

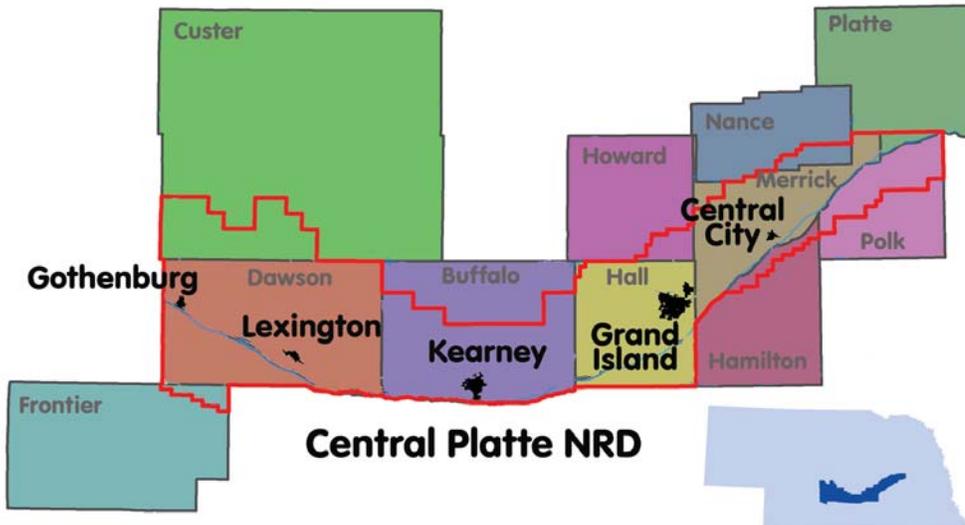
# KNOW YOUR NRD

Central Platte  
Natural Resources District  
Grand Island NE



Nebraska's Natural Resources Districts  
Making the Good Life Better Since 1972

Fall 2018



## NRD QUICK FACTS

Central Platte NRD manages natural resources for all or parts of 11 counties along the Platte River.

### RIVER SYSTEM

- Platte River: 205 miles
- North Channel: 49.9 miles
- Wood River: 173 miles

### WATER MANAGEMENT

1,028,616 irrigated acres  
936,894 groundwater only acres  
14,356 surface water only acres  
77,129 co-mingled acres

575 wells are monitored both in the spring & fall for water levels. 1/3 of those same wells are also monitored for nitrates.

## Protecting Lives

### Water Quality Management for 30 Years

In 1987, Central Platte NRD's Groundwater Quality Management Progra was the first in the Central Platte Valley to address widespread high groundwater nitrate problems. Over the last 30 years, nitrate levels in the groundwater and vadose zones have been reduced using a long-term management approach.

Before the Program was initiated, nitrate levels in some areas increased to 19 parts per million (ppm); with the current average down to 14 ppm.

Several changes have been made over the years. Cost-share practices to help producers reduce water usage and the amount of fertilizer applied were modified to implement new practices. The NRD's reporting requirements have also evolved to an online form to save producers time and to save taxpayers money. Prior to using the online form, the data compliance officer would

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## Protecting Property

### Central Nebraska Irrigation Project Launched

It's about the size of a Roomba, but it collects much more than pet hair. Nineteen farmers in the District began taking the Arable Mark for a test drive this year, as part of the Central Nebraska Irrigation Project. The field-level weather and crop monitoring device collects over 40 different data streams on things like precipitation, evapotranspiration, solar radiation, plant health, weather, harvest timing, and much more.

CPNRD partnered with The Nature Conservancy (TNC) on the project. TNC implemented the smart weather sensor technology in western Nebraska with success and were eager to test it in central Nebraska. The effort is funded

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**ARABLE MARK**  
*Installed infield or edge of field. Accessible via mobile device and computer.*

## Protecting the Future

### Floodplain Map Revision Receives Conditional Approval

Floodplain maps for northwest Grand Island and portions of Hall County are one step closer to being revised to reflect flood risk reduction efforts of Central Platte NRD, the City of Grand Island, and Hall County.

In August, FEMA approved a Conditional Letter of Map Revision, a significant milestone for the Upper Prairie/Silver/Moores Creek Flood Control Project, and is essential to the floodplain map revision process.

