

Upper Republican Natural Resources District 2020 Report

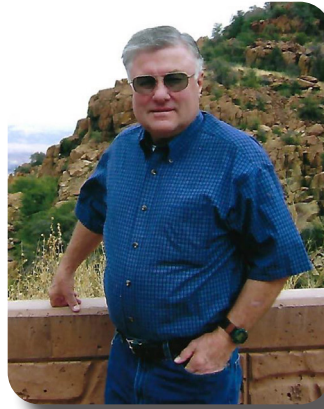
January 2021

URNRD BOARD MEMBERS HONORED BY NARD

The Nebraska Association of Natural Resources Districts is honoring two URNRD Board Members with awards this year. W. Eugene Haarberg is being inducted into the NARD Hall of Fame posthumously and current member Terry Martin is being honored as the Director of the Year.

Haarberg was a farmer in Chase and Dundy counties who had a strong passion for conserving water and natural resources which led him to be a strong asset to the NRD system. He worked with the Unicameral to establish the NRD system and the Groundwater Management and Protection Act that authorized NRDs to regulate groundwater. He served on the URNRD Board of Directors from the NRDs inception in 1972 until 2000.

Martin has been on the URNRD Board since 2003 and serves as the Chairman of the Upper Republican Board and the Nebraska Cooperative Republican Platte Enhancement Project (NCORPE) Board. He has developed a strong interest in the NRD system as a whole and is a good ambassador for the system, a role he has been able to engage as president and vice president of the NARD Board. Martin, who farms near Benkelman, is an engineer by training. The combination of technical expertise in water issues and his agricultural background have been an invaluable resource to the URNRD and NCORPE as they've assessed how projects and policies relate to ag and efforts to maintain Republican River Compact compliance. We appreciate and are thankful for all that Haarberg and Martin have done and continue to do for the protection of natural resources for future generations to come.



TELEMETRY UNITS TO PROVIDE REAL TIME WATER USAGE

Upper Republican NRD technicians continue to install telemetry units on irrigation flow meters throughout the district. These units provide real-time water usage in inches per acre that is transmitted to the URNRD.

Water usage information is transmitted every four hours and shows total volumes of water applied each hour in addition to the totalizer reading. The data will allow irrigators to view water usage at any point during the year and see how much remaining allocation and carryforward they have after accounting for the usage. Thus far, approximately 860 units that consist of a digital meter head connected to a radio module that transmits the data have been installed. Technicians are in the process of installing about 450 more and eventually all 3,300 flow meters throughout our three counties will have the new hardware. The meter itself stays the same; only the meter head is different. The project is aided by \$675,000 in federal and state grant funds and is being done in cooperation with Highline Electric Association and Y-W Electric Association, both of which developed the radio network that the URNRD is utilizing.



URNRD YEARS OF SERVICE

Tom Terryberry (Director, left) 18 years
Kerry Bernhardt (Director, right) 15 years

Thank you for your service and dedication to the protection of natural resources and the District. We wish Terryberry and Bernhardt the best as they retire from serving on the URNRD Board of Directors.



NEW BOARD MEMBERS ELECTED TO FILL OPEN SEATS

CJ Swanson and Dave Brown have been elected to the Board of Directors and will take the seats previously held by Tom Terryberry and Kerry Bernhardt. Neither sought reelection. Swanson will be the Director of Subdistrict 7; the boundaries are Southwest Imperial. Brown will hold the seat of Subdistrict 3; northcentral and western Dundy County including Haighler and southcentral and southwest Chase County including Champion. Swanson lives in Imperial and works for Frenchman Valley Produce and Brown farms south of Champion. We look forward to having them join the Board.

CREP ENROLLMENT IN URNRD HOLDS RELATIVELY STEADY

Concerns among water managers there would be a large decline in acres enrolled in the Conservation Reserve Enhancement Program (CREP) didn't come to fruition in 2020. The CREP program mitigates impacts to stream flows by paying landowners over typically 15-year contracts not to irrigate ground within approximately 2.5 miles of streams within the URNRD and elsewhere in the Republican and Upper Platte River Basins.

CREP contracts on nearly 8,000 acres expired in 2020, but most of the landowners holding those contracts chose to re-enroll in the conservation program that also benefits wildlife. Enrolled ground is seeded to native grass. About 5,750 of the nearly 8,000 acres set to expire, or nearly 72%, were re-enrolled in new CREP contracts. Additionally, there were nearly 1,000 acres of new CREP enrollments.

All told, there are now 9,342 acres enrolled in CREP, just 1,245 fewer acres than were enrolled in 2020. Higher CREP payments that track average cash rent for irrigated ground are the main impetus for the new and re-enrollments. Annual CREP payments average around \$210-\$215 per acre annually.



PARTNERSHIP PROVES DEADLY FOR NOXIOUS WEEDS

The URNRD partnered with Southwest Weed Management in September to spray an area in Dundy County for invasive weed species. Project Coordinator Jim Bowen and contracted Drone Pilot Wesley

Prosser, of Lamar, along with Dundy County Weed Superintendent Rick Delin were able to spray the hard-to-access dried up pond near Benkelman. The Upper and Middle Republican NRDs provided financial support to SWWM to help prevent the spread of invasive species and to aid the flow of the Republican River and its tributaries along with grant funding from Neb. Environmental Trust and Neb. Dept of Agriculture.



