of receipt. Non-signatory parties to this agreement may review and comment at their discretion. At the request of any Signatory party to this agreement, the Reclamation shall ensure that a meeting or meetings are held to facilitate review and comment, to resolve questions, or to resolve adverse comments. Based on this review, the signatories to this agreement shall determine whether this agreement shall continue in force, be amended, or be terminated.

2-9. Amendments

If a signatory to this agreement determines that the terms of this Agreement cannot be met or believes a change is necessary, the signatory shall immediately request the consulting parties to consider whether an amendment is necessary in accordance with 36 CFR Part 800.14. Amendments will be executed in the same manner as the original Agreement.

2-10. Dispute Resolution

Should any party to this agreement object in writing to Reclamation any action carried out or proposed with respect to the undertaking or implementation of this agreement, Reclamation shall consult with the objecting party to resolve the objection. If after initiating such consultation Reclamation determines that the objection cannot be resolved through consultation, Reclamation shall forward all documentation relevant to the objection to the Council, including the proposed response to the objection. Within 30 days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

- ❑ Advise Reclamation that the Council concurs with the agency's proposed response to the objection, whereupon the Reclamation will respond to the objection accordingly;

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- ❑ Provide Reclamation with recommendations, which the agency shall take into account in reaching a final decision regarding its response to the objection; or

- ❑ Notify Reclamation that the objection will be referred for comment pursuant to 36 CFR 800.7(a)(4), and proceed to refer the objection and comment. Reclamation shall take the resulting comment into account in accordance with 36 CFR 800.7(c)(4) and Section 110(l) of NHPA

Should the Council not exercise one of the above options within 30 days after receipt of all pertinent documentation, Reclamation shall assume the Council's concurrence with its proposed response to the objection.

Reclamation shall take into account any Council recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; Reclamation's responsibility to carry out all actions under this agreement that are not the subjects of the objection shall remain unchanged.

At any time during implementation of the measures stipulated in this agreement, should an objection pertaining to this agreement or the effect of the undertaking on historic properties be raised by a member of the public, the agency shall notify the parties to this agreement and take the objection into account, consulting with the objector and, should the objector so request, with any of the parties to this agreement to resolve the objection.

2-11. Termination

Any party to this Agreement may terminate it by providing sixty (60) days notice to the other parties, provided that the parties will consult prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, Reclamation will comply with 36 CFR Part 800.4 through 800.7 with regard to individual undertakings covered by this Agreement. Except for Reclamation, termination of a party does not nullify the Agreement.

In the event Reclamation does not carry out the terms of this Agreement, Reclamation shall comply with 36 CFR Part 800.4 through 800.7 with regard to individual undertakings covered by this Agreement.

2-12. Intentional Violations.

Reclamation will not grant a loan, loan guarantee, permit, license, or other assistance to a party who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property, or having legal power to prevent it, allowed an adverse effect to occur, unless Reclamation, after consultation with the Council determines that circumstances justify granting assistance despite the adverse effect created or permitted by the party.

This Agreement has been prepared in accordance with 36 CFR Part 800.14. Execution and implementation of this Agreement are evidence that Reclamation has taken into account the

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effects of activities associated with the construction, operation, and maintenance of the Water Supply System on historic properties, and has afforded the IA-SHPO, MN-SHPO , SD-SHPO, Lewis and Clark, and the Council, an opportunity to comment. Execution and implementation of this Agreement satisfies Reclamation's responsibilities under the NHPA for all activities associated with the Water Supply System.

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Bureau of Reclamation:

By:_____ Date:_____
Mr. Dennis Breitzman
Area Manager, Dakotas Area Officer

Iowa State Historic Preservation Office:

By:_____ Date:_____
Mr. Lowell Soike, Deputy State Historic Preservation Officer

Minnesota State Historic Preservation Office:

By:_____ Date:_____
Ms. Nina Archabal, State Historic Preservation Officer

South Dakota State Historic Preservation Office:

By:_____ Date:_____
Mr. Jay Vogt, State Historic Preservation Officer

Advisory Council on Historic Preservation:

By:_____ Date:_____
Dr. Don Klima
Executive Director, Advisory Council on Historic Preservation

Lewis and Clark Rural Water System, Inc.

By:_____ Date:_____
Ms. Pam Bonrud, Executive Director

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APPENDIX F:

KNOWN CULTURAL RESOURCE SITES

Table F.1 List of Known Cultural Resource Sites Within the Lewis and Clark Water Supply Study Area, 2002.

Site Number	Description	Eligibility[1]	USGS Quadrangle
Iowa			
13CY7	Stone circles, lithics	U	Spencer
13DK27	Prehistoric artifact scatter (Late Woodland)	U	Spirit Lake
13DK29	Prehistoric artifact scatter	U	Spirit Lake
13DK38	Prehistoric artifact scatter	U	Spirit Lake
13DK71	Prehistoric artifact scatter	U	Spirit Lake
13DK88	Prehistoric artifact scatter	U	Spirit Lake
13DK89	Prehistoric artifact scatter	U	Spirit Lake SE
13LO191	Prehistoric-one flake	NE	Klondike
13LO192	Prehistoric artifact scatter	U	Klondike
13LO210	Prehistoric artifact scatter	NE	Klondike
13LO211	Prehistoric artifact scatter	U	Klondike
13LO212	Prehistoric artifact scatter	NE	Klondike
13LO213	Prehistoric artifact scatter	NE	Klondike
13LO214	Prehistoric artifact scatter	NE	Klondike
13LO215	Prehistoric artifact scatter	U	Klondike
13LO216	Prehistoric artifact scatter	NE	Klondike
13LO246	Prehistoric artifact scatter	U	Klondike
13LO252	Prehistoric artifact scatter	U	Larchwood
13LO253	Prehistoric camp	U	Larchwood
13LO254	Prehistoric artifact scatter	U	Larchwood
13LO261	Prehistoric artifact scatter	U	Klondike
13LO401	Prehistoric artifact scatter	U	Klondike
13LO402	Mounds	U	Klondike
13LO403	Historic artifact scatter	U	Klondike
13LO404	Historic park	U	Klondike
13LO405	Prehistoric artifact scatter	U	Klondike
13LO430	Prehistoric camp	U	Rock Rapids
13SX65	Historic artifact scatter	NE	Hull
13SX66	Historic artifact scatter-farmstead	NE	Hull
13SX67	Historic artifact scatter-farmstead	NE	Hull
13SX68	Historic artifact scatter	NE	Hull
Minnesota			
RK-LVT-4	Bridge L2239	NE	Hills NE
RK-LVC-32	Bridge L-2257	E	Luverne
RK-MGT-5	Bridge L2170	E	Luverne
South Dakota			
14-105-209	Bridge	E	Vermillion
14-108-213	Bridge	E	Vermillion

Table F.1 (Continued)

