Register to Attend 2021 Great Plains Fire Summit

Join us for the 3rd biennial Great Plains Fire Summit and Patch Burn Grazing in North Platte, Nebraska.

The Nebraska Prescribed Fire Council (NPFC) is hosting the conference. Between 350-400 people are expected to attend from across the Great Plains for three days of fire science, best practices, round tables, tours and networking.

This can't miss conference is filled with state and regional information about prescribed fire with plenary and breakout sessions on: • Wildlife & Fire

- Cattle and Fire
- Producer Stories Lessons Learned
- Burn Planning Weather and Climate
- Prescribed Fire Banguet
 Equipment Demo

Time: 8:00 a.m. - 5:00 p.m.

Date: Tuesday- Thursday, September 21-23 Location: Ramada by Wyndham - Sandhills Convention Center, North Platte, NE

The Nebraska Prescribed Fire Council (NPFC) is organizing the Great Plains Fire Summit and Patch Burn Grazing Conference. The NPFC was formed by landowners for the purpose of promoting the common good and general welfare of the people in Nebraska by educating, training, and practicing safe prescribed burn techniques that reduce or eliminate invasive species and fuel load build-up in open spaces, providing fire protection and/or prevention from wild or unexpected fires in and near these burned open places.

Don't miss this opportunity to be around prescribed fire advocates from across the Great Plains! For additional information, check out **nefirecouncil.org**

Register at: https://greatplainsfiresummit.eventbrite.com

Sponsors include Nebraska Prescribed Fire Conference, Pheasants Forever, Quail Forever, Great Plains Fire Science Exchange, Oklahoma State University, Texas A&M Agrilife Extension, South Dakota State University

Grazing Deferment Cost-Share Payment Increased

Cost-share payments through the NRD's Grazing Deferment Program have increased to \$30 per acre with a maximum of \$30,000 per landowner per year. The Grazing Deferment Program was implemented to provide an incentive for landowners to defer grazing in a pasture for one growing season so that a prescribed burn can be successfully applied in the following year to help in cedar reduction.

Priority is given to lands that will be concurrently enrolled in EQIP or WHIP programs through the NRCS or within a CPNRD focus project area for cedar reduction. Documentation that the land was deferred from grazing from



March 1st through the end of the calendar year in the year prior to burn must be provided before the cost-share payment is made. A field visit will also be done before payment will be made.

Your Contacts: Kelly Cole or David Carr (308) 385-6282 cole@cpnrd.org carr@cpnrd.org



Photo/Art Contest/Prizes
 Regional Awards
 Prescribed Burn Associations
 Loess Canyons Field Tour

Important Dates

Nitrogen Certification test due * January 1 * March 31 * April 1-June 1 * April 15

- * June 1
- * Sept 1- March 1
- * September 15
- * Nov 1 April 1
- Chemigation applications due Transfer applications for irrigated acres accepted Chemigation reinspections must be completed

Follow Central Platte NRD on:

Subdistrict

- At-Large Keith Ostermeier, Grand Island (Treasurer)
- Jay Richeson, Gothenburg
- Dwayne Margritz, Lexington
- Marvion Reichert, Elm Creek
- Lon Bohn, Gibbon
- Deb VanMatre, Gibbon (Secretary)
- Jerry Milner, Grand Island
- Jerry Wiese, Grand Island (Vice-Chairman)
- LeRoy Arends, Grand Island
- Ed Kyes, Central City
- Chuck Maser, Grand Island 10

Staff

Resources Conservationist: Bill Hiatt General Manager: Lyndon Vogt Resources Conservationist: Shane Max Assistant Manager: Jesse Mintken Secretary/CPNRD: Deb Jarzynka Administrative Assistant: Kelly Cole Secretary/NRCS-Grand Island: Jackie Luebbe Cozad Ditch Manager: Michael Schmeeckle Secretary/NRCS-Central City: Sara Umstead Cozad Ditch Rider: Jake Laird Secretary/NRCS-Lexington: Samantha Keith Easement Habitat Specialist: Krystal Bialas Secretary/NRCS-Kearney: Shelly Lippincott Easement Habitat Specialist: Elison Wagner Secretary/Thirty Mile Irrigation District: Marci Ostergard GIS Coordinator: Angela Warner Thirty Mile Irrigation District Manager: Jim Harris GIS Image Analyst: Luke Zakrzewski Thirty Mile Irrigation District Technician: Mike Ostergard Hydrologist: Brandi Flyr UNL/CPNRD Demo Project Coordinator: Dean Krull Information/Education Specialist: Marcia Lee Precision Conservation Specialist: Morgan Wrich Water Quality Specialist: Tricia Dudley Water Resources Specialist: Dan Clement Projects Assistant: Tom Backer Water Resources Technician: Courtney Widup Range Management Specialist: David Carr

CENTRAL PLATTE IN PERSPECTIVE

Volume 25 No. 6 August 2021

Central Platte NRD Newsletter

- Crop Report forms due for Groundwater Management Program
- Nebraska Children's Groundwater Festival- Virtual Event
- CPNRD-Ron Bishop Memorial College Scholarship applications due
- Tree and weed barrier orders accepted



Board of Directors

- Brian Keiser, Gothenburg Tom Downey, Lexington Steve Sheen, Kearney Ryan Kegley, Kearney Jim Bendfeldt, Kearney Mick Reynolds, Wood River (Chairman)
- Ed Stoltenberg, Cairo Alicia Haussler, Grand Island Doug Reeves, Central City Barry Obermiller, Grand Island

Grand Island NE (308) 385-6282 215 Kaufman Ave cpnrd.org

New Staff and New Office in Cozad

Wrich Hired as Precision Conservation Specialist

Central Platte NRD hired Morgan Wrich as Precision Conservation Specialist through an agreement with the Illinois Corn Growers Association in July. Wrich will be housed at the Cozad Field Office (see below).

Precision Conservation Management (PCM) is a program designed to help farmers evaluate new conservation practices on both their impact to the environment and their profitability. CPNRD, in conjunction with PepsiCo and the Nebraska Corn Board, has the unique opportunity to implement this program in Nebraska with Frito Lay (PepsiCo) growers in the western area of the District.



Morgan Wrich will begin employment in August for the Precision Conservation Management Program.

Wrich said her main objective is to help farmers secure financial and technical assistance to adopt and/or expand their conservation practices by providing customized reports summarizing both sustainability and financial impacts of their current farming operation and generating environmental and financial comparisons with other farming practices.

Approximately 100 farmers will participate in the PCM program. Wrich will also coordinate with other partners to conduct farmer meetings and trainings. The program originated from the Illinois Corn Growers Association and is funded by the USDA NRCS – Regional Conservation Partnership Program.

Your Contact: Morgan Wrich (308) 385-6282

New Field Office

Central Platte NRD recently opened a field office in Cozad at the Thirty Mile Irrigation District headquarters. The new building has two offices and four bays to hold equipment. Shane Max, Resources Conservationist, and Morgan Wrich both have offices at the new building.

Also In This Issue

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- Staff Spotlight: Dan Clement
- Spring Groundwater Levels Down Slightly
- Nitrate Concentrations Down 10%
- New Drop Structure & Flood Monitoring
- Register for Great Plains Fire Summit
- Grazing Deferment Payment Increased



Central Platte NRD's newly constructed field office is located at 75887 Road 414 in Cozad. Nebraska.

Wells: Registration and Decommissioning

Importance of Registering Your Wells

Well owners are responsible for registering existing wells that have not been previously registered. Registering your well will provide protection from encroachment since state statute requires new irrigation wells to be drilled at least 600 feet from existing registered irrigation wells under separate ownership. Failure to register a water well is also a Class IV misdemeanor. Nebraska's 23 Natural Resources Districts (NRDs) use this groundwater well registration information for management decisions when declines and shortages of ground water occur. State and federal agencies use the information for studies, state compacts and agreements that deal with water quality, water quantity and surface water issues between Nebraska and its neighboring states.

NEW! The Nebraska Department of Environment and Energy recently launched the Nebraska Groundwater Quality Clearinghouse website with over 1.6 million sample results from 33,000 irrigation well locations taken by the NRDs. Key features of the map are well locations, nitrate measurements, along with 281 minerals and chemicals whose well compositions were analyzed. The map also showcases aquifer locations, topographic regions and bedrock geology.

