

2022 Southeast Area Land Judging

Two hundred thirty-nine kids from twelve high schools gathered in Pawnee County on Wednesday, October 6th to compete in the Southeast Area Land Judging Competition. Schools in attendance were Diller-Odell, Palmyra, Tri-County, Meridian, Johnson-Brock, Nebraska City, Fairbury, Syracuse-Dunbar-Avooca, Pawnee City, Lewiston, Johnson County Central, and Falls City.

The top four teams and individuals placing in the top ten qualified to compete in the state land judging competition held October 19th. Top finishing team and individual results are as follows:

First Place Team, Lewiston: Leah Christen, Taven Borchner, Jaqueline Mullins, Jazmine Thomsen. Second Place Team, Nebraska City: Mason Houghton, Lextyn Harker, Riley Penney, Kaden Maybee. Third Place Team, Johnson-Brock: Austin Meyer, Zac Hawley, Ella Gerdes, Rowen Benham. Fourth Place Team, Pawnee City: Norman McHenry, William Vlcek, Madison Fender, Adrian de Koning.

Individual state qualifiers are (1st) Mason Houghton of Nebraska City, (2nd) Leah Christen of Lewiston, (3rd) Taven Borchner of Lewiston, (4th) Norman McHenry of Pawnee City, (5th) Jaqueline Mullins of Lewiston, (6th) Kaden VanWinkle of Tri-County, (7th) Austin Meyer of Johnson-Brock, (8th) Lextyn Harker of Nebraska City, (9th) Issac Frederick of Falls City, and (10th) Zac Hawley of Johnson Brock.



Nemaha NRD General Manager Kyle Hauschild with Lewiston's First Place Team (Lt to Rt) Taven Borchner, Jaqueline Mullins, Jazmine Thomsen, & Leah Christen

Land judging teaches students to learn and recognize physical features of the soil, determine land capability for crop production, and evaluate management practices needed for proper stewardship. Students judge the depth, texture, permeability, slope, thickness, and erosion of soils at four different locations. They additionally determine the land capability class, identify conservation practices that would benefit the soil, and any soil or fertilizer amendments needed to produce a crop. The competition is co-sponsored between the Nemaha NRD and the USDA Natural Resources Conservation Service. Thank you to everyone that made the event possible!



Students actively judging soils at site #3



Nemaha NRD General Manager Kyle Hauschild Individual First Place finisher Mason Houghton of Nebraska City.

Windbreak Planning

Winter in Nebraska is just around the corner weather we like it or not. Don't let another year slip by without planning your windbreak with Nemaha NRD tree expert, Mark McDonald.

Properly designed and maintained windbreaks can provide protection for livestock and homes by reducing wind speeds. Protection from multi-row windbreaks can be achieved for a distance up to 30 times the height of a windbreak on the downwind (leeward) side! For livestock producers this means increased feed efficiency and reduced stress for your herd. For homeowners this means reduced heating costs during the frigid winter months.

If you already have a windbreak in place take some time this fall to assess its health, density, and structure.

- Dead trees leave gaps that can act as funnels for the wind to move through. These gaps can eventually reduce the overall effectiveness of the windbreak itself.
- Dying trees are of concern, especially in scotch pines. If you have any dead or dying scotch pines in your windbreak, be sure to remove them this fall. Removed scotch pines should be burned by the following spring to prevent the spread of pine wilt to other nearby trees.
- If you have been looking at your windbreak from a distance, you may be deceived. Tops of trees can look nice and green while lower and inner branches have lost a lot of their density through branch die-back. If you walk along your windbreak and can see through it, the effectiveness has been reduced.

If you notice any of these conditions consider re-planting some of the trees or adding an additional row to the interior or exterior of the existing windbreak. As a general rule of thumb, it is a good idea to plant another row of windbreak trees once the windbreak reaches 20 years of age or greater.