Site Number	Description	Eligibility[1]	USGS Quadrangle
39CL9	Bliss Hill Site; possible Oneota artifact scatter	E	Vermillion
39 CL10	Archaic bison kill site	P	Vermillion
39CL11	Prehistoric artifact scatter	P	Vermillion
39CL2007	Chicago, Milwaukee, St. Paul and Pacific Railroad	E	Vermillion
39CL2034	Old West Street	U	Vermillion
39LK31	Prehistoric artifact scatter	U	Lake Madison
39LK33	Prehistoric artifact scatter	U	Wentworth
39LK34	Prehistoric artifact scatter	NE	Wentworth
39LK35	Historic artifact scatter	U	Wentworth
39LK36	Prehistoric artifact scatter	P	Colton
39LN2	Blood Run Village	L	Klondike
39LN15	Heath Site: Late Prehistoric village	U	Klondike
39LN16	Isolated find: flake	U	Canton
39LN19	Prehistoric artifact scatter	U	Lennox
39LN34	Prehistoric artifact scatter	U	Klondike
39LN35	Prehistoric artifact scatter	U	Klondike
39LN36	Prehistoric artifact scatter	U	Klondike
39LN37	Historic features	U	Klondike
39LN38	Prehistoric artifact scatter	U	Klondike
39LN39	Prehistoric artifact scatter	U	Klondike
39LN40	Depression/Grave marker?	U	Klondike
39LN41	Farmstead	U	Klondike
39LN61	Prehistoric artifact scatter	U	Harrisburg
39LN62	Prehistoric artifact scatter	U	Tea
39MH86	Prehistoric artifact scatter	U	Sioux Falls West
39MH99	Prehistoric artifact scatter	NE	Sioux Falls East
39MH100	Prehistoric artifact scatter	U	Sioux Falls East
39MH111	Historic artifact scatter	NE	Colton SE
39MH117	Prehistoric/Historic artifact scatter	U	Crooks
39MH118	Farmstead	NE	Crooks
39MH167	Isolated Find: retouched cobble	U	Sioux Falls East
39MH171	Isolated Find: core	U	Sioux Falls East
39MH179	Prehistoric/historic artifact scatter	NE	Colton SE
39MH180	Isolated find: flake	NE	Colton SE
39MH182	Historic features, artifact scatter	U	Crooks
39UN2	Prehistoric artifact scatter	U	Hawarden North

[1] E = eligible to the NRHP; L = listed as eligible to the NRHP; NE = not eligible to the NRHP; P = potentially eligible to the NRHP; U = unevaluated.

5832-3

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

April 24, 2006

Mr. Troy Larson, Executive Director
Lewis & Clark Rural Water System
401 East 8th Street, Suite 306
Sioux Falls, South Dakota 57103

Dear Troy:

The Department of Environment and Natural Resources (department) is in receipt of three copies of the Plans and Specifications for the Sites C & D Well Field Production Wells for the Lewis and Clark Rural Water System. The department has reviewed and hereby approves the plans and specifications for the project contingent upon the following qualifications:

General Qualification:

1. In accordance with the Administrative Rules of South Dakota (ARSD) §74:03:06:08, the Department of Environment and Natural Resources shall be notified when works or systems or both constructed in accordance with approved plans and specifications are place in service.

2. The department recommends that the project sponsor apply to obtain a water right permit to construct and place to beneficial use water reserved by Future Use Permit No. 5832-3 for the wells that have been completed and the well anticipated to be completed with these specifications. South Dakota statute (§46-5-9) provides that a permit shall be obtained prior to beginning "any construction of works for the storing or carrying water until a permit to appropriate the water has been issued." Additionally, §46-5-10 provides: "Any person intending to acquire a right to beneficial use of water shall, before starting construction or placement of works for that purpose or before taking the water from any constructed works, make an application to the Water Management Board for a permit to appropriate water, in the form required by rules promulgated pursuant to chapter 1-26 by the board." For more information on obtaining a water right permit, contact Eric Gronlund with the Water Rights Program at 605.773.3352.

3. The Advertisement for Bids currently calls for bids to be delivered to the project sponsor marked "ATTEN: SEALED BID – TREATED WATER PIPELINE – SEGMENT 3B & 5." This should be changed to reflect the well drilling project.

Well Construction Qualifications:

4. Section 02580, Part2 – Products, subsection 2.1 Acceptable Manufacturers, A. 2. provides for the use of bentonite chips. Bentonite chips are not an acceptable material and should be replaced with bentonite grout.

5. Section 02580, Part 3 – Execution, section 3.3 Field Quality Control, subsection E Pump Test Well Disinfection, point4.a, provides the contact name of Lonnie Steinke for more information. Mr. Steinke no longer works at the department and the contact should be revised to have the contractor simply contact the Surface Water Quality Program.

Drawings

6. Figure 4 – Temporary Observation Wells. The use of bentonite chips must be replaced with bentonite grout.

If any deviations are required from the approved plans and specifications, the department must approve those changes and all change orders prior to construction. A complete set of as-built plans may be required if several major deviations result.

Our review is primarily to determine compliance with the minimum sanitary engineering requirements and does not cover items such as quality of materials, structural soundness, electrical, or mechanical design features. Approval of the plans and specifications does not in any way release the applicant from the responsibility that the project will be an operable facility when construction is complete.

If you have any questions, please contact this office.

Sincerely,

David Ryan, PE
Natural Resources Engineering Director
Water Resources Assistance Program
Phone: (605) 773-4216

cc: Tim Connor, Banner Associates Inc., Brookings
Ted Hall, Bureau of Reclamation, Pierre
Eric Gronlund, Water Rights Program, DENR

5832-3

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

April 8, 2009

Lewis & Clark Rural Water System, Inc.
Troy Larson, Manager
401 E 8th St
Suite 306
Sioux Falls SD 57103

Dear Mr. Larson:

I am writing in regard to the seven year review of Future Use Water Permit No. 5832-3 from collection wells (Missouri:Elk Point Aquifer) which is held by the system. 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 system. Currently, our records show that 6,835 acre-feet remain in reserve under this future use permit that was issued in 1995 and last reviewed in July, 2002.

Please respond in writing by May 15, 2009, 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. 5832-3 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. 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.

Please contact Eric Gronlund, if you have any questions.

Sincerely,

Karen Schlaak

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

Schlaak, Karen

From: Gronlund, Eric
Sent: Tuesday, April 28, 2009 4:53 PM
To: 'Dave Odens'
Subject: RE: question related to renewal of Lewis and Clark Water Right 5832-3

Future Use Permit 6869-3 dates back to 2007 for the 8,700 ac-ft. My review indicates that this was an entirely new FU permit at this separate location. At least, my review of the two permits does not show duplication in the legal descriptions. Permit No. 6869-3 will not come due for the required 7 year review until 2014. It will not be part of the upcoming FU review to be conducted for No. 5832-3.

In summary, 6835 ac-ft is reserved at Mulberry Point site by No. 5832-3 & 8700 ac-ft is reserved at the second site by No. 6869-3. At some point in the future, amendments may be filed by Lewis & Clark to expand the future use area.

If you think differently, let me know and we'll work through it. Eric

-----Original Message-----
From: Dave Odens [mailto:daveo@bannerassociates.com]
Sent: Tuesday, April 28, 2009 4:36 PM
To: Gronlund, Eric
Subject: RE: question related to renewal of Lewis and Clark Water Right 5832-3

Thanks – we will proceed that way.

