

Nemaha Natural Resources District
Long Range Plan
2022

Nemaha Natural Resources District
62161 US Hwy 136
Tecumseh, NE 68450

Phone: 402-335-3325 Fax: 402-335-3265
E-mail: [nnrd@nemahanrd.org](mailto:nnrđ@nemahanrd.org)
Website: nemahanrd.org



Statement of Adoption

The 2022 Long Range Plan has been prepared to outline and explain the Nemaha Natural Resources District's activities, programs and projects for 2022 and beyond.

This Plan was adopted by the Nemaha Natural Resources District Board of Directors at their regular meeting held on December 8, 2022, in Tecumseh, Nebraska.



General Manager

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INTRODUCTION

The Nemaha Natural Resources District is one of 23 Natural Resources Districts (NRD's) created in 1969 with the passage of LB 1357 by the Nebraska Unicameral. Since its formation in 1972, the Nemaha NRD has been assisting people in the Nemaha River Basin in the development and protection of our soil and water resources.

Nebraska statutes require that Natural Resources Districts develop a *Long Range Implementation Plan*. The purpose of the plan is to "summarize planned district activities and include projections of financial, manpower, and land rights needs of the district for at least the next five years and the specific needs assessment upon which the current budget is based." (Section 2-3277, R.R.S. 1943). The plan serves as a tool for carrying out the District's *Master Plan*.

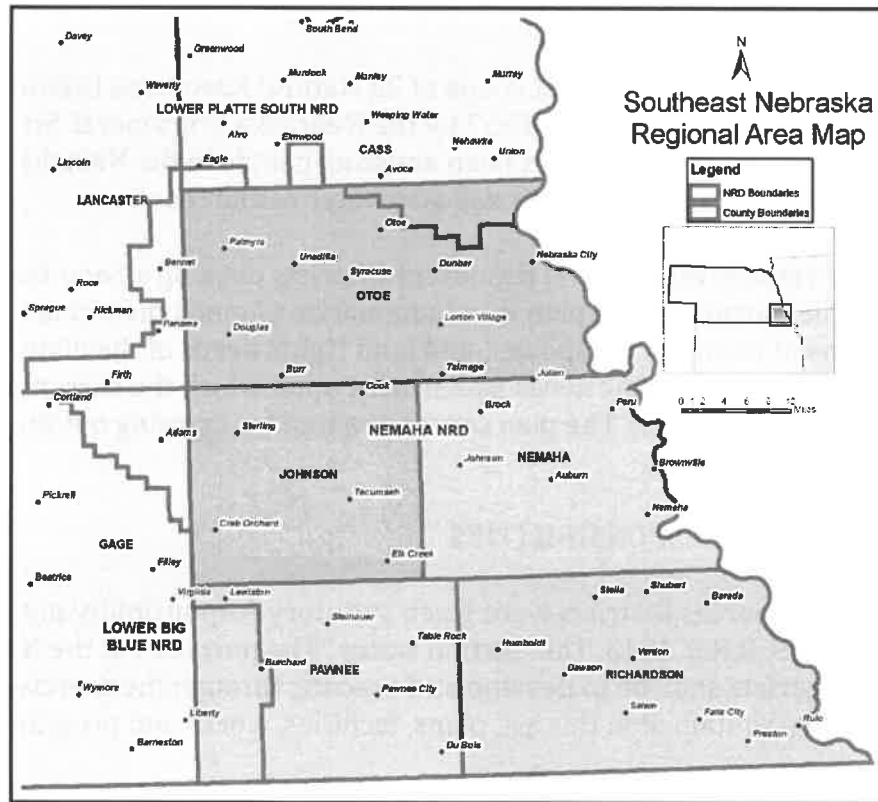
I. AUTHORITY AND RESPONSIBILITIES

The Natural Resources Districts were given statutory responsibility outlined in Sections 2-3229, R.R.S. 1943. This section states "The purposes of the Natural Resources Districts shall be to develop and execute, through the exercise of powers and authorities contained in this act, plans, facilities, works and programs relating to:

- (1) Erosion prevention and control,
- (2) Prevention of damages from flood water and sediment,
- (3) Flood prevention and control,
- (4) Soil conservation,
- (5) Water supply for any beneficial uses,
- (6) Development, management, utilization, and conservation of groundwater and surface water,
- (7) Pollution control,
- (8) Solid waste disposal and sanitary drainage,
- (9) Drainage improvement and channel rectification,
- (10) Development and management of fish and wildlife habitat,
- (11) Development and management of recreational and park facilities, and
- (12) Forestry and range management."

