



# Directions

## Nebraska's NRDs featured on NET

Nebraska's Natural Resources Districts (NRDs) are being featured in an hour-long program called "Keeping Nebraska Local: A Unique Approach to Resource Management" on Nebraska Educational Television World (NET2) this spring. The program offers a unique opportunity for viewers to learn about the broad scope of programs and projects the NRDs work on every day in order to protect lives, property, and Nebraska's future.

Nebraska prides itself on "The Good

Life" its citizens enjoy. An abundance of natural and human resources make it possible for the state to be an agricultural leader, known for scientific and technological research, innovation and stewardship. When people think about quality of life, generally these things come to mind:

- abundance of water for agriculture, municipalities, industry and recreation;
- beautiful landscapes and plenty of places for public access for recreation and to connect with nature;
- infrastructure to

protect citizens in the event of floods and other extreme weather;

- local leaders who are watching out for the future of all of these.

*Keeping Nebraska Local* explains how the districts were created, how they have evolved, and how they continue to protect lives, protect property, and protect the future for all Nebraskans. This NET Connects program was co-produced in partnership with the Nebraska Association of Resources Districts.



The program about Nebraska's NRDs has been broadcast on NET2. It will air again on Thursday, May 5 at 7:00 p.m. and Sunday, May 8 at 1:00 p.m. Or visit: [netnebraska.org/nrd](http://netnebraska.org/nrd) to watch it now.

### Inside this issue:

Flow meters now required on all irrigation wells	2
Groundwater-level data is valuable	3
Interested in becoming a Camp Host?	4
Great Park Pursuit includes Maple Creek	4
Conservation efforts recognized at Awards Banquet	5
Elkhorn H <sub>2</sub> O Daze celebrates 22 years	6

### Special points of interest:

Sign up to receive emails from the Lower Elkhorn Natural Resources District on our website: [lenrd.org](http://lenrd.org)

Like us on Facebook and Follow us on Twitter!



# Flow meters now required on all irrigation wells

The Lower Elkhorn Natural Resources District (LENRD) Board of Directors approved changes to its Groundwater Management Area rules and regulations that now require LENRD approved flow meters on all active irrigation wells within the district by **January 1, 2018**.

LENRD Water Resources Specialist, Curt Becker, said, "This change also incorporates a certification process for flow meter installers, which requires anyone who wants to install a flow meter within the LENRD to attend an installation training session." The first training sessions were held in March. Additional training ses-

sions will be held as needed.

The LENRD has approved five meters for installation. A list of the approved meters as well as a list of the LENRD Certified Flow Meter Installation Contractors can also be found on the district's website. These contractors have already completed the required flow meter installation training. Becker added, "If you do not want to become certified to install your own meter, you must select a certified installer from the list. This list could change as additional contractors become certified by the LENRD and will be updated when necessary on the LENRD website." If you missed the training sessions

and would like to be trained to install your own meter, please contact Curt Becker at 402-371-7313 or email [cbecker@lenrd.org](mailto:cbecker@lenrd.org)

For more information on flow meters, visit our website at: [lenrd.org/water-use-calculator](http://lenrd.org/water-use-calculator)

## *We bid farewell to one of our employees, Longin Karel*

It was with heavy hearts that we said goodbye to our district employee, Longin Karel. He was a dedicated worker and believed in our mission. He didn't like to leave a job unfinished and worked countless hours to make sure everything looked just right. We extend our deepest sympathy to his family. Thanks for the memories Longin!



Longin Karel of Norfolk worked for the LENRD at Maskenthine Lake for 12 years.

He was involved in an accident last May and passed away on January 29, 2016.

## 2016 Officers of the LENRD Board



The Lower Elkhorn Natural Resources District has a 15-member Board of Directors. The officers elected for 2016 are (from left to right): Kurt Janke of Wayne - NARD Voting Delegate; Danny Kluthe of Dodge - Chairman; Gary Loftis of Craig - Secretary; Bob Huntley of Norfolk - Treasurer and NARD Alternate; Dennis Schultz of Wisner - Vice-chairman.

**Soil & Water Stewardship:** Looking for Soil & Water Stewardship materials for your church or school? Visit our website or contact Julie at [jwragge@lenrd.org](mailto:jwragge@lenrd.org)

# Groundwater-level data is valuable for understanding the resource and for making informed management decisions

The groundwater resources that lie beneath our State are vast, but they are also vulnerable. Even small changes in groundwater levels can have profound impacts. Groundwater-level monitoring began in Nebraska in 1930 in an effort to survey the State's groundwater resources and observe changes in its availability on a continuing basis. The Conservation & Survey Division (CSD) of the UNL School of Natural Resources and the U.S. Geological Survey (USGS) have cooperatively developed, maintained, and operated the observation well network throughout the State. In the beginning, these two agencies were responsible for collecting, storing, and making this information available to the public. Although CSD and USGS still occupy a central role in the statewide groundwater-level monitoring program, other agencies have assumed the responsibilities of building and maintaining observation networks and measuring water levels. The

CSD and USGS continue to operate some of the original sites, but today the majority of the measurements are made by agencies such as the Natural Resources Districts, the U.S. Bureau of Reclamation, U.S. Fish & Wildlife Service, and Public Power and Irrigation Districts. Because these agencies are located throughout the State, they are able to implement groundwater-level monitoring programs using local field staff, landowner contacts, taxing and regulatory authority, and first-hand knowledge of local conditions. All of these agencies have worked together to develop an extensive network of observation wells throughout the State. The CSD continues to evaluate the adequacy and accuracy of the water-level data and provides the statewide assessment of the changes as well as technical services to stakeholders.

Some of the benefits of this statewide network include the following:

- Determine the amount of groundwater in storage and its availability for use.
- Assess the water-supply outlook by determining changes in the volume of groundwater in storage.
- Identify areas in which changes in groundwater levels may have an economic impact.
- Assist state and local agencies in the formulation and administration of resource-management programs.
- Determine or estimate the rate and direction of groundwater recharge, and locations and amounts of groundwater discharge.
- Assess the validity of hydrogeologic interpretations and the assumptions used in developing models of groundwater systems.

The Lower Elkhorn Natural Resources District (LENRD) collects static water levels from the irrigation wells in their observation well network in the spring. Conducted every year since the mid 1970's, the measurement of these wells provides a wealth of important data utilized by the LENRD to manage groundwater in northeast Nebraska. LENRD General Manager, Mike Sousek, said "This network of wells has been in place now for four decades, and all types of water users continue to benefit from the data collected."

LENRD Water Resource Manager, Brian Bruckner, said "Groundwater is a precious yet renewable resource. Much of northeast Nebraska is blessed with aquifer systems that allow groundwater to be stored for later use." The collection of new water elevation data each spring is important to  
*(Continued on page 4)*



# Groundwater-level data is valuable (continued)

*(Continued from page 3)*

determine the amount of recovery in the aquifer system from the previous year's irrigation season. It is also critical information for use in evaluating long term groundwater supplies. Bruckner continued, "Nebraska's Natural Resources Districts are required by law to develop management plans for groundwater management, and our ability to collect data from privately owned wells is vital in helping us meet those demands."

Groundwater is a renewable resource and our available supply is directly related to the amount withdrawn from storage during previous periods of use. Our data shows that during the period of record (mid 1970's - present), spring groundwater elevation levels have generally remained fairly constant in our district. However, we have had several periods (typically following periods of drought) where groundwater levels have developed downward linear trends. Fortunately, those drought periods eased and we returned to more normal, or above normal, periods of precipitation. Subsequently, our groundwater elevations responded positively and

our supplies have improved. Depending upon the location, the amount of recovery is somewhat delayed due to the physical properties that exist within the aquifer. Bruckner explains, "Yet while all of this information is important and valuable, it can sometimes be misconstrued or misleading. While it does offer us data to verify the amount of groundwater in storage it doesn't necessarily mean that all groundwater users will have sufficient amounts of groundwater if and when demand peaks simultaneously."

Sousek added, "Our water levels tend to bounce back in the spring, but they aren't giving us the full picture. There are in-season declines to be addressed, especially after the drought of 2012."

