

Nemaha Natural Resources District

Insight

ANNUAL REPORT

2010

New Leadership Elected at NRD Board Meeting

Lisa Beethe, Elk Creek, will head up the Nemaha NRD's board meetings in 2011 as she was elected Chair during the annual reorganization in January. Rob Bohling, Johnson, will serve as Vice-Chair. Secretary-Treasurer for 2011 will be Don Siske, Table Rock, who will also be the alternate representative to the Nebraska Association of Resources Districts board. Orval Gigstad will continue as the NARD representative. A caucus was also conducted to select the representative to the Nebraska Natural Resources Commission from the Nemaha River basin, and Dan Watermeier was reelected to this four-year term.

In addition one new director was added to the board with the recent election of Michael Gilson from Nebraska City. He assumed the spot previously held by Jim Wirth in Subdistrict 3. Mike is Director of Manufacturing Services at Elster American Meter and enjoys fishing, hiking, and camping in his spare time. A Nebraska native, he hopes to become involved in activities for the betterment of his subdistrict and the NRD during his term on the board. Mike and his wife, Lana, live in Nebraska City and have two children.



Mike Gilson takes his oath of office during the January board meeting

Calling All Potential Directors!

A few chairs around the Nemaha NRD board room are sitting empty right now. Vacancies currently exist in Subdistrict 3, which includes part of Nebraska City and a rural area west and south of the City, and Subdistrict 9, which encompasses much of eastern Richardson County and southeastern Nemaha County. In addition the At-Large position is also open.

The NRD board is requesting individuals submit letters of interest to the NRD for consideration at their upcoming February 10 meeting. To be eligible an NRD director must be a registered voter who also meets all other eligibility requirements for holding

an elected office. Anyone from within the boundaries of the District's eight-county area is eligible for the At-Large position, but anyone interested in the other two openings must reside within the boundaries of those specific subdistricts. The At-Large and Subdistrict 9 positions are four-year terms that will expire at the end of 2014 while the Subdistrict 3 position has two years left in its term.

To learn more about these positions, contact the NRD office at (402) 335-3325 or check our website www.nemahanrd.org.

March 1 Deadline for Tree Orders Approaching

Tree orders for spring delivery are still being accepted, but don't wait too long. March 1 is the cutoff for placing your order. Several species of conifers, deciduous trees, and shrubs are still available, and all are priced at \$0.85 each, plus handling charges and sales tax. You must order in quantities of 25/species, and prepayment is required.

Call the NRD today at 402-335-3325 for more information.

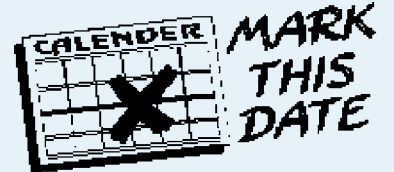


Don Bruna Construction works on the Ray Caspers road dam in October, 2010



Flood waters moved this bridge from its foundation on the Steamboat Trace during the summer of 2010

CALENDAR OF EVENTS



FEBRUARY

- 10 NNRD Board Meeting, Tecumseh (7:00 p.m.)
- 21 Presidents Day Holiday, NRD Office Closed
- 24 Forestry Workshop @ Unadilla (9:00 a.m.-Noon)

MARCH

- 1 Deadline for Tree Seedling Orders Southeast Regional Envirothon, Beatrice
- 7-8 NRD Water Programs Conference, Kearney
- 8 Water Celebration @ Peru State College
- 10 NNRD Board meeting, Tecumseh (7:00 p.m.)
- 12-16 NARD Washington, DC, Conference

APRIL

- 1 Deadline for Reduced Cost NNRD Park Permits
- 14 NRD Board Meeting, Tecumseh (8:00 p.m.)
- 22 Earth Day
- 24-5/1 Soil & Water Stewardship Week
- 29 Arbor Day (NNRD Office is Open)

Forestry Workshop

Thursday,
February 24, 2011
9:00 a.m. – Noon
Duncan Building
on Main Street in
Unadilla, NE

HOT TOPICS:

- Latest Insects/Disease Updates
- Timber Management/Appraisals
- Trees + Wildlife
- Farm Bill Update
- NNRD Tree Programs

To RSVP or find out more,
call the NRD at (402) 335-3325

Annual Report:-----

2010 Highlights

Buck & Duck Creek Watersheds:

Construction work on the Buck Creek dam west of Peru was finally started in the fall of 2010. Shanahan Brothers Construction from Lincoln was awarded a \$700,000 contract to construct the dam, which is scheduled to be completed in late summer, 2011. Fall work on the 145,000 cubic-yard dam was completed in mid-December and will resume once weather allows construction in the spring. Almost all the funds to construct the Buck Creek dam are provided through the federal Watershed Protection and Flood Prevention Act commonly known as the PL566 Program.

