

M.L. 2016 Project Abstract

For the Period Ending June 30, 2019

PROJECT TITLE: Lincoln Pipestone Rural Water System Land Acquisition for Wellhead Protection

PROJECT MANAGER: Jason Overby

AFFILIATION: Lincoln Pipestone Rural Water System

MAILING ADDRESS: 415 East Benton Street, PO Box 188

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FUNDING SOURCE: Environment and Natural Resources Trust Fund

LEGAL CITATION: M.L. 2016, Chp. 186, Sec. 2, Subd. 09d

APPROPRIATION AMOUNT: \$ 1,500,000

AMOUNT SPENT: \$ 1,080,518

AMOUNT REMAINING: \$ 419,482

Overall Project Outcome and Results

Lincoln-Pipestone Rural Water (LPRW) System, a regional public drinking water system located in 10 counties in southwestern Minnesota, faces a number of water quality issues within its wellhead areas. These shallow, highly vulnerable aquifers are situated within intense agricultural areas; having row cropping as the primary land use. Excess nutrients, particularly nitrates, and chemical applications can move quickly through the porous soil profiles contaminating drinking water supplies. Conservation practices to guard against agricultural contamination can help but most have severe limitations for drinking water protection. Thus, Fee Title ownership and permanent control over restoration and maintenance by the public water supplier is needed to best protect drinking water supplies.

LPRW applied for and received \$1,500,000 in funding from the Environmental Natural Resource Trust Fund to identify and purchase parcels in Fee Title within three highly vulnerable wellhead areas. Parcels were ranked according to proximity to drinking water supply wells and in correlation to hydrogeological information documented within LPRW's Wellhead Protection Plan. Individual landowners were engaged, according to their parcel ranking, to determine willingness to participate in a land transfer/purchase. Acquisition(s) would be through negotiated, voluntary or by direct purchases. Grant requirements stipulated that any land acquisition could not exceed the appraised value for that property. Any parcels acquired were to be restored to native grassland adhering to Minnesota Board of Water and Soil Resources Native Vegetation guidelines.

Several properties were investigated; with little success. Setbacks included lack of interest, absentee ownership or values exceeding project budget. A property containing approximately 200 acres located in the Verdi Wellfield, Lincoln County, became available through public auction. LPRW obtained this critical property through winning bid, having bid under appraised value. This parcel was taken out of agricultural production and restored to permanent grassland; providing long-term protection for highly vulnerable drinking water supplies.

Project Results Use and Dissemination

The Lincoln-Pipestone Rural Water (LPRW) System Land Acquisition for Wellhead Protection Project focused on targeting acquisition of land parcels residing within three (3) highly vulnerable wellhead protection areas. No material resources, tools or documents were generated for intended public use as a result of this project. However, information about this project has been published through various platforms including LPRW Annual

Newsletters, LPRW website and presentations given to community service events. Three Annual Newsletters (2016, 2017 and 2018) were produced by LPRW and reference this project.



Environment and Natural Resources Trust Fund (ENRTF) M.L. 2016 Work Plan – Final Report

Date of Report: August 16, 2019

Final Report

Date of Work Plan Approval: June 7, 2016

Project Completion Date: June 30, 2019

PROJECT TITLE: Lincoln Pipestone Rural Water System Land Acquisition for Wellhead Protection

Project Manager: Jason Overby

Organization: Lincoln Pipestone Rural Water

Mailing Address: 415 E. Benton St.

City/State/Zip Code: Lake Benton, MN 56149

Telephone Number: (507) 368-4248

Email Address: lprw@itctel.com

Web Address: lprw.com

Location:

Serving 10 counties in SW Minnesota: Jackson, Lac qui Parle, Lincoln, Lyon, Murray, Nobles, Pipestone, Redwood, Rock, and Yellow Medicine Counties.

Total ENRTF Project Budget:

ENRTF Appropriation: \$1,500,000

Amount Spent: \$1,080,518

Balance: \$419,482

Legal Citation: M.L. 2016, Chp. 186, Sec. 2, Subd. 09d

Appropriation Language:

\$1,500,000 the third year is from the trust fund to the commissioner of natural resources for an agreement with Lincoln Pipestone Rural Water to acquire and restore lands designated under an approved wellhead protection plan. Lands acquired with this appropriation must be from willing sellers and be identified by the Department of Health as targeted vulnerable lands for wellhead protection. Lands must be restored to permanent vegetative cover, but may be used for recreation and renewable energy if adequate protection of the drinking water aquifer is provided. A list of proposed acquisitions must be provided as part of the required work plan. Plant and seed materials must follow the Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines. Income derived from the lands acquired with funds appropriated under this paragraph is exempt from Minnesota Statutes, section 116P.10, if used for additional wellhead protection as provided under this paragraph until adequate wellhead protection has been achieved, as determined by the commissioner of health. Any income earned after that must be returned to the environment and natural resources trust fund. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

I. PROJECT TITLE: Lincoln Pipestone Rural Water System Land Acquisition for Wellhead Protection

II. PROJECT STATEMENT: Lincoln Pipestone Rural Water (LPRW) is a Regional Governmental Rural Water System entrusted to guard and protect its drinking water supply for the health and welfare of 10 counties, 36 cities, 4,500 customers and more than 50,000 people in Greater Southwest Minnesota.

Most (60%) of its water comes from public wells and is situated among highly row-cropped agricultural land. Excess nutrients and chemical applications from these lands move into the water environment and thus into the aquifers that supply the Lincoln Pipestone Rural Water drinking water well fields. These contaminants degrade the water quality from these aquifers. Minnesota Regulations 4720.5100 et seq. mandate water suppliers protect their drinking water supply against contamination and have an action plan called a Well Head Protection Plan. Conservation steps to guard against agricultural contamination can help but most have severe limitations thereby making them inadequate for protecting drinking water supplies. Filter strip easements only partially protect from contaminants entering streams and aquifers, and in some cases, are bypassed from tiling or excess runoff that discharges directly into streams.