The Nemaha NRD is happy to assist landowners with their windbreak needs. The NRD conservation tree program is a great, low-cost alternative to purchasing and planting bare root trees on your property. Right now, the NRD is working on securing a variety of species for the 2023 planting season. This process should wrap up in the beginning of November and order forms will become available for residents of the Nemaha NRD. Multiple types of evergreen trees, deciduous trees, and shrubs will be available for purchase in lots of 25. Trees ordered this fall will be available for spring pickup at the office in Tecumseh. The Nemaha NRD also has a machine planting service available for larger plantings (greater than 250 trees). For more information about the conservation tree program please visit our website at www.nemahanrd.org/programs. If you would like to schedule a time to go over your windbreak plans with Mark, please call the office at (402)335-3325.

Toxic Algae Recap

If you have been following along with Nemaha NRD beach closures this summer, you know that toxic algae has been quite the pest at some of the NRD lakes. Weather conditions allowed for more frequent and persistent blooms that kept beaches closed to swimmers, sometimes for weeks on end. Conditions were especially frustrating at Iron Horse Trail Lake and Kirkman's Cove.

Hot temperatures and lack of rain are key ingredients for toxic algae to bloom. While we wish we could keep the water quality high and the beaches open all summer long, we have to remember a lake is a lake. There is no real economical way to prevent algae blooms from occurring. The best solution to clean things up comes from mother nature. A nice rain muddies up the water, preventing sunlight from feeding toxic algae and cools down the water temperature. Other measures have been used by the NRD to help improve water quality and prevent nutrients from entering lakes. Sediment basins and conservation practices on private land are examples of tools the NRD can use to promote water quality at downstream lakes.

As we transition into fall and cooler temperatures people should still be watching for signs of toxic algae blooms. Our friends at Nebraska Department of Environment and Energy reminded us recently that even though temperatures are getting cooler they have still seen toxic algae blooms into late November. As the beach sampling season ends and hunting seasons begin, pay special attention to the water conditions where you hunt, especially if you have dogs along with you. If

the water looks like someone dumped a can of green paint into it or has a funny odor, please stay out and keep your pets out too!



Iron Horse Trail Lake in late August.



Kirkman's Cove Lake in early September



Windbreak Protection Zone

Protect Your Home, Protect Your Herd

Conservation Tree Program
Nemaha NRD

Fiscal Year 2022 Annual Report

Dam Repairs

NNRD continued to haul and place rock rip-rap on the face of dams to protect them from wave action erosion. 7 structures received rip-rap in FY22 totaling just over 5,644 tons.

10 structures had contracted brush and tree removal completed and countless other structures were maintained by NRD crews.

Conservation Assistance

The NNRD's Soil and Water Conservation Program works with NRCS offices to provide technical assistance, design, and layout of structural conservation practices that reduce erosion and facilitate better grazing management systems. In FY22 the NNRD along with the Nebraska Department of Agriculture provided cost share assistance to landowners. The following conservation practices were installed throughout the district:

- 14.6 miles of terraces
- 5.4 miles of underground outlets (tile)
- 7.2 acres of grassed waterways
- 475 windbreak trees/shrubs
- 10,139 Cubic Yards of diversions
- 3,164 cubic yards of Water and Sediment Control Basins

Trees

14,380 trees and shrubs were sold through the conservation tree program. Of those trees and shrubs 7,325 were machine planted by the NNRD at 18 different locations. The remaining were picked up at the NNRD office.

This year, Executive Travel paired with the NRDs to work toward its goal of planting a million trees to promote its sustainability program. A drawing was held to select at random four landowners that had the NNRD machine plant trees. Additional cost-share funds totaling \$700 were reimbursed to those lucky winners.

Nebraska Buffer Strip Program

Over 800 acres in the NNRD were enrolled in the Nebraska Buffer Strip Program aimed at reducing cropland pollutants entering surface waters. The program provides annual payments for grass filter strips or riparian forest buffers along vulnerable surface water resources. Those acres earned a combined \$116,000 in annual payments in FY22.



- Protect waters
- 5 or 10 year contracts
Contact your local NRCS office for more information.

NEBRASKA BUFFER STRIPS

PARTICIPATE WITH LAND ENROLLED IN CRP FILTER STRIPS -OR- PARTICIPATE INDEPENDENT OF CRP WITH FEWER HAYING/GRAZING RESTRICTIONS

Grass Drilling

The NNRD offers a no-till grass drilling service on up to 25 acres of land for both spring and fall seeding. 24.2 acres of grass were drilled at 5 different sites.

