

Spring 2021

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Tri-Basin Topics

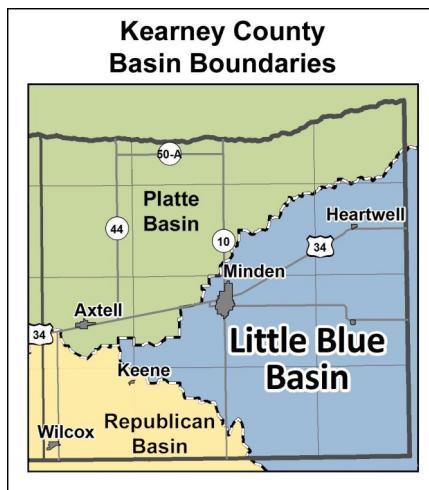
A quarterly publication of Tri-Basin Natural Resources District

Water Users Express Opinions to NRD About Little Blue Groundwater Issues

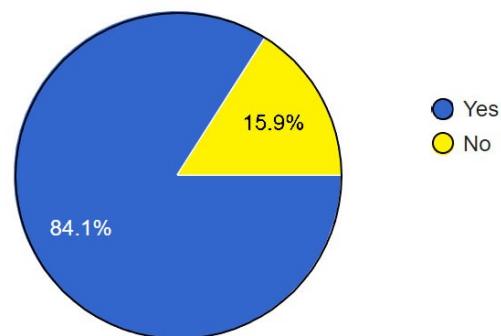
The Tri-Basin NRD Board of Directors is trying to decide the most effective way to respond to groundwater declines in the Little Blue River Basin in eastern Kearney County. The board has met with water users numerous times over the years in an effort to educate the public about groundwater issues and to hear ideas from constituents about how to address these problems. While these meetings have been productive and helpful to the board, they have generally involved small groups of water users. The board wants to get opinions from a broader cross-section of the public. For this reason, during the March board meeting, the Tri-Basin NRD board directed NRD staff to develop a survey questionnaire and distribute it as widely as possible to water users in the Little Blue Basin portion of the district.

We have had a strong response to the survey. We sent out 529 surveys by mail, and also sent text messages to another 100 or so people with a link that allowed them to fill out the survey online. We have received 156 responses, as of the date of the April board meeting (April 13). The survey return rate of nearly 30% is a great response rate for a survey. Following is a summary of survey responses:

- More than 83% of survey respondents are aware that groundwater levels in the Little Blue River Basin are declining. Sixteen percent of respondents stated that they have been affected directly by the declines, having to reset pumps deeper or take other actions to respond to declining well output;
- When asked which regulatory actions the NRD should take to respond to groundwater declines, nearly 60% of respondents said that the NRD should require flowmeters on wells and annual water use reporting. Many water users commented that they think requiring flowmeters would be a useful practice district-wide, not just in the Little Blue Basin;
- About 40% of water users favor some limitation on the amount of ground-



2. Are you aware that groundwater levels in portions of the Little Blue Basin are declining?
157 responses



water that can be pumped. About 1/3 of respondents favor a water use limit of nine inches per acre per year or less, while about 40% want a limit of 9.5" or more. Many constituents commented that a multiple year allocation is needed and more practical than annual limits on pumping.

- When asked about incentives that the NRD could offer to reduce groundwater pumping, more than 60% indicated support for cost-share funding for irrigation efficiency improvements. Cash payments for conserving water and giving irrigators more flexibility about where they can irrigate if water supplies are limited were also supported by about 40% of respondents.
- Respondents were split about what they believe the NRD should use as a "trigger" level for deciding when to initiate regulations to protect groundwater supplies. About 30% want us to continue to compare current groundwater levels to 1981-85 average levels. Twenty eight percent like the concept of comparing current saturated thickness of the aquifer to aquifer thickness in the past. Nearly as many (26%) support using Little Blue NRD's trigger, which is tied to 2016 water levels. Many other options were also proposed.

Many respondents also made time to write comments, so the board will have a lot of information to sift through. The NRD Planning committee will review the responses and make a recommendation to the board about how Tri-Basin NRD should incorporate what we learn from the survey into our groundwater management plans for the Little Blue Basin.



Manager's Message

by John Thorburn

Groundwater: Nebraska's Greatest Resource

Groundwater is Nebraska's greatest resource. Our abundant supplies of groundwater have become critical to the prosperity of agriculture in our state, enabling Nebraska to claim the distinction of being #1 in irrigated cropland in the United States. The Nebraska Unicameral decided back in 1972 that protection of our precious groundwater supplies should be the responsibility of locally-elected boards of directors of natural resources districts.