With the Buck Creek project underway, the NRD will shift focus to the Duck Creek site. Final design on the dam has been completed; however, the District needs to acquire several permits and negotiate for the land rights before construction can begin. When completed the dam will create a 62-acre lake and feature public recreation opportunities. The estimated cost to construct the Duck Creek project is \$3.68 million. Unlike the Buck Creek site, it is anticipated that a wide variety of funding sources will be used to complete the Duck Creek project including PL566, Nebraska Resources Development Fund, and federal Sport Fish Restoration Funds. Dam construction most likely will not start until 2012. Engineering services for both dams are provided by the Natural Resources Conservation Service.

Buck and Duck Creek Watershed Management Program - The Buck and Duck Creek Watershed Management Program is a cooperative effort of the NRD, NRCS, and DEQ to implement management practices above both of these planned reservoirs to improve water quality. Funding for the program is also being provided by the Nebraska Environmental Trust. Conservation plans have been developed with 35 different landowners in the watershed. To date 482 acres of tile terraces and 60 acres of standard terraces and waterways have been built, one well closed, one livestock pipeline installed, and engineering is ongoing on four flood/grade stabilization structures to be built this spring. With the aforementioned work that has been completed, the following reductions have been achieved: nitrogen has been reduced 4,133 lbs/yr; phosphorus has been reduced 1,696 lbs/yr; and sediment has been reduced 1,329 tons/yr.

Big Muddy Creek Watershed:

Completion of the Ray Caspers road dam project in December, 2010, wrapped up this three-year watershed project. Project accomplishments include nine grade control structures, two weir structures, two elevated inlet road culverts, and a road dam. Below is a list of project partners and their financial contributions to this \$1.3 million project.

Nebraska Environmental Trust	Natural Resources Conservation Service	Nemaha Natural Resources District	Nemaha County	Big Muddy Creek Landowners
\$566,000	\$307,000	\$209,000	\$132,500	\$105,000

Small Dams Program:

Three small dam projects were built since the fall of 2009. One of the projects was financed by combining federal program funds with NRD and landowner contributions while the other two were NRD/landowner partnerships.

Watershed Repair:

During the spring of 2010, the principle spillway tube and riser were replaced in the Wilson Creek 2-27 structure in Otoe County. A similar project was undertaken during the summer at the Speckmann-Ottemann structure located southeast of Tecumseh. In the fall of 2010, 1,700 tons of class "C" riprap were used to repair face erosion on the South Branch 11 and Upper Little Nemaha 50 structures located near Burr and Palmyra, respectively.

Recreation:

Iron Horse Trail Lake Recreation Area may have been closed for restoration in 2010, but there was plenty of activity at the NRD's other recreation areas. Kirkman's Cove near Humboldt saw a record number of campers this year. A total of 652 camper days were recorded at the electric RV area at Kirkman's Cove in 2010 compared with 484 in 2009. Use at Wirth Brothers Lake north of Tecumseh has also increased over the past two years. The beach, which is arguably the best among the District's recreation areas, has become very popular with area swimmers. Area anglers also enjoy fishing the 34-acre lake. Use at Wirth Brothers was down during the dry period in the mid-2000s because of low water levels; however, with recent years being wetter, it has helped maintain the water level in the lake. Prairie Owl, a 25-acre lake south of Dunbar in Otoe County, is the oldest of the District's four areas. Although small it still provides area users with an opportunity to fish and enjoy an afternoon at the lake.

