2006 Biennial Report on the Nebraska Resources Development Fund

Presented to the

Governor and the Legislature

Nebraska Department of Natural Resources

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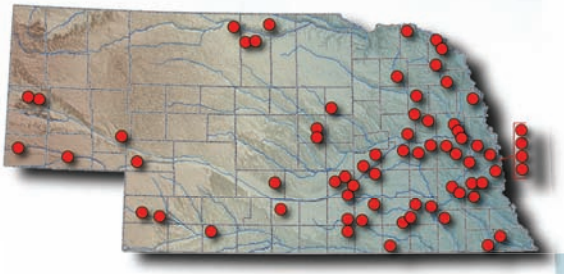

Published by the
Nebraska Department of Natural Resources
September 2006

Nebraska Resources Development Fund Biennial Report

July 1, 2004-June 30, 2006

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It is a pleasure to present the ***2006 Biennial Report*** for the **Nebraska Resources Development Fund**. This fund continues to be an important, effective and stable means for providing state financial assistance for development of sound water resources projects in Nebraska. The Fund, now in its 32nd year, also provides an outstanding example of creative federal-state-local partnerships for project planning, design, and funding.

To date Nebraska Resources Development Fund projects have been sponsored or co-sponsored by nineteen Natural Resources Districts, six irrigation districts, twelve municipalities, and one county. A number of the projects have been tied to Corps of Engineers Section 205 flood reduction projects or the Natural Resources Conservation Service's P.L. 566 Small Watersheds Program to stretch funding as far as possible. Flood control projects continue to demonstrate their effectiveness year after year, while the public is heavily utilizing recreation facilities many of the projects provide. With a growing demand for water-based recreation, the importance of adequate inflow and excellent water quality are key factors in project planning and are fully considered to assure broad- and long-term benefits.

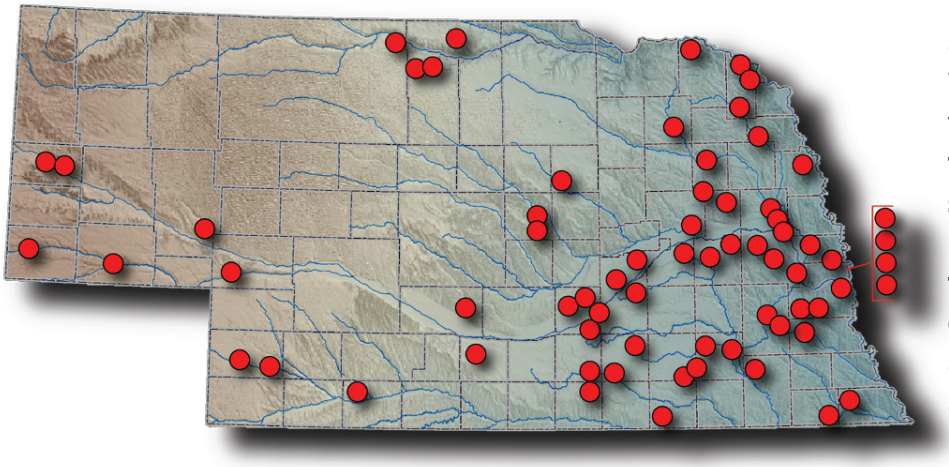
A special thanks to the Legislature, with Governor Heineman's support, for continuing to provide funding for this very important program for the State of Nebraska. The Department of Natural Resources looks forward to working with sponsors during the next biennium to ensure local needs and opportunities are met with environmentally sound projects.

Ann Bleed
Acting Director,
Department of Natural Resources

The

Nebraska Resources Development Fund

was created in 1974 to assist with the development and wise use of Nebraska's water and land resources.



Location map for Resources Development Fund projects

Benefits from **Resources Development Fund** projects, located across Nebraska, are many and varied. These projects often emphasize the benefits of **flood damage reduction, sediment and erosion control, recreation opportunities, fish and wildlife, ground water recharge** as a result of stored water and **irrigation water management**.

Introduction

The Nebraska Resources Development Fund Act of 1974 created a fund to assist with the development and wise use of Nebraska's water and land resources. The Nebraska Resources Development Fund can be used to provide grants and/or loans to political subdivisions of the state or an agency of the state, or it can be used by the Department of Natural Resources to acquire an interest in a project in the name of the state. The Act created a conjunctive administrative system with certain responsibilities delegated to the Natural Resources Commission, and other responsibilities delegated to a statutorily created "Advisory Board." On February 15, 1985, the Director of Natural Resources assumed the responsibilities and duties of the Advisory Board in accordance with the provisions of L.B. 1106.

The primary function of the Director is to determine project and program eligibility for Nebraska Resources Development Fund (NRDF) assistance. The Director must also determine the type of assistance appropriate: Grant, loan or a combination thereof. To accomplish these responsibilities, the Director has adopted appropriate rules and regulations, evaluation standards, specifications, and guidelines for implementation. The Director and his staff, along with personnel from other state agencies as appropriate, review each application and the Director must find that a project is economically, financially and technically feasible as well as environmentally acceptable in order for it to be eligible for assistance through the Fund.

The Commission reviews project proposals and, after receiving recommendations from the Director, advises project sponsors whether to proceed with an application and feasibility report. The Commission's primary administrative functions begin once the Director has reviewed the application, determined eligibility, and referred those projects eligible to the Commission. Determination of funding priorities for eligible programs or projects is a sole responsibility of the Commission. Prior to any allocation of funds, the Commission must enter into an agreement and negotiate other necessary documents to be assured that the state investment is protected. Once this is accomplished, the Commission has responsibility for administering the grant and/or loan and for administering the repayment provisions of a loan.

The application procedure established jointly by the Director and the Commission is a two-step process. The first step involves the submittal of a project proposal by a sponsor, and the second step is a project application. A sponsor may bypass the project proposal and initiate the request by submitting an application; however, in such case the sponsor forfeits the possibility of cost-sharing on the cost of preparation of the application and accompanying feasibility study.

A set of *"Guidelines"* has been distributed for use by project sponsors in fulfilling the requirements of the *"Project Proposal"* and the *"Project Application and Feasibility Report."* The *"Project Proposal"* is a brief document which outlines the nature of the project, includes a preliminary estimate of project costs, and gives an indication of the sponsor's plans for the project. The Director, after reviewing the project proposal, recommends to the Commission whether the sponsor should proceed with an application and indicates the likely range of NRDF assistance if the project is later found to be eligible. The Commission may provide the sponsor with additional guidance regarding the contents of the application. This process helps ensure that a sponsor covers all areas of concern to the Director and Commission and prevents the inclusion and preparation of unnecessary material.

The application is to include the necessary project description, cost estimates, preliminary design information, description of the manner in which the project will be operated, as well as the statutorily required information to determine whether the project is financially, economically, and technically feasible and environmentally acceptable. If the Director determines a given project is financially, economically, and technically feasible and environmentally acceptable, as well as being an eligible project under the law, he submits a recommendation, containing those findings, to the Commission. That recommendation also stipulates the type of assistance (grant and/or loan) and amount of assistance.

The Commission, at its first regularly scheduled meeting after the Director's recommendation is received, is briefed on all aspects of the project by the project sponsor and Commission staff. Commission policy then provides that the project be automatically referred to its Program Committee for preparation of a recommendation to the Commission in regard to approval and obligation of funds, with such recommendation to be submitted at the subsequent Commission meeting. A delegation of Commission members must visit a project area before the Commission takes action.

Approval of any project by the Commission constitutes only acceptance or endorsement of the project and does not entitle the sponsor of that project to receive any money from the Development Fund. However, the obligation of funds does set aside a given amount of money for a project. After approving a project, the Commission may take action on "obligating" or "setting aside" funds for that project if funds are available. Such obligation may be for the entire project or only for an independent or separable component of a project. Additionally, separable components of larger projects may be designated even if the components are not independent of each other, if the project sponsor agrees to such designation. Commission rules and regulations also establish an assessment process to allocate available funds among the eligible projects on an annual basis.