Recreation Updates

Steamboat Trace Trail remained closed from 2 miles south of Peru to south of Brownville for all of FY22. The trail opened back up through Brownville in early September 2022.

Information & Education

- Third Grade Plant-A-Tree delivered 738 seedlings to 15 area schools in spring of 2022. Almost all of the schools had in person presentations. Those that had virtual presentations still received a tree for students to take home.
- Envirothon had three teams from two schools within the district compete at the area competition. Norris High School's team of Anna Rohrer, Anna Van Brocklin, Heather Riensche, Grace Koehler, and Zach Pittman finished first place and went on to the State competition at Camp Comeca near Cozad. At the State competition they placed third overall, and first in the wildlife category.
- District employees Jane Kuhl and Tomas Chalè Akè, and Nemaha NRD board member Don Siske were recognized at the NARD annual conference in September for their years of service. Jane has 40 years of service, Tomas has 30 years of service, and Don has 20 years.

Urban Special Projects

The Village of Brownville completed its Urban Special Project in FY22. The project added key interpretative and educational signage highlighting both nature and history along the Governor Furnas Arboretum, Whiskey Run Creek Trail, and Rohman Gardens. It also included signs and sensory stations along the trail for children that will encourage learning, recreation, and nature.

Duck Creek Sediment Basin



Progress continued at the Duck Creek Sediment Basin through FY22. The project finished up in the first months of FY23 with final seeding and mulching in late August.

Lost & Found

If you are missing any keys or items following a trip to one of our NRD parks, please call the office to claim them! We have LOTS of keys that have been turned in over the past few years.

Fiscal Year 2023 Looking Forward

Fiscal Year 2022 seemed to fly by. The Nemaha Natural Resources District had budgeted just over 3.8 million dollars in expenses with a revenue of just over 3.8 million dollars. As with everything else, inflation and higher fuel prices have had an impact on the cost of doing business day to day.

The Fiscal Year 2023 budget was approved by the NNRD board of directors following public hearings on September 8th, 2022. Looking forward to Fiscal Year 2023, the Nemaha NRD maintained the same tax levy resulting in a budget just shy of 4.2 million dollars. Increased need for maintenance on aging wa-

tershed structures, proposed AEM mapping flights, higher costs of fuel, services, goods, and administration (including wages and benefits), account for the majority of the increase in the Fiscal Year 23 budget.



Aging Structures, Increased Costs . . . What To Do?

The Nemaha NRD has been in the dam building business since its inception. A lot of structures within the district were built prior to the formal establishment of the NRD system. Maintenance responsibilities came along with the combination of entities that existed prior to LB-1357 that created the NRDs being signed into law. Today, the Nemaha NRD is responsible for maintenance activities on over 460 watershed structures throughout the district. Maintenance helps to ensure watershed structures remain functional and provide the protection they were designed to.

The estimated lifespan for a watershed structure is about 50 years. Currently the Nemaha NRD has 107 structures that are 50 or older. As structures begin to age, maintenance costs associated with them go up and things increasingly need replaced. Each year the projects crew works to document maintenance needs throughout the watersheds they manage. Additionally, Department of Natural Resources completes dam inspections and files reports with the Nemaha NRD on any of its dam structures over 25 feet tall or with a stor-

age capacity of 50 acre-feet. The maintenance needs are prioritized to aide in the budget process each year. The FY23 budget saw an increase of about \$100,000 for watershed structure repairs.

Increasing costs, regulations, and limited budget make a substantial impact on the amount of work that can be done to care for and possibly replace watershed structures. Take for example this excerpt from a 2010 Insight article written by former NRD manager Bob Hilske, "From 1964 to 1966, 23 watershed structures were built in the Wilson Creek Watershed, many costing less than \$15,000. Today it would cost \$70,000 (2010 dollars) to build the same structure; and at best because of today's regulations, we could have only constructed two or three a year."

To potentially help with the financial constraints faced, the Nemaha NRD requested to work with the USDA Natural Resource Conservation Service (NRCS) through a program called Watershed and Flood Protection Operations (WPFO) this past year. Watershed planning assistance was requested for three wa-

tersheds having the oldest structures in the district—Brownell, Ziegler, & Wilson Creek Watersheds. This federal program could potentially provide the Nemaha NRD federal dollars to develop and implement a watershed-based plan that prioritizes projects necessary to protecting lives, protecting property, and protecting the future. The partnership will look at the design standards, condition, and structural capacity of existing structures to determine if adequate protection is in place for increasingly intense storm events. It will also identify places where protection is not available and determine if and where new structures are needed.

To date, the USDA has completed a brief watershed-wide preliminary investigation within each of the watersheds to ensure there were not any insurmountable obstacles that would prevent action from being taken through a process called a Preliminary Investigation Feasibility Report, or PIFR. This preliminary investigation has been sent to the NRCS Nebraska State Conservationist for referral to the National NRCS office.

FY23 Budget Category	Approved Amount
Operation & Maintenance	\$74,589
Sinking Funds	\$135,000
Personnel	\$1,538,153
General Administration	\$144,282
Information & Education	\$24,213
Special Projects, Conservation, Wildlife	\$313,376
Professional Services	\$37,950
Large Project Expense	\$200,000
Watershed Repair, Parks, Trail	\$798,037
Water Programs	\$389,250
Capital Outlay	\$10,000
Payables (payments due from last FY)	\$28,748
Cash Reserve	\$500,000
TOTAL	\$4,193,598



Check out all the beautiful colors along the Steamboat Trace Trail this fall! Now open from Nebraska City—Brownville!

NARD Annual Conference

Directors and staff from the Nemaha NRD attended the 2022 Nebraska Association of Resources Districts (NARD) Annual Conference Sunday, September 25th through Tuesday, September 27th. The conference was a great opportunity for representatives of all 23 of Nebraska's NRDs to come together with state and federal agencies to expand upon their network of resources and gain knowledge from each other. The conference was jam-packed with opportunities to learn about new technologies, educational techniques, and management practices used across the state. It focused on a collaborative approach to tackling the biggest natural resource concerns each of the districts face.

Challenges faced by NRDs across Nebraska can vary drastically. While the Nemaha NRD is primarily concerned with flood protection and erosion control, NRDs in central Nebraska are facing wide spread issues of groundwater contamination from nitrates and don't have near the number of watershed control structures. The problem solving techniques and expertise of one NRD is often shared across the state, to other NRDs, to provide a best management approach to solving natural resource based problems. It's really something to be proud of.

This year Jane Kuhl, Tomas Chalè Akè, and Don Siske were honored for 40, 30, and 20 years of service respectfully. Thank you to each of them for their service!

The conference also serves as a fundraising event for the NARD Foundation. The NARD Foundation encourages Nebraska youth to participate in natural resources education. Programs supported through the Foundation include; Nebraska Envirothon, Nebraska Agriculture Youth Institute, Nitrogen Use Efficiency Workshop, Nebraska FFA, Adventure Camp about the Environment (ACE), and Nebraska Leadership, Education, Action, and Development (LEAD) program. Events, auctions, and raffles at the NARD Annual Conference raised \$29,500 to go toward these wonderful programs.



Chuck Wingert & Orval Gigstad



Kyle Hauschild & Jeremiah Schutz (NRCS)



Dan Hodges, Chuck Wingert, Kyle Hauschild, Charlie Pierce, & Duane Sugden

A New Face in Falls City

Please join the Nemaha NRD in welcoming its newest employee, Marianne Jensen! Marianne will be filling the USDA NRCS clerk position in the Falls City office. She and husband Jessie recently moved back to the Falls City area from California. Marianne has a background in agriculture working for the State of South Dakota Animal Industry Board and most recently for Mid Valley Agriculture Service in California. She has a BS in Agriculture with emphasis in animal science.

