

# NEBRASKA NATURAL RESOURCES COMMISSION

Water Sustainability Fund

Application for Funding

## Section A.

### ADMINISTRATIVE

PROJECT NAME: Middle Loup Stream Flow Enhancement

#### *PRIMARY CONTACT INFORMATION*

Entity Name: Farwell Irrigation District, Sargent Irrigation District, Middle Loup Public Power and Irrigation District

Contact Name: Matt Lukasiewicz

Address: PO Box 137, Farwell, NE 68838

Phone: 308-336-3341

Email: mluk@qwestoffice.net

Partners / Co-sponsors, if any: Lower Loup NRD

1. Dollar amounts requested: (Grant, Loan, or Combination)

Grant amount requested. \$ 5,751,713 or 60% of Phase 1 project costs

Loan amount requested. \$ [Click here to enter text.](#)

If Loan, how many years repayment period? [Click here to enter text.](#)

If Loan, supply a complete year-by-year repayment schedule.  
[Click here to enter text.](#)

2. Permits Needed - Attach copy for each obtained (N/A = not applicable)

Nebraska Game & Parks Commission  
(G&P) consultation on Threatened and  
Endangered Species and their Habitat

N/A  Obtained: YES

NO

Surface Water Right	N/A <input type="checkbox"/> Obtained: YES <input type="checkbox"/>	<b>NO</b> <input type="checkbox"/>
USACE (e.g., 404 Permit)	N/A <input type="checkbox"/> Obtained: YES <input type="checkbox"/>	<b>NO</b> <input type="checkbox"/>
Cultural Resources Evaluation	N/A <input type="checkbox"/> Obtained: YES <input type="checkbox"/>	<b>NO</b> <input type="checkbox"/>
Other (provide explanation below) Click here to enter text.	N/A <input type="checkbox"/> Obtained: YES <input type="checkbox"/>	<b>NO</b> <input type="checkbox"/>

3. Are you applying for funding for a combined sewer over-flow project?

YES  **NO**

If yes, do you have a Long Term Control Plan that is currently approved by the Nebraska Department of Environmental Quality?

YES  NO

If yes attach a copy to your application. [Click here to enter text.](#)

If yes what is the population served by your project? [Click here to enter text.](#)

If yes provide a demonstration of need. [Click here to enter text.](#)

If yes and you were approved for funding in the most recent funding cycle, then resubmit the above information updated annually but you need not complete the remainder of the application.

4. If you are or are representing an NRD, do you have an Integrated Management Plan in place, or have you initiated one?

**N/A**  YES  NO

5. Has this application previously been submitted for funding assistance from the Water Sustainability Fund and not been funded?

YES  **NO**

If yes, have any changes been made to the application in comparison to the previously submitted application? [Click here to enter text.](#)

If yes, describe the changes that have been made since the last application. [Click here to enter text.](#)

No, I certify the application is a true and exact copy of the previously submitted and scored application. (Signature required) [Click here to enter text.](#)

6. Complete the following if your project has or will commence prior to next July 1<sup>st</sup>.

As of the date of submittal of this application, what is the Total Net Local Share of Expenses incurred for which you are asking cost share assistance from this fund? \$ [Click here to enter text.](#)

Attach all substantiating documentation such as invoices, cancelled checks etc. along with an itemized statement for these expenses. [Click here to enter text.](#)

Estimate the Total Net Local Share of Expenses and a description of each you will incur between the date of submittal of this application and next July 1<sup>st</sup> for which you are asking cost share assistance from this fund.  
\$ [Click here to enter text.](#)

## Section B.

### DNR DIRECTOR'S FINDINGS

Does your project include physical construction (defined as moving dirt, directing water, physically constructing something, or installing equipment)?