Members of the Natural Resources Commission & their represented basins or specific interests

Members & River Basins represented

Garry A. Anderson, Elkhorn River Basin, - Commission Chair
John Burkholder, Republican River Basin
Wayne Davis, Niobrara-White-Hat River Basin
Beverly Donaldson, Missouri Tribs River Basin
Arlond Garratt, Middle Platte River Basin
N. Richard Hadenfeldt, Loup River Basin
Joseph Hergott, Little Blue River Basin
Richard Jiskra, Big Blue River Basin
Clinton Johannes, Lower Platte River Basin
Myron Lembke, North Platte River Basin
Vince Kramper, Missouri Tribs River Basin
Keith Rexroth, South Platte River Basin
Dan Watermeier, Nemaha River Basin

Members Appointed by Governor and interest

Jim Van Marter, Municipal Water Users
Roger Korell, Surface Water Irrigators
Wayne Madsen, Ground Water Irrigators – Commission Vice-Chair

Project Review

As of June 30, 2006, **68 water resources projects** have been approved for financial assistance from the Resources Development Fund. The **total allocation for these projects is $81,514,082.65**. The majority of the projects funded provide for the storage of water and the beneficial use(s) of that water. Flood damage reduction, sediment and erosion control, groundwater recharge, irrigation water management, fish and wildlife enhancement, and recreation, including fishing, boating, and swimming, have been the primary benefits that have resulted. Several of the funded projects were planned through the Natural Resources Conservation Service's P.L. 566 Watershed Program, its Resource Conservation and Development (RC&D) Program, or the Corps of Engineers' Section 205 Flood Control Program. **During fiscal years 2005 and 2006, two projects were completed, three project applications were approved for NRDF assistance, and four project proposals were received and reviewed.**

Breakdown of Total Costs for Resources Development Fund Projects

The total cost of the 68 projects that have been approved for Resources Development Fund assistance is approximately $204,541,000.

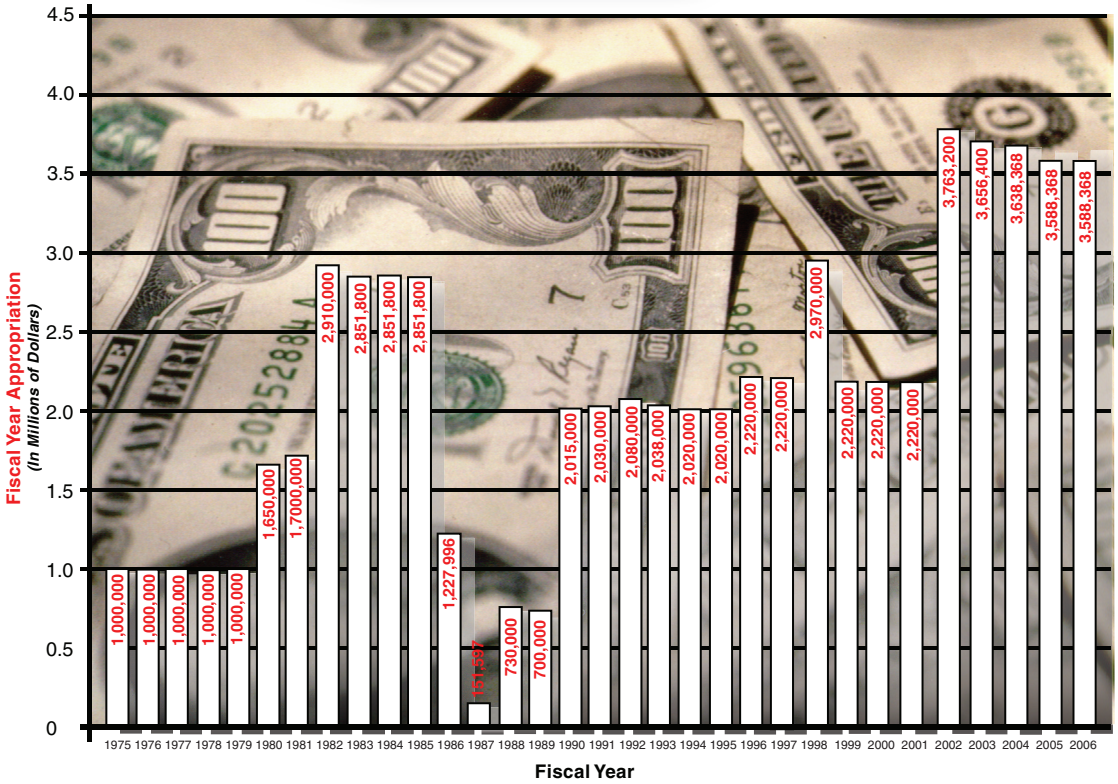
Of this amount, the
Development Fund has provided $81,514,000 (40%), federal programs $68,640,000 (34%) and local entities $54,390,000 (26%).

Resources Development Fund Financial History

From its inception, the **Resources Development Fund** has depended upon **general fund appropriations** to provide state financial assistance to local project sponsors. The annual appropriations have been:

Fiscal Year	Appropriation
1975	1,000,000.00
1976	1,000,000.00
1977	1,000,000.00
1978	1,000,000.00
1979	1,000,000.00
1980	1,650,000.00
1981	1,700,000.00
1982	2,910,000.00
1983	2,851,800.00 1/
1984	2,851,800.00
1985	2,851,800.00
1986	1,227,996.73 2/
1987	151,597.00 3/
1988	730,000.00 4/
1989	700,000.00
1990	2,015,000.00 5/
1991	2,030,000.00 6/
1992	2,080,000.00 7/
1993	2,038,000.00 8/
1994	2,020,000.00 9/
1995	2,020,000.00 9/
1996	2,220,000.00 9/
1997	2,220,000.00 9/
1998	2,970,000.00 9/
1999	2,220,000.00 9/
2000	2,220,000.00 9/
2001	2,220,000.00 9/
2002	3,763,200.00 9/
2003	3,656,400.00 9/
2004	3,638,368.00 9/
2005	3,588,386.00 9/
2006	3,588,386.00 9/

1/ Includes $100,000.00 cash funds
2/ Includes $69,000.00 transferred from Water Management Fund plus $1,232.73 in operating funds
3/ Includes $50,000.00 cash funds
4/ Includes $30,000.00 cash funds
5/ Includes $15,000.00 cash funds
6/ Includes $30,000.00 cash funds
7/ Includes $80,000.00 cash funds
8/ Includes $38,000.00 cash funds
9/ Includes $50,000.00 cash funds



Project Status

As of June 30, 2006, a total of 54 projects that received financial assistance from the Resources Development Fund have been completed. Three other funded projects (School Creek, Deshler, and Weeping Water Site 7g) were suspended by their sponsor prior to land rights acquisition due to unanticipated cost increases and/or public opposition.

It is estimated that **approximately $1,280,500,000 in benefits will accrue from the funded projects** during their project life periods (generally 50 years). These benefits can be separated into three categories:

1. **Flood Reduction/Erosion and Sediment Control - $1,074,900,000 - (84%)**
2. **Recreation/Fish and Wildlife - $149,400,000 - (12%)**
3. **Ground Water Recharge/Irrigation Water Management - $56,200,0000 - (4%)**

Flood Reduction/ Erosion and Sediment Control $1,074,900,000

Recreation/Fish and Wildlife $148,400,000

Ground Water Recharge/ Irrigation Water Management $56,200,0000

Completed Resources Development Fund Projects

Resources Development Fund projects are listed in chronological order. A location map can be found on page 30 of this report.

1. MASKENTHINE

Sponsor: Lower Elkhorn NRD

This project, the first to be funded through the Nebraska Resources Development Fund, is located approximately one mile north of Stanton on Maskenthine Creek. The resulting 94-acre reservoir provides flood control, fish and wildlife habitat, sediment control, and recreational opportunities. **Financial assistance in the form of a grant of $269,978.98 was provided by the NRDF and the project was completed in 1976**. The NRD has constructed additional facilities at the site in recent years and it continues to be a very popular public recreation area. In 2002 the Maskenthine Restoration Project was completed. Funded by the Lower Elkhorn NRD and the Nebraska Environmental Trust, this project included sediment removal and the installation of rock jetties and riprap to reduce erosion and sedimentation in the future.

Maskenthine

2. AOWA CREEK (Buckskin Hills)

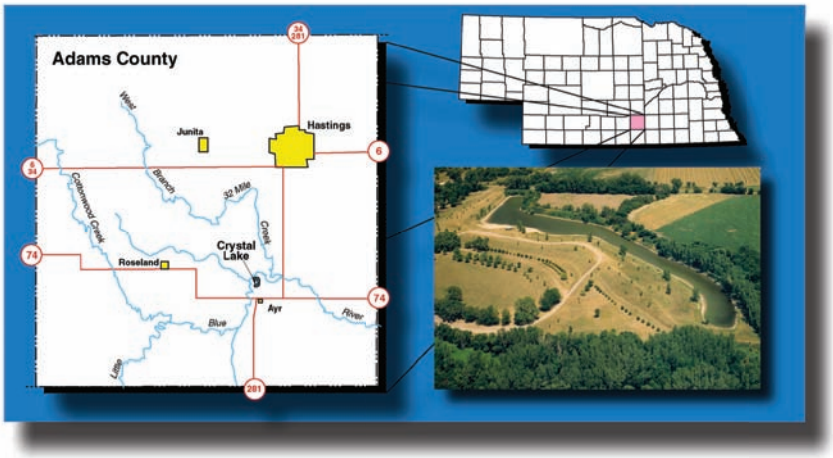
Sponsor: Lewis & Clark NRD

This project involved structure 6-7A of the Aowa Creek P.L. 566 Watershed Project, which was planned as a multi-purpose structure and includes provisions for flood control, grade stabilization, and fish and wildlife. The structure is located about four miles southwest of Newcastle and has a conservation pool of 75 acres. Over the years this reservoir has supported an excellent sport fishery. **This project utilized a NRDF grant of $144,650.00 and was completed in 1979.**

3. CUB CREEK

Sponsor: Middle Niobrara NRD

This project, **completed in 1979**, was developed in conjunction with the improvement of Highway 12 west of Springview. The resulting road structure impounds a 33-acre lake that provides recreation opportunities and fish and wildlife habitat. **NRDF assistance was $87,489.83 in the form of a grant.**



4. CRYSTAL LAKE
Sponsor: Adams County

This project, which was **completed in 1980**, consisted of the renovation of a run-down public recreation area along the Little Blue River near Ayr. The deepening and enlargement of an oxbow was the major feature of the project. Two rock shelters and a change house were also renovated. **NRDF assistance was $67,806.83 in the form of a grant.** The Nebraska Game and Parks Commission manages this site as a state recreation area.