The Lincoln Pipestone Rural Water plan is to start acquiring 200 +/- of these vulnerable acres to be placed in grassland adhering to the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines. Other important long-term benefits from grassland restoration are that grass cover retains snow and rainfall providing moisture retention and infiltration therefrom into the aquifer without introduction of contaminants while directly reducing the effects of drought. In turn this promotes habitat for wildlife and creation for hiking and hunting. Also, some of the acquired lands may have the potential to allow the well field footprints to be expanded with additional locations for wells, thereby mitigating aquifer and overall well drawdowns thus firming up and further protecting the drinking water supply from the effects of drought and even from very localized contaminate influence found on a well-to-well basis.

III. OVERALL PROJECT STATUS UPDATES:

Project Status as of: December 2016

Lincoln Pipestone Rural Water has worked with Keith and Pearl Pritchett as well as Mark Stueven and Charles Pritchett, all of whom had expressed interest in selling parcels to Lincoln Pipestone Rural Water as part of this grant project. Northwest Farm Management completed appraisals, to DNR specifications on both parcels. Lincoln Pipestone Rural Water provided an offer to Keith and Pearl Pritchett on Parcel Number 3 (see priorities map) of the appraised value of \$4,750/acre for a total of \$553,000. Likewise, Lincoln Pipestone Rural Water provided an offer to Charles Pritchett and Mark Stueven on Parcel Number 2 (see priorities map) of the appraised value of \$5,320/acre for a total of \$47,000. Both offers were declined as the owners are seeking a higher value than the amount indicated in the appraisals.

The owners of Parcel Number 11 (see priorities map), Maxine Nichols Trust, have also expressed interest in this project. Lincoln Pipestone Rural Water is moving forward with an appraisal and offer.

Lincoln Pipestone Rural Water is in the process of scheduling a meeting with landowners to discuss interest in the acquisition of land within the parcel priorities map.

Project Status as of: June 2017

Two interested landowners were identified within the Verdi Wellfield. Parcel Priority Number 11: Maxine Nichols Trust, and Parcel Priority Number 7: Edward Halbersma Estate. Appraisals have been done on both parcels and we are currently moving forward with the Edward Halbersma Estate Parcel since it is deemed a higher priority (see parcel priorities map). The appraisal on the property came in at over \$1,000,000 and the landowners are satisfied so we will need a DNR technical review.

Amendment Request 06/16/2017:

Amendment Approved 6/20/2017

Lincoln-Pipestone Rural Water currently has an interested landowner that will require a DNR technical review because the acquisition property is appraised at over \$1,000,000. Lincoln-Pipestone Rural Water requests that your office release \$5,000.00 of this grant to the Minnesota Department of Natural Resources (“DNR”) Division of Lands and Minerals to enable the Division’s Appraisal Management Unit to conduct a review of the appraisal prepared in conjunction with this acquisition. LPRW requests these funds be shifted from the budget line item “Professional Services for Acquisition” to a new line item titled “Professional/ Technical/ Service Contracts: DNR Appraisal Review”. LPRW understands that DNR will provide an expense report on the use of these funds. LPRW further understands that, should the appraisal review cost less than \$5,000.00 any unused balance will be made available to LPRW.

Project Status as of: December 2017

Parcel Priority Number 7 (Edward Halbersma Estate) was identified and an offer was made to the estate representative. The estate declined our offer of appraised value which was \$5,370/acre or \$1,077,000 for the 200.60 acres. After checking with DNR land acquisition as well as LCCMR we decided to pursue the purchase through the auction that would be conducted in September of 2017, knowing we could not bid over the appraised value of the property. At the auction, we were able to attain the property through a winning bid of less than our original offer of appraised value. The property was purchased for \$1,043,166 or \$5,200/acre. Lincoln-Pipestone Rural Water closed on the property December 1, 2017 and the money was reimbursed through the LCCMR fund.

Project Status as of: June 2018

Parcel Priority Number 7 (Edward Halbersma Estate) was identified and purchased for \$1,043,166 or \$5,200/acre. Lincoln-Pipestone Rural Water closed on the property December 1, 2017 and the money was reimbursed through the LCCMR fund. Lincoln-Pipestone is now working on the restoration of the 200 +/- acres. Fencing has been taken out and buildings and other equipment on the property have been placed up for bid. The money earned from the bid process on the equipment will be put back into the Wellhead Protection Fund as stated in the grant. Lincoln-Pipestone Rural Water’s plan is to plant the native seed mix along with pollinator (adhering to Minnesota Board of Water and Soil Resources guidelines) in the fall of 2018.

Project Status as of: December 2018

To date, Parcel Priority Number 7 (Edward Halbersma Estate) has been the only successfully acquired property for Lincoln-Pipestone Rural Water. Lincoln-Pipestone is now working on the restoration of the 200 +/- acres. Fencing has been taken out and buildings and other equipment on the property were placed up for bid and removed. The money earned from the bid process on the equipment equated to \$651.00 and will be put back into the Wellhead Protection Fund as stated in the grant. Due to unforeseen weather conditions in the fall, Lincoln-Pipestone Rural Water was unable to conduct the dormant seeding. Much of the fall was unseasonably wet and early frost forced LPRW to hold back on planting the native seed mix until Spring of 2019.

Overall Project Outcomes and Results: June 2019

To date, Parcel Priority Number 7 (Edward Halbersma Estate) was the only successfully acquired property for Lincoln-Pipestone Rural Water. Lincoln-Pipestone has completed restoration activities of the 200 +/- acres. Fencing has been taken out and buildings and other equipment on the property were placed up for bid and removed. The money earned from the bid process on the equipment equated to \$651.00 and has been placed back into the Wellhead Protection Fund as stated in the grant. Due to unforeseen weather conditions in the fall of 2018 and a late winter/spring in 2019, Lincoln-Pipestone Rural Water was able to complete restoration activities prior to project end date. Quotes were obtained for spraying and planting/materials, respectively. The project site was initially chemically treated for weeds and planted with Minnesota Board of Water and Soil Resources approved native seed mix with pollinators. Power to the building site was disconnected and the pole removed. Quotes were received for sealing of the well. The well was sealed with MN Well and Boring Sealing Record #360139. A sign commemorating the project and identifying project partners was designed and ordered.