Aquifers respond differently, depending upon the types of sediment and other properties of the aquifer system. Sometimes, localized water shortages can develop if 1) there are many users of groundwater in a local area 2) if the timing of use of groundwater occurs simultaneously between users and without periods of "rest" where groundwater wells have the oppor-

tunity to shut down for a period of time. These rest periods allow groundwater levels to recover from heavy use, which is critical to ensure that cones of depression that develop in aquifers during normal pumping, limit their areal extent – a situation that can compound itself, and can be especially harmful to well owners who reside at the edge of an aquifer.

The LENRD currently has an observation well network of 243 wells across northeast Nebraska. The wells will be measured this spring and reports can be found on our website in June. Bruckner said, "We want to thank the landowners for their assistance with this program. It will continue to help us understand more clearly what's happening underground."

For more information on the spring water levels, visit our website at:  
[www.lenrd.org/water-resources](http://www.lenrd.org/water-resources)

## *Are you interested in being a Campground Host?*

The Lower Elkhorn NRD is looking for campground hosts for Maskenthine Lake, north of Stanton, and the Maple Creek Recreation Area, northwest of Leigh. Camp hosts are volunteers who desire to share their camping knowledge and love of the outdoors with others. They welcome visitors and acquaint them with park facilities and regulations. Hosts receive free camping privileges, with electrical hookups, and the use of the area's shower facilities. Hosts must supply their own camping

equipment. Any individuals over the age of 18 may serve as a host, if they are veteran campers. Hosts must be willing to spend a minimum of two weeks, with a maximum of four weeks at either of the areas. The program operates from May 1 - October 1, and hosts may apply for any period of time between those dates. Hosts are on duty only for two to four hours per day, including weekends and holidays. However, they are on call at all times to assist in emergencies. Contact the LENRD for more info.

## The Great Park Pursuit

The Maple Creek Recreation Area, northwest of Leigh, is part of the Great Park Pursuit this year! Watch our website for more details coming in May. To be a part of the adventure, you can register online at: [www.NEGPP.org](http://www.NEGPP.org)



# Conservation efforts recognized at Awards Banquet

The Lower Elkhorn Natural Resources District (LENRD) board honored outstanding conservationists at their annual awards banquet in January.

## Conservation Honor Farm Award –

### Dennis & Imogene Wacker:

Dennis & Imogene manage an organic cash grain operation. In 2009, they began the transition to organic farming on all of their acres.

Dennis, a 50-year farming veteran, utilizes a strip cropping system and rotates between corn, soybeans, and oats interseeded with red clover or alfalfa in alternating strips approximately 18-foot wide.

Maintaining strip widths discourages predators which then encourages

pollinators and beneficial insects. Rotating the strips helps with weed control and management. The strips also provide wind and water erosion control, because of the increased mulch.

Dennis and Imogene have sponsored tours of their operation, showing the benefits of organic farming and are good mentors for beginning organic producers. They have also sponsored wildflower tours to their operation, showing the benefits of pollinators and wildflower ID.

The Pierce County Natural Resources Conservation Service (NRCS) nominated the Wacker family for this award. Joyce Reicks, Soil Conservation Technician for the Pierce County NRCS, said, "Dennis deserves this award because of his enthusiasm, hard work, and dedication to successfully making organic work and providing healthy food without using chemicals."

## Outstanding Partnership

### Award –

### Norfolk Daily News:

The LENRD works with various agencies and partners each year as we

work to improve the quality of life for the citizens across Northeast Nebraska. At the banquet, the LENRD recognized the Norfolk Daily News for the outstanding partnership the LENRD has shared with them throughout the years.

Danny Kluthe, LENRD Board Chairman, said, "The Norfolk Daily News has been a great partner from the very beginning. They were extensively involved with stories on how the NRDs came into existence in 1972. They began covering the

board meetings from the very first meeting and they are still covering our meetings today." He added, "This award recognizes the Norfolk Daily News for their continued support & excellence in reporting on the wise use and conservation of Nebraska's

natural resources. Thank you to Mr. Warneke and his staff (both past and present) for the partnership we have shared the past 44 years."

## Teacher of the Year –

### Paul Sok:

Paul Sok is the Science and Biology Instructor at Winside Public School. He is in his 39<sup>th</sup> year of teaching, and has been at Winside Public School for 35 years.