YES  NO

- 1(a). If yes (structural), submit a feasibility report (to comply with Title 261, CH 2) including engineering and technical data and the following information:

A discussion of the plan of development (004.01 A);

The first Phase will require the installation gates, telemetry, and software along a portion of all three Irrigation Districts. You may also refer to Rubicon Water Scoping Study

A description of all field investigations made to substantiate the feasibility report (004.01 B); The sizing of these gates are based on the physical dimensions of the existing structures and the required flow capacities in each pool. The specific configuration of gate model and quantity is subject to change pending field verification fo the sizing data gathered during the scoping phase of this project. You may also refer to Rubicon Water Scoping Study

Maps, drawings, charts, tables, etc., used as a basis for the feasibility report (004.01 C); Refer to Rubicon Water Scoping Study, figures 1-4 and 6-24.

A description of any necessary water and land rights and pertinent water supply and water quality information, if appropriate (004.01 D);  
N/A

A discussion of each component of the final plan including, when applicable (004.01 E); The final plan will be the full implementation of a three phase approach for total channel control of the three Irrigation Districts along the Middle Loup River.

Required geologic investigation (004.01 E 1); No geologic investigation is needed for this project.

Required hydrologic data (004.01 E 2); Analyzing historic data from the Irrigation Districts and knowing that typical efficiency improvements of 20%-30% can be realized, a water savings between 45,000 ac-ft and 60,000 ac-ft can be expected every year, once fully completed. Refer to Table 2 of the scoping study.

Design criteria for final design including, but not limited to, soil mechanics, hydraulic, hydrologic, structural, embankments and foundation criteria (004.01 E 3). No extensive changes are proposed for this project. The final design is to utilize existing infrastructure with an automated gate system, to improve operational efficiencies and increase stream flow by minimizing diversions.

- 1(b). If no (non-structural), submit data necessary to establish technical feasibility including, but not limited to the following (004.02):

A discussion of the plan of development (004.02 A);

[Click here to enter text.](#)

A description of field or research investigations utilized to substantiate the project conception (004.02 B); [Click here to enter text.](#)

A description of the necessary water and/or land rights, if applicable (004.02 C); [Click here to enter text.](#)

A discussion of the anticipated effects, if any, of the project upon the development and/or operation of existing or envisioned structural measures including a brief description of any such measure (004.02 D).

[Click here to enter text.](#)

2. Provide evidence that there are no known means of accomplishing the same purpose or purposes more economically, by describing the next best alternative. Laterals have been buried into PVC pipe where able, up to 27". If larger pipe is used, then it is not economically feasible. Additionally, the basin benefits from the recharge via these canal systems and would eliminate a major contributor to ground water storage if the system were completely put into pipe. Therefore, there is no known alternative to accomplishing the same goal.
3. Document all sources and report all costs and benefit data using current data, (commodity prices, recreation benefit prices, and wildlife prices as prescribed by the Director) using both dollar values and other units of measurement when appropriate (environmental, social, cultural, data improvement, etc.). The period of analysis for economic feasibility studies shall be fifty (50) years or with prior approval of the Director, up to one hundred (100) years [T261 CH 2 (005)].
- Describe any relevant cost information including, but not limited to the engineering and inspection costs, capital construction costs, annual operation and maintenance costs, and replacement costs. Cost information shall also include the estimated construction period as well as the estimated project life (005.01). The engineering and inspection

have already been complete and a final analysis will take place once the project receives funding. The total cost is estimated a maximum of \$23,899,933, for full implementation, and a maximum of \$9,586,189 for phase 1. However, because of previous conservation efforts, those estimated costs will be less, which will be determined during the final analysis. Annual operation will be limited to software support and maintenance at 20% of the purchase price of the software. Anything else will be done in-house, as part of daily activities of the Irrigation Districts. The projected construction period is estimated to be 5 to 6 years for complete implementation. The durable stainless steel construction should last far into the future.