One of the greatest challenges when operating public recreation facilities is enforcing rules. The NRD works closely with law enforcement to help assure that area users are abiding by regulations and paying all required fees. Although not every violator gets caught, in the past few years outstanding work by our sheriff's departments and Conservation Officers has greatly improved compliance with park rules. In December, 2010, the NRD board reviewed and updated the rules and regulations governing its four public recreation parks and the Steamboat Trace trail. A copy of the updated rules is available on the District's website.

NNRD Park entry permits are required at Kirkman's Cove, Iron Horse Trail Lake,

and Wirth Brothers Lake. Permit sales in 2010 topped \$11,000, which is an all-time high since their inception in 1999. Proceeds from the sales are used for maintenance and development at the parks. In addition over \$6,500 was collected from campers using the electrical RV hookups at Kirkman's Cove.

Park permits for 2011 are on sale now at the Nemaha NRD. Annual permits, which are valid at all three parks, cost just \$10 if purchased before April 1 (after April 1 they increase to \$12). Permits may be purchased at the NRD office in Tecumseh, by mail (a printable application is available on our website), or through the temporary permit envelopes available at the parks.

Iron Horse Trail Lake Renovation - Shanahan Bros. Construction has completed over 90% of the renovation work and expects all work to be complete by May of 2011. In November of 2010 the Nebraska Game & Parks Commission eradicated all fish populations by adding rotenone to the lake. As predicted, most remaining fish within the lake were adult sized carp, which are undesirable as they are bottom feeders which cause lake turbidity and inhibit the population of desirable fish such as bluegill, bass, crappie, and catfish. According to NGPC fishery staff, the plan is to restock the lake in the fall of 2011.

In response to feedback from park users, the NRD board approved spending \$50,000 to create a "family-friendly" atmosphere at Iron Horse Trail Lake. Park users will be pleasantly surprised to see numerous recreation improvements such as concrete sidewalks, a fishing pier and jetties, electrical RV hookups, a new shady, non-electrical RV/tent camping area, and a renovated swimming beach. The goal is to have a grand reopening of the park prior to the 2011 Memorial Day weekend.

Steamboat Trace - The Steamboat Trace, which follows the Missouri River between Nebraska City and Brownville, fell victim to its greatest enemy this year - flooding. Almost every major watershed that feeds the Missouri River Basin above southeast Nebraska had significant flooding at some point during the spring and summer of 2010, which meant that the Missouri River adjacent to the trail was above flood stage for several months. High water resulted in portions of the trail being closed for much of the summer, limiting use by hikers and bikers. Once the water receded the NRD assessed the damage, and it was determined damages to the trail exceeded \$70,000. Damages included tree debris, sediment, trail erosion, and the loss of the rock surface material. Two bridges in the Brownville area were also severely damaged.

The NRD will receive some disaster funding aid from FEMA to help repair the damage. Tree debris and sediment have already been removed, and the damaged bridges should be repaired by late spring. Surface repair work, which involves bringing in new rock screenings, is planned for the summer. As a result of work by District staff, the trail was opened in the fall of 2010 for use; however, some stretches of the trail were still rough. With the amount of flood damage that has occurred in recent years, the District may look at renovations that will help mitigate future damage to the trail.

Conservation Assistance:

\$131,229 of State Soil & Water Conservation Program funds coupled with \$14,871 of NRD funds provided 50% cost-share for:

- 135,506 linear feet of terraces
- 15.9 acres of grass waterways
- 29,986 linear feet of tile
- 3,065 cubic yards of diversions

State funding for this program has dropped by \$18,700 from 2009-2010 and by \$20,300 from 2010-2011. Consequently, the NNRD board has increased local funds for this program by \$4,000 from 2009-2010 and budgeted \$29,000 this year. The sign-up for the next fiscal year is going on now through June 1, 2011, at your local NRCS office.

Nebraska Buffer Strip Program - Over 130 landowners are currently enrolled in the Nebraska Buffer Strip Program within the Nemaha NRD. This provides annual payments for grass filter strips or riparian forest buffers along vulnerable surface water resources. Funding comes from a fee assessed on pesticides registered for sale in Nebraska, and the NRDs and USDA NRCS help the Nebraska Department of Agriculture administer the program. Funds still remain for more buffers to be added, and applications may be completed anytime at your local NRCS office.

Trees, Grass, & Wildlife Programs:

Approximately 20,000 trees and shrubs were distributed and/or planted by the NRD during the spring of 2010.