5. PRAIRIE CREEK
Sponsor: Central Platte NRD

This project involved snagging and clearing operations to provide a more open floodway along the 42-mile reach of Prairie Creek in Hall County. The project utilized a **NRDF grant of $243,975.00 and was completed in 1980.**

6. CLATONIA CREEK
Sponsor: Lower Big Blue NRD

Located one mile north of Clatonia, this project involved the acquisition of 155 acres and the development of recreation facilities and fish and wildlife features at a Natural Resources Conservation Service P.L. 566 Watershed multi-purpose structure. The resulting reservoir has a surface area of approximately 46 acres. **NRDF assistance was in the form of a grant for $162,750.00** and the project was **completed in 1981**. High turbidity in the reservoir has reduced recreational use at the site.

7. CLEAR CREEK WATERSHED
Sponsor: Central Platte NRD

Completed in 1981, this flood control project consists of six flood-water retarding structures located in northern Polk County. The reservoirs also provide sediment control and water for livestock. Total **NRDF assistance was $343,126.91** in the form of a grant.

8. LOOMIS PIPELINE

Sponsor: Central Nebraska Public Power and Irrigation District & the Village of Loomis

Located at Loomis, this project involved the enclosing of a portion of an open irrigation lateral in buried pipe. Improved water conveyance and protection of the health, safety, and general welfare of Loomis residents resulted from the project. A **NRDF grant for $33,750.00** was utilized and the project was **completed in 1981**.

9. McCOOK (Kelley Canyon)

Sponsor: Middle Republican NRD

The **NRDF provided a grant of $512,000.00** for this flood control project in the northern part of McCook. The construction of a flood water-retarding structure, drainage way improvement, and bridge replacement are the main features in this project that was **completed in 1981**.

McCook Kelley Canyon

10. WEST SAND DRAW

Sponsor: Middle Niobrara NRD

This project, which was **completed in 1981**, involved the construction of an earthen dam on Brown County road right-of-way northwest of Ainsworth. The structure traps sediment which otherwise would be carried down to Plum Creek, a cold water tributary of the Niobrara River. The project, which also provides grade stabilization and an improved road crossing, utilized a **NRDF grant of $36,364.91**.

11. BIG SANDY #1

Sponsor: Little Blue NRD

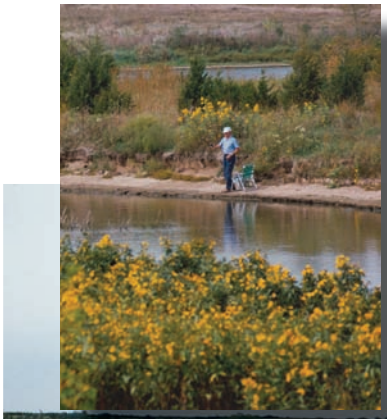
Big Sandy #1 is the first of seven potential structures to be constructed in the Big Sandy Creek Watershed. The project, located on the U.S.D.A. Meat Animal Research Center west of Clay Center, consists of a floodwater retarding and groundwater recharge structure with a conservation pool of 330 acres. Groundwater recharge has been monitored at the reservoir. A **NRDF grant of $396,573.82** was used in the construction of this project which was **completed in 1982**.

12. SCHOOL CREEK (suspended)
Sponsor: Upper Big Blue NRD

The School Creek Project was proposed to provide groundwater recharge, flood control, sediment and erosion control, and recreation benefits. Dam Site #3, located north of Sutton, was to be the first structure to be constructed in the School Creek Watershed. It was to have a permanent pool of 160 acres but was **suspended by the project sponsor in 1982** due to unanticipated costs that made the project economically infeasible. A total of **$45,724.71 in NRDF funds were expended** for engineering and land rights appraisals.

13. SUMMIT LAKE
Sponsor: Papio-Missouri River NRD

Summit Lake (Structure 5-A) of the P.L. 566 Tekamah-Mud Creek Watershed Project is the designated multi-purpose structure in the watershed. The project provides flood control benefits to the City of Tekamah and to agricultural land and also water-based recreation to a region of the state that includes the Omaha metropolitan area. The project, which utilized a **NRDF grant of $329,191.05** and encompasses 400 acres, including the reservoir's conservation pool of 190 acres. The project was **completed in 1982** and the Nebraska Game and Parks Commission manages the site as a state recreation area. The Summit Lake Aquatic Habitat Rehabilitation Project was completed in 2002. It included sediment removal, the construction of sediment dams on the two arms of the reservoir, and the installation of rock jetties to reduce shoreline erosion.



Walnut Creek Site 2

14. WALNUT CREEK
Sponsor: Lower Big Blue NRD

The Walnut Creek Flood Control Project consists of four structures and is the first NRDF project that was developed as a watershed plan. The structures are located east and north of Crete and provide recreation (Site 2) and grade stabilization as well as flood control benefits. The structures have conservation pools ranging from 16 to 26 acres. The project was **completed in 1982** and **NRDF assistance totaled $264,225.00** in the form of a grant.

15. BIG SANDY #2
Sponsor: Little Blue NRD

Big Sandy #2, the second of seven potential structures in the Big Sandy Creek Watershed, provides groundwater recharge along with flood control and wildlife habitat. The structure is located approximately four miles northeast of Bruning on a tributary of Dry Sandy Creek. Its reservoir has a conservation pool of 250 acres and a flood pool of 560 acres. This project utilized a **NRDF grant of $864,603.43** and was **completed in 1985**. In 1988 the project sponsor designated the project a public use area.

16. DESHLER (suspended)
Sponsor: Little Blue NRD

The Deshler Flood Control Project called for the construction of an earthen dam just west of Deshler. The structure was to provide flood control benefits to the southern part of the community and the resulting reservoir was to provide various recreational opportunities. The reservoir was planned to have a conservation pool of 122 acres and a flood pool of 333 acres. The **project was suspended in 1985** due to an increase in estimated land rights costs and the potential for excessive seepage from the reservoir. A total of **$21,639.75 in NRDF funds** was expended for engineering and land rights appraisals.

17. MIRA CREEK
Sponsor: Lower Loup NRD

This clearing and snagging project was carried out to improve the channel capacity of Mira Creek adjacent to the Village of North Loup in order to reduce flooding in that community. The project also included the replacement of an irrigation lateral flume with a siphon. A **NRDF grant of $68,952.41** was awarded and the project was **completed in 1985**.

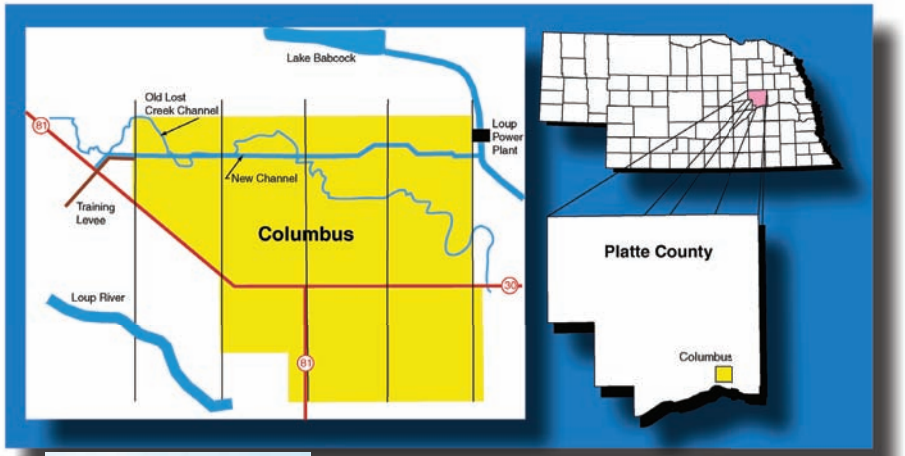
18. OLIVER RESERVOIR
Sponsor: South Platte NRD

The Oliver Reservoir Project involved the reconstruction of an existing dam on Lodgepole Creek that was built in 1912 to store water for irrigation. The project, located west of Kimball, includes extensive recreational development around the 280-acre reservoir. The structure also provides flood control benefits. **Completed in 1985**, the project utilized a **NRDF grant of $1,008,476.54**. The Nebraska Game and Parks Commission manage this site as a state recreation area.

