

Record of Decision
Lincoln-Pipestone Rural Water, Lake Benton, Minnesota
Existing System North/Lyon County Phase and Northeast Phase Expansion
Environmental Impact Statement

The Rural Utilities Service (RUS) has concluded an Environmental Impact Statement (EIS) it prepared for the Lincoln-Pipestone Rural Water (LPRW), Existing System North/Lyon County (ESN/LC) Phase and Northeast Phase Expansion proposal in southwest Minnesota and is announcing its decision in this Record of Decision (ROD). RUS's decision is to approve LPRW's application for financial assistance to construct the Northeast Phase Expansion proposal. This approval is predicated on LPRW's acceptance of a set of conditions and completion of mitigation measures developed as part of and outlined in RUS's preferred alternative. Prior to loan/grant approval, LPRW must be in compliance with all conditions of the water appropriation permits issued by the Minnesota Department of Natural Resources (MDNR). Upon loan/grant approval and prior to the release of any funds, LPRW must prepare and complete a Water Resource Management Plan (WRMP) to RUS's satisfaction.

The purpose of the EIS was to evaluate the potential environmental impacts of a multiple-phase construction proposal where RUS has and proposes to provide financial assistance for the development and expansion of a public rural water system. The applicant for this proposal is a public body named LPRW and whose main offices are located in Lake Benton, Minnesota. Specific project activities are and have included the development of groundwater sources and production well fields and the construction of water treatment facilities and water distribution networks. The counties in Minnesota affected by this proposal include Yellow Medicine, Lincoln, and Lyon Counties and Deuel County in South Dakota.

In accordance with the National Environmental Policy Act (NEPA) of 1969 (42 USC 4231 *et seq.*) and RUS regulations (7 CFR 1794), RUS prepared an EIS concerning these actions. Some of the issues evaluated in the EIS date back to a previous agency decision to fund one of the phases of a multi-phase system expansion project initiated by LPRW in 1991, known as the ESN/LC Phase project. In that phase, LPRW developed, among other system improvements, a water source - the Burr Well Field - and constructed a water treatment facility. These facilities were designed to provide potable water to the northern portion of LPRW's service area. The Burr Well Field is located in southwestern Yellow Medicine County and is adjacent to the South Dakota - Minnesota state line. The two water-bearing formations utilized at this well field - the so-called Burr Unit of the Prairie Coteau aquifer (Burr Unit) and the deeper Altamont aquifer - underlie portions of both South Dakota and Minnesota. The Altamont appears to be hydraulically isolated from the Burr Unit.

During construction of the Burr Well Field (initiated on April 19, 1993) and subsequent to its operation, public and regulatory concerns were raised and continue to be raised regarding the potential environmental effects of groundwater appropriations from the Burr Unit. Because of geologic and hydrologic factors, groundwater from the Burr Unit discharges onto the land surface in both South Dakota and Minnesota. These surface discharges occur as springs or seeps and create in some areas unique wetland features called patterned calcareous fens (fens). In addition, it has been concluded that one of the lakes in the area, Lake Cochrane, also receives a portion of its water budget from groundwater contributions of the Burr Unit.

Fens in the study area are characterized by a partially mineralized peat mass through which a groundwater discharge occurs throughout the peat mass. This peat mass is referred to as a fen dome and in most areas the domes are elevated 5-10 feet above the ground surface. Fens are listed as "Outstanding Resource Value Waters" in Minnesota's Rules 7050 and are protected under the Minnesota Wetland Conservation Act of 1991 (Minn. Stat. 103G).

In processing LPRW's application for the ESN/LC phase proposal, the Farmers Home Administration (FmHA) prepared an Environmental Assessment (EA) on the proposal and published a Finding of No Significant Impact on February 7, 1992. Because of concerns raised regarding the Burr Well Field, the EA was amended or supplemented by an agency newly created by a 1993 USDA reorganization, the Rural Development Administration (RDA). RDA published a public notice announcing the availability of the supplemental EA in local newspapers on October 14, 1994. Upon review of the comments received on this document, a decision was made to prepare an EIS. During the time this decision was being made USDA again reorganized its programs and the RDA Water and Waste programs were combined with the utility programs of the Rural Electrification Administration into a new agency - the RUS.

RUS announced its intent to prepare an EIS and hold public scoping meetings in a Notice of Intent published in the *Federal Register* on June 8, 1995, and in public notices in local newspapers. Public meetings were held on July 18, 1995, in Canby, MN, and July 19, 1995, in Brookings, SD, for the purpose of describing the project and soliciting the public's comments about the issues to be considered in the EIS.

While RUS decided to prepare an EIS on the outstanding concerns related to the FmHA's previous decision (March 24, 1992) to fund the ESN/LC phase proposal it had on file an application from LPRW to complete the last phase of the original system expansion project - the Northeast Phase Expansion. Because the Burr Well Field was originally designed and built to serve as a source of water for not only the Northeast Phase Expansion but two previous construction phases - the ESN/LC Phase and the Yellow Medicine Phase - and other areas within the northern portions of LPRW's service area, it was determined that, because the

activities of these construction phases were so completely interrelated and interdependent, separating the phases into separate environmental impact analyses would not be in compliance with the intent of NEPA. Therefore, it was decided to include the environmental impact analyses for the Northeast Phase Expansion proposal into the EIS proposed for the ESN/LC phase project. The basis for this decision, is stated in the Council on Environmental Quality's Procedures for Implementing the Procedural Provisions of the NEPA, 40 CFR § 1502.4, Major Federal actions requiring the preparation of environmental impact statements, (a) "Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement."

The more in-depth environmental impact analyses and discussion of alternatives presented in the EIS, particularly as they related to the Burr Well Field, were performed subsequent to a previous decision to fund LPRW's ESN/LC Phase proposal. This situation presented RUS with a procedural dilemma as to the ultimate purpose of the analyses to be presented in the EIS. The dilemma is that NEPA, as a procedural law, requires consideration of the potential environmental impacts of a proposed action before a decision is made. Even though decisions have already been made and significant public funds have been committed for the development and construction of the ESN/LC Phase project, RUS decided, based on information and evidence presented, that the intent of NEPA would be advanced by taking a "harder" look at the outstanding issues from the 1992 FmHA EA and the 1994 RDA supplemented EA. Given this reality, the primary decision facing RUS at this time is whether or not to fund the Northeast Phase Expansion.

After considering public comments received in the scoping meetings, RUS determined the significant issues that were evaluated in the EIS. This included the range of alternatives, as required by NEPA, which could meet the purpose and need of the proposed action - that is, to provide a safe, reliable source of potable water to citizens within the northern portion of LPRW's service area. The primary issues evaluated in the EIS, therefore, included the outstanding concerns from the earlier 1992 EA, i.e., the environmental effects on the area's fens and Lake Cochrane (herein referred to as surface water resources (includes resources in both South Dakota and Minnesota)) from groundwater appropriations at the Burr Well Field, and the potential environment impacts from construction of the Northeast Phase Expansion proposal.

On February 23, 1998, the RUS announced the availability of the Draft EIS (DEIS) in the *Federal Register* (63 FR 8901) and local newspapers. The DEIS was sent to interested parties and made available for public review at a number of locations throughout the area in both Minnesota and South Dakota and was available over the Internet at RUS's website (<http://www.usda.gov/rus/water/ees/eis.htm>). Subsequent to a 60-day public review period, RUS sponsored a public meeting to solicit additional comments

from the public. The public meeting was announced in the *Federal Register* (63 FR 3461) on June 24, 1998 and local newspapers. The meeting was held on July 30, 1998 in Canby, Minnesota.

In total RUS received comments from 26 Federal and State agencies, Congressional representatives, public bodies, individuals, and environmental interest and industry groups. The number of comments added up to 79 pages. After reviewing, considering, and responding individually and collectively to these comments, RUS announced the availability of the Final EIS (FEIS) on May 27, 1999 in the *Federal Register* (64 FR 28796) and in the same newspapers and website used throughout the EIS process.

A summary of the public's comments received on the FEIS is included in the following table:

Commenter	Affiliation	Number of Pages
Minnesota Department of Natural Resources	State Environmental Regulatory Agency	6 with attachments
Minnesota Pollution Control Agency	State Environmental Regulatory Agency	2
South Dakota Department of Environment and Natural Resources	State Environmental Regulatory Agency	2
Subtotal State Agencies	3	10
U. S. Environmental Protection Agency, Region 8	Federal Environmental Regulatory Agency	2 with attachments
Subtotal Federal Agencies	1	2
East Dakota Water Development District	Public Body	3
Subtotal Public Bodies	1	3
South Dakota Resource Coalition (includes comments submitted but not received during DEIS)	Environmental Interest Group	7
Minnesota Center for Environmental Advocacy	Environmental Interest Group	3
Subtotal Environmental Interest Groups	2	10
Jim Thompson	Citizen	4 with attachments
Lyle Tobin, Representative of Lake Cochrane Improvement Association	Citizen	2
Shirley Holt	Citizen	2
Clayton Holt	Citizen	4
Subtotal Private Citizens	4	12

In summary, most comments were generally supportive of RUS's preferred alternative and its inclusion of a Contingency Plan into the proposed WRMP, however, some commenters objected to RUS's method of responding to public comments, that is, to respond to comments directly without revising the text of the DEIS. Some commenters asserted opposition to RUS's conclusions and others requested RUS prepare a supplemental EIS to address issues they felt had not been dealt with adequately, such as the need to supplement a Lake Cochrane water budget study previously developed by the South Dakota Department of Environment and Natural Resources (SDDENR).

Comments received on the FEIS can be summarized in general categories. These categories included concerns related to:

- A conflict of interest for RUS to prepare the EIS;
- The use of engineering design, operational, and monitoring data collected by LPRW's engineering consulting firm;
- The use of limited or incomplete data sets in drawing conclusions and that actions taken as a result of these conclusions will not "minimize or eliminate" damage to the area's surface water features;
- LPRW's relationship and water supply contract with Marshal Municipal Utilities in that this relationship circumvented RUS regulations with regard to the City of Marshall's eligibility to participate in RUS loan and grant programs; and
- RUS's retraction of the DEIS's requirement for LPRW to develop an agreement with the SDDENR to formalize monitoring protocols and procedures in order to protect South Dakota interests and natural resources.

As required by NEPA, project alternatives to meet the purpose and need of the proposed action (including previous phases were considered; the reasonable alternatives considered are summarized in the following table:

Alternative	Northeast Phase Expansion Status	Burr Well Field Status
Current Status (as of time of DEIS)	LPRW submitted application to RUS to fund construction of the Northeast Phase Expansion	LPRW is authorized under their current Water Appropriation Permit to appropriate groundwater at the rate of 750 gpm/400 Mgy. LPRW submitted an application to the MDNR to increase groundwater appropriations 1,500 gpm/800 Mgy.
Proposed Action	Fund the Northeast Phase Expansion	Increase groundwater appropriations at the Burr Well Field to 1,500 gpm/800 Mgy.
Alternative 1	Fund the Northeast Phase Expansion	Discontinue use of Burr Well Field
Alternative 2	Fund the Northeast Phase Expansion	Discontinue use of Burr Well Field Supplement water needs from other sources: Adjacent Rural Water Systems Lewis and Clark System Altamont Aquifer Canby Aquifer Other Aquifers
Alternative 3	Fund the Northeast Phase Expansion	Maintain current appropriations at Burr Well Field
Alternative 4	Fund the Northeast Phase Expansion	Maintain current or reduce appropriations at Burr Well Field Fund and construct new well field and Water Treatment Plant in the Wood Lake area.
Alternative 5	Do not fund the Northeast Phase Expansion; Finance Point-of-Use systems in Northeast Phase Expansion area.	Maintain current appropriations at Burr Well Field
Alternative 6 – No Action Alternative	Do Not Fund the Northeast Phase Expansion	Maintain current appropriations at Burr Well Field

The factors RUS used to evaluate the environmental, economic, and technologic feasibilities of the alternatives evaluated in the EIS are outlined in the DEIS. These analyses were not fundamentally changed in response to comments on

the DEIS and, subsequent to the public comments on the FEIS, continue to be considered applicable and reasonable at the present time.

Based on the monitoring data collected to date and factoring in the inherent scientific uncertainties of drawing conclusions on limited data, RUS still maintains that the proposed action poses unreasonable environmental risks to surface water features in both South Dakota and Minnesota and that under drought conditions it is likely that significant adverse environmental impacts could occur to these same resources. At the same time, however, RUS still concludes that during and where groundwater appropriations from the Burr Unit were limited to the range between 400 - 525 gpm (with corresponding annual appropriations) the data appears to indicate that no observable or significant adverse environmental impacts have occurred.

RUS, as previously stated in the DEIS and FEIS, fully acknowledges that the data record that has been compiled to the present has occurred during a sustained period of above normal precipitation and that until more data has been collected the ability to accurately predict the direct, indirect, and cumulative ecological responses to the area's surface water features from Burr Well Field appropriations is limited. It is reasonably certain and foreseeable, however, that the magnitude and relative importance of impacts to surface water features that could occur under specific conditions can be predicted, i.e., sustained pumping of the Burr Unit will reduce the potentiometric surface in the Burr Unit reducing groundwater flow to hydraulically connected resources thus potentially adversely affecting the ecological integrity of affected resources. While this situation is relatively clear, determining the appropriate rate of groundwater appropriations and each affected resources' response to this pumping while taking into account the inherent natural variation in environmental factors can only be established within a reasonable level of certainty through long-term monitoring. The outcome of any monitoring will be to allow environmental regulatory officials to adapt to on-going conditions and set appropriation rates as conditions warrant.

Given these conclusions and from the alternatives considered, RUS has developed a preferred alternative that it believes to be the most environmentally preferable alternative and helps support the overall goal of providing citizens with a safe, reliable source of potable water in an area that has historically had water supply and quality problems. RUS believes that this goal can be accomplished and at the same time minimize or avoid significant adverse environmental impacts while providing for the ecological sustainability of the area's surface water features.

The preferred alternative outlined in the FEIS continues to be RUS's preference and forms the basis for its decision. The preferred alternative is as follows:

- Finance the Northeast Phase Expansion.

- Continue to maintain the Burr Well Field as one of LPRW's primary water sources. To minimize reductions in the potentiometric surface, RUS supports limiting pumping rates from wells developed in the Burr Unit aquifer to 400-525 gpm with a corresponding annual appropriation rate.
- At some future date, supplement existing wells at the Burr Well Field with a new well field in an area south-southeast or north-northeast of the current Burr Well Field or where sufficient aquifer materials can be found. This new well field could utilize both the Burr Unit and Altamont aquifers in a configuration similar to that at the Burr Well Field or any other configuration determined by the MDNR as appropriate. Raw water from this well field could be transported to the Burr Water Treatment Plant for treatment and distribution to LPRW customers.
- RUS recommends that the MDNR consider integrating the proposed Water Resource Management Plan (WRMP) into the Burr Well Field's Water Appropriation Permit.

The WRMP listed in the last bullet is the mitigation measure RUS will establish as a condition of approving LPRW's application for the Northeast Phase Expansion proposal. The basic premise behind the need to develop a WRMP is that the Burr Unit is hydraulically connected to the area's surface water features and that under certain conditions and at a yet-to-be-determined rate groundwater appropriations from the Burr Well Field have the potential to adversely impact these resources.

The goal of the WRMP is to establish a mechanism for evaluating on an on-going, real-time basis responses to surface water resources in both South Dakota and Minnesota from groundwater appropriations at the Burr Well Field and to formalize through impact thresholds established by State regulatory officials an acceptable environmental risk and reasonable margin of safety to each State's natural resources. One of the purposes of the WRMP will be to incorporate and integrate into the Burr Well Field's operations and permit conditions an "adaptive environmental management plan" whereby regulatory officials can continually assess ecologic responses in surface water features and can make appropriate modifications to groundwater withdrawals in the Burr Well Field's permit.

One of the public's criticisms to the FEIS was RUS's removal of a requirement that LPRW develop an agreement with the SDDENR to formalize monitoring procedures and protocols that would evaluate the effects of groundwater withdrawals at the Burr Well Field on South Dakota resources. Notwithstanding a Minnesota and South Dakota written commitment to work together on Burr Well Field permitting issues and a continuing belief that the MDNR's permitting procedures contain the appropriate statutory, regulatory, and administrative processes to officially incorporate South Dakota officials (and citizens') concerns

at the Burr Well Field, RUS fully intends to encourage and invite SDDENR's full participation in the development of the WRMP.

As stated in the FEIS, the WRMP should formalize all procedures, protocols, and methodologies to monitor in a comprehensive fashion groundwater appropriations at the Burr Well Field and its effects on the surface water resources hydraulically connected to the Burr Unit in both South Dakota and Minnesota. As a minimum, the following components shall be included in the WRMP:

- Contingency Plan - the plan should incorporate impact thresholds established by MDNR, SDDENR's input, and outline what procedures LPRW will take in the event water appropriations from the Burr Unit are restricted.
- Well Field Operation and Management Plan - this plan should be designed to minimize reductions in the potentiometric surface in the Burr Unit during any specified time periods.
- Supplemental Well Field Exploration Plan - based on previous geologic exploration efforts, this plan should outline future exploration efforts and development activities, including schedules, for a supplemental well field.
- Monitoring Plan - formalize monitoring well locations; establish standard methodologies or procedures for data management, i.e., collection, documentation, and information sharing.

Assuming LPRW continues to pursue its request for financial assistance for the Northeast Phase Expansion and RUS has funds available for and approves the proposal, RUS will formally invite the following participants to contribute to and assist in the development of the WRMP:

- Lincoln-Pipestone Rural Water
- Minnesota Department of Natural Resources
- South Dakota Department of Environment and Natural Resources
- U.S. Environmental Protection Agency (USEPA), Region 8 (while Minnesota is in USEPA Region 5, Region 8, in accordance with their Cooperating Agency Agreement with RUS, has agreed to serve in the lead role for this project).

RUS will support, within the context and time frames of its loan approval process, the planning and development of the WRMP by coordinating meetings between the above participants. As stated previously, RUS shall not release project funding until LPRW successfully completes the WRMP to RUS's satisfaction. RUS will evaluate the technical sufficiency and acceptance of the WRMP primarily through consultations with hydrogeologists at the USEPA, Region 8 and the other regulatory officials. The mechanism for this consultation with USEPA will be provided for through RUS's Cooperating Agency Agreement with USEPA. RUS will further condition the release of funds for the Northeast Phase

Expansion area subject to LPRW being able to obtain the appropriate Water Appropriation Permit(s) from the MDNR.

Through the WRMP, RUS hopes to foster a cooperative working environment among all stakeholders to the proposal. The overall goal of RUS's decision is to promote the wise use and sustainability of natural resources, avoiding irreversibility in the ecological integrity of those resources, and provide the area's citizens with a safe, reliable source of potable water. Even though the EIS is a decision document, not a scientific research report, RUS believes it has evaluated current and relevant data and is confident that given a cooperative attitude among stakeholders, significant adverse impacts to the environment can be minimized or avoided through mitigation and developing an adaptive environmental management approach in monitoring groundwater appropriations at the Burr Well Field.

Signed

Wally Beyer
Administrator
Rural Utilities Service

September 16, 1999

Date