As part of the NRD's no-till drilling program, 52.8 acres were seeded for private landowners, and two dams were also seeded. Anyone interested in NRD drilling services must submit an application no later than October 1 for fall seeding and March 1 for spring seeding.

Two WILD Nebraska contracts that involved grassland planting and renovation were completed. Funding for WILD Nebraska comes from a partnership between the NRD and Nebraska Game and Parks Commission.

Two Partners for Wildlife contracts were finished in the fall of 2010 with assistance from the Landowner Incentives Program. Tree clearing in native grassland was the major emphasis of these contracts, and funds were provided through an agreement with the U.S. Fish & Wildlife Service.

All Hazard Mitigation Plan:

For the past two years, the NRD has been working with Johnson, Nemaha, Otoe, Pawnee, and Richardson Counties to develop a Hazard Mitigation Plan that meets requirements set forth by the Federal Emergency Management Agency (FEMA). The purpose of the plan was to inventory infrastructure that may be vulnerable to natural disasters, determine potential threats to that infrastructure, and create a plan to mitigate those threats. Pre-disaster mitigation can greatly reduce the cost incurred when an actual event occurs. FEMA has estimated that for every dollar spent on mitigation, as much as four dollars in post-disaster cost can be saved. JEO Consulting was hired by the NRD to complete the plan, which was approved by FEMA in the spring, 2010. Virtually all communities within the five-county area participated in the planning process, and with FEMA approval it allows participants to apply for funding assistance through the FEMA mitigation program. The total cost of developing the plan was \$134,500; FEMA provided \$101,000 in grant funding assistance, and the balance was contributed by the NRD and five participating counties.

Employee Wellness Program:

Governor David Heineman announced that the Nemaha NRD, along with 33 other Nebraska employers, was honored with the Governor's Excellence in Wellness Award for 2010. The Nemaha NRD received the Sower Award, which recognizes work places with quality wellness programs.

The Nebraska Association of Resources District, along with WorkWell, Inc., was instrumental in working with all 23 NRDs to bring about the formation of wellness plans that each NRD could set up unique to their own staff and situation. At the Nemaha NRD "health awareness" among employees has been our goal during these first couple of years.

Prevention and wellness efforts in the work place have produced higher productivity, better employee satisfaction, and helped control health care costs. As a result over the last three years, annual health insurance premium increases have stayed below five percent in contrast with other plans that are experiencing 10-12 percent annual increases. NRD employee involvement in wellness activities and programs reduces health care costs to our local NRD and its taxpayers.

Information & Education:

Activities that the Nemaha NRD conducted or participated in during 2010:

- Water Celebration – held each March at Peru State College for about 200 fifth graders
- Third Grade Plant-A-Tree – about 700 trees were distributed during presentations in April to third graders at 13 schools
- Envirothon – Once again the NRD sponsored the Norris High School Envirothon team as they advanced to the State Competition in May where they placed 7th out of 14 teams.
- Watershed of Wonders – a day of hands-on, fun, educational activities for 57 children ages 10-12 was held at Kirkman's Cove in June during the fifth installment of this biannual event
- Husker Harvest Days/Nebraska State Fair – Nemaha NRD staff helped spread natural resources messages by assisting with booths at these statewide events
- Land Judging Contest – In October 150 FFA students from eight schools competed in this annual contest which was held near Auburn. High scoring individual honors went to Elizabeth Eickhoff from Falls City with the team championship going to Tri County.

Water Resources Report 2010

Groundwater Levels

- A network of 124 wells (irrigation, livestock, domestic, and public water supply) located throughout the District were measured in the spring and fall of 2009 and 2010. A comparison of the spring readings indicated an average groundwater rise of 2.0 feet, and the fall readings indicated an average groundwater increase of 2.3 feet.

Well Abandonment

- A total of 30 abandoned wells were decommissioned this fiscal year through the District's cost-share program totaling \$10,550 in payments. Since the program's inception in 1994, the District has provided cost-share funds for the closure of 1,087 abandoned wells. A portion of the funding is provided annually by the Nebraska Department of Natural Resources based upon the number of wells decommissioned the previous year.

