

## **Tri-Basin NRD Water Conservation Incentive Program**

3/12/19

**Introduction:** The Tri-Basin NRD Water Conservation Incentive Program (WCIP) is intended to address two natural resources management issues: ensuring sustainability of groundwater supplies and protecting streamflows from diminishment due to groundwater pumping. The goal of this voluntary program is to reduce groundwater pumping and increase irrigation water use efficiency in Tri-Basin NRD.

**The Program:** Tri-Basin will allow landowners to enroll up to 8000 NRD-certified irrigated acres in the program. The enrollment period will be from March 26 through April 19, or until the program acre enrollment limit is reached. Once the enrollment limit is reached, water savings to the district could reach 650 acre-feet per year. Incentives in this program will likely be most attractive to landowners in phase two and phase three groundwater quantity management areas, so the water-use reductions should be greatest where the need is greatest (there are approximately 30,000 certified irrigated acres in Tri-Basin's phase two and phase three townships).

In exchange for their participation, landowners will be paid for the equivalent of one acre-inch of water credit per acre per year, with the opportunity to sell additional credits to the NRD at a set price. In addition to NRD purchases, landowners will have the opportunity to sell water credits on the open market at any agreed-upon price (private transactions require NRD board approval). Tri-Basin will maintain an "electronic bulletin board" to facilitate connections between buyers and sellers. Landowners will also be granted flexibility to irrigate any acres within enrolled parcels and to share (pool) allocations between parcels. Pooling agreements will be required to enable sharing allocations between parcels under different ownership.

**The Contract:** The NRD and the landowner will sign a five-year agreement. The agreement commits the landowner to limiting water use (allocation) on parcels that they select. The allocation will be equal to the UNL average corn crop consumptive irrigation requirement, which is nine inches per acre per year in Kearney County, ten inches per acre per year in Phelps County and eleven inches per acre per year in Gosper County (allocation will be limited to current allocation of nine inches per acre per year in Union Township in Gosper County). Landowners will be required to have flowmeters installed on all wells serving participating parcels and to report water use annually to the NRD. Tri-Basin NRD will offer cost share on flowmeters for participants. Tri-Basin NRD will spot check flowmeter readings on 20% of participating parcels annually. As a condition of their participation, landowners will agree to subject enrolled parcels to (most of) the same rules that apply to all landowners in Phase three groundwater quantity management areas. An instrument will be filed with the county clerk recording

these contracts, to provide notice to potential buyers of water use limitations associated with program participation.

In exchange for their participation, the NRD agrees to buy one acre-inch per acre per year from every acre enrolled in the contract. Landowners will have two payment options: an annual payment of \$5 per acre-inch credit for one acre-inch per year, or payment at the end of the contract period for up to five acre-inches of credits per acre (assuming the landowner has that much unused allocation) at a rate of \$4 per acre-inch. The NRD may also choose to purchase additional credits from participants. NRD purchases of additional acre-inches will be prioritized in Groundwater Quantity Management Phase 2 and Phase 3 areas and 50%+ stream depletion zones. The NRD will have the right of first refusal to purchase unused allocations from landowners, so landowners would need NRD board approval before they make private sales.

Landowners will also have the option to irrigate any and all acres within participating parcels. They can also pool acre-inches between parcels under the same ownership (pooling water credits associated with parcels under different ownership, but the same management will require a separate NRD-approved pooling agreement). Pools are only allowed for multiple parcels in the same basin and with the same groundwater quantity management phase status. Water use will be deducted from landowner water credit "accounts."

If a producer overuses their allocation, they will need to purchase credits from other landowners to eliminate their deficit. Otherwise they will be prohibited from irrigating enrolled parcels until the deficit is eliminated. The only way a landowner can cancel a contract would be to pay the NRD for the full contracted amount (refund any payments that we've already made to them and pay the NRD the amount we would have paid them at the end of the contract period).

