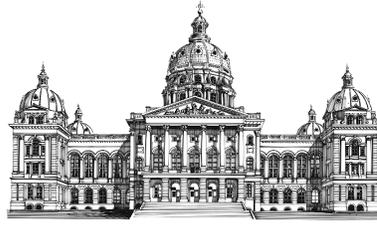

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Update on Agricultural Drainage Wells

(Updated November 2000)

ISSUE

This *Issue Review* provides an update on progress towards closing agricultural drainage wells.

AFFECTED AGENCIES

Department of Agriculture and Land Stewardship

CODE AUTHORITY

Chapters 159.29, 455E, and 455I, Code of Iowa

BACKGROUND

Iowa has approximately 293 agricultural drainage wells that are required to be closed for health and safety reasons. These wells and the related drainage areas cover approximately 73,000 acres of agricultural land. The majority of the wells are located in Humboldt, Pocahontas, and Wright Counties.

Drainage tile water in agricultural production areas can contaminate groundwater with nitrates and other soluble pesticides when added to drinking water aquifers through drainage wells. Other contaminants such as sediment, organic matter, and pathogens can be carried in surface water runoff through agricultural drainage wells, sinkholes, or other abandoned wells and can contaminate the groundwater as well. Another major concern includes the large animal confinement operations in Wright County where large amounts of manure are stored near several agricultural drainage wells.

The General Assembly passed SF 473 (Agricultural Drainage Wells Act) during the 1996 Legislative Session, which required the closure of all agricultural drainage wells in the north-central region of Iowa by December 31, 1999. This legislation established the Alternative Drainage System Assistance Fund to provide up to 75.0% cost sharing to landowners for the closure of agricultural drainage wells. House File 733 (FY 1998 Infrastructure Appropriations Act) provided \$1.5 million in funding for FY 1998 and an additional \$1.5 million for FY 1999.

An additional \$2.2 million was appropriated to the Fund for FY 2000 in HF 772 (FY 2000 Infrastructure Appropriations Act).

The General Assembly passed HF 339 (Extending the Deadline for Agricultural Drainage Wells) in FY 1999 that extended the required closure date for designated agricultural drainage wells to December 31, 2001. A designated agricultural drainage well area is one that has an earthen animal waste storage unit located in the area draining to the well.

CURRENT SITUATION

In 1998, an alternate drainage district was proposed in Pocahontas County that would allow producers to close 36 drainage wells. Producers for this watershed were allocated \$1.2 million in cost share funds for the project. After several delays, the wells were closed in 2000. The delays included:

- Mitigation of farmed wetlands within the project area was required to develop alternative drainage systems. Approval of a federal Clean Water Act Section 404 permit was necessary for the establishment of the project. The Pocahontas County Drainage District Number 176 applied for a federal Clean Water Act Section 404 permit from the United States Army Corps of Engineers in September 1998. The application was objected to by the federal Environmental Protection Agency and the federal Fish and Wildlife Service due to the conversion of farmed wetlands. In addition, during the review period of the application, the federal Natural Resources Conservation Services changed the mitigation formula used in Iowa, which increased the farmed wetland conversion requirements. The application was approved in March 1999.
- The land where the agricultural drainage wells were located was classified as farmed wetlands. The new drainage district converted the farmed wetlands classification and new wetlands were needed to replace the old wetlands. The new wetlands were required to have a wetland functional value equal to or greater than the former wetlands.
- The project required the coordination and approval of several federal agencies that included the Natural Resources Conservation Services, the Army Corps of Engineers, the Environmental Protection Agency, and the Fish and Wildlife Service.

A similar situation has occurred in Wright County where there was a proposal to build three drainage districts that will close 27 wells. The federal Environmental Protection Agency recently approved the Section 404 permit for this project. The total cost of this project is \$3.3 million with \$2.5 million from the Alternative Drainage System Assistance Fund. The landowners will pay the remaining costs. Work on the projects began in September 2000.

Two new projects have been approved for financial assistance. One project in Humboldt County will close 15 wells and two new projects in Wright County will close two wells. The estimated cost for these projects is \$1.7 million with \$1.3 million from the Alternative Drainage System Assistance Fund. The landowners will pay the remaining costs. The following chart summarizes the activity in the Alternative Drainage System Assistance Fund:

Description	FY 1998	FY 1999	FY 2000	Estimated FY 2001
Resources:				
Balance Carried Forward	\$ 0	\$ 1,500,000	\$ 3,000,000	\$ 5,401,000

Appropriation	1,500,000	1,500,000	2,200,000	0
Interest	0	0	201,000	170,000
Total Resources	\$ 1,500,000	\$ 3,000,000	\$ 5,401,000	\$ 5,571,000
Expenditures:				
Pocahontas County	\$ 0	\$ 0	\$ 0	\$ 1,200,000
Wright County	0	0	0	2,500,000
Humboldt & Wright Counties	0	0	0	1,300,000
Total Expenditures	\$ 0	\$ 0	\$ 0	\$ 5,000,000
Balance Carried Forward	\$ 1,500,000	\$ 3,000,000	\$ 5,401,000	\$ 571,000

ALTERNATIVES

Projects for closing agricultural drainage wells are taking longer due to the lengthy approval process. If the closure of the designated agricultural drainage wells cannot be met by the December 31, 2001, deadline, the date will need to be extended. If the date is not extended, wells will be closed and there will be a possible loss of cropland until wetland mitigation occurs and alternative drainage systems are developed.

BUDGET IMPACT

The Department of Agriculture and Land Stewardship contracted a study to estimate the cost of closing all agricultural drainage wells. The study was completed by Kuel and Payer Consulting Engineers and Land Surveyors and provided several cost estimates for closing the original 293 agricultural drainage wells. The minimum cost to close the agricultural drainage wells without mitigation was estimated at \$41.6 million dollars (in 1999 dollars). A second estimate, using the costs associated with the federal Natural Resources Conservation Services wetlands mitigation requirement was \$59.6 million. This estimate uses the 1999 Revised Wetland Functional Assessment Model. A third estimate, of \$68.1 million, uses the acre-for-acre mitigation method as required by the federal Environmental Protection Agency. Since the Alternative Drainage System Assistance Fund provides up to 75.0% of cost share funds for closing wells, the potential cost for the State ranges from \$31.2 million to \$51.1 million.

A related concern addressed in the study was the cost of wetland protection requirements to replace existing drainage district systems statewide. The Iowa Drainage District Association estimates that there are six million acres located in Iowa's drainage districts. The lower replacement cost estimate using the federal Natural Resources Conservation Services mitigation requirement is \$1.5 billion. The higher estimate using the federal Environmental Protection Agency mitigation requirement is \$2.1 billion.

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