Nemaha NRD programs and projects are available to meet the goal of properly developing our water and related land resources.

II. DESCRIPTION OF THE DISTRICT



Location: Southeast Nebraska (All of Johnson, Nemaha, and Richardson Counties; most of Otoe and Pawnee Counties; some of Gage, Lancaster, and Cass Counties)

Size: 2,402 square miles or 1,537,460 acres within the Big & Little Nemaha River Basins

Tributaries: Brownell Creek, Camp Creek, Long Branch Creek, Muddy Creek, Pony Creek, Rock Creek, Lores Branch, Negroes Branch, Spring Creek, Squaw Creek, Turkey Creek, Walnut Creek, Winnebago Creek, Bean Creek, Ziegler Creek, and Wilson Creek.

Population: 42,630 (2020 Census)

Taxing Authority: Up to 4.5 cents per \$100 of taxable valuation annually on all taxable property within the District and an additional tax equal to the amount by which our restricted funds budgeted to administer and implement ground water management activities and integrated management activities under the Nebraska Ground Water Management and Protection Act exceed our restricted funds budgeted to administer and implement ground water management activities and integrated management activities from FY 2003-2004, not to exceed 1 cent per \$100 of taxable valuation annually on all of the taxable property within the District

III. GOVERNING BODY & CURRENT STAFF

The Nemaha Natural Resources District is governed by a 21-member Board of Directors. Directors are elected during the general election for a term of four years with half of the members up for election every two years. Directors are elected by their subdistrict's voters. To allow balanced representation across the District, the area is divided into ten subdistricts, all with approximately equal population. Two board members represent each of the ten subdistricts. Also, one board member is elected at large every four years.

The NRD Board operates according to a set of by-laws which are kept on file at the District headquarters in Tecumseh, Nebraska.

BOARD OF DIRECTORS (As of July 1, 2022)

Name	Address	Subdistrict*
Lisa Beethe	Elk Creek	7
Robbie Bohling	Johnson	7
Randy Fox	Nebraska City	5
Jim Gerweck	Falls City	9
Orval Gigstad	Syracuse	3
Dan Giittinger	Nebraska City	4
Dan Hodges	Julian	4
Doug Iske	Dunbar	3
Jon Keithley	Falls City	8
Robert Lassen	Firth	1
Timothy Loseke	Hickman	1
Michael McDonald	Palmyra	2
Russel Moss	Burr	At-Large
William Niedfeldt	Shubert	8
Alan Romine	Falls City	9
Donald Siske	Table Rock	10
Eldon Snoke	Humboldt	10
Mike Speece	Auburn	8
Daniel Stukenholtz	Brock	7
J. Duane Sugden	Sterling	6
Kevin Thorne	Nebraska City	5

**Reflects update based on 2020 census*

The staff of the Nemaha NRD consists of 13 full-time positions in the headquarters and five clerks that serve in the Natural Resources Conservation Service offices throughout the District. Seasonal, temporary staff are hired as needed for help with watershed and recreation area maintenance. The NRD also administers grant funds provided by NRCS or NACD to hire technical assistance within the NRCS offices. These positions are funded entirely through these grants.*

Current Staff (*as of October 1, 2022*)

General Manager	Kyle Hauschild
Water Resources Manager	Chuck Wingert
Administrative Manager	Jane Kuhl
Administrative Assistant	Jill Rogman
Secretary	Lisa Bartels
Resources Specialist	Aaron Stalder
Water Resources Specialist	Charlie Pierce
Field Representative	Vernon Speers
Field Representative	Mark McDonald
Field Representative	Steve Bartels
Field Technician	Tomas Chalé Aké
Land & Water Resources Assistant	Ken Hatten
Information, Education, & Grants Coordinator	Ashley Rippe
Johnson County Clerk (Tecumseh)	Geralynn O'Malley
Nemaha County Clerk (Auburn)	Alice Alexander
Otoe County Clerk (Syracuse)	Lauren Shoemaker
Pawnee County Clerk (Pawnee City)	Kathy Harlow
Richardson County Clerk (Falls City)	Marianne Jensen

IV. PROJECTS & PROGRAMS

A. WATERSHED PROGRAMS

The Nemaha NRD has helped install and/or is responsible for operation, maintenance, and inspection of over 450 watershed projects comprised of both flood control and grade stabilization dams and structures.

ONGOING ACTIVITIES

1. General Maintenance
 - a. Complete annual dam inspections
 - b. Complete routine maintenance
 - i. Contracted maintenance
 - ii. Staff performed maintenance
 - c. Complete scheduled major repair items
 - i. Rip rap projects
 - ii. Outlet Repairs
 - iii. Primary Spillway Replacements
 - d. Update Emergency Action Plans on high hazard structures
 - e. Partner with USDA NRCS to complete preliminary NEPA investigations in the Brownell Creek, Ziegler Creek, and Wilson Creek Watersheds around Syracuse. To date a Preliminary Feasibility Study has been developed by USDA and approved by NNRD.
2. Upper Big Nemaha 7-A
 - a. Drain lake fall of 2022 to allow for summer/fall 2023 inspection and potential maintenance
 - i. NRD Cost: Engineering Services \$20,000
3. Small Dams Cost-Share Program
 - a. Complete dam design, permitting, and construction on board approved structure
 - b. NRD Cost (engineering, permits, construction): \$30,000

FUTURE PLANS

1. Address beaver issues on dams
2. Consider need for rehabilitation of aging watershed structures
3. Continue routine maintenance of watershed structures
4. Apply for watershed-based funding through USDA NRCS' Watershed and Flood Protection Operations program on Brownell Creek, Ziegler Creek, Wilson Creek, and Kirkman's Creek watersheds
5. Assess the potential for quality small dam cost-share applications
6. Update Small Dams Policy for monetary or inflationary purposes

B. GROUND & SURFACE WATER/WATER RESOURCES

ONGOING ACTIVITIES

1. Groundwater Management
 - a. Review and update Rules & Regulations on an as needed basis. Last update was March 2020.
 - b. Adhere to the Rules & Regulations as set forth by the NRD
 - c. Continue membership in ENWRA (Eastern Nebraska Water Resources Assessment) including funds for ENWRA's GeoCloud
 - d. AEM Flight Data Collection & Area Report Development
 - i. Funding Source: Water Sustainability Funding \$190,000
NNRD \$127,000 (Applied for additional grant funding through NET)
 - e. Monitoring Well Project – Continue to download quarterly recorder data
 - f. Well Permitting
 - i. Wells permitted: FY22: 22, FY23 as of October 2022: 3
 - g. Inform public about changes/implement changes as per rules
 - h. Install 4 new continuous recording telemetry units
 - i. Replace Auburn Observation Well
2. Groundwater Quality
 - a. Phase II Area
 - i. Continue to monitor nitrate concentrations
 - ii. Continue annual sampling, potentially add a few additional wells
 - b. Continue free nitrate and bacteria testing as requested and monitor areas where nitrates are increasing
 - c. Continue spring and fall groundwater level measurement collection
3. Chemigation
 - a. Permits received/inspected – 335, of these 35 were new, 299 were renewal, and 1 was emergency
 - b. Update chemigation fees.
 - c. Anticipate the number of permits to increase as the number of irrigation wells constructed increases. Chemigation is a much more efficient way to apply fertilizer with less leaching potential.
4. Cost-Share Programs
 - a. Well abandonment
 - i. Wells closed/cost-shared in FY22: 31
 - ii. State funding + NRD funds = \$5200 DNR, \$3000 NNRD
 - b. Flow meter & irrigation management equipment
 - i. Cost-share provided in FY22 on 6 flow meters - \$3000
 - c. Wellhead protection

- i. Promote well decommissioning within wellhead protection areas
 - ii. Work with Syracuse on Wellhead Protection Plan development
- 5. Surface Water
 - a. Beach sampling for cyanobacteria (toxic algae) and total coliform bacteria at NRD public lakes May – September.
 - b. Renew or process new surface water irrigation permits as needed