5832-3 is the original future use permit and covered the wells on Mulberry Point. When additional capacity was reserved (8700 AF in 2006) the area identified in the permit was expanded to include the area around Clay County Park. Was that an amendment to this permit or a new permit number?

It affects the legal description of the area identified on the permit.

David Odens, PE, SD, MN, IA, WY
Division Director, Water Resources Division

BANNER
Engineering | Architecture | Surveying

Banner Associates, Inc.
409 22nd Ave So | PO Box 298
Brookings, South Dakota 57006
Tel | 605.692.6342 Fax | 605.692.5714
www.bannerassociates.com

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From: Eric.Gronlund@state.sd.us [mailto:Eric.Gronlund@state.sd.us]
Sent: Tuesday, April 28, 2009 4:15 PM
To: Dave Odens

Subject: RE: question related to renewal of Lewis and Clark Water Right 5832-3

Dave

Future Use Permit No. 5832-3 has 6,835 acre feet of water remaining in reserve. The standard for review on whether the permit may remain in effect is that the permit holder demonstrate a reasonable need for the reserved water (SDCL 46-5-38.1). This does not necessitate a resolution adopted by the board of directors. I believe the justification can be in the form of a letter signed either by the Chairman, the Executive Director Troy Larson or yourself acting as their consultant which adequately demonstrates a reasonable need at some point in the future.

Hope this helps, Eric

-----Original Message-----
From: Dave Odens [mailto:daveo@bannerassociates.com]
Sent: Tuesday, April 28, 2009 3:57 PM
To: Gronlund, Eric
Subject: question related to renewal of Lewis and Clark Water Right 5832-3

Eric

I am going through the files and preparing the request for renewal of future use permit 5832-3 for Lewis and Clark. I note that in the original application for the permit and in the renewal in 2002 there was a resolution from the board of directors of Lewis and Clark in addition to to the completed application form, fees, and progress report on the project. Is the resolution from the board needed? If so, I will request a special conference call meeting to get that resolution approved, if not, we can skip that step and simply include the other information applicable to the renewal request.

Thank you in advance for your response to this question

David Odens, PE, SD, MN, IA, WY
Division Director, Water Resources Division

BANNER
Engineering | Architecture | Surveying

Banner Associates, Inc.
409 22nd Ave So | PO Box 298
Brookings, South Dakota 57006
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www.bannerassociates.com

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of this communication is strictly prohibited. Please reply to the sender that you have received the message in error, and permanently delete the original and destroy any copy, including written (printed) copies of this email and any attachments thereto. Thank You.

Lewis & Clark
REGIONAL WATER SYSTEM
401 E. 8th St., #306
Sioux Falls, SD 57103
www.lcrws.org
Phone: 605.336.8688
Fax: 605.336.8696

Department of Environment and Natural Resources
Water Rights Program
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

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MAY 12 2009
WATER RIGHTS PROGRAM

Attn. Karen Schlaak

RE: Renewal of Future Use Permit
Number 5832-3 for the
Lewis & Clark Regional Water System

Dear Ms. Schlaak:

The Lewis & Clark Regional Water System (LCRWS) is hereby requesting renewal of Future Use Permit No. 5832-3 for the Lewis and Clark Rural Water System. The permit reserves water for an annual use of up to 6,835 acre-feet of water per year for municipal use by the Lewis & Clark Regional Water System. A copy of the request for renewal is attached.

The Lewis and Clark Rural Water System is a Federally authorized project and has received federal funds pursuant to that authorization in each of the last nine federal fiscal years. Phase 1 of the water treatment plant is currently under construction and phase 2 will be bid in May, 2009. The transmission pipeline to Sioux Falls is nearing completion, putting the project on a schedule to begin operation in early 2012. Renewal of this future use permit is vital to the long term viability of the Lewis & Clark Regional Water System.

The project is being planned with capacity to provide a supplemental water supply for 20 public water systems in South Dakota, Iowa, and Minnesota. The participating water systems have requested that the system be designed to meet a peak day water demand of 44.2 million gallons per day. The treated water demands, as listed below, serve as the basis for the current design for the project. The demands include the additional 17 MGD requested by the City of Sioux Falls in 2006.

South Dakota	11 utilities	36.56 MGD	82.745% of total demand
Iowa	5 utilities	3.50 MGD	7.920% of total demand
Minnesota	4 utilities	4.13 MGD	9.335% of total demand
Total	20 utilities	44.19 MGD	100.0%

Lewis & Clark
REGIONAL WATER SYSTEM
401 E. 8th St., #306
Sioux Falls, SD 57103
www.lcrws.org
Phone: 605.336.8688
Fax: 605.336.8696

The Lewis and Clark Rural Water System intends to develop water supply pumping capacity of approximately 49.6 million gallons per day in order to meet the treated water demands listed. The water demands of the membership are expected to fully utilize the capacity reserved under permit 5832-3 when the system is fully operational. A series of wells including vertical wells and four or more angle or radial collector wells will be used.

The schedule for construction of the water system will be governed in large part by the level of funding provided through the state and federal grant programs established for the project. The project sponsors anticipate the system will be operational, treating water from the Missouri: Elk Point aquifer in 2012 and providing treated water to Sioux Falls and neighboring water utilities at that time.

In summary, the Lewis and Clark Rural Water System is diligently moving forward with the design and construction of the proposed water system, there is a need for the water, and the water will be appropriated for municipal, residential and industrial uses for delivery through existing public water systems. The Lewis and Clark Rural Water System hereby requests renewal of Future Use Permit 5832-3 for an appropriation of up to 6835 acre-ft of water per year from the Missouri-Elk Point Aquifer.

If you have any questions, please contact Troy Larson at 605-336-8688 or David Odens or Tim Conner at 605-692-6342.

Sincerely

Troy Larson

Troy Larson, Exec. Director
Lewis and Clark Rural Water System

Attachment – Application for Renewal
Renewal fee

SD EForm - 1585 V2
FORM 2: Application for uses other than irrigation
(type or print)

Mail to:	(office use only)
Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. _____ Hydrologic Unit _____ Basin _____ Newspaper _____

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

Check use(s) of water:

- ☐ Municipal
- ☑ Rural Water System
- ☐ Domestic (over 18 gpm)
- ☐ Suburban Housing
- ☐ Commercial
- ☐ Industrial
- ☐ Recreational
- ☐ Fish & Wildlife
- ☑ Other Renewal of Permit No. 5832-3
- ☐ Institutional
- ☐ Geothermal Heat

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.)

This is a request for renewal of Future Use Water Permit No. 5832-3 for diversion of water from wells in the Missouri: Elk Point aquifer near Vermillion, SD

1. Name of Applicant Lewis and Clark Regional Water System Phone (605) 336-8688
(check one) ☐ Owner ☐ Tenant/lessee
Mailing Address 401 East 8th St., Suite 306 Sioux Falls State SD 57006
(Street, RR, or Box and City) (Zip Code)

2. Amount of water claimed _____ *CFS or _____ **GPM 6835 ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Missouri: Elk Point Aquifer, Clay County, South Dakota

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Clay
Series of wells located in Sections 1, 2, (T91N, R52W) and Section 35 and 36 (T92N, R52W) South Dakota Survey. See reproduction of map from the original application attached to this request for renewal.

