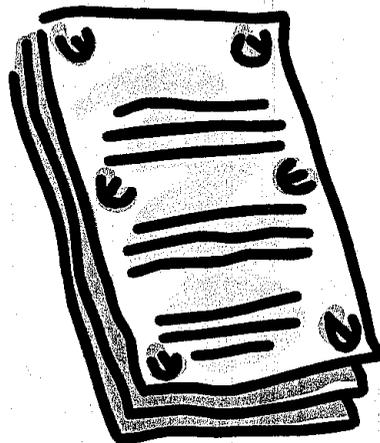


LOWER NIobrARA NATURAL RESOURCES DISTRICT

LONG RANGE IMPLEMENTATION PLAN

(In Support of the LNNRD Master Plan)



FISCAL YEAR 2010 – 2011

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DEPARTMENT OF
NATURAL RESOURCES

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A. STAFF

The staffing for the Lower Niobrara NRD consists of four full time employees and part time help as needed. Full time employees are a District Manager, Assistant Manager, Water Resources Coordinator, and Rural Water System Manager.

The District Manager is responsible for routine operations of the District as determined by the Directors. The Manager will ensure compliance with applicable federal, state, and local laws, rules and regulations. The Manager attends all regular meetings; coordinates activities between the NRD and other agencies; purchases supplies and equipment; purchases merchandise for resale; develops the annual budget, and supervises the NRD and RWS Staff. He recommends actions to the Board in matters of District programs such as cost sharing, tree planting and water quality. The Manager is also involved in field activities.

The Assistant Manager's duties include administrative support, coordination with Field Offices, and management of the Chemigation Program. Activities also include typing, filing, record keeping, accounting and keeping minutes of NRD meetings. The Assistant Manager is the primary advisor to the Manager and assumes the duties of the Manager in his absence.

The Water Resources Coordinator is responsible for all tasks associated with the Groundwater Quality Management Area and conducts Chemigation inspections. Activities also include assisting with other programs as needed.

The Manager of the West Knox Rural Water System is responsible for the daily operations and maintenance of the water distribution system. Duties include routine inspections of the wells and distribution system, verification of meter readings, over seeing part time help, water quality sampling, and coordinating repair and expansion of the system.

Part-time help includes a regular part-time secretary for the clerical and accounting needs of the West Knox R.W.S. and a regular part-time R.W.S. maintenance worker. Tree planting, mulch installation and, when necessary, a portion of the water quality sampling and chemigation inspections are accomplished with part time or contracted help.

The NRD employs the Boyd County NRCS Secretary. The District also provides partial funding for the BKR (Brown, Keya Paha, Rock) Field Office Secretary, Holt County Field Office Secretary and Knox County Field Office Secretary.

B. GROUNDWATER IRRIGATION RUNOFF CONTROL

Very little activity is expected in dealing with irrigation runoff. The District did not receive any complaints involving irrigation runoff problems this past year. If problems arise, staff will investigate complaints and attempt to resolve conflicts. Legal action will be taken if appropriate.

There is a considerable amount of irrigation in the District with over 2,363 wells registered. Irrigation from surface water sources also exists. Runoff is not a major concern as most irrigation systems are center pivots that irrigate porous soils.

C. GROUNDWATER QUALITY MANAGEMENT AREA/ GROUNDWATER MANAGEMENT PLAN

Water quality remains a high priority issue. The Groundwater Management Plan was approved by the Nebraska Department of Water Resources in 1995. The District implemented a Groundwater Quality Management Area (GQMA) on July 1, 1996. The entire District is subject to Phase I requirements. Phase II requirements went into effect April 2, 2004 in the area north of O'Neill and on March 11, 2006 for the area north of Atkinson & Stuart and a small area in western Boyd County.

Phase I emphasizes education and nitrogen management certification. The District holds a number of nitrogen certification classes during the winter and early spring. Also the District has developed a take-home test to meet the requirement of nitrogen certification. Classes have been held every year since 1996.

Intensive groundwater monitoring occurred the past twelve summers. The District sampled the water of over 153 irrigation wells, tracking nitrate nitrogen levels. These wells will be sampled every other year to establish trends in water quality. A smaller number were tested for agricultural chemicals and selenium. The results will help the District determine future GQMA phases and requirements.

While developing the Plan, District Staff and Directors sought local input through a Citizen's Advisory Committee. Before implementing the Management Area, the District held several informational meetings to alert local producers and residents of the pending actions and to get their feedback. The NRD held public hearings on the establishment of the GQMA, Phase I requirements, rules and regulations.

The Water Resources Coordinator oversees the Groundwater Quality Management Area. Increased use of Best Management Practices by producers is the emphasis of the GQMA. Funding for the GQMA comes from the Natural Resources Enhancement Fund (NREF) and the NRD. Changes to the NREF could impact the effectiveness of the overall Groundwater Quality Management Plan (GQMP).

The Board of Directors have also voted to be apposed to the location of the proposed Trans Candia Keystone XL Pipeline. The directors are apposed to the location because of the threat this pipeline poses to the Nebraska Sand Hills and the Ogallala Aquifer. To date three letters have been written to the state and federal officials outlining there objections.

D. GROUNDWATER QUANTITY ISSUES IN THE DISTRICT

On January 25, 2008 the Lower Niobrara NRD received an Order of Final Determination from the Department of Natural Resources (DNR) that a portion of the Lower Niobrara River Basin is Fully Appropriated. The Lower Niobrara NRD along with Middle Niobrara NRD, Upper Loup NRD, Upper Elkhorn NRD and one individual filed a petition with the DNR contesting the Order of Final Determination that Portions of the Lower Niobrara River Basin was Fully Appropriated.

The petition challenges the Department's interpretation of the statutes and regulations it utilizes in reaching essentially technical conclusions. It poses the question, if the Department did not sufficiently follow those statutes and regulations, whether the resulting order is invalid as a matter of law. Also the pleadings generally state the cause of action is the Department's January 25, 2008, Order of Final Determination that a Portion of the Lower Niobrara River Basin is Fully Appropriated (Order), and assert that through the particular contested facts alleged in the pleadings for establishing procedural or factual defect, that the Order is arbitrary and capricious, or contrary to the law, and therefore invalid in whole or in part. A hearing was held and the Director of the Department of Natural Resources upheld the Order.

The four districts then filed an appeal with the Nebraska Court of Appeals. A petition was then filed to bypass the Appellate Court to have the case heard by the Supreme Court which was granted. As of the date this document was written the Supreme Court has not issued an opinion on the case.

In January of 2009 the Lower Platte River Basin was determined to be Fully Appropriated by the Department of Natural Resources which affected the southern portion of the Lower Niobrara NRD. This determination was later reversed by the Department, which allowed the Districts in the basin to use the provision sent forth in LB 483. This bill allows up to 10,000 acres of irrigated land to be added in each district over a four year period using a ranking process adopted by the NRDs. In 2010, the district did not receive any application to add irrigated acres, but expects there will be several applications received in the next application period.

E. NATURAL RESOURCES CONSERVATION SERVICE SUPPORT PROGRAM

The District continues its support of the NRCS by providing clerical assistance to Field Offices. Funding is based on the percentage of the area served by the Field Office that is in the NRD. Funding for clerical assistance amounts to 100% for Boyd County, 41% for Knox County, 40% for Holt County and 22% for the BKR area.

F. CONSERVATION COST SHARING PROGRAMS

The District will continue to administer the Nebraska Soil and Water Conservation Program (NSWCP). The District received an allocation of \$64,209.04 for FY 2010-2011

for use in this state funded program. This money is used for cost share on a variety of conservation practices.

The NRD has allocated some of the 2010-2011 NSWCP funds. The number of applications that can not be approved, due to a lack of funds, continues to be a growing concern of the District.

The need for additional funds to install practices on the soil is increasing at an accelerating rate.

The District updated its funding priority list to include new practices in 1998. For the past several years the District has committed 100% of all available NSWCP funds. The District has been unable to approve several applications each year because of limited funding. The priority list ensures that those practices considered most beneficial by the District are approved. The current priority system is reviewed periodically by the District Operations Committee.

The NRD will continue to support federal cost sharing programs such as EQIP. In fact, the District took the lead in determining conservation priority areas and priority concerns. These conservation issues were forwarded to state and federal government agencies to help determine funding available for local landowners. The EQIP program had 30 contracts approved in 2010 for \$286,719. The district has secured about 3 million dollars in long term EQIP contracts since 1997.

Under the previous Farm Bill, federal cost share, such as CRP was used to action many requests for conservation practices. NSWCP provided a backup and actioned requests that were not eligible for federal funding. The current Farm Bill does not allow for individual practices. As a result, the entire initial NSWCP allocation has already been committed this fiscal year, with fewer conservation practices installed District-wide. Hopefully these issues will be considered in the next Farm Bill.

G. ROADSIDE EROSION

The District will continue to participate in the prevention of roadside erosion. The District will provide drills for roadside seeding at no cost to counties and local government subdivisions. The NRD will provide seed at cost to the same organizations.

The District supports the resolution adopted at the 1993 Nebraska Association of Resources Districts Conference which prohibits the use of mulch for roadsides which is not noxious weed seed free.

H. INFORMATION AND EDUCATION

The District does not fund a full time I&E person. I&E duties are shared by all employees.

The District's Information and Education Program includes a combination of:

- 1) News articles and public services announcements
- 2) Range Judging Contests
- 3) Land Judging Contests
- 4) Three Eighth Grade Conservation Days
- 5) Conservation Day Essay Contest
- 6) Wonderful World of Water
- 7) Upper Elkhorn Natural Resources Festival
- 8) Annual Newsletter
- 9) NARD Award entries
- 10) Scholarships to Range Youth Camp and Adventure Camp for the Environment (ACE Camp) (16 scholarships available)
- 11) Support of Demonstration Plots
- 12) Fairs, Farm & Home Shows and Special Event Booths
- 13) Grade School Groundwater Presentations
- 14) Support of various I & E Projects with other organizations
- 15) County Government Day
- 16) Publications, brochures, and pamphlets
- 17) Representation on NARD I&E Committee
- 18) Participate in the Nebraska Envirothon

I. WILDLIFE HABITAT PROGRAM

The number of contracts in the District's Wild Nebraska Program decreased to 9 contracts, the number of acres enrolled is 218.7. Payments to landowners for the areas enrolled fall under four practices: grasslands, wetlands, woodlands, and general.

Payments involve 75% Game & Parks Commission funds and 25% NRD funds. The District assumes the majority of the administration and inspection costs of the program. Funding available from Game and Parks amounts to \$10,000. The NRDs contribution of \$1,083.40 will allow the District to fund the program up to \$11,083.40 for 10-11. Current annual payments have decreased to total \$4,333.60.

The future direction of WILD NE will depend on landowner interest and program flexibility.

J. FORESTRY AND WINDBREAK PLANTING

The District has a tree planting program capable of meeting the needs of area producers. The tree planting crews plant farmstead, livestock protection and field windbreaks as well as forestry and wildlife projects.

In 2010 demand for District machine planted trees decreased. A contracted crew machine planted 20,972 trees on 61 projects for 34 landowners also area residents purchased

10,158 hand plants bringing the total trees planted to 31,130. The District saw an average number of producers planting trees this year. The majority of stock comes from the Bessey Nursery at Halsey, Lincoln Oakes Nursery and from other reputable nurseries to meet the demand for seedlings. The District operates a cooler to maintain stock on hand to meet customer demands.

The District encourages the use of conservation mulch and offers an installation service. Conservation mulch allows for moisture retention, warmer soil, and acts as a weed barrier to provide a better environment for seedlings. In the spring of 2010 three private contractors installed mulch for 38 projects and 23 landowners with 5 cooperators installing the mulch on their own which brings the total to 115,601 feet of conservation mulch installed.

The District also sells 4 foot mulch squares. The use of the mulch squares requires more labor during installation but is very economical compared to continuous mulch. Several landowners utilized the mulch squares in 2010.

The NRD also offers drip irrigation systems. While conservation mulch seems to be replacing this system, drip irrigation is effective, especially in drier years

Proper designing and staking is essential for successful planting. The NRCS prepares the design for most tree plans as the District does not provide a windbreak design service. The Nebraska Game and Parks Commission, and Nebraska Forest Service also provide occasional design input.

K. RANGE AND GRASSLAND MANAGEMENT AND ESTABLISHMENT

Grassland makes up a major portion of the LNNRD. As a result, establishment and management of grassland is a high priority. The District will participate in the promotion of proper range management programs and control of undesirable vegetation.

The District continues to make grassland drills available for rent by local producers. In 2009-2010 two no-till grass drills were available for rental at the office in Butte. The no-till drills were used by 9 producers on 175 acres. The cost of maintenance on the grass drill has become a continuing concern.

The NRD offers grass seed to ensure that area producers have access to quality seed at a competitive price.

L. ROAD STRUCTURES

There are no existing plans for participation in the construction of road structures. The District gives consideration for assistance in the development of projects on a case by case basis. The District has an on going program to pay up to \$1,000 on an eligible project.

Lack of interest in this program in recent years has caused the NRD to consider the future of this program.

M. RECREATION

The District's activities in recreational facilities are usually minor. The District does have a program which provides assistance to non-profit or governmental agencies in the development or improvement of recreational facilities. The District budgets \$1,000 annually for this program. Assistance has been provided for parks, golf courses, athletic fields, and youth camps in the past. If available, trees are also given to towns and schools that request them.

N. PUBLIC WATER SUPPLY SYSTEMS

The District is responsible for one public water supply system, the West Knox Rural Water System (RWS) within the District. This system provides water to approximately 218 rural hookups as well as the Villages of Verdigre and Winnetoon.

Currently the RWS is working with Indian Health Services to extend existing lines to serve 16 households north along Bazile Creek and east along Howe Creeks. West Knox Rural Water System has contracted with Bartlett and West, Inc. to complete a Bureau of Reclamation Appraisal Level Study to analyze the potential water supplies available to serve the regional area. The area includes the Santee Reservation, Village of Niobrara, Village of Center, and the Village of Creighton and will analyze projected population and estimated peak day demands as well as determine a 40 year water demand estimate. This assessment will be completed in February of 2011. The funding for the study in the amount of \$177,944 is being provided by the Bureau of Reclamation – Reclamation Rural Water Supply Program. RWS continues to add customers to the system where service is feasible.

The System pumped over 68 million gallons of water this year. Demand has remained constant the past few years. A site for future expansion has been purchased.

The Rural Water System employs a Manager, a part-time maintenance assistant and a part-time bookkeeper. The System uses contractors for major repairs.

In 1998 the Rural Water System went through its third refinancing since its inception. A total savings of \$63,007.78 was realized. The final bond payment has been paid. The Rural Water System continues to be self supporting.

At the present time the Rural Water System does not require additional land rights or easements. (Tables 1 and 4)

O. WATER QUALITY

Water Quality remains the District's primary resource concern. In addition to the GQMA, the LNNRD has several programs designed to promote better quality groundwater.

The District provides local administration and inspection of the State's Chemigation Program. The chemigation program continues to consume more District assets. The District processed 70 new and 1032 renewal applications along with 1 special permit renewal for a total of 1103 permits. District staff inspected 585 systems for compliance. Two systems were re-inspected and approval was then granted.

The District continues to test water samples using a HACH Kit. Individuals bringing samples to the NRD Office receive free water nitrate analysis. The kit is also taken to county fairs and trade shows within the District where people can bring their water samples for free testing. Bacteria testing is also available at no charge.