Lincoln-Pipestone Rural Water (LPRW) System, a regional public drinking water system located in 10 counties in southwestern Minnesota, faces a number of water quality issues within its wellhead areas. These shallow, highly vulnerable aquifers are situated within intense agricultural areas; having row cropping as the primary land use. Excess nutrients, particularly nitrates, and chemical applications can move quickly through the porous soil profiles contaminating drinking water supplies. Conservation practices to guard against agricultural contamination can help but most have severe limitations for drinking water protection. Thus, Fee Title ownership and permanent control over restoration and maintenance by the public water supplier is needed to best protect drinking water supplies.

LPRW applied for and received \$1,500,000 in funding from the Environmental Natural Resource Trust Fund to identify and purchase parcels in Fee Title within three highly vulnerable wellhead areas. Parcels were ranked according to proximity to drinking water supply wells and in correlation to hydrogeological information documented within LPRW's Wellhead Protection Plan. Individual landowners were engaged, according to their parcel ranking, to determine willingness to participate in a land transfer/purchase. Acquisition(s) would be through negotiated, voluntary or by direct purchases. Grant requirements stipulated that any land acquisition could not exceed the appraised value for that property. Any parcels acquired were to be restored to native grassland adhering to Minnesota Board of Water and Soil Resources Native Vegetation guidelines.

Several properties were investigated; with little success. Setbacks included lack of interest, absentee ownership or values exceeding project budget. A property containing approximately 200 acres located in the Verdi Wellfield, Lincoln County, became available through public auction. LPRW obtained this critical property through winning bid, having bid under appraised value. This parcel was taken out of agricultural production and restored to permanent grassland; providing long-term protection for highly vulnerable drinking water supplies.

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: Acquisition(s) of Vulnerable Land Parcels.

Description: Acquisition in Fee Title Ownership of 200 +/- acres out of 5,700 acres (see table below) of vulnerable drinking water supply land that have been identified in the Lincoln Pipestone Rural Water Wellhead Protection Plan so as to hold maximum ecological control and help in the furtherance of Lincoln Pipestone Rural Water's Wellhead Protection Plan. The 5,700 acres of vulnerable drinking water supply land was determined by means of calculating the total number of acres that contained parcels of land that fall within the vulnerable boundary. Acquisition will be through negotiated voluntary, direct purchases.

The activity at this stage includes dialogues with landowners who have been identified by Lincoln Pipestone Rural Water's Wellhead Protection Plan as being among the highest in priority with the most vulnerable land. Lincoln Pipestone Rural Water has identified 13 parcels and 12 landowners (see Parcel List attached) as the highest in priority.

Conversations will ensue, beginning with the highest priority parcel owner, to determine the feasibility and landowner willingness to engage in the program with Lincoln Pipestone Rural Water. Dialogues will begin with the landowner of the highest parcel priority and will work through the parcel priority list accordingly. Once negotiations have determined the most suitable land acquisition opportunities, the highest prospect of mitigating vulnerable lands, Lincoln Pipestone Rural Water will advance to the point of the acquisition of properties.

Lincoln Pipestone Rural Water will follow state policy for any land acquisition using LCCMR funds and will pursue additional resources to stretch LCCMR funds for this intended use.

Vulnerable Drinking Water Supply Lands

Wellhead	Total Acres	Acres Owned	Acres Still Vulnerable
Verdi	3276.79	246.84	3029.95
Holland	2501.9	611.2	1890.7
N. Holland	854.45	9.97	844.48
Total	6633.14	868.01	5765.13

Summary Budget Information for Activity 1:

ENRTF Budget: \$ 1,363,000
Amount Spent: \$ 1,043,120
Balance: \$ 319,880

Outcome	Completion Date
1. <i>Acquire in fee title the 200 +/- acres of vulnerable drinking water supply land identified in the Lincoln Pipestone Rural Water Wellhead Protection Plan.</i>	June 30, 2019

Activity Status as of: December 2016

To date, there have been no land acquisitions.

Activity Status as of: June 2017

To date, there have been no land acquisitions.

Activity Status as of: December 2017

To date, there has been 1 land acquisition consisting of a 200.60 acre tract that was identified as Priority Number 7 on the Parcel Priority Map. LPRW will now try to attain smaller tracts that have been identified with the remaining acquisition money.

Activity Status as of: June 2018

To date, there has been 1 land acquisition consisting of a 200.60 acre tract that was identified as Priority Number 7 on the Parcel Priority Map. LPRW will now try to attain smaller tracts that have been identified with the remaining acquisition money.

Activity Status as of: December 2018

To date, there has been 1 land acquisition consisting of a 200.60-acre tract that was identified as Priority Number 7 on the Parcel Priority Map. Since LPRW is close to the end of the project, any newly acquired tracts will have to be restored before the June 2019 project deadline.

Final Report Summary: June 2019

To date, there has been 1 land acquisition consisting of a 200.60-acre tract that was identified as Priority Number 7 on the Parcel Priority Map. No further opportunities were presented to acquire land(s) for wellhead protection prior to the close of the project.

ACTIVITY 2: Professional Services for Acquisition

Description: Lands acquired with this appropriation will be from willing sellers and be identified by the Department of Health as targeted vulnerable lands for wellhead protection.

The acquisition process includes the costs and steps associated with real estate transactions, land appraisal, surveying, closing costs, title insurance, recording fees, deed tax, and any other similar transactions necessary for the acquisition.

Summary Budget Information for Activity 2:

ENRTF Budget: \$63,000
Amount Spent: \$ 7,416
Balance: \$55,584

Outcome	Completion Date
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1. Complete real estate transactions, appraisal and review, survey, attorney, closing costs, title insurance, recording fees & deed tax, etc.	June 30, 2019
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Activity Status as of: December 2016

Costs associated with the appraisal of the two separate parcels include: \$2,450 for the Keith and Pearl Pritchett appraisal, and \$750 for the Charles Pritchett and Mark Stueven appraisal.

