



Playground Shade On Its Way

On Wednesday, November 7, 22 fourth graders from Lourdes Central Catholic School in Nebraska City gathered at the Duck Creek Recreation Area. Their goal was to help NRD staff plant some of the ten landscape trees provided through the Free Trees for Fall ReTree Planting program, an effort of the Nebraska Forest Service and the Nebraska Statewide Arboretum.

Though cool and a bit breezy, the youngsters enthusiastically helped set the trees in the holes, backfill dirt, mulch, water, and erect protective fencing around three trees around the playground in the RV camping area. After the work was done, each one completed an adoption paper giving their tree a name and recording important information about its size and description.



Students water one of the trees they helped plant.

Free Trees for Fall ReTree Planting is supported by the Nebraska Statewide Arboretum's Trees for Nebraska Towns Initiative funded by the Nebraska Environmental Trust, and by the Nebraska Forest Service's Landscape Scale Restoration grant funded by the US Forest Service.

General Election Results

Very little suspense was involved with this year's Nemaha NRD board of directors election. All 12 candidates ran unopposed as incumbents in their positions. Those re-elected to the board were: Tim Loseke, Hickman; *Bob Lassen, Firth; Duane Sugden, Sterling; Doug Iske, Dunbar; Kevin Thorne, Nebraska City; Lisa Beethe, Elk Creek; Dan Stukenholtz, Brock; Don Siske, Table Rock; *Eldon Snoke, Humboldt; Bill Niedfeldt, Shubert; Alan Romine, Falls City; Russel Moss, Burr. (*indicates two-year term; all others elected to four-year terms).

No one ran in Subdistrict 4, so the board will be required to appoint someone to fill that vacancy after January 1. The appointment will only be for a two-year term and will require that seat to be re-elected for its remaining two years in the 2020 general election. (Subdistricts

1 and 8 had two, two-year terms on this year's ballot for similar reasons.) Anyone interested in the Subdistrict 4 vacancy may send a letter of interest including your physical address to the NRD office. Subdistrict 4 encompasses part of southeast Nebraska City along with a rural area of Otoe County south and west of Nebraska City. Contact the NRD office for more details.

In January the board will also be electing someone new to represent the Nemaha River basin on the Nebraska Natural Resources Commission. Steve Sugden from Adams currently holds the position but has indicated he will not seek another four-year term. Commission members must be registered voters who reside within the Nemaha basin; they meet four times per year and make decisions regarding State conservation funds including the new Water Sustainability Fund.

Staffing Updates

In October Laura Hart was hired to fill the position of NRD Clerk at the Falls City NRCS office. Laura is from Missouri and a graduate of Northwest Missouri State University with a degree in office information systems. She most recently worked for Salem Grain and prior to that at Nestle Purina in St. Joseph, Missouri.

Turner Moore started on October 1 as a Farm Program assistant in the Tecumseh NRCS office. Moore was hired with funds from a grant the NRD obtained through the National Association of Conservation Districts to provide conservation planning assistance to NRCS offices. He is originally from Unadilla and previously worked as a contract employee at the Syracuse NRCS office in 2016.

Is a Windbreak on Your Christmas Wish List?

If you're dreaming of a white Christmas, not a windy one, now is the time to get your order in for conservation tree seedlings. Whether you want to plant your own or enlist the NRD's tree planting service, it's the perfect time to get started. In fact if you want the NRD to plant for you, December 31 is the deadline for ordering; and your ground must also be worked by then if it is currently in sod. Here's the details:

Species: 9 deciduous, 7 conifer, and 11 shrub varieties

Price: \$1.20/tree, plus tax (must order in lots of 25/species)

NRD Machine Planting: \$1.00/tree, plus tax (minimum order-200 trees)

Trees will be available after April 1, 2019.

All trees not planted by NRD must be picked up at the NRD office in Tecumseh.

All orders must be fully paid when submitted.

You must live in or own ground in the Nemaha NRD to be eligible to order.

Full details and a downloadable order form are available on the NRD's website (nemahanrd.org).

Local Schools, Students Excel at Land Judging Contests

Each fall FFA students from across the state compete first at area land judging contests and, if successful, also at the state event. This year's southeast area contest was held October 3 in Otoe County, and 164 students representing FFA chapters from 12 schools competed both as teams and individuals. Taking top honors individually was Elizabeth Hodges from Johnson Brock followed by Lilly Calkins, Palmyra; Ryan Hunt, Lewiston; Tyler Uhri, Falls City; and Olivia Gottula and Ashlynn Hartmann from Pawnee City. Ty Hays of Palmyra, Levi Dorsey from Johnson County Central, and Kim Becker of Meridian rounded out the purple ribbon winners.