**Tri-Basin NRD**  
**Water Conservation Incentive Program Expansion**  
**"Commingled Option"**

**Introduction:** Tri-Basin NRD launched the Water Conservation Incentive Program (WCIP) in March 2019. The program was initially aimed at groundwater irrigators. One of the main benefits that is anticipated is that it will encourage participants to be more efficient irrigators and help sustain groundwater supplies. We initially excluded CNPPID customers from the WCIP because the incentives set up for groundwater irrigators don't encourage conservation on commingled fields. We want to encourage irrigators who have parcels that have both surface water turnouts and groundwater wells (commingled parcels) to use canal water rather than groundwater on those fields to the greatest extent possible. This has the dual benefit of reducing groundwater pumping and increasing groundwater recharge.

A different approach is needed to incentivize surface water use. We need to incentivize commingled water users to use canal water rather than groundwater. CNPPID customers and landowners with individual surface water rights will be offered five year contracts that pay the equivalent of the cost per acre of CNPPID water delivery, with the understanding that payments will be reduced by \$5 per acre inch of groundwater used during the contract period. If, however, CNPPID is unable to deliver the full amount of contracted water to a parcel for any reason, a landowner will be allowed to pump groundwater without penalty to make up the difference between what CNPPID is able to deliver and the full contract amount.

CNPPID charges \$34.61 to deliver nine inches of water to their irrigation customers (2019). Their prices are subject to annual increases. Tri-Basin will pay incentives to landowners based on the current delivery rate at the time of enrollment in WCIP. We won't adjust our payments if CNPPID raises prices.

Tri-Basin NRD irrigated acre certification data indicate that there are 114,016 acres in commingled irrigated fields in the Platte Basin portion of Tri-Basin NRD. This is an exaggeration of truly commingled acres, because it includes all irrigated acres in fields that have both an irrigation well and a CNPPID delivery point or individual surface water right. According to CNPPID, they deliver water by contract to 103,068 acres within Tri-Basin NRD (109,000 acres total). Their estimate of truly commingled acres associated with CNPPID deliveries is 82,508 acres. WCIP incentives will be paid on all CNPPID contracted acres that are also NRD-certified for groundwater irrigation ("commingled acres"). Because NRD funds are limited, we will initially approve contracts for 8000

acres. If applications exceed the number of acres allowed for enrollment, applications will be selected for approval using a ranking system.

The WCIP requires annual reporting of groundwater use. As of 2018, only 15,597 commingled acres (TBNRD definition) have flowmeters in place and are reporting water use to Tri-Basin NRD. Applications from landowners with flowmeters currently in place will be favored in the ranking system.

Parcels in which CNPPID water service contracts are in the process of cancellation will not be eligible for enrollment. Landowners will be allowed to enroll additional acres on existing CNPPID water service contracts. Individual landowners will be limited to enrolling a total of no more than 320 acres in the WCIP. In the case of fields with fewer CNPPID contract acres than NRD-certified irrigated acres, landowners need to agree to have seals installed on valves or risers that would enable use of groundwater on CNPPID contract acres. If the seals are broken, recorded groundwater use will be divided among all NRD-certified irrigated acres.

### **Terminology**

**Accounts-** An account will track the number of acre-inches of water available for pumping on a parcel. Each parcel will have a separate account, unless landowners form pool accounts.

**Allocations-** Allocation amounts would be based on estimated safe yields from aquifers that would not result in long-term declines in groundwater levels. An initial allocation will be equal to the University of Nebraska's average annual irrigation water consumption requirement for corn (that amount is nine inches per acre in Kearney County, ten inches per acre in Phelps County and eleven inches per acre in Gosper County).

**Credits (Water Use Credits)-** Credits are accumulated on a per-NRD-certified irrigated acre per-parcel basis. Allocation credits are granted at the beginning of each allocation period.

**Debits-** Debits would be made against accounts based on actual pumping or water credits marketed and sold to the NRD or other water users.