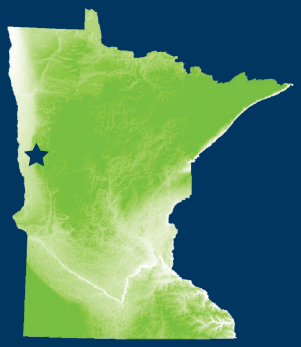
RED RIVER VALLEY
Drainage Water Management Project

DEPARTMENT OF AGRICULTURE



Wilken County, Minnesota

Status
Installation: 2015-2016
Data collection: 2017 – 2022

Contact

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Project Information
www.mda.state.mn.us/redrivervalleydwm

Partners
List of partners on the reverse.

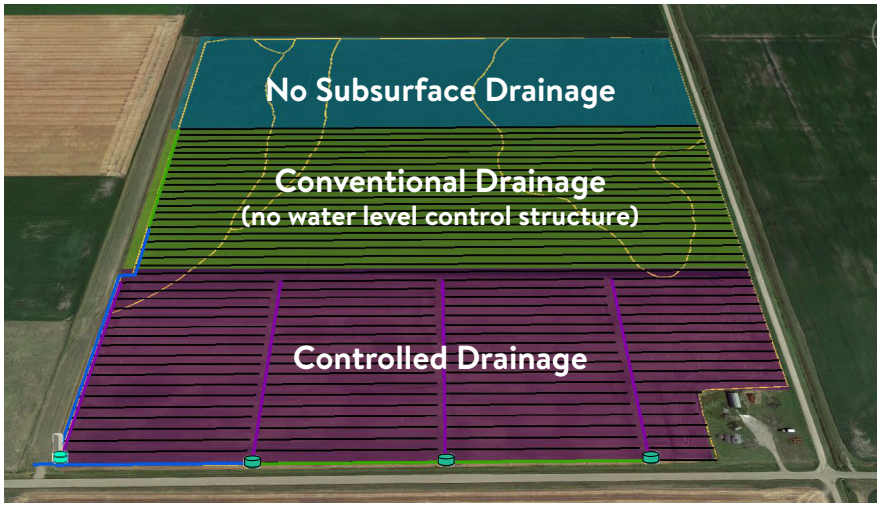
September 2019

CLEAN WATER LAND & LEGACY AMENDMENT

GOAL
Improve agricultural production and reduce flooding losses while minimizing the unwanted environmental impacts of subsurface drainage.

OBJECTIVE
Demonstrate controlled tile drainage as a flood mitigation practice as well as the water quality and quantity benefits. The project is intended to set an example to increase the adoption of drainage water management practices in the Red River Valley.

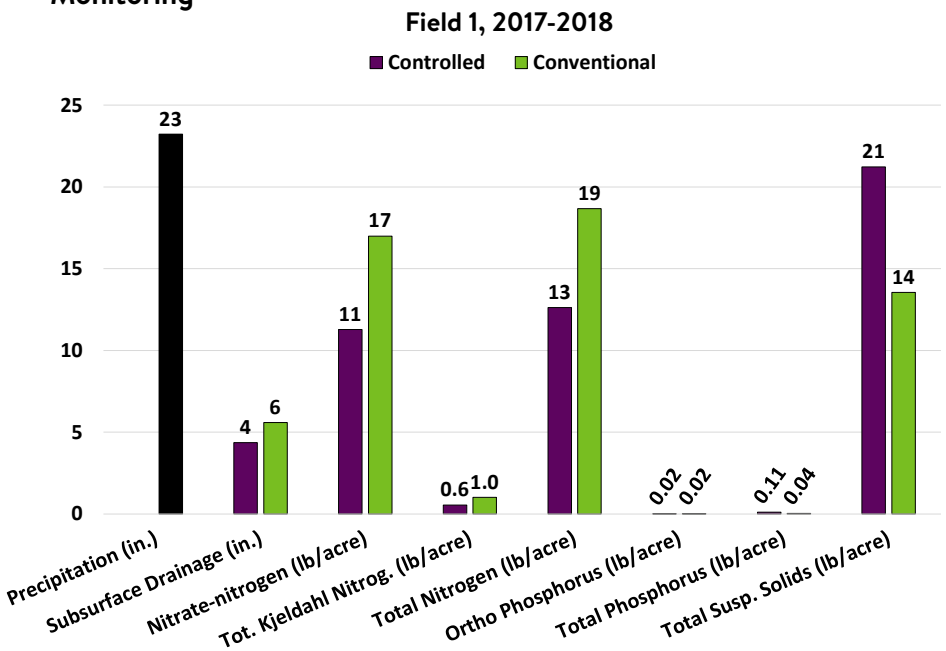
Field 1 comparison: 155 acres



Water level control structure

This on-farm research site is comparing three field treatments that represent drainage practices used in the local area.

