



Nemaha Natural Resources District

Insight

**ANNUAL
REPORT
2020**



Bill Niedfeldt (L) presented Bob Hilske (R) with a hand painted award in honor of his years of service to the Nemaha NRD.

Open House Held for Hilske Retirement

A significant contingent of friends and colleagues showed up to honor Bob Hilske, who retired in January as the NNRD manager after 18 years. His total history with three NRDs spanned 38 years.

During an open house on February 26, NRD board member and past chair, Bill Niedfeldt, presented Hilske with a painting to honor his years of service at the Nemaha. John Turnbull, former manager with the

Upper Big Blue NRD, also presented Hilske with a plaque inducting him into the "retired manager's club".

Hilske served as the general manager at the Middle Niobrara NRD in Valentine prior to joining the Nemaha NRD.

He indicates traveling and golf as well as helping at his brother's winery are probably in his plans once pandemic restrictions lift.

Hauschild New Leader of Nemaha NRD

Kyle Hauschild has joined the Nemaha NRD as the new General Manager; his first day on the job was January 11. His background includes most recently serving as the General Manager at the Little Blue NRD in Davenport. In addition he worked for five years as a stormwater/ floodplain specialist with the Lower Platte South NRD in Lincoln. He holds a BS in environmental sciences and associates degree in construction technology/ management.

When asked about his interest in coming to the Nemaha NRD, Hauschild looks forward to the variety of programs and projects this District offers. His first few weeks have been spent learning about the District's operations, getting to know his staff, and checking out some of the projects within the District.

NRDs are a natural fit for Hauschild; his grandfather was one of the first directors with the Lower Platte South NRD. He is married



Hauschild

with two daughters and in his spare time enjoys hunting.

New Officers Selected for 2021

The board of directors reorganized during their first meeting of 2021. Serving as Chair for this year is Mike McDonald from Palmyra. Vice-Chair is Doug Iske, Syracuse; and Secretary-Treasurer is Tim Loseke, Hickman. Orval Gigstad, Syracuse, will continue

as the NNRD's representative on the Nebraska Association of Resources Districts with Don Siske, Table Rock, serving as the alternate. Committees were also updated beginning in February for the coming calendar year.

No Watershed of Wonders in 2021

Unfortunately, due to the ongoing pandemic, the Watershed of Wonders day camp will not be held in 2021. Originally scheduled for last June, it was hoped the outdoor camp for youngsters ages 10-12 could be held this

summer. However, it was determined that the event could not yet be safely and successfully held. Plans will be made to hold the event next summer instead and make it open to as many youth as possible.

NRD Parks are Open

On April 1 NRD staff opened all areas and turned on the utilities at the Nemaha NRD's parks including Kirkman's Cove, Iron Horse Trail Lake, and Duck Creek Recreation Area. Visitors are reminded that a Nemaha NRD park permit is required for entry to these three parks as well as Wirth Brothers Recreation Area. Annual permits are just \$15 and valid for all NNRD parks, and you may purchase a second permit for \$8 if purchased at the same time as the original. They're available online, by mail, at our office, or by requesting one through the envelopes at the parks. If you're staying just a day, purchase a one-day permit at the park for \$5.

Effective January 1, 2021, fees for electrical campsites increased to \$16/night at all three parks that provide this amenity. Reservations are currently not available, so all sites are first-come, first-served. Kirkman's Cove has 16 pads; Iron Horse has 11 pads; and Duck Creek offers 28 pads with electricity.

Fees collected at the parks go directly back to the parks for maintenance and improvements. This spring a new concrete restroom will be installed at both Iron Horse and Kirkman's Cove. Also, rubber crumb mulch will be added on the playgrounds at Iron Horse and Wirth Brothers Lake. Grant funds will pay for a portion of the cost of the mulch.