- Only primary tangible benefits may be counted in providing the monetary benefit information and shall be displayed by year for the project life. In a multi-purpose project, estimate benefits for each purpose, by year, for the life of the project. Describe any intangible or secondary benefits separately. In a case where there is no generally accepted method for calculation of primary tangible benefits describe how the project will increase water sustainability, such that the economic feasibility of the project can be approved by the Director and the Commission (005.02). For the life of the project, it's expected to improve efficiencies by 20% or more, which is a total water savings of at least 45,000 acre-feet annually in the Middle Loup River. This will continue for an unpredictable number of years, while improving the cost to benefit ratio every year of its existence. By increasing the stream flow in the Middle Loup River, it contributes to domestic uses downstream to the Missouri River, recreational opportunity, more habitat for endangered species, all during the summer months when the demand is at its peak.
  - All benefit and cost data shall be presented in a table form to indicate the annual cash flow for the life of the proposal, not to exceed 100 years (005.03). [Click here to enter text.](#)
  - In the case of projects for which there is no generally accepted method for calculation of primary tangible benefits and if the project will increase water sustainability, the economic feasibility of such proposal shall be demonstrated by such method as the Director and the Commission deem appropriate (005.04). [Click here to enter text.](#)
4. Provide evidence that sufficient funds are available to complete the proposal. The Irrigation District's are considered local Government with taxing authority, on a per acre basis, and have the ability to increase those rates for budget purposes. Additionally, provided in this packet are supporting financial documents you may refer to.
  5. Provide evidence that sufficient annual revenue is available to repay the reimbursable costs and to cover OM&R (operate, maintain, and replace).

Provided in this packet are the Annual Budgets.

6. If a loan is involved, provide sufficient documentation to prove that the loan can be repaid during the repayment life of the proposal.  
[Click here to enter text.](#)
7. Describe how the plan of development minimizes impacts on the natural environment.  
Again, by utilizing the existing infrastructure, there will be no new development that will affect the natural environment.
8. Explain how you are qualified, responsible and legally capable of carrying out the project for which you are seeking funds.  
By having an existing water right, existing facilities to work with, and annual budgets that has taxing authority, makes this project capable for implementing a sustainable water supply while improving stream flow.
9. Explain how your project considers plans and programs of the state and resources development plans of the political subdivisions of the state.  
This project is proven in case studies to improve operational loss of diverted water and leave that difference in the River. The beneficiaries of that additional stream flow are everything and everyone who depend of that supply for their needs, geographically from the Middle Loup River in Blaine County to where the Platte River meets the Missouri River.
10. Are land rights necessary to complete your project?  
YES  NO   
  
If yes, provide a complete listing of all lands involved in the project.  
[Click here to enter text.](#)  
  
If yes, attach proof of ownership for each easements, rights-of-way and fee title currently held.  
[Click here to enter text.](#)  
  
If yes, provide assurance that you can hold or can acquire title to all lands not currently held.  
[Click here to enter text.](#)
11. Identify how you possess all necessary authority to undertake or participate in the project. The fact that the entities involved are recognized as a Public District and Local Governments, they have the powers within those statues.

12. Identify the probable environmental and ecological consequences that may result as the result of the project. There are no consequences identified as a result of this project, only positive benefits will be created.



## Section C.

### NRC SCORING

In the NRC's scoring process, points will be given to each project in ranking the projects, with the total number of points determining the final project ranking list.

The following 15 criteria constitute the items for which points will be assigned. Point assignments will be 0, 2, 4, or 6 for items 1 through 8; and 0, 1, 2, or 3 for items 9 through 15. Two additional points will be awarded to projects which address issues determined by the NRC to be the result of a federal mandate.

#### **Notes:**

- The responses to one criterion will not be considered in the scoring of other criteria. Repeat references as needed to support documentation in each criterion as appropriate. The 15 categories are specified by statute and will be used to create scoring matrixes which will ultimately determine which projects receive funding.
- There is a total of 69 possible points, plus two bonus points. The potential number of points awarded for each criteria are noted in parenthesis. Once points are assigned, they will be added to determine a final score. The scores will determine ranking.
- The Commission recommends providing the requested information and the requests are not intended to limit the information an applicant may provide. An applicant should include additional information that is believed will assist the Commission in understanding a proposal so that it can be awarded the points to which it is entitled.