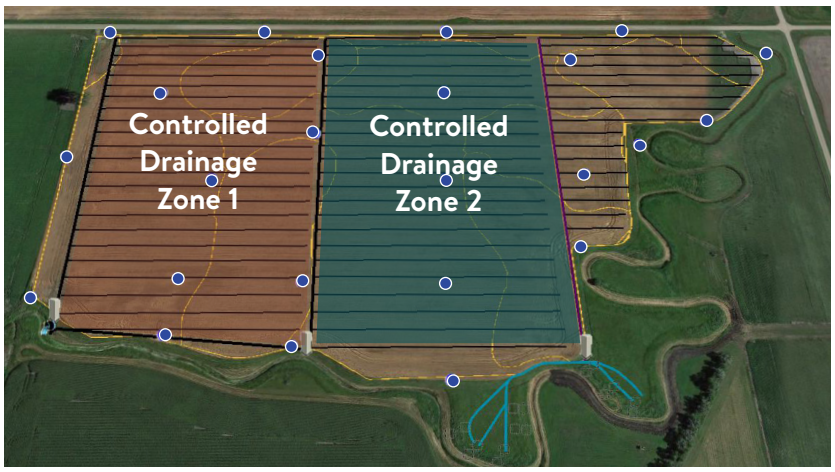
Monitoring



Monitoring results from subsurface drainage as an average for 2017-2018

Crop yield, residual soil nutrients, soluble salts, planting and harvest dates are also recorded.

Field 2: 65 acres



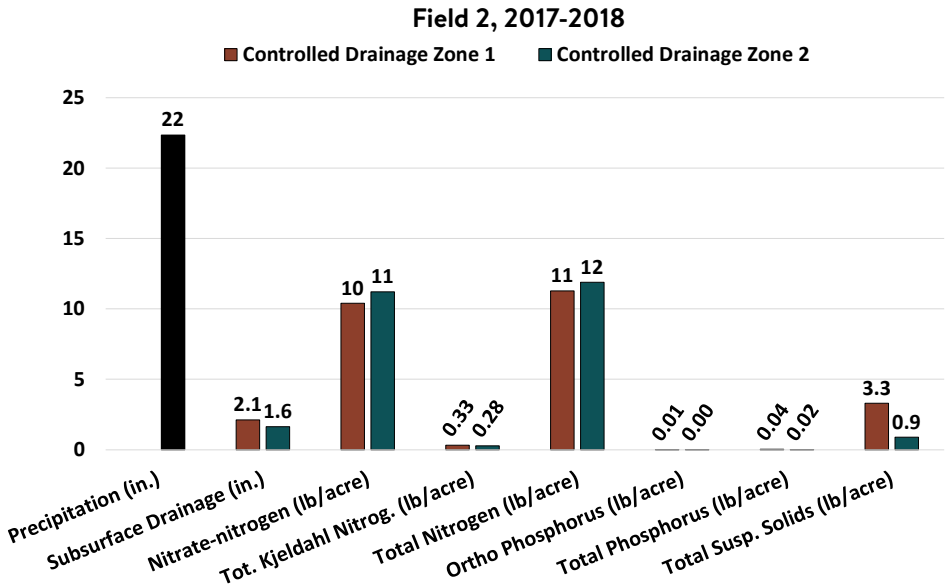
Piezometer — Saturated Buffer

Field includes two treatments:

- Two zones of controlled drainage
- One zone with saturated buffer for nitrate-nitrogen removal from drainage water

Monitoring

- Depth to saturated soil within the root zone
- Crop yield, residual soil nutrient levels, planting and harvest dates



Monitoring results from subsurface drainage as an average for 2017-2018

Thank you to our project partners

ADS
Buffalo-Red River Watershed District
Jemco Power Saver West Fargo, ND 1-701-281-0362 Electric Motor Controls
Tightline Drainage
Agri Drain Corporation
Wilkin Soil & Water Conservation District
Department of Agriculture
Jared Nordick Farms
USDA United States Department of Agriculture
Prinsco Engineered with Integrity