Activity Status as of: June 2017

Costs associated with the appraisal of both the Maxine Nichols Trust Property as well as the Edward Halbersma Property include: \$2,250 for the Edward Halbersma appraisal, and \$375 for Maxine Nichols Trust Appraisal.

Activity Status as of: December 2017

DNR appraisal review for the Edward Halbersma appraisal cost \$1,590.50.

Activity Status as of: June 2018

All costs associated with professional services for acquisition have been identified in earlier reports and all money for those activities has been reimbursed, to date. Unless another property is acquired there will be no more costs associated with professional services for acquisition.

Activity Status as of: December 2018

All costs associated with professional services for acquisition have been identified in earlier reports and all money for those activities has been reimbursed, to date. Unless another property is acquired there will be no more costs associated with professional services for acquisition.

Project Status as of: December 2018

All costs associated with professional services for acquisition have been identified in earlier reports and all money for those activities has been reimbursed, to date. Unless another property is acquired there will be no more costs associated with professional services for acquisition.

Final Report Summary: June 2019

All costs associated with professional services for acquisition have been identified in earlier reports and all money for those activities has been reimbursed, to date. No new parcels were identified for acquisition.

ACTIVITY 3: Restoration of Acquired Parcels for well head protection.

Description: Acquired land will be restored to non-contaminating moisture retaining, drought resistant, grasslands. Qualified Land Restoration Specialists will be contracted for implementing these restorations.

In the long term, Fee Title Ownership will give Lincoln Pipestone Rural Water absolute and perpetual control over these targeted vulnerable lands, to place and keep them in conservation practices that prevent the entrance of contaminants from these lands into the Lincoln Pipestone Rural Water drinking water supply that serves more than 50,000 people living in Greater Southwest Minnesota.

In contrast to serving as a row crop, the restoration of the acquired lands, having adhered to the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines, will help reduce the effects of drought as their cover retain snow and rainfall and will enhance moisture retention and infiltration into the ground water supply. If the land purchased is cropland, it will be converted to native planting. The planting will follow the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines for the planting and management of the project. Lincoln Pipestone Rural Water will follow the requirements of the management plan. Along with the Lincoln Pipestone Rural Water goals to protect the ground water, removing nutrients and pollutants, the planting would provide excellent opportunities for pollination and wildlife habitat.

The Soil and Water Conservation District staff will assist with any Board of Water and Soil Resources (BWSR) Management requirements. Lincoln Pipestone Rural Water will follow the conservation plan provided by the

Soil and Water Conservation District office and use a seed mix approved by the Minnesota Board of Water and Soil Resources (BWSR), Native Vegetative specialist, Dan Shaw. Lincoln Pipestone Rural Water will utilize cost share, if provided, and accept responsibility for the costs. Lincoln Pipestone Rural Water will rely on the Soil and Water Conservation District staff for their expertise to evaluate and follow their recommendations, both for initial and follow up years. The Conservation Corps will be contacted for any assistance they may have to offer. All practices performed and costs will be kept on file for the required time.

Summary Budget Information for Activity 3:

ENRTF Budget: \$ 74,000
Amount Spent: \$ 29,983
Balance: \$ 44,017

Outcome	Completion Date
1. Restore 200+/- acres designated acquired agricultural land through a bid and contract process with Qualified Land Restoration Specialist	June 30, 2019

Activity Status as of: December 2016

To date, there has been no restoration of land.

Activity Status as of: June 2017

To date, there has been no restoration of land.

Activity Status as of: December 2017

To date, no restoration has begun. However, LPRW has identified some activities that will have to take place in spring-summer of 2018 before seeding can occur on the recently acquired Halbersma Estate land. These activities range from the moving of a poll shed off the property to the sealing of a well. We will also have to remove pasture fence as well. Once these activities are finished we can look to seeding the property. The seeding will most likely take place in the fall of 2018 as to ensure a good germination. This dormant seeding will most likely take place in November of 2018 and according to BWSR: "Fall dormant seeding should be conducted after October 15th in the northern half of the state and November 1st in the southern half of the state, and before the soil freezes. Dormant seeding can also aid the establishment of forbs and sedges in uplands where grasses can become more dominant with spring plantings. Dormant seeding is also beneficial for pollinator projects with a high percentage of forbs and if hydrology will be restored in the fall, as it may be difficult to access the site after spring snowmelt."

Activity Status as of: June 2018

No billable restoration activities have taken place; however, pasture fencing has been removed. There is also a structure on the property that has been placed up for bid on the property. The winning bidder will need to move the structure off the property by September 1st, 2018 and all proceeds will be put back into the Wellhead Protection Fund. All restoration to include seeding and seed will be put out to bid. The seeding will take place in the fall of 2018 as to ensure a good germination. We will seed to BWSR recommendations which include a minimum of 5 grasses and 5 forbs with grasses comprising no more than 70% of the mixture. This dormant seeding will most likely take place in November of 2018 and according to BWSR: "Fall dormant seeding should be conducted after October 15th in the northern half of the state and November 1st in the southern half of the state, and before the soil freezes. Dormant seeding can also aid the establishment of forbs and sedges in uplands where grasses can become more dominant with spring plantings. Dormant seeding is also beneficial for pollinator projects with a high percentage of forbs and if hydrology will be restored in the fall, as it may be difficult to access the site after spring snowmelt."

Activity Status as of: December 2018

No billable restoration activities have taken place; however, pasture fencing has been removed. There is also a structure on the property that has been placed up for bid on the property and was removed this fall. All restoration to include seeding and seed will be put out to bid. The seeding will take place in the spring of 2019, since the planned fall dormant seeding was pushed off due to unseasonably wet conditions and an early frost.