FUTURE PLANS

1. AEM flights 2023 and reporting by 2024.
2. Projections for future well closures with NRD cost-share funds – average about 40 per year
3. Continue to advertise and promote well closures – review cost-share maximums
4. Telemetry
 - a. Adding telemetry units to all 30+ observation wells with pressure transducers installed
5. NDEQ Basin Rotation in 2027 (surface water sampling)
6. Consider renewal of existing surface water irrigation permits as they expire
7. Work with DNR on Voluntary Integrated Management Plan for 2027

C. RECREATION

ONGOING ACTIVITIES

1. Steamboat Trace
 - a. Complete bridge re-surfacing
 - i. Camp Creek: \$11,250
 - ii. Brownville: \$8,225
 - b. Host Grand Re-Opening Spring of 2023
2. Iron Horse Trail Lake
 - a. Work with family of Chet Rogers on Memorial Bench
 - b. Additional tree plantings
 - c. Fence repairs
 - d. Install trail markers on east side of lake
3. Kirkman's Cove
 - a. Additional tree plantings
 - b. Removal of invasive tree species
4. Wirth Brothers Lake
 - a. Additional tree plantings
 - b. Removal of dead trees
 - c. Fence repairs
5. Prairie Owl
 - a. Maintain as day use area
6. Duck Creek
 - a. Connect trail to east side of lake
 - b. New picnic tables
 - c. Additional tree planting
 - d. Williams memorial project
7. Sediment Basins
 - a. Kirkman's Cove
 - i. Continue 319 planning phase
8. Park Permits/Fees/Mowing Contract(s)
 - a. Encourage and find ways to increase website sales of permits
 - b. Continue 3-year mowing contracts split into two contracts (half of the areas in each contract)

FUTURE PLANS

1. Steamboat Trace
 - a. Hard surface problem points
 - b. Complete bridge re-surfacing
2. Iron Horse Trail Lake
 - a. Evaluate maintenance needs of sediment basin
 - b. Invasive tree control (burn/hay/spray)
 - c. Investigate options for installing warning siren
3. Kirkman's Cove
 - a. Replace restrooms in Amy Glathar area and tent camping area
 - b. Replace playground equipment in beach loop
 - c. Invasive tree removal
 - d. Investigate possibility of installing a warning siren in cooperation with Richardson County
4. Wirth Brothers Lake
 - a. Replace restroom
 - b. Replace boat dock
5. Prairie Owl
 - a. Continue to manage a day use area only.
6. Duck Creek
 - a. Look at options for developing group facilities
 - b. Kayak launch
 - c. Develop options for treating erosion in mitigation area adjacent to hilltop camper pads
7. Sediment Basins-Kirkman's Cove
 - a. Seek/acquire grant funding for project
 - b. Construct sediment basin
 - c. Promote and help fund conservation practices within the watershed
8. Park Permits
 - a. Monitor and adjust fees as needed
 - b. Consider options for campsite reservations

D. CONSERVATION PROGRAMS

ONGOING ACTIVITIES

1. Soil & Water Conservation Program (SWCP)
 - a. Continue to supplement State funds with NRD budgeted funds
 - b. Erosion & Sediment Control Program-handle complaints with cost-share through SWCP when applicable
2. Nebraska Buffer Strip Program
 - a. Continue to administer contracts with NRCS
 - b. Continue to inspect all contracts annually
 - c. Funding provided entirely by Nebraska Department of Agriculture
3. Conservation Tree Program
 - a. Continue to offer trees/shrubs for sale
 - b. Continue to offer tree planting service for orders exceeding 200
 - c. Continue to explore options for a Windbreak Renovation Program
4. Grassland Drilling Program-continue to offer spring and fall no-till grass drilling services with a 100-acre per season maximum workload
5. Wildlife Programs: Continue to offer programs through WILD Nebraska

FUTURE PLANS

1. Investigate options to encourage more tree plantings
2. Review approved practice schedule periodically

E. INFORMATION & EDUCATION/PUBLIC ASSISTANCE

ONGOING ACTIVITIES

1. Education/Youth Programs
 - a. Envirothon
 - b. Land & Range Judging
 - c. Water Celebration
 - d. Third Grade Plant A Tree
 - e. Watershed of Wonders Day Camp (every even-numbered year)
 - f. Scholarships for youth camps (ACE, Range Camp, etc.)
 - g. Outdoor classrooms: promote funding for small projects (<\$1,000)

2. Information Programs
 - a. Insight (quarterly newsletter)
 - b. Website
 - c. Social Media (increase use)
 - d. Newspapers
 - e. Events (State Fair, Husker Harvest Days, etc.)

