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October 5, 2016

Jeff Fassett  
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Dear Jeff:

Enclosed is a copy of the Lewis & Clark NRD's Long Range Implementation Plan. The Board of Directors approved the plan at their September 15<sup>th</sup> meeting. If you have any questions or comments let me know.

Sincerely,

Marilyn Schumacher  
Office Manager

cc Game & Parks  
NARD  
NRCS Offices

RECEIVED  
OCT 11 2016  
DEPARTMENT OF  
NATURAL RESOURCES

**LEWIS AND CLARK NATURAL RESOURCES DISTRICT  
LONG-RANGE IMPLEMENTATION PLAN**

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## SECTION III

### I. INTRODUCTION

#### *A. REASON FOR PLANNING*

As required by Section 2-3277, each natural resource district shall prepare and adopt a long-range implementation plan to summarize activities and project needs of the district. The long-range implementation plan will be reviewed and updated annually, with copies sent to the Department of Natural Resources and the Nebraska Game & Parks Commission by October 1 of each year.

The directors of the Lewis and Clark NRD feel the development and adoption of required plans is not only necessary to satisfy the requirements of the law, but is necessary to give an organized approach to budgeting and accomplishing the goals of the district.

#### *B. PURPOSE OF THE PLAN*

The purpose of the plan shall be to summarize the activities as planned by the NRD. It will show the expected financial, manpower and land rights needs for the current year and the projected needs for the next five years. The activities are listed in order of their priorities as given to them by the directors on February 19, 2009.

The plan will be used by the directors in their decision making to develop the water and related land resources for the common good of the people. It is also intended to inform the general public of the goals and purpose of the NRD.

#### *C. AUTHORITY AND RESPONSIBILITY OF THE DISTRICT*

As stated by Section 2-3229 of the Nebraska Statutes, the purpose of NRDs shall be to develop and execute, through the exercise of power and authorities contained in this act, plans, facilities, works, and programs related to: (1) erosion prevention and control; (2) prevention of damages from floodwater and sediment; (3) flood prevention and control; (4) soil conservation; (5) water supply for any beneficial use; (6) development, management, utilization and conservation of ground water and surface water; (7) pollution control; (8) solid waste disposal and sanitary drainage; (9) drainage improvement and channel rectification; (10) development and management of fish and wildlife habitat; (11) development and management of recreational and park facility works; and (12) forestry and range management.

The Lewis and Clark NRD have considered these authorities and for the purpose of this plan have consolidated them into the seven categories in Table 7 of this plan.

#### ***D. DESCRIPTION OF THE DISTRICT***

The Lewis and Clark Natural Resources District is located in extreme northeastern Nebraska. It consists of 1,467 square miles in Dixon, Cedar and Knox Counties. (about 956,300 acres).

Soils vary widely within the District due to extensive glaciations ranging from glacial outcrops, Loess Hills, to Missouri River alluvial. Rainfall amounts range from 22 to 24 inches annually, with frequent years of below normal rainfall. Elevation ranges from 1,100 to 1,875 feet above sea level.

Approximately 38% of the land area is native range or pasture and over 55% is cropland, approximately 20% is irrigated. Soil erosion on cropland is currently the District's most serious problem.

The area's economy depends largely on farming and ranching. Very little industry exists in the district.

The district has four major drainage areas: the Bazile Creek, the Bow Creek, the Aowa Creek and the Antelope-Beaver Creek.

The district has only small towns, the largest of which is Hartington, with a population of 1,554. Yankton, South Dakota across the Missouri River to the north, is the largest city near the district. The average per capita income of persons in some of the counties in the NRD is among the lowest in the state. This, along with the Lewis and Clark NRD's assessed valuation being one of the lowest of the 23 NRDs; causes the directors to plan carefully the amount of finances needed each year. The district has a projected decline in population over the next ten years. The projected decline is mainly due to an out migration of younger people.

The Lewis and Clark NRD is governed by a board of 11 directors, elected by voters at general elections, each serving a four-year term. The District is currently divided into five sub-districts of equal population with two members representing each sub district, plus one member at large. Elections are held every two years for half the members.

## II. SUMMARY OF PLANNED ACTIVITIES

### *A. CONSERVATION COST SHARE PROGRAMS*

The Lewis and Clark NRD has signed an agreement with the Nebraska Department of Natural Resources to administer the Nebraska Soil and Water Conservation Program within the area. An annual appropriation is available through that program for conservation practices within the District. The Nebraska Soil and Water Conservation Program will provide a share of the funding for installation of practices such as tree plantings, grade stabilization dams, planned grazing systems, grass seeding, terraces, grassed waterways, and other practices. As this program has developed, these practices have been given priority by the board of directors due to considerable demand for funds. The district has continued to use more of its NRD funds for its own cost-share programs, including a Deep Soil Testing Cost Share Program adopted in 1989 to monitor residual nitrogen, a Sealed Well Abandonment Program started in 1991, a Community Assistance Program adopted in 1998 and a Cover Crop Program adopted in 2015.

### *B. GROUNDWATER MONITORING*

The Lewis and Clark NRD has approved a revised groundwater quantity management plan within the District. Groundwater level measurements since 1975 had not shown appreciable declines but 2012 conditions have changed that status. The plan amendment sets up control measures for water quantity should declines show a downward trend.

The district quantity-monitoring program, which began in 1975, now includes 35 observation wells across the District, which are measured for static water levels every spring and fall to determine groundwater fluctuation. This information is reported to the U.S. Geological Survey in Lincoln for computer charting.

A Groundwater Quality program is presently being carried out as detailed in the NRD Groundwater Management Plan, 1993. Approximately two hundred sites across the district are currently sampled to track the level of nitrate-nitrogen in the groundwater. Technicians also collect water samples from six multi-level observation wells around Creighton in the Bazile Groundwater Management Area. These wells allow the district to track the nitrate level in three different layers of the aquifer. A significant amount of the resource technician's time is spent collecting samples, compiling data and sending information to the cooperators and appropriate agencies.

48 additional observation wells have been developed across the district in order to monitor water quality of the various aquifer systems and to start establishment of a hydro geologic framework of the district water resources.

### *C. RURAL WATER DISTRIBUTION SYSTEM*

The Cedar Knox Rural Water Project got its start in early 1978 when the Manager Tom Moser met with the Village of St. Helena's Council to discuss problems locating good quality water and the potential to fund a system to distribute it to homes in the area. The NRD funded a survey in 1979 with the help of the Midwest Assistance Program in an effort to determine the interest in water service not only for St Helena, but, more economically for other rural users. The survey showed interest extended into Knox County along the Missouri River. The NRD appointed a Steering Committee and collected agreements for an engineering design of the project. The system was eventually constructed in 1981 serving 280 rural residences, and the communities of Crofton and St. Helena. An expansion to the Bow Creek area of Cedar County was constructed in 1990 adding 120 users and the Village of Obert. The Village of Fordyce was added in 1996. The system now serves 872 rural residents and the four communities named above.

The potential to address modifications for treatment plant capacity and other improvements are being evaluated. Actual efforts on the NRD's part originally consisted of organization and administration of meetings, tours, mailings, etc., followed by the actual construction of the initial project at a cost of 2.2 million dollars in 1981. Additional construction costs for the Bow Creek area construction in 1990-1992 nearing 2.7 million dollars. This activity has resulted in the need of the board to hire five project employees to run the plant and provide system maintenance and customer service within the project area. The actual function of the NRD is to review and ratify the recommendations of the Advisory Committee, which provides local guidance of the project. Consultant engineering services with Bartlett & West Engineering and McIntyre Consulting are used. The Project is self-supporting on income from water sales. Administration time will continue to be required to accommodate the responsibilities of the NRD to administer and provide these project services.

In 2005, the NRD in cooperation with Lower Elkhorn NRD began assisting the communities of Coleridge, Belden, Wausa, Magnet and McLean on a proposed regional water system that would also serve rural residents. The project design was based on a service area and the project was completed in 2012. The Lower Elkhorn NRD administers the Wau-Col Rural Water System. The Lewis and Clark NRD will continue to serve on the Advisory Committee under an interlocal agreement.

#### ***D. WATERSHED PROJECTS***

Aowa Creek Watershed is the only federal watershed project within the NRD and was started in 1969. It covers 55,350 acres in Dixon County and includes a total of 50 structures. Sponsorship responsibilities of the NRD include land rights acquisition, and operation and maintenance. This requires the district to coordinate with the landowners concerned.

Construction of the Powder Creek Project Site # 31-20A was completed in 2003 at a total cost of over 2.9 million dollars. The Natural Resources Conservation Service (NRCS) planned, designed, and supervised the actual construction of the watershed dams. Aowa # 31-20A was approved for Natural Resources Development Fund Grant assistance, along with NDEQ Section 319 funding, Game & Parks Sportfish Restoration and Nebraska Environmental Trust Fund. It provides flood control and recreational benefits. Facility development continues on the site for recreation and fishery potential.

The Antelope-Beaver Creek Watershed, although not eligible for PL 566 funds, collected funding for flood control that was inherited by the NRD. Four structures were built on Beaver Creek and a fifth site was completed on Antelope Creek near Menominee, with donated easements provided by landowners on that site. NRCS completed the design, planning, and construction in December 1986 at cost of \$503,438. Local coordination meetings were held and an application for funding through the Nebraska Department of Natural Resources Resource Development Fund was approved. Local costs were divided between the NRD and Cedar County. In 1986 the area was renamed the Chalkrock Wildlife Management Area and is maintained by the Game and Parks Commission. Limited facilities on the site are provided and the area is open to the public for hunting and fishing.

The District has also investigated potential areas for flood control watershed applications. A potential dam site on Buffalo Creek was identified and built in 1995 which controls runoff from 2150 acres that impact county and state bridges. Land rights were obtained and funding assistance provided by the Nebraska Environmental Trust for construction. The area was renamed Tatanka Wildlife Management Area in 1995. The site was maintained by the Nebraska Game & Parks Commission until January 2005.

#### ***E. TREE PLANTING***

The Lewis and Clark NRD, through Star Tree Service of Sioux City, Iowa, annually plants 15,000 to 30,000 trees as a service to the residents inside and outside of the district. The effort is coordinated by NRD staff, who receive and review NRCS job sheets, establish planting routes, monitor planting performance and handle tree sales. The NRD also handles conservation mulch and tree stock in bulk for resale and billing customers for the services.

A great deal of administrative time is involved in ordering, selling and distributing trees even before planting activities begin. The NRD feels this is necessary to insure quality trees are planted for the landowners. Once planting begins, the district depends on cooperation from the Natural Resources Conservation Service to make certain farmers understand their responsibilities and to ensure the trees are planted according to the plan they have worked out with the farmers.

In 2016, the district planted over 23,600 trees on 49 farms and sold 35,600 total. The NRD also sold 94,800 feet of weed barrier. Future year's plantings are expected to be similar to recent years. A survey of customers regarding satisfaction was conducted in 1994 and 81% rated the work planting trees as good or excellent. The NRD has provided over 1.8 million trees in the District since 1972.

#### ***F. GRASS SEEDING***

The Lewis and Clark NRD owns one, seven foot no-till grass drill. The grass-seeding program offers drills to farmers at a cost to cover expenses to establish native grass plantings. The no-till drill is offered through Paul Goeden of Hartington and provided for by the Lewis & Clark Pheasants Forever Chapter with funding from the Nebraska Environmental Trust.

#### ***G. NRCS SUPPORT PROGRAMS***

In conjunction with our memorandum of understanding with the Natural Resources Conservation Service, the majority of our efforts to assist them are directed toward providing clerical help in the office. This allows their staff to expend more time serving technical and conservation needs. The Lewis and Clark NRD hires and pays for 51% of the clerk's time in Knox County (Bloomfield), 75% of the clerk's time in Cedar County (Hartington), and 73% of the Dixon County clerk's time (Ponca). The NRD has also employed temporary technical aides to assist NRCS crews during the busy summer months. Some funds are provided by NRCS for technical service providers to help administer Farm Bill activities.

#### ***H. INFORMATION AND EDUCATION***

The Lewis and Clark NRD takes part in making a full effort to inform and educate the general public about natural resources as well as recognizing those who are already conservation minded. The following programs are coordinated by the staff:

- a) Distribution of Stewardship material to the churches and/or schools within the district.

- b) Provide NACD and NRD Conservation booklets to district schools about trees, water, soil, butterfly gardens and birds.
- c) Aquafest, a water education program for fifth grade students, is a coordinated effort between the Lewis & Clark NRD, Lower Elkhorn NRD, Papio-Missouri River NRD and the Cooperative Extension. More than 350 students from northeast Nebraska attend the two-day event each year.
- d) The Wonderful World of Water, a water education program for ninth and tenth grade students, is a coordinated effort between the Lewis and Clark NRD, Lower Elkhorn NRD, Upper Elkhorn NRD, Lower Niobrara NRD, and the Cooperative Extension Service. Nearly 26 teams from 14 schools attend this program held annually at Gillman Park, Pierce, NE.
- e) An educational event for K to 6 students at the Hartington Newcastle Public and Holy Trinity schools is hosted by Cedar County Extension, Hartington FFA, the Bank of Hartington, the Lewis & Clark NRD as well as other organization. The one day event is planned about National Ag Day.
- f) The NRD offers natural resource presentations to schools on water, soil conservation, trees, and wildlife habitat. The staff utilizes an enviroscape model, groundwater flow model, and water rocket launcher as part of these presentations.
- g) The NRD distributes nearly 500 trees to schools in conjunction with Arbor Day annually.
- h) Scholarships are made available to middle school students each year to attend Adventure Camp about the Environment (ACE Camp) in Halsey
- i) Patefield-Green Memorial Scholarships are given in the amount of \$500 toward education for pursuing an agriculturally related degree and planning to return to Northeast Nebraska following graduation. Four recipients are selected by the Board.
- j) NRD slide presentations are given to churches, schools, and civic clubs.
- k) News releases are sent to local papers monthly to inform the public of the Lewis & Clark NRD programs
- l) The NRD promotes and assists with the State Envirothon Competition, Nebraska State Fair, Husker Harvest Days, Regional Land Judging and Area Range Judging Contests.

In addition to these programs the NRD directors and staff attend various local, state and national meetings to educate themselves and to work for necessary legislative changes.

## ***I. SPECIAL PROJECTS***

Chemigation is the application of pesticides and fertilizers directly through irrigation systems. As of January 1, 1987, no person may apply chemicals using Chemigation without first obtaining an annual permit from the NRD for each injection point. The permit holder must be the owner or operator of the

land. Permits are required for each injection location and the District will conduct periodic inspections to insure compliance.

Applications for permits will be reviewed by the NRD, an inspection, conducted and permits approved or rejected within 45 days of receipt. Before approval, the Chemigation system must have a check valve and vacuum relief valve in the irrigation pipe, an inspection port for the check valve in the irrigation pipe, an automatic low pressure drain between the main check valve and irrigation pump, a check valve in the chemical injection line, and a simultaneous interlock device between the power system for the injection unit and irrigation pumping plant.

In addition, the person operating the equipment must be certified by the Department of Environmental Quality. The initial permit fee is \$50.00. An annual renewal fee of \$20.00 will also be charged. 2015 saw 427 permits issued. Fines can be leveled for violations. One-fourth of the resource technician's time is spent on Chemigation. 2014 saw 414 permits issued.

The Bazile Triangle Groundwater Quality Study was completed in 1990 as part of a joint NRD project, among three neighbor NRD's. A follow-up study was done in 2000 by the UNL Water Center. Both studies indicated an increasing scope and trend pattern of groundwater nitrate-nitrogen probably resulting from over application of commercial fertilizer.

In 1989, the District began offering cost share for Deep Soil Sampling. Reimbursement cost share is offered to cooperators who take samples to a depth of 3 feet for residual nitrate-nitrogen done by crop consultants. 75% of the actual cost is reimbursed on land in the Bazile Triangle GWMA and this program is only available in that area.

The Lewis & Clark NRD directors created the Bazile Groundwater Management Area in October 2004. At that time rules and regulations were established to help better manage fertilizer application and minimize leaching of nitrate-nitrogen to the groundwater table. The two township sized area includes 70 square miles and 44,800 acres. The Lewis and Clark NRD is working to coordinate program with neighbor NRDs as part of the Bazile Groundwater Management Plan. Working with Lower Niobrara, Lower Elkhorn, Upper Elkhorn NRD and Lewis and Clark NRD are working to develop goals and objectives as well as an action plan that effectively reduces nitrate contamination in this area. A pilot program was started in 2002 called "Siphoning Nitrates with Irrigated Pasture" (SNIP) to convert cropland to pasture and utilize groundwater nitrate-nitrogen through the crop. Annual cost share of \$100 per acre over two years is offered as incentive. NRCS guidelines must be followed.

A companion program titled "Siphoning Nitrates with Irrigated Hay" was also offered in 2005 to convert irrigated cropland to alfalfa to better tap into groundwater nitrate areas. A Chemigation Cost

share program in the Bazile Triangle area offers \$4.00 per acre to encourage the practice of applying nitrogen fertilizer on an “as-needed” basis.

In March 1991, the NRD initiated the Sealed Well Abandonment Program (SWAP) to call attention to unplugged, inactive wells. The program was devised to provide an attractive alternative to physically accomplish the task. Landowners obtain bids to complete the work from a licensed well driller or pump installer according to state guidelines which are then approved by the NRD. Annual applications total up to 50 wells sealed per year.

In 2014, the NRD approved an appendix to its Groundwater Management Plan to address groundwater quantity issues for the entire District. The plan sets guidelines for well permits, flow meters, certified acres and other management components. It will also set criteria for areas that become water short with rules and regulations to control water use for the shared benefit of all. The NRD has completed a voluntary Integrated Management Plan developed with the Dept. of Natural Resources over the last year which combines groundwater and surface water quantity management.

#### ***J. WILDLIFE HABITAT PROGRAM***

The Lewis and Clark NRD was one of the original districts that created the Habitat Program. The directors feel it has been multi-effective in its accomplishments for re-vegetating marginal cropland, providing wildlife habitat, reducing erosion and opening lands to public access. This program won the Nebraska Wildlife Federation "Agency Conservation of the Year Award" for the NRD in 1974.

At present, the Nebraska WILD program has enrollment of 5 cooperators for approximately 196. The district offers four main practices: grassland and woodland habitat with a practice for tree and shrub planting. Starting in 2000, the District added a management option practice to provide wildlife enhancement. The project is funded partially through the Nebraska Game and Parks Commission, who provided payment from Habitat Stamp revenue. At present, the total budgeted expense for 2017 is about \$7,820.

#### ***K. PROJECT OPERATION AND MAINTENANCE***

Operation and maintenance for the district is a required program primarily consisting of efforts in the Aowa Creek Watershed.

The watershed operation and maintenance in the past has consisted of weed control and fence repair on existing structures. In future, the however, there will be more major item repairs in addition to general maintenance. Following a summer inspection tour, the manager or technician will take care of operation and maintenance problems. Because there are 50 structures built, maintenance has become

more expensive and time consuming. The District can anticipate a moderate increase in funding for these operation and maintenance activities and has set up a sinking fund to meet those responsibilities.

#### *L. POLLUTION CONTROL*

The Lewis and Clark NRD has been authorized under LB 474 (1986 Legislature) to implement a District Erosion and Sediment Control Program to limit soil loss and require conservation through a complaint system. The rules and regulations were amended in 2016 to implement that plan and the NRD is prepared to handle complaints and to work to achieve the goals of erosion reduction. Conservation education and awareness are to be given future emphasis.

Groundwater pollution in the District will also be addressed under the Groundwater Protection Act, which provides districts with authorities to stabilize water quality following designation of a special protection area, by the Nebraska Department of Environmental Quality.

#### *M. RECREATION FACILITIES*

The Lewis and Clark NRD has provided limited assistance to communities planning for recreation. Such requests are considered on a case-by-case basis. Limited facilities for recreation will also be provided according to watershed plan requirements on 340 acres at Buckskin Hill WMA and 467 acres at Powder Creek. Those facilities include boating, picnicking, parking areas and boat ramps. Now utilized as a Wildlife Management Area, both are open to the public for fishing and hunting purposes and are operated and maintained by the Nebraska Game and Parks Commission. Similar facilities were also installed at Chalkrock Lake WMA.

In 1998, the NRD approved a Community Assistance Program to aid cities and communities on local projects. Fifty percent cost share is available to develop conservation practices on development areas, outdoor classrooms, tree planting projects, landscape designing on park areas, and dry hydrant installation.

#### *N. MISSOURI RECREATION RIVER ACTIVITY*

On July 15, 1976, the Lewis and Clark NRD became the first local agency along the Missouri River to sign a contract with the U.S. Army Corps of Engineers as local sponsors for the Missouri River Erosion Control Demonstration Project (Section 32). This initiated the bank stabilization of critical sites along the stretch of the Missouri River from Yankton to Ponca where erosion had been particularly abrasive to the shoreline. A total of five sites were selected by a committee of representatives from the NRD, Cedar and Dixon Counties, the Department of Natural Resources, the Army Corps of Engineers,

the Nebraska Game and Parks Commission and members of the Missouri River Bank Stabilization Association. Three of the sites were designated critical and the contract to begin on the first one (Brooky Bottoms Road) was let on October 20, 1976. The other two in Dixon County (Mulberry Bend and Ryan Bend) were completed in 1977. Completed later were Ionia Bend in Dixon County in 1978, and Cedar County Park in 1979-1980.

As sponsor for the project, the District: (1) obtained the necessary right-of-way; (2) holds and saves the United States free from damages resulting from construction; (3) operates and maintains all works after completion. The NRD has obtained the necessary easements on all of the five areas to this date and construction was completed on all for a total cost of \$2,640,000. The credit for initiating the project goes to the Missouri River Bank Stabilization Association.

The NRD continues to support the "Recreation River" national designation of this stretch of the river because of the unique inclusion of bank protection features. The District obtained a conservation easement north of St. Helena on over 1000 acres and participated in activities with the National Park Service to cooperate on management activities. A permanent Wetlands Reserve Program easement is in place on these acres. The district continues to be a member the Missouri River Bank Stabilization Association group to promote conservation improvements for landowners along the river.

In 2007, the NRD was successful in obtaining Transportation Enhancement Act grant funds for the Meridian Trail Project, Phase 1. The district worked with Eisenbraun and Associates on the design with construction of the hiking/biking trail completed in May, 2012. The Phase 2 application to continue the trail from Gavins Point Dam to the old Highway 81 Meridian Bridge has been halted due to Nebraska Dept. of Roads policy to not allow trail construction in Highway ROW. Some finish work is planned on the Phase 1 site in 2017.

In 2010, the NRD was also awarded a grant from the Nebraska Game & Parks Recreational Trails Program for Missouri River Water Trail signage. Together with University of South Dakota Missouri River Institute, the project was completed in 2011.

### ***O. GROUNDWATER IRRIGATION RUNOFF CONTROL***

Rules and regulations concerning violations of the Groundwater Management Act (LB 577-1977) have been adopted by the Lewis and Clark NRD. Complaints regarding illegal wells or improper irrigation runoff can be made to the District office in Hartington for proper procedures to comply.

At present, the Lewis and Clark NRD has had one complaint filed on improper runoff. The directors decided that it was not valid and rejected it. It is hoped that common sense and knowledge of the law will eliminate many of these problems.

## *P. ADMINISTRATION*

Since 1973, the Lewis and Clark NRD has employed a District Manager and a percentage portion of NRCS Clerks for the three counties. The district office staff also employs a full time office manager, water resource technician and a resources technician, along with five rural water project employees. Under guidance by the NRD directors, the manager assumes responsibility for the district office activities, rural water administration, contract and compliance official on cost share and habitat programs; Aowa watershed coordinator; observation well monitoring; tree planting coordinator and public relations official. The office manager's duties are fiscal, secretarial, accounting and receptionist, as well as, taking minutes at meetings. The NRCS clerks serve in a clerical and receptionist capacity. The water resource technician and resource technician's primary duties include groundwater permitting, Aowa maintenance, information & education, Chemigation, groundwater monitoring, and other responsibilities.

Requirements resulting from state and federal programs and responsibilities may require additional workload in the future. In the past year, administration has taken up about 10 percent of the employee's time.

## *Q. ROAD STRUCTURES AND ROADSIDE EROSION CONTROL*

At this time there is no funding or staff time dedicated to these activities they may become active again and budget and staff requirements will be considered should that occur.

**TABLE 1-LAND RIGHTS NEEDS  
FISCAL YEAR 2017-2022**

PROJECT	FEE TITLE		EASEMENT	
	DESCRIPTION	ESTIMATED COST	DESCRIPTION	ESTIMATED COST
NONE				
<b>TOTALS</b>		None		None

**TABLE 2 - PERSONNEL TIME REQUIRED FOR DISTRICT  
PROGRAM AND PROJECTS - FISCAL YEAR 2017**

<b>PROGRAM OR PROJECT</b>	<b>Manager</b>	<b>Water Resource Technician</b>	<b>Resource Technician</b>	<b>Rural Water Operators</b>	<b>Office Manager &amp; Bookkeeper</b>	<b>CLERKS</b>	<b>TOTALS</b>
A. CONSERVATION COST SHARE	100	100			100	240	<b>540</b>
B. GROUNDWATER MONITOR	150	1000	500		20	60	<b>1730</b>
C. RURAL WATER SYSTEM	215			8820	2080		<b>11215</b>
D. WATERSHED PROJECTS	100	300			50	50	<b>250</b>
E. TREE PLANTING	220	200	130		200	600	<b>1180</b>
F. GRASS SEEDING	10					20	<b>30</b>
G. NRCS SUPPORT PROGRAM	100				200	4200	<b>4500</b>
H. INFORMATION & EDUCATION	40	150	700		160	100	<b>1050</b>
I. SPECIAL PROJECT	400	200	900		300	140	<b>1640</b>
J. HABITAT PROGRAM	115				20	80	<b>215</b>
K. PROJECT O&M	90	410	100		20		<b>620</b>
L. POLLUTION CONTROL	60				90	100	<b>250</b>
M. RECREATION FACILITIES	30	150	50		40		<b>270</b>
N. MO RIVER BANK ACTIVITIES	90				20		<b>110</b>
O. GW IRRIGATION RUNOFF	50						<b>50</b>
P. ADMINISTRATION	500	300			910	500	<b>2210</b>
<b>TOTALS</b>	<b>2270</b>	<b>2810</b>	<b>2380</b>	<b>8820</b>	<b>4210</b>	<b>6090</b>	<b>26580</b>

TABLE 3 - SUMMARY OF COSTS BY PROGRAM OR PROJECT

FISCAL YEAR 2017

		Equipment	Personnel	Professional Services	Operating Costs	Legal	Construction	Total	Federal/State	Rural Water Projects	Total
A	Conservation Cost Share	\$ 100	\$ 10,000		\$ 21,000		\$ 85,000	\$ 116,100			\$ 116,100
B	Groundwater Monitor	\$ 2,000	\$ 37,100		\$ 90,000		\$ 180,000	\$ 309,100			\$ 309,100
C	Rural Water System	\$ 250	\$ 15,000					\$ 15,250			\$ 15,250
D	Watershed Projects	\$ 4,000	\$ 12,600		\$ 22,000			\$ 38,600			\$ 38,600
E	Tree Planting	\$ 26,600	\$ 19,100		\$ 87,000			\$ 132,700			\$ 132,700
F	Grass Seeding		\$ 600					\$ 600			\$ 600
G	NRCS Support Program	\$ 2,500	\$ 55,600	\$ 30,000				\$ 88,100			\$ 88,100
H	Information & Education	\$ 3,000	\$ 20,000		\$ 7,000			\$ 30,000			\$ 30,000
I	Special Project	\$ 10,000	\$ 37,900	\$ 150,000	\$ 105,000			\$ 302,900			\$ 302,900
J	Habitat Program	\$ 250	\$ 6,000		\$ 8,700			\$ 14,950			\$ 14,950
K	Project O&M	\$ 6,000	\$ 20,000	\$ 5,000	\$ 48,000			\$ 79,000			\$ 79,000
L	Pollution Control	\$ 150	\$ 5,000					\$ 5,150			\$ 5,150
M	Recreation Facilities	\$ 100	\$ 5,400				\$ 5,000	\$ 10,500			\$ 10,500
N	Mo River Bank Activities	\$ 150	\$ 3,500					\$ 3,650			\$ 3,650
O	GW Irrigation Runoff	\$ -	\$ 2,500					\$ 2,500			\$ 2,500
P	Administration	\$ 6,000	\$ 60,000	\$ 14,000	\$ 125,000	\$ 23,800	\$ 151,200	\$ 380,000			\$ 380,000
											\$ -
		\$ 61,100	\$ 310,300	\$ 199,000	\$ 513,700	\$ 23,800	\$ 421,200	\$ 1,529,100			\$ 1,529,100

TABLE 4 - SUMMARY OF PROJECTED LAND RIGHTS NEEDS 2017-2022

PROJECT	EASEMENT		FEE TITLE	
	DESCRIPTION	ESTIMATED COSTS	DESCRIPTION	ESTIMATED COST
NONE				

TABLE 5 - SUMMARY OF PROJECTED PERSONNEL NEEDS 2017-2022

Project or Program		2017	2018	2019	2020	2021	2022
A	Conservation Cost Share	Manager	100	100	100	100	100
		Off Mgr & Clerks	340	340	340	340	340
		Water Res Tech	100	100	100	100	100
B	Groundwater Monitor	Manager	150	150	150	150	150
		Water Res Tech	1500	1500	1500	1500	1500
		Office Manager	20	20	20	20	20
		NRCS Clerks	60	60	60	60	60
C	Rural Water System	Manager	215	215	215	215	215
		Bookkeeper	2080	2080	2080	2080	2080
		Operators	8820	8820	8820	8820	8820
D	Watershed Projects	Manager	100	100	100	100	100
		Water Res Tech & TM	300	300	300	300	300
		Office Manager	50	50	50	50	50
		Clerk	50	50	50	50	50
E	Tree Planting	Manager	220	200	200	200	200
		Water Res & Tech & TM	330	330	330	330	330
		Office Manager	200	200	200	200	200
		NRCS Clerks	600	600	600	600	600
F	Grass Seeding	Manager	10	10	10	10	10
		NRCS Clerks	20	20	20	20	20
G	NRCS Support Program	Manager	100	100	100	100	100
		Office Manager	200	200	200	200	200
		NRCS Clerks	4200	4200	4200	4200	4200
H	Information & Education	Manager	40	40	40	40	40
		Water Res & Tech & TM	850	850	850	850	850
		Office Manager	160	160	160	160	160
		NRCS Clerks	100	100	100	100	100
I	Special Project	Manager	400	400	400	400	400
		Office Mgr & NRCS Clerks	440	440	440	440	440
		Water Res & Tech & TM	1100	1100	1100	1100	1100
J	Habitat Program	Manager	115	115	115	115	115
		Office Manager	20	20	20	20	20
		NRCS Clerks	80	80	80	80	80
K	Project O&M	Manager	90	90	90	90	90
		Office Manager	20	20	20	20	20
		Water Res & Tech	510	510	510	510	510
L	Pollution Control	Manager	60	60	60	60	60
		Office Mgr & NRCS Clerks	190	190	190	190	190
M	Recreation Facilities	Manager	30	30	30	30	30
		Res Tech	200	200	200	200	200
		Office Manager	40	40	40	40	40
N	Mo River Bank Activities	Manager	90	90	90	90	90
		Office Manager	20	20	20	20	20
O	GW Irrigation Runoff	Manager	50	50	50	50	50
P	Administration	Manager	500	500	500	500	500
		Office Manager	910	910	910	910	910
		NRCS Clerks	500	500	500	500	500
		TM	300	300	300	300	300
		26580	26560	26560	26560	26560	26560

**TABLE 6 - SIX YEAR SUMMARY OF PROJECT NRD COSTS AND REVENUES**

COSTS BY PROJECTS AND PROGRAMS		2017	2018	2019	2020	2021	2022
A	Conservation Cost Share	\$ 116,100	\$ 117,000	\$ 117,000	\$ 117,000	\$ 117,000	\$ 117,000
B	Groundwater Monitor	\$ 309,100	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000	\$ 310,000
C	Rural Water System	\$ 15,250	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000	\$ 16,000
D	Watershed Projects	\$ 38,600	\$ 39,000	\$ 39,000	\$ 39,000	\$ 39,000	\$ 39,000
E	Tree Planting	\$ 132,700	\$ 133,000	\$ 133,000	\$ 133,000	\$ 133,000	\$ 133,000
F	Grass Seeding	\$ 600	\$ 600	\$ 600	\$ 600	\$ 600	\$ 600
G	NRCS Support Program	\$ 88,100	\$ 89,000	\$ 89,000	\$ 89,000	\$ 89,000	\$ 89,000
H	Information & Education	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
I	Special Project	\$ 302,900	\$ 303,000	\$ 303,000	\$ 303,000	\$ 303,000	\$ 303,000
J	habitat Program	\$ 14,950	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
K	Project O&M	\$ 79,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000
L	Pollution Control	\$ 5,150	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
M	Recreation Facilities	\$ 10,500	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000	\$ 11,000
N	Mo River Bank Activities	\$ 3,650	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
O	GW Irrigation Runoff	\$ 2,500	\$ 2,400	\$ 2,400	\$ 2,400	\$ 2,400	\$ 2,400
P	Administration	\$ 380,000	\$ 380,000	\$ 380,000	\$ 380,000	\$ 380,000	\$ 380,000
		\$ 1,529,100	\$ 1,534,000	\$ 1,534,000	\$ 1,534,000	\$ 1,534,000	\$ 1,534,000

SOURCE OF REVENUE		2017	2018	2019	2020	2021	2022
	UNENCUMBERED BALANCE	149,020	150,000	150,000	150,000	150,000	150,000
	STATE FUNDS	307,700	309,000	309,000	309,000	309,000	309,000
	LOCAL FUNDS (RENT, TREES)	138,800	140,000	140,000	140,000	140,000	140,000
	PROPERTY TAX	933,580	935,000	935,000	935,000	935,000	935,000
		1,529,100	1,534,000	1,534,000	1,534,000	1,534,000	1,534,000

TABLE 7 FISCAL YEAR 2017

		SOIL CONSERVATION & EROSION CONTROL	WATER QUALITY & POLLUTION CONTROL	SURFACE GROUNDWATER SUPPLY & MANAGEMENT	FORESTRY & RANGE MANAGEMENT	FLOOD CONTROL	RECREATION FISH & WILDLIFE	MISSOURI RIVER	Total
A	Conservation Cost Share	\$ 30,000	\$ 20,130	\$ 22,000	\$ 12,000	\$ 14,000			98,130
B	Groundwater Monitor		\$ 74,700	\$ 345,500					420,200
C	Rural Water System		\$ 5,000	\$ 2,780					7,780
D	Watershed Projects	\$ 5,270	\$ 5,000			\$ 10,000	\$ 7,000		27,270
E	Tree Planting	\$ 55,600			\$ 63,000				118,600
F	Grass Seeding				\$ 150				150
G	NRCS Support Program	\$ 37,500	\$ 17,500	\$ 17,500	\$ 17,500	\$ 7,500			97,500
H	Information & Education	\$ 4,250	\$ 3,000	\$ 3,540	\$ 500	\$ 2,500	\$ 500		14,290
I	Special I Project	\$ 7,400	\$ 17,500	\$ 74,120	\$ 3,000			\$ 11,000	113,020
J	Habitat Program	\$ 5,700			\$ 4,200		\$ 1,500		11,400
K	Project O&M	\$ 30,700			\$ 6,100	\$ 37,000			73,800
L	Pollution Control	\$ 2,500	\$ 2,150						4,650
M	Road Structures Dams					\$ 190			190
N	Roadside Erosion Control	\$ 120							120
O	Recreation Facilities						\$ 5,280		5,280
P	Mo River Bank Activities							\$ 1,800	1,800
Q	GW Irrigation Runoff			\$ 150					150
R	Administration	\$ 22,700	\$ 32,770	\$ 53,200	\$ 13,000	\$ 29,200	\$ 15,600	\$ 6,200	172,670
		\$ 201,740	\$ 177,750	\$ 518,790	\$ 119,450	\$ 100,390	\$ 29,880	\$ 19,000	1,167,000

## **TIMETABLE FOR ACTION: Fiscal Year 2017**

For the purpose of giving the Board guidance in pursuing their objectives, they have designed the following schedule as a timetable for accomplishing their projects. This schedule is based on respective quarters of the year for action on each item of the Implementation Plan. Some items are ongoing and cannot be categorized into one three-month period, so will be grouped under "ongoing projects".

### **JULY THROUGH SEPTEMBER**

1. Work on operation and maintenance in Aowa watershed.
2. Inspect Wildlife Management Areas. Check on signs, gravel, and other maintenance needs.
3. Provide information on Deep Soil Testing Program to encourage use and benefits for fertilizer management.
4. Follow up on Chemigation inspections - normal and enforcement.
5. Inspect Buffers Strips and Habitat Program areas for signs of vandalism or violations.
6. Obligate and administer cost share programs under the State Soil and Water Conservation Act and Lewis and Clark NRD programs.
7. Work on administration of rural water project, revenue analysis, treatment modifications and exercise valves.
8. Monitor Sealed Well Abandonment Program activities for performance and payment.
9. Take Groundwater Quality Samples and analyze results.

### **OCTOBER THROUGH DECEMBER**

1. Provide tree planting costs and information to requesting cooperators in the District, bulk order spring trees and conservation mulch.
2. Hold annual meeting and make awards presentation.
3. Monitor irrigation wells in the District for static levels and report measurements.
4. Follow up on Meridian Trail planning and maintenance
5. Follow up on maintenance on Powder Creek, Buckskin Hills and other structures in Aowa Creek Watershed.

6. Follow up on Cedar Knox Rural Water Project Plan of Operation and coordinate options for rural water service elsewhere.
7. Administer and coordinate Groundwater Management Plan updates in Creighton area and for NRD.
8. Work with all groups on Missouri River planning efforts

#### **JANUARY THROUGH MARCH**

1. Administer and organize tree planting operations, including tree purchase and sales.
2. Send representatives to national convention to educate and broaden the outlook of local NRD.
3. Distribute request for Patefield - Green Scholarship applications to District schools to be presented by NRD Directors.
4. Review management programs in Bazile Groundwater Management Area
5. Organize Chemigation inspections and issue permits.
6. Make payment to Habitat Program cooperators and approve acres for new contracts.

#### **APRIL THROUGH JUNE**

1. Monitor irrigation wells in the NRD for static levels and report measurements to U.S. Geological Survey Division.
2. Plan conservation education programs.
3. Assist landowners in tree planting operations.
4. Distribute resources stewardship material to district churches.
5. Extend youth scholarships to resident students for ACE Camp
6. Coordinate rural water project activities as needed.
7. Present Patefield-Green scholarships to four outstanding seniors in the NRD at \$500 each.
8. Conduct and coordinate chemigation inspections on new and renewal permit applications.
9. Implement and administer complaint process under Groundwater Management Act, as well as Sediment and Erosion Control complaints.

10. Make annual inspection of Aowa Watershed structures and perform necessary operation and maintenance.

**CONTINUOUS YEAR AROUND PROJECTS UNDERTAKEN BY THE NRD:**

1. Provide schools with NACD Conservation Booklets and teacher guides.
2. Provide schools, churches, and local groups with films and slide shows on NRD activities.
3. Attend state and local meetings to provide guidance, inform public, and educate our efforts toward conservation.
4. Distribute periodic news releases on activities of the NRD.
5. Coordinate water quality studies and problems and work with communities and other NRDs on groundwater modeling efforts.
6. Coordinate and participate in other agency activities relating to natural resource problems and developments.
7. Review budget documents as well as Long Range Implementation Plan, Master Plan, Sediment & Erosion Control Plan and Groundwater Management Plan for revision and implementation. Also revise NRD Rules and Regulations and Policies as determined by NRD Board.
8. Monitor activity of the Corps of Discovery Welcome Center for proper fiscal management and quality public service.
9. Process Well Permit Applications and follow up on Certified Acres, flow meters and other permit requirements.

## SUMMARY

The Master Plan put together by the Lewis and Clark Natural Resources District Board of Directors is designed to be practical and workable. It is the hope of the Board to obtain the cooperation and interest of all other agencies and the public in pursuing its goals and objectives in the same manner as we have received in the past.

It is the sincere intention of this natural resources district to do a thorough and equitable job of maintaining and developing the resources of this district. With the help and assistance of concerned individuals working toward preserving our natural resources, we can achieve that purpose for which we are in existence.