The site has practical uses for the public. Farmers can check the composition of existing groundwater for chemical content to see how much fertilizer they will need, and gauge which locations have land suitable for raising livestock. Visit the website at **clearinghouse.nebraska.gov**

The fee to register a well that pumps 50 gallons per minute (gpm) or less is \$70. Wells that pump greater than 50 gpm is \$110. Forms are available at **dnr.nebraska.gov/groundwater/forms.**

CPNRD does not charge to help register irrigation wells. The Irrigation Well Registration Verification Program was developed to assist landowners to verify proper registrations of their wells. A proper registration has the accurate location of the well, the correct ownership information and a registration number that matches the records of Nebraska Department of Natural Resources (NeDNR).

> Your Contacts: Dan Clement (308) 385-6282 dclement@cpnrd.org NeDNR (402) 471-2363

Well Decommissioning Cost-Share

Wells no longer usable are to be decommissioned according to State regulations and must be decommissioned by a licensed water well contractor. It's important to decommissioning old wells to:

- prevent vermin, debris or other foreign substances from entering the well or bore hole.
- eliminate the safety risk of an open hole for people, animals, and farm machinery.
- prevent contaminants from entering into the groundwater.

CPNRD's Well Decommissioning cost-share rate is 60% with a maximum of \$750 for irrigation wells, \$1,500 for hand-dug wells and \$500 for wells that pump 50 gallons or less. Replacement wells are not eligible for costshare. You must apply for cost-share prior to decommissioning your well.

Your Contact: Kelly Cole (308) 385-6282 cole@cpnrd.org

Staff Spotlight: Dan Clement

Dan Clement has been CPNRD's 'well guy' for 33 years. He issues well permits, updates well registrations, measures surface flow in rivers and streams, oversees monitoring well installations and measures irrigation well flows using an ultrasonic flow meter. He also takes GPS locations of exisiting wells and assists with the Variance/Appeals Program.

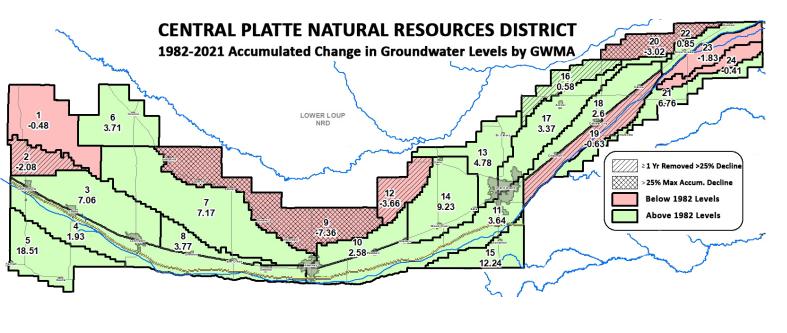
Dan is also involved with the NRD's Water Quality Program. He helped set up the sampling protocol for the Quality Program, works with UNL on vadose zone studies, takes water guality samples, assists with well decommissioning and each summer he inspects chemigation systems. When he has time, Dan also assists with the prescribed burn program and the Groundwater Guardian's Outdoor Learning Area at the Nebraska State Fair.

Contact Dan at (308) 385-6282 dclement@cpnrd.org

Spring Groundwater Levels Down Slightly

The spring 2021 static groundwater levels are down slightly district-wide compared to 2020 groundwater levels; however, there are no areas that require management changes. CPNRD staff measured 381 wells this spring for the Groundwater Management Plan. Currently, eight of the 24 Ground Water Management Areas (GWMA) are below the levels recorded in 1982.

The Management Plan uses 1982 groundwater levels as the standard to establish both maximum acceptable declines and a margin of safety for each of the 24 management areas. When an area's average groundwater level declines through that margin of safety, controls are mandated to slow the decline. The plan was developed with a phased program to implement those controls when needed. Maximum acceptable declines range from 30' in the western end of the District to 10' in the eastern end. If the water table falls to 50% of that maximum decline, Phase II would go into effect for the area triggering reductions in irrigated acres and spacing limits established for new irrigation wells. 70%, 90% and 100% of maximum acceptable declines trigger Phases III, IV and V controls respectively, mandating additional cutbacks in irrigated acres and increased spacing limits for new wells.



