

ERS Peer Review Plan

Preliminary Title: Tile Drainage Systems- Trends, Programs, and Practices

Type of Report
(ERR, EIB, EB) EIB

Agency: Economic Research Service [X] Influential Scientific Information
USDA [] Highly Influential Scientific Assessment

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Subject of Review: The amount of crop acreage drained by subsurface tile systems increased by approximately 18 million acres from 1980 to 2022. Artificial drainage can increase crop productivity in fields with poorly drained soils and can be a valuable long-term investment. However, installing tile drainage alters the hydrology of farm fields and can contribute to the negative water quality impacts of agriculture by promoting nutrient leaching. This report details trends in tile drainage usage and joint adoption of tile drainage and other management and conservation practices. Tile drainage remains a prominent practice on corn and soybean acreage and is increasing in use on acreage dedicated to oats or cotton, respectively. On corn acreage, tile-drained fields see heavier application of soil nutrients compared to non-tiled acreage and are more likely to receive nutrient application in the fall compared to non-tiled acreage. Control structures to manage subsurface outflows remain uncommon across our sample period.

Purpose of Review: The purpose of the review is to ensure the high-quality of the economic analysis, transparent explanation of methods, objective interpretation of results, and effective communication to the intended audience.

Type of Review: [] Panel Review [X] Individual Reviewers
[] Alternative Process (Briefly Explain):

Timing of Review (Est.): Start: 12/10/2024 Completed: 12/17/2025

Number of Reviewers: [] 3 or fewer [X] 4 to 10 [] More than 10

Primary Disciplines/Types of Expertise Needed for Review: Economists

Reviewers selected by: [X] Agency [] Designated Outside Organization

Opportunities for Public Comment? [] Yes [X] No

If yes, briefly state how and when these opportunities will be provided:

How:

When:

