



Groundwater Data Collection Completed

In mid-June this summer you may have witnessed a low flying helicopter with a hoop shaped device suspended below it. The hoop is a geophysical device that continuously transmits an electromagnetic field to the land surface (and subsurface) while the helicopter is in flight. The hoop also carries sensors that receive a subsequent return of electromagnetic energy from the land surface. Known as Airborne Electromagnetic Survey or AEM, this is a very rapid and efficient way of remotely sensing geology across a large area without engaging in extensive testhole drilling.

This AEM flight collected geologic data over portions of Johnson, Nemaha and Richardson Counties, and the final report is anticipated to be available in February of 2019. AEM data provides an accurate picture of the subsurface geology and depicts the various layers and thicknesses of silt, clay, sand, gravel and bedrock. Data collected will be used to help delineate the groundwater aquifers and assist with future groundwater management.

Additional information may be found online at www.enwra.org



An AEM flight takes off in June to collect underground data.

General Election Preview

Though still a couple of months away, this year's general election ballot for Nemaha NRD directors will be pretty predictable. With no contested races, voters will find the incumbent in their area listed on the ballot. One exception would be in Subdistrict 4 where incumbent, Jenny Kearney, chose not to run again. Since no one filed to run for that spot prior to the primary election, the board will have to appoint someone to fill the vacancy after January 1. Two other spots on the ticket will elect a representative to finish out the last two years of a four-year term due to vacancies that were filled last year. Here's a breakdown of the candidates seeking reelection:

Sub. Dist. Candidate

- 1 *Robert Lassen, Firth
 - 1 Tim Loseke, Hickman
 - 2 Duane Sugden, Sterling
 - 3 Doug Iske, Syracuse
 - 4 No Candidates
 - 5 Kevin Thorne, Nebraska City
 - 6 Lisa Beethe, Elk Creek
 - 7 Dan Stukenholtz, Brock
 - 8 Don Siske, Table Rock
 - 8 *Eldon Snoko, Humboldt
 - 9 Bill Niedfeldt, Shubert
 - 10 Alan Romine, Falls City
- *Two-year term

Where do we go from here?

Since its inception in 1972, one of the major focuses of the Nemaha NRD has been watershed planning and flood control. Over 15 watersheds in the NRD have watershed plans and operating flood control structures in place. With the completion of the Buck and Duck Creek project, all the major watershed work is now done; and it's time to create a new road map for the NRD. Structure maintenance will play a major role in the District's future with around 400 structures in the NRD that

need regular repair and maintenance. This can range from removing trees to rehabilitation of the structure.

The NRD board is looking towards the future and assembling a plan for flood control and soil conservation. Are there still flood control concerns to be addressed? Does the NRD need to spend more resources on addressing stream degradation and the potential impact to property and infrastructure? Does the NRD need to direct more funds to landowners

to address soil erosion concerns? These are some of the questions the Board is asking. Ideas and concerns from the public are very important and welcome in this process. Many of the past projects were initiated by local constituents who brought the issue to the attention of the NRD. If you have an idea or concern, pass it along to your local director so they can pass it on to the full board for consideration. History shows that projects initiated by and with the support of the public are the most successful.

NRDs at HDD

Stop at the Nebraska NRDs building at Husker Harvest Days September 11-13 – Booth 39E on the east edge of the grounds. Pick up a free tree seedling, native grass seed sample, or cool drink of water; talk to natural resources professionals about water, trees, recreation, soil conservation...we'll be there to answer your questions!

Recreation Wrap-Up

Duck Creek Recreation Area

The NRD is nearing the completion of the recreation development for this area. Items remaining include trail construction, the addition of several picnic tables, and completing the beach area. When finished trails will extend from the primitive camping area through the day use area and across the dam to the east side of the lake. A trail is also planned that will connect the RV camping area to the day use area. Additional sand will be added to the beach particularly the west side of the cove. Wet conditions did not allow equipment to access that portion of the beach so that sand could be properly placed and leveled. As with our other parks, the NRD will continually monitor use of the area and determine if additional facilities are needed.

Duck Creek saw a high volume of activity this summer. Use of the camping facilities was about what the NRD had anticipated; however, popularity of the day use facilities was above what was expected. Anglers, kayakers, and swimmers were common almost any day during the summer. The good news is that there very few problems or complaints the entire summer. Plans are to keep all the facilities and services open through rifle deer season which ends on November 18th. Shortly thereafter utilities and trash service will be discontinued; and some areas including the RV camping, primitive camping, and east side of the lake will be closed until April 1, 2019. The main day use and boat ramp area will remain open.

A new warning siren was installed at Duck Creek this summer with Nemaha County and the NRD splitting the cost. Nemaha County Emergency Management is responsible for operating the solar powered siren. Visitors can now be warned in the event dangerous weather is in the area. Duck Creek is the first of the District's recreation areas to receive a warning siren.

Kirkman's Cove

Kirkman's Cove was placed on health alert for blue-green algae for a brief period in June. A wind storm that came through the Humboldt area in June resulted in tree damage throughout the park as well as to the park entrance sign. Over the next year two of the old, wooden



Kayakers take advantage of the serene water at Duck Creek during a recent kayak safety day.

restrooms (one in the main day-use area) at Kirkman's Cove will be replaced.

Iron Horse Trail Lake

Popular again this summer, it was common for all the electric RV campsites to fill up over the weekends. Although it appeared blue-green algae was present throughout much of the late summer, tests never resulted in levels requiring a health alert. A new boat dock that was installed at Iron Horse in the spring became the target of frequent vandalism. Anyone having any information on who might be responsible is asked to call the NRD or report it to the Pawnee County Sheriff's office.

The NRD regularly receives requests for trailer dump stations at our recreation areas, so this year funds have been included in the budget. District staff is looking at options for both Kirkman's Cove and Iron Horse. Several factors come into play including vehicle access, soil conditions, proximity to water which is needed at the dump station, and state or federal regulations.

Wirth Brothers Lake

Repairs were made to the picnic shelter at Wirth Brothers Lake. Prior to next season the NRD plans to replace many of the aging signs in the park as well.

Steamboat Trace

After several dry years flooding has again become an issue on the trail. Missouri River levels have been high all spring because of above average releases



Two similar restrooms will be added at Kirkman's Cove this year.

from Gavin's Point Dam, so there is little capacity for any additional water coming from tributaries below the dam. It appears that the high flow scenario will continue for the remainder of the year, so the potential for flooding on the trail will remain high. Typically, the 8-mile segment of trail between Peru and Brownville is hardest hit by flooding from the river. When flooding on the trail occurs, the NRD closes the trail; and it is reopened once floodwaters have receded and any cleanup work is completed. Closures are posted on the District's website and Facebook page.

On a positive note the NRD is continuing its effort to upgrade bridges along the trail from wood to concrete.

Recreation Wrap-Up (cont.)



These woodlands on the east side of the park are included in the woodland renovation project.

The Camp Creek bridge in Otoe County was renovated this year bringing the total to eight. Three bridges still need to be addressed, and they should be completed in the next year. Concrete is a viable option where the old railroad bridge sub-structure which was designed to handle train weights was maintained. On some bridges where the sub-structure was removed, lighter wood decking will still have to be used.

Iron Horse Woodlands Renovation Project

As many people in southeast Nebraska know, addressing invasive trees is an ongoing battle. NRD recreation areas are not immune from this problem. The District recently entered into an agreement with Nebraska Game and Park which will provide funding to help remove invasive trees at Iron Horse Trail Lake and help improve the oak woodlands on property owned by the NRD.

Invasive trees such as cedar, locust and Osage orange will be removed from a large area below the dam while

desirable species such as oak, walnut and hickory will remain. This is the only portion of the park where limited hunting is allowed, and this should make the area more accessible and improve hunting opportunities.

The east side of the lake includes very robust stands of oaks and walnuts. Invasive species will be removed to allow better growth of juvenile hardwoods and help assure that the oak woodland is maintained for future generations.

Areas in the northwest portion of the park are a combination of solid stands of invasive trees (particularly cedar) and oaks, walnut, and hickory. Invasive trees will be removed to improve the quality of the desirable trees and provide more native grassland.

Work will take place over the winter with little impact to the public recreation facilities. Cost to remove the invasive trees is estimated around \$60,000. The NRD will receive approximately \$45,000 from Game and Parks Commission through the federal Wildlife Restoration Fund to assist with the project.

Dam Rehab Set to Begin

UBN 25-C (Doctor's Lake) located southwest of the Village of Adams was constructed in 1974. The dam was built for flood control and is considered a high hazard structure, meaning that if the dam were to fail, there would be a chance for the loss of human life. Due to a federal study by the Natural Resources Conservation Service, it was recommended that this structure be rehabilitated to meet current dam safety standards. With the public's safety in mind, the NRD is working with

NRCS to rehabilitate this dam to lessen the chance of dam failure.

The NRD plans to accept bids for the rehabilitation of UBN 25-C in October, 2018. The project involves 6,000 cubic yards of dirt work and 1,400 cubic yards of concrete to construct a concrete chute through the center of the dam. Construction is anticipated to take a little over a year to complete. Federal funds are paying for 65% of the cost with the NRD paying 35%.

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It's Almost Tree Ordering Time

Fall is right around the corner, and so is the date to begin placing your orders for conservation trees. While we don't begin accepting orders until **November 1**, now is the time to start thinking about your tree planting needs. If you're planning to put in a new windbreak or shelterbelt, fall is the ideal time to start preparing the ground to ensure a productive seedbed next spring. Mark your calendars and contact us on November 1 with your tree order!

Pest Alerts

With Emerald Ash Borer in the news again recently, landowners with ash trees should not panic. Though the tiny, electric green insect has been found in Lincoln, it has not been found in our area yet. Treating your tree is not recommended until EAB is known to be within 15 miles of your location. Also some trees may not be good candidates for treatment due to other health issues. This is the time, however, to think about what you might plant to replace an ailing tree in the future. Check out the Nebraska Forest Service website (nfs.unl.edu/nebraskaeab) for more information.

Bag worms, on the other hand, are affecting area trees this summer; and we've received many calls about evergreen trees turning yellow or brown. These are perennial insects that attack arborvitae, junipers, pines, spruce, and many other species. During September the male bagworm, which has wings, leaves the bag and flies to bags containing females to mate. The female will deposit a mass of eggs, crawl out of the bag, drop to the ground, and die. The eggs over-winter in the bags and emerge in late June or early July the next year. That is the proper time to use an insecticide application. Bagworms may also be managed on small shrubs or trees by handpicking the bags during late fall, winter, and early spring. It is important to control the bagworm infestation as they will defoliate the tree and, over time, kill it.

CALENDAR OF EVENTS



September

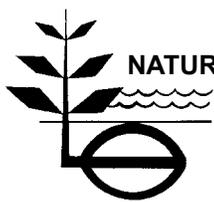
- 3 Labor Day Holiday, NNRD Office Closed
- 11-13 Husker Harvest Days, Grand Island
- 13 NNRD Board Meeting & Budget Hearing, Tecumseh
- 24-25 NARD Annual Conference, Kearney

October

- 3 Southeast Area Land Judging, Otoe County
- 8 Columbus Day Holiday, NNRD Office Closed
- 11 NNRD Board Meeting, Tecumseh

November

- 6 Election Day
- 8 NNRD Board Meeting, Tecumseh
- 10-18 Steamboat Trace
Closed During Rifle Deer Season
- 12 Veteran's Day Holiday Observed, NNRD Office Closed
- 22 Thanksgiving 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