5. County or counties where water will be used South Dakota- Clay, Lake, Lincoln, McCook, Minnehaha, Turner

6. Annual period during which water is to be used January 1 through December 31 each year

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

Water will be used as the water supply for the Lewis and Clark Regional Water System serving a total of 20 member water utilities in South Dakota, Iowa, and Minnesota. Counties served in Iowa will include Lyon, Sioux, Osceola, and O'Brien. Counties served in Minnesota will include Rock and Nobles. Counties served in South Dakota will include Clay, Lake, Lincoln, McCook, Minnehaha, and Turner.

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

STATE OF SOUTH DAKOTA) SS
County of Minnehaha)

I, Troy Larson, 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 Troy Larson

Subscribed and sworn to before me this 1st day of May 20 09

LORI SETEN
NOTARY PUBLIC
SOUTH DAKOTA
SEAL SEAL

Lori Seten
Notary Public signature
Expires: Feb. 6, 2011

2-2007

Form 2A **Supplemental Information**
(Complete applicable portions only)

(type or print in ink)

1. Well Information - Proposed Construction

a) Drill Hole Diameter _____ Depth _____

b) Casing Type _____ Diameter _____ Thickness _____

c) Screen Type _____ Diameter _____ Thickness _____

d) Gravel Pack _____ Length of Gravel Pack _____

e) Depth to Top of Water Bearing Material _____

f) Depth to Water (ground surface to water level) _____

g) Distance to nearest existing domestic well:

On applicants property _____ On property owned by others _____

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) _____

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

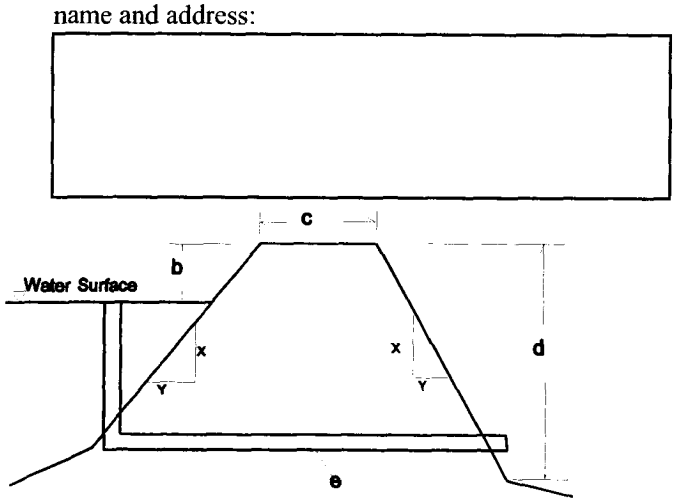
a) Surface Dimensions _____ Depth _____

b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

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



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 _____

Upstream _____

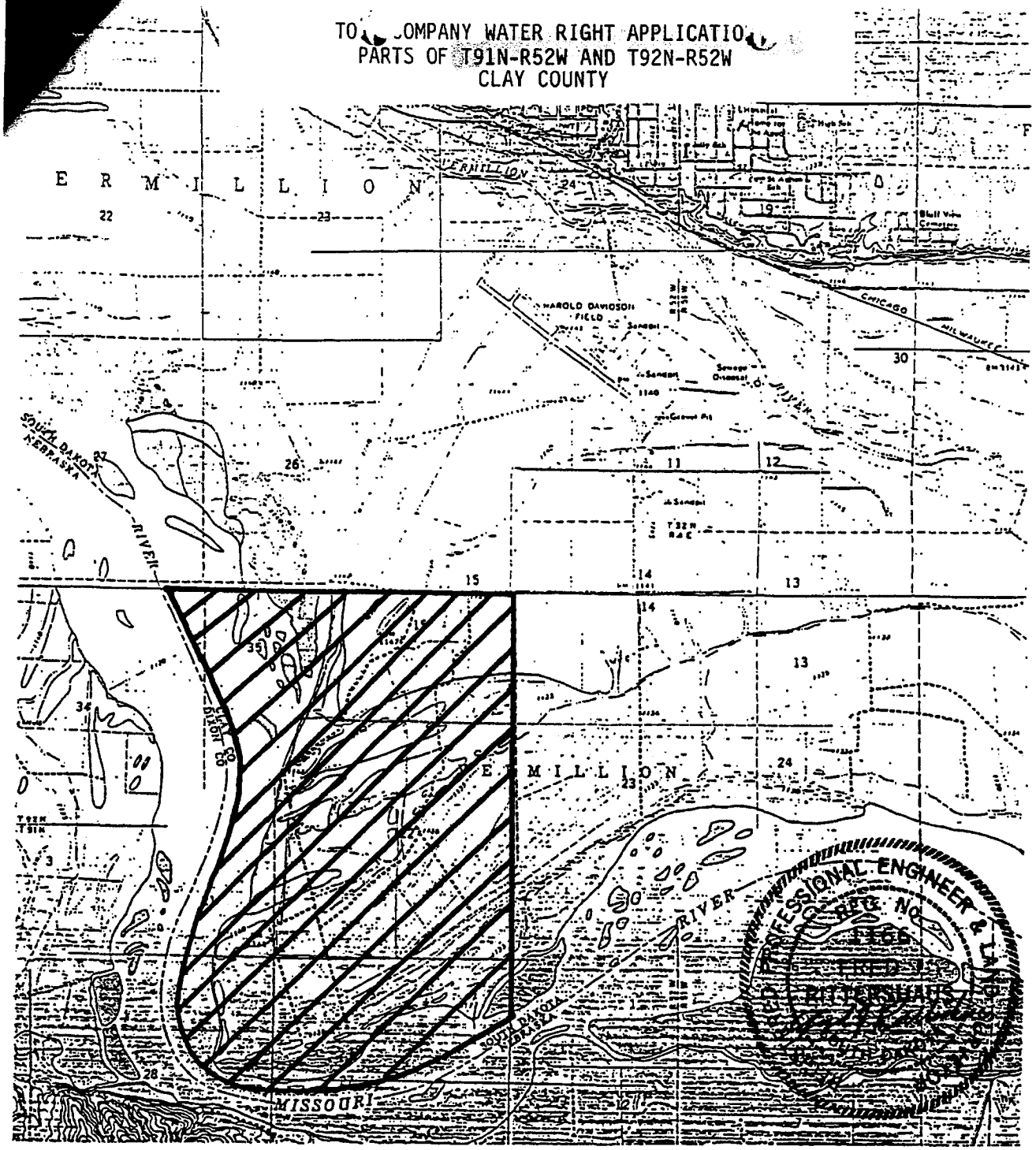
Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres

TO[illegible]OMPANY WATER RIGHT APPLICATIO[illegible]
PARTS OF T91N-R52W AND T92N-R52W
CLAY COUNTY



SURVEYOR'S CERTIFICATION

I, Fred Rittershaus, a Registered Land Surveyor in the State of South Dakota, do hereby certify that at the request of the Lewis and Clark Rural Water System, Sioux Falls, South Dakota, I did preparethe map on this sheet from existing Information and that I did survey and locate the sites for which application for and appropriate water rights to withdraw from underground, Missouri River waters for municipal and rural supply purposes is made, and that this map is a true representation thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 23rd day of June, 1994

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Fred V. Rittershaus, P.E. & L.S.
Registered Land Surveyor # 1166

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
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JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
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RECOMMENDATION OF CHIEF ENGINEER FOR FUTURE USE WATER PERMIT NO. 5832-3, Lewis & Clark Rural Water System, Inc.