Oliver Reservoir

19. CENTRAL BUTLER WATER MANAGEMENT
Sponsor: Lower Platte North NRD

The primary purposes of the Central Butler Water Management Project are to reduce flooding and improve surface water drainage near David City. The project included the construction of two earthen dams, the construction and improvement of drainage ditches, and the installation of storm water drainage structures in David City. **Completed in 1986**, the project utilized a **NRDF grant of $446,604.45**.



20. LOST CREEK
Sponsor: City of Columbus

Completed in 1986 the Lost Creek Flood Control Project consists of an excavated floodway and a training levee that intercepts storm runoff west and north of Columbus and convey it to the Loup Power Canal. The project, which will handle a 100-year flood, was designed and primarily funded by the Corps of Engineers. The **NRDF provided a grant of $465,823.57 and a loan of $155,274.48**. In 1995 the City of Columbus retired the NRDF loan for the project.

Lost Creek

21. SOUTH FORK 2-A (Iron Horse Trail Lake)
Sponsor: Nemaha NRD

Structure 2-A of the P.L. 566 South Fork Watershed Project is the designated multi-purpose structure in the watershed. The project provides flood control, sediment and erosion control, wildlife habitat and recreation benefits. The site consists of 360 acres and the structure has a conservation pool of 85 acres. The project is located near DuBois in the southeastern part of the state where little water-based recreation is available. The project was awarded a **NRDF grant of $266,632.71** and was **completed in 1986**.

22. THOMPSON CREEK

Sponsor: City of LaVista

This project resulted in the construction of a floodwater retarding structure in the City of LaVista that provides flood protection to homes that were constructed prior to the adoption of the city's floodplain ordinance. The structure, which is designed to drain down slowly after storm events, was **completed in 1986**. A **NRDF grant of $240,581.72** was provided to this project.

23. WAUNETA

Sponsor: Village of Wauneta & Upper Republican NRD

Wauneta

The Wauneta Flood Control Project consists of realignment and enlargement of the Frenchman Creek channel and the replacement of two bridges. The project provides flood control benefits to the Village of Wauneta. The project as constructed is a revision of the originally planned project that consisted of the construction of flood control structures on selected tributaries of Frenchman Creek above Wauneta. High land rights and construction costs necessitated modification of the original plan. The project was **completed in 1986** and involved a **NRDF grant of $556,084.19**.

24. WILLOW CREEK

Sponsor: Lower Elkhorn NRD

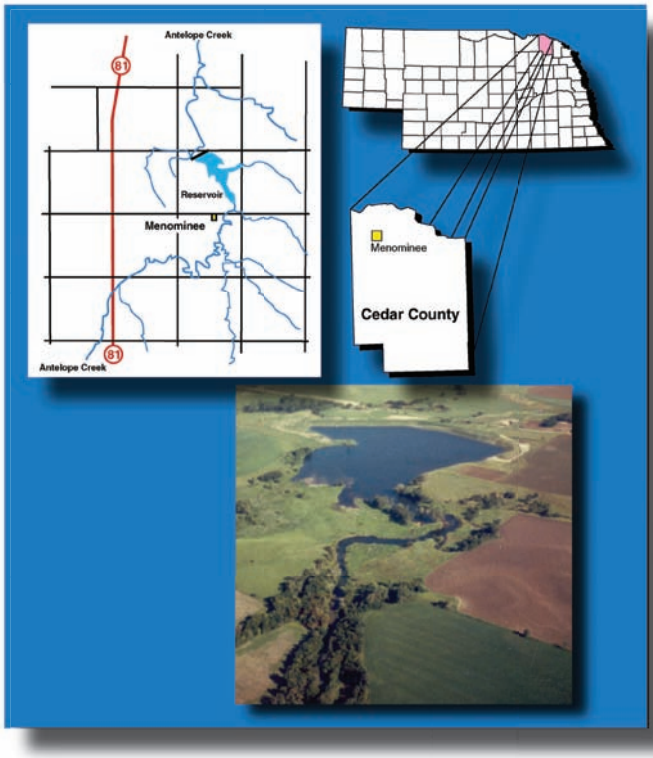
Willow Creek

The Willow Creek Project, located southwest of Pierce, is primarily a water storage, recreation, and fish and wildlife enhancement project. The project area includes approximately 1,700 acres and the 700-acre reservoir provides a variety of water-based recreation opportunities. The project, which was **completed in 1986**, also provides limited flood control benefits. The project was awarded a **NRDF grant of $3,828,455.53**. The Nebraska Game and Parks Commission manages the site as a state recreation area.

25. AINSWORTH RESERVOIR

Sponsor: Ainsworth Irrigation District

Ainsworth Reservoir was constructed approximately four miles southwest of Johnstown as an additional feature of the Ainsworth Irrigation Project. The reservoir serves as a secondary storage reservoir for irrigation water in the Ainsworth Canal that is not needed following unexpected rainfall events. Principally funded by the Rural Clean Water Program (RCWP), the project provides for improved water management and results in reduced pumping costs for district cooperators. The project also serves to improve water quality in Long Pine Creek, Plum Creek, and Sand Draw. **Completed in 1987**, this project was awarded a **NRDF grant of $30,862.50**.



Antelope Creek

26. ANTELOPE CREEK (Chalkrock Lake)

Sponsor: Lewis & Clark NRD

The Antelope Creek Project involved the construction of an earthen dam on Antelope Creek in northwestern Cedar County. The structure has a permanent pool of 44 acres and provides both flood protection and recreational benefits. Due to Antelope Creek's excellent water quality and perennial flow, the reservoir supports an excellent sport fishery. This project was **completed in 1987** and received a **NRDF grant of $377,578.72**.

27. AURORA 35-11-6 (Pioneer Trails)

Sponsor: Upper Big Blue NRD

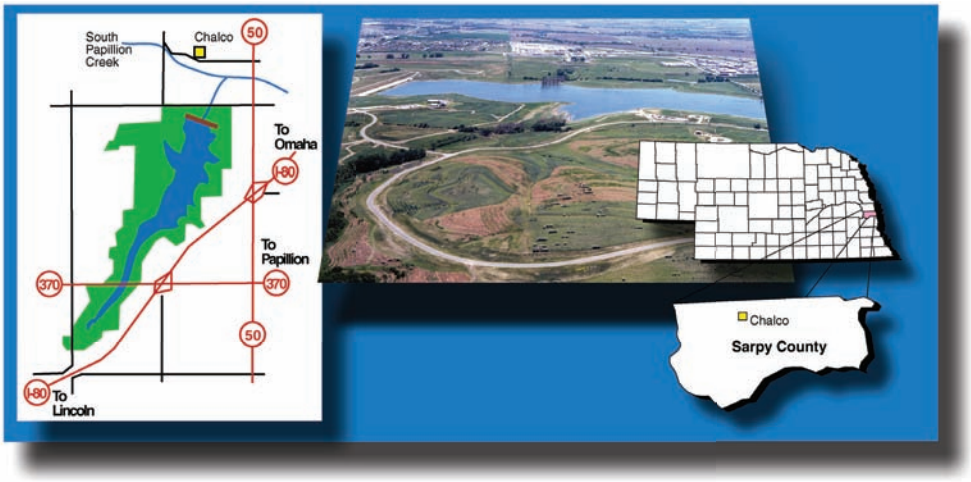
This project involved the construction of a dam on a tributary of Lincoln Creek northeast of Aurora. The resulting reservoir was designed to have a conservation pool of approximately 40 acres and provides both recreation and groundwater recharge benefits. A **NRDF grant of $335,364.17** was awarded to this project and it was **completed in 1987**. Recreational use has been less than anticipated due to excessive seepage losses and high turbidity in the reservoir.

28. SILVER CREEK
Sponsor: Central Platte NRD

The Silver Creek Flood Control Project consists of an excavated floodway along Silver Creek and Clarks Drain in Merrick County. The project is designed to convey runoff water from agricultural land in the area. Reduced flooding and improved crop production have resulted from the project. **Completed in 1987** the project received a **NRDF grant of $2,307,175.53**. As a result of project construction, the base flow of Silver Creek has increased due to greater groundwater seepage and the stream has formed new meanders within the floodway.

29. CHALCO HILLS RECREATION AREA
Sponsor: Papio-Missouri River NRD

The Chalco Hills Recreation Area (Papio Site #20) Project provided for outdoor recreation facility development and limited land acquisition at the Corps of Engineers' structure site located along I-80 in Sarpy County. The recreation area was **opened to the public on August 1, 1988**. The Commission approved funding for the project over a 10-year period with the sponsor requesting funds each fiscal year. The **NRDF grant for this project totaled $942,358.95**.