Tri-Basin NRD takes this responsibility very seriously. Our district's groundwater management goal is to maintain groundwater supplies perpetually, for the benefit of current and future generations. For this reason, Tri-Basin NRD regularly measures groundwater levels in over 200 wells across the district, including 120 dedicated observation wells, which automatically measure groundwater levels twice a day. We also share groundwater level data with Central Nebraska Public Power and Irrigation District, which measures another 160 wells in the Platte Basin portion of the district.

Tri-Basin NRD also has extensive regulations in place to protect the quality and quantity of our groundwater supplies (go to www.tribasinnrd.org to see the full text of our groundwater management rules). Among other things, these rules include "triggers" that lead to higher levels of regulation if the current three-year rolling average of springtime groundwater levels decline below average historic levels from 1981-85. In the Platte and Republican basins, Tri-Basin NRD has committed to the State of Nebraska that we will also protect streamflows from depletion resulting from groundwater pumping. In these basins, additional groundwater quantity management regulations are imposed as soon as the cur-

rent three-year rolling average of groundwater levels decline below 1981-85 average levels. In the Little Blue basin, the NRD doesn't have the same streamflow protection commitments, so we allow groundwater levels to decline as much as five feet below 1981-85 levels before regulations are initiated to prevent depletion of groundwater supplies.

Groundwater supplies are abundant in most areas of Tri-Basin NRD. The water bearing sands and gravels in northwest portions of Gosper County are as much as 350 feet thick. Geology in most of the district is also structured so that water can seep down from the surface and recharge the aquifer. Groundwater levels in parts of all three river basins within the district have benefited from water that seeped out of the Central Nebraska Public Power and Irrigation District (CNPPID) canal system over the past several decades. Tri-Basin NRD has worked with CNPPID for fifteen years to augment this incidental recharge with intentional recharge. CNPPID has diverted excess flows from the Platte and delivered it to Elwood Reservoir and several federal wetland areas to help recharge groundwater supplies.

Unfortunately, there are portions of the district where geology is less favorable for groundwater storage. In southern Gosper and Phelps counties and the southeast portion of Kearney County, sand and gravel layers are thinner and sediments are finer-grained, so less water is stored underground and recharge occurs at lower rates. For these reasons, groundwater levels have dropped below trigger levels, requiring the NRD to take action to ensure that our groundwater supplies can be sustained for the foreseeable future.





Arbor Day Tree Give-Away & Coffee Connection

Tri-Basin NRD will host the Holdrege Chamber of Commerce's Coffee Connection from 9:30 to 10:30 a.m. on Arbor Day, Friday, April 30. Holdrege area residents are invited to stop in the Tri-Basin NRD office during Coffee Connection to receive a free tree seedling.

Tri-Basin NRD will also provide free tree seedlings in other communities throughout the district on Arbor Day. Watch for details on community Arbor Day celebrations in local media outlets, the Tri-Basin NRD website (www.tribasinnrd.org), or Tri-Basin NRD's Facebook page.

ET Data Texting Service

Signup for ET Data texting. Five days a week you will receive a text message with the daily and future three days water use for both corn and soybeans. The plant date will be sent at the beginning of the season so you can adjust as needed for your crop. Please contact Sasha at the Tri-Basin NRD for more information.

Check Meter Readings Before Starting Irrigation

As you are getting equipment ready for irrigation season this spring, we'd like to remind you to record the meter readings on your irrigation flowmeters before you begin irrigating crops. We have your ending readings from 2020 in our records and will use those as the beginning readings for 2021 on our Irrigation Water Management (Water Use) Forms. However, in the event of a discrepancy in readings or a broken meter, your recorded beginning reading can be extremely helpful in tracking down a problem or estimating water use!