Campsite Fees Are Now \$16/night

CALENDAR OF EVENTS



APRIL

- 8 NRD Board Meeting, Tecumseh (8:00 p.m.)
- 28 Nebraska Envirothon, Lake Wanahoo, Wahoo
- 30 Arbor Day (NNRD Office is Open)

MAY

- 13 NRD Board Meeting, Tecumseh (8:00 p.m.)
- 22-23 Free Park Permit Weekend @ NNRD Parks
- 31 Memorial Day Holiday, NNRD Office Closed

JUNE

- 10 NNRD Board Meeting, Tecumseh (8:00 p.m.)

Annual Report:-----

2020 Highlights

Watershed Repair:

The District is responsible for operating and maintaining over 350 watershed dams. In FY20 just over \$185,000 went toward major repairs on 8 dams and general maintenance on others.

Rehabilitation of Upper Big Nemaha 25-C:

Also known as Doctor's Lake, this project near Adams involved upgrading by adding a large, concrete chute through the center of the dam. Dixon Construction from Correctionville, Iowa, was hired to complete the project at a cost of \$2.5 million. Federal funds account for 65% of the cost, and the project was completed in December, 2020.

Small Dams Program:

In 2020 a dam above the village of Cook, identified as the Mittelberg dam, received funding approval through this program. A privately owned grade control structure, it provides protection for the village, a highway, and other roads. The tube had failed and needed replacement. Work began in December and is nearly complete. NRD funds for the project are capped at 50% up to a maximum of \$40,000.

Recreation:

Annual Park Permits Issued in 2020: 3,003

Total Park Permit Revenue from both annual and two-day permits: \$50,397.00

Nemaha NRD parks were extremely popular in 2020 largely because of the COVID 19 pandemic. For a period of time, very few other public recreation areas, including the Nebraska Game and Parks areas, were open for camping or other outdoor activities. Park permit receipts were up nearly 50% over the previous year. Campgrounds at Kirkman's Cove, Iron Horse Trail Lake, and Duck Creek Recreation were full many weekends throughout the summer.

Here are some of the 2020 recreation area highlights:

- New playground equipment was erected at Iron Horse Trail Lake in June to replace an aged, wooden set.
- NRD crews have been busy burning some of the tree piles created at Iron Horse Trail Lake during the previous year's tree clearing project. Invasive trees were removed to encourage present and future stands of desirable species such as oaks, walnuts, and hickory along with better stands of native grasses.
- An ongoing drainage issue for the Kirkman's Lakeview Golf Course was addressed this year. The NRD provided \$15,000 toward drainage tile and a berm to protect the course from floodwater from the lake.
- In the fall of 2020, members of an Omaha scout troop helped plant landscape trees at Duck Creek. The trees were obtained through a grant from the Free Trees for Fall Planting program sponsored by the Nebraska Forest Service and Nebraska State-wide Arboretum.



IH Playground



Golf Course Berm

Steamboat Trace Trail:

After the floods of 2019, the District worked with FEMA to develop funding to repair portions of the trail that were hit hardest. Two grants for debris cleanup and removal were received totaling about \$55,000. Staff removed as much debris as possible, and contractors were hired to remove the larger trees and sloughs on the trail. A third grant was also approved by FEMA for \$240,000 toward trail repairs; however, until the Peru levee is repaired, major repairs are on hold. The trail remained closed through 2020 and is still closed as of this printing.

Duck Creek Sediment Basin Project:

Much of the past year was spent waiting on final permits for construction of this 6.5-acre sediment basin project south of the main Duck Creek reservoir. The structure will hold around 35 acre-feet of sediment, which normally would have ended up in the lake. It will extend the life of this recreation lake and help maintain the current, outstanding water quality.

Construction on the project is now set for early this summer and is expected to take 2 to 3 months to complete. Estimated cost of the project is \$250,000, which will all be federally funded.

