Section 10 - BUDGET AND RESOURCES

10.1 Introduction

NRDs administer multiple programs that focus on the management of water quantity and the improvement of water quality. While NRDs have taxing authorities they use to support current water management projects and programs, local, state, and federal funding partnerships are essential to accomplish a broad range of water management responsibilities. Funding through these partnerships is neither consistent nor guaranteed, however, they will be relevant to implementing different aspects of this plan including project planning, implementation, monitoring, education, and staffing.
Short term (5 years) funding needs for implementing this plan were assessed for water planning activities, monitoring, and conservation measures while longer term (10 years) projections were made for targeted projects. Budget estimates beyond the first five years are less predictable and may provide unrealistic budget expectations. Although plan implementation costs are based on the first five year period, the NRDs will conduct comprehensive budget planning on bi-annual basis as part of their regular budgeting process. In doing so, the NRDs will determine resource needs for planning, implementation, monitoring and assessment, research, and staffing for upcoming budget periods. These needs will be prioritized and balanced against available funding for that time period.

10.2 Planning Costs

Basin funding needs are based on implementation priorities listed in the Action Plan. Planning efforts related to project development including data assessment, the preparation of project plans, development of monitoring strategies, and the development of funding strategies and applications. The estimated resource needs for planning the first five years of plan implementation is estimated to be $265,000 (Table 10-1).

Table 10-1. Estimated Five Year Planning Budget

Planning Activity	Location	Estimated Cost
Stream Channel Reconnection Feasibility	TBD	$50,000
Recharge Feasibility Study	TBD	$50,000
Voluntary Integrated Management Plan	District Wide	$50,000
Well Screen Depth Assessment	TBD	$50,000
Crystal Lake Feasibility & Planning	Near Ayr	$50,000
Liberty Cove Reservoir Feasibility Study	Near Lawrence	$15,000
TOTAL		$265,000

10.3 Land Conservation Measures

The NRDs are responsible for administering several district wide programs related directly to water management. Many of these programs are focused on implementing conservation measures targeted at improving soil health and stream corridor conditions providing water quality and recharge benefits. Complimentary to these programs are state and federally funded efforts that involve cost share and incentives for conservation measures that address soil health and improve surface and groundwater quality. The three primary factors that drive the amount of land treatment that can be accomplished are: 1) the amount of funding available for cost share and incentives, 2) landowner/operator interest, and 3) available contractors. These factors vary from year to year making long term budget projections

difficult. Conservation measure implementation targets for the next five years are presented in Table 10-2 along with estimated costs. The five year funding needs for conservation measure implementation is estimated to be $1,624,777. Landowner contributions will vary by practice and funding source but will average more than 40 percent of the total costs. The remainder of the costs is shared through a mix of local, state, and federal funds.

Table 10-2. Estimated Five Financial Needs for Conservation Measures

Activity	Units Planned (5 Years)	Cost Per Unit	Estimated Five Year Expenditure
Terrace Systems	35,252 LF	$1.11 LF	$39,130
Terrace Underground Outlets	155,000 LF	$3.70 LF	$573,497
Water Impoundment Dams	3 Dams	$4,850/Dam	$14,551
Diversions	11 Contracts	$2,068/contract	$22,746
Grassed Waterways	29 Acres	$155/AC	$4,495
Water and Sediment Control Basins	35	$969/unit	$33,915
Dugouts for Livestock Water	2 Dugouts	$2,050/Dugout	$4,100
Pasture Planting and Range Seeding	63 AC	$43/AC	$2,967
Critical Area Planting	58 AC	$30/AC	$1,740
Windbreaks	147,816 LF	$0.63/LF	$93,124
Planned Grazing Systems	69 Contracts	$2,630/contract	181,470
Windbreak Renovation	8 Contracts	$2,300/contract	$18,400
Irrigation Water Management	20 Contracts	$4,150/contract	$83,000
Well Abandonment	325 Wells	$695/well	$225,875
New Well Incentive	2 Wells	$5,146/well	$10,292
Streambank Protection	28 Contracts	$5,000/contract	$140,000
Low Angle Sprinklers or Drop Nozzles	80 Contracts	$978/contract	$78,240
Chemical and Fertilizer Application Control	35 Contracts	$1221/contract	$42,735
Nitrogen Inhibitor Equipment	8 Contracts	$2000/contract	$16,000
Variable Rate Irrigation	11 Contracts	$3,500/contract	$38,500
TOTAL			$1,624,777

