

Irrigation Water Management Enhancement Activity – WQT01 - Irrigation System Automation



Irrigation System Automation

This enhancement entails using GPS guided variable rate irrigation or other innovative technologies that allow irrigation water application based on variable site conditions within a field.

Land Use Applicability

This enhancement is applicable on cropland and pastureland

Benefits

The advantages of using variable rate irrigation or other innovative technologies to reduce water use and runoff from irrigation include conservation of water resources and energy conservation.

Criteria for Irrigation System Automation

- Implementation of this enhancement requires compliance with the requirements of the Conservation Practice Standard, Irrigation Water Management (449);
- Development and utilization of an irrigation prescription based on soil characteristics, topography, or crops;
 - Use of a GPS guidance and control system which will provide for the variable application of irrigation water based on variations of soils, topography, or crops;

Or

 - Use of an automated control system based on technologies other than GPS which will provide for variable application of irrigation water based on variations of soils, topography, or crops.

Documentation Requirements for Irrigation System Automation

- Documentation of the operation of a variable rate irrigation system which will provide for variable application of irrigation water based on variations of soils, topography, or crops.
- Copy of the irrigation prescription and irrigation logs.



United States Department of Agriculture
Natural Resources Conservation Service

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Additional State Criteria

Implementation of this enhancement requires compliance with the Nebraska Practice Documentation Requirements for Conservation Practice Standard, Irrigation Water Management (PDR-449) http://efotg.nrcs.usda.gov/references/public/NE/PDR_449_Irrig_Water_Mgt.pdf.

Participant Acknowledgement Statement:

I agree to apply this enhancement under the terms and conditions of my CSP contract and understand the requirements of the activity.

Tract	Field(s)	Acres	Description of irrigation scheduling	Ac of Irrigated land using variable rate irrigation

I certify that I have used GPS guided variable rate irrigation that allow irrigation water application to be based on variable site conditions within a field(s) listed in the table above meets these specifications including the following documentation as applicable:

1. Nebraska Planning Sheet 17 has been completed
2. Available water holding capacities of the soils are listed (on map)
3. Crop Data – Description of ET (crop water usage) and seasonal crop water use on the Nebraska Planning Sheet 17
4. Gross Irrigation Water Application planned for each field is listed on NE Planning Sheet 17
5. The rainfall during the growing season; irrigation water application; and irrigation scheduling information (crop water use or soil moisture monitoring) is documented for each field assisted? (NE-ENG-79A & NE-ENG-80)
6. Maps/inventory of irrigation distribution system including soils and soil descriptions
7. Irrigation season ending submittals to NRCS
8. A completed record keeping worksheet (ie: NE-ENG-80, 79A or equivalent)
9. Field notes relating to the implementation and operation of the IWM plan

Certified by: _____ **Date:** _____