



UPPER BIG BLUE Natural Resources District

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Water Sustainability Fund #5241 – Project Summary

Upper Big Blue Natural Resources District Allocation & Pooling Software Solution

The Upper Big Blue Natural Resources District (UBBNRD) has required groundwater use reporting since 2007 and all high-capacity wells be outfitted with a district approved flowmeter since 2016. In the event of an allocation, district rules provide flexibility to well owners and operators by allowing pooling of tracts and wells. The district has outlined three types of pools: owner/operator pools, well pools, and agreement pools. *Owner/Operator Pools* allow tracts with the same owner/operator to pool their acres and wells together to utilize their allocation over the pool as one unit. A *Well Pool* exists when one well waters multiple tracts of land owned and operated by multiple people to provide an allocation to all tracts watered by the individual well. An *Agreement Pool* would only be used during an allocation to allow well and tract owner/operators to enter into pooling agreements to share allocation. Historically, the process of manually tracking pools and water use by district staff has been time consuming and inefficient.

In January of 2021, the UBBNRD utilized the water allocation and pooling software solution developed by Olsson and Sitka Technologies to quickly analyze and track pooled acres and groundwater use. The software solution we are calling, the Water Accounting Platform, allows UBBNRD staff to easily harness existing groundwater pumping data, tract acres, and tract ownership to generate groundwater use pools and distribute groundwater pumped to calculate a district average groundwater use per acre. The platform also tracks by pool the total amount of groundwater pumped. With the dynamic nature of the data needed to administer an allocation this platform will be integral in tracking allocations, pools, and groundwater use.

Many district residents do not understand the pooling definitions outlined in our rules and regulations and how utilizing pools could impact their groundwater management decisions. The platform provides several analytic tools to show producers how their pools react under current management. This platform will allow the district to educate producers on pools and groundwater management ahead of ever having to administer an allocation.

The total project cost was \$175,000.00. As built the platform performs efficiently and is scalable to for future projects. The success of this project could not have been accomplished without funding from the Nebraska Water Sustainability Fund.