Conservation Assistance:

In FY20 combined funds of \$164,404 from Nebraska Soil & Water Conservation Program (SWCP) and NNRD funds provided up to 50% cost-share for:

- 76,603 linear feet of terraces
- 4.4 acres of grass waterways
- 23,407 linear feet of tile
- 2,075 windbreak trees

Nebraska Buffer Strip Program:

Over 800 acres in the Nemaha NRD were enrolled in the Nebraska Buffer Strip Program in FY20, which provides annual payments for grass filter strips or riparian forest buffers along vulnerable surface water resources. These acres were earning a combined \$83,000 in annual payments.

Trees & Grass Drilling Programs:

Approximately 11,175 seedlings were sold last year with the NRD's tree crew planting 6,125 at 9 different sites.

Crews were able to drill 75 acres at seven sites in the spring and fall of 2020. Applications for spring drilling are due each year by March 1; fall applications must be submitted by October 1.

Information & Education:

Activities that the Nemaha NRD conducted or participated in during 2020:

- Water Celebration – 394 fifth graders participated in water related activities at this event held at Peru State College in March, 2020, just prior to COVID shutting down schools. NRD staff present an activity each year.
- Third Grade Plant-A-Tree – 470 trees distributed to third graders from 13 schools in spring, 2020. Though not every school could accommodate distribution of the trees, most found a way to deliver the trees to their students even after schools were closed.
- Envirothon – This high school environmental competition was cancelled at the state and national levels last year. This year's spring contests were held virtually, and the State contest will be in late April at Lake Wanahoo near Wahoo. The National contest, which was supposed to have been held in Nebraska in 2020, will take place virtually in late July 2021 with Nebraska hosting.
- With help from the NRCS, volunteers, and NRD staff, the Area Land Judging Contest for southeast Nebraska took place in October, 2020. Instead of all 208 students from 13 schools convening at one time, the contest was spread out over a six-hour period with schools arriving at staggered times, competing, and leaving without co-mingling with other schools. Everyone wore face coverings and practiced social distancing.
- Staff Service – NRD staff members recognized in 2020 for their years of service include: Ken Hatten-5 years and Lisa Bartels-20 years.

Urban Special Projects:

In May of 2020 two projects were approved for matching funds with both projects completed in the fall of 2020. Applications each year for this program funding are due February 1.

- City of Humboldt – Lake Park trail - \$5,398
- Pawnee City Public Schools – landscaping with native plantings - \$2,424

Camp Catron Stabilization Project:

In addition to providing \$12,000 in financial assistance, the District helped with a \$45,000 Nebraska Environmental Trust grant application, which was approved. The project entailed tree clearing, streambank stabilization, and rip rap on a creek in order to protect a footbridge that connects two separate areas within this Girl Scout camp near Nebraska City.

Hazard Mitigation Plan:

JEO Consulting was hired to conduct the update of this plan for southeast Nebraska, which requires coordination with the counties and cities within the District. FEMA approval was received in December, 2020.

New Directors & Staff:

- November, 2020 – Dan Giittinger, Nebraska City, was elected to represent Subdistrict 4 on the Nemaha NRD board of directors.
- In June, 2020, Bob Hilske, NRD Manager, announced his plans to retire after 18 years with the District. Hilske's last day in the office was January 29, 2021.
- November, 2020 – Kyle Hauschild was hired as the next General Manager of the Nemaha NRD. His first day on the job was January 11.
- January, 2021 – Scott Nelson announced his resignation as the NRD's Assistant Manager to assume the General Manager position with the Little Blue NRD. Nelson's last day was February 19.

