

June 25, 2021

PRESS RELEASE

Vadose Zone Nitrate Reduced by 10% within the Central Platte NRD

(GRAND ISLAND, NE)- Dr. Dan Snow, director of Water Sciences Laboratory, UNL, reported on a three-year study of vadose zone nitrate at Central Platte Natural Resources District's (CPNRD) Board of Directors meeting on Thursday. The report, conducted by UNL graduate student Jordan Shields, documented previous vadose zone monitoring in the 1990s and analyzed 27 deep vadose zone cores to characterize nitrate, ammonia, and moisture content under different land use; as well as estimate stored nitrate-N and nitrate transport rates.

Snow said of the 660 wells sampled results showed a ten percent (10%) reduction vadose zone nitrate in the groundwater since the 1990's; however, there is a significant amount of nitrate-N ranging up to 8,800 pounds of nitrate-N per acre. The Nitrate-N transport rates are 0.9 to 2.5 ft/year. Snow added that vadose zone nitrate-N in Phase 2 areas is higher than average groundwater nitrate-N.

Both gravity and center pivot irrigated cropland were studied to compare changes in nitrate storage under 24 sites. Overall averages show vadose zone nitrate about 30% higher under gravity irrigated land. The study also found several cores with over 2,000 lbs./acre nitrate-N and significant concentrations of ammonia at depth in many locations. Snow recommended further investigation of Phase 2 areas and locations with vadose nitrate >2,000 lbs./acre.

ACTION/AGENDA ITEMS

-Draft Budget The board approved the 2022 Fiscal budget of expenditures to hold a public hearing at 1:45 p.m. on July 22, 2021, just prior to the July board meeting. The total proposed budget is \$24 million, the same as the 2021 budget. Major expenditures in the proposed budget are \$4.6 million to meet future Integrated Management Plan compliance and \$2.1 million in WFPO grants to complete watershed assessments. The levy will be set at the August board meeting to be held September 2nd to accommodate the advertising requirements as valuations are not available from the counties until August 20th.

-Groundwater Levels Luke Zakrzewski, GIS Image Analyst, reported that the spring 2021 static groundwater levels are down slightly district-wide compared 2020 groundwater levels; however, there are no areas that require management changes. CPNRD staff measured 381 wells this spring for the Ground Water Management Plan. The 1982 levels were established as the standard with maximum acceptable declines and a margin of safety calculated for each of the 24 Ground Water Management Areas (GWMA). As an area's average groundwater level declines through that margin of safety, controls are mandated to slow the decline.

In 1987, the Groundwater Management Plan was developed with a phased program to implement those controls when needed. The maximum acceptable decline ranges from 10' in the eastern end of the district to 30' in portions of the western end. If the water table falls to 50% of that maximum decline (5'-15'), Phase II goes into effect for the area, triggering mandatory reductions in irrigated acres and establishing spacing limits for new irrigation wells. Further declines to 70%, 90% and 100% of the maximum acceptable decline trigger

Phase III, IV and V controls respectively, mandating additional cutbacks in irrigated acreage and increased spacing limits for new wells. Currently, eight of the 24 GWMA's are below the 1982 levels. (*Map attached*)

-Crane Viewing Site Construction Morten Construction, LLC., from Kearney, NE was selected for the Richard Plautz Crane Viewing Site Trail Improvements project near Gibbon, NE. CPNRD received bids from Morten Construction, Diamond Engineering, and Myers Construction; Morten Construction was the low bidder. The bid must also be approved by the Nebraska Game and Parks Commission. CPNRD received a Recreational Trails Program (RTP) grant in the amount of \$259,500.00 for trail improvements including removal of 1,660 LF of deteriorated asphalt on the nature trail and replace it with an 8' wide, 6" thick concrete trail. A 1,033 sq yard gravel parking lot with 8" thick concrete will also be constructed. CPNRD will contribute a 20% matching share.

CPNRD also received a Nebraska Environmental Trust grant for the project in the amount of \$50,000 to be used exclusively for repairs on the streambank near the viewing decks. The NRD will remove two large trees, install 2,700 LF of erosion control silt fencing, install 803 ton of quartzite riprap on the southeast side of Lowell Road bridge. The funds will also be used to seed and mulch the new nature trail. Construction is expected to begin this August with a completion date on or before December 15, 2021.