3. Urban Special Projects
 - a. Current Projects Approved
 - i. Palmyra
 - b. Continue to advertise program with local communities, schools
 - c. Add provisions in contracts that regular, quarterly updates will be required on all project.

FUTURE PLANS

1. Continue to offer Watershed of Wonders day camp in even numbered years
2. Incorporate videos into website, social media
3. Advertising: increase paid advertising in both print and radio markets

F. OTHER PROGRAMS

ONGOING ACTIVITIES

1. Hazard Mitigation Plan
 - a. Request BRIC grant funding for future HMP
2. NeRAIN
 - a. Continue to fund new applicants (provide free rain gauges)

FUTURE PLANS

1. Identify potential projects for hazard mitigation assistance
2. Update Hazard Mitigation Plan every 5 years as required
3. Provide recognition for long-time NeRAIN volunteers (2021 will mark 15 years of participation within the Nemaha NRD)

G. DIRECTORS, STAFF, FACILITIES & EQUIPMENT

ONGOING ACTIVITIES

1. Election/Board of Directors
 - a. Conduct new directors orientation after election
 - b. Advertise vacant D4 position
2. Staff
 - a. Continue to provide funding for NRD clerical support in NRCS offices
 - b. Administer TSP & other grant funds for NRCS technical support
 - c. Review and update personnel policy
3. Facilities Maintenance, Updates
 - a. Security upgrades (change locks periodically, institute more stringent control of keys and access)
 - b. Other improvements, maintenance needs as identified
4. Equipment & Vehicle Needs
 - a. Monitor vehicle replacement schedule; update as needed
 - b. Replace vehicles per schedule

FUTURE PLANS

1. Consider number of Subdistricts (currently 10)
2. Consider number of Directors (currently 21)

H. BUDGET, FINANCES, FUTURE PLANNING (ONGOING)

1. Audit
 - a. Continue agreement with Schulz & Associates to perform annual audit
 - b. Evaluate need for seeking proposals to perform audit when present agreement expires
2. Insurance-Continue coverage through FNIC unless other options become available to consider that would provide coverage, particularly for high hazard structures
3. Master Planning
The District's ten-year Master Plan is scheduled to be updated in 2031.
4. Budget: Explanation of Revenues & Expenditures in FY23 Budget

REVENUE

Federal Grants & Funds: \$318,866

Duck Creek Sediment Basin (NRCS), other miscellaneous funds

State Grants & Funds: \$459,697

AEM Flight Project (Water Sustainability Fund); Nebraska Buffer Strip Program (Nebraska Department of Agriculture); State Water Quality Funds

Local Property Taxes: \$2,310,499

Cash on Hand & Misc. Funds Receivable: \$951,690

Other: \$152,846

Landowner Share of Project Costs (small dams); Tree sales & planting services; Park Permits & Electrical Hookup Fees

EXPENDITURES

Watershed & Flood Control Projects: \$708,650

Watershed and structure repairs, riprap on faces of dams, large project expense

Recreation: \$289,387

Parks and trail maintenance and operating expenses, supplies, equipment, miscellaneous parks/trail expenses

Personnel & Director Expenses: \$1,538,153

General Operation & Administration: \$256,821

Utilities, vehicle & equipment expenses, property maintenance, supplies, insurance, dues, postage, etc., professional services

Conservation Assistance: \$313,376

Tree Planting & Grass Drilling; Nebraska Buffer Strip Program; Soil & Water Conservation Program; Urban Special Projects; Small Dams Cost-Share Program

Water Quality/Quantity: \$389,250

Groundwater & Surface Water Monitoring; monitoring well project; Well Abandonment; Chemigation; Flow Meter & Irrigation Management Cost-Share;

Basin Planning/Groundwater Consulting; AEM Flight Project; Wellhead protection

Capital Expenditures: \$10,000

Duck Creek hydrants, Machinery and Equipment, Office Furniture

Information & Education: \$24,213

Awards, youth & education programs, newsletter & website, advertising, etc.

Misc. Funds Payable: \$28,748

Sinking Fund: \$135,000

Cash Reserve: \$500,000

