



## Definition

The process of managing the water table elevation and the timing of water discharges from surface and subsurface agricultural drainage systems.

## Purpose

Drainage water management (DWM) is practiced as part of a conservation system to support one or more of the following purposes:

- Improve water quality by reducing nitrate loading to surface waters.
- Improve the soil environment for vegetative growth.
- Reduce the rate of soil organic matter oxidation.
- Reduce wind erosion or particulate matter (dust) emissions.
- Enable seasonal soil saturation and/or shallow flooding.

## Where Used

Drainage water management may be applied where the topography is relatively smooth, uniform, and flat to very gently sloping (typically 0.5% average slope or flatter.) Additionally, the water table must be capable of being maintained

without excessive seepage and without having an adverse impact on adjoining properties.

In Illinois, DWM is primarily applicable to fields which have a patterned, subsurface tile drainage system installed.

## Conservation System

To enable management of drainage water, flash board structures are typically installed in selected locations in the subsurface drain system. Structures installed for purposes of accomplishing drainage water management must meet the provisions of NRCS Conservation Practice Standard 587 – Structure for Water Control.

Drainage beyond that necessary to provide an adequately aerated crop root zone is kept to a minimum to conserve water and to minimize nitrate transport. During fallow periods, the water table is set to rise within 6 inches or less of the ground surface at the designated control elevation. The system is managed to maintain the raised water table within 30 days after harvest, and held there until no more than 30 days prior to next season's field operations, except during system maintenance periods.