For the past 19 years, Paul has taken students on a Biology & Natural Resources field trip across Nebraska and into the Black Hills and Badlands of South Dakota. He has received grants from the LENRD to supplement the cost of the trip for the students. The majority of the trip focuses on groundwater and its uses in different areas. They follow the Elkhorn River, Niobrara River, White River, and Soldier Creek systems across the northern section

of Nebraska and then proceed to the Black Hills. This summer will be the 20<sup>th</sup> trip, with over 200 kids participating over the years.

Julie Wragge, LENRD Information & Education Specialist, said, "This award recognizes Paul for his excel-



Dennis & Imogene Wacker



Norfolk Daily News staff: Kent Warneke - Editor; Mary Pat Hoag - Farm Editor; Mike Buhler - News Reporter

lence in teaching future generations the value of our natural resources."

## Service Awards were also given:

**Pam Bergstrom** of Norfolk, LENRD Forester, awarded for 5 years of service.

**Mike Murphy** of Stanton, LENRD GIS Specialist, awarded for 10 years of service.

**Melvin Meyer** of Pilger, LENRD Maintenance at Maskenthine Lake, awarded for 10 years of service.

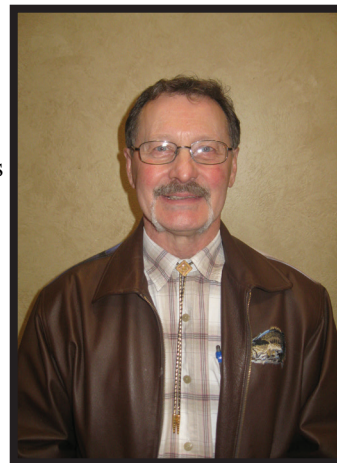
**Leonard Boryca** of Stanton, LENRD Recreation Area Superintendent, awarded for 15 years of service.

**Carey Tejkl** of Stanton, LENRD Programs Assistant in Stanton County, awarded for 20 years of service.

**Danny Johnson** of Decatur, LENRD Logan East Rural Water System Technician, awarded for 20 years of service.

**Kathy Dohmen** of Pierce, LENRD Programs Assistant in Pierce County, awarded for 20 years of service.

**Phyllis Knobbe** of West Point, LENRD Programs Assistant in Cuming County, awarded for 35 years of service.



Paul Sok



## LOWER ELKHORN NATURAL RESOURCES DISTRICT

P.O. Box 1204  
601 E. Benjamin Avenue, Suite 101  
Norfolk, NE 68702-1204

402-371-7313  
Fax: 402-371-0653

Julie Wragge  
Information & Education Specialist  
jwragge@lenrd.org

*"Strive to improve the quality of life for all citizens of the Lower Elkhorn Natural Resources District by promoting and demonstrating sound methods of stewardship which conserve, develop and manage all natural resources."*

**"Equal opportunity employer and provider."**

To :

[www.lenrd.org](http://www.lenrd.org)

*Protecting Lives - Protecting Property - Protecting the Future*

# Elkhorn H<sub>2</sub>O Daze celebrates 22 years

**Elkhorn H<sub>2</sub>O Daze** celebrated its 22nd year! The first festival was held in 1994 with over 500 fifth graders attending. Twenty-two years later, we had nearly 500 fifth graders attend the event from Antelope, Madison, Pierce, and Stanton counties.

**Elkhorn H<sub>2</sub>O Daze** is a program designed to provide hands-on activities for students to discover science principles as they apply to groundwater and other natural resources. 10 Aquativities are available for the students to explore throughout the 2-day festival.

Schools attending this year's festival came from: Norfolk Middle School; Christ Lutheran, Norfolk; Sacred Heart, Norfolk; Pierce Public; Zion Lutheran, Pierce; St. John's Lutheran, Battle Creek; and Elgin Public.

We want to give special thanks to Nucor for sponsoring the festival this year.

**Elkhorn H<sub>2</sub>O Daze** is sponsored by the Lower Elkhorn & Upper Elkhorn Natural Resources Districts, the Natural Resources Conservation Service, the University of Nebraska Extension, the University of Nebraska Conservation & Survey Division, & Nucor.



Students from Pierce Elementary studied Bubbleology in one of their sessions. This session was presented by NRCS staff from across the district.