Chalco Hills Recreation Area

30. ELKHORN RIVER BANK STABILIZATION
Sponsor: Papio-Missouri River NRD

The Elkhorn River Bank Stabilization Project involves a channel cut-off and the placement of rock revetment at severely eroding sites along the seven-mile reach between King Lake and Highway 36 north of Waterloo. The project was designed to control rapidly advancing meanders, thereby preventing the erosion of cropland, woodland, and some residential property. NRDF funding was contingent upon acceptance of the assessment schedule for the Improvement Project Area (IPA) by the involved landowners. The project was **completed in 1988** and utilized a **NRDF grant of $1,164,964.66 and a loan of $135,741.15**. The NRD made its final loan payment to the Commission in 1998.

Long Branch Site 21

31. LONG BRANCH SITE 21 (Kirkman's Cove)

Sponsor: Nemaha NRD

Long Branch Site 21 is the designated multi-purpose structure in the Long Branch Watershed. The project site consists of 511 acres located approximately two and one half miles northwest of Humboldt. The structure was constructed on Kirkham Creek and the resulting reservoir has a conservation pool of 160 acres. The project provides flood control, grade stabilization, recreation, and fish and wildlife habitat benefits. The project utilized a **NRDF grant of $441,379.33** and was **completed in 1988**. In 1995 the sponsor conducted the Kirkman's Cove Clean Lakes Project which included the construction of a sediment basin directly above the reservoir and the installation of riprap on the shoreline to reduce erosion.

32. UNION IRRIGATION DISTRICT REHABILITATION

Sponsor: Union Irrigation District & North Platte NRD

The Union Irrigation District Rehabilitation Project provided for the rehabilitation of the irrigation district's water delivery system as earthen laterals were replaced with underground PVC pipe. Planned and designed by the NRCS as a RC&D project, the project was **completed in 1989** and was awarded a **NRDF loan of $82,500.00**. The Union Irrigation District made its final loan payment in 1999.

33. MILL CREEK

Sponsor: Lower Platte South NRD

The Mill Creek Project is a flood control project in Louisville that involved the construction of a bypass for Mill Creek flood flows along Highway 50, bridge clean-out work, and the enlargement of an existing berm. The project was **completed in 1990** and was awarded a **NRDF grant of $66,850.03**.

34. OGALLALA
Sponsor: City of Ogallala

The Ogallala Project consisted of the reconstruction of two existing dams located on the north side of Ogallala to meet "high hazard" engineering standards. Urban stormwater facilities, consisting of trunk lines and collectors and associated outfalls to the South Platte River were also constructed in order to attain comprehensive control of stormwater in the city. The project was awarded a **NRDF grant of $600,793.23** and was **completed in 1990**.

35. BUFFALO CREEK (Dawson County)
Sponsor: Central Platte NRD:

The Buffalo Creek Watershed Project consists of several flood water-retarding structures in the uplands north of Lexington. The major purpose of the project is to provide flood protection for the lowland areas of the watershed. The structures also provide fish and wildlife, recreation, and groundwater recharge benefits. The design for Structure B-1 was altered to add a canal from an existing irrigation canal in order to improve its groundwater recharge capability. **Completed in 1991**, the project received a **NRDF grant of $2,145,637.80**.

36. BUFFALO CREEK (Sarpy County)
Sponsor: Papio-Missouri River NRD

The Buffalo Creek Watershed Project in Sarpy County consists of 10 structures. The primary purpose of the project is to provide grade stabilization and erosion control. Reduction of flood damages and improvement of water quality are secondary purposes. The project was awarded a **NRDF grant of $628,712.63** and was **completed in 1991**.

Liberty Cove

37. LIBERTY CREEK (Liberty Cove)
Sponsor: Little Blue NRD

The Liberty Creek Project is a recreation and flood control project located southwest of Lawrence. The 36-acre reservoir provides for various recreation activities, including swimming and fishing. The structure also provides some flood protection to downstream roads and bridges and agricultural land. **Completed in 1991**, this project received a **NRDF grant of $223,162.50**.

Niobrara River Access

38. NIOBRARA RIVER ACCESS

Sponsor: Middle Niobrara NRD

The Niobrara River Access Project provided for the development of one public access site along the Niobrara River east of Valentine and the expansion of another. The Brewer Bridge site includes a restroom, a well, picnic tables, trash receptacles, a parking area, and a canoe access point. The facilities at the Cornell Bridge access site were enlarged and improved in cooperation with the U.S. Fish and Wildlife Service. **Completed in 1991**, the project received a **NRDF grant of $25,274.51**.

39. CZECHLAND LAKE

Sponsor: Lower Platte North NRD

The Czechland Lake Project provided for recreation facility development at a P.L. 566 watershed flood control structure (Cottonwood Creek 7-A) near Prague. Designed and principally funded by the Natural Resources Conservation Service, the structure resulted in an 85-acre reservoir. The Project was **completed in 1993** and utilized a **NRDF grant of $172,990.57**.

Czechland Lake

40. LODGEPOLE CREEK AT SIDNEY

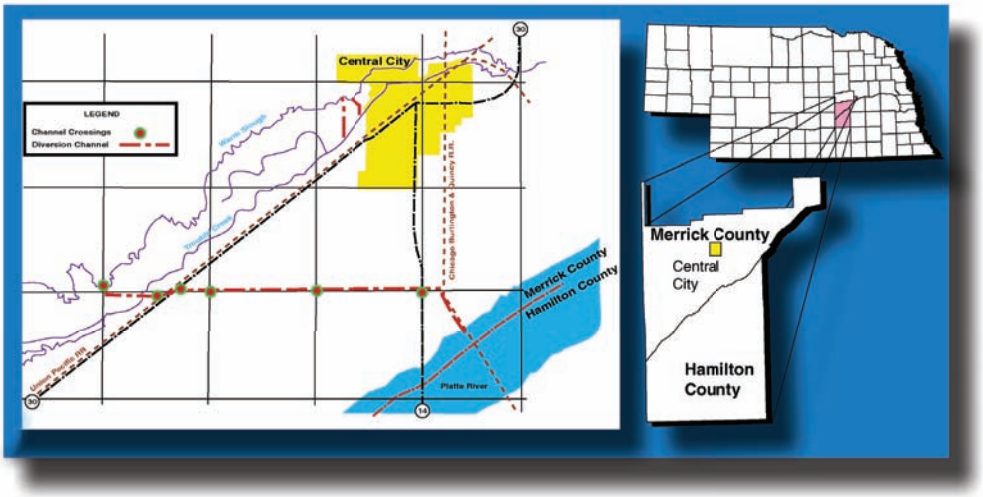
Sponsor: City of Sidney

This Corps of Engineers' Section 205 project consists of channel improvement work on Lodgepole Creek and Deadwood Draw in Sidney along with a channel cut-off and an accompanying grade stabilization structure and the replacement of three city bridges. The project will reduce flooding in Sidney and nearly confine the 100-year flood plain to the improved stream channel. The project was **completed in the spring of 1994** and a **NRDF grant of $1,002,862.97** was awarded.

41. RAWHIDE CREEK
Sponsor: Lower Platte North NRD

The Rawhide Creek Flood Control Project, located north and west of Fremont was designed to reduce flood problems in that city. The project consisted of (1) the construction of a flood control dam and reservoir on Trouble Creek, (2) the construction of three channels to divert flood water from Rawhide Creek, and (3) improvement of an existing drainage ditch to convey flood water to the Elkhorn River. The project was completed in 1994 and received a **NRDF grant of $2,251,337.08**.

42. WARM SLOUGH/ TROUBLE CREEK
Sponsor: Central Platte NRD



The Warm Slough/Trouble Creek Project is a flood control project that provides 100-year flood protection to Central City. The project consists of a diversion structure and channel that intercept flood flows in Warm Slough and in Trouble Creek above Central City and convey them to the Platte River. The project was awarded a **NRDF grant of $1,535,417.70** and was **completed in 1994**.

43. BIG PAPIO CHANNEL
Sponsor: Papio-Missouri River NRD

The Big Papio Channel Project is a Corps of Engineers Section 205 flood control project in Omaha along Big Papillion Creek between Center and "L" Streets. The project included channel improvement work, improved flow conveyance at a Union Pacific Railroad bridge, and construction of a flood warning system along with a hiking and biking trail. The project was **completed in 1995** and received a **NRDF grant of $2,224,677.53**.

Davis Creek Reservoir

44. DAVIS CREEK RESERVOIR

Sponsor: Lower Loup NRD

The Davis Creek Reservoir Project consisted of the development of recreation facilities at a U.S. Bureau of Reclamation reservoir. Located southwest of Scotia, the Davis Creek Reservoir stores water for the lower portion of the North Loup Irrigation Project. Facility developments include a boat ramp and fishing pier, both designed to operate with the fluctuating nature of the reservoir, along with a picnic shelter, water well, rest rooms, and parking areas. **A NRDF grant of $96,038.86** was awarded to this project and it was **completed in 1995**.