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. 5832-3, Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

The Chief Engineer is recommending that Future Use Permit No. 5832-3 REMAIN in EFFECT for 6,835 acre-feet annually because 1) there is reasonable probability that there may be development of the water reserved under Permit No. 5832-3, 2) the system has demonstrated a reasonable need for the water reserved by Permit No. 5832-3, 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. 5832-3 is subject to payment of the $625.00 fee pursuant to SDCL 46-2-13(2) within 60 days of notice to the system after the Board hearing.

Garland Erbele

Garland Erbele, Chief Engineer
June 2, 2009

NOTE: Please be advised that the Legislature passed a bill this year raising all Water Rights Program filing fees. The fee increases become effective July 1, 2009.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
PMB 2020
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PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

June 2, 2009

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

Lewis & Clark Rural Water System, Inc.
Troy Larson, Director
401 E 8th St, Suite 306
Sioux Falls SD 57103

Dear Mr. Larson:

Future Use Permit No. 5832-3 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 each county where water will be diverted or used. The notice of this review has been sent to the publishers of the following papers.

Sioux Valley News, Canton 605 764-2000
Leader-Courier, Elk Point 605 356-2632
Salem Special, Salem 605 425-2361
Argus Leader, Sioux Falls 605 331-2200
Plain Talk, Vermillion 605 624-2695
The New Era, Parker 605 297-4419
Daily Leader, Madison 605 256-4555

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 NEWSPAPERS IMMEDIATELY TO AUTHORIZE PUBLICATION OF THE NOTICE OF HEARING AND TO ARRANGE FOR PAYMENT. Early contact with the papers can eliminate delays. The publishers have been instructed to publish the notice once each week for two consecutive weeks with the last publication to occur at least twenty days before the board meeting. 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

Instruction to Newspaper-Publish first publication of the following Notice on June 12, 2009 with 2nd publication 7 days later. The permit owner 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 HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103 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. 5832-3. This permit was approved 1995 currently reserves 6,835 acre feet from collection wells (Missouri:Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide future water supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 6,835 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. 5832-3 at 10:30 am, July 8, 2009 at the Floyd Mathew 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 June 29, 2009. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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. 5832-3 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 may be an adversarial 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 June 29, 2009. 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 June 29, 2009. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

June 2, 2009

Sioux Valley News
213 E 5th St
Canton SD 57013

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 11, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at 605 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication**. The APPLICANT is Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at 605 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form**. The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of June 2, 2009 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____

Name Newspaper

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

June 2, 2009

Daily Leader
PO Box 348
Madison SD 57042

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 11, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at 605 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication**. The APPLICANT is Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at 605 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form**. The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

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_____ _____
Name Newspaper

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

June 2, 2009

Southern Union County Leader-Courier
PO Box 310
Elk Point SD 57025

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 11, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at 605 773-3352.

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enclosures

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Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

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

June 2, 2009

Salem Special
PO Box 220
Salem SD 57058

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 11, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at 605 773-3352.

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Eric Gronlund
Natural Resources Engineer
605 773-3352

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Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

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Name Newspaper

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

June 2, 2009

The New Era
PO Box 579
Parker SD 57053

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 11, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at 605 773-3352.

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Natural Resources Engineer
605 773-3352

enclosures

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TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

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

June 2, 2009

Argus Leader
PO Box 5034
Sioux Falls SD 57117

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 11, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at 605 773-3352.

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Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

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_____ _____
Name Newspaper

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

June 2, 2009

Plain Talk
PO Box 357
Vermillion SD 57069

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on June 12, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at 605 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication**. The APPLICANT is Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

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Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

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TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

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_____ _____
Name Newspaper

RECEIVED

JUN 2 2 2009

WATER RIGHTS PROGRAM

AFFIDAVIT OF PUBLICATION

Madison Daily Leader 1M

AFFIDAVIT OF PUBLICATION

OK

STATE OF SOUTH DAKOTA }
} ss.
County of Lake }

Sue Anne Artko of the City of Madison, County of Lake, State of South Dakota, being first duly sworn on oath, deposes and says:

The Madison Daily Leader is a daily legal newspaper of general circulation, printed and published in the City of Madison, in said County of Lake, by Hunter Publishing, Inc., Jon M. Hunter, publisher, and has been such legal newspaper during the times hereinafter mentioned; that the said Madison Daily Leader has been in existence as such legal newspaper for more than one year prior to the publication of the notice hereunto attached, and has during all of said time had, and how has, more than 200 bona fide subscribers; that the undersigned, the affiant, is the Secretary of the said newspaper, in charge of the advertising department thereof and has personal knowledge of all the facts stated in this affidavit and the advertisement headed

Lewis & Clark Rural Water System Inc

Notice of Hearing to Review Future Use Water Permit #5832-3

printed copy of which hereunto attached, was printed and published in the said newspaper for Two successive weeks, once each week and on the same day of the week, on the following dates, to-wit:

On Thursday, the 11th day of June, 20 09;
On Thursday, the 18th day of June, 20 09;
On ....., the ..... day of ....., 20.....;
On ....., the ..... day of ....., 20.....;
On ....., the ..... day of ....., 20.....;
On ....., the ..... day of ....., 20.....;
On ....., the ..... day of ....., 20.....;
On ....., the ..... day of ....., 20.....;

That $ 79.53 being the full amount of the fees for publication of the attached notice inures solely for the benefit of the publisher of the said newspaper; that no arrangement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.

Sue Anne Artko

Subscribed and sworn to before me this 19th day of June, 20 09

ANN L. KOCH
NOTARY PUBLIC
SOUTH DAKOTA
SEAL SEAL

Ann L. Koch

Notary Public, Lake County, South Dakota

Thursday, June 11 & 18

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103 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. 5832-3. This permit was approved 1995 currently reserves 6,835 acre feet from collection wells (Missouri:Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide future water supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 6,835 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. 5832-3 at 10:30 am, July 8, 2009 at the Floyd Mathew 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 June 29, 2009. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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.

Public
Notary
Receiv

In ..... Court

County of .....

AFFIDAVIT OF PUBLICATION

Filed in the office of ..... on the

..... day of .....

20 .....

Attorneys for .....

The hearing to review Future Use Permit No. 6928-3 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 may be an adversarial proceeding. The permit owner or any person, after filing a petition, has the right to intervene and 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 Gronland, Water Rights Program, (605 773-3352) by June 29, 2009. The time of the hearing will be automatically delayed for at least 20 days upon written request of the p... owner or any person who has ... petition to oppose or ... continuance of the Future ... The request for a dela... with the Chief En... 2009.

Environme...

AFFIDAVIT OF PUBLICATION

State of South Dakota, County of Clay, ss.