In 2009-2010, \$10,000 in cost share is set aside for the Water Quality Cost Share Programs provided by the District. This program includes Nitrogen Management, Well Abandonment, Drip Oil Shutoffs, Automatic Rain Gauge Shutoffs, Manure Sampling, Domestic Wells, Home Treatment Systems and Rural Water System Hookups. A limited number of producers took advantage of these programs, but the District remains committed to providing cost-share for these programs. The nitrogen management program pays 75% of the cost for soil sampling and analysis, plus irrigation water sampling. This program gives an incentive to producers to account for all nitrogen available to the crop present in the soil and water, and therefore reduces the amount of commercial fertilizer applied. The District cost-shared on four applications in the amount of \$617.00 for the 2009-10 season. The cost-share provided on the remaining programs is 65%. The District approved applications for 1 drip oil shutoff, 1 automatic rain shutoff and 1 home treatment system amounting to \$1,196.00.

The Well Abandonment Program is funded through the Water Quality Cost Share Program. With continued education efforts toward water quality an increase in the number of producers applying for well abandonment cost share has been realized the past few years. State requires applicants to hire a licensed well contractor to decommission their water well. The District does not plan to participate in the state well decommissioning program. Three landowners abandoned wells in 2009 – 2010 amounting to \$1,044.01.

The District anticipates \$29,176.22 annually from the Natural Resources Water Quality Fund (NRWQF) for water quality projects and programs. The district provided \$54,392.50 in 2009-2010 in matching funds to the NRWQF. The District has developed annual and four year plans with priorities for funding. Future levels of funding provided by the NRWQF will have a direct impact on the effectiveness of the Districts GQMA.

A significant portion of the initial year funding was identified for equipment needed to support the Districts GQMA. The remaining three years allocation has been ear marked

for cost share programs, salaries, equipment, information and education efforts, and expenses incurred while carrying out the Districts GQMA and Chemigation.

The four year plan allows for flexibility and adjustments to programs as the need arises. Use of the NRWQF allows the District to enhance its Water Quality Programs without increasing the burden on property taxes.

**TABLE 1 - PROJECTED LAND RIGHTS NEEDS
2010 - 2011**

PROJECT	DESCRIPTION	ESTIMATED COST	DESCRIPTION	ESTIMATED COST
West Knox R.W.S.			Additional Easements for New Hookups Watermain	None

TABLE 2 - PERSONNEL TIME PROJECTED FOR DISTRICT PROGRAMS & PROJECTS
Fiscal Year - 2010 - 2011

PROGRAM/PROJECT	MANAGER	Asst. Manager & RWS Bookkeeper	NRCS CLERKS	TECHNICIAN	R.W.S. MANAGER	TOTALS
Administration	900	900				1800
Project O & M	100	110		30		240
Groundwater Irrigation Runoff	10			10		20
Groundwater Management Area	200	40		1400		1640
NRCS Support Program	40	60	4320			4420
Conservation Cost Share	140	200		80		420
Roadside Erosion Control	5					5
Pollution Control	5					5
Information/Education	250	80		150		480
Wildlife Habitat Program	160	60				220
Tree Planting/Mulch Install.	300	250				550
Grass Seeding	150	100		40		290
Road Structures	10	10				20
Water Quality/Quantity	500	300		1800		2600
Recreation Facilities	10	10				20
Rural Water Systems	100	900		450	2350	3800
<u>TOTALS</u>	2880	3020	4320	3960	2350	16530

Technician includes Water Resources Coordinator, Tree Planters & Mulch Installers, R.W.S. Maintenance Assistant.

TABLE 3 - SUMMARY OF PROJECTED COST BY PROGRAM OR PROJECT

(in thousands of dollars)