In the team competition, Pawnee City's Ashlynn Hartmann, Eve Beethe, Olivia Gottula, and Sierra deKoning earned the first place honors. Johnson Brock followed at second, and third place went to Falls City. Pawnee City placed another team in the fourth place slot. In fifth place was Palmyra. Four teams were eligible to compete at the State contest; but since only one team per school may qualify, Pawnee City's first place team, Johnson Brock, Falls City, and Palmyra advanced. In addition individuals who place in the top 10 but are not on a state qualifying team may advance. Those included Ryan Hunt, Lewiston; Ty Hays, Palmyra; Levi Dorsey, JCC; Kim Becker, Meridian; and Audrey Sandfort, Johnson Brock.

The State land judging competition was held October 17 at Wahoo. Palmyra's team (Kaleb Kempkes, Briley Luff, Lilly Calkins, Daniel Fry) took second place out of 30 teams and earned a berth at the National Land Judging Contest in Oklahoma City next May. Individually Lilly Calkins grabbed second place followed by Levi Dorsey in third out of 151 contestants.

Click on the Programs tab on our website (nemahanrd.org) to find the complete results.

Students examine soil profiles during a warm, windy day of land judging in Otoe County.



Dam Rehab Work Scheduled

This fall the NRD began lowering the water level in Upper Big Nemaha 25C southwest of Adams to allow dam rehabilitation construction to start next spring. The purpose of the project is to upgrade the dam to meet high hazard dam design requirements and eliminate the potential for a catastrophic dam failure due to excessive flows. High hazard dams are structures that would threaten human life should they fail though a dam's hazard classification is not reflective of its present maintenance condition or potential for failure. Dams classified as high hazard are required to meet more ridged design specifications to better assure public safety.

Two options that can be used to upgrade a dam to meet high hazard design specifications are to either store more water or allow more water to pass through the dam during high flow events. Home construction around the lake does not allow for increasing the

storage capacity, so the only option for this structure was to pass more water. This will be achieved by installing a new concrete spillway through the center of the dam which will increase the maximum flow through the dam from 6,000 cubic feet per second to over 15,000 cubic feet per second. The normal water level in the reservoir will remain the same as in the past.

Over 1,300 cubic yards of concrete will be required to build the new spillway. Grading and rock riprap are also included in the project. Estimated cost for the rehabilitation of the dam is \$1.9 million. Funding though the federal Watershed Protection and Flood Prevention Act will pay for 65% of those costs. It is hoped that construction can be completed by the end of 2019. Upper Big Nemaha 25C was originally built in 1974 and is one of the largest flood control dams in the Nemaha NRD.

Steamboat Trace vs. Missouri River

Unfortunately, 2018 proved to be a challenging year for the Steamboat Trace trail. The NRD was forced to close portions of the trail on several occasions throughout the summer and fall. Above average snow and rainfall in the northern Great Plains resulted in high releases from Gavin's Point Dam, and the Missouri River was near or above flood stage for most of the year. On several occasions rain in western Iowa and/or eastern Nebraska caused the already swollen river to overtop the trail. An eight-mile stretch from Peru to Brownville was hardest hit by the flooding; flooding is typically not a major problem north of Peru. The good news is that there was minimal damage to the trail surface. Since the trail is so close to the river, little can be done to protect it; we just have to hope river levels will be lower in 2019 so users can enjoy the entire trail all year.

Keep in mind that the trail is closed during rifle deer hunting seasons. Therefore, expect signs and gates to go up again from January 1-15 during the late rifle season. Your cooperation by staying off the trail during this two-week period is appreciated.

Recreation Areas Prepared for Winter

The 2018 recreation area season was highlighted with the opening of the Duck Creek Recreation Area north of Auburn, and record numbers used the District's five areas. To reduce operation costs, maintenance requirements, and potential vandalism, the NRD suspends some services from the third week of November through April 1. Some of the specific changes during winter period include:

- No water or electrical services at all parks
- No garbage pick-up at all parks
- The north primitive RV and tent camping area at Iron Horse Trail Lake is closed
- The west primitive camping at Duck Creek is closed

- The upper electrical RV loop at Duck Creek is closed
- The east access area at Duck Creek is closed

Ice fishing is allowed at all recreation areas, and anglers should use caution and closely monitor ice conditions as the NRD does not monitor or measure ice conditions. No motorized vehicles including snowmobiles, ATVs, or UTVs are allowed on the ice.

The NRD thanks the public for using our areas during the past year and hopes to see you again in 2019!

More Water Level Data on the Way

Data collection is an important part of the NRD's groundwater management program. One of the District's most important programs is monitoring changes to groundwater levels in the various aquifers that provide water for irrigation, domestic, and livestock needs in the Nemaha Basin. Historically the NRD collected data by hand measuring wells once or twice per year which provides an annual picture of changes to the aquifers but offers little insight on what happens day to day. To address this the NRD is installing 20 new, dedicated monitoring wells at various locations. These wells will include pressure transducers which automatically measure and record groundwater levels multiple times per day. Data collected will better show what is happening to aquifers daily particularly in the summer during irrigation season. Telemetry can also be incorporated so that the data can be sent directly to the NRD office versus having to download it at the well site. The NRD will continue to hand measure wells that have been part of the program for many years.