-Centura Preschool Outdoor Classroom The board approved an application from Centura Preschool in the amount of \$1,619.73 to install bird feeders, above ground gardens and seven trees. The outdoor classroom will primarily be utilized by Centura Public School's four preschool classes to teach about natural resources and wildlife and to introduce concepts of science, math, reading, and art. The project will be maintained by the school maintenance crew and PK-5 elementary teachers. The project is scheduled for completion this fall.

-Potential New Building The board reviewed costs and design of a potential new building complex and voted to pursue an educational component through existing Nebraska Natural Resources Conservation grant funds.

-Tree Report Kelly Cole, Administrative Assistant, report that 30,825 tree seedlings were sold through the NRD Conservation Tree Program this spring. CPNRD also sold nearly seven miles of fabric weed barrier. Since the programs were established, CPNRD has sold 3,811,293 tree seedlings and 600 miles of weed barrier.

-Managers Report The following was reported for General Manager Lyndon Vogt:

Legislative Report (LR23): LR23 called for the Natural Resources Committee of the Legislature to conduct an interim study to assess the progress of natural resources districts relative to the purposes for the creation and existence of the 23 NRDs in Nebraska. All NRDs received a *NRD Project/Progress LR23 Report* questionnaire to complete and return by June 21, 2021. The report was completed by CPNRD and ratified by the board.

Surface Water Exchange Agreements: Two surface water exchange agreements for this irrigation season have been signed by CNPPID, PRRIP and CPNRD. They were forwarded to the Nebraska Community Foundation for signatures last week. The partners are working towards a multi-year agreement instead of an annual agreement for the water from the three surface water irrigation districts we partner with. This water allows us to meet our IMP goals and sell the portion we do not need for compliance to the PRRIP to assist them in meeting their water goals. The agreement allows us to store the water in Lake McConaughy as controllable water that is added to the environmental account for PRRIP use.

Cease and Desist Update: 11 producers remain in violation of the Nitrate Management Program. On June 7th, letters were mailed to the violators concerning cease and desist orders they received following the April board

meeting. Mike Munsterman, William Soll and Richard Urban are still in violation from last year and have not completed required reports for 2021.

New Staff: CPNRD is currently advertising for a Precision Conservation Management Specialist to work with the Frito Lay growers that serve the Gothenburg facility. The position is funded 100% through a RCPP grant received by the Illinois Corn Growers Association (ICGA). Training will be provided by ICGA. The job description is available at www.cpnrd.org. Two applicants were interviewed this month for the Prescribed Fire Planning Specialist position that will be funded 90% by a grant through the Rainwater Basin Joint Venture.

-Natural Resources Conservation Service Jacob Kendrick, Resource Conservationist, reported on the following programs for the Central City Field Office.

CPNRD Cost-Share: 10 Applications approved for \$52,864. 5 Pivots, 2 Windbreaks, 1 Flow Meter.

NSWCP: 3 Applications approved for \$15,000. Underground pipeline. 1 was canceled late due to Z riser costs.

EQIP: 50 apps with 7 approved for \$136,334. 1 Pivot, 1 SDI, 2 Livestock Systems, 2 Cover Crops, 1 High Tunnel.

CSP: 2 Renewals and 1 General were approved for \$427,253. Enhancements included advanced Irrigation Water Management, Cover Crop and Monarch Habitat.

NE Soil Carbon Project: The new program outreach seems to be effective through radio advertisements.

Staff: Sara Umstead was hired in September as the new District Secretary. She is a Merrick County local currently living near Palmer, NE. Jaden Russel is the new Soil Conservationist and started his employment on June 6th. Russel recent graduated from UNK and serves in the NE Army National Guard.

Joe Krolkowski, District Conservationist, reported that during the month of May the NRCS, as part of its responsibility in carrying out the conservation provisions of the National Food Security Act of 1985, conducted annual status reviews in the CPNRD and across the state for the 2021 crop year. The four field offices within CPNRD completed 68 status reviews this year. NRCS staff evaluated each tract for potential wetland and/or highly erodible land issues. Krolkowski said in some cases tracts contained both.

-Cost-Share Two cost-share applications for well decommissioning were approved through the Nebraska Soil and Water Conservation and the Central Platte NRD in the amount of \$1,250.

-Executive Session The board went into executive session to discuss contract negotiations and legal issues. No action was taken.

-Staff Presentations Shane Max, Resources Conservationist, and Courtney Widup, Water Resources Technician, presented on their staff responsibilities.

-Upcoming July 22 – 1:45 p.m. Public Budget Hearing | 2:00 p.m. Board of Directors Meeting

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