- The District provides 75% cost-share for the proper decommissioning of abandoned wells with a maximum of \$500 for each smaller diameter, cased type well and \$700 for each larger diameter, hand dug type well. Approval prior to the closure is required, and the work must be conducted by a licensed pump installer or well driller. Funds are available – Sign Your Abandoned Well Up Today!

Groundwater Management

- On February 1, 2009, the District's revised Groundwater Management Rules and Regulations became effective.

- An approved permit is required prior to the construction of any new water well designed to pump greater than 50 gallons per minute. A well driller's testhole log must also accompany the permit application. Testhole drilling does not require a permit; however, anyone considering a high capacity well is encouraged to call or stop in the office prior to drilling for additional information and groundwater availability. Well permits must be approved by the NRD Board. In 2010, 24 permits were received: 21 irrigation and 3 public water supply; 14 have been completed.

- A complete copy of the District's Groundwater Management Plan and associated Rules and Regulations is available upon request and can be found on the District's website.

Phase II Groundwater Quality Management Area

- A Phase II GWQMA was established in January of 2004 for northwest Richardson County. The 73 square-mile area includes all land east and south of Pawnee and Nemaha Counties, respectively, north of the North Fork of the Big Nemaha River, and west of Highway 75.

- Elevated levels of nitrate in the groundwater prompted the designation.
- Within this area cost-share assistance is available for soil sampling and complete fertilizer control systems – contact the District office for more information.

- Annual groundwater sampling occurred in July with the 21 wells sampled for nitrate-nitrogen averaging 7.08 parts per million (ppm) – the same as last year!

Throughout other parts of the District, 111 wells were sampled and analyzed for the nitrate-nitrogen concentration, and 91 irrigation wells were sampled and analyzed for atrazine and metolachlor.

Irrigation Well Registrations

- Is your irrigation well properly registered with the Nebraska Department of Natural Resources (NDNR)? Improperly or unregistered irrigation wells are considered "illegal wells" according to State Statutes and could ultimately be required to cease pumping or to be decommissioned. Registration of irrigation wells has been required since 1957.

- How do I know if my well is properly registered? District staff can assist you with looking up the information, or you can log on to NDNR's website at <http://dnrdata.dnr.ne.gov/wellscs/Menu.aspx> and search by several methods such as owner name, legal location, county, or NRD.

- What if I discover that my irrigation well(s) is not registered, is listed in a previous owner's name, or is not shown to be in the correct location? Contact District staff to assist you with gathering the information needed for completion of the form(s). NOTE: There are NO PENALTIES to the well owner for registering a well late. Registering your well helps to protect it from encroachment of other proposed, high capacity wells.

Chemigation Applications

- This year the District received 101 permit applications and inspected 55 systems for safety equipment compliance.

- Applicator certification is required prior to chemigating. Training sessions are held throughout the state each winter. Contact the NRD or log on to our website to view dates/locations in eastern Nebraska or to access a link to training sessions scheduled statewide. The closest training posted to date is March 4th in Beatrice at the Gage County Extension Office at 9 a.m.

High Cap. Flow Meter & Irrigation Management Cost-Share Program

- The District applied for and received funding from the Nebraska Environmental Trust Fund to establish a cost-share program for flow meters for water wells pumping greater than 50 gpm within the District.

- The program covers 50% of the cost of a new flow meter up to a maximum of \$500. Approval is required prior to purchase.

- Cost-share is also currently available for irrigation management equipment. Eligible equipment includes soil moisture sensors and atmometers (evapotranspiration gages). The program covers 50% of the cost of the equipment up to a maximum of \$300. Approval is required prior to purchase.

- Contact the office for more information, or log on to our website and download the application.

Surface Water Sampling

- The beaches at Kirkman's Cove and Wirth Brothers Lake were sampled weekly during the recreation season for E. coli bacteria and toxic algae.

- Kirkman's Cove's beach was closed due to a toxic algae health alert for four weeks, and there were five weekly samples with E. coli levels at higher risk for illness through ingestion.

- Wirth Brothers Lake's beach did not experience any closures due to high levels of toxic algae; however, there were three weekly samples with E. coli levels at higher risk for illness through ingestion.

