



United States Department of Agriculture
Natural Resources Conservation Service

Water Management Enhancement Activity - Remote Monitoring of Irrigation Pumping Plant (EWM42)

Remote Monitoring of Irrigation Pumping Plants

Irrigation water and energy costs associated with pumping irrigation water are a critical resource concern. 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.

Benefits

Real time information on the status of irrigation systems helps operators to prioritize the field visits to observe the system and make necessary adjustments for proper function. New technology monitors the status of the watering system and notifies the operator when there is a change (e.g., the pump has turned off or the system pressure has dropped).

Criteria for Water Management Enhancement Activity

This enhancement requires the implementation and maintenance of a pumping plant monitoring system. This includes installation of necessary sensors and communication package at the pump with an automated recording and communication system. When operational, the system must monitor the status of the watering system and automatically notify the owner/manager of system status and changes that may warrant action. The annual operation, maintenance, and utilization functions of the remote monitoring system must be incorporated into an integral part of the water management system.

Reference:

Natural Resources Conservation Service. 1991. National Engineering Handbook, 2nd Edition, Chapter 15, Irrigation 210-VI. USDA-NRCS. Washington, D.C.

Natural Resources Conservation Service. National Engineering Handbook, Part 652, Irrigation Guide, 1996.

Natural Resources Conservation Service. National Engineering Handbook, Section - 15, Chapter 8, Irrigation Pumping Plants

Fischbach, P. E. and Schroeder M. A., Irrigation Pumping Plant Performance Handbook, 4 ed. 1982, Agricultural Engineering department, Lincoln, Nebraska



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CSP Enhancement Certification Sheet

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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.

Remote Monitoring of Irrigation Pumping Plant

Payment is for acres in each irrigated field in which the pumping plant has been fitted with a remote monitoring and notification system.

Documentation Required:

Use the following table for documentation and attach a plan map showing the location of those fields which are irrigated by systems which have a pumping plant fitted with a remote monitoring and notification system.

Management Units	Management Unit Acres	Year Applied

I agree that the following information will be provided to NRCS upon request:

1. Copies of dated receipts for equipment or services purchased.
2. Copies of system records, and narrative description of management decisions.

I understand that it is my responsibility to obtain all necessary permits and to comply with all laws, regulations and ordinances pertaining to the application of these activities.

Accepted by: _____ **Date:** _____