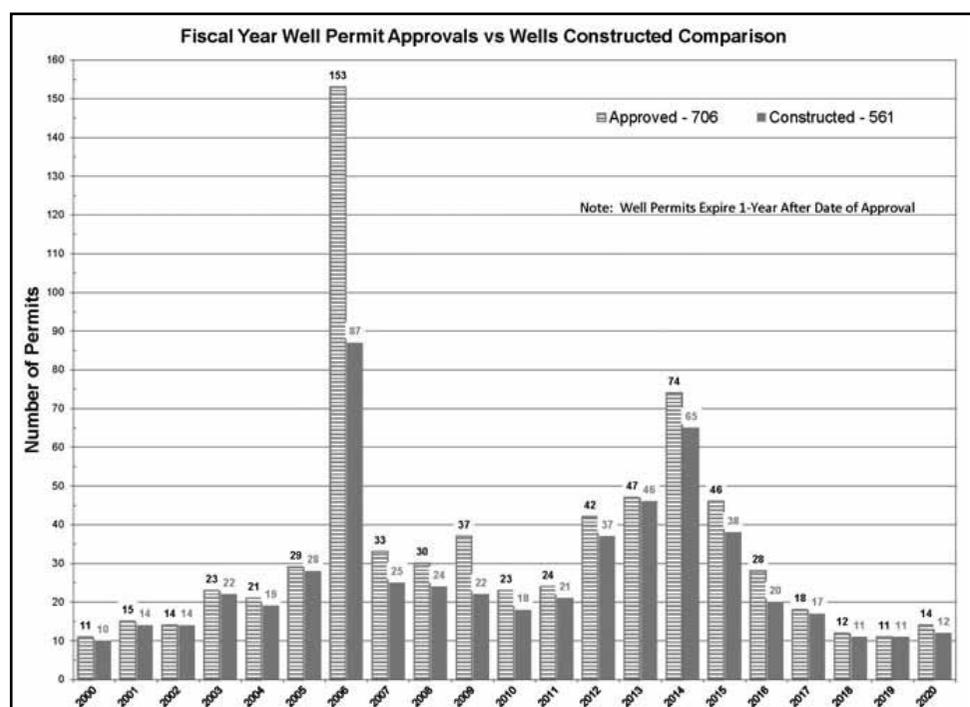
Water Resources Report FY2020

Groundwater Management

- Water wells that are designed to pump greater than 50 gallons per minute (gpm) require an approved well permit application prior to construction. A well driller's testhole log must also accompany the permit application which is used to determine ranking criteria. Testhole drilling does not require any permit; however, anyone considering a high capacity well is encouraged to call or stop in the office prior for additional information and groundwater availability. Well permits must be received by the 1st Thursday of each month in order to be approved by the NRD Board at their monthly meeting held the 2nd Thursday of each month. Upon receiving approval, the applicant has one year to have the well constructed before the permit expires. A flowmeter is also required to be installed on any new or replacement wells.
- A complete copy of the District's Groundwater Management Plan and associated Rules and Regulations and ranking system scoring is available upon request and can be found the District website under Programs/Water.
- Chart below represents the number of well permits approved vs. wells constructed since 2000.

Groundwater Levels

- Due to the COVID-19 pandemic, the network of 131 wells (irrigation, livestock, domestic and public water supply) located throughout the District was reduced to 33 irrigation wells for the spring and fall of 2020. All 33 of the measured irrigation wells were used to create a lifetime average minus a 10-year average groundwater level change.
- The District lifetime average change of irrigation wells was a decline of -0.21 feet.



Well Abandonment

- A total of 37 abandoned wells were properly decommissioned the past fiscal year through the District cost-share program totaling \$14,567.81 in payments. Since the program's inception in 1994, the District has provided cost-share funds for the closure of over 1,300 abandoned wells. Statewide NRD's have provided cost-share assistance for the closure of over 20,100 abandoned wells. A portion of the funding is provided annually by the Nebraska Department of Natural Resources based upon the amount of money received from well registration fees. Each NRD is allocated a percentage of the funds based upon the District's average number of wells decommissioned in the previous three years.
- The District provides 75% cost-share for the proper decommissioning of abandoned wells with a maximum of \$500 for each smaller diameter, cased type well and \$700 for each larger diameter, hand dug type well. Approval prior to the closure is required, and the work must be conducted by a licensed pump installer or well contractor. Funds are available – Sign Your Abandoned Well Up Today!