We will seed to BWSR recommendations which include a minimum of 5 grasses and 5 forbs with grasses comprising no more than 70% of the mixture. This seeding will most likely take place in April or May of 2019 and according to BWSR: "Spring and summer tends to be the best season for grass establishment and forbs such as pasque-flower, prairie smoke, phlox, shooting star, golden alexanders, gentian, meadow rue, and many violets that do not require stratification. Forbs and sedges that require a winter for stratification tend to do better with fall planting but when planted in the spring they can sit dormant for a season until they are ready to germinate." NRCS recommends CP-25 seed mix be planted on or before May 15th.

Any newly acquired parcels will be much smaller in size do to budgetary constraints but if any of these smaller parcels are acquired they will have to be acquired by May of 2019 so that restoration can be completed on them before end of project in June of 2019.

Final Report Summary: June 2019

All restoration activities have been completed. Multiple quotes were obtained for spraying and planting/materials, respectively. The project site was chemically treated for weeds in preparation for planting of native seed mix. Since the planned fall 2018 dormant seeding was pushed off due to unseasonably wet conditions and an early frost, the seeding took place in the spring (early June) of 2019. The seed met BWSR recommendations and NRCS recommended CP-25 seed mix with pollinators. According to BWSR: "Spring and summer tends to be the best season for grass establishment and forbs such as pasque-flower, prairie smoke, phlox, shooting star, golden alexanders, gentian, meadow rue, and many violets that do not require stratification. Forbs and sedges that require a winter for stratification tend to do better with fall planting but when planted in the spring they can sit dormant for a season until they are ready to germinate." Power to the abandoned homestead site was disconnected and the pole removed. Multiple quotes were requested and received for sealing of the well. The well was sealed on June 10th and documentation with Minnesota Department of Health with MN Well and Boring Sealing Record #360139 was submitted by the well contractor. A commemorative sign was designed and secured; identifying the project partners and crediting ENRTF as the funding source.

No other parcels on the Parcel List were identified for land acquisition; therefore, no additional restoration activities were performed at other locations.

V. DISSEMINATION:

Description: Lincoln Pipestone Rural Water will disseminate the land acquisition for wellhead protection through such means as:

- Lincoln Pipestone Rural Water Website
- On-site signage
- Lincoln Pipestone Rural Water newsletter
- United States Department of Agriculture newsletter
- Lincoln County Soil and Water Conservation District quarterly newsletter
- Pipestone County Soil and Water Conservation District quarterly newsletter

Status as of: December 2016

To date, there has been no dissemination; however, a meeting with landowners is being planned for later this winter.

Status as of: June 2017

Dissemination has occurred through both Lincoln-Pipestone Rural Water's website and newsletter.

Status as of: December 2017

Dissemination has occurred through LPRW's website, newsletter and through the local county SWCD's.

Status as of: June 2018

Dissemination has occurred through LPRW's website, newsletter and through the local county SWCD's.

Status as of: December 2018

Dissemination has occurred through LPRW's website, newsletter and through the local county SWCD's.

Final Report Summary: June 2019

Dissemination has occurred through LPRW's website, newsletter and through the local county SWCD's. A site visit and field day presentation was provided by LPRW project partner staff to the Southwest Minnesota Association of Soil and Water Conservation Districts – Area V regional workgroup.

VI. PROJECT BUDGET SUMMARY:

A. ENRTF Budget Overview:

Budget Category	\$ Amount	Overview Explanation
Professional/Technical/Service Contracts:	\$74,000	Restoration, Qualified Land Restoration Specialists: fall and spring tillage, packing/rolling, spraying, and seeding (200 acres – approximately \$24,000) Seed (CP-25 Per NRCS 643 Standard for RIM sites), Yellow tag "source identified from nearest available source", seed will consist of at least 15 native species with a minimum of 5 grasses and 5 forbs. Minimum grass seeding rate of 7.0 PLS lb/ac. Minimum forb seeding rate of 16.0 PLS oz/ac. Mixture will result in a minimum 35 PLS seed per sq. foot total. Grasses will comprise no more than 70% of the mixture (approximately \$50,000)
Fee Title Acquisition:	\$1,363,000	Lincoln Pipestone Rural Water will purchase approximately 200 acres.
Professional Services for Acquisition:	\$58,000	Consulting firms will provide necessary: surveys, appraisals, legal and closing costs, title insurance, environmental reviews, architectural reviews and historical reviews for acquisition transactions.
Professional / Technical / Service Contracts	\$5,000	DNR Appraisal Review
TOTAL ENRTF BUDGET:	\$1,500,000	

Explanation of Use of Classified Staff: N/A

Explanation of Capital Expenditures Greater Than \$5,000: N/A

Number of Full-time Equivalents (FTE) Directly Funded with this ENRTF Appropriation: 0

Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation: 0.5

B. Other Funds:

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
Non-state			

<ul style="list-style-type: none"> Lincoln Pipestone Rural Water (cash); 	\$26,220	\$6,119.87	<ul style="list-style-type: none"> Lincoln Pipestone Rural Water Staff Salary: Operations Manager (0.1 FTE for three years)
<ul style="list-style-type: none"> Lincoln Pipestone Rural Water (cash); 	\$37,080	\$18,953.21	<ul style="list-style-type: none"> Water Resource Operators (0.2 FTE for three years);
<ul style="list-style-type: none"> Lincoln Pipestone Rural Water (cash); 	\$65,000	\$967	<ul style="list-style-type: none"> Development Services Inc. Implementation Consultant (Contract for three years);
<ul style="list-style-type: none"> Lincoln Pipestone Rural Water (cash); 	\$15,000	\$420	<ul style="list-style-type: none"> Two (2) Lincoln Pipestone Rural Water System Board members (0.1 FTE efforts for three years);
<ul style="list-style-type: none"> Lincoln Pipestone Rural Water (cash); 	\$810	\$462	<ul style="list-style-type: none"> Lincoln Pipestone Rural Water System Fleet Vehicles and mileage expenses (travel 500 miles/month at Federal reimbursable rate for three years);
<ul style="list-style-type: none"> Lincoln County Farm Services Agency and Pipestone County Farm Services Agency, Lincoln County Soil and Water Conservation, Pipestone County Soil and Water (in-kind). 	\$1200	\$250	<ul style="list-style-type: none"> Advice, education, and communications with targeted landowners
TOTAL OTHER FUNDS:	\$145,310	\$27,172.08	

VII. PROJECT STRATEGY:

A. Project Partners – Partners Not Receiving Trust Fund Monies:

The following team members, with their individual and combined expertise, will partner to work with targeted landowners to present the protection plan program and needs, and to negotiate for voluntary purchase of lands.

