United States Department of Agriculture
Natural Resources Conservation Service

2011 Ranking Period 1

Water Quantity Enhancement Activity – WQT05 - Remote monitoring and notification of irrigation pumping plant operation

Enhancement Description
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

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:

1. Installation of necessary sensors to monitor the operation of the pumping plant and irrigation system.
2. 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.
3. 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

1. 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.
2. Fields where monitoring systems are installed must be identified.

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Written documentation shall include an inventory of the remote monitoring system hardware installed by location and summary of the operating protocol on how the monitoring equipment will be utilized.