Chemigation

- This year the District received 294 permit applications and inspected 107 systems for safety equipment compliance. Out of the 294 applications received, 266 were renewals; and 28 were new permits.
- Applicator certification is required prior to chemigating. Training sessions are held throughout the State each winter/early spring. Contact the NRD or log on to www.deq.state.ne.us/ click on Licenses & Certification dropdown box located on the top

right center of the page then click Chemigation for a current list of training dates, locations, and training materials. Also, applicators can find their certification number and expiration year.

High Capacity Flow Meter & Irrigation Management Cost-Share Program

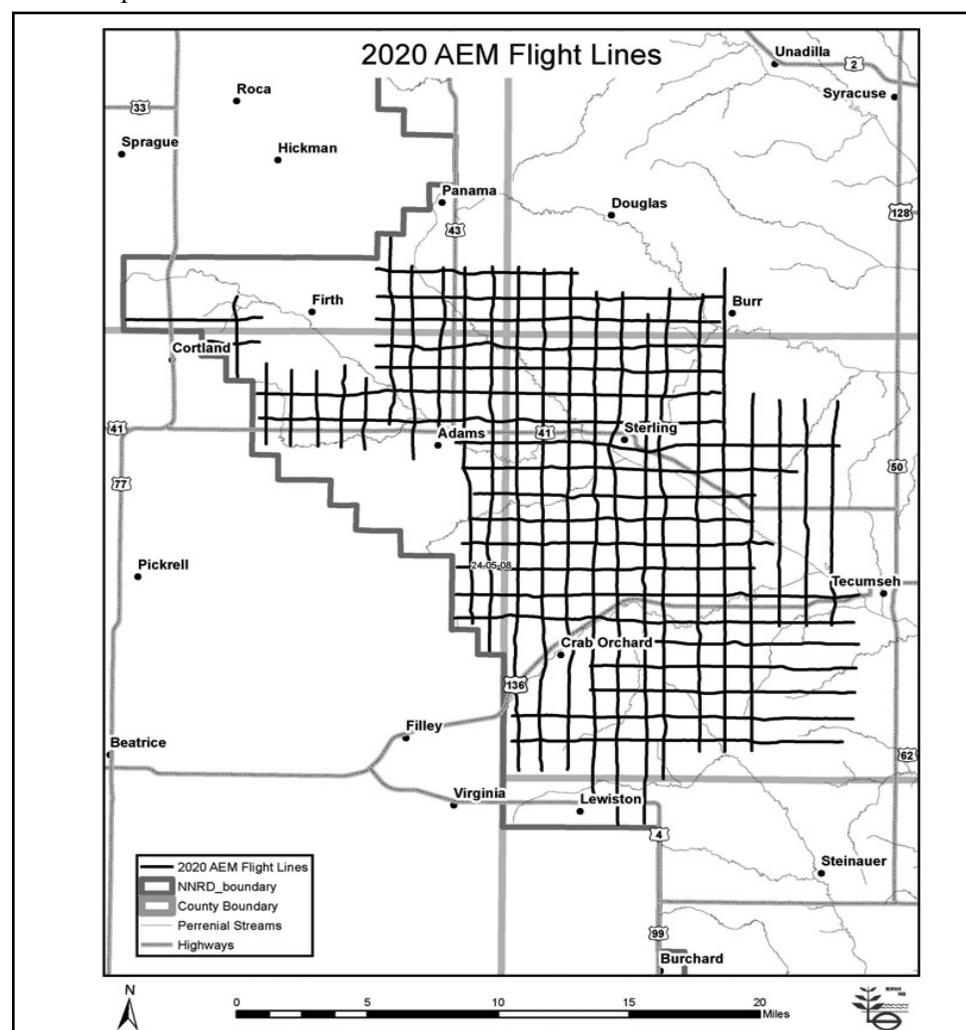
- The District has a cost-share program for flow meters for water wells within the District pumping greater than 50 gpm. The program covers 50% of the cost of a new flow meter up to a maximum of \$500.
- Cost-share is also currently available for irrigation management equipment. Eligible equipment includes soil moisture sensors, sensor readers and atmometers (evapotranspiration gages). The program covers 50% of the cost of the equipment up to a maximum of \$300. Approval is required prior to purchase for both programs.
- Contact the office for more information or log on to our website and download the fillable applications.
- 200 flowmeters were read this fall indicating an average of 2.60 inches of water was applied per acre on approximately 22,880 acres.
- Do you have a flow meter that isn't working properly? The District is certified to conduct repairs and general maintenance on a fee basis for parts and labor.