- **Jason Overby**, *Lincoln Pipestone Rural Water Acting CEO / Operations Manager* - Project management.
- **Joe Weber, Frank Engels, and Rod Spronk**, *Lincoln Pipestone Rural Water Board Members/Farmers* - Negotiations with landowners.
- **Jared Beck**, *Lincoln Pipestone Rural Water Geographic Information System (GIS) and Resource Specialist* - Assisting with acquisition of vulnerable lands.

A. Project Partners – Partners Not Receiving Trust Fund Monies (continued):

- **Ron Schramel**, *Consulting Attorney* - Outside title advice.
- **Randy Kraus**, *Lincoln County Soil and Water Conservation District and Lincoln Pipestone Rural Water Board member* - Assisting with restoration of acquired vulnerable lands.
- **Nicole Schwebach** and **Adam Ossefoort**, *Pipestone County Soil and Water Conservation District* - Assisting with restoration of acquired vulnerable lands.
- **Aaron Meyer**, *Minnesota Rural Water Association Wellhead Protection Specialist* - Assisting with restoration of acquired vulnerable lands.
- **Richard Soule**, *Minnesota Department of Health Source Water Protection Specialist* - Assisting with restoration of acquired vulnerable lands.

B. Project Impact and Long-term Strategy:

Through Fee Title Ownership Lincoln Pipestone Rural Water will gain absolute and perpetual control over the targeted vulnerable lands, and will place, and maintain, them in following the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines preventing the entrance of contaminants from these lands into the Lincoln Pipestone Rural Water drinking water supply. The Lincoln Pipestone Rural Water drinking water supply serves more than 50,000 people living in Greater Southwest Minnesota. The acquired lands, once restored, will help to reduce the effects of drought as their cover retain snow and rainfall and enhances moisture retention and infiltration into the ground water supply in contrast to serving as row crop. Further grasslands, permanently restored, perpetually promote habitat and recreational use. Any net profits as required generated off this land will be set aside by Lincoln Pipestone Rural Water to be used for further acquisition of wellhead protection. . If the land purchased is cropland, it will be converted to native planting. The planting will follow the Minnesota Board of Water and Soil Resources Board of Water and Soil Resources (BWSR) Native Vegetation guidelines for the planting and management of the project.

C. Funding History for Land Acquisition:

Wellfield	Location	Date	Cost	Funding Source
North Holland	108-46-25SE (Approx. 10 acres)	10/10/00	\$25,000	Part of loan and grant from RUS for Holland Plant Project.
South Holland	107-45-7 (S 1/2, NE 1/4) (Approx. 80 acres)	10/1/90	\$115,490	Funded with RUS loan and grant for Holland Plant Project
South Holland	107-45-7 (SE 1/4) (Approx. 149 acres)	10/2/90	\$456,000	RUS Funds for Holland Plant Project.
South Holland	107-45-7 (NW 1/4) (Lots 1 & 2) (Approx. 200 acres)	12/29/99	\$397,069	RUS loan and grant
Verdi	109-47-36W & 109-47-25W (236 acres)	2/12/92	\$295,000	LPRW bond sales
Verdi	Wellsites (109-47-36 & 109-47-25)	6/1/79	\$10,000	FMHA loan and grant

VIII. FEE TITLE ACQUISITION/CONSERVATION EASEMENT/RESTORATION REQUIREMENTS:

A. Parcel List: *See attached Parcel List.*

B. Acquisition/Restoration Information:

Fee Title Acquisition

1. Describe the selection process for identifying and including proposed parcels on the parcel list, including explanation of the criteria and decision-making process used to rank and prioritize parcels.

Lincoln Pipestone Rural Water faces a number of water quality issues within its Well Fields, however, the main culprit has always been rising nitrate levels. Nitrates in drinking water at levels above 10 parts per million (ppm) pose a health risk for humans, particularly infants less than six months of age. The Minnesota Safe Drinking Water Rules require public water suppliers to monitor quarterly for at least one year for nitrates, when levels above 5.4 ppm are detected. Lincoln Pipestone Rural Water tests nitrate levels quarterly at two service area locations (Holland and Verdi) known to harbor higher than normal nitrate levels residing in their respective aquifers.

Due to the shallowness of the aquifers, the well fields at Holland and Verdi are more vulnerable to nitrate contamination than other Lincoln Pipestone Rural Water sources. For example, the Verdi Well Field, having unique geological characteristics, can recharge from precipitation very quickly. Noting that the surrounding land-use is primarily agricultural based, nitrate contamination is a definite concern.

Holland Well Field, as well, has a very shallow water table, often approaching the ground surface. Nitrate contamination consequently is an issue that Lincoln Pipestone Rural Water must deal with at the Holland Wellfield. Nitrate levels at the Holland and North Holland Well Fields continue to be high, but are relatively stable. The incorporation of the reverse osmosis treatment process has solved the problem short-term. Unfortunately, the reverse osmosis wastewater creates a discharge issue for Lincoln Pipestone Rural Water. Currently Lincoln Pipestone Rural Water is searching for different options to solve this problem.

The Verdi Well Field merits higher priority because:

- A. Annual average of nitrates are below the 10 mg/L but the aquifer is at risk of exceeding the Maximum Contaminant Level.
- B. The Verdi Well Field does not currently need treatment, so from an operations and management standpoint, the wellfield is much more valuable than Holland.
- C. Due to the discharge from treatment process of high nitrate water at Holland and North Holland, pumping out of those two wellfields may be significantly reduced in the near future.