Well locations have been selected using the report completed by LBG Engineering which

identified critical areas of the District where long-term water level data would be the most beneficial for groundwater management. These include areas that currently have high-capacity well development and undeveloped areas with the potential for future development based upon aquifer characteristics. Siting criteria also involves matching locations to recent Airborne Electromagnetic Survey (AEM) flight lines which is important because the geologic data collected when the wells are drilled will help verify the accuracy of the flight data. The District is in the process of requesting permission from private landowners for these selected locations and formalizing partnership agreements with them.

Rieschick Well Drilling from Falls City will be drilling the wells, and work should be completed by June, 2019. Cost to install the wells is approximately \$250,000, and a portion of the funding is being provided by a grant from the Nebraska Environmental Trust Fund. The Eastern Nebraska Water Resources Assessment Program (ENWRA) and WSP Consulting from St. Paul, Minnesota, are also assisting with the project.

Beaver Activity Increasing

One of the bigger dam maintenance issues the NRD faces is problems with beaver. They can quickly plug up a dam riser and often burrow into dams to create their homes. Apparently, beavers have been doing more than building dams and gnawing on trees the past year because their population appears to be on an upswing. Like other rodents, beaver are prolific reproducers; and populations grow quickly. It is common for 8-10 beavers to share a lodge, and the kits will often live with their parents into adulthood. Basically, it's like having your kids living in the basement until they are 30.

This fall we have had frequent issues with beaver plugging up dams. Typically, older dams with shallow reservoirs are the most vulnerable

to beaver problems. Their goal is to increase water depth so they can build their lodges to protect them from predators. Removing beaver plugs from dams is challenging and dangerous, so it is a difficult task for our staff. Since beavers are persistent, removing their construction does not last long; so the only solution is to eliminate them from the lake. In recent years the NRD has hired trappers to assist with this effort, and knowledgeable trappers can usually eliminate beavers in a short period of time. To put this all into perspective, it is estimated that at one time there were 60 million beaver in North America; and today their population is around 10 million.

NEMAHA NRD STAFF

Bob Hilske, Manager
Scott Nelson, Assistant Manager
Jane Kuhl, Administrative Assistant
Kerri Miller, 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, Field Technician
Ken Hatten, Land & Water Resources Assistant
Phil Vance, Seasonal Maintenance
Doug Schmidt, Seasonal Maintenance

NRD STAFF IN NRCS OFFICES

Alice Alexander, Auburn
Geraldyn O'Malley, Tecumseh
Kim Zech, Syracuse
Kathy Harlow, Pawnee City
Laura Hart, Falls City

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2019 Park Permits Available Now

2019 Nemaha NRD park permit stickers have arrived and are now available for purchase. If you can't make it to our office to purchase yours, the next most efficient method would be via our website using your major credit card. When ordering via our website, please note that this is only an order – the actual permit sticker will be mailed to you, usually within a day or two. You could also print an application from the website and mail it to our office with your payment; however, you should expect to wait up to two weeks for your permit to be mailed to you.

Once again the annual permit costs \$15 with a second permit for another of your licensed vehicles costing just \$8 if purchased at the same time as your original permit. The annual permits are valid and required at Iron Horse Trail Lake, Kirkman's Cove, Duck Creek, and Wirth Brothers Lake.

Funds collected from the sale of the permits help with the costs of maintaining the parks and providing improvements. A new boat dock was installed at Iron Horse Trail Lake last year; next spring two new, concrete restrooms will replace aging, wooden restrooms at Kirkman's Cove.



Park permits may be purchased at NNRD parks, but a quicker method is via the NRD website.

CALENDAR OF EVENTS



December

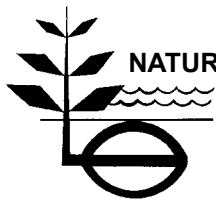
- 13 NNRD Board Meeting, Tecumseh (7:00 p.m.)
- 24-25 Christmas Holiday, NNRD Office Closed

January

- 1 New Year's Holiday, NNRD Office Closed
- 10 NNRD Board Meeting, Tecumseh (7:00 p.m.)
- 21 Martin Luther King, Jr. Holiday, NNRD Office Closed
- 29-30 NARD Legislative Conference, Lincoln

February

- 14 NNRD Board Meeting, Tecumseh (7:00 p.m.)
- 17 President's Day Holiday, NNRD Office Closed



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NATURAL RESOURCES DISTRICT

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The Nemaha NRD's **Insight** is a publication of the Nemaha Natural Resources District. Requests to be placed on the **Insight** mailing list and/or comments regarding information in this publication should be directed to Jane Kuhl, Administrative Assistant, 62161 Hwy 136, Tecumseh, NE 68450. Phone (402) 335-3325