10.4 Cost of Targeted Projects and Activities

Targeted projects and activities include those that will directly result in improvements in surface and groundwater water quality, groundwater recharge, or surface storage. For the purposes of this budget, targeted project costs will pertain to costs associated with surveys, design/engineering, and construction. Estimated costs for targeted projects to be completed or initiated the first five year period are listed in Table 10-3. These 13 projects, which have been determined as priority management efforts by the NRDs, address surface and groundwater quality, groundwater recharge, and outreach. The costs for some projects are based on one site or one year when multiple sites or years may be achieved. Cost estimates were derived from the best available information and may change significantly as planning progresses.

Table 10-3. Priority Water Projects and Estimated Costs

Project Name	Project Type	Project Location	Estimated Cost
Invasive Species	Surface Water	District Wide	$100,000
No-Till Survey & Education	Surface/Groundwater	District Wide	$20,000
Streambank Stabilization	Surface/Groundwater	TBD	$150,000(a)
Stream Channel Reconnection	Surface/Groundwater	TBD	$400,000
Recharge Pilot Projects	Groundwater	TBD	$500,000(a)
Sand Creek Recharge Reservoir	Groundwater	Tri-Basin	TBD
Expand Phase II Area	Groundwater	TBD	$10,000(b)
Soil Sampling & Reporting	Groundwater	TBD	$10,000(b)
Alternative Crop Program	Surface/Groundwater	TBD	$5,000(b)
Public Relations Campaign	Outreach	Communities	$10,000
Municipal Water Assistance	Surface/Groundwater	Communities	$10,000(b)
Crystal Lake	Surface Water	Near Ayr	$400,000
Liberty Cove Reservoir	Surface Water	Near Lawrence	$600,000
TOTAL			$2,215,000

(a) Estimated cost per site. Number of sites are to be determined.
(b) Estimated cost per year. Number of years are to be determined.

10.5 Monitoring Costs

Annual costs of physical, chemical, and biological monitoring were determined for expanded efforts that will be carried out or coordinated by the NRDs in the next five years. Cost estimates are associated with purchasing or installing sampling equipment, equipment maintenance, and scientific/analytical services. Routine monitoring activities include surface water, groundwater, and vadose zones. The estimated cost for monitoring the first five years is $115,000 (Table 10-4). Some costs are based on a single year when multiple years may be achieved.

Table 10-4. Estimated Five Year Monitoring Costs

Monitoring Description	Estimated Cost
Recharge Efficiency Monitoring	$25,000(a)
Expand Groundwater Monitoring Program	$15,000(b)
Vadose Monitoring	$25,000(b)
Stream Gaging	$50,000(b)
TOTAL	$115,000

(a) One time study cost.
(b) Estimated cost per year. Number of years are to be determined.

10.6 Research Costs

The solutions to expanding water demands to support population and economic growth and environmental needs lies in research. A description of research priorities in this plan will allow researchers to match their expertise to both societal needs and the availability of research funding. Research priorities for the Little Blue River Basin will evolve as knowledge is developed, questions are answered, and new societal issues emerge. Due to the highly variable nature of research scope and costs, there is no estimated cost of the research priorities listed in this plan.

10.7 Staff

NRD staff requirements for implementing this plan will involve partial time commitments from managers, resource technicians, clerical staff, and seasonal help. The NRDs routinely evaluate work load and staffing needs. In some cases, staffing deficiencies can be addressed through seasonal help and/or full time temporary grant funded positions, such as a program coordinator. This additional staff can assist in program implementation, monitoring and assessment, project tracking and reporting, and information/education.

10.8 Outside Funding Sources

NRD operations are funded by a variety of sources, including: sale of conservation trees and services, assessment projects (self-supporting rural water systems), state and federal cost-sharing for projects and programs, and various grant programs. The primary source of funds is local property taxes. The NRDs will maximize funding by leveraging local funds against other outside funding sources. While all available sources of funding will be evaluated and pursued for the implementation of this plan, a few funding sources will be critical for completing water management activities and projects. Several of the key funding sources are detailed below while all available funding sources are summarized in Table 10-5.