Complete any of the following (15) criteria which apply to your project. Your response will be reviewed and scored by the NRC. Place an N/A (not applicable) in any that do not apply, an N/A will automatically be placed in any response fields left blank.

1. Remediates or mitigates threats to drinking water;
  - Describe the specific threats to drinking water the project will address.
  - Identify whose drinking water, how many people are affected, how will project remediate or mitigate.
  - Provide a history of issues and tried solutions.
  - Provide detail regarding long range impacts if issues are not resolved.

One major threat to drinking water that will be addressed is the quantity issues. After full implementation of the project is complete, the amount of undiverted water that will be left in the Middle Loup River is believed to be about 45,000 acre/feet, during the

summer months, which is when there is more demand on the River. Additionally, the water left in the River will increase supply further downstream for other appropriators. One major appropriator is the City of Lincoln, who relies on that supply for their domestic use. Looking back on a dry 2012 year, that water could have been very useful for a major part of the State, if this project was already in place.

2. Meets the goals and objectives of an approved integrated management plan or ground water management plan;
  - Identify the specific plan that is being referenced including date, who issued it and whether it is an IMP or GW management plan.
  - Provide the history of work completed to achieve the goals of this plan.
  - List which goals and objectives of the management plan the project provides benefits for and how the project provides those benefits.

Currently, the Loup Basin is working on a “Voluntary IMP” which is not approved yet. However, this type of project could be incorporated into an IMP as an effort to avoid being Fully Appropriated.

3. Contributes to water sustainability goals by increasing aquifer recharge, reducing aquifer depletion, or increasing streamflow;

List the following information that is applicable:

- The location, area and amount of recharge;
- The location, area and amount that aquifer depletion will be reduced;
- The reach, amount and timing of increased streamflow. Describe how the project will meet these objectives and what the source of the water is;
- Provide a detailed listing of cross basin benefits, if any.

This project could be used to improve ground water recharge by maintaining higher and more consistent levels in all canal systems. This recharge will help benefit ground water users and again help with stream flows by retiming that additional recharge back to the Middle Loup River. Also as mentioned before, this project has been fully engineered, with a full assessment of the capabilities what of benefits that will be achieved on this stream and those downstream. In case studies with similar projects, efficiencies have improved by 20% or better. By looking at historical data from the three Irrigation Districts, and figuring that 20%, it is believed that 45,000 acre feet or more water will be left in the River to benefit downstream users.

4. Contributes to multiple water supply goals, including, but not limited to, flood control, agricultural use, municipal and industrial uses, recreational benefits, wildlife habitat, conservation of water resources, and preservation of water resources;
  - List the goals the project provides benefits.

- Describe how the project will provide these benefits
- Provide a long range forecast of the expected benefits this project could have versus continuing on current path.

The projected 45,000 acre feet or more water to be increased in the Middle Loup River is expected every year. Which means that amount of water will be additional availability for users far into the future. A major benefit with this additional water is for the downstream appropriators. All demand on the Middle Loup River below the diversion points will benefit from the additional supply, including demand on the Loup River, which also flow into the Platte River.

5. Maximizes the beneficial use of Nebraska's water resources for the benefit of the state's residents;

- Describe how the project will maximize the increased beneficial use of Nebraska's water resources.
- Describe the beneficial uses that will be reduced, if any.
- Describe how the project provides a beneficial impact to the state's residents.

This project is capable of impacting a large portion of the State and its water supply far into the future. By creating additional stream flow there is potential for more recreational opportunities, more ground water recharge, a more consistent domestic supply, and additional irrigation and agricultural opportunity. A full implementation of this project will benefit all of these uses who depend of water, and will affect an area of the State, starting in Blaine County by Milburn, NE, all the way through Lincoln and Omaha.

6. Is cost-effective;

- List the estimated construction costs, O/M costs, land and water acquisition costs, alternative options, value of benefits gained.
- Compare these costs to other methods of achieving the same benefits.
- List the costs of the project.
- Describe how it is a cost effective project or alternative.

There are no other alternatives that can achieve the types of results that have been demonstrated in similar projects that this one is proposing. In a time that water is becoming more valuable, the cost/benefit ratio will consistently increase. The construction to build a project will also consistently increase. Funding this project will have benefits far into the future with minimal annual cost. The pricing estimated applied to the this system understanding is based on a limited opportunity to physically survey the system, and so there may be discrepancies between the systems that has been priced in this proposal document and the final system specification. If the decision is made to proceed with a project implementation review then Rubicon will undertake a more detailed inspection and analysis to allow firm system specifications and pricing to be determined. That being said the project has been broken down into three phase.

Initial costs for phase 1 are estimated to be \$9,586,189 or less, phase 2 \$8,557,840 or less, phase 3 \$5,755,631 or less, with a total project cost of \$23,899,933, or less. A detailed inventory with associated costs is supplied in the Rubicon Scoping Study on pages 82 – 84.

7. Helps the state meet its obligations under interstate compacts, decrees, or other state contracts or agreements or federal law;

- Identify the interstate compact, decree, state contract or agreement or federal law.
- Describe how the project will help the state meet its obligations under compacts, decrees, state contracts or agreements or federal law.
- Describe current deficiencies and document how the project will reduce deficiencies.

I am not aware of any obligation that the State or any other entity has that needs to be identified in this section. NA

8. Reduces threats to property damage or protects critical infrastructure that consists of the physical assets, systems, and networks vital to the state or the United States such that their incapacitation would have a debilitating effect on public security or public health and safety;

- Identify the property that the project is intended to reduce threats to.
- Describe and quantify reductions in threats to critical infrastructure provided by the project and how the infrastructure is vital to Nebraska or the United States.
- Identify the potential value of cost savings resulting from completion of the project.
- Describe the benefits for public security, public health and safety.

NA

9. Improves water quality;

- Describe what quality issue(s) is/are to be improved.
- Describe and quantify how the project improves water quality, what is the target area, what is the population or acreage receiving benefits, what is the usage of the water: residential, industrial, agriculture or recreational.
- Describe other possible solutions to remedy this issue.
- Describe the history of the water quality issue including previous attempts to remedy the problem and the results obtained.

The Irrigation Districts have to treat the water within their system with chemicals to ensure quality and efficient operations. By diverting less water, there is less water in the system, meaning there is less water to treat, therefore using less chemical. This

also means less chemical in our groundwater supply and less chemical returning to our streams.

10. Has utilized all available funding resources of the local jurisdiction to support the program, project, or activity;

- Identify the local jurisdiction that supports the project.
- List current property tax levy, valuations, or other sources of revenue for the sponsoring entity.
- List other funding sources for the project.

As of now, the Lower Loup NRD has approved support to assist with this project, individuals at other affected NRD's have expressed interest and will be formally approached, Loup Public Power is aware of this project and has expressed interest, the Nebraska Game and Parks Commission will be contacted, as well as major domestic beneficiaries such as the City of Lincoln will also be approached. The intent is to gain any and all participation from those who can benefit once approved for a Water Sustainability Grant. Once approved, another grant application will be filed with the Nebraska Environmental Trust for additional funds.

11. Has a local jurisdiction with plans in place that support sustainable water use;

- List the local jurisdiction and identify specific plans being referenced that are in place to support sustainable water use.
- Provide the history of work completed to achieve the goals of these plans.
- List which goals and objectives this project will provide benefits for and how this project supports or contributes to those plans.
- Describe and quantify how the project supports sustainable water use, what is the target area, what is the population or acreage receiving benefits, what is the usage of the water: residential, industrial, agriculture or recreational.
- List all stakeholders involved in project.
- Identify who benefits from this project.

For years these three Irrigation District have invested millions of dollars in infrastructure to conserve as much of their water supply as possible. Looking as historical diversions, they have improved their total consumption by an average of 30% - 40% by implementing conservation techniques. Analyzing what has been done and what can be done moving forward, technology and automation is that next step to conservation. This project has been proven in other Irrigation Districts and can have the same results in Nebraska if funded. By increasing efficiencies within our Irrigation Districts, will decrease the amount of consumed water by the Districts and essentially leaving that water in the River every year, and increase a sustainably water supply into the future. This increased water supply will be utilized by any ground water or surface water user around and along the Middle Loup, Loup, and Lower Platte Rivers.

12. Addresses a statewide problem or issue;

- List the issues or problems addressed by the project and why they should be considered statewide.
- Describe how the project will address each issue and/or problem.
- Describe the total number of people and/or total number of acres that would receive benefits.
- Identify the benefit, to the state, this project would provide.

Any time there is a drought in our State, it is a major issue that can be detrimental to all. The intent of the Water Sustainability Grant is to implement ways to improve and sustain our States water supplies. This project has been proven to do just that, and will continue to eliminating those issues far into the future by increasing the amount of water in our Rivers.

13. Contributes to the state's ability to leverage state dollars with local or federal government partners or other partners to maximize the use of its resources;

- List other funding sources or other partners, and the amount each will contribute, in a funding matrix.
- Describe how each source of funding is made available if the project is funded.
- Provide a copy or evidence of each commitment, for each separate source, of match dollars and funding partners.
- Describe how you will proceed if other funding sources do not come through.

The Lower Loup NRD committed to the project at their December meeting, with those minutes getting approved in January. Other NRD's have been informed of this project and are interested in hearing a proposal. The City of Lincoln, the Game and Parks will also be informed and offered a proposal to participate. Additional Grant application will be pursued following the approval of this application, such as the Nebraska Environmental Trust. There has already been a ton of interest but needs to be approved through the Water Sustainability Fund before initiating proposals to others.

14. Contributes to watershed health and function;

- Describe how the project will contribute to watershed health and function in detail and list all of the watersheds affected.

The health of the water shed's affected is not determined but will certainly not be negatively impacted, and will only improve conditions moving forward. The water sheds to be affected is the majority of the Middle Loup River, all of the Loup River and the Lower Platte River where the Loup River flow into.

15. Uses objectives described in the annual report and plan of work for the state water planning and review process issued by the department.

- Identify the date of the Annual Report utilized.
- List any and all objectives of the Annual Report intended to be met by the project
- Explain how the project meets each objective.

NA

16. Federal Mandate Bonus. If you believe that your project is designed to meet the requirements of a federal mandate which furthers the goals of the WSF, then:

- Describe the federal mandate.
- Provide documentary evidence of the federal mandate.
- Describe how the project meets the requirements of the federal mandate.
- Describe the relationship between the federal mandate and how the project furthers the goals of water sustainability.

NA

## Section D.

### PROJECT DESCRIPTION

#### 1. Overview

In 1,000 characters or less, provide a brief description of your project including the nature and purpose of the project and objectives of the project.