Surface Water Sampling

- The beaches at Iron Horse Trail Lake, Kirkman's Cove, Wirth Brothers Lake, and Duck Creek Recreation Area were sampled weekly during the recreation season (May-September) for E. coli bacteria and blue-green algal toxins.
- Iron Horse and Kirkman's Cove were placed on health alert for toxic algae for 1 and 7 weeks last season, respectively. Kirkman's Cove, Wirth Brothers, and Duck Creek tested high for E. coli three different weeks, and Iron Horse for two weeks.
- Additional lake beach bacteria and toxic algae monitoring results for other lakes throughout the state may be found on the NDEQ website at: <http://deq.ne.gov/NDE-QProg.nsf/OnWeb/SWMA>. More information about health alerts, potential health effects, and facts regarding toxic algae may be found there also.

Airborne Electromagnetic (AEM) Flights

- AEM flights were conducted this past summer over the central western portion of the District. The final report has been received. If you think or know that the helicopter flew over your property and you would like to see the geologic data that was collected, you may go to the following website: www.enwra.org or contact the office, and we will provide it.



From Cigarettes to Computers -- Where have the past 39 years gone?



By Bob Hilske

I started my career with the Little Blue Natural Resources District in Davenport, Nebraska, on March 15, 1982. My roots were in the suburbs of Omaha. Growing up I enjoyed the outdoors and was fascinated with tractors and farming. In high school I was sure I wanted to become a civil engineer, so it probably surprised everyone, including my parents, when I chose natural resources as my major at UNL. Why the change? Simple -- I struggled with math and didn't want to endure the challenge of endless calculus classes in college; so using pure freshman logic, I opted for the path of least resistance.

NRDs were formed in 1972, so when I started, they were still in the "toddler" phase with basic conservation programs, small offices, and only a handful of employees. Board meetings seemed more like a coffee drinking and cigarette smoking contest. My first day at work I was handed a box of colored tacks

and told to put a green pin on the big wall map wherever there was an irrigation well -- GIS version 1982. I immediately knew my college education was paying big dividends. In those days I spent a majority of my time in the field. They even assigned me the new pickup which had 21st century options like AM radio and air conditioning! How did they get that past the board? That District was one of the first to require flow meters on wells, so one of my jobs was to check and repair meters. In retrospect those days in the field were valuable. I learned about farming, irrigation, and that those old three wheeled ATVs were deathtraps. Yes, I rolled one in a ditch; but there was no harm done to me or more importantly the ATV.

I had big aspirations, so in 1986 I took the job as manager of the Middle Niobrara NRD in Valentine. I was in the middle of Sandhills cattle country with a \$3,000 salary increase, so I had to be on the road to success! At 28, I was the youngest manager in the NRD system and couldn't have told you which end of a cow a rump roast came from. We had a small staff, so the job as manager included duties ranging from budgeting to mowing the office yard (the obvious reason for the hefty salary increase). I even got to fulfill my childhood dream of driving tractors. My years in Valentine will always be treasured; the people were wonderful, and there is something about the Sandhills that is special.