10.9 NDNR's Water Sustainability Fund

The Legislature, through LB906, created the new Water Sustainability Fund and directed $21 million be transferred to the fund in July 2014, with the stated intent that $11 million be transferred to the fund each year thereafter. LB1098 established the intent, basic governance constructs, and legal authorities for the new fund. As stated in the bill, the goals of the Water Sustainability Fund are to:

a) Provide financial assistance to programs, projects, or activities that increase aquifer recharge, reduce aquifer depletion, and increase streamflow;
b) Remediate or mitigate threats to drinking water;
c) Promote the goals and objectives of approved integrated management plans or ground water management plans;
d) Contribute to multiple water supply management goals including flood control, reducing threats to property damage, agricultural uses, municipal and industrial uses, recreational benefits, wildlife habitat, conservation, and preservation of water resources;
e) Assist municipalities with the cost of constructing, upgrading, developing, and replacing sewer infrastructure facilities as part of a combined sewer overflow project;
f) Provide increased water productivity and enhance water quality;
g) Use the most cost effective solutions available; and
h) Comply with interstate compacts, decrees, other state contracts and agreements and federal law.

The Legislature found that these goals can be met by equally considering programs, projects, or activities in the following categories:

a) Research, data, and modeling;
b) Rehabilitation or restoration of water supply infrastructure, new water supply infrastructure, or water supply infrastructure maintenance or flood prevention for protection of critical infrastructure;

c) Conjunctive management, storage, and integrated management of ground water and surface water; and
d) Compliance with interstate compacts or agreements or other formal state contracts or agreements or federal law.

It was further stated that the Legislature intended the fund to be equitably distributed statewide to the greatest extent possible for the long-term and to give priority funding status to projects that are the result of federal mandates.

NDNR is responsible for administering the program, while the statutory authority for approving projects and funding levels rests with the Commission. Before any applications for funding can be accepted, the Commission and the Department must define and establish policies and rules for the applications and processes of review and evaluation within the statutory requirements set out in LB1098 (NDNR 2014).

10.10 Nebraska Environmental Trust

Since 1992, the Nebraska Environmental Trust (NET) has supported projects that conserve, enhance, and restore the natural environments of Nebraska. It was created on the conviction that a prosperous future is dependent upon a sound natural environment and that Nebraskans could collectively achieve real progress on real environmental issues if seed money was provided (NET, 2014).
NET especially seeks projects that bring public and private partners together collaboratively to implement high-quality, cost-effective projects. NET values projects that leverage private investment in conservation and emphasize long-lasting results. Spending on approved projects is not to be a replacement for tax funded projects or mandates and operations of government; it is used solely to carry out innovative ideas making Nebraska's good life even better.

10.11 NDEQ Nonpoint Source Management Program

Section 319 of the Federal Clean Water Act provides funding to states to implement Nonpoint Source Management Programs. This program, administered by the DEQ in Nebraska, provides financial assistance for the prevention and abatement of nonpoint source water pollution. In general, eligible activities include those pertaining to management practice implementation, monitoring, and information/education. Funding could potentially support the implementation of activities, projects, and programs identified in this plan. This fund requires a 40 percent non-federal match which can be satisfied through local funds, dedicated state funds, or nonfederal grant funds such as those provided by the NET.

10.12 USDA Funding

The USDA oversees a number of voluntary conservation related programs and special initiatives (USDA, 2014). These programs and initiatives work to address a large number of farming and ranching related conservation issues including:

- Drinking water protection
- Reducing soil erosion
- Wildlife habitat preservation
- Preservation and restoration of forests and wetlands.

USDA funds provide a significant amount of cost-share and incentives to landowners resulting in large scale practice implementation. To the extent possible, the NRDs will work with federal officials to target these funds in the most appropriate areas of the basin.

