

## **Water Quantity Enhancement Activity – WQT05 - Remote Monitoring and Notification of Irrigation Pumping Plant Operation**



### **Remote Monitoring and Notification of Irrigation Pumping Plant Operation**

A system for monitoring the status of an irrigation pumping plant and notifying the operator by a wireless connection of a change in the operating status of the irrigation system.

### **Land Use Applicability**

This enhancement is applicable on cropland and pastureland

### **Benefits**

Irrigation water usage and energy costs associated with pumping irrigation water are a critical resource concerns. Even the most careful managers cannot manage the water on all of their fields on a continuous basis without increasing the potential for some runoff. Real time information on the status of their irrigation systems helps to prioritize field visits to observe the system and make necessary adjustments for proper functioning. New technology monitors the status of the watering system and notifies the operator when there is a change, such as, the pump turning on or off.

### **Criteria**

The pumping plant monitoring system must include:

- Installation of necessary sensors to monitor the operation of the pumping plant and irrigation system.
- A communication system at the pump with an automated recording and wireless communication system to automatically notify the operator of a status in the watering system.
- The irrigation water management plan must reflect usage of the data from the system and include necessary operation and maintenance to keep the system functional.

### **Documentation Requirements**

- The installation is considered complete when the monitoring system is installed at remote well locations and is combined with a functioning automated remote notification system.
- Fields where monitoring systems are installed must be identified.



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](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 monitoring	Description of notification method by wireless connection	Ac of Irrigated land using remote monitoring and notification

**I certify that I have used a system for monitoring the status of an irrigation pumping plant that notifies me by a wireless connection of a change in the operating status of the irrigation system on the field(s) listed in the table above meets these specifications including the following documentation as applicable:**

1. Copies of dated receipts for equipment or services purchased.
2. Nebraska Planning Sheet 17 has been completed
3. 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)
4. Maps/inventory of irrigation distribution system including soils and soil descriptions
5. Irrigation season ending submittals to NRCS
6. A completed record keeping worksheet (ie: NE-ENG-80, 79A or equivalent)
7. Field notes relating to the implementation and operation of the IWM plan

**Certified by:** \_\_\_\_\_ **Date:** \_\_\_\_\_