PROJECTIONS FOR 2010 - 2011

A total budget of \$6.1 million is nothing to sneeze at, but it is over \$2 million less than last year's budget. Some of the larger projects that were included in the 09-10 budget are nearing completion, thus the reduction in expenditures. Along with the smaller budget comes a decrease in the property tax levy from the 4.5 cents per \$100 valuation that was collected last year to the current rate of 4.2 cents. Because of the rise in property valuations, however, the total tax collections increased about 1.8 percent over last year. Local taxes account for less than 1/3 of the total budgeted revenues with the balance provided by state and federal grants and funds.

Here's a brief description of the major items included in this year's budget:

Projected Revenue

Federal Grants & Funds: \$1,821,620

Buck & Duck Creek Watershed Projects
Iron Horse Renovation
FEMA Flood Repairs

State Grants & Funds: \$1,640,574

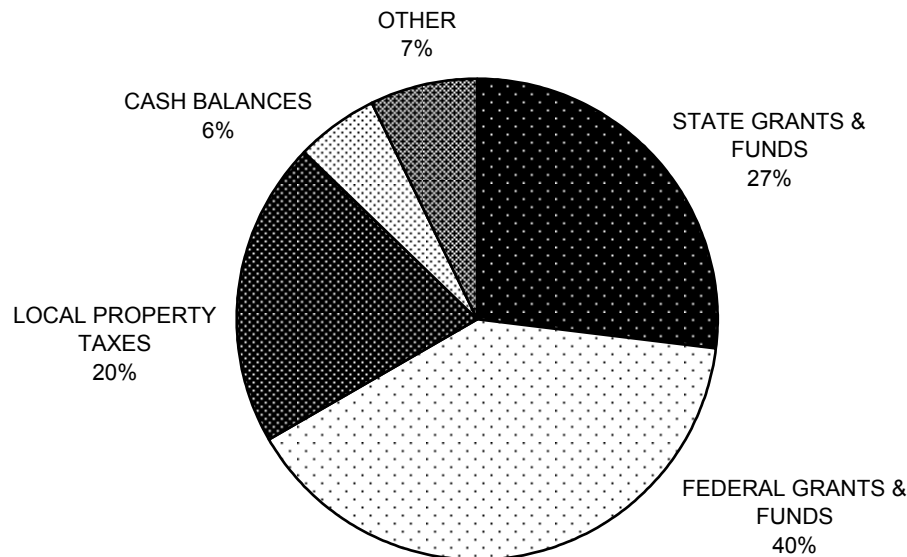
Iron Horse Renovation
Muddy Creek Watershed Project
Buck & Duck Creek Watershed Projects

Local Property Taxes: \$1,758,344

Beginning Cash Balances: \$536,647

Other: \$356,189

Landowner Share of Project Costs
Tree sales & planting services
Park Permits & Electrical Hookup Fees



Projected Expenditures

Watershed Projects: \$2,730,987

Buck Creek & Duck Creek Watershed
Flood Control Structures
Buck & Duck Creek Watershed
Management Program (landowner
cost-share assistance)
Muddy Creek Watershed (complete one
road structure)
Small Dams Cost-Share (finish two
dams)
Watershed Repair & Maintenance

Recreation & Facility

Improvements: \$1,534,120

Iron Horse Trail Lake Renovation
(sediment removal & control,
fisheries enhancement, angler
access improvement, camping area
improvements)