The three major Irrigation Districts in the Middle Loup Basin are Sargent, Middle Loup PP&ID and Farwell. These three district's supply water to their farmers via canal networks with diversions from the Middle Loup River and the Sherman Reservoir. This project describes how Rubicon Water's Network Control proposes to allow the Middle Loup Basin Irrigation Districts to increase water availability in Sherman Reservoir, increase in-stream flows for the benefit of downstream users and achieve a near-on demand water supply for farmers. Rubicon Water supplies mature and proven technology to eliminate operational spills in open canal networks by precisely matching supplied flows to demand. It has been identified that Rubicon's approach to eliminating system spills can be applied to improve the distribution efficiency of the canals of the Middle Loup Basin. The water savings opportunity for the three districts in the Middle Loup Basin is considered. Typical distribution system efficiency gains resulting from Network Control implementations are in the range of 20-30%. If these efficiency gains are realized in the districts of the Middle Loup Basin, then it is estimated that yearly water savings of between 45,000 ac-ft and 60,000 ac-ft will be achieved. Rubicon's Network Control solutions have been in operation for more than thirteen years and are helping many districts worldwide to improve distribution efficiency by precisely matching supplied flows to demand at all points through the network. The solution provides a key opportunity for the Middle Loup Basin Irrigation Districts to yield basin-wide benefits including increased in-stream flows to benefit downstream users, improved service levels to farmers, near on-demand water deliveries for farmers and improved delivery efficiencies. This proposal is to make more water available for farmers in the Middle Loup Basin by eliminating operational spill from the basin's canal distribution networks under normal operations. Demands upon the river are increasing yearly due to population growth and commitments to address environmental concerns. Agricultural crop requirements increase when there is a precipitation deficit or an increase in ambient air temperature. In years of high demand the river supply does not meet demand. The technology employed by the districts described would provide a key opportunity to economically recover water in the primary canals and laterals of the three Middle Loup Basin Irrigation Districts. Water savings can be achieved by addressing the loss components that are generally present in open canal by addressing operational spills, leakage and seepage, inaccurate metering, and evaporation. The proposed installation of Rubicon's Network Control will address operational spills and identify locations of leakage and seepage to allow targeted lining and remediation. On the basis of our analysis of the Middle Loup Basin systems, we are confident that the solution proposed within this application can deliver the benefits to the Middle Loup



Basin Irrigation Districts and all Middle Loup, Loup, and Lower Platte River, surface water and ground water users.

## 2. Project Tasks and Timeline

Identify what activities will be conducted by the project. For multiyear projects please list what activities are to be completed each year.

This project is expected to take as many as 6 years with three phases to complete. Each phase will take approximately 2 years to complete. Year number 1 will include a detailed inspection and analysis of the three Irrigation District's to determine firm system specifications and pricing. Year's 1 and 2, or phase 1, will start preparing existing sites for the new system to be installed, and also begin installing the gates, communications, hardware, software, and begin training. Year's 3 and 4, or phase 2, will already have the primary communications, hardware, and software installed, and will continue to prepare additional existing sites, implement more gates, and more secondary communications. Year's 5 and 6, or phase three, will be much of the same as phase 2, just adding to the system for total system implementation.

## 3. Partnerships

Identify the roles and responsibilities of agencies and groups involved in the proposed project regardless of whether each is an additional funding source. List any other sources of funding that have been approached for project support and that have officially turned you down. Attach the rejection letter.

Other sources of funding will be coming from the Lower Loup NRD, not to exceed \$1.5 million. The Irrigation Districts are doing all the civil work, preparing and installing most of the system. Once a Water Sustainability Grant is approved, other affected NRD's, the Game and Parks, and the City of Lincoln will be approached with a proposal. Finally, this fall a Nebraska Environmental Trust Grant will be applied for as well.

## 4. Other Sources of Funding

Identify the costs of the entire project, what costs each other source of funding will be applied to, and whether each of these other sources of funding is confirmed. If not, please identify those entities and list the date when confirmation is expected. Explain how you will implement the project if these sources are not obtained.

Based on the acceptance of this Grant, a detailed inspection and analysis of the system specification and pricing will be completed. Those results will allow us to establish a monetary request to all stakeholders and gather the required costs associated. As of now, these costs are estimated at a maximum amount and will be less once a final inspection is complete. Those estimated costs are broke down per Irrigation District and by 3 phases. Table number 11 in the Scoping Study shows those

figures broke down. Initial costs for phase 1 are estimated to be \$9,586,189 or less, phase 2 \$8,557,840 or less, phase 3 \$5,755,631 or less, with a total project cost of \$23,899,933, or less.

5. Support/Opposition

Discuss both support and opposition to the project, including the group or interest each represents.

At this point, multiple NRD's have been notified, certain people within the Game and Parks have been notified, and Loup Public Power has been notified. All parties have expressed great interest in this project and the Lower Loup NRD has also committed money towards the project. No parties, groups or others have expressed opposition yet.