Land Use is transient and can change at any time. It should only be given significant weight when there is a large existing source of nitrogen (i.e. a feedlot).

Parcels that lie within a greater proportion of the Wellhead Protection Area should have higher priority than those that lie outside of it.

Parcels within the 10-year Capture Zone of the wells should have a higher priority.

Parcels that are closer and directly “upstream” of the wells should have higher priority.

Parcels “upstream” of major producing wells should have greater priority than ones upstream of lower producing wells.

It is important to note that as this process evolves and more information becomes available, the parcel priority list may change. Focused recharge at boundaries between upland clay-type soils and lowland soils, the disruption of de-nitrification from irrigation, and nitrogen “hotspots” that could, at some point, become identified (such as old feedlots) may change the way the parcels are prioritized.

2. List all adopted state, regional, or local natural resource plans in which the lands included in the parcel list are identified. Include a link to the plan if one is available.

- Lincoln Pipestone Rural Water (*LPRW*) Wellhead Protection Plan
- Lincoln Pipestone Rural Water (*LPRW*) Water Plan
- Lincoln County Water Management Plan
<http://www.lincolnswcd.net/WaterPlan.htm>
- Pipestone County Comprehensive Plan
http://www.pipestone-county.com/residents/docs/Pipestone_County_Comprehensive_Plan.pdf

3. For any parcels acquired in fee title, a restoration and management must be prepared. Summarize the components and expected outcomes of restoration and management plans for parcels acquired by your organization, how these plans are kept on file by your organization, and overall strategies for long-term plan implementation, including how long-term maintenance and management needs of the parcel will be financed into the future.

Acquired land will be restored to non-contaminating moisture retaining, drought resistant, grasslands. The planting will follow the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines. Income derived from the lands acquired with ENRTF funds is exempt from the requirements under 116.P.10 if used for additional wellhead protection, until adequate wellhead protection has been achieved as determined by the Commissioner of Health. Net income earned will become a funding resource for continued land acquisition, until complete wellhead protection has been achieved. Any income earned after complete wellhead protection has been achieved will be returned to the Environment and Natural Resources Trust Fund. Qualified Land Restoration Specialists will be contracted for implementing these restorations.

Fee Title Ownership will give Lincoln Pipestone Rural Water absolute and perpetual control over these targeted vulnerable lands, to place and keep them in conservation practices that prevent the entrance of contaminants from these lands into the Lincoln Pipestone Rural Water drinking water supply that serves more than 50,000 people living in Greater Southwest Minnesota. Acquired land, once restored, will help reduce the effects of drought as its cover retain snow and rainfall and enhances moisture retention and infiltration into the ground water supply rather than serving as row crop. Further grasslands, permanently restored, perpetually promote habitat and recreational use. If the land purchased is cropland, it will be converted to native planting. The planting will follow the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines for the planting and management of the project.

Lincoln Pipestone Rural Water will maintain hard copies of the acquisition and restoration plans at the main office, located at 415 E. Benton in Lake Benton, Minnesota. Lincoln Pipestone Rural Water will also maintain these plans electronically within their secure cloud storage database.

4. If applicable (see M.S. 116P.17), provide a statement confirming that written approval from the DNR Commissioner will be obtained 10 business days prior to any final acquisition transaction.

If applicable, at least ten (10) business days prior to final transaction of the acquisition of land, Lincoln Pipestone Rural Water shall obtain written approval from the Department of Natural Resources Commissioner.

Restoration

- 1. Provide a statement confirming that all restoration activities completed with these funds will occur on land permanently protected by a conservation easement or public ownership.**

All restoration activities completed with these funds will occur on land permanently protected by a conservation easement.

- 2. Summarize the components and expected outcomes of restoration and management plans for the parcels to be restored by your organization, how these plans are kept on file by your organization, and overall strategies for long-term plan implementation.**

Through its Wellhead Protection Plan, the Lincoln Pipestone Rural Water has identified 5,700 acres (see previous table) of vulnerable drinking water supply land. In order to attain maximum ecological control and assist in the furtherance of Lincoln Pipestone Rural Water's Wellhead Protection Plan, Lincoln Pipestone Rural Water plans to acquire, in Fee Title Ownership, 200 +/- acres of the vulnerable drinking water supply land. Acquisition will be through negotiated, voluntary, direct purchases.

Acquired land will be restored to non-contaminating moisture retaining, drought resistant, grasslands adhering to the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines. Qualified Land Restoration Specialists will be contracted for implementing these restorations.

Fee Title Ownership will give Lincoln Pipestone Rural Water absolute and perpetual control over these targeted vulnerable lands, to place and keep them in conservation practices that prevent the entrance of contaminants from these lands into the Lincoln Pipestone Rural Water drinking water supply.

If the land purchased is cropland, it will be converted to native planting adhering to the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines.

Acquired lands, once restored, will help reduce the effects of drought as their cover retain snow and rainfall and enhances moisture retention and infiltration into the ground water supply rather than serving as row crop. Further grasslands, permanently restored, perpetually promote habitat and recreational use.

The Soil and Water Conservation District staff will assist with any Board of Water and Soil Resources (BWSR) management requirements. Lincoln Pipestone Rural Water will follow the conservation plan provided by the Soil and Water Conservation Office and use a seed mix approved by the Minnesota Board of Water and Soil Resources (BWSR), Native Vegetative specialist, Dan Shaw.

The restorative plans are kept on file with Lincoln Pipestone Rural Water and will be maintained appropriately.

- 3. Describe how restoration efforts will utilize and follow the Board of Soil and Water Resources "Native Vegetation Establishment and Enhancement Guidelines" in order to ensure ecological integrity and pollinator enhancement.**

If the land purchased is cropland, it will be converted to native planting adhering to the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines for the planting and management of the project.

- Lincoln Pipestone Rural Water will follow Natural Resources Conservation Service 643 practice standard "Restoration and Management of Declining Habitats".
- Native Prairie plant communities will be established utilizing seed harvested within 200 miles of the project site or utilizing seed mixes comprised of grasses and forbs adapted to Minnesota, to reflect "native prairie" communities as determined suitable for specific site conditions.