My original plan was to spend five to eight years in Valentine then move on, so in 2002 I accepted the job as manager of the Nemaha NRD. (In case you are paying attention, I did mention I wasn't good at math.) The Nemaha offered a larger staff and wider variety of programs and projects. I was particularly interested in the Nemaha's focus on flood control dams and recreation. It got me closer to home, plus I didn't have to mow the

office yard. The past 18 years have gone by quickly. There were many accomplishments and changes during my tenure; some were big and obvious like Duck Creek and others small like figuring out that they installed one of the door handles in the office backwards. I had modest goals when I started in 2002. They included keeping the District's long history of flood control as a main priority, having high quality recreation areas, providing the staff with a nice workplace, and most importantly operating the NRD with a high level of integrity (the latter being the most important to me.) The manager often gets too much credit for the accomplishments when in reality the staff does most of the heavy lifting, and they deserve the applause.

Next year the NRDs will celebrate their 50th anniversary, and I relish the fact that I started when things were simple: small staffs, no e-mail, no cell phones, and apparently cigarettes were cheap. Much has changed; Districts are involved with more programs, added more staff with a variety of expertise, better offices, and boards with far more diversity than in the past. When NRDs were created the idea was for a local entity that had the power to decide what programs were the highest priority in their area and have the funding to carry out those priorities. My 39-year ride with three NRDs gave me a front row seat on how that system works. NRDs will continue to grow. Old-timers like me are being replaced with staff that can get the mower started on the first pull.

A unique benefit of my job was that I met many wonderful people and got to travel to every part of Nebraska. As my career comes to an end, I would like to thank all those staff, board members, and others who made the trip enjoyable and rewarding. As for me, I'll be home happily mowing my own yard.

NEMAHA NRD STAFF

Kyle Hauschild, Manager
Jane Kuhl, Administrative Assistant
Jill Rogman, 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

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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Eldon Snoko, Humboldt
Mike Speece, Auburn
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J. Duane Sugden, Sterling
Kevin Thorne, Nebraska City

Order Your Park Permit Online

Did you know the quickest way to obtain your Nemaha NRD park permit is through our website? Just use your major credit card to purchase your permit(s), which will be back in the mail to you in most cases within a day or two (especially if you avoid April-July, the busiest months for permit purchases). The first annual permit is \$15; and if you wish to purchase a second permit (called a duplicate) for a vehicle you also own, they are just \$8 but only if purchased at the same time as your original, full-price permit. That's the rule regardless of whether

you purchase your permit by mail, online, or in person.

So the key is to purchase early, and consider using our website order form. See you at the parks!

**Note: NNRD park permits are valid only at Kirkman's Cove, Iron Horse Trail Lake, Wirth Brothers Lake, and Duck Creek Recreation Area. (Our permits are not valid at Lake Wanahoo -- those may be purchased from the Lower Platte North NRD.)*

Order Park Permit

**Nemaha
NRD
Annual Park
Permit**

Expires Dec. 31, 2021

Chemigation Permits Due May 31

If you plan to apply chemicals to your crop fields through an irrigation system this year, you will need a chemigation permit from the NRD. All current permits expire on June 1, so you will need to submit your paperwork and payment by that date to qualify for a lower, renewal fee. After May 31 you would be subject to the higher, new permit fee. Letters went out to all current applicators; but if you didn't receive a letter or have a new permit, contact the NRD office to obtain the proper paperwork.

NEMAHA NRD OFFICE:



62161 Hwy 136
Tecumseh, NE 68450
Phone: (402) 335-3325
Fax: (402) 335-3265
www.nemahanrd.org

The Nemaha NRD's *Insight* is a publication of the Nemaha Natural Resources District. Requests to be placed upon the *Insight* mailing list and/or comments regarding information in this publication should be directed to Jane Kuhl, Administrative Assistant, at the above address or at nrd@nemahanrd.org.