Nitrate Concentrations in Groundwater Down 10%

A three-year study of vadose zone nitrate conducted by UNL graduate student Jordan Shields compared 27 locations within the Central Platte NRD on a variety of land uses, topography and soil type with previously cored areas in the 1990's. The study included nitrate storage under 24 sites including five gravity irrigated sites and 22 center pivot irrigated cropland.

Of the 660 wells sampled, results showed a 10% reduction of vadose zone nitrate in the groundwater since the 1990's; however, overall averages show vadose zone nitrate about 30% higher than the average nitrate levels under the gravity irrigated land. Vadose zone nitrate ranged from 71 to 8,860 pounds per acre of nitrate-N district-wide. Using changes in depth of nitrate concentration peaks, the transport rate (rate in which nitrate contamination travels) was determined at 0.9 to 2.5 feet per year.

The study also found several cores with over 2,000 pounds per acre of nitrate-N and significant concentrations of ammonia at depth in many locations. The report recommended further investigation of Phase II areas and in locations with vadose nitrate measuring more than 2,000 pounds per acre.



Old wells such as this pose a threat to your

health, safety and the

environment

Dan Clemen CPNRD Water Resources Specialist

Your Contact: Luke Zakrzewski (308) 385-6282 luke@cpnrd.org

New Drop Structure and Flood Alert Monitoring Project at Upper Prairie/Silver/Moores Creek Project

DROP STRUCTURE

Reconstruction of the drop structure that failed during the March 2019 flood event at the Upper Prairie/Silver/Moores Flood Reduction Project (PSM) northwest of Grand Island was completed in June.

JEO Engineering designed and constructed the drop structure to protect the streambed of Silver Creek upstream of the detention cell.

The streambank was regraded and protected with riprap in eroded areas along 1,000 linear feet of the streambank. Blessing LLC of Kearney constructed an earthen berm and



New sheet pile drop structure with grouted low water crossing. Silver Creek and Schaupsville Road.

crushed concrete access road around portions of the detention cell. Other improvements included 850 cubic yards of dirt work and 2,600 tons of crushed concrete base and white limestone. Funding for the drop structure was provided with cost-share through the NRCS Emergency Watershed Protection Program.

FLOOD ALERT MONITORING PROJECT

In 2019, real-time monitoring and data logging equipment was installed at the PSM site. Water level sensors, cameras and rain gauge sensors were placed at strategic locations. The next phase of the Flood Alert System and Monitoring Project was approved by the board of directors this spring.

Monitoring equipment will be deployed and data loggers will be placed at the same locations as previous years. The data collected will be processed, models will be calibrated, and maps will be generated for various flood scenarios. The new system measures real-world conditions and variability that will support the NRD's flood risk awareness and preparedness efforts. Additional monitoring equipment including boxes, gauges and cameras will be also installed through the project area.

Learn more about the PSM project at: https://www.floodsafe-cpnrd.org/



What Funding Is Available to Improve Irrigation Efficiency?

The Central Platte NRD and the Natural Resources Conservation Service (NRCS) both offer irrigation water management cost-share programs to landowners and tenants for underground irrigation pipeline, flow meters, capacitance probes, center pivots and subsurface drip irrigation systems. Implementing irrigation water management practices can provide the following benefits to your operation:

Improved irrigation efficiency

- Increased yields
- Reduce runoff, erosion, and nutrient leaching
- Reduce labor and energy use

To learn more about CPNRD and NRCS cost-share programs and how they can fit in to your operation visit www.cpnrd.org/cost-share or call CPNRD at (308) 385-6282. You may also call your local NRCS office:

Central City (308) 946-2251 Ext. 3 Kearney (308) 237-3118 Ext. 3 Osceola (402) 747-2461 Ext. 3

Grand Island (308) 395-8586 Ext. 3 Lexington (308) 324-6314 Ext. 3