2020 WATER USAGE

The dry weather in 2020 led to higher water usage for the District, which is to be expected. While this year's average was higher than years past, it was below the approximately 18.5" per-acre average in 2012, which was another historically dry year. The URNRD Integrated Management Plan (IMP) goal is to keep our pumping average under 433,926 acre feet annually over the long term, which for IMP purposes is considered 12 years. District-wide average pumping has been below 433,926 acre feet for four of the past six years, as seen in table 1. Despite it being a dry year, we were able to continue our goal of limiting streamflow depletions and did not have to operate either of our augmentation projects.

District Average:
14.4 inches/acre
Chase County Average:
15.2 in/ac
Dundy County Average:
12.9 in/ac
Perkins County Average:
14.7 in/ac



Year	Pumping
2014	370,392
2015	434,374
2016	388,715
2017	440,644
2018	349,833
2019	344,393
2020	516,982

TABLE 1

TECHNOLOGY UPDATES AT THE URNRD

The URNRD is implementing tools to improve communication with our constituents using cloud-based technology. You can now text or call, whatever is most convenient for you, our main office number at (888)883-9066 to get your questions answered or find the information you need. We will be utilizing our texting capabilities to provide more useful and timely reminders and notices to producers, while saving trees and money previously used to send out these notices.

Digital reporting is also being made available. Your water use, water quality, well measurements and chemigation reports are all going to be available to you online. Links to your reports will be delivered via email, text, or both that allow the downloading of these reports to print or share as you see fit.

2021-22 SOIL PROBE COST-SHARE PROGRAM UPDATE

Continued success for the soil moisture probe cost-share program allows the URNRD to secure grant funding for the program for the next two years.

The URNRD was awarded a \$123,840 grant from the State of Nebraska's Water Sustainability Fund to provide cost share for soil moisture probes in 2021 and 2022. We expect to begin accepting applications in early 2021. The funds are available on a first come, first serve basis and we will announce when we begin taking applications and make another announcement when we can no longer accept applications.

The URNRD has had cost-share programs to incentivize the use of soil moisture probes since 2011. Research indicates that use of the probes can reduce irrigation applications by 1"-2" annually. Discussions with irrigators who regularly use probes verify those figures. Since the program began, approximately 785 probes have been installed on more than 100,000 acres in the District.

The 2021 program will be similar to previous years: The NRD will reimburse growers for half the cost of up to three probes.

The District sells traditional moisture probes that allow growers to pull soil core samples from a depth of up to 30". To buy a probe from the District, call the office at 888-883-9066 or email urnrd@urnrd.org.



GROUNDWATER MODEL NEARING COMPLETION

The URNRD is developing a groundwater model to define current groundwater elevations and flow in the aquifer beneath the URNRD, predict future groundwater elevations, and evaluate potential water management strategies' abilities to minimize or prevent future groundwater elevation decreases in the URNRD. The model will determine the best method to manage groundwater use in the future to minimize declines and provide sufficient groundwater for all needs in the URNRD. Over time, the model will track the predicted versus actual groundwater levels to ensure that the selected management plan is performing as intended.

Currently, the model calibration is being refined so the model results match measured groundwater elevation data. Once the calibration is complete, the model will be extended into the future and potential water management strategies will be developed and evaluated.

Engineering consultants The Flatwater Group and Olsson Associates have aided in data refinement and operational aspects of the model. Their work has been partially funded by a \$243,000 grant from the State of Nebraska's Water Sustainability Fund.

DON'T FORGET YOUR TREES



Tree sales have been declining, help us get them back up!
We are accepting tree orders from now until the end of April. Some species have lower numbers this year so get your orders in early to have a better chance of getting the trees you want. The order form is available on our website at urnrd.org.
2020- 6,500
2019- 12,675
2018- 41,1175
2017- 41,323
2016- 13,500



URNRD STAFF

NRD Office, Imperial

Jasper Fanning, General Manager
Deb Hayes, Administrative Assistant
Nate Jenkins, Assistant Manager
Bruce Curtis, Assistant Manager
Mike Nesbitt, Conservation Programs Coordinator (Perkins County)
Cooper Bollman, Conservation Technician (Chase County)
John Lemon, Conservation Technician (Dundy County)
Todd Burrell, Conservation Technician (Rock Creek)
Julia Strand, Water Program Specialist
Danielle Haarberg, Information and Education Specialist
Dwain Curtis, Part-Time Conservation Technician

NRCS Field Office Secretary
Wilma Zimbelman, Imperial

URNRD BOARD OF DIRECTORS

Sub-District 1 - Janice Stroup, Benkelman
Sub-District 2 - Terry Martin, Benkelman
Sub-District 3 - Dave Brown, Champion
Sub-District 4 - Jason Kunkel, Lamar
Sub-District 5 - Harry Merrihew, Imperial
Sub-District 6 - Dean Large, Wauneta
Sub-District 7 - CJ Swanson, Imperial
Sub-District 8 - Tyler Turner, Grant
Sub-District 9 - Tom Schroder, Grant
Sub-District 10 - Jay Lee, Madrid
At-Large - Brock Stromberger, Champion

PLEASE NOTE: THE URNRD'S NEW PHONE NUMBER IS 888-883-9066

The Upper Republican Natural Resources Report is a publication of the Upper Republican Natural Resources District
511 E. 5th Street, Imperial, NE 69033, 888-883-9066.