

June 1, 2017

## NEWS RELEASE

### UNL Presents Vadose Zone Nitrate Findings

(GRAND ISLAND, NE) – Dr. Dan Snow, director of Water Sciences Laboratory, UNL, gave a progress report on the Central Platte Natural Resources District (CPNRD) Vadose Zone Nitrate Study at CPNRD’s board of directors meeting on Thursday. Core samples were collected for vadose zone nitrate including some areas that were sampled in the 1990s. The report showed locations of the first eight core samples collected with comparison of nitrate profiles to previous time periods, and estimation of nitrate transport rates at each location.

As part of this three-year vadose zone study, approximately 27 sites collected across the CPNRD between 1990 and 1996 have been digitized and are being used to compare recent profiles at these sites to determine how fast nitrate is moving and whether changing land use management has resulted in reduced loading of nitrate in the vadose zone. These sites are all being used for agricultural production. The first eight sample results indicate that lowering nitrogen fertilizer amounts applied, reducing irrigation water applied, and changing land use practices at the surface may be lowering the nitrate concentrations in the vadose zone.

#### OTHER ACTION/AGENDA ITEMS

**-Bid Letting** The board awarded the Phase II construction bid for the Upper Prairie/Silver/Moores Creek Flood Control Detention Cell Project in Hall County to Hooker Brothers Construction Company of Grand Island in the amount of \$2,246,959.00. Nine bids were received to excavate 1,036,300 million cubic yards of dirt for the detention cell. Hooker Brothers had the low bid, which was \$1,175,041 below the engineer’s estimate. Construction will begin in mid-July and be completed by May 1, 2018. A bid letting will be held this fall for construction of the levy to be located on Engleman Road.

**-Hearing Requirements** Don Blankenau, BWJ attorney, met with the Water Resources Committee to discuss possible changes to the hearing process used for variances, cease & desist, and water quality notices. Staff will include the recommended changes in District’s Rules and Regulations; which are currently being reorganized. Once completed and reviewed, the board will hold a public hearing on the proposed changes.

**-Joint Weed Management Position** The board approved partnering with the Tri-Basin NRD, Nebraska Public Power District, Central Nebraska Public Power & Irrigation District, to hire a weed management specialist to serve as both the Phelps County Weed Management Superintendent and the Platte Valley Weed Management Area coordinator. The Platte River Program will provide funding for the chemicals. CPNRD will provide \$10,000 annually towards the position with the stipulation that the other partners participate as proposed.

**-Cover Crop Groundwater Impact Study** Two proposals were received for the study. The Lower Loup NRD and Central Platte NRD both recommended EA Engineering, Science, and Technology, Inc. of Lincoln, NE, to be awarded the bid in the amount of \$320,000 to conduct a four-year study to determine the impacts on groundwater due to cover crop management. Central Platte and Lower Loup NRDs will split the cost of the project and are seeking assistance to identify and develop grant applications to aid in funding the study. The Lower Loup Basin and Central Platte River Basin have diverse soil type and cropping practices that can affect both water quantity and water quality. The proposal will develop and implement a study that will determine the general influence of cover crops on soil moisture, groundwater recharge, and movement of nitrate in the soil. The main geographic region for consideration is the Loup and Central Platte River Basins, more specifically, the area between the South Loup River and Wood River that has experienced groundwater declines. The study will include both irrigated and dryland cropped fields and span multiple years. Identification of landowners, mobilization, and installation of field equipment is scheduled this fall, with a final study report to be presented in March 2021.

**-Spring Excess Flows** Duane Woodward, engineering hydrologist, reported that there hasn't been "a very big window" to divert excess flows on the surface water canals that CPNRD co-manages in Dawson County. Since April, Cozad Canal has diverted 2,600 acre-feet (AF) and the spillway has returned 156 AF. Delivery, evaporation, and seepage totaled 2,444 AF; and the excess flow recharge was 408 AF. Thirty Mile Canal has diverted 30,050 AF and the spillway return was 7,973 AF. Delivery, evaporation and seepage totaled 22,077 AF; and the excess flow recharge was 1,259 AF.

**-NRCS Conservation Client Gateway** Joe Krolkowski, NRCS district liaison, reported on the new NRCS Conservation Client Gateway program that allows landowners and producers to work with technicians and apply for financial assistance online. The online program saves landowners time and the cost of driving to the service centers. Contact your local NRCS for information.

**-Legislation** Mark Czaplewski, biologist, reported on the key changes for natural resources programs including:

-Reduction of funding for the Riparian Vegetation Management program by \$500,000 to a funding level of \$475,000 annually.

-A \$926,480 annual reduction of research and data collection functions for the Department of Natural Resources. The Appropriations Committee recommendation reduces the agency's funding to procure contractual services and temporary staff to conduct research in support of initiatives planned and/or underway for the Integrated Water Management and Interstate Water Agreements functions.

-A \$200,000 reduction annually in funding for stream gauging, information technology and other equipment for the Department of Natural Resources.

-A \$436,669 annual reduction in funding for the Soil and Water Conservation Fund. The funds are allocated to NRDs annually to provide cost-share to landowners to implement conservation programs and practices.

**-Cost Share** The board approved five applications in the amount of \$39,927.50 through the Nebraska Soil & Water Conservation and CPNRD cost share programs. Practices approved were grassland conservation, soil moisture sensor and well decommissioning.

**-Budget-** The Budget Committee reviewed the 2018 Fiscal budget. The board will now review the budget and take action to approve it at the June 22<sup>nd</sup> board meeting for the purpose of holding a public hearing in July.

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