45. MOORES CREEK

Sponsor: Central Platte NRD

The Moores Creek Project is a flood control project near Grand Island that consisted of channel improvement work and the development of small flood water retention/detention cells along the stream. The project also utilized a large detention cell constructed by the Nebraska Department of Roads in its Highway 281 improvement project. Construction of the project was **completed in 1995** with **NRDF grant assistance totaling $1,931,670.22**.

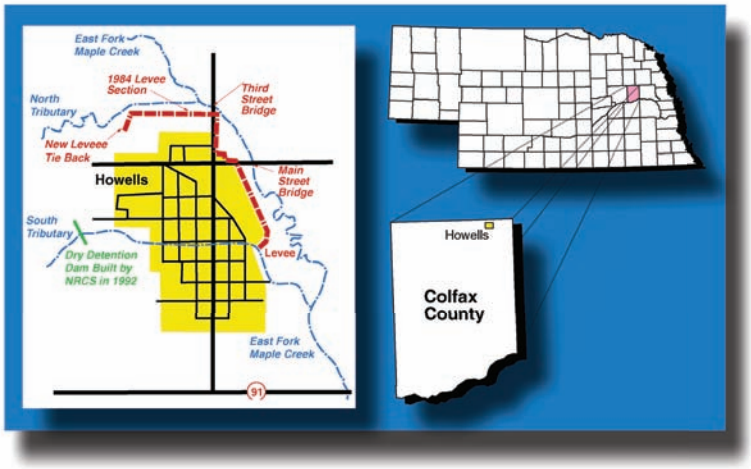
46. SCRIBNER LEVEE

Sponsor: City of Scribner

The Scribner Levee Project consisted of the construction of a levee on the northwest, west, south, and southeast sides of Scribner to protect the city from Pebble Creek flooding. The project, designed and primarily funded by the Corps of Engineers as a Section 205 project, provides 100-year flood protection to Scribner. The project, as originally designed, was completed and an additional levee was constructed on the east side of the city to protect Scribner from the 100-year flood of the Elkhorn River. **A NRDF grant of $426,433.81** was awarded and the project was **completed in 1995**.

47. HOWELLS LEVEE
Sponsor: Village of Howells

The project, planned, designed, and principally funded by the Corps of Engineers under Section 205, provides the Village of Howells with 500-year flood protection along the East Fork of Maple Creek. The project consists of the improvement of an existing levee on the north side of town and construction of a new levee on the east side of the community. The project was **completed in 1997** with **a NRDF grant of $145,155.34**.



Howells Levee

48. GERING CANAL (Phase I & II)
Sponsor: Gering Irrigation District & North Platte NRD

The Gering Canal Project consists of two phases to rehabilitate and improve the Gering Irrigation District's facilities. Phase One involved realigning the main canal to avoid canyon head-cutting while Phase Two involved construction of a new spillway. Phase Two has reduced the potential for flooding in the City of Gering. The project was awarded **a NRDF grant of $105,155.20 and a NRDF loan of $168,106.13 at a low interest rat**e for irrigation facility rehabilitation projects. The project was **completed in 1998**.

Walnut Creek Lake and Recreation Area

49. PAPIO SITE 21 (Walnut Creek Lake and Recreation Area)
Sponsor: Papio-Missouri River NRD

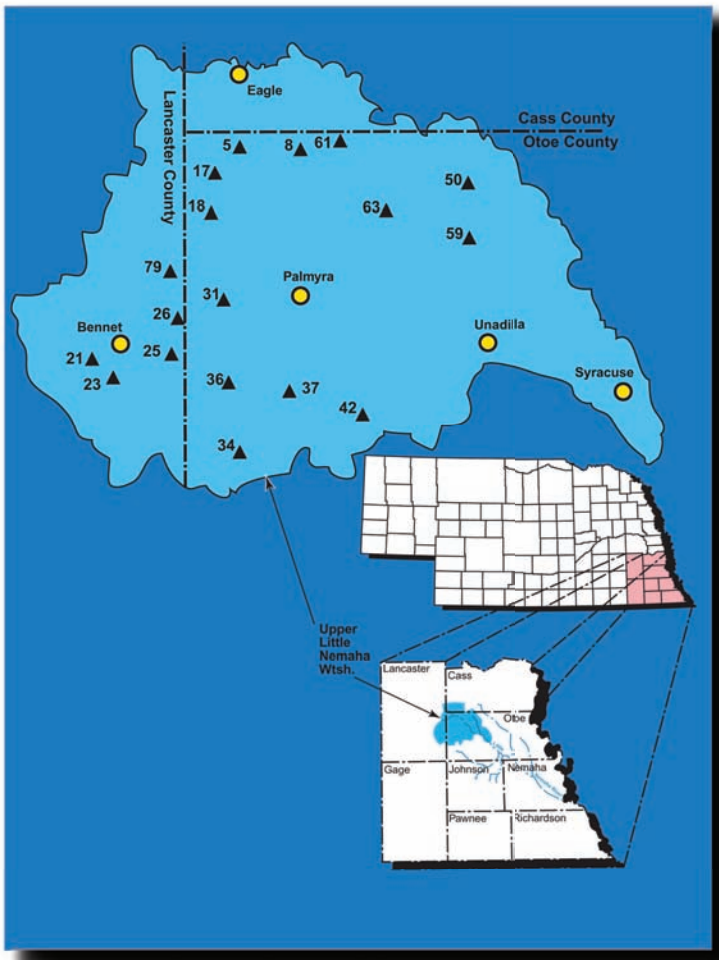
The Papio Site 21 Project is a recreation and flood control project located on Walnut Creek southwest of Papillion. The site was originally identified by the Corps of Engineers in its Papillion Creek Watershed Project. The project consists of an earthen dam that impounds a 100-acre reservoir on a 485-acre tract and extensive recreation facility development. The project was **completed in 1999**, and received a **NRDF grant of $4,257,828.44**.

50. GERING CANAL (Phase III)

Sponsor: City of Gering

The Gering Canal Phase III Project involves the installation of an inlet structure in the east wall of the Gering Irrigation Canal in order to direct excess flows to a reinforced concrete pipe under Highway 71 and D Street and eventually outlet to South Gering Drain. This serves to reduce the frequency and severity of flooding in the western part of Gering. The **project was completed in 2000** and **NRDF assistance totaled $154,769.18** in the form of a grant.

Upper Little Nemaha Watershed



51. UPPER LITTLE NEMAHA WATERSHED

Sponsor: Nemaha NRD

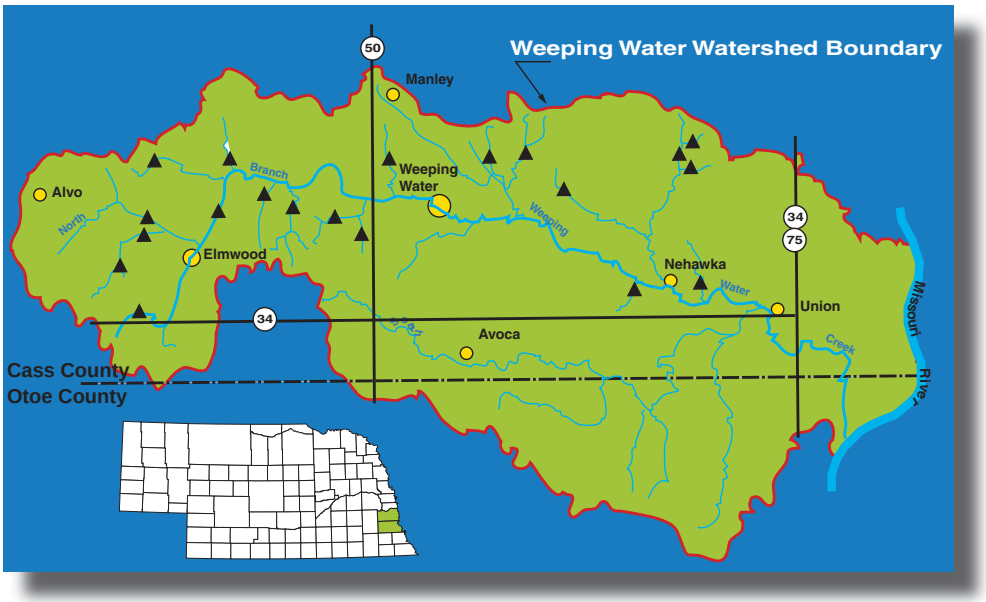
The Upper Little Nemaha Watershed Project is a flood control project that consists of 18 floodwater-retarding structures. Originally planned by the Natural Resources Conservation Service as a P.L. 566 project, it is located in the Bennet, Eagle, Palmyra and Unadilla area. The **project received a NRDF grant of $3,486,171.98** and was **completed in 2003**.

