

Summer 2021

Volume 35, Issue 3

Tri-Basin Topics

A quarterly publication of Tri-Basin Natural Resources District

Wetland Recharge Project

Water management projects can be controversial and divisive, but occasionally everyone can agree to a simple and beneficial solution. The Platte Basin Coalition (PBC) Western Basin Recharge Project benefits multiple agencies and constituencies. Tri-Basin NRD has partnered with US Fish and Wildlife Service (USFWS), Rainwater Basin Joint Venture (RWB JV), Central Nebraska Public Power and Irrigation District (CNPPID), Ducks Unlimited, and Nebraska Department of Natural Resources to receive grant funding from the Nebraska Water Resources Cash Fund for construction of this project. This project made it possible to deliver surface water to Cottonwood, Funk, Johnson, Linder, and Victor Lakes Waterfowl Production Areas (WPAs) within Tri-Basin NRD. (see map on page 3)

Excess surface water from the Platte River is diverted through the CNPPID canal system where infrastructure was modified to allow surface water delivery to WPAs. In addition to the surface water deliveries, the project also involved adding seven groundwater observation wells and surface water monitoring equipment at each site. Topographic surveys were completed to give a more accurate picture of the storage capacity of the wetlands before deliveries began. When excess surface water is available, it can be diverted and delivered much more economically than pumping groundwater.

A hydrologist oversees the wetland instrumentation, data collection and groundwater recharge monitoring to create a model for the RWBJV. The partners use the information to determine appropriate water delivery locations and amounts and to track recharge to groundwater aquifers. The project meets many objectives, including supplementing natural groundwater

recharge, enhancing endangered species and waterfowl habitat, while supporting Platte River endangered species instream target flows.

This summer, Tri-Basin initiated maintenance of the surface water monitoring equipment located at each WPA. Nolan Little, Water Resources Manager at Tri-Basin NRD, oversees these efforts. He and Tri-Basin NRD interns, Zach Temple, Lance Blythe, and Hamsa Ganapathi visited each site to conduct maintenance on and ensure proper function of the equipment. Tri-Basin NRD will continue to oversee maintenance of this important monitoring equipment for the benefit of all the partners.



Left: Zach Temple and Nolan Little carrying the ladder to the monitoring equipment at Funk WPA.

Right: Zach Temple holding the ladder for Hamsa Ganapathi at Johnson WPA.



"Dedicated to Conservation of our Natural Resources"

<http://www.tribasinnrd.org>



Manager's Message

by John Thorburn

Rules, Rules, Rules!

Like most government agencies, Tri-Basin NRD has developed a set of rules and regulations that provide us and our constituents with standards and procedures that help us to effectively carry out our mission of protecting our soil and water resources. No one likes over-regulation, but most people accept that rules are created to guide people's actions to protect the common good. Sometimes people may feel these regulations treat them unfairly. "Fairness" is in the eye of the beholder, however. What seems fair to one person can seem unfair to another who has different circumstances.

Tri-Basin NRD is governed by a board of 13 directors, elected by the people of Gosper, Phelps and Kearney counties. Because our directors are local residents, they understand our agricultural economy, and they try to use regulations in a carefully targeted way, to avoid regulating water users unnecessarily. This sometimes leads constituents to cry "foul" because their water use is regulated differently than their neighbor's. Unfortunately, soils, geology and topography aren't uniform across the district. Some areas have geology that allows more groundwater to be stored than others. The scientific

term for this is "saturated thickness".

Tri-Basin NRD has used changes in the depth of groundwater, compared to groundwater depths in the period 1981-85, as the basis for determining whether groundwater declines require usage limitations to protect groundwater supplies for the future. This method of deciding when declines justify regulation is called a "trigger mechanism." The limitation of our current trigger mechanism is that it doesn't account for variations in saturated thickness. Saturated thickness is an important consideration, because a five foot drop in groundwater levels in an area with 100' of saturated thickness is removing a greater percentage of available groundwater from storage (5%) than a five foot drop in an area with 200' of saturated thickness (2.5%).

Tri-Basin NRD is proposing to use a drop of ten percent of current average water levels, when compared to 1981-85 saturated thickness, as the trigger mechanism to determine when we need to limit groundwater pumping in the Little Blue basin portion of Kearney County. This new trigger is intended to help us avoid limiting groundwater pumping until it is clear that groundwater declines are large enough to threaten the long-term viability of groundwater supplies.