Penny Tucker

Being first duly sworn, deposes and says: That he/she is a resident of the County of Clay and State of South Dakota; that

THE PLAIN TALK

is a legal newspaper of general circulation, printed and published in Vermillion, in said County and State, by Yankton Media, Inc., and is now and has been such newspaper continuously during all the times hereinafter mentioned; that affiant is and was during all the time hereinafter mentioned in charge of the advertising department thereof, and has personal knowledge of all the facts stated in this affidavit: and that the notice and advertisement headed:

NOTICE OF HEARING TO REVIEW FUTURE USE

WATER PERMIT NO. 5832-3

a printed copy of which is hereunto attached and made a part hereof, was printed and published in the said newspaper at least once in each week

for 2 successive weeks; that said newspaper at the time of the first publication of said notice hereinafter stated, had, and still has, a bona fide circulation of over two-hundred paid copies weekly, and had been published in the said county of Clay for more than one year immediately prior to the date of the said publication of said notice, and that said newspaper during said times, was, and is, printed in part in an office maintained at said city of Vermillion, the said place of publication; that the first publication of said notice in said newspaper as aforesaid

was on Friday, the 12th day of June 20 09,
and that the succeeding publications were severally

on Friday, the 19th day of June, 20 09,

on Friday, the _____ day of _____, 20 _____,

on Friday, the _____ day of _____, 20 _____,

on Friday, the _____ day of _____, 20 _____,

that the fees charged for the printing and publication of the said notice and advertisement in said newspaper as aforesaid were

Seventy-six dollars and 27 cents

and that said fees for the printing and publishing of said notice and advertisement have been fully paid; that the full amount of the fee charged for the publishing of the said attached annexed notice and advertisement inures to the benefit of the publisher of the 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 other person whomsoever.

Penny Tucker

Subscribed and sworn to before me

this 22nd day of June, 20 09

Notary Public

My Commission Expires 5/23/11

RECEIVED
JUN 24 2009
WATER RIGHTS PROGRAM

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103 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. 5832-3. This permit was approved 1995 currently reserves 6,835 acre feet from collection wells (Missouri:Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide future water supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 6,835 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. 5832-3 at 10:30 am, July 8, 2009 at the Floyd Mathew 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 June 29, 2009. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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. 5832-3 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 74:02:01:25.08 and contested case procedures contained in SDCL 1-26.

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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 June 29, 2009. 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 June 29, 2009.

Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Publish: June 12 & 19, 2009

Published twice at the total approximate cost of $76.27

Estimated publishing cost per circulated copy: $.02

AFFIDAVIT OF PUBLICATION-
Customer Number: 078340
Invoice Number: 1213482

SD Dept of Environment & Natural Resources

Argus Leader
AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

COUNTY OF MINNEHAHA } ss

Linda Schulte being duly sworn, says: That The Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper as defined by SDCL 17-2-21, as amended published at Sioux Falls, Minnehaha County, South Dakota; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached, was published in said newspaper upon

Thursday ,the 11 day of June 2009 ,

Thursday ,the 18 day of June 2009 ,

_____ ,the _____ day of _____ 2009 ,

_____ ,the _____ day of _____ 2009 ,

_____ ,the _____ day of _____ 2009 ,

_____ ,the _____ day of _____ 2009 ,

_____ ,the _____ day of _____ 2009 ,

and that $173.42 was charged for publishing the same

Linda Schulte

Subscribed and sworn to before me 6/18/2009 .

J. Zimmerman

Notary Public, South Dakota

My Commission expires December 22, 2009

JACQUELINE ZIMMERMAN
SEAL NOTARY PUBLIC SOUTH DAKOTA SEAL

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103 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. 5832-3. This permit was approved 1995 currently reserves 6,835 acre feet from collection wells (Missouri:Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide future water supplies for the system.

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Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

1213482 June 11 & 18, 2009

RECEIVED
JUN 22 2009
WATER QUALITY PROGRAM

RECEIVED
JUN 22 2009
WATER RIGHTS
PROGRAM

Public Notice

idavit of Publication

AFFIDAVIT OF PUBLICATION

SOUTH DAKOTA)
)SS
F McCOOK)

WANS of said County and State, being first duly sworn on
/s THE SALEM SPECIAL is a weekly newspaper of general
printed and published in Salem, McCook County and State
kota, and has been such newspaper during the times here-
ioned; that the said newspaper is a legal newspaper, that it
ide circulation of more than 200 copies weekly, that it has
ied within said County of McCook for more than fifty-two
veeks prior to the publication of the notice hereinafter men-
as been printed during said period and at the present time,
in office maintained at said place of publication; and that I,
ined, am publisher or employee of said newspaper, in
advertising department thereof, and have personal knowl-
cts in this affidavit;

rtisement headed.....
.....Notice of Hearing.....
.....
.....

y of which is hereto attached, was printed and published in
er for. . 2 . weeks; that said notice was published in the
paper on the dates as follows, to wit:

cation being made on
.....June 11.....,20 09.

6-11,18 blication on.....June 18.....,2009.

the third publication on.....,20....

the fourth publication on.....,20....

the fifth publication on.....,20....

the sixth publication on.....,20....

and the last publication on.....,20....

that $ 7.83 . being the full amount of the fees for publication of the annexed notice, insures solely to the benefit of the publisher of the said newspaper; that no agreement or understanding for a division thereof has been made with any person; and that no part thereof has been agreed to be paid to any person whomsoever.

.....

Subscribed and sworn to before me this.....18th.....

day of.....June.....,2009.

.....Tamara E. Paulsen.....

Notary Public,.....McCook..... County

My commission expires.....08-09-14.....

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103 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. 5832-3. This permit was approved 1995 currently reserves 6,835 acre feet from collection wells (Missouri:Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide future water supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 6,835 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. 5832-3 at 10:30 am, July 8, 2009 at the Floyd Mathew 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 June 29, 2009. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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. 5832-3 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 may be an adversarial 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 June 29, 2009. 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 June 29, 2009. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Affidavit of Publication

RECEIVED
SEP 2 8 2009
WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA
COUNTY OF TURNER } :SS

I, **Robin Schneider** of the City of Parker, County of Turner, State of South Dakota, being first duly sworn on oath, deposes and says:

The New Era is a weekly legal newspaper of general circulation, printed and published in the city of Parker, in said County of Turner, by The New Era, New Century Press, publishers, and has been such legal newspaper during the times hereinafter mentioned; that the said newspaper has been in existence as such legal newspaper for more than one year prior to the publication of the notice herunto attached, and has during all of said time had, and now has, more than 200 bona fide subscribers; that the undersigned, The affiant is the **Office Manager** of the said newspaper, in charge of the advertisement department thereof and has personal knowledge of all the facts stated in the affidavit and the advertisement headed:

Legal #4695 Notice of hearing to review future use water permit No. 5832-3

Printed copy of hereto attached, is printed and published in the said newspaper for two successive weeks, once each week and on the same day of the week, on the following dates, to-wit:

On Thursday, the 11th day of June, 2009
On Thursday, the 18th day of June, 2009

See attached

That $92.23 being the full amount of the fees for publication of the attached notice insures solely for the benefits of the publishers of the said newspaper, that no arrangement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any other person whomsoever.