52. WAKEFIELD LEVEE

Sponsor: City of Wakefield

The Wakefield Levee Project provides 100-year flood protection to the City of Wakefield from flooding along Logan Creek. The project consists of a levee on the north and east sides of the community, a highway closure structure, and the protection of three city wells. The city also received FEMA funding through the Hazard Mitigation Grant Program (HMGP) for the project. The project was completed in 2003 and was awarded a **NRDF grant of $350,374.68**.

53. WEEPING WATER CREEK WATERSHED
Sponsor: Lower Platte South NRD



Weeping Water Creek Watershed

The Weeping Water Creek Watershed Project is a flood control project located in Cass County. The project consists of 19 floodwater-retarding structures that will serve to reduce flooding in the communities of Weeping Water, Nehawka, and Union, to agricultural land, and to roads and bridges. Eighteen structures have been completed but Site 7g was suspended due to Cass County's refusal to close two county roads for the project. The project was **completed in 2003** and received a **NRDF grant of $3,736,657.37**.

54. WEEPING WATER CREEK SITE 7G (suspended)
Sponsor: Lower Platte South NRD

The Weeping Water Site 7g Project was to provide for additional land acquisition and the development of recreation facilities at this structure site near Elmwood. The reservoir was to be 180 surface acres at conservation pool level, about twice the size of 7g as a single-purpose flood control structure. The NRD suspended this project due to Cass County's refusal to close two county roads.

55. SKULL CREEK SITE 55 (Homestead Lake)
Sponsor: Lower Platte North NRD

Skull Creek Site 55 is one of three floodwater-retarding structures that, along with levee work was proposed in the Skull Creek Watershed Project. Limited recreation facility development was included at this multi-purpose structure site located north of Bruno. The reservoir has a conservation pool of 37 acres on approximately a 160-acre site. The project was **completed in 2004** and it received a **NRDF grant of $594,353.35**.

Lake Ericson

56. LAKE ERICSON

Sponsor: Lower Loup NRD

The Lake Ericson Project involved the reconstruction and improvement of an old hydroelectric dam on the Cedar River near Ericson and the development of public recreation facilities there. Dredging and environmental enhancement work was previously funded through a Nebraska Environmental Trust grant. The Lake Ericson Association, an organization of cabin owners at the lake, assisted with the project which received a **NRDF grant of $601,205.41** and was **completed in 2005**.

Powder Creek

57. POWDER CREEK

Sponsor: Lewis & Clark NRD

The Powder Creek Project is a multi-purpose structure (Site 31-20A) in the Aowa Creek Watershed, a P.L. 566 project planned, designed, and principally funded by NRCS. The project resulted in a 107-acre reservoir on 462 acres located southeast of Newcastle. The reservoir contains various features planned by the Game and Parks Commission and the Department of Environmental Quality to enhance fishery habitat and water quality. The project was **completed in 2005** and was awarded a **NRDF grant of $498,760.00**.

Approved Projects

58. ANTELOPE CREEK
Sponsor: Lower Platte South NRD
The Antelope Creek Project, designed and principally funded by the Corps of Engineers, will provide 100-year flood protection to a downtown area of Lincoln. The project involves the construction of a floodwater conveyance channel, a recreation trail, and bridge improvement work. Design, land acquisition activities, and construction are underway.

59. ENDERS DAM
Sponsor: Frenchman Valley and Hitchcock & Red Willow Irrigation Districts
The Enders Dam Project was planned to provide for the installation of drains to correct excessive seepage in Enders Dam, located on Frenchman Creek near Imperial. The project, principally funded by the Bureau of Reclamation, has been delayed due to lengthy geotechnical analysis and continued monitoring.

60. LEIGH DAM
Sponsor: Lower Elkhorn NRD
This project involves the construction of an earthen dam on the West Fork of Maple Creek just west of Leigh. The resulting 160-acre reservoir would provide recreation and flood control benefits. Final design and land rights acquisition are underway.

61. LITTLE SANDY CREEK WATERSHED
Sponsor: Little Blue NRD
This watershed project involves the construction of five flood control dams on Little Sandy Creek and tributaries in Saline, Fillmore, Jefferson, and Thayer counties. Site 61 near Tobias is designed as a multi-purpose dam and will provide various recreation activities. Dam sites 30 and 61 have been constructed. Final design of Site 40 is completed and land acquisition activities at that site are underway.

62. LOWER TURKEY CREEK WATERSHED
Sponsor: Lower Big Blue NRD
This flood control project consists of seven floodwater retarding structures (earthen dams) in Saline and Fillmore counties. Drainage structure improvements will also be made in the Village of DeWitt. Final design work is underway.

63. LOWER WOOD RIVER/UPPER WARM SLOUGH
Sponsor: Central Platte NRD
Planned, designed, and principally funded by the Corps of Engineers as a general investigation type project, this project provides flood protection against the 100-year flood event along the Wood River at Grand Island. Principal project features include minor levee and channel improvement work, a diversion on Wood River and a floodway to the Platte River. Due to a revised cost estimate, Congressional reauthorization of the project was necessary. Construction was completed in 2004 and administrative closeout will soon take place.

64. PENDER FLOOD CONTROL

Sponsor: Village of Pender

This project is another Section 205 project planned, designed, and principally funded by the Corps of Engineers. The project will protect Pender from the 385-year flood event on Logan Creek and primarily consists of levee construction, including a floodwall section, two state highway closure structures and a detention cell. Project construction began in the spring of 1998 and is completed and administrative closeout will soon take place.

65. STEVENS CREEK WATERSHED

Sponsor: Lower Platte South NRD

The Stevens Creek Watershed Project consists of ten small floodwater-retarding structures located on Stevens Creek and its tributaries east of Lincoln. The dams will serve to reduce flooding along the stream, especially at Highway 6 where several commercial structures are located. The ten structures comprise one component of a comprehensive plan for the watershed. Nine structures are completed and a bid has been accepted for construction of the last structure (Sky Ranch).

66. UPPER PRAIRIE/SILVER/MOORES CREEK

Sponsor: Central Platte NRD

This project, which includes dams in upland areas and detention cells along streams, will serve to reduce flooding along portions of Prairie, Silver and Moores Creek west of Grand Island. It will also remove part of northern Grand Island from the 100-year floodplain. Final design and land acquisition activities are underway.

67. WESTERN SARPY/CLEAR CREEK

Sponsor: Papio-Missouri River NRD

The Western Sarpy/Clear Creek Project, planned and designed by the Corps of Engineers, involves the improvement of levees on both sides of the Platte River near Ashland. The elevation, relocation, or removal of several cabins along the river will also take place. Design work is underway as are land acquisition activities. The sponsor is also proceeding with cabin relocation and removal and construction work has begun.

68. WINSLOW LEVEE PROJECT

Sponsor: Village of Winslow/Lower Elkhorn NRD

The Winslow Levee Project involves the construction of a levee on three sides of Winslow to protect it from Elkhorn River flooding. Design work and land acquisition are completed. The project is being coordinated with Dodge County, the Nebraska Department of Roads and the Burlington Northern Santa Fe Railroad. Construction will begin this summer.

A table regarding the financial status of the approved projects follows:

Financial Status Of Approved Projects

June 30, 2006

Project Name	Amount Allocated	Amount Obligated	Amount Expended to Date
FULLY FUNDED:			
Lower Wood River/Upper Warm Slough	3,927,070.42	3,927,070.42	3,922,806.37
Pender Flood Control	883,293.00	883,293.00	771,170.97
Stevens Creek Watershed	2,368,396.25	2,368,396.25	2,351,144.10
Western Sarpy/Clear Creek	4,686,118.00	4,686,118.00	2,824,456.02
Winslow Levee	491,094.62	491,094.62	69,940.80
PARTIALLY FUNDED:			
Antelope Creek	$6,224,000.00	$6,223,999.99	$6,223,999.99
Leigh Dam	$3,500,362.80	$267,253.00	$125,062.35
Little Sandy Creek Watershed	2,316,242.35	1,702,083.35	989,237.88
Lower Turkey Creek Watershed	3,565,200.00	1,312,200.00	152,943.30
Upper Prairie/Silver/Moores Creek	8,633,502.68	1,279,792.07	190,779.23
APPROVED BUT NOT FUNDED:			
Enders Dam	37,064.25	0.00	0.00
COMPLETED PROJECTS (57)	**$44,281,904.28**	**$44,281,904.28**	**$44,281,904.28**
TOTAL:	**$80,914,248.65**	**$67,423,204.98**	**$61,903,445.29**

Projects Pending

Project proposals for the following projects have been reviewed and feasibility study planning or review are currently underway:

The **Jones Creek Site 15** Project, sponsored by the ***Papio-Missouri River NRD***, is a multi-purpose reservoir project near Hubbard. Extensive recreation facilities would be developed around the 200-acre reservoir and flood damage reduction benefits would be realized downstream in the Missouri River valley.