The final Letter of Map Revision request will be submitted to FEMA when the levee and remaining project components are constructed.

The effective floodplain maps, can be accessed through FEMA's Flood Map Service Center at [www.msc.fema.gov](http://www.msc.fema.gov).

This project consists of construction of four dry dams, an approximately 554-acre detention cell, and a levee. It is scheduled to be completed by the end of the year.

### Water Quality Management - 30 Years (continued)

manually enter up to 7,000 forms annually. Nearly 800 producers participate in the Program and are credited for lowering contamination levels through their management efforts. Another effective learning tool are the 400 demonstration sites located on local producers' fields.

Although average nitrate levels dropped 5 ppm in 30 years, there are still high nitrate areas throughout the District. The NRD will continue to work with producers to implement best management practices and regulations as needed to reach safe nitrogen levels in our groundwater.



**PIVOT TELEMETRY**  
*Equipment installed on pivot. Data accessible via mobile device/computer.*

### Central NE Irrigation Project (continued)

by Nestlé Purina and Cargill. Innovations being used include pivot telemetry, flowmeters, and Arable Mark. By putting innovative, cost-effective irrigation technology in the hands of farmers, the amount of water needed for row crop irrigation is reduced.

The project was initiated through efforts of Midwest Row Crop Collaborative, a group of corporations and nonprofit conservation organizations focused on advancing and accelerating farmer-led conservation practices.

### Outdoor Recreation

CPNRD's Urban Conservation Cost-Share Program was implemented in 2017 to help communities establish, develop and improve public recreational areas. Funding is available for recreation area development and trails assistance.



Urban Conservation applications are accepted on an annual basis with a deadline of March 1<sup>st</sup> to be funded in the following fiscal year budget. The cost-share rate is 50% of eligible project costs up to a maximum of \$40,000 per application.

The cities of Grand Island and Kearney were the first two applications to receive funding through the Program. Grand Island received \$30,000 for the Sterling Park development to include picnic shelters, a basketball court, backstop, and benches. The City of Kearney was awarded \$17,965 to complete a design for the White-water Park Recreation Plan including stream drop structures, bank stabilization, hike and bike trail connections, park-like observation area, and a new boat ramp.

### Education



With the addition of four outdoor classrooms in 2018, CPNRD has provided funding for 20 areas! The NRD's Outdoor Classroom Program was developed in 2001 to promote the education of our natural resources through hands-on learning. Outdoor learning areas, prairie gardens, a greenhouse, rain gardens, pollinator habitat, and Monarch Butterfly habitats have all been

funded through the Outdoor Classroom Program.

Providing lessons in nature ensures that children today are growing up with meaningful daily connections to nature. When children spend time in nature-filled outdoor learning environments, research shows that conflict is replaced by pleasant and positive exploration.

### SPRING GROUNDWATER LEVELS

Accumulated groundwater levels are up 0.54' since the spring of 2017 in CPNRD. Measurements taken by NRD staff from 430 designated wells each year. Annual groundwater levels from 1982 to 2018 are down 0.31'.

1982 levels were established as the standard for CPNRD's Groundwater Management Plan with maximum acceptable declines & margin of safety for 24 Ground Water Management Areas (GWMA).

Interactive maps available at [cpnrd.gisworkshop.com](http://cpnrd.gisworkshop.com).

### INTEGRATED MANAGEMENT PLANS

Platte Basin NRDs and the Nebraska Department of Natural Resources are working together to protect and preserve Platte River water rights of existing users for surface water and groundwater.

### BASINWIDE IMP

A Basinwide IMP was developed in 2009 and is currently being updated with future goals to ensure that Nebraska is in compliance with the New Depletions Plan for the Platte River Recovery Implementation Plan. The first 10-year increment ends in May 2019, with the second increment to be completed in September 2019.

### INDIVIDUAL PLAN

CPNRD's IMP is also currently being updated. The Plan sets objectives to incrementally reduce the difference between current, fully, and over appropriated levels of development.

The NRD complied with the law by putting a stay on new development of irrigated acres without offsets and by initiating several projects that increase groundwater recharge and enhance streamflow.

Although current goals are being met, new offset requirements are required in the new Plan and drought mitigation will be included.



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