Robin Schneider

Subscribed and sworn to before me this 31st

Day of July 2009

Paul R. Harms

Notary Public, Turner County, South Dakota

My Commission Expires:
February 10, 2012

PAUL R. HARMS
NOTARY PUBLIC
SOUTH DAKOTA
SEAL SEAL

Publication Fee $

Notary Fees $

Total $ 92.23

RECEIVED
SEP 2 8 2009
WATER RIGHTS
PROGRAM

Notice of hearing to review future use water permit No. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E. 8th St., Suite 306, Sioux Falls, SD 57103 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. 5832-3. This permit was approved 1995 currently reserves 6,835 acre feet from collection wells (Missouri:Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. the water is to provide future water supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT FOR 6,835 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. 5832-3 at 10:30 a.m., July 8, 2009 at the Floyd Mathew 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, 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 June 29, 2009. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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. 5832-3 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 may be an adversarial 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 June 29, 2009. The time of the hearing will be automatically delayed for at least 20 days upon written request of 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 June 29, 2009. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

(#4695, 06/11/09, 06/19/09, The New Era)

Affidavit of Publication

STATE OF SOUTH DAKOTA
COUNTY OF LINCOLN

ANDY WILCOX

being first duly sworn on his oath says; that the Sioux Valley News is a legal weekly newspaper of general circulation as required by South Dakota Code of Nineteen Hundred Thirty-Nine, and any acts amendatory thereto, printed and published by the Sioux Valley News, Inc., in Canton, in said county and State, and has been such legal newspaper during the time hereinafter mentioned; that he is and during all of said time was publisher of said newspaper and has personal knowledge of the facts stated in this affidavit; that the advertisement headed:

DENR Notice of Hearing to Review Future Use Water Permit No. 5832-3

a printed copy of which is hereto attached, was printed and published in said newspaper for **TWO** successive week(s) upon the following dates, to-wit:

June 11, 2009
June 18, 2009

that the full amount of the fees charged for publishing the same to-wit: the sum of **$65.63** insures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for any division of this sum has been made with any other person; and that no part of said sum has been agreed to be paid to any person whomsoever.

Subscribed and sworn to before me this 18th day of **June, 2009.**

Notary Public, South Dakota

(Seal)

TERESA J. WILCOX NOTARY Seal PUBLIC STATE OF SOUTH DAKOTA

My Commission Expires
12/9/2014

RECEIVED
JUN 2 9 2009
WATER RIGHTS PROGRAM

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E. 8th Street, Suite 306, Sioux Falls, SD 57103 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. 5832-3. This permit was approved 1995 currently reserves 6,835 acre feet from collection wells (Missouri: Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide future water supplies for the system.

15 to the approximate southwest corner of Section

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 6,835 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. 5832-3 at 10:30 a.m., July 8, 2009 at the Floyd Mathew 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 according to SDCL 1-26, must file a written petition with BOTH the permit owner and the Chief Engineer by June 29, 2009. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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.

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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 June 29, 2009. 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 June 29, 2009. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published in the Sioux Valley News on June 11 and 18, 2009.

intends to participate in the hearing before the Board and present evidence or cross examine witnesses

Schlaak, Karen

From: Gronlund, Eric
Sent: Wednesday, June 24, 2009 11:37 AM
To: Troy Larson; 'Dave Odens'
Cc: Schlaak, Karen
Subject: Future Use Review for Lewis & Clark RWS's future use permit

Troy & Dave:

The 7 year review of the RWS's future use permit was scheduled to be public noticed for the July 8th Water Management Board meeting. We contacted those newspapers that had not yet sent in the affidavit of publication. At that time, Water Rights learned that the notice was not published in the Elk Point Leader Courier. The newspaper stated that no one contacted them to authorize publication.

The 7 year review of the the future use permit will now not be held on July 8th. In the future, Water Rights will again send out notice to this newspaper scheduling the matter before the Board at their October 7 - 8 meeting. At that time, the RWS will be instructed to contact the newspaper and authorize publication. Water Rights does not feel that the notice will have to be published in the other county newspapers where notice was published.

Contact me if you have any questions.

Eric Gronlund
Water Rights Program, DENR
Phone: (605) 773-3352
Fax: (605) 773-4068
Email: eric.gronlund@state.sd.us
Web: www.denr.sd.gov

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

August 25, 2009

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

Lewis & Clark Rural Water System, Inc.
Troy Larson, Director
401 E 8th St, Suite 306
Sioux Falls SD 57103

Dear Mr. Larson:

Future Use Permit No. 5832-3 was scheduled to be reviewed for progress in the development and future plans at the July, 2009 Water Management Board meeting. As you are aware, the Elk Point Leader-Courier did not publish the notice. Also, the notice published in the Sioux Valley News contained errors in the legal description of the location of the diversion points (copy enclosed). Therefore, the notice will need to be published in these two papers with the hearing scheduled for the October 7th meeting.

BE SURE TO CONTACT THESE TWO NEWSPAPERS IMMEDIATELY TO AUTHORIZE PUBLICATION OF THE NOTICE OF HEARING AND TO ARRANGE FOR PAYMENT

Sioux Valley News, Canton 605 764-2000 Leader-Courier, Elk Point 605 356-2632 ✓✓

The publishers of these two papers have been sent a copy of the notice and have been instructed to publish the notice on September 3rd and 10th, upon authorization by you. We must receive Proof of Publication before the future use review can be considered by the Water Management Board.

If you have any questions, please contact me.

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
www.state.sd.us/denr

August 25, 2009

Sioux Valley News
213 E 5th St
Canton SD 57013

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on September 3, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at 605 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at 605 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of August 25, 2009 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____

Name Newspaper

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

August 25, 2009

Southern Union County Leader-Courier
PO Box 310
Elk Point SD 57025

Dear Sir:

Enclosed is a Notice of Hearing to Review Future Use Water Permit No. 5832-3 to be published twice. Please publish the first notice on September 3, 2009 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at 605 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication**. The APPLICANT is Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103.

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at 605 773-4068. Publication errors can invalidate the public notice.

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

----------CUT HERE----------

TO: Water Rights Program
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of Augsut 25, 2009 enclosing Notice of Hearing to Review Future Use Water Permit No. 5832-3 which was first published in our issue of_____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

_____ _____
Name Newspaper

Instruction to Newspaper-Publish first publication of the following Notice on September 3, 2009 with 2nd publication 7 days later. The permit owner 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 HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

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Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 6,835 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. 5832-3 at 10:00 am, October 7, 2009 at the Floyd Mathew 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 September 28, 2009. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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.

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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 September 28, 2009. 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 September 28, 2009. Steven M. Pirner, Secretary, Department of Environment and Natural Resources. Published twice at the total approximate cost of_____.

RECEIVED

SEP 14 2009

WATER RIGHTS PROGRAM

Form 8

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
) SS
County of Union)

I, Susan Odson

certify that the attached printed Notice was taken

from the Southern Union County Leader-Courier

printed and published in Elk Point

County of Union and

state of South Dakota. The notice was published

in the newspaper on the following two dates:

September 3, 2009

September 10, 2009

Cost of Printing $ 81.02

Susan Odson

(Signature)

Affidavits Coordinator

(Title)

September 10, 2009

(Date Signed)

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103 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. 5832-3. This permit was approved 1995 currently reserves 6,835 acre feet from the collection wells (Missouri: Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide future water supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 3832-3 REMAIN in EFFECT for 6,835 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. 5832-3 at 10:00am, October 7, 2009 at the Floyd Mathew 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 September 28, 2009. 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.