Chemigation

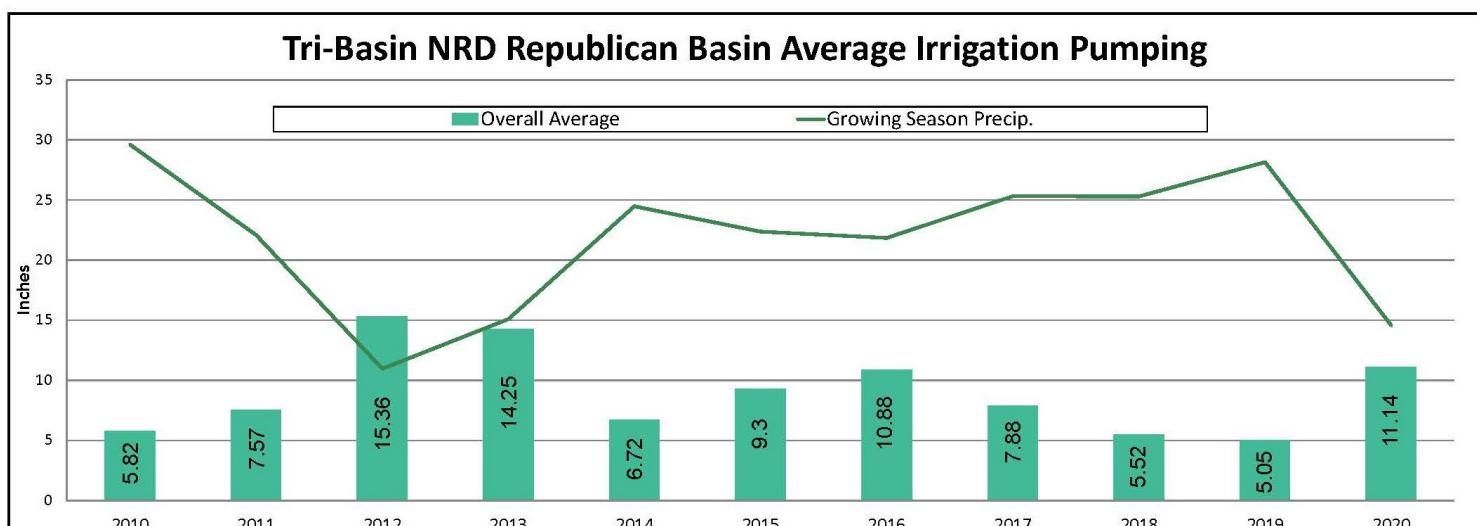
Chemigation renewal forms and payments are due in the Tri-Basin NRD office by **June 1, 2021**. The renewal forms were mailed out in February to producers. Anyone who plans to apply fertilizer or ag chemicals through an irrigation system needs to apply for a chemigation permit for the 2021 season. Landowners and operators should contact Tri-Basin NRD toll-free at 1-877-995-6688 regarding chemigation permits. All newly permitted chemigation systems must be inspected before use. A person who is certified as a chemigation applicator must supervise injection of fertilizer and ag chemicals in irrigation water.

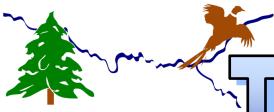
NRD staff do routine inspections on chemigation systems from June until August. Inspections are required every three years. If your system is due for inspection we will contact you to schedule it. Routine inspections must be completed for permits to be eligible for renewal the following year. Renewal permits are \$15 and new permits are \$50.



Protecting Lives is a Priority

Tri-Basin NRD is still assisting Two Rivers Public Health Department by receiving, storing, sorting and distributing Personal Protective Equipment (PPE) during the COVID-19 Pandemic. This essential job helps get medical supplies where they need it. Nursing homes, doctor's offices, dentists, hospitals, fire departments, etc still need the equipment.





Spring 2021

Tri-Basin Topics

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

Non-Profit Permit U. S. Postage PAID Holdrege, NE 68949 Permit No. 220
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RETURN SERVICE REQUESTED

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

CALENDAR

- April 30 Arbor Day, Coffee Connection
- May 11 NRD Board Meeting, 7:30 p.m.*
- May 31 NRD Closed for Memorial Day
- June 8 NRD Board Meeting, 7:30 p.m.*
- July 5 NRD Closed for Independence Day
- July 13 NRD Board meeting, 1:30 p.m.*
- August 10 NRD Board tour and meeting, 1:30 p.m.*
*Location to be determined
- September 6 NRD Closed for Labor Day
- September 14 NRD 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

Brad Lundein, Chairman.....	Wilcox
Todd Garrelts, Vice Chairman	Holdrege
Rob Hinrichs, Treasurer.....	Axtell
Joe Bilka, Secretary.....	Holdrege
Brian Bergstrom	Axtell
David Grimes.....	Minden
David Raffety.....	Kearney
Ed Harris	Loomis
G. Reed Philips	Bertrand
Jeff Ryan	Heartwell
Joe Larson	Loomis
Larry Reynolds	Lexington
Mike Cavanaugh	Minden

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.

USDA is an equal opportunity provider, employer, and lender.

Get Tri-Basin Topics in your inbox instead of your mailbox!

To request an electronic version of this newsletter, send an email shahn@tribasinnrd.org.