Fiscal Year 2010-2011

PROGRAM/PROJECT	EQUIPMENT /SUPPLIES	PERSONNEL	PROFESSIONAL	OPERATING COSTS	LAND RIGHTS	CONSTRUCTION	TOTAL	STATE	TOTAL COSTS
Administration	5.5	41.0	2.4	45.0			93.9		93.9
Project O & M	1.0	20.7	3.3	3.0			28.0		28.0
Groundwater Irrigation Runoff		0.5		0.5			1.0		1.0
Groundwater Management Area	1.5	16.8	1.0	19.0			38.3		38.3
NRCS Support Program		40.9		0.5			41.4		41.4
Conservation Cost Share		3.0		38.0			41.0		41.0
Roadside Erosion Control		0.5					0.5		0.5
Pollution Control		2.0					2.0		2.0
Information/Education		1.7		2.9			4.6		4.6
Wildlife Habitat Program	0.5	1.0		6.6			8.1	10.0	18.1
Tree Planting/Mulch Install.	1.0	13.0		42.6			56.6		56.6
Grass Seeding	1.5	5.9		10.6			18.0		18.0
Road Structures		1.0	0.3			0.6	1.9		1.9
Water Quality/Quantity	5.6	23.8	21.0	51.5			101.9		101.9
Recreation Facilities		0.5		0.5			1.0		1.0
Rural Water Systems	2.0	38.3	1.0	317.4			358.7		358.7
TOTALS	18.6	210.6	29.0	538.1	0.0	0.6	796.9	10.0	806.9

**TABLE 4 - SUMMARY OF PROJECTED LAND RIGHTS NEEDS
2010 - 2011**

PROJECTS	EASEMENTS		EASEMENTS	
	DESCRIPTION	COSTS	DESCRIPTION	COSTS
West Knox RWS	Additional easements for new hookups.	None	None	

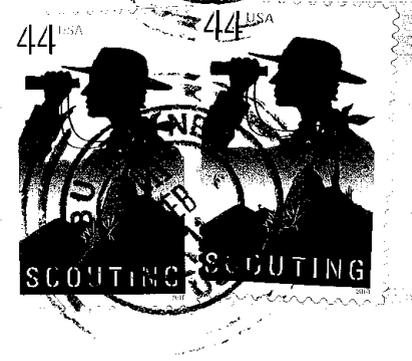
TABLE 6 - SIX YEAR SUMMARY OF PROJECTED COSTS & REVENUES

(in thousands of dollars)

SOURCE OF COSTS	10-11	11-12	12-13	13-14	14-15	15-16
Administration	93.9	95.3	96.7	98.2	99.7	101.1
Project O & M	28.0	28.4	28.8	29.3	29.7	30.1
Groundwater Irrigation Runoff	1.0	1.0	1.0	1.0	1.0	1.1
Groundwater Management Area	38.3	38.9	39.5	40.1	40.7	41.3
NRCS Support Program	41.4	42.0	42.7	43.3	43.9	44.6
Conservation Cost Share	41.0	41.6	42.2	42.9	43.5	44.2
Roadside Erosion Control	0.5	0.5	0.5	0.5	0.5	0.5
Pollution Control	2.0	2.0	2.1	2.1	2.1	2.2
Information/Education	4.6	4.7	4.7	4.8	4.9	5.0
Wildlife Habitat Program	18.1	18.4	18.6	18.9	19.2	19.5
Tree Planting/Mulch Install.	56.6	57.4	58.3	59.2	60.1	61.0
Grass Seeding	18.0	18.3	18.5	18.8	19.1	19.4
Road Structures	1.9	1.9	2.0	2.0	2.0	2.0
Water Quality/Quantity	101.9	103.4	105.0	106.6	108.2	109.8
Recreation Facilities	1.0	1.0	1.0	1.0	1.1	1.1
Rural Water Systems	358.7	364.1	369.5	375.1	380.7	386.4
TOTALS	806.9	819.0	831.3	843.7	856.4	869.2
SOURCE OF REVENUE:						
Unencumbered Balance	316.0	320.7	325.6	330.4	335.4	340.4
State Funds	40.0	40.0	40.0	40.0	40.0	40.0
Federal Funds	0.0	0.0	0.0	0.0	0.0	0.0
Local Funds	260.0	263.9	267.9	271.9	276.0	280.1
Property Tax	205.0	208.1	211.2	214.4	217.6	220.8
TOTAL REVENUE	821.0	832.7	844.6	856.7	868.9	881.4



LOWER NIOBRARA
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