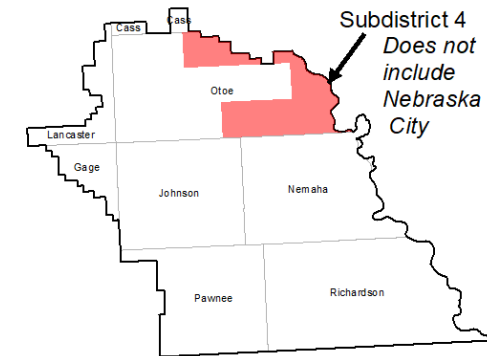


Don't Forget to Vote

November 8th is Election Day. The Nemaha NRD would like to remind its readers to vote for representatives on its Board of Directors. This year, one director seat from each district and the at large position is on the ballot. Here is who has registered to run for the 4 year term starting in January 2023 (* indicates incumbents)

- Subdistrict 1: Tim Loeske*
- Subdistrict 2: Russel Moss*
- Subdistrict 3: Doug Iske*
- Subdistrict 4: No candidates running
- Subdistrict 5: Kevin L Thorne*
- Subdistrict 6: J. Duane Sugden*
- Subdistrict 7: Daniel Stukenholtz*
- Subdistrict 8: William Niedfeldt*
- Subdistrict 9: Alan Romine*
- Subdistrict 10: Matthew Bloss
- At Large: Ken Malone & Jake Armknecht

Since there are no candidates running in Subdistrict 4 (eastern Otoe County) the Nemaha NRD will collect letters of interest from within the subdistrict in January of 2023. If you or someone you know would be interested in serving on the Nemaha NRD's Board of Directors from 2023—2026, please keep this in mind. If you have any questions about the duties of the position call the office at (402)335-3325.



Insight is a publication of the Nemaha NRD. Requests to be placed upon the Insight mailing list and/or comments regarding information in this publication should be directed to Ashley Rippe at 62161 Hwy 136 Tecumseh, NE 68450 or at arippe@nemahanrd.org. To view the newsletter in color please submit your email address as indicated above or visit our website www.nemahanrd.org



Upcoming Events

- November 8: Election Day
- November 10: NNRD Board of Directors meeting 7:00pm
- November 11: Veterans Day Holiday (NNRD office closed)
- November 12-20: Steamboat Trail Closed—Firearm Deer Season
- December 8: NNRD Board of Directors Meeting 7:00pm
- December 26: Christmas Holiday Observed (NNRD office closed)
- January 2: New Years Day Holiday Observed (NNRD office closed)
- January 12: NNRD Board of Directors Meeting 7:00pm

Consider the Nebraska Buffer Strip Program

As we work through harvest this year the Nemaha NRD would like to encourage its producers to consider enrolling small areas of land adjacent to waterbodies into the Nebraska Buffer Strip Program. The Nebraska Buffer Strip Program is funded through the Nebraska Department of Agriculture and managed through the NRD and USDA Natural Resource Conservation Service (NRCS) offices. The program's primary goal is to filter out 30-60% of pesticides and up to 75% of the sediment carried in runoff waters prior to entering surface waters.

As a producer there are other benefits to consider when thinking about enrolling in the Nebraska Buffer Strip Program. Here are a few:

- **Time Savings:** Time is money when it comes to planting and harvesting crops. Often times, land adjacent to streams has a lot of bends and twists. You can use Nebraska Buffer to straighten out your edge of field as you plant your turn rows. If you are right on a steep cliff, you might be able to move quicker too!
- **Increase Average Yields:** If the waterbody you farm around has trees along it, those trees often reduce yield by shading out crops and competing for water. Take some of your least productive

acres, put them into grass, and get an annual payment for the life of your contract.

- **Hay Annually:** Once grasses are established you could hay them annually (following NRCS guidelines).
- **Incidentally Graze Annually:** You could also incidentally graze Nebraska Buffers as you graze stalks, reducing the time it takes to put up electric fence before you turn your herd out.
- **Increase Wildlife Habitat:** Create habitat for wildlife and beneficial insects by converting cropland to grasses and potentially include some wildflowers.

If you are already enrolled in a CRP buffer strip practice and have cropland adjacent, consider piggy-backing the Nebraska Buffer Strip Program on top of your CRP contract. The program will pay 120% of the CRP rental rate plus \$5/ac, with a max total payment of \$250/ac.

For more information about the Nebraska Buffer Strip Program (general questions, annual payment estimates, etc.) please call your local USDA NRCS office.



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