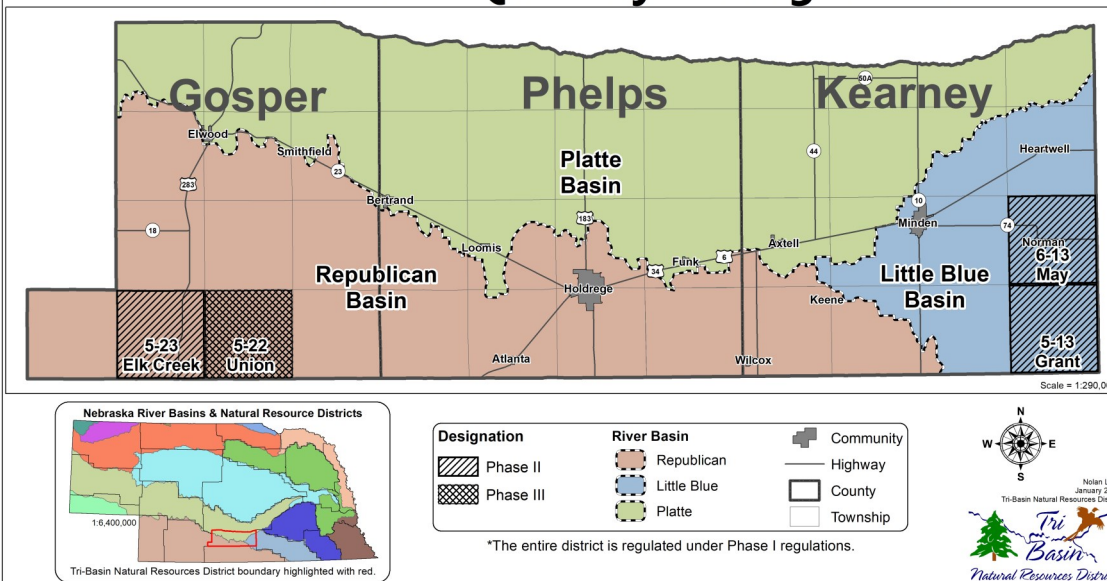
Tri-Basin's rules and regulations are subject to review by the Nebraska Department of Environment and Energy, the Nebraska Department of Natural Resources and the Nebraska Attorney General's office. We also need

YOUR reviews, ideas and comments. The text of our proposed rules revisions are available on our website:

www.tribasinnr.org.

The board of directors will hold a public hearing on these proposed rules revisions as part of their August board meeting. That hearing will be held on August 10 at 1:30 PM at the Windmill Event Center, 502 N. Colorado Ave. in Minden. I hope that you can attend that hearing and let us know what you think about the proposed changes to our rules.

Tri-Basin Natural Resources District Groundwater Quantity Management



Tri-Basin NRD Summer Interns

Tri-Basin NRD has hired three interns to work out of the district office this summer: Zach Temple, Hamsa Ganapathi, and Lance Blythe.

Zach graduated from the University of Nebraska-Lincoln in 2021 with a degree in Agronomy. He is a Holdrege High School graduate and attends Trinity Evangelical Free Church. He is interested in agriculture, wildlife conservation, and history, and enjoys reading as well as spending time with friends and family. This is Zach's fourth summer as a TBNRD intern.

Hamsa came all the way from Milford, Connecticut to work at the Tri-Basin this summer. She attends Tufts University (Friedman School of Nutrition Science and Policy) and is majoring in Agriculture, Food and Environment. She is involved in Sustainable CT and CT Farm to School Collaborative. She enjoys cooking, baking, hiking, badminton and traveling. She loves waterfalls and her favorite food is ice-cream.

Lance Blythe, from Overton, is studying Geography GIS with a minor in Biology at the University of Nebraska-Kearney. He is a member of the Combat Veteran Motorcycle Association, Gamma Theta Upsilon and is the president of the UNK Student Veteran Organization. He enjoys spending time with his wife and children at their activities as well as kayaking, fishing, riding motorcycle, gardening, and raising fainting goats.