Table 10-5: Financial Partners

Administering Entity	Program Name/Notes	Program Description
Little Blue and Tri-Basin NRDs	Several Programs	Each NRD offers a variety of programs to promote conservation, pesticide and fertilizer management, and others.
Nebraska Environmental Trust (NET)	NET Grants	NET supports a wide variety of projects that conserve, enhance, and restore the natural environments of Nebraska.
NDEQ	Nonpoint Source Program Section 319	Large competitive grants
		Small Projects Assistance
		Community Lakes Enhancement and Restoration Assistance
		Urban Runoff Management Assistance
		Wellhead Area Management Assistance
	Source Water Protection Grants	Projects with long-term benefits to drinking water supplies
NDNR	Water Sustainability Fund	Projects that increase aquifer recharge, reduce aquifer depletion, increase streamflow, mitigate threats to drinking water, promote goals of GWMPs and IMPs, flood control, recreation, water productivity, and water quality. Includes research, monitoring, and
	Interrelated Water Management Plan Program	Assist with facilitation of Groundwater Management and Protection Act.
Nebraska Department of Economic Development	Community Development Block Grants (CDBG)	Studies for drainage issues, flooding, stream bank stabilization for low to moderate income communities.
USDA-NRCS	Regional Conservation Partnership Program (RCPP)	Promotes coordination between NRCS and its partners to deliver conservation assistance to producers and landowners
	Conservation Reserve Program (CRP)	Planting long-term, resource conserving covers to improve the quality of water, control soil erosion, and develop wildlife habitat.
	Environmental Quality Incentives Program (EQIP)	Producer financial and technical assistance to producers to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserve groundwater and surface water, reduced soil erosion and sedimentation, and create wildlife habitat.
	Multiple Programs	NRCS offers several other programs including the Conservation Stewardship Program (CSP), Conservation Innovation Grants (CIG), Agricultural Conservation Easement Program (ACEP), Wetland Reserve Easements, Wildlife Habitat Incentive Program (WHIP),
	Ogallala Aquifer Initiative	Starting in 2015, NRCS will work with agriculture producers within the Little Blue NRD to address

Administering Entity	Program Name/Notes	Program Description
		resource concerns in seven water quality sub-areas. Project goals are to conserve 18,000 acre-inches per year and decrease and maintain nitrates to below 10 parts per million with the implementation of conservation practices and proper management.
Nebraska Department of Agriculture	Nebraska Buffer Strip Program	Offered to landowners for buffering crops adjacent to streams, ponds, and wetlands. This program works in conjunction with the CRP, CREP, or as a standalone.
Rain Water Basin Join Venture	Private Lands Habitat Programs	Programs to preserve and enhance wetlands; conservation easements
	Public Lands Wetland Enhancement	
Nebraska Game and Parks Commission	Aquatic Habitat Fund	Offers funding to support maintenance, enhancement, and restoration of existing aquatic habitat.
	Land and Water Conservation Fund	Funding for ball fields, soccer fields, picnicking facilities, trains, park acquisition and development, and other similar facilities.
Basin Property Owners and Residents	Private Funding	Property owners are often responsible for a portion of the funding for projects on their property.

10.13 Technical Partners

Implementation of the management strategies and recommendations in the Plan will be a responsibility of the two NRDs and several resource agencies. Several other stakeholders are involved and will be a continued part of the Technical Advisory Team that was established during plan development. The TAT should stay in place and have a continued role in the implementation of the Plan to ensure communication is open across all technical agencies and groups. Table 10-6 is a summary of each technical resource available to assist with implementation.

Table 10-6: Technical Partners

Agency	Technical Capabilities
Little Blue NRD	Coordination, project planning, funding, technical assistance, cost-share and financial incentive programs, administrative support, and monitoring.
Tri-Basin NRD	Coordination, project planning, funding, technical assistance, cost-share and financial incentive programs, administrative support, and monitoring.
Nebraska Environmental Trust	Funding assistance for projects and programs including education.
NDEQ	Funding, support of additional monitoring, project coordination, technical assistance, water quality and biological monitoring, and plan update assistance.
NDNR	Water sustainability funding project funding assistance, floodplain mapping, water quantity modeling, and INSIGHT. Stream gaging and surface water flow measurements.
Nebraska Department of Economic Development	Community funding assistance.
USDA-NRCS	Technical assistance with design, installation, and evaluation of conservation practices,
Nebraska Game and Parks Commission	Technical assistance with aquatic habitat renovation, fisheries, and wetlands management.
UNL Extension	Environmental education, outreach, and stakeholder involvement.

Agency	Technical Capabilities
UNL School of Natural Resources	Technical leadership, biological monitoring, environmental education, research studies, GIS data, and a library of research.
USGS	Water quality monitoring, research studied, library of research. Stream gaging and surface water flow measurements.
RWBJV	GIS and technical assistance with wetlands and environmental enhancements

References

NET, 2014. Nebraska Environmental Trust Web Site. *www.environmentaltrust.org*.

NDNR, 2014. Nebraska Department of Natural Resources (NDNR) Web Site. *www.dnr*.ne.gov.

USDA, 2014. United States Department of Agriculture (USDA) Web Site. *http://www.fsa.usda.gov/programs-and-services/conservation-programs/index*