The ***Upper Big Blue NRD*** is sponsoring the **Kezan Creek Project** near Garrison. A 237-acre multi-purpose reservoir and public recreation facilities are planned.

The **Lake Wanahoo Project**, sponsored by the ***Lower Platte North NRD***, involves the construction of an earthen dam on Sand Creek just north of Wahoo that would carry U.S. Highway 77. The resulting reservoir and associated wetland complex would total 639 acres. Project purposes are environmental restoration, recreation, and flood reduction.

Anticipated NRDF Funding Needs 1/
Fiscal Years 2007-2008 and 2008-2009

PROJECT	FY 2007-2008	FY 2008-2009
APPROVED PROJECTS		
Antelope Creek	$0	$0
Enders Dam	0	37,064
Leigh Dam	1,691,430	1,288,010
Little Sandy Creek Watershed	228,550	0
Lower Turkey Creek	717,000	829,000
Lower Wood River/ Upper Warm Slough	0	0
Pender Flood Reduction	0	0
Stevens Creek	0	0
Upper Prairie/ Silver/Moores Creek	836,802	957,857
Western Sarpy/Clear Creek	0	0
Linslow Levee	0	0
SUBTOTAL:	**$3,473,782**	**$3,111,931**
PENDING PROJECTS		
Jones Creek Site 15	$500,000	$1,500,000
Kezan Creek	0	0
Lake Wanahoo	1,000,000	2,000,000
Milburn Dam	100,000	200,000
Mullen Dam	100,000	200,000
SUBTOTAL:	**$1,700,000**	**$3,900,000**
TOTAL:	**$5,173,782**	**$7,011,931**

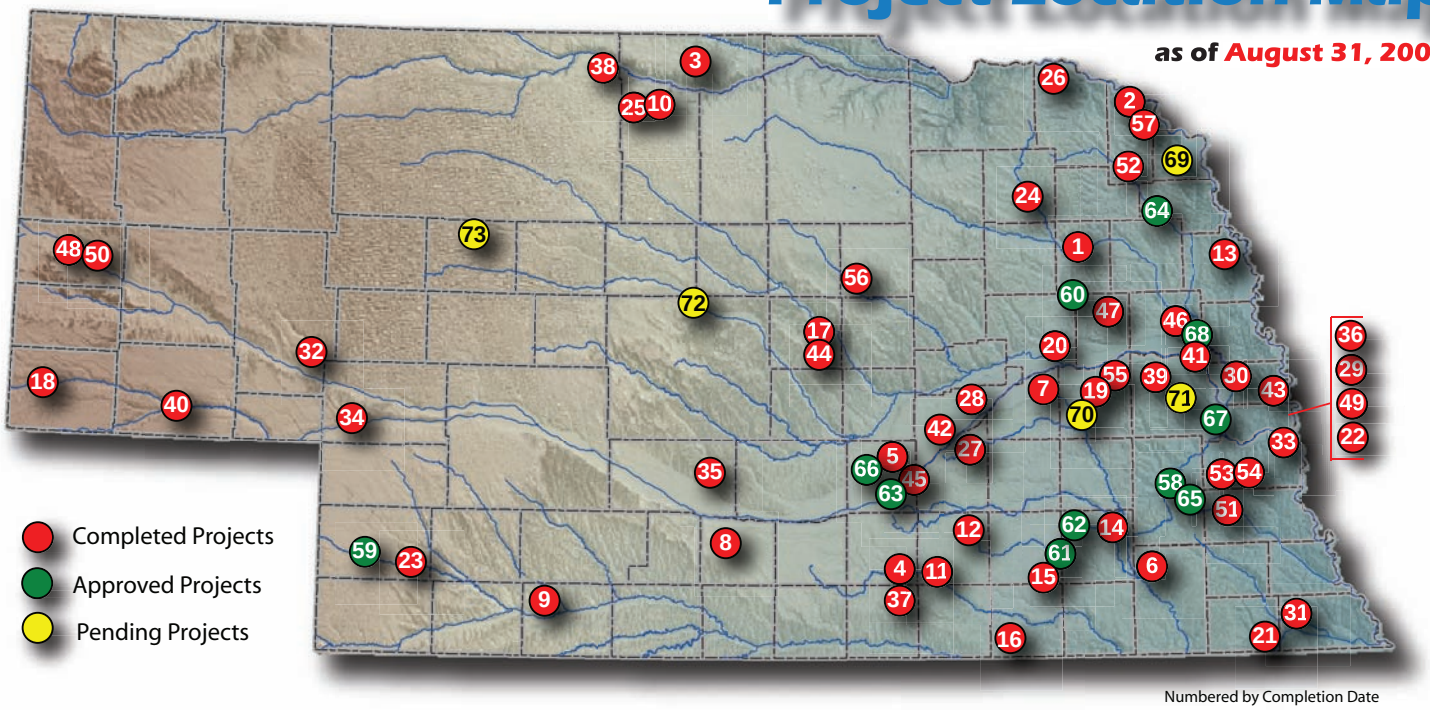
1/ Assuming all approved projects proceed as planned and pending projects are approved.

The **Milburn Dam Project**, sponsored by the ***Sargent Irrigation District***, involves rehabilitation of the diversion dam on the Middle Loup River and the placement of riprap to control bank erosion and facilitate operation of a fish passage structure.

The ***Upper Loup NRD*** is sponsoring the **Mullen Dam Project** which involves the construction of a dam on the Middle Loup River near Mullen and the development of recreation facilities. A 655-acre reservoir supporting a trout fishery is planned.

Project Location Map

as of August 31, 2006



Completed Projects

Listed in order of completion date

1. Maskenthine
2. Aowa Creek
3. Cub Creek
4. Crystal Lake
5. Prairie Creek
6. Clatonia
7. Clear Creek Watershed
8. Loomis Pipeline
9. McCook
10. West Sand Draw
11. Big Sandy #1
12. School Creek (suspended)
13. Summit Lake
14. Walnut Creek
15. Big Sandy #2
16. Deshler (suspended)
17. Mira Creek
18. Oliver Reservoir
19. Central Butler Water Management Project
20. Lost Creek
21. South Fork 2-A
22. Thompson Creek
23. Wauneta
24. Willow Creek
25. Ainsworth Reservoir
26. Antelope Creek
27. Aurora 35-11-6
28. Silver Creek
29. Chalco Hills Recreation Area
30. Elkhorn River Bank Stabilization
31. Long Branch Site 21
32. Union Irrigation District
33. Mill Creek
34. Ogallala
35. Buffalo Creek Dawson Co.
36. Buffalo Creek Sarpy Co.
37. Liberty Creek
38. Niobrara River Access
39. Czechland Lake
40. Lodgepole Creek at Sidney
41. Rawhide Creek
42. Warm Slough/Trouble Creek
43. Big Papio Channel
44. Davis Creek Reservoir
45. Moores Creek
46. Scribner Levee
47. Howells Levee
48. Gering Canal Phase 1 & 2
49. Papio Site 21
50. Gering Canal Phase 3
51. Upper Little Nemaha Wtsh.
52. Wakefield Levee
53. Weeping Water Creek Wtsh.
54. Weeping Water Creek Site 7-G (suspended)
55. Skull Creek Site 55
56. Lake Ericson
57. Powder Creek

Approved Projects

58. Antelope Creek
59. Enders Dam
60. Leigh Dam/Reservoir
61. Little Sandy Creek Wtsh.
62. Lower Turkey Creek Wtsh.
63. Lower Wood River/ Upper Warm Slough
64. Pender Flood Control
65. Stevens Creek Wtsh.
66. Upper Prairie/Silver/Moores
67. Western Sarpy/Clear creek
68. Winslow Levee

Pending Projects

69. Jones Creek Site 15
70. Kezan Creek
71. Lake Wanahoo
72. Milburn Dam Project
73. Mullen Dam Project

Looking Ahead

The **Nebraska Resources Development Fund** has assisted Nebraskans with the sound development of the State's land and water resources since 1974. Local subdivisions of government throughout the state have demonstrated their ability to develop projects that address local natural resources problems and opportunities while protecting our environment. It is essential that these entities continue to cooperate with other local, state, and federal agencies in order to secure adequate funding for their projects.

Flood reduction and/or recreation projects are expected to comprise most new applications in the coming years. In addition, increased demand on the Fund to assist with irrigation rehabilitation and stream flow augmentation projects is anticipated especially in view of the continuing drought. As can be seen in the preceding table, with larger and more technically complex projects, demands on the Fund are expected to continue to be strong.

Submitted to the Governor and Legislature
September 2006

Ann Bleed
Acting Director
Department of Natural Resources

Thomas F. Pesek
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Department of Natural Resources

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