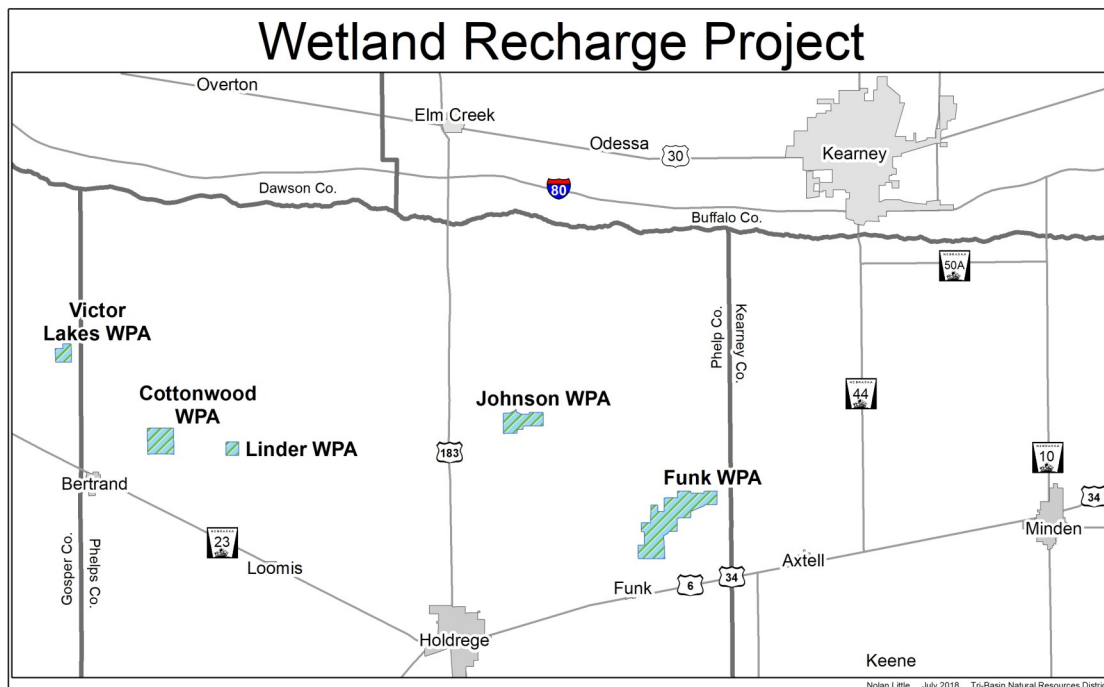
Tri-Basin NRD has been employing interns during the summer for 23 years. The district's internships give college students an opportunity to gain natural resources conservation experience. Interns collect and test groundwater quality samples, monitor wildlife habitat, test irrigation system efficiency, and help maintain drain-



2021 Summer Interns from left to right: Hamsa Garapathi, Zach Temple and Lance Blythe.

age improvement project areas (IPAs). The interns also work with staff from Central Nebraska Public Power and Irrigation District, and the USDA Natural Resources Conservation Service.

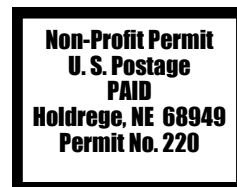
Many of the district's former interns have pursued careers in agriculture and natural resources, taking jobs with agri-businesses, NRDs, NRCS and various state agencies. Dalton Refior, TBNRD's current Land Resources Technician, spent three summers working as a district intern.





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Tri-Basin Natural Resources District
1723 Burlington St. Holdrege, NE 68949
(308) 995-6688
email: tribasin@tribasinnrd.org
www.tribasinnrd.org

RETURN SERVICE REQUESTED

Nebraska's NRDs: Protecting Lives, Protecting Property, Protecting the Future

CALENDAR

August 10NRD Board Meeting and Tour, 1:30 p.m.
Windmill Event Center, Minden, NE
August 27-September 6 Nebraska State Fair
September 6NRD Closed for Labor Day
September 14NRD Board Meeting, 7:30 p.m.*
September 23 Rainwater Basin Conservation Day
October 20 State Land Judging Contest
October 11 NRD Closed for Columbus Day
October 12NRD Board Meeting, 7:30 p.m.*

* Times are tentative. All meetings are at TBNRD office in Holdrege unless otherwise noted.

TRI-BASIN NRD BOARD OF DIRECTORS

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Todd Garrelts, Vice Chairman	Holdrege
Robin Hinrichs, Treasurer	Axtell
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Larry Reynolds	Lexington
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TRI-BASIN NRD STAFF

Amy Dutton	Minden Office Secretary
Tammy Fahrenbruch	Water Programs Coordinator
Lori Hagan	Office Clerk
Sasha Hahn	Information & Education Coordinator
Nolan Little	Water Resources Manager
Carie Lynch	Administrative Secretary
Nate Munter	Land Resources Coordinator
Patrick Nott	Water Resources Technician
Nancy Pemberton	Elwood Office Secretary
Tami Reese	Holdrege Office Secretary
Dalton Refior	Land Resources Technician
Esther Smith	Office Assistant
John Thorburn	General Manager
Jeff VanEperen	Water Resources Technician

A mailing list is maintained and requests to be placed on the list should be sent to the above address. Comments and suggestions may be addressed to the General Manager.

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