United States Department of Agriculture

NRCS Natural Resources Conservation Service

MINNESOTA FACT SHEET

Eng—19 November 2009

Lateral Effect

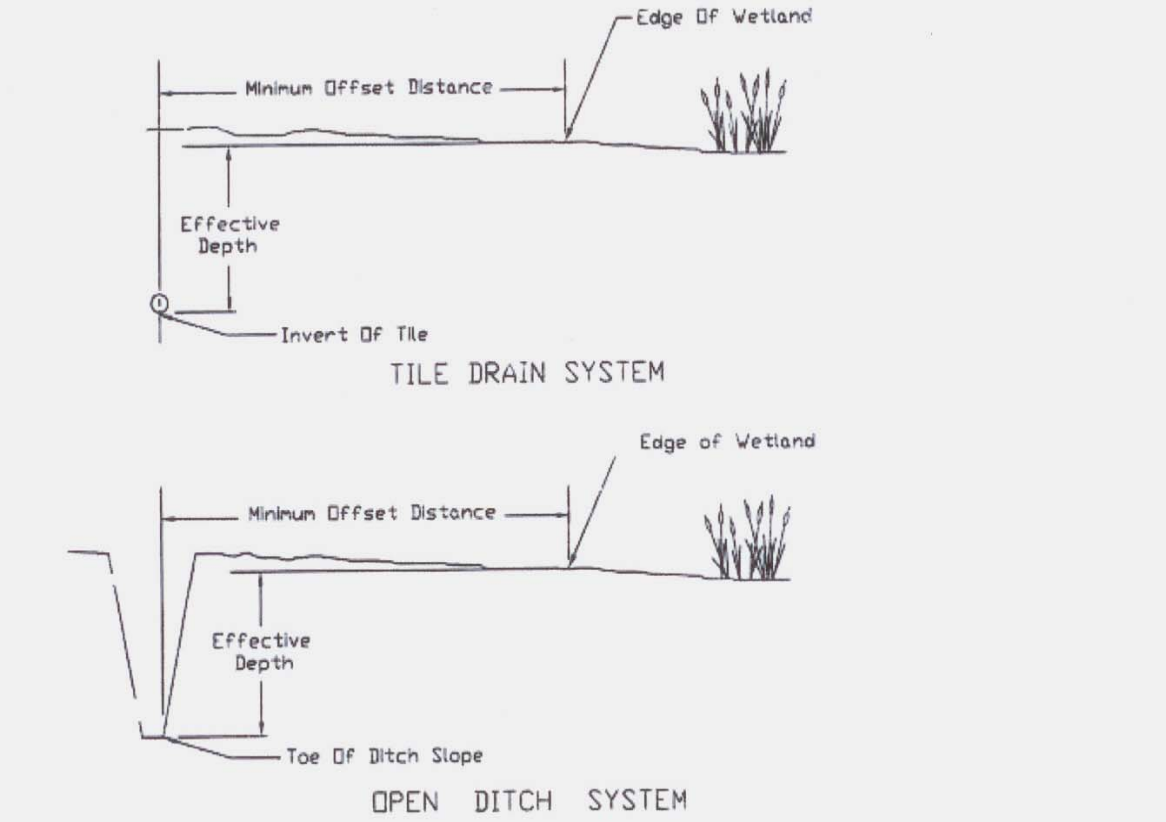
What is lateral effect?
Lateral effect is the distance on each side of a tile or ditch where the water in the soil is affected by the presence of the ditch or tile within a given period of time.

How close to the wetlands can I get with my drainage system?
When installing or repairing drainage in an area that may have wetlands, or has identified wetlands, it is advised to contact the Natural Resources Conservation Service (NRCS) office in your county. If a wetland is altered by a drainage system, a landowner or operator or both may become ineligible for USDA program benefits. How close to the wetland(s) the drain system can be installed without altering the wetland(s) is dependent on the effective depth of the drain and the soil type(s) between the drain and the wetland. The minimum offset distances for your site will be given to you by the NRCS field office on a lateral effect worksheet.

What are these "minimum offset distances" and where should I measure them?
The minimum offset distances listed on the lateral effect worksheet for your site should be the minimum distances from the outer edge of any wetland to the centerline of the tile line or to the toe of the ditch bank for open drainage ditches (see figure on the back of this page). The effective depth of your drainage system near the wetland(s) will determine which distance from the lateral effect worksheet you should use. The location of the edge of the wetland may not be clear. It is recommended that you contact your local NRCS District Conservationist for assistance in locating the edge of the wetland. Completion of Form AD-1026 Highly Erodible Land Conservation (HELC) and Wetland Conservation (WC) Certification authorizes NRCS to evaluate a specific tract of land for the presence of wetlands.

Why do I have to stay so far from the wetland?
Food Security Act (FSA) rules require that the hydrology of wetlands cannot be altered by new drainage systems or by improvements to an existing drainage system. Under current FSA rules, an area is considered to be a wetland if there is saturation of any part of the top 12 inches of soil for a period of 14 or more consecutive days during the growing season. New drainage systems (or improvements to existing systems) must be located so that the 14 day (or more) period of saturation is not shortened. When drainage systems are installed to improve crop production, the ditch or tile is sized and spaced to remove water from the root zone quickly enough so that crop damage does not occur, often in 2 to 3 days. Hence, the distance affected by a drainage system designed for a 14 day period will be significantly greater than for a system designed for 3 days.

Example: Using a silty clay loam soil as an example, when tiling for crop production, a 5" tile installed at a 4' depth would be spaced at 90 foot intervals. When tiling in the vicinity of a wetland, a 5" tile at a 4' depth (or a ditch with a 4' effective depth) would need to be kept a minimum of 130 feet from the edge of the wetland due to the lateral effect. This distance varies by soil type. Specific information for a given tract needs to be requested from the NRCS local office.



Should I complete an AD-1026 Highly Erodible Land Conservation (HELC) and Wetland Conservation (WC) Certification at the FSA office? What will this do? The AD-1026 serves as the participant's certification that their actions and activities are in compliance with the wetland provisions of the farm bill. It is important that participants understand the definitions of and differences between maintenance and improvement in answering the questions. NRCS will not routinely review maintenance activities. The participant is responsible to keep documentation to support that their actions were maintenance. A certified wetland determination will only be completed when requested by the participant or when a wetland violation has occurred. If requested NRCS can provide additional information on the impact of a proposed drainage activity.

What is Encirclement?

Encirclement is the cutting off of the water supply to a wetland by interrupting the flow of surface or subsurface water that keeps the wetland wet. A tile line or ditch can act as an underground diversion, or surface intakes or a ditch can intercept surface water and keep it from reaching the wetland. A tile placed adjacent to a wetland across the portion of the landscape that allows groundwater to reach the wetland to keep it wet is acting as an underground diversion.