Parks & Trail Maintenance

Personnel Expenses: \$1,103,266

General Operation &

Administration: \$179,595

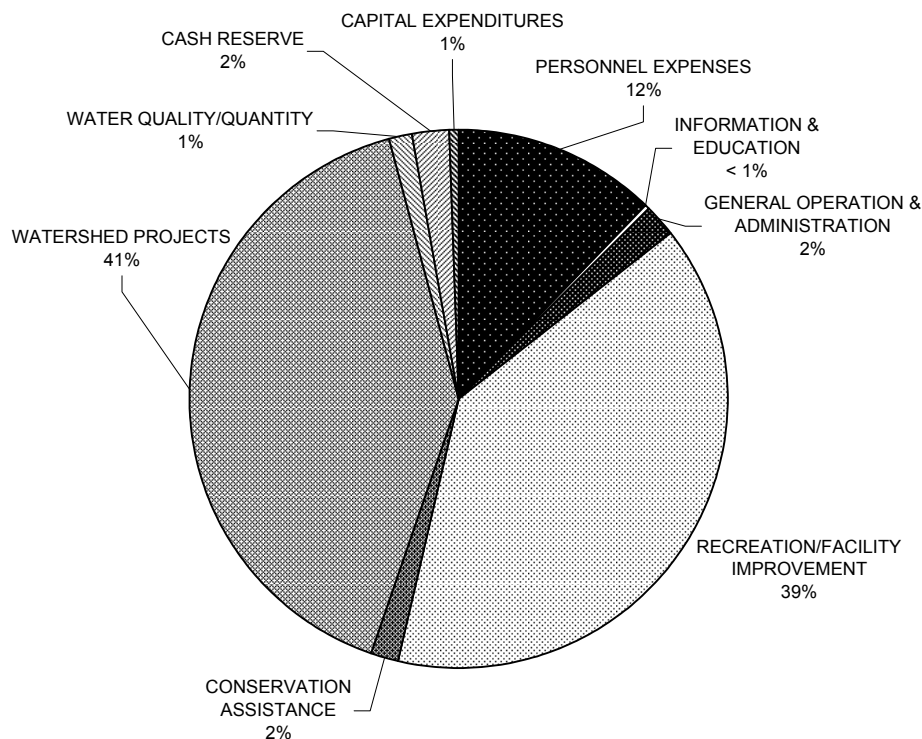
Utilities, vehicle & equipment expenses,
property maintenance, supplies,
Director expenses

Conservation Assistance: \$141,857

Tree Planting & Grass Drilling
Wildlife Programs
Nebraska Buffer Strip Program
Soil & Water Conservation Program

Water Quality/Quantity: \$114,700

Groundwater Monitoring
Well Abandonment
Surface Water Monitoring
Chemigation
Flow Meter & Irrigation Management
Cost-Share



Capital Expenditures: \$92,789

Building loan payment & interest, tractor & vehicle
replacement, office equipment

Information & Education: \$16,060

Awards, youth programs, newsletter & website, advertising,
volunteer programs, promotions, outdoor classrooms

*For more detailed explanations of specific budget items,
please contact the Nemaha NRD (402) 335-3325.*

NEMAHA NRD STAFF

Bob Hilske, Manager

Scott Nelson, Assistant Manager

Jane Kuhl, Administrative Assistant

Allison Caspers,

Administrative Assistant

Lisa Bartels, Secretary

Chuck Wingert,

Water Resources Manager

Charlie Pierce,

Water Resources Technician

Steve Bartels, Field Representative

Mark McDonald, Field Representative

Vernon Speers, Jr., Field Representative

Aaron Stalder, Resources Specialist

Tomas Chalé Aké, Projects Crew Leader

Shawn Kreienhop, Resources Specialist

Seasonal Maintenance Crew:

Phil Vance & Doug Schmidt

NRD STAFF IN NRCS OFFICES

Deb Kreienhop, Auburn

Glenda Bates, Tecumseh

Chuck Porter, Syracuse

Amanda Hartman, Falls City

Kathy Harlow, Pawnee City

Technicians: Dan Gudenkauf,

Brandon Hunzeker, Delmar Schmidt

BOARD OF DIRECTORS

John Albrecht, Nebraska City

Lisa Beethe, Elk Creek (**Chair**)

Rob Bohling, Johnson (**Vice-Chair**)

Charles Duryea, Humboldt

Orval Gigstad, Syracuse

Michael Gilson, Nebraska City

Ted Godemann, Falls City

Wayne Goering, Nebraska City

Scott Kudrna, Auburn

Don Siske, Table Rock

(**Secretary-Treasurer**)

Mike Speece, Auburn

J. Duane Sugden, Sterling

Steve Sugden, Douglas

William Umland, Palmyra

Bruce Walker, Falls City

Dan Watermeier, Syracuse

Paul Weber, Firth

Tom White, Falls City

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The Nemaha NRD's *Insight* is a publication of the Nemaha Natural Resources District. Requests to be placed upon the *Insight* mailing list and/or comments regarding information in this publication should be directed to Jane Kuhl, Administrative Assistant, at the above address or at nrrd@nemahanrd.org.