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Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Publish September 3 and 10, 2009
Published twice at the total approximate cost of $81.02
36-1-121

Affidavit of Publication

RECEIVED
SEP 2 1 2009
WATER RIGHTS PROGRAM

STATE OF SOUTH DAKOTA
COUNTY OF LINCOLN

ANDY WILCOX

being first duly sworn on his oath says; that the Sioux Valley News is a legal weekly newspaper of general circulation as required by South Dakota Code of Nineteen Hundred Thirty-Nine, and any acts amendatory thereto, printed and published by the Sioux Valley News, Inc., in Canton, in said county and State, and has been such legal newspaper during the time hereinafter mentioned; that he is and during all of said time was publisher of said newspaper and has personal knowledge of the facts stated in this affidavit; that the advertisement headed:

Notice of Hearing to Review Future Use Water Permit No. 5832-3

a printed copy of which is hereto attached, was printed and published in said newspaper for **TWO** successive week(s) upon the following dates, to-wit:

September 3, 2009
September 10, 2009

that the full amount of the fees charged for publishing the same to-wit: the sum of **$70.18** insures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for any division of this sum has been made with any other person; and that no part of said sum has been agreed to be paid to any person whomsoever.

Subscribed and sworn to before me this **10th** day of **September, 2009**.

Notary Public, South Dakota

(Seal)

TERESA J. WILCOX NOTARY Seal PUBLIC STATE OF SOUTH DAKOTA

My Commission Expires 12/9/2014

NOTICE OF HEARING

NOTICE OF HEARING TO REVIEW FUTURE USE WATER PERMIT NO. 5832-3

Notice is given that the Water Management Board will review Future Use Permit No. 5832-3 held by Lewis & Clark Rural Water System, Inc., Troy Larson, Director, 401 E 8th St, Suite 306, Sioux Falls SD 57103 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. 5832-3. This permit was approved 1995 currently reserves 6,835 acre feet from collection wells (Missouri:Elk Point Aquifer) located along the Missouri River between points at the north section line of Section 15 to the approximate southwest corner of Section 23; all in T32N-R4E (Nebraska Survey). This would include portions of Section 1 and Section 2-T91N-R52W and Section 35 and Section 36-T92N-R52W (South Dakota Survey). The area is known locally as Mulberry Point. The water is to provide future water supplies for the system.

Pursuant to SDCL 46-2A-2 the Chief Engineer of the Water Rights Program recommends that Permit No. 5832-3 REMAIN in EFFECT for 6,835 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. 5832-3 at 10:00 am, October 7, 2009 at the Floyd Mathew 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 September 28, 2009. 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 holders mailing address is given above. The petition may be informal, but it must include a statement describing the petitioners 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. 5832-3 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 may be an adversarial 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 September 28, 2009. 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 September 28, 2009. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

Published in the Sioux Valley News on September 3 and 10, 2009 at the total approximate cost of $70.18.

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

September 28, 2009

NOTICE

TO: Lewis & Clark Rural Water System, Inc.
Troy Larson, Director
401 E 8th St, Suite 306
Sioux Falls SD 57103

FROM: Garland Erbele, Chief Engineer
Water Rights Program
605 773-3352

SUBJECT: Scheduled Time for Notice of Hearing to Review Future Use Permit No. 5832-3

The hearing time before the Water Management Board to consider review of Future Use Permit No. 5832-3 has changed from 10:00 am to 2:00 pm on Wednesday, October 7, 2009.

The Water Management Board will consider review of Future Use Permit No. 5832-3 at 2:00 pm on Wednesday, October 7, 2009, in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Ave, Pierre SD.

Applicable provisions of the Notice of Hearing to Review Future Use Permit No. 5832-3 still apply.

CERTIFICATION

I hereby certify that on September 28, 2009, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated September 28, 2009 regarding notice of hearing change for future use permits addressed as stated below:

City of Sioux Falls, Randy Janssen, PO Box 7402, Sioux Falls SD 57117
Lewis & Clark Rural Water System, Troy Larson, 401 E 8th St # 306, Sioux Falls SD 57103
City of Volga, Steve Meyer, PO Box 217, Volga SD 57071

Gail Jacobson
Secretary
Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 28th day of September, 2009.

Karen Schlaak
Notary Public
My Commission expires April 1, 2013

SEAL KAREN SCHLAAK NOTARY PUBLIC State of South Dakota SEAL

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

October 9, 2009

NOTICE

Lewis & Clark Rural Water System, Inc.
Troy Larson, Director
401 E 8th St, Suite 306
Sioux Falls SD 57103

Dear Mr. Larson:

I am writing in response to action taken by the Water Management Board at the hearing on October 7, 2009 to review Future Use Permit No. 5832-3. The Board allowed the permit to remain in effect for 6,835 acre-feet of water annually. Future Use Permit No. 5832-3 is subject to another review in seven years.

The fee for maintaining the effectiveness of Future Use Permit No. 5832-3 is $625.00 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,

Garland Erbele

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

CERTIFICATION

I hereby certify that on October 9, 2009, I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated October 9, 2009 regarding future use permits addressed as stated below:

City of Sioux Falls, Randy Janssen, PO Box 7402, Sioux Falls SD 57117-7402

Lewis & Clark Rural Water System Inc., Troy Larson, 401 E 8th St # 306, Sioux Falls SD 57103

City of Volga, Nicole Rawden, Finance Officer, PO Box 217, Volga SD 57071

Gail Jacobson
Secretary
Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 13th day of October, 2009.

Karen Schlaak
Notary Public
My Commission expires April 1, 2013

SEAL KAREN SCHLAAK NOTARY PUBLIC State of South Dakota SEAL

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 10/19, 20 09

RECEIVED OF Lewis & Clark Regional Water System 401 E 8th St # 306 Sioux Falls SD 57103

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		
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. 5832-3 after period of seven years.	625	00
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	625	00

No. 0421

By Daniel Erlebacher
Chief Engineer

5832-3

McMath, Genny

From: McMath, Genny
Sent: Tuesday, August 23, 2011 9:37 AM
To: McMath, Genny
Subject: FW: Lewis & Clark Rural Water Info Update

Water Permits this pertains to: 5832-3, 6736-3, 6869-3, 6869A-3, 7207-3, 7208-3

From: Froelich, Stacy
Sent: Tuesday, August 23, 2011 9:30 AM
To: DENR FINANCIAL & TECH ASSIST; DENR ENVIRONMENTAL SERVICES
Subject: Lewis & Clark Rural Water Info Update

Effective Monday, August 29, the mailing address will be 46986 Monty Street, Tea, SD 57064. Telephone lines will not be installed until Sept. 1. The calls to the office will be forwarded to a cell phone for a few days. **The new telephone number will be 605-368-2400 and our fax number will be 605-368-2800.** The e-mail addresses will not change.