- Yellow tag “source identified” plant materials from the nearest available source to the project are preferred.
- The use of cultivars will be avoided adjacent to existing native prairie or other sensitive areas.
- Seed mixes will consist of at least 15 native species. The mixture will be comprised of a minimum of 5 grasses and 5 forbs. At least one forb shall be a legume.
- Minimum grass seeding rate will be 7.0 Pure Live Seed (PLS) lb/acre. Minimum forb seeding rate will be 16.0 Pure Live Seed (PLS) oz/acre.
- Mixture will result in a minimum 35 Pure Live Seed (PLS) seeds per square foot total. Grasses will comprise no more than 70% of the mixture based on seeds per square foot.
- Lincoln Pipestone Rural Water will also consider adding nectar and larval host milkweed plants beneficial to the Monarch butterfly and other pollinators.
- Lincoln Pipestone Rural Water will also plant pollinator forbs site specific.

4. Describe how the long-term maintenance and management needs of the parcel being restored with these funds will be met and financed into the future.

Long-term management of the parcels that will be restored will be maintained adhering to the Minnesota Board of Water and Soil Resources (BWSR) Native Vegetation guidelines and may include the following:

- Mowing biennial weeds to 5-8 inches during the first couple of years to provide sunlight and to decrease competition for seedlings.
- Spot herbicide treatment of perennial weeds after the second year.
- Prescribe burning to maintain diversity and control woody species after year 3.
- Conservation grazing, bioenergy harvest and biocontrol of invasive species.

All maintenance and management financial needs will be met with funding mechanisms established through Lincoln Pipestone Rural Water’s Wellhead Protection Program.

5. Describe how consideration will be given to contracting with Conservation Corps of Minnesota for any restoration activities.

The Conservation Corps will be contacted for any assistance they may have to offer.

6. Provide a statement indicating that evaluations will be completed on parcels where activities were implemented both 1) initially after activity completion and 2) three years later as a follow-up. Evaluations should analyze improvements to the parcel and whether goals have been met, identify any problems with the implementation, and identify any findings that can be used to improve implementation of future restoration efforts at the site or elsewhere.

Evaluations will be completed on parcels where activities have been implemented, both initially after activity completion, and three (3) years later as a follow-up. The results of the evaluations will be reported to the LCCMR. Evaluations will document not only successes but also failures and to assess progress towards goals and objectives. These findings will help Lincoln Pipestone Rural Water’s implementation and restoration efforts in the future.

Lincoln Pipestone Rural Water will rely on the Soil and Water Conservation District staff for their expertise to evaluate and follow their recommendations, both for initial and follow up years. All practices performed and costs will be kept on file for the required time.

IX. VISUAL COMPONENT or MAP(S): See attached.

X. RESEARCH ADDENDUM:

XI. REPORTING REQUIREMENTS:

Periodic work plan status update reports will be submitted no later than [June 30, 2016], [December 31, 2016], and [June 30, 2017]. A final report and associated products will be submitted between June 30 and August 15, 2019.

Status as of: December 2016

Status update completed.

Status as of: June 2017

Status update completed.

Status as of: December 2017

Status update completed.

Status as of: June 2018

Status update completed.

Status as of: December 2018

Status update completed.

Final Report Summary: June 2019

Final report submitted

**Environment and Natural Resources Trust Fund
M.L. 2016 Project Budget**

Project Title: Lincoln Pipestone Rural Water System Land Acquisition for Wellhead Protection

Legal Citation: M.L. 2016, Chp. 186, Sec. 2, Subd. 09d

Project Manager: Jason Overby

Organization: Lincoln Pipestone Rural Water

M.L. 2016 ENRTF Appropriation: \$ 1,500,000.00

Project Length and Completion Date: 3 Years, June 30, 2019

Date of Report: June 28, 2019



ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Activity 1 Balance	Activity 2 Budget	Amount Spent	Activity 2 Balance	Activity 3 Budget	Amount Spent	Activity 3 Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM	<i>Acquisition(s) of Vulnerable Land Parcels</i>			<i>Legal Work of Acquisition</i>			<i>Restoration of Aquired Parcels for Wellhead Protection</i>				
Personnel (Wages and Benefits)											
Equipment/Supplies/Professional/Technical/Service Contracts											
<i>Restoration: Seed, Qualified Land Restoration Specialists, fall and spring tillage, packing/rolling, spraying, and seeding.</i>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$50,000.00	\$29,982.21	\$20,017.79	\$50,000.00	\$20,017.79
Equipment/Supplies/Professional/Technical/Service Contracts											
<i>Continued Maintenance: Qualified Land Restoration Specialist, fall and spring tillage, spraying, etc.</i>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$24,000.00	\$24,000.00	\$24,000.00
Fee Title Acquisition											
<i>LPRW will purchase approximately 200 acres of vulnerable land.</i>	\$1,363,000.00	\$1,043,120.00	\$319,880.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,363,000.00	\$319,880.00
Professional Services for Acquisition											
<i>Consulting firms will provide necessary: surveys, appraisals, legal and closing costs, title insurance, environmental revies, architectural reviews and historical reviews for acquisition transaction.</i>	\$0.00	\$0.00	\$0.00	\$58,000.00	\$5,825.00	\$52,175.00	\$0.00	\$0.00	\$0.00	\$58,000.00	\$52,175.00
Professional/Technical/Service Contracts											
<i>DNR Appraisal Review</i>	\$0.00	\$0.00	\$0.00	\$5,000.00	\$1,590.50	\$3,409.50	\$0.00	\$0.00	\$0.00	\$5,000.00	\$3,409.50
COLUMN TOTAL	\$1,363,000.00	\$1,043,120.00	\$319,880.00	\$63,000.00	\$7,415.50	\$55,584.50	\$74,000.00	\$29,982.21	